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 #:

A9J0954

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

Table of Contents
A9J0954
(page 1 of 3)

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

Table of Contents
A9J0954
(page 2 of 3)

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

Table of Contents
A9J0954

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: A9J0954

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: A9J0954 - 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 A9J0954, 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 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.

Apex Laboratories

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

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

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

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**	**A9J0954 - 11 15 19 0843**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PDI-019SC-C-00-3.2-191025	A9J0954-01	Sediment	10/25/19 11:06	10/25/19 14:40
PDI-095SC-C-00-8.8-191025	A9J0954-02	Sediment	10/25/19 09:51	10/25/19 14:40
PDI-TB-1910250959	A9J0954-03	WQ	10/25/19 09:59	10/25/19 14:40

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-TB-1910250959 (A9J0954-03)				**Matrix: WQ**		**Batch: 9101622**		
Benzene	ND	0.100	0.200	ug/L	1	10/28/19 10:44	EPA 8260C	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	10/28/19 10:44	EPA 8260C	
Carbon tetrachloride	ND	1.00	1.00	ug/L	1	10/28/19 10:44	EPA 8260C	
Chlorobenzene	ND	0.250	0.500	ug/L	1	10/28/19 10:44	EPA 8260C	
Chloroform	ND	0.500	1.00	ug/L	1	10/28/19 10:44	EPA 8260C	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	10/28/19 10:44	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	10/28/19 10:44	EPA 8260C	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	10/28/19 10:44	EPA 8260C	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	10/28/19 10:44	EPA 8260C	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	10/28/19 10:44	EPA 8260C	
Ethylbenzene	ND	0.250	0.500	ug/L	1	10/28/19 10:44	EPA 8260C	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	10/28/19 10:44	EPA 8260C	
Toluene	ND	0.500	1.00	ug/L	1	10/28/19 10:44	EPA 8260C	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	10/28/19 10:44	EPA 8260C	
Vinyl chloride	ND	0.200	0.400	ug/L	1	10/28/19 10:44	EPA 8260C	
m,p-Xylene	ND	0.500	1.00	ug/L	1	10/28/19 10:44	EPA 8260C	
o-Xylene	ND	0.250	0.500	ug/L	1	10/28/19 10:44	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*	*Limits: 80-120 %*	*1*	*10/28/19 10:44*	*EPA 8260C*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*10/28/19 10:44*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*10/28/19 10:44*	*EPA 8260C*	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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-019SC-C-00-3.2-191025 (A9J0954-01)				**Matrix: Sediment**		**Batch: 9101588**		
Benzene	**20.6**	7.21	14.4	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
2-Butanone (MEK)	ND	361	721	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
Carbon tetrachloride	ND	36.1	72.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
Chlorobenzene	ND	18.0	36.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
Chloroform	ND	36.1	72.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
1,4-Dichlorobenzene	ND	18.0	36.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	18.0	36.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
1,1-Dichloroethene	ND	18.0	36.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
cis-1,2-Dichloroethene	ND	18.0	36.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
trans-1,2-Dichloroethene	ND	18.0	36.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
Ethylbenzene	**333**	18.0	36.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
Tetrachloroethene (PCE)	ND	18.0	36.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
Toluene	ND	36.1	72.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
Trichloroethene (TCE)	ND	18.0	36.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
Vinyl chloride	ND	18.0	36.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
m,p-Xylene	ND	36.1	72.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
o-Xylene	**108**	18.0	36.1	ug/kg dry	50	10/25/19 20:09	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*10/25/19 20:09*	*5035A/8260C*	
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*1*	*10/25/19 20:09*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*10/25/19 20:09*	*5035A/8260C*	
PDI-095SC-C-00-8.8-191025 (A9J0954-02RE1)				**Matrix: Sediment**		**Batch: 9101631**		
Benzene	ND	13.7	27.3	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
2-Butanone (MEK)	ND	683	1370	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
Carbon tetrachloride	ND	68.3	137	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
Chlorobenzene	ND	34.2	68.3	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
Chloroform	ND	68.3	137	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
1,4-Dichlorobenzene	ND	34.2	68.3	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	34.2	68.3	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
1,1-Dichloroethene	ND	34.2	68.3	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
cis-1,2-Dichloroethene	ND	34.2	68.3	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
trans-1,2-Dichloroethene	ND	34.2	68.3	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
Ethylbenzene	ND	34.2	68.3	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
Tetrachloroethene (PCE)	ND	34.2	68.3	ug/kg dry	50	10/28/19 13:56	5035A/8260C	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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-095SC-C-00-8.8-191025 (A9J0954-02RE1)				**Matrix: Sediment**		**Batch: 9101631**		
Toluene	ND	68.3	137	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
Trichloroethene (TCE)	ND	34.2	68.3	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
Vinyl chloride	ND	34.2	68.3	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
m,p-Xylene	ND	68.3	137	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
o-Xylene	ND	34.2	68.3	ug/kg dry	50	10/28/19 13:56	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*10/28/19 13:56*	*5035A/8260C*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/28/19 13:56*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*10/28/19 13:56*	*5035A/8260C*	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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-019SC-C-00-3.2-191025 (A9J0954-01)				**Matrix: Sediment**		**Batch: 9110460**		
Benzene	ND	0.00625	0.0125	mg/L	50	11/05/19 12:23	1311/8260C	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	11/05/19 12:23	1311/8260C	
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	11/05/19 12:23	1311/8260C	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	11/05/19 12:23	1311/8260C	
Chloroform	ND	0.0250	0.0500	mg/L	50	11/05/19 12:23	1311/8260C	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	11/05/19 12:23	1311/8260C	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	11/05/19 12:23	1311/8260C	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	11/05/19 12:23	1311/8260C	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	11/05/19 12:23	1311/8260C	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	11/05/19 12:23	1311/8260C	
Vinyl chloride	ND	0.0125	0.0250	mg/L	50	11/05/19 12:23	1311/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*	*1*	*11/05/19 12:23*	*1311/8260C*
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*11/05/19 12:23*	*1311/8260C*
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*11/05/19 12:23*	*1311/8260C*
PDI-095SC-C-00-8.8-191025 (A9J0954-02)				**Matrix: Sediment**		**Batch: 9110460**		
Benzene	ND	0.00625	0.0125	mg/L	50	11/05/19 12:50	1311/8260C	
2-Butanone (MEK)	ND	0.250	0.500	mg/L	50	11/05/19 12:50	1311/8260C	
Carbon tetrachloride	ND	0.0250	0.0500	mg/L	50	11/05/19 12:50	1311/8260C	
Chlorobenzene	ND	0.0125	0.0250	mg/L	50	11/05/19 12:50	1311/8260C	
Chloroform	ND	0.0250	0.0500	mg/L	50	11/05/19 12:50	1311/8260C	
1,4-Dichlorobenzene	ND	0.0125	0.0250	mg/L	50	11/05/19 12:50	1311/8260C	
1,2-Dichloroethane (EDC)	ND	0.0125	0.0250	mg/L	50	11/05/19 12:50	1311/8260C	
1,1-Dichloroethene	ND	0.0125	0.0250	mg/L	50	11/05/19 12:50	1311/8260C	
Tetrachloroethene (PCE)	ND	0.0125	0.0250	mg/L	50	11/05/19 12:50	1311/8260C	
Trichloroethene (TCE)	ND	0.0125	0.0250	mg/L	50	11/05/19 12:50	1311/8260C	
Vinyl chloride	ND	0.0125	0.0250	mg/L	50	11/05/19 12:50	1311/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*	*1*	*11/05/19 12:50*	*1311/8260C*
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*1*	*11/05/19 12:50*	*1311/8260C*
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*11/05/19 12:50*	*1311/8260C*

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-019SC-C-00-3.2-191025 (A9J0954-01RE1)				**Matrix: Sediment**		**Batch: 9110391**		**C-05, R-04**
gamma-BHC (Lindane)	ND	12.9	25.7	ug/kg dry	10	11/05/19 16:23	EPA 8081B	
Endrin	ND	25.7	25.7	ug/kg dry	10	11/05/19 16:23	EPA 8081B	
Heptachlor	ND	25.7	25.7	ug/kg dry	10	11/05/19 16:23	EPA 8081B	
Heptachlor epoxide	ND	12.9	25.7	ug/kg dry	10	11/05/19 16:23	EPA 8081B	
Methoxychlor	ND	183	183	ug/kg dry	10	11/05/19 16:23	EPA 8081B	R-02
Chlordane (Technical)	ND	386	772	ug/kg dry	10	11/05/19 16:23	EPA 8081B	
Toxaphene (Total)	ND	386	772	ug/kg dry	10	11/05/19 16:23	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*108 %*	*Limits: 42-129 %*	*10*	*11/05/19 16:23*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*116 %*	*55-130 %*	*10*	*11/05/19 16:23*	*EPA 8081B*	
PDI-095SC-C-00-8.8-191025 (A9J0954-02RE1)				**Matrix: Sediment**		**Batch: 9110391**		**C-05, R-04**
gamma-BHC (Lindane)	ND	3.43	6.86	ug/kg dry	2	11/05/19 16:57	EPA 8081B	
Endrin	ND	6.86	6.86	ug/kg dry	2	11/05/19 16:57	EPA 8081B	
Heptachlor	ND	3.43	6.86	ug/kg dry	2	11/05/19 16:57	EPA 8081B	
Heptachlor epoxide	ND	3.43	6.86	ug/kg dry	2	11/05/19 16:57	EPA 8081B	
Methoxychlor	ND	29.1	29.1	ug/kg dry	2	11/05/19 16:57	EPA 8081B	R-02
Chlordane (Technical)	ND	103	206	ug/kg dry	2	11/05/19 16:57	EPA 8081B	
Toxaphene (Total)	ND	103	206	ug/kg dry	2	11/05/19 16:57	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*86 %*	*Limits: 42-129 %*	*2*	*11/05/19 16:57*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*114 %*	*55-130 %*	*2*	*11/05/19 16:57*	*EPA 8081B*	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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-019SC-C-00-3.2-191025 (A9J0954-01)				**Matrix: Sediment**		**Batch: 9110534**		
gamma-BHC (Lindane)	ND	0.0000750	0.000150	mg/L	1	11/07/19 16:33	1311/8081B	
Endrin	ND	0.0000750	0.000150	mg/L	1	11/07/19 16:33	1311/8081B	
Heptachlor	ND	0.0000750	0.000150	mg/L	1	11/07/19 16:33	1311/8081B	
Heptachlor epoxide	ND	0.0000750	0.000150	mg/L	1	11/07/19 16:33	1311/8081B	
Methoxychlor	ND	0.000200	0.000400	mg/L	1	11/07/19 16:33	1311/8081B	
Chlordane (Technical)	ND	0.000940	0.00188	mg/L	1	11/07/19 16:33	1311/8081B	
Toxaphene (Total)	ND	0.00250	0.00500	mg/L	1	11/07/19 16:33	1311/8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 63 %*	*Limits: 25-140 %*	*1*	*11/07/19 16:33*	*1311/8081B*	
Decachlorobiphenyl (Surr)			*109 %*	*30-135 %*	*1*	*11/07/19 16:33*	*1311/8081B*	
PDI-095SC-C-00-8.8-191025 (A9J0954-02)				**Matrix: Sediment**		**Batch: 9110534**		
gamma-BHC (Lindane)	ND	0.0000750	0.000150	mg/L	1	11/07/19 16:50	1311/8081B	
Endrin	ND	0.0000750	0.000150	mg/L	1	11/07/19 16:50	1311/8081B	
Heptachlor	ND	0.0000750	0.000150	mg/L	1	11/07/19 16:50	1311/8081B	
Heptachlor epoxide	ND	0.0000750	0.000150	mg/L	1	11/07/19 16:50	1311/8081B	
Methoxychlor	ND	0.000200	0.000400	mg/L	1	11/07/19 16:50	1311/8081B	
Chlordane (Technical)	ND	0.000940	0.00188	mg/L	1	11/07/19 16:50	1311/8081B	
Toxaphene (Total)	ND	0.00250	0.00500	mg/L	1	11/07/19 16:50	1311/8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 72 %*	*Limits: 25-140 %*	*1*	*11/07/19 16:50*	*1311/8081B*	
Decachlorobiphenyl (Surr)			*110 %*	*30-135 %*	*1*	*11/07/19 16:50*	*1311/8081B*	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-019SC-C-00-3.2-191025 (A9J0954-01)				**Matrix: Sediment**		**Batch: 9110357**		**R-04**
2-Methylphenol	ND	4230	8470	ug/kg dry	1000	11/01/19 15:16	EPA 8270D	
3+4-Methylphenol(s)	ND	4230	8470	ug/kg dry	1000	11/01/19 15:16	EPA 8270D	
Pentachlorophenol (PCP)	ND	16900	33900	ug/kg dry	1000	11/01/19 15:16	EPA 8270D	
Phenol	ND	3390	6770	ug/kg dry	1000	11/01/19 15:16	EPA 8270D	
2,4,5-Trichlorophenol	ND	8470	16900	ug/kg dry	1000	11/01/19 15:16	EPA 8270D	
2,4,6-Trichlorophenol	ND	8470	16900	ug/kg dry	1000	11/01/19 15:16	EPA 8270D	
Hexachlorobenzene	ND	1690	3390	ug/kg dry	1000	11/01/19 15:16	EPA 8270D	
Hexachlorobutadiene	ND	4230	8470	ug/kg dry	1000	11/01/19 15:16	EPA 8270D	
Hexachloroethane	ND	4230	8470	ug/kg dry	1000	11/01/19 15:16	EPA 8270D	
Nitrobenzene	ND	16900	33900	ug/kg dry	1000	11/01/19 15:16	EPA 8270D	
2,4-Dinitrotoluene	ND	16900	33900	ug/kg dry	1000	11/01/19 15:16	EPA 8270D	
Pyridine	ND	8470	16900	ug/kg dry	1000	11/01/19 15:16	EPA 8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*111 %*	*Limits: 37-122 %*	*1000*	*11/01/19 15:16*	*EPA 8270D*	*S-05*
2-Fluorobiphenyl (Surr)			*136 %*	*44-115 %*	*1000*	*11/01/19 15:16*	*EPA 8270D*	*S-05*
Phenol-d6 (Surr)			*44 %*	*33-122 %*	*1000*	*11/01/19 15:16*	*EPA 8270D*	*S-05*
p-Terphenyl-d14 (Surr)			*122 %*	*54-127 %*	*1000*	*11/01/19 15:16*	*EPA 8270D*	*S-05*
2-Fluorophenol (Surr)			*%*	*35-115 %*	*1000*	*11/01/19 15:16*	*EPA 8270D*	*S-01*
2,4,6-Tribromophenol (Surr)			*%*	*39-132 %*	*1000*	*11/01/19 15:16*	*EPA 8270D*	*S-01*
PDI-095SC-C-00-8.8-191025 (A9J0954-02RE1)				**Matrix: Sediment**		**Batch: 9110357**		
2-Methylphenol	ND	239	479	ug/kg dry	40	11/01/19 20:34	EPA 8270D	
3+4-Methylphenol(s)	**693**	239	479	ug/kg dry	40	11/01/19 20:34	EPA 8270D	
Pentachlorophenol (PCP)	ND	955	1920	ug/kg dry	40	11/01/19 20:34	EPA 8270D	
Phenol	ND	192	383	ug/kg dry	40	11/01/19 20:34	EPA 8270D	
2,4,5-Trichlorophenol	ND	479	955	ug/kg dry	40	11/01/19 20:34	EPA 8270D	
2,4,6-Trichlorophenol	ND	479	955	ug/kg dry	40	11/01/19 20:34	EPA 8270D	
Hexachlorobenzene	ND	95.5	192	ug/kg dry	40	11/01/19 20:34	EPA 8270D	
Hexachlorobutadiene	ND	239	479	ug/kg dry	40	11/01/19 20:34	EPA 8270D	
Hexachloroethane	ND	239	479	ug/kg dry	40	11/01/19 20:34	EPA 8270D	
Nitrobenzene	ND	955	1920	ug/kg dry	40	11/01/19 20:34	EPA 8270D	
2,4-Dinitrotoluene	ND	1920	1920	ug/kg dry	40	11/01/19 20:34	EPA 8270D	
Pyridine	ND	479	955	ug/kg dry	40	11/01/19 20:34	EPA 8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*74 %*	*Limits: 37-122 %*	*40*	*11/01/19 20:34*	*EPA 8270D*	*S-05*
2-Fluorobiphenyl (Surr)			*88 %*	*44-115 %*	*40*	*11/01/19 20:34*	*EPA 8270D*	*S-05*

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-095SC-C-00-8.8-191025 (A9J0954-02RE1)				**Matrix: Sediment**		**Batch: 9110357**		
Surrogate: Phenol-d6 (Surr)		*Recovery:*	*58 %*	*Limits: 33-122 %*	*40*	*11/01/19 20:34*	*EPA 8270D*	*S-05*
p-Terphenyl-d14 (Surr)			*83 %*	*54-127 %*	*40*	*11/01/19 20:34*	*EPA 8270D*	*S-05*
2-Fluorophenol (Surr)			*51 %*	*35-115 %*	*40*	*11/01/19 20:34*	*EPA 8270D*	*S-05*
2,4,6-Tribromophenol (Surr)			*118 %*	*39-132 %*	*40*	*11/01/19 20:34*	*EPA 8270D*	*S-05*

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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-019SC-C-00-3.2-191025 (A9J0954-01RE1)				**Matrix: Sediment**		**Batch: 9110535**		
2,4-Dinitrotoluene	ND	0.0200	0.0400	mg/L	20	11/07/19 16:23	1311/8270D	
Hexachlorobenzene	ND	0.0200	0.0400	mg/L	20	11/07/19 16:23	1311/8270D	
Hexachlorobutadiene	ND	0.0500	0.100	mg/L	20	11/07/19 16:23	1311/8270D	
Hexachloroethane	ND	0.0500	0.100	mg/L	20	11/07/19 16:23	1311/8270D	
2-Methylphenol	ND	0.0500	0.100	mg/L	20	11/07/19 16:23	1311/8270D	
3+4-Methylphenol(s)	ND	0.0500	0.100	mg/L	20	11/07/19 16:23	1311/8270D	
Nitrobenzene	ND	0.0500	0.100	mg/L	20	11/07/19 16:23	1311/8270D	
Pentachlorophenol (PCP)	ND	0.100	0.200	mg/L	20	11/07/19 16:23	1311/8270D	
Pyridine	ND	0.100	0.200	mg/L	20	11/07/19 16:23	1311/8270D	
2,4,5-Trichlorophenol	ND	0.0500	0.100	mg/L	20	11/07/19 16:23	1311/8270D	
2,4,6-Trichlorophenol	ND	0.0500	0.100	mg/L	20	11/07/19 16:23	1311/8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*69 %*	*Limits:*	*44-120 %*	*20*	*11/07/19 16:23*	*1311/8270D*
2-Fluorobiphenyl (Surr)			*80 %*		*44-120 %*	*20*	*11/07/19 16:23*	*1311/8270D*
Phenol-d6 (Surr)			*23 %*		*10-120 %*	*20*	*11/07/19 16:23*	*1311/8270D*
p-Terphenyl-d14 (Surr)			*98 %*		*50-133 %*	*20*	*11/07/19 16:23*	*1311/8270D*
2-Fluorophenol (Surr)			*43 %*		*19-120 %*	*20*	*11/07/19 16:23*	*1311/8270D*
2,4,6-Tribromophenol (Surr)			*104 %*		*43-140 %*	*20*	*11/07/19 16:23*	*1311/8270D*
PDI-095SC-C-00-8.8-191025 (A9J0954-02RE1)				**Matrix: Sediment**		**Batch: 9110535**		
2,4-Dinitrotoluene	ND	0.0100	0.0200	mg/L	10	11/07/19 16:58	1311/8270D	
Hexachlorobenzene	ND	0.0100	0.0200	mg/L	10	11/07/19 16:58	1311/8270D	
Hexachlorobutadiene	ND	0.0250	0.0500	mg/L	10	11/07/19 16:58	1311/8270D	
Hexachloroethane	ND	0.0250	0.0500	mg/L	10	11/07/19 16:58	1311/8270D	
2-Methylphenol	ND	0.0250	0.0500	mg/L	10	11/07/19 16:58	1311/8270D	
3+4-Methylphenol(s)	ND	0.0250	0.0500	mg/L	10	11/07/19 16:58	1311/8270D	
Nitrobenzene	ND	0.0250	0.0500	mg/L	10	11/07/19 16:58	1311/8270D	
Pentachlorophenol (PCP)	ND	0.0500	0.100	mg/L	10	11/07/19 16:58	1311/8270D	
Pyridine	ND	0.0500	0.100	mg/L	10	11/07/19 16:58	1311/8270D	
2,4,5-Trichlorophenol	ND	0.0250	0.0500	mg/L	10	11/07/19 16:58	1311/8270D	
2,4,6-Trichlorophenol	ND	0.0250	0.0500	mg/L	10	11/07/19 16:58	1311/8270D	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*69 %*	*Limits:*	*44-120 %*	*10*	*11/07/19 16:58*	*1311/8270D*
2-Fluorobiphenyl (Surr)			*79 %*		*44-120 %*	*10*	*11/07/19 16:58*	*1311/8270D*
Phenol-d6 (Surr)			*16 %*		*10-120 %*	*10*	*11/07/19 16:58*	*1311/8270D*
p-Terphenyl-d14 (Surr)			*92 %*		*50-133 %*	*10*	*11/07/19 16:58*	*1311/8270D*

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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-095SC-C-00-8.8-191025 (A9J0954-02RE1)				**Matrix: Sediment**		**Batch: 9110535**		
Surrogate: 2-Fluorophenol (Surr)		*Recovery:*	*36 %*	*Limits: 19-120 %*	*10*	*11/07/19 16:58*	*1311/8270D*	
2,4,6-Tribromophenol (Surr)			*79 %*	*43-140 %*	*10*	*11/07/19 16:58*	*1311/8270D*	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-019SC-C-00-3.2-191025 (A9J0954-01)				**Matrix: Sediment**				
Batch: 9110369								
Arsenic	**3.10**	0.336	0.672	mg/kg dry	5	11/01/19 19:15	EPA 6020A	
Barium	**123**	0.336	0.672	mg/kg dry	5	11/01/19 19:15	EPA 6020A	
Cadmium	**0.155**	0.0672	0.134	mg/kg dry	5	11/01/19 19:15	EPA 6020A	
Chromium	**23.1**	0.336	0.672	mg/kg dry	5	11/01/19 19:15	EPA 6020A	
Lead	**6.51**	0.0672	0.134	mg/kg dry	5	11/01/19 19:15	EPA 6020A	
Selenium	ND	0.336	0.672	mg/kg dry	5	11/01/19 19:15	EPA 6020A	
Silver	**0.112**	0.0672	0.134	mg/kg dry	5	11/01/19 19:15	EPA 6020A	**J**
PDI-019SC-C-00-3.2-191025 (A9J0954-01RE1)				**Matrix: Sediment**				
Batch: 9110369								
Mercury	**0.0576**	0.0269	0.0537	mg/kg dry	5	11/04/19 14:47	EPA 6020A	
PDI-095SC-C-00-8.8-191025 (A9J0954-02)				**Matrix: Sediment**				
Batch: 9110369								
Arsenic	**7.03**	0.464	0.927	mg/kg dry	5	11/01/19 19:19	EPA 6020A	
Barium	**236**	0.464	0.927	mg/kg dry	5	11/01/19 19:19	EPA 6020A	
Cadmium	**0.656**	0.0927	0.185	mg/kg dry	5	11/01/19 19:19	EPA 6020A	
Chromium	**50.8**	0.464	0.927	mg/kg dry	5	11/01/19 19:19	EPA 6020A	
Lead	**32.5**	0.0927	0.185	mg/kg dry	5	11/01/19 19:19	EPA 6020A	
Selenium	ND	0.464	0.927	mg/kg dry	5	11/01/19 19:19	EPA 6020A	
Silver	**0.958**	0.0927	0.185	mg/kg dry	5	11/01/19 19:19	EPA 6020A	
PDI-095SC-C-00-8.8-191025 (A9J0954-02RE1)				**Matrix: Sediment**				
Batch: 9110369								
Mercury	**0.378**	0.0371	0.0742	mg/kg dry	5	11/04/19 14:51	EPA 6020A	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-019SC-C-00-3.2-191025 (A9J0954-01)				**Matrix: Sediment**				
Batch: 9110517								
Arsenic	ND	0.0500	0.100	mg/L	10	11/06/19 14:30	1311/6020A	TCLPa
Barium	ND	2.50	5.00	mg/L	10	11/06/19 14:30	1311/6020A	TCLPa
Cadmium	ND	0.0500	0.100	mg/L	10	11/06/19 14:30	1311/6020A	TCLPa
Chromium	ND	0.0500	0.100	mg/L	10	11/06/19 14:30	1311/6020A	TCLPa
Lead	ND	0.0250	0.0500	mg/L	10	11/06/19 14:30	1311/6020A	TCLPa
Mercury	ND	0.00350	0.00700	mg/L	10	11/06/19 14:30	1311/6020A	TCLPa
Selenium	ND	0.0500	0.100	mg/L	10	11/06/19 14:30	1311/6020A	TCLPa
Silver	ND	0.0500	0.100	mg/L	10	11/06/19 14:30	1311/6020A	TCLPa
PDI-095SC-C-00-8.8-191025 (A9J0954-02)				**Matrix: Sediment**				
Batch: 9110517								
Arsenic	ND	0.0500	0.100	mg/L	10	11/06/19 14:35	1311/6020A	
Barium	ND	2.50	5.00	mg/L	10	11/06/19 14:35	1311/6020A	
Cadmium	ND	0.0500	0.100	mg/L	10	11/06/19 14:35	1311/6020A	
Chromium	ND	0.0500	0.100	mg/L	10	11/06/19 14:35	1311/6020A	
Lead	ND	0.0250	0.0500	mg/L	10	11/06/19 14:35	1311/6020A	
Mercury	ND	0.00350	0.00700	mg/L	10	11/06/19 14:35	1311/6020A	
Selenium	ND	0.0500	0.100	mg/L	10	11/06/19 14:35	1311/6020A	
Silver	ND	0.0500	0.100	mg/L	10	11/06/19 14:35	1311/6020A	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

ANALYTICAL SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-019SC-C-00-3.2-191025 (A9J0954-01)				**Matrix: Sediment**				
Batch: 9101617								
Total Solids	**75.9**	1.00	1.00	% by Weight	1	10/28/19 16:21	SM 2540 G	
PDI-095SC-C-00-8.8-191025 (A9J0954-02)				**Matrix: Sediment**				
Batch: 9101617								
Total Solids	**55.0**	1.00	1.00	% by Weight	1	10/28/19 16:21	SM 2540 G	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311 (ZHE)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-019SC-C-00-3.2-191025 (A9J0954-01)				**Matrix: Sediment**		**Batch: 9110443**		
TCLP ZHE Extraction	PREP			N/A	1	11/04/19 15:35	EPA 1311 ZHE	
TCLP Extraction	PREP			N/A	1	11/05/19 16:45	EPA 1311	
TCLP Extraction	PREP			N/A	1	11/05/19 16:45	EPA 1311	
PDI-095SC-C-00-8.8-191025 (A9J0954-02)				**Matrix: Sediment**		**Batch: 9110443**		
TCLP ZHE Extraction	PREP			N/A	1	11/04/19 15:35	EPA 1311 ZHE	
TCLP Extraction	PREP			N/A	1	11/05/19 16:45	EPA 1311	
TCLP Extraction	PREP			N/A	1	11/05/19 16:45	EPA 1311	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101622 - EPA 5030B							**Water**					
Blank (9101622-BLK1)			Prepared: 10/28/19 08:00		Analyzed: 10/28/19 10:17							
EPA 8260C												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	1.00	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101622 - EPA 5030B							**Water**					
Blank (9101622-BLK1)			Prepared: 10/28/19 08:00		Analyzed: 10/28/19 10:17							
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*101 %*		*80-120 %*				*"*			

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101622 - EPA 5030B												
Blank (9101622-BLK1)					Prepared: 10/28/19 08:00 Analyzed: 10/28/19 10:17							
Surr: 4-Bromofluorobenzene (Surr)					*Recovery: 101 %* *Limits: 80-120 %* *Dilution: 1x*							
LCS (9101622-BS1)					Prepared: 10/28/19 08:00 Analyzed: 10/28/19 09:24							
EPA 8260C												
Acetone	36.4	10.0	20.0	ug/L	1	40.0	---	91	80-120%	---	---	
Acrylonitrile	21.1	1.00	2.00	ug/L	1	20.0	---	106	80-120%	---	---	
Benzene	19.6	0.100	0.200	ug/L	1	20.0	---	98	80-120%	---	---	
Bromobenzene	19.9	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Bromochloromethane	22.1	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Bromodichloromethane	18.4	0.500	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Bromoform	16.4	0.500	1.00	ug/L	1	20.0	---	82	80-120%	---	---	
Bromomethane	22.5	5.00	5.00	ug/L	1	20.0	---	113	80-120%	---	---	
2-Butanone (MEK)	39.2	5.00	10.0	ug/L	1	40.0	---	98	80-120%	---	---	
n-Butylbenzene	21.1	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
sec-Butylbenzene	19.5	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
tert-Butylbenzene	18.7	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Carbon disulfide	19.2	5.00	10.0	ug/L	1	20.0	---	96	80-120%	---	---	
Carbon tetrachloride	14.1	1.00	1.00	ug/L	1	20.0	---	**71**	**80-120%**	---	---	Q-55
Chlorobenzene	19.9	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Chloroethane	17.1	5.00	5.00	ug/L	1	20.0	---	86	80-120%	---	---	
Chloroform	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Chloromethane	17.2	2.50	5.00	ug/L	1	20.0	---	86	80-120%	---	---	
2-Chlorotoluene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
4-Chlorotoluene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Dibromochloromethane	18.8	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dibromo-3-chloropropane	14.8	5.00	5.00	ug/L	1	20.0	---	**74**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	19.3	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromomethane	20.9	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,2-Dichlorobenzene	19.6	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
1,3-Dichlorobenzene	19.9	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
1,4-Dichlorobenzene	19.9	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Dichlorodifluoromethane	21.1	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,1-Dichloroethane	19.1	0.200	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.4	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101622 - EPA 5030B							**Water**					
LCS (9101622-BS1)			Prepared: 10/28/19 08:00		Analyzed: 10/28/19 09:24							
1,1-Dichloroethene	19.2	0.200	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
cis-1,2-Dichloroethene	19.6	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
trans-1,2-Dichloroethene	20.2	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dichloropropane	19.3	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
1,3-Dichloropropane	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
2,2-Dichloropropane	16.3	0.500	1.00	ug/L	1	20.0	---	81	80-120%	---	---	
1,1-Dichloropropene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
cis-1,3-Dichloropropene	17.9	0.500	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
Ethylbenzene	19.3	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Hexachlorobutadiene	19.8	2.50	5.00	ug/L	1	20.0	---	99	80-120%	---	---	
2-Hexanone	39.8	5.00	10.0	ug/L	1	40.0	---	99	80-120%	---	---	
Isopropylbenzene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
4-Isopropyltoluene	20.4	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Methylene chloride	19.8	2.50	5.00	ug/L	1	20.0	---	99	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	40.4	5.00	10.0	ug/L	1	40.0	---	101	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
Naphthalene	19.8	1.00	2.00	ug/L	1	20.0	---	99	80-120%	---	---	
n-Propylbenzene	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Styrene	19.9	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,1,2-Tetrachloroethane	16.4	0.200	0.400	ug/L	1	20.0	---	82	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.3	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Tetrachloroethene (PCE)	20.2	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
Toluene	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,2,3-Trichlorobenzene	20.4	1.00	2.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,2,4-Trichlorobenzene	20.7	1.00	2.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,1,1-Trichloroethane	17.3	0.200	0.400	ug/L	1	20.0	---	86	80-120%	---	---	
1,1,2-Trichloroethane	20.6	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Trichloroethene (TCE)	20.4	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
Trichlorofluoromethane	19.7	1.00	2.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,3-Trichloropropane	19.9	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,4-Trimethylbenzene	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,3,5-Trimethylbenzene	19.9	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Vinyl chloride	19.9	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
m,p-Xylene	39.0	0.500	1.00	ug/L	1	40.0	---	98	80-120%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101622 - EPA 5030B							**Water**					
LCS (9101622-BS1)			Prepared: 10/28/19 08:00 Analyzed: 10/28/19 09:24									
o-Xylene	19.7	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
Duplicate (9101622-DUP1)			Prepared: 10/28/19 10:12 Analyzed: 10/28/19 15:13									
QC Source Sample: Non-SDG (A9J0952-02)												
Acetone	ND	100	200	ug/L	10	---	ND	---	---	---	30%	
Acrylonitrile	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
Benzene	ND	1.00	2.00	ug/L	10	---	ND	---	---	---	30%	
Bromobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	50.0	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
n-Butylbenzene	**6.31**	5.00	10.0	ug/L	10	---	6.89	---	---	9	30%	J
sec-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Carbon disulfide	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	10.0	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	50.0	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	50.0	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101622 - EPA 5030B							**Water**					
Duplicate (9101622-DUP1)			Prepared: 10/28/19 10:12 Analyzed: 10/28/19 15:13									
QC Source Sample: Non-SDG (A9J0952-02)												
Dichlorodifluoromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Ethylbenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Hexanone	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
Isopropylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Naphthalene	**36.7**	10.0	20.0	ug/L	10	---	37.4	---	---	2	30%	
n-Propylbenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Styrene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
Toluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

AMENDED REPORT

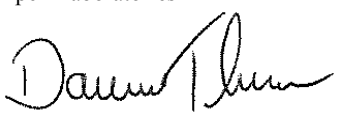
Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0954 - 11 15 19 0843**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101622 - EPA 5030B												**Water**
Duplicate (9101622-DUP1)			Prepared: 10/28/19 10:12 Analyzed: 10/28/19 15:13									
QC Source Sample: Non-SDG (A9J0952-02)												
1,2,4-Trimethylbenzene	**42.7**	5.00	10.0	ug/L	10	---	44.4	---	---	4	30%	
1,3,5-Trimethylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
m,p-Xylene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
o-Xylene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*101 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*				*"*			
Duplicate (9101622-DUP2)			Prepared: 10/28/19 10:12 Analyzed: 10/28/19 19:42									
QC Source Sample: Non-SDG (A9J0955-03)												
Acetone	ND	25.0	50.0	ug/L	2.5	---	ND	---	---	---	30%	
Acrylonitrile	ND	2.50	5.00	ug/L	2.5	---	ND	---	---	---	30%	
Benzene	ND	0.250	0.500	ug/L	2.5	---	ND	---	---	---	30%	
Bromobenzene	ND	0.625	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Bromochloromethane	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Bromoform	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Bromomethane	ND	12.5	12.5	ug/L	2.5	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	12.5	25.0	ug/L	2.5	---	ND	---	---	---	30%	
n-Butylbenzene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Carbon disulfide	ND	12.5	25.0	ug/L	2.5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.625	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Chloroethane	ND	12.5	12.5	ug/L	2.5	---	ND	---	---	---	30%	
Chloroform	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Chloromethane	ND	6.25	12.5	ug/L	2.5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	6.25	12.5	ug/L	2.5	---	ND	---	---	---	30%	

Apex Laboratories



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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101622 - EPA 5030B							**Water**					
Duplicate (9101622-DUP2)			Prepared: 10/28/19 10:12 Analyzed: 10/28/19 19:42									
QC Source Sample: Non-SDG (A9J0955-03)												
1,2-Dibromoethane (EDB)	ND	0.625	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Dibromomethane	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.625	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	0.625	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.625	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.500	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.500	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.500	1.00	ug/L	2.5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.500	1.00	ug/L	2.5	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.500	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.625	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.625	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	6.25	12.5	ug/L	2.5	---	ND	---	---	---	30%	
2-Hexanone	ND	12.5	25.0	ug/L	2.5	---	ND	---	---	---	30%	
Isopropylbenzene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Methylene chloride	ND	3.75	7.50	ug/L	2.5	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	12.5	25.0	ug/L	2.5	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Naphthalene	ND	2.50	5.00	ug/L	2.5	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.625	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Styrene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.500	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.625	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.500	1.00	ug/L	2.5	---	ND	---	---	---	30%	
Toluene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	2.50	5.00	ug/L	2.5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	2.50	5.00	ug/L	2.5	---	ND	---	---	---	30%	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101622 - EPA 5030B							**Water**					
Duplicate (9101622-DUP2)			Prepared: 10/28/19 10:12 Analyzed: 10/28/19 19:42									
QC Source Sample: Non-SDG (A9J0955-03)												
1,1,1-Trichloroethane	ND	0.500	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.625	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**3.18**	0.500	1.00	ug/L	2.5	---	3.24	---	---	2	30%	
Trichlorofluoromethane	ND	2.50	5.00	ug/L	2.5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.500	1.00	ug/L	2.5	---	ND	---	---	---	30%	
m,p-Xylene	ND	1.25	2.50	ug/L	2.5	---	ND	---	---	---	30%	
o-Xylene	ND	0.625	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*102 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*				*"*			
Matrix Spike (9101622-MS1)			Prepared: 10/28/19 10:12 Analyzed: 10/28/19 20:35									
QC Source Sample: Non-SDG (A9J0975-01)												
EPA 8260C												
Acetone	43.3	10.0	20.0	ug/L	1	40.0	ND	108	39-160%	---	---	
Acrylonitrile	23.0	1.00	2.00	ug/L	1	20.0	ND	115	63-135%	---	---	
Benzene	22.5	0.100	0.200	ug/L	1	20.0	ND	112	79-120%	---	---	
Bromobenzene	22.7	0.250	0.500	ug/L	1	20.0	ND	114	80-120%	---	---	
Bromochloromethane	25.0	0.500	1.00	ug/L	1	20.0	ND	**125**	**78-123%**	---	---	Q-01
Bromodichloromethane	21.2	0.500	1.00	ug/L	1	20.0	ND	106	79-125%	---	---	
Bromoform	20.7	0.500	1.00	ug/L	1	20.0	ND	103	66-130%	---	---	
Bromomethane	27.4	5.00	5.00	ug/L	1	20.0	ND	137	53-141%	---	---	
2-Butanone (MEK)	44.0	5.00	10.0	ug/L	1	40.0	ND	110	56-143%	---	---	
n-Butylbenzene	24.2	0.500	1.00	ug/L	1	20.0	ND	121	75-128%	---	---	
sec-Butylbenzene	22.9	0.500	1.00	ug/L	1	20.0	ND	115	77-126%	---	---	
tert-Butylbenzene	21.8	0.500	1.00	ug/L	1	20.0	ND	109	78-124%	---	---	
Carbon disulfide	22.6	5.00	10.0	ug/L	1	20.0	ND	113	64-133%	---	---	
Carbon tetrachloride	17.9	1.00	1.00	ug/L	1	20.0	ND	90	72-136%	---	---	Q-54d
Chlorobenzene	22.9	0.250	0.500	ug/L	1	20.0	ND	115	80-120%	---	---	
Chloroethane	21.1	5.00	5.00	ug/L	1	20.0	ND	106	60-138%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101622 - EPA 5030B							**Water**					
Matrix Spike (9101622-MS1)			Prepared: 10/28/19 10:12		Analyzed: 10/28/19 20:35							
QC Source Sample: Non-SDG (A9J0975-01)												
Chloroform	22.7	0.500	1.00	ug/L	1	20.0	ND	114	79-124%	---	---	
Chloromethane	20.2	2.50	5.00	ug/L	1	20.0	ND	101	50-139%	---	---	
2-Chlorotoluene	22.3	0.500	1.00	ug/L	1	20.0	ND	112	79-122%	---	---	
4-Chlorotoluene	21.9	0.500	1.00	ug/L	1	20.0	ND	110	78-122%	---	---	
Dibromochloromethane	23.3	0.500	1.00	ug/L	1	20.0	ND	116	74-126%	---	---	
1,2-Dibromo-3-chloropropane	18.1	5.00	5.00	ug/L	1	20.0	ND	91	62-128%	---	---	Q-54c
1,2-Dibromoethane (EDB)	21.5	0.250	0.500	ug/L	1	20.0	ND	108	77-121%	---	---	
Dibromomethane	23.6	0.500	1.00	ug/L	1	20.0	ND	118	79-123%	---	---	
1,2-Dichlorobenzene	22.5	0.250	0.500	ug/L	1	20.0	ND	113	80-120%	---	---	
1,3-Dichlorobenzene	22.8	0.250	0.500	ug/L	1	20.0	ND	114	80-120%	---	---	
1,4-Dichlorobenzene	22.6	0.250	0.500	ug/L	1	20.0	ND	113	79-120%	---	---	
Dichlorodifluoromethane	25.3	0.500	1.00	ug/L	1	20.0	ND	127	32-152%	---	---	
1,1-Dichloroethane	21.9	0.200	0.400	ug/L	1	20.0	ND	110	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.5	0.200	0.400	ug/L	1	20.0	ND	108	73-128%	---	---	
1,1-Dichloroethene	22.3	0.200	0.400	ug/L	1	20.0	ND	111	71-131%	---	---	
cis-1,2-Dichloroethene	22.0	0.200	0.400	ug/L	1	20.0	ND	110	78-123%	---	---	
trans-1,2-Dichloroethene	22.9	0.200	0.400	ug/L	1	20.0	ND	114	75-124%	---	---	
1,2-Dichloropropane	22.0	0.250	0.500	ug/L	1	20.0	ND	110	78-122%	---	---	
1,3-Dichloropropane	22.7	0.500	1.00	ug/L	1	20.0	ND	113	80-120%	---	---	
2,2-Dichloropropane	15.7	0.500	1.00	ug/L	1	20.0	ND	79	60-139%	---	---	
1,1-Dichloropropene	22.5	0.500	1.00	ug/L	1	20.0	ND	113	79-125%	---	---	
cis-1,3-Dichloropropene	19.1	0.500	1.00	ug/L	1	20.0	ND	95	75-124%	---	---	
Ethylbenzene	22.2	0.250	0.500	ug/L	1	20.0	ND	111	79-121%	---	---	
Hexachlorobutadiene	22.5	2.50	5.00	ug/L	1	20.0	ND	113	66-134%	---	---	
2-Hexanone	43.9	5.00	10.0	ug/L	1	40.0	ND	110	57-139%	---	---	
Isopropylbenzene	23.0	0.500	1.00	ug/L	1	20.0	ND	115	72-131%	---	---	
4-Isopropyltoluene	23.7	0.500	1.00	ug/L	1	20.0	ND	118	77-127%	---	---	
Methylene chloride	21.2	2.50	5.00	ug/L	1	20.0	ND	106	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	44.2	5.00	10.0	ug/L	1	40.0	ND	110	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	19.6	0.500	1.00	ug/L	1	20.0	ND	98	71-124%	---	---	
Naphthalene	22.1	1.00	2.00	ug/L	1	20.0	ND	111	61-128%	---	---	
n-Propylbenzene	22.3	0.250	0.500	ug/L	1	20.0	ND	112	76-126%	---	---	
Styrene	22.3	0.500	1.00	ug/L	1	20.0	ND	112	78-123%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101622 - EPA 5030B							**Water**					
Matrix Spike (9101622-MS1)			Prepared: 10/28/19 10:12		Analyzed: 10/28/19 20:35							
QC Source Sample: Non-SDG (A9J0975-01)												
1,1,1,2-Tetrachloroethane	19.8	0.200	0.400	ug/L	1	20.0	ND	99	78-124%	---	---	
1,1,2,2-Tetrachloroethane	21.8	0.250	0.500	ug/L	1	20.0	ND	109	71-121%	---	---	
Tetrachloroethene (PCE)	23.8	0.200	0.400	ug/L	1	20.0	ND	119	74-129%	---	---	
Toluene	21.8	0.500	1.00	ug/L	1	20.0	ND	109	80-121%	---	---	
1,2,3-Trichlorobenzene	23.1	1.00	2.00	ug/L	1	20.0	ND	116	69-129%	---	---	
1,2,4-Trichlorobenzene	23.1	1.00	2.00	ug/L	1	20.0	ND	115	69-130%	---	---	
1,1,1-Trichloroethane	20.0	0.200	0.400	ug/L	1	20.0	ND	100	74-131%	---	---	
1,1,2-Trichloroethane	22.8	0.250	0.500	ug/L	1	20.0	ND	114	80-120%	---	---	
Trichloroethene (TCE)	23.5	0.200	0.400	ug/L	1	20.0	ND	118	79-123%	---	---	
Trichlorofluoromethane	25.4	1.00	2.00	ug/L	1	20.0	ND	127	65-141%	---	---	
1,2,3-Trichloropropane	22.5	0.500	1.00	ug/L	1	20.0	ND	113	73-122%	---	---	
1,2,4-Trimethylbenzene	22.8	0.500	1.00	ug/L	1	20.0	ND	114	76-124%	---	---	
1,3,5-Trimethylbenzene	22.8	0.500	1.00	ug/L	1	20.0	ND	114	75-124%	---	---	
Vinyl chloride	24.0	0.200	0.400	ug/L	1	20.0	ND	120	58-137%	---	---	
m,p-Xylene	44.9	0.500	1.00	ug/L	1	40.0	ND	112	80-121%	---	---	
o-Xylene	22.4	0.250	0.500	ug/L	1	20.0	ND	112	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 103 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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	---	---	---	---	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 %* *"*

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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%	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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%	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 %*			*"*				

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9101631 - EPA 5035A							**Soil**					
Blank (9101631-BLK1)			Prepared: 10/28/19 09:30 Analyzed: 10/28/19 11:42									
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	167	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	66.7	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	---	---	---	---	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9101631 - EPA 5035A							**Soil**					
Blank (9101631-BLK1)			Prepared: 10/28/19 09:30 Analyzed: 10/28/19 11:42									
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: 100 %* *Limits: 80-120 %* *Dilution: 1x*
Toluene-d8 (Surr) *100 %* *80-120 %* *"*

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9101631 - EPA 5035A							**Soil**					
Blank (9101631-BLK1)				Prepared: 10/28/19 09:30 Analyzed: 10/28/19 11:42								
Surr: 4-Bromofluorobenzene (Surr)				*Recovery: 102 %*	*Limits: 80-120 %*		*Dilution: 1x*					
LCS (9101631-BS1)				Prepared: 10/28/19 09:30 Analyzed: 10/28/19 10:48								
5035A/8260C												
Acetone	1790	500	1000	ug/kg wet	50	2000	---	89	80-120%	---	---	
Acrylonitrile	1020	50.0	100	ug/kg wet	50	1000	---	102	80-120%	---	---	
Benzene	914	5.00	10.0	ug/kg wet	50	1000	---	91	80-120%	---	---	
Bromobenzene	982	12.5	25.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
Bromochloromethane	932	25.0	50.0	ug/kg wet	50	1000	---	93	80-120%	---	---	
Bromodichloromethane	1020	25.0	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Bromoform	950	50.0	100	ug/kg wet	50	1000	---	95	80-120%	---	---	
Bromomethane	1210	500	500	ug/kg wet	50	1000	---	**121**	**80-120%**	---	---	Q-56
2-Butanone (MEK)	1800	250	500	ug/kg wet	50	2000	---	90	80-120%	---	---	
n-Butylbenzene	1080	25.0	50.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
sec-Butylbenzene	1040	25.0	50.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
tert-Butylbenzene	1030	25.0	50.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
Carbon disulfide	825	250	500	ug/kg wet	50	1000	---	82	80-120%	---	---	
Carbon tetrachloride	1000	25.0	50.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
Chlorobenzene	964	12.5	25.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
Chloroethane	883	250	500	ug/kg wet	50	1000	---	88	80-120%	---	---	
Chloroform	946	25.0	50.0	ug/kg wet	50	1000	---	95	80-120%	---	---	
Chloromethane	794	250	250	ug/kg wet	50	1000	---	**79**	**80-120%**	---	---	Q-55
2-Chlorotoluene	999	25.0	50.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
4-Chlorotoluene	1020	25.0	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Dibromochloromethane	1020	50.0	100	ug/kg wet	50	1000	---	102	80-120%	---	---	
1,2-Dibromo-3-chloropropane	948	125	250	ug/kg wet	50	1000	---	95	80-120%	---	---	
1,2-Dibromoethane (EDB)	1030	25.0	50.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
Dibromomethane	983	25.0	50.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,2-Dichlorobenzene	994	12.5	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
1,3-Dichlorobenzene	990	12.5	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
1,4-Dichlorobenzene	942	12.5	25.0	ug/kg wet	50	1000	---	94	80-120%	---	---	
Dichlorodifluoromethane	771	100	100	ug/kg wet	50	1000	---	**77**	**80-120%**	---	---	Q-55
1,1-Dichloroethane	914	12.5	25.0	ug/kg wet	50	1000	---	91	80-120%	---	---	
1,2-Dichloroethane (EDC)	984	12.5	25.0	ug/kg wet	50	1000	---	98	80-120%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9101631 - EPA 5035A							**Soil**					
LCS (9101631-BS1)			Prepared: 10/28/19 09:30 Analyzed: 10/28/19 10:48									
1,1-Dichloroethene	816	12.5	25.0	ug/kg wet	50	1000	---	82	80-120%	---	---	
cis-1,2-Dichloroethene	928	12.5	25.0	ug/kg wet	50	1000	---	93	80-120%	---	---	
trans-1,2-Dichloroethene	922	12.5	25.0	ug/kg wet	50	1000	---	92	80-120%	---	---	
1,2-Dichloropropane	945	50.0	100	ug/kg wet	50	1000	---	95	80-120%	---	---	
1,3-Dichloropropane	1000	25.0	50.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
2,2-Dichloropropane	1050	25.0	50.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
1,1-Dichloropropene	936	25.0	50.0	ug/kg wet	50	1000	---	94	80-120%	---	---	
cis-1,3-Dichloropropene	1080	25.0	50.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
Ethylbenzene	1010	12.5	25.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Hexachlorobutadiene	1070	50.0	100	ug/kg wet	50	1000	---	107	80-120%	---	---	
2-Hexanone	1960	250	500	ug/kg wet	50	2000	---	98	80-120%	---	---	
Isopropylbenzene	1060	25.0	50.0	ug/kg wet	50	1000	---	106	80-120%	---	---	
4-Isopropyltoluene	1070	25.0	50.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
Methylene chloride	990	125	250	ug/kg wet	50	1000	---	99	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	2000	250	500	ug/kg wet	50	2000	---	100	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	940	25.0	50.0	ug/kg wet	50	1000	---	94	80-120%	---	---	
Naphthalene	1070	50.0	100	ug/kg wet	50	1000	---	107	80-120%	---	---	
n-Propylbenzene	1000	12.5	25.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
Styrene	904	25.0	50.0	ug/kg wet	50	1000	---	90	80-120%	---	---	
1,1,1,2-Tetrachloroethane	1040	12.5	25.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
1,1,2,2-Tetrachloroethane	979	25.0	50.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
Tetrachloroethene (PCE)	1010	12.5	25.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Toluene	941	25.0	50.0	ug/kg wet	50	1000	---	94	80-120%	---	---	
1,2,3-Trichlorobenzene	1040	125	250	ug/kg wet	50	1000	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	1030	125	250	ug/kg wet	50	1000	---	103	80-120%	---	---	
1,1,1-Trichloroethane	974	12.5	25.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
1,1,2-Trichloroethane	1020	12.5	25.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Trichloroethene (TCE)	967	12.5	25.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
Trichlorofluoromethane	956	50.0	100	ug/kg wet	50	1000	---	96	80-120%	---	---	
1,2,3-Trichloropropane	1000	25.0	50.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
1,2,4-Trimethylbenzene	1140	25.0	50.0	ug/kg wet	50	1000	---	114	80-120%	---	---	
1,3,5-Trimethylbenzene	1110	25.0	50.0	ug/kg wet	50	1000	---	111	80-120%	---	---	
Vinyl chloride	864	12.5	25.0	ug/kg wet	50	1000	---	86	80-120%	---	---	
m,p-Xylene	2070	25.0	50.0	ug/kg wet	50	2000	---	103	80-120%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9101631 - EPA 5035A							**Soil**					
LCS (9101631-BS1)			Prepared: 10/28/19 09:30 Analyzed: 10/28/19 10:48									
o-Xylene	1020	12.5	25.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*	*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*102 %*	*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*			*"*					
Duplicate (9101631-DUP1)			Prepared: 10/26/19 09:40 Analyzed: 10/28/19 17:58									
QC Source Sample: Non-SDG (A9J0973-02)												
Acetone	ND	572	1140	ug/kg dry	50	---	ND	---	---	---	30%	
Acrylonitrile	ND	57.2	114	ug/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	5.72	11.4	ug/kg dry	50	---	ND	---	---	---	30%	
Bromobenzene	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
Bromoform	ND	57.2	114	ug/kg dry	50	---	ND	---	---	---	30%	
Bromomethane	ND	572	572	ug/kg dry	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	286	572	ug/kg dry	50	---	ND	---	---	---	30%	
n-Butylbenzene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	286	572	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
Chloroethane	ND	286	572	ug/kg dry	50	---	ND	---	---	---	30%	
Chloroform	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
Chloromethane	ND	286	286	ug/kg dry	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	57.2	114	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	143	286	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
Dibromomethane	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9101631 - EPA 5035A							**Soil**					
Duplicate (9101631-DUP1)			Prepared: 10/26/19 09:40 Analyzed: 10/28/19 17:58									
QC Source Sample: Non-SDG (A9J0973-02)												
Dichlorodifluoromethane	ND	114	114	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	57.2	114	ug/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	57.2	114	ug/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	286	572	ug/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
Methylene chloride	ND	143	286	ug/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	286	572	ug/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	57.2	114	ug/kg dry	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
Styrene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	143	286	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	143	286	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	57.2	114	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9101631 - EPA 5035A							**Soil**					
Duplicate (9101631-DUP1)			Prepared: 10/26/19 09:40 Analyzed: 10/28/19 17:58									
QC Source Sample: Non-SDG (A9J0973-02)												
1,2,4-Trimethylbenzene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	28.6	57.2	ug/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	14.3	28.6	ug/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
Matrix Spike (9101631-MS1)			Prepared: 10/26/19 13:46 Analyzed: 10/28/19 20:40									
QC Source Sample: Non-SDG (A9J0973-08)												
5035A/8260C												
Acetone	2430	804	1610	ug/kg dry	50	3220	ND	75	36-164%	---	---	
Acrylonitrile	1410	80.4	161	ug/kg dry	50	1610	ND	88	65-134%	---	---	
Benzene	1530	8.04	16.1	ug/kg dry	50	1610	ND	95	77-121%	---	---	
Bromobenzene	1580	20.1	40.2	ug/kg dry	50	1610	ND	98	78-121%	---	---	
Bromochloromethane	1670	40.2	80.4	ug/kg dry	50	1610	ND	104	78-125%	---	---	
Bromodichloromethane	1710	40.2	80.4	ug/kg dry	50	1610	ND	106	75-127%	---	---	
Bromoform	1510	80.4	161	ug/kg dry	50	1610	ND	94	67-132%	---	---	
Bromomethane	2230	804	804	ug/kg dry	50	1610	ND	138	53-143%	---	---	Q-54
2-Butanone (MEK)	3100	402	804	ug/kg dry	50	3220	ND	96	51-148%	---	---	
n-Butylbenzene	1700	40.2	80.4	ug/kg dry	50	1610	ND	106	70-128%	---	---	
sec-Butylbenzene	1660	40.2	80.4	ug/kg dry	50	1610	ND	103	73-126%	---	---	
tert-Butylbenzene	1650	40.2	80.4	ug/kg dry	50	1610	ND	103	73-125%	---	---	
Carbon disulfide	1390	402	804	ug/kg dry	50	1610	ND	87	63-132%	---	---	
Carbon tetrachloride	1650	40.2	80.4	ug/kg dry	50	1610	ND	102	70-135%	---	---	
Chlorobenzene	1550	20.1	40.2	ug/kg dry	50	1610	ND	97	79-120%	---	---	
Chloroethane	1900	402	804	ug/kg dry	50	1610	ND	118	59-139%	---	---	
Chloroform	1790	40.2	80.4	ug/kg dry	50	1610	ND	111	78-123%	---	---	
Chloromethane	1310	402	402	ug/kg dry	50	1610	ND	82	50-136%	---	---	Q-54a
2-Chlorotoluene	1610	40.2	80.4	ug/kg dry	50	1610	ND	100	75-122%	---	---	
4-Chlorotoluene	1690	40.2	80.4	ug/kg dry	50	1610	ND	105	72-124%	---	---	
Dibromochloromethane	1650	80.4	161	ug/kg dry	50	1610	ND	103	74-126%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9101631 - EPA 5035A							**Soil**					
Matrix Spike (9101631-MS1)			Prepared: 10/26/19 13:46		Analyzed: 10/28/19 20:40							
QC Source Sample: Non-SDG (A9J0973-08)												
1,2-Dibromo-3-chloropropane	1450	201	402	ug/kg dry	50	1610	ND	90	61-132%	---	---	
1,2-Dibromoethane (EDB)	1670	40.2	80.4	ug/kg dry	50	1610	ND	104	78-122%	---	---	
Dibromomethane	1750	40.2	80.4	ug/kg dry	50	1610	ND	109	78-125%	---	---	
1,2-Dichlorobenzene	1600	20.1	40.2	ug/kg dry	50	1610	ND	100	78-121%	---	---	
1,3-Dichlorobenzene	1620	20.1	40.2	ug/kg dry	50	1610	ND	101	77-121%	---	---	
1,4-Dichlorobenzene	1540	20.1	40.2	ug/kg dry	50	1610	ND	96	75-120%	---	---	
Dichlorodifluoromethane	1340	161	161	ug/kg dry	50	1610	ND	83	29-149%	---	---	Q-54b
1,1-Dichloroethane	1750	20.1	40.2	ug/kg dry	50	1610	ND	109	76-125%	---	---	
1,2-Dichloroethane (EDC)	1680	20.1	40.2	ug/kg dry	50	1610	ND	104	73-128%	---	---	
1,1-Dichloroethene	1420	20.1	40.2	ug/kg dry	50	1610	ND	88	70-131%	---	---	
cis-1,2-Dichloroethene	1590	20.1	40.2	ug/kg dry	50	1610	ND	99	77-123%	---	---	
trans-1,2-Dichloroethene	1610	20.1	40.2	ug/kg dry	50	1610	ND	100	74-125%	---	---	
1,2-Dichloropropane	1600	80.4	161	ug/kg dry	50	1610	ND	100	76-123%	---	---	
1,3-Dichloropropane	1630	40.2	80.4	ug/kg dry	50	1610	ND	102	77-121%	---	---	
2,2-Dichloropropane	1500	40.2	80.4	ug/kg dry	50	1610	ND	94	67-133%	---	---	
1,1-Dichloropropene	1520	40.2	80.4	ug/kg dry	50	1610	ND	94	76-125%	---	---	
cis-1,3-Dichloropropene	1620	40.2	80.4	ug/kg dry	50	1610	ND	101	74-126%	---	---	
Ethylbenzene	1600	20.1	40.2	ug/kg dry	50	1610	ND	100	76-122%	---	---	
Hexachlorobutadiene	1610	80.4	161	ug/kg dry	50	1610	ND	100	61-135%	---	---	
2-Hexanone	3130	402	804	ug/kg dry	50	3220	ND	97	53-145%	---	---	
Isopropylbenzene	1630	40.2	80.4	ug/kg dry	50	1610	ND	102	68-134%	---	---	
4-Isopropyltoluene	1710	40.2	80.4	ug/kg dry	50	1610	ND	107	73-127%	---	---	
Methylene chloride	1740	201	402	ug/kg dry	50	1610	ND	108	70-128%	---	---	
4-Methyl-2-pentanone (MiBK)	3290	402	804	ug/kg dry	50	3220	ND	102	65-135%	---	---	
Methyl tert-butyl ether (MTBE)	1580	40.2	80.4	ug/kg dry	50	1610	ND	98	73-125%	---	---	
Naphthalene	1620	80.4	161	ug/kg dry	50	1610	ND	101	62-129%	---	---	
n-Propylbenzene	1620	20.1	40.2	ug/kg dry	50	1610	ND	101	73-125%	---	---	
Styrene	1470	40.2	80.4	ug/kg dry	50	1610	ND	92	76-124%	---	---	
1,1,1,2-Tetrachloroethane	1650	20.1	40.2	ug/kg dry	50	1610	ND	103	78-125%	---	---	
1,1,2,2-Tetrachloroethane	1600	40.2	80.4	ug/kg dry	50	1610	ND	100	70-124%	---	---	
Tetrachloroethene (PCE)	1570	20.1	40.2	ug/kg dry	50	1610	ND	98	73-128%	---	---	
Toluene	1520	40.2	80.4	ug/kg dry	50	1610	ND	95	77-121%	---	---	
1,2,3-Trichlorobenzene	1580	201	402	ug/kg dry	50	1610	ND	98	66-130%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9101631 - EPA 5035A							**Soil**					
Matrix Spike (9101631-MS1)			Prepared: 10/26/19 13:46 Analyzed: 10/28/19 20:40									
QC Source Sample: Non-SDG (A9J0973-08)												
1,2,4-Trichlorobenzene	1560	201	402	ug/kg dry	50	1610	ND	97	67-129%	---	---	
1,1,1-Trichloroethane	1620	20.1	40.2	ug/kg dry	50	1610	ND	101	73-130%	---	---	
1,1,2-Trichloroethane	1680	20.1	40.2	ug/kg dry	50	1610	ND	105	78-121%	---	---	
Trichloroethene (TCE)	1590	20.1	40.2	ug/kg dry	50	1610	ND	99	77-123%	---	---	
Trichlorofluoromethane	1820	80.4	161	ug/kg dry	50	1610	ND	113	62-140%	---	---	
1,2,3-Trichloropropane	1660	40.2	80.4	ug/kg dry	50	1610	ND	103	73-125%	---	---	
1,2,4-Trimethylbenzene	1830	40.2	80.4	ug/kg dry	50	1610	ND	114	75-123%	---	---	
1,3,5-Trimethylbenzene	1810	40.2	80.4	ug/kg dry	50	1610	ND	113	73-124%	---	---	
Vinyl chloride	1510	20.1	40.2	ug/kg dry	50	1610	ND	94	56-135%	---	---	
m,p-Xylene	3330	40.2	80.4	ug/kg dry	50	3220	ND	104	77-124%	---	---	
o-Xylene	1620	20.1	40.2	ug/kg dry	50	1610	ND	101	77-123%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9110460 - EPA 1311/5030B TCLP Volatiles									Water			
Blank (9110460-BLK1)			Prepared: 11/05/19 09:41		Analyzed: 11/05/19 10:35							**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: 102 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (9110460-BS1)			Prepared: 11/05/19 09:41		Analyzed: 11/05/19 10:08							**TCLP**
1311/8260C												
Benzene	1.07	0.00625	0.0125	mg/L	50	1.00	---	107	80-120%	---	---	
2-Butanone (MEK)	2.01	0.250	0.500	mg/L	50	2.00	---	101	80-120%	---	---	
Carbon tetrachloride	1.19	0.0250	0.0500	mg/L	50	1.00	---	119	80-120%	---	---	
Chlorobenzene	1.04	0.0125	0.0250	mg/L	50	1.00	---	104	80-120%	---	---	
Chloroform	1.06	0.0250	0.0500	mg/L	50	1.00	---	106	80-120%	---	---	
1,4-Dichlorobenzene	1.01	0.0125	0.0250	mg/L	50	1.00	---	101	80-120%	---	---	
1,2-Dichloroethane (EDC)	1.03	0.0125	0.0250	mg/L	50	1.00	---	103	80-120%	---	---	
1,1-Dichloroethene	1.07	0.0125	0.0250	mg/L	50	1.00	---	107	80-120%	---	---	
Tetrachloroethene (PCE)	1.12	0.0125	0.0250	mg/L	50	1.00	---	112	80-120%	---	---	
Trichloroethene (TCE)	1.04	0.0125	0.0250	mg/L	50	1.00	---	104	80-120%	---	---	
Vinyl chloride	1.03	0.0125	0.0250	mg/L	50	1.00	---	103	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
Duplicate (9110460-DUP1)			Prepared: 11/05/19 10:08		Analyzed: 11/05/19 11:29							

Apex Laboratories

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9110460 - EPA 1311/5030B TCLP Volatiles											**Water**	
Duplicate (9110460-DUP1)			Prepared: 11/05/19 10:08 Analyzed: 11/05/19 11:29									
QC Source Sample: Non-SDG (A9K0045-01)												
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)			*98 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*				*"*			
Matrix Spike (9110460-MS1)			Prepared: 11/05/19 10:08 Analyzed: 11/05/19 14:38									
QC Source Sample: Non-SDG (A9K0048-01)												
1311/8260C												
Benzene	1.08	0.00625	0.0125	mg/L	50	1.00	0.0590	102	70-130%	---	---	
2-Butanone (MEK)	2.11	0.250	0.500	mg/L	50	2.00	ND	106	70-130%	---	---	
Carbon tetrachloride	1.10	0.0250	0.0500	mg/L	50	1.00	ND	110	70-130%	---	---	
Chlorobenzene	0.984	0.0125	0.0250	mg/L	50	1.00	ND	98	70-130%	---	---	
Chloroform	1.02	0.0250	0.0500	mg/L	50	1.00	ND	102	70-130%	---	---	
1,4-Dichlorobenzene	0.944	0.0125	0.0250	mg/L	50	1.00	ND	94	70-130%	---	---	
1,2-Dichloroethane (EDC)	1.02	0.0125	0.0250	mg/L	50	1.00	ND	102	70-130%	---	---	
1,1-Dichloroethene	1.01	0.0125	0.0250	mg/L	50	1.00	ND	101	70-130%	---	---	
Tetrachloroethene (PCE)	1.02	0.0125	0.0250	mg/L	50	1.00	ND	102	70-130%	---	---	
Trichloroethene (TCE)	0.974	0.0125	0.0250	mg/L	50	1.00	ND	97	70-130%	---	---	
Vinyl chloride	0.976	0.0125	0.0250	mg/L	50	1.00	ND	98	70-130%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*100 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*				*"*			

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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: Non-SDG (A9J0950-01RE1)												
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 %*			*"*				

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 %*				*"*			

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9110534 - EPA 1311/3510C (Neutral Ext.)							**Sediment**					
Blank (9110534-BLK1)			Prepared: 11/06/19 13:00 Analyzed: 11/07/19 15:41									
1311/8081B												
gamma-BHC (Lindane)	ND	0.0000750	0.000150	mg/L	1	---	---	---	---	---	---	
Endrin	ND	0.0000750	0.000150	mg/L	1	---	---	---	---	---	---	
Heptachlor	ND	0.0000750	0.000150	mg/L	1	---	---	---	---	---	---	
Heptachlor epoxide	ND	0.0000750	0.000150	mg/L	1	---	---	---	---	---	---	
Methoxychlor	ND	0.000200	0.000400	mg/L	1	---	---	---	---	---	---	
Chlordane (Technical)	ND	0.000940	0.00188	mg/L	1	---	---	---	---	---	---	
Toxaphene (Total)	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 37 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*104 %*		*30-135 %*			*"*				
LCS (9110534-BS1)			Prepared: 11/06/19 13:00 Analyzed: 11/07/19 15:59									
1311/8081B												
gamma-BHC (Lindane)	0.00257	0.0000750	0.000150	mg/L	1	0.00250	---	103	59-134%	---	---	
Endrin	0.00321	0.0000750	0.000150	mg/L	1	0.00250	---	128	60-138%	---	---	Q-41
Heptachlor	0.00237	0.0000750	0.000150	mg/L	1	0.00250	---	95	54-130%	---	---	Q-41
Heptachlor epoxide	0.00260	0.0000750	0.000150	mg/L	1	0.00250	---	104	61-133%	---	---	
Methoxychlor	0.00310	0.000200	0.000400	mg/L	1	0.00250	---	124	54-144%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 63 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*95 %*		*30-135 %*			*"*				
LCS Dup (9110534-BSD1)			Prepared: 11/06/19 13:00 Analyzed: 11/07/19 16:16									**Q-19**
1311/8081B												
gamma-BHC (Lindane)	0.00259	0.0000750	0.000150	mg/L	1	0.00250	---	104	59-134%	0.8	30%	
Endrin	0.00316	0.0000750	0.000150	mg/L	1	0.00250	---	127	60-138%	1	30%	Q-41
Heptachlor	0.00237	0.0000750	0.000150	mg/L	1	0.00250	---	95	54-130%	0.1	30%	Q-41
Heptachlor epoxide	0.00263	0.0000750	0.000150	mg/L	1	0.00250	---	105	61-133%	1	30%	
Methoxychlor	0.00306	0.000200	0.000400	mg/L	1	0.00250	---	122	54-144%	1	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 62 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*91 %*		*30-135 %*			*"*				

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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: Non-SDG (A9J0950-01)												
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

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9110535 - EPA 1311/3510C (BNA Extraction)							**Soil**					
Blank (9110535-BLK1)			Prepared: 11/06/19 13:54 Analyzed: 11/07/19 10:10									
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: 78 %*		*Limits: 44-120 %*			*Dilution: 1x*				
2-Fluorobiphenyl (Surr)			*72 %*		*44-120 %*			*"*				
Phenol-d6 (Surr)			*25 %*		*10-120 %*			*"*				
p-Terphenyl-d14 (Surr)			*97 %*		*50-133 %*			*"*				
2-Fluorophenol (Surr)			*46 %*		*19-120 %*			*"*				
2,4,6-Tribromophenol (Surr)			*93 %*		*43-140 %*			*"*				
LCS (9110535-BS1)			Prepared: 11/06/19 13:54 Analyzed: 11/07/19 10:46									
1311/8270D												
2,4-Dinitrotoluene	0.0378	0.00400	0.00800	mg/L	4	0.0400	---	95	57-128%	---	---	
Hexachlorobenzene	0.0383	0.00400	0.00800	mg/L	4	0.0400	---	96	52-125%	---	---	
Hexachlorobutadiene	0.0281	0.0100	0.0200	mg/L	4	0.0400	---	70	22-124%	---	---	
Hexachloroethane	0.0235	0.0100	0.0200	mg/L	4	0.0400	---	59	21-120%	---	---	
2-Methylphenol	0.0258	0.0100	0.0200	mg/L	4	0.0400	---	65	30-120%	---	---	
3+4-Methylphenol(s)	0.0236	0.0100	0.0200	mg/L	4	0.0400	---	59	29-120%	---	---	
Nitrobenzene	0.0283	0.0100	0.0200	mg/L	4	0.0400	---	71	45-121%	---	---	
Pentachlorophenol (PCP)	0.0307	0.0200	0.0200	mg/L	4	0.0400	---	77	35-138%	---	---	
Pyridine	0.00943	0.00400	0.00400	mg/L	4	0.0400	---	24	5-120%	---	---	
2,4,5-Trichlorophenol	0.0375	0.0100	0.0200	mg/L	4	0.0400	---	94	53-123%	---	---	
2,4,6-Trichlorophenol	0.0381	0.0100	0.0200	mg/L	4	0.0400	---	95	50-125%	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 74 %*		*Limits: 44-120 %*			*Dilution: 4x*				
2-Fluorobiphenyl (Surr)			*86 %*		*44-120 %*			*"*				

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9110535 - EPA 1311/3510C (BNA Extraction)							**Soil**					
LCS (9110535-BS1)			Prepared: 11/06/19 13:54 Analyzed: 11/07/19 10:46									
Surr: Phenol-d6 (Surr)			*Recovery: 25 %*	*Limits: 10-120 %*			*Dilution: 4x*					
p-Terphenyl-d14 (Surr)			*105 %*	*50-133 %*			*"*					
2-Fluorophenol (Surr)			*45 %*	*19-120 %*			*"*					
2,4,6-Tribromophenol (Surr)			*91 %*	*43-140 %*			*"*					
LCS Dup (9110535-BSD1)			Prepared: 11/06/19 13:54 Analyzed: 11/07/19 11:23									**Q-19**
1311/8270D												
2,4-Dinitrotoluene	0.0417	0.00400	0.00800	mg/L	4	0.0400	---	104	57-128%	10	30%	
Hexachlorobenzene	0.0376	0.00400	0.00800	mg/L	4	0.0400	---	94	52-125%	2	30%	
Hexachlorobutadiene	0.0299	0.0100	0.0200	mg/L	4	0.0400	---	75	22-124%	6	30%	
Hexachloroethane	0.0292	0.0100	0.0200	mg/L	4	0.0400	---	73	21-120%	22	30%	
2-Methylphenol	0.0271	0.0100	0.0200	mg/L	4	0.0400	---	68	30-120%	5	30%	
3+4-Methylphenol(s)	0.0244	0.0100	0.0200	mg/L	4	0.0400	---	61	29-120%	3	30%	
Nitrobenzene	0.0301	0.0100	0.0200	mg/L	4	0.0400	---	75	45-121%	6	30%	
Pentachlorophenol (PCP)	0.0367	0.0200	0.0200	mg/L	4	0.0400	---	92	35-138%	18	30%	
Pyridine	0.0156	0.00400	0.00400	mg/L	4	0.0400	---	39	5-120%	**49**	**30%**	Q-24
2,4,5-Trichlorophenol	0.0403	0.0100	0.0200	mg/L	4	0.0400	---	101	53-123%	7	30%	
2,4,6-Trichlorophenol	0.0406	0.0100	0.0200	mg/L	4	0.0400	---	102	50-125%	6	30%	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 76 %*	*Limits: 44-120 %*			*Dilution: 4x*					
2-Fluorobiphenyl (Surr)			*92 %*	*44-120 %*			*"*					
Phenol-d6 (Surr)			*25 %*	*10-120 %*			*"*					
p-Terphenyl-d14 (Surr)			*105 %*	*50-133 %*			*"*					
2-Fluorophenol (Surr)			*46 %*	*19-120 %*			*"*					
2,4,6-Tribromophenol (Surr)			*93 %*	*43-140 %*			*"*					

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9110369 - EPA 3051A							**Sediment**					
Blank (9110369-BLK1)			Prepared: 11/01/19 10:01		Analyzed: 11/01/19 19:05							
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	---	---	---	---	---	---	
Selenium	ND	0.240	0.481	mg/kg wet	5	---	---	---	---	---	---	
Silver	ND	0.0481	0.0962	mg/kg wet	5	---	---	---	---	---	---	
Blank (9110369-BLK2)			Prepared: 11/01/19 10:01		Analyzed: 11/04/19 14:37							
EPA 6020A												
Mercury	ND	0.0192	0.0385	mg/kg wet	5	---	---	---	---	---	---	Q-16
LCS (9110369-BS1)			Prepared: 11/01/19 10:01		Analyzed: 11/01/19 19:10							
EPA 6020A												
Arsenic	26.4	0.250	0.500	mg/kg wet	5	25.0	---	106	80-120%	---	---	
Barium	28.6	0.250	0.500	mg/kg wet	5	25.0	---	114	80-120%	---	---	
Cadmium	26.0	0.0500	0.100	mg/kg wet	5	25.0	---	104	80-120%	---	---	
Chromium	27.0	0.250	0.500	mg/kg wet	5	25.0	---	108	80-120%	---	---	
Lead	24.6	0.0500	0.100	mg/kg wet	5	25.0	---	98	80-120%	---	---	
Selenium	12.5	0.250	0.500	mg/kg wet	5	12.5	---	100	80-120%	---	---	
Silver	14.0	0.0500	0.100	mg/kg wet	5	12.5	---	112	80-120%	---	---	
LCS (9110369-BS2)			Prepared: 11/01/19 10:01		Analyzed: 11/04/19 14:42							
EPA 6020A												
Mercury	0.503	0.0200	0.0400	mg/kg wet	5	0.500	---	101	80-120%	---	---	Q-16
Duplicate (9110369-DUP1)			Prepared: 11/01/19 10:01		Analyzed: 11/01/19 19:33							
QC Source Sample: Non-SDG (A9J1137-06)												
Arsenic	**5.03**	0.549	1.10	mg/kg dry	5	---	4.81	---	---	5	40%	
Barium	**192**	0.549	1.10	mg/kg dry	5	---	179	---	---	7	40%	
Cadmium	**0.662**	0.110	0.220	mg/kg dry	5	---	0.600	---	---	10	40%	
Chromium	**33.0**	0.549	1.10	mg/kg dry	5	---	30.7	---	---	7	40%	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9110369 - EPA 3051A							**Sediment**					
Duplicate (9110369-DUP1)			Prepared: 11/01/19 10:01		Analyzed: 11/01/19 19:33							
QC Source Sample: Non-SDG (A9J1137-06)												
Lead	**26.2**	0.110	0.220	mg/kg dry	5	---	22.6	---	---	15	40%	
Selenium	ND	0.549	1.10	mg/kg dry	5	---	ND	---	---	---	40%	
Silver	**0.180**	0.110	0.220	mg/kg dry	5	---	0.162	---	---	10	40%	J
Duplicate (9110369-DUP2)			Prepared: 11/01/19 10:01		Analyzed: 11/04/19 15:14							
QC Source Sample: Non-SDG (A9J1137-06RE1)												
Mercury	**0.0586**	0.0439	0.0879	mg/kg dry	5	---	0.0571	---	---	3	40%	J, Q-16
Matrix Spike (9110369-MS1)			Prepared: 11/01/19 10:01		Analyzed: 11/01/19 19:37							
QC Source Sample: Non-SDG (A9J1137-06)												
EPA 6020A												
Arsenic	65.1	0.536	1.07	mg/kg dry	5	53.6	4.81	112	75-125%	---	---	
Barium	231	0.536	1.07	mg/kg dry	5	53.6	179	98	75-125%	---	---	
Cadmium	62.1	0.107	0.215	mg/kg dry	5	53.6	0.600	115	75-125%	---	---	
Chromium	89.9	0.536	1.07	mg/kg dry	5	53.6	30.7	111	75-125%	---	---	
Lead	78.8	0.107	0.215	mg/kg dry	5	53.6	22.6	105	75-125%	---	---	
Selenium	30.0	0.536	1.07	mg/kg dry	5	26.8	ND	112	75-125%	---	---	
Silver	32.3	0.107	0.215	mg/kg dry	5	26.8	0.162	120	75-125%	---	---	
Matrix Spike (9110369-MS2)			Prepared: 11/01/19 10:01		Analyzed: 11/04/19 15:20							
QC Source Sample: Non-SDG (A9J1137-06RE1)												
EPA 6020A												
Mercury	1.10	0.0429	0.0858	mg/kg dry	5	1.07	0.0571	97	75-125%	---	---	Q-16

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

AMENDED REPORT

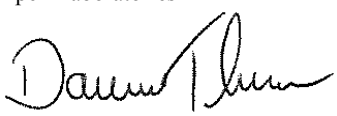
Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0954 - 11 15 19 0843**

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 9110517 - EPA 1311/3015							**Solid**					
Blank (9110517-BLK1)			Prepared: 11/06/19 10:26 Analyzed: 11/06/19 14:21									
1311/6020A												
Arsenic	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPb
Barium	ND	2.50	5.00	mg/L	10	---	---	---	---	---	---	TCLPb
Cadmium	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPb
Chromium	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPb
Lead	ND	0.0250	0.0500	mg/L	10	---	---	---	---	---	---	TCLPb
Mercury	ND	0.00350	0.00700	mg/L	10	---	---	---	---	---	---	TCLPb
Selenium	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPb
Silver	ND	0.0500	0.100	mg/L	10	---	---	---	---	---	---	TCLPb
LCS (9110517-BS1)			Prepared: 11/06/19 10:26 Analyzed: 11/06/19 14:26									
1311/6020A												
Arsenic	4.94	0.0500	0.100	mg/L	10	5.00	---	99	80-120%	---	---	TCLPb
Barium	10.5	2.50	5.00	mg/L	10	10.0	---	105	80-120%	---	---	TCLPb
Cadmium	1.00	0.0500	0.100	mg/L	10	1.00	---	100	80-120%	---	---	TCLPb
Chromium	4.87	0.0500	0.100	mg/L	10	5.00	---	97	80-120%	---	---	TCLPb
Lead	4.90	0.0250	0.0500	mg/L	10	5.00	---	98	80-120%	---	---	TCLPb
Mercury	0.0956	0.00350	0.00700	mg/L	10	0.100	---	96	80-120%	---	---	TCLPb
Selenium	0.976	0.0500	0.100	mg/L	10	1.00	---	98	80-120%	---	---	TCLPb
Silver	1.03	0.0500	0.100	mg/L	10	1.00	---	103	80-120%	---	---	TCLPb
Matrix Spike (9110517-MS1)			Prepared: 11/06/19 10:26 Analyzed: 11/06/19 14:40									
QC Source Sample: PDI-095SC-C-00-8.8-191025 (A9J0954-02)												
1311/6020A												
Arsenic	5.04	0.0500	0.100	mg/L	10	5.00	ND	101	50-150%	---	---	
Barium	11.1	2.50	5.00	mg/L	10	10.0	ND	111	50-150%	---	---	
Cadmium	1.01	0.0500	0.100	mg/L	10	1.00	ND	101	50-150%	---	---	
Chromium	4.96	0.0500	0.100	mg/L	10	5.00	ND	99	50-150%	---	---	
Lead	4.83	0.0250	0.0500	mg/L	10	5.00	ND	97	50-150%	---	---	
Mercury	0.0942	0.00350	0.00700	mg/L	10	0.100	ND	94	50-150%	---	---	
Selenium	0.988	0.0500	0.100	mg/L	10	1.00	ND	99	50-150%	---	---	
Silver	1.04	0.0500	0.100	mg/L	10	1.00	ND	104	50-150%	---	---	
Matrix Spike (9110517-MS2)			Prepared: 11/06/19 10:26 Analyzed: 11/06/19 14:49									

Apex Laboratories



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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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 9110517 - EPA 1311/3015							**Solid**					
Matrix Spike (9110517-MS2)			Prepared: 11/06/19 10:26		Analyzed: 11/06/19 14:49							
QC Source Sample: Non-SDG (A9K0048-01)												
1311/6020A												
Arsenic	5.26	0.0500	0.100	mg/L	10	5.00	ND	105	50-150%	---	---	
Barium	11.6	2.50	5.00	mg/L	10	10.0	ND	116	50-150%	---	---	
Cadmium	1.05	0.0500	0.100	mg/L	10	1.00	ND	105	50-150%	---	---	
Chromium	5.17	0.0500	0.100	mg/L	10	5.00	ND	103	50-150%	---	---	
Lead	5.05	0.0250	0.0500	mg/L	10	5.00	ND	101	50-150%	---	---	
Mercury	0.101	0.00350	0.00700	mg/L	10	0.100	ND	101	50-150%	---	---	
Selenium	1.02	0.0500	0.100	mg/L	10	1.00	ND	102	50-150%	---	---	
Silver	1.09	0.0500	0.100	mg/L	10	1.00	ND	109	50-150%	---	---	

Apex Laboratories

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

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

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

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**	**A9J0954 - 11 15 19 0843**

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 9101617 - Total Solids (SM2540G/PSEP)							**Sediment**					
Duplicate (9101617-DUP1)			Prepared: 10/25/19 17:25		Analyzed: 10/28/19 16:21							
QC Source Sample: PDI-019SC-C-00-3.2-191025 (A9J0954-01)												
SM 2540 G												
Total Solids	**76.0**	1.00	1.00	% by Weight	1	---	75.9	---	---	0.09	10%	

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

SAMPLE PREPARATION INFORMATION

Volatile Organic Compounds by EPA 8260C

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9101622							
A9J0954-03	WQ	EPA 8260C	10/25/19 09:59	10/28/19 10:12	5mL/5mL	5mL/5mL	1.00

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							
A9J0954-01	Sediment	5035A/8260C	10/25/19 11:06	10/25/19 11:06	5.85g/5mL	5g/5mL	0.86
Batch: 9101631							
A9J0954-02RE1	Sediment	5035A/8260C	10/25/19 09:51	10/25/19 09:51	4.74g/5mL	5g/5mL	1.05

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: 9110460							
A9J0954-01	Sediment	1311/8260C	10/25/19 11:06	11/05/19 10:08	5mL/5mL	5mL/5mL	1.00
A9J0954-02	Sediment	1311/8260C	10/25/19 09:51	11/05/19 10:08	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							
A9J0954-01RE1	Sediment	EPA 8081B	10/25/19 11:06	10/31/19 15:11	10.23g/10mL	10g/5mL	1.96
A9J0954-02RE1	Sediment	EPA 8081B	10/25/19 09:51	10/31/19 15:11	10.6g/10mL	10g/5mL	1.89

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: 9110534							
A9J0954-01	Sediment	1311/8081B	10/25/19 11:06	11/06/19 13:00	200g/5ml	200g/5ml	1.00
A9J0954-02	Sediment	1311/8081B	10/25/19 09:51	11/06/19 13:00	200g/5ml	200g/5ml	1.00

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

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							
A9J0954-01	Sediment	EPA 8270D	10/25/19 11:06	11/01/19 07:18	15.55g/2mL	15g/2mL	0.97
A9J0954-02RE1	Sediment	EPA 8270D	10/25/19 09:51	11/01/19 07:18	15.18g/2mL	15g/2mL	0.99

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: 9110535							
A9J0954-01RE1	Sediment	1311/8270D	10/25/19 11:06	11/06/19 13:54	200mL/2mL	200mL/2mL	1.00
A9J0954-02RE1	Sediment	1311/8270D	10/25/19 09:51	11/06/19 13:54	200mL/2mL	200mL/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: 9110369							
A9J0954-01	Sediment	EPA 6020A	10/25/19 11:06	11/01/19 10:01	0.49g/50mL	0.5g/50mL	1.02
A9J0954-01RE1	Sediment	EPA 6020A	10/25/19 11:06	11/01/19 10:01	0.49g/50mL	0.5g/50mL	1.02
A9J0954-02	Sediment	EPA 6020A	10/25/19 09:51	11/01/19 10:01	0.49g/50mL	0.5g/50mL	1.02
A9J0954-02RE1	Sediment	EPA 6020A	10/25/19 09:51	11/01/19 10:01	0.49g/50mL	0.5g/50mL	1.02

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: 9110517							
A9J0954-01	Sediment	1311/6020A	10/25/19 11:06	11/06/19 10:26	10mL/50mL	10mL/50mL	1.00
A9J0954-02	Sediment	1311/6020A	10/25/19 09:51	11/06/19 10:26	10mL/50mL	10mL/50mL	1.00

Solid and Moisture Determinations

Prep: Total Solids (SM2540G/PSEP)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9101617							
A9J0954-01	Sediment	SM 2540 G	10/25/19 11:06	10/25/19 17:25			NA
A9J0954-02	Sediment	SM 2540 G	10/25/19 09:51	10/25/19 17:25			NA

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

SAMPLE PREPARATION INFORMATION

Solid and Moisture Determinations

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: 9110477							
A9J0954-01	Sediment	EPA 1311	10/25/19 11:06	11/05/19 16:45	50.5g/1010mL	100g/2000mL	NA
A9J0954-02	Sediment	EPA 1311	10/25/19 09:51	11/05/19 16:45	100.1g/2002mL	100g/2000mL	NA

Prep: EPA 1311 TCLP/ZHE

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9110443							
A9J0954-01	Sediment	EPA 1311 ZHE	10/25/19 11:06	11/04/19 15:35	25.1g/500mL	25g/500mL	NA
A9J0954-02	Sediment	EPA 1311 ZHE	10/25/19 09:51	11/04/19 15:35	24.9g/500mL	25g/500mL	NA

Apex Laboratories

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

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

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

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**	**A9J0954 - 11 15 19 0843**

QUALIFIER DEFINITIONS

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

Apex Laboratories

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-01	Spike recovery and/or RPD is outside acceptance limits.
Q-02	Spike recovery is outside of established control limits due to matrix interference.
Q-16	Reanalysis of an original Batch QC sample.
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-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +1%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by -1%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by -3%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by -6%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by -9%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260C, however there is adequate sensitivity to ensure detection at the reporting level.
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-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 9110443.

Apex Laboratories

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

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

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

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**	**A9J0954 - 11 15 19 0843**

TCLPa Limited sample volume. Leachate was prepared using less than the recommended amount of sample per EPA 1311 or 1312. To maintain consistency in leaching, the standard ratio of sample to leachate fluid was maintained.

TCLPb This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 9110477.

Apex Laboratories

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

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

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

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**	**A9J0954 - 11 15 19 0843**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

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

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

NR Result Not Reported

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

Detection Limits: Limit of Detection (LOD)

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

Reporting Limits: Limit of Quantitation (LOQ)

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

Reporting Conventions:

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

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

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

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

QC Source:

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

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

Miscellaneous Notes:

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

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

Blanks:

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

Apex Laboratories

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

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

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

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

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

Soil and Sediment Samples:

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

Sampling and Preservation Notes:

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

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

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

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

Apex Laboratories

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

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

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

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**	**A9J0954 - 11 15 19 0843**

LABORATORY ACCREDITATION INFORMATION

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

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

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

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

Secondary Accreditations

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

Subcontract Laboratory Accreditations

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

Field Testing Parameters

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

Apex Laboratories

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

Darwin Thomas, Business Development Director

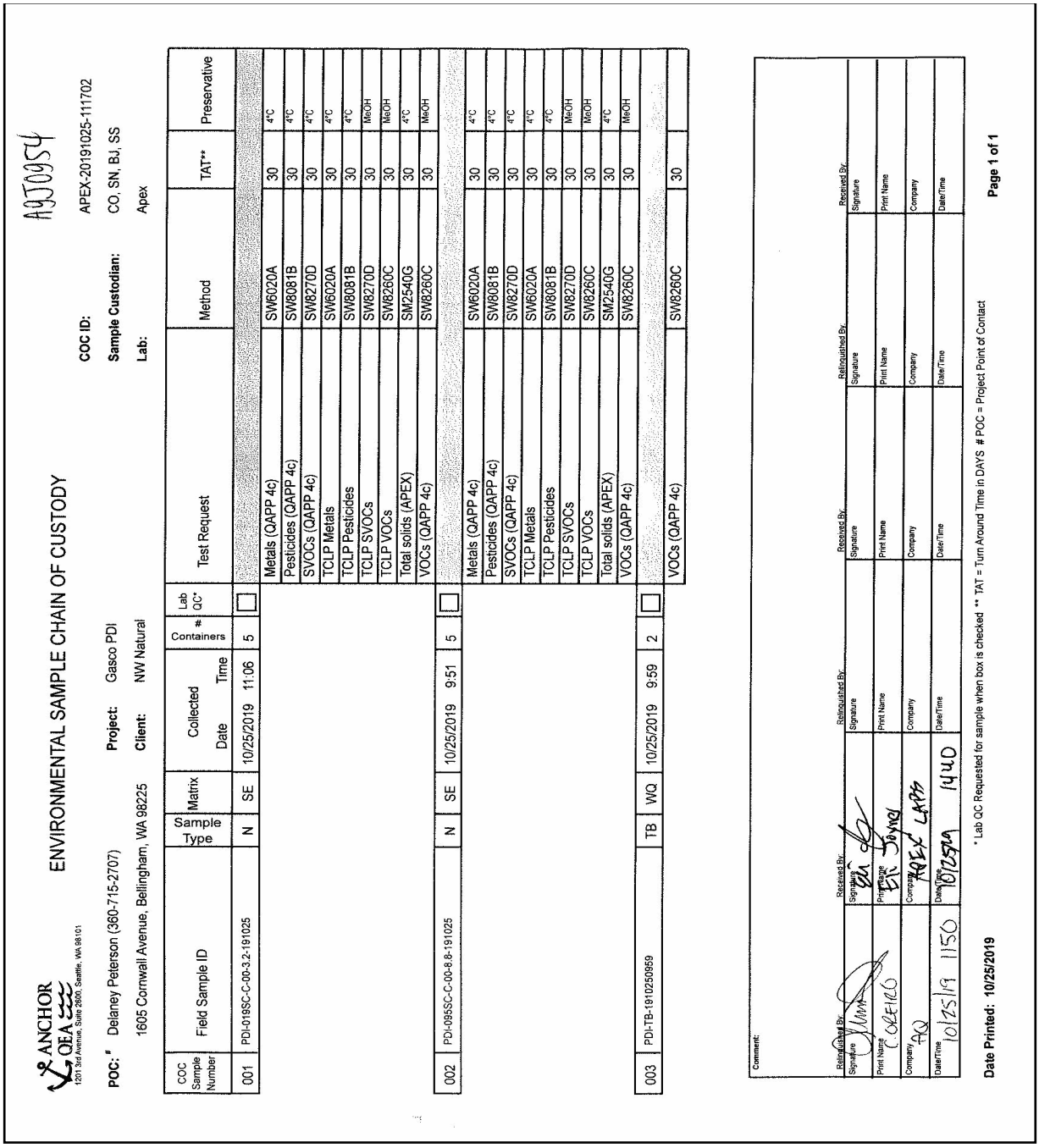
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

AMENDED REPORT

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

Project: **Gasco PreRD DG 2019 - 4c. Waste Characterization**
Project Number: **[none]**
Project Manager: **Ryan Barth**

Report ID:
A9J0954 - 11 15 19 0843



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

AJ0954

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

COC ID: APEX-20191025-111702
Sample Custodian: CO, SN, BJ, SS
Lab: Apex

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

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-019SC-C-00-3.2-191025	N	SE	10/25/2019	11:06	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-095SC-C-00-8.8-191025	N	SE	10/25/2019	9:51	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	MeOH
								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-TB-191025095	TB	WQ	10/25/2019	9:59	2	☐	VOCs (QAPP 4c)	SW8260C	30	

Comment:

Relinquished By: Signature / Print Name (CLEVELAND) / Company (AQ) / Date/Time 10/25/19 1150
Received By: Signature / Print Name Eric 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 1

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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**	**A9J0954 - 11 15 19 0843**

APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A9 J0954

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)	2.6						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition:	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 @ 1606 By: EJ

All samples intact? Yes X No ___ Comments: ___

Bottle labels/COCs agree? Yes X No ___ Comments: NO TOM ft @10/25/19 4/2 VOAs PDI-095SC-C-0088-191025

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 X NA ___

Comments ___

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

Comments: ___

Additional information: ___

Labeled by: BT Witness: AM Cooler Inspected by: EJ See Project Contact Form: Y

Apex Laboratories

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

Darwin Thomas, Business Development Director

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

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

A9J0954

Apex Laboratories

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

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

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

Date Due: 11/08/19 17:00 (10 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 14:52

Cooler #1 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
A9J0954-01 PDI-019SC-C-00-3.2-191025 [Sediment] Sampled 10/25/19 11:06 (GMT-08:00) Pacific Time (US & Canada) 10 Containers				
Dry Weight				
Dry Weight	10/30/19 17:00	3	04/22/20 11:06	Use Results from TS. Make NR once completed.
Metals				
Metals, Select 1	11/07/19 17:00	10	04/22/20 11:06	
Metals, TCLP 8	11/07/19 17:00	10	04/22/20 11:06	
TCLP Extraction - Metals	10/29/19 17:00	2	11/22/19 11:06	
TCLP Extraction - Organics	10/29/19 17:00	2	11/08/19 11:06	
Project Mgmt				
Data Package	12/23/19 17:00	10	02/01/20 11:06	
Sample Control				
Archive Samples - Frozen	01/24/20 17:00	10	10/26/19 11:06	3 months
Semivols (ECD)				
1311/8081B TCLP Pest Reg List	11/07/19 17:00	10	11/01/19 11:06	
8081B Pesticides	11/07/19 17:00	10	11/08/19 11:06	
Semivols (Scan)				
1311/8270D TCLP SVOC Reg List	11/07/19 17:00	10	11/01/19 11:06	
8270D LL Full List	11/07/19 17:00	10	11/08/19 11:06	custom
Volatiles				
1311/8260C TCLP/ZHE VOC Reg List	11/07/19 17:00	10	11/08/19 11:06	
8260C Full List	11/07/19 17:00	10	10/27/19 11:06	
TCLP/ZHE Extraction	11/05/19 17:00	2	11/08/19 11:06	
Wet Chem				
Solids, Total (SM 2540 G,B)	11/07/19 17:00	10	04/22/20 11:06	Use Result for Dry Weight.

A9J0954

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**

A9J0954-02 PDI-095SC-C-00-8.8-191025 [Sediment] Sampled 10/25/19 09:51 (GMT-08:00) Pacific Time (US & Canada) 10 Containers

Dry Weight

Dry Weight	10/30/19 17:00	3	04/22/20 09:51	Use Results from TS. Make NR once completed.

Metals

Metals, Select 1	11/07/19 17:00	10	04/22/20 09:51	
Metals, TCLP 8	11/07/19 17:00	10	04/22/20 09:51	
TCLP Extraction - Metals	10/29/19 17:00	2	11/22/19 09:51	
TCLP Extraction - Organics	10/29/19 17:00	2	11/08/19 09:51	

Sample Control

Archive Samples - Frozen	01/24/20 17:00	10	10/26/19 09:51	3 months

Semivols (ECD)

1311/8081B TCLP Pest Reg List	11/07/19 17:00	10	11/01/19 09:51	
8081B Pesticides	11/07/19 17:00	10	11/08/19 09:51	

Semivols (Scan)

1311/8270D TCLP SVOC Reg List	11/07/19 17:00	10	11/01/19 09:51	
8270D LL Full List	11/07/19 17:00	10	11/08/19 09:51	custom

Volatiles

1311/8260C TCLP/ZHE VOC Reg List	11/07/19 17:00	10	11/08/19 09:51	
8260C Full List	11/07/19 17:00	10	10/27/19 09:51	
TCLP/ZHE Extraction	11/05/19 17:00	2	11/08/19 09:51	

Wet Chem

Solids, Total (SM 2540 G,B)	11/07/19 17:00	10	04/22/20 09:51	Use Result for Dry Weight.

A9J0954-03 PDI-TB-1910250959 [Water] Sampled 10/25/19 09:59 (GMT-08:00) Pacific Time (US & Canada) 2 Containers

Volatiles

8260C Full List	11/07/19 17:00	10	11/08/19 09:59	

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

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0954

COC ID: APEX-20191025-111702

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-019SC-C-00-3.2-191025	N	SE	10/25/2019	11:06	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-095SC-C-00-8.8-191025	N	SE	10/25/2019	9:51	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-TB-1910250959	TB	WQ	10/25/2019	9:59	2	☐				
								VOCs (QAPP 4c)	SW8260C	30	

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

APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A9 J0954

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)	2.6						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition:	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 @ 1604 By: (8)

All samples intact? Yes X No ___ Comments: ___

Bottle labels/COCs agree? Yes X No ___ Comments: NO TOM @ 10/25/19 2/2 VOAs PD1-095SC-C-0088-191025

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 X NA ___

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-019SC-C-00-3.2-191025	A9J0954-01	Sediment
PDI-095SC-C-00-8.8-191025	A9J0954-02	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 3:53PM
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-019SC-C-00-3.2-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-01	File ID:	VJ19102524.D
Sampled:	10/25/19 11:06	Prepared:	10/25/19 11:06	Analyzed:	10/25/19 20:09
Solids:	75.94	Preparation:	EPA 5035A	Initial/Final:	5.85 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	50	20.6	
78-93-3	2-Butanone (MEK)	50	361	U
56-23-5	Carbon tetrachloride	50	36.1	U
108-90-7	Chlorobenzene	50	18.0	U
67-66-3	Chloroform	50	36.1	U
106-46-7	1,4-Dichlorobenzene	50	18.0	U
107-06-2	1,2-Dichloroethane (EDC)	50	18.0	U
75-35-4	1,1-Dichloroethene	50	18.0	U
156-59-2	cis-1,2-Dichloroethene	50	18.0	U
156-60-5	trans-1,2-Dichloroethene	50	18.0	U
100-41-4	Ethylbenzene	50	333	
127-18-4	Tetrachloroethene (PCE)	50	18.0	U
108-88-3	Toluene	50	36.1	U
79-01-6	Trichloroethene (TCE)	50	18.0	U
75-01-4	Vinyl chloride	50	18.0	U
179601-23-1	m,p-Xylene	50	36.1	U
95-47-6	o-Xylene	50	108	

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	49.9	100	80 - 120	
Toluene-d8 (Surr)	50.0	49.9	100	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	49.2	98	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	100908	6.089	92842	6.089	
Chlorobenzene-d5 (ISTD)	279116	9.806	245079	9.806	
1,4-Dichlorobenzene-d4 (ISTD)	117586	11.765	107292	11.765	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-095SC-C-00-8.8-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-02RE1	File ID:	VJ19102810.D
Sampled:	10/25/19 09:51	Prepared:	10/25/19 09:51	Analyzed:	10/28/19 13:56
Solids:	55.03	Preparation:	EPA 5035A	Initial/Final:	4.74 g / 5 mL
Batch:	9101631	Sequence:	9J28034	Calibration:	A9J2404
Instrument:	VOA-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	13.7	U
78-93-3	2-Butanone (MEK)	50	683	U
56-23-5	Carbon tetrachloride	50	68.3	U
108-90-7	Chlorobenzene	50	34.2	U
67-66-3	Chloroform	50	68.3	U
106-46-7	1,4-Dichlorobenzene	50	34.2	U
107-06-2	1,2-Dichloroethane (EDC)	50	34.2	U
75-35-4	1,1-Dichloroethene	50	34.2	U
156-59-2	cis-1,2-Dichloroethene	50	34.2	U
156-60-5	trans-1,2-Dichloroethene	50	34.2	U
100-41-4	Ethylbenzene	50	34.2	U
127-18-4	Tetrachloroethene (PCE)	50	34.2	U
108-88-3	Toluene	50	68.3	U
79-01-6	Trichloroethene (TCE)	50	34.2	U
75-01-4	Vinyl chloride	50	34.2	U
179601-23-1	m,p-Xylene	50	68.3	U
95-47-6	o-Xylene	50	34.2	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	50.9	102	80 - 120	
Toluene-d8 (Surr)	50.0	48.2	96	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	51.7	103	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	119072	6.095	117020	6.089	
Chlorobenzene-d5 (ISTD)	345364	9.806	307077	9.806	
1,4-Dichlorobenzene-d4 (ISTD)	149513	11.765	132271	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-019SC-C-00-3.2-191025	A9J0954-01	VJ19102524.D	10/25/19 11:06	

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.

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: 9101631 Batch Matrix: Soil
Preparation: EPA 5035A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9101631-BLK1	VJ19102805.D	10/28/19 09:30	
LCS	9101631-BS1	VJ19102803.D	10/28/19 09:30	
PDI-095SC-C-00-8.8-191025	A9J0954-02RE1	VJ19102810.D	10/25/19 09:51	

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

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	

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:	9101631-BLK1	File ID:	VJ19102805.D
Prepared:	10/28/19 09:30	Preparation:	EPA 5035A	Initial/Final:	7.5 g / 5 mL
Analyzed:	10/28/19 11:42	Instrument:	VOA-GCMS10		
Batch:	9101631	Sequence:	9J28034	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	167	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	66.7	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:	9101631-BLK1	File ID:	VJ19102805.D
Prepared:	10/28/19 09:30	Preparation:	EPA 5035A	Initial/Final:	7.5 g / 5 mL
Analyzed:	10/28/19 11:42	Instrument:	VOA-GCMS10		
Batch:	9101631	Sequence:	9J28034	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	49.9	100	80 - 120	
Toluene-d8 (Surr)	50.0	50.1	100	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	51.1	102	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:	9101631-BLK1	File ID:	VJ19102805.D
Prepared:	10/28/19 09:30	Preparation:	EPA 5035A	Initial/Final:	7.5 g / 5 mL
Analyzed:	10/28/19 11:42	Instrument:	VOA-GCMS10		
Batch:	9101631	Sequence:	9J28034	Calibration:	A9J2404

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	115556	6.089	117020	6.089	
Chlorobenzene-d5 (ISTD)	312543	9.806	307077	9.806	
1,4-Dichlorobenzene-d4 (ISTD)	125846	11.765	132271	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

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: 9101631
Laboratory ID: 9101631-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	1790	89	80 - 120
Acrylonitrile	1000	1020	102	80 - 120
Benzene	1000	914	91	80 - 120
Bromobenzene	1000	982	98	80 - 120
Bromochloromethane	1000	932	93	80 - 120
Bromodichloromethane	1000	1020	102	80 - 120
Bromoform	1000	950	95	80 - 120
Bromomethane	1000	1210	121 *	80 - 120
2-Butanone (MEK)	2000	1800	90	80 - 120
n-Butylbenzene	1000	1080	108	80 - 120
sec-Butylbenzene	1000	1040	104	80 - 120
tert-Butylbenzene	1000	1030	103	80 - 120
Carbon disulfide	1000	825	82	80 - 120
Carbon tetrachloride	1000	1000	100	80 - 120
Chlorobenzene	1000	964	96	80 - 120
Chloroethane	1000	883	88	80 - 120
Chloroform	1000	946	95	80 - 120
Chloromethane	1000	794	79 *	80 - 120
2-Chlorotoluene	1000	999	100	80 - 120
4-Chlorotoluene	1000	1020	102	80 - 120
Dibromochloromethane	1000	1020	102	80 - 120
1,2-Dibromo-3-chloropropane	1000	948	95	80 - 120
1,2-Dibromoethane (EDB)	1000	1030	103	80 - 120
Dibromomethane	1000	983	98	80 - 120
1,2-Dichlorobenzene	1000	994	99	80 - 120
1,3-Dichlorobenzene	1000	990	99	80 - 120
1,4-Dichlorobenzene	1000	942	94	80 - 120
Dichlorodifluoromethane	1000	771	77 *	80 - 120
1,1-Dichloroethane	1000	914	91	80 - 120
1,2-Dichloroethane (EDC)	1000	984	98	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:	9101631	Laboratory ID:	9101631-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	816	82	80 - 120
cis-1,2-Dichloroethene	1000	928	93	80 - 120
trans-1,2-Dichloroethene	1000	922	92	80 - 120
1,2-Dichloropropane	1000	945	95	80 - 120
1,3-Dichloropropane	1000	1000	100	80 - 120
2,2-Dichloropropane	1000	1050	105	80 - 120
1,1-Dichloropropene	1000	936	94	80 - 120
cis-1,3-Dichloropropene	1000	1080	108	80 - 120
Ethylbenzene	1000	1010	101	80 - 120
Hexachlorobutadiene	1000	1070	107	80 - 120
2-Hexanone	2000	1960	98	80 - 120
Isopropylbenzene	1000	1060	106	80 - 120
4-Isopropyltoluene	1000	1070	107	80 - 120
Methylene chloride	1000	990	99	80 - 120
4-Methyl-2-pentanone (MiBK)	2000	2000	100	80 - 120
Methyl tert-butyl ether (MTBE)	1000	940	94	80 - 120
Naphthalene	1000	1070	107	80 - 120
n-Propylbenzene	1000	1000	100	80 - 120
Styrene	1000	904	90	80 - 120
1,1,1,2-Tetrachloroethane	1000	1040	104	80 - 120
1,1,2,2-Tetrachloroethane	1000	979	98	80 - 120
Tetrachloroethene (PCE)	1000	1010	101	80 - 120
Toluene	1000	941	94	80 - 120
1,2,3-Trichlorobenzene	1000	1040	104	80 - 120
1,2,4-Trichlorobenzene	1000	1030	103	80 - 120
1,1,1-Trichloroethane	1000	974	97	80 - 120
1,1,2-Trichloroethane	1000	1020	102	80 - 120
Trichloroethene (TCE)	1000	967	97	80 - 120
Trichlorofluoromethane	1000	956	96	80 - 120
1,2,3-Trichloropropane	1000	1000	100	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:	9101631	Laboratory ID:	9101631-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	1140	114	80 - 120
1,3,5-Trimethylbenzene	1000	1110	111	80 - 120
Vinyl chloride	1000	864	86	80 - 120
m,p-Xylene	2000	2070	103	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-019SC-C-00-3.2-191025	A9J0954-01	VJ19102524.D	10/25/19 20:09

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.

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:	9J28034	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9J2404

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J28034-TUN1	VJ19102802.D	10/28/19 10:21
Calibration Check	9J28034-CCV1	VJ19102803.D	10/28/19 10:48
Blank	9101631-BLK1	VJ19102805.D	10/28/19 11:42
PDI-095SC-C-00-8.8-191025	A9J0954-02RE1	VJ19102810.D	10/28/19 13:56

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

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:	VJ19102802.D	Injection Date:	10/28/19
Instrument ID:	VOA-GCMS10	Injection Time:	10:21
Sequence:	9J28034	Lab Sample ID:	9J28034-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	148.60	PASS
m/z 96	5 - 9% of m/z 95	7.36	PASS
m/z 173	Less than 2% of m/z 174	0.57	PASS
m/z 174	50 - 200% of m/z 95	67.30	PASS
m/z 175	5 - 9% of m/z 174	7.35	PASS
m/z 176	95 - 105% of m/z 174	97.38	PASS
m/z 177	5 - 10% of m/z 176	6.63	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
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9J2404
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-019SC-C-00-3.2-191025 (A9J0954-01)			Lab File ID: VJ19102524.D		Analyzed: 10/25/19 20:09			
1,4-Difluorobenzene (Surr)	50.0	100	80 - 120	6.655	6.655	0.0000	+/-1.0	
Toluene-d8 (Surr)	50.0	100	80 - 120	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	98	80 - 120	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:	9J28034	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 (9101631-BS1)			Lab File ID: VJ19102803.D		Analyzed: 10/28/19 10:48			
1,4-Difluorobenzene (Surr)	50.0	99	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	10.877	10.883	-0.0060	+/-1.0	
Blank (9101631-BLK1)			Lab File ID: VJ19102805.D		Analyzed: 10/28/19 11:42			
1,4-Difluorobenzene (Surr)	50.0	100	80 - 120	6.655	6.655	0.0000	+/-1.0	
Toluene-d8 (Surr)	50.0	100	80 - 120	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	102	80 - 120	10.883	10.883	0.0000	+/-1.0	
PDI-095SC-C-00-8.8-191025 (A9J0954-02RE1)			Lab File ID: VJ19102810.D		Analyzed: 10/28/19 13:56			
1,4-Difluorobenzene (Surr)	50.0	102	80 - 120	6.655	6.655	0.0000	+/-1.0	
Toluene-d8 (Surr)	50.0	96	80 - 120	8.17	8.17	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	103	80 - 120	10.877	10.883	-0.0060	+/-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-019SC-C-00-3.2-191025 (A9J0954-01)			Lab File ID: VJ19102524.D			Analyzed: 10/25/19 20:09			
Pentafluorobenzene (ISTD)	100908	6.089	92842	6.089	109	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	279116	9.806	245079	9.806	114	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	117586	11.765	107292	11.765	110	50 - 200	0.0000	+/-0.50	

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:	9J28034	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 (9101631-BS1)			Lab File ID: VJ19102803.D			Analyzed: 10/28/19 10:48			
Pentafluorobenzene (ISTD)	117020	6.089	117020	6.089	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	307077	9.806	307077	9.806	100	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	132271	11.765	132271	11.765	100	50 - 200	0.0000	+/-0.50	
Calibration Check (9J28034-CCV1)			Lab File ID: VJ19102803.D			Analyzed: 10/28/19 10:48			
Pentafluorobenzene (ISTD)	117020	6.089	94087	6.089	124	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	307077	9.806	252726	9.806	122	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	132271	11.765	111564	11.765	119	50 - 200	0.0000	+/-0.50	
Blank (9101631-BLK1)			Lab File ID: VJ19102805.D			Analyzed: 10/28/19 11:42			
Pentafluorobenzene (ISTD)	115556	6.089	117020	6.089	99	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	312543	9.806	307077	9.806	102	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	125846	11.765	132271	11.765	95	50 - 200	0.0000	+/-0.50	
PDI-095SC-C-00-8.8-191025 (A9J0954-02RE1)			Lab File ID: VJ19102810.D			Analyzed: 10/28/19 13:56			
Pentafluorobenzene (ISTD)	119072	6.095	117020	6.089	102	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	345364	9.806	307077	9.806	112	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	149513	11.765	132271	11.765	113	50 - 200	0.0000	+/-0.50	
Duplicate (9101631-DUP1)			Lab File ID: VJ19102819.D			Analyzed: 10/28/19 17:58			
Pentafluorobenzene (ISTD)	103727	6.089	117020	6.089	89	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	283409	9.806	307077	9.806	92	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	117685	11.765	132271	11.765	89	50 - 200	0.0000	+/-0.50	
Matrix Spike (9101631-MS1)			Lab File ID: VJ19102825.D			Analyzed: 10/28/19 20:40			
Pentafluorobenzene (ISTD)	105938	6.089	117020	6.089	91	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	289765	9.806	307077	9.806	94	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	123220	11.765	132271	11.765	93	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-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	10/25/19 11:06	0.00	2.00	10/25/19 20:09	0.38	14.00	
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	10/25/19 09:51	0.00	2.00	10/28/19 13:56	3.17	14.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: EPA 8260C

ANALYSES DATA PACKAGE COVER PAGE

EPA 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-TB-1910250959	A9J0954-03	WQ

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 3:53PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 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
Acetone	10.0	20.0	ug/L
Acrylonitrile	1.00	2.00	ug/L
Benzene	0.100	0.200	ug/L
Bromobenzene	0.250	0.500	ug/L
Bromochloromethane	0.500	1.00	ug/L
Bromodichloromethane	0.500	1.00	ug/L
Bromoform	0.500	1.00	ug/L
Bromomethane	5.00	5.00	ug/L
2-Butanone (MEK)	5.00	10.0	ug/L
n-Butylbenzene	0.500	1.00	ug/L
sec-Butylbenzene	0.500	1.00	ug/L
tert-Butylbenzene	0.500	1.00	ug/L
Carbon tetrachloride	0.500	1.00	ug/L
Chlorobenzene	0.250	0.500	ug/L
Chloroethane	5.00	5.00	ug/L
Chloroform	0.500	1.00	ug/L
Chloromethane	2.50	5.00	ug/L
2-Chlorotoluene	0.500	1.00	ug/L
4-Chlorotoluene	0.500	1.00	ug/L
Dibromochloromethane	0.500	1.00	ug/L
1,2-Dibromo-3-chloropropane	2.50	5.00	ug/L
1,2-Dibromoethane (EDB)	0.250	0.500	ug/L
Dibromomethane	0.500	1.00	ug/L
1,2-Dichlorobenzene	0.250	0.500	ug/L
1,3-Dichlorobenzene	0.250	0.500	ug/L
1,4-Dichlorobenzene	0.250	0.500	ug/L
Dichlorodifluoromethane	0.500	1.00	ug/L
1,1-Dichloroethane	0.200	0.400	ug/L
1,2-Dichloroethane (EDC)	0.200	0.400	ug/L
1,1-Dichloroethene	0.200	0.400	ug/L
cis-1,2-Dichloroethene	0.200	0.400	ug/L
trans-1,2-Dichloroethene	0.200	0.400	ug/L
1,2-Dichloropropane	0.250	0.500	ug/L
1,3-Dichloropropane	0.500	1.00	ug/L
2,2-Dichloropropane	0.500	1.00	ug/L
1,1-Dichloropropene	0.500	1.00	ug/L
Ethylbenzene	0.250	0.500	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 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
Hexachlorobutadiene	2.50	5.00	ug/L
2-Hexanone	5.00	10.0	ug/L
Methylene chloride	1.50	3.00	ug/L
4-Methyl-2-pentanone (MiBK)	5.00	10.0	ug/L
Methyl tert-butyl ether (MTBE)	0.500	1.00	ug/L
Naphthalene	1.00	2.00	ug/L
n-Propylbenzene	0.250	0.500	ug/L
Styrene	0.500	1.00	ug/L
1,1,1,2-Tetrachloroethane	0.200	0.400	ug/L
1,1,2,2-Tetrachloroethane	0.250	0.500	ug/L
Tetrachloroethene (PCE)	0.200	0.400	ug/L
Toluene	0.500	1.00	ug/L
1,2,3-Trichlorobenzene	1.00	2.00	ug/L
1,2,4-Trichlorobenzene	1.00	2.00	ug/L
1,1,1-Trichloroethane	0.200	0.400	ug/L
1,1,2-Trichloroethane	0.250	0.500	ug/L
Trichloroethene (TCE)	0.200	0.400	ug/L
Trichlorofluoromethane	1.00	2.00	ug/L
1,2,3-Trichloropropane	0.500	1.00	ug/L
1,2,4-Trimethylbenzene	0.500	1.00	ug/L
1,3,5-Trimethylbenzene	0.500	1.00	ug/L
Vinyl chloride	0.200	0.400	ug/L
m,p-Xylene	0.500	1.00	ug/L
o-Xylene	0.250	0.500	ug/L

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

ORGANIC ANALYSIS DATA SHEET

EPA 8260C

PDI-TB-1910250959

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	WQ	Laboratory ID:	A9J0954-03	File ID:	VI19102807.D
Sampled:	10/25/19 09:59	Prepared:	10/28/19 10:12	Analyzed:	10/28/19 10:44
		Preparation:	EPA 5030B	Initial/Final:	5 mL / 5 mL

Batch: 9101622 Sequence: 9J28025 Calibration: A9J2503 Instrument: VOA-GCMS9

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
71-43-2	Benzene	1	0.100	U
78-93-3	2-Butanone (MEK)	1	5.00	U
56-23-5	Carbon tetrachloride	1	1.00	U
108-90-7	Chlorobenzene	1	0.250	U
67-66-3	Chloroform	1	0.500	U
106-46-7	1,4-Dichlorobenzene	1	0.250	U
107-06-2	1,2-Dichloroethane (EDC)	1	0.200	U
75-35-4	1,1-Dichloroethene	1	0.200	U
156-59-2	cis-1,2-Dichloroethene	1	0.200	U
156-60-5	trans-1,2-Dichloroethene	1	0.200	U
100-41-4	Ethylbenzene	1	0.250	U
127-18-4	Tetrachloroethene (PCE)	1	0.200	U
79-01-6	Trichloroethene (TCE)	1	0.200	U
108-88-3	Toluene	1	0.500	U
75-01-4	Vinyl chloride	1	0.200	U
179601-23-1	m,p-Xylene	1	0.500	U
95-47-6	o-Xylene	1	0.250	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	50.7	101	80 - 120	
Toluene-d8 (Surr)	50.0	50.5	101	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	51.5	103	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	102702	6.217	110053	6.217	
Chlorobenzene-d5 (ISTD)	275494	9.916	304194	9.916	
1,4-Dichlorobenzene-d4 (ISTD)	123363	11.856	150051	11.85	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

EPA 8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Batch: 9101622 Batch Matrix: Water Preparation: EPA 5030B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9101622-BLK1	VI19102806.D	10/28/19 08:00	
LCS	9101622-BS1	VI19102804.D	10/28/19 08:00	
PDI-TB-1910250959	A9J0954-03	VI19102807.D	10/28/19 10:12	

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

METHOD BLANK DATA SHEET
EPA 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:	9101622-BLK1	File ID:	VI19102806.D
Prepared:	10/28/19 08:00	Preparation:	EPA 5030B	Initial/Final:	5 mL / 5 mL
Analyzed:	10/28/19 10:17	Instrument:	VOA-GCMS9		
Batch:	9101622	Sequence:	9J28025	Calibration:	A9J2503

CAS NO.	COMPOUND	CONC. (ug/L)	Q
67-64-1	Acetone	10.0	U
107-13-1	Acrylonitrile	1.00	U
71-43-2	Benzene	0.100	U
108-86-1	Bromobenzene	0.250	U
74-97-5	Bromochloromethane	0.500	U
75-27-4	Bromodichloromethane	0.500	U
75-25-2	Bromoform	0.500	U
74-83-9	Bromomethane	5.00	U
78-93-3	2-Butanone (MEK)	5.00	U
104-51-8	n-Butylbenzene	0.500	U
135-98-8	sec-Butylbenzene	0.500	U
98-06-6	tert-Butylbenzene	0.500	U
75-15-0	Carbon disulfide	5.00	U
56-23-5	Carbon tetrachloride	1.00	U
108-90-7	Chlorobenzene	0.250	U
75-00-3	Chloroethane	5.00	U
67-66-3	Chloroform	0.500	U
74-87-3	Chloromethane	2.50	U
95-49-8	2-Chlorotoluene	0.500	U
106-43-4	4-Chlorotoluene	0.500	U
124-48-1	Dibromochloromethane	0.500	U
96-12-8	1,2-Dibromo-3-chloropropane	5.00	U
106-93-4	1,2-Dibromoethane (EDB)	0.250	U
74-95-3	Dibromomethane	0.500	U
95-50-1	1,2-Dichlorobenzene	0.250	U
541-73-1	1,3-Dichlorobenzene	0.250	U
106-46-7	1,4-Dichlorobenzene	0.250	U
75-71-8	Dichlorodifluoromethane	0.500	U
75-34-3	1,1-Dichloroethane	0.200	U
107-06-2	1,2-Dichloroethane (EDC)	0.200	U
75-35-4	1,1-Dichloroethene	0.200	U
156-59-2	cis-1,2-Dichloroethene	0.200	U
156-60-5	trans-1,2-Dichloroethene	0.200	U
78-87-5	1,2-Dichloropropane	0.250	U
142-28-9	1,3-Dichloropropane	0.500	U

METHOD BLANK DATA SHEET

EPA 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:	9101622-BLK1	File ID:	VI19102806.D
Prepared:	10/28/19 08:00	Preparation:	EPA 5030B	Initial/Final:	5 mL / 5 mL
Analyzed:	10/28/19 10:17	Instrument:	VOA-GCMS9		
Batch:	9101622	Sequence:	9J28025	Calibration:	A9J2503

CAS NO.	COMPOUND	CONC. (ug/L)	Q
594-20-7	2,2-Dichloropropane	0.500	U
563-58-6	1,1-Dichloropropene	0.500	U
10061-01-5	cis-1,3-Dichloropropene	0.500	U
100-41-4	Ethylbenzene	0.250	U
87-68-3	Hexachlorobutadiene	2.50	U
591-78-6	2-Hexanone	5.00	U
98-82-8	Isopropylbenzene	0.500	U
99-87-6	4-Isopropyltoluene	0.500	U
75-09-2	Methylene chloride	2.50	U
108-10-1	4-Methyl-2-pentanone (MiBK)	5.00	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.500	U
91-20-3	Naphthalene	1.00	U
103-65-1	n-Propylbenzene	0.250	U
100-42-5	Styrene	0.500	U
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U
79-34-5	1,1,2,2-Tetrachloroethane	0.250	U
127-18-4	Tetrachloroethene (PCE)	0.200	U
87-61-6	1,2,3-Trichlorobenzene	1.00	U
120-82-1	1,2,4-Trichlorobenzene	1.00	U
71-55-6	1,1,1-Trichloroethane	0.200	U
79-00-5	1,1,2-Trichloroethane	0.250	U
79-01-6	Trichloroethene (TCE)	0.200	U
75-69-4	Trichlorofluoromethane	1.00	U
96-18-4	1,2,3-Trichloropropane	0.500	U
95-63-6	1,2,4-Trimethylbenzene	0.500	U
108-67-8	1,3,5-Trimethylbenzene	0.500	U
108-88-3	Toluene	0.500	U
75-01-4	Vinyl chloride	0.200	U
179601-23-1	m,p-Xylene	0.500	U
95-47-6	o-Xylene	0.250	U

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

METHOD BLANK DATA SHEET

EPA 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:	9101622-BLK1	File ID:	VI19102806.D
Prepared:	10/28/19 08:00	Preparation:	EPA 5030B	Initial/Final:	5 mL / 5 mL
Analyzed:	10/28/19 10:17	Instrument:	VOA-GCMS9		
Batch:	9101622	Sequence:	9J28025	Calibration:	A9J2503

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	105942	6.217	110053	6.217	
Chlorobenzene-d5 (ISTD)	281327	9.916	304194	9.916	
1,4-Dichlorobenzene-d4 (ISTD)	128106	11.85	150051	11.85	

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Water
Batch: 9101622
Laboratory ID: 9101622-BS1
Preparation: EPA 5030B
Initial/Final: 5 mL / 5 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. (*=Out)	QC LIMITS REC.
Acetone	40.0	36.4	91	80 - 120
Acrylonitrile	20.0	21.1	106	80 - 120
Benzene	20.0	19.6	98	80 - 120
Bromobenzene	20.0	19.9	100	80 - 120
Bromochloromethane	20.0	22.1	111	80 - 120
Bromodichloromethane	20.0	18.4	92	80 - 120
Bromoform	20.0	16.4	82	80 - 120
Bromomethane	20.0	22.5	113	80 - 120
2-Butanone (MEK)	40.0	39.2	98	80 - 120
n-Butylbenzene	20.0	21.1	105	80 - 120
sec-Butylbenzene	20.0	19.5	98	80 - 120
tert-Butylbenzene	20.0	18.7	94	80 - 120
Carbon disulfide	20.0	19.2	96	80 - 120
Carbon tetrachloride	20.0	14.1	71 *	80 - 120
Chlorobenzene	20.0	19.9	100	80 - 120
Chloroethane	20.0	17.1	86	80 - 120
Chloroform	20.0	20.0	100	80 - 120
Chloromethane	20.0	17.2	86	80 - 120
2-Chlorotoluene	20.0	19.2	96	80 - 120
4-Chlorotoluene	20.0	19.4	97	80 - 120
Dibromochloromethane	20.0	18.8	94	80 - 120
1,2-Dibromo-3-chloropropane	20.0	14.8	74 *	80 - 120
1,2-Dibromoethane (EDB)	20.0	19.3	96	80 - 120
Dibromomethane	20.0	20.9	105	80 - 120
1,2-Dichlorobenzene	20.0	19.6	98	80 - 120
1,3-Dichlorobenzene	20.0	19.9	99	80 - 120
1,4-Dichlorobenzene	20.0	19.9	99	80 - 120
Dichlorodifluoromethane	20.0	21.1	105	80 - 120
1,1-Dichloroethane	20.0	19.1	95	80 - 120
1,2-Dichloroethane (EDC)	20.0	19.4	97	80 - 120

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Water		
Batch:	9101622	Laboratory ID:	9101622-BS1
Preparation:	EPA 5030B	Initial/Final:	5 mL / 5 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. (*=Out)	QC LIMITS REC.
1,1-Dichloroethene	20.0	19.2	96	80 - 120
cis-1,2-Dichloroethene	20.0	19.6	98	80 - 120
trans-1,2-Dichloroethene	20.0	20.2	101	80 - 120
1,2-Dichloropropane	20.0	19.3	97	80 - 120
1,3-Dichloropropane	20.0	20.0	100	80 - 120
2,2-Dichloropropane	20.0	16.3	81	80 - 120
1,1-Dichloropropene	20.0	19.2	96	80 - 120
cis-1,3-Dichloropropene	20.0	17.9	89	80 - 120
Ethylbenzene	20.0	19.3	96	80 - 120
Hexachlorobutadiene	20.0	19.8	99	80 - 120
2-Hexanone	40.0	39.8	99	80 - 120
Isopropylbenzene	20.0	19.8	99	80 - 120
4-Isopropyltoluene	20.0	20.4	102	80 - 120
Methylene chloride	20.0	19.8	99	80 - 120
4-Methyl-2-pentanone (MiBK)	40.0	40.4	101	80 - 120
Methyl tert-butyl ether (MTBE)	20.0	18.6	93	80 - 120
Naphthalene	20.0	19.8	99	80 - 120
n-Propylbenzene	20.0	19.4	97	80 - 120
Styrene	20.0	19.9	100	80 - 120
1,1,1,2-Tetrachloroethane	20.0	16.4	82	80 - 120
1,1,2,2-Tetrachloroethane	20.0	19.3	97	80 - 120
Tetrachloroethene (PCE)	20.0	20.2	101	80 - 120
1,2,3-Trichlorobenzene	20.0	20.4	102	80 - 120
1,2,4-Trichlorobenzene	20.0	20.7	104	80 - 120
1,1,1-Trichloroethane	20.0	17.3	86	80 - 120
1,1,2-Trichloroethane	20.0	20.6	103	80 - 120
Trichloroethene (TCE)	20.0	20.4	102	80 - 120
Trichlorofluoromethane	20.0	19.7	98	80 - 120
1,2,3-Trichloropropane	20.0	19.9	100	80 - 120
1,2,4-Trimethylbenzene	20.0	20.0	100	80 - 120

LCS / LCS DUPLICATE RECOVERY

EPA 8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Water		
Batch:	9101622	Laboratory ID:	9101622-BS1
Preparation:	EPA 5030B	Initial/Final:	5 mL / 5 mL

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. (*=Out)	QC LIMITS REC.
1,3,5-Trimethylbenzene	20.0	19.9	99	80 - 120
Toluene	20.0	19.0	95	80 - 120
Vinyl chloride	20.0	19.9	100	80 - 120
m,p-Xylene	40.0	39.0	98	80 - 120
o-Xylene	20.0	19.7	98	80 - 120

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8260C

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

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J24043-TUN1	VI19102415.D	10/24/19 15:01
Initial Cal Blank	9J24043-ICB1	VI19102416.D	10/24/19 15:28
Cal Standard	9J24043-CAL1	VI19102417.D	10/24/19 15:55
Cal Standard	9J24043-CAL2	VI19102418.D	10/24/19 16:21
Cal Standard	9J24043-CAL3	VI19102419.D	10/24/19 16:48
Cal Standard	9J24043-CAL4	VI19102420.D	10/24/19 17:15
Cal Standard	9J24043-CAL5	VI19102421.D	10/24/19 17:42
Cal Standard	9J24043-CAL6	VI19102422.D	10/24/19 18:09
Cal Standard	9J24043-CAL7	VI19102423.D	10/24/19 18:36
Cal Standard	9J24043-CAL8	VI19102424.D	10/24/19 19:03
Cal Standard	9J24043-CAL9	VI19102425.D	10/24/19 19:30
Cal Standard	9J24043-CALA	VI19102427.D	10/24/19 20:24
Cal Standard	9J24043-CALB	VI19102429.D	10/24/19 21:17
Initial Cal Check	9J24043-ICV1	VI19102432.D	10/24/19 22:38
Initial Cal Check	9J24043-ICV2	VI19102433.D	10/24/19 23:05

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 8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J28025	Instrument:	VOA-GCMS9
Matrix:	Water	Calibration:	A9J2503

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J28025-TUN1	VI19102803.D	10/28/19 08:57
Calibration Check	9J28025-CCV1	VI19102804.D	10/28/19 09:24
Blank	9101622-BLK1	VI19102806.D	10/28/19 10:17
PDI-TB-1910250959	A9J0954-03	VI19102807.D	10/28/19 10:44

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 8260C

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

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

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	VI19102803.D	Injection Date:	10/28/19
Instrument ID:	VOA-GCMS9	Injection Time:	08:57
Sequence:	9J28025	Lab Sample ID:	9J28025-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	119.03	PASS
m/z 96	5 - 9% of m/z 95	6.80	PASS
m/z 173	Less than 2% of m/z 174	0.31	PASS
m/z 174	50 - 200% of m/z 95	84.01	PASS
m/z 175	5 - 9% of m/z 174	7.27	PASS
m/z 176	95 - 105% of m/z 174	98.06	PASS
m/z 177	5 - 10% of m/z 176	6.52	PASS

INITIAL CALIBRATION DATA (Summary)

EPA 8260C

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

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

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

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Acetone	0.4381557	Ave	8.726481	3.941	0.1038258			20	
Acrylonitrile	0.4849865	Ave	11.08293	4.750125	0.1281226			20	
Benzene	3.820688	Ave	4.855279	6.122454	7.160173E-02			20	
Bromobenzene	0.7749402	Ave	14.31895	10.05382	33.16625			20	
Bromochloromethane	0.6103182	Ave	13.73188	5.448	7.661655E-02			20	
Bromodichloromethane	1.098802	Ave	11.01114	7.379667	2.037338E-02			20	
Bromoform	0.182038	XXX	24.41413	10.536	1.629623E-03				
Bromomethane	0.6401472	Ave	11.51384	2.36225	0.232942			20	
2-Butanone (MEK)	0.6946318	Ave	5.120943	5.8565	0.1061664			20	
n-Butylbenzene	1.881239	Ave	14.34203	10.95	33.16625			20	
sec-Butylbenzene	2.797882	Ave	6.314986	11.619	1.773395E-02			20	
tert-Butylbenzene	1.267951	Ave	6.052616	11.4814	2.127617E-02			20	
Carbon disulfide	2.187166	Ave	5.635077	3.2495	0.1633375			20	
Carbon tetrachloride	0.958096	Ave	12.51546	5.66	5.110175E-02			20	
Chlorobenzene	0.9385266	Ave	6.796258	9.928546	1.897513E-02			20	
Chloroethane	0.4990649	Ave	11.22963	2.5024	0.5517427			20	
Chloroform	1.575216	Ave	8.981395	5.5286	0.067176			20	
Chloromethane	1.083839	Ave	14.44663	1.8957	0.2651835			20	
2-Chlorotoluene	0.7160324	Ave	4.343511	11.20522	7.542282E-03			20	
4-Chlorotoluene	2.045294	Ave	4.371039	11.3384	2.743013E-02			20	
Dibromochloromethane	0.2635059	Ave	14.58007	9.187714	2.999687E-02			20	
1,2-Dibromo-3-chloropropane	0.213378	Ave	16.5588	12.799	1.549583E-02			20	
1,2-Dibromoethane (EDB)	0.3548813	Ave	11.70069	9.423667	2.718156E-02			20	
Dibromomethane	0.613177	Ave	13.36088	7.197333	0.035724			20	
1,2-Dichlorobenzene	1.311055	Ave	6.282742	12.1838	9.168253E-03			20	
1,3-Dichlorobenzene	1.350049	Ave	5.926199	11.7975	1.944351E-02			20	
1,4-Dichlorobenzene	1.407811	Ave	7.702776	10.78391	33.16626			20	
Dichlorodifluoromethane	0.8173215	Ave	13.91607	1.68	0.3532017			20	
1,1-Dichloroethane	1.611254	Ave	4.087724	4.684	6.282645E-02			20	
1,2-Dichloroethane (EDC)	1.251571	Ave	4.756875	6.338556	5.089469E-02			20	
1,1-Dichloroethene	1.185277	Ave	4.829149	3.232	0.1325109			20	
cis-1,2-Dichloroethene	1.243807	Ave	4.983881	5.243	6.806309E-02			20	
trans-1,2-Dichloroethene	1.160081	Ave	12.53727	4.0402	0.1157964			20	

INITIAL CALIBRATION DATA (Summary)

EPA 8260C

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

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

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

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,2-Dichloropropane	0.9529922	Ave	6.181257	7.309333	4.176568E-02			20	
1,3-Dichloropropane	0.5622635	Ave	6.984495	9.289	1.625701E-02			20	
2,2-Dichloropropane	1.051426	Ave	5.306826	5.351	5.789193E-02			20	
1,1-Dichloropropene	1.276879	Ave	5.297634	5.864	7.149465E-02			20	
cis-1,3-Dichloropropene	0.4943363	Ave	9.88405	8.090778	1.687355E-02			20	
Ethylbenzene	1.541948	Ave	3.605451	9.952	2.233646E-03			20	
Hexachlorobutadiene	0.183193	Ave	7.660033	13.30475	1.768887E-02			20	
2-Hexanone	0.3270741	Ave	8.407905	9.655333	4.249128E-02			20	
Isopropylbenzene	1.373353	Ave	9.366214	10.7316	1.248468E-02			20	
4-Isopropyltoluene	2.213644	Ave	12.8808	11.72809	1.621363E-02			20	
Methylene chloride	2.303504	XXX	106.1101	2.111364	95.74276				
4-Methyl-2-pentanone (MiBK)	0.4463673	Ave	9.088647	8.7997	0.0581443			20	
Methyl tert-butyl ether (MTBE)	2.696465	Ave	4.583572	4.167666	4.929023E-02			20	
Naphthalene	2.402403	Ave	14.83266	13.62756	2.239306E-02			20	
n-Propylbenzene	3.322886	Ave	4.437601	11.07445	2.757102E-02			20	
Styrene	0.9048037	Ave	11.92922	10.514	2.753921E-02			20	
1,1,1,2-Tetrachloroethane	0.2737028	Ave	14.89731	9.988889	9.127631E-03			20	
1,1,2,2-Tetrachloroethane	0.6542208	Ave	7.065101	11.1386	1.610871E-02			20	
Tetrachloroethene (PCE)	0.3422483	Ave	13.47971	8.7972	4.042701E-02			20	
1,2,3-Trichlorobenzene	0.7173915	Ave	14.15743	13.785	1.406697E-02			20	
1,2,4-Trichlorobenzene	0.7556	Ave	12.49162	13.34567	1.673266E-02			20	
1,1,1-Trichloroethane	1.329679	Ave	7.371644	5.732667	5.450977E-02			20	
1,1,2-Trichloroethane	0.3259471	Ave	10.621	9.0054	3.795045E-02			20	
Trichloroethene (TCE)	0.9844716	Ave	10.55293	6.743	6.329732E-02			20	
Trichlorofluoromethane	1.229565	Ave	5.615088	2.664667	0.2626576			20	
1,2,3-Trichloropropane	0.3181506	Ave	9.473753	11.248	0.0139849			20	
1,2,4-Trimethylbenzene	2.284364	Ave	8.297743	11.53618	0.0334269			20	
1,3,5-Trimethylbenzene	2.270723	Ave	6.723342	11.23	1.456535E-02			20	
Toluene	1.470311	Ave	3.413471	8.356909	3.263244E-02			20	
Vinyl chloride	1.085853	Ave	7.669225	1.9992	0.2472262			20	
m,p-Xylene	1.135467	Ave	6.122052	10.086	1.858078E-02			20	
o-Xylene	1.125697	Ave	7.834778	10.46518	2.767706E-02			20	
1,4-Difluorobenzene (Surr)	3.158849	Ave	0.8371465	6.780727	4.460955E-02			20	

INITIAL CALIBRATION DATA (Summary)

EPA 8260C

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

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Toluene-d8 (Surr)	1.312366	Ave	1.829616	8.297273	1.899629E-02			20	
4-Bromofluorobenzene (Surr)	0.8078842	Ave	3.581646	10.974	1.572481E-02			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 8260C

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Calibration: A9J2503

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Instrument: VOA-GCMS9
Calibration Date: 10/25/19 11:16

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Acetone	0.2	~~0~~	0.4	~~1.27191~~	0.8	~~0.9019065~~	2	~~0.6333859~~	4	0.5103123	10	0.4663994
Acrylonitrile	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	0.3774463	2	0.439796	5	0.4887848
Benzene	0.1	3.949114	0.2	3.449838	0.4	3.773943	1	3.582293	2	4.047071	5	3.909918
Bromobenzene	0.1	0.4438685	0.2	0.7998756	0.4	0.813191	1	0.7709458	2	0.829978	5	0.8194271
Bromochloromethane	0.1	~~0~~	0.2	~~0~~	0.4	0.4364424	1	0.5118792	2	0.6045221	5	0.6460679
Bromodichloromethane	0.1	~~0~~	0.2	~~0~~	0.4	0.8929768	1	0.9733461	2	1.056278	5	1.082875
Bromoform	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	0.127897	2	0.1486966	5	0.1561683
Bromomethane	0.1	~~0~~	0.2	~~0~~	0.4	~~0.9365094~~	1	0.7596322	2	0.7085477	5	0.7010179
2-Butanone (MEK)	0.2	~~0~~	0.4	~~0~~	0.8	~~0~~	2	0.6247684	4	0.7043731	10	0.704351
n-Butylbenzene	0.1	1.356663	0.2	1.490509	0.4	1.735117	1	1.735322	2	1.903182	5	2.011097
sec-Butylbenzene	0.1	~~0~~	0.2	2.408885	0.4	2.77879	1	2.587183	2	2.821997	5	2.836939
tert-Butylbenzene	0.1	~~0~~	0.2	1.114641	0.4	1.159843	1	1.233166	2	1.32449	5	1.325973
Carbon disulfide	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	1.97039	2	2.201688	5	2.167372
Carbon tetrachloride	0.1	~~0~~	0.2	~~0~~	0.4	~~0.6898245~~	1	0.7716967	2	0.9028342	5	0.8969462
Chlorobenzene	0.1	0.7802924	0.2	0.8622852	0.4	0.9452326	1	0.9282586	2	0.9824385	5	0.9841268
Chloroethane	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	~~0~~	2	0.5731564	5	0.5313936
Chloroform	0.1	~~0~~	0.2	1.278444	0.4	1.442157	1	1.439553	2	1.642071	5	1.638231
Chloromethane	0.1	~~2.062841~~	0.2	1.457034	0.4	1.268027	1	1.037116	2	1.070268	5	1.024232
2-Chlorotoluene	0.1	~~0~~	0.2	~~0~~	0.4	0.6682106	1	0.6632912	2	0.747231	5	0.7155799
4-Chlorotoluene	0.1	~~0~~	0.2	1.888595	0.4	2.024148	1	1.896457	2	2.098766	5	2.131864
Dibromochloromethane	0.1	~~0~~	0.2	~~0~~	0.4	0.2144395	1	0.2170227	2	0.2550763	5	0.2669179
1,2-Dibromo-3-chloropropane	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	0.155231	2	0.1801808	5	0.1923253
1,2-Dibromoethane (EDB)	0.1	~~0~~	0.2	~~0.2302178~~	0.4	0.2611491	1	0.3101703	2	0.3777447	5	0.3752701
Dibromomethane	0.1	~~0~~	0.2	~~0~~	0.4	0.4219315	1	0.5536741	2	0.6216716	5	0.6326457
1,2-Dichlorobenzene	0.1	~~0~~	0.2	1.155376	0.4	1.1933	1	1.267546	2	1.4067	5	1.371939
1,3-Dichlorobenzene	0.1	~~0~~	0.2	1.164634	0.4	1.312258	1	1.267546	2	1.382342	5	1.389706
1,4-Dichlorobenzene	0.1	1.113251	0.2	1.342384	0.4	1.453521	1	1.450559	2	1.531358	5	1.43969
Dichlorodifluoromethane	0.1	~~0~~	0.2	~~0~~	0.4	0.6273162	1	0.6820747	2	0.8419081	5	0.8116386
1,1-Dichloroethane	0.1	~~0~~	0.2	~~0~~	0.4	1.47676	1	1.582172	2	1.630788	5	1.649131
1,2-Dichloroethane (EDC)	0.1	~~0~~	0.2	~~0~~	0.4	1.197705	1	1.130185	2	1.292084	5	1.293487
1,1-Dichloroethene	0.1	~~0~~	0.2	~~0~~	0.4	1.158637	1	1.066846	2	1.187607	5	1.199982

INITIAL CALIBRATION DATA

EPA 8260C

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9J2503

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: VOA-GCMS9

Calibration Date: 10/25/19 11:16

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
cis-1,2-Dichloroethene	0.1	~~0~~	0.2	~~0~~	0.4	1.125151	1	1.18232	2	1.256431	5	1.257454
trans-1,2-Dichloroethene	0.1	~~0~~	0.2	0.7840541	0.4	1.074921	1	1.144834	2	1.241764	5	1.232772
1,2-Dichloropropane	0.1	~~0~~	0.2	~~0~~	0.4	0.8896281	1	0.8376206	2	0.9867768	5	0.9816233
1,3-Dichloropropane	0.1	~~0~~	0.2	0.4686871	0.4	0.5320649	1	0.5407066	2	0.5784137	5	0.5844158
2,2-Dichloropropane	0.1	~~0~~	0.2	~~0~~	0.4	0.9521365	1	0.9979059	2	1.077715	5	1.062337
1,1-Dichloropropene	0.1	~~0~~	0.2	~~0~~	0.4	1.170916	1	1.184475	2	1.291633	5	1.299252
cis-1,3-Dichloropropene	0.1	~~0~~	0.2	~~0~~	0.4	0.4305776	1	0.4290582	2	0.4683396	5	0.4737993
trans-1,3-Dichloropropene	0.1	~~0~~	0.2	~~0~~	0.4	~~0.259026~~	1	0.3413804	2	0.3778287	5	0.4039065
Ethylbenzene	0.1	1.531324	0.2	1.514156	0.4	1.521884	1	1.409441	2	1.608459	5	1.560351
Hexachlorobutadiene	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	0.1538419	2	0.1724793	5	0.1914088
n-Hexane	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	0.1538223	2	0.1599874	5	0.1653905
2-Hexanone	0.2	~~0~~	0.4	~~0~~	0.8	0.2857779	2	0.2836256	4	0.3194751	10	0.3283863
Isopropylbenzene	0.1	~~0~~	0.2	1.111482	0.4	1.302349	1	1.232637	2	1.370678	5	1.391896
4-Isopropyltoluene	0.1	1.72178	0.2	1.701587	0.4	2.078051	1	2.113503	2	2.242947	5	2.338924
Methylene chloride	0.1	8.716474	0.2	4.79362	0.4	2.953521	1	1.697216	2	1.387986	5	1.130439
4-Methyl-2-pentanone (MiBK)	0.2	~~0~~	0.4	0.3671932	0.8	0.4059489	2	0.4055702	4	0.463008	10	0.4692208
Methyl tert-butyl ether (MTBE)	0.1	~~0~~	0.2	~~0~~	0.4	2.577354	1	2.494334	2	2.698123	5	2.694172
Naphthalene	0.1	~~0~~	0.2	~~1.710845~~	0.4	1.867086	1	1.856174	2	2.278947	5	2.318902
n-Propylbenzene	0.1	3.124978	0.2	3.053229	0.4	3.293656	1	3.18102	2	3.455317	5	3.384023
Styrene	0.1	~~0~~	0.2	~~0.6221656~~	0.4	0.7031919	1	0.7847566	2	0.8700975	5	0.8903592
1,1,1,2-Tetrachloroethane	0.1	~~0~~	0.2	~~0.1064448~~	0.4	0.1995774	1	0.237454	2	0.2506264	5	0.2657525
1,1,2,2-Tetrachloroethane	0.1	~~0~~	0.2	0.564727	0.4	0.6236013	1	0.6514839	2	0.7178576	5	0.6939363
Tetrachloroethene (PCE)	0.1	~~0~~	0.2	0.2203159	0.4	0.334186	1	0.3207882	2	0.363807	5	0.361185
Tetrahydrofuran	0.1	~~0~~	0.2	~~0~~	0.4	~~0~~	1	0.4071766	2	0.4614586	5	0.460499
1,2,3-Trichlorobenzene	0.1	~~0~~	0.2	0.4832581	0.4	0.6384711	1	0.6525257	2	0.7294995	5	0.733346
1,2,4-Trichlorobenzene	0.1	~~0~~	0.2	~~0.4517815~~	0.4	0.571557	1	0.6365512	2	0.7241263	5	0.7835424
1,1,1-Trichloroethane	0.1	~~0~~	0.2	~~0~~	0.4	1.129616	1	1.250829	2	1.339697	5	1.347356
1,1,2-Trichloroethane	0.1	~~0~~	0.2	0.2376442	0.4	0.3044617	1	0.3127443	2	0.3470986	5	0.3441696
Trichloroethene (TCE)	0.1	~~0~~	0.2	0.8101892	0.4	0.8014466	1	0.9332747	2	1.032584	5	1.02153
Trichlorofluoromethane	0.1	~~0~~	0.2	~~0~~	0.4	1.06934	1	1.199555	2	1.278771	5	1.282407
1,2,3-Trichloropropane	0.1	~~0~~	0.2	~~0~~	0.4	0.2518569	1	0.308031	2	0.3465705	5	0.3427733

INITIAL CALIBRATION DATA

EPA 8260C

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Calibration: A9J2503

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Instrument: VOA-GCMS9
Calibration Date: 10/25/19 11:16

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
1,1,2-Trichloro-1,2,2-trifluoroethan	0.1	0	0.2	0	0.4	0	1	0.739812	2	0.8581551	5	0.8597423
1,2,4-Trimethylbenzene	0.1	1.918657	0.2	1.973767	0.4	2.218385	1	2.194417	2	2.323724	5	2.412245
1,3,5-Trimethylbenzene	0.1	1.990249	0.2	2.086712	0.4	2.127307	1	2.15205	2	2.344321	5	2.348653
Isobutyl alcohol	2.5	0	5	0	10	5.232844E-02	25	5.377317E-02	50	7.191985E-02	125	7.462391E-02
Toluene	0.1	1.589846	0.2	1.439067	0.4	1.488338	1	1.454325	2	1.498804	5	1.474176
Vinyl chloride	0.1	0	0.2	0.8842388	0.4	1.079386	1	1.012987	2	1.13503	5	1.139807
m,p-Xylene	0.2	1.111917	0.4	1.019064	0.8	1.103408	2	1.028726	4	1.137348	10	1.146239
o-Xylene	0.1	0.9509814	0.2	1.007512	0.4	1.106168	1	1.066613	2	1.142302	5	1.147321
trans-1,4-Dichloro-2-butene	0.1	0	0.2	0	0.4	0	1	0.1844019	2	0.2351664	5	0.2321581
Xylenes, total	0.3	1.058272	0.6	1.015214	1.2	1.104328	3	1.041355	6	1.139	15	1.1466
1,4-Difluorobenzene (Surr)	50	3.139024	50	3.131529	50	3.145975	50	3.159536	50	3.133965	50	3.188163
Toluene-d8 (Surr)	50	1.320931	50	1.332765	50	1.345328	50	1.320856	50	1.326656	50	1.321953
4-Bromofluorobenzene (Surr)	50	0.831108	50	0.83824	50	0.8349678	50	0.8234743	50	0.8250562	50	0.8153522

INITIAL CALIBRATION DATA (Continued)

EPA 8260C

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

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Acetone	20	0.4208047	40	0.4379215	100	0.4062135	200	0.4214387	400	0.4040001		
Acrylonitrile	10	0.4839382	20	0.510938	50	0.5073464	100	0.5472144	200	0.5244282		
Benzene	10	3.71399	20	3.910312	50	3.758482	100	4.021863	200	3.910748		
Bromobenzene	10	0.8116476	20	0.8248016	50	0.7979914	100	0.8125525	200	0.8000635		
Bromochloromethane	10	0.6360537	20	0.6880193	50	0.670835	100	0.6770888	200	0.6219556		
Bromodichloromethane	10	1.065191	20	1.149694	50	1.154771	100	1.259583	200	1.254501		
Bromoform	10	0.1710337	20	0.1941106	50	0.2213234	100	0.2550363	200	~~0.2652962~~		
Bromomethane	10	0.6240222	20	0.613824	50	0.5786916	100	0.559171	200	0.5762707		
2-Butanone (MEK)	20	0.6623274	40	0.7169769	100	0.7014442	200	0.7409523	400	0.7018611		
n-Butylbenzene	10	1.99427	20	2.159924	50	2.059682	100	2.128511	200	2.119352		
sec-Butylbenzene	10	2.81396	20	2.983258	50	2.858129	100	2.970663	200	2.919011		
tert-Butylbenzene	10	1.287102	20	1.348068	50	1.277748	100	1.320476	200	1.288007		
Carbon disulfide	10	2.083659	20	2.199571	50	2.200441	100	2.374055	200	2.300151		
Carbon tetrachloride	10	0.8859942	20	0.9772165	50	0.9911705	100	1.10568	200	1.13323		
Chlorobenzene	10	0.964716	20	0.9849133	50	0.9397401	100	0.9805969	200	0.9711928		
Chloroethane	10	0.5022193	20	0.4415022	50	0.4470532	100	~~0.2401397~~	200	~~0.1149038~~		
Chloroform	10	1.606991	20	1.695617	50	1.617019	100	1.719146	200	1.672928		
Chloromethane	10	0.9543993	20	1.002215	50	1.02872	100	1.012394	200	0.9839853		
2-Chlorotoluene	10	0.7246255	20	0.753079	50	0.7192168	100	0.7296301	200	0.7234272		
4-Chlorotoluene	10	2.068894	20	2.142822	50	2.055647	100	2.109797	200	2.035946		
Dibromochloromethane	10	0.2750349	20	0.3006581	50	0.3153921	100	~~0.3498031~~	200	~~0.3577943~~		
1,2-Dibromo-3-chloropropane	10	0.2088932	20	0.2265966	50	0.2430718	100	0.2500107	200	0.2507144		
1,2-Dibromoethane (EDB)	10	0.3657542	20	0.3809676	50	0.3656071	100	0.3823937	200	0.374875		
Dibromomethane	10	0.620451	20	0.6564151	50	0.6422796	100	0.6921751	200	0.6773489		
1,2-Dichlorobenzene	10	1.344536	20	1.383179	50	1.337138	100	1.34539	200	1.305442		
1,3-Dichlorobenzene	10	1.383876	20	1.422364	50	1.383071	100	1.412214	200	1.382476		
1,4-Dichlorobenzene	10	1.4332	20	1.477561	50	1.40642	100	1.43615	200	1.401823		
Dichlorodifluoromethane	10	0.7702707	20	0.8002687	50	0.9462965	100	0.9472046	200	0.9289152		
1,1-Dichloroethane	10	1.57298	20	1.670729	50	1.581787	100	1.69618	200	1.640758		
1,2-Dichloroethane (EDC)	10	1.230146	20	1.306225	50	1.244865	100	1.313294	200	1.256151		
1,1-Dichloroethene	10	1.158212	20	1.202649	50	1.192087	100	1.279045	200	1.222424		

INITIAL CALIBRATION DATA (Continued)

EPA 8260C

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

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
cis-1,2-Dichloroethene	10	1.221133	20	1.297951	50	1.237722	100	1.328041	200	1.288062		
trans-1,2-Dichloroethene	10	1.163696	20	1.246953	50	1.187512	100	1.276224	200	1.248076		
1,2-Dichloropropane	10	0.9316968	20	0.9879811	50	0.9436935	100	1.023882	200	0.9940276		
1,3-Dichloropropane	10	0.5810448	20	0.5999811	50	0.5714957	100	0.5947856	200	0.5710394		
2,2-Dichloropropane	10	1.006011	20	1.073208	50	1.060734	100	1.128816	200	1.103972		
1,1-Dichloropropene	10	1.245451	20	1.31263	50	1.271224	100	1.375599	200	1.340734		
cis-1,3-Dichloropropene	10	0.4871928	20	0.5248817	50	0.5196585	100	0.5592496	200	0.5562698		
trans-1,3-Dichloropropene	10	0.420384	20	0.4647208	50	0.4732454	100	0.5133554	200	0.5129165		
Ethylbenzene	10	1.534653	20	1.591212	50	1.51604	100	1.593904	200	1.579999		
Hexachlorobutadiene	10	0.1832255	20	0.1987915	50	0.1886455	100	0.1899254	200	0.1872258		
n-Hexane	10	0.1715019	20	0.1847766	50	0.1830155	100	0.1960907	200	0.1983837		
2-Hexanone	20	0.3346914	40	0.3562764	100	0.3495076	200	0.3584297	400	0.3274972		
Isopropylbenzene	10	1.385292	20	1.48775	50	1.427172	100	1.52791	200	1.496359		
4-Isopropyltoluene	10	2.299635	20	2.496553	50	2.392121	100	2.488563	200	2.476425		
Methylene chloride	10	0.9651129	20	0.9696546	50	0.8867644	100	0.9336364	200	0.9041251		
4-Methyl-2-pentanone (MiBK)	20	0.463578	40	0.4905843	100	0.4738401	200	0.4839134	400	0.440816		
Methyl tert-butyl ether (MTBE)	10	2.617041	20	2.750498	50	2.706966	100	2.888391	200	2.841303		
Naphthalene	10	2.423483	20	2.669354	50	2.689107	100	2.754697	200	2.76388		
n-Propylbenzene	10	3.317662	20	3.47486	50	3.358109	100	3.500901	200	3.407993		
Styrene	10	0.9113808	20	0.9785717	50	0.9560498	100	1.026099	200	1.022727		
1,1,1,2-Tetrachloroethane	10	0.2716306	20	0.2958062	50	0.2960372	100	0.3236666	200	0.3227747		
1,1,2,2-Tetrachloroethane	10	0.6734578	20	0.6896682	50	0.6735685	100	0.6510233	200	0.6028843		
Tetrachloroethene (PCE)	10	0.3532076	20	0.3701403	50	0.3520966	100	0.3717106	200	0.3750457		
Tetrahydrofuran	10	0.4410839	20	0.4743964	50	0.4676093	100	0.4995178	200	0.4766965		
1,2,3-Trichlorobenzene	10	0.7470093	20	0.7972934	50	0.7789871	100	0.7980403	200	0.8154843		
1,2,4-Trichlorobenzene	10	0.7751567	20	0.8404523	50	0.8118984	100	0.8232022	200	0.8339134		
1,1,1-Trichloroethane	10	1.284351	20	1.37893	50	1.353967	100	1.452812	200	1.429553		
1,1,2-Trichloroethane	10	0.3420675	20	0.3514489	50	0.3350179	100	0.34682	200	0.3379984		
Trichloroethene (TCE)	10	0.9969135	20	1.053302	50	1.025866	100	1.095246	200	1.074364		
Trichlorofluoromethane	10	1.234525	20	1.29357	50	1.258953	100	1.250083	200	1.198884		
1,2,3-Trichloropropane	10	0.3405154	20	0.3331167	50	0.3272536	100	0.3185251	200	0.2947126		

INITIAL CALIBRATION DATA (Continued)

EPA 8260C

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

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
1,1,2-Trichloro-1,2,2-trifluoroethan	10	0.8337868	20	0.8832046	50	0.8458685	100	0.9115538	200	0.8858524		
1,2,4-Trimethylbenzene	10	2.375163	20	2.49055	50	2.370189	100	2.445452	200	2.405457		
1,3,5-Trimethylbenzene	10	2.34199	20	2.452223	50	2.344405	100	2.400473	200	2.389567		
Isobutyl alcohol	250	6.680838E-02	500	7.430831E-02	1250	0.0777889	2500	8.037486E-02	5000	7.439707E-02		
Toluene	10	1.44486	20	1.492292	50	1.390623	100	1.461836	200	1.439258		
Vinyl chloride	10	1.069188	20	1.110172	50	1.15024	100	1.154176	200	1.123309		
m,p-Xylene	20	1.134823	40	1.209186	100	1.149737	200	1.230376	400	1.219314		
o-Xylene	10	1.141456	20	1.216423	50	1.157582	100	1.23274	200	1.213571		
trans-1,4-Dichloro-2-butene	10	0.2340582	20	0.2393777	50	0.2430465	100	0.2342091	200	0.2188557		
Xylenes, total	30	1.137034	60	1.211598	150	1.152352	300	1.231164	600	1.2174		
1,4-Difluorobenzene (Surr)	50	3.124014	50	3.157501	50	3.200969	50	3.186536	50	3.180128		
Toluene-d8 (Surr)	50	1.327143	50	1.301918	50	1.292388	50	1.274013	50	1.27207		
4-Bromofluorobenzene (Surr)	50	0.8117213	50	0.7980421	50	0.7955945	50	0.7620051	50	0.7511646		

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8260C

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

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Acetone	40.0	37.6	-6.0	70 - 130
Acrylonitrile	20.0	19.6	-2.1	70 - 130
Benzene	20.0	19.7	-1.6	70 - 130
Bromobenzene	20.0	21.0	4.9	70 - 130
Bromochloromethane	20.0	22.1	10.3	70 - 130
Bromodichloromethane	20.0	20.8	3.8	70 - 130
Bromoform	20.0	21.4	6.9	70 - 130
Bromomethane	20.0	22.6	13.2	70 - 130
2-Butanone (MEK)	40.0	37.9	-5.3	70 - 130
n-Butylbenzene	20.0	22.3	11.3	70 - 130
sec-Butylbenzene	20.0	20.5	2.3	70 - 130
tert-Butylbenzene	20.0	20.4	1.8	70 - 130
Carbon disulfide	20.0	18.4	-8.2	70 - 130
Carbon tetrachloride	20.0	20.7	3.5	70 - 130
Chlorobenzene	20.0	20.6	3.0	70 - 130
Chloroethane	20.0	17.5	-12.4	70 - 130
Chloroform	20.0	20.9	4.3	70 - 130
Chloromethane	20.0	20.7	3.6	70 - 130
2-Chlorotoluene	20.0	19.9	-0.3	70 - 130
4-Chlorotoluene	20.0	20.6	2.8	70 - 130
Dibromochloromethane	20.0	23.7	18.7	70 - 130
1,2-Dibromo-3-chloropropane	20.0	20.0	0.2	70 - 130
1,2-Dibromoethane (EDB)	20.0	20.7	3.3	70 - 130
Dibromomethane	20.0	21.1	5.6	70 - 130
1,2-Dichlorobenzene	20.0	20.8	4.1	70 - 130
1,3-Dichlorobenzene	20.0	20.8	4.2	70 - 130
1,4-Dichlorobenzene	20.0	20.5	2.4	70 - 130
Dichlorodifluoromethane	20.0	25.2	26.2	70 - 130
1,1-Dichloroethane	20.0	20.5	2.6	70 - 130
1,2-Dichloroethane (EDC)	20.0	20.2	0.8	70 - 130
1,1-Dichloroethene	20.0	19.7	-1.4	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8260C

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

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
cis-1,2-Dichloroethene	20.0	20.0	0.2	70 - 130
trans-1,2-Dichloroethene	20.0	21.0	4.9	70 - 130
1,2-Dichloropropane	20.0	20.3	1.4	70 - 130
1,3-Dichloropropane	20.0	20.5	2.4	70 - 130
2,2-Dichloropropane	20.0	17.7	-11.4	70 - 130
1,1-Dichloropropene	20.0	19.6	-2.0	70 - 130
cis-1,3-Dichloropropene	20.0	19.9	-0.6	70 - 130
trans-1,3-Dichloropropene	20.0	20.7	3.5	70 - 130
Ethylbenzene	20.0	20.1	0.7	70 - 130
Hexachlorobutadiene	20.0	21.9	9.3	70 - 130
2-Hexanone	40.0	40.6	1.4	70 - 130
Isopropylbenzene	20.0	20.9	4.7	70 - 130
4-Isopropyltoluene	20.0	21.7	8.3	70 - 130
Methylene chloride	20.0	20.0	-0.2	70 - 130
4-Methyl-2-pentanone (MiBK)	40.0	41.0	2.6	70 - 130
Methyl tert-butyl ether (MTBE)	20.0	19.6	-2.1	70 - 130
Naphthalene	20.0	21.9	9.6	70 - 130
n-Propylbenzene	20.0	20.1	0.5	70 - 130
Styrene	20.0	20.9	4.3	70 - 130
1,1,1,2-Tetrachloroethane	20.0	21.8	8.9	70 - 130
1,1,2,2-Tetrachloroethane	20.0	20.3	1.7	70 - 130
Tetrachloroethene (PCE)	20.0	20.9	4.4	70 - 130
1,2,3-Trichlorobenzene	20.0	22.6	13.0	70 - 130
1,2,4-Trichlorobenzene	20.0	22.3	11.3	70 - 130
1,1,1-Trichloroethane	20.0	19.9	-0.3	70 - 130
1,1,2-Trichloroethane	20.0	21.2	6.2	70 - 130
Trichloroethene (TCE)	20.0	21.2	6.2	70 - 130
Trichlorofluoromethane	20.0	20.7	3.4	70 - 130
1,2,3-Trichloropropane	20.0	20.7	3.3	70 - 130
1,2,4-Trimethylbenzene	20.0	20.7	3.6	70 - 130
1,3,5-Trimethylbenzene	20.0	20.7	3.3	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8260C

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

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Toluene	20.0	19.4	-3.1	70 - 130
Vinyl chloride	20.0	22.1	10.6	70 - 130
m,p-Xylene	40.0	40.9	2.3	70 - 130
o-Xylene	20.0	21.0	4.9	70 - 130

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8260C

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

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9J24043-ICV1)				Lab File ID: VI19102432.D		Analyzed: 10/24/19 22:38		
1,4-Difluorobenzene (Surr)	50.0	101	70 - 130	6.782	6.780727	0.0013	+/-1.0	
Toluene-d8 (Surr)	50.0	99	70 - 130	8.297	8.297273	-0.0003	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	99	70 - 130	10.974	10.974	0.0000	+/-1.0	
Initial Cal Check (9J24043-ICV2)				Lab File ID: VI19102433.D		Analyzed: 10/24/19 23:05		
1,4-Difluorobenzene (Surr)	50.0	101	70 - 130	6.783	6.780727	0.0023	+/-1.0	
Toluene-d8 (Surr)	50.0	101	70 - 130	8.297	8.297273	-0.0003	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	102	70 - 130	10.974	10.974	0.0000	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J28025	Instrument:	VOA-GCMS9
Matrix:	Water	Calibration:	A9J2503

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (9101622-BS1)			Lab File ID: VI19102804.D		Analyzed: 10/28/19 09:24			
1,4-Difluorobenzene (Surr)	50.0	101	80 - 120	6.783	6.780727	0.0023	+/-1.0	
Toluene-d8 (Surr)	50.0	100	80 - 120	8.297	8.297273	-0.0003	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	98	80 - 120	10.974	10.974	0.0000	+/-1.0	
Blank (9101622-BLK1)			Lab File ID: VI19102806.D		Analyzed: 10/28/19 10:17			
1,4-Difluorobenzene (Surr)	50.0	101	80 - 120	6.783	6.780727	0.0023	+/-1.0	
Toluene-d8 (Surr)	50.0	101	80 - 120	8.297	8.297273	-0.0003	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	101	80 - 120	10.974	10.974	0.0000	+/-1.0	
PDI-TB-1910250959 (A9J0954-03)			Lab File ID: VI19102807.D		Analyzed: 10/28/19 10:44			
1,4-Difluorobenzene (Surr)	50.0	101	80 - 120	6.783	6.780727	0.0023	+/-1.0	
Toluene-d8 (Surr)	50.0	101	80 - 120	8.297	8.297273	-0.0003	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	103	80 - 120	10.974	10.974	0.0000	+/-1.0	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9J28025	Instrument:	VOA-GCMS9
Matrix:	Water	Calibration:	A9J2503

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (9101622-BS1)			Lab File ID: VI19102804.D			Analyzed: 10/28/19 09:24			
Pentafluorobenzene (ISTD)	110053	6.217	110053	6.217	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	304194	9.916	304194	9.916	100	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	150051	11.85	150051	11.85	100	50 - 200	0.0000	+/-0.50	
Calibration Check (9J28025-CCV1)			Lab File ID: VI19102804.D			Analyzed: 10/28/19 09:24			
Pentafluorobenzene (ISTD)	110053	6.217	112406	6.211	98	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	304194	9.916	307093	9.91	99	50 - 200	0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	150051	11.85	151591	11.85	99	50 - 200	0.0000	+/-0.50	
Blank (9101622-BLK1)			Lab File ID: VI19102806.D			Analyzed: 10/28/19 10:17			
Pentafluorobenzene (ISTD)	105942	6.217	110053	6.217	96	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	281327	9.916	304194	9.916	92	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	128106	11.85	150051	11.85	85	50 - 200	0.0000	+/-0.50	
PDI-TB-1910250959 (A9J0954-03)			Lab File ID: VI19102807.D			Analyzed: 10/28/19 10:44			
Pentafluorobenzene (ISTD)	102702	6.217	110053	6.217	93	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	275494	9.916	304194	9.916	91	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	123363	11.856	150051	11.85	82	50 - 200	0.0060	+/-0.50	
Duplicate (9101622-DUP1)			Lab File ID: VI19102817.D			Analyzed: 10/28/19 15:13			
Pentafluorobenzene (ISTD)	95273	6.217	110053	6.217	87	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	261277	9.916	304194	9.916	86	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	120855	11.856	150051	11.85	81	50 - 200	0.0060	+/-0.50	
Duplicate (9101622-DUP2)			Lab File ID: VI19102827.D			Analyzed: 10/28/19 19:42			
Pentafluorobenzene (ISTD)	98111	6.217	110053	6.217	89	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	262984	9.916	304194	9.916	86	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	118399	11.856	150051	11.85	79	50 - 200	0.0060	+/-0.50	
Matrix Spike (9101622-MS1)			Lab File ID: VI19102829.D			Analyzed: 10/28/19 20:35			
Pentafluorobenzene (ISTD)	93063	6.217	110053	6.217	85	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	257486	9.916	304194	9.916	85	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	127030	11.856	150051	11.85	85	50 - 200	0.0060	+/-0.50	

HOLDING TIME SUMMARY

EPA 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-TB-1910250959	10/25/19 09:59	10/25/19 14:40	10/28/19 10:12	3.01	14.00	10/28/19 10:44	3.03	14.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: 1311/8260C

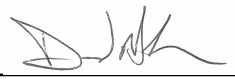
ANALYSES DATA PACKAGE COVER PAGE

1311/8260C

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-019SC-C-00-3.2-191025	A9J0954-01	Sediment
PDI-095SC-C-00-8.8-191025	A9J0954-02	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 3:53PM
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-019SC-C-00-3.2-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-01	File ID:	VG19110509.D
Sampled:	10/25/19 11:06	Prepared:	11/05/19 10:08	Analyzed:	11/05/19 12:23
Solids:	75.94	Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL
Batch:	9110460	Sequence:	9K05032	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	51.5	103	80 - 120	
Toluene-d8 (Surr)	50.0	49.1	98	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	49.3	99	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	70153	6.861	88234	6.855	
Chlorobenzene-d5 (ISTD)	216632	10.446	255971	10.452	
1,4-Dichlorobenzene-d4 (ISTD)	110345	12.287	130913	12.287	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8260C

PDI-095SC-C-00-8.8-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-02	File ID:	VG19110510.D
Sampled:	10/25/19 09:51	Prepared:	11/05/19 10:08	Analyzed:	11/05/19 12:50
Solids:	55.03	Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL
Batch:	9110460	Sequence:	9K05032	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	51.3	103	80 - 120	
Toluene-d8 (Surr)	50.0	49.9	100	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	50.4	101	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	81504	6.855	88234	6.855	
Chlorobenzene-d5 (ISTD)	243881	10.446	255971	10.452	
1,4-Dichlorobenzene-d4 (ISTD)	121343	12.287	130913	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: 9110460 Batch Matrix: Water
Preparation: EPA 1311/5030B TCLP Volatiles

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110460-BLK1	VG19110505.D	11/05/19 09:41	
LCS	9110460-BS1	VG19110504.D	11/05/19 09:41	
PDI-019SC-C-00-3.2-191025	A9J0954-01	VG19110509.D	11/05/19 10:08	
PDI-095SC-C-00-8.8-191025	A9J0954-02	VG19110510.D	11/05/19 10:08	

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:	9110460-BLK1	File ID:	VG19110505.D
Prepared:	11/05/19 09:41	Preparation:	EPA 1311/5030B TCLP Vola	Initial/Final:	5 mL / 5 mL
Analyzed:	11/05/19 10:35	Instrument:	VOA-GCMS7		
Batch:	9110460	Sequence:	9K05032	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	50.8	102	80 - 120	
Toluene-d8 (Surr)	50.0	49.4	99	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	50.9	102	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	83010	6.861	88234	6.855	
Chlorobenzene-d5 (ISTD)	248631	10.452	255971	10.452	
1,4-Dichlorobenzene-d4 (ISTD)	122429	12.287	130913	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:	9110460	Laboratory ID:	9110460-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	1.07	107	80 - 120
2-Butanone (MEK)	2.00	2.01	101	80 - 120
Carbon tetrachloride	1.00	1.19	119	80 - 120
Chlorobenzene	1.00	1.04	104	80 - 120
Chloroform	1.00	1.06	106	80 - 120
1,4-Dichlorobenzene	1.00	1.01	101	80 - 120
1,2-Dichloroethane (EDC)	1.00	1.03	103	80 - 120
1,1-Dichloroethene	1.00	1.07	107	80 - 120
Tetrachloroethene (PCE)	1.00	1.12	112	80 - 120
Trichloroethene (TCE)	1.00	1.04	104	80 - 120
Vinyl chloride	1.00	1.03	103	80 - 120

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8260C

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	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:	9K05032	Instrument:	VOA-GCMS7
Matrix:	Water	Calibration:	A9J2806

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9K05032-TUN1	VG19110503.D	11/05/19 09:41
Calibration Check	9K05032-CCV1	VG19110504.D	11/05/19 10:08
Blank	9110460-BLK1	VG19110505.D	11/05/19 10:35
PDI-019SC-C-00-3.2-191025	A9J0954-01	VG19110509.D	11/05/19 12:23
PDI-095SC-C-00-8.8-191025	A9J0954-02	VG19110510.D	11/05/19 12:50

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.

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:	VG19110503.D	Injection Date:	11/05/19
Instrument ID:	VOA-GCMS7	Injection Time:	09:41
Sequence:	9K05032	Lab Sample ID:	9K05032-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	107.58	PASS
m/z 96	5 - 9% of m/z 95	6.69	PASS
m/z 173	Less than 2% of m/z 174	0.57	PASS
m/z 174	50 - 200% of m/z 95	92.95	PASS
m/z 175	5 - 9% of m/z 174	7.30	PASS
m/z 176	95 - 105% of m/z 174	97.33	PASS
m/z 177	5 - 10% of m/z 176	6.85	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

Client: Anchor QEA, LLC

Calibration: A9J2806

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

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	θ	0.4	θ	0.8	0.5428198	2	0.6614525	4	0.7473759	10	0.7766667
Carbon tetrachloride	0.1	θ	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	θ	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:	9K05032	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 (9110460-BS1)			Lab File ID: VG19110504.D		Analyzed: 11/05/19 10:08			
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	101	80 - 120	11.446	11.446	0.0000	+/-1.0	
Blank (9110460-BLK1)			Lab File ID: VG19110505.D		Analyzed: 11/05/19 10:35			
1,4-Difluorobenzene (Surr)	50.0	102	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	102	80 - 120	11.446	11.446	0.0000	+/-1.0	
PDI-019SC-C-00-3.2-191025 (A9J0954-01)			Lab File ID: VG19110509.D		Analyzed: 11/05/19 12:23			
1,4-Difluorobenzene (Surr)	50.0	103	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	99	80 - 120	11.446	11.446	0.0000	+/-1.0	
PDI-095SC-C-00-8.8-191025 (A9J0954-02)			Lab File ID: VG19110510.D		Analyzed: 11/05/19 12:50			
1,4-Difluorobenzene (Surr)	50.0	103	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	

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:	9K05032	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 (9110460-BS1)			Lab File ID: VG19110504.D			Analyzed: 11/05/19 10:08			
Pentafluorobenzene (ISTD)	88234	6.855	88234	6.855	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	255971	10.452	255971	10.452	100	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	130913	12.287	130913	12.287	100	50 - 200	0.0000	+/-0.50	
Calibration Check (9K05032-CCV1)			Lab File ID: VG19110504.D			Analyzed: 11/05/19 10:08			
Pentafluorobenzene (ISTD)	88234	6.855	86706	6.861	102	50 - 200	-0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	255971	10.452	253314	10.452	101	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	130913	12.287	128679	12.293	102	50 - 200	-0.0060	+/-0.50	
Blank (9110460-BLK1)			Lab File ID: VG19110505.D			Analyzed: 11/05/19 10:35			
Pentafluorobenzene (ISTD)	83010	6.861	88234	6.855	94	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	248631	10.452	255971	10.452	97	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	122429	12.287	130913	12.287	94	50 - 200	0.0000	+/-0.50	
Duplicate (9110460-DUP1)			Lab File ID: VG19110507.D			Analyzed: 11/05/19 11:29			
Pentafluorobenzene (ISTD)	81190	6.855	88234	6.855	92	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	248512	10.446	255971	10.452	97	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	122994	12.287	130913	12.287	94	50 - 200	0.0000	+/-0.50	
PDI-019SC-C-00-3.2-191025 (A9J0954-01)			Lab File ID: VG19110509.D			Analyzed: 11/05/19 12:23			
Pentafluorobenzene (ISTD)	70153	6.861	88234	6.855	80	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	216632	10.446	255971	10.452	85	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	110345	12.287	130913	12.287	84	50 - 200	0.0000	+/-0.50	
PDI-095SC-C-00-8.8-191025 (A9J0954-02)			Lab File ID: VG19110510.D			Analyzed: 11/05/19 12:50			
Pentafluorobenzene (ISTD)	81504	6.855	88234	6.855	92	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	243881	10.446	255971	10.452	95	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	121343	12.287	130913	12.287	93	50 - 200	0.0000	+/-0.50	
Matrix Spike (9110460-MS1)			Lab File ID: VG19110514.D			Analyzed: 11/05/19 14:38			
Pentafluorobenzene (ISTD)	81347	6.855	88234	6.855	92	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	236973	10.446	255971	10.452	93	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	122537	12.287	130913	12.287	94	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-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	11/05/19 10:08	10.96	14.00	11/05/19 12:23	11.05	14.00	
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	11/05/19 10:08	11.01	14.00	11/05/19 12:50	11.12	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-019SC-C-00-3.2-191025	A9J0954-01	Sediment
PDI-095SC-C-00-8.8-191025	A9J0954-02	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 3:53PM

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 [2C]	0.500	1.00	ug/kg
Heptachlor epoxide [2C]	0.500	1.00	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-019SC-C-00-3.2-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-01RE1	File ID:	ECD5-11051920.D
Sampled:	10/25/19 11:06	Prepared:	10/31/19 15:11	Analyzed:	11/05/19 16:23
Solids:	75.94	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.23 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	12.9	U
72-20-8	Endrin [2C]	10	25.7	U
76-44-8	Heptachlor [2C]	10	25.7	U
1024-57-3	Heptachlor epoxide [2C]	10	12.9	U
72-43-5	Methoxychlor [2C]	10	183	U
12789-03-6	Chlordane (Technical) [2C]	10	386	U
8001-35-2	Toxaphene (Total) [2C]	10	386	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	64.4	69.5	108	42 - 129	
Decachlorobiphenyl (Surr)	64.4	74.5	116	55 - 130	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-095SC-C-00-8.8-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-02RE1	File ID:	ECD5-11051922.D
Sampled:	10/25/19 09:51	Prepared:	10/31/19 15:11	Analyzed:	11/05/19 16:57
Solids:	55.03	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.6 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)	2	3.43	U
72-20-8	Endrin [2C]	2	6.86	U
76-44-8	Heptachlor [2C]	2	3.43	U
1024-57-3	Heptachlor epoxide [2C]	2	3.43	U
72-43-5	Methoxychlor [2C]	2	29.1	U
12789-03-6	Chlordane (Technical) [2C]	2	103	U
8001-35-2	Toxaphene (Total) [2C]	2	103	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	85.7	73.5	86	42 - 129	
Decachlorobiphenyl (Surr) [2C]	85.7	97.9	114	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-019SC-C-00-3.2-191025	A9J0954-01RE1	ECD5-11051920.D	10/31/19 15:11	
PDI-095SC-C-00-8.8-191025	A9J0954-02RE1	ECD5-11051922.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

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
Calibration Check	9K05039-CCV2	ECD5-11051918.D	11/05/19 15:49
Calibration Blank	9K05039-CCB2	ECD5-11051919.D	11/05/19 16:06
PDI-019SC-C-00-3.2-191025	A9J0954-01RE1	ECD5-11051920.D	11/05/19 16:23
PDI-095SC-C-00-8.8-191025	A9J0954-02RE1	ECD5-11051922.D	11/05/19 16:57
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 [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 [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
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9H2608
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	
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	
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	
PDI-019SC-C-00-3.2-191025 (A9J0954-01RE1)			Lab File ID: ECD5-11051920.D		Analyzed: 11/05/19 16:23			
2,4,5,6-TCMX (Surr) [2C]	64.4	108	42 - 129	5.725	5.98975	-0.2648	+/-1.0	
Decachlorobiphenyl (Surr)	64.4	116	55 - 130	9.312	9.5925	-0.2805	+/-1.0	
PDI-095SC-C-00-8.8-191025 (A9J0954-02RE1)			Lab File ID: ECD5-11051922.D		Analyzed: 11/05/19 16:57			
2,4,5,6-TCMX (Surr) [2C]	85.7	86	42 - 129	5.723	5.98975	-0.2668	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	85.7	114	55 - 130	10.233	10.54062	-0.3076	+/-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	

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-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-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	10/31/19 15:11	6.17	14.00	11/05/19 16:23	5.05	40.00	
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	10/31/19 15:11	6.22	14.00	11/05/19 16:57	5.07	40.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GC

METHOD: 1311/8081B

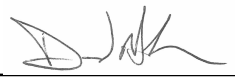
ANALYSES DATA PACKAGE COVER PAGE

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-019SC-C-00-3.2-191025	A9J0954-01	Sediment
PDI-095SC-C-00-8.8-191025	A9J0954-02	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 3:53PM
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 [2C]	0.0000750	0.000150	mg/L
Heptachlor epoxide [2C]	0.0000750	0.000150	mg/L
Methoxychlor [2C]	0.000200	0.000400	mg/L
Chlordane (Technical) [2C]	0.000940	0.00188	mg/L
Toxaphene (Total) [2C]	0.00250	0.00500	mg/L

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

ORGANIC ANALYSIS DATA SHEET

1311/8081B

PDI-019SC-C-00-3.2-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-01	File ID:	ECD5-11071919.D
Sampled:	10/25/19 11:06	Prepared:	11/06/19 13:00	Analyzed:	11/07/19 16:33
Solids:	75.94	Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL
Batch:	9110534	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	0.00158	63	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00272	109	30 - 135	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8081B

PDI-095SC-C-00-8.8-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-02	File ID:	ECD5-11071920.D
Sampled:	10/25/19 09:51	Prepared:	11/06/19 13:00	Analyzed:	11/07/19 16:50
Solids:	55.03	Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL
Batch:	9110534	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	0.00180	72	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00276	110	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: 9110534 Batch Matrix: Sediment Preparation: EPA 1311/3510C (Neutral Ext.)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110534-BLK1	ECD5-11071916.D	11/06/19 13:00	
LCS	9110534-BS1	ECD5-11071917.D	11/06/19 13:00	
LCS Dup	9110534-BSD1	ECD5-11071918.D	11/06/19 13:00	
PDI-019SC-C-00-3.2-191025	A9J0954-01	ECD5-11071919.D	11/06/19 13:00	
PDI-095SC-C-00-8.8-191025	A9J0954-02	ECD5-11071920.D	11/06/19 13:00	

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

METHOD BLANK DATA SHEET
1311/8081B

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	9110534-BLK1	File ID:	ECD5-11071916.D
Prepared:	11/06/19 13:00	Preparation:	EPA 1311/3510C (Neutral E	Initial/Final:	200 mL / 5 mL
Analyzed:	11/07/19 15:41	Instrument:	DUALECD5		
Batch:	9110534	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	0.000924	37	25 - 140	
Decachlorobiphenyl (Surr) [2C]	0.00250	0.00261	104	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:	9110534	Laboratory ID:	9110534-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	0.00257	103	59 - 134
Endrin [2C]	0.00250	0.00321	128	60 - 138
Heptachlor [2C]	0.00250	0.00237	95	54 - 130
Heptachlor epoxide [2C]	0.00250	0.00260	104	61 - 133
Methoxychlor [2C]	0.00250	0.00310	124	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:	9110534	Laboratory ID:	9110534-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	0.00259	104	0.8	30	59 - 134
Endrin [2C]	0.00250	0.00316	127	1	30	60 - 138
Heptachlor [2C]	0.00250	0.00237	95	0.1	30	54 - 130
Heptachlor epoxide [2C]	0.00250	0.00263	105	1	30	61 - 133
Methoxychlor [2C]	0.00250	0.00306	122	1	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
Calibration Check	9K07024-CCV3	ECD5-11071914.D	11/07/19 15:07
Calibration Blank	9K07024-CCB2	ECD5-11071915.D	11/07/19 15:24
Blank	9110534-BLK1	ECD5-11071916.D	11/07/19 15:41
LCS	9110534-BS1	ECD5-11071917.D	11/07/19 15:59
LCS Dup	9110534-BSD1	ECD5-11071918.D	11/07/19 16:16
PDI-019SC-C-00-3.2-191025	A9J0954-01	ECD5-11071919.D	11/07/19 16:33
PDI-095SC-C-00-8.8-191025	A9J0954-02	ECD5-11071920.D	11/07/19 16:50
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 [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 [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	
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	
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	
Blank (9110534-BLK1)				Lab File ID: ECD5-11071916.D		Analyzed: 11/07/19 15:41		
2,4,5,6-TCMX (Surr) [2C]	0.00250	37	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	
LCS (9110534-BS1)				Lab File ID: ECD5-11071917.D		Analyzed: 11/07/19 15:59		
2,4,5,6-TCMX (Surr) [2C]	0.00250	63	25 - 140	5.711	5.98975	-0.2788	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	95	30 - 135	10.218	10.54062	-0.3226	+/-1.0	
LCS Dup (9110534-BSD1)				Lab File ID: ECD5-11071918.D		Analyzed: 11/07/19 16:16		
2,4,5,6-TCMX (Surr) [2C]	0.00250	62	25 - 140	5.712	5.98975	-0.2778	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	91	30 - 135	10.22	10.54062	-0.3206	+/-1.0	
PDI-019SC-C-00-3.2-191025 (A9J0954-01)				Lab File ID: ECD5-11071919.D		Analyzed: 11/07/19 16:33		
2,4,5,6-TCMX (Surr) [2C]	0.00250	63	25 - 140	5.711	5.98975	-0.2788	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	109	30 - 135	10.219	10.54062	-0.3216	+/-1.0	
PDI-095SC-C-00-8.8-191025 (A9J0954-02)				Lab File ID: ECD5-11071920.D		Analyzed: 11/07/19 16:50		
2,4,5,6-TCMX (Surr) [2C]	0.00250	72	25 - 140	5.709	5.98975	-0.2808	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	0.00250	110	30 - 135	10.218	10.54062	-0.3226	+/-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-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-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	11/06/19 13:00	12.08	7.00	11/07/19 16:33	1.15	40.00	*
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	11/06/19 13:00	12.13	7.00	11/07/19 16:50	1.16	40.00	*

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: EPA 8270D

ANALYSES DATA PACKAGE COVER PAGE

EPA 8270D

Laboratory: Apex Laboratories

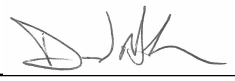
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019

Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-019SC-C-00-3.2-191025	A9J0954-01	Sediment
PDI-095SC-C-00-8.8-191025	A9J0954-02	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 3:53PM

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-019SC-C-00-3.2-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-01	File ID:	I11011911.D
Sampled:	10/25/19 11:06	Prepared:	11/01/19 07:18	Analyzed:	11/01/19 15:16
Solids:	75.94	Preparation:	EPA 3546	Initial/Final:	15.55 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	4230	U
NA	3+4-Methylphenol(s)	1000	4230	U
87-86-5	Pentachlorophenol (PCP)	1000	16900	U
108-95-2	Phenol	1000	3390	U
95-95-4	2,4,5-Trichlorophenol	1000	8470	U
88-06-2	2,4,6-Trichlorophenol	1000	8470	U
118-74-1	Hexachlorobenzene	1000	1690	U
87-68-3	Hexachlorobutadiene	1000	4230	U
67-72-1	Hexachloroethane	1000	4230	U
98-95-3	Nitrobenzene	1000	16900	U
121-14-2	2,4-Dinitrotoluene	1000	16900	U
110-86-1	Pyridine	1000	8470	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	423	471	111	37 - 122	D
2-Fluorobiphenyl (Surr)	423	577	136	44 - 115	D
Phenol-d6 (Surr)	423	185	44	33 - 122	D
p-Terphenyl-d14 (Surr)	423	516	122	54 - 127	D
2-Fluorophenol (Surr)	423	0.00		35 - 115	D
2,4,6-Tribromophenol (Surr)	423	0.00		39 - 132	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	119426	6.605	100905	6.605	
Naphthalene-d8 (ISTD)	456517	7.862	384962	7.862	
Acenaphthene-d10 (ISTD)	216921	9.638	197971	9.643	
Phenanthrene-d10 (ISTD)	396285	11.151	376095	11.151	
Chrysene-d12 (ISTD)	423860	14.927	404706	14.933	
Perylene-d12 (ISTD)	431333	18.42	405313	18.42	
Dibenz(a,h)anthracene-d14 (ISTD)	391325	20.816	362980	20.811	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-095SC-C-00-8.8-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-02RE1	File ID:	I11011920.D
Sampled:	10/25/19 09:51	Prepared:	11/01/19 07:18	Analyzed:	11/01/19 20:34
Solids:	55.03	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	40	239	U
NA	3+4-Methylphenol(s)	40	693	D
87-86-5	Pentachlorophenol (PCP)	40	955	U
108-95-2	Phenol	40	192	U
95-95-4	2,4,5-Trichlorophenol	40	479	U
88-06-2	2,4,6-Trichlorophenol	40	479	U
118-74-1	Hexachlorobenzene	40	95.5	U
87-68-3	Hexachlorobutadiene	40	239	U
67-72-1	Hexachloroethane	40	239	U
98-95-3	Nitrobenzene	40	955	U
121-14-2	2,4-Dinitrotoluene	40	1920	U
110-86-1	Pyridine	40	479	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	599	442	74	37 - 122	D
2-Fluorobiphenyl (Surr)	599	524	88	44 - 115	D
Phenol-d6 (Surr)	599	346	58	33 - 122	D
p-Terphenyl-d14 (Surr)	599	496	83	54 - 127	D
2-Fluorophenol (Surr)	599	305	51	35 - 115	D
2,4,6-Tribromophenol (Surr)	599	708	118	39 - 132	D

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	122763	6.6	100905	6.605	
Naphthalene-d8 (ISTD)	460143	7.862	384962	7.862	
Acenaphthene-d10 (ISTD)	221247	9.638	197971	9.643	
Phenanthrene-d10 (ISTD)	392762	11.157	376095	11.151	
Chrysene-d12 (ISTD)	418002	14.938	404706	14.933	
Perylene-d12 (ISTD)	435368	18.431	405313	18.42	
Dibenz(a,h)anthracene-d14 (ISTD)	392590	20.827	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-019SC-C-00-3.2-191025	A9J0954-01	I11011911.D	11/01/19 07:18	
PDI-095SC-C-00-8.8-191025	A9J0954-02RE1	I11011920.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

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-019SC-C-00-3.2-191025	A9J0954-01	I11011911.D	11/01/19 15:16
PDI-095SC-C-00-8.8-191025	A9J0954-02RE1	I11011920.D	11/01/19 20:34

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

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-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	
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
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
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

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
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
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

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-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
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
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				
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~~				

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
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				
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				

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-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				
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-019SC-C-00-3.2-191025 (A9J0954-01)			Lab File ID: I11011911.D		Analyzed: 11/01/19 15:16			
Nitrobenzene-d5 (Surr)	423	111	37 - 122	7.14	7.2032	-0.0632	+/-1.0	
2-Fluorobiphenyl (Surr)	423	136	44 - 115	8.948	9.0078	-0.0598	+/-1.0	*
Phenol-d6 (Surr)	423	44	33 - 122	6.252	6.2976	-0.0456	+/-1.0	
p-Terphenyl-d14 (Surr)	423	122	54 - 127	12.932	13.0243	-0.0923	+/-1.0	
2-Fluorophenol (Surr)	423		35 - 115	0	5.4102	-5.4102	+/-1.0	*
2,4,6-Tribromophenol (Surr)	423		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
PDI-095SC-C-00-8.8-191025 (A9J0954-02RE1)			Lab File ID: I11011920.D		Analyzed: 11/01/19 20:34			
Nitrobenzene-d5 (Surr)	599	74	37 - 122	7.145	7.2032	-0.0582	+/-1.0	
2-Fluorobiphenyl (Surr)	599	88	44 - 115	8.948	9.0078	-0.0598	+/-1.0	
Phenol-d6 (Surr)	599	58	33 - 122	6.247	6.2976	-0.0506	+/-1.0	
p-Terphenyl-d14 (Surr)	599	83	54 - 127	12.938	13.0243	-0.0863	+/-1.0	
2-Fluorophenol (Surr)	599	51	35 - 115	5.354	5.4102	-0.0562	+/-1.0	
2,4,6-Tribromophenol (Surr)	599	118	39 - 132	10.44	10.50367	-0.0637	+/-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
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-019SC-C-00-3.2-191025 (A9J0954-01)			Lab File ID: I11011911.D			Analyzed: 11/01/19 15:16			
1,4-Dichlorobenzene-d4 (ISTD)	119426	6.605	100905	6.605	118	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	456517	7.862	384962	7.862	119	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	216921	9.638	197971	9.643	110	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	396285	11.151	376095	11.151	105	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	423860	14.927	404706	14.933	105	50 - 200	-0.0060	+/-0.50	
Perylene-d12 (ISTD)	431333	18.42	405313	18.42	106	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	391325	20.816	362980	20.811	108	50 - 200	0.0050	+/-0.50	
PDI-095SC-C-00-8.8-191025 (A9J0954-02RE1)			Lab File ID: I11011920.D			Analyzed: 11/01/19 20:34			
1,4-Dichlorobenzene-d4 (ISTD)	122763	6.6	100905	6.605	122	50 - 200	-0.0050	+/-0.50	
Naphthalene-d8 (ISTD)	460143	7.862	384962	7.862	120	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	221247	9.638	197971	9.643	112	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	392762	11.157	376095	11.151	104	50 - 200	0.0060	+/-0.50	
Chrysene-d12 (ISTD)	418002	14.938	404706	14.933	103	50 - 200	0.0050	+/-0.50	
Perylene-d12 (ISTD)	435368	18.431	405313	18.42	107	50 - 200	0.0110	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	392590	20.827	362980	20.811	108	50 - 200	0.0160	+/-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-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	11/01/19 07:18	6.84	14.00	11/01/19 15:16	0.33	40.00	
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	11/01/19 07:18	6.89	14.00	11/01/19 20:34	0.55	40.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: GCMS

METHOD: 1311/8270D

ANALYSES DATA PACKAGE COVER PAGE

1311/8270D

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

Client Sample Id:	Lab Sample Id:	Matrix
PDI-019SC-C-00-3.2-191025	A9J0954-01	Sediment
PDI-095SC-C-00-8.8-191025	A9J0954-02	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 3:53PM
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-019SC-C-00-3.2-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-01RE1	File ID:	J11071914.D
Sampled:	10/25/19 11:06	Prepared:	11/06/19 13:54	Analyzed:	11/07/19 16:23
Solids:	75.94	Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL
Batch:	9110535	Sequence:	9K07018	Calibration:	A9I2405
Instrument:	SV-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q
121-14-2	2,4-Dinitrotoluene	20	0.0200	U
118-74-1	Hexachlorobenzene	20	0.0200	U
87-68-3	Hexachlorobutadiene	20	0.0500	U
67-72-1	Hexachloroethane	20	0.0500	U
95-48-7	2-Methylphenol	20	0.0500	U
NA	3+4-Methylphenol(s)	20	0.0500	U
98-95-3	Nitrobenzene	20	0.0500	U
87-86-5	Pentachlorophenol (PCP)	20	0.100	U
110-86-1	Pyridine	20	0.100	U
95-95-4	2,4,5-Trichlorophenol	20	0.0500	U
88-06-2	2,4,6-Trichlorophenol	20	0.0500	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	0.0250	0.0173	69	44 - 120	
2-Fluorobiphenyl (Surr)	0.0250	0.0200	80	44 - 120	
Phenol-d6 (Surr)	0.0250	0.00582	23	10 - 120	
p-Terphenyl-d14 (Surr)	0.0250	0.0245	98	50 - 133	
2-Fluorophenol (Surr)	0.0250	0.0108	43	19 - 120	
2,4,6-Tribromophenol (Surr)	0.0250	0.0261	104	43 - 140	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	285308	6.391	273306	6.391	
Naphthalene-d8 (ISTD)	1013740	7.653	1019692	7.648	
Acenaphthene-d10 (ISTD)	577934	9.424	542330	9.424	
Phenanthrene-d10 (ISTD)	1103561	10.937	1038101	10.938	
Chrysene-d12 (ISTD)	1135504	14.521	998531	14.527	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

1311/8270D

PDI-095SC-C-00-8.8-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-02RE1	File ID:	J11071915.D
Sampled:	10/25/19 09:51	Prepared:	11/06/19 13:54	Analyzed:	11/07/19 16:58
Solids:	55.03	Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL
Batch:	9110535	Sequence:	9K07018	Calibration:	A9I2405
Instrument:	SV-GCMS10				

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

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	0.0250	0.0173	69	44 - 120	
2-Fluorobiphenyl (Surr)	0.0250	0.0196	79	44 - 120	
Phenol-d6 (Surr)	0.0250	0.00388	16	10 - 120	
p-Terphenyl-d14 (Surr)	0.0250	0.0230	92	50 - 133	
2-Fluorophenol (Surr)	0.0250	0.00897	36	19 - 120	
2,4,6-Tribromophenol (Surr)	0.0250	0.0197	79	43 - 140	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	283598	6.386	273306	6.391	
Naphthalene-d8 (ISTD)	1087722	7.648	1019692	7.648	
Acenaphthene-d10 (ISTD)	573819	9.424	542330	9.424	
Phenanthrene-d10 (ISTD)	966146	10.932	1038101	10.938	
Chrysene-d12 (ISTD)	883271	14.521	998531	14.527	

* 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: 9110535 Batch Matrix: Soil
Preparation: EPA 1311/3510C (BNA Extraction)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110535-BLK1	J11071904.D	11/06/19 13:54	
LCS	9110535-BS1	J11071905.D	11/06/19 13:54	
LCS Dup	9110535-BSD1	J11071906.D	11/06/19 13:54	
PDI-019SC-C-00-3.2-191025	A9J0954-01RE1	J11071914.D	11/06/19 13:54	
PDI-095SC-C-00-8.8-191025	A9J0954-02RE1	J11071915.D	11/06/19 13:54	

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.

METHOD BLANK DATA SHEET

1311/8270D

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil	Laboratory ID:	9110535-BLK1	File ID:	J11071904.D
Prepared:	11/06/19 13:54	Preparation:	EPA 1311/3510C (BNA Extr	Initial/Final:	200 mL / 2 mL
Analyzed:	11/07/19 10:10	Instrument:	SV-GCMS10		
Batch:	9110535	Sequence:	9K07018	Calibration:	A9I2405

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

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Nitrobenzene-d5 (Surr)	0.0250	0.0195	78	44 - 120	
2-Fluorobiphenyl (Surr)	0.0250	0.0179	72	44 - 120	
Phenol-d6 (Surr)	0.0250	0.00632	25	10 - 120	
p-Terphenyl-d14 (Surr)	0.0250	0.0243	97	50 - 133	
2-Fluorophenol (Surr)	0.0250	0.0114	46	19 - 120	
2,4,6-Tribromophenol (Surr)	0.0250	0.0233	93	43 - 140	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4 (ISTD)	273504	6.397	273306	6.391	
Naphthalene-d8 (ISTD)	1013594	7.648	1019692	7.648	
Acenaphthene-d10 (ISTD)	538821	9.424	542330	9.424	
Phenanthrene-d10 (ISTD)	1019165	10.932	1038101	10.938	
Chrysene-d12 (ISTD)	1081342	14.516	998531	14.527	

LCS / LCS DUPLICATE RECOVERY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9110535	Laboratory ID:	9110535-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	0.0378	95	57 - 128
Hexachlorobenzene	0.0400	0.0383	96	52 - 125
Hexachlorobutadiene	0.0400	0.0281	70	22 - 124
Hexachloroethane	0.0400	0.0235	59	21 - 120
2-Methylphenol	0.0400	0.0258	65	30 - 120
3+4-Methylphenol(s)	0.0400	0.0236	59	29 - 120
Nitrobenzene	0.0400	0.0283	71	45 - 121
Pentachlorophenol (PCP)	0.0400	0.0307	77	35 - 138
Pyridine	0.0400	0.00943	24	5 - 120
2,4,5-Trichlorophenol	0.0400	0.0375	94	53 - 123
2,4,6-Trichlorophenol	0.0400	0.0381	95	50 - 125

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Soil		
Batch:	9110535	Laboratory ID:	9110535-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	0.0417	104	10	30	57 - 128
Hexachlorobenzene	0.0400	0.0376	94	2	30	52 - 125
Hexachlorobutadiene	0.0400	0.0299	75	6	30	22 - 124
Hexachloroethane	0.0400	0.0292	73	22	30	21 - 120
2-Methylphenol	0.0400	0.0271	68	5	30	30 - 120
3+4-Methylphenol(s)	0.0400	0.0244	61	3	30	29 - 120
Nitrobenzene	0.0400	0.0301	75	6	30	45 - 121
Pentachlorophenol (PCP)	0.0400	0.0367	92	18	30	35 - 138
Pyridine	0.0400	0.0156	39	49 *	30	5 - 120
2,4,5-Trichlorophenol	0.0400	0.0403	101	7	30	53 - 123
2,4,6-Trichlorophenol	0.0400	0.0406	102	6	30	50 - 125

* = Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8270D

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

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

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

ANALYSIS BATCH (SEQUENCE) SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K07018	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9K07018-TUN1	J11071901.D	11/07/19 08:30
Calibration Check	9K07018-CCV1	J11071902.D	11/07/19 08:58
Calibration Blank	9K07018-CCB1	J11071903.D	11/07/19 09:33
Blank	9110535-BLK1	J11071904.D	11/07/19 10:10
LCS	9110535-BS1	J11071905.D	11/07/19 10:46
LCS Dup	9110535-BSD1	J11071906.D	11/07/19 11:23
PDI-019SC-C-00-3.2-191025	A9J0954-01RE1	J11071914.D	11/07/19 16:23
PDI-095SC-C-00-8.8-191025	A9J0954-02RE1	J11071915.D	11/07/19 16:58

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.

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	J09191916.D	Injection Date:	09/20/19
Instrument ID:	SV-GCMS10	Injection Time:	00:22
Sequence:	9I19035	Lab Sample ID:	9I19035-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	1.61	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.51	PASS
m/z 197	Less than 2% of m/z 198	0.00	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.90	PASS
m/z 365	1 - 100% of m/z 198	3.17	PASS
m/z 441	Less than 150% of m/z 443	73.90	PASS
m/z 442	0.1 - 200% of m/z 198	95.52	PASS
m/z 443	15 - 24% of m/z 442	19.71	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Lab File ID:	J11071901.D	Injection Date:	11/07/19
Instrument ID:	SV-GCMS10	Injection Time:	08:30
Sequence:	9K07018	Lab Sample ID:	9K07018-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	1.52	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.48	PASS
m/z 197	Less than 2% of m/z 198	0.23	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.95	PASS
m/z 365	1 - 100% of m/z 198	3.83	PASS
m/z 441	Less than 150% of m/z 443	75.29	PASS
m/z 442	0.1 - 200% of m/z 198	123.29	PASS
m/z 443	15 - 24% of m/z 442	19.88	PASS

INITIAL CALIBRATION DATA (Summary)

1311/8270D

Laboratory: Apex Laboratories SDG: Gasco_PreRD_DG 2019

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

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

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

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

INITIAL CALIBRATION DATA

1311/8270D

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9I2405

SDG: Gasco_PreRD_DG 2019

Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte

Instrument: SV-GCMS10

Calibration Date: 09/24/19 12:40

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
2,4-Dinitrotoluene	20	~~0.1603367~~	50	~~0.1627974~~	100	0.2214885	200	0.2765041	500	0.369336	1000	0.3982255
Hexachlorobenzene	20	0.3002082	50	0.2799895	100	0.2916868	200	0.277925	500	0.2949459	1000	0.2857907
Hexachlorobutadiene	20	0.1839228	50	0.199773	100	0.1954379	200	0.2004045	500	0.2006305	1000	0.1988902
Hexachloroethane	20	0.4342819	50	0.4549996	100	0.4516267	200	0.4715052	500	0.4944285	1000	0.4835438
2-Methylphenol	20	0.9295757	50	0.8796476	100	0.9810251	200	1.076563	500	1.154826	1000	1.147864
3+4-Methylphenol(s)	20	1.06531	50	1.132761	100	1.159969	200	1.345101	500	1.440506	1000	1.458462
Nitrobenzene	20	1.075593	50	1.183026	100	1.189288	200	1.30162	500	1.340887	1000	1.326686
Pentachlorophenol (PCP)	20	~~8.691609E-02~~	50	~~5.118127E-02~~	100	7.761508E-02	200	6.955638E-02	500	0.1080871	1000	0.1222728
Pyridine	20	~~0.7561372~~	50	1.052968	100	1.276558	200	1.345625	500	1.118092	1000	1.285171
2,4,5-Trichlorophenol	20	~~0.1901559~~	50	0.2373804	100	0.2701951	200	0.3011386	500	0.3811527	1000	0.3898394
2,4,6-Trichlorophenol	20	~~0.1746999~~	50	0.2365366	100	0.2572544	200	0.3068435	500	0.3835634	1000	0.4024493
Nitrobenzene-d5 (Surr)	20	0.9806475	50	1.085379	100	1.135054	200	1.209032	500	1.31341	1000	1.321832
2-Fluorobiphenyl (Surr)	20	1.476909	50	1.609929	100	1.734744	200	1.751334	500	1.739556	1000	1.652173
Phenol-d6 (Surr)	20	1.197274	50	1.304845	100	1.445522	200	1.602349	500	1.667059	1000	1.681755
p-Terphenyl-d14 (Surr)	20	0.8205178	50	0.9023018	100	0.9773009	200	0.9592621	500	0.994643	1000	0.9688955
2-Fluorophenol (Surr)	20	0.9398586	50	1.045277	100	0.9521188	200	1.216931	500	1.280008	1000	1.263499
2,4,6-Tribromophenol (Surr)	20	~~6.623006E-02~~	50	7.092577E-02	100	8.598271E-02	200	9.861561E-02	500	0.1200291	1000	0.122147

INITIAL CALIBRATION DATA (Continued)

1311/8270D

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characte
Calibration: A9I2405
Instrument: SV-GCMS10
Matrix:
Calibration Date: 09/24/19 12:40

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
2,4-Dinitrotoluene	2000	0.4391508	4000	0.4369418	6000	0.4126319	8000	0.3656313				
Hexachlorobenzene	2000	0.2793127	4000	0.2519446	6000	0.2310087	8000	0.2145459				
Hexachlorobutadiene	2000	0.1905242	4000	0.1849175	6000	0.1738819	8000	0.1631409				
Hexachloroethane	2000	0.5034331	4000	0.5096268	6000	0.5004542	8000	0.5029646				
2-Methylphenol	2000	1.116896	4000	1.057322	6000	1.00091	8000	0.9567711				
3+4-Methylphenol(s)	2000	1.400529	4000	1.304656	6000	1.18889	8000	~~1.118737~~				
Nitrobenzene	2000	1.280974	4000	1.234394	6000	1.165306	8000	1.112587				
Pentachlorophenol (PCP)	2000	0.1418302	4000	0.1484859	6000	0.1453844	8000	0.1384905				
Pyridine	2000	1.375861	4000	1.417463	6000	1.442542	8000	1.374592				
2,4,5-Trichlorophenol	2000	0.4178827	4000	0.4063886	6000	0.3928207	8000	0.3663551				
2,4,6-Trichlorophenol	2000	0.4232436	4000	0.4186057	6000	0.4009108	8000	0.3885235				
Nitrobenzene-d5 (Surr)	2000	1.281854	4000	1.28613	6000	1.24582	8000	1.192526				
2-Fluorobiphenyl (Surr)	2000	1.564374	4000	1.350787	6000	1.207146	8000	~~1.092707~~				
Phenol-d6 (Surr)	2000	1.673553	4000	1.705426	6000	1.658679	8000	1.598233				
p-Terphenyl-d14 (Surr)	2000	0.953339	4000	0.9235964	6000	0.8801238	8000	0.8367959				
2-Fluorophenol (Surr)	2000	1.332531	4000	1.380766	6000	1.371479	8000	1.354202				
2,4,6-Tribromophenol (Surr)	2000	0.1302975	4000	0.1246898	6000	0.1182398	8000	0.1123724				

SECOND-SOURCE CALIBRATION VERIFICATION

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Charac
Instrument ID:	SV-GCMS10	Calibration:	A9I2405
Lab File ID:	J09191929.D		
Sequence:	9I19035	Inject Date:	09/20/19
Lab Sample ID:	9I19035-ICV1	Inject Time:	07:50

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
2,4-Dinitrotoluene	1000	1050	4.8	70 - 130
Hexachlorobenzene	1000	1010	1.0	70 - 130
Hexachlorobutadiene	1000	1040	3.7	70 - 130
Hexachloroethane	1000	1040	4.1	70 - 130
2-Methylphenol	1000	1050	5.3	70 - 130
3+4-Methylphenol(s)	1000	1070	6.7	70 - 130
Nitrobenzene	1000	1060	5.8	70 - 130
Pentachlorophenol (PCP)	1000	976	-2.4	70 - 130
Pyridine	1000	896	-10.4	70 - 130
2,4,5-Trichlorophenol	1000	1050	4.8	70 - 130
2,4,6-Trichlorophenol	1000	1030	3.4	70 - 130
Nitrobenzene-d5 (Surr)	1000	1070	6.6	70 - 130
2-Fluorobiphenyl (Surr)	1000	1060	6.2	70 - 130
Phenol-d6 (Surr)	1000	1020	1.6	70 - 130
p-Terphenyl-d14 (Surr)	1000	1060	6.1	70 - 130
2-Fluorophenol (Surr)	1000	981	-1.9	70 - 130
2,4,6-Tribromophenol (Surr)	1000	1040	4.1	70 - 130

CONTINUING CALIBRATION CHECK

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Instrument ID:	SV-GCMS10	Calibration:	A9I2405
Lab File ID:	J11071902.D	Calibration Date:	09/24/19 12:40
Sequence:	9K07018	Injection Date:	11/07/19
Lab Sample ID:	9K07018-CCV1	Injection Time:	08:58

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	1130	12.8				20
Hexachlorobenzene	Ave	1000	1030		0.2707358	0.279705	3.3	20
Hexachlorobutadiene	Ave	1000	1120		0.1891523	0.2112971	11.7	20
Hexachloroethane	Ave	1000	1100		0.4806864	0.5279138	9.8	20
2-Methylphenol	Ave	1000	965		1.03014	0.9942263	-3.5	20
3+4-Methylphenol(s)	Ave	1000	967		1.277354	1.235824	-3.3	20
Nitrobenzene	Ave	1000	862		1.221036	1.052227	-13.8	20
Pentachlorophenol (PCP)	XXX	1000	1080	8.4				20
Pyridine	Ave	1000	798		1.298764	1.036062	-20.2*	20
2,4,5-Trichlorophenol	XXX	1000	1120	12.0				20
2,4,6-Trichlorophenol	XXX	1000	1120	12.2				20

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

* = Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8270D

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

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

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K07018	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9K07018-CCV1)			Lab File ID: J11071902.D		Analyzed: 11/07/19 08:58			
Nitrobenzene-d5 (Surr)	1000	89	80 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	1000	106	80 - 120	8.739	8.927444	-0.1884	+/-1.0	
Phenol-d6 (Surr)	1000	90	80 - 120	6.038	6.2088	-0.1708	+/-1.0	
p-Terphenyl-d14 (Surr)	1000	108	80 - 120	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	1000	99	80 - 120	5.14	5.3054	-0.1654	+/-1.0	
2,4,6-Tribromophenol (Surr)	1000	99	80 - 120	10.226	10.42356	-0.1976	+/-1.0	
Calibration Blank (9K07018-CCB1)			Lab File ID: J11071903.D		Analyzed: 11/07/19 09:33			
Nitrobenzene-d5 (Surr)			44 - 120	0	7.1168	-7.1168	+/-1.0	
2-Fluorobiphenyl (Surr)			44 - 120	0	8.927444	-8.9274	+/-1.0	
Phenol-d6 (Surr)			10 - 120	0	6.2088	-6.2088	+/-1.0	
p-Terphenyl-d14 (Surr)			50 - 133	12.67	12.9267	-0.2567	+/-1.0	
2-Fluorophenol (Surr)			19 - 120	0	5.3054	-5.3054	+/-1.0	
2,4,6-Tribromophenol (Surr)			43 - 140	0	10.42356	-10.4236	+/-1.0	
Blank (9110535-BLK1)			Lab File ID: J11071904.D		Analyzed: 11/07/19 10:10			
Nitrobenzene-d5 (Surr)	0.0250	78	44 - 120	6.937	7.1168	-0.1798	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	72	44 - 120	8.739	8.927444	-0.1884	+/-1.0	
Phenol-d6 (Surr)	0.0250	25	10 - 120	6.049	6.2088	-0.1598	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	97	50 - 133	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	0.0250	46	19 - 120	5.161	5.3054	-0.1444	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	93	43 - 140	10.226	10.42356	-0.1976	+/-1.0	
LCS (9110535-BS1)			Lab File ID: J11071905.D		Analyzed: 11/07/19 10:46			
Nitrobenzene-d5 (Surr)	0.0250	74	44 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	86	44 - 120	8.739	8.927444	-0.1884	+/-1.0	
Phenol-d6 (Surr)	0.0250	25	10 - 120	6.038	6.2088	-0.1708	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	105	50 - 133	12.66	12.9267	-0.2667	+/-1.0	
2-Fluorophenol (Surr)	0.0250	45	19 - 120	5.129	5.3054	-0.1764	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	91	43 - 140	10.226	10.42356	-0.1976	+/-1.0	
LCS Dup (9110535-BSD1)			Lab File ID: J11071906.D		Analyzed: 11/07/19 11:23			
Nitrobenzene-d5 (Surr)	0.0250	76	44 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	92	44 - 120	8.739	8.927444	-0.1884	+/-1.0	
Phenol-d6 (Surr)	0.0250	25	10 - 120	6.049	6.2088	-0.1598	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	105	50 - 133	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	0.0250	46	19 - 120	5.15	5.3054	-0.1554	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	93	43 - 140	10.226	10.42356	-0.1976	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K07018	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
PDI-019SC-C-00-3.2-191025 (A9J0954-01RE1)			Lab File ID: J11071914.D		Analyzed: 11/07/19 16:23			
Nitrobenzene-d5 (Surr)	0.0250	69	44 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	80	44 - 120	8.739	8.927444	-0.1884	+/-1.0	
Phenol-d6 (Surr)	0.0250	23	10 - 120	6.049	6.2088	-0.1598	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	98	50 - 133	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	0.0250	43	19 - 120	5.145	5.3054	-0.1604	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	104	43 - 140	10.226	10.42356	-0.1976	+/-1.0	
PDI-095SC-C-00-8.8-191025 (A9J0954-02RE1)			Lab File ID: J11071915.D		Analyzed: 11/07/19 16:58			
Nitrobenzene-d5 (Surr)	0.0250	69	44 - 120	6.931	7.1168	-0.1858	+/-1.0	
2-Fluorobiphenyl (Surr)	0.0250	79	44 - 120	8.739	8.927444	-0.1884	+/-1.0	
Phenol-d6 (Surr)	0.0250	16	10 - 120	6.043	6.2088	-0.1658	+/-1.0	
p-Terphenyl-d14 (Surr)	0.0250	92	50 - 133	12.665	12.9267	-0.2617	+/-1.0	
2-Fluorophenol (Surr)	0.0250	36	19 - 120	5.134	5.3054	-0.1714	+/-1.0	
2,4,6-Tribromophenol (Surr)	0.0250	79	43 - 140	10.226	10.42356	-0.1976	+/-1.0	

INTERNAL STANDARD AREA AND RT SUMMARY
1311/8270D

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence:	9K07018	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (9K07018-CCV1)			Lab File ID: J11071902.D			Analyzed: 11/07/19 08:58			
1,4-Dichlorobenzene-d4 (ISTD)	273306	6.391	283511	6.568	96	50 - 200	-0.1770	+/-0.50	
Naphthalene-d8 (ISTD)	1019692	7.648	1143968	7.835	89	50 - 200	-0.1870	+/-0.50	
Acenaphthene-d10 (ISTD)	542330	9.424	583825	9.616	93	50 - 200	-0.1920	+/-0.50	
Phenanthrene-d10 (ISTD)	1038101	10.938	1065192	11.135	97	50 - 200	-0.1970	+/-0.50	
Chrysene-d12 (ISTD)	998531	14.527	1048464	14.917	95	50 - 200	-0.3900	+/-0.50	
Calibration Blank (9K07018-CCB1)			Lab File ID: J11071903.D			Analyzed: 11/07/19 09:33			
1,4-Dichlorobenzene-d4 (ISTD)	295675	6.38	273306	6.391	108	50 - 200	-0.0110	+/-0.50	
Naphthalene-d8 (ISTD)	1103503	7.648	1019692	7.648	108	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	581583	9.424	542330	9.424	107	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	1057958	10.932	1038101	10.938	102	50 - 200	-0.0060	+/-0.50	
Chrysene-d12 (ISTD)	1099883	14.521	998531	14.527	110	50 - 200	-0.0060	+/-0.50	
Blank (9110535-BLK1)			Lab File ID: J11071904.D			Analyzed: 11/07/19 10:10			
1,4-Dichlorobenzene-d4 (ISTD)	273504	6.397	273306	6.391	100	50 - 200	0.0060	+/-0.50	
Naphthalene-d8 (ISTD)	1013594	7.648	1019692	7.648	99	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	538821	9.424	542330	9.424	99	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	1019165	10.932	1038101	10.938	98	50 - 200	-0.0060	+/-0.50	
Chrysene-d12 (ISTD)	1081342	14.516	998531	14.527	108	50 - 200	-0.0110	+/-0.50	
LCS (9110535-BS1)			Lab File ID: J11071905.D			Analyzed: 11/07/19 10:46			
1,4-Dichlorobenzene-d4 (ISTD)	277048	6.386	273306	6.391	101	50 - 200	-0.0050	+/-0.50	
Naphthalene-d8 (ISTD)	1010400	7.648	1019692	7.648	99	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	544114	9.424	542330	9.424	100	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	984343	10.932	1038101	10.938	95	50 - 200	-0.0060	+/-0.50	
Chrysene-d12 (ISTD)	853868	14.521	998531	14.527	86	50 - 200	-0.0060	+/-0.50	
LCS Dup (9110535-BSD1)			Lab File ID: J11071906.D			Analyzed: 11/07/19 11:23			
1,4-Dichlorobenzene-d4 (ISTD)	285245	6.391	273306	6.391	104	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	1035826	7.648	1019692	7.648	102	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	552156	9.429	542330	9.424	102	50 - 200	0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	1061218	10.932	1038101	10.938	102	50 - 200	-0.0060	+/-0.50	
Chrysene-d12 (ISTD)	1083036	14.526	998531	14.527	108	50 - 200	-0.0010	+/-0.50	
PDI-019SC-C-00-3.2-191025 (A9J0954-01RE1)			Lab File ID: J11071914.D			Analyzed: 11/07/19 16:23			
1,4-Dichlorobenzene-d4 (ISTD)	285308	6.391	273306	6.391	104	50 - 200	0.0000	+/-0.50	
Naphthalene-d8 (ISTD)	1013740	7.653	1019692	7.648	99	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10 (ISTD)	577934	9.424	542330	9.424	107	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	1103561	10.937	1038101	10.938	106	50 - 200	-0.0010	+/-0.50	
Chrysene-d12 (ISTD)	1135504	14.521	998531	14.527	114	50 - 200	-0.0060	+/-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:	9K07018	Instrument:	SV-GCMS10
Matrix:	Soil	Calibration:	A9I2405

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PDI-095SC-C-00-8.8-191025 (A9J0954-02RE1)			Lab File ID: J11071915.D			Analyzed: 11/07/19 16:58			
1,4-Dichlorobenzene-d4 (ISTD)	283598	6.386	273306	6.391	104	50 - 200	-0.0050	+/-0.50	
Naphthalene-d8 (ISTD)	1087722	7.648	1019692	7.648	107	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	573819	9.424	542330	9.424	106	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	966146	10.932	1038101	10.938	93	50 - 200	-0.0060	+/-0.50	
Chrysene-d12 (ISTD)	883271	14.521	998531	14.527	88	50 - 200	-0.0060	+/-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-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	11/06/19 13:54	12.12	7.00	11/07/19 16:23	1.10	40.00	*
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	11/06/19 13:54	12.17	7.00	11/07/19 16:58	1.13	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-019SC-C-00-3.2-191025	A9J0954-01	Sediment
PDI-095SC-C-00-8.8-191025	A9J0954-02	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 3:54PM
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-019SC-C-00-3.2-191025

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0954-01
File ID: 9K01022-098
Sampled: 10/25/19 11:06
Prepared: 11/01/19 10:01
Analyzed: 11/01/19 19:15
Solids: 75.94
Preparation: EPA 3051A
Initial/Final: 0.49 g / 50 mL
Batch: 9110369
Sequence: 9K01022
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	3.10	5		EPA 6020A
7440-39-3	Barium	123	5		EPA 6020A
7440-43-9	Cadmium	0.155	5		EPA 6020A
7440-47-3	Chromium	23.1	5		EPA 6020A
7439-92-1	Lead	6.51	5		EPA 6020A
7782-49-2	Selenium	0.336	5	U	EPA 6020A
7440-22-4	Silver	0.112	5	J	EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-019SC-C-00-3.2-191025

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0954-01RE1
File ID: 9K04033-040
Sampled: 10/25/19 11:06
Prepared: 11/01/19 10:01
Analyzed: 11/04/19 14:47
Solids: 75.94
Preparation: EPA 3051A
Initial/Final: 0.49 g / 50 mL
Batch: 9110369
Sequence: 9K04033
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7439-97-6	Mercury	0.0576	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-095SC-C-00-8.8-191025

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0954-02
File ID: 9K01022-099
Sampled: 10/25/19 09:51
Prepared: 11/01/19 10:01
Analyzed: 11/01/19 19:19
Solids: 55.03
Preparation: EPA 3051A
Initial/Final: 0.49 g / 50 mL
Batch: 9110369
Sequence: 9K01022
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	7.03	5		EPA 6020A
7440-39-3	Barium	236	5		EPA 6020A
7440-43-9	Cadmium	0.656	5		EPA 6020A
7440-47-3	Chromium	50.8	5		EPA 6020A
7439-92-1	Lead	32.5	5		EPA 6020A
7782-49-2	Selenium	0.464	5	U	EPA 6020A
7440-22-4	Silver	0.958	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-095SC-C-00-8.8-191025

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0954-02RE1
File ID: 9K04033-041
Sampled: 10/25/19 09:51
Prepared: 11/01/19 10:01
Analyzed: 11/04/19 14:51
Solids: 55.03
Preparation: EPA 3051A
Initial/Final: 0.49 g / 50 mL
Batch: 9110369
Sequence: 9K04033
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7439-97-6	Mercury	0.378	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: 9110369 Batch Matrix: Sediment Preparation: EPA 3051A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110369-BLK1	9K01022-096	11/01/19 10:01	
Blank	9110369-BLK2	9K04033-038	11/01/19 10:01	
LCS	9110369-BS1	9K01022-097	11/01/19 10:01	
LCS	9110369-BS2	9K04033-039	11/01/19 10:01	
PDI-019SC-C-00-3.2-191025	A9J0954-01	9K01022-098	11/01/19 10:01	
PDI-019SC-C-00-3.2-191025	A9J0954-01RE1	9K04033-040	11/01/19 10:01	
PDI-095SC-C-00-8.8-191025	A9J0954-02	9K01022-099	11/01/19 10:01	
PDI-095SC-C-00-8.8-191025	A9J0954-02RE1	9K04033-041	11/01/19 10:01	

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:	9110369-BLK1	File ID:	9K01022-096
Prepared:	11/01/19 10:01	Preparation:	EPA 3051A	Initial/Final:	0.52 g / 50 mL
Analyzed:	11/01/19 19:05	Instrument:	ICPMS5		
Batch:	9110369	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
7782-49-2	Selenium	0.240	U
7440-22-4	Silver	0.0481	U

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:	9110369-BLK2	File ID:	9K04033-038
Prepared:	11/01/19 10:01	Preparation:	EPA 3051A	Initial/Final:	0.52 g / 50 mL
Analyzed:	11/04/19 14:37	Instrument:	ICPMS5		
Batch:	9110369	Sequence:	9K04033	Calibration:	UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
7439-97-6	Mercury	0.0192	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:	9110369	Laboratory ID:	9110369-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	26.4	106	80 - 120
Barium	25.0	28.6	114	80 - 120
Cadmium	25.0	26.0	104	80 - 120
Chromium	25.0	27.0	108	80 - 120
Lead	25.0	24.6	98	80 - 120
Selenium	12.5	12.5	100	80 - 120
Silver	12.5	14.0	112	80 - 120

* = Values outside of QC limits

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:	9110369	Laboratory ID:	9110369-BS2
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.
Mercury	0.500	0.503	101	80 - 120

* = Values outside of QC limits

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
Calibration Check	9K01022-CCV7	9K01022-092	11/01/19 18:47
Calibration Blank	9K01022-CCB6	9K01022-093	11/01/19 18:51
Blank	9110369-BLK1	9K01022-096	11/01/19 19:05
LCS	9110369-BS1	9K01022-097	11/01/19 19:10
PDI-019SC-C-00-3.2-191025	A9J0954-01	9K01022-098	11/01/19 19:15
PDI-095SC-C-00-8.8-191025	A9J0954-02	9K01022-099	11/01/19 19:19
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

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-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.

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:	9K04033	Instrument:	ICPMS5
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	9K04033-ICV1	9K04033-013	11/04/19 12:26
Initial Cal Blank	9K04033-ICB2	9K04033-015	11/04/19 12:35
Instrument RL Check	9K04033-CRL1	9K04033-016	11/04/19 12:40
Instrument RL Check	9K04033-CRL2	9K04033-017	11/04/19 12:45
Instrument RL Check	9K04033-CRL3	9K04033-018	11/04/19 12:49
Calibration Check	9K04033-CCV1	9K04033-032	11/04/19 14:02
Calibration Blank	9K04033-CCB1	9K04033-033	11/04/19 14:07
Blank	9110369-BLK2	9K04033-038	11/04/19 14:37
LCS	9110369-BS2	9K04033-039	11/04/19 14:42
PDI-019SC-C-00-3.2-191025	A9J0954-01RE1	9K04033-040	11/04/19 14:47
PDI-095SC-C-00-8.8-191025	A9J0954-02RE1	9K04033-041	11/04/19 14:51
Calibration Check	9K04033-CCV2	9K04033-044	11/04/19 15:05
Calibration Blank	9K04033-CCB2	9K04033-045	11/04/19 15:10
Calibration Check	9K04033-CCV3	9K04033-056	11/04/19 16:02
Calibration Blank	9K04033-CCB3	9K04033-058	11/04/19 16:11
Calibration Check	9K04033-CCV5	9K04033-069	11/04/19 17:02
Calibration Blank	9K04033-CCB4	9K04033-070	11/04/19 17:06
Instrument RL Check	9K04033-CRL4	9K04033-071	11/04/19 17:11
Instrument RL Check	9K04033-CRL5	9K04033-072	11/04/19 17:16
Instrument RL Check	9K04033-CRL6	9K04033-073	11/04/19 17:21
Calibration Check	9K04033-CCV6	9K04033-084	11/04/19 18:12
Calibration Blank	9K04033-CCB5	9K04033-085	11/04/19 18:16
Calibration Check	9K04033-CCV7	9K04033-096	11/04/19 19:07
Calibration Blank	9K04033-CCB6	9K04033-097	11/04/19 19:12
Calibration Check	9K04033-CCV8	9K04033-108	11/04/19 20:03
Calibration Blank	9K04033-CCB7	9K04033-109	11/04/19 20:08
Calibration Blank	9K04033-CCB8	9K04033-110	11/04/19 20:12
Calibration Check	9K04033-CCV9	9K04033-114	11/04/19 20:31
Calibration Blank	9K04033-CCB9	9K04033-115	11/04/19 20:35
Instrument RL Check	9K04033-CRL7	9K04033-116	11/04/19 20:40
Instrument RL Check	9K04033-CRL8	9K04033-117	11/04/19 20:45
Instrument RL Check	9K04033-CRL9	9K04033-118	11/04/19 20:50
Instrument RL Check	9K04033-CRLA	9K04033-119	11/04/19 20:54

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.

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

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: 9K04033

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K04033-ICV1	Arsenic	100	98.8	99	ug/L	EPA 6020A
	Barium	100	104	104	ug/L	EPA 6020A
	Cadmium	100	98.6	99	ug/L	EPA 6020A
	Chromium	100	98.7	99	ug/L	EPA 6020A
	Lead	100	101	101	ug/L	EPA 6020A
	Mercury	800	821	103	ng/L	EPA 6020A
	Selenium	40.0	39.5	99	ug/L	EPA 6020A
	Silver	40.0	41.2	103	ug/L	EPA 6020A
9K04033-CCV1	Arsenic	100	97.9	98	ug/L	EPA 6020A
	Barium	100	102	102	ug/L	EPA 6020A
	Cadmium	100	99.6	100	ug/L	EPA 6020A
	Chromium	100	97.9	98	ug/L	EPA 6020A
	Lead	100	101	101	ug/L	EPA 6020A
	Mercury	800	798	100	ng/L	EPA 6020A
	Selenium	40.0	39.9	100	ug/L	EPA 6020A
	Silver	40.0	41.5	104	ug/L	EPA 6020A
9K04033-CCV2	Arsenic	100	98.3	98	ug/L	EPA 6020A
	Barium	100	104	104	ug/L	EPA 6020A
	Cadmium	100	98.1	98	ug/L	EPA 6020A
	Chromium	100	98.1	98	ug/L	EPA 6020A
	Lead	100	98.5	99	ug/L	EPA 6020A
	Mercury	800	789	99	ng/L	EPA 6020A
	Selenium	40.0	40.0	100	ug/L	EPA 6020A
	Silver	40.0	41.1	103	ug/L	EPA 6020A
9K04033-CCV3	Arsenic	100	99.0	99	ug/L	EPA 6020A
	Barium	100	106	106	ug/L	EPA 6020A
	Cadmium	100	98.1	98	ug/L	EPA 6020A
	Chromium	100	99.4	99	ug/L	EPA 6020A
	Lead	100	95.9	96	ug/L	EPA 6020A
	Mercury	800	774	97	ng/L	EPA 6020A
	Selenium	40.0	39.9	100	ug/L	EPA 6020A
	Silver	40.0	40.9	102	ug/L	EPA 6020A
9K04033-CCV5	Arsenic	100	102	102	ug/L	EPA 6020A
	Barium	100	107	107	ug/L	EPA 6020A
	Cadmium	100	98.8	99	ug/L	EPA 6020A
	Chromium	100	100	100	ug/L	EPA 6020A
	Lead	100	95.9	96	ug/L	EPA 6020A
	Mercury	800	751	94	ng/L	EPA 6020A
	Selenium	40.0	40.0	100	ug/L	EPA 6020A
	Silver	40.0	41.1	103	ug/L	EPA 6020A
9K04033-CCV6	Arsenic	100	98.4	98	ug/L	EPA 6020A
	Barium	100	104	104	ug/L	EPA 6020A
	Cadmium	100	99.1	99	ug/L	EPA 6020A
	Chromium	100	97.7	98	ug/L	EPA 6020A
	Lead	100	94.7	95	ug/L	EPA 6020A
	Mercury	800	766	96	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: 9K04033

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K04033-CCV6	Selenium	40.0	40.5	101	ug/L	EPA 6020A
	Silver	40.0	41.1	103	ug/L	EPA 6020A
9K04033-CCV7	Arsenic	100	97.8	98	ug/L	EPA 6020A
	Barium	100	104	104	ug/L	EPA 6020A
	Cadmium	100	100	100	ug/L	EPA 6020A
	Chromium	100	98.1	98	ug/L	EPA 6020A
	Lead	100	96.1	96	ug/L	EPA 6020A
	Mercury	800	754	94	ng/L	EPA 6020A
	Selenium	40.0	40.1	100	ug/L	EPA 6020A
	Silver	40.0	41.2	103	ug/L	EPA 6020A
9K04033-CCV8	Arsenic	100	97.9	98	ug/L	EPA 6020A
	Barium	100	104	104	ug/L	EPA 6020A
	Cadmium	100	98.6	99	ug/L	EPA 6020A
	Chromium	100	100	100	ug/L	EPA 6020A
	Lead	100	94.8	95	ug/L	EPA 6020A
	Mercury	800	744	93	ng/L	EPA 6020A
	Selenium	40.0	40.6	101	ug/L	EPA 6020A
	Silver	40.0	41.0	103	ug/L	EPA 6020A
9K04033-CCV9	Arsenic	100	98.5	99	ug/L	EPA 6020A
	Barium	100	104	104	ug/L	EPA 6020A
	Cadmium	100	100	100	ug/L	EPA 6020A
	Chromium	100	98.1	98	ug/L	EPA 6020A
	Lead	100	94.3	94	ug/L	EPA 6020A
	Mercury	800	730	91	ng/L	EPA 6020A
	Selenium	40.0	41.2	103	ug/L	EPA 6020A
	Silver	40.0	41.6	104	ug/L	EPA 6020A

* Values outside of QC limits

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-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.

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: 9K04033
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K04033-ICB2	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
9K04033-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
9K04033-CCB2	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
	Mercury	ND	40.0 (Inst)	ng/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
9K04033-CCB3	Selenium	ND	0.500 (Inst)	ug/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
	Chromium	ND	0.500 (Inst)	ug/L		EPA 6020A
	Cadmium	ND	0.100 (Inst)	ug/L		EPA 6020A
	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
9K04033-CCB4	Lead	ND	0.100 (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: 9K04033
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K04033-CCB4	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
	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
9K04033-CCB5	Silver	ND	0.100 (Inst)	ug/L		EPA 6020A
	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
	Lead	ND	0.100 (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
9K04033-CCB6	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Chromium	ND	0.500 (Inst)	ug/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
	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
9K04033-CCB7	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
9K04033-CCB8	Mercury	ND	40.0 (Inst)	ng/L		EPA 6020A
	Barium	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: 9K04033
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K04033-CCB8	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
	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
9K04033-CCB9	Mercury	ND	40.0 (Inst)	ng/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
	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

(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

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: 9K04033

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K04033-CRL1	Arsenic	0.180	0.178	99	ug/L	70 - 130
	Cadmium	0.180	0.229	127	ug/L	70 - 130
	Chromium	0.180	0.218	121	ug/L	70 - 130
	Lead	0.180	0.231	128	ug/L	70 - 130
	Mercury	7.20	7.75	108	ng/L	70 - 130
	Selenium	0.180	0.187	104	ug/L	70 - 130
	Silver	0.180	0.183	102	ug/L	70 - 130
9K04033-CRL2	Arsenic	0.900	0.909	101	ug/L	70 - 130
	Barium	0.900	1.03	114	ug/L	70 - 130
	Cadmium	0.900	0.988	110	ug/L	70 - 130
	Chromium	0.900	0.949	105	ug/L	70 - 130
	Lead	0.900	0.970	108	ug/L	70 - 130
	Mercury	36.0	37.6	104	ng/L	70 - 130
	Selenium	0.900	0.916	102	ug/L	70 - 130
	Silver	0.900	0.918	102	ug/L	70 - 130
9K04033-CRL3	Arsenic	1.80	1.83	101	ug/L	70 - 130
	Barium	1.80	1.97	110	ug/L	70 - 130
	Cadmium	1.80	1.85	103	ug/L	70 - 130
	Chromium	1.80	1.82	101	ug/L	70 - 130
	Lead	1.80	1.90	106	ug/L	70 - 130
	Mercury	72.0	67.9	94	ng/L	70 - 130
	Selenium	1.80	1.75	97	ug/L	70 - 130
	Silver	1.80	1.77	98	ug/L	70 - 130
9K04033-CRL4	Arsenic	0.180	0.174	96	ug/L	70 - 130
	Barium	0.180	0.216	120	ug/L	70 - 130
	Cadmium	0.180	0.201	111	ug/L	70 - 130
	Chromium	0.180	0.183	101	ug/L	70 - 130
	Lead	0.180	0.200	111	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: 9K04033

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K04033-CRL4	Mercury	7.20	9.39	130	ng/L	70 - 130
	Selenium	0.180	0.182	101	ug/L	70 - 130
	Silver	0.180	0.182	101	ug/L	70 - 130
9K04033-CRL5	Arsenic	0.900	0.901	100	ug/L	70 - 130
	Barium	0.900	1.02	114	ug/L	70 - 130
	Cadmium	0.900	0.903	100	ug/L	70 - 130
	Chromium	0.900	0.910	101	ug/L	70 - 130
	Lead	0.900	0.876	97	ug/L	70 - 130
	Mercury	36.0	32.6	90	ng/L	70 - 130
	Selenium	0.900	0.880	98	ug/L	70 - 130
	Silver	0.900	0.898	100	ug/L	70 - 130
9K04033-CRL6	Arsenic	1.80	1.88	105	ug/L	70 - 130
	Barium	1.80	2.01	112	ug/L	70 - 130
	Cadmium	1.80	1.81	101	ug/L	70 - 130
	Chromium	1.80	1.82	101	ug/L	70 - 130
	Lead	1.80	1.73	96	ug/L	70 - 130
	Mercury	72.0	68.9	96	ng/L	70 - 130
	Selenium	1.80	1.85	103	ug/L	70 - 130
	Silver	1.80	1.80	100	ug/L	70 - 130
9K04033-CRL7	Arsenic	0.180	0.146	81	ug/L	70 - 130
	Barium	0.180	0.220	122	ug/L	70 - 130
	Cadmium	0.180	0.186	104	ug/L	70 - 130
	Chromium	0.180	0.173	96	ug/L	70 - 130
	Lead	0.180	0.222	123	ug/L	70 - 130
	Mercury	7.20	6.17	86	ng/L	70 - 130
	Selenium	0.180	0.196	109	ug/L	70 - 130
	Silver	0.180	0.185	103	ug/L	70 - 130
9K04033-CRL8	Arsenic	0.900	0.872	97	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: 9K04033

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K04033-CRL8	Barium	0.900	0.953	106	ug/L	70 - 130
	Cadmium	0.900	0.958	106	ug/L	70 - 130
	Chromium	0.900	0.867	96	ug/L	70 - 130
	Lead	0.900	0.894	99	ug/L	70 - 130
	Mercury	36.0	30.5	85	ng/L	70 - 130
	Selenium	0.900	0.966	107	ug/L	70 - 130
	Silver	0.900	0.876	97	ug/L	70 - 130
9K04033-CRL9	Arsenic	1.80	1.82	101	ug/L	70 - 130
	Barium	1.80	2.00	111	ug/L	70 - 130
	Cadmium	1.80	1.83	102	ug/L	70 - 130
	Chromium	1.80	1.76	98	ug/L	70 - 130
	Lead	1.80	1.73	96	ug/L	70 - 130
	Mercury	72.0	63.7	88	ng/L	70 - 130
	Selenium	1.80	1.73	96	ug/L	70 - 130
	Silver	1.80	1.83	102	ug/L	70 - 130
9K04033-CRLA	Arsenic	3.60	3.68	102	ug/L	70 - 130
	Barium	3.60	3.82	106	ug/L	70 - 130
	Cadmium	3.60	3.74	104	ug/L	70 - 130
	Chromium	3.60	3.45	96	ug/L	70 - 130
	Lead	3.60	3.47	96	ug/L	70 - 130
	Mercury	144	120	84	ng/L	70 - 130
	Selenium	3.60	3.68	102	ug/L	70 - 130
	Silver	3.60	3.67	102	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-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	11/01/19 10:01	6.95	180.00	11/01/19 19:15	7.34	180.00	
PDI-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	11/01/19 10:01	6.95	56.00	11/04/19 14:47	10.15	56.00	
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	11/01/19 10:01	7.01	180.00	11/01/19 19:19	7.39	180.00	
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	11/01/19 10:01	7.01	56.00	11/04/19 14:51	10.21	56.00	

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-019SC-C-00-3.2-191025	A9J0954-01	Sediment
PDI-095SC-C-00-8.8-191025	A9J0954-02	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 3:54PM
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: Solid

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-019SC-C-00-3.2-191025

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0954-01
File ID: 9K06041-049
Sampled: 10/25/19 11:06
Prepared: 11/06/19 10:26
Analyzed: 11/06/19 14:30
Solids: 75.94
Preparation: EPA 1311/3015
Initial/Final: 10 mL / 50 mL
Batch: 9110517
Sequence: 9K06041
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-095SC-C-00-8.8-191025

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0954-02
File ID: 9K06041-050
Sampled: 10/25/19 09:51
Prepared: 11/06/19 10:26
Analyzed: 11/06/19 14:35
Solids: 55.03
Preparation: EPA 1311/3015
Initial/Final: 10 mL / 50 mL
Batch: 9110517
Sequence: 9K06041
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: 9110517 Batch Matrix: Solid
Preparation: EPA 1311/3015

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110517-BLK1	9K06041-047	11/06/19 10:26	
LCS	9110517-BS1	9K06041-048	11/06/19 10:26	
PDI-095SC-C-00-8.8-191025 (MS)	9110517-MS1	9K06041-051	11/06/19 10:26	
PDI-019SC-C-00-3.2-191025	A9J0954-01	9K06041-049	11/06/19 10:26	
PDI-095SC-C-00-8.8-191025	A9J0954-02	9K06041-050	11/06/19 10:26	

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

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:	Solid	Laboratory ID:	9110517-BLK1	File ID:	9K06041-047
Prepared:	11/06/19 10:26	Preparation:	EPA 1311/3015	Initial/Final:	10 mL / 50 mL
Analyzed:	11/06/19 14:21	Instrument:	ICPMS5		
Batch:	9110517	Sequence:	9K06041	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:	Solid		
Batch:	9110517	Laboratory ID:	9110517-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	4.94	99	80 - 120
Barium	10.0	10.5	105	80 - 120
Cadmium	1.00	1.00	100	80 - 120
Chromium	5.00	4.87	97	80 - 120
Lead	5.00	4.90	98	80 - 120
Mercury	0.100	0.0956	96	80 - 120
Selenium	1.00	0.976	98	80 - 120
Silver	1.00	1.03	103	80 - 120

* = Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

1311/6020A

PDI-095SC-C-00-8.8-191025

Laboratory:	Apex Laboratories	SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Solid		
Batch:	9110517	Laboratory ID:	9110517-MS1
Preparation:	EPA 1311/3015	Initial/Final:	10 mL / 50 mL

Source Sample Name: PDI-095SC-C-00-8.8-191025

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC. (*=Out)	QC LIMITS REC.
Arsenic	5.00	ND	5.04	101	50 - 150
Barium	10.0	ND	11.1	111	50 - 150
Cadmium	1.00	ND	1.01	101	50 - 150
Chromium	5.00	ND	4.96	99	50 - 150
Lead	5.00	ND	4.83	97	50 - 150
Mercury	0.100	ND	0.0942	94	50 - 150
Selenium	1.00	ND	0.988	99	50 - 150
Silver	1.00	ND	1.04	104	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:	9K06041	Instrument:	ICPMS5
Matrix:	Solid	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	9K06041-ICV1	9K06041-014	11/06/19 11:43
Initial Cal Blank	9K06041-ICB1	9K06041-015	11/06/19 11:48
Instrument RL Check	9K06041-CRL1	9K06041-016	11/06/19 11:53
Instrument RL Check	9K06041-CRL2	9K06041-017	11/06/19 11:57
Instrument RL Check	9K06041-CRL3	9K06041-018	11/06/19 12:02
Calibration Check	9K06041-CCV1	9K06041-032	11/06/19 13:10
Calibration Blank	9K06041-CCB1	9K06041-033	11/06/19 13:15
Calibration Check	9K06041-CCV2	9K06041-044	11/06/19 14:07
Calibration Blank	9K06041-CCB2	9K06041-045	11/06/19 14:12
Blank	9110517-BLK1	9K06041-047	11/06/19 14:21
LCS	9110517-BS1	9K06041-048	11/06/19 14:26
PDI-019SC-C-00-3.2-191025	A9J0954-01	9K06041-049	11/06/19 14:30
PDI-095SC-C-00-8.8-191025	A9J0954-02	9K06041-050	11/06/19 14:35
PDI-095SC-C-00-8.8-191025 (MS)	9110517-MS1	9K06041-051	11/06/19 14:40
Calibration Check	9K06041-CCV3	9K06041-054	11/06/19 14:53
Calibration Blank	9K06041-CCB3	9K06041-055	11/06/19 14:58
Instrument RL Check	9K06041-CRL4	9K06041-056	11/06/19 15:03
Instrument RL Check	9K06041-CRL5	9K06041-057	11/06/19 15:07
Instrument RL Check	9K06041-CRL6	9K06041-058	11/06/19 15:12
Calibration Check	9K06041-CCV5	9K06041-070	11/06/19 16:12
Calibration Blank	9K06041-CCB4	9K06041-071	11/06/19 16:16
Calibration Check	9K06041-CCV6	9K06041-082	11/06/19 17:09
Calibration Blank	9K06041-CCB5	9K06041-083	11/06/19 17:14
Calibration Check	9K06041-CCV7	9K06041-088	11/06/19 17:38
Calibration Blank	9K06041-CCB6	9K06041-089	11/06/19 17:42
Instrument RL Check	9K06041-CRL7	9K06041-090	11/06/19 17:47
Instrument RL Check	9K06041-CRL8	9K06041-091	11/06/19 17:52
Instrument RL Check	9K06041-CRL9	9K06041-092	11/06/19 17:56
Calibration Check	9K06041-CCV8	9K06041-103	11/06/19 18:47
Calibration Blank	9K06041-CCB7	9K06041-104	11/06/19 18:52
Calibration Check	9K06041-CCV9	9K06041-115	11/06/19 19:43
Calibration Blank	9K06041-CCB8	9K06041-116	11/06/19 19:48
Calibration Check	9K06041-CCVA	9K06041-127	11/06/19 20:39

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:	9K06041	Instrument:	ICPMS5
Matrix:	Solid	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	9K06041-CCB9	9K06041-128	11/06/19 20:44
Calibration Check	9K06041-CCVB	9K06041-139	11/06/19 21:35
Calibration Check	9K06041-CCVC	9K06041-140	11/06/19 21:39
Calibration Blank	9K06041-CCBA	9K06041-141	11/06/19 21:44
Calibration Check	9K06041-CCVE	9K06041-143	11/06/19 21:53
Calibration Blank	9K06041-CCBB	9K06041-144	11/06/19 21:58
Instrument RL Check	9K06041-CRLA	9K06041-145	11/06/19 22:02
Instrument RL Check	9K06041-CRLB	9K06041-146	11/06/19 22:07
Instrument RL Check	9K06041-CRLC	9K06041-147	11/06/19 22:12
Instrument RL Check	9K06041-CRLD	9K06041-148	11/06/19 22:17
Calibration Check	9K06041-CCVF	9K06041-157	11/06/19 22:58
Calibration Blank	9K06041-CCBC	9K06041-158	11/06/19 23:03
Instrument RL Check	9K06041-CRLE	9K06041-159	11/06/19 23:08
Instrument RL Check	9K06041-CRLF	9K06041-160	11/06/19 23:12
Instrument RL Check	9K06041-CRLG	9K06041-161	11/06/19 23:17
Instrument RL Check	9K06041-CRLH	9K06041-162	11/06/19 23:22

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.

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: 9K06041

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K06041-ICV1	Arsenic	100	98.7	99	ug/L	1311/6020A
	Barium	100	106	106	ug/L	1311/6020A
	Cadmium	100	98.8	99	ug/L	1311/6020A
	Chromium	100	98.2	98	ug/L	1311/6020A
	Lead	100	100	100	ug/L	1311/6020A
	Mercury	800	832	104	ng/L	1311/6020A
	Selenium	40.0	39.5	99	ug/L	1311/6020A
	Silver	40.0	40.8	102	ug/L	1311/6020A
9K06041-CCV1	Arsenic	100	99.7	100	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	98.0	98	ug/L	1311/6020A
	Chromium	100	98.8	99	ug/L	1311/6020A
	Lead	100	98.8	99	ug/L	1311/6020A
	Mercury	800	784	98	ng/L	1311/6020A
	Selenium	40.0	40.2	101	ug/L	1311/6020A
	Silver	40.0	41.0	102	ug/L	1311/6020A
9K06041-CCV2	Arsenic	100	98.2	98	ug/L	1311/6020A
	Barium	100	105	105	ug/L	1311/6020A
	Cadmium	100	98.4	98	ug/L	1311/6020A
	Chromium	100	99.3	99	ug/L	1311/6020A
	Lead	100	96.2	96	ug/L	1311/6020A
	Mercury	800	775	97	ng/L	1311/6020A
	Selenium	40.0	40.6	101	ug/L	1311/6020A
	Silver	40.0	41.2	103	ug/L	1311/6020A
9K06041-CCV3	Arsenic	100	98.6	99	ug/L	1311/6020A
	Barium	100	106	106	ug/L	1311/6020A
	Cadmium	100	98.3	98	ug/L	1311/6020A
	Chromium	100	99.3	99	ug/L	1311/6020A
	Lead	100	97.1	97	ug/L	1311/6020A
	Mercury	800	803	100	ng/L	1311/6020A
	Selenium	40.0	40.9	102	ug/L	1311/6020A
	Silver	40.0	40.9	102	ug/L	1311/6020A
9K06041-CCV5	Arsenic	100	97.3	97	ug/L	1311/6020A
	Barium	100	105	105	ug/L	1311/6020A
	Cadmium	100	99.1	99	ug/L	1311/6020A
	Chromium	100	98.8	99	ug/L	1311/6020A
	Lead	100	97.6	98	ug/L	1311/6020A
	Mercury	800	799	100	ng/L	1311/6020A
	Selenium	40.0	40.6	101	ug/L	1311/6020A
	Silver	40.0	41.3	103	ug/L	1311/6020A
9K06041-CCV6	Arsenic	100	99.2	99	ug/L	1311/6020A
	Barium	100	103	103	ug/L	1311/6020A
	Cadmium	100	97.9	98	ug/L	1311/6020A
	Chromium	100	98.2	98	ug/L	1311/6020A
	Lead	100	96.8	97	ug/L	1311/6020A
	Mercury	800	777	97	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: 9K06041

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K06041-CCV6	Selenium	40.0	40.9	102	ug/L	1311/6020A
	Silver	40.0	40.7	102	ug/L	1311/6020A
9K06041-CCV7	Arsenic	100	97.3	97	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	98.1	98	ug/L	1311/6020A
	Chromium	100	98.8	99	ug/L	1311/6020A
	Lead	100	96.7	97	ug/L	1311/6020A
	Mercury	800	770	96	ng/L	1311/6020A
	Selenium	40.0	40.4	101	ug/L	1311/6020A
	Silver	40.0	41.0	102	ug/L	1311/6020A
9K06041-CCV8	Arsenic	100	97.4	97	ug/L	1311/6020A
	Barium	100	103	103	ug/L	1311/6020A
	Cadmium	100	98.3	98	ug/L	1311/6020A
	Chromium	100	98.6	99	ug/L	1311/6020A
	Lead	100	96.4	96	ug/L	1311/6020A
	Mercury	800	756	95	ng/L	1311/6020A
	Selenium	40.0	41.0	102	ug/L	1311/6020A
	Silver	40.0	41.0	102	ug/L	1311/6020A
9K06041-CCV9	Arsenic	100	98.0	98	ug/L	1311/6020A
	Barium	100	105	105	ug/L	1311/6020A
	Cadmium	100	98.2	98	ug/L	1311/6020A
	Chromium	100	99.5	100	ug/L	1311/6020A
	Lead	100	94.3	94	ug/L	1311/6020A
	Mercury	800	753	94	ng/L	1311/6020A
	Selenium	40.0	40.8	102	ug/L	1311/6020A
	Silver	40.0	41.2	103	ug/L	1311/6020A
9K06041-CCVA	Arsenic	100	98.3	98	ug/L	1311/6020A
	Barium	100	105	105	ug/L	1311/6020A
	Cadmium	100	99.0	99	ug/L	1311/6020A
	Chromium	100	98.9	99	ug/L	1311/6020A
	Lead	100	94.9	95	ug/L	1311/6020A
	Mercury	800	791	99	ng/L	1311/6020A
	Selenium	40.0	41.3	103	ug/L	1311/6020A
	Silver	40.0	41.1	103	ug/L	1311/6020A
9K06041-CCVB	Arsenic	100	98.5	98	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	99.4	99	ug/L	1311/6020A
	Chromium	100	99.8	100	ug/L	1311/6020A
	Lead	100	95.1	95	ug/L	1311/6020A
	Mercury	800	758	95	ng/L	1311/6020A
	Selenium	40.0	41.1	103	ug/L	1311/6020A
	Silver	40.0	41.4	103	ug/L	1311/6020A
9K06041-CCVC	Arsenic	100	98.5	99	ug/L	1311/6020A
	Barium	100	105	105	ug/L	1311/6020A
	Cadmium	100	99.1	99	ug/L	1311/6020A
	Chromium	100	99.4	99	ug/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: 9K06041

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9K06041-CCVC	Lead	100	95.4	95	ug/L	1311/6020A
	Mercury	800	764	96	ng/L	1311/6020A
	Selenium	40.0	40.9	102	ug/L	1311/6020A
	Silver	40.0	41.4	103	ug/L	1311/6020A
9K06041-CCVE	Arsenic	100	97.9	98	ug/L	1311/6020A
	Barium	100	105	105	ug/L	1311/6020A
	Cadmium	100	99.5	100	ug/L	1311/6020A
	Chromium	100	99.5	99	ug/L	1311/6020A
	Lead	100	94.7	95	ug/L	1311/6020A
	Mercury	800	744	93	ng/L	1311/6020A
	Selenium	40.0	40.7	102	ug/L	1311/6020A
	Silver	40.0	41.3	103	ug/L	1311/6020A
9K06041-CCVF	Arsenic	100	97.5	97	ug/L	1311/6020A
	Barium	100	104	104	ug/L	1311/6020A
	Cadmium	100	99.0	99	ug/L	1311/6020A
	Chromium	100	100	100	ug/L	1311/6020A
	Lead	100	94.3	94	ug/L	1311/6020A
	Mercury	800	727	91	ng/L	1311/6020A
	Selenium	40.0	41.2	103	ug/L	1311/6020A
	Silver	40.0	41.4	103	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: 9K06041
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K06041-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
9K06041-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
9K06041-CCB2	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	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
9K06041-CCB3	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
9K06041-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: 9K06041
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K06041-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
	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
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
9K06041-CCB5	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
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
9K06041-CCB6	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	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
9K06041-CCB7	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
9K06041-CCB8	Mercury	ND	70.0 (Inst)	ng/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A

INSTRUMENT BLANKS
1311/6020A

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Sequence: 9K06041
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K06041-CCB8	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Cadmium	ND	1.00 (Inst)	ug/L		1311/6020A
	Chromium	ND	1.00 (Inst)	ug/L		1311/6020A
	Selenium	ND	1.00 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
9K06041-CCB9	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
9K06041-CCBA	Mercury	ND	70.0 (Inst)	ng/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
	Arsenic	ND	1.00 (Inst)	ug/L		1311/6020A
	Silver	ND	1.00 (Inst)	ug/L		1311/6020A
	Barium	ND	50.0 (Inst)	ug/L		1311/6020A
	Lead	ND	0.500 (Inst)	ug/L		1311/6020A
9K06041-CCBB	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
9K06041-CCBC	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

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: 9K06041
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9K06041-CCBC	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

(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: 9K06041

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K06041-CRL1	Arsenic	0.180	0.201	112	ug/L	70 - 130
	Cadmium	0.180	0.232	129	ug/L	70 - 130
	Chromium	0.180	0.193	107	ug/L	70 - 130
	Lead	0.180	0.221	123	ug/L	70 - 130
	Selenium	0.180	0.195	108	ug/L	70 - 130
	Silver	0.180	0.182	101	ug/L	70 - 130
9K06041-CRL2	Arsenic	0.900	0.992	110	ug/L	70 - 130
	Barium	0.900	0.998	111	ug/L	70 - 130
	Cadmium	0.900	0.952	106	ug/L	70 - 130
	Chromium	0.900	0.917	102	ug/L	70 - 130
	Lead	0.900	0.967	107	ug/L	70 - 130
	Mercury	36.0	41.3	115	ng/L	70 - 130
	Selenium	0.900	0.893	99	ug/L	70 - 130
	Silver	0.900	0.900	100	ug/L	70 - 130
9K06041-CRL3	Arsenic	1.80	1.86	103	ug/L	70 - 130
	Barium	1.80	1.96	109	ug/L	70 - 130
	Cadmium	1.80	1.84	102	ug/L	70 - 130
	Chromium	1.80	1.82	101	ug/L	70 - 130
	Lead	1.80	1.88	104	ug/L	70 - 130
	Mercury	72.0	77.2	107	ng/L	70 - 130
	Selenium	1.80	1.74	96	ug/L	70 - 130
	Silver	1.80	1.79	99	ug/L	70 - 130
9K06041-CRL4	Arsenic	0.180	0.202	112	ug/L	70 - 130
	Barium	0.180	0.202	112	ug/L	70 - 130
	Cadmium	0.180	0.202	112	ug/L	70 - 130
	Chromium	0.180	0.186	103	ug/L	70 - 130
	Lead	0.180	0.196	109	ug/L	70 - 130
	Selenium	0.180	0.150	83	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: 9K06041

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K06041-CRL4	Silver	0.180	0.188	104	ug/L	70 - 130
9K06041-CRL5	Arsenic	0.900	0.929	103	ug/L	70 - 130
	Barium	0.900	0.958	106	ug/L	70 - 130
	Cadmium	0.900	0.897	100	ug/L	70 - 130
	Chromium	0.900	0.896	100	ug/L	70 - 130
	Lead	0.900	0.923	103	ug/L	70 - 130
	Mercury	36.0	45.5	126	ng/L	70 - 130
	Selenium	0.900	0.931	103	ug/L	70 - 130
	Silver	0.900	0.906	101	ug/L	70 - 130
9K06041-CRL6	Arsenic	1.80	1.75	97	ug/L	70 - 130
	Barium	1.80	1.92	107	ug/L	70 - 130
	Cadmium	1.80	1.82	101	ug/L	70 - 130
	Chromium	1.80	1.79	99	ug/L	70 - 130
	Lead	1.80	1.81	100	ug/L	70 - 130
	Mercury	72.0	78.4	109	ng/L	70 - 130
	Selenium	1.80	1.81	101	ug/L	70 - 130
	Silver	1.80	1.84	102	ug/L	70 - 130
9K06041-CRL7	Arsenic	0.180	0.183	102	ug/L	70 - 130
	Barium	0.180	0.189	105	ug/L	70 - 130
	Cadmium	0.180	0.179	99	ug/L	70 - 130
	Chromium	0.180	0.179	100	ug/L	70 - 130
	Lead	0.180	0.209	116	ug/L	70 - 130
	Selenium	0.180	0.180	100	ug/L	70 - 130
	Silver	0.180	0.170	94	ug/L	70 - 130
9K06041-CRL8	Arsenic	0.900	0.880	98	ug/L	70 - 130
	Barium	0.900	0.941	105	ug/L	70 - 130
	Cadmium	0.900	0.883	98	ug/L	70 - 130
	Chromium	0.900	0.905	101	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: 9K06041

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K06041-CRL8	Lead	0.900	0.921	102	ug/L	70 - 130
	Mercury	36.0	40.1	111	ng/L	70 - 130
	Selenium	0.900	0.897	100	ug/L	70 - 130
	Silver	0.900	0.900	100	ug/L	70 - 130
9K06041-CRL9	Arsenic	1.80	1.83	102	ug/L	70 - 130
	Barium	1.80	1.86	104	ug/L	70 - 130
	Cadmium	1.80	1.81	101	ug/L	70 - 130
	Chromium	1.80	1.80	100	ug/L	70 - 130
	Lead	1.80	1.77	98	ug/L	70 - 130
	Mercury	72.0	67.4	94	ng/L	70 - 130
	Selenium	1.80	1.79	99	ug/L	70 - 130
	Silver	1.80	1.79	99	ug/L	70 - 130
9K06041-CRLA	Arsenic	0.180	0.195	108	ug/L	70 - 130
	Barium	0.180	0.197	109	ug/L	70 - 130
	Cadmium	0.180	0.199	111	ug/L	70 - 130
	Chromium	0.180	0.187	104	ug/L	70 - 130
	Lead	0.180	0.208	116	ug/L	70 - 130
	Selenium	0.180	0.212	118	ug/L	70 - 130
	Silver	0.180	0.182	101	ug/L	70 - 130
9K06041-CRLB	Arsenic	0.900	0.868	96	ug/L	70 - 130
	Barium	0.900	0.913	101	ug/L	70 - 130
	Cadmium	0.900	0.853	95	ug/L	70 - 130
	Chromium	0.900	0.881	98	ug/L	70 - 130
	Lead	0.900	0.876	97	ug/L	70 - 130
	Mercury	36.0	43.3	120	ng/L	70 - 130
	Selenium	0.900	0.896	100	ug/L	70 - 130
	Silver	0.900	0.899	100	ug/L	70 - 130
9K06041-CRLC	Arsenic	1.80	1.78	99	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: 9K06041

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K06041-CRLC	Barium	1.80	1.90	105	ug/L	70 - 130
	Cadmium	1.80	1.80	100	ug/L	70 - 130
	Chromium	1.80	1.75	97	ug/L	70 - 130
	Lead	1.80	1.77	98	ug/L	70 - 130
	Mercury	72.0	71.5	99	ng/L	70 - 130
	Selenium	1.80	1.75	97	ug/L	70 - 130
	Silver	1.80	1.77	99	ug/L	70 - 130
9K06041-CRLD	Arsenic	3.60	3.47	96	ug/L	70 - 130
	Barium	3.60	3.68	102	ug/L	70 - 130
	Cadmium	3.60	3.51	98	ug/L	70 - 130
	Chromium	3.60	3.42	95	ug/L	70 - 130
	Lead	3.60	3.35	93	ug/L	70 - 130
	Mercury	144	149	104	ng/L	70 - 130
	Selenium	3.60	3.47	97	ug/L	70 - 130
	Silver	3.60	3.41	95	ug/L	70 - 130
9K06041-CRLE	Arsenic	0.180	0.199	110	ug/L	70 - 130
	Barium	0.180	0.193	107	ug/L	70 - 130
	Cadmium	0.180	0.192	107	ug/L	70 - 130
	Chromium	0.180	0.174	97	ug/L	70 - 130
	Lead	0.180	0.186	104	ug/L	70 - 130
	Selenium	0.180	0.181	100	ug/L	70 - 130
	Silver	0.180	0.184	102	ug/L	70 - 130
9K06041-CRLF	Arsenic	0.900	0.912	101	ug/L	70 - 130
	Barium	0.900	0.927	103	ug/L	70 - 130
	Cadmium	0.900	0.926	103	ug/L	70 - 130
	Chromium	0.900	0.894	99	ug/L	70 - 130
	Lead	0.900	0.869	97	ug/L	70 - 130
	Mercury	36.0	39.1	109	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: 9K06041

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9K06041-CRLF	Selenium	0.900	0.953	106	ug/L	70 - 130
	Silver	0.900	0.899	100	ug/L	70 - 130
9K06041-CRLG	Arsenic	1.80	1.81	100	ug/L	70 - 130
	Barium	1.80	1.91	106	ug/L	70 - 130
	Cadmium	1.80	1.79	100	ug/L	70 - 130
	Chromium	1.80	1.84	102	ug/L	70 - 130
	Lead	1.80	1.71	95	ug/L	70 - 130
	Mercury	72.0	70.6	98	ng/L	70 - 130
	Selenium	1.80	1.83	102	ug/L	70 - 130
	Silver	1.80	1.78	99	ug/L	70 - 130
9K06041-CRLH	Arsenic	3.60	3.55	99	ug/L	70 - 130
	Barium	3.60	3.72	103	ug/L	70 - 130
	Cadmium	3.60	3.51	98	ug/L	70 - 130
	Chromium	3.60	3.49	97	ug/L	70 - 130
	Lead	3.60	3.31	92	ug/L	70 - 130
	Mercury	144	136	95	ng/L	70 - 130
	Selenium	3.60	3.47	96	ug/L	70 - 130
	Silver	3.60	3.45	96	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-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	11/06/19 10:26	11.97	28.00	11/06/19 14:30	12.14	28.00	
PDI-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	11/06/19 10:26	11.97	180.00	11/06/19 14:30	12.14	180.00	
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	11/06/19 10:26	12.02	28.00	11/06/19 14:35	12.20	28.00	
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	11/06/19 10:26	12.02	180.00	11/06/19 14:35	12.20	180.00	

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: WET

METHOD: SM 2540 G

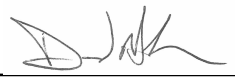
ANALYSES DATA PACKAGE COVER PAGE

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-019SC-C-00-3.2-191025	A9J0954-01	Sediment
PDI-095SC-C-00-8.8-191025	A9J0954-02	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 3:54PM
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-019SC-C-00-3.2-191025

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0954-01
Sampled: 10/25/19 11:06
Prepared: 10/25/19 17:25
Analyzed: 10/28/19 16:21
Solids: 75.94
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9101617
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	75.9	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-095SC-C-00-8.8-191025

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0954-02
Sampled: 10/25/19 09:51
Prepared: 10/25/19 17:25
Analyzed: 10/28/19 16:21
Solids: 55.03
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9101617
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	55.0	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: 9101617 Batch Matrix: Sediment Preparation: Total Solids (SM2540G/PSEP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PDI-019SC-C-00-3.2-191025 (Dup)	9101617-DUP1		10/25/19 17:25	
PDI-019SC-C-00-3.2-191025	A9J0954-01		10/25/19 17:25	
PDI-095SC-C-00-8.8-191025	A9J0954-02		10/25/19 17:25	

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.

DUPLICATES

SM 2540 G

PDI-019SC-C-00-3.2-191025

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9101617
Preparation: Total Solids (SM2540G/PSEP)
Source Sample Name: PDI-019SC-C-00-3.2-191025

SDG: Gasco_PreRD_DG 2019
Project: Gasco_PreRD_DG 2019 - 4c. Waste Charact
Laboratory ID: 9101617-DUP1
Lab Source ID: A9J0954-01
Initial/Final: 1 N/A / 1 N/A
% Solids: 75.94

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Solids	10	75.9		76.0		0.09		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-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	10/25/19 17:25	0.26	180.00	10/28/19 16:21	2.96		
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	10/25/19 17:25	0.32	180.00	10/28/19 16:21	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

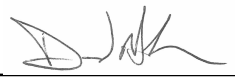
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019

Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-019SC-C-00-3.2-191025	A9J0954-01	Sediment
PDI-095SC-C-00-8.8-191025	A9J0954-02	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 3:54PM

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-019SC-C-00-3.2-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-01	File ID:	
Sampled:	10/25/19 11:06	Prepared:	11/04/19 15:35	Analyzed:	11/04/19 15:35
Solids:	75.94	Preparation:	EPA 1311 TCLP/ZHE	Initial/Final:	25.1 g / 500 mL
Batch:	9110443	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-095SC-C-00-8.8-191025

Laboratory:	Apex Laboratories			SDG:	Gasco_PreRD_DG 2019
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix:	Sediment	Laboratory ID:	A9J0954-02	File ID:	
Sampled:	10/25/19 09:51	Prepared:	11/04/19 15:35	Analyzed:	11/04/19 15:35
Solids:	55.03	Preparation:	EPA 1311 TCLP/ZHE	Initial/Final:	24.9 g / 500 mL
Batch:	9110443	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: 9110443 Batch Matrix: Solid Preparation: EPA 1311 TCLP/ZHE

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PDI-019SC-C-00-3.2-191025	A9J0954-01		11/04/19 15:35	
PDI-095SC-C-00-8.8-191025	A9J0954-02		11/04/19 15:35	

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-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	11/04/19 15:35	10.19	14.00	11/04/19 15:35	0.00		
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	11/04/19 15:35	10.24	14.00	11/04/19 15:35	0.00		

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: METALS

METHOD: EPA 1311

ANALYSES DATA PACKAGE COVER PAGE

EPA 1311

Laboratory: Apex Laboratories

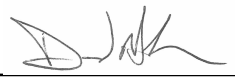
Client: Anchor QEA, LLC

SDG: Gasco PreRD_DG 2019

Project: Gasco PreRD_DG 2019 - 4c. Waste Characterization

Client Sample Id:	Lab Sample Id:	Matrix
PDI-019SC-C-00-3.2-191025	A9J0954-01	Sediment
PDI-095SC-C-00-8.8-191025	A9J0954-02	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 3:54PM

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-019SC-C-00-3.2-191025

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0954-01
Sampled: 10/25/19 11:06
Prepared: 11/05/19 16:45
Analyzed: 11/05/19 16:45
Solids: 75.94
Preparation: EPA 1311 (TCLP)
Initial/Final: 50.5 g / 1010 mL
Batch: 9110477
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-095SC-C-00-8.8-191025

Laboratory: Apex Laboratories
SDG: Gasco_PreRD_DG 2019
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4c. Waste Characterization
Matrix: Sediment
Laboratory ID: A9J0954-02
Sampled: 10/25/19 09:51
Prepared: 11/05/19 16:45
Analyzed: 11/05/19 16:45
Solids: 55.03
Preparation: EPA 1311 (TCLP)
Initial/Final: 100.1 g / 2002 mL
Batch: 9110477
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: 9110477 Batch Matrix: Solid
Preparation: EPA 1311 (TCLP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9110477-BLK1		11/05/19 16:45	
PDI-019SC-C-00-3.2-191025	A9J0954-01		11/05/19 16:45	
PDI-095SC-C-00-8.8-191025	A9J0954-02		11/05/19 16:45	

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:	9110477-BLK1	File ID:	
Prepared:	11/05/19 16:45	Preparation:	EPA 1311 (TCLP)	Initial/Final:	50 g / 1000 mL
Analyzed:	11/05/19 16:45	Instrument:	Inst		
Batch:	9110477	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-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	11/05/19 16:45	11.24	14.00	11/05/19 16:45	0.00		
PDI-019SC-C-00-3.2-191025	10/25/19 11:06	10/25/19 14:40	11/05/19 16:45	11.24	28.00	11/05/19 16:45	0.00		
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	11/05/19 16:45	11.29	14.00	11/05/19 16:45	0.00		
PDI-095SC-C-00-8.8-191025	10/25/19 09:51	10/25/19 14:40	11/05/19 16:45	11.29	28.00	11/05/19 16:45	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 9101622
Sequence 9J28025 (A9J0954-03)

PREPARATION BENCH SHEET

BATCH #: 9101622 (Water)

Apex Laboratories

Prep Method: EPA 5030B

OCT 2 9 2019

Lab Number	Cont.	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*
9101622-BLK1		QC	10/28/19 08:00	5	5							
9101622-BS1		QC	10/28/19 08:00	5	5	A19J352		5				
9101622-BS2		QC	10/28/19 08:00	5	5	A19J354		5				
A9J0824-09RE1	B	8260C Halogenated VOCs	10/28/19 10:12	5	5					P89332 / EW5A-102219	10X RR-02 Cis12DCE	<2
A9J0824-16RE1	B	8260C Halogenated VOCs	10/28/19 10:12	5	5		Hold time	Ok		P89332 / MW56-1-102219	1X RR-03	~~<2~~ 7
A9J0922-10RE1	B	8260C Full List	10/28/19 10:12	5	5					17-16165 B2	1X RR-01	~~<2~~ 7
A9J0922-11RE1	B	8260C Full List	10/28/19 10:12	5	5					17-16165 B2-Duplicate	1X RR-01	~~<2~~ 7
A9J0922-12RE1	B	8260C Full List	10/28/19 10:12	5	5					17-16165 B8	1X RR-01	<2
A9J0942-04	A	NWTPH-Gx	10/28/19 10:12	5	5					MW-16		<2
A9J0942-04	A	8260C BTEX+N	10/28/19 10:12	5	5					MW-16		<2
A9J0942-05	A	NWTPH-Gx	10/28/19 10:12	5	5					MW-17		<2
A9J0942-05	A	8260C BTEX+N	10/28/19 10:12	5	5					MW-17		<2
A9J0942-06	A	NWTPH-Gx	10/28/19 10:12	5	5					MW-18		<2
A9J0942-06	A	8260C BTEX+N	10/28/19 10:12	5	5					MW-18		<2
A9J0942-07	A	8260C BTEX+N	10/28/19 10:12	5	5					MW-99		<2
A9J0942-07	A	NWTPH-Gx	10/28/19 10:12	5	5					MW-99		<2
A9J0952-02	A	8260C BTEX	10/28/19 10:12	5	5					MW-9	Added for BatchQC in: 9101622	<2
A9J0952-02	A	NWTPH-Gx	10/28/19 10:12	5	5					MW-9		<2
A9J0952-02	A	8260C RBDM List	10/28/19 10:12	5	5					MW-9		<2
A9J0952-02	A	8260C BTEX+N	10/28/19 10:12	5	5					MW-9	Added for BatchQC in: 9101622	<2
A9J0952-02	A	8260C Full List	10/28/19 10:12	5	5					MW-9	Added for BatchQC in: 9101622	<2
A9J0952-02	A	8260C Halogenated VOCs	10/28/19 10:12	5	5					MW-9	Added for BatchQC in: 9101622	<2

10/29/19

Prepared By: Date

Reviewed By: 10/29/19 Date

PREPARATION BENCH SHEET

BATCH #: 9101622 (Water)

Apex Laboratories

Prep Method: EPA 5030B

Lab Number	Cont.	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*
9101622-DUP1		QC	10/28/19 10:12	5	5		A9J0952-02					<2
A9J0952-03	A	8260C RBDM List	10/28/19 10:12	5	5					MW-11		<2
A9J0952-03	A	NWTPH-Gx	10/28/19 10:12	5	5					MW-11		<2
A9J0952-04	A	NWTPH-Gx	10/28/19 10:12	5	5					MW-7		<2
A9J0952-04	A	8260C RBDM List	10/28/19 10:12	5	5					MW-7		<2
A9J0954-03	A	8260C Full List	10/28/19 10:12	5	5					PDI-TB-1910250959		<2
A9J0955-01	A	8260C Full List	10/28/19 10:12	5	5					P89332 / MW3R-20191023	Run trip blanks at all times	<2
A9J0955-02	A	8260C Full List	10/28/19 10:12	5	5					P89332 / DUP05-20191023	Run trip blanks at all times	<2
A9J0955-03	A	8260C Halogenated VOCs	10/28/19 10:12	5	5					P89332 / MW66-2-20191023	Added for BatchQC in: 9101622	<2
A9J0955-03	A	8260C Full List	10/28/19 10:12	5	5					P89332 / MW66-2-20191023	Run trip blanks at all times	<2
A9J0955-03	A	8260C RBDM List	10/28/19 10:12	5	5					P89332 / MW66-2-20191023	Added for BatchQC in: 9101622	<2
A9J0955-03	A	8260C BTEX	10/28/19 10:12	5	5					P89332 / MW66-2-20191023	Added for BatchQC in: 9101622	<2
A9J0955-03	A	NWTPH-Gx	10/28/19 10:12	5	5					P89332 / MW66-2-20191023	Added for BatchQC in: 9101622	<2
A9J0955-03	A	8260C BTEX+N	10/28/19 10:12	5	5					P89332 / MW66-2-20191023	Added for BatchQC in: 9101622	<2
9101622-DUP2		QC	10/28/19 10:12	5	5		A9J0955-03					<2
A9J0959-01	A	8260C BTEX	10/28/19 10:12	5	5					PDI-026SW-34-00-191024	EB only	<2
A9J0974-01	A	8260C RBDM List	10/28/19 10:12	5	5					DA6-DISCH-2019.10.28		<2
A9J0975-01	A	NWTPH-Gx	10/28/19 10:12	5	5					DA6-PRE-2019.10.28	Added for BatchQC in: 9101622	<2
A9J0975-01	A	8260C BTEX+N	10/28/19 10:12	5	5					DA6-PRE-2019.10.28	Added for BatchQC in: 9101622	<2
A9J0975-01	A	8260C BTEX	10/28/19 10:12	5	5					DA6-PRE-2019.10.28	Added for BatchQC in: 9101622	<2
A9J0975-01	A	8260C Full List	10/28/19 10:12	5	5					DA6-PRE-2019.10.28	Added for BatchQC in: 9101622	<2
A9J0975-01	A	8260C Halogenated VOCs	10/28/19 10:12	5	5					DA6-PRE-2019.10.28	Added for BatchQC in: 9101622	<2

Prepared By: Date

Reviewed By: Date

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 9101622 (Water)

Prep Method: EPA 5030B

Lab Number	Cont.	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*
A9J0975-01	A	8260C RBDM List	10/28/19 10:12	5	5					DA6-PRE-2019.10.28		<2
9101622-MS1		QC	10/28/19 10:12	5	5	A19J352	A9J0975-01	5				<2

*pH <2 verified 10/29/19 hd

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J352	11/09/19	8260 Cal. Std. B VOCR+OXY Spike (20-40ug/r
A19J354	04/21/20	Prim NWTPH-Gx Spike (500 ug/mL)

Surrogate(s)

Std ID	Exp. Date	Description

GCMS9

Prepared By: Date

Reviewed By: Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9J28025**	Instrument:	**VOA-GCMS9**
Date:	**10/28/19 07:42**	Calibration:	**A9J2503**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J28025-IBL1	Water	QC	QC			A19I040	
2	9J28025-IBL2	Water	QC	QC			A19I040	
3	9J28025-TUN1	Water	QC	QC			A19I040	
4	9J28025-CCV1	Water	QC	QC			A19I040	
5	9101622-BS1	Water	QC	QC		9101622	A19I040	
6	9J28025-CCV2	Water	QC	QC			A19I040	
7	9101622-BS2	Water	QC	QC		9101622	A19I040	
8	9101622-BLK1	Water	QC	QC		9101622	A19I040	
9	A9J0954-03	Water	8260C Full List	Anchor QEA, LLC	11/07/19	9101622	A19I040	
10	A9J0942-04	Water	8260C BTEX+N		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
11	A9J0942-05	Water	8260C BTEX+N		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
12	A9J0942-06	Water	8260C BTEX+N		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
13	A9J0942-07	Water	8260C BTEX+N		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
14	A9J0922-10RE1	Water	8260C Full List		10/29/19	9101622	A19I040	
15	A9J0922-11RE1	Water	8260C Full List		10/29/19	9101622	A19I040	
16	A9J0922-12RE1	Water	8260C Full List		10/29/19	9101622	A19I040	
17	A9J0824-16RE1	Water	8260C Halogenated VOCs		11/04/19	9101622	A19I040	
18	A9J0952-02	Water	8260C RBDM List		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
"	"	Water	8260C Full List	(QC Source)		9101622	A19I040	
"	"	Water	8260C BTEX	(QC Source)		9101622	A19I040	
"	"	Water	8260C BTEX+N	(QC Source)		9101622	A19I040	
"	"	Water	8260C Halogenated VOCs	(QC Source)		9101622	A19I040	
19	9101622-DUP1	Water	QC	QC		9101622	A19I040	
20	A9J0952-03	Water	8260C RBDM List		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
21	A9J0952-04	Water	8260C RBDM List		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
22	9J28025-IBL3	Water	QC	QC			A19I040	
23	A9J0959-01	Water	8260C BTEX	Anchor QEA, LLC	11/01/19	9101622	A19I040	
24	A9J0824-09RE1	Water	8260C Halogenated VOCs		11/04/19	9101622	A19I040	
25	A9J0974-01	Water	8260C RBDM List		10/29/19	9101622	A19I040	
26	A9J0955-01	Water	8260C Full List		11/07/19	9101622	A19I040	
27	A9J0955-02	Water	8260C Full List		11/07/19	9101622	A19I040	
28	A9J0955-03	Water	8260C Full List		11/07/19	9101622	A19I040	
"	"	Water	8260C BTEX	(QC Source)		9101622	A19I040	
"	"	Water	8260C BTEX+N	(QC Source)		9101622	A19I040	
"	"	Water	8260C Halogenated VOCs	(QC Source)		9101622	A19I040	
"	"	Water	8260C RBDM List	(QC Source)		9101622	A19I040	
"	"	Water	NWTPH-Gx	(QC Source)		9101622	A19I040	
29	9101622-DUP2	Water	QC	QC		9101622	A19I040	
30	A9J0975-01	Water	8260C RBDM List		10/29/19	9101622	A19I040	
"	"	Water	8260C Full List	(QC Source)		9101622	A19I040	
"	"	Water	8260C BTEX	(QC Source)		9101622	A19I040	
"	"	Water	8260C BTEX+N	(QC Source)		9101622	A19I040	
"	"	Water	8260C Halogenated VOCs	(QC Source)		9101622	A19I040	
"	"	Water	NWTPH-Gx	(QC Source)		9101622	A19I040	

Sequence:	**9J28025**	Instrument:	**VOA-GCMS9**
Date:	**10/28/19 07:42**	Calibration:	**A9J2503**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
31	9101622-MS1	Water	QC	QC		9101622	A19I040	
32	9J28025-IBL4	Water	QC	QC			A19I040	
33	9J28025-IBL5	Water	QC	QC			A19I040	
34	9J28025-IBL7	Water	QC	QC			A19I040	
35	9J28025-IBL6	Water	QC	QC			A19I040	

Data Entered By: 10/29/19

Comments:

Data Reviewed By: 10/29/19

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9J28025	Instrument:	VOA-GCMS9
Date:	10/28/19 07:42	Calibration:	A9J2503

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J28025-IBL1	Water	QC	QC			A19I040	
2	9J28025-IBL2	Water	QC	QC			A19I040	
3	9J28025-TUN1	Water	QC	QC			A19I040	
4	9J28025-CCV1	Water	QC	QC			A19I040	
5	9101622-BS1	Water	QC	QC		9101622	A19I040	
6	9J28025-CCV2	Water	QC	QC			A19I040	
7	9101622-BS2	Water	QC	QC		9101622	A19I040	
8	9101622-BLK1	Water	QC	QC		9101622	A19I040	
9	A9J0954-03	Water	8260C Full List	Anchor QEA, LLC	11/07/19	9101622	A19I040	
10	A9J0942-04	Water	8260C BTEX+N		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
11	A9J0942-05	Water	8260C BTEX+N		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
12	A9J0942-06	Water	8260C BTEX+N		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
13	A9J0942-07	Water	8260C BTEX+N		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
14	A9J0922-10RE1	Water	8260C Full List		10/29/19	9101622	A19I040	
15	A9J0922-11RE1	Water	8260C Full List		10/29/19	9101622	A19I040	
16	A9J0922-12RE1	Water	8260C Full List		10/29/19	9101622	A19I040	
17	A9J0824-16RE1	Water	8260C Halogenated VOCs		11/04/19	9101622	A19I040	
18	A9J0952-02	Water	8260C RBDM List		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
"	"	Water	8260C Full List	(QC Source)		9101622	A19I040	
"	"	Water	8260C BTEX	(QC Source)		9101622	A19I040	
"	"	Water	8260C BTEX+N	(QC Source)		9101622	A19I040	
"	"	Water	8260C Halogenated VOCs	(QC Source)		9101622	A19I040	
19	9101622-DUP1	Water	QC	QC		9101622	A19I040	
20	A9J0952-03	Water	8260C RBDM List		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
21	A9J0952-04	Water	8260C RBDM List		11/01/19	9101622	A19I040	
"	"	Water	NWTPH-Gx	"	11/01/19	9101622	A19I040	
22	9J28025-IBL3	Water	QC	QC			A19I040	
23	A9J0959-01	Water	8260C BTEX	Anchor QEA, LLC	11/01/19	9101622	A19I040	
24	A9J0824-09RE1	Water	8260C Halogenated VOCs		11/04/19	9101622	A19I040	
25	A9J0974-01	Water	8260C RBDM List		10/29/19	9101622	A19I040	
26	A9J0955-01	Water	8260C Full List		11/07/19	9101622	A19I040	
27	A9J0955-02	Water	8260C Full List		11/07/19	9101622	A19I040	
28	A9J0955-03	Water	8260C Full List		11/07/19	9101622	A19I040	
"	"	Water	8260C BTEX	(QC Source)		9101622	A19I040	
"	"	Water	8260C BTEX+N	(QC Source)		9101622	A19I040	
"	"	Water	8260C Halogenated VOCs	(QC Source)		9101622	A19I040	
"	"	Water	8260C RBDM List	(QC Source)		9101622	A19I040	
"	"	Water	NWTPH-Gx	(QC Source)		9101622	A19I040	
29	A9J0975-01	Water	8260C RBDM List		10/29/19	9101622	A19I040	
"	"	Water	8260C Full List	(QC Source)		9101622	A19I040	
"	"	Water	8260C BTEX	(QC Source)		9101622	A19I040	
"	"	Water	8260C BTEX+N	(QC Source)		9101622	A19I040	
"	"	Water	8260C Halogenated VOCs	(QC Source)		9101622	A19I040	
"	"	Water	NWTPH-Gx	(QC Source)		9101622	A19I040	
30	9101622-MS1	Water	QC	QC		9101622	A19I040	

Sequence: 9J28025 **Instrument:** VOA-GCMS9

Date: 10/28/19 07:42 **Calibration:** A9J2503

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
31	9J28025-IBL4	Water	QC	QC			A19I040	
32	9J28025-IBL5	Water	QC	QC			A19I040	
33	9J28025-IBL7	Water	QC	QC			A19I040	
34	9J28025-IBL6	Water	QC	QC			A19I040	

A9J0459-01 → BTEX EB only

Data Entered By: 10/29/19 [illegible]

Comments: DCM → MDL↑ MRL↑ @ 2.5ppb/5ppb.
PCE MDL = MRL @ 1ppb Q55
1,2-Dibromo-3-chloropropane MDL = MRL @ 5ppb

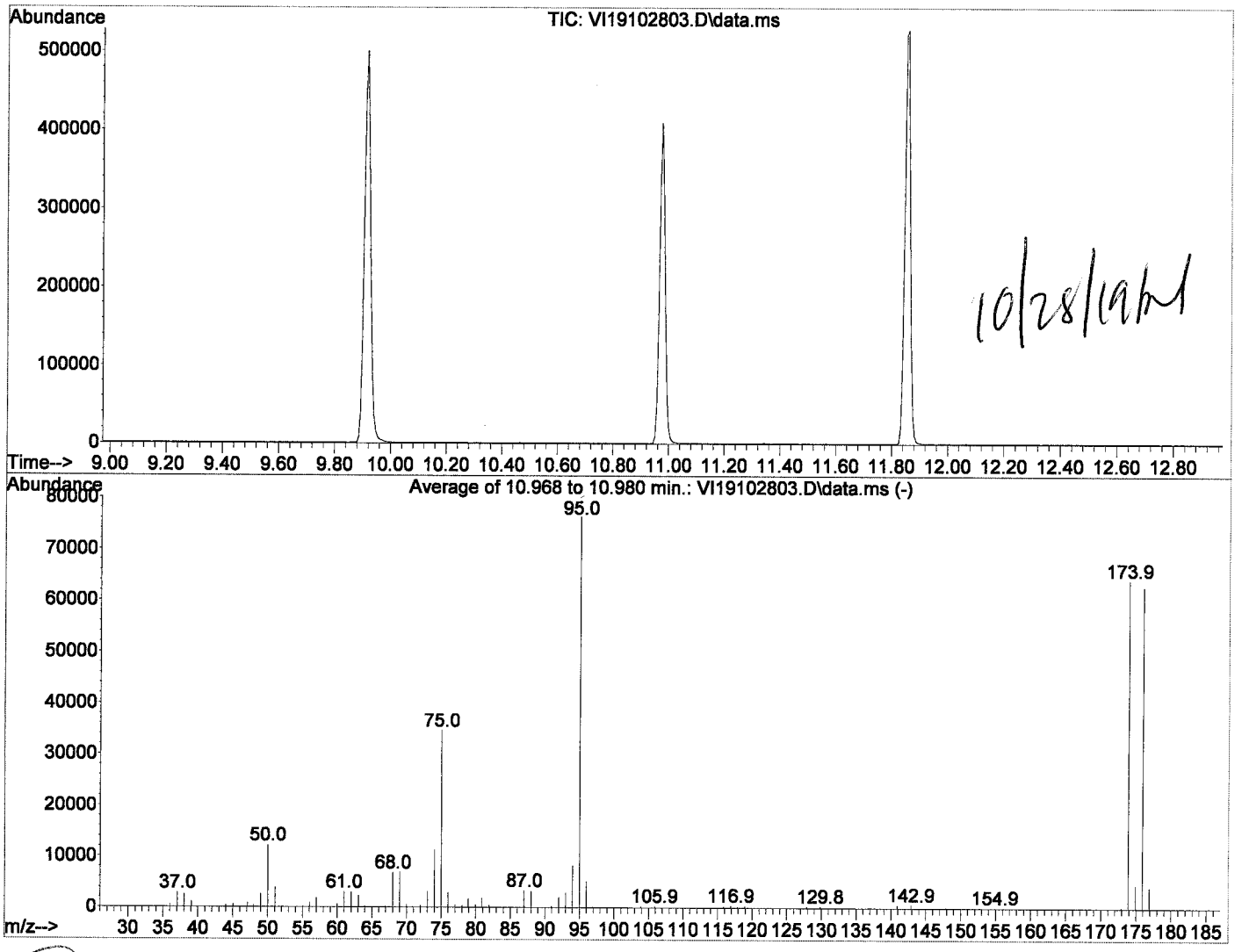
Data Reviewed By: [illegible] 10/29/19

BFB

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102803.D
Acq On : 28 Oct 2019 8:57 am
Operator : TNL
Sample : 9J28025-TUN1
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

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



10/28/19 AM

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

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	119.0	76248	PASS
96	95	5	9	6.8	5185	PASS
173	174	0.00	2	0.3	199	PASS
174	95	50	200	84.0	64056	PASS
175	174	5	9	7.3	4657	PASS
176	174	95	105	98.1	62813	PASS
177	176	5	10	6.5	4094	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102803.D
Acq On : 28 Oct 2019 8:57 am
Operator : TNL
Sample : 9J28025-TUN1
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:04:00 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	104890	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.916	117	281059	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.856	152	126964	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.718	111	100239	48.64	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	334683	50.51	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	375640	50.92	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	103931	50.66	ug/L	0.00
Target Compounds						Qvalue
5) Bromomethane	2.378	96	179	0.13	ug/L	# 1
6) Chloroethane	2.506	64	189	0.18	ug/L	# 36
14) Methylene Chloride	3.881	84	2951	0.68	ug/L	# 78
15) Acetone	3.948	43	681	0.74	ug/L	# 44

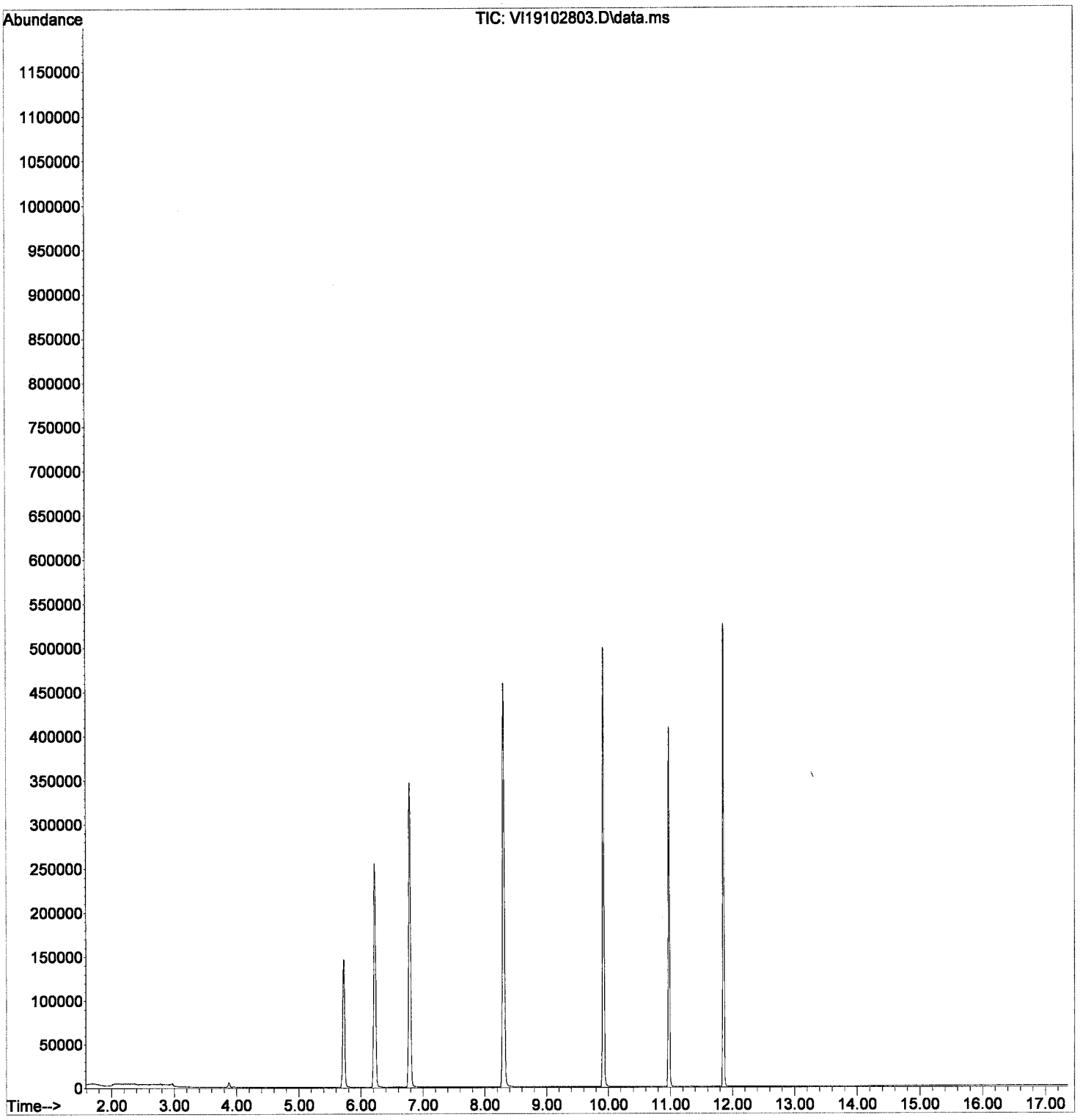
10/28/19 TNL

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102803.D
Acq On : 28 Oct 2019 8:57 am
Operator : TNL
Sample : 9J28025-TUN1
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:04:00 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102804.D
Acq On : 28 Oct 2019 9:24 am
Operator : TNL
Sample : 9101622-BS1
Misc : 1X 5mL 20/40PPB VOCR A19J352
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:04:03 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

10/28/19 MM

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	98	0.00	
2		Dichlorodifluoromethane	20.000	21.089		-5.4	105	0.01	
3	P	Chloromethane	20.000	17.181		14.1	91	0.01	
4	C	Vinyl Chloride	20.000	19.907		0.5	95	0.01	
5		Bromomethane	20.000	22.532		-12.7	115	0.01	
6		Chloroethane	20.000	17.108		14.5	95	0.01	
7		Trichlorofluoromethane	20.000	19.668		1.7	92	0.01	
8		Ethanol	1250.000	920.054	NR	26.4#	69	0.01	
9	C	1,1-Dichloroethene	20.000	19.208		4.0	93	0.00	
10		Carbon Disulfide	20.000	19.238		3.8	94	0.01	
11		Freon 113	20.000	19.622		1.9	93	0.01	
12		Iodomethane	20.000	13.290	NR	33.6#	77	0.01	
13		Acrolein	20.000	18.379		8.1	88	0.01	
14		Methylene Chloride	20.000	19.783		1.1	95	0.00	
15		Acetone	40.000	36.358		9.1	89	0.00	
16		t-1,2-Dichloroethene	20.000	20.218		-1.1	92	0.01	
17		n-Hexane	20.000	20.815		-4.1	97	0.00	
18		Methyl-tert-butyl-ether	20.000	18.553		7.2	89	0.00	
19		tert-Butanol (TBA)	1250.000	986.671	NR	21.1#	68	0.00	
20		Diisopropyl ether (DIPE)	5.000	4.261		14.8	78	0.00	
21	P	1,1-Dichloroethane	20.000	19.077		4.6	90	0.01	
22		Acrylonitrile	20.000	21.123		-5.6	98	0.00	
23		Ethyl-tert-butyl ether (ET	5.000	4.142		17.2	76	0.00	
24		Vinyl Acetate	20.000	16.371		18.1	78	0.00	
25		c-1,2-Dichloroethene	20.000	19.574		2.1	92	0.00	
26		2,2-Dichloropropane	20.000	16.291		18.5	78	0.00	
27		Bromochloromethane	20.000	22.136		-10.7	96	0.00	
28	C	Chloroform	20.000	19.986		0.1	91	0.00	
29		Carbon Tetrachloride	20.000	14.101		29.5#	68	0.00	055
30		Tetrahydrofuran	20.000	19.968		0.2	95	0.00	
31		1,1,1-Trichloroethane	20.000	17.278		13.6	82	0.00	
32	S	Dibromofluoromethane (S)	50.000	48.842		2.3	96	0.00	
33		1,1-Dichloropropene	20.000	19.193		4.0	91	0.00	
34		2-Butanone (MEK)	40.000	39.226		1.9	93	0.00	
35		Benzene	20.000	19.552		2.2	94	0.00	
36		tert-Amyl methyl ether (TA	5.000	4.084		18.3	77	0.00	
37		1,2-Dichloroethane (EDC)	20.000	19.436		2.8	91	0.00	
38		iso-Butyl Alcohol	500.000	365.954	NR	26.8#	67	0.00	
39	S	1,4-Difluorobenzene (S)	50.000	50.737		-1.5	99	0.00	
40		Trichloroethene (TCE)	20.000	20.375		-1.9	93	0.00	
41		Tert-Amyl-Ethyl-Ether (TAEE	5.000	4.059		18.8	74	0.00	
42		Dibromomethane	20.000	20.949		-4.7	96	0.00	
43	C	1,2-Dichloropropane	20.000	19.348		3.3	91	0.00	
44		Bromodichloromethane	20.000	18.405		8.0	86	0.00	
45		Chlorobenzene-d5 (I)	50.000	50.000		0.0	99	0.00	
46		2-Chloroethyl Vinyl Ether	20.000	19.298		3.5	91	0.00	
47		c-1,3-Dichloropropene	20.000	17.896		10.5	83	0.00	
48	S	Toluene-d8 (S)	50.000	50.090		-0.2	100	0.00	
49	C	Toluene	20.000	19.008		5.0	93	0.00	
50		Tetrachloroethene (PCE)	20.000	20.210		-1.1	93	0.00	

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102804.D
Acq On : 28 Oct 2019 9:24 am
Operator : TNL
Sample : 9101622-BS1
Misc : 1X 5mL 20/40PPB VOCR A19J352
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:04:03 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		4-Methyl-2-Pentanone (MIBK)	40.000	40.414	-1.0	91	0.00
52		t-1,3-Dichloropropene	20.000	16.385	18.1	77	0.00
53		1,1,2-Trichloroethane	20.000	20.573	-2.9	94	0.00
54		Dibromochloromethane	20.000	18.766	6.2	81	0.00
55		1,3-Dichloropropane	20.000	20.049	-0.2	93	0.00
56		1,2-Dibromoethane (EDB)	20.000	19.289	3.6	89	0.00
57		2-Hexanone	40.000	39.781	0.5	90	0.00
58	P	Chlorobenzene	20.000	19.922	0.4	94	0.00
59	C	Ethylbenzene	20.000	19.296	3.5	93	0.00
60		1,1,1,2-Tetrachloroethane	20.000	16.440	17.8	75	0.00
61		m,p-Xylenes (2)	40.000	39.013	2.5	91	0.00
62		o-Xylene	20.000	19.678	1.6	90	0.00
63		Styrene	20.000	19.908	0.5	91	0.00
64	P	Bromoform	20.000	16.379	18.1	79	0.00
65		Isopropylbenzene	20.000	19.823	0.9	91	0.00
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	99	0.00
67	S	4-Bromofluorobenzene (S)	50.000	48.999	2.0	98	0.00
68		Bromobenzene	20.000	19.919	0.4	93	0.00
69		n-Propylbenzene	20.000	19.373	3.1	92	0.00
70	P	1,1,2,2-Tetrachloroethane	20.000	19.344	3.3	91	0.00
71		2-Chlorotoluene	20.000	19.160	4.2	90	0.00
72		1,3,5-Trimethylbenzene	20.000	19.873	0.6	91	0.00
73		1,2,3-Trichloropropane	20.000	19.924	0.4	94	0.00
74		t-1,4-Dichloro-2-butene	20.000	18.213	8.9	86	0.00
75		4-Chlorotoluene	20.000	19.450	2.8	92	0.00
76		tert-Butylbenzene	20.000	18.741	6.3	87	0.00
77		1,2,4-Trimethylbenzene	20.000	19.994	0.0	91	0.00
78		sec-Butylbenzene	20.000	19.513	2.4	91	0.00
79		4-Isopropyltoluene	20.000	20.366	-1.8	89	0.00
80		1,3-Dichlorobenzene	20.000	19.871	0.6	93	0.00
81		1,4-Dichlorobenzene	20.000	19.855	0.7	94	0.00
82		n-Butylbenzene	20.000	21.055	-5.3	91	0.00
83		1,2-Dichlorobenzene	20.000	19.625	1.9	92	0.00
84		1,2-Dibromo-3-Chloropropane	20.000	14.827	25.9#	72	0.00
85		Hexachlorobutadiene	20.000	19.752	1.2	90	0.00
86		1,2,4-Trichlorobenzene	20.000	20.704	-3.5	92	0.00
87		Naphthalene	20.000	19.844	0.8	88	0.00
88		1,2,3-Trichlorobenzene	20.000	20.372	-1.9	91	0.00

055

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102804.D
Acq On : 28 Oct 2019 9:24 am
Operator : TNL
Sample : 9101622-BS1
Misc : 1X 5mL 20/40PPB VOCR A19J352
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:04:03 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	110053	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.916	117	304194	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	150051	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.718	111	105615	48.84	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	352766	50.74	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	399932	50.09	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	118797	49.00	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.685	85	37939	21.09	ug/L	99
3) Chloromethane	1.904	50	40987	17.18	ug/L	98
4) Vinyl Chloride	2.007	62	47578	19.91	ug/L	97
5) Bromomethane	2.366	96	31747	22.53	ug/L	98
6) Chloroethane	2.500	64	18793	17.11	ug/L	82
7) Trichlorofluoromethane	2.670	101	53228	19.67	ug/L	95
8) Ethanol	3.242	45	48659	920.05	ug/L	88
9) 1,1-Dichloroethene	3.236	61	50110	19.21	ug/L	92
10) Carbon Disulfide	3.254	76	92615	19.24	ug/L	98
11) Freon 113	3.291	101	36808	19.62	ug/L	96
12) Iodomethane	3.394	142	8787	13.29	ug/L	93
13) Acrolein	3.625	56	9190	18.38	ug/L	70
14) Methylene Chloride	3.875	84	41424	19.78	ug/L	88
15) Acetone	3.942	43	35064	36.36	ug/L	92
16) t-1,2-Dichloroethene	4.045	61	51625	20.22	ug/L	91
17) n-Hexane	4.124	86	8092	20.82	ug/L	93
18) Methyl-tert-butyl-ether	4.173	73	110114	18.55	ug/L	92
19) tert-Butanol (TBA)	4.294	59	420403	986.67	ug/L	97
20) Diisopropyl ether (DIPE)	4.568	45	27215	4.26	ug/L	95
21) 1,1-Dichloroethane	4.690	63	67655	19.08	ug/L	95
22) Acrylonitrile	4.751	53	22548	21.12	ug/L	97
23) Ethyl-tert-butyl ether...	4.945	59	25422	4.14	ug/L	98
24) Vinyl Acetate	4.957	43	70122	16.37	ug/L	97
25) c-1,2-Dichloroethene	5.243	61	53588	19.57	ug/L	91
26) 2,2-Dichloropropane	5.353	77	37701	16.29	ug/L	81
27) Bromochloromethane	5.450	130	29737	22.14	ug/L	94
28) Chloroform	5.529	83	69296	19.99	ug/L	97
29) Carbon Tetrachloride	5.663	117	29737	14.10	ug/L	92
30) Tetrahydrofuran	5.700	42	20264	19.97	ug/L	87
31) 1,1,1-Trichloroethane	5.736	97	50568	17.28	ug/L	97
33) 1,1-Dichloropropene	5.864	75	53942	19.19	ug/L	96
34) 2-Butanone (MEK)	5.858	43	59973	39.23	ug/L	95
35) Benzene	6.126	78	164420	19.55	ug/L	96
36) tert-Amyl methyl ether...	6.253	73	23305	4.08	ug/L	93
37) 1,2-Dichloroethane (EDC)	6.345	62	53543	19.44	ug/L	91
38) iso-Butyl Alcohol	6.375	43	56055	365.95	ug/L	95
40) Trichloroethene (TCE)	6.746	130	44150	20.37	ug/L	95
41) Tert-Amyl-Ethyl-Ether ...	6.995	59	16723	4.06	ug/L	85
42) Dibromomethane	7.202	93	28274	20.95	ug/L	97
43) 1,2-Dichloropropane	7.312	63	40585	19.35	ug/L	93
44) Bromodichloromethane	7.385	83	44513	18.40	ug/L	95
46) 2-Chloroethyl Vinyl Ether	8.024	63	30134	19.30	ug/L #	100
47) c-1,3-Dichloropropene	8.091	75	53821	17.90	ug/L	86

10/28/19 MM

Q5J

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102804.D
Acq On : 28 Oct 2019 9:24 am
Operator : TNL
Sample : 9101622-BS1
Misc : 1X 5mL 20/40PPB VOCR A19J352
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:04:03 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

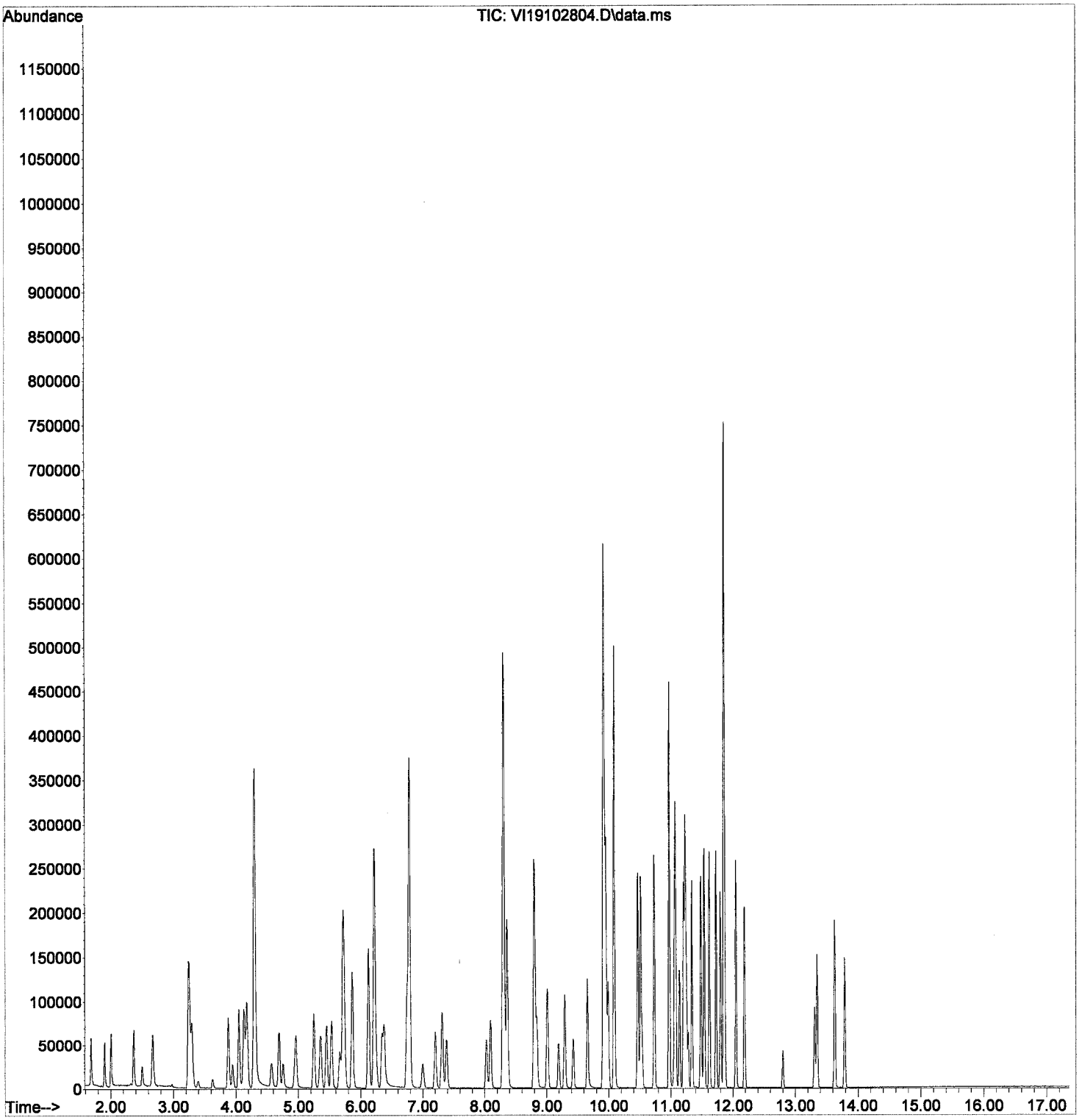
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
49) Toluene	8.358	91	170027	19.01 ug/L		98
50) Tetrachloroethene (PCE)	8.796	166	42082	20.21 ug/L		89
51) 4-Methyl-2-Pentanone (...	8.802	43	109749	40.41 ug/L		94
52) t-1,3-Dichloropropene	8.839	75	43707	16.38 ug/L		96
53) 1,1,2-Trichloroethane	9.009	97	40796	20.57 ug/L		91
54) Dibromochloromethane	9.192	129	30085	18.77 ug/L		99
55) 1,3-Dichloropropane	9.289	76	68581	20.05 ug/L		91
56) 1,2-Dibromoethane (EDB)	9.423	107	41646	19.29 ug/L		91
57) 2-Hexanone	9.654	43	79159	39.78 ug/L		90
58) Chlorobenzene	9.928	112	113755	19.92 ug/L		98
59) Ethylbenzene	9.952	91	181017	19.30 ug/L		97
60) 1,1,1,2-Tetrachloroethane	9.989	131	27375	16.44 ug/L		95
61) m,p-Xylenes (2)	10.086	91	269505	39.01 ug/L		100
62) o-Xylene	10.469	91	134767	19.68 ug/L		100
63) Styrene	10.512	104	109590	19.91 ug/L		97
64) Bromoform	10.536	173	18794	16.38 ug/L		97
65) Isopropylbenzene	10.731	105	165630	19.82 ug/L		99
68) Bromobenzene	11.059	156	46325	19.92 ug/L		90
69) n-Propylbenzene	11.071	91	193185	19.37 ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.138	85	37979	19.34 ug/L		96
71) 2-Chlorotoluene	11.205	126	41171	19.16 ug/L		99
72) 1,3,5-Trimethylbenzene	11.230	105	135424	19.87 ug/L		97
73) 1,2,3-Trichloropropane	11.248	110	19023	19.92 ug/L		97
74) t-1,4-Dichloro-2-butene	11.278	53	12443	18.21 ug/L	#	56
75) 4-Chlorotoluene	11.339	91	119384	19.45 ug/L		98
76) tert-Butylbenzene	11.485	91	71313	18.74 ug/L		98
77) 1,2,4-Trimethylbenzene	11.540	105	137070	19.99 ug/L		98
78) sec-Butylbenzene	11.619	105	163838	19.51 ug/L		99
79) 4-Isopropyltoluene	11.729	119	135295	20.37 ug/L		98
80) 1,3-Dichlorobenzene	11.795	146	80507	19.87 ug/L		98
81) 1,4-Dichlorobenzene	11.862	146	83883	19.85 ug/L		97
82) n-Butylbenzene	12.045	91	118871	21.06 ug/L		99
83) 1,2-Dichlorobenzene	12.185	146	77214	19.62 ug/L		97
84) 1,2-Dibromo-3-Chloropr...	12.799	157	9864	14.83 ug/L		86
85) Hexachlorobutadiene	13.304	223	10859	19.75 ug/L		96
86) 1,2,4-Trichlorobenzene	13.347	180	46948	20.70 ug/L		98
87) Naphthalene	13.627	128	143070	19.84 ug/L		98
88) 1,2,3-Trichlorobenzene	13.785	180	43858	20.37 ug/L		94

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102804.D
Acq On : 28 Oct 2019 9:24 am
Operator : TNL
Sample : 9101622-BS1
Misc : 1X 5mL 20/40PPB VOCR A19J352
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:04:03 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102805.D
Acq On : 28 Oct 2019 9:51 am
Operator : TNL
Sample : 9101622-BS2
Misc : 1X 5mL 500PPB GX A19J354
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:10:12 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (IS)	50.000	50.000	0.0	102	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	49.869	0.3	103	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	48.487	3.0	100	0.00
4	H	NWTPH-Gx (TPH)	500.000	489.762	2.0	102	0.00
5	H	TPHg (C5-C9)	500.000	485.692	2.9	100	0.00
6	H	TPHg (C6-C10)	500.000	490.465	1.9	101	0.00
7	H	CA-LUFT (C5-C12)	500.000	483.517	3.3	101	0.00
8		Benzene (NR)	-1.000	0.000	0.0	103	0.00
9	S	Toluene-d8 (NR)	-1.000	0.000	0.0	101	0.00
10		Toluene (NR)	-1.000	0.000	0.0	101	0.00
11	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	101	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	101	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	114	0.00

10/28/19 M

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102805.D
Acq On : 28 Oct 2019 9:51 am
Operator : TNL
Sample : 9101622-BS2
Misc : 1X 5mL 500PPB GX A19J354
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:10:12 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (IS)	6.217	168	219404	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Difluorobenzene (Sur)	6.783	114	355767	49.87 ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	115479	48.49 ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	401162	0.00 ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	303808	0.00 ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.856	150	226286	0.00 ug/L	0.00
Target Compounds					Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	3022778m	~~489.76 ug/L~~	
5) TPHg (C5-C9)	9.890	TIC	4152741m	485.69 ug/L	
6) TPHg (C6-C10)	9.890	TIC	3553471m	490.46 ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	4902294m	483.52 ug/L	

NR

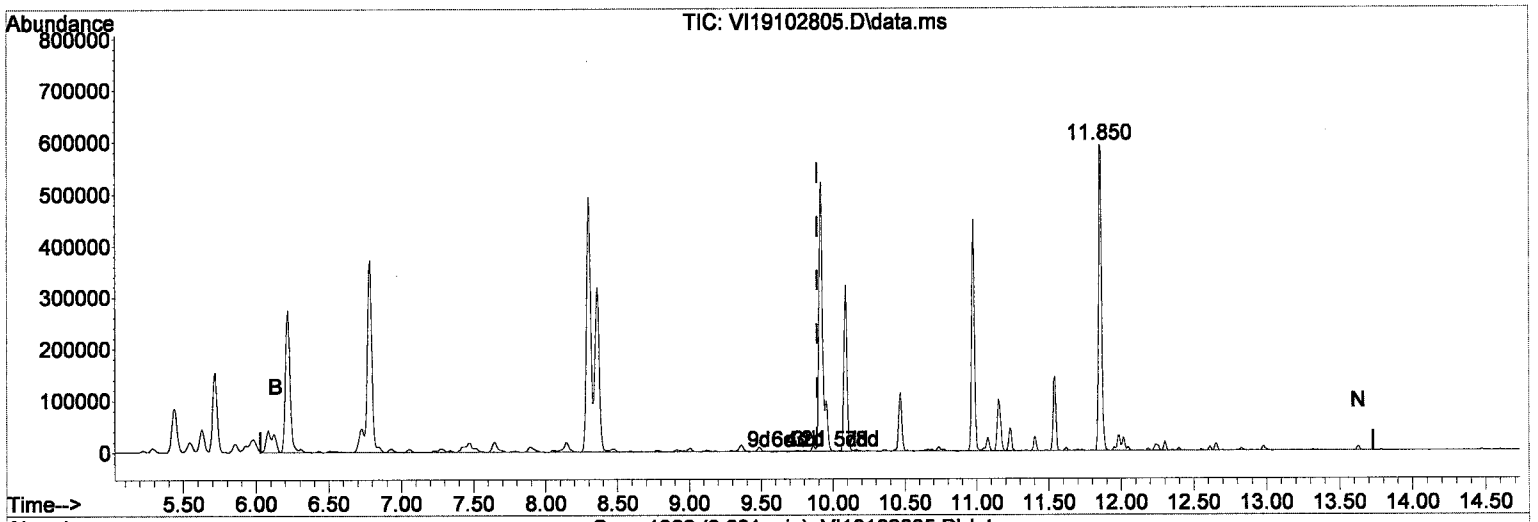
12/28/19 DG

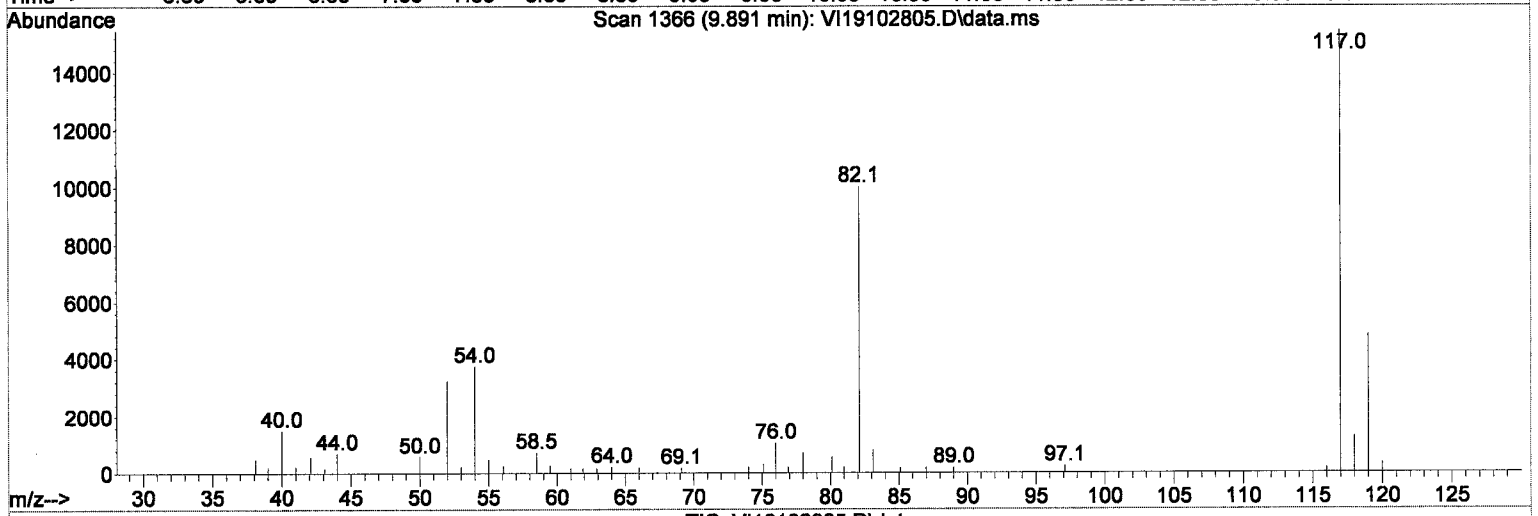
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102805.D
Acq On : 28 Oct 2019 9:51 am
Operator : TNL
Sample : 9101622-BS2
Misc : 1X 5mL 500PPB GX A19J354
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:10:12 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





TIC: VI19102805.D\data.ms

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

9.890min (0.000) 489.76 ug/L m

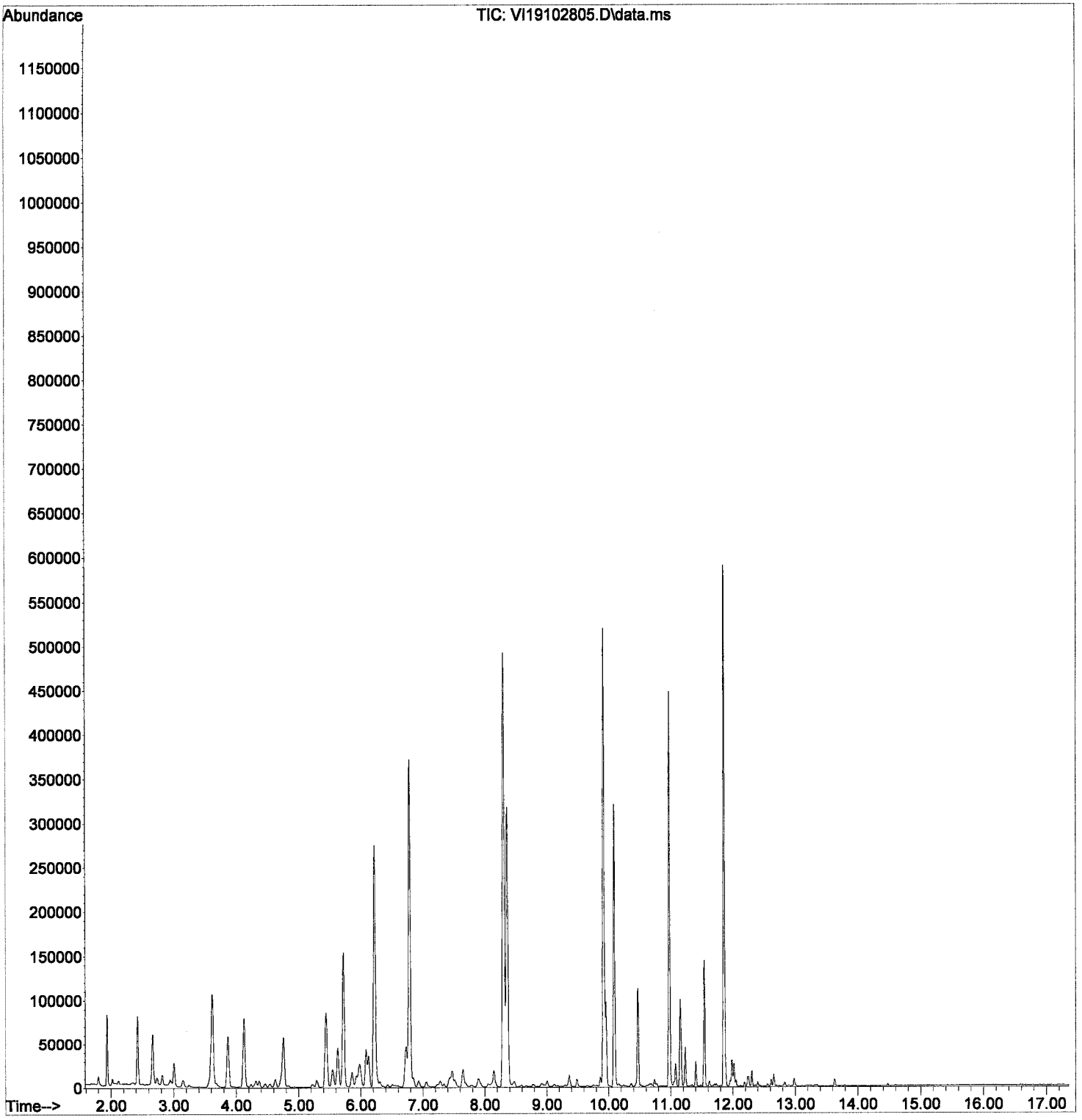
response 3022778

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102805.D
Acq On : 28 Oct 2019 9:51 am
Operator : TNL
Sample : 9101622-BS2
Misc : 1X 5mL 500PPB GX A19J354
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:07:29 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102806.D
Acq On : 28 Oct 2019 10:17 am
Operator : TNL
Sample : 9101622-BLK1
Misc : 1X 5mL DI
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:10:15 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (IS)	6.217	168	207319	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Difluorobenzene (Sur)	6.783	114	337411	50.05 ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	104498	46.43 ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	373000	0.00 ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	281327	0.00 ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	199347	0.00 ug/L	0.00
Target Compounds					Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	-37352m	18.51 ug/L	
5) TPHg (C5-C9)	9.890	TIC	312107m	12.99 ug/L	
6) TPHg (C6-C10)	9.890	TIC	287624m	14.10 ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	293550m	15.08 ug/L	

10/28/2019

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102806.D
Acq On : 28 Oct 2019 10:17 am
Operator : TNL
Sample : 9101622-BLK1
Misc : 1X 5mL DI
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:07:32 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	105942	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.916	117	281327	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	128106	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.718	111	99002	47.56	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	337411	50.41	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	372607	50.46	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	104498	50.48	ug/L	0.00
Target Compounds						Qvalue
3) Chloromethane	1.904	50	234	0.10	ug/L	# 47
6) Chloroethane	2.463	64	125	0.12	ug/L	# 49
14) Methylene Chloride	3.881	84	2264	0.30	ug/L	# 80
15) Acetone	3.954	43	711	0.77	ug/L	# 44

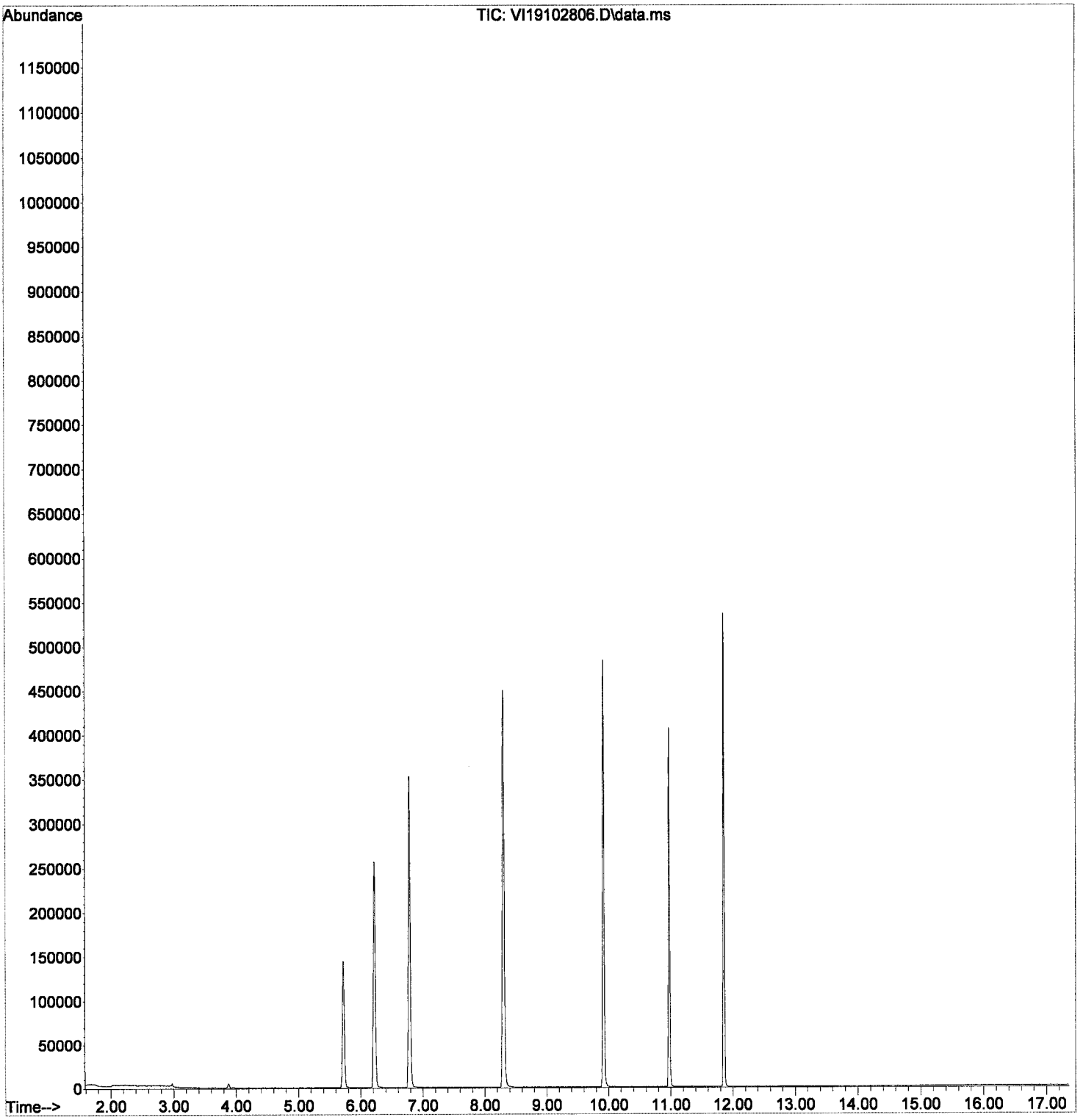
10/28/19 am

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102806.D
Acq On : 28 Oct 2019 10:17 am
Operator : TNL
Sample : 9101622-BLK1
Misc : 1X 5mL DI
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 11:07:32 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102807.D
Acq On : 28 Oct 2019 10:44 am
Operator : TNL
Sample : A9J0954-03
Misc : 1X 5mL 8260C TB
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 16:09:49 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	102702	50.00	ug/L	0.00
45) Chlorobenzene-d5 (I)	9.916	117	275494	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.856	152	123363	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.718	111	97232	48.18	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	329275	50.75	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	365290	50.52	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	102626	51.49	ug/L	0.00
Target Compounds						Qvalue
3) Chloromethane	1.904	50	220	0.10	ug/L	#47
6) Chloroethane	2.481	64	194	0.19	ug/L	#36
14) Methylene Chloride	3.881	84	542	Below Cal		#78
15) Acetone	3.954	43	1831	2.03	ug/L	99

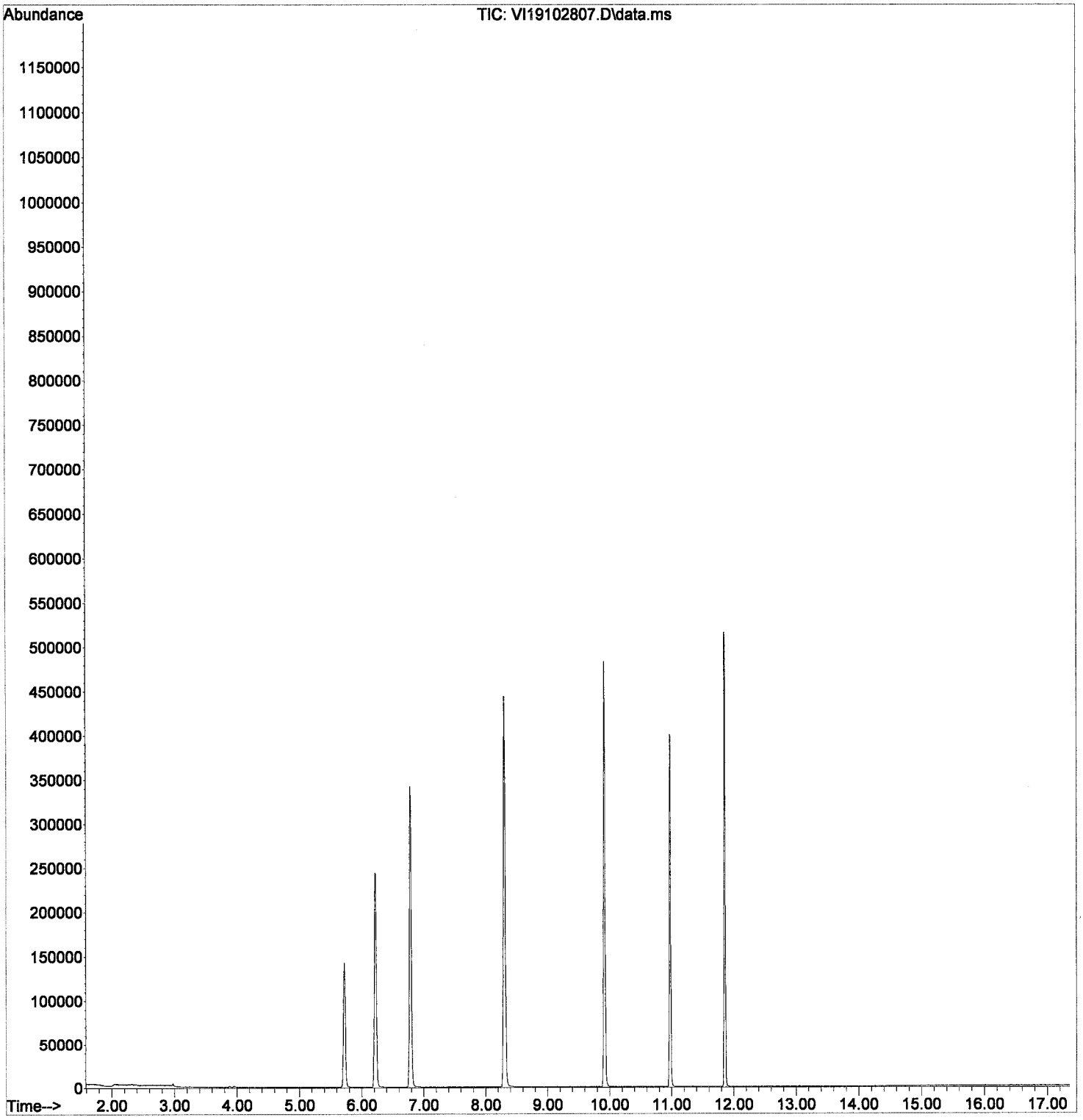
(#) = qualifier out of range (m) = manual integration (+) = signals summed

10/28/19 BM

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28025\
Data File : VI19102807.D
Acq On : 28 Oct 2019 10:44 am
Operator : TNL
Sample : A9J0954-03
Misc : 1X 5mL 8260C TB
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 28 16:09:49 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



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

Volatile Organic Compounds by EPA 5035A/8260C
Calibration Data

Sequence 9J24043 (Cal ID A9J2503) VOA-GCMS9

ELEMENT SEQUENCE LOG

Apex Laboratories

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

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

Data Entered By: 10/25/19

Data Reviewed By: 10/28/19

Comments:

Calibration Status Report VOA-GCMS9

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

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

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

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

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J24043

Analysis Included

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

INSTRUMENT SEQUENCE LOG

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

CALIBRATION STANDARD RECOVERIES

Calibration: A9J2503 Instrument: VOA-GCMS9

8260C Full List Sequence: 9J24043 Matrix: Water

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

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J24043

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

Analytes With Quadratic Curve Fits

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

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

ICV RECOVERIES

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

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

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

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

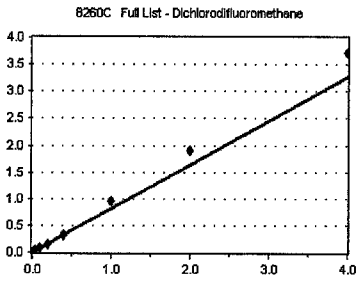
Element Calibration Review Sheet

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

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

Dichlorodifluoromethane

Curve Fit: **AVERAGE RF**

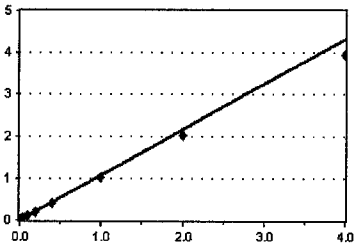


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	562	0.627	1.67
9J24043-CAL4	1	1583	0.682	1.68
9J24043-CAL5	2	3731	0.842	1.69
9J24043-CAL6	5	9010	0.812	1.68
9J24043-CAL7	10	18118	0.770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

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

Chloromethane

Curve Fit: **AVERAGE RF**

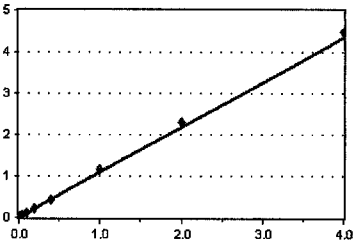


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~479~~	~~2.063~~	~~1.90~~
9J24043-CAL2	0.2	669	1.457	1.90
9J24043-CAL3	0.4	1136	1.268	1.89
9J24043-CAL4	1	2407	1.037	1.89
9J24043-CAL5	2	4743	1.070	1.90
9J24043-CAL6	5	11370	1.024	1.89
9J24043-CAL7	10	22449	0.954	1.90
9J24043-CAL8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

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

Vinyl chloride

Curve Fit: **AVERAGE RF**

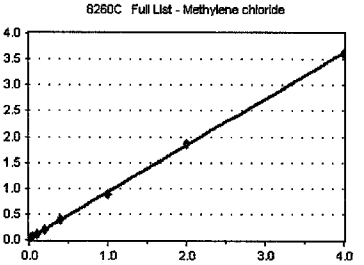


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	406	0.884	2.01
9J24043-CAL3	0.4	967	1.079	2.00
9J24043-CAL4	1	2351	1.013	2.00
9J24043-CAL5	2	5030	1.135	2.01
9J24043-CAL6	5	12653	1.140	2.00
9J24043-CAL7	10	25149	1.069	2.00
9J24043-CAL8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

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

Methylene chloride

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



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

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

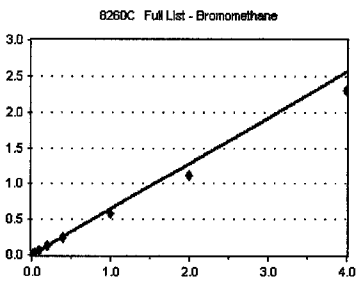
Element Calibration Review Sheet

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

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

Bromomethane

Curve Fit: **AVERAGE RF**

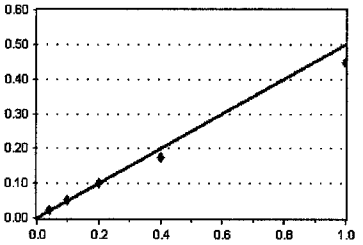


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~839~~	~~0.937~~	~~2.36~~
9J24043-CAL4	1	1763	0.760	2.36
9J24043-CAL5	2	3140	0.709	2.37
9J24043-CAL6	5	7782	0.701	2.36
9J24043-CAL7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

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

Chloroethane

Curve Fit: **AVERAGE RF**

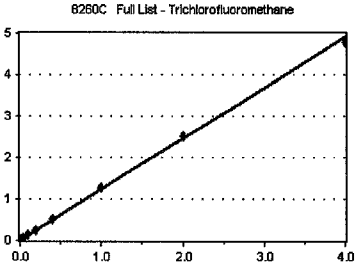


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL5	2	2540	0.573	2.52
9J24043-CAL6	5	5899	0.531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

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

Trichlorofluoromethane

Curve Fit: **AVERAGE RF**

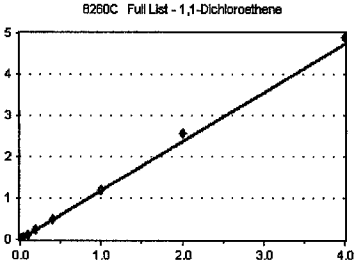


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	958	1.069	2.66
9J24043-CAL4	1	2784	1.200	2.66
9J24043-CAL5	2	5667	1.279	2.68
9J24043-CAL6	5	14236	1.282	2.66
9J24043-CAL7	10	29038	1.235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

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

1,1-Dichloroethene

Curve Fit: **AVERAGE RF**



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

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

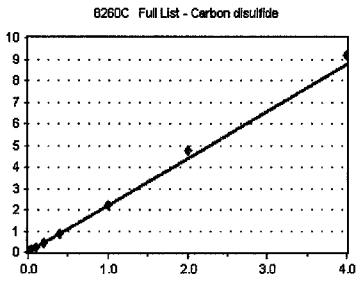
Element Calibration Review Sheet

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

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

Carbon disulfide

Curve Fit: **AVERAGE RF**

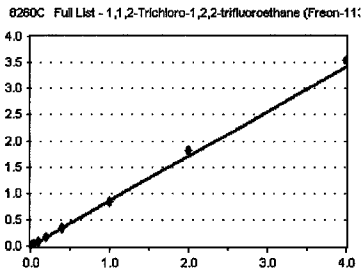


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	4573	1.970	3.25
9J24043-CAL5	2	9757	2.202	3.26
9J24043-CAL6	5	24060	2.167	3.25
9J24043-CAL7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

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

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

Curve Fit: **AVERAGE RF**

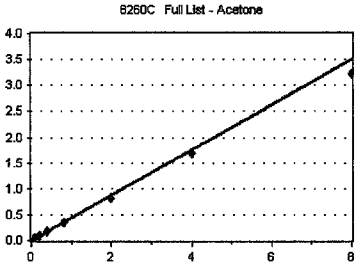


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	1717	0.740	3.29
9J24043-CAL5	2	3803	0.858	3.30
9J24043-CAL6	5	9544	0.860	3.29
9J24043-CAL7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

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

Acetone

Curve Fit: **AVERAGE RF**

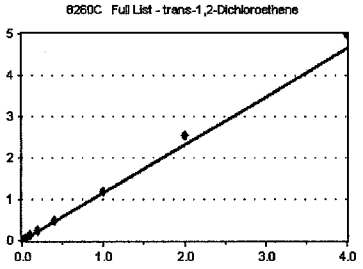


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.4~~	~~1168~~	~~1.272~~	~~3.95~~
~~9J24043-CAL3~~	~~0.8~~	~~1616~~	~~0.902~~	~~3.95~~
~~9J24043-CAL4~~	~~2~~	~~2940~~	~~0.633~~	~~3.95~~
9J24043-CAL5	4	4523	0.510	3.95
9J24043-CAL6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

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

trans-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**



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

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

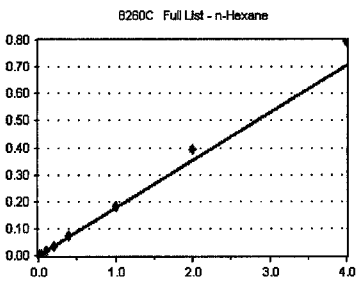
Element Calibration Review Sheet

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

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

n-Hexane

Curve Fit: **AVERAGE RF**

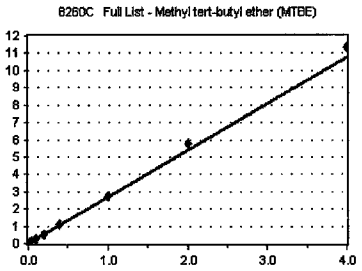


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	357	0.154	4.12
9J24043-CAL5	2	709	0.160	4.13
9J24043-CAL6	5	1836	0.165	4.12
9J24043-CAL7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

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

Methyl tert-butyl ether (MTBE)

Curve Fit: **AVERAGE RF**

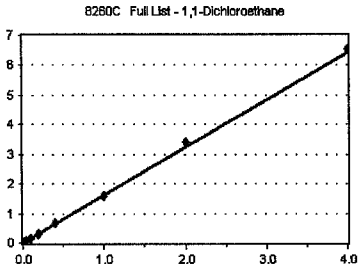


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	2309	2.577	4.17
9J24043-CAL4	1	5789	2.494	4.17
9J24043-CAL5	2	11957	2.698	4.17
9J24043-CAL6	5	29908	2.694	4.17
9J24043-CAL7	10	61557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

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

1,1-Dichloroethane

Curve Fit: **AVERAGE RF**

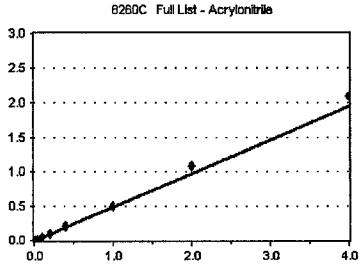


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1323	1.477	4.68
9J24043-CAL4	1	3672	1.582	4.68
9J24043-CAL5	2	7227	1.631	4.69
9J24043-CAL6	5	18307	1.649	4.68
9J24043-CAL7	10	36999	1.573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

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

Acrylonitrile

Curve Fit: **AVERAGE RF**



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

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

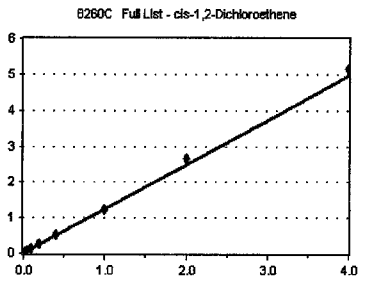
Element Calibration Review Sheet

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

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

cis-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**

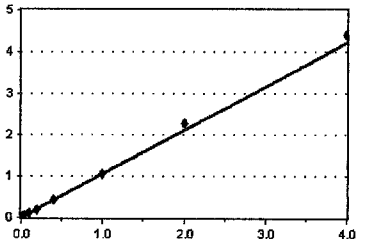


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1008	1.125	5.24
9J24043-CAL4	1	2744	1.182	5.24
9J24043-CAL5	2	5568	1.256	5.25
9J24043-CAL6	5	13959	1.257	5.24
9J24043-CAL7	10	28723	1.221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

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

2,2-Dichloropropane

Curve Fit: **AVERAGE RF**

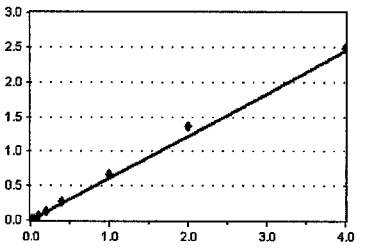


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	853	0.952	5.35
9J24043-CAL4	1	2316	0.998	5.35
9J24043-CAL5	2	4776	1.078	5.35
9J24043-CAL6	5	11793	1.062	5.35
9J24043-CAL7	10	23663	1.006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

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

Bromochloromethane

Curve Fit: **AVERAGE RF**

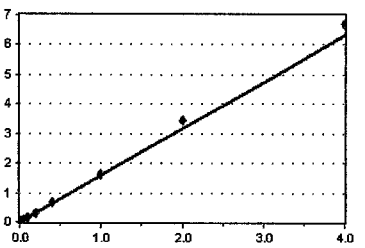


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	391	0.436	5.44
9J24043-CAL4	1	1188	0.512	5.45
9J24043-CAL5	2	2679	0.605	5.46
9J24043-CAL6	5	7172	0.646	5.44
9J24043-CAL7	10	14961	0.636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

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

Chloroform

Curve Fit: **AVERAGE RF**



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

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

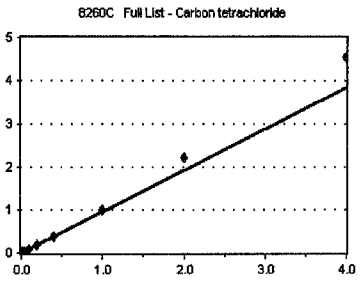
Element Calibration Review Sheet

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

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

Carbon tetrachloride

Curve Fit: **AVERAGE RF**

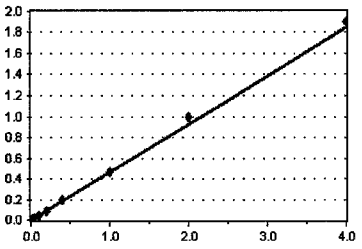


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~618~~	~~0.690~~	~~5.65~~
9J24043-CAL4	1	1791	0.772	5.66
9J24043-CAL5	2	4001	0.903	5.66
9J24043-CAL6	5	9957	0.897	5.66
9J24043-CAL7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

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

Tetrahydrofuran

Curve Fit: **AVERAGE RF**

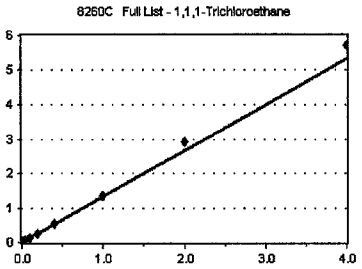


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	945	0.407	5.71
9J24043-CAL5	2	2045	0.461	5.71
9J24043-CAL6	5	5112	0.460	5.71
9J24043-CAL7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

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

1,1,1-Trichloroethane

Curve Fit: **AVERAGE RF**

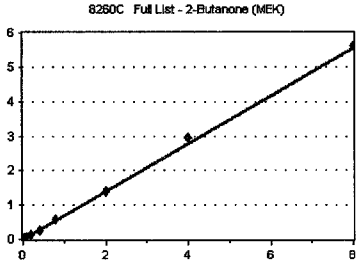


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1012	1.130	5.73
9J24043-CAL4	1	2903	1.251	5.73
9J24043-CAL5	2	5937	1.340	5.74
9J24043-CAL6	5	14957	1.347	5.73
9J24043-CAL7	10	30210	1.284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

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

2-Butanone (MEK)

Curve Fit: **AVERAGE RF**



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

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

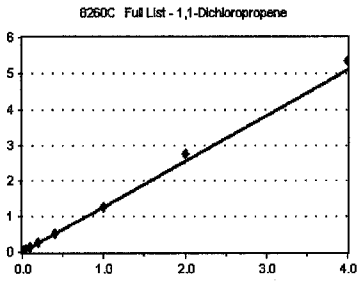
Element Calibration Review Sheet

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

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

1,1-Dichloropropene

Curve Fit: **AVERAGE RF**

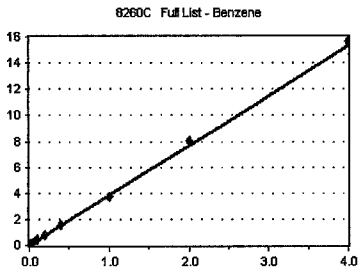


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1049	1.171	5.87
9J24043-CAL4	1	2749	1.184	5.86
9J24043-CAL5	2	5724	1.292	5.87
9J24043-CAL6	5	14423	1.299	5.86
9J24043-CAL7	10	29295	1.245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

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

Benzene

Curve Fit: **AVERAGE RF**

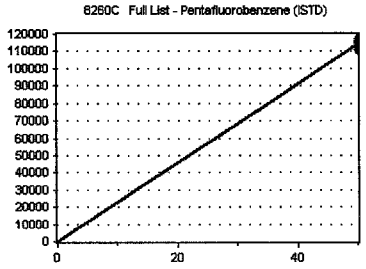


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	917	3.949	6.13
9J24043-CAL2	0.2	1584	3.450	6.13
9J24043-CAL3	0.4	3381	3.774	6.12
9J24043-CAL4	1	8314	3.582	6.13
9J24043-CAL5	2	17935	4.047	6.13
9J24043-CAL6	5	43404	3.910	6.12
9J24043-CAL7	10	87359	3.714	6.12
9J24043-CAL8	20	175817	3.910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

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

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

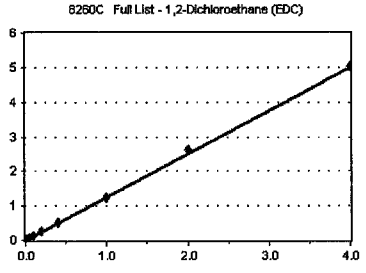


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116102	2322.040	6.22
9J24043-CAL2	50	114788	2295.760	6.22
9J24043-CAL3	50	111985	2239.700	6.21
9J24043-CAL4	50	116043	2320.860	6.21
9J24043-CAL5	50	110790	2215.800	6.22
9J24043-CAL6	50	111010	2220.200	6.21
9J24043-CAL7	50	117608	2352.160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

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

1,2-Dichloroethane (EDC)

Curve Fit: **AVERAGE RF**



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

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

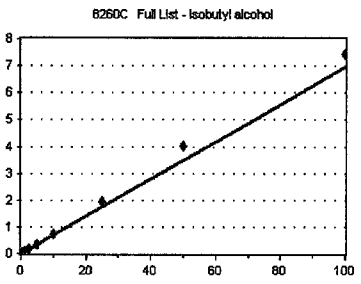
Element Calibration Review Sheet

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

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

Isobutyl alcohol

Curve Fit: **AVERAGE RF**

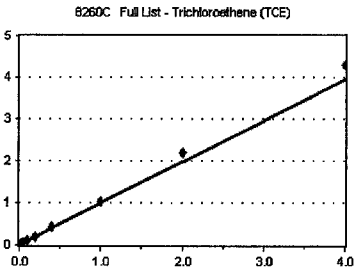


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~2.5~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~5~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	10	1172	5.233	6.39
9J24043-CAL4	25	3120	5.377	6.38
9J24043-CAL5	50	7968	7.192	6.38
9J24043-CAL6	125	20710	7.462	6.38
9J24043-CAL7	250	39286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

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

Trichloroethene (TCE)

Curve Fit: **AVERAGE RF**

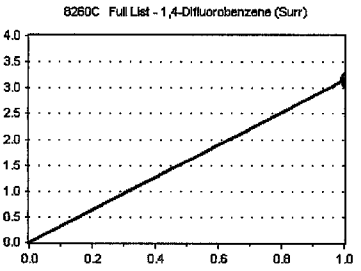


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	372	0.810	6.75
9J24043-CAL3	0.4	718	0.801	6.75
9J24043-CAL4	1	2166	0.933	6.74
9J24043-CAL5	2	4576	1.033	6.75
9J24043-CAL6	5	11340	1.022	6.74
9J24043-CAL7	10	23449	0.997	6.74
9J24043-CAL8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

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

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

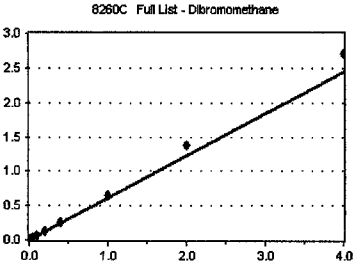


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	364447	3.139	6.78
9J24043-CAL2	50	359462	3.132	6.78
9J24043-CAL3	50	352302	3.146	6.78
9J24043-CAL4	50	366642	3.160	6.78
9J24043-CAL5	50	347212	3.134	6.78
9J24043-CAL6	50	353918	3.188	6.78
9J24043-CAL7	50	367409	3.124	6.78
9J24043-CAL8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

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

Dibromomethane

Curve Fit: **AVERAGE RF**



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

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

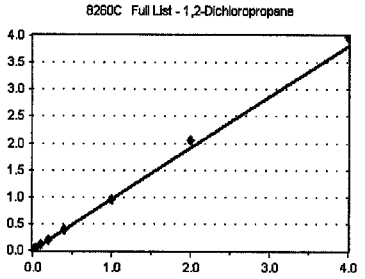
Element Calibration Review Sheet

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

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

1,2-Dichloropropane

Curve Fit: **AVERAGE RF**

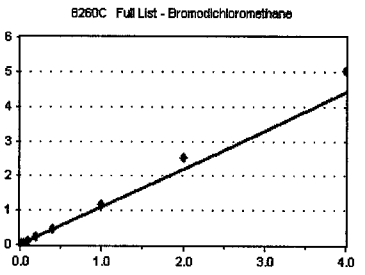


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	797	0.890	7.31
9J24043-CAL4	1	1944	0.838	7.31
9J24043-CAL5	2	4373	0.987	7.31
9J24043-CAL6	5	10897	0.982	7.31
9J24043-CAL7	10	21915	0.932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

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

Bromodichloromethane

Curve Fit: **AVERAGE RF**

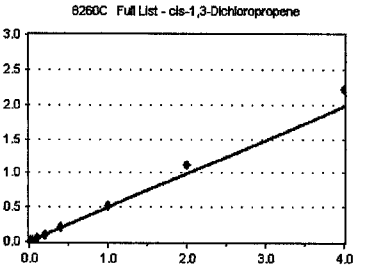


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	800	0.893	7.38
9J24043-CAL4	1	2259	0.973	7.38
9J24043-CAL5	2	4681	1.056	7.39
9J24043-CAL6	5	12021	1.083	7.38
9J24043-CAL7	10	25055	1.065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

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

cis-1,3-Dichloropropene

Curve Fit: **AVERAGE RF**

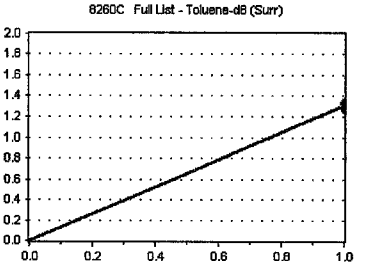


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	1014	0.431	8.09
9J24043-CAL4	1	2667	0.429	8.09
9J24043-CAL5	2	5578	0.468	8.09
9J24043-CAL6	5	14229	0.474	8.09
9J24043-CAL7	10	30482	0.487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

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

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**



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

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

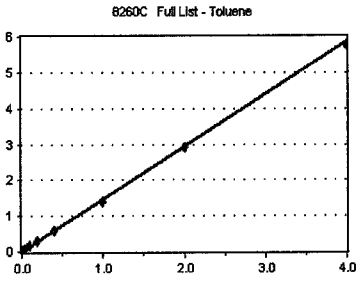
Element Calibration Review Sheet

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

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

Toluene

Curve Fit: **AVERAGE RF**

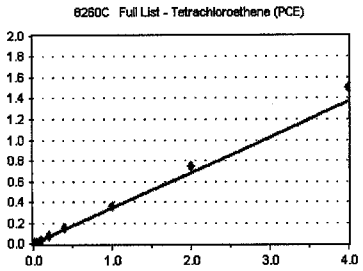


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	978	1.590	8.36
9J24043-CAL2	0.2	1744	1.439	8.35
9J24043-CAL3	0.4	3505	1.488	8.36
9J24043-CAL4	1	9040	1.454	8.35
9J24043-CAL5	2	17851	1.499	8.36
9J24043-CAL6	5	44272	1.474	8.36
9J24043-CAL7	10	90400	1.445	8.36
9J24043-CAL8	20	183309	1.492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

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

Tetrachloroethene (PCE)

Curve Fit: **AVERAGE RF**

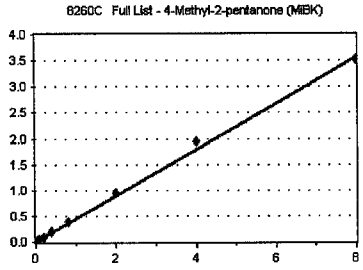


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	267	0.220	8.81
9J24043-CAL3	0.4	787	0.334	8.80
9J24043-CAL4	1	1994	0.321	8.80
9J24043-CAL5	2	4333	0.364	8.80
9J24043-CAL6	5	10847	0.361	8.80
9J24043-CAL7	10	22099	0.353	8.80
9J24043-CAL8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

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

4-Methyl-2-pentanone (MiBK)

Curve Fit: **AVERAGE RF**

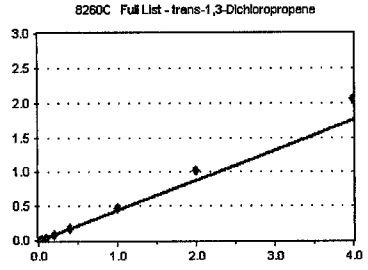


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.4	890	0.367	8.80
9J24043-CAL3	0.8	1912	0.406	8.81
9J24043-CAL4	2	5042	0.406	8.80
9J24043-CAL5	4	11029	0.463	8.81
9J24043-CAL6	10	28183	0.469	8.80
9J24043-CAL7	20	58009	0.464	8.80
9J24043-CAL8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

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

trans-1,3-Dichloropropene

Curve Fit: **AVERAGE RF**



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

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

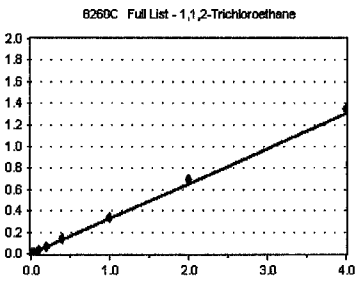
Element Calibration Review Sheet

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

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

1,1,2-Trichloroethane

Curve Fit: **AVERAGE RF**

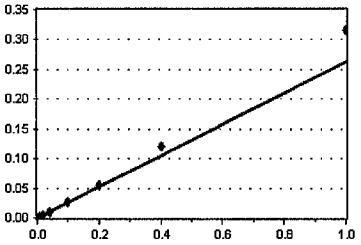


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	288	0.238	9.01
9J24043-CAL3	0.4	717	0.304	9.00
9J24043-CAL4	1	1944	0.313	9.00
9J24043-CAL5	2	4134	0.347	9.00
9J24043-CAL6	5	10336	0.344	9.00
9J24043-CAL7	10	21402	0.342	9.01
9J24043-CAL8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

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

Dibromochloromethane

Curve Fit: **AVERAGE RF**

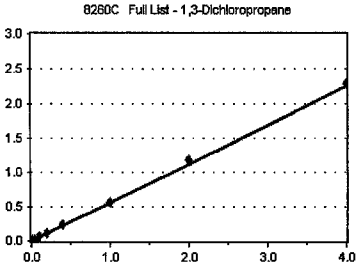


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	505	0.214	9.19
9J24043-CAL4	1	1349	0.217	9.19
9J24043-CAL5	2	3038	0.255	9.19
9J24043-CAL6	5	8016	0.267	9.19
9J24043-CAL7	10	17208	0.275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

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

1,3-Dichloropropane

Curve Fit: **AVERAGE RF**

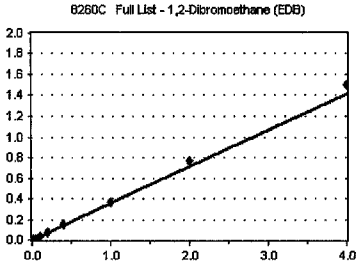


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	568	0.469	9.29
9J24043-CAL3	0.4	1253	0.532	9.29
9J24043-CAL4	1	3361	0.541	9.29
9J24043-CAL5	2	6889	0.578	9.29
9J24043-CAL6	5	17551	0.584	9.29
9J24043-CAL7	10	36354	0.581	9.29
9J24043-CAL8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

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

1,2-Dibromoethane (EDB)

Curve Fit: **AVERAGE RF**



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

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

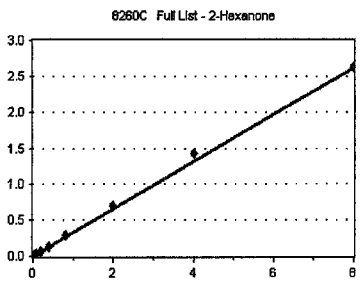
Element Calibration Review Sheet

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

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

2-Hexanone

Curve Fit: **AVERAGE RF**

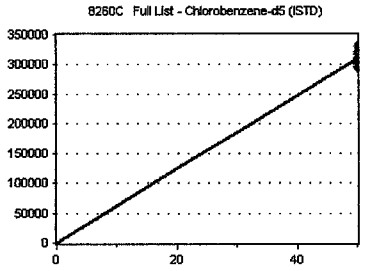


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.8	1346	0.286	9.66
9J24043-CAL4	2	3526	0.284	9.66
9J24043-CAL5	4	7610	0.319	9.66
9J24043-CAL6	10	19724	0.328	9.65
9J24043-CAL7	20	41881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

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

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

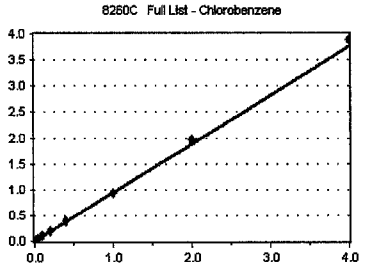


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	307577	6151.540	9.91
9J24043-CAL2	50	302974	6059.480	9.92
9J24043-CAL3	50	294372	5887.440	9.91
9J24043-CAL4	50	310797	6215.940	9.91
9J24043-CAL5	50	297754	5955.080	9.92
9J24043-CAL6	50	300317	6006.340	9.91
9J24043-CAL7	50	312833	6256.660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

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

Chlorobenzene

Curve Fit: **AVERAGE RF**

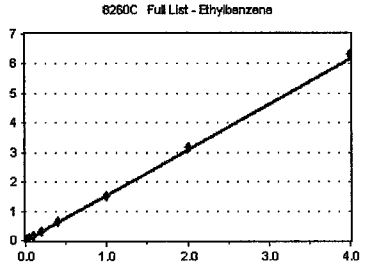


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	480	0.780	9.93
9J24043-CAL2	0.2	1045	0.862	9.93
9J24043-CAL3	0.4	2226	0.945	9.93
9J24043-CAL4	1	5770	0.928	9.93
9J24043-CAL5	2	11701	0.982	9.93
9J24043-CAL6	5	29555	0.984	9.93
9J24043-CAL7	10	60359	0.965	9.93
9J24043-CAL8	20	120984	0.985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

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

Ethylbenzene

Curve Fit: **AVERAGE RF**



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

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

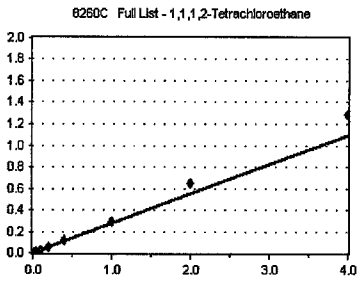
Element Calibration Review Sheet

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

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

1,1,1,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

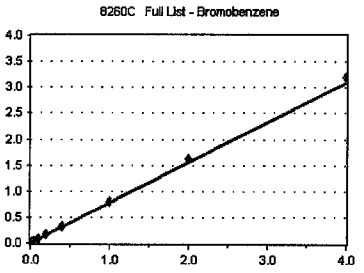


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~129~~	~~0.106~~	~~0.00~~
9J24043-CAL3	0.4	470	0.200	9.99
9J24043-CAL4	1	1476	0.237	9.99
9J24043-CAL5	2	2985	0.251	9.99
9J24043-CAL6	5	7981	0.266	9.99
9J24043-CAL7	10	16995	0.272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

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

Bromobenzene

Curve Fit: **AVERAGE RF**

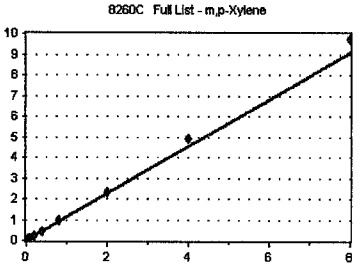


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	124	0.444	0.00
9J24043-CAL2	0.2	432	0.800	11.06
9J24043-CAL3	0.4	875	0.813	11.06
9J24043-CAL4	1	2220	0.771	11.06
9J24043-CAL5	2	4634	0.830	11.06
9J24043-CAL6	5	11623	0.819	11.06
9J24043-CAL7	10	24222	0.812	11.06
9J24043-CAL8	20	50013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

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

m,p-Xylene

Curve Fit: **AVERAGE RF**

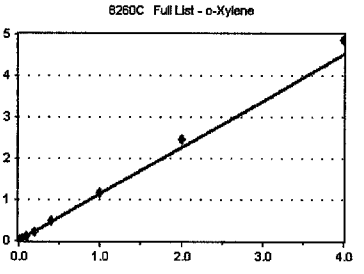


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.2	1368	1.112	10.09
9J24043-CAL2	0.4	2470	1.019	10.09
9J24043-CAL3	0.8	5197	1.103	10.09
9J24043-CAL4	2	12789	1.029	10.09
9J24043-CAL5	4	27092	1.137	10.09
9J24043-CAL6	10	68847	1.146	10.09
9J24043-CAL7	20	142004	1.135	10.09
9J24043-CAL8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

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

o-Xylene

Curve Fit: **AVERAGE RF**



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

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

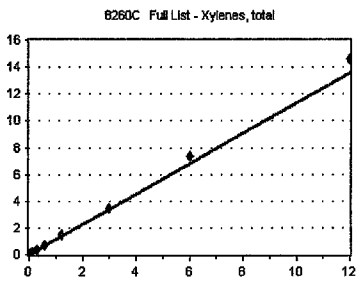
Element Calibration Review Sheet

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

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

Xylenes, total

Curve Fit: **AVERAGE RF**

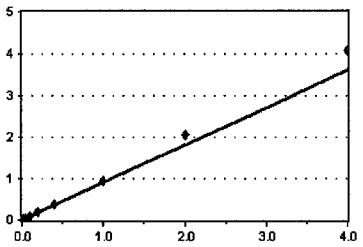


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.3	1953	1.058	10.47
9J24043-CAL2	0.6	3691	1.015	10.47
9J24043-CAL3	1.2	7802	1.104	10.47
9J24043-CAL4	3	19419	1.041	10.46
9J24043-CAL5	6	40697	1.139	10.47
9J24043-CAL6	15	103303	1.147	10.46
9J24043-CAL7	30	213421	1.137	10.46
9J24043-CAL8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

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

Styrene

Curve Fit: **AVERAGE RF**

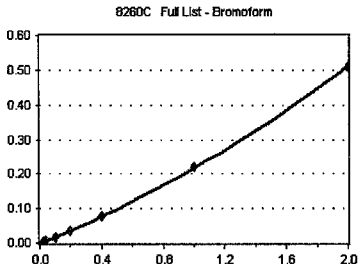


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~754~~	~~0.622~~	~~10.52~~
9J24043-CAL3	0.4	1656	0.703	10.52
9J24043-CAL4	1	4878	0.785	10.52
9J24043-CAL5	2	10363	0.870	10.52
9J24043-CAL6	5	26739	0.890	10.51
9J24043-CAL7	10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

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

Bromoform

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

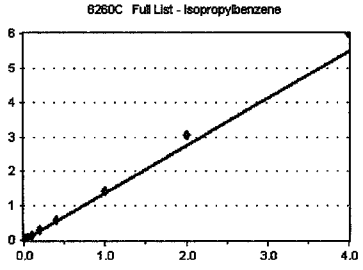


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	795	0.128	10.54
9J24043-CAL5	2	1771	0.149	10.54
9J24043-CAL6	5	4690	0.156	10.54
9J24043-CAL7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

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

Isopropylbenzene

Curve Fit: **AVERAGE RF**



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

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

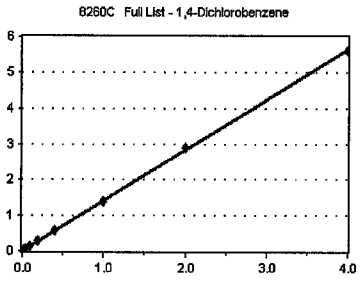
Element Calibration Review Sheet

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

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

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

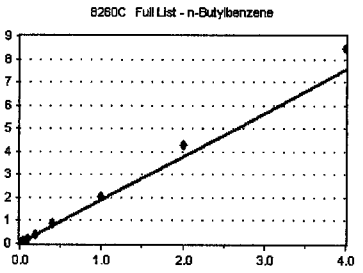


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	311	1.113	0.00
9J24043-CAL2	0.2	725	1.342	11.86
9J24043-CAL3	0.4	1564	1.454	11.86
9J24043-CAL4	1	4177	1.451	11.86
9J24043-CAL5	2	8550	1.531	11.86
9J24043-CAL6	5	20421	1.440	11.86
9J24043-CAL7	10	42771	1.433	11.86
9J24043-CAL8	20	89594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

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

n-Butylbenzene

Curve Fit: **AVERAGE RF**

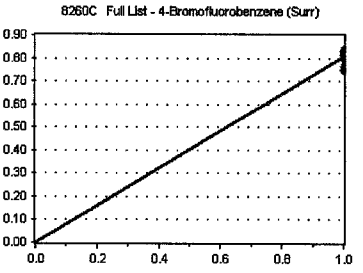


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	379	1.357	0.00
9J24043-CAL2	0.2	805	1.491	12.05
9J24043-CAL3	0.4	1867	1.735	12.05
9J24043-CAL4	1	4997	1.735	12.05
9J24043-CAL5	2	10626	1.903	12.05
9J24043-CAL6	5	28526	2.011	12.05
9J24043-CAL7	10	59515	1.994	12.05
9J24043-CAL8	20	130970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

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

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

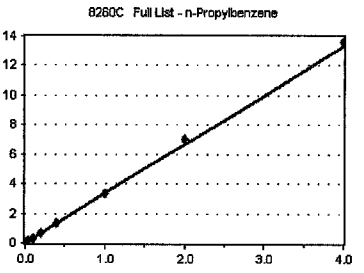


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116090	0.831	10.97
9J24043-CAL2	50	113180	0.838	10.97
9J24043-CAL3	50	112304	0.835	10.97
9J24043-CAL4	50	118563	0.823	10.97
9J24043-CAL5	50	115163	0.825	10.97
9J24043-CAL6	50	115652	0.815	10.97
9J24043-CAL7	50	121121	0.812	10.97
9J24043-CAL8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

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

n-Propylbenzene

Curve Fit: **AVERAGE RF**



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

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

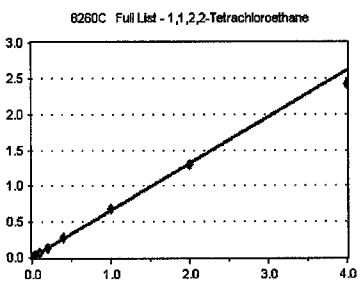
Element Calibration Review Sheet

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

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

1,1,2,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

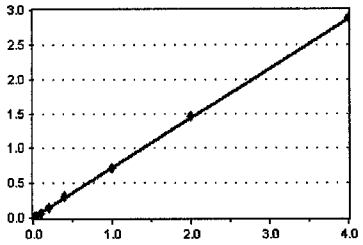


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	305	0.565	11.14
9J24043-CAL3	0.4	671	0.624	11.14
9J24043-CAL4	1	1876	0.651	11.14
9J24043-CAL5	2	4008	0.718	11.14
9J24043-CAL6	5	9843	0.694	11.14
9J24043-CAL7	10	20098	0.673	11.14
9J24043-CAL8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

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

2-Chlorotoluene

Curve Fit: **AVERAGE RF**

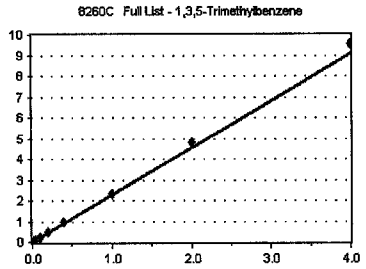


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.4	719	0.668	11.21
9J24043-CAL4	1	1910	0.663	11.21
9J24043-CAL5	2	4172	0.747	11.21
9J24043-CAL6	5	10150	0.716	11.21
9J24043-CAL7	10	21625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

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

1,3,5-Trimethylbenzene

Curve Fit: **AVERAGE RF**

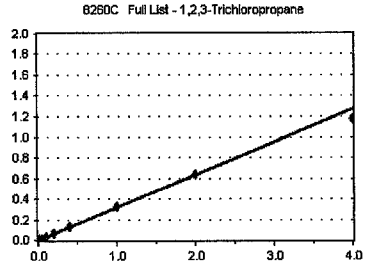


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	556	1.990	11.23
9J24043-CAL2	0.2	1127	2.087	11.23
9J24043-CAL3	0.4	2289	2.127	11.23
9J24043-CAL4	1	6197	2.152	11.23
9J24043-CAL5	2	13089	2.344	11.23
9J24043-CAL6	5	33314	2.349	11.23
9J24043-CAL7	10	69892	2.342	11.23
9J24043-CAL8	20	148694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

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

1,2,3-Trichloropropane

Curve Fit: **AVERAGE RF**



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

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

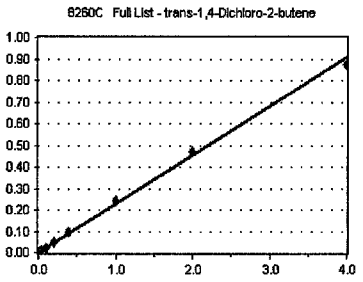
Element Calibration Review Sheet

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

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

trans-1,4-Dichloro-2-butene

Curve Fit: **AVERAGE RF**

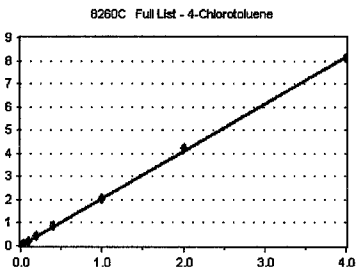


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	531	0.184	11.29
9J24043-CAL5	2	1313	0.235	11.28
9J24043-CAL6	5	3293	0.232	11.28
9J24043-CAL7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

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

4-Chlorotoluene

Curve Fit: **AVERAGE RF**

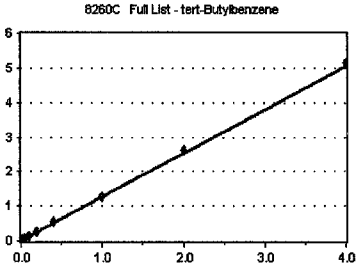


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	1020	1.889	11.34
9J24043-CAL3	0.4	2178	2.024	11.34
9J24043-CAL4	1	5461	1.896	11.34
9J24043-CAL5	2	11718	2.099	11.34
9J24043-CAL6	5	30239	2.132	11.34
9J24043-CAL7	10	61742	2.069	11.34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

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

tert-Butylbenzene

Curve Fit: **AVERAGE RF**

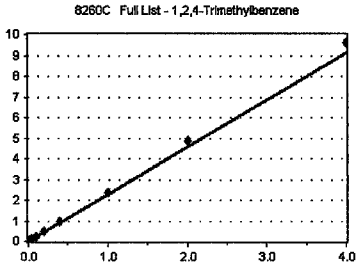


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	602	1.115	11.49
9J24043-CAL3	0.4	1248	1.160	11.49
9J24043-CAL4	1	3551	1.233	11.49
9J24043-CAL5	2	7395	1.324	11.49
9J24043-CAL6	5	18808	1.326	11.48
9J24043-CAL7	10	38411	1.287	11.48
9J24043-CAL8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

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

1,2,4-Trimethylbenzene

Curve Fit: **AVERAGE RF**



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

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

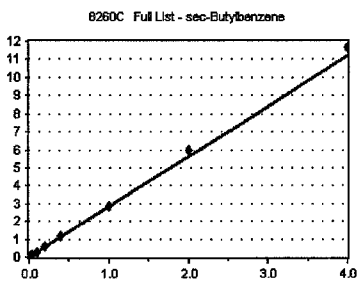
Element Calibration Review Sheet

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

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

sec-Butylbenzene

Curve Fit: **AVERAGE RF**

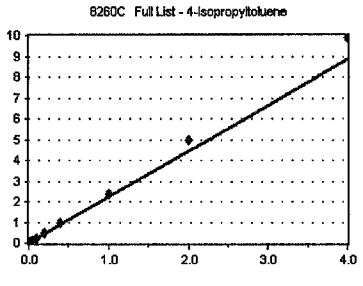


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	1301	2.409	11.62
9J24043-CAL3	0.4	2990	2.779	11.62
9J24043-CAL4	1	7450	2.587	11.62
9J24043-CAL5	2	15756	2.822	11.62
9J24043-CAL6	5	40240	2.837	11.62
9J24043-CAL7	10	83977	2.814	11.62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

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

4-Isopropyltoluene

Curve Fit: **AVERAGE RF**

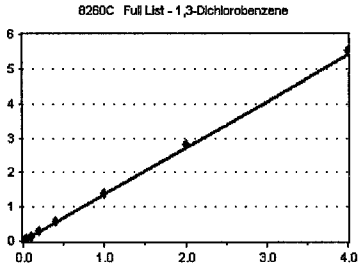


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	0.1	481	1.722	11.73
9J24043-CAL2	0.2	919	1.702	11.72
9J24043-CAL3	0.4	2236	2.078	11.73
9J24043-CAL4	1	6086	2.114	11.73
9J24043-CAL5	2	12523	2.243	11.73
9J24043-CAL6	5	33176	2.339	11.73
9J24043-CAL7	10	68628	2.300	11.73
9J24043-CAL8	20	151382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

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

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

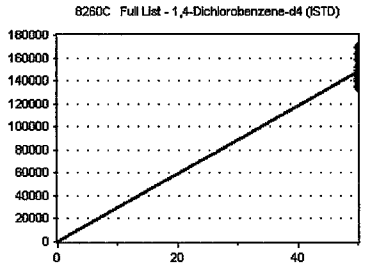


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	629	1.165	11.80
9J24043-CAL3	0.4	1412	1.312	11.80
9J24043-CAL4	1	3650	1.268	11.80
9J24043-CAL5	2	7718	1.382	11.80
9J24043-CAL6	5	19712	1.390	11.80
9J24043-CAL7	10	41299	1.384	11.80
9J24043-CAL8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

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

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



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

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

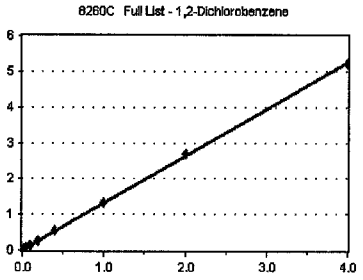
Element Calibration Review Sheet

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

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

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

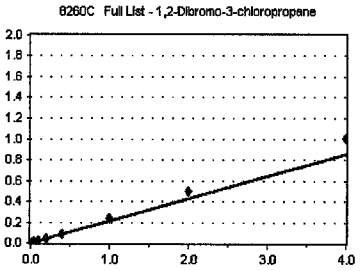


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL2	0.2	624	1.155	12.19
9J24043-CAL3	0.4	1284	1.193	12.19
9J24043-CAL4	1	3650	1.268	12.19
9J24043-CAL5	2	7854	1.407	12.19
9J24043-CAL6	5	19460	1.372	12.19
9J24043-CAL7	10	40125	1.345	12.18
9J24043-CAL8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

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

1,2-Dibromo-3-chloropropane

Curve Fit: **AVERAGE RF**

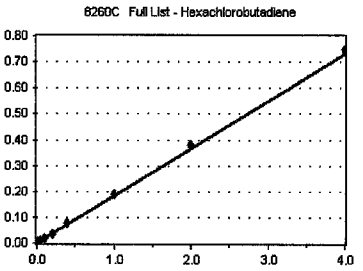


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL4~~	1	447	0.155	12.80
9J24043-CAL5	2	1006	0.180	12.80
9J24043-CAL6	5	2728	0.192	12.80
9J24043-CAL7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

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

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**

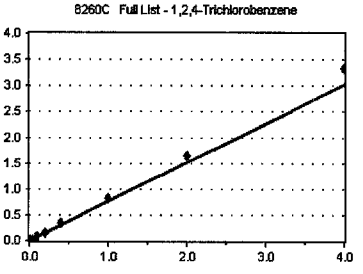


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	443	0.154	13.31
9J24043-CAL5	2	963	0.172	13.30
9J24043-CAL6	5	2715	0.191	13.30
9J24043-CAL7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

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

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**



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

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

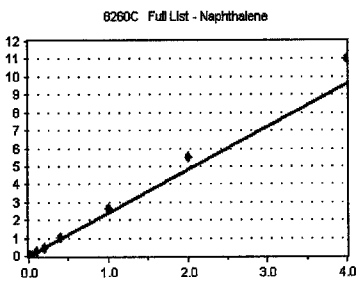
Element Calibration Review Sheet

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

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

Naphthalene

Curve Fit: **AVERAGE RF**

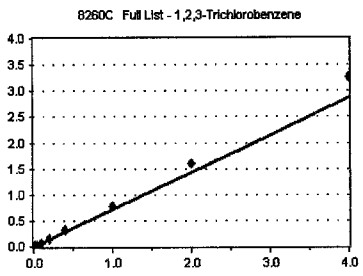


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~924~~	~~1.711~~	~~13.63~~
9J24043-CAL3	0.4	2009	1.867	13.63
9J24043-CAL4	1	5345	1.856	13.63
9J24043-CAL5	2	12724	2.279	13.63
9J24043-CAL6	5	32892	2.319	13.63
9J24043-CAL7	10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

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

1,2,3-Trichlorobenzene

Curve Fit: **AVERAGE RF**



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

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

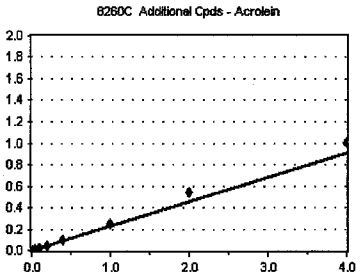
Element Calibration Review Sheet

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

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

Acrolein

Curve Fit: **AVERAGE RF**

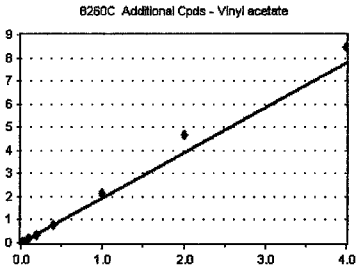


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	420	0.181	3.63
9J24043-CAL5	2	927	0.209	3.63
9J24043-CAL6	5	2465	0.222	3.62
9J24043-CAL7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

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

Vinyl acetate

Curve Fit: **AVERAGE RF**

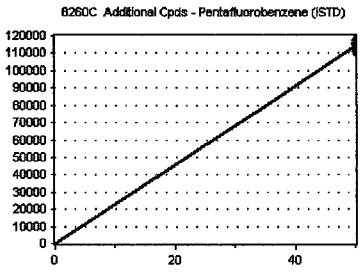


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	1	3620	1.560	4.96
9J24043-CAL5	2	7854	1.772	4.96
9J24043-CAL6	5	20467	1.844	4.96
9J24043-CAL7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

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

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

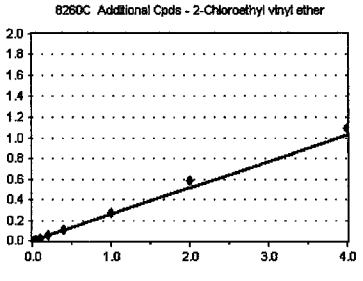


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116102	2322.040	6.22
9J24043-CAL2	50	114788	2295.760	6.22
9J24043-CAL3	50	111985	2239.700	6.21
9J24043-CAL4	50	116043	2320.860	6.21
9J24043-CAL5	50	110790	2215.800	6.22
9J24043-CAL6	50	111010	2220.200	6.21
9J24043-CAL7	50	117608	2352.160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

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

2-Chloroethyl vinyl ether

Curve Fit: **AVERAGE RF**



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

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

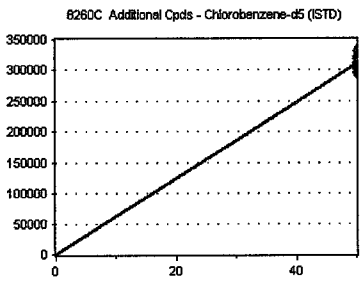
Element Calibration Review Sheet

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

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

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**



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

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

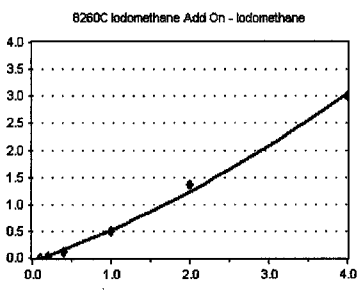
Element Calibration Review Sheet

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

Analysis: **8260C Iodomethane Add On** Instrument Cal ID: **VI191025W.M VI191025G.M**

Iodomethane

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

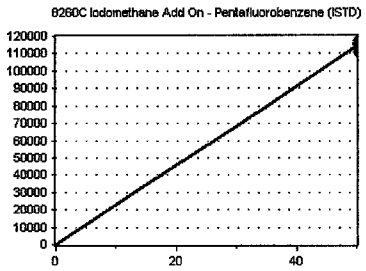


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL5~~	~~2~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL6	5	916	8.252	3.38
9J24043-CAL7	10	3125	0.133	3.39
9J24043-CAL8	20	11472	0.255	3.38
9J24043-CAL9	50	57651	0.499	3.38
9J24043-CALA	100	153366	0.685	3.39
9J24043-CALB	200	348091	0.750	3.39

AVE RF **0.401** RF RSD **71.16** AVE RT **3.39**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**



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

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

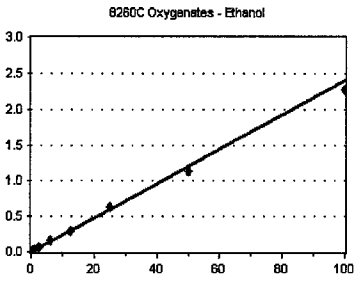
Element Calibration Review Sheet

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

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

Ethanol

Curve Fit: **AVERAGE RF**

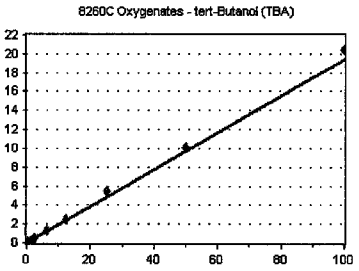


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~6.25~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	25	1315	2.349	3.23
9J24043-CAL4	62.5	3446	2.376	3.24
9J24043-CAL5	125	7229	2.610	3.24
9J24043-CAL6	312	17243	2.489	3.23
9J24043-CAL7	625	34617	2.355	3.24
9J24043-CAL8	1250	70360	2.504	3.23
9J24043-CAL9	2500	131053	2.267	3.23
9J24043-CALA	5000	254643	2.274	3.24

AVE RF **2.403** RF RSD **5.02** AVE RT **3.23**

tert-Butanol (TBA)

Curve Fit: **AVERAGE RF**

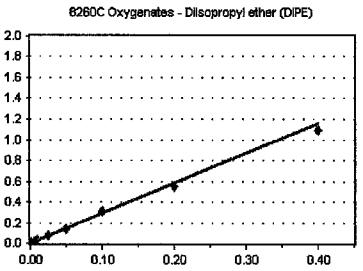


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	6.25	2472	0.170	4.30
9J24043-CAL2	12.5	4690	0.163	4.30
9J24043-CAL3	25	10086	0.180	4.29
9J24043-CAL4	62.5	25977	0.179	4.30
9J24043-CAL5	125	58093	0.210	4.30
9J24043-CAL6	312	143817	0.208	4.29
9J24043-CAL7	625	292252	0.199	4.29
9J24043-CAL8	1250	614954	0.219	4.29
9J24043-CAL9	2500	1172838	0.203	4.29
9J24043-CALA	5000	2295578	0.205	4.29

AVE RF **0.194** RF RSD **9.71** AVE RT **4.29**

Diisopropyl ether (DIPE)

Curve Fit: **AVERAGE RF**

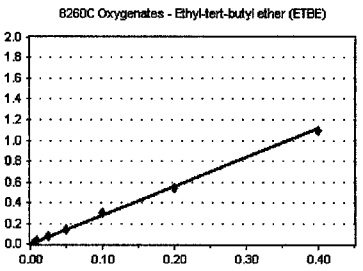


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.1	638	2.849	4.56
9J24043-CAL4	0.25	1604	2.764	4.56
9J24043-CAL5	0.5	3305	2.983	4.57
9J24043-CAL6	1.25	8576	3.090	4.57
9J24043-CAL7	2.5	17135	2.914	4.57
9J24043-CAL8	5	34871	3.102	4.56
9J24043-CAL9	10	63994	2.767	4.56
9J24043-CALA	20	122827	2.742	4.57

AVE RF **2.901** RF RSD **5.01** AVE RT **4.57**

Ethyl-tert-butyl ether (ETBE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	0.25	1449	2.497	4.94
9J24043-CAL5	0.5	3145	2.839	4.94
9J24043-CAL6	1.25	8071	2.908	4.94
9J24043-CAL7	2.5	16756	2.849	4.94
9J24043-CAL8	5	33471	2.978	4.94
9J24043-CAL9	10	63126	2.730	4.94
9J24043-CALA	20	121788	2.719	4.94

AVE RF **2.789** RF RSD **5.66** AVE RT **4.94**

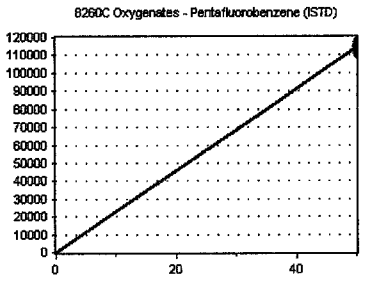
Element Calibration Review Sheet

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

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

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

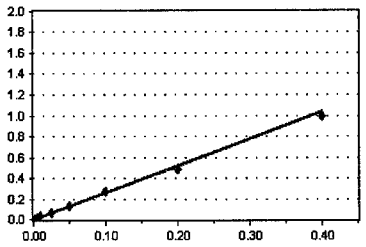


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116102	2322.040	6.22
9J24043-CAL2	50	114788	2295.760	6.22
9J24043-CAL3	50	111985	2239.700	6.21
9J24043-CAL4	50	116043	2320.860	6.21
9J24043-CAL5	50	110790	2215.800	6.22
9J24043-CAL6	50	111010	2220.200	6.21
9J24043-CAL7	50	117608	2352.160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

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

tert-Amyl methyl ether (TAME)

Curve Fit: **AVERAGE RF**

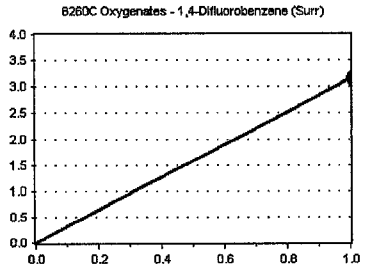


Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL3	0.1	580	2.590	6.25
9J24043-CAL4	0.25	1462	2.520	6.25
9J24043-CAL5	0.5	2996	2.704	6.25
9J24043-CAL6	1.25	7445	2.683	6.25
9J24043-CAL7	2.5	15349	2.610	6.25
9J24043-CAL8	5	30296	2.695	6.25
9J24043-CAL9	10	56793	2.456	6.24
9J24043-CALA	20	111127	2.481	6.25

AVE RF **2.592** RF RSD **3.80** AVE RT **6.25**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

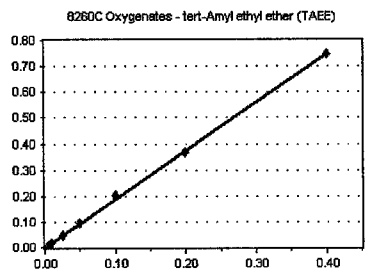


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	364447	3.139	6.78
9J24043-CAL2	50	359462	3.132	6.78
9J24043-CAL3	50	352302	3.146	6.78
9J24043-CAL4	50	366642	3.160	6.78
9J24043-CAL5	50	347212	3.134	6.78
9J24043-CAL6	50	353918	3.188	6.78
9J24043-CAL7	50	367409	3.124	6.78
9J24043-CAL8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

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

tert-Amyl ethyl ether (TAEE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9J24043-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J24043-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J24043-CAL4	0.25	950	1.637	7.00
9J24043-CAL5	0.5	2147	1.938	7.00
9J24043-CAL6	1.25	5331	1.921	7.00
9J24043-CAL7	2.5	11032	1.876	7.00
9J24043-CAL8	5	22696	2.019	7.00
9J24043-CAL9	10	42660	1.845	7.00
9J24043-CALA	20	83591	1.866	7.00

AVE RF **1.872** RF RSD **6.33** AVE RT **7.00**

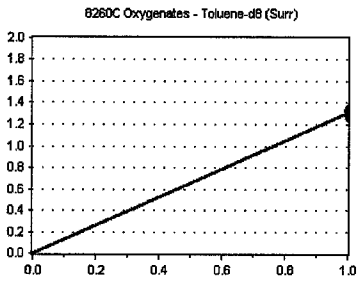
Element Calibration Review Sheet

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

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

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**

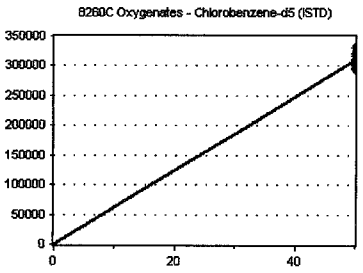


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	406288	1.321	8.30
9J24043-CAL2	50	403793	1.333	8.30
9J24043-CAL3	50	396027	1.345	8.30
9J24043-CAL4	50	410518	1.321	8.30
9J24043-CAL5	50	395017	1.327	8.30
9J24043-CAL6	50	397005	1.322	8.30
9J24043-CAL7	50	415174	1.327	8.30
9J24043-CAL8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

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

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

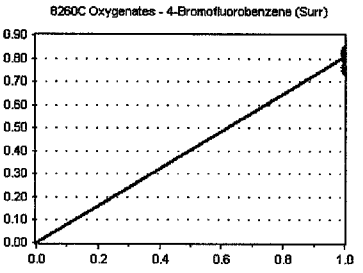


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	307577	6151.540	9.91
9J24043-CAL2	50	302974	6059.480	9.92
9J24043-CAL3	50	294372	5887.440	9.91
9J24043-CAL4	50	310797	6215.940	9.91
9J24043-CAL5	50	297754	5955.080	9.92
9J24043-CAL6	50	300317	6006.340	9.91
9J24043-CAL7	50	312833	6256.660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

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

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

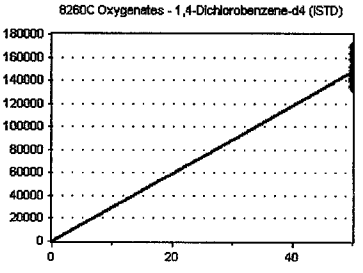


Standard	Concentration	Response	Response Factor	RT
9J24043-CAL1	50	116090	0.831	10.97
9J24043-CAL2	50	113180	0.838	10.97
9J24043-CAL3	50	112304	0.835	10.97
9J24043-CAL4	50	118563	0.823	10.97
9J24043-CAL5	50	115163	0.825	10.97
9J24043-CAL6	50	115652	0.815	10.97
9J24043-CAL7	50	121121	0.812	10.97
9J24043-CAL8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

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

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



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

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

Response Factor Report VOA-GCMS9

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

Calibration Files
0.1 =VI19102417.D 0.2 =VI19102418.D 0.5 =VI19102419.D 1 =VI19102420.D 2 =VI19102421.D 5 =VI19102422.D
10 =VI19102423.D 20 =VI19102424.D 50 =VI19102425.D 100 =VI19102427.D 200 =VI19102429.D

		Compound	0.1	0.2	0.5	1	2	5	10	20	50	100	200	Avg	%RSD
1)	I	Pentafluorobenzene...	----------				ISTD								
2)		Dichlorodifluo...			0.627	0.682	0.842	0.812	0.770	0.800	0.946	0.947	0.929	0.817	13.92
3)	P	Chloromethane		1.457	1.268	1.037	1.070	1.024	0.954	1.002	1.029	1.012	0.984	1.084	14.45
4)	C	Vinyl Chloride		0.884	1.079	1.013	1.135	1.140	1.069	1.110	1.150	1.154	1.123	1.086	7.67
5)		Bromomethane				0.760	0.709	0.701	0.624	0.614	0.579	0.559	0.576	0.640	11.51
6)		Chloroethane					0.573	0.531	0.502	0.442	0.447			0.499	11.23
7)		Trichlorofluor...			1.069	1.200	1.279	1.282	1.235	1.294	1.259	1.250	1.199	1.230	5.62
8)		Ethanol			0.023	0.024	0.026	0.025	0.024	0.025	0.023	0.023		0.024	5.02
9)	C	1,1-Dichloroet...			1.159	1.067	1.188	1.200	1.158	1.203	1.192	1.279	1.222	1.185	4.83
10)		Carbon Disulfide				1.970	2.202	2.167	2.084	2.200	2.200	2.374	2.300	2.187	5.64
11)		Freon 113				0.740	0.858	0.860	0.834	0.883	0.846	0.912	0.886	0.852	6.07
12)		Iodomethane						0.083	0.133	0.255	0.499	0.685	0.750	0.401	71.16
13)		Acrolein				0.181	0.209	0.222	0.206	0.233	0.247	0.268	0.251	0.227	12.43
14)		Methylene Chlo...	8.716	4.794	2.954	1.697	1.388	1.130	0.965	0.970	0.887	0.934	0.904	2.304	106.11
15)		Acetone					0.510	0.466	0.421	0.438	0.406	0.421	0.404	0.438	8.73
16)		t-1,2-Dichloro...		0.784	1.075	1.145	1.242	1.233	1.164	1.247	1.188	1.276	1.248	1.160	12.54
17)		n-Hexane				0.154	0.160	0.165	0.172	0.185	0.183	0.196	0.198	0.177	9.35
18)		Methyl-tert-bu...			2.577	2.494	2.698	2.694	2.617	2.750	2.707	2.888	2.841	2.696	4.58
19)		tert-Butanol ...	0.170	0.163	0.180	0.179	0.210	0.208	0.199	0.219	0.203	0.205		0.194	9.71
20)		Diisopropyl et...			2.849	2.764	2.983	3.090	2.914	3.102	2.767	2.742		2.901	5.01
21)	P	1,1-Dichloroet...			1.477	1.582	1.631	1.649	1.573	1.671	1.582	1.696	1.641	1.611	4.09
22)		Acrylonitrile				0.377	0.440	0.489	0.484	0.511	0.507	0.547	0.524	0.485	11.08
23)		Ethyl-tert-but...				2.497	2.839	2.908	2.849	2.978	2.730	2.719		2.789	5.66
24)		Vinyl Acetate				1.560	1.772	1.844	1.813	2.005	2.128	2.333	2.113	1.946	12.62
25)		c-1,2-Dichloro...			1.125	1.182	1.256	1.257	1.221	1.298	1.238	1.328	1.288	1.244	4.98
26)		2,2-Dichloropr...			0.952	0.998	1.078	1.062	1.006	1.073	1.061	1.129	1.104	1.051	5.31
27)		Bromochloromet...			0.436	0.512	0.605	0.646	0.636	0.688	0.671	0.677	0.622	0.610	13.73
28)	C	Chloroform		1.278	1.442	1.440	1.642	1.638	1.607	1.696	1.617	1.719	1.673	1.575	8.98
29)		Carbon Tetrach...				0.772	0.903	0.897	0.886	0.977	0.991	1.106	1.133	0.958	12.52
30)		Tetrahydrofuran				0.407	0.461	0.460	0.441	0.474	0.468	0.500	0.477	0.461	5.94
31)		1,1,1-Trichlor...			1.130	1.251	1.340	1.347	1.284	1.379	1.354	1.453	1.430	1.330	7.37
32)	S	Dibromofluorom...	0.960	0.964	0.965	0.962	0.982	0.984	0.967	0.975	1.010	1.016	1.023	0.982	2.38
33)		1,1-Dichloropr...			1.171	1.184	1.292	1.299	1.245	1.313	1.271	1.376	1.341	1.277	5.30
34)		2-Butanone (MEK)				0.625	0.704	0.704	0.662	0.717	0.701	0.741	0.702	0.695	5.12
35)		Benzene	3.949	3.450	3.774	3.582	4.047	3.910	3.714	3.910	3.758	4.022	3.911	3.821	4.86
36)		tert-Amyl meth...			2.590	2.520	2.704	2.683	2.610	2.695	2.456	2.481		2.592	3.80
37)		1,2-Dichloroet...			1.198	1.130	1.292	1.293	1.230	1.306	1.245	1.313	1.256	1.252	4.76
38)		iso-Butyl Alcohol			0.052	0.054	0.072	0.075	0.067	0.074	0.078	0.080	0.074	0.070	14.51
39)	S	1,4-Difluorobe...	3.139	3.132	3.146	3.160	3.134	3.188	3.124	3.158	3.201	3.187	3.180	3.159	0.84
40)		Trichloroethen...		0.810	0.801	0.933	1.033	1.022	0.997	1.053	1.026	1.095	1.074	0.984	10.55
41)		Tert-Amyl-Ethy...				1.637	1.938	1.921	1.876	2.019	1.845	1.866		1.872	6.33

Method Path : C:\msdchem\1\methods\
Method File : VI191025W.M
Title : EPA 8260: Volatile Organic Compounds

42)		Dibromomethane			0.422	0.554	0.622	0.633	0.620	0.656	0.642	0.692	0.677	0.613	13.36
43)	C	1,2-Dichloropr...			0.890	0.838	0.987	0.982	0.932	0.988	0.944	1.024	0.994	0.953	6.18
44)		Bromodichlorom...			0.893	0.973	1.056	1.083	1.065	1.150	1.155	1.260	1.255	1.099	11.01
45)		Chlorobenzene-d5 (I)	----------ISTD----------												
46)		2-Chloroethyl ...				0.222	0.217	0.253	0.251	0.271	0.275	0.292	0.273	0.257	10.27
47)		c-1,3-Dichloro...			0.431	0.429	0.468	0.474	0.487	0.525	0.520	0.559	0.556	0.494	9.88
48)	S	Toluene-d8 (S)	1.321	1.333	1.345	1.321	1.327	1.322	1.327	1.302	1.292	1.274	1.272	1.312	1.83
49)	C	Toluene	1.590	1.439	1.488	1.454	1.499	1.474	1.445	1.492	1.391	1.462	1.439	1.470	3.41
50)		Tetrachloroeth...		0.220	0.334	0.321	0.364	0.361	0.353	0.370	0.352	0.372	0.375	0.342	13.48
51)		4-Methyl-2-Pen...		0.367	0.406	0.406	0.463	0.469	0.464	0.491	0.474	0.484	0.441	0.446	9.09
52)		t-1,3-Dichloro...				0.341	0.378	0.404	0.420	0.465	0.473	0.513	0.513	0.438	14.34
53)		1,1,2-Trichlor...		0.238	0.304	0.313	0.347	0.344	0.342	0.351	0.335	0.347	0.338	0.326	10.62
54)		Dibromochlorom...			0.214	0.217	0.255	0.267	0.275	0.301	0.315			0.264	14.58
55)		1,3-Dichloropr...		0.469	0.532	0.541	0.578	0.584	0.581	0.600	0.571	0.595	0.571	0.562	6.98
56)		1,2-Dibromoeth...			0.261	0.310	0.378	0.375	0.366	0.381	0.366	0.382	0.375	0.355	11.70
57)		2-Hexanone			0.286	0.284	0.319	0.328	0.335	0.356	0.350	0.358	0.327	0.327	8.41
58)	P	Chlorobenzene	0.780	0.862	0.945	0.928	0.982	0.984	0.965	0.985	0.940	0.981	0.971	0.939	6.80
59)	C	Ethylbenzene	1.531	1.514	1.522	1.409	1.608	1.560	1.535	1.591	1.516	1.594	1.580	1.542	3.61
60)		1,1,1,2-Tetrac...			0.200	0.237	0.251	0.266	0.272	0.296	0.296	0.324	0.323	0.274	14.90
61)		m,p-Xylenes (2)	1.112	1.019	1.103	1.029	1.137	1.146	1.135	1.209	1.150	1.230	1.219	1.135	6.12
62)		o-Xylene	0.951	1.008	1.106	1.067	1.142	1.147	1.141	1.216	1.158	1.233	1.214	1.126	7.83
63)		Styrene			0.703	0.785	0.870	0.890	0.911	0.979	0.956	1.026	1.023	0.905	11.93
64)	P	Bromoform				0.128	0.149	0.156	0.171	0.194	0.221	0.255		0.182	24.41
65)		Isopropylbenzene		1.111	1.302	1.233	1.371	1.392	1.385	1.488	1.427	1.528	1.496	1.373	9.37
66)	I	1,4-Dichlorobenzen...	----------ISTD----------												
67)	S	4-Bromofluorob...	0.831	0.838	0.835	0.823	0.825	0.815	0.812	0.798	0.796	0.762	0.751	0.808	3.58
68)		Bromobenzene	0.444	0.800	0.813	0.771	0.830	0.819	0.812	0.825	0.798	0.813	0.800	0.775	14.32
69)		n-Propylbenzene	3.125	3.053	3.294	3.181	3.455	3.384	3.318	3.475	3.358	3.501	3.408	3.323	4.44
70)	P	1,1,2,2-Tetrac...		0.565	0.624	0.651	0.718	0.694	0.673	0.690	0.674	0.651	0.603	0.654	7.07
71)		2-Chlorotoluene			0.668	0.663	0.747	0.716	0.725	0.753	0.719	0.730	0.723	0.716	4.34
72)		1,3,5-Trimethy...	1.990	2.087	2.127	2.152	2.344	2.349	2.342	2.452	2.344	2.400	2.390	2.271	6.72
73)		1,2,3-Trichlor...			0.252	0.308	0.347	0.343	0.341	0.333	0.327	0.319	0.295	0.318	9.47
74)		t-1,4-Dichloro...				0.184	0.235	0.232	0.234	0.239	0.243	0.234	0.219	0.228	8.27
75)		4-Chlorotoluene		1.889	2.024	1.896	2.099	2.132	2.069	2.143	2.056	2.110	2.036	2.045	4.37
76)		tert-Butylbenzene		1.115	1.160	1.233	1.324	1.326	1.287	1.348	1.278	1.320	1.288	1.268	6.05
77)		1,2,4-Trimethy...	1.919	1.974	2.218	2.194	2.324	2.412	2.375	2.491	2.370	2.445	2.405	2.284	8.30
78)		sec-Butylbenzene		2.409	2.779	2.587	2.822	2.837	2.814	2.983	2.858	2.971	2.919	2.798	6.32
79)		4-Isopropyltol...	1.722	1.702	2.078	2.114	2.243	2.339	2.300	2.497	2.392	2.489	2.476	2.214	12.88
80)		1,3-Dichlorobe...		1.165	1.312	1.268	1.382	1.390	1.384	1.422	1.383	1.412	1.382	1.350	5.93
81)		1,4-Dichlorobe...	1.113	1.342	1.454	1.451	1.531	1.440	1.433	1.478	1.406	1.436	1.402	1.408	7.70
82)		n-Butylbenzene	1.357	1.491	1.735	1.735	1.903	2.011	1.994	2.160	2.060	2.129	2.119	1.881	14.34
83)		1,2-Dichlorobe...		1.155	1.193	1.268	1.407	1.372	1.345	1.383	1.337	1.345	1.305	1.311	6.28
84)		1,2-Dibromo-3-...					0.180	0.192	0.209	0.227	0.243	0.250	0.251	0.222	12.86
85)		Hexachlorobuta...				0.154	0.172	0.191	0.183	0.199	0.189	0.190	0.187	0.183	7.66
86)		1,2,4-Trichlor...			0.572	0.637	0.724	0.784	0.775	0.840	0.812	0.823	0.834	0.756	12.49
87)		Naphthalene			1.867	1.856	2.279	2.319	2.423	2.669	2.689	2.755	2.764	2.402	14.83
88)		1,2,3-Trichlor...		0.483	0.638	0.653	0.729	0.733	0.747	0.797	0.779	0.798	0.815	0.717	14.16

(#) = Out of Range

Compound List Report VOA-GCMS9

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

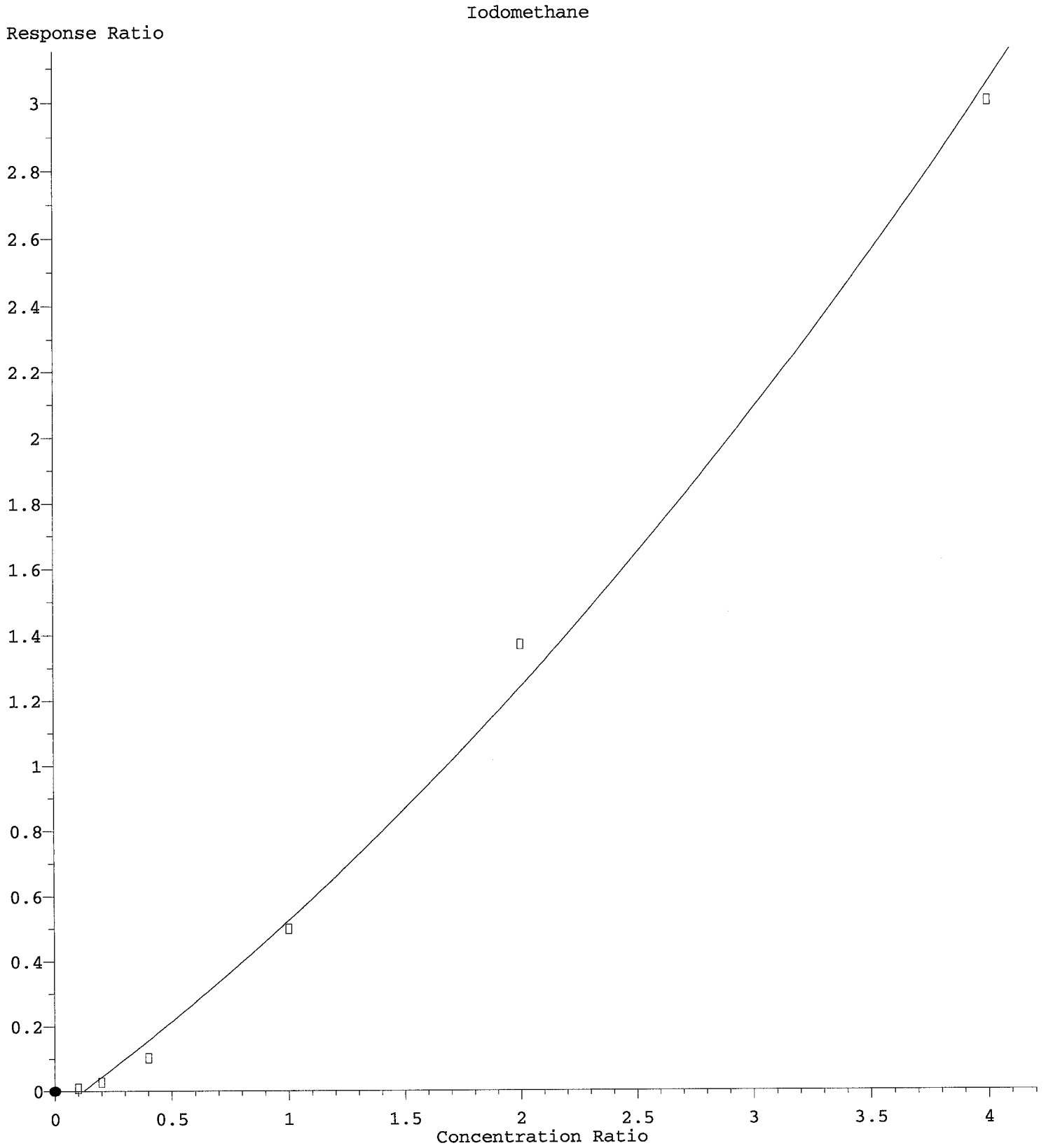
Total Cpnds : 88

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene (I)	99	6.211	1.000	A	2	A	R
2		Dichlorodifluoromethane	85	1.673	0.269	A	2	A	R
3	P	Chloromethane	50	1.891	0.304	A	2	A	R
4	C	Vinyl Chloride	62	1.995	0.321	A	2	A	R
5		Bromomethane	96	2.353	0.379	A	2	A	R
6		Chloroethane	64	2.487	0.400	A	2	A	R
7		Trichlorofluoromethane	101	2.658	0.428	A	2	A	R
8		Ethanol	45	3.230	0.520	A	1	A	R
9	C	1,1-Dichloroethene	61	3.230	0.520	A	2	A	R
10		Carbon Disulfide	76	3.242	0.522	A	2	A	R
11		Freon 113	101	3.279	0.528	A	2	A	R
12		Iodomethane	142	3.382	0.545	QV	2	A	R
13		Acrolein	56	3.613	0.582	A	2	A	R
14		Methylene Chloride	84	3.868	0.623	QV	2	A	R
15		Acetone	43	3.935	0.634	A	1	A	R
16		t-1,2-Dichloroethene	61	4.033	0.649	A	2	A	R
17		n-Hexane	86	4.118	0.663	A	3	A	R
18		Methyl-tert-butyl-ether	73	4.167	0.671	A	3	A	R
19		tert-Butanol (TBA)	59	4.288	0.690	A	1	A	R
20		Diisopropyl ether (DIPE)	45	4.562	0.735	A	2	A	R
21	P	1,1-Dichloroethane	63	4.678	0.753	A	2	A	R
22		Acrylonitrile	53	4.745	0.764	A	2	A	R
23		Ethyl-tert-butyl ether (ETBE)	59	4.939	0.795	A	2	A	R
24		Vinyl Acetate	43	4.951	0.797	A	2	A	R
25		c-1,2-Dichloroethene	61	5.238	0.843	A	2	A	R
26		2,2-Dichloropropane	77	5.347	0.861	A	2	A	R
27		Bromochloromethane	130	5.444	0.877	A	2	A	R
28	C	Chloroform	83	5.523	0.889	A	2	A	R
29		Carbon Tetrachloride	117	5.657	0.911	A	2	A	R
30		Tetrahydrofuran	42	5.700	0.918	A	2	A	R
31		1,1,1-Trichloroethane	97	5.730	0.923	A	2	A	R
32	S	Dibromofluoromethane (S)	111	5.712	0.920	A	2	A	R
33		1,1-Dichloropropene	75	5.858	0.943	A	2	A	R
34		2-Butanone (MEK)	43	5.852	0.942	A	2	A	R
35		Benzene	78	6.120	0.985	A	2	A	R
36		tert-Amyl methyl ether (TAME)	73	6.247	1.006	A	2	A	R
37		1,2-Dichloroethane (EDC)	62	6.339	1.021	A	2	A	R
38		iso-Butyl Alcohol	43	6.369	1.025	A	2	A	R
39	S	1,4-Difluorobenzene (S)	114	6.777	1.091	A	2	A	R
40		Trichloroethene (TCE)	130	6.740	1.085	A	2	A	R
41		Tert-Amyl-Ethyl-Ether (TAEE)	59	6.996	1.126	A	2	A	R
42		Dibromomethane	93	7.196	1.159	A	2	A	R
43	C	1,2-Dichloropropane	63	7.306	1.176	A	2	A	R
44		Bromodichloromethane	83	7.379	1.188	A	2	A	R
45	I	Chlorobenzene-d5 (I)	117	9.910	1.000	A	2	A	R
46		2-Chloroethyl Vinyl Ether	63	8.017	0.809	A	2	A	R
47		c-1,3-Dichloropropene	75	8.091	0.816	A	2	A	R
48	S	Toluene-d8 (S)	98	8.298	0.837	A	2	A	R
49	C	Toluene	91	8.358	0.843	A	2	A	R
50		Tetrachloroethene (PCE)	166	8.796	0.888	A	2	A	R
51		4-Methyl-2-Pentanone (MIBK)	43	8.796	0.888	A	2	A	R
52		t-1,3-Dichloropropene	75	8.832	0.891	A	2	A	R
53		1,1,2-Trichloroethane	97	9.003	0.909	A	2	A	R
54		Dibromochloromethane	129	9.185	0.927	A	2	A	R
55		1,3-Dichloropropane	76	9.289	0.937	A	2	A	R

56		1,2-Dibromoethane (EDB)	107	9.423	0.951	A	2	A	R
57		2-Hexanone	43	9.654	0.974	A	2	A	R
58	P	Chlorobenzene	112	9.928	1.002	A	2	A	R
59	C	Ethylbenzene	91	9.952	1.004	A	2	A	R
60		1,1,1,2-Tetrachloroethane	131	9.988	1.008	A	2	A	R
61		m,p-Xylenes (2)	91	10.086	1.018	A	2	A	R
62		o-Xylene	91	10.463	1.056	A	2	A	R
63		Styrene	104	10.512	1.061	A	2	A	R
64	P	Bromoform	173	10.536	1.063	Q ½	2	A	R
65		Isopropylbenzene	105	10.731	1.083	A	2	A	R
66	I	1,4-Dichlorobenzene-d4 (I)	152	11.850	1.000	A	2	A	R
67	S	4-Bromofluorobenzene (S)	174	10.974	0.926	A	2	A	R
68		Bromobenzene	156	11.060	0.933	A	2	A	R
69		n-Propylbenzene	91	11.072	0.934	A	2	A	R
70	P	1,1,2,2-Tetrachloroethane	85	11.139	0.940	A	2	A	R
71		2-Chlorotoluene	126	11.206	0.946	A	2	A	R
72		1,3,5-Trimethylbenzene	105	11.229	0.948	A	2	A	R
73		1,2,3-Trichloropropane	110	11.248	0.949	A	2	A	R
74		t-1,4-Dichloro-2-butene	53	11.279	0.952	A	3	A	R
75		4-Chlorotoluene	91	11.339	0.957	A	2	A	R
76		tert-Butylbenzene	91	11.479	0.969	A	2	A	R
77		1,2,4-Trimethylbenzene	105	11.534	0.973	A	2	A	R
78		sec-Butylbenzene	105	11.619	0.980	A	2	A	R
79		4-Isopropyltoluene	119	11.728	0.990	A	2	A	R
80		1,3-Dichlorobenzene	146	11.796	0.995	A	2	A	R
81		1,4-Dichlorobenzene	146	11.863	1.001	A	2	A	R
82		n-Butylbenzene	91	12.045	1.016	A	2	A	R
83		1,2-Dichlorobenzene	146	12.185	1.028	A	2	A	R
84		1,2-Dibromo-3-Chloropropane	157	12.799	1.080	A	2	A	R
85		Hexachlorobutadiene	223	13.304	1.123	A	3	A	R
86		1,2,4-Trichlorobenzene	180	13.346	1.126	A	2	A	R
87		Naphthalene	128	13.626	1.150	A	2	A	R
88		1,2,3-Trichlorobenzene	180	13.784	1.163	A	2	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

VI191025W.M Fri Oct 25 09:01:32 2019

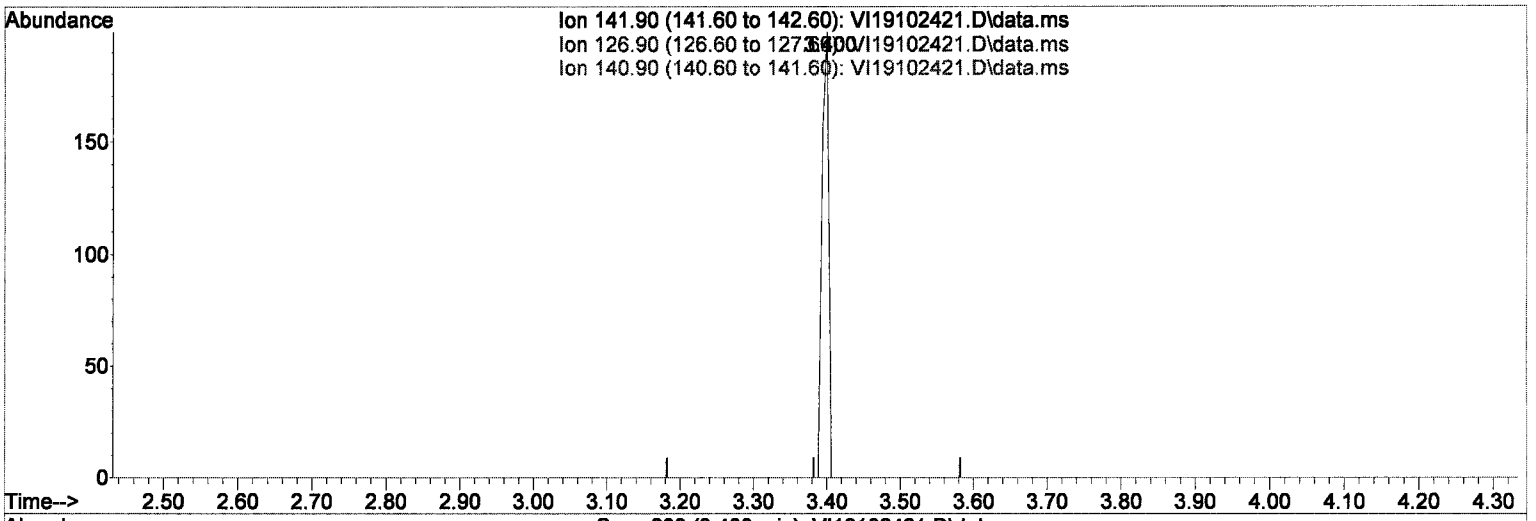


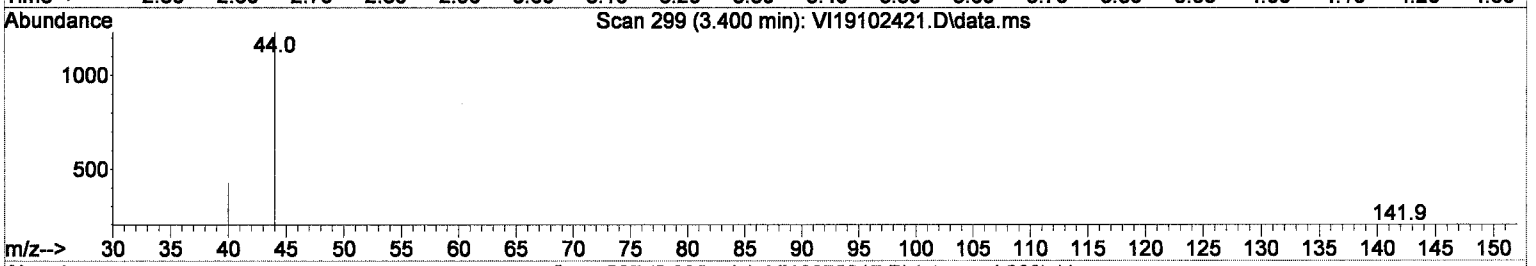
R = 6.36e-002 A*A + 5.25e-001 A - 6.41e-002
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025W.M
Calibration Table Last Updated: Fri Oct 25 08:33:22 2019

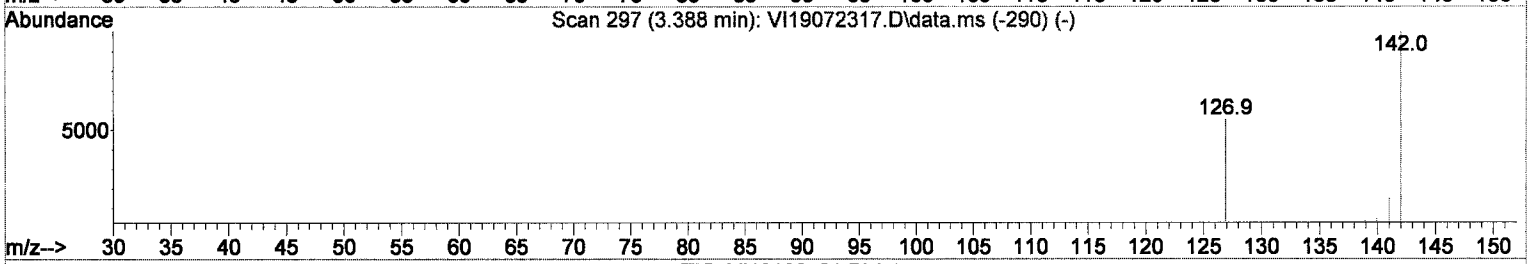
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102421.D
Acq On : 24 Oct 2019 5:42 pm
Operator : MM
Sample : 9J24043-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:42:43 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration







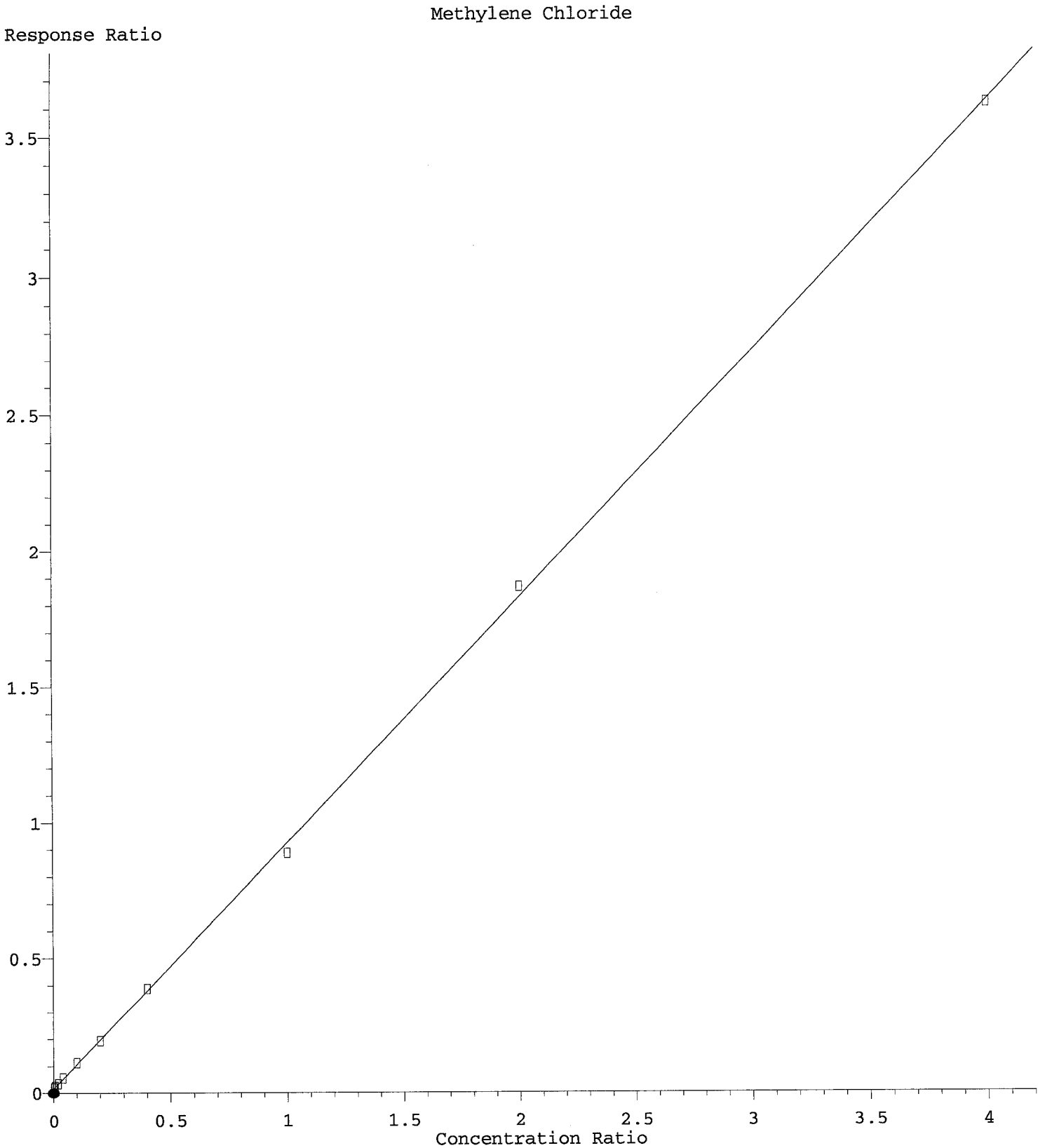
TIC: VI19102421.D\data.ms

(12) Iodomethane

3.400min (+ 0.018) 6.13 ug/L m

response 130

Ion	Exp%	Act%
141.90	100.00	100.00
126.90	34.80	0.00#
140.90	15.30	0.00#
0.00	0.00	0.00

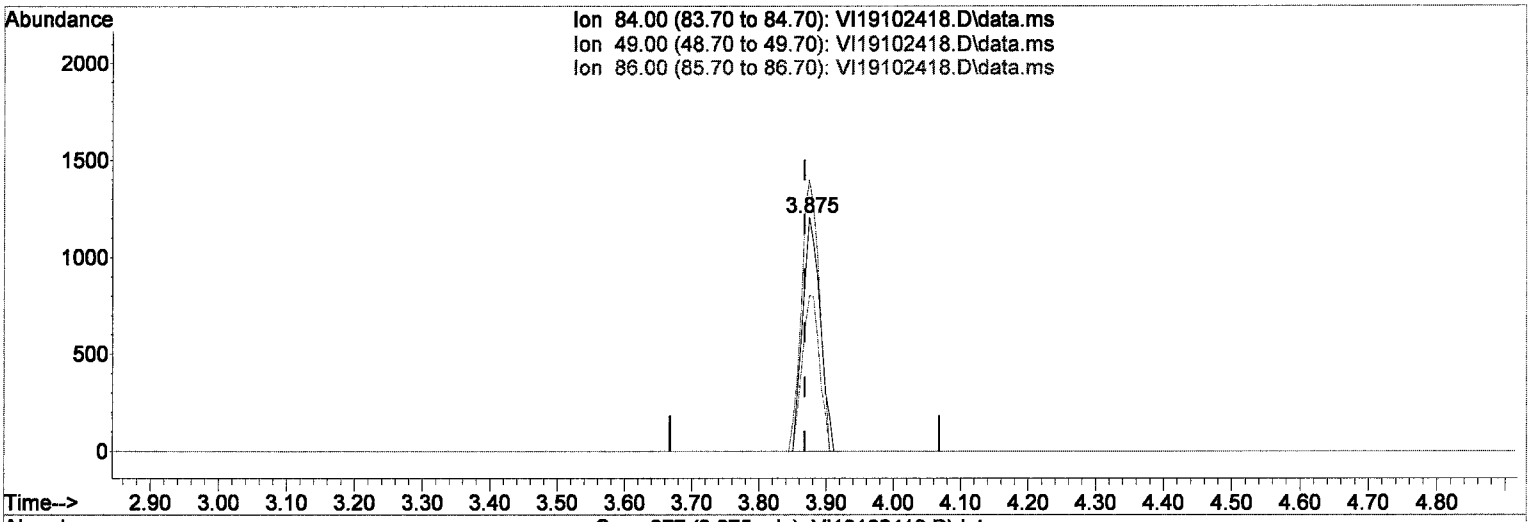


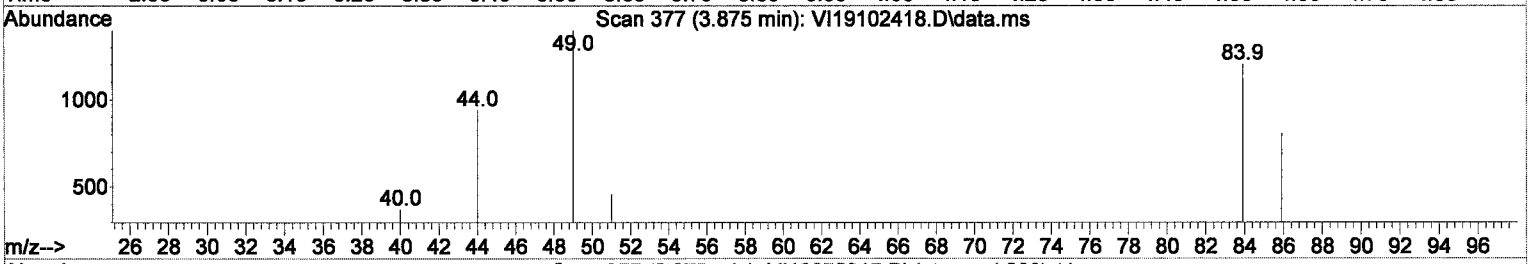
R = -2.46e-003 A*A + 9.12e-001 A + 1.58e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025W.M
Calibration Table Last Updated: Fri Oct 25 08:34:03 2019

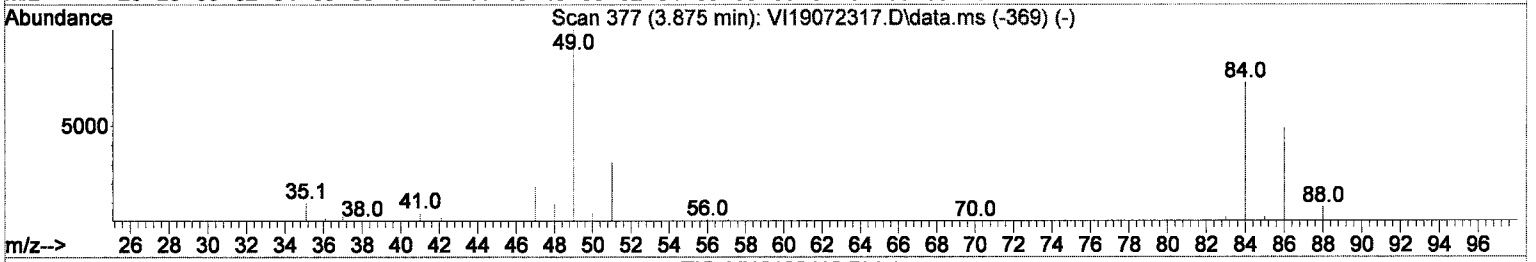
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102418.D
Acq On : 24 Oct 2019 4:21 pm
Operator : MM
Sample : 9J24043-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:42:34 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration







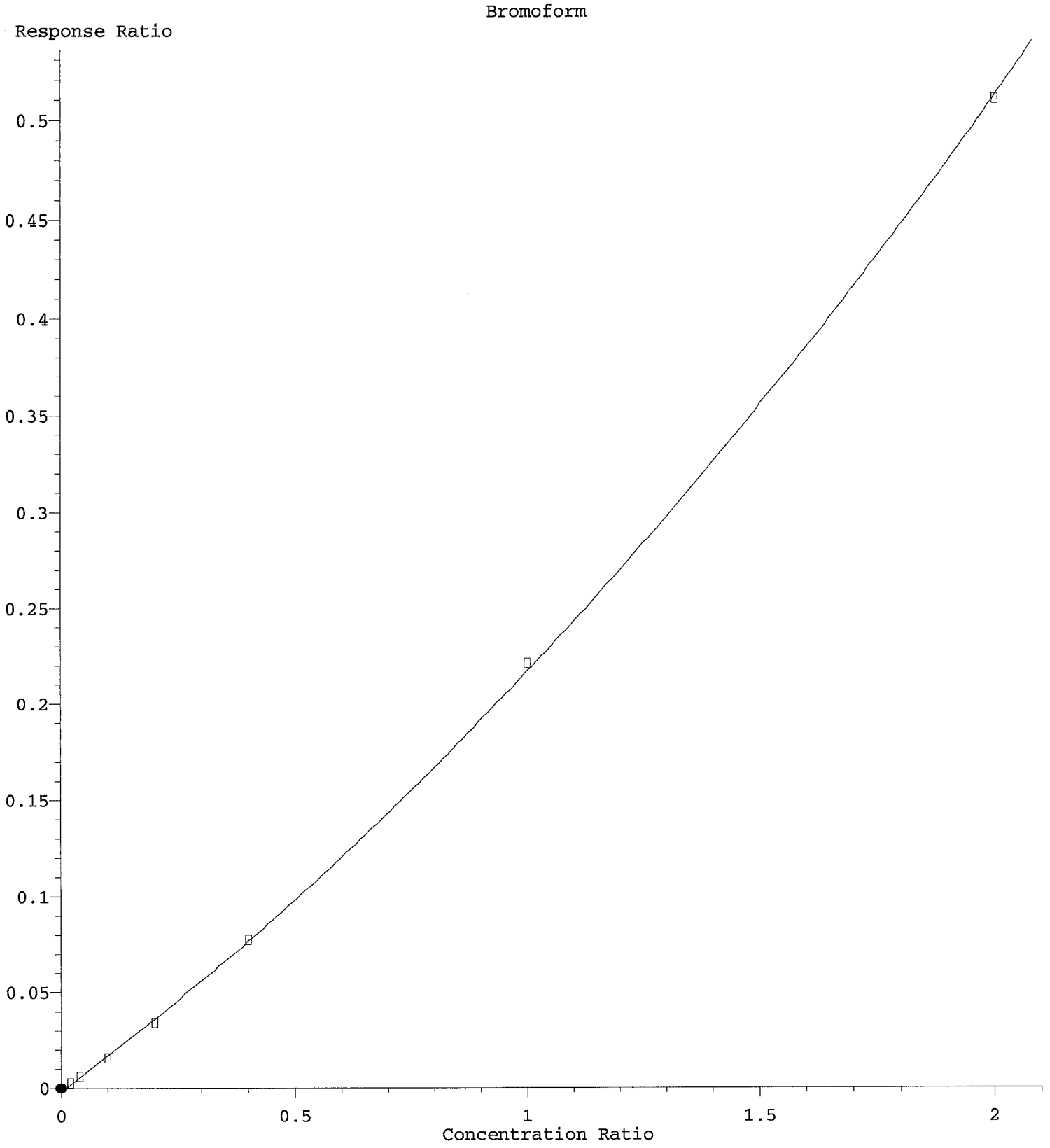
TIC: VI19102418.D\data.ms

(14) Methylene Chloride

3.875min (+ 0.007) 0.18 ug/L

response 2201

Ion	Exp%	Act%
84.00	100.00	100.00
49.00	134.70	116.13
86.00	61.50	66.92
0.00	0.00	0.00

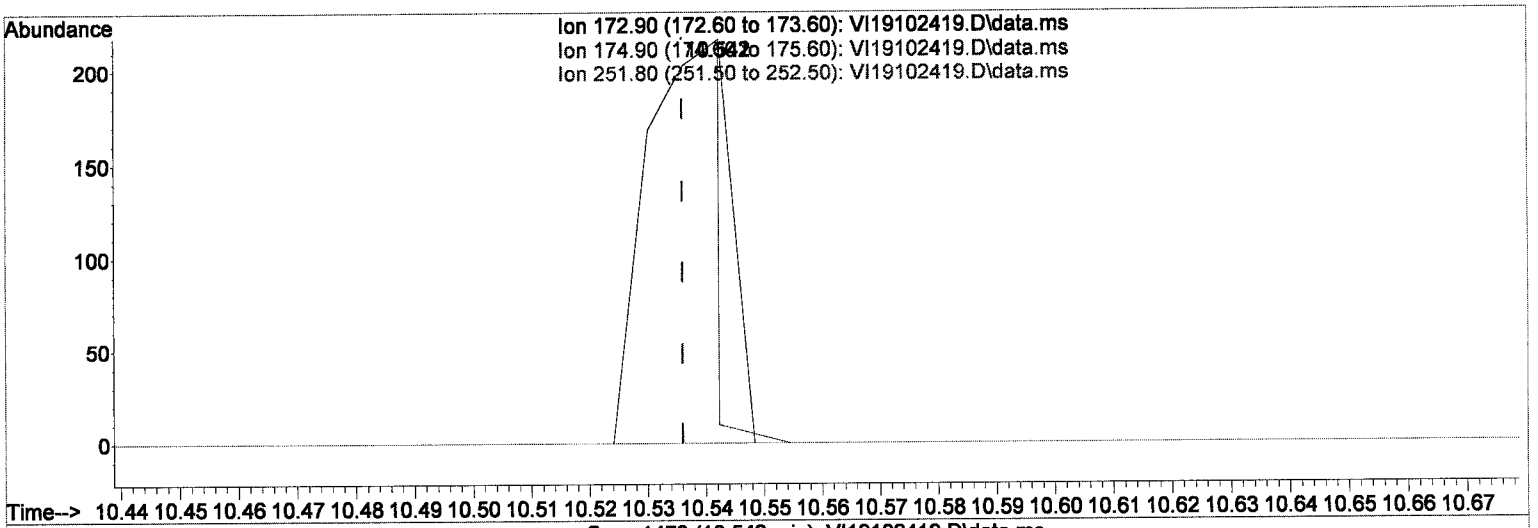


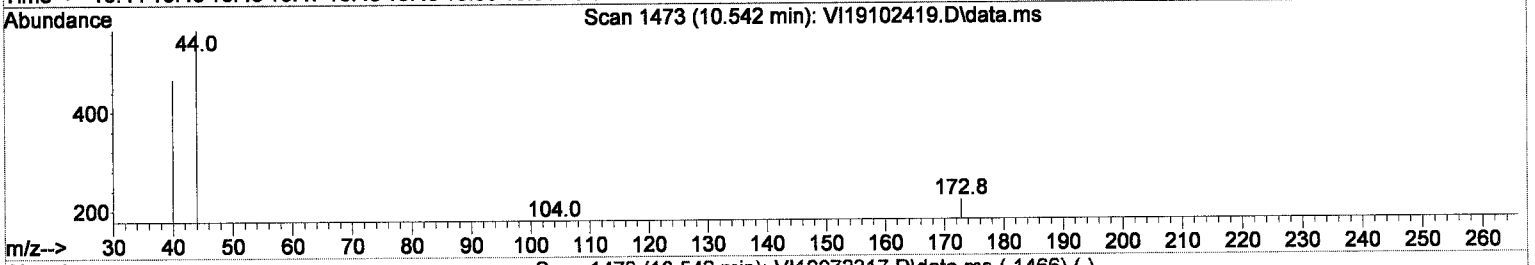
R = 3.82e-002 A*A + 1.80e-001 A - 1.40e-003
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025W.M
Calibration Table Last Updated: Fri Oct 25 08:48:07 2019

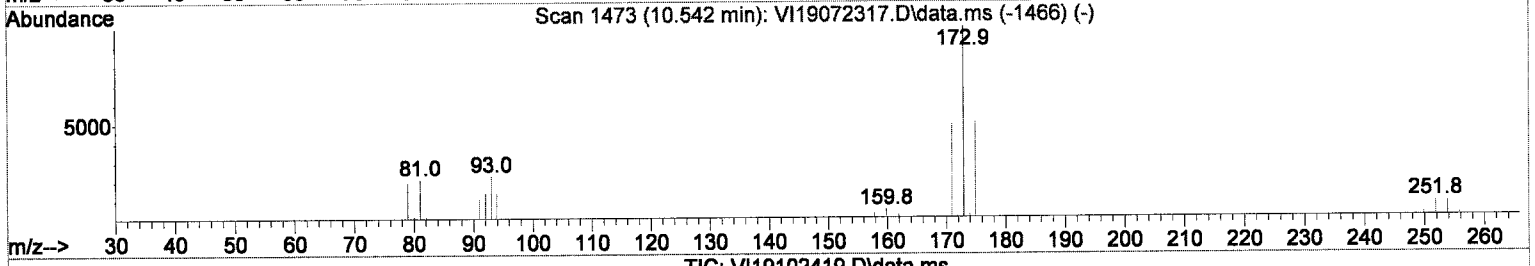
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102419.D
Acq On : 24 Oct 2019 4:48 pm
Operator : MM
Sample : 9J24043-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

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







TIC: VI19102419.D\data.ms

(64) Bromoform (P)

10.542min (+ 0.006) 0.38 ug/L m

response -4

Ion	Exp%	Act%
172.90	100.00	100.00
174.90	49.20	0.00#
251.80	13.30	0.00
0.00	0.00	-0.00

10/25

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102432.D
Acq On : 24 Oct 2019 10:38 pm
Operator : MM
Sample : 9J24043-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

MM 10/25/19

Quant Time: Oct 25 08:52:53 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (I)	50.000	50.000	0.0	103	0.00
2		Dichlorodifluoromethane	20.000	25.235	-26.2#	133	0.00
3	P	Chloromethane	20.000	20.727	-3.6	115	0.00
4	C	Vinyl Chloride	20.000	22.118	-10.6	111	0.00
5		Bromomethane	20.000	22.648	-13.2	122	0.00
6		Chloroethane	20.000	17.519	12.4	102	0.00
7		Trichlorofluoromethane	20.000	20.686	-3.4	101	0.00
8		~~Ethanol~~	~~1250.000~~	~~37.145~~	~~97.0#~~	~~3~~	~~0.00~~
9	C	1,1-Dichloroethene	20.000	19.721	1.4	100	0.00
10		Carbon Disulfide	20.000	18.350	8.2	94	0.00
11		Freon 113	20.000	19.089	4.6	95	0.00
12		Iodomethane	20.000	16.515	17.4	117	0.00
13		Acrolein	20.000	20.473	-2.4	103	0.00
14		Methylene Chloride	20.000	19.959	0.2	101	0.00
15		Acetone	40.000	37.600	6.0	97	0.00
16		t-1,2-Dichloroethene	20.000	20.982	-4.9	100	0.00
17		n-Hexane	20.000	19.272	3.6	95	0.00
18		Methyl-tert-butyl-ether	20.000	19.588	2.1	99	0.00
19		~~tert-Butanol (TBA)~~	~~1250.000~~	~~28.139~~	~~97.7#~~	~~2~~	~~0.00~~
20		~~Diisopropyl ether (DIPE)~~	~~5.000~~	~~0.181~~	~~96.4#~~	~~3~~	~~0.00~~
21	P	1,1-Dichloroethane	20.000	20.526	-2.6	102	0.00
22		Acrylonitrile	20.000	19.587	2.1	96	0.00
23		~~Ethyl-tert-butyl ether (ET~~	~~5.000~~	~~0.158~~	~~96.8#~~	~~3~~	~~0.00~~
24		Vinyl Acetate	20.000	19.888	0.6	99	0.00
25		c-1,2-Dichloroethene	20.000	20.039	-0.2	99	0.00
26		2,2-Dichloropropane	20.000	17.720	11.4	89	0.00
27		Bromochloromethane	20.000	22.053	-10.3	101	0.00
28	C	Chloroform	20.000	20.857	-4.3	100	0.00
29		Carbon Tetrachloride	20.000	20.695	-3.5	104	0.00
30		Tetrahydrofuran	20.000	19.026	4.9	95	0.00
31		1,1,1-Trichloroethane	20.000	19.935	0.3	99	0.00
32	S	Dibromofluoromethane (S)	50.000	50.291	-0.6	104	0.00
33		1,1-Dichloropropene	20.000	19.605	2.0	98	0.00
34		2-Butanone (MEK)	40.000	37.882	5.3	94	0.00
35		Benzene	20.000	19.670	1.6	99	0.00
36		~~tert-Amyl methyl ether (TA~~	~~5.000~~	~~0.175~~	~~96.5#~~	~~3~~	~~0.01~~
37		1,2-Dichloroethane (EDC)	20.000	20.160	-0.8	99	0.00
38		iso-Butyl Alcohol	500.000	519.105	-3.8	100	0.00
39	S	1,4-Difluorobenzene (S)	50.000	50.364	-0.7	104	0.00
40		Trichloroethene (TCE)	20.000	21.245	-6.2	102	0.00
41		~~Tert-Amyl-Ethyl-Ether (TAEE~~	~~5.000~~	~~0.144~~	~~97.1#~~	~~3~~	~~0.00~~
42		Dibromomethane	20.000	21.130	-5.6	102	0.00
43	C	1,2-Dichloropropane	20.000	20.286	-1.4	101	0.00
44		Bromodichloromethane	20.000	20.751	-3.8	102	0.00
45		Chlorobenzene-d5 (I)	50.000	50.000	0.0	104	0.00
46		2-Chloroethyl Vinyl Ether	20.000	20.093	-0.5	99	0.00
47		c-1,3-Dichloropropene	20.000	19.890	0.5	98	0.00
48	S	Toluene-d8 (S)	50.000	49.306	1.4	104	0.00
49	C	Toluene	20.000	19.385	3.1	99	0.00
50		Tetrachloroethene (PCE)	20.000	20.889	-4.4	101	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102432.D
Acq On : 24 Oct 2019 10:38 pm
Operator : MM
Sample : 9J24043-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:53 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		4-Methyl-2-Pentanone (MIBK)	40.000	41.038	-2.6	97	0.00
52		t-1,3-Dichloropropene	20.000	20.701	-3.5	102	0.00
53		1,1,2-Trichloroethane	20.000	21.234	-6.2	103	0.00
54		Dibromochloromethane	20.000	23.749	-18.7	108	0.00
55		1,3-Dichloropropane	20.000	20.475	-2.4	100	0.00
56		1,2-Dibromoethane (EDB)	20.000	20.657	-3.3	100	0.00
57		2-Hexanone	40.000	40.560	-1.4	97	0.00
58	P	Chlorobenzene	20.000	20.598	-3.0	102	0.00
59	C	Ethylbenzene	20.000	20.146	-0.7	102	0.00
60		1,1,1,2-Tetrachloroethane	20.000	21.774	-8.9	105	0.00
61		m,p-Xylenes (2)	40.000	40.933	-2.3	100	0.00
62		o-Xylene	20.000	20.989	-4.9	101	0.00
63		Styrene	20.000	20.857	-4.3	100	0.00
64	P	Bromoform	20.000	21.372	-6.9	111	0.00
65		Isopropylbenzene	20.000	20.931	-4.7	101	0.00
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	104	0.00
67	S	4-Bromofluorobenzene (S)	50.000	49.582	0.8	105	0.00
68		Bromobenzene	20.000	20.988	-4.9	103	0.00
69		n-Propylbenzene	20.000	20.099	-0.5	100	0.00
70	P	1,1,2,2-Tetrachloroethane	20.000	20.344	-1.7	100	0.00
71		2-Chlorotoluene	20.000	19.935	0.3	99	0.00
72		1,3,5-Trimethylbenzene	20.000	20.663	-3.3	100	0.00
73		1,2,3-Trichloropropane	20.000	20.663	-3.3	103	0.00
74		t-1,4-Dichloro-2-butene	20.000	17.538	12.3	87	0.00
75		4-Chlorotoluene	20.000	20.563	-2.8	102	0.00
76		tert-Butylbenzene	20.000	20.366	-1.8	100	0.00
77		1,2,4-Trimethylbenzene	20.000	20.724	-3.6	99	0.00
78		sec-Butylbenzene	20.000	20.458	-2.3	100	0.00
79		4-Isopropyltoluene	20.000	21.662	-8.3	100	0.00
80		1,3-Dichlorobenzene	20.000	20.840	-4.2	103	0.00
81		1,4-Dichlorobenzene	20.000	20.477	-2.4	102	0.00
82		n-Butylbenzene	20.000	22.267	-11.3	101	0.00
83		1,2-Dichlorobenzene	20.000	20.819	-4.1	103	0.00
84		1,2-Dibromo-3-Chloropropane	20.000	20.036	-0.2	102	0.00
85		Hexachlorobutadiene	20.000	21.851	-9.3	105	0.00
86		1,2,4-Trichlorobenzene	20.000	22.259	-11.3	104	0.00
87		Naphthalene	20.000	21.916	-9.6	103	0.00
88		1,2,3-Trichlorobenzene	20.000	22.607	-13.0	106	0.00

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

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102433.D
Acq On : 24 Oct 2019 11:05 pm
Operator : MM
Sample : 9J24043-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

M
10/25/19

Quant Time: Oct 25 08:52:56 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (I)	50.000	50.000	0.0	99	0.00
2		Dichlorodifluoromethane	20.000	0.142	99.3#	1	0.00
3	P	Chloromethane	20.000	0.423	97.9#	2	0.00
4	C	Vinyl Chloride	20.000	0.200	99.0#	1	0.00
5		Bromomethane	20.000	0.740	96.3#	4	0.00
6		Chloroethane	20.000	0.736	96.3#	4	0.03
7		Trichlorofluoromethane	20.000	0.052	99.7#	0	0.01
8		Ethanol	1250.000	1059.187	15.3	80	0.00
9	C	1,1-Dichloroethene	20.000	0.161	99.2#	1	0.00
10		Carbon Disulfide	20.000	0.494	97.5#	2	0.01
11		Freon 113	20.000	0.000	100.0#	0	-3.28#
12		Iodomethane	20.000	6.269	68.7#	3	0.00
13		Acrolein	20.000	0.000	100.0#	0	-3.61#
14		Methylene Chloride	20.000	0.401	98.0#	6	0.00
15		Acetone	40.000	1.018	97.5#	3	0.01
16		t-1,2-Dichloroethene	20.000	0.302	98.5#	1	0.00
17		n-Hexane	20.000	0.000	100.0#	0	-4.12#
18		Methyl-tert-butyl-ether	20.000	0.085	99.6#	0	0.00
19		tert-Butanol (TBA)	1250.000	1179.792	5.6	83	0.00
20		Diisopropyl ether (DIPE)	5.000	4.407	11.9	82	0.00
21	P	1,1-Dichloroethane	20.000	0.254	98.7#	1	0.00
22		Acrylonitrile	20.000	0.000	100.0#	0	-4.74#
23		Ethyl-tert-butyl ether (ET	5.000	4.402	12.0	82	0.00
24		Vinyl Acetate	20.000	0.689	96.6#	3	-0.02
25		c-1,2-Dichloroethene	20.000	0.236	98.8#	1	0.00
26		2,2-Dichloropropane	20.000	0.080	99.6#	0	0.01
27		Bromochloromethane	20.000	0.000	100.0#	0	-5.44#
28	C	Chloroform	20.000	0.223	98.9#	1	0.00
29		Carbon Tetrachloride	20.000	0.000	100.0#	0	-5.66#
30		Tetrahydrofuran	20.000	0.000	100.0#	0	-5.70#
31		1,1,1-Trichloroethane	20.000	0.094	99.5#	0	0.00
32	S	Dibromofluoromethane (S)	50.000	49.641	0.7	99	0.00
33		1,1-Dichloropropene	20.000	0.226	98.9#	1	0.00
34		2-Butanone (MEK)	40.000	0.000	100.0#	0	-5.85#
35		Benzene	20.000	0.266	98.7#	1	0.00
36		tert-Amyl methyl ether (TA	5.000	4.185	16.3	80	0.00
37		1,2-Dichloroethane (EDC)	20.000	0.071	99.6#	0	0.01
38		iso-Butyl Alcohol	500.000	0.000	100.0#	0	-6.37#
39	S	1,4-Difluorobenzene (S)	50.000	50.455	-0.9	100	0.00
40		Trichloroethene (TCE)	20.000	0.257	98.7#	1	0.01
41		Tert-Amyl-Ethyl-Ether (TAEE	5.000	4.278	14.4	78	0.00
42		Dibromomethane	20.000	0.000	100.0#	0	-7.20#
43	C	1,2-Dichloropropane	20.000	0.177	99.1#	1	0.00
44		Bromodichloromethane	20.000	0.108	99.5#	1	0.00
45		Chlorobenzene-d5 (I)	50.000	50.000	0.0	97	0.00
46		2-Chloroethyl Vinyl Ether	20.000	0.000	100.0#	0	-8.02#
47		c-1,3-Dichloropropene	20.000	0.143	99.3#	1	0.00
48	S	Toluene-d8 (S)	50.000	50.620	-1.2	99	0.00
49	C	Toluene	20.000	0.283	98.6#	1	0.00
50		Tetrachloroethene (PCE)	20.000	0.334	98.3#	1	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102433.D
Acq On : 24 Oct 2019 11:05 pm
Operator : MM
Sample : 9J24043-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:56 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		4-Methyl-2-Pentanone (MIBK)	40.000	0.000	100.0#	0	-8.80#
52		t-1,3-Dichloropropene	20.000	0.080	99.6#	0	0.02
53		1,1,2-Trichloroethane	20.000	0.000	100.0#	0	-9.00#
54		Dibromochloromethane	20.000	0.000	100.0#	0	-9.19#
55		1,3-Dichloropropane	20.000	0.089	99.6#	0	0.00
56		1,2-Dibromoethane (EDB)	20.000	0.000	100.0#	0	-9.42#
57		2-Hexanone	40.000	0.000	100.0#	0	-9.65#
58	P	Chlorobenzene	20.000	0.297	98.5#	1	0.00
59	C	Ethylbenzene	20.000	0.274	98.6#	1	0.00
60		1,1,1,2-Tetrachloroethane	20.000	0.153	99.2#	1	0.00
61		m,p-Xylenes (2)	40.000	0.530	98.7#	1	0.00
62		o-Xylene	20.000	0.258	98.7#	1	0.00
63		Styrene	20.000	0.234	98.8#	1	0.00
64	P	Bromoform	20.000	0.000	100.0#	0	-10.54#
65		Isopropylbenzene	20.000	0.224	98.9#	1	0.00
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	92	0.00
67	S	4-Bromofluorobenzene (S)	50.000	50.894	-1.8	94	0.00
68		Bromobenzene	20.000	0.267	98.7#	1	0.00
69		n-Propylbenzene	20.000	0.308	98.5#	1	0.00
70	P	1,1,2,2-Tetrachloroethane	20.000	0.000	100.0#	0	-11.14#
71		2-Chlorotoluene	20.000	0.261	98.7#	1	0.00
72		1,3,5-Trimethylbenzene	20.000	0.279	98.6#	1	0.00
73		1,2,3-Trichloropropane	20.000	0.000	100.0#	0	-11.25#
74		t-1,4-Dichloro-2-butene	20.000	0.000	100.0#	0	-11.28#
75		4-Chlorotoluene	20.000	0.357	98.2#	2	0.00
76		tert-Butylbenzene	20.000	0.243	98.8#	1	0.00
77		1,2,4-Trimethylbenzene	20.000	0.300	98.5#	1	0.00
78		sec-Butylbenzene	20.000	0.275	98.6#	1	0.00
79		4-Isopropyltoluene	20.000	0.295	98.5#	1	0.00
80		1,3-Dichlorobenzene	20.000	0.371	98.1#	2	0.00
81		1,4-Dichlorobenzene	20.000	0.404	98.0#	2	0.00
82		n-Butylbenzene	20.000	0.398	98.0#	2	0.00
83		1,2-Dichlorobenzene	20.000	0.272	98.6#	1	0.00
84		1,2-Dibromo-3-Chloropropane	20.000	0.000	100.0#	0	-12.80#
85		Hexachlorobutadiene	20.000	0.497	97.5#	2	0.00
86		1,2,4-Trichlorobenzene	20.000	0.570	97.2#	2	0.00
87		Naphthalene	20.000	0.356	98.2#	1	0.00
88		1,2,3-Trichlorobenzene	20.000	0.570	97.2#	2	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Calibration Status Report VOA-GCMS9

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

#	ID	Conc	ISTD Conc	Path\File
1	50	50	50	C:\msdchem\1\data\2019-10\9J24043\VI19102439.D
2	100	100	50	C:\msdchem\1\data\2019-10\9J24043\VI19102440.D
3	250	250	50	C:\msdchem\1\data\2019-10\9J24043\VI19102441.D
4	500	500	50	C:\msdchem\1\data\2019-10\9J24043\VI19102442.D
5	1000	1000	50	C:\msdchem\1\data\2019-10\9J24043\VI19102452.D
6	2500	2500	50	C:\msdchem\1\data\2019-10\9J24043\VI19102444.D
7	5000	5000	50	C:\msdchem\1\data\2019-10\9J24043\VI19102445.D
8	10K	10000	50	C:\msdchem\1\data\2019-10\9J24043\VI19102446.D

#	ID	Update Time	Quant Time	Acquisition Time
1	50	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 1:46 am
2	100	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 2:13 am
3	250	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 2:40 am
4	500	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 3:07 am
5	1000	Oct 25 10:31 2019	Oct 25 10:30 2019	25 Oct 2019 10:13 am
6	2500	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 4:00 am
7	5000	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 4:27 am
8	10K	Oct 25 09:04 2019	Oct 25 08:55 2019	25 Oct 2019 4:54 am

VI191025G.M Fri Oct 25 10:41:17 2019

Response Factor Report VOA-GCMS9

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

Calibration Files
50 =VI19102439.D 100 =VI19102440.D 250 =VI19102441.D 500 =VI19102442.D 1000=VI19102452.D 2500=VI19102444.D
5000=VI19102445.D 10K =VI19102446.D

		Compound	50	100	250	500	1000	2500	5000	10K	Avg	%RSD
1	I	Pentafluorobenzene...	----------	ISTD	----------							
2	S	1,4-Difluorobe...	1.634	1.635	1.620	1.616	1.606	1.628	1.624	1.644	1.626	0.73
3	S	4-Bromofluorob...	0.521	0.525	0.529	0.536	0.539	0.555	0.563	0.574	0.543	3.54
4	H	NWTPH-Gx (TPH)	0.926	1.028	1.244	1.386	1.437	1.550	1.569	1.699	1.355	19.99
5	H	TPHg (C5-C9)	3.091	2.191	1.950	1.925	1.927	1.943	1.882	1.984	2.112	19.26
6	H	TPHg (C6-C10)	2.666	1.908	1.665	1.633	1.632	1.643	1.597	1.694	1.805	20.00
7	H	CA-LUFT (C5-C12)	3.259	2.422	2.257	2.271	2.291	2.353	2.307	2.441	2.450	13.62
8		Benzene (NR)									0.000	-1.00
9	S	Toluene-d8 (NR)									0.000	-1.00
10		Toluene (NR)									0.000	-1.00
11	S	Chlorobenzene-...									0.000	-1.00
12	S	1,4-Dichlorobe...									0.000	-1.00
13		Naphthalene (NR)									0.000	-1.00

(#) = Out of Range

12/26/19 Another GEA, LLC - Case No. DG-2019-4c. Waste Characterization Page 441 of 2394

Compound List Report VOA-GCMS9

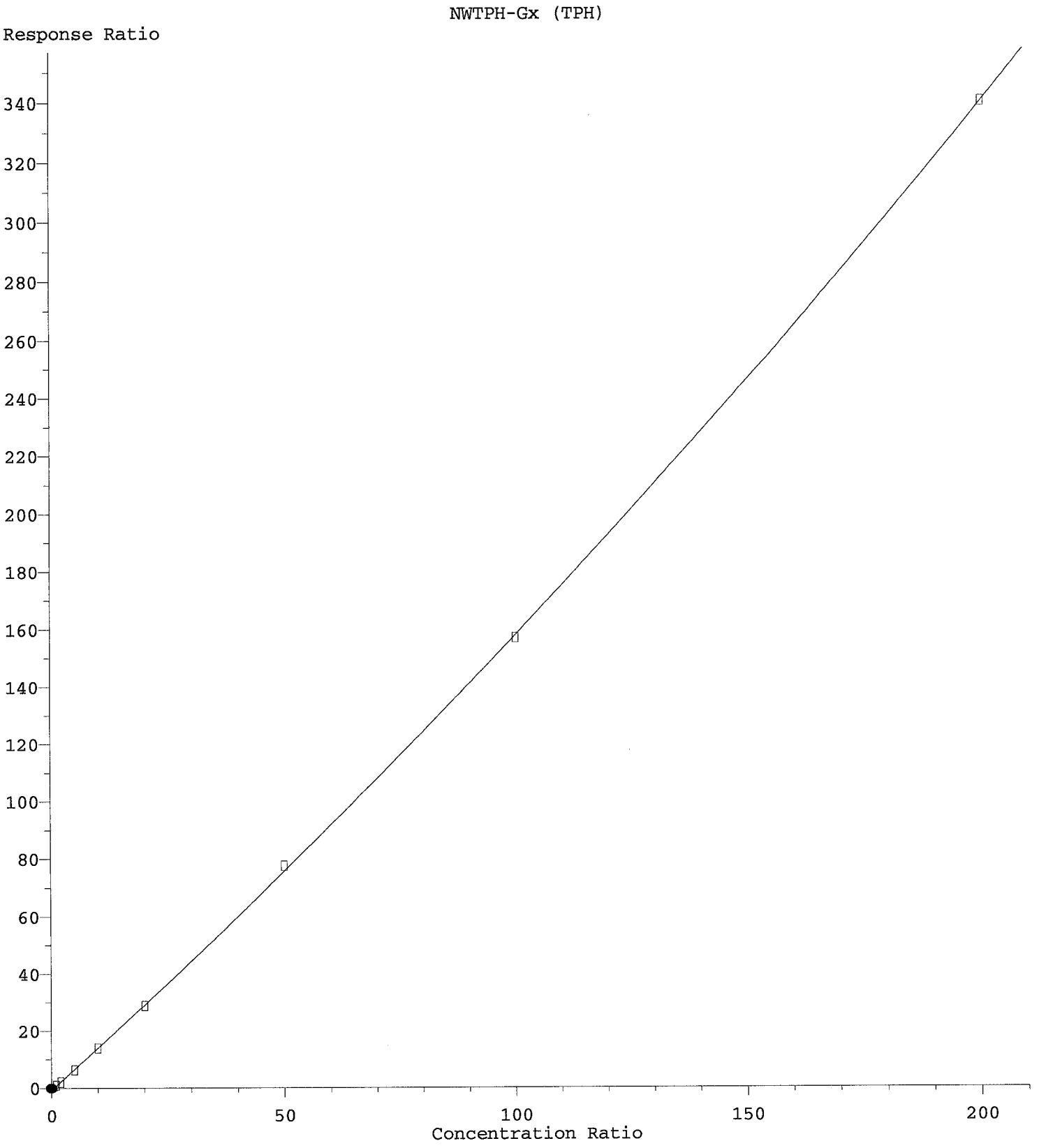
Method Path : C:\msdchem\1\methods\
Method File : VI191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Fri Oct 25 10:31:05 2019
Response Via : Initial Calibration

Total Cpnds : 13

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene (IS)	168	6.217	1.000	A	2	A	B
2	S	1,4-Difluorobenzene (Sur)	114	6.783	1.091	A	2	A	B
3	S	4-Bromofluorobenzene (Sur)	174	10.974	1.765	A	2	A	B
4	H	NWTPH-Gx (TPH)	TIC	9.890	1.591	Q	0	A	B
5	H	TPHg (C5-C9)	TIC	9.890	1.591	Q	0	A	B
6	H	TPHg (C6-C10)	TIC	9.890	1.591	Q	0	A	B
7	H	CA-LUFT (C5-C12)	TIC	9.890	1.591	Q	0	A	B
8		Benzene (NR)	78	6.120	0.984	A	2	A	B
9	S	Toluene-d8 (NR)	98	8.298	1.335	A	2	A	B
10		Toluene (NR)	91	8.358	1.344	A	2	A	B
11	S	Chlorobenzene-d5 (NR)	117	9.916	1.595	A	2	A	B
12	S	1,4-Dichlorobenzene-d4 (NR)	150	11.850	1.906	A	2	A	B
13		Naphthalene (NR)	128	13.627	2.192	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

VI191025G.M Fri Oct 25 10:41:12 2019

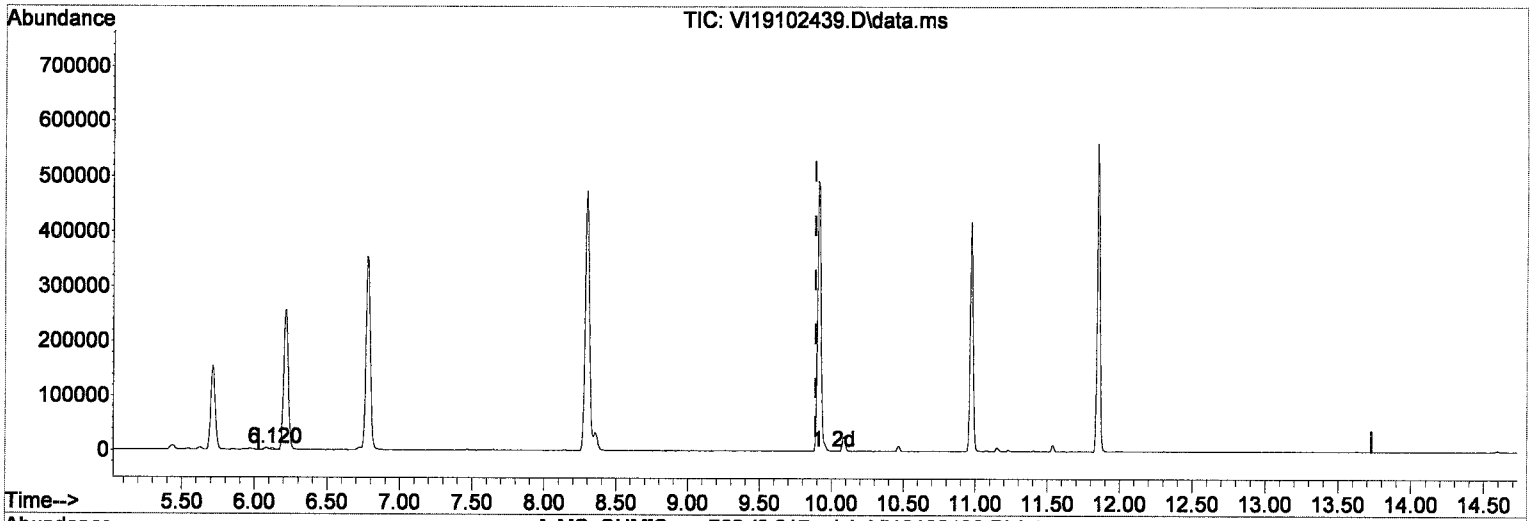


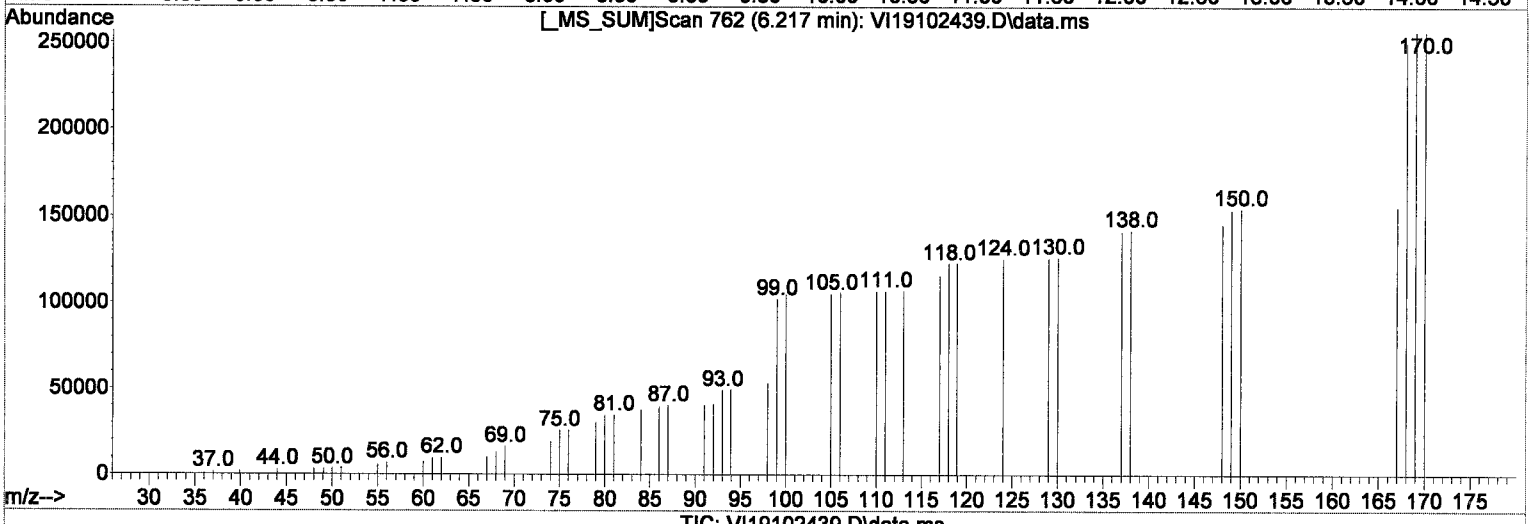
R = 1.17e-003 A*A + 1.47e+000 A - 7.24e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025G.M
Calibration Table Last Updated: Fri Oct 25 10:31:34 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102439.D
Acq On : 25 Oct 2019 1:46 am
Operator : MM
Sample : 9J24043-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:32:52 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





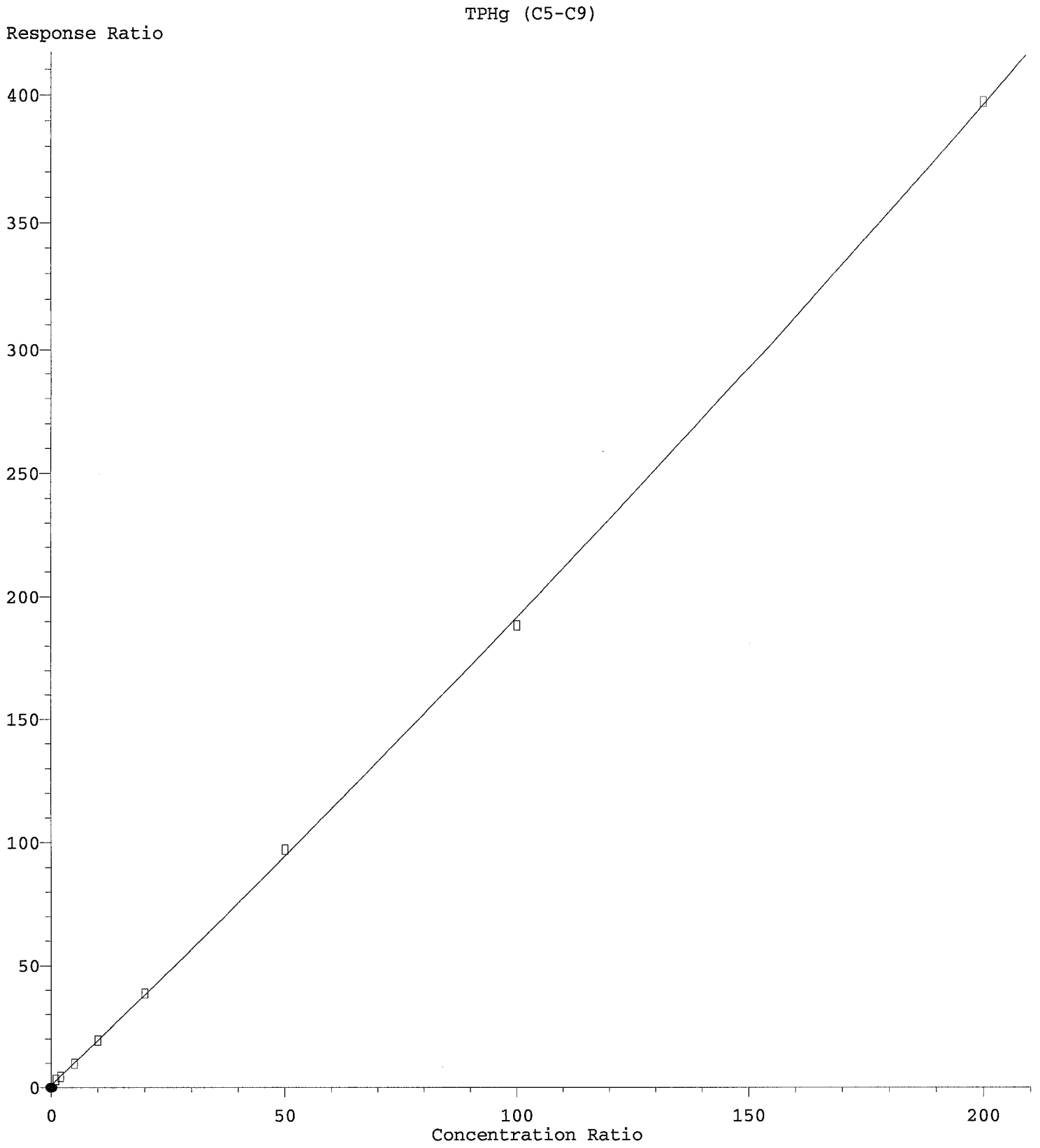
TIC: VI19102439.D\data.ms

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

9.890min (0.000) 25.47 ug/L m

response 5099

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

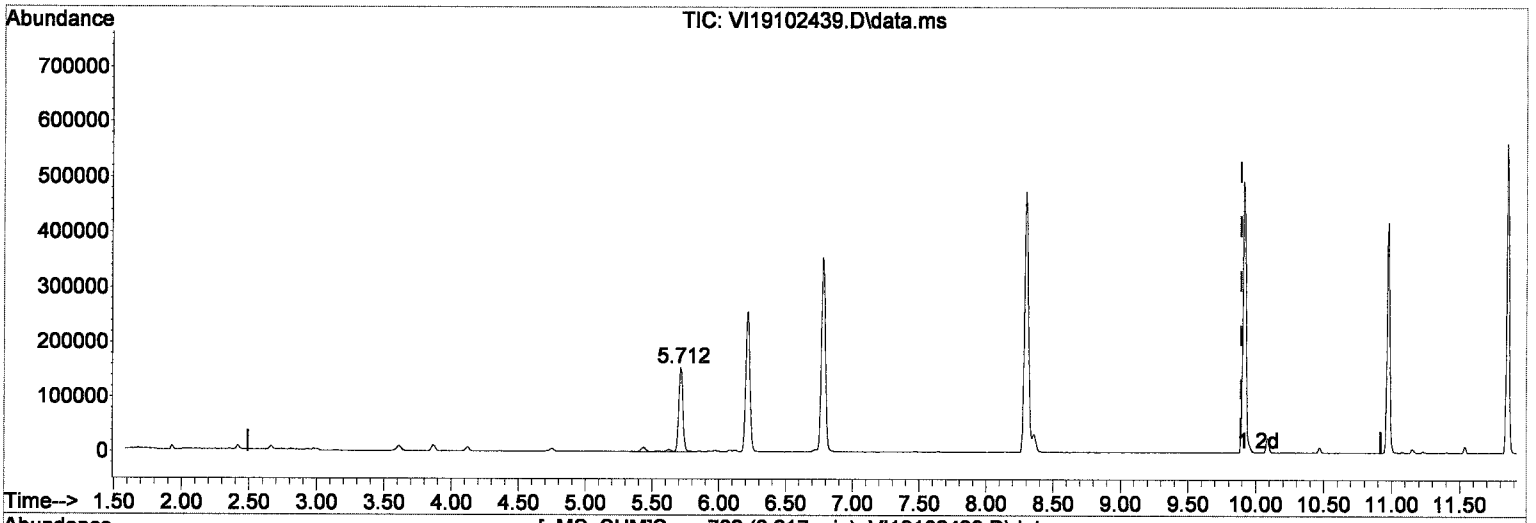


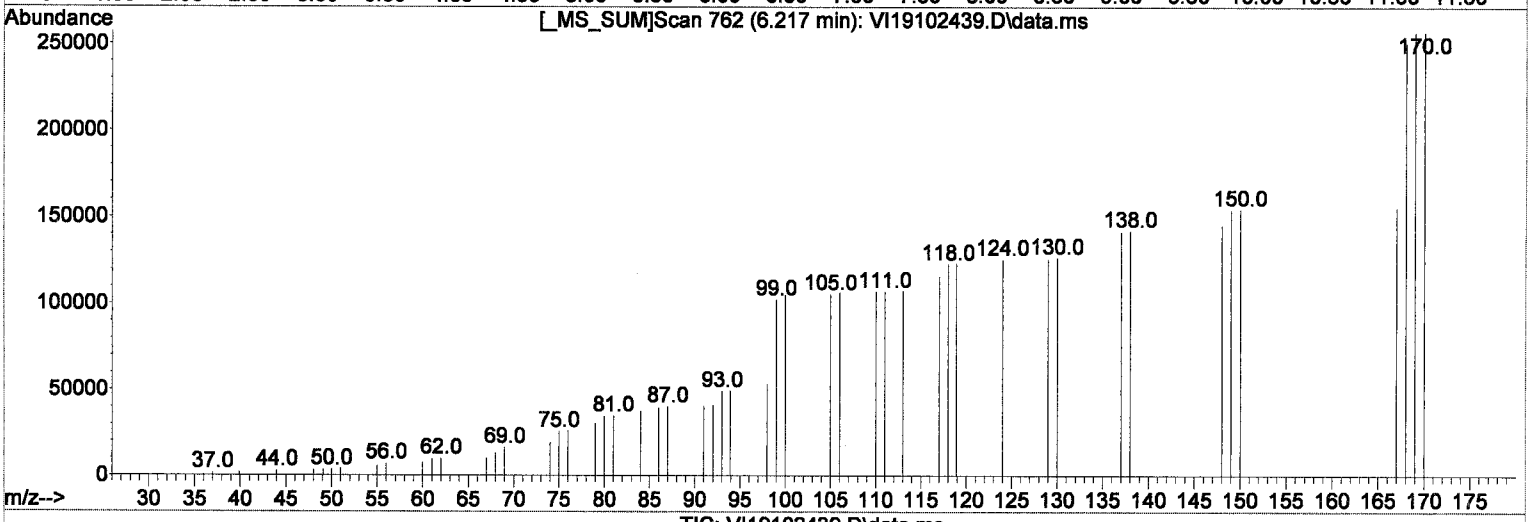
R = 6.91e-004 A*A + 1.84e+000 A + 1.03e+000
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025G.M
Calibration Table Last Updated: Fri Oct 25 10:31:34 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102439.D
Acq On : 25 Oct 2019 1:46 am
Operator : MM
Sample : 9J24043-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:32:52 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





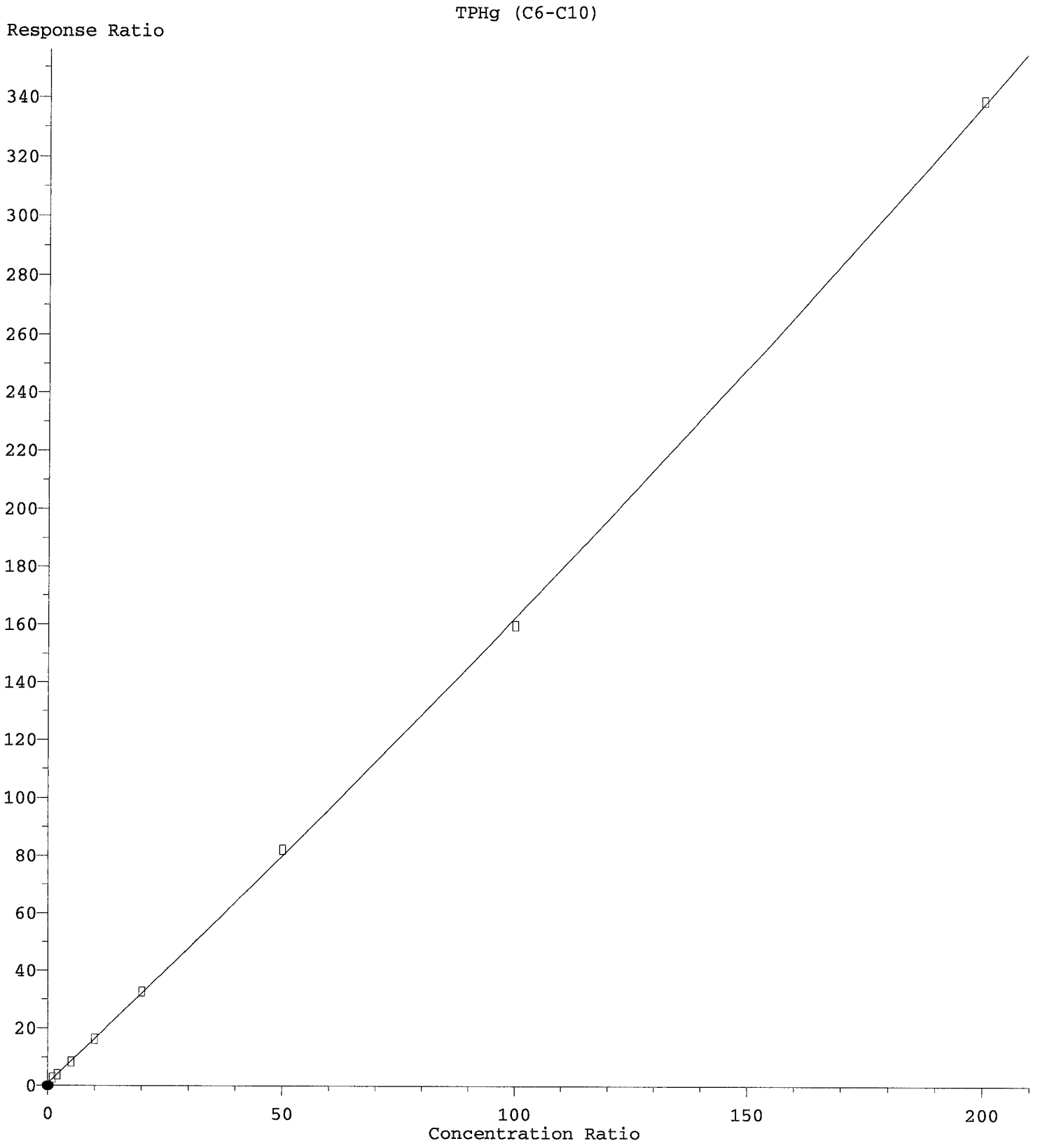
TIC: VI19102439.D\data.ms

(5) TPHg (C5-C9) (H)

9.890min (0.000) 19.12 ug/L m

response 362226

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

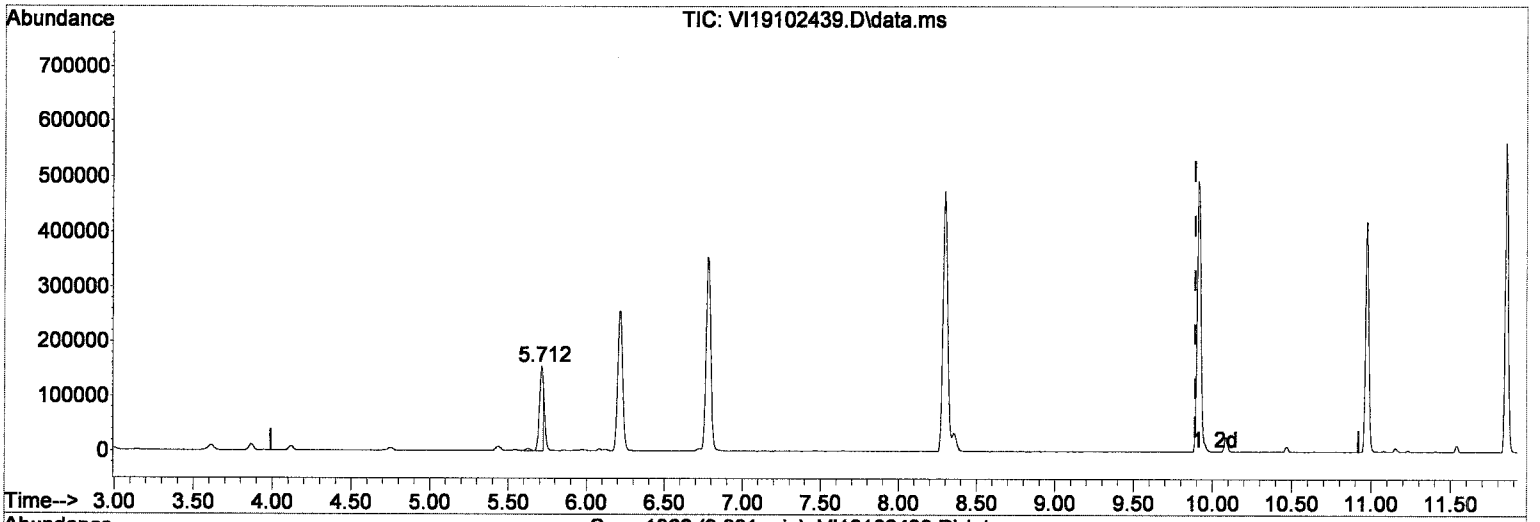


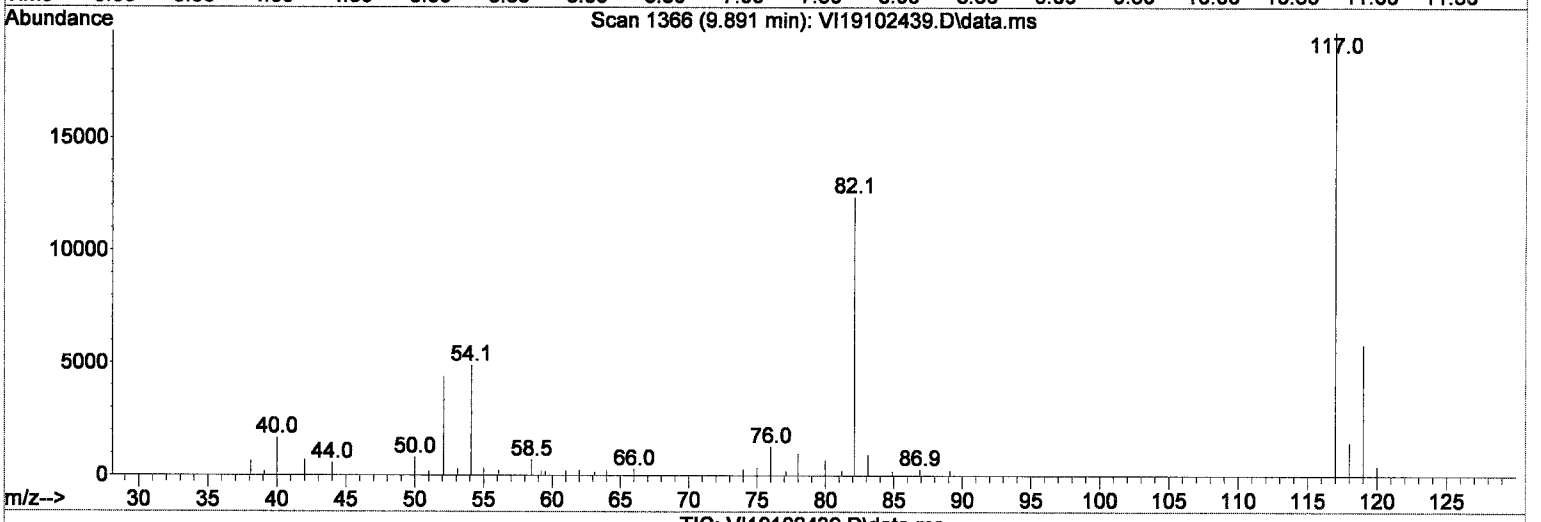
R = 6.87e-004 A*A + 1.55e+000 A + 9.51e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025G.M
Calibration Table Last Updated: Fri Oct 25 10:31:34 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102439.D
Acq On : 25 Oct 2019 1:46 am
Operator : MM
Sample : 9J24043-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:32:52 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





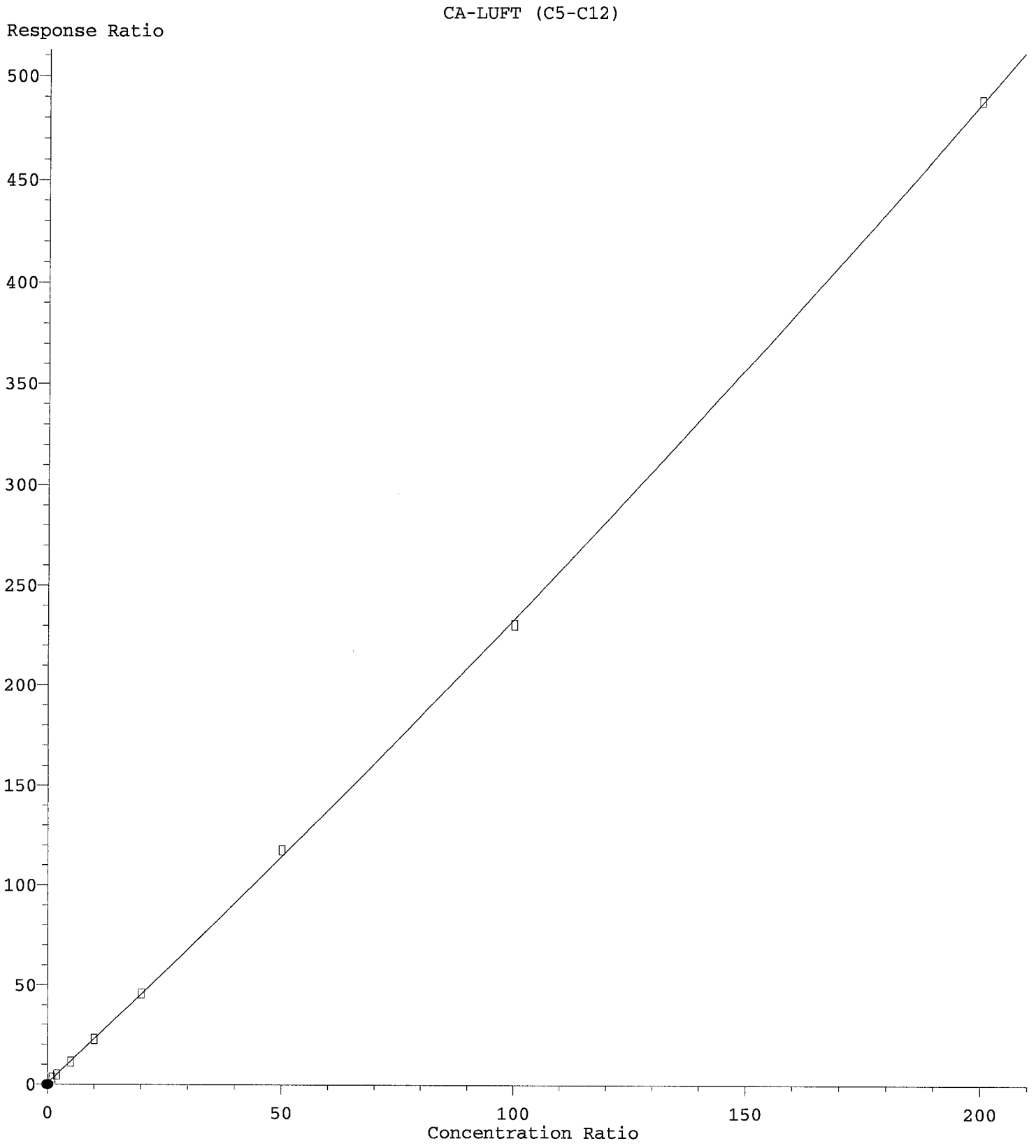
TIC: VI19102439.D\data.ms

(6) TPHg (C6-C10) (H)

9.890min (0.000) 12.28 ug/L m

response 278598

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

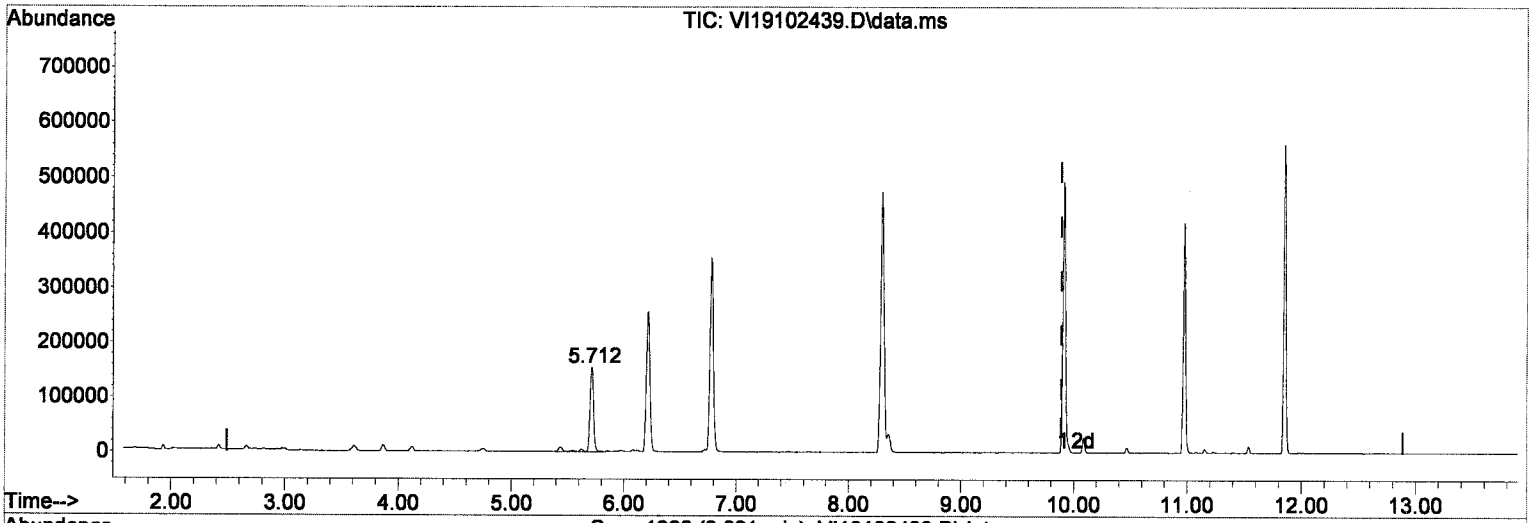


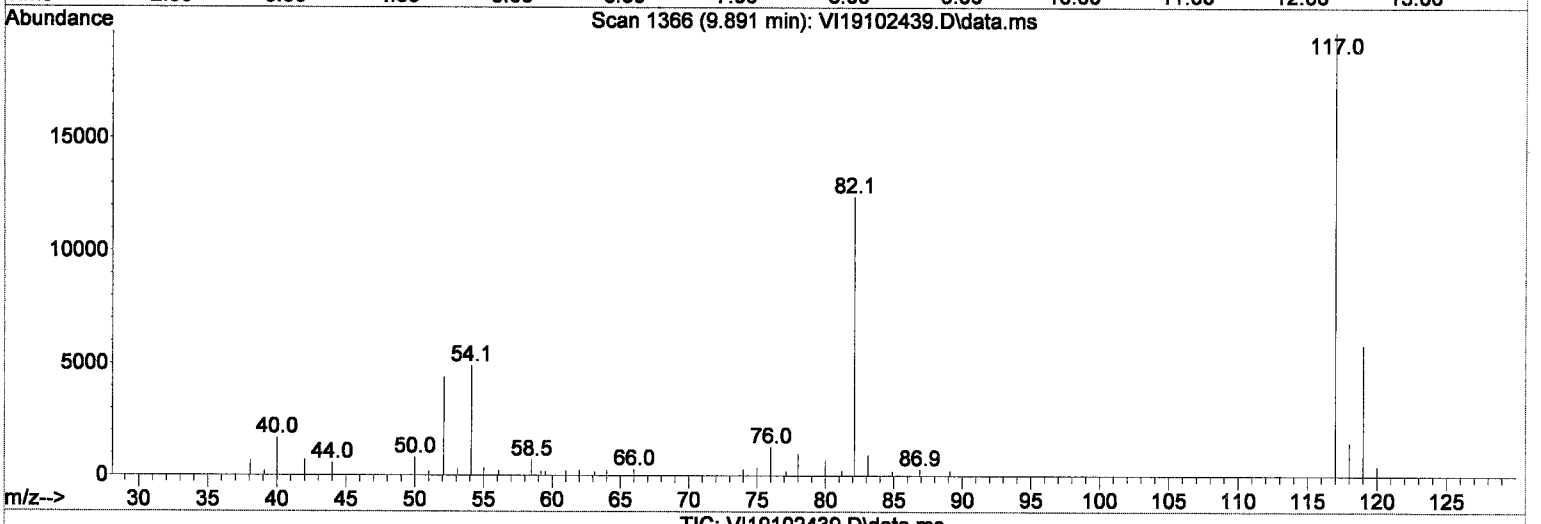
R = 1.05e-003 A*A + 2.22e+000 A + 7.45e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VI191025G.M
Calibration Table Last Updated: Fri Oct 25 10:31:34 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\REQUANT\
Data File : VI19102439.D
Acq On : 25 Oct 2019 1:46 am
Operator : MM
Sample : 9J24043-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:32:52 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





TIC: VI19102439.D\data.ms

(7) CA-LUFT (C5-C12) (H)

9.890min (0.000) 22.21 ug/L m

response 362637

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102453.D
Acq On : 25 Oct 2019 10:40 am
Operator : MM
Sample : 9J24043-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:55:48 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (IS)	50.000	50.000	0.0	103	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	49.705	0.6	103	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	48.785	2.4	102	0.00
4	H	NWTPH-Gx (TPH)	500.000	512.008	-2.4	108	0.00
5	H	TPHg (C5-C9)	500.000	489.707	2.1	102	0.00
6	H	TPHg (C6-C10)	500.000	503.040	-0.6	105	0.00
7	H	CA-LUFT (C5-C12)	500.000	493.527	1.3	104	0.00
8		Benzene (NR)	-1.000	0.000	0.0	100	0.00
9	S	Toluene-d8 (NR)	-1.000	0.000	0.0	102	0.00
10		Toluene (NR)	-1.000	0.000	0.0	103	0.00
11	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	103	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	100	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	114	0.00

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

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J24043

Analysis Included

8015D-Mod Gasoline (C6-C10) by GC/MS
CA LUFT GRO
NWTPH-Gx

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD ID	Analyzed
9J24043-TUN2	MS Tune	Water		A19I040	10/24/2019 11:59:00PM
9J24043-ICB2	Initial Cal Blank	Water		A19I040	10/25/2019 1:19:00AM
9J24043-CALC	Cal Standard	Water	A19J388	"	10/25/2019 1:46:00AM
9J24043-CALD	Cal Standard	Water	A19J389	"	10/25/2019 2:13:00AM
9J24043-CALE	Cal Standard	Water	A19J390	"	10/25/2019 2:40:00AM
9J24043-CALF	Cal Standard	Water	A19J391	"	10/25/2019 3:07:00AM
9J24043-CALH	Cal Standard	Water	A19J393	"	10/25/2019 4:00:00AM
9J24043-CALI	Cal Standard	Water	A19J394	"	10/25/2019 4:27:00AM
9J24043-CALJ	Cal Standard	Water	A19J395	"	10/25/2019 4:54:00AM
9J24043-CALG	Cal Standard	Water	A19J392	"	10/25/2019 10:13:00AM
9J24043-ICV3	Initial Cal Check	Water	A19G350	"	10/25/2019 10:40:00AM

CALIBRATION STANDARD RECOVERIES

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

8015D-Mod Gasoline (C6-C10 Sequence: **9J24043** Matrix: **Water**

9J24043-CALC	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALD	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALE	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALF	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALG	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALH	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALI	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9J24043-CALJ	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**

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

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J24043

Analytes With Quadratic Curve Fits

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

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

ICV RECOVERIES

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

NWTPH-Gx Sequence: **9J24043** Matrix: **Water**

9J24043-ICV3	Inst. MRL	ICV Level	Result	%Rec.	Qual

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

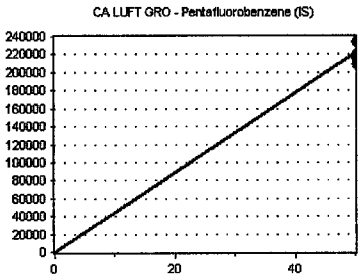
Element Calibration Review Sheet

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

Analysis: **CA LUFT GRO** Instrument Cal ID: **VI191025W.M VI191025G.M**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

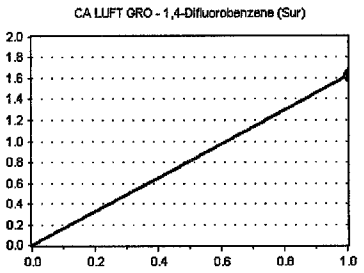


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	209290	4185.800	6.22
9J24043-CALD	50	209478	4189.560	6.22
9J24043-CALE	50	220921	4418.420	6.22
9J24043-CALF	50	214780	4295.600	6.22
9J24043-CALG	50	234293	4685.860	6.22
9J24043-CALH	50	216435	4328.700	6.22
9J24043-CALI	50	233849	4676.980	6.22
9J24043-CALJ	50	234183	4683.660	6.22

AVE RF **4433.073** RF RSD **4.95** AVE RT **6.22**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

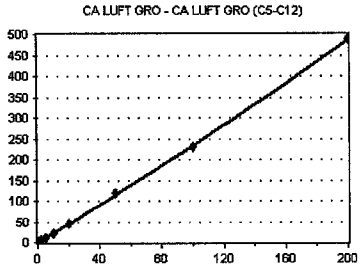


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	341977	1.634	6.78
9J24043-CALD	50	342473	1.635	6.78
9J24043-CALE	50	357958	1.620	6.78
9J24043-CALF	50	347086	1.616	6.78
9J24043-CALG	50	376297	1.606	6.78
9J24043-CALH	50	352248	1.628	6.78
9J24043-CALI	50	379658	1.624	6.78
9J24043-CALJ	50	384961	1.644	6.78

AVE RF **1.626** RF RSD **0.73** AVE RT **6.78**

CA LUFT GRO (C5-C12)

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

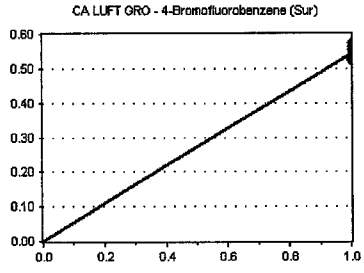


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	681991	3.259	9.89
9J24043-CALD	100	1014687	2.422	9.89
9J24043-CALE	250	2493143	2.257	9.89
9J24043-CALF	500	4877141	2.271	9.89
9J24043-CALG	1000	1.073362E+07	2.291	9.89
9J24043-CALH	2500	2.54612E+07	2.353	9.89
9J24043-CALI	5000	5.393736E+07	2.307	9.89
9J24043-CALJ	10000	1.143412E+08	2.441	9.89

AVE RF **2.450** RF RSD **13.62** AVE RT **9.89**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	109139	0.521	10.97
9J24043-CALD	50	110020	0.525	10.97
9J24043-CALE	50	116770	0.529	10.97
9J24043-CALF	50	115043	0.536	10.97
9J24043-CALG	50	126230	0.539	10.97
9J24043-CALH	50	120135	0.555	10.97
9J24043-CALI	50	131653	0.563	10.97
9J24043-CALJ	50	134509	0.574	10.97

AVE RF **0.543** RF RSD **3.54** AVE RT **10.97**

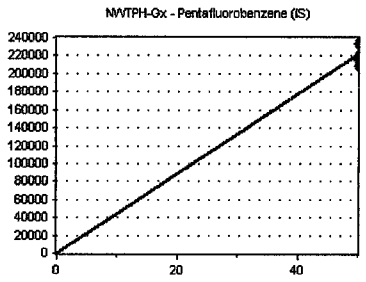
Element Calibration Review Sheet

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

Analysis: **NWTPH-Gx** Instrument Cal ID: **VI191025W.M VI191025G.M**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

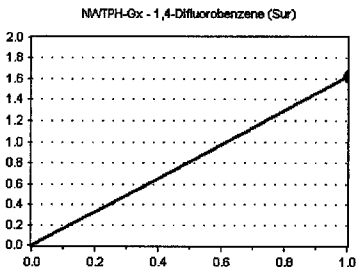


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	209290	4185.800	6.22
9J24043-CALD	50	209478	4189.560	6.22
9J24043-CALE	50	220921	4418.420	6.22
9J24043-CALF	50	214780	4295.600	6.22
9J24043-CALG	50	234293	4685.860	6.22
9J24043-CALH	50	216435	4328.700	6.22
9J24043-CALI	50	233849	4676.980	6.22
9J24043-CALJ	50	234183	4683.660	6.22

AVE RF **4433.073** RF RSD **4.95** AVE RT **6.22**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

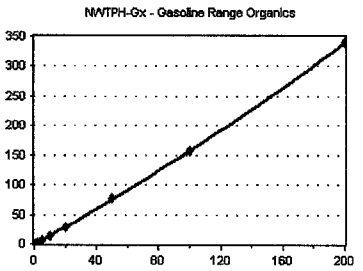


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	341977	1.634	6.78
9J24043-CALD	50	342473	1.635	6.78
9J24043-CALE	50	357958	1.620	6.78
9J24043-CALF	50	347086	1.616	6.78
9J24043-CALG	50	376297	1.606	6.78
9J24043-CALH	50	352248	1.628	6.78
9J24043-CALI	50	379658	1.624	6.78
9J24043-CALJ	50	384961	1.644	6.78

AVE RF **1.626** RF RSD **0.73** AVE RT **6.78**

Gasoline Range Organics

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

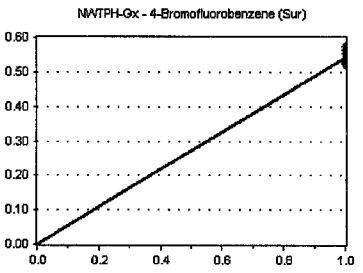


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	193702	0.926	9.89
9J24043-CALD	100	430822	1.028	9.89
9J24043-CALE	250	1374008	1.244	9.89
9J24043-CALF	500	2976997	1.386	9.89
9J24043-CALG	1000	6735895	1.437	9.89
9J24043-CALH	2500	1.67752E+07	1.550	9.89
9J24043-CALI	5000	3.669824E+07	1.569	9.89
9J24043-CALJ	10000	7.956248E+07	1.699	9.89

AVE RF **1.355** RF RSD **19.99** AVE RT **9.89**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	109139	0.521	10.97
9J24043-CALD	50	110020	0.525	10.97
9J24043-CALE	50	116770	0.529	10.97
9J24043-CALF	50	115043	0.536	10.97
9J24043-CALG	50	126230	0.539	10.97
9J24043-CALH	50	120135	0.555	10.97
9J24043-CALI	50	131653	0.563	10.97
9J24043-CALJ	50	134509	0.574	10.97

AVE RF **0.543** RF RSD **3.54** AVE RT **10.97**

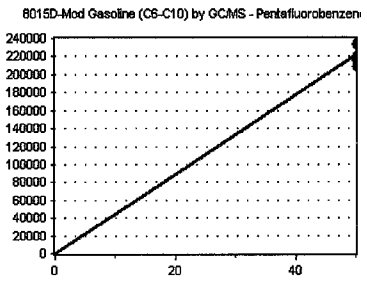
Element Calibration Review Sheet

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

Analysis: **8015D-Mod Gasoline (C6-C1** Instrument Cal ID: **VI191025W.M VI191025G.M**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

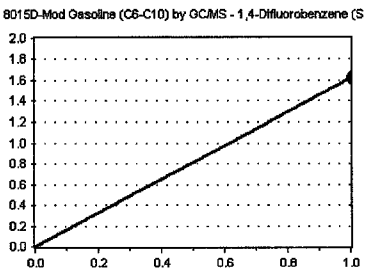


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	209290	4185.800	6.22
9J24043-CALD	50	209478	4189.560	6.22
9J24043-CALE	50	220921	4418.420	6.22
9J24043-CALF	50	214780	4295.600	6.22
9J24043-CALG	50	234293	4685.860	6.22
9J24043-CALH	50	216435	4328.700	6.22
9J24043-CALI	50	233849	4676.980	6.22
9J24043-CALJ	50	234183	4683.660	6.22

AVE RF **4433.073** RF RSD **4.95** AVE RT **6.22**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

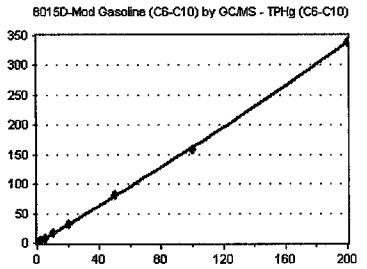


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	341977	1.634	6.78
9J24043-CALD	50	342473	1.635	6.78
9J24043-CALE	50	357958	1.620	6.78
9J24043-CALF	50	347086	1.616	6.78
9J24043-CALG	50	376297	1.606	6.78
9J24043-CALH	50	352248	1.628	6.78
9J24043-CALI	50	379658	1.624	6.78
9J24043-CALJ	50	384961	1.644	6.78

AVE RF **1.626** RF RSD **0.73** AVE RT **6.78**

TPHg (C6-C10)

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

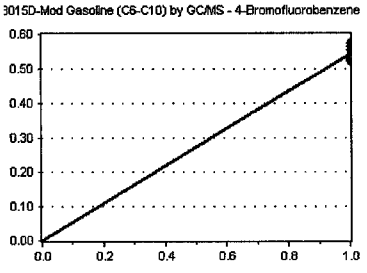


Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	557886	2.666	9.89
9J24043-CALD	100	799328	1.908	9.89
9J24043-CALE	250	1839524	1.665	9.89
9J24043-CALF	500	3507779	1.633	9.89
9J24043-CALG	1000	7648071	1.632	9.89
9J24043-CALH	2500	1.778026E+07	1.643	9.89
9J24043-CALI	5000	3.735262E+07	1.597	9.89
9J24043-CALJ	10000	7.933946E+07	1.694	9.89

AVE RF **1.805** RF RSD **20.00** AVE RT **9.89**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J24043-CALC	50	109139	0.521	10.97
9J24043-CALD	50	110020	0.525	10.97
9J24043-CALE	50	116770	0.529	10.97
9J24043-CALF	50	115043	0.536	10.97
9J24043-CALG	50	126230	0.539	10.97
9J24043-CALH	50	120135	0.555	10.97
9J24043-CALI	50	131653	0.563	10.97
9J24043-CALJ	50	134509	0.574	10.97

AVE RF **0.543** RF RSD **3.54** AVE RT **10.97**

Injection Log

Directory: v:\data\2019-10\9J24043

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	Vi19102414.d	1.	9J24043-IBL1	1X 5mL DI	24 Oct 2019 14:34
2	2	Vi19102415.d	1.	9J24043-TUN1	A19I040 BFB (IS/...	24 Oct 2019 15:01
3	3	Vi19102416.d	1.	9J24043-ICB1	1X 5mL DI	24 Oct 2019 15:28
4	4	Vi19102417.d	1.	9J24043-CAL1	1X 5mL 0.1/0.2...	24 Oct 2019 15:55
5	5	Vi19102418.d	1.	9J24043-CAL2	1X 5mL 0.2/0.4...	24 Oct 2019 16:21
6	6	Vi19102419.d	1.	9J24043-CAL3	1X 5mL 0.4/0.8...	24 Oct 2019 16:48
7	7	Vi19102420.d	1.	9J24043-CAL4	1X 5mL 1/2PPB ...	24 Oct 2019 17:15
8	8	Vi19102421.d	1.	9J24043-CAL5	1X 5mL 2/4PPB ...	24 Oct 2019 17:42
9	9	Vi19102422.d	1.	9J24043-CAL6	1X 5mL 5/10PPB...	24 Oct 2019 18:09
10	10	Vi19102423.d	1.	9J24043-CAL7	1X 5mL 10/20PP...	24 Oct 2019 18:36
11	11	Vi19102424.d	1.	9J24043-CAL8	1X 5mL 20/40PP...	24 Oct 2019 19:03
12	12	Vi19102425.d	1.	9J24043-CAL9	1X 5mL 50/100P...	24 Oct 2019 19:30
13	13	Vi19102426.d	1.	9J24043-IBL2	1X 5mL DI	24 Oct 2019 19:57
14	14	Vi19102427.d	1.	9J24043-CALA	1X 5mL 100/200...	24 Oct 2019 20:24
15	15	Vi19102428.d	1.	9J24043-IBL3	1X 5mL DI	24 Oct 2019 20:51
16	16	Vi19102429.d	1.	9J24043-CALB	1X 5mL 200/400...	24 Oct 2019 21:17
17	17	Vi19102430.d	1.	9J24043-IBL4	1X 5mL DI	24 Oct 2019 21:44
18	18	Vi19102431.d	1.	9J24043-IBL5	1X 5mL DI	24 Oct 2019 22:11
19	19	Vi19102432.d	1.	9J24043-ICV1	1X 5mL 20/40PP...	24 Oct 2019 22:38
20	20	Vi19102433.d	1.	9J24043-ICV2	1X 5mL 5/1250P...	24 Oct 2019 23:05
21	21	Vi19102434.d	1.	9J24043-IBL6	1X 5mL DI	24 Oct 2019 23:32
22	22	Vi19102435.d	1.	9J24043-TUN2	A19I040 BFB (IS/...	24 Oct 2019 23:59
23	23	Vi19102436.d	1.	9J24043-RT1	A18A167 VPH RT STD	25 Oct 2019 00:26
24	24	Vi19102437.d	1.	9J24043-IBL7	1X 5mL DI	25 Oct 2019 00:52
25	25	Vi19102438.d	1.	9J24043-ICB2	1X 5mL DI	25 Oct 2019 01:19
26	26	Vi19102439.d	1.	9J24043-CALC	1X 5mL 50PPB GX	25 Oct 2019 01:46
27	27	Vi19102440.d	1.	9J24043-CALD	1X 5mL 100PPB GX	25 Oct 2019 02:13
28	28	Vi19102441.d	1.	9J24043-CALE	1X 5mL 250PPB GX	25 Oct 2019 02:40
29	29	Vi19102442.d	1.	9J24043-CALF	1X 5mL 500PPB GX	25 Oct 2019 03:07
30	30	Vi19102443.d	1.	9J24043-CALG	1X 5mL 1000PPB GX	25 Oct 2019 03:34
31	31	Vi19102444.d	1.	9J24043-CALH	1X 5mL 2500PPB GX	25 Oct 2019 04:00
32	32	Vi19102445.d	1.	9J24043-CALI	1X 5mL 5000PPB GX	25 Oct 2019 04:27
33	33	Vi19102446.d	1.	9J24043-CALJ	1X 5mL 10000PP...	25 Oct 2019 04:54
34	34	Vi19102447.d	1.	9J24043-IBL8	1X 5mL DI	25 Oct 2019 05:21
35	35	Vi19102448.d	1.	9J24043-IBL9	1X 5mL DI	25 Oct 2019 05:48
36	36	Vi19102449.d	1.	9J24043-ICV3	1X 5mL 500PPB GX	25 Oct 2019 06:15
37	37	Vi19102450.d	1.	9J24043-IBLA	1X 5mL DI	25 Oct 2019 06:42

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102414.D
Acq On : 24 Oct 2019 2:34 pm
Operator : MM
Sample : 9J24043-IBL1
Misc : 1X 5mL DI
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

NR

Quant Time: Oct 25 08:52:04 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

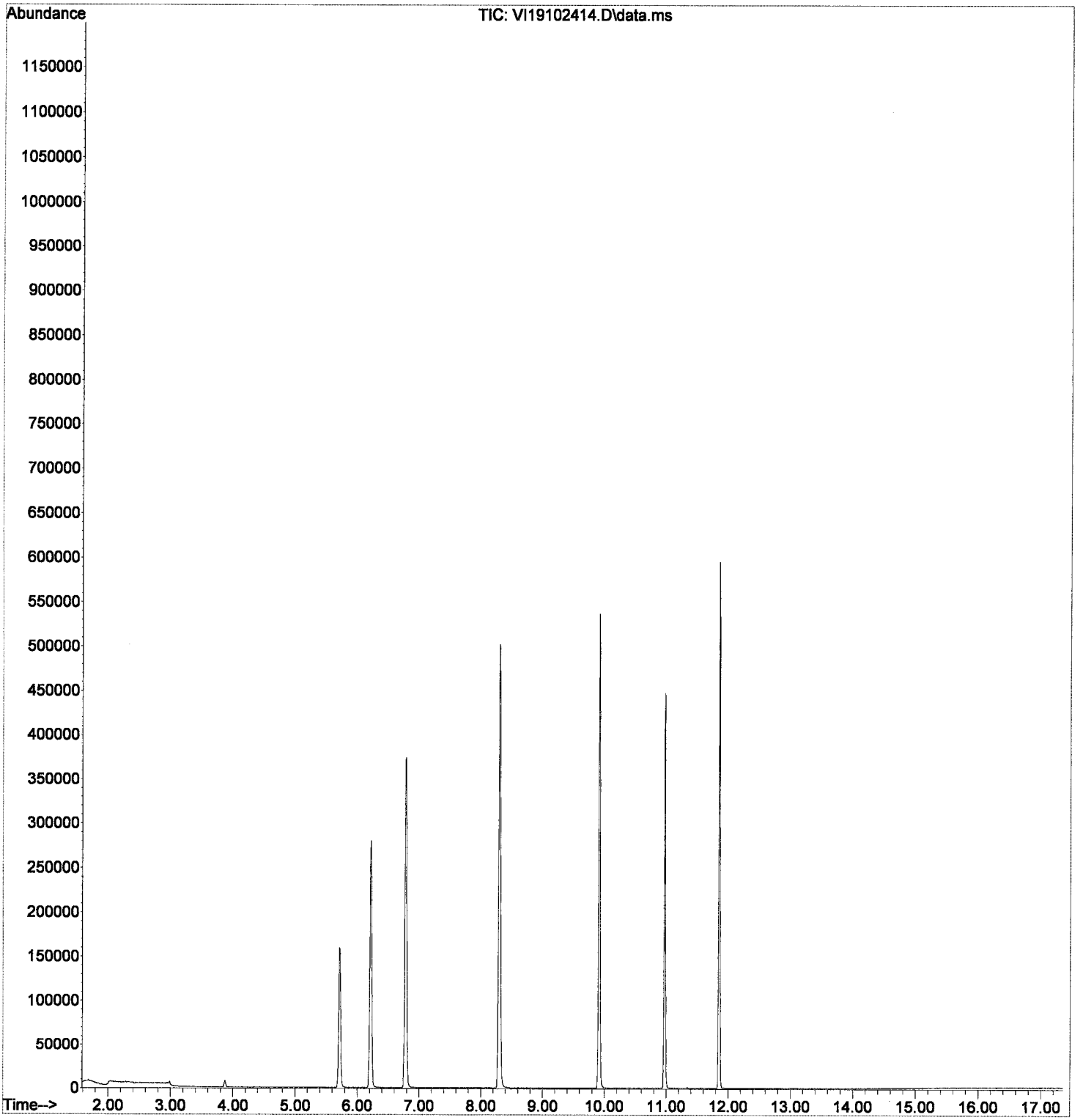
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	116268	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.909	117	306026	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	138672	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.712	111	110907	48.55	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	362815	49.39	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	408743	50.89	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	116096	51.81	ug/L	0.00
Target Compounds						Qvalue
6) Chloroethane	2.451	64	166	0.14	ug/L	# 58
14) Methylene Chloride	3.868	84	3943	0.99	ug/L	87
15) Acetone	3.948	43	891	0.87	ug/L	93

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102414.D
Acq On : 24 Oct 2019 2:34 pm
Operator : MM
Sample : 9J24043-IBL1
Misc : 1X 5mL DI
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:04 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

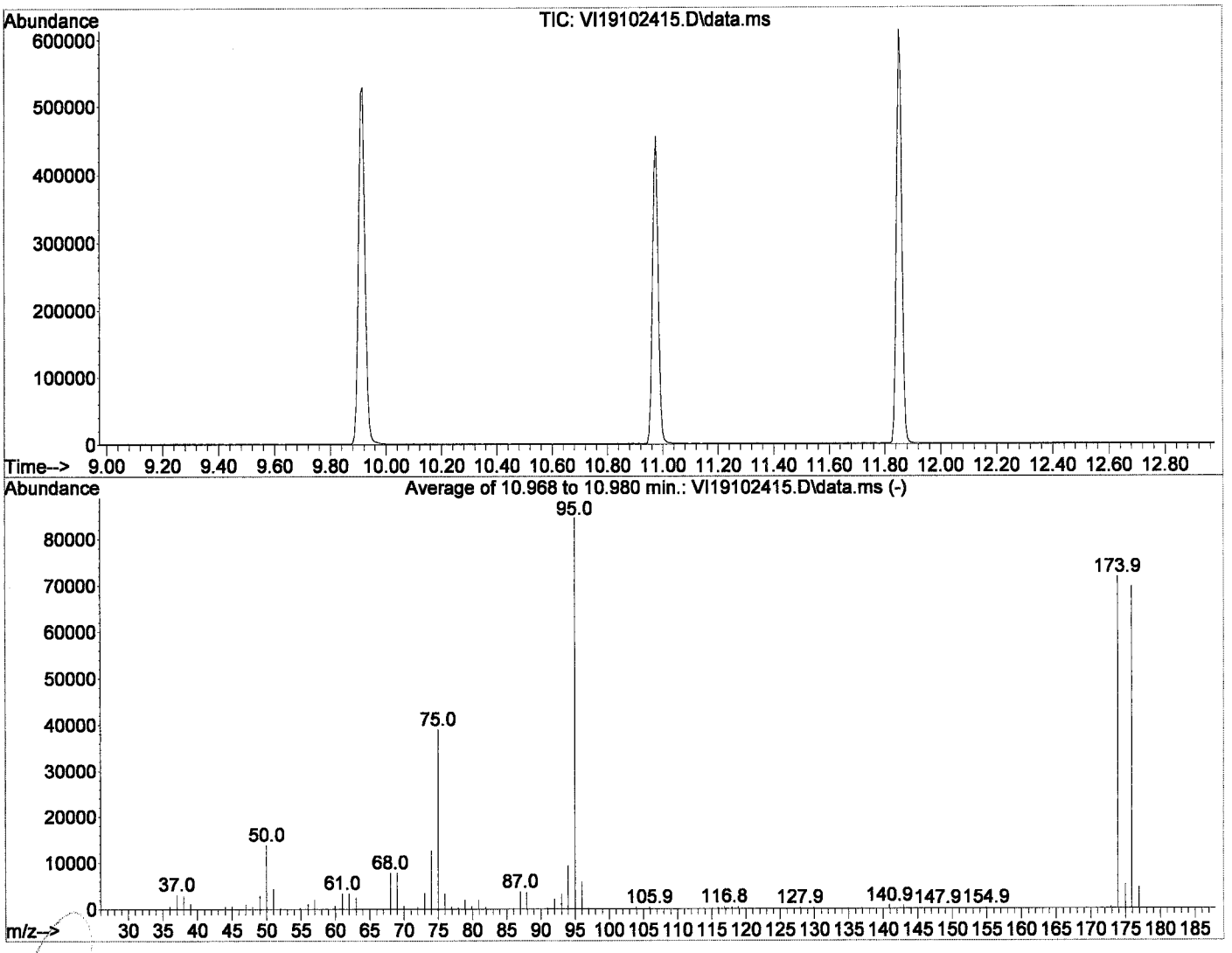


BFB

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102415.D
Acq On : 24 Oct 2019 3:01 pm
Operator : MM
Sample : 9J24043-TUN1
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

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



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

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	117.9	84595	PASS
96	95	5	9	6.8	5736	PASS
173	174	0.00	2	0.4	280	PASS
174	95	50	200	84.8	71757	PASS
175	174	5	9	7.2	5145	PASS
176	174	95	105	97.0	69587	PASS
177	176	5	10	6.5	4525	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102415.D
Acq On : 24 Oct 2019 3:01 pm
Operator : MM
Sample : 9J24043-TUN1
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:12 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

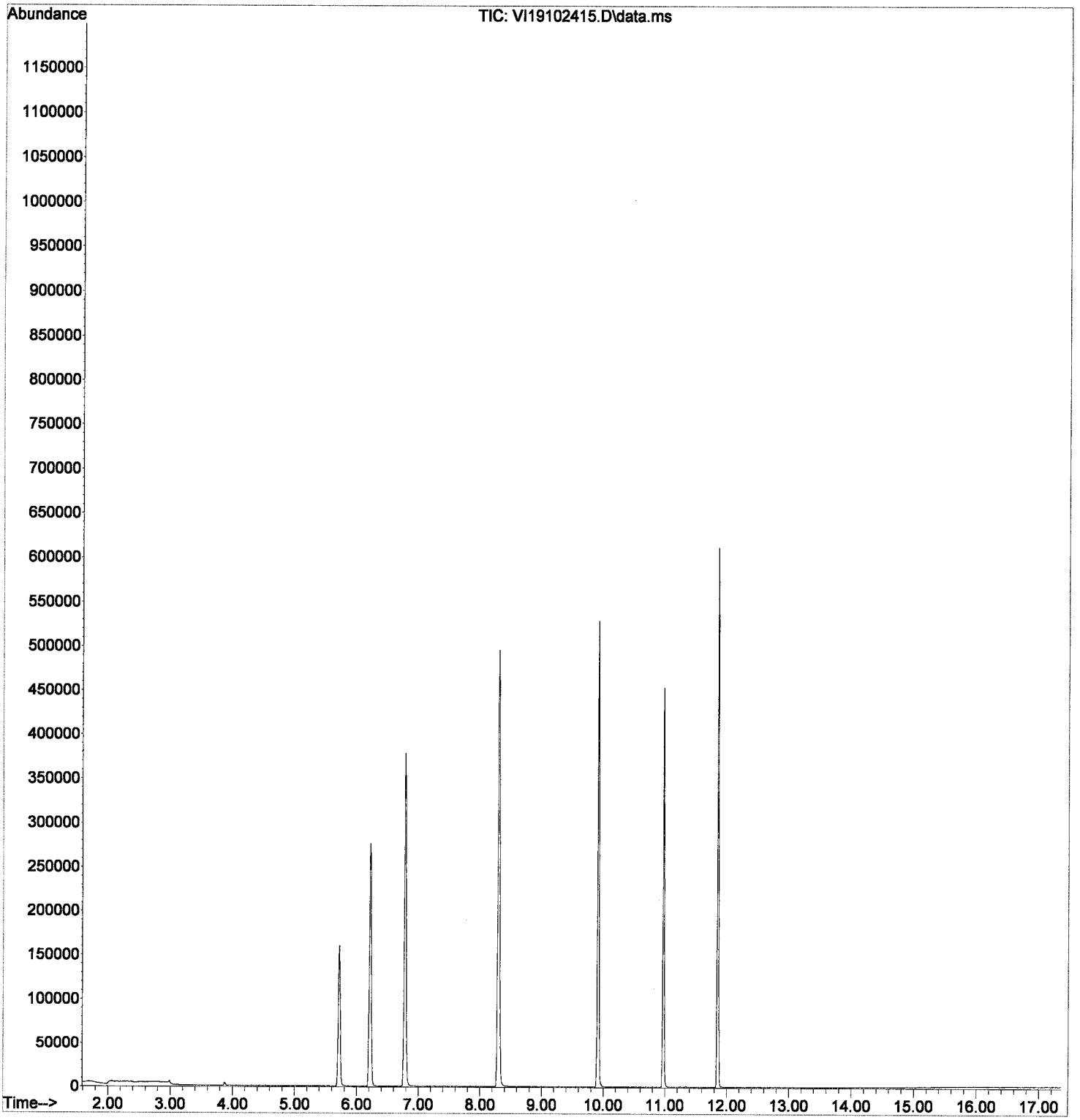
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	115135	50.00	ug/L	0.00
45) Chlorobenzene-d5 (I)	9.916	117	306446	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	141323	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.718	111	110753	48.96	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	360182	49.52	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	404469	50.29	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	115450	50.56	ug/L	0.00
Target Compounds						Qvalue
3) Chloromethane	1.904	50	226	0.09	ug/L #	47
6) Chloroethane	2.463	64	432	0.38	ug/L #	36
14) Methylene Chloride	3.875	84	1793	Below Cal	#	76
15) Acetone	3.948	43	857	0.85	ug/L #	44
19) tert-Butanol (TBA)	4.307	59	115	0.26	ug/L	46

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102415.D
Acq On : 24 Oct 2019 3:01 pm
Operator : MM
Sample : 9J24043-TUN1
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:12 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102416.D
Acq On : 24 Oct 2019 3:28 pm
Operator : MM
Sample : 9J24043-ICB1
Misc : 1X 5mL DI
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

10/25/19

Quant Time: Oct 25 08:52:24 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

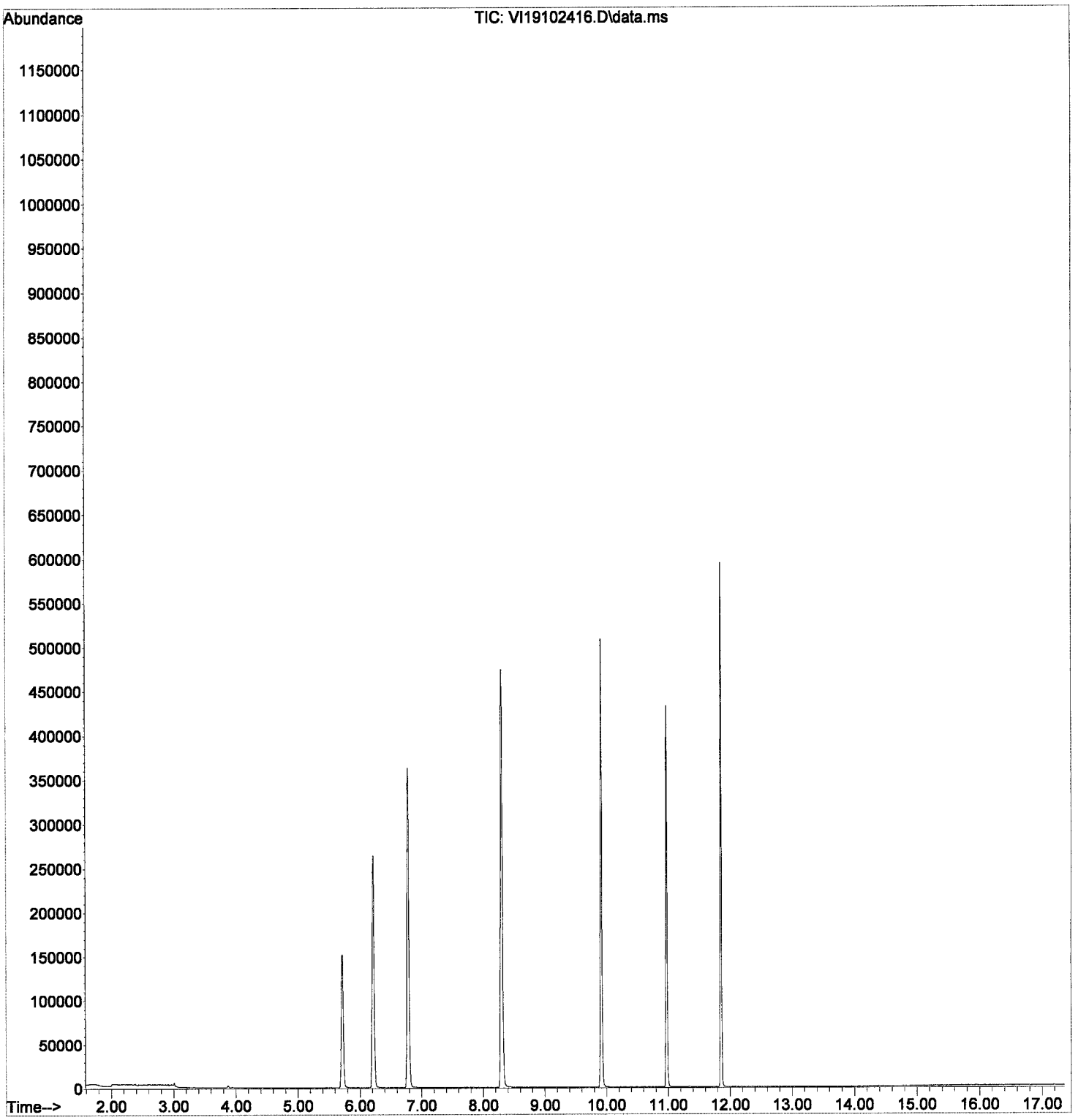
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	6.217	99	109157	50.00 ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.916	117	292802	50.00 ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	134268	50.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane (S)	5.712	111	106415	49.62 ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.782	114	343590	49.82 ug/L	0.00
48) Toluene-d8 (S)	8.297	98	387024	50.36 ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	109949	50.68 ug/L	0.00
Target Compounds					Qvalue
3) Chloromethane	1.897	50	228	0.10 ug/L	# 47
6) Chloroethane	2.530	64	212	0.19 ug/L	# 36
14) Methylene Chloride	3.868	84	1359	Below Cal	85
15) Acetone	3.948	43	763	0.80 ug/L	# 44

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102416.D
Acq On : 24 Oct 2019 3:28 pm
Operator : MM
Sample : 9J24043-ICB1
Misc : 1X 5mL DI
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:24 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102417.D
Acq On : 24 Oct 2019 3:55 pm
Operator : MM
Sample : 9J24043-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:17:09 2019
Quant Method : C:\msdchem\1\methods\~~VI191025W~~.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	116102	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.909	117	307577	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	139681	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.712	111	111441	46.79	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	364447	54.80	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	406288	51.17	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	116090	51.67	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	1.897	50	479	0.18	ug/L	91
4) Vinyl Chloride	0.000		0	N.D.	d	
5) Bromomethane	0.000		0	N.D.	d	
6) Chloroethane	0.000		0	N.D.	d	
7) Trichlorofluoromethane	0.000		0	N.D.	d	
8) Ethanol	0.000		0	N.D.	d	
9) 1,1-Dichloroethene	0.000		0	N.D.	d	
10) Carbon Disulfide	0.000		0	N.D.	d	
11) Freon 113	0.000		0	N.D.		
12) Iodomethane	0.000		0	N.D.		
13) Acrolein	0.000		0	N.D.		
14) Methylene Chloride	3.875	84	2024	Below Cal		84
15) Acetone	0.000		0	N.D.	d	
16) t-1,2-Dichloroethene	0.000		0	N.D.		
17) n-Hexane	0.000		0	N.D.		
18) Methyl-tert-butyl-ether	0.000		0	N.D.	d	
19) tert-Butanol (TBA)	4.300	59	2472	6.89	ug/L	83
20) Diisopropyl ether (DIPE)	0.000		0	N.D.		
21) 1,1-Dichloroethane	0.000		0	N.D.	d	
22) Acrylonitrile	0.000		0	N.D.		
23) Ethyl-tert-butyl ether...	0.000		0	N.D.		
24) Vinyl Acetate	0.000		0	N.D.		
25) c-1,2-Dichloroethene	0.000		0	N.D.		
26) 2,2-Dichloropropane	0.000		0	N.D.		
27) Bromochloromethane	0.000		0	N.D.		
28) Chloroform	0.000		0	N.D.		
29) Carbon Tetrachloride	0.000		0	N.D.		
30) Tetrahydrofuran	0.000		0	N.D.		
31) 1,1,1-Trichloroethane	0.000		0	N.D.		
33) 1,1-Dichloropropene	0.000		0	N.D.		
34) 2-Butanone (MEK)	0.000		0	N.D.	d	
35) Benzene	6.132	78	917	0.12	ug/L	55
36) tert-Amyl methyl ether...	0.000		0	N.D.		
37) 1,2-Dichloroethane (EDC)	0.000		0	N.D.	d	
38) iso-Butyl Alcohol	0.000		0	N.D.		
40) Trichloroethene (TCE)	0.000		0	N.D.		
41) Tert-Amyl-Ethyl-Ether ...	0.000		0	N.D.		
42) Dibromomethane	0.000		0	N.D.		
43) 1,2-Dichloropropane	0.000		0	N.D.		
44) Bromodichloromethane	0.000		0	N.D.		
46) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.		
47) c-1,3-Dichloropropene	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102417.D
Acq On : 24 Oct 2019 3:55 pm
Operator : MM
Sample : 9J24043-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:17:09 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	8.358	91	978	0.11	ug/L	85
50) Tetrachloroethene (PCE)	0.000		0	N.D.		
51) 4-Methyl-2-Pentanone (...	0.000		0	N.D.	d	
52) t-1,3-Dichloropropene	0.000		0	N.D.		
53) 1,1,2-Trichloroethane	0.000		0	N.D.		
54) Dibromochloromethane	0.000		0	N.D.		
55) 1,3-Dichloropropane	0.000		0	N.D.	d	
56) 1,2-Dibromoethane (EDB)	0.000		0	N.D.		
57) 2-Hexanone	0.000		0	N.D.		
58) Chlorobenzene	9.934	112	480	0.09	ug/L #	35
59) Ethylbenzene	9.952	91	942	0.10	ug/L	91
60) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
61) m,p-Xylenes (2)	10.086	91	1368	0.27	ug/L	84
62) o-Xylene	10.469	91	585	0.15	ug/L	89
63) Styrene	0.000		0	N.D.	d	
64) Bromoform	0.000		0	N.D.		
65) Isopropylbenzene	0.000		0	N.D.	d	
68) Bromobenzene	11.059	156	124	0.06	ug/L #	82
69) n-Propylbenzene	11.078	91	873	0.10	ug/L	58
70) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
71) 2-Chlorotoluene	0.000		0	N.D.		
72) 1,3,5-Trimethylbenzene	11.230	105	556	0.10	ug/L	92
73) 1,2,3-Trichloropropane	0.000		0	N.D.		
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.		
75) 4-Chlorotoluene	0.000		0	N.D.	d	
76) tert-Butylbenzene	0.000		0	N.D.	d	
77) 1,2,4-Trimethylbenzene	11.540	105	536	0.17	ug/L	80
78) sec-Butylbenzene	0.000		0	N.D.	d	
79) 4-Isopropyltoluene	11.728	119	481	0.20	ug/L	68
80) 1,3-Dichlorobenzene	0.000		0	N.D.	d	
81) 1,4-Dichlorobenzene	11.868	146	311	0.08	ug/L #	41
82) n-Butylbenzene	12.045	91	379	0.08	ug/L	81
83) 1,2-Dichlorobenzene	0.000		0	N.D.	d	
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.		
85) Hexachlorobutadiene	0.000		0	N.D.		
86) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
87) Naphthalene	0.000		0	N.D.	d	
88) 1,2,3-Trichlorobenzene	0.000		0	N.D.		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102417.D
Acq On : 24 Oct 2019 3:55 pm
Operator : MM
Sample : 9J24043-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:12 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	116102	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.909	117	307577	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	139681	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	111441	46.79	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	364447	54.80	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	406288	51.17	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	116090	51.67	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.			
3) Chloromethane	1.897	50	479	0.18	ug/L		91
4) Vinyl Chloride	2.001	62	158	0.07	ug/L	#	50
5) Bromomethane	2.372	96	279	0.15	ug/L	#	64
6) Chloroethane	2.506	64	114	0.09	ug/L	#	61
7) Trichlorofluoromethane	2.676	101	188	0.05	ug/L	#	27
8) Ethanol	3.236	45	213	4.59	ug/L	#	29
9) 1,1-Dichloroethene	3.236	61	133	0.05	ug/L	#	28
10) Carbon Disulfide	3.254	76	531	0.11	ug/L		78
11) Freon 113	0.000		0	N.D.			
12) Iodomethane	0.000		0	N.D.			
13) Acrolein	0.000		0	N.D.			
14) Methylene Chloride	3.875	84	2024	Below Cal			84
15) Acetone	3.948	43	877	0.88	ug/L	#	44
16) t-1,2-Dichloroethene	0.000		0	N.D.			
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.167	73	444	0.08	ug/L		63
19) tert-Butanol (TBA)	4.300	59	2472	6.89	ug/L		83
20) Diisopropyl ether (DIPE)	0.000		0	N.D.			
21) 1,1-Dichloroethane	4.690	63	147	0.04	ug/L	#	48
22) Acrylonitrile	0.000		0	N.D.			
23) Ethyl-tert-butyl ether...	0.000		0	N.D.			
24) Vinyl Acetate	0.000		0	N.D.			
25) c-1,2-Dichloroethene	0.000		0	N.D.			
26) 2,2-Dichloropropane	0.000		0	N.D.			
27) Bromochloromethane	0.000		0	N.D.			
28) Chloroform	0.000		0	N.D.			
29) Carbon Tetrachloride	0.000		0	N.D.			
30) Tetrahydrofuran	0.000		0	N.D.			
31) 1,1,1-Trichloroethane	0.000		0	N.D.			
33) 1,1-Dichloropropene	0.000		0	N.D.			
34) 2-Butanone (MEK)	5.882	43	122	0.08	ug/L		52
35) Benzene	6.132	78	917	0.12	ug/L		55
36) tert-Amyl methyl ether...	0.000		0	N.D.			
37) 1,2-Dichloroethane (EDC)	6.345	62	176	0.05	ug/L		54
38) iso-Butyl Alcohol	0.000		0	N.D.			
40) Trichloroethene (TCE)	0.000		0	N.D.			
41) Tert-Amyl-Ethyl-Ether ...	0.000		0	N.D.			
42) Dibromomethane	0.000		0	N.D.			
43) 1,2-Dichloropropane	0.000		0	N.D.			
44) Bromodichloromethane	0.000		0	N.D.			
46) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.			
47) c-1,3-Dichloropropene	0.000		0	N.D.			

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102417.D
Acq On : 24 Oct 2019 3:55 pm
Operator : MM
Sample : 9J24043-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:12 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

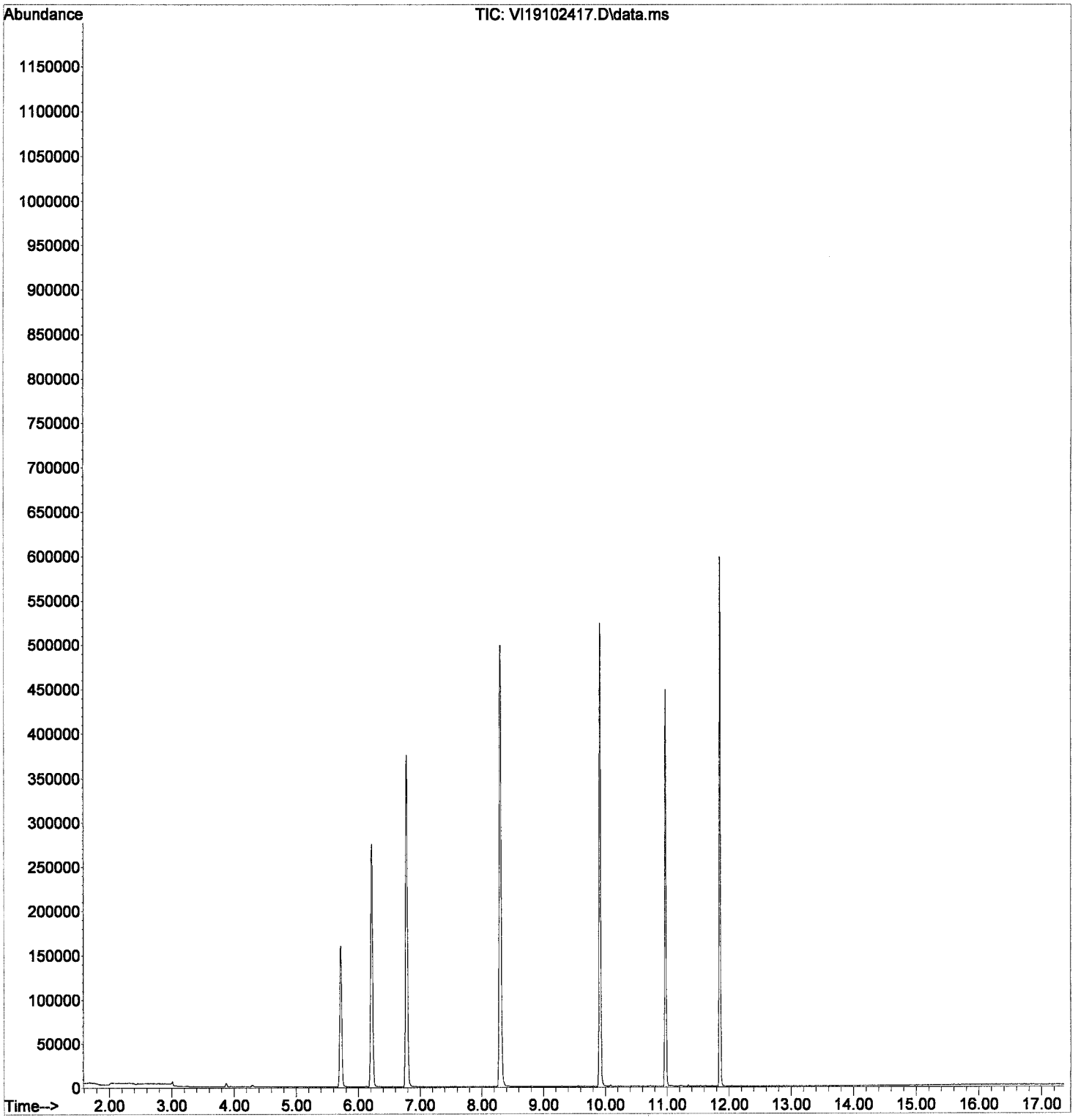
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	978	0.11	ug/L		85
50) Tetrachloroethene (PCE)	0.000		0	N.D.			
51) 4-Methyl-2-Pentanone (...	8.808	43	433	0.16	ug/L	#	43
52) t-1,3-Dichloropropene	0.000		0	N.D.			
53) 1,1,2-Trichloroethane	0.000		0	N.D.			
54) Dibromochloromethane	0.000		0	N.D.			
55) 1,3-Dichloropropane	9.289	76	204	0.06	ug/L	#	27
56) 1,2-Dibromoethane (EDB)	0.000		0	N.D.			
57) 2-Hexanone	0.000		0	N.D.			
58) Chlorobenzene	9.934	112	480	0.09	ug/L	#	35
59) Ethylbenzene	9.952	91	942	0.10	ug/L		91
60) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.			
61) m,p-Xylenes (2)	10.086	91	1368	0.27	ug/L		84
62) o-Xylene	10.469	91	585	0.15	ug/L		89
63) Styrene	10.524	104	329	0.22	ug/L	#	42
64) Bromoform	0.000		0	N.D.			
65) Isopropylbenzene	10.731	105	805	0.22	ug/L		54
68) Bromobenzene	11.059	156	124	0.06	ug/L	#	82
69) n-Propylbenzene	11.078	91	873	0.10	ug/L		58
70) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.			
71) 2-Chlorotoluene	0.000		0	N.D.			
72) 1,3,5-Trimethylbenzene	11.230	105	556	0.10	ug/L		92
73) 1,2,3-Trichloropropane	0.000		0	N.D.			
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.339	91	458	0.09	ug/L	#	45
76) tert-Butylbenzene	11.485	91	177	0.06	ug/L	#	74
77) 1,2,4-Trimethylbenzene	11.540	105	536	0.17	ug/L		80
78) sec-Butylbenzene	11.619	105	687	0.10	ug/L		59
79) 4-Isopropyltoluene	11.728	119	481	0.20	ug/L		68
80) 1,3-Dichlorobenzene	11.801	146	273	0.08	ug/L	#	76
81) 1,4-Dichlorobenzene	11.868	146	311	0.08	ug/L	#	41
82) n-Butylbenzene	12.045	91	379	0.08	ug/L		81
83) 1,2-Dichlorobenzene	12.185	146	241	0.07	ug/L	#	25
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	0.000		0	N.D.			
87) Naphthalene	13.633	128	452	0.48	ug/L		81
88) 1,2,3-Trichlorobenzene	0.000		0	N.D.			

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102417.D
Acq On : 24 Oct 2019 3:55 pm
Operator : MM
Sample : 9J24043-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCR
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:12 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102418.D
Acq On : 24 Oct 2019 4:21 pm
Operator : MM
Sample : 9J24043-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:19:21 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	114788	50.00	ug/L	0.00
45) Chlorobenzene-d5 (I)	9.916	117	302974	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	135021	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.718	111	110610	46.98	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	359462	54.66	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	403793	51.63	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	113180	52.11	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	d	
3) Chloromethane	1.904	50	669	0.25	ug/L	89
4) Vinyl Chloride	2.007	62	406	0.17	ug/L	91
5) Bromomethane	0.000		0	N.D.	d	
6) Chloroethane	0.000		0	N.D.	d	
7) Trichlorofluoromethane	0.000		0	N.D.	d	
8) Ethanol	0.000		0	N.D.	d	
9) 1,1-Dichloroethene	0.000		0	N.D.	d	
10) Carbon Disulfide	0.000		0	N.D.	d	
11) Freon 113	0.000		0	N.D.	d	
12) Iodomethane	0.000		0	N.D.		
13) Acrolein	0.000		0	N.D.		
14) Methylene Chloride	3.875	84	2201	Below Cal		87
15) Acetone	3.954	43	1168	1.18	ug/L	93
16) t-1,2-Dichloroethene	4.045	61	360	0.14	ug/L	74
17) n-Hexane	0.000		0	N.D.		
18) Methyl-tert-butyl-ether	0.000		0	N.D.	d	
19) tert-Butanol (TBA)	4.300	59	4690	13.22	ug/L	91
20) Diisopropyl ether (DIPE)	0.000		0	N.D.		
21) 1,1-Dichloroethane	0.000		0	N.D.	d	
22) Acrylonitrile	0.000		0	N.D.		
23) Ethyl-tert-butyl ether...	0.000		0	N.D.		
24) Vinyl Acetate	0.000		0	N.D.	d	
25) c-1,2-Dichloroethene	0.000		0	N.D.	d	
26) 2,2-Dichloropropane	0.000		0	N.D.	d	
27) Bromochloromethane	0.000		0	N.D.		
28) Chloroform	5.529	83	587	0.15	ug/L	74
29) Carbon Tetrachloride	0.000		0	N.D.	d	
30) Tetrahydrofuran	0.000		0	N.D.		
31) 1,1,1-Trichloroethane	0.000		0	N.D.	d	
33) 1,1-Dichloropropene	0.000		0	N.D.	d	
34) 2-Butanone (MEK)	0.000		0	N.D.	d	
35) Benzene	6.126	78	1584	0.20	ug/L	77
36) tert-Amyl methyl ether...	0.000		0	N.D.		
37) 1,2-Dichloroethane (EDC)	0.000		0	N.D.	d	
38) iso-Butyl Alcohol	0.000		0	N.D.	d	
40) Trichloroethene (TCE)	6.752	130	372	0.19	ug/L #	75
41) Tert-Amyl-Ethyl-Ether ...	0.000		0	N.D.		
42) Dibromomethane	0.000		0	N.D.	d	
43) 1,2-Dichloropropane	0.000		0	N.D.	d	
44) Bromodichloromethane	0.000		0	N.D.	d	
46) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.		
47) c-1,3-Dichloropropene	0.000		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102418.D
Acq On : 24 Oct 2019 4:21 pm
Operator : MM
Sample : 9J24043-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:19:21 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.352	91	1744	0.21	ug/L		93
50) Tetrachloroethene (PCE)	8.808	166	267	0.14	ug/L	#	25
51) 4-Methyl-2-Pentanone (...	8.796	43	890	0.33	ug/L		85
52) t-1,3-Dichloropropene	0.000		0	N.D.	d		
53) 1,1,2-Trichloroethane	9.009	97	288	0.14	ug/L	#	10
54) Dibromochloromethane	0.000		0	N.D.			
55) 1,3-Dichloropropane	9.289	76	568	0.17	ug/L		84
56) 1,2-Dibromoethane (EDB)	9.423	107	279	0.13	ug/L		84
57) 2-Hexanone	0.000		0	N.D.	d		
58) Chlorobenzene	9.928	112	1045	0.19	ug/L	#	25
59) Ethylbenzene	9.952	91	1835	0.21	ug/L		93
60) 1,1,1,2-Tetrachloroethane	9.989	131	129	0.07	ug/L	#	74
61) m,p-Xylenes (2)	10.086	91	2470	0.45	ug/L		93
62) o-Xylene	10.469	91	1221	0.26	ug/L		90
63) Styrene	10.518	104	754	0.31	ug/L		82
64) Bromoform	0.000		0	N.D.			
65) Isopropylbenzene	10.737	105	1347	0.29	ug/L		86
68) Bromobenzene	11.059	156	432	0.22	ug/L		89
69) n-Propylbenzene	11.078	91	1649	0.19	ug/L		94
70) 1,1,2,2-Tetrachloroethane	11.138	85	305	0.17	ug/L	#	75
71) 2-Chlorotoluene	0.000		0	N.D.	d		
72) 1,3,5-Trimethylbenzene	11.230	105	1127	0.20	ug/L		79
73) 1,2,3-Trichloropropane	0.000		0	N.D.			
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.339	91	1020	0.20	ug/L		80
76) tert-Butylbenzene	11.485	91	602	0.19	ug/L	#	77
77) 1,2,4-Trimethylbenzene	11.540	105	1066	0.27	ug/L		83
78) sec-Butylbenzene	11.619	105	1301	0.19	ug/L		81
79) 4-Isopropyltoluene	11.722	119	919	0.29	ug/L		98
80) 1,3-Dichlorobenzene	11.802	146	629	0.18	ug/L		91
81) 1,4-Dichlorobenzene	11.862	146	725	0.19	ug/L	#	31
82) n-Butylbenzene	12.045	91	805	0.17	ug/L		79
83) 1,2-Dichlorobenzene	12.185	146	624	0.19	ug/L		90
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	13.347	180	244	0.16	ug/L		66
87) Naphthalene	13.627	128	924	0.58	ug/L		81
88) 1,2,3-Trichlorobenzene	13.791	180	261	0.17	ug/L		76

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102418.D
Acq On : 24 Oct 2019 4:21 pm
Operator : MM
Sample : 9J24043-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:16 2019
Quant Method : C:\msdchem\1\methods\VI~~191025W~~.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	114788	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.916	117	302974	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	135021	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.718	111	110610	46.98	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	359462	54.66	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	403793	51.63	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	113180	52.11	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	202	0.09	ug/L	#	49
3) Chloromethane	1.904	50	669	0.25	ug/L		89
4) Vinyl Chloride	2.007	62	406	0.17	ug/L		91
5) Bromomethane	2.366	96	403	0.22	ug/L	#	8
6) Chloroethane	2.512	64	534	0.44	ug/L	#	62
7) Trichlorofluoromethane	2.670	101	442	0.12	ug/L	#	76
8) Ethanol	3.242	45	573	12.50	ug/L	#	29
9) 1,1-Dichloroethene	3.236	61	354	0.12	ug/L	#	62
10) Carbon Disulfide	3.260	76	912	0.19	ug/L		78
11) Freon 113	3.297	101	119	0.06	ug/L	#	19
12) Iodomethane	0.000		0	N.D.			
13) Acrolein	0.000		0	N.D.			
14) Methylene Chloride	3.875	84	2201	Below Cal			87
15) Acetone	3.954	43	1168	1.18	ug/L		93
16) t-1,2-Dichloroethene	4.045	61	360	0.14	ug/L		74
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.167	73	1035	0.18	ug/L		63
19) tert-Butanol (TBA)	4.300	59	4690	13.22	ug/L		91
20) Diisopropyl ether (DIPE)	0.000		0	N.D.			
21) 1,1-Dichloroethane	4.690	63	650	0.18	ug/L	#	48
22) Acrylonitrile	0.000		0	N.D.			
23) Ethyl-tert-butyl ether...	0.000		0	N.D.			
24) Vinyl Acetate	4.982	43	476	0.11	ug/L		74
25) c-1,2-Dichloroethene	5.243	61	345	0.12	ug/L	#	70
26) 2,2-Dichloropropane	5.359	77	299	0.12	ug/L	#	30
27) Bromochloromethane	0.000		0	N.D.			
28) Chloroform	5.529	83	587	0.15	ug/L		74
29) Carbon Tetrachloride	5.675	117	123	0.05	ug/L	#	14
30) Tetrahydrofuran	0.000		0	N.D.			
31) 1,1,1-Trichloroethane	5.730	97	415	0.13	ug/L	#	25
33) 1,1-Dichloropropene	5.864	75	388	0.15	ug/L	#	43
34) 2-Butanone (MEK)	5.876	43	395	0.26	ug/L		52
35) Benzene	6.126	78	1584	0.20	ug/L		77
36) tert-Amyl methyl ether...	0.000		0	N.D.			
37) 1,2-Dichloroethane (EDC)	6.351	62	371	0.12	ug/L		54
38) iso-Butyl Alcohol	6.387	43	468	3.43	ug/L		89
40) Trichloroethene (TCE)	6.752	130	372	0.19	ug/L	#	75
41) Tert-Amyl-Ethyl-Ether ...	0.000		0	N.D.			
42) Dibromomethane	7.196	93	115	0.08	ug/L	#	2
43) 1,2-Dichloropropane	7.312	63	259	0.12	ug/L	#	35
44) Bromodichloromethane	7.379	83	222	0.08	ug/L	#	27
46) 2-Chloroethyl Vinyl Ether	0.000		0	N.D.			
47) c-1,3-Dichloropropene	8.097	75	326	0.11	ug/L	#	31

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102418.D
Acq On : 24 Oct 2019 4:21 pm
Operator : MM
Sample : 9J24043-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:16 2019
Quant Method : C:\msdchem\1\methods\~~VI191025W~~.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

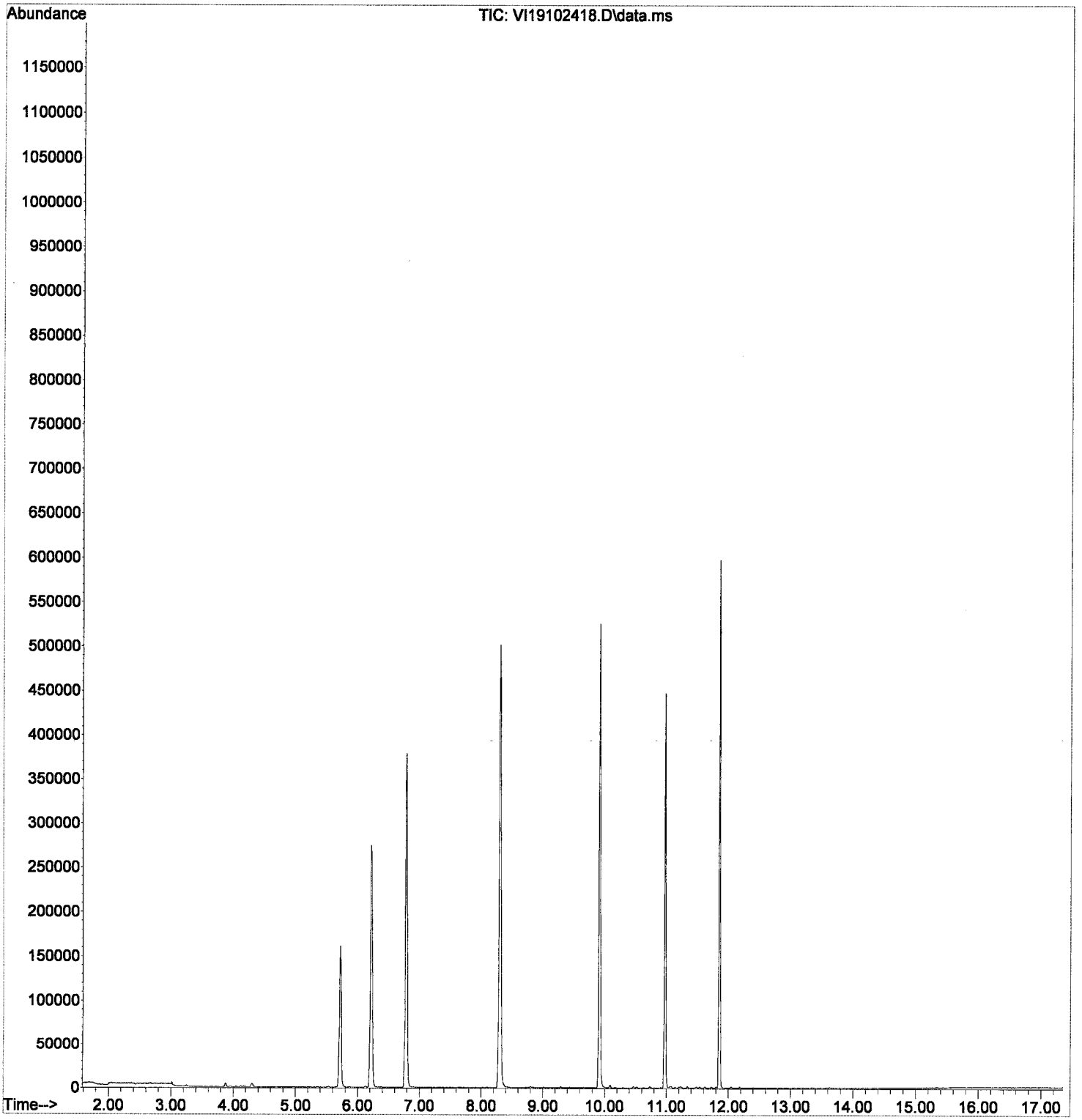
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.352	91	1744	0.21	ug/L		93
50) Tetrachloroethene (PCE)	8.808	166	267	0.14	ug/L	#	25
51) 4-Methyl-2-Pentanone (...	8.796	43	890	0.33	ug/L		85
52) t-1,3-Dichloropropene	8.839	75	300	0.11	ug/L	#	45
53) 1,1,2-Trichloroethane	9.009	97	288	0.14	ug/L	#	10
54) Dibromochloromethane	0.000		0	N.D.			
55) 1,3-Dichloropropane	9.289	76	568	0.17	ug/L		84
56) 1,2-Dibromoethane (EDB)	9.423	107	279	0.13	ug/L		84
57) 2-Hexanone	9.666	43	516	0.27	ug/L	#	35
58) Chlorobenzene	9.928	112	1045	0.19	ug/L	#	25
59) Ethylbenzene	9.952	91	1835	0.21	ug/L		93
60) 1,1,1,2-Tetrachloroethane	9.989	131	129	0.07	ug/L	#	74
61) m,p-Xylenes (2)	10.086	91	2470	0.45	ug/L		93
62) o-Xylene	10.469	91	1221	0.26	ug/L		90
63) Styrene	10.518	104	754	0.31	ug/L		82
64) Bromoform	0.000		0	N.D.			
65) Isopropylbenzene	10.737	105	1347	0.29	ug/L		86
68) Bromobenzene	11.059	156	432	0.22	ug/L		89
69) n-Propylbenzene	11.078	91	1649	0.19	ug/L		94
70) 1,1,2,2-Tetrachloroethane	11.138	85	305	0.17	ug/L	#	75
71) 2-Chlorotoluene	11.211	126	229	0.14	ug/L	#	88
72) 1,3,5-Trimethylbenzene	11.230	105	1127	0.20	ug/L		79
73) 1,2,3-Trichloropropane	0.000		0	N.D.			
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.339	91	1020	0.20	ug/L		80
76) tert-Butylbenzene	11.485	91	602	0.19	ug/L	#	77
77) 1,2,4-Trimethylbenzene	11.540	105	1066	0.27	ug/L		83
78) sec-Butylbenzene	11.619	105	1301	0.19	ug/L		81
79) 4-Isopropyltoluene	11.722	119	919	0.29	ug/L		98
80) 1,3-Dichlorobenzene	11.802	146	629	0.18	ug/L		91
81) 1,4-Dichlorobenzene	11.862	146	725	0.19	ug/L	#	31
82) n-Butylbenzene	12.045	91	805	0.17	ug/L		79
83) 1,2-Dichlorobenzene	12.185	146	624	0.19	ug/L		90
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	13.347	180	244	0.16	ug/L		66
87) Naphthalene	13.627	128	924	0.58	ug/L		81
88) 1,2,3-Trichlorobenzene	13.791	180	261	0.17	ug/L		76

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102418.D
Acq On : 24 Oct 2019 4:21 pm
Operator : MM
Sample : 9J24043-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCR
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:16 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102419.D
Acq On : 24 Oct 2019 4:48 pm
Operator : MM
Sample : 9J24043-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:21:58 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	111985	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	294372	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	134501	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	108083	47.05	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.777	114	352302	54.92	ug/L		-0.01
48) Toluene-d8 (S)	8.297	98	396027	52.12	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	112304	51.91	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.672	85	562	0.26	ug/L		90
3) Chloromethane	1.891	50	1136	0.44	ug/L		91
4) Vinyl Chloride	1.995	62	967	0.42	ug/L		83
5) Bromomethane	2.360	96	839	0.47	ug/L		69
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	2.664	101	958	0.26	ug/L		86
8) Ethanol	3.230	45	1315	29.40	ug/L		96
9) 1,1-Dichloroethene	3.230	61	1038	0.37	ug/L		87
10) Carbon Disulfide	0.000		0	N.D.	d		
11) Freon 113	0.000		0	N.D.	d		
12) Iodomethane	0.000		0	N.D.			
13) Acrolein	0.000		0	N.D.			
14) Methylene Chloride	3.869	84	2646	Below Cal			89
15) Acetone	3.948	43	1616	1.67	ug/L		96
16) t-1,2-Dichloroethene	4.039	61	963	0.38	ug/L		98
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.167	73	2309	0.41	ug/L		94
19) tert-Butanol (TBA)	4.294	59	10086	29.13	ug/L		91
20) Diisopropyl ether (DIPE)	4.562	45	638	0.11	ug/L		76
21) 1,1-Dichloroethane	4.684	63	1323	0.37	ug/L		87
22) Acrylonitrile	0.000		0	N.D.	d		
23) Ethyl-tert-butyl ether...	0.000		0	N.D.	d		
24) Vinyl Acetate	0.000		0	N.D.	d		
25) c-1,2-Dichloroethene	5.244	61	1008	0.36	ug/L		91
26) 2,2-Dichloropropane	5.347	77	853	0.34	ug/L		76
27) Bromochloromethane	5.444	130	391	0.28	ug/L		94
28) Chloroform	5.529	83	1292	0.34	ug/L		95
29) Carbon Tetrachloride	5.651	117	618	0.24	ug/L		90
30) Tetrahydrofuran	0.000		0	N.D.	d		
31) 1,1,1-Trichloroethane	5.730	97	1012	0.32	ug/L		93
33) 1,1-Dichloropropene	5.870	75	1049	0.41	ug/L	#	43
34) 2-Butanone (MEK)	0.000		0	N.D.	d		
35) Benzene	6.120	78	3381	0.44	ug/L		99
36) tert-Amyl methyl ether...	6.247	73	580	0.11	ug/L	#	21
37) 1,2-Dichloroethane (EDC)	6.332	62	1073	0.34	ug/L		54
38) iso-Butyl Alcohol	6.387	43	1172	8.80	ug/L		84
40) Trichloroethene (TCE)	6.746	130	718	0.37	ug/L		74
41) Tert-Amyl-Ethyl-Ether ...	0.000		0	N.D.			
42) Dibromomethane	7.202	93	378	0.27	ug/L		86
43) 1,2-Dichloropropane	7.312	63	797	0.38	ug/L		95
44) Bromodichloromethane	7.379	83	800	0.29	ug/L		93
46) 2-Chloroethyl Vinyl Ether	8.036	63	359	1.00	ug/L	#	100
47) c-1,3-Dichloropropene	8.091	75	1014	0.36	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102419.D
Acq On : 24 Oct 2019 4:48 pm
Operator : MM
Sample : 9J24043-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:21:58 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	3505	0.43	ug/L		93
50) Tetrachloroethene (PCE)	8.796	166	787	0.42	ug/L		94
51) 4-Methyl-2-Pentanone (...	8.808	43	1912	0.73	ug/L		91
52) t-1,3-Dichloropropene	8.839	75	610	0.22	ug/L	#	45
53) 1,1,2-Trichloroethane	9.003	97	717	0.36	ug/L		82
54) Dibromochloromethane	9.186	129	505	0.24	ug/L		86
55) 1,3-Dichloropropane	9.289	76	1253	0.38	ug/L		95
56) 1,2-Dibromoethane (EDB)	9.423	107	615	0.30	ug/L		96
57) 2-Hexanone	9.660	43	1346	0.71	ug/L		91
58) Chlorobenzene	9.928	112	2226	0.43	ug/L	#	64
59) Ethylbenzene	9.952	91	3584	0.42	ug/L		99
60) 1,1,1,2-Tetrachloroethane	9.989	131	470	0.26	ug/L	#	66
61) m,p-Xylenes (2)	10.086	91	5197	0.91	ug/L		96
62) o-Xylene	10.469	91	2605	0.49	ug/L		93
63) Styrene	10.518	104	1656	0.51	ug/L		93
64) Bromoform	0.000		0	N.D.	d		
65) Isopropylbenzene	10.731	105	3067	0.54	ug/L		92
68) Bromobenzene	11.059	156	875	0.45	ug/L		92
69) n-Propylbenzene	11.078	91	3544	0.42	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.139	85	671	0.38	ug/L		87
71) 2-Chlorotoluene	11.205	126	719	0.43	ug/L		98
72) 1,3,5-Trimethylbenzene	11.230	105	2289	0.41	ug/L		92
73) 1,2,3-Trichloropropane	11.248	110	271	0.32	ug/L		91
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.339	91	2178	0.44	ug/L		99
76) tert-Butylbenzene	11.485	91	1248	0.40	ug/L		99
77) 1,2,4-Trimethylbenzene	11.540	105	2387	0.51	ug/L		98
78) sec-Butylbenzene	11.619	105	2990	0.44	ug/L		97
79) 4-Isopropyltoluene	11.729	119	2236	0.56	ug/L		92
80) 1,3-Dichlorobenzene	11.802	146	1412	0.41	ug/L		95
81) 1,4-Dichlorobenzene	11.862	146	1564	0.42	ug/L	#	54
82) n-Butylbenzene	12.045	91	1867	0.40	ug/L		85
83) 1,2-Dichlorobenzene	12.185	146	1284	0.39	ug/L		95
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	13.347	180	615	0.40	ug/L		89
87) Naphthalene	13.633	128	2009	0.81	ug/L		81
88) 1,2,3-Trichlorobenzene	13.779	180	687	0.45	ug/L		72

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102419.D
Acq On : 24 Oct 2019 4:48 pm
Operator : MM
Sample : 9J24043-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:19 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	111985	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	294372	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	134501	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	108083	47.05	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.777	114	352302	54.92	ug/L		-0.01
48) Toluene-d8 (S)	8.297	98	396027	52.12	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	112304	51.91	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.672	85	562	0.26	ug/L		90
3) Chloromethane	1.891	50	1136	0.44	ug/L		91
4) Vinyl Chloride	1.995	62	967	0.42	ug/L		83
5) Bromomethane	2.360	96	839	0.47	ug/L		69
6) Chloroethane	2.512	64	672	0.57	ug/L	#	66
7) Trichlorofluoromethane	2.664	101	958	0.26	ug/L		86
8) Ethanol	3.230	45	1315	29.40	ug/L		96
9) 1,1-Dichloroethene	3.230	61	1038	0.37	ug/L		87
10) Carbon Disulfide	3.242	76	1798	0.39	ug/L		78
11) Freon 113	3.285	101	569	0.31	ug/L	#	63
12) Iodomethane	0.000		0	N.D.			
13) Acrolein	0.000		0	N.D.			
14) Methylene Chloride	3.869	84	2646	Below Cal			89
15) Acetone	3.948	43	1616	1.67	ug/L		96
16) t-1,2-Dichloroethene	4.039	61	963	0.38	ug/L		98
17) n-Hexane	0.000		0	N.D.			
18) Methyl-tert-butyl-ether	4.167	73	2309	0.41	ug/L		94
19) tert-Butanol (TBA)	4.294	59	10086	29.13	ug/L		91
20) Diisopropyl ether (DIPE)	4.562	45	638	0.11	ug/L		76
21) 1,1-Dichloroethane	4.684	63	1323	0.37	ug/L		87
22) Acrylonitrile	4.751	53	129	0.12	ug/L	#	15
23) Ethyl-tert-butyl ether...	4.945	59	438	0.09	ug/L	#	38
24) Vinyl Acetate	4.964	43	1231	0.29	ug/L		74
25) c-1,2-Dichloroethene	5.244	61	1008	0.36	ug/L		91
26) 2,2-Dichloropropane	5.347	77	853	0.34	ug/L		76
27) Bromochloromethane	5.444	130	391	0.28	ug/L		94
28) Chloroform	5.529	83	1292	0.34	ug/L		95
29) Carbon Tetrachloride	5.651	117	618	0.24	ug/L		90
30) Tetrahydrofuran	5.712	42	281	0.30	ug/L	#	62
31) 1,1,1-Trichloroethane	5.730	97	1012	0.32	ug/L		93
33) 1,1-Dichloropropene	5.870	75	1049	0.41	ug/L	#	43
34) 2-Butanone (MEK)	5.864	43	1016	0.69	ug/L		52
35) Benzene	6.120	78	3381	0.44	ug/L		99
36) tert-Amyl methyl ether...	6.247	73	580	0.11	ug/L	#	21
37) 1,2-Dichloroethane (EDC)	6.332	62	1073	0.34	ug/L		54
38) iso-Butyl Alcohol	6.387	43	1172	8.80	ug/L		84
40) Trichloroethene (TCE)	6.746	130	718	0.37	ug/L		74
41) Tert-Amyl-Ethyl-Ether ...	0.000		0	N.D.			
42) Dibromomethane	7.202	93	378	0.27	ug/L		86
43) 1,2-Dichloropropane	7.312	63	797	0.38	ug/L		95
44) Bromodichloromethane	7.379	83	800	0.29	ug/L		93
46) 2-Chloroethyl Vinyl Ether	8.036	63	359	1.00	ug/L	#	100
47) c-1,3-Dichloropropene	8.091	75	1014	0.36	ug/L		89

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102419.D
Acq On : 24 Oct 2019 4:48 pm
Operator : MM
Sample : 9J24043-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:19 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

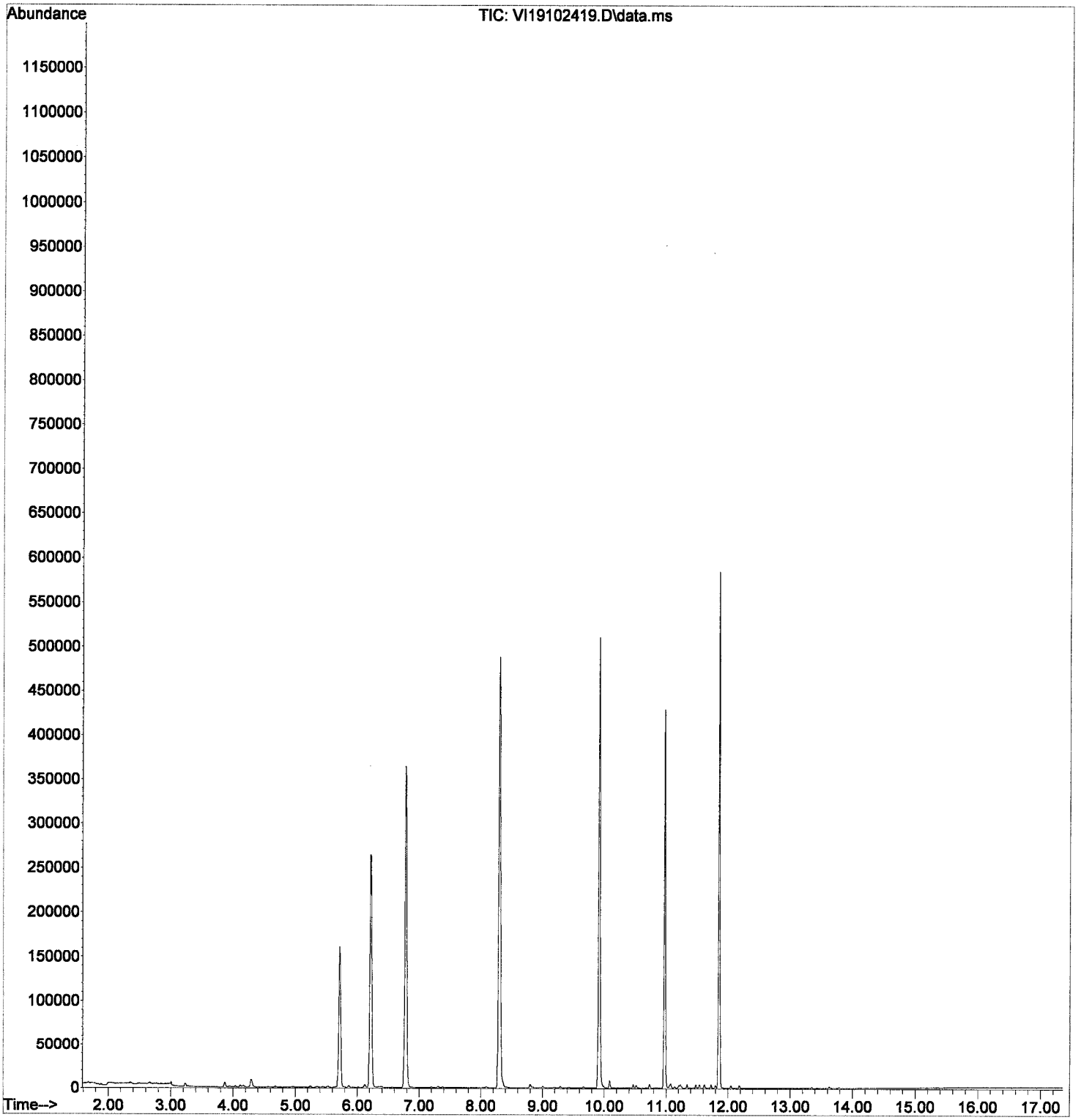
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	3505	0.43	ug/L		93
50) Tetrachloroethene (PCE)	8.796	166	787	0.42	ug/L		94
51) 4-Methyl-2-Pentanone (...	8.808	43	1912	0.73	ug/L		91
52) t-1,3-Dichloropropene	8.839	75	610	0.22	ug/L	#	45
53) 1,1,2-Trichloroethane	9.003	97	717	0.36	ug/L		82
54) Dibromochloromethane	9.186	129	505	0.24	ug/L		86
55) 1,3-Dichloropropane	9.289	76	1253	0.38	ug/L		95
56) 1,2-Dibromoethane (EDB)	9.423	107	615	0.30	ug/L		96
57) 2-Hexanone	9.660	43	1346	0.71	ug/L		91
58) Chlorobenzene	9.928	112	2226	0.43	ug/L	#	64
59) Ethylbenzene	9.952	91	3584	0.42	ug/L		99
60) 1,1,1,2-Tetrachloroethane	9.989	131	470	0.26	ug/L	#	66
61) m,p-Xylenes (2)	10.086	91	5197	0.91	ug/L		96
62) o-Xylene	10.469	91	2605	0.49	ug/L		93
63) Styrene	10.518	104	1656	0.51	ug/L		93
64) Bromoform	10.542	173	215	0.15	ug/L	#	36
65) Isopropylbenzene	10.731	105	3067	0.54	ug/L		92
68) Bromobenzene	11.059	156	875	0.45	ug/L		92
69) n-Propylbenzene	11.078	91	3544	0.42	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.139	85	671	0.38	ug/L		87
71) 2-Chlorotoluene	11.205	126	719	0.43	ug/L		98
72) 1,3,5-Trimethylbenzene	11.230	105	2289	0.41	ug/L		92
73) 1,2,3-Trichloropropane	11.248	110	271	0.32	ug/L		91
74) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
75) 4-Chlorotoluene	11.339	91	2178	0.44	ug/L		99
76) tert-Butylbenzene	11.485	91	1248	0.40	ug/L		99
77) 1,2,4-Trimethylbenzene	11.540	105	2387	0.51	ug/L		98
78) sec-Butylbenzene	11.619	105	2990	0.44	ug/L		97
79) 4-Isopropyltoluene	11.729	119	2236	0.56	ug/L		92
80) 1,3-Dichlorobenzene	11.802	146	1412	0.41	ug/L		95
81) 1,4-Dichlorobenzene	11.862	146	1564	0.42	ug/L	#	54
82) n-Butylbenzene	12.045	91	1867	0.40	ug/L		85
83) 1,2-Dichlorobenzene	12.185	146	1284	0.39	ug/L		95
84) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
85) Hexachlorobutadiene	0.000		0	N.D.			
86) 1,2,4-Trichlorobenzene	13.347	180	615	0.40	ug/L		89
87) Naphthalene	13.633	128	2009	0.81	ug/L		81
88) 1,2,3-Trichlorobenzene	13.779	180	687	0.45	ug/L		72

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102419.D
Acq On : 24 Oct 2019 4:48 pm
Operator : MM
Sample : 9J24043-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCR
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:19 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102420.D
Acq On : 24 Oct 2019 5:15 pm
Operator : MM
Sample : 9J24043-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:23 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	116043	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	310797	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	143979	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	111608	46.89	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	366642	55.15	ug/L		0.00
48) Toluene-d8 (S)	8.298	98	410518	51.17	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	118563	51.20	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.679	85	1583	0.69	ug/L		98
3) Chloromethane	1.892	50	2407	0.90	ug/L		90
4) Vinyl Chloride	1.995	62	2351	0.98	ug/L		95
5) Bromomethane	2.360	96	1763	0.95	ug/L	#	71
6) Chloroethane	2.500	64	2425	1.99	ug/L		75
7) Trichlorofluoromethane	2.664	101	2784	0.73	ug/L		90
8) Ethanol	3.236	45	3446	74.35	ug/L		88
9) 1,1-Dichloroethene	3.230	61	2476	0.85	ug/L		86
10) Carbon Disulfide	3.248	76	4573	0.95	ug/L		96
11) Freon 113	3.285	101	1717	0.90	ug/L		98
12) Iodomethane	0.000		0	N.D.			
13) Acrolein	3.625	56	420	1.01	ug/L		60
14) Methylene Chloride	3.869	84	3939	Below Cal			91
15) Acetone	3.948	43	2940	2.94	ug/L		92
16) t-1,2-Dichloroethene	4.039	61	2657	1.01	ug/L		94
17) n-Hexane	4.124	86	357	1.11	ug/L	#	60
18) Methyl-tert-butyl-ether	4.167	73	5789	1.00	ug/L		81
19) tert-Butanol (TBA)	4.295	59	25977	72.41	ug/L		88
20) Diisopropyl ether (DIPE)	4.562	45	1604	0.27	ug/L		98
21) 1,1-Dichloroethane	4.684	63	3672	0.99	ug/L		94
22) Acrylonitrile	4.751	53	876	0.80	ug/L		79
23) Ethyl-tert-butyl ether...	4.939	59	1449	0.28	ug/L		83
24) Vinyl Acetate	4.964	43	3620	0.82	ug/L		88
25) c-1,2-Dichloroethene	5.244	61	2744	0.95	ug/L		83
26) 2,2-Dichloropropane	5.353	77	2316	0.90	ug/L		92
27) Bromochloromethane	5.450	130	1188	0.83	ug/L		88
28) Chloroform	5.530	83	3341	0.84	ug/L		98
29) Carbon Tetrachloride	5.663	117	1791	0.66	ug/L		91
30) Tetrahydrofuran	5.706	42	945	0.99	ug/L		87
31) 1,1,1-Trichloroethane	5.730	97	2903	0.89	ug/L		93
33) 1,1-Dichloropropene	5.864	75	2749	1.05	ug/L		93
34) 2-Butanone (MEK)	5.858	43	2900	1.90	ug/L		90
35) Benzene	6.126	78	8314	1.05	ug/L		96
36) tert-Amyl methyl ether...	6.247	73	1462	0.28	ug/L		60
37) 1,2-Dichloroethane (EDC)	6.339	62	2623	0.81	ug/L		91
38) iso-Butyl Alcohol	6.375	43	3120	22.60	ug/L		86
40) Trichloroethene (TCE)	6.740	130	2166	1.08	ug/L		94
41) Tert-Amyl-Ethyl-Ether ...	6.996	59	950	0.29	ug/L		74
42) Dibromomethane	7.196	93	1285	0.90	ug/L		96
43) 1,2-Dichloropropane	7.306	63	1944	0.91	ug/L		93
44) Bromodichloromethane	7.379	83	2259	0.78	ug/L		96
46) 2-Chloroethyl Vinyl Ether	8.030	63	1378	1.78	ug/L	#	100
47) c-1,3-Dichloropropene	8.091	75	2667	0.91	ug/L		93

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102420.D
Acq On : 24 Oct 2019 5:15 pm
Operator : MM
Sample : 9J24043-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:23 2019
Quant Method : C:\msdchem\1\methods\VI~~191025W~~.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

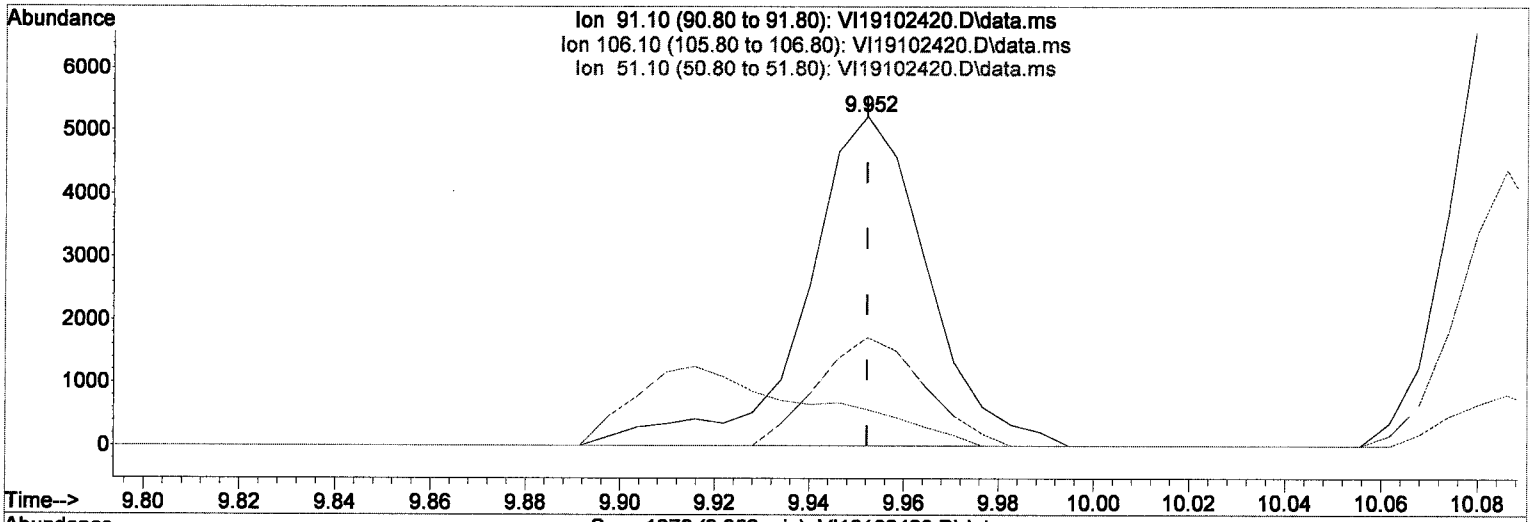
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.352	91	9040	1.04	ug/L		99
50) Tetrachloroethene (PCE)	8.796	166	1994	1.00	ug/L		91
51) 4-Methyl-2-Pentanone (...	8.802	43	5042	1.83	ug/L		93
52) t-1,3-Dichloropropene	8.839	75	2122	0.72	ug/L		95
53) 1,1,2-Trichloroethane	9.003	97	1944	0.93	ug/L		92
54) Dibromochloromethane	9.186	129	1349	0.61	ug/L		88
55) 1,3-Dichloropropane	9.289	76	3361	0.96	ug/L		93
56) 1,2-Dibromoethane (EDB)	9.423	107	1928	0.90	ug/L		93
57) 2-Hexanone	9.660	43	3526	1.77	ug/L		99
58) Chlorobenzene	9.928	112	5770	1.05	ug/L		93
59) Ethylbenzene	9.952	91	~~9335~~ 8761	1.03	ug/L		97
60) 1,1,1,2-Tetrachloroethane	9.989	131	1476	0.77	ug/L		91
61) m,p-Xylenes (2)	10.086	91	12789	2.05	ug/L		99
62) o-Xylene	10.463	91	6630	1.11	ug/L		97
63) Styrene	10.518	104	4878	1.15	ug/L		95
64) Bromoform	10.536	173	795	0.51	ug/L		91
65) Isopropylbenzene	10.731	105	7662	1.14	ug/L		98
68) Bromobenzene	11.059	156	2220	1.07	ug/L		88
69) n-Propylbenzene	11.078	91	9160	1.02	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.139	85	1876	1.00	ug/L		85
71) 2-Chlorotoluene	11.205	126	1910	1.07	ug/L		98
72) 1,3,5-Trimethylbenzene	11.230	105	6197	1.03	ug/L		90
73) 1,2,3-Trichloropropane	11.248	110	887	0.97	ug/L		97
74) t-1,4-Dichloro-2-butene	11.285	53	531	0.74	ug/L	#	41
75) 4-Chlorotoluene	11.339	91	5461	1.02	ug/L		98
76) tert-Butylbenzene	11.485	91	3551	1.07	ug/L		94
77) 1,2,4-Trimethylbenzene	11.534	105	6319	1.16	ug/L		93
78) sec-Butylbenzene	11.619	105	7450	1.03	ug/L		98
79) 4-Isopropyltoluene	11.729	119	6086	1.25	ug/L		98
80) 1,3-Dichlorobenzene	11.796	146	3650	1.00	ug/L		96
81) 1,4-Dichlorobenzene	11.863	146	4177	1.04	ug/L		86
82) n-Butylbenzene	12.045	91	4997	1.00	ug/L		93
83) 1,2-Dichlorobenzene	12.185	146	3650	1.04	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	12.799	157	447	0.82	ug/L	#	69
85) Hexachlorobutadiene	13.310	223	443	0.91	ug/L		96
86) 1,2,4-Trichlorobenzene	13.347	180	1833	1.10	ug/L		94
87) Naphthalene	13.627	128	5345	1.42	ug/L		98
88) 1,2,3-Trichlorobenzene	13.785	180	1879	1.15	ug/L		89

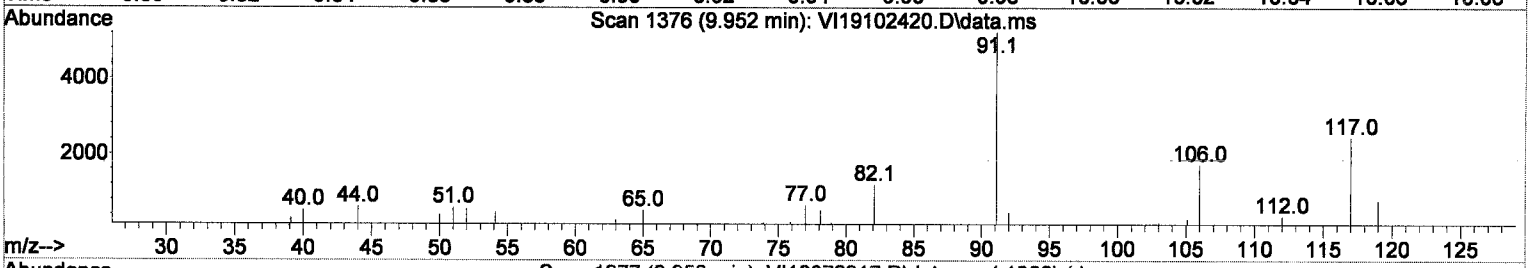
(#) = qualifier out of range (m) = manual integration (+) = signals summed

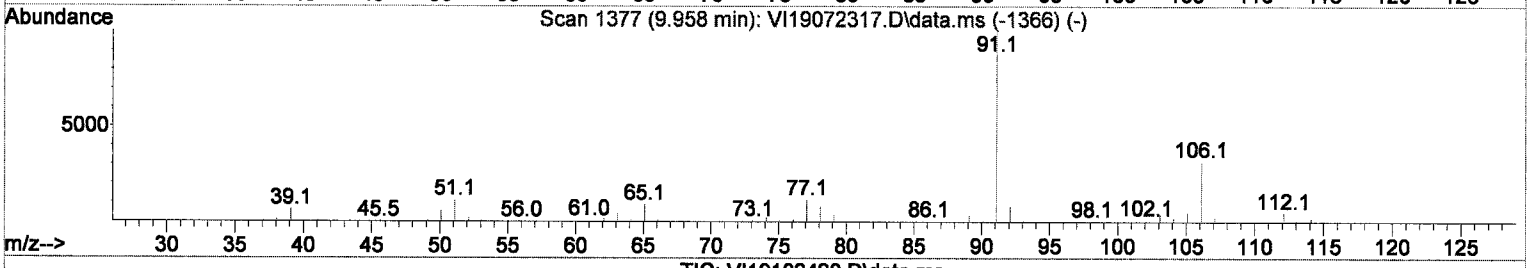
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102420.D
Acq On : 24 Oct 2019 5:15 pm
Operator : MM
Sample : 9J24043-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:23 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration







TIC: VI19102420.D\data.ms

(59) Ethylbenzene (C)

9.952min (+ 0.000) 1.03 ug/L

response 9335

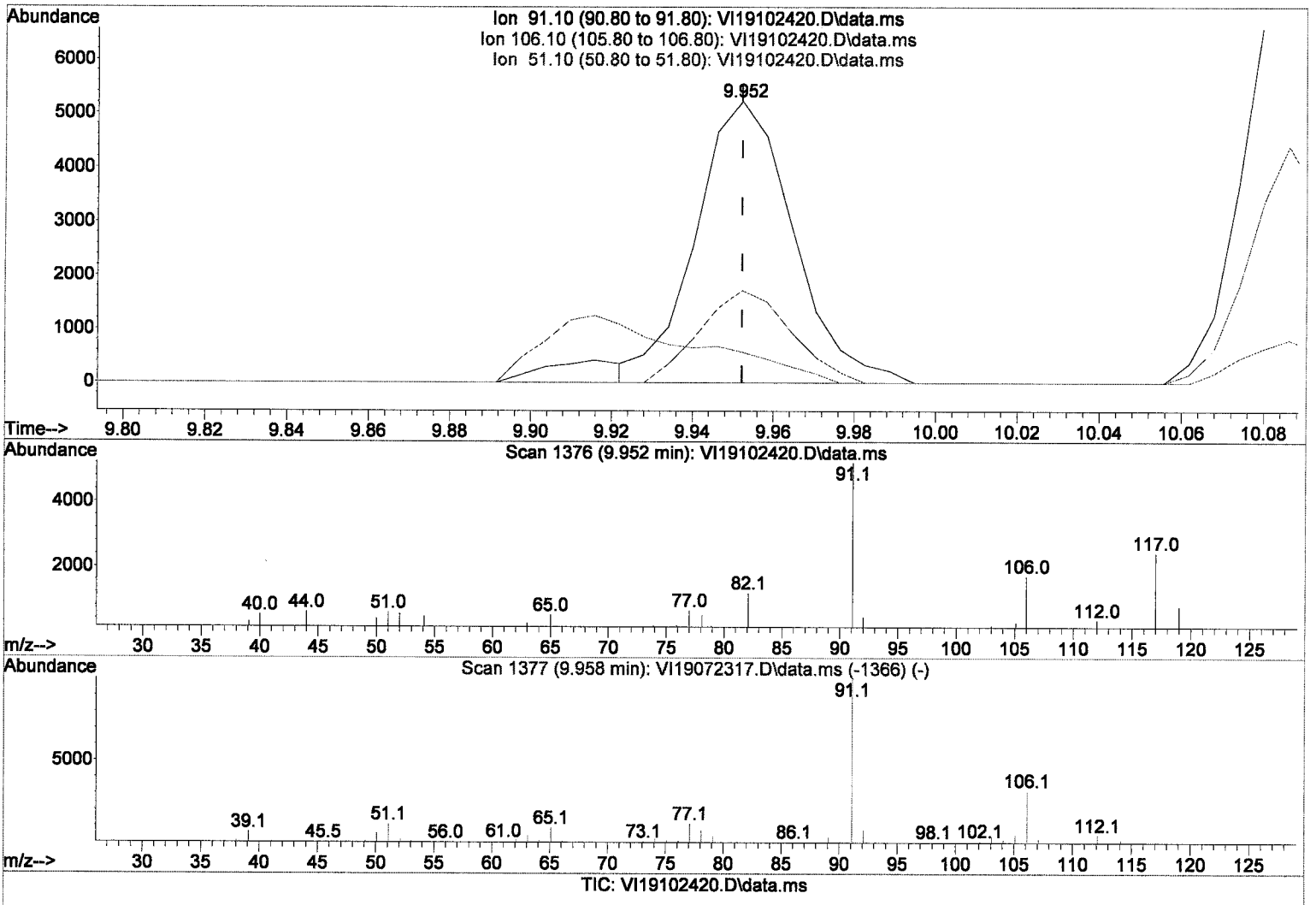
Ion	Exp%	Act%
91.10	100.00	100.00
106.10	30.80	32.98
51.10	10.40	11.11
0.00	0.00	0.00

M.2

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102420.D
Acq On : 24 Oct 2019 5:15 pm
Operator : MM
Sample : 9J24043-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:23 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



TIC: VI19102420.D\data.ms

(59) Ethylbenzene (C)

9.952min (+ 0.000) 0.96 ug/L m

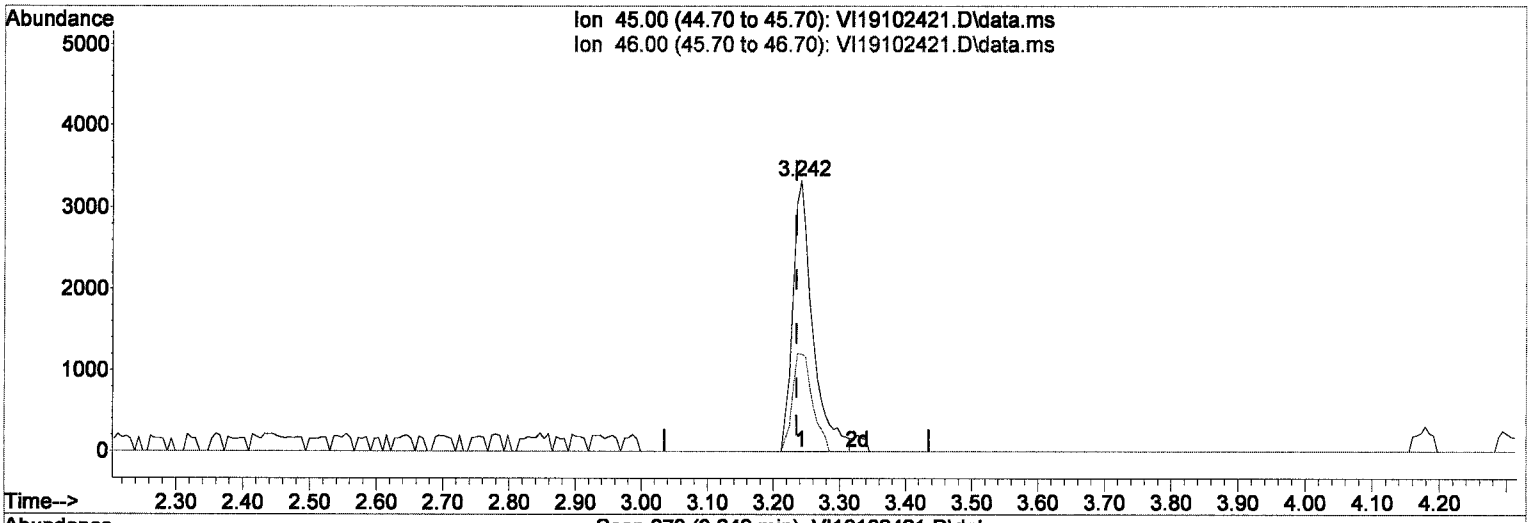
response 8761

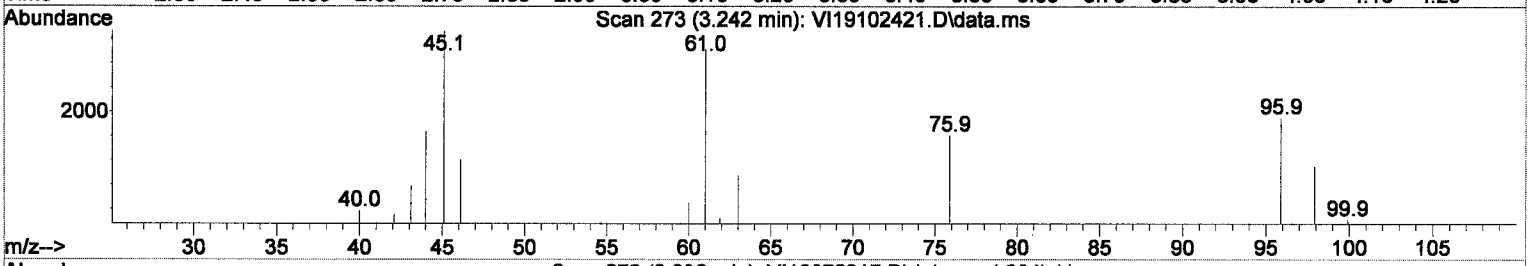
Ion	Exp%	Act%
91.10	100.00	100.00
106.10	30.80	32.98
51.10	10.40	11.11
0.00	0.00	0.00

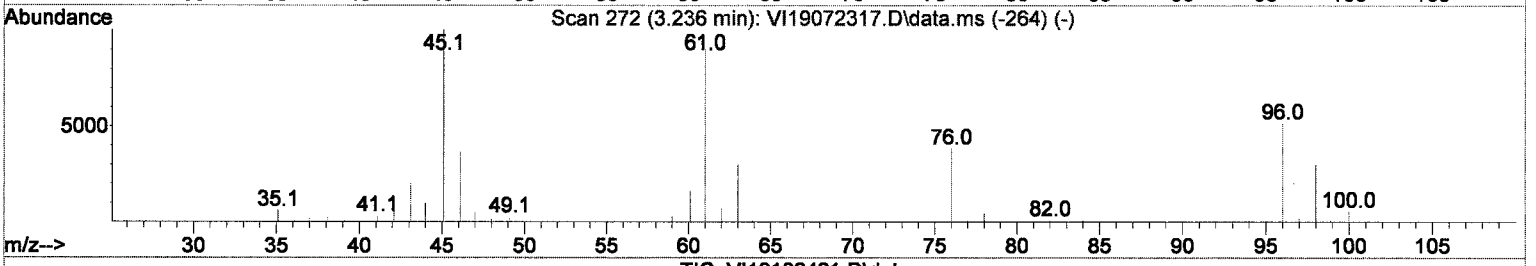
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102421.D
Acq On : 24 Oct 2019 5:42 pm
Operator : MM
Sample : 9J24043-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration







TIC: VI19102421.D\data.ms

(8) Ethanol

3.242min (+ 0.007) 157.83 ug/L

response 6984

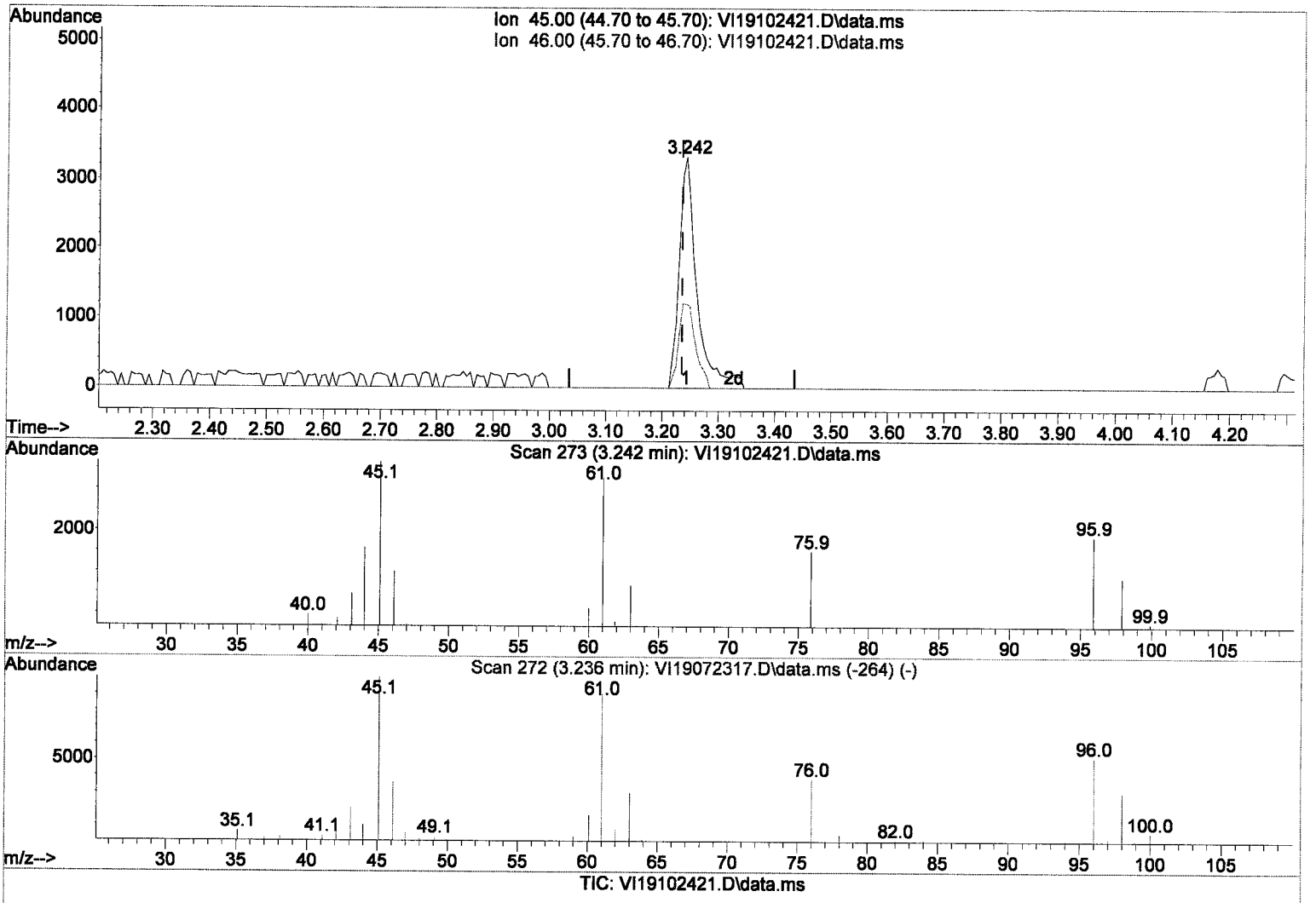
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	36.12
0.00	0.00	0.00
0.00	0.00	0.00

M.2.

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102421.D
Acq On : 24 Oct 2019 5:42 pm
Operator : MM
Sample : 9J24043-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



TIC: VI19102421.D\data.ms

(8) Ethanol

3.242min (+ 0.007) 163.37 ug/L m

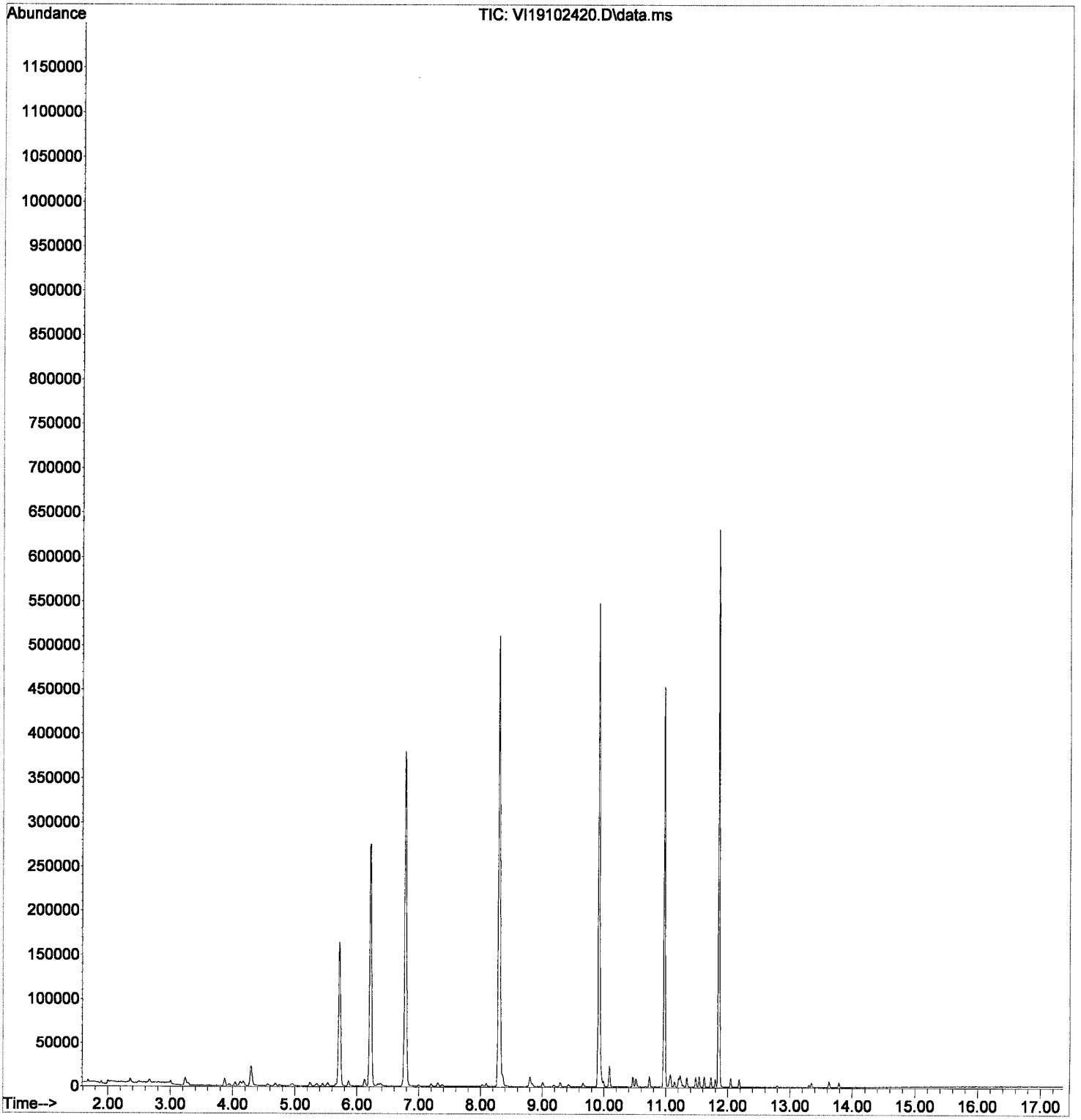
response 7229

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102420.D
Acq On : 24 Oct 2019 5:15 pm
Operator : MM
Sample : 9J24043-CAL4
Misc : 1X 5mL 1/2PPB VOCR
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:23 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102421.D
Acq On : 24 Oct 2019 5:42 pm
Operator : MM
Sample : 9J24043-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

MM 10/25/19

Quant Time: Oct 25 08:10:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	110790	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.916	117	297754	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	139582	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.718	111	108776	47.86	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	347212	54.71	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	395017	51.39	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	115163	51.29	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	3731	1.71	ug/L		97
3) Chloromethane	1.904	50	4743	1.85	ug/L		90
4) Vinyl Chloride	2.007	62	5030	2.20	ug/L		95
5) Bromomethane	2.372	96	3140	1.78	ug/L		93
6) Chloroethane	2.524	64	2540	2.19	ug/L		82
7) Trichlorofluoromethane	2.682	101	5667	1.55	ug/L		97
8) Ethanol	3.242	45	~~6984~~ 7129	157.83	ug/L		83
9) 1,1-Dichloroethene	3.242	61	5263	1.88	ug/L		96
10) Carbon Disulfide	3.260	76	9757	2.13	ug/L		99
11) Freon 113	3.297	101	3803	2.08	ug/L		95
12) Iodomethane	~~3.400~~	~~142~~	~~130~~	5.22	ug/L	#	47 Qdel
13) Acrolein	3.625	56	927	2.34	ug/L		71
14) Methylene Chloride	3.881	84	6151	Below Cal			89
15) Acetone	3.948	43	4523	4.74	ug/L		93
16) t-1,2-Dichloroethene	4.051	61	5503	2.20	ug/L		91
17) n-Hexane	4.130	86	709	2.31	ug/L	#	84
18) Methyl-tert-butyl-ether	4.173	73	11957	2.16	ug/L		93
19) tert-Butanol (TBA)	4.301	59	58093	169.62	ug/L		94
20) Diisopropyl ether (DIPE)	4.568	45	3305	0.59	ug/L		95
21) 1,1-Dichloroethane	4.690	63	7227	2.05	ug/L		100
22) Acrylonitrile	4.763	53	1949	1.87	ug/L		96
23) Ethyl-tert-butyl ether...	4.939	59	3145	0.63	ug/L		96
24) Vinyl Acetate	4.964	43	7854	1.87	ug/L		99
25) c-1,2-Dichloroethene	5.250	61	5568	2.02	ug/L		93
26) 2,2-Dichloropropane	5.353	77	4776	1.94	ug/L		95
27) Bromochloromethane	5.456	130	2679	1.97	ug/L		99
28) Chloroform	5.536	83	7277	1.92	ug/L		99
29) Carbon Tetrachloride	5.663	117	4001	1.54	ug/L		98
30) Tetrahydrofuran	5.706	42	2045	2.23	ug/L		88
31) 1,1,1-Trichloroethane	5.736	97	5937	1.90	ug/L		97
33) 1,1-Dichloropropene	5.870	75	5724	2.28	ug/L		95
34) 2-Butanone (MEK)	5.870	43	6243	4.29	ug/L		98
35) Benzene	6.126	78	17935	2.38	ug/L		94
36) tert-Amyl methyl ether...	6.247	73	2996	0.60	ug/L		72
37) 1,2-Dichloroethane (EDC)	6.345	62	5726	1.86	ug/L		98
38) iso-Butyl Alcohol	6.381	43	7968	60.45	ug/L		93
40) Trichloroethene (TCE)	6.746	130	4576	2.38	ug/L		95
41) Tert-Amyl-Ethyl-Ether ...	7.002	59	2147	0.68	ug/L		90
42) Dibromomethane	7.202	93	2755	2.01	ug/L		88
43) 1,2-Dichloropropane	7.312	63	4373	2.13	ug/L		93
44) Bromodichloromethane	7.385	83	4681	1.70	ug/L		94
46) 2-Chloroethyl Vinyl Ether	8.030	63	2589	2.82	ug/L	#	100
47) c-1,3-Dichloropropene	8.091	75	5578	1.98	ug/L		90

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102421.D
Acq On : 24 Oct 2019 5:42 pm
Operator : MM
Sample : 9J24043-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

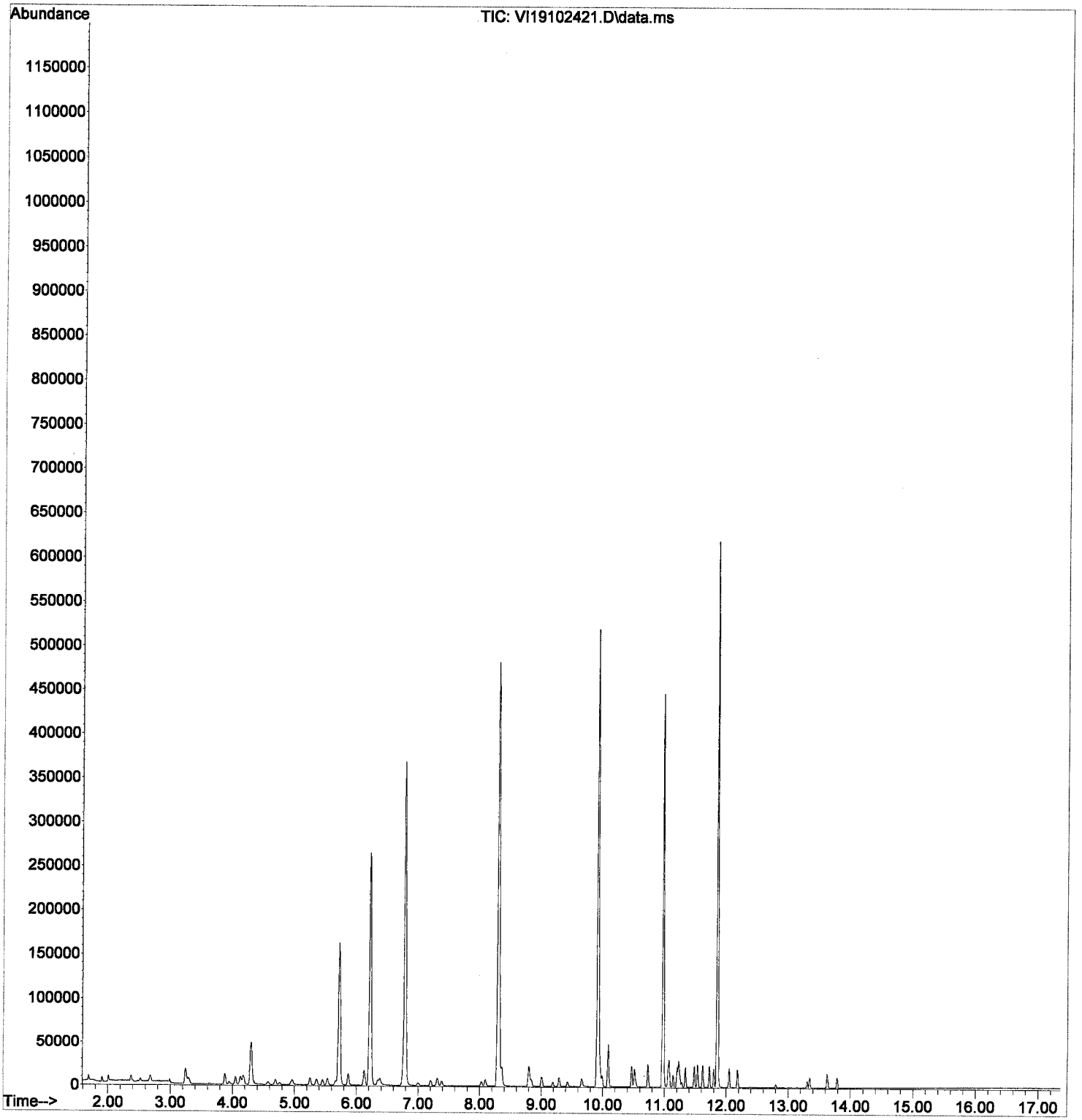
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	17851	2.14	ug/L		99
50) Tetrachloroethene (PCE)	8.796	166	4333	2.28	ug/L		92
51) 4-Methyl-2-Pentanone (...	8.809	43	11029	4.18	ug/L		98
52) t-1,3-Dichloropropene	8.839	75	4500	1.60	ug/L		95
53) 1,1,2-Trichloroethane	9.003	97	4134	2.06	ug/L		93
54) Dibromochloromethane	9.192	129	3038	1.44	ug/L		91
55) 1,3-Dichloropropane	9.289	76	6889	2.05	ug/L		90
56) 1,2-Dibromoethane (EDB)	9.429	107	4499	2.18	ug/L		100
57) 2-Hexanone	9.660	43	7610	3.99	ug/L		92
58) Chlorobenzene	9.928	112	11701	2.22	ug/L		98
59) Ethylbenzene	9.952	91	19157	2.20	ug/L		95
60) 1,1,1,2-Tetrachloroethane	9.989	131	2985	1.63	ug/L		94
61) m,p-Xylenes (2)	10.086	91	27092	4.47	ug/L		98
62) o-Xylene	10.469	91	13605	2.31	ug/L		96
63) Styrene	10.518	104	10363	2.35	ug/L		98
64) Bromoform	10.536	173	1771	1.19	ug/L		90
65) Isopropylbenzene	10.731	105	16325	2.39	ug/L		97
68) Bromobenzene	11.059	156	4634	2.30	ug/L		83
69) n-Propylbenzene	11.078	91	19292	2.21	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.139	85	4008	2.20	ug/L		91
71) 2-Chlorotoluene	11.205	126	4172	2.40	ug/L		98
72) 1,3,5-Trimethylbenzene	11.230	105	13089	2.24	ug/L		97
73) 1,2,3-Trichloropropane	11.248	110	1935	2.17	ug/L		93
74) t-1,4-Dichloro-2-butene	11.278	53	1313	1.90	ug/L	#	50
75) 4-Chlorotoluene	11.339	91	11718	2.26	ug/L		99
76) tert-Butylbenzene	11.485	91	7395	2.30	ug/L		98
77) 1,2,4-Trimethylbenzene	11.534	105	12974	2.38	ug/L		98
78) sec-Butylbenzene	11.619	105	15756	2.25	ug/L		99
79) 4-Isopropyltoluene	11.729	119	12523	2.53	ug/L		97
80) 1,3-Dichlorobenzene	11.802	146	7718	2.18	ug/L		97
81) 1,4-Dichlorobenzene	11.862	146	8550	2.20	ug/L		91
82) n-Butylbenzene	12.045	91	10626	2.18	ug/L		98
83) 1,2-Dichlorobenzene	12.185	146	7854	2.32	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	12.799	157	1006	1.90	ug/L		77
85) Hexachlorobutadiene	13.304	223	963	2.05	ug/L		87
86) 1,2,4-Trichlorobenzene	13.341	180	4043	2.51	ug/L		89
87) Naphthalene	13.627	128	12724	2.92	ug/L		97
88) 1,2,3-Trichlorobenzene	13.785	180	4073	2.58	ug/L		97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102421.D
Acq On : 24 Oct 2019 5:42 pm
Operator : MM
Sample : 9J24043-CAL5
Misc : 1X 5mL 2/4PPB VOCR
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:26 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102422.D
Acq On : 24 Oct 2019 6:09 pm
Operator : MM
Sample : 9J24043-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

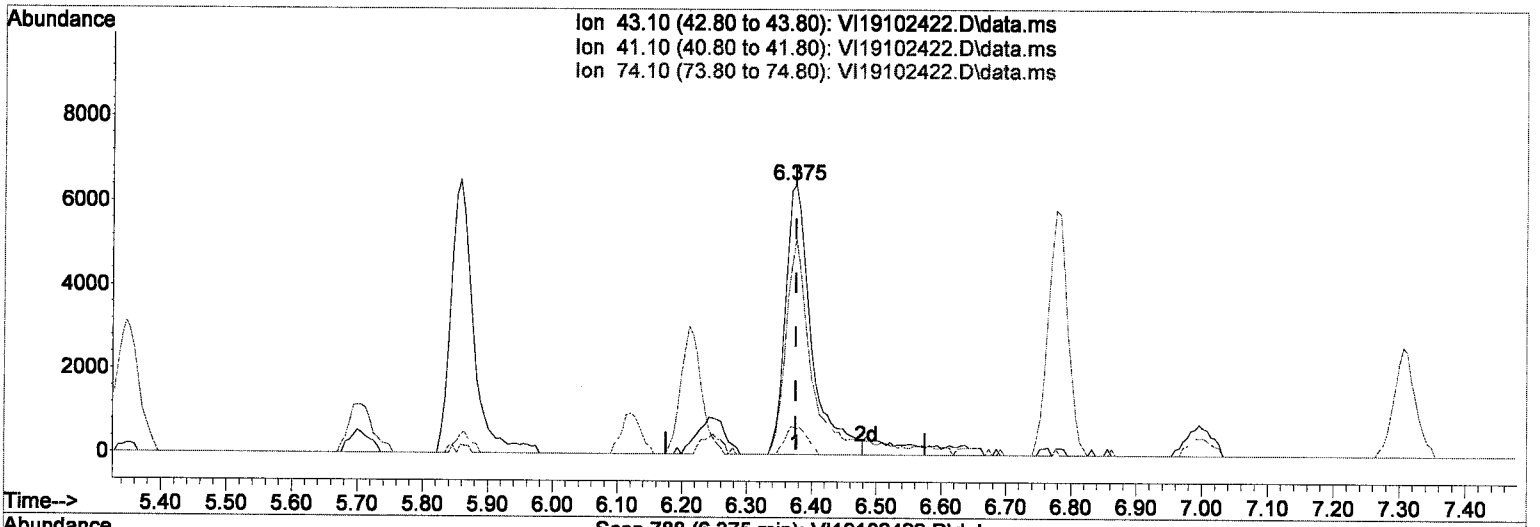
Quant Time: Oct 25 08:10:29 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

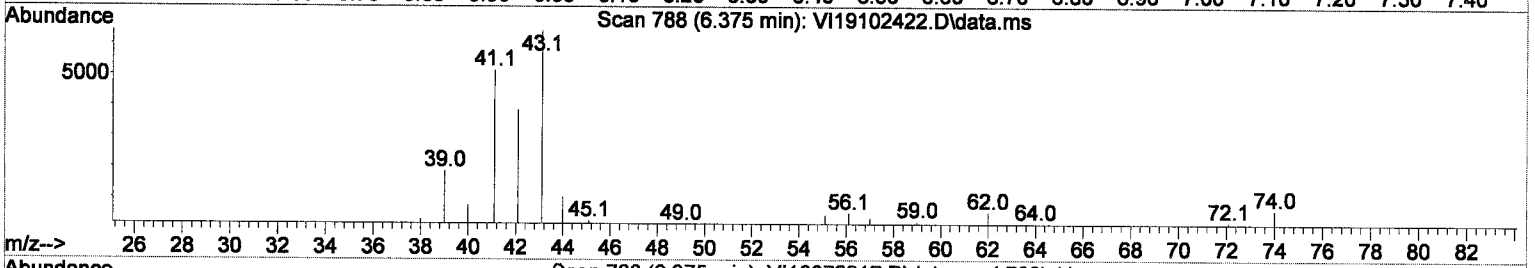
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	111010	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	300317	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	141843	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	109232	47.97	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.777	114	353918	55.65	ug/L		-0.01
48) Toluene-d8 (S)	8.297	98	397005	51.21	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	115652	50.69	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.679	85	9010	4.13	ug/L		98
3) Chloromethane	1.891	50	11370	4.42	ug/L		96
4) Vinyl Chloride	1.995	62	12653	5.52	ug/L		96
5) Bromomethane	2.360	96	7782	4.40	ug/L		97
6) Chloroethane	2.506	64	5899	5.07	ug/L		79
7) Trichlorofluoromethane	2.664	101	14236	3.89	ug/L		96
8) Ethanol	3.230	45	17243	388.90	ug/L		85
9) 1,1-Dichloroethene	3.230	61	13321	4.75	ug/L		93
10) Carbon Disulfide	3.248	76	24060	5.23	ug/L		98
11) Freon 113	3.291	101	9544	5.22	ug/L		91
12) Iodomethane	3.382	142	916	6.05	ug/L	#	79
13) Acrolein	3.619	56	2465	6.22	ug/L		88
14) Methylene Chloride	3.869	84	12549	2.62	ug/L		87
15) Acetone	3.942	43	10355	10.83	ug/L		98
16) t-1,2-Dichloroethene	4.039	61	13685	5.45	ug/L		96
17) n-Hexane	4.118	86	1836	5.97	ug/L		92
18) Methyl-tert-butyl-ether	4.167	73	29908	5.40	ug/L		93
19) tert-Butanol (TBA)	4.288	59	143817	419.08	ug/L		97
20) Diisopropyl ether (DIPE)	4.568	45	8576	1.52	ug/L		93
21) 1,1-Dichloroethane	4.684	63	18307	5.17	ug/L		95
22) Acrylonitrile	4.751	53	5426	5.19	ug/L		98
23) Ethyl-tert-butyl ether...	4.939	59	8071	1.61	ug/L		98
24) Vinyl Acetate	4.958	43	20467	4.86	ug/L		97
25) c-1,2-Dichloroethene	5.244	61	13959	5.05	ug/L		90
26) 2,2-Dichloropropane	5.353	77	11793	4.78	ug/L		98
27) Bromochloromethane	5.444	130	7172	5.26	ug/L		96
28) Chloroform	5.529	83	18186	4.79	ug/L		96
29) Carbon Tetrachloride	5.657	117	9957	3.83	ug/L		96
30) Tetrahydrofuran	5.706	42	5112	5.57	ug/L		83
31) 1,1,1-Trichloroethane	5.730	97	14957	4.77	ug/L		94
33) 1,1-Dichloropropene	5.864	75	14423	5.74	ug/L		94
34) 2-Butanone (MEK)	5.858	43	15638	10.72	ug/L		94
35) Benzene	6.120	78	43404	5.74	ug/L		97
36) tert-Amyl methyl ether...	6.247	73	7445	1.48	ug/L		89
37) 1,2-Dichloroethane (EDC)	6.339	62	14359	4.65	ug/L		90
38) iso-Butyl Alcohol	6.375	43	~~18074~~ 20710	136.86	ug/L		98
40) Trichloroethene (TCE)	6.740	130	11340	5.89	ug/L		97
41) Tert-Amyl-Ethyl-Ether ...	6.996	59	5331	1.68	ug/L		83
42) Dibromomethane	7.196	93	7023	5.12	ug/L		97
43) 1,2-Dichloropropane	7.306	63	10897	5.31	ug/L		88
44) Bromodichloromethane	7.379	83	12021	4.36	ug/L		95
46) 2-Chloroethyl Vinyl Ether	8.024	63	7592	6.83	ug/L	#	100
47) c-1,3-Dichloropropene	8.091	75	14229	5.00	ug/L		87

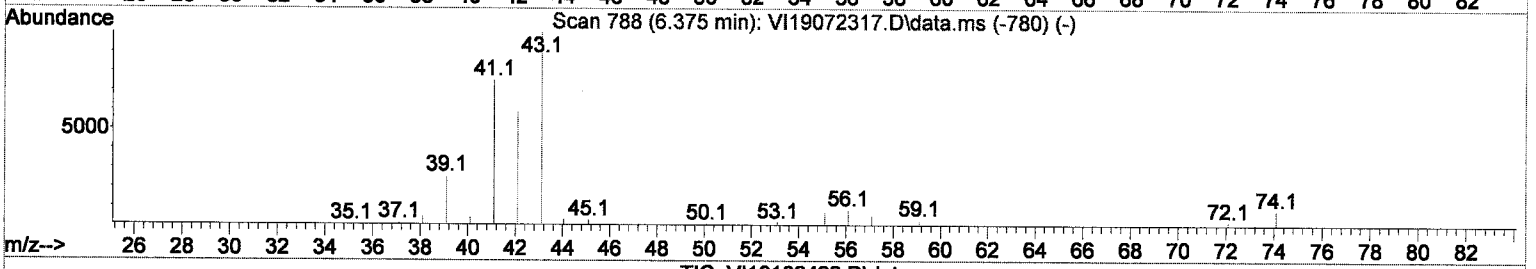
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102422.D
Acq On : 24 Oct 2019 6:09 pm
Operator : MM
Sample : 9J24043-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

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







TIC: VI19102422.D\data.ms

(38) iso-Butyl Alcohol

6.375min (+ 0.000) 136.86 ug/L

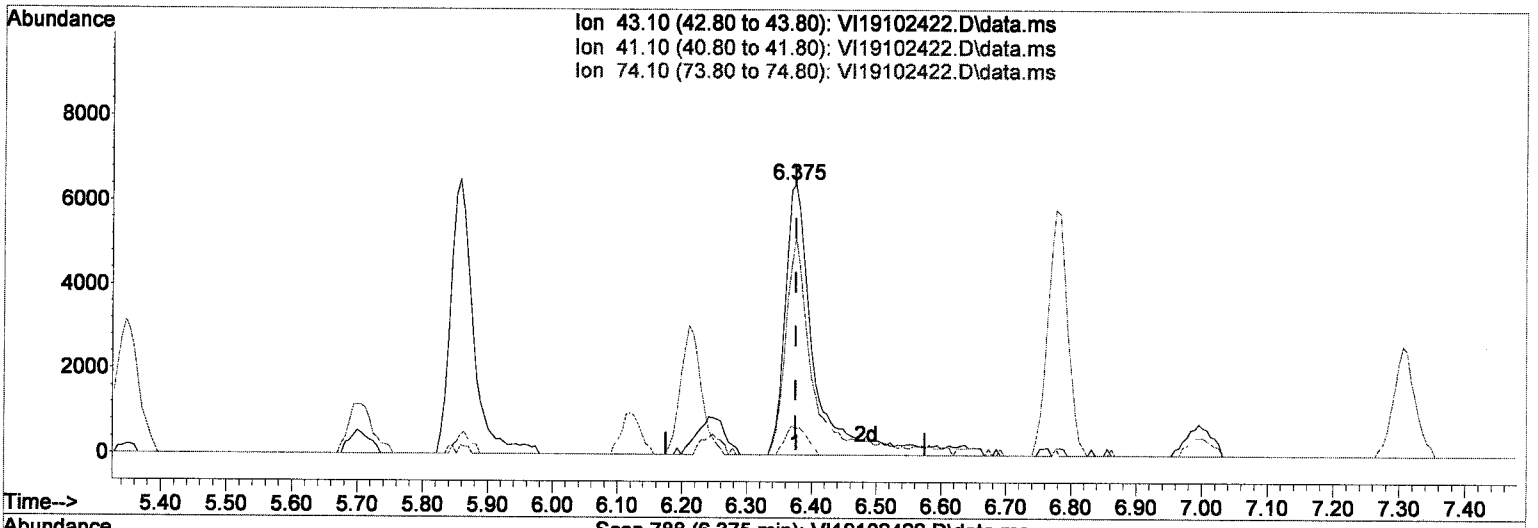
response 18074

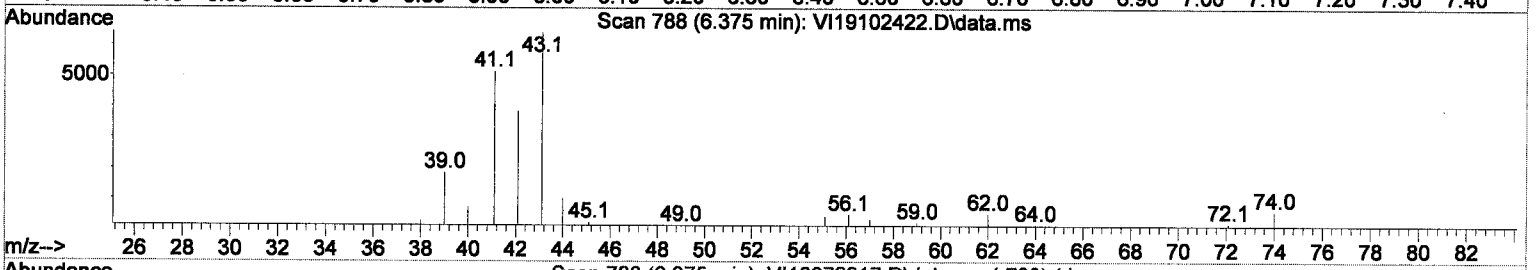
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	78.60	80.03
74.10	11.20	9.63
0.00	0.00	0.00

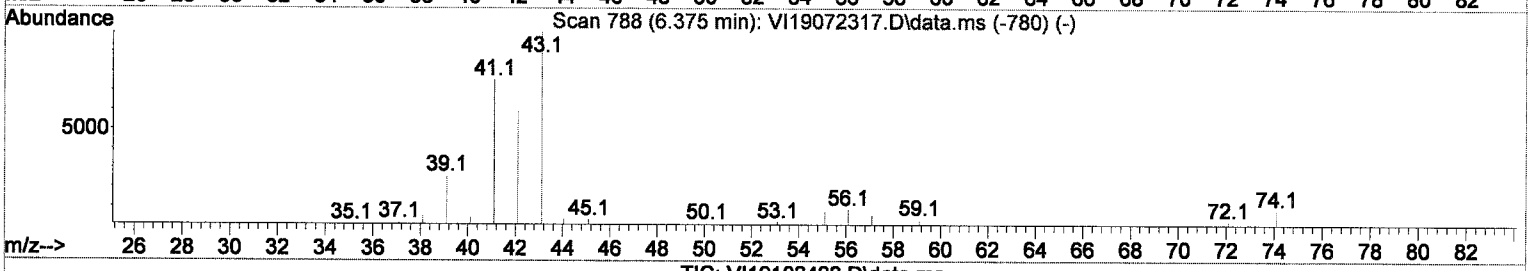
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102422.D
Acq On : 24 Oct 2019 6:09 pm
Operator : MM
Sample : 9J24043-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

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







TIC: VI19102422.D\data.ms

(38) iso-Butyl Alcohol

6.375min (+ 0.000) 156.81 ug/L m

response 20710

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

M 10/25/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102422.D
Acq On : 24 Oct 2019 6:09 pm
Operator : MM
Sample : 9J24043-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

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

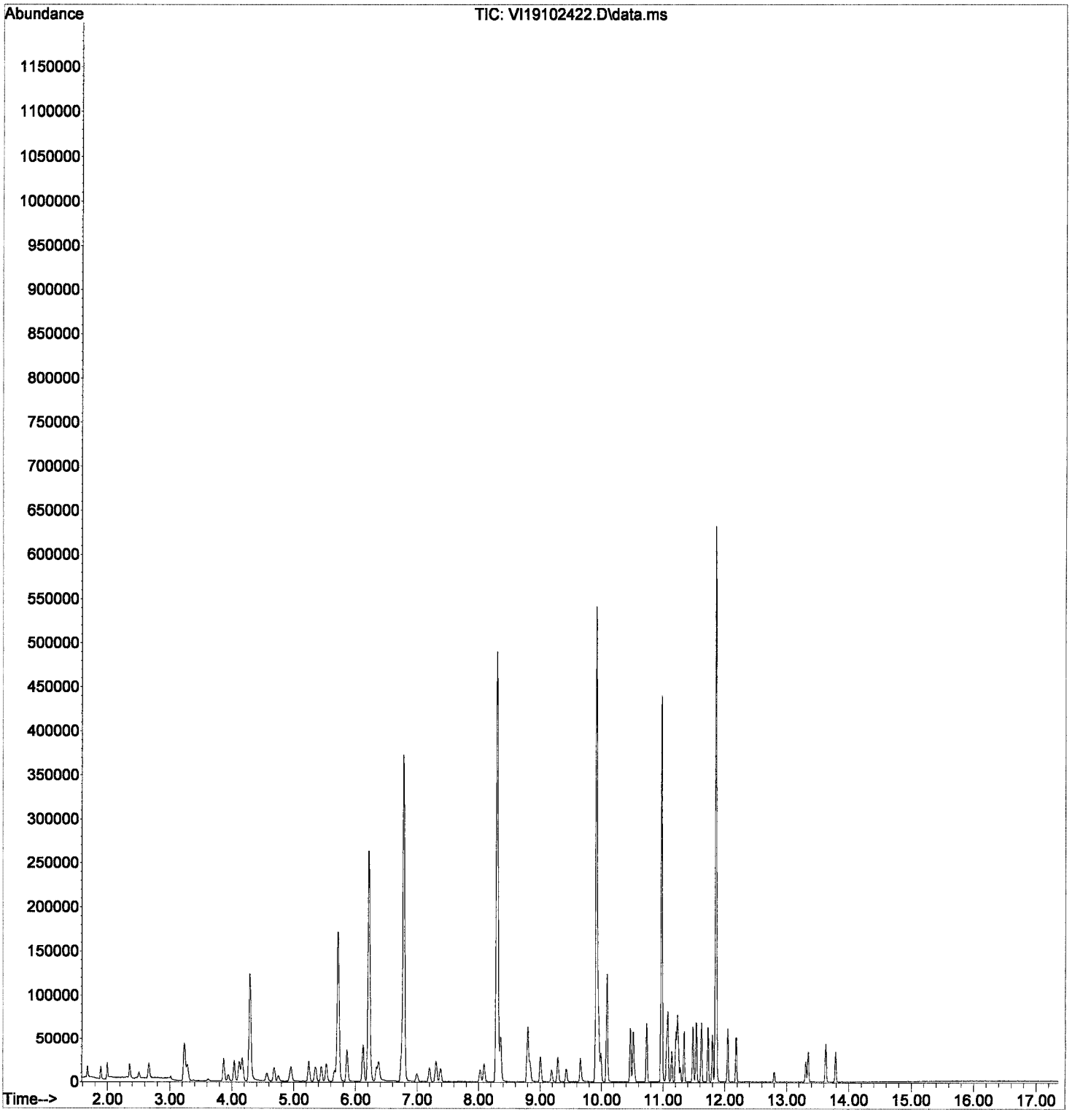
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	44272	5.27	ug/L		100
50) Tetrachloroethene (PCE)	8.796	166	10847	5.65	ug/L		90
51) 4-Methyl-2-Pentanone (...	8.796	43	28183	10.59	ug/L		97
52) t-1,3-Dichloropropene	8.839	75	12130	4.29	ug/L		98
53) 1,1,2-Trichloroethane	9.003	97	10336	5.11	ug/L		93
54) Dibromochloromethane	9.186	129	8016	3.77	ug/L		99
55) 1,3-Dichloropropane	9.289	76	17551	5.18	ug/L		88
56) 1,2-Dibromoethane (EDB)	9.423	107	11270	5.42	ug/L		98
57) 2-Hexanone	9.654	43	19724	10.24	ug/L		92
58) Chlorobenzene	9.928	112	29555	5.55	ug/L		97
59) Ethylbenzene	9.952	91	46860	5.34	ug/L		98
60) 1,1,1,2-Tetrachloroethane	9.989	131	7981	4.33	ug/L		94
61) m,p-Xylenes (2)	10.086	91	68847	11.15	ug/L		99
62) o-Xylene	10.463	91	34456	5.68	ug/L		99
63) Styrene	10.512	104	26739	5.76	ug/L		98
64) Bromoform	10.536	173	4690	3.11	ug/L		97
65) Isopropylbenzene	10.731	105	41801	5.88	ug/L		99
68) Bromobenzene	11.059	156	11623	5.69	ug/L		87
69) n-Propylbenzene	11.072	91	48000	5.40	ug/L		98
70) 1,1,2,2-Tetrachloroethane	11.139	85	9843	5.31	ug/L		96
71) 2-Chlorotoluene	11.205	126	10150	5.76	ug/L		90
72) 1,3,5-Trimethylbenzene	11.230	105	33314	5.62	ug/L		97
73) 1,2,3-Trichloropropane	11.248	110	4862	5.37	ug/L		96
74) t-1,4-Dichloro-2-butene	11.278	53	3293	4.68	ug/L	#	57
75) 4-Chlorotoluene	11.339	91	30239	5.73	ug/L		95
76) tert-Butylbenzene	11.479	91	18808	5.76	ug/L		94
77) 1,2,4-Trimethylbenzene	11.540	105	34216	6.04	ug/L		97
78) sec-Butylbenzene	11.619	105	40240	5.67	ug/L		98
79) 4-Isopropyltoluene	11.729	119	33176	6.39	ug/L		99
80) 1,3-Dichlorobenzene	11.796	146	19712	5.49	ug/L		98
81) 1,4-Dichlorobenzene	11.862	146	20421	5.17	ug/L		94
82) n-Butylbenzene	12.045	91	28526	5.77	ug/L		98
83) 1,2-Dichlorobenzene	12.185	146	19460	5.65	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	12.799	157	2728	5.06	ug/L		90
85) Hexachlorobutadiene	13.304	223	2715	5.67	ug/L		94
86) 1,2,4-Trichlorobenzene	13.347	180	11114	6.78	ug/L		93
87) Naphthalene	13.627	128	32892	6.76	ug/L		97
88) 1,2,3-Trichlorobenzene	13.785	180	10402	6.49	ug/L		97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102422.D
Acq On : 24 Oct 2019 6:09 pm
Operator : MM
Sample : 9J24043-CAL6
Misc : 1X 5mL 5/10PPB VOCR
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

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



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102423.D
Acq On : 24 Oct 2019 6:36 pm
Operator : MM
Sample : 9J24043-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:32 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	117608	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.909	117	312833	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	149215	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.712	111	113697	47.13	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.782	114	367409	54.53	ug/L	0.00
48) Toluene-d8 (S)	8.297	98	415174	51.41	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	121121	50.47	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.678	85	18118	7.84	ug/L	99
3) Chloromethane	1.897	50	22449	8.25	ug/L	98
4) Vinyl Chloride	2.001	62	25149	10.35	ug/L	96
5) Bromomethane	2.360	96	14678	7.84	ug/L	99
6) Chloroethane	2.500	64	11813	9.58	ug/L	80
7) Trichlorofluoromethane	2.664	101	29038	7.49	ug/L	94
8) Ethanol	3.236	45	34617	736.96	ug/L	86
9) 1,1-Dichloroethene	3.230	61	27243	9.18	ug/L	93
10) Carbon Disulfide	3.248	76	49011	10.06	ug/L	98
11) Freon 113	3.284	101	19612	10.13	ug/L	99
12) Iodomethane	3.388	142	3125	8.20	ug/L	93
13) Acrolein	3.619	56	4855	11.57	ug/L	76
14) Methylene Chloride	3.868	84	22701	7.47	ug/L	90
15) Acetone	3.941	43	19796	19.53	ug/L	95
16) t-1,2-Dichloroethene	4.039	61	27372	10.29	ug/L	93
17) n-Hexane	4.124	86	4034	12.37	ug/L	92
18) Methyl-tert-butyl-ether	4.167	73	61557	10.49	ug/L	95
19) tert-Butanol (TBA)	4.294	59	292252	803.84	ug/L	99
20) Diisopropyl ether (DIPE)	4.568	45	17135	2.87	ug/L	96
21) 1,1-Dichloroethane	4.684	63	36999	9.87	ug/L	97
22) Acrylonitrile	4.744	53	11383	10.28	ug/L	91
23) Ethyl-tert-butyl ether...	4.939	59	16756	3.15	ug/L	98
24) Vinyl Acetate	4.957	43	42656	9.56	ug/L	97
25) c-1,2-Dichloroethene	5.243	61	28723	9.81	ug/L	90
26) 2,2-Dichloropropane	5.353	77	23663	9.05	ug/L	99
27) Bromochloromethane	5.450	130	14961	10.35	ug/L	91
28) Chloroform	5.529	83	37799	9.40	ug/L	97
29) Carbon Tetrachloride	5.657	117	20840	7.56	ug/L	94
30) Tetrahydrofuran	5.700	42	10375	10.67	ug/L	83
31) 1,1,1-Trichloroethane	5.736	97	30210	9.09	ug/L	97
33) 1,1-Dichloropropene	5.864	75	29295	11.00	ug/L	95
34) 2-Butanone (MEK)	5.858	43	31158	20.17	ug/L	96
35) Benzene	6.119	78	87359	10.91	ug/L	96
36) tert-Amyl methyl ether...	6.247	73	15349	2.88	ug/L	94
37) 1,2-Dichloroethane (EDC)	6.338	62	28935	8.85	ug/L	92
38) iso-Butyl Alcohol	6.375	43	39286	280.78	ug/L	94
40) Trichloroethene (TCE)	6.740	130	23449	11.49	ug/L	96
41) Tert-Amyl-Ethyl-Ether ...	7.001	59	11032	3.28	ug/L	85
42) Dibromomethane	7.196	93	14594	10.04	ug/L	95
43) 1,2-Dichloropropane	7.312	63	21915	10.08	ug/L	94
44) Bromodichloromethane	7.379	83	25055	8.58	ug/L	99
46) 2-Chloroethyl Vinyl Ether	8.023	63	15685	12.76	ug/L #	100
47) c-1,3-Dichloropropene	8.090	75	30482	10.29	ug/L	89

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102423.D
Acq On : 24 Oct 2019 6:36 pm
Operator : MM
Sample : 9J24043-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:32 2019
Quant Method : C:\msdchem\1\methods\~~VI191025W.~~M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

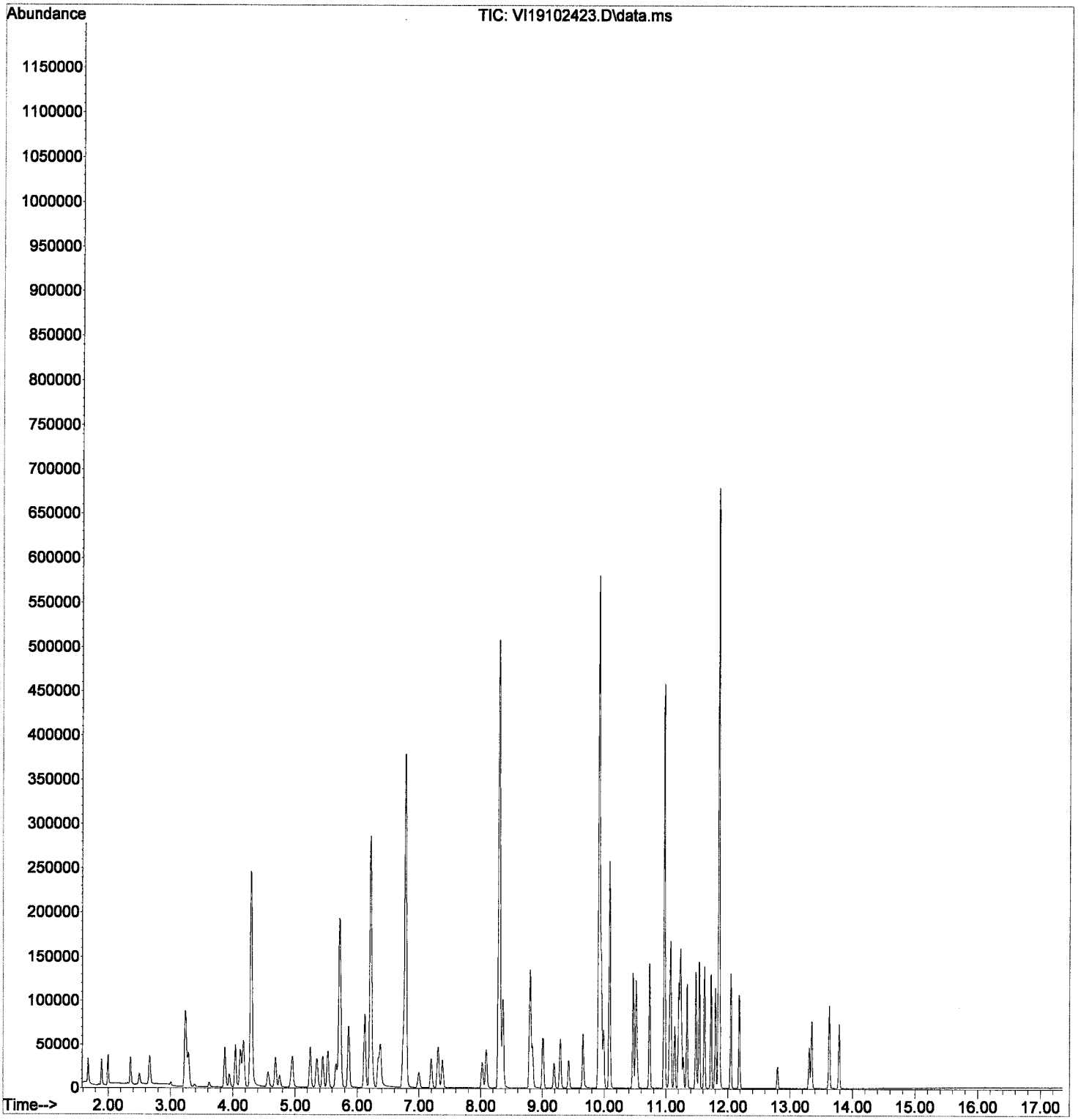
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	90400	10.33	ug/L		100
50) Tetrachloroethene (PCE)	8.796	166	22099	11.06	ug/L		92
51) 4-Methyl-2-Pentanone (...	8.802	43	58009	20.92	ug/L		92
52) t-1,3-Dichloropropene	8.839	75	26302	8.92	ug/L		96
53) 1,1,2-Trichloroethane	9.009	97	21402	10.15	ug/L		91
54) Dibromochloromethane	9.192	129	17208	7.78	ug/L		98
55) 1,3-Dichloropropane	9.289	76	36354	10.31	ug/L		92
56) 1,2-Dibromoethane (EDB)	9.423	107	22884	10.57	ug/L		92
57) 2-Hexanone	9.654	43	41881	20.88	ug/L		91
58) Chlorobenzene	9.928	112	60359	10.89	ug/L		98
59) Ethylbenzene	9.952	91	96018	10.49	ug/L		97
60) 1,1,1,2-Tetrachloroethane	9.988	131	16995	8.86	ug/L		94
61) m,p-Xylenes (2)	10.086	91	142004	21.90	ug/L		100
62) o-Xylene	10.463	91	71417	11.16	ug/L		99
63) Styrene	10.512	104	57022	11.55	ug/L		96
64) Bromoform	10.536	173	10701	6.82	ug/L		97
65) Isopropylbenzene	10.731	105	86673	11.50	ug/L		99
68) Bromobenzene	11.059	156	24222	11.27	ug/L		89
69) n-Propylbenzene	11.071	91	99009	10.59	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.138	85	20098	10.31	ug/L		97
71) 2-Chlorotoluene	11.205	126	21625	11.66	ug/L		93
72) 1,3,5-Trimethylbenzene	11.230	105	69892	11.21	ug/L		98
73) 1,2,3-Trichloropropane	11.248	110	10162	10.68	ug/L		92
74) t-1,4-Dichloro-2-butene	11.278	53	6985	9.43	ug/L	#	66
75) 4-Chlorotoluene	11.339	91	61742	11.13	ug/L		98
76) tert-Butylbenzene	11.479	91	38411	11.19	ug/L		96
77) 1,2,4-Trimethylbenzene	11.534	105	70882	11.77	ug/L		98
78) sec-Butylbenzene	11.619	105	83977	11.24	ug/L		99
79) 4-Isopropyltoluene	11.728	119	68628	12.35	ug/L		98
80) 1,3-Dichlorobenzene	11.795	146	41299	10.93	ug/L		98
81) 1,4-Dichlorobenzene	11.862	146	42771	10.30	ug/L		96
82) n-Butylbenzene	12.045	91	59515	11.45	ug/L		98
83) 1,2-Dichlorobenzene	12.179	146	40125	11.07	ug/L		99
84) 1,2-Dibromo-3-Chloropr...	12.799	157	6234	10.99	ug/L		83
85) Hexachlorobutadiene	13.304	223	5468	10.86	ug/L		93
86) 1,2,4-Trichlorobenzene	13.347	180	23133	13.41	ug/L		99
87) Naphthalene	13.626	128	72324	13.49	ug/L		97
88) 1,2,3-Trichlorobenzene	13.785	180	22293	13.22	ug/L		97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102423.D
Acq On : 24 Oct 2019 6:36 pm
Operator : MM
Sample : 9J24043-CAL7
Misc : 1X 5mL 10/20PPB VOCR
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:32 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102424.D
Acq On : 24 Oct 2019 7:03 pm
Operator : MM
Sample : 9J24043-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:35 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

MM 10/25/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.211	99	112406	50.00	ug/L	0.00
45) Chlorobenzene-d5 (I)	9.910	117	307093	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	151591	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.712	111	109549	47.51	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.777	114	354922	55.12	ug/L	-0.01
48) Toluene-d8 (S)	8.298	98	399810	50.43	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	120976	49.61	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.673	85	35982	16.29	ug/L	98
3) Chloromethane	1.892	50	45062	17.32	ug/L	97
4) Vinyl Chloride	1.995	62	49916	21.50	ug/L	96
5) Bromomethane	2.354	96	27599	15.42	ug/L	98
6) Chloroethane	2.488	64	19851	16.84	ug/L	80
7) Trichlorofluoromethane	2.658	101	58162	15.70	ug/L	96
8) Ethanol	3.230	45	70360	1567.21	ug/L	87
9) 1,1-Dichloroethene	3.230	61	54074	19.06	ug/L	94
10) Carbon Disulfide	3.242	76	98898	21.25	ug/L	98
11) Freon 113	3.279	101	39711	21.45	ug/L	97
12) Iodomethane	3.382	142	11472	16.74	ug/L	96
13) Acrolein	3.613	56	10458	26.07	ug/L	77
14) Methylene Chloride	3.869	84	43598	19.20	ug/L	88
15) Acetone	3.936	43	39380	40.66	ug/L	94
16) t-1,2-Dichloroethene	4.033	61	56066	22.05	ug/L	94
17) n-Hexane	4.118	86	8308	26.66	ug/L	95
18) Methyl-tert-butyl-ether	4.167	73	123669	22.05	ug/L	95
19) tert-Butanol (TBA)	4.289	59	614954	1769.71	ug/L	97
20) Diisopropyl ether (DIPE)	4.562	45	34871	6.10	ug/L	94
21) 1,1-Dichloroethane	4.678	63	75120	20.96	ug/L	96
22) Acrylonitrile	4.745	53	22973	21.71	ug/L	97
23) Ethyl-tert-butyl ether...	4.939	59	33471	6.59	ug/L	98
24) Vinyl Acetate	4.952	43	90141	21.14	ug/L	97
25) c-1,2-Dichloroethene	5.238	61	58359	20.86	ug/L	92
26) 2,2-Dichloropropane	5.347	77	48254	19.30	ug/L	97
27) Bromochloromethane	5.444	130	30935	22.39	ug/L	93
28) Chloroform	5.523	83	76239	19.85	ug/L	97
29) Carbon Tetrachloride	5.657	117	43938	16.68	ug/L	92
30) Tetrahydrofuran	5.700	42	21330	22.95	ug/L	89
31) 1,1,1-Trichloroethane	5.730	97	62000	19.52	ug/L	96
33) 1,1-Dichloropropene	5.858	75	59019	23.19	ug/L	96
34) 2-Butanone (MEK)	5.852	43	64474	43.67	ug/L	98
35) Benzene	6.120	78	175817	22.96	ug/L	96
36) tert-Amyl methyl ether...	6.247	73	30296	5.94	ug/L	96
37) 1,2-Dichloroethane (EDC)	6.339	62	58731	18.79	ug/L	91
38) iso-Butyl Alcohol	6.369	43	83527	624.61	ug/L	94
40) Trichloroethene (TCE)	6.740	130	47359	24.28	ug/L	92
41) Tert-Amyl-Ethyl-Ether ...	6.996	59	22696	7.05	ug/L	83
42) Dibromomethane	7.196	93	29514	21.24	ug/L	94
43) 1,2-Dichloropropane	7.306	63	44422	21.38	ug/L	92
44) Bromodichloromethane	7.379	83	51693	18.52	ug/L	94
46) 2-Chloroethyl Vinyl Ether	8.018	63	33274	26.29	ug/L #	100
47) c-1,3-Dichloropropene	8.091	75	64475	22.18	ug/L	87

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102424.D
Acq On : 24 Oct 2019 7:03 pm
Operator : MM
Sample : 9J24043-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:35 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

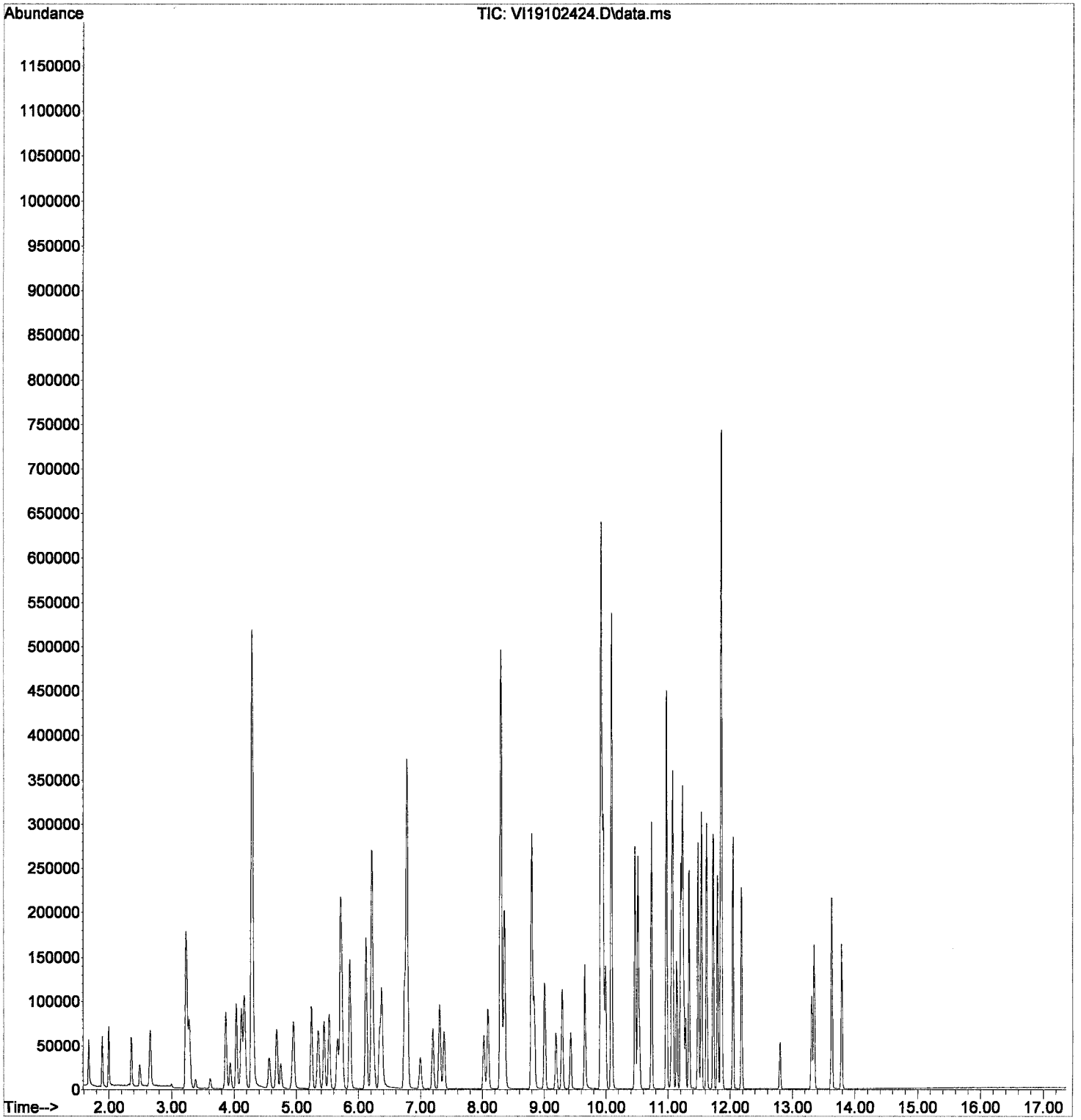
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	183309	21.33	ug/L		100
50) Tetrachloroethene (PCE)	8.796	166	45467	23.17	ug/L		91
51) 4-Methyl-2-Pentanone (...	8.796	43	120524	44.27	ug/L		94
52) t-1,3-Dichloropropene	8.833	75	57085	19.72	ug/L		96
53) 1,1,2-Trichloroethane	9.003	97	43171	20.86	ug/L		95
54) Dibromochloromethane	9.186	129	36932	17.00	ug/L		99
55) 1,3-Dichloropropane	9.289	76	73700	21.29	ug/L		92
56) 1,2-Dibromoethane (EDB)	9.423	107	46797	22.02	ug/L		95
57) 2-Hexanone	9.654	43	87528	44.45	ug/L		92
58) Chlorobenzene	9.928	112	120984	22.23	ug/L		99
59) Ethylbenzene	9.952	91	195460	21.76	ug/L		96
60) 1,1,1,2-Tetrachloroethane	9.989	131	36336	19.29	ug/L		96
61) m,p-Xylenes (2)	10.086	91	297066	46.05	ug/L		100
62) o-Xylene	10.463	91	149422	23.36	ug/L		99
63) Styrene	10.512	104	120205	24.26	ug/L		98
64) Bromoform	10.536	173	23844	15.48	ug/L		97
65) Isopropylbenzene	10.731	105	182751	24.16	ug/L		100
68) Bromobenzene	11.060	156	50013	22.90	ug/L		89
69) n-Propylbenzene	11.072	91	210703	22.19	ug/L		100
70) 1,1,2,2-Tetrachloroethane	11.139	85	41819	21.12	ug/L		95
71) 2-Chlorotoluene	11.206	126	45664	24.23	ug/L		95
72) 1,3,5-Trimethylbenzene	11.230	105	148694	23.48	ug/L		98
73) 1,2,3-Trichloropropane	11.248	110	20199	20.89	ug/L		96
74) t-1,4-Dichloro-2-butene	11.279	53	14515	19.29	ug/L	#	73
75) 4-Chlorotoluene	11.339	91	129933	23.05	ug/L		99
76) tert-Butylbenzene	11.479	91	81742	23.44	ug/L		95
77) 1,2,4-Trimethylbenzene	11.534	105	151018	24.30	ug/L		97
78) sec-Butylbenzene	11.619	105	180894	23.84	ug/L		99
79) 4-Isopropyltoluene	11.729	119	151382	26.15	ug/L		97
80) 1,3-Dichlorobenzene	11.796	146	86247	22.48	ug/L		98
81) 1,4-Dichlorobenzene	11.863	146	89594	21.23	ug/L		97
82) n-Butylbenzene	12.045	91	130970	24.80	ug/L		97
83) 1,2-Dichlorobenzene	12.185	146	83871	22.77	ug/L		97
84) 1,2-Dibromo-3-Chloropr...	12.799	157	13740	23.83	ug/L		96
85) Hexachlorobutadiene	13.304	223	12054	23.57	ug/L		92
86) 1,2,4-Trichlorobenzene	13.347	180	50962	29.09	ug/L		98
87) Naphthalene	13.627	128	161860	28.24	ug/L		98
88) 1,2,3-Trichlorobenzene	13.785	180	48345	28.22	ug/L		97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102424.D
Acq On : 24 Oct 2019 7:03 pm
Operator : MM
Sample : 9J24043-CAL8
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:35 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102425.D
Acq On : 24 Oct 2019 7:30 pm
Operator : MM
Sample : 9J24043-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:38 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	115635	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	321159	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	158122	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	116809	49.24	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.777	114	370144	55.88	ug/L		-0.01
48) Toluene-d8 (S)	8.298	98	415062	50.06	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	125801	49.46	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.679	85	109425	48.15	ug/L		99
3) Chloromethane	1.892	50	118956	44.44	ug/L		96
4) Vinyl Chloride	1.995	62	133008	55.69	ug/L		97
5) Bromomethane	2.360	96	66917	36.34	ug/L		96
6) Chloroethane	2.494	64	51695	42.64	ug/L		82
7) Trichlorofluoromethane	2.664	101	145579	38.20	ug/L		95
8) Ethanol	3.230	45	131053	2837.58	ug/L		88
9) 1,1-Dichloroethene	3.230	61	137847	47.23	ug/L		91
10) Carbon Disulfide	3.248	76	254448	53.14	ug/L		98
11) Freon 113	3.285	101	97812	51.37	ug/L		94
12) Iodomethane	3.382	142	57651	55.87	ug/L		92
13) Acrolein	3.613	56	28604	69.32	ug/L		78
14) Methylene Chloride	3.869	84	102541	48.75	ug/L		89
15) Acetone	3.936	43	93945	94.28	ug/L		97
16) t-1,2-Dichloroethene	4.039	61	137318	52.49	ug/L		92
17) n-Hexane	4.118	86	21163	66.01	ug/L	#	91
18) Methyl-tert-butyl-ether	4.167	73	313020	54.26	ug/L		94
19) tert-Butanol (TBA)	4.288	59	1172838	3280.93	ug/L		94
20) Diisopropyl ether (DIPE)	4.562	45	63994	10.88	ug/L		93
21) 1,1-Dichloroethane	4.684	63	182910	49.62	ug/L		96
22) Acrylonitrile	4.745	53	58667	53.90	ug/L		96
23) Ethyl-tert-butyl ether...	4.939	59	63126	12.08	ug/L		96
24) Vinyl Acetate	4.952	43	246127	56.12	ug/L		96
25) c-1,2-Dichloroethene	5.238	61	143124	49.74	ug/L		92
26) 2,2-Dichloropropane	5.347	77	122658	47.70	ug/L		96
27) Bromochloromethane	5.444	130	77572	54.59	ug/L		95
28) Chloroform	5.523	83	186984	47.32	ug/L		97
29) Carbon Tetrachloride	5.657	117	114614	42.30	ug/L		94
30) Tetrahydrofuran	5.694	42	54072	56.56	ug/L		88
31) 1,1,1-Trichloroethane	5.730	97	156566	47.91	ug/L		96
33) 1,1-Dichloropropene	5.858	75	146998	56.14	ug/L		96
34) 2-Butanone (MEK)	5.852	43	162223	106.80	ug/L		96
35) Benzene	6.120	78	434612	55.18	ug/L		96
36) tert-Amyl methyl ether...	6.241	73	56793	10.83	ug/L		98
37) 1,2-Dichloroethane (EDC)	6.339	62	143950	44.78	ug/L		92
38) iso-Butyl Alcohol	6.369	43	224878	1634.66	ug/L		92
40) Trichloroethene (TCE)	6.740	130	118626	59.12	ug/L		95
41) Tert-Amyl-Ethyl-Ether ...	6.996	59	42660	12.88	ug/L		84
42) Dibromomethane	7.196	93	74270	51.96	ug/L		96
43) 1,2-Dichloropropane	7.306	63	109124	51.04	ug/L		92
44) Bromodichloromethane	7.379	83	133532	46.50	ug/L		95
46) 2-Chloroethyl Vinyl Ether	8.018	63	88331	62.62	ug/L	#	100
47) c-1,3-Dichloropropene	8.091	75	166893	54.89	ug/L		87

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102425.D
Acq On : 24 Oct 2019 7:30 pm
Operator : MM
Sample : 9J24043-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:38 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

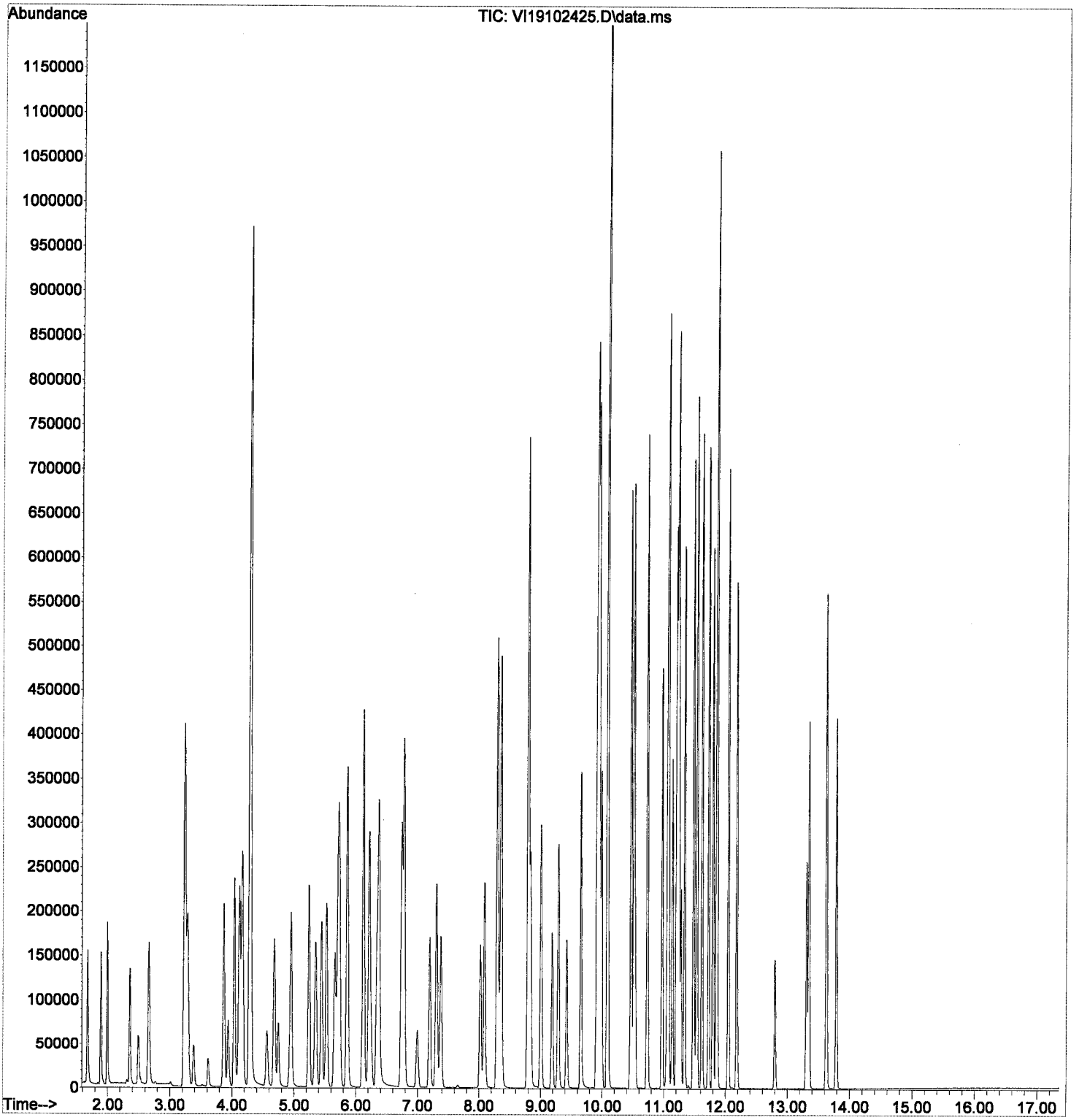
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	8.358	91	446611	49.69	ug/L	99
50) Tetrachloroethene (PCE)	8.796	166	113079	55.11	ug/L	92
51) 4-Methyl-2-Pentanone (...	8.796	43	304356	106.90	ug/L	94
52) t-1,3-Dichloropropene	8.833	75	151987	50.21	ug/L	97
53) 1,1,2-Trichloroethane	9.003	97	107594	49.71	ug/L	94
54) Dibromochloromethane	9.186	129	101291	44.59	ug/L	96
55) 1,3-Dichloropropane	9.289	76	183541	50.70	ug/L	91
56) 1,2-Dibromoethane (EDB)	9.423	107	117418	52.83	ug/L	95
57) 2-Hexanone	9.648	43	224495	109.02	ug/L	91
58) Chlorobenzene	9.928	112	301806	53.03	ug/L	98
59) Ethylbenzene	9.952	91	486890	51.84	ug/L	97
60) 1,1,1,2-Tetrachloroethane	9.989	131	95075	48.26	ug/L	97
61) m,p-Xylenes (2)	10.086	91	738497	106.14	ug/L	99
62) o-Xylene	10.463	91	371768	53.47	ug/L	99
63) Styrene	10.512	104	307044	56.78	ug/L	98
64) Bromoform	10.536	173	71080	44.14	ug/L	96
65) Isopropylbenzene	10.731	105	458349	55.46	ug/L	98
68) Bromobenzene	11.060	156	126180	55.39	ug/L	90
69) n-Propylbenzene	11.072	91	530991	53.60	ug/L	100
70) 1,1,2,2-Tetrachloroethane	11.139	85	106506	51.56	ug/L	94
71) 2-Chlorotoluene	11.206	126	113724	57.85	ug/L	93
72) 1,3,5-Trimethylbenzene	11.230	105	370702	56.11	ug/L	97
73) 1,2,3-Trichloropropane	11.248	110	51746	51.81	ug/L	92
74) t-1,4-Dichloro-2-butene	11.279	53	38431	48.98	ug/L	84
75) 4-Chlorotoluene	11.333	91	325043	55.29	ug/L	95
76) tert-Butylbenzene	11.479	91	202040	55.54	ug/L	97
77) 1,2,4-Trimethylbenzene	11.534	105	374779	56.03	ug/L	96
78) sec-Butylbenzene	11.619	105	451933	57.09	ug/L	98
79) 4-Isopropyltoluene	11.729	119	378247	59.61	ug/L	97
80) 1,3-Dichlorobenzene	11.796	146	218694	54.64	ug/L	99
81) 1,4-Dichlorobenzene	11.863	146	222386	50.52	ug/L	98
82) n-Butylbenzene	12.045	91	325681	59.11	ug/L	99
83) 1,2-Dichlorobenzene	12.179	146	211431	55.02	ug/L	98
84) 1,2-Dibromo-3-Chloropr...	12.799	157	38435	63.92	ug/L	93
85) Hexachlorobutadiene	13.304	223	29829	55.92	ug/L	96
86) 1,2,4-Trichlorobenzene	13.341	180	128379	70.24	ug/L	96
87) Naphthalene	13.627	128	425207	64.94	ug/L	98
88) 1,2,3-Trichlorobenzene	13.785	180	123175	68.94	ug/L	98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102425.D
Acq On : 24 Oct 2019 7:30 pm
Operator : MM
Sample : 9J24043-CAL9
Misc : 1X 5mL 50/100PPB VOCR
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:38 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102426.D
Acq On : 24 Oct 2019 7:57 pm
Operator : MM
Sample : 9J24043-IBL2
Misc : 1X 5mL DI
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:40 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

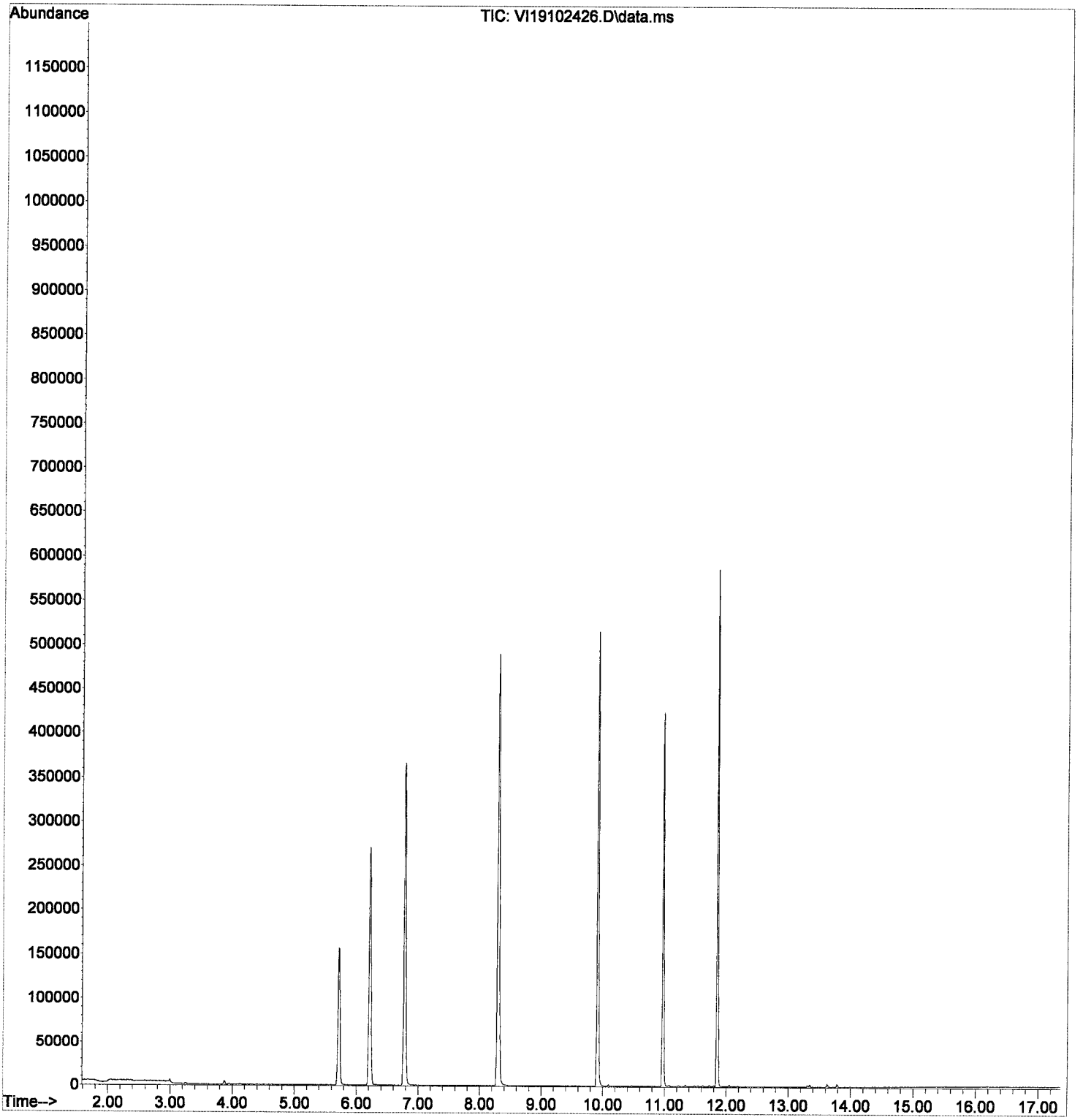
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	112457	50.00	ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.910	117	299558	50.00	ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	136435	50.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.712	111	110045	49.80	ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	354886	49.95	ug/L	0.00
48) Toluene-d8 (S)	8.298	98	401381	51.05	ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	112112	50.86	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.679	85	219	0.12	ug/L #	49
3) Chloromethane	1.898	50	309	0.13	ug/L #	47
5) Bromomethane	2.366	96	254	0.18	ug/L #	43
6) Chloroethane	2.518	64	211	0.19	ug/L #	36
10) Carbon Disulfide	3.248	76	1601	0.33	ug/L	78
15) Acetone	3.948	43	1040	1.06	ug/L	95
50) Tetrachloroethene (PCE)	8.803	166	260	0.13	ug/L #	25
61) m,p-Xylenes (2)	10.092	91	1118	0.16	ug/L	95
69) n-Propylbenzene	11.072	91	1265	0.14	ug/L	91
72) 1,3,5-Trimethylbenzene	11.230	105	651	0.11	ug/L	81
75) 4-Chlorotoluene	11.339	91	738	0.13	ug/L	86
76) tert-Butylbenzene	11.485	91	323	0.09	ug/L #	83
77) 1,2,4-Trimethylbenzene	11.540	105	743	0.12	ug/L	92
78) sec-Butylbenzene	11.625	105	1155	0.15	ug/L	94
79) 4-Isopropyltoluene	11.729	119	1010	0.17	ug/L	89
80) 1,3-Dichlorobenzene	11.802	146	590	0.16	ug/L	93
81) 1,4-Dichlorobenzene	11.863	146	797	0.21	ug/L #	7
82) n-Butylbenzene	12.051	91	1166	0.23	ug/L	98
83) 1,2-Dichlorobenzene	12.185	146	421	0.12	ug/L #	70
85) Hexachlorobutadiene	13.304	223	332	0.66	ug/L #	72
86) 1,2,4-Trichlorobenzene	13.341	180	1230	0.60	ug/L	94
87) Naphthalene	13.627	128	3549	0.54	ug/L	93
88) 1,2,3-Trichlorobenzene	13.785	180	1510	0.77	ug/L	82

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102426.D
Acq On : 24 Oct 2019 7:57 pm
Operator : MM
Sample : 9J24043-IBL2
Misc : 1X 5mL DI
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:40 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102427.D
Acq On : 24 Oct 2019 8:24 pm
Operator : MM
Sample : 9J24043-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:41 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	111989	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.909	117	318635	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	163243	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.718	111	113819	49.55	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	356857	55.62	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	405945	49.35	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	124392	47.37	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.684	85	212153	96.39	ug/L		98
3) Chloromethane	1.897	50	226754	87.47	ug/L		96
4) Vinyl Chloride	2.001	62	258510	111.76	ug/L		98
5) Bromomethane	2.366	96	125242	70.23	ug/L		98
6) Chloroethane	2.506	64	53786	45.81	ug/L		81
7) Trichlorofluoromethane	2.664	101	279991	75.86	ug/L		97
8) Ethanol	3.242	45	254643	5693.08	ug/L		88
9) 1,1-Dichloroethene	3.236	61	286478	101.36	ug/L		92
10) Carbon Disulfide	3.254	76	531736	114.66	ug/L		98
11) Freon 113	3.291	101	204168	110.71	ug/L		97
12) Iodomethane	3.388	142	153366	122.76	ug/L		92
13) Acrolein	3.625	56	60054	150.27	ug/L		72
14) Methylene Chloride	3.875	84	209114	104.97	ug/L		88
15) Acetone	3.942	43	188786	195.63	ug/L		96
16) t-1,2-Dichloroethene	4.039	61	285846	112.82	ug/L		95
17) n-Hexane	4.124	86	43920	141.46	ug/L		93
18) Methyl-tert-butyl-ether	4.167	73	646936	115.78	ug/L		92
19) tert-Butanol (TBA)	4.294	59	2295578	6630.79	ug/L		91
20) Diisopropyl ether (DIPE)	4.568	45	122827	21.57	ug/L		93
21) 1,1-Dichloroethane	4.684	63	379907	106.41	ug/L		96
22) Acrylonitrile	4.751	53	122564	116.27	ug/L		98
23) Ethyl-tert-butyl ether...	4.939	59	121788	24.06	ug/L		98
24) Vinyl Acetate	4.957	43	522592	123.03	ug/L		95
25) c-1,2-Dichloroethene	5.243	61	297452	106.74	ug/L		91
26) 2,2-Dichloropropane	5.353	77	252830	101.52	ug/L		95
27) Bromochloromethane	5.450	130	151653	110.19	ug/L		94
28) Chloroform	5.529	83	385051	100.61	ug/L		97
29) Carbon Tetrachloride	5.663	117	247648	94.37	ug/L		94
30) Tetrahydrofuran	5.700	42	111881	120.85	ug/L		86
31) 1,1,1-Trichloroethane	5.736	97	325398	102.81	ug/L		96
33) 1,1-Dichloropropene	5.864	75	308104	121.49	ug/L		95
34) 2-Butanone (MEK)	5.852	43	331914	225.64	ug/L		97
35) Benzene	6.119	78	900809	118.09	ug/L		96
36) tert-Amyl methyl ether...	6.247	73	111127	21.87	ug/L		99
37) 1,2-Dichloroethane (EDC)	6.338	62	294149	94.48	ug/L		92
38) iso-Butyl Alcohol	6.375	43	450055	3378.00	ug/L		92
40) Trichloroethene (TCE)	6.746	130	245311	126.23	ug/L		94
41) Tert-Amyl-Ethyl-Ether ...	6.995	59	83591	26.07	ug/L		86
42) Dibromomethane	7.196	93	155032	111.99	ug/L		94
43) 1,2-Dichloropropane	7.312	63	229327	110.76	ug/L		90
44) Bromodichloromethane	7.379	83	282119	101.45	ug/L		92
46) 2-Chloroethyl Vinyl Ether	8.024	63	185987	122.70	ug/L	#	100
47) c-1,3-Dichloropropene	8.090	75	356393	118.14	ug/L		86

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102427.D
Acq On : 24 Oct 2019 8:24 pm
Operator : MM
Sample : 9J24043-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:41 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

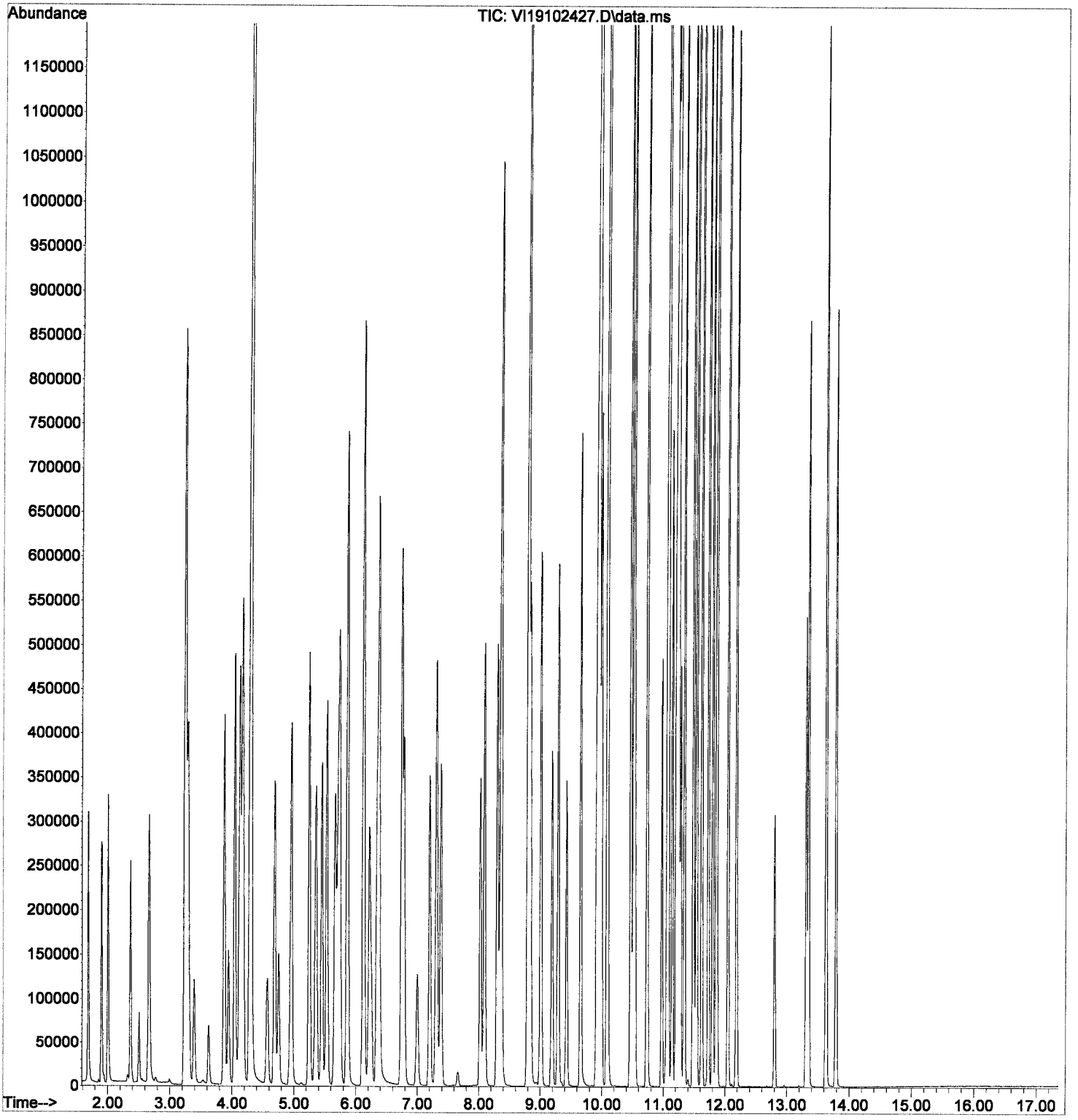
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	8.358	91	931584	104.48	ug/L	99
50) Tetrachloroethene (PCE)	8.796	166	236880	116.36	ug/L	92
51) 4-Methyl-2-Pentanone (...	8.796	43	616767	218.34	ug/L	92
52) t-1,3-Dichloropropene	8.839	75	327146	108.93	ug/L	98
53) 1,1,2-Trichloroethane	9.009	97	221018	102.93	ug/L	92
54) Dibromochloromethane	9.186	129	222919	98.91	ug/L	98
55) 1,3-Dichloropropane	9.289	76	379039	105.53	ug/L	90
56) 1,2-Dibromoethane (EDB)	9.423	107	243688	110.52	ug/L	94
57) 2-Hexanone	9.654	43	456833	223.60	ug/L	90
58) Chlorobenzene	9.928	112	624905	110.67	ug/L	98
59) Ethylbenzene	9.952	91	1015747	109.00	ug/L	97
60) 1,1,1,2-Tetrachloroethane	9.989	131	206263	105.52	ug/L	96
61) m,p-Xylenes (2)	10.086	91	1568164	215.46	ug/L	98
62) o-Xylene	10.463	91	785588	106.87	ug/L	100
63) Styrene	10.512	104	653902	114.07	ug/L	98
64) Bromoform	10.536	173	162527	101.72	ug/L	98
65) Isopropylbenzene	10.731	105	973691	110.72	ug/L	98
68) Bromobenzene	11.059	156	265287	112.81	ug/L	91
69) n-Propylbenzene	11.071	91	1142995	111.76	ug/L	100
70) 1,1,2,2-Tetrachloroethane	11.138	85	212550	99.67	ug/L	94
71) 2-Chlorotoluene	11.205	126	238214	117.38	ug/L	96
72) 1,3,5-Trimethylbenzene	11.230	105	783721	114.91	ug/L	97
73) 1,2,3-Trichloropropane	11.248	110	103994	99.89	ug/L	91
74) t-1,4-Dichloro-2-butene	11.278	53	76466	94.39	ug/L	93
75) 4-Chlorotoluene	11.339	91	688819	113.48	ug/L	98
76) tert-Butylbenzene	11.479	91	431117	114.79	ug/L	98
77) 1,2,4-Trimethylbenzene	11.534	105	798406	110.07	ug/L	97
78) sec-Butylbenzene	11.619	105	969880	118.68	ug/L	98
79) 4-Isopropyltoluene	11.728	119	812481	115.11	ug/L	97
80) 1,3-Dichlorobenzene	11.795	146	461068	111.58	ug/L	98
81) 1,4-Dichlorobenzene	11.862	146	468883	103.17	ug/L	97
82) n-Butylbenzene	12.045	91	694929	122.18	ug/L	99
83) 1,2-Dichlorobenzene	12.185	146	439251	110.73	ug/L	98
84) 1,2-Dibromo-3-Chloropr...	12.799	157	81625	131.48	ug/L	92
85) Hexachlorobutadiene	13.304	223	62008	112.60	ug/L	96
86) 1,2,4-Trichlorobenzene	13.347	180	268764	142.44	ug/L	98
87) Naphthalene	13.627	128	899370	118.81	ug/L	98
88) 1,2,3-Trichlorobenzene	13.785	180	260549	141.24	ug/L	96

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102427.D
Acq On : 24 Oct 2019 8:24 pm
Operator : MM
Sample : 9J24043-CALA
Misc : 1X 5mL 100/200PPB VOCR
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:41 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102428.D
Acq On : 24 Oct 2019 8:51 pm
Operator : MM
Sample : 9J24043-IBL3
Misc : 1X 5mL DI
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:44 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	111004	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.916	117	296306	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	134814	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.718	111	109567	50.24	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	354190	50.51	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	395820	50.89	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	112213	51.51	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	460	0.25	ug/L	#	49
3) Chloromethane	1.904	50	377	0.16	ug/L	#	47
4) Vinyl Chloride	2.007	62	243	0.10	ug/L	#	50
5) Bromomethane	2.378	96	380	0.27	ug/L	#	63
6) Chloroethane	2.475	64	250	0.23	ug/L	#	36
7) Trichlorofluoromethane	2.676	101	332	0.12	ug/L	#	27
9) 1,1-Dichloroethene	3.242	61	244	0.09	ug/L	#	66
10) Carbon Disulfide	3.260	76	3074	0.63	ug/L		91
11) Freon 113	3.303	101	464	0.25	ug/L	#	64
12) Iodomethane	3.394	142	124	6.13	ug/L	#	47
14) Methylene Chloride	3.881	84	3969	1.09	ug/L	#	77
15) Acetone	3.948	43	1229	1.26	ug/L		100
16) t-1,2-Dichloroethene	4.045	61	638	0.25	ug/L		95
19) tert-Butanol (TBA)	4.307	59	387	0.90	ug/L		46
33) 1,1-Dichloropropene	5.870	75	460	0.16	ug/L	#	43
40) Trichloroethene (TCE)	6.752	130	288	0.13	ug/L	#	77
49) Toluene	8.352	91	913	0.10	ug/L		85
50) Tetrachloroethene (PCE)	8.796	166	577	0.28	ug/L	#	68
58) Chlorobenzene	9.928	112	773	0.14	ug/L	#	1
59) Ethylbenzene	9.958	91	1209	0.13	ug/L		91
61) m,p-Xylenes (2)	10.092	91	2162	0.32	ug/L		89
62) o-Xylene	10.469	91	668	0.10	ug/L		82
63) Styrene	10.524	104	495	0.09	ug/L	#	42
65) Isopropylbenzene	10.731	105	1275	0.16	ug/L		97
68) Bromobenzene	11.059	156	288	0.14	ug/L		83
69) n-Propylbenzene	11.078	91	2421	0.27	ug/L		95
71) 2-Chlorotoluene	11.211	126	168	0.09	ug/L	#	78
72) 1,3,5-Trimethylbenzene	11.230	105	1309	0.21	ug/L		93
75) 4-Chlorotoluene	11.345	91	1369	0.25	ug/L		91
76) tert-Butylbenzene	11.485	91	751	0.22	ug/L		89
77) 1,2,4-Trimethylbenzene	11.540	105	1395	0.23	ug/L		94
78) sec-Butylbenzene	11.619	105	2367	0.31	ug/L		93
79) 4-Isopropyltoluene	11.729	119	2004	0.34	ug/L		95
80) 1,3-Dichlorobenzene	11.795	146	1269	0.35	ug/L		90
81) 1,4-Dichlorobenzene	11.862	146	1515	0.40	ug/L	#	64
82) n-Butylbenzene	12.045	91	2454	0.48	ug/L		99
83) 1,2-Dichlorobenzene	12.185	146	829	0.23	ug/L		91
85) Hexachlorobutadiene	13.304	223	765	1.55	ug/L		89
86) 1,2,4-Trichlorobenzene	13.341	180	2446	1.20	ug/L		96
87) Naphthalene	13.627	128	6843	1.06	ug/L		97
88) 1,2,3-Trichlorobenzene	13.785	180	2978	1.54	ug/L		95

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102428.D
Acq On : 24 Oct 2019 8:51 pm
Operator : MM
Sample : 9J24043-IBL3
Misc : 1X 5mL DI
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:44 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

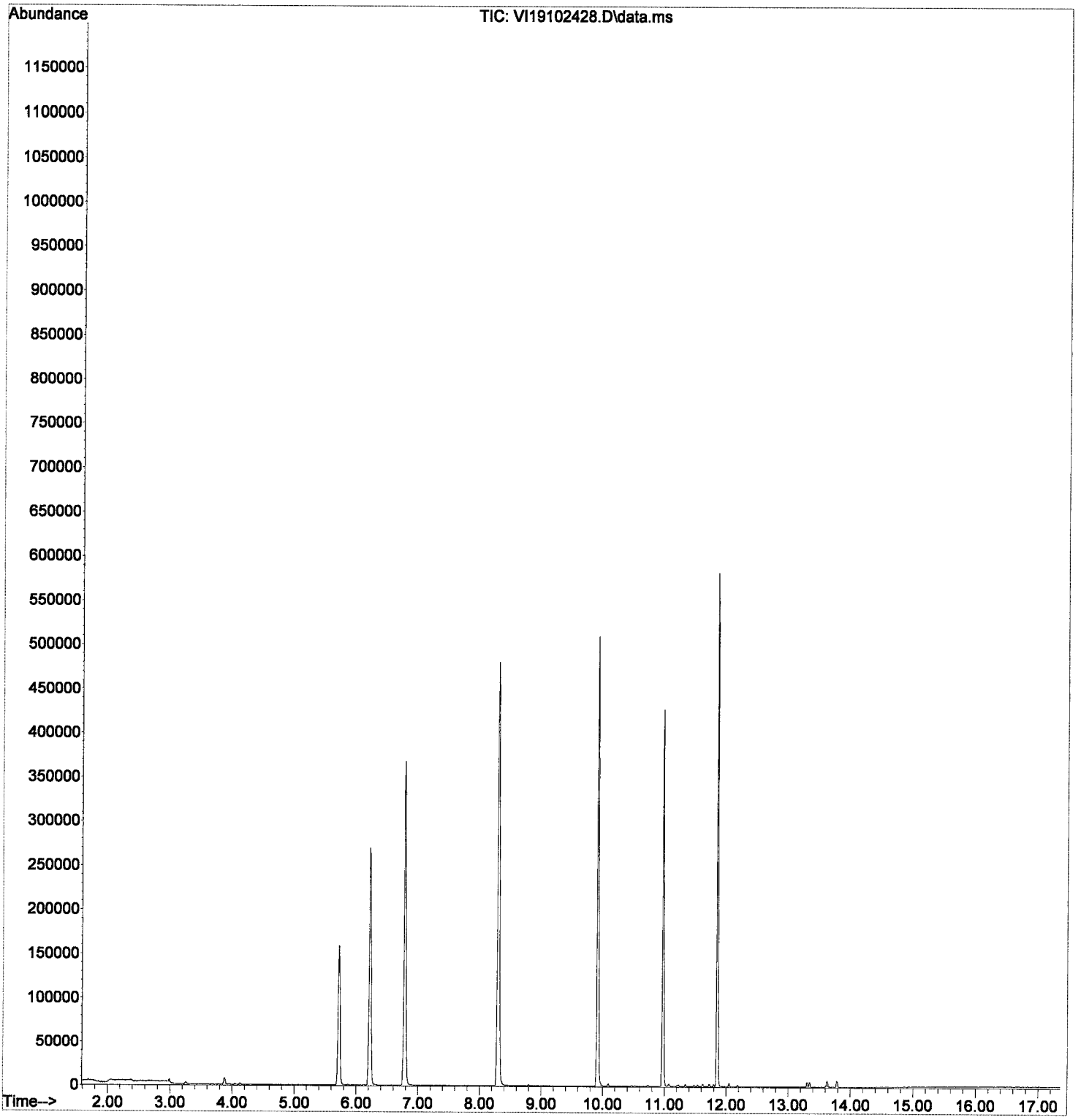
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102428.D
Acq On : 24 Oct 2019 8:51 pm
Operator : MM
Sample : 9J24043-IBL3
Misc : 1X 5mL DI
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:44 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102429.D
Acq On : 24 Oct 2019 9:17 pm
Operator : MM
Sample : 9J24043-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:44 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	6.217	99	116034	50.00 ug/L	# 0.00
45) Chlorobenzene-d5 (I)	9.916	117	330915	50.00 ug/L	0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	169365	50.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane (S)	5.712	111	118677	49.86 ug/L	0.00
39) 1,4-Difluorobenzene (S)	6.783	114	369003	55.51 ug/L	0.00
48) Toluene-d8 (S)	8.297	98	420947	49.28 ug/L	0.00
67) 4-Bromofluorobenzene (S)	10.974	174	127221	46.70 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.685	85	431143	189.06 ug/L	99
3) Chloromethane	1.897	50	456703	170.02 ug/L	96
4) Vinyl Chloride	2.001	62	521368	217.54 ug/L	97
5) Bromomethane	2.366	96	267468	144.76 ug/L	99
6) Chloroethane	2.494	64	53331	43.84 ug/L	86
7) Trichlorofluoromethane	2.658	101	556445	145.51 ug/L	96
8) ~~Ethanol~~	~~3.248~~	~~45~~	~~3815~~	~~82.32 ug/L~~ #	~~1~~
9) 1,1-Dichloroethene	3.230	61	567371	193.74 ug/L	92
10) Carbon Disulfide	3.248	76	1067583	222.18 ug/L	98
11) Freon 113	3.285	101	411156	215.18 ug/L	96
12) Iodomethane	3.388	142	348091	216.50 ug/L	94
13) Acrolein	3.619	56	116360	281.01 ug/L	72
14) Methylene Chloride	3.875	84	419637	199.87 ug/L	87
15) Acetone	3.942	43	375022	375.07 ug/L	94
16) t-1,2-Dichloroethene	4.039	61	579277	220.67 ug/L	91
17) n-Hexane	4.124	86	92077	286.23 ug/L	96
18) Methyl-tert-butyl-ether	4.167	73	1318751	227.79 ug/L	93
19) ~~tert-Butanol (TBA)~~	~~4.294~~	~~59~~	~~1885~~	~~5.26 ug/L~~ #	~~34~~
20) ~~Diisopropyl ether (DIPE)~~	~~4.568~~	~~45~~	~~1263~~	~~0.21 ug/L~~	~~96~~
21) 1,1-Dichloroethane	4.684	63	761535	205.86 ug/L	97
22) Acrylonitrile	4.751	53	243406	222.86 ug/L	99
23) ~~Ethyl-tert-butyl ether...~~	~~4.939~~	~~59~~	~~984~~	~~0.19 ug/L~~ #	~~1~~
24) Vinyl Acetate	4.957	43	980632	222.81 ug/L	94
25) c-1,2-Dichloroethene	5.243	61	597836	207.05 ug/L	89
26) 2,2-Dichloropropane	5.353	77	512393	198.56 ug/L	92
27) Bromochloromethane	5.450	130	288672	202.44 ug/L	91
28) Chloroform	5.529	83	776466	195.81 ug/L	96
29) Carbon Tetrachloride	5.663	117	525973	193.45 ug/L	95
30) Tetrahydrofuran	5.694	42	221252	230.66 ug/L	85
31) 1,1,1-Trichloroethane	5.736	97	663507	202.33 ug/L	95
33) 1,1-Dichloropropene	5.864	75	622283	236.82 ug/L	94
34) 2-Butanone (MEK)	5.852	43	651518	427.47 ug/L	95
35) Benzene	6.119	78	1815119	229.66 ug/L	96
36) ~~tert-Amyl methyl ether...~~	~~6.253~~	~~73~~	~~804~~	~~0.15 ug/L~~ #	~~44~~
37) 1,2-Dichloroethane (EDC)	6.338	62	583025	180.73 ug/L	92
38) iso-Butyl Alcohol	6.375	43	863259	6253.53 ug/L	90
40) Trichloroethene (TCE)	6.740	130	498651	247.64 ug/L	95
41) ~~Tert-Amyl-Ethyl-Ether ...~~	~~7.002~~	~~59~~	~~794~~	~~0.24 ug/L~~	~~83~~
42) Dibromomethane	7.196	93	314382	219.17 ug/L	96
43) 1,2-Dichloropropane	7.312	63	461364	215.06 ug/L	91
44) Bromodichloromethane	7.379	83	582259	202.08 ug/L	93
46) 2-Chloroethyl Vinyl Ether	8.024	63	361318	207.89 ug/L #	100
47) c-1,3-Dichloropropene	8.091	75	736312	235.01 ug/L	86

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102429.D
Acq On : 24 Oct 2019 9:17 pm
Operator : MM
Sample : 9J24043-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:44 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration

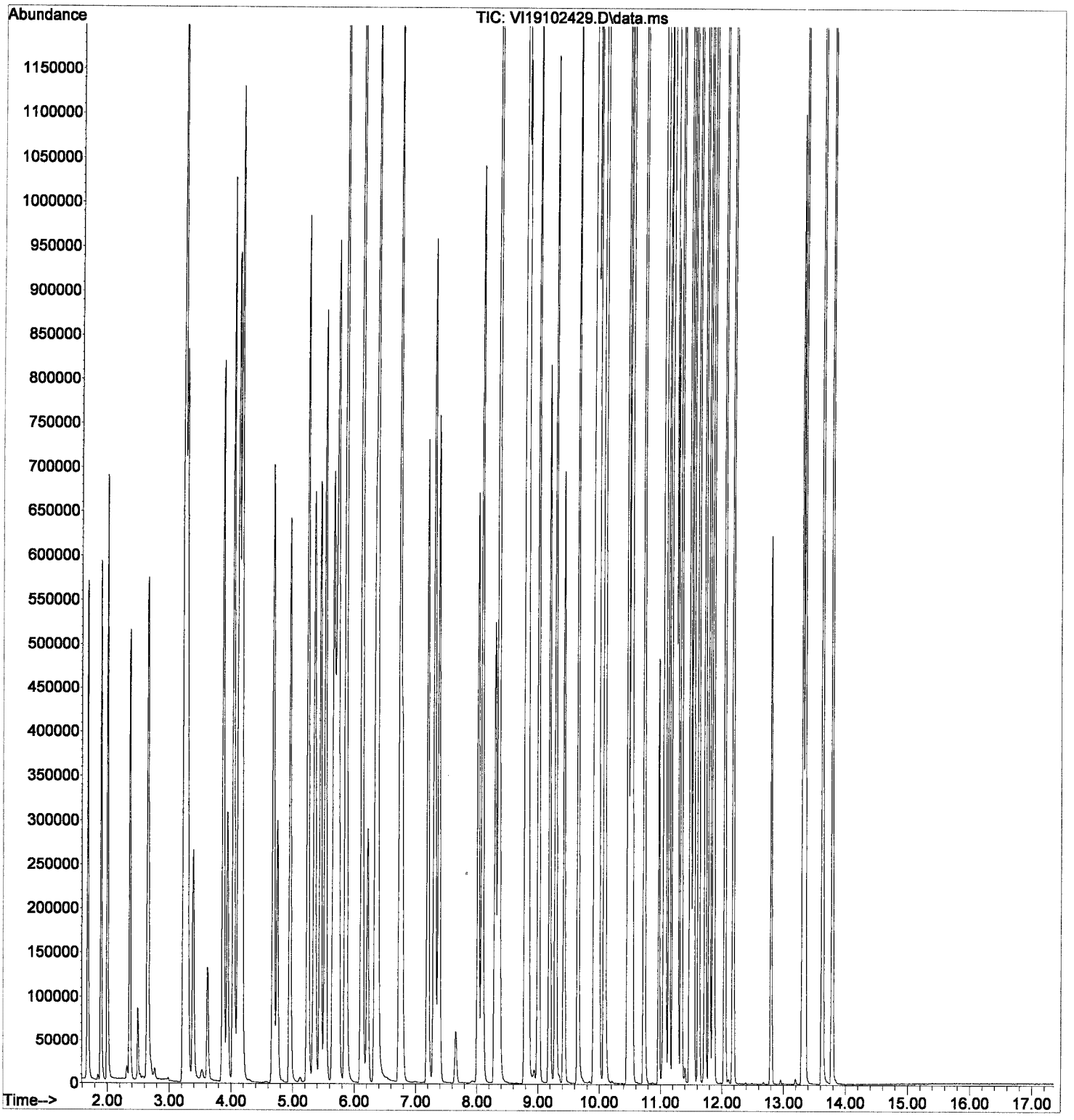
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	8.358	91	1905088	205.73	ug/L	100
50) Tetrachloroethene (PCE)	8.796	166	496433	234.81	ug/L	93
51) 4-Methyl-2-Pentanone (...	8.796	43	1166981	397.79	ug/L	90
52) t-1,3-Dichloropropene	8.839	75	678927	217.67	ug/L	98
53) 1,1,2-Trichloroethane	9.009	97	447395	200.62	ug/L	91
54) Dibromochloromethane	9.186	129	473598	202.33	ug/L	98
55) 1,3-Dichloropropane	9.289	76	755862	202.63	ug/L	88
56) 1,2-Dibromoethane (EDB)	9.423	107	496207	216.69	ug/L	95
57) 2-Hexanone	9.654	43	866990	408.61	ug/L	89
58) Chlorobenzene	9.928	112	1285529	219.22	ug/L	98
59) Ethylbenzene	9.952	91	2091382	216.09	ug/L	96
60) 1,1,1,2-Tetrachloroethane	9.989	131	427244	210.45	ug/L	97
61) m,p-Xylenes (2)	10.086	91	3227914	393.99	ug/L	97
62) o-Xylene	10.463	91	1606355	191.75	ug/L	99
63) Styrene	10.512	104	1353743	206.36	ug/L	98
64) Bromoform	10.536	173	351162	211.63	ug/L	97
65) Isopropylbenzene	10.731	105	1980670	196.46	ug/L	98
68) Bromobenzene	11.059	156	542011	222.15	ug/L	92
69) n-Propylbenzene	11.071	91	2308779	217.60	ug/L	99
70) 1,1,2,2-Tetrachloroethane	11.138	85	408430	184.60	ug/L	94
71) 2-Chlorotoluene	11.205	126	490093	232.77	ug/L	92
72) 1,3,5-Trimethylbenzene	11.230	105	1618836	228.77	ug/L	97
73) 1,2,3-Trichloropropane	11.248	110	199656	184.85	ug/L	91
74) t-1,4-Dichloro-2-butene	11.278	53	148266	176.41	ug/L	93
75) 4-Chlorotoluene	11.339	91	1379272	219.02	ug/L	99
76) tert-Butylbenzene	11.479	91	872573	223.94	ug/L	99
77) 1,2,4-Trimethylbenzene	11.534	105	1629601	200.54	ug/L	97
78) sec-Butylbenzene	11.619	105	1977513	233.24	ug/L	98
79) 4-Isopropyltoluene	11.729	119	1677679	205.31	ug/L	96
80) 1,3-Dichlorobenzene	11.795	146	936572	218.47	ug/L	99
81) 1,4-Dichlorobenzene	11.862	146	949679	201.41	ug/L	97
82) n-Butylbenzene	12.045	91	1435776	243.31	ug/L	100
83) 1,2-Dichlorobenzene	12.185	146	884385	214.88	ug/L	98
84) 1,2-Dibromo-3-Chloropr...	12.799	157	169849	263.70	ug/L	91
85) Hexachlorobutadiene	13.304	223	126838	221.99	ug/L	96
86) 1,2,4-Trichlorobenzene	13.347	180	564943	288.60	ug/L	97
87) Naphthalene	13.627	128	1872418	204.22	ug/L	98
88) 1,2,3-Trichlorobenzene	13.785	180	552458	288.66	ug/L	97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102429.D
Acq On : 24 Oct 2019 9:17 pm
Operator : MM
Sample : 9J24043-CALB
Misc : 1X 5mL 200/400PPB VOCR
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:10:44 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Tue Aug 06 08:58:13 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102430.D
Acq On : 24 Oct 2019 9:44 pm
Operator : MM
Sample : 9J24043-IBL4
Misc : 1X 5mL DI
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:47 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	114565	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.916	117	310520	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	145083	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.718	111	112455	49.96	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	365140	50.45	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	412521	50.61	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	119053	50.79	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	901	0.48	ug/L		86
3) Chloromethane	1.904	50	702	0.28	ug/L		91
4) Vinyl Chloride	2.007	62	555	0.22	ug/L		76
5) Bromomethane	2.366	96	620	0.42	ug/L	#	66
6) Chloroethane	2.475	64	119	0.10	ug/L	#	36
7) Trichlorofluoromethane	2.682	101	785	0.28	ug/L		75
9) 1,1-Dichloroethene	3.242	61	667	0.25	ug/L	#	68
10) Carbon Disulfide	3.254	76	6515	1.30	ug/L		94
11) Freon 113	3.291	101	931	0.48	ug/L		95
12) Iodomethane	3.394	142	137	6.13	ug/L	#	47
14) Methylene Chloride	3.875	84	7612	2.78	ug/L		89
15) Acetone	3.954	43	1615	1.61	ug/L		99
16) t-1,2-Dichloroethene	4.045	61	1218	0.46	ug/L		78
17) n-Hexane	4.136	86	112	0.28	ug/L	#	32
25) c-1,2-Dichloroethene	5.250	61	460	0.16	ug/L		83
33) 1,1-Dichloropropene	5.870	75	1080	0.37	ug/L		91
35) Benzene	6.132	78	1050	0.12	ug/L		55
40) Trichloroethene (TCE)	6.746	130	726	0.32	ug/L		83
49) Toluene	8.364	91	1892	0.21	ug/L		82
50) Tetrachloroethene (PCE)	8.802	166	1170	0.55	ug/L		97
52) t-1,3-Dichloropropene	8.851	75	248	0.09	ug/L	#	45
58) Chlorobenzene	9.928	112	1487	0.26	ug/L	#	41
59) Ethylbenzene	9.952	91	2481	0.26	ug/L		98
61) m,p-Xylenes (2)	10.086	91	3988	0.57	ug/L		87
62) o-Xylene	10.469	91	1347	0.19	ug/L		91
63) Styrene	10.518	104	1067	0.19	ug/L		84
65) Isopropylbenzene	10.731	105	2410	0.28	ug/L		98
68) Bromobenzene	11.059	156	607	0.27	ug/L	#	77
69) n-Propylbenzene	11.078	91	4614	0.48	ug/L		96
71) 2-Chlorotoluene	11.205	126	614	0.30	ug/L		91
72) 1,3,5-Trimethylbenzene	11.230	105	2535	0.38	ug/L		94
75) 4-Chlorotoluene	11.339	91	2932	0.49	ug/L		94
76) tert-Butylbenzene	11.479	91	1522	0.41	ug/L	#	74
77) 1,2,4-Trimethylbenzene	11.540	105	2816	0.42	ug/L		95
78) sec-Butylbenzene	11.619	105	4551	0.56	ug/L		94
79) 4-Isopropyltoluene	11.729	119	3934	0.61	ug/L		99
80) 1,3-Dichlorobenzene	11.802	146	2380	0.61	ug/L		96
81) 1,4-Dichlorobenzene	11.862	146	2728	0.67	ug/L	#	77
82) n-Butylbenzene	12.045	91	4783	0.88	ug/L		94
83) 1,2-Dichlorobenzene	12.185	146	1646	0.43	ug/L		95
85) Hexachlorobutadiene	13.304	223	1948	3.66	ug/L		90
86) 1,2,4-Trichlorobenzene	13.347	180	4827	2.20	ug/L		92
87) Naphthalene	13.627	128	13602	1.95	ug/L		98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102430.D
Acq On : 24 Oct 2019 9:44 pm
Operator : MM
Sample : 9J24043-IBL4
Misc : 1X 5mL DI
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:47 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

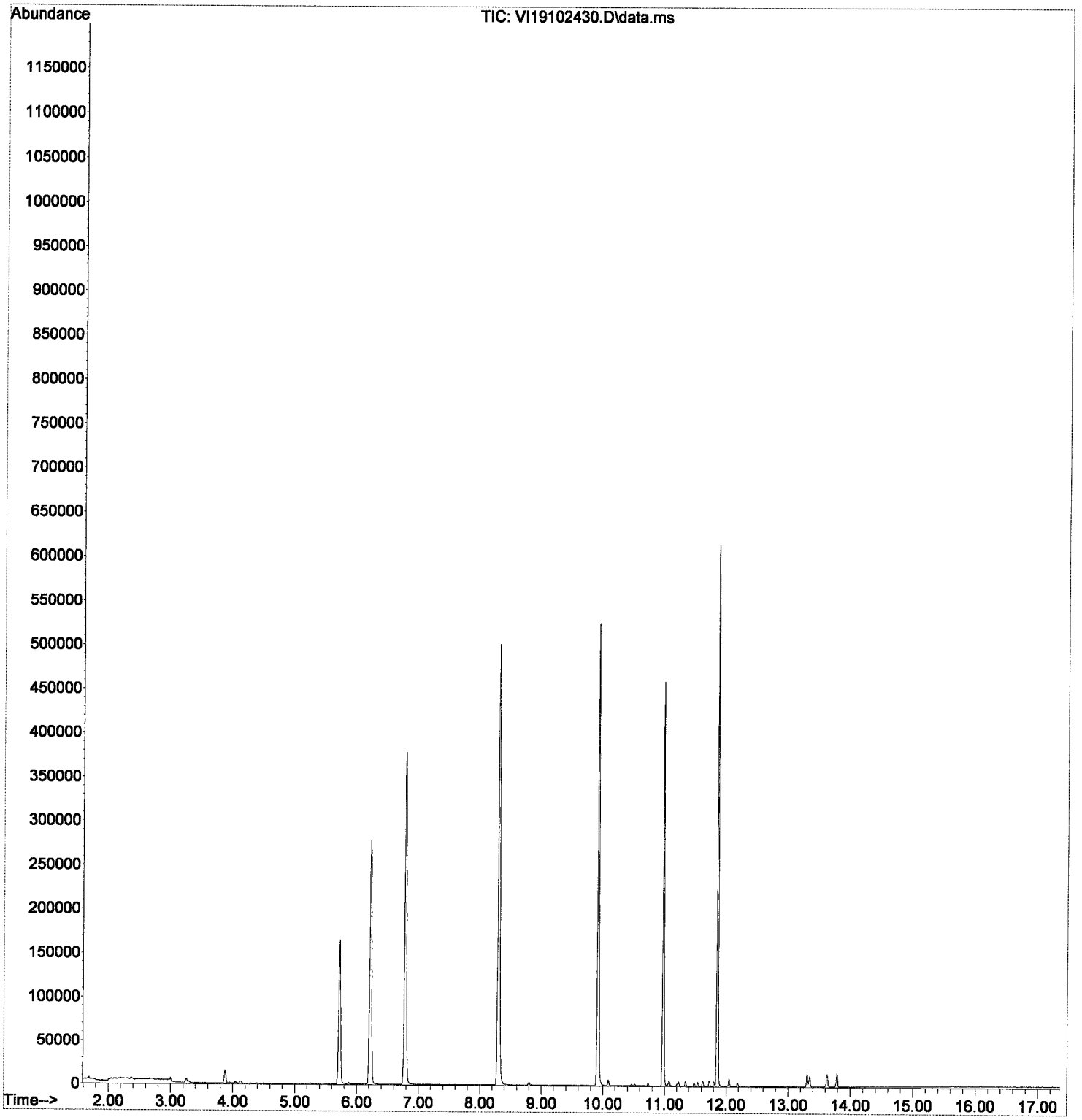
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
88) 1,2,3-Trichlorobenzene	13.785	180	5992	2.88	ug/L	97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102430.D
Acq On : 24 Oct 2019 9:44 pm
Operator : MM
Sample : 9J24043-IBL4
Misc : 1X 5mL DI
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:47 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102431.D
Acq On : 24 Oct 2019 10:11 pm
Operator : MM
Sample : 9J24043-IBL5
Misc : 1X 5mL DI
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:50 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

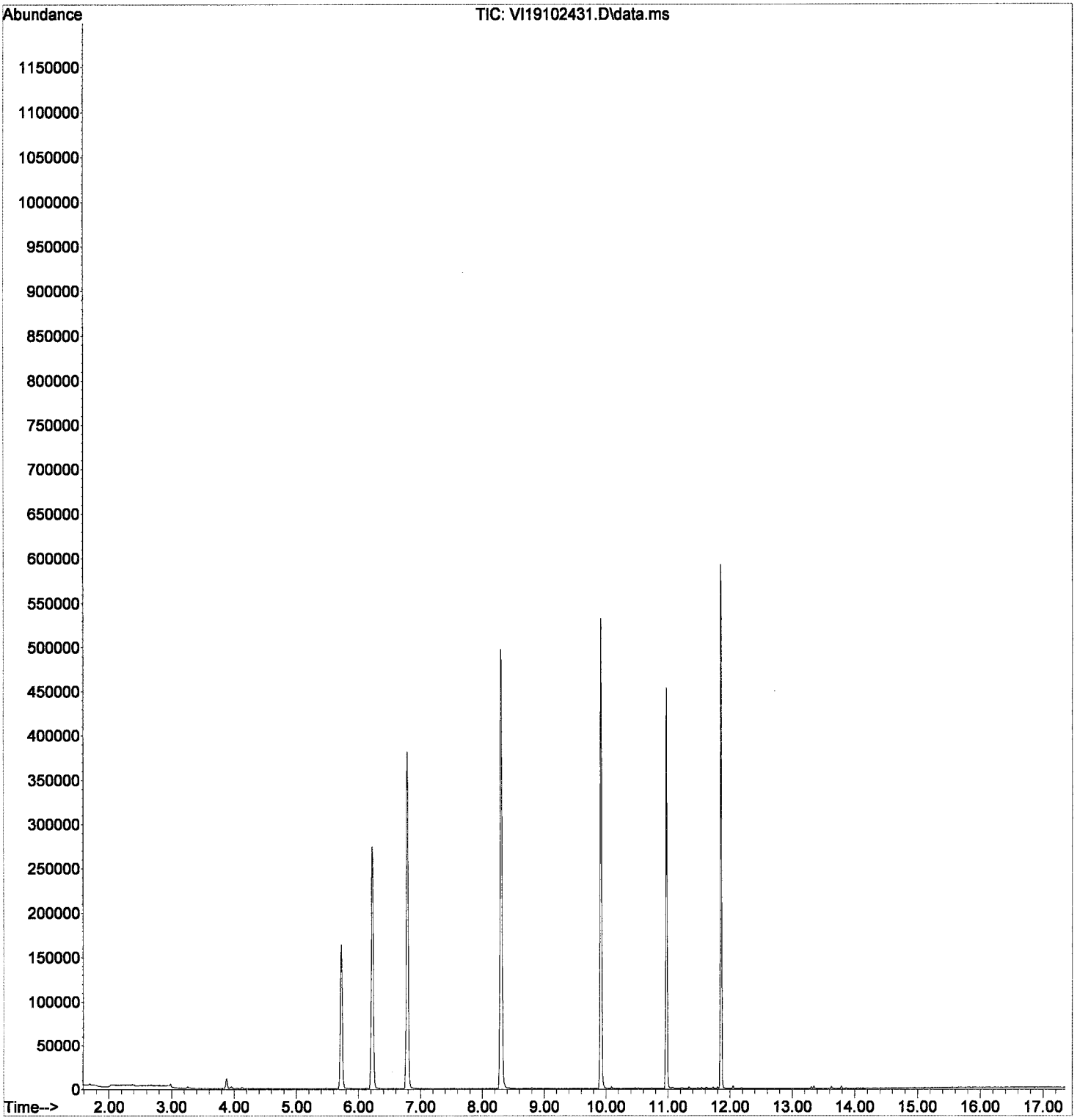
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	114296	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.916	117	308297	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	139384	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.718	111	112321	50.01	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	364393	50.46	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	406006	50.17	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	117384	52.12	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	321	0.17	ug/L	#	49
3) Chloromethane	1.904	50	302	0.12	ug/L	#	47
5) Bromomethane	2.378	96	484	0.33	ug/L	#	56
6) Chloroethane	2.500	64	259	0.23	ug/L	#	36
10) Carbon Disulfide	3.260	76	2655	0.53	ug/L		89
11) Freon 113	3.291	101	416	0.21	ug/L	#	74
14) Methylene Chloride	3.881	84	5891	1.96	ug/L		86
15) Acetone	3.954	43	3138	3.13	ug/L		97
16) t-1,2-Dichloroethene	4.039	61	402	0.15	ug/L	#	70
33) 1,1-Dichloropropene	5.870	75	357	0.12	ug/L	#	43
49) Toluene	8.358	91	884	0.10	ug/L		92
50) Tetrachloroethene (PCE)	8.802	166	422	0.20	ug/L	#	70
58) Chlorobenzene	9.928	112	577	0.10	ug/L	#	5
59) Ethylbenzene	9.952	91	980	0.10	ug/L		83
61) m,p-Xylenes (2)	10.086	91	1705	0.24	ug/L		86
65) Isopropylbenzene	10.737	105	735	0.09	ug/L		54
69) n-Propylbenzene	11.072	91	1706	0.18	ug/L		90
72) 1,3,5-Trimethylbenzene	11.230	105	901	0.14	ug/L		86
75) 4-Chlorotoluene	11.339	91	1026	0.18	ug/L		91
76) tert-Butylbenzene	11.479	91	379	0.11	ug/L	#	75
77) 1,2,4-Trimethylbenzene	11.540	105	984	0.15	ug/L		90
78) sec-Butylbenzene	11.625	105	1431	0.18	ug/L		80
79) 4-Isopropyltoluene	11.729	119	1483	0.24	ug/L		96
80) 1,3-Dichlorobenzene	11.802	146	846	0.22	ug/L		96
81) 1,4-Dichlorobenzene	11.862	146	1023	0.26	ug/L	#	40
82) n-Butylbenzene	12.051	91	1702	0.32	ug/L		91
83) 1,2-Dichlorobenzene	12.191	146	544	0.15	ug/L	#	66
85) Hexachlorobutadiene	13.304	223	353	0.69	ug/L		94
86) 1,2,4-Trichlorobenzene	13.347	180	1099	0.52	ug/L		84
87) Naphthalene	13.627	128	2260	0.34	ug/L		81
88) 1,2,3-Trichlorobenzene	13.785	180	993	0.50	ug/L		96

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102431.D
Acq On : 24 Oct 2019 10:11 pm
Operator : MM
Sample : 9J24043-IBL5
Misc : 1X 5mL DI
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:50 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102432.D
Acq On : 24 Oct 2019 10:38 pm
Operator : MM
Sample : 9J24043-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

JV 10/25/19

Quant Time: Oct 25 08:52:53 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.217	99	115739	50.00	ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.909	117	319865	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	157880	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	114369	50.29	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.782	114	368262	50.36	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	413951	49.31	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	126483	49.58	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.678	85	47743	25.24	ug/L		99
3) Chloromethane	1.891	50	52000	20.73	ug/L		96
4) Vinyl Chloride	1.995	62	55595	22.12	ug/L		97
5) Bromomethane	2.360	96	33560	22.65	ug/L		98
6) Chloroethane	2.494	64	20238	17.52	ug/L		79
7) Trichlorofluoromethane	2.658	101	58875	20.69	ug/L		97
8) Ethanol	3.236	45	2066	37.15	ug/L		95
9) 1,1-Dichloroethene	3.230	61	54108	19.72	ug/L		91
10) Carbon Disulfide	3.248	76	92901	18.35	ug/L		98
11) Freon 113	3.278	101	37659	19.09	ug/L		97
12) Iodomethane	3.382	142	13440	16.51	ug/L		90
13) Acrolein	3.619	56	10766	20.47	ug/L		64
14) Methylene Chloride	3.868	84	43934	19.96	ug/L		87
15) Acetone	3.935	43	38135	37.60	ug/L		96
16) t-1,2-Dichloroethene	4.039	61	56343	20.98	ug/L		89
17) n-Hexane	4.124	86	7879	19.27	ug/L	#	88
18) Methyl-tert-butyl-ether	4.167	73	122260	19.59	ug/L		93
19) tert-Butanol (TBA)	4.294	59	12609	28.14	ug/L		83
20) Diisopropyl ether (DIPE)	4.562	45	1214	0.18	ug/L		74
21) 1,1-Dichloroethane	4.684	63	76555	20.53	ug/L		97
22) Acrylonitrile	4.744	53	21989	19.59	ug/L		99
23) Ethyl-tert-butyl ether...	4.945	59	1021	0.16	ug/L		69
24) Vinyl Acetate	4.957	43	89589	19.89	ug/L		95
25) c-1,2-Dichloroethene	5.243	61	57695	20.04	ug/L		92
26) 2,2-Dichloropropane	5.347	77	43127	17.72	ug/L		97
27) Bromochloromethane	5.444	130	31156	22.05	ug/L		93
28) Chloroform	5.523	83	76051	20.86	ug/L		96
29) Carbon Tetrachloride	5.657	117	45898	20.70	ug/L		97
30) Tetrahydrofuran	5.700	42	20305	19.03	ug/L		86
31) 1,1,1-Trichloroethane	5.730	97	61359	19.94	ug/L		97
33) 1,1-Dichloropropene	5.858	75	57945	19.60	ug/L		96
34) 2-Butanone (MEK)	5.852	43	60911	37.88	ug/L		97
35) Benzene	6.119	78	173963	19.67	ug/L		97
36) tert-Amyl methyl ether...	6.259	73	1053	0.18	ug/L		74
37) 1,2-Dichloroethane (EDC)	6.338	62	58405	20.16	ug/L		94
38) iso-Butyl Alcohol	6.375	43	83622	519.10	ug/L		92
40) Trichloroethene (TCE)	6.740	130	48413	21.24	ug/L		94
41) Tert-Amyl-Ethyl-Ether ...	6.995	59	625	0.14	ug/L	#	64
42) Dibromomethane	7.196	93	29991	21.13	ug/L		96
43) 1,2-Dichloropropane	7.306	63	44751	20.29	ug/L		93
44) Bromodichloromethane	7.379	83	52780	20.75	ug/L		94
46) 2-Chloroethyl Vinyl Ether	8.023	63	32992	20.09	ug/L	#	100
47) c-1,3-Dichloropropene	8.090	75	62899	19.89	ug/L		88

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102432.D
Acq On : 24 Oct 2019 10:38 pm
Operator : MM
Sample : 9J24043-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:53 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

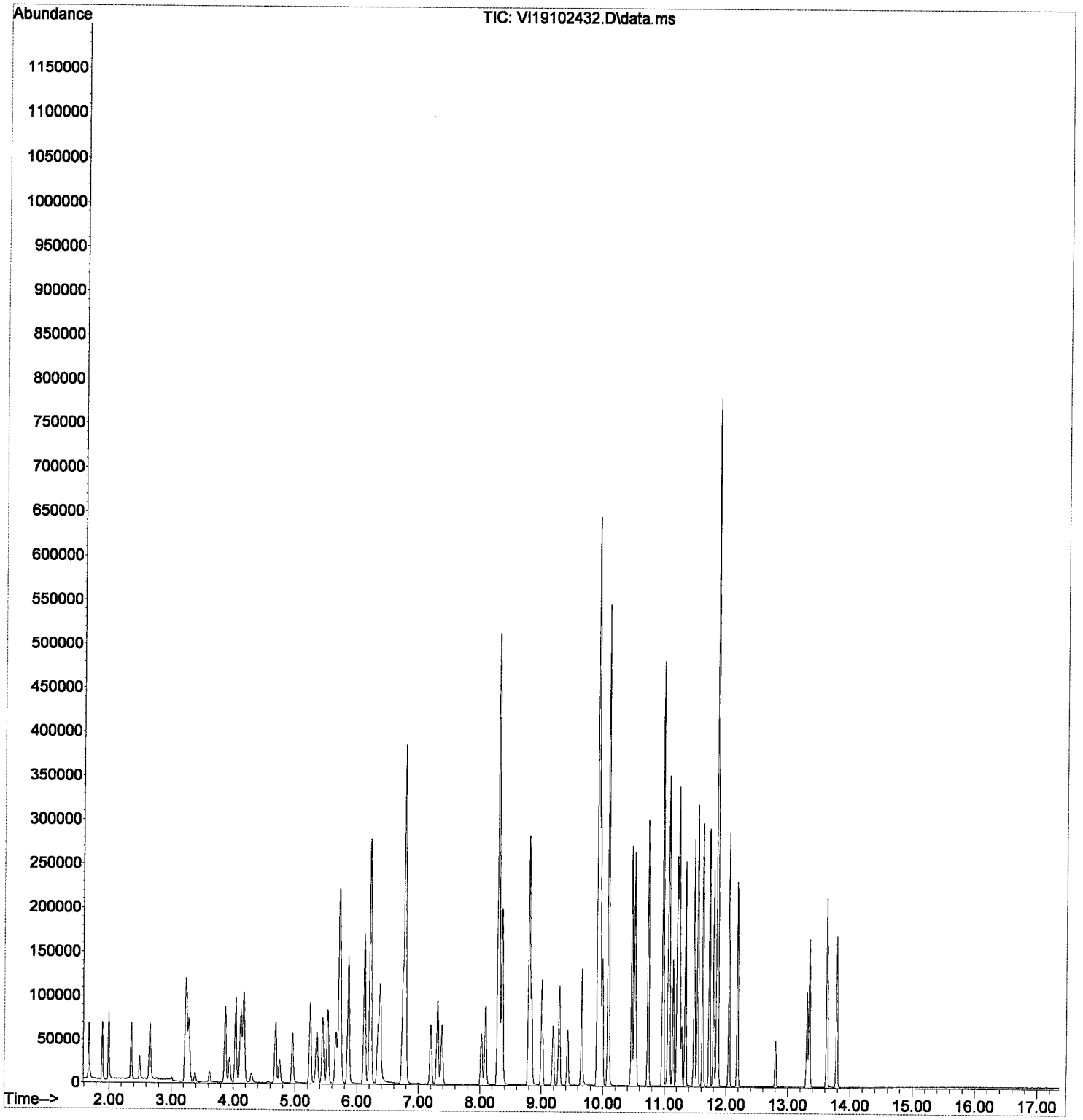
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	8.358	91	182339	19.39	ug/L		100
50) Tetrachloroethene (PCE)	8.796	166	45736	20.89	ug/L		91
51) 4-Methyl-2-Pentanone (...	8.796	43	117185	41.04	ug/L		94
52) t-1,3-Dichloropropene	8.839	75	58067	20.70	ug/L		99
53) 1,1,2-Trichloroethane	9.003	97	44277	21.23	ug/L		94
54) Dibromochloromethane	9.185	129	40034	23.75	ug/L		97
55) 1,3-Dichloropropane	9.289	76	73648	20.48	ug/L		92
56) 1,2-Dibromoethane (EDB)	9.423	107	46898	20.66	ug/L		94
57) 2-Hexanone	9.654	43	84867	40.56	ug/L		91
58) Chlorobenzene	9.928	112	123672	20.60	ug/L		98
59) Ethylbenzene	9.952	91	198723	20.15	ug/L		97
60) 1,1,1,2-Tetrachloroethane	9.988	131	38126	21.77	ug/L		95
61) m,p-Xylenes (2)	10.086	91	297332	40.93	ug/L		99
62) o-Xylene	10.463	91	151148	20.99	ug/L		99
63) Styrene	10.512	104	120728	20.86	ug/L		97
64) Bromoform	10.536	173	26445	21.37	ug/L		97
65) Isopropylbenzene	10.731	105	183894	20.93	ug/L		99
68) Bromobenzene	11.059	156	51357	20.99	ug/L		88
69) n-Propylbenzene	11.071	91	210884	20.10	ug/L		100
70) 1,1,2,2-Tetrachloroethane	11.138	85	42026	20.34	ug/L		94
71) 2-Chlorotoluene	11.205	126	45073	19.94	ug/L		95
72) 1,3,5-Trimethylbenzene	11.230	105	148155	20.66	ug/L		98
73) 1,2,3-Trichloropropane	11.248	110	20758	20.66	ug/L		90
74) t-1,4-Dichloro-2-butene	11.278	53	12607	17.54	ug/L	#	74
75) 4-Chlorotoluene	11.339	91	132799	20.56	ug/L		98
76) tert-Butylbenzene	11.479	91	81539	20.37	ug/L		95
77) 1,2,4-Trimethylbenzene	11.534	105	149487	20.72	ug/L		97
78) sec-Butylbenzene	11.619	105	180737	20.46	ug/L		99
79) 4-Isopropyltoluene	11.728	119	151416	21.66	ug/L		97
80) 1,3-Dichlorobenzene	11.795	146	88840	20.84	ug/L		98
81) 1,4-Dichlorobenzene	11.862	146	91025	20.48	ug/L		97
82) n-Butylbenzene	12.045	91	132273	22.27	ug/L		99
83) 1,2-Dichlorobenzene	12.179	146	86186	20.82	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	12.799	157	14025	20.04	ug/L		92
85) Hexachlorobutadiene	13.304	223	12640	21.85	ug/L		95
86) 1,2,4-Trichlorobenzene	13.347	180	53108	22.26	ug/L		97
87) Naphthalene	13.626	128	166250	21.92	ug/L		98
88) 1,2,3-Trichlorobenzene	13.785	180	51210	22.61	ug/L		97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102432.D
Acq On : 24 Oct 2019 10:38 pm
Operator : MM
Sample : 9J24043-ICV1
Misc : 1X 5mL 20/40PPB VOCR
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:53 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102433.D
Acq On : 24 Oct 2019 11:05 pm
Operator : MM
Sample : 9J24043-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:56 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.217	99	111178	50.00 ug/L	#	0.00
45) Chlorobenzene-d5 (I)	9.910	117	298625	50.00 ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	138840	50.00 ug/L		0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	5.712	111	108440	49.64 ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.783	114	354392	50.46 ug/L		0.00
48) Toluene-d8 (S)	8.297	98	396767	50.62 ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	114172	50.89 ug/L		0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.679	85	258	0.14 ug/L	#	49
3) Chloromethane	1.898	50	1019	0.42 ug/L		80
4) Vinyl Chloride	2.001	62	483	0.20 ug/L		73
5) Bromomethane	2.360	96	1054	0.74 ug/L		79
6) Chloroethane	2.512	64	817	0.74 ug/L	#	63
8) Ethanol	3.230	45	56590	1059.19 ug/L		85
9) 1,1-Dichloroethene	3.230	61	425	0.16 ug/L	#	74
10) Carbon Disulfide	3.254	76	2404	0.49 ug/L		78
12) Iodomethane	3.388	142	297	6.27 ug/L	#	47
14) Methylene Chloride	3.875	84	2571	0.40 ug/L		89
15) Acetone	3.948	43	992	1.02 ug/L		93
16) t-1,2-Dichloroethene	4.039	61	778	0.30 ug/L		95
18) Methyl-tert-butyl-ether	4.173	73	509	0.08 ug/L		63
19) tert-Butanol (TBA)	4.288	59	507827	1179.79 ug/L		99
20) Diisopropyl ether (DIPE)	4.562	45	28434	4.41 ug/L		96
21) 1,1-Dichloroethane	4.684	63	910	0.25 ug/L		91
23) Ethyl-tert-butyl ether...	4.939	59	27297	4.40 ug/L		98
24) Vinyl Acetate	4.933	43	2981	0.69 ug/L		63
25) c-1,2-Dichloroethene	5.244	61	653	0.24 ug/L		94
28) Chloroform	5.529	83	782	0.22 ug/L		86
31) 1,1,1-Trichloroethane	5.730	97	279	0.09 ug/L	#	25
33) 1,1-Dichloropropene	5.858	75	642	0.23 ug/L	#	43
35) Benzene	6.120	78	2264	0.27 ug/L		96
36) tert-Amyl methyl ether...	6.247	73	24122	4.18 ug/L		94
40) Trichloroethene (TCE)	6.752	130	563	0.26 ug/L		81
41) Tert-Amyl-Ethyl-Ether ...	6.996	59	17806	4.28 ug/L		82
43) 1,2-Dichloropropane	7.312	63	375	0.18 ug/L	#	35
44) Bromodichloromethane	7.379	83	264	0.11 ug/L		89
47) c-1,3-Dichloropropene	8.097	75	423	0.14 ug/L	#	31
49) Toluene	8.358	91	2481	0.28 ug/L		90
50) Tetrachloroethene (PCE)	8.796	166	682	0.33 ug/L		77
55) 1,3-Dichloropropane	9.289	76	299	0.09 ug/L	#	62
58) Chlorobenzene	9.928	112	1665	0.30 ug/L	#	53
59) Ethylbenzene	9.952	91	2525	0.27 ug/L		93
60) 1,1,1,2-Tetrachloroethane	9.989	131	250	0.15 ug/L	#	56
61) m,p-Xylenes (2)	10.086	91	3597	0.53 ug/L		99
62) o-Xylene	10.469	91	1736	0.26 ug/L		95
63) Styrene	10.518	104	1266	0.23 ug/L		98
65) Isopropylbenzene	10.731	105	1839	0.22 ug/L		96
68) Bromobenzene	11.066	156	575	0.27 ug/L	#	73
69) n-Propylbenzene	11.078	91	2840	0.31 ug/L		98
71) 2-Chlorotoluene	11.212	126	519	0.26 ug/L	#	70
72) 1,3,5-Trimethylbenzene	11.230	105	1758	0.28 ug/L		93

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102433.D
Acq On : 24 Oct 2019 11:05 pm
Operator : MM
Sample : 9J24043-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:56 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

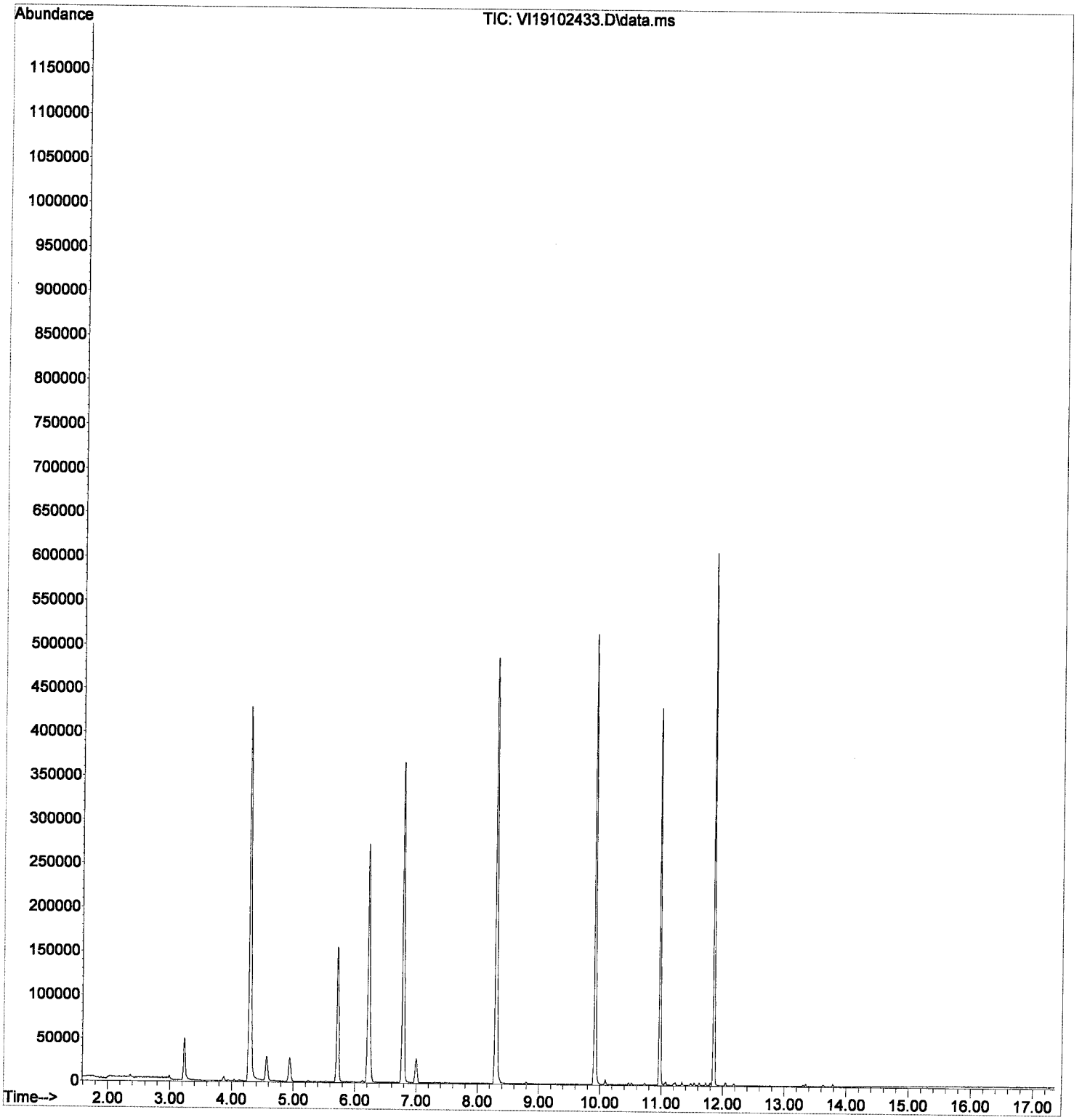
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
75) 4-Chlorotoluene	11.339	91	2029	0.36	ug/L		92
76) tert-Butylbenzene	11.479	91	857	0.24	ug/L		90
77) 1,2,4-Trimethylbenzene	11.540	105	1902	0.30	ug/L		99
78) sec-Butylbenzene	11.619	105	2140	0.28	ug/L		96
79) 4-Isopropyltoluene	11.729	119	1814	0.30	ug/L		89
80) 1,3-Dichlorobenzene	11.802	146	1391	0.37	ug/L		91
81) 1,4-Dichlorobenzene	11.862	146	1580	0.40	ug/L	#	77
82) n-Butylbenzene	12.051	91	2081	0.40	ug/L		97
83) 1,2-Dichlorobenzene	12.179	146	992	0.27	ug/L		94
85) Hexachlorobutadiene	13.304	223	253	0.50	ug/L		90
86) 1,2,4-Trichlorobenzene	13.347	180	1195	0.57	ug/L		98
87) Naphthalene	13.627	128	2373	0.36	ug/L		81
88) 1,2,3-Trichlorobenzene	13.785	180	1136	0.57	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102433.D
Acq On : 24 Oct 2019 11:05 pm
Operator : MM
Sample : 9J24043-ICV2
Misc : 1X 5mL 5/1250PPB OXY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:56 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102434.D
Acq On : 24 Oct 2019 11:32 pm
Operator : MM
Sample : 9J24043-IBL6
Misc : 1X 5mL DI
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:59 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

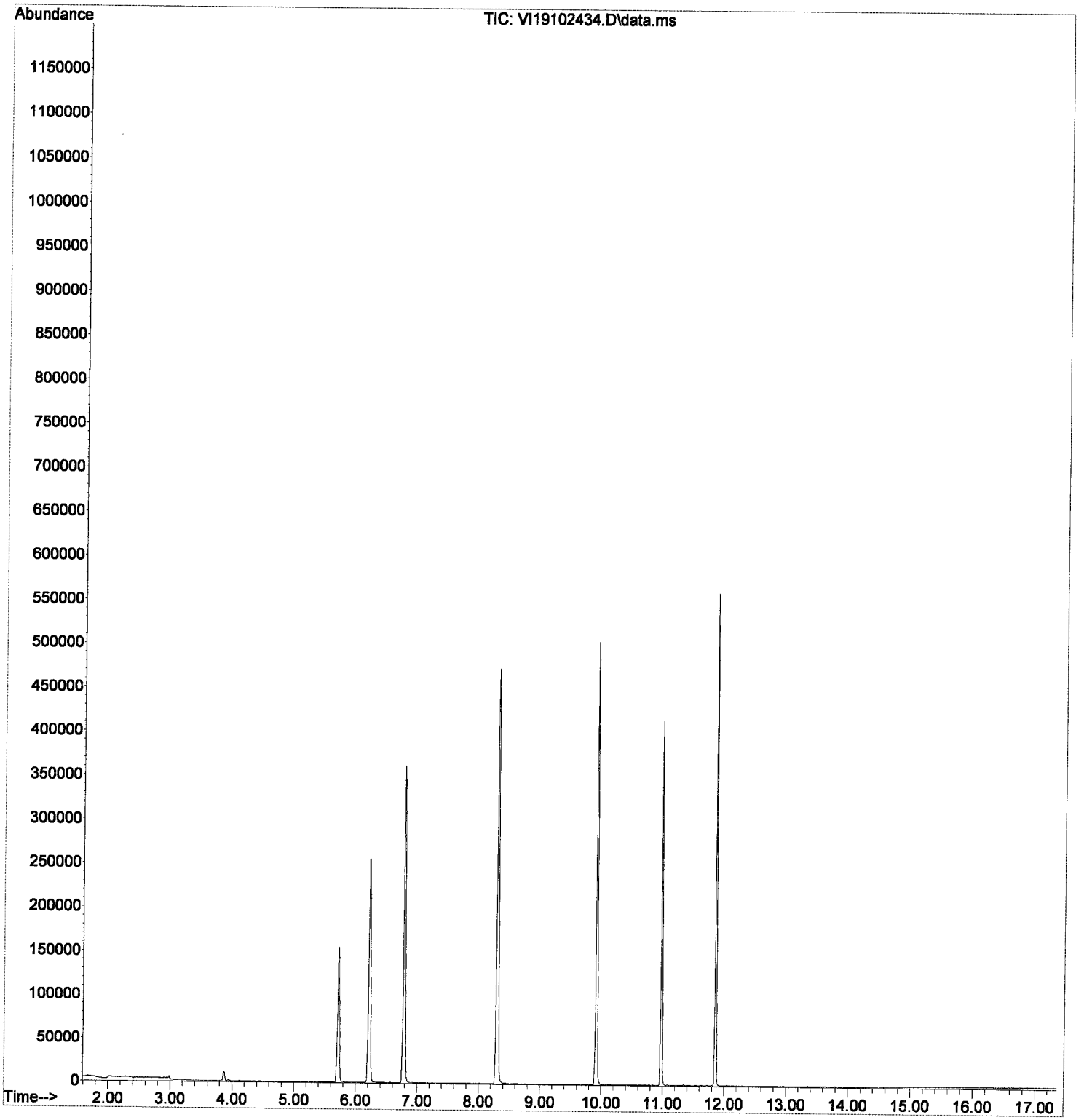
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.211	99	109647	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	9.910	117	290801	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	11.850	152	129266	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	5.712	111	106868	49.60	ug/L		0.00
39) 1,4-Difluorobenzene (S)	6.777	114	348077	50.25	ug/L		0.00
48) Toluene-d8 (S)	8.297	98	390388	51.15	ug/L		0.00
67) 4-Bromofluorobenzene (S)	10.974	174	109398	52.38	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.891	50	233	0.10	ug/L	#	47
5) Bromomethane	2.360	96	288	0.21	ug/L	#	32
6) Chloroethane	2.500	64	219	0.20	ug/L	#	62
10) Carbon Disulfide	3.242	76	797	0.17	ug/L		78
14) Methylene Chloride	3.869	84	5477	1.87	ug/L		91
15) Acetone	3.942	43	1939	2.02	ug/L		95
19) tert-Butanol (TBA)	4.301	59	193	0.45	ug/L		46
61) m,p-Xylenes (2)	10.086	91	722	0.11	ug/L		86
79) 4-Isopropyltoluene	11.723	119	462	0.08	ug/L		51
81) 1,4-Dichlorobenzene	11.862	146	377	0.10	ug/L	#	1
82) n-Butylbenzene	12.045	91	599	0.12	ug/L		81
86) 1,2,4-Trichlorobenzene	13.341	180	337	0.17	ug/L		69
87) Naphthalene	13.633	128	630	0.10	ug/L		81
88) 1,2,3-Trichlorobenzene	13.785	180	159	0.09	ug/L		87

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102434.D
Acq On : 24 Oct 2019 11:32 pm
Operator : MM
Sample : 9J24043-IBL6
Misc : 1X 5mL DI
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:52:59 2019
Quant Method : C:\msdchem\1\methods\VI191025W.M
Quant Title : EPA 8260: Volatile Organic Compounds
QLast Update : Fri Oct 25 08:32:21 2019
Response via : Initial Calibration

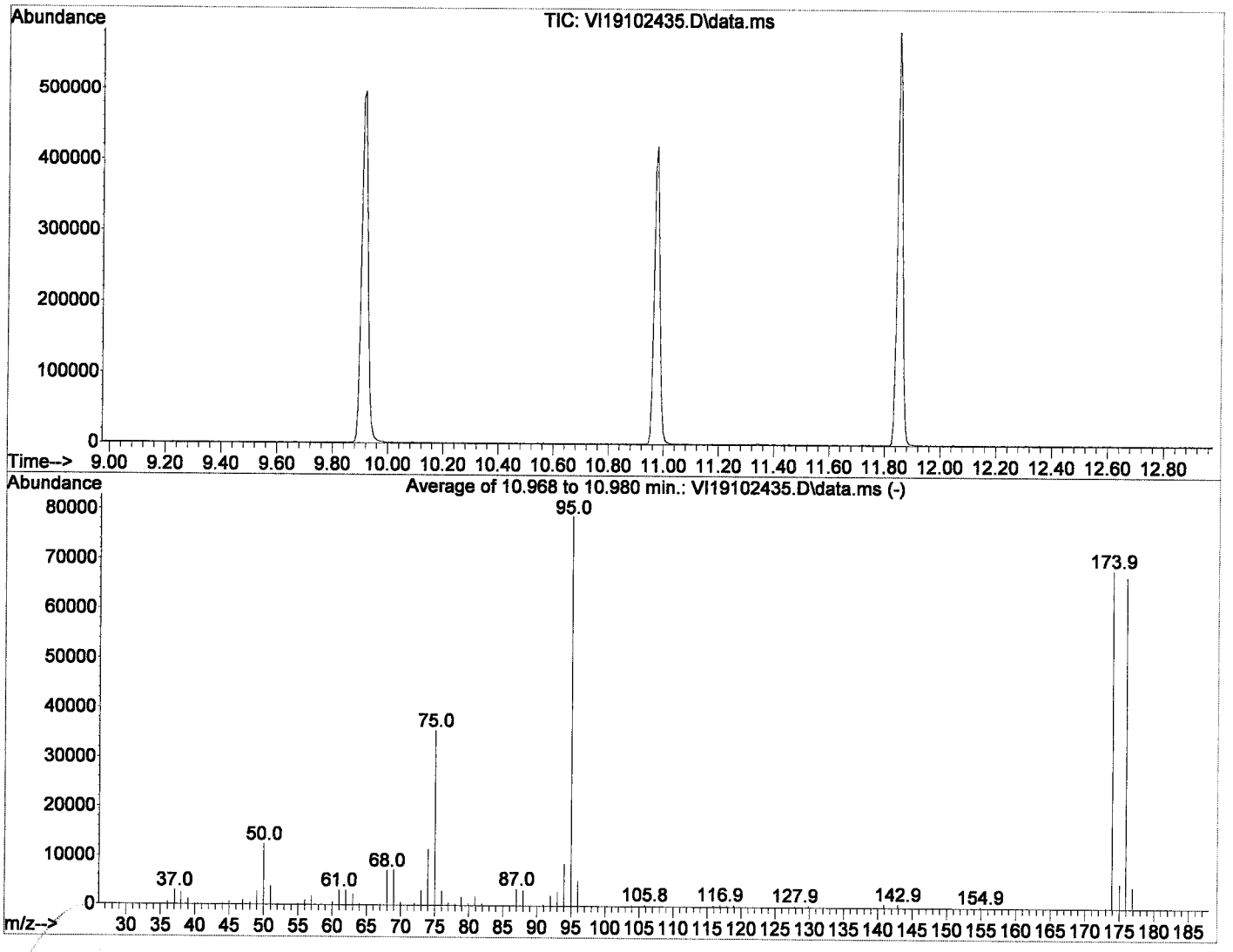


BFB

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102435.D
Acq On : 24 Oct 2019 11:59 pm
Operator : MM
Sample : 9J24043-TUN2
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1

Integration File: APEXG.P

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



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

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	115.5	78893	PASS
96	95	5	9	6.6	5193	PASS
173	174	0.00	2	0.2	146	PASS
174	95	50	200	86.6	68315	PASS
175	174	5	9	7.2	4950	PASS
176	174	95	105	98.1	67045	PASS
177	176	5	10	6.4	4322	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102435.D
Acq On : 24 Oct 2019 11:59 pm
Operator : MM
Sample : 9J24043-TUN2
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

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

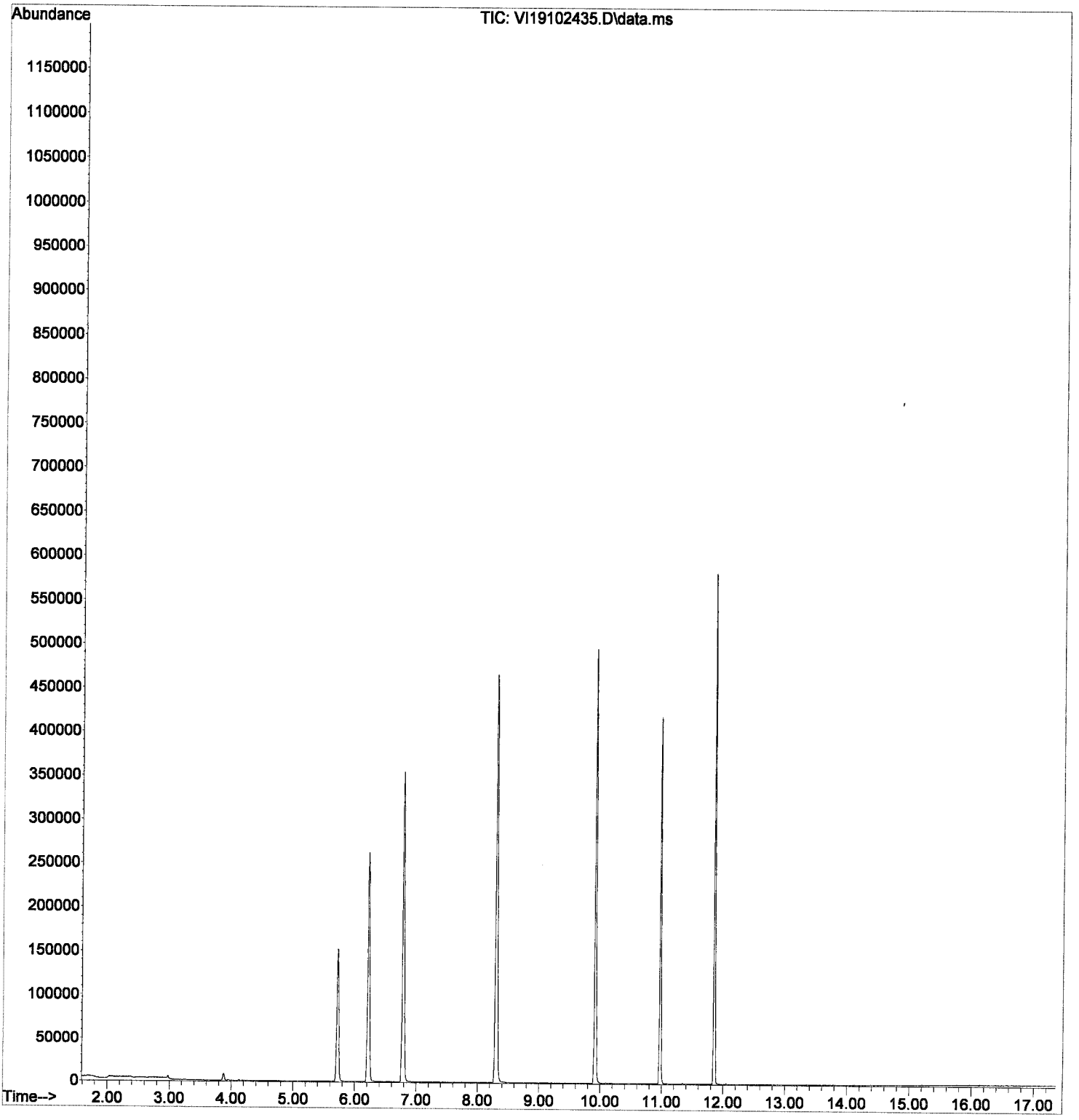
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	210406	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	342441	50.05	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	110054	48.18	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	383585	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	289628	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	210356	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	-629m	24.54	ug/L	
5) TPHg (C5-C9)	9.890	TIC	350597m	17.37	ug/L	
6) TPHg (C6-C10)	9.890	TIC	318995m	18.26	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	354669m	21.15	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102435.D
Acq On : 24 Oct 2019 11:59 pm
Operator : MM
Sample : 9J24043-TUN2
Misc : A19I040 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

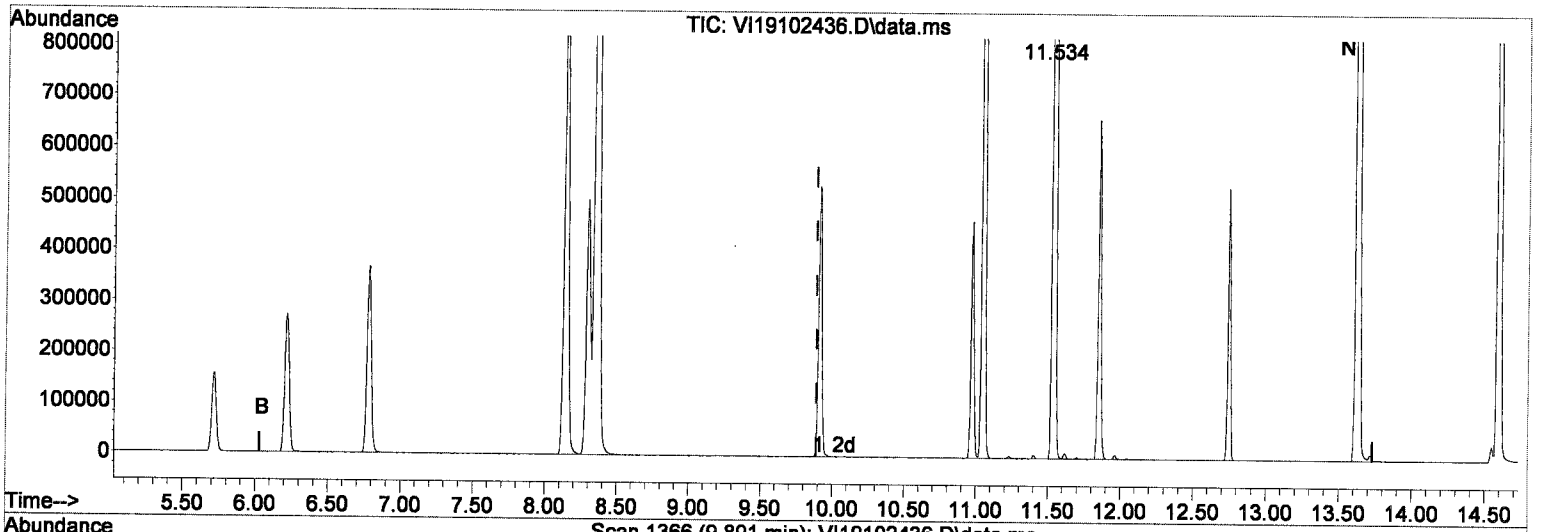
Quant Time: Oct 25 10:34:47 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

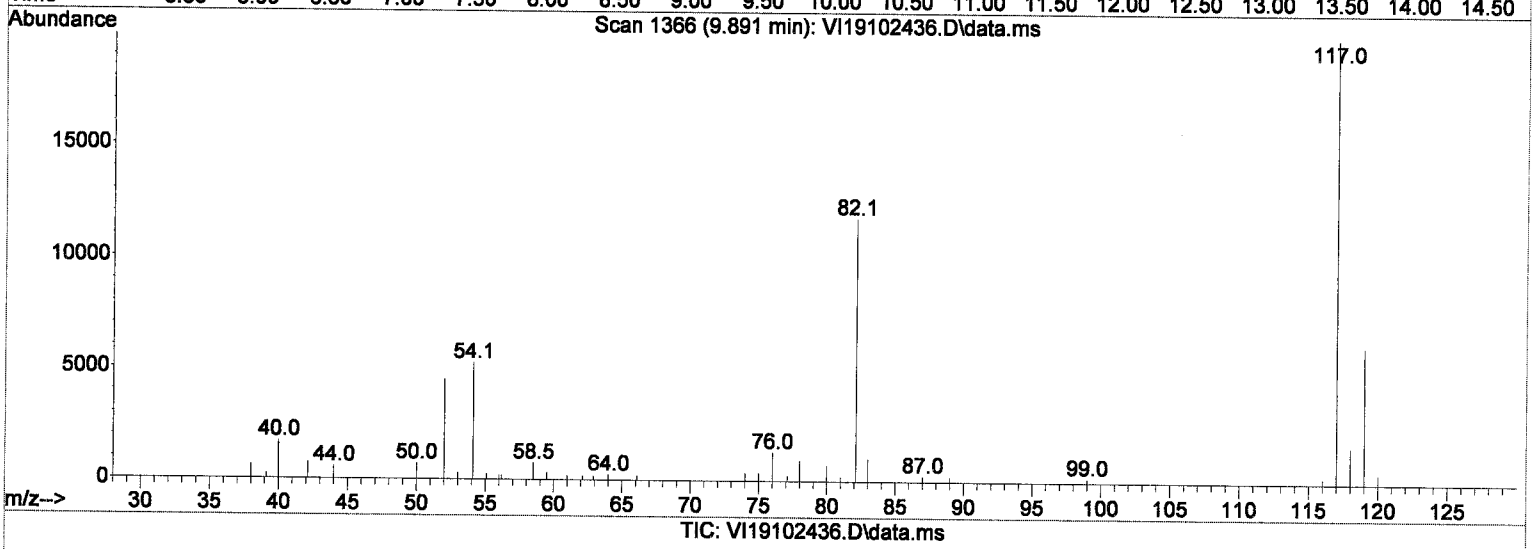


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102436.D
Acq On : 25 Oct 2019 12:26 am
Operator : MM
Sample : 9J24043-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:34:58 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





TIC: VI19102436.D\data.ms

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

9.890min (0.000) 2930.43 ug/L m

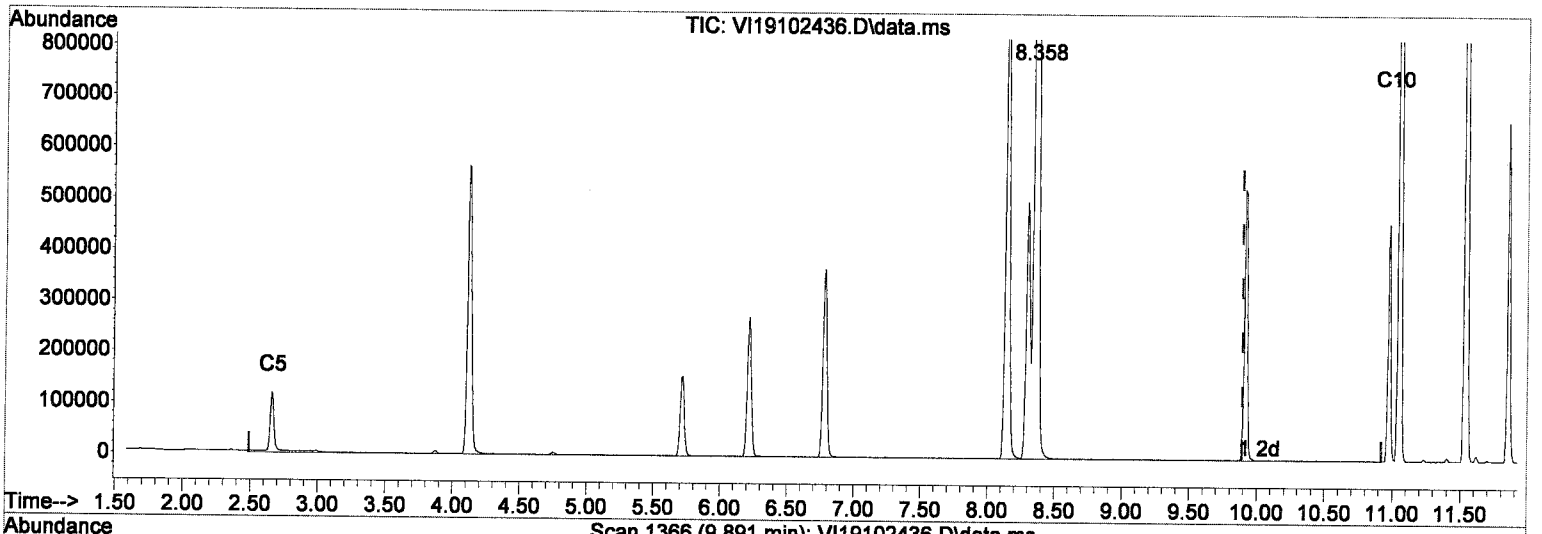
response 19501721

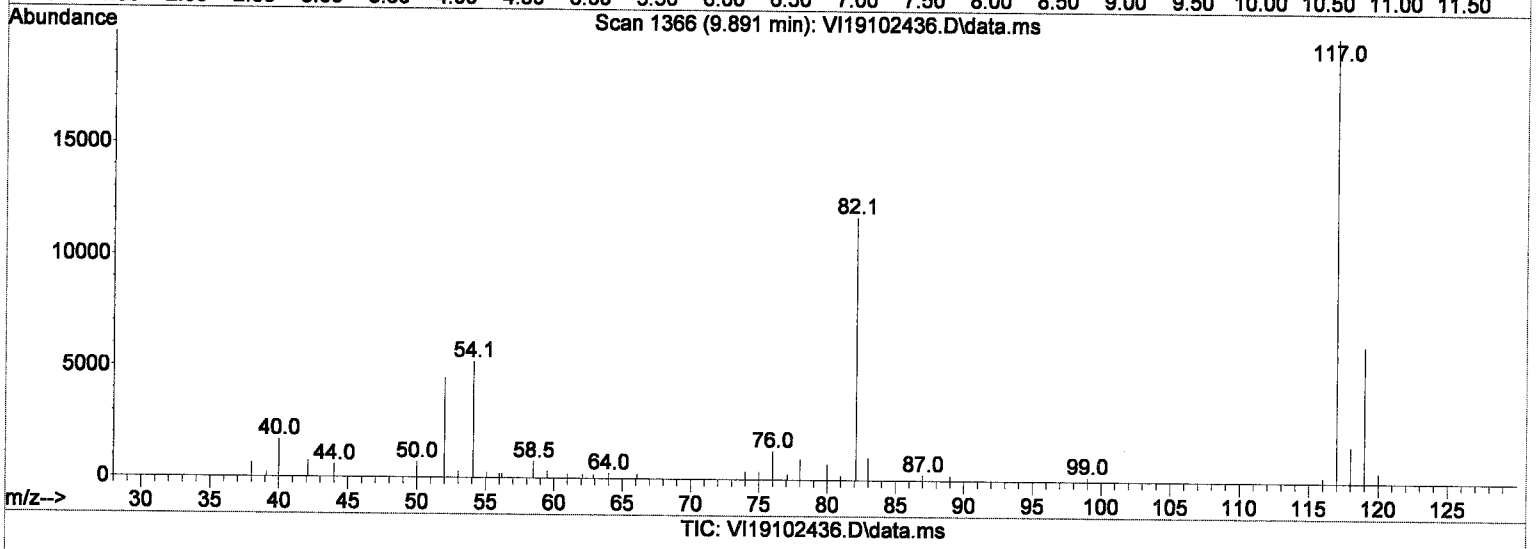
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	1.04#
0.00	0.00	0.76#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102436.D
Acq On : 25 Oct 2019 12:26 am
Operator : MM
Sample : 9J24043-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:34:58 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





TIC: VI19102436.D\data.ms

(5) TPHg (C5-C9) (H)

9.890min (0.000) 973.75 ug/L m

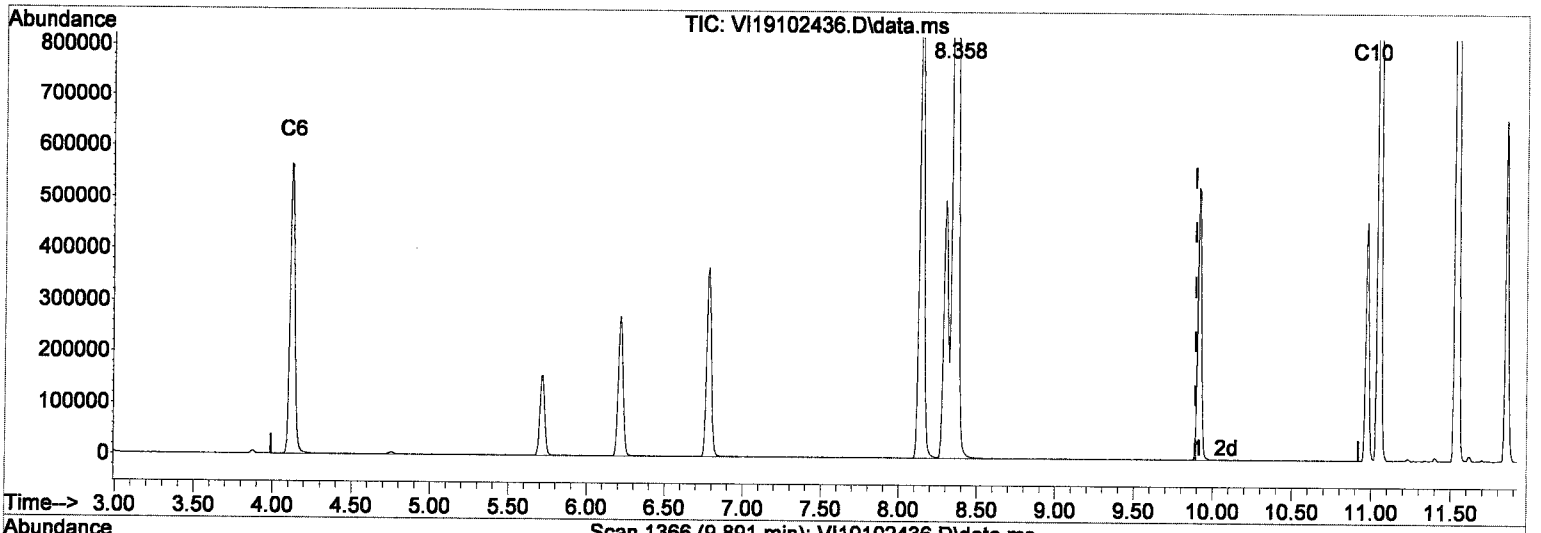
response 8083029

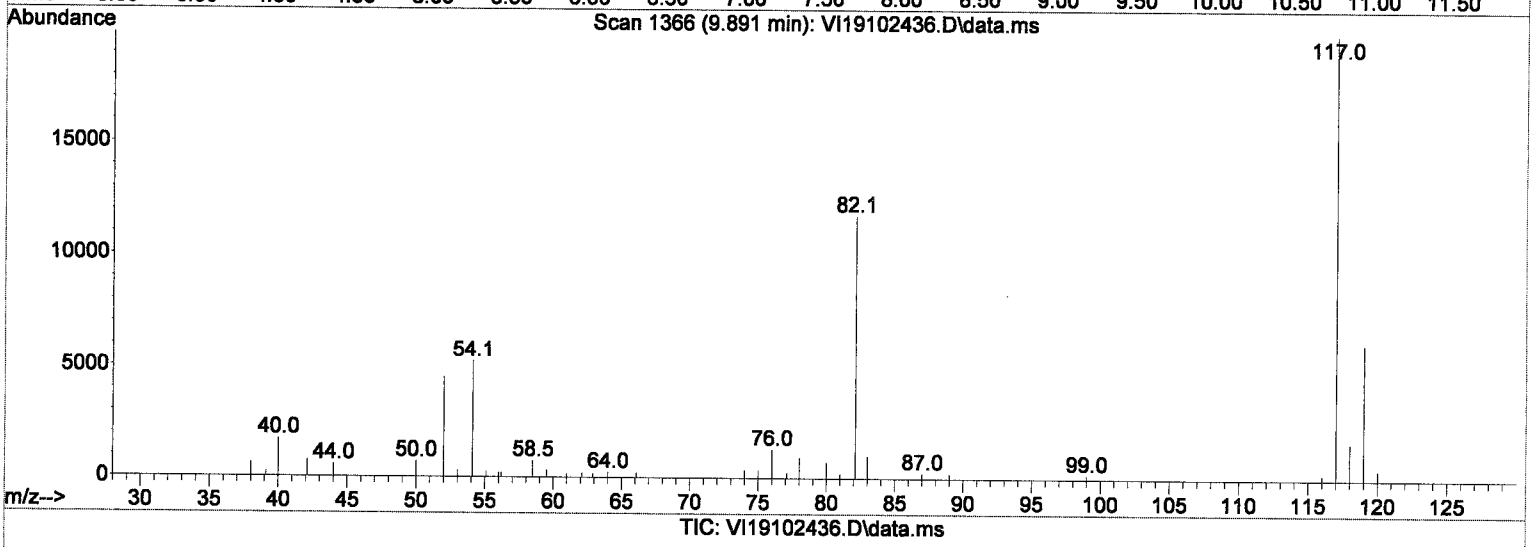
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.52#
0.00	0.00	1.83#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102436.D
Acq On : 25 Oct 2019 12:26 am
Operator : MM
Sample : 9J24043-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:34:58 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





TIC: VI19102436.D\data.ms

(6) TPHg (C6-C10) (H)

9.890min (0.000) 1119.88 ug/L m

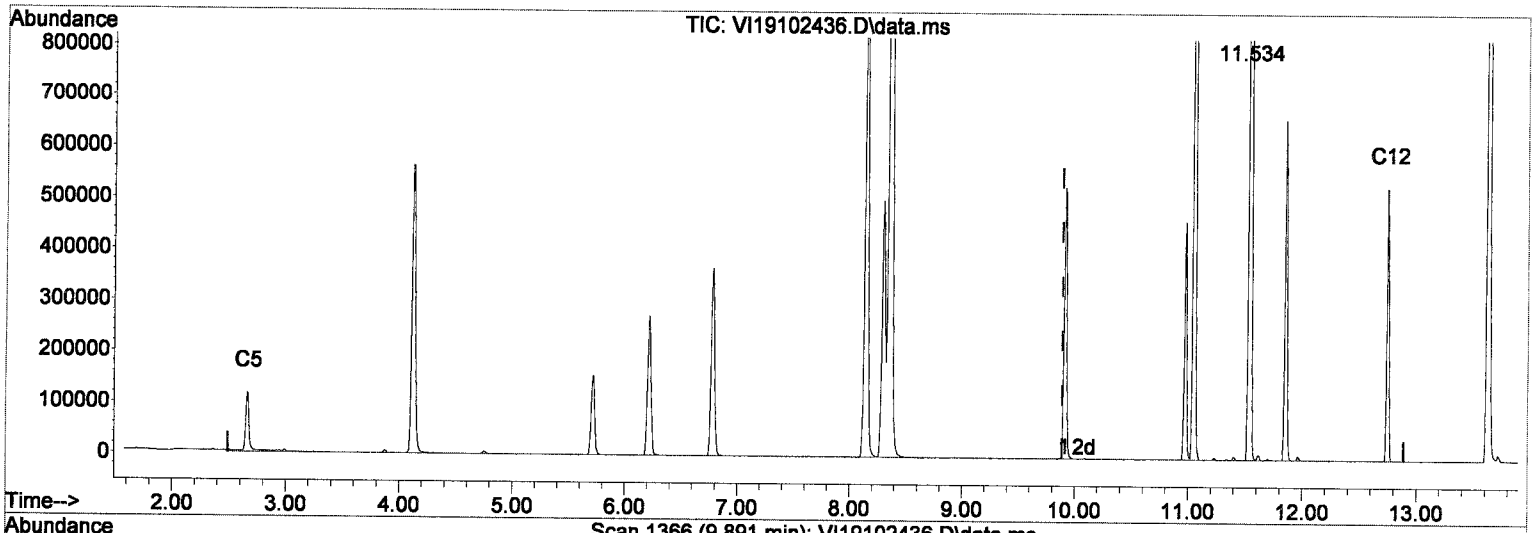
response 7845020

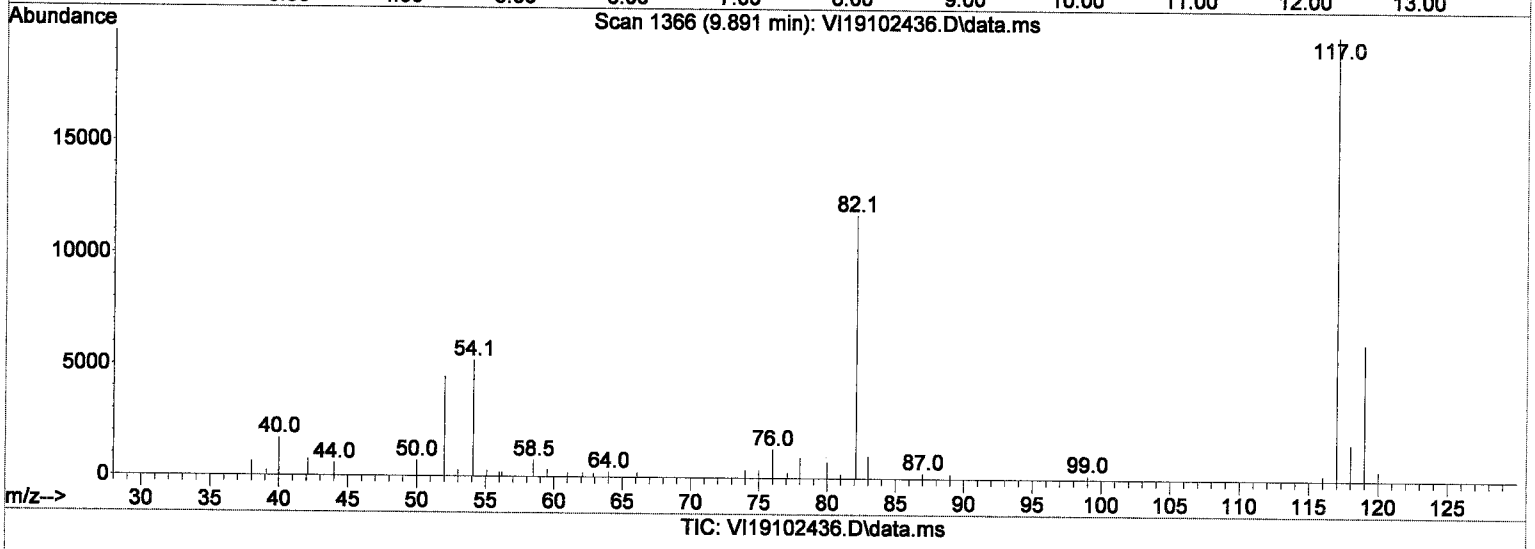
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.60#
0.00	0.00	1.88#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102436.D
Acq On : 25 Oct 2019 12:26 am
Operator : MM
Sample : 9J24043-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:34:58 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





(7) CA-LUFT (C5-C12) (H)

9.890min (0.000) 1651.42 ug/L m

response 16435844

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	1.24#
0.00	0.00	0.90#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102436.D
Acq On : 25 Oct 2019 12:26 am
Operator : MM
Sample : 9J24043-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:34:58 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

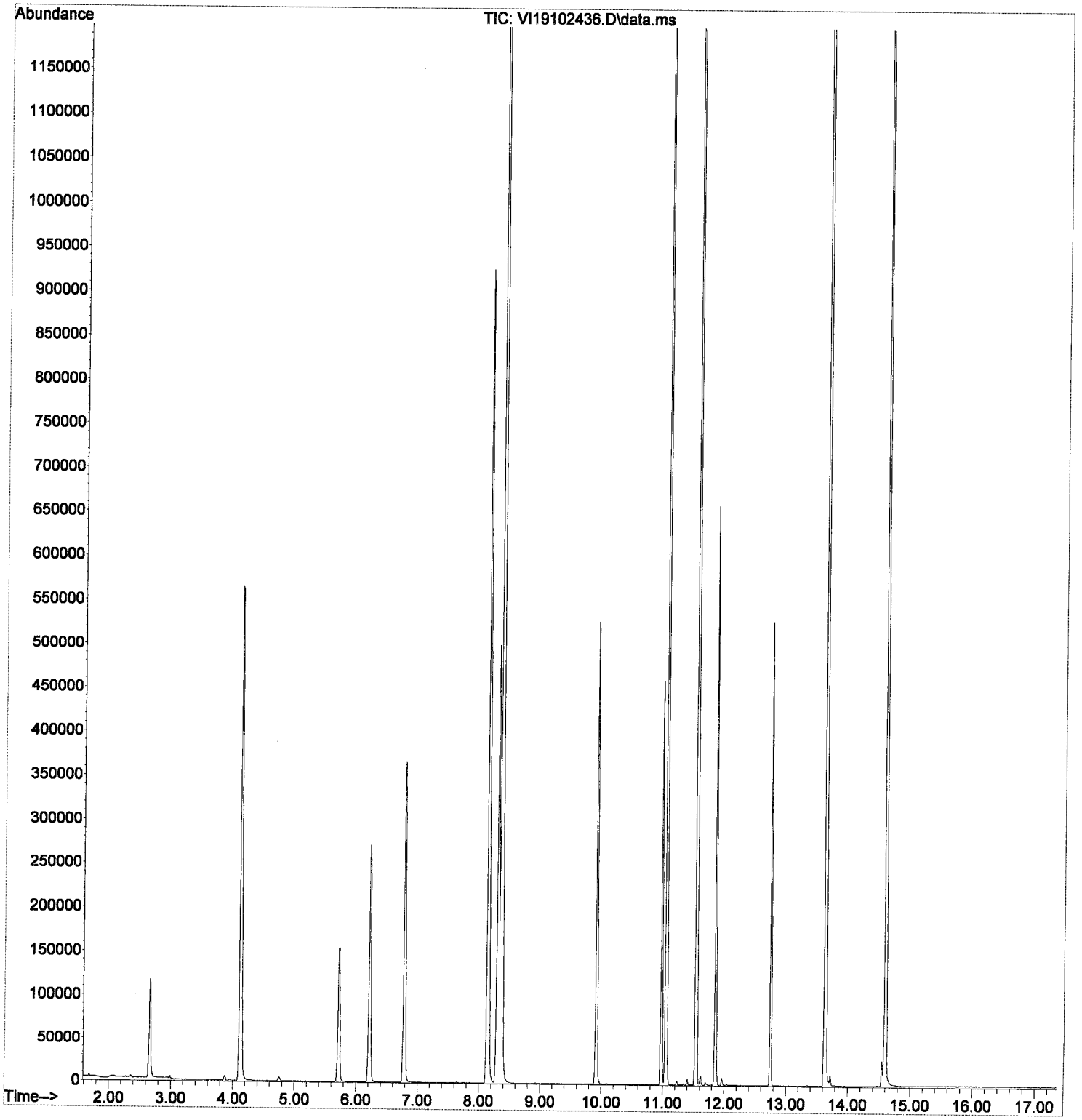
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	218196	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	354554	49.97	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	120603	50.92	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	405063	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	307990	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	238057	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	19501721m	2930.43	ug/L	
5) TPHg (C5-C9)	9.890	TIC	8083029m	973.75	ug/L	
6) TPHg (C6-C10)	9.890	TIC	7845020m	1119.88	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	16435844m	1651.42	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102436.D
Acq On : 25 Oct 2019 12:26 am
Operator : MM
Sample : 9J24043-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:34:58 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102437.D
Acq On : 25 Oct 2019 12:52 am
Operator : MM
Sample : 9J24043-IBL7
Misc : 1X 5mL DI
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:35:59 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

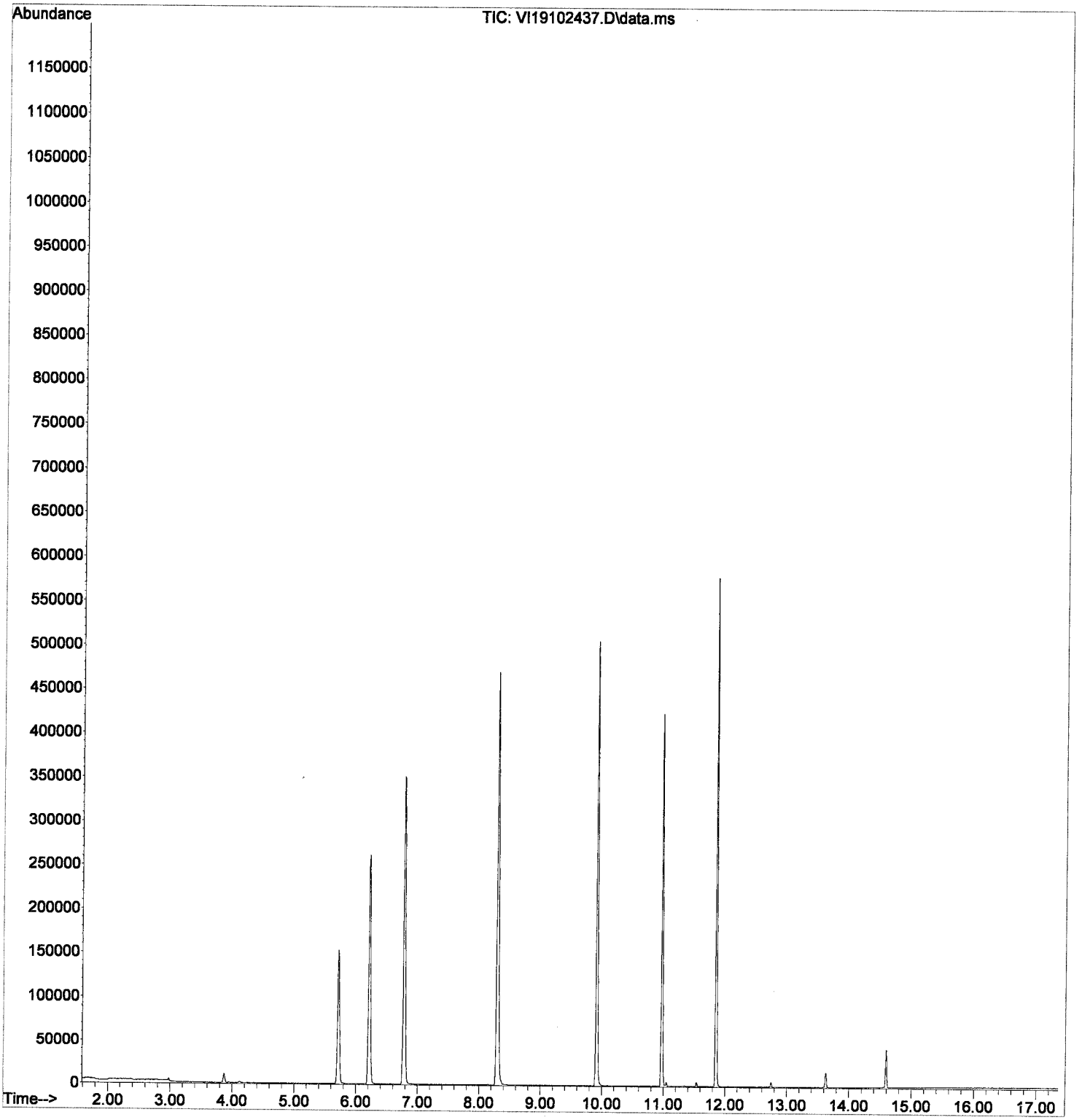
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	210247	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	345936	50.60	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	111405	48.81	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	383628	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.910	117	292283	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	209732	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	24413m	28.59	ug/L	
5) TPHg (C5-C9)	9.890	TIC	344892m	16.66	ug/L	
6) TPHg (C6-C10)	9.890	TIC	312692m	17.33	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	358119m	21.55	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102437.D
Acq On : 25 Oct 2019 12:52 am
Operator : MM
Sample : 9J24043-IBL7
Misc : 1X 5mL DI
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:35:59 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102438.D
Acq On : 25 Oct 2019 1:19 am
Operator : MM
Sample : 9J24043-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

M 10/25/19

Quant Time: Oct 25 10:36:04 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

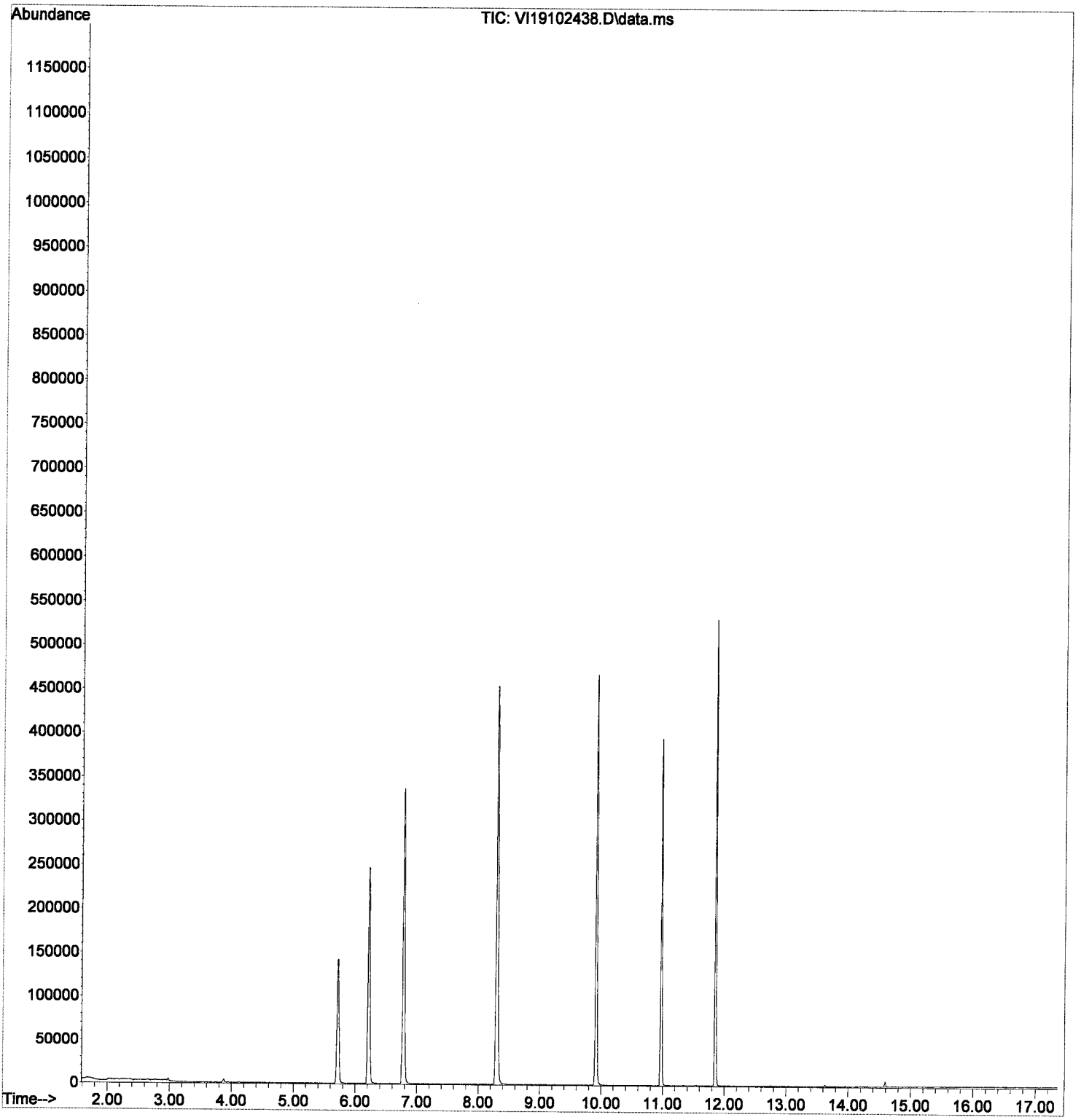
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	197519	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	324404	50.51	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	100113	46.69	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	365451	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	272946	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	191005	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	3183m	25.18	ug/L	
5) TPHg (C5-C9)	9.890	TIC	344149m	19.44	ug/L	
6) TPHg (C6-C10)	9.890	TIC	310754m	20.11	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	344897m	22.51	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102438.D
Acq On : 25 Oct 2019 1:19 am
Operator : MM
Sample : 9J24043-ICB2
Misc : 1X 5mL DI
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:04 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102439.D
Acq On : 25 Oct 2019 1:46 am
Operator : MM
Sample : 9J24043-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

M 10/25/19

Quant Time: Oct 25 08:55:14 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

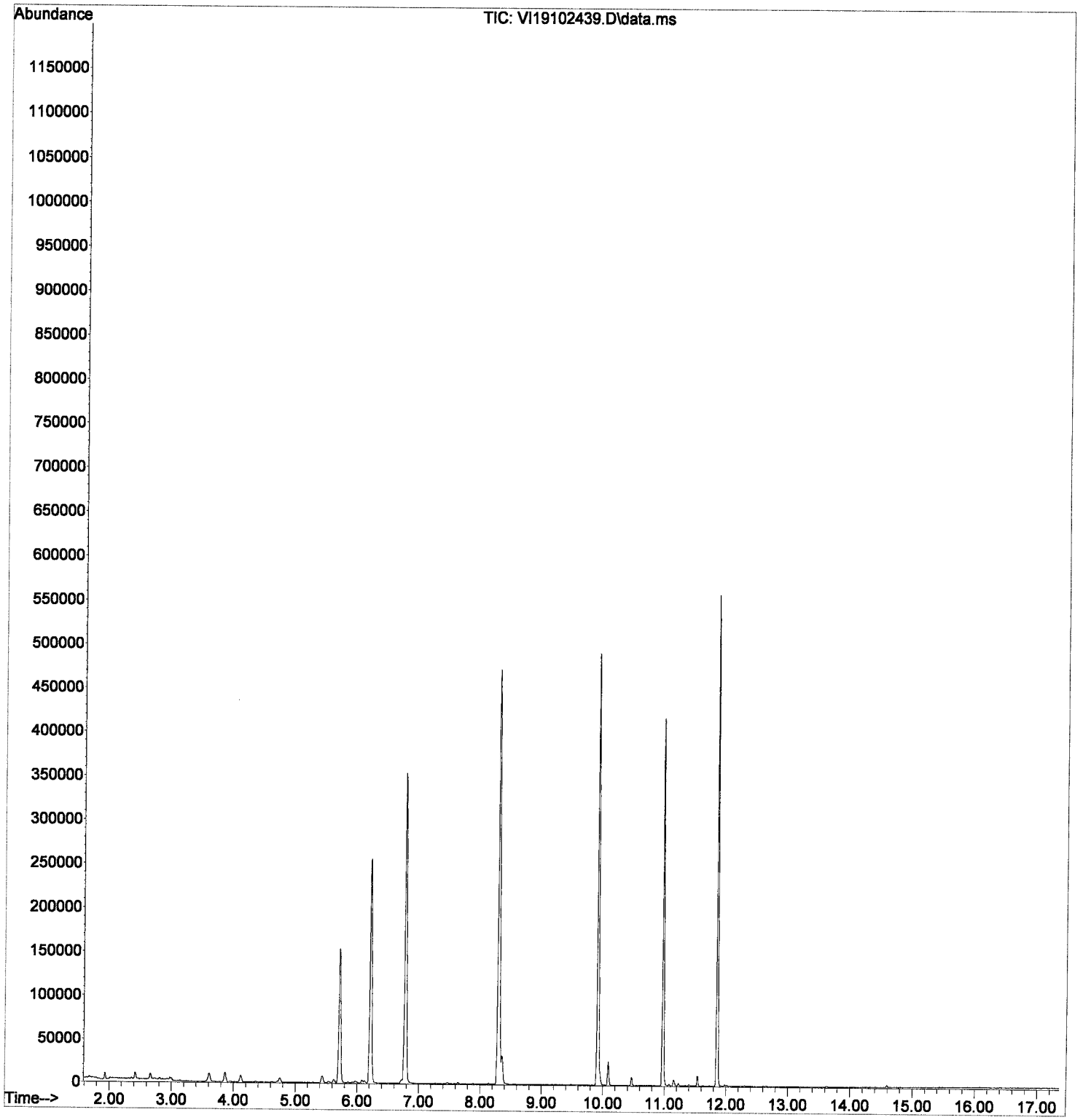
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	209290	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.777	114	341977	48.13	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.974	174	109139	43.97	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	385632	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	289080	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	203847	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	193702m	55.98	ug/L	
5) TPHg (C5-C9)	9.890	TIC	646954m	48.30	ug/L	
6) TPHg (C6-C10)	9.890	TIC	557886m	49.25	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	681991m	46.79	ug/L	
8) Benzene (NR)	6.120	78	3046	No Calib		
10) Toluene (NR)	8.358	91	26962	No Calib		
13) Naphthalene (NR)	13.633	128	1492	No Calib	#	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102439.D
Acq On : 25 Oct 2019 1:46 am
Operator : MM
Sample : 9J24043-CALC
Misc : 1X 5mL 50PPB GX
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:14 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102440.D
Acq On : 25 Oct 2019 2:13 am
Operator : MM
Sample : 9J24043-CALD
Misc : 1X 5mL 100PPB GX
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

W 10/25/19

Quant Time: Oct 25 08:55:16 2019
Quant Method : C:\msdchem\1\methods\VI~~191025G.M~~
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

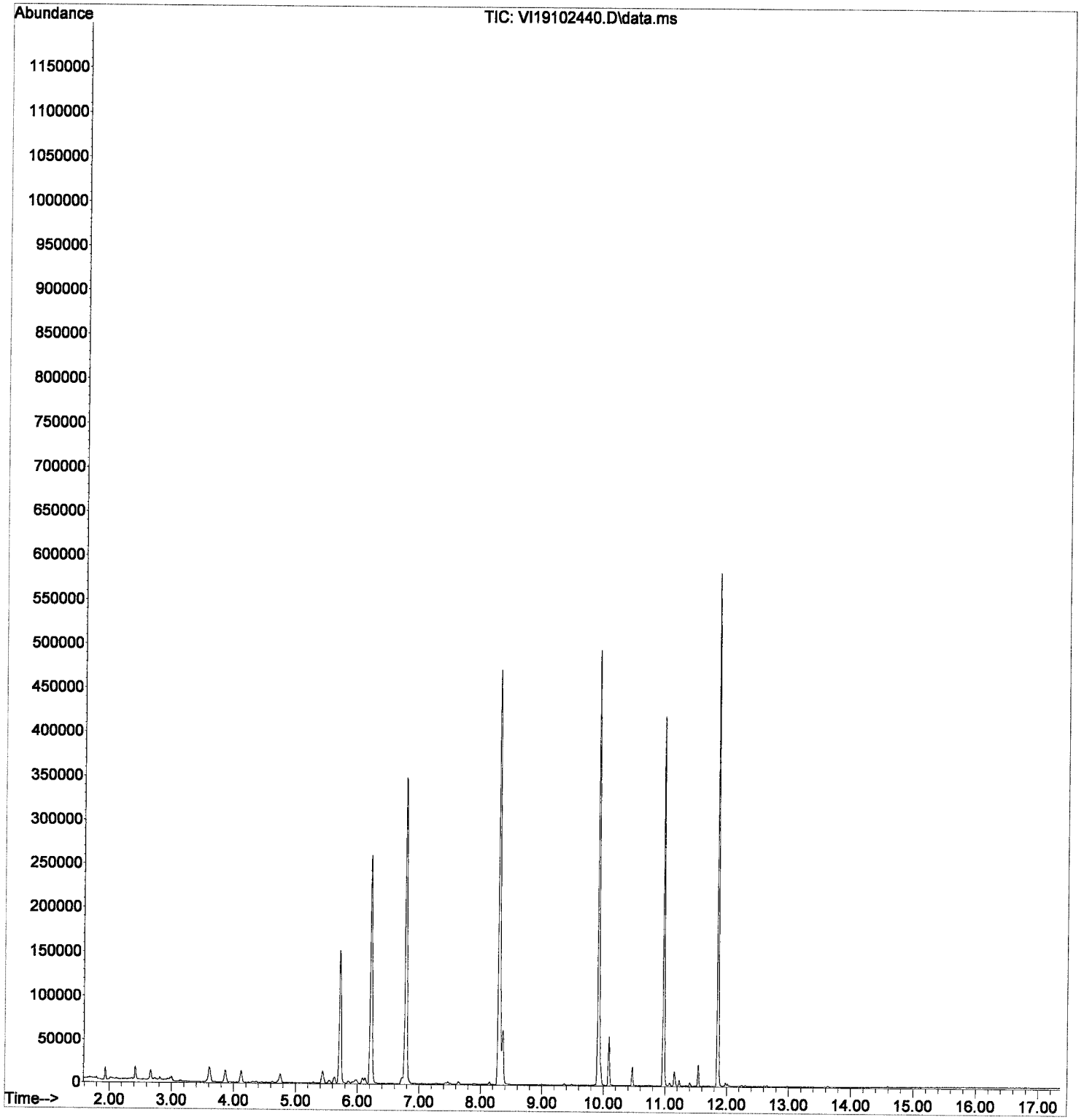
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	209478	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	342473	48.16	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	110020	44.29	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	383736	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	289519	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	212572	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	430822m	90.27	ug/L	
5) TPHg (C5-C9)	9.890	TIC	918071m	78.43	ug/L	
6) TPHg (C6-C10)	9.890	TIC	799328m	81.58	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	1014687m	77.57	ug/L	
8) Benzene (NR)	6.126	78	5908	No Calib		
10) Toluene (NR)	8.358	91	53262	No Calib		
13) Naphthalene (NR)	13.627	128	1678	No Calib	#	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102440.D
Acq On : 25 Oct 2019 2:13 am
Operator : MM
Sample : 9J24043-CALD
Misc : 1X 5mL 100PPB GX
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:16 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102441.D
Acq On : 25 Oct 2019 2:40 am
Operator : MM
Sample : 9J24043-CALE
Misc : 1X 5mL 250PPB GX
ALS Vial : 28 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:19 2019
Quant Method : C:\msdchem\1\methods\VI~~191025G~~.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

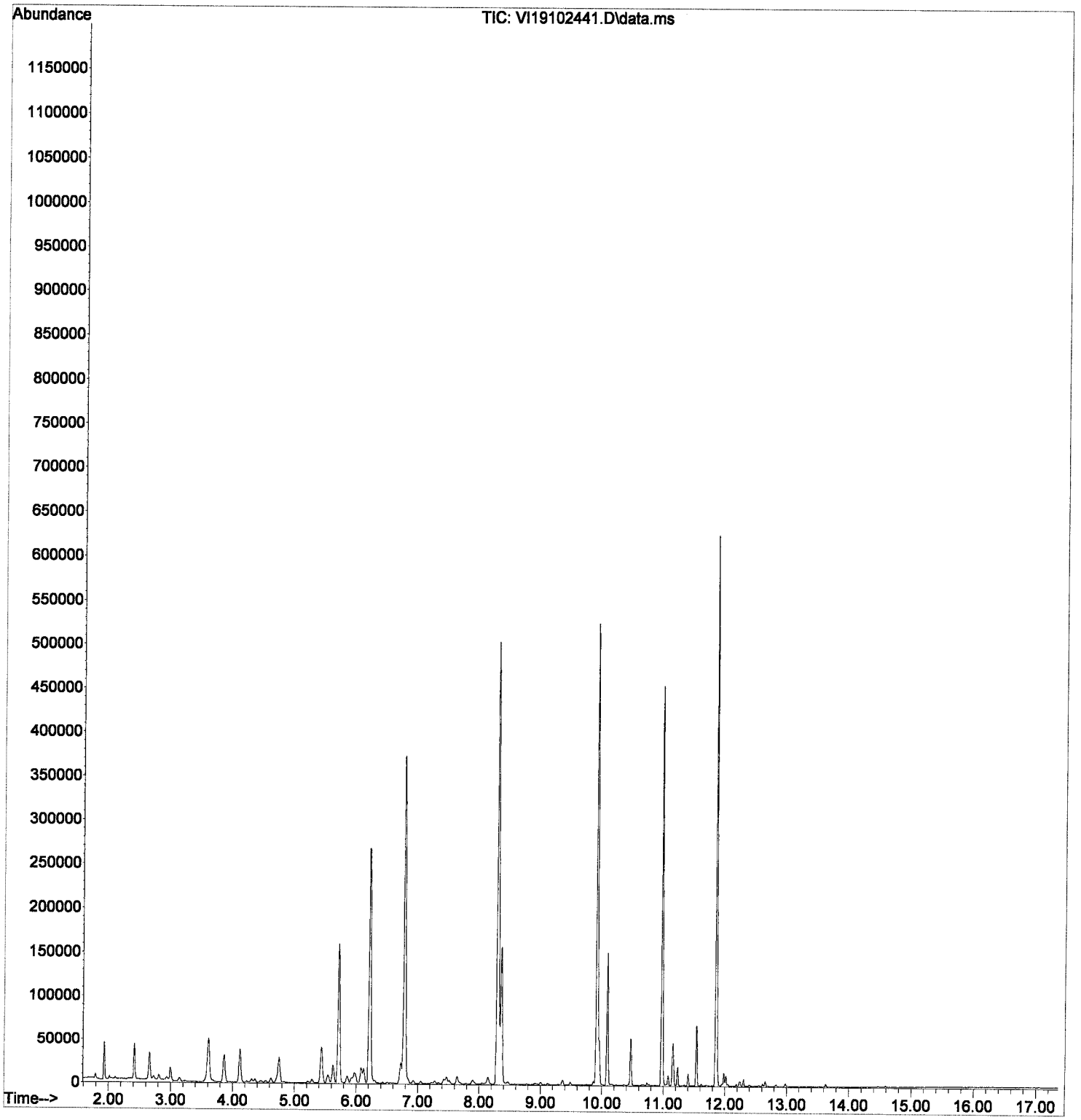
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	220921	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.777	114	357958	47.73	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.974	174	116770	44.57	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	404018	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	307058	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	223658	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	1374008m	216.41	ug/L	
5) TPHg (C5-C9)	9.890	TIC	2153713m	203.72	ug/L	
6) TPHg (C6-C10)	9.890	TIC	1839524m	208.44	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	2493143m	202.69	ug/L	
8) Benzene (NR)	6.120	78	15473	No Calib		
10) Toluene (NR)	8.358	91	140638	No Calib		
13) Naphthalene (NR)	13.627	128	3143	No Calib	#	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102441.D
Acq On : 25 Oct 2019 2:40 am
Operator : MM
Sample : 9J24043-CALE
Misc : 1X 5mL 250PPB GX
ALS Vial : 28 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:19 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102442.D
Acq On : 25 Oct 2019 3:07 am
Operator : MM
Sample : 9J24043-CALF
Misc : 1X 5mL 500PPB GX
ALS Vial : 29 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:22 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

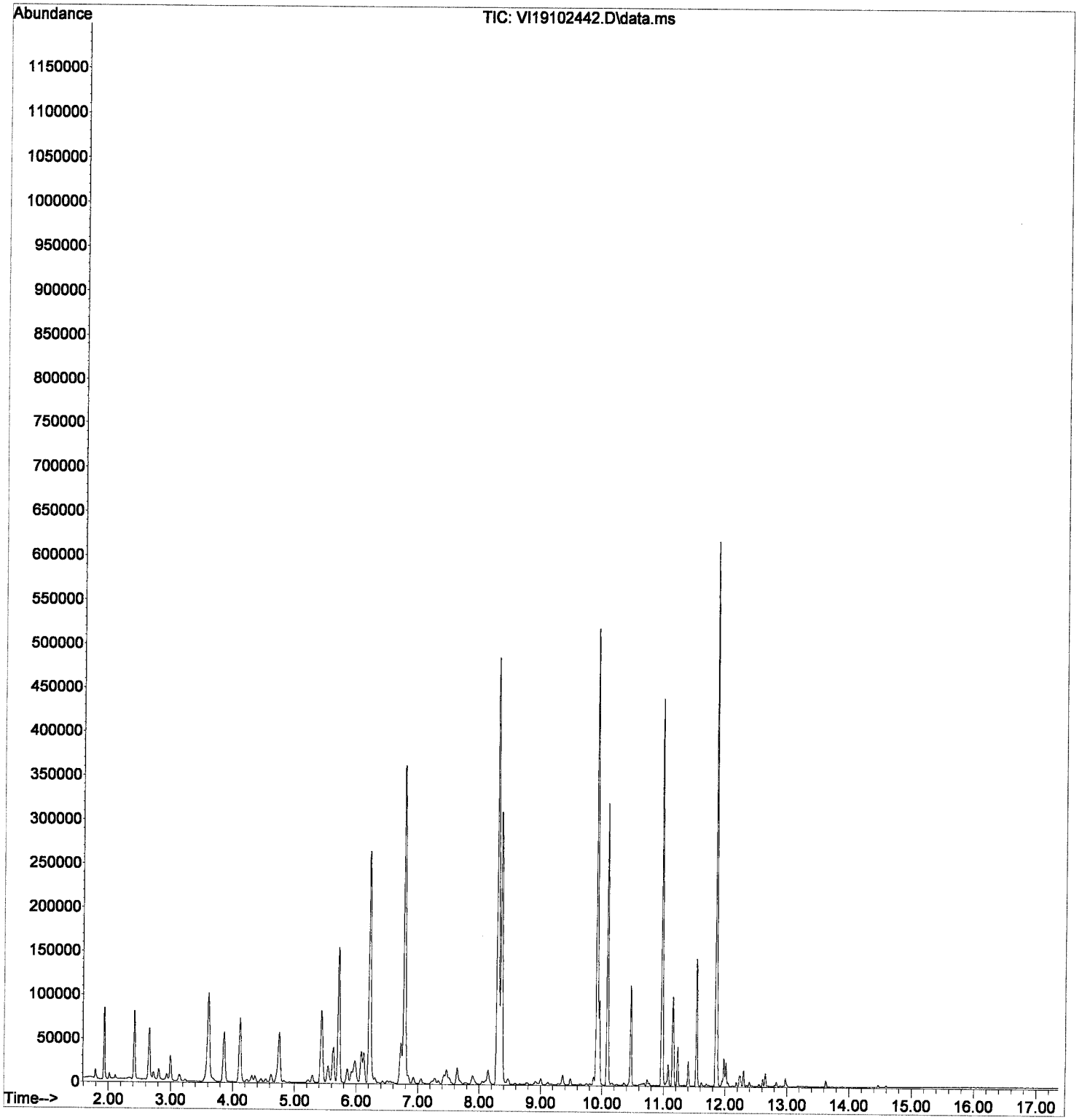
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	214780	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	347086	47.60	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	115043	45.16	ug/L	0.00
9) Toluene-d8 (NR)	8.298	98	395742	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	299444	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	223960	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	2976997m	447.66	ug/L	
5) TPHg (C5-C9)	9.890	TIC	4135130m	425.95	ug/L	
6) TPHg (C6-C10)	9.890	TIC	3507779m	433.73	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	4877141m	424.71	ug/L	
8) Benzene (NR)	6.120	78	31187	No Calib		
10) Toluene (NR)	8.358	91	281045	No Calib		
13) Naphthalene (NR)	13.627	128	6060	No Calib	#	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102442.D
Acq On : 25 Oct 2019 3:07 am
Operator : MM
Sample : 9J24043-CALF
Misc : 1X 5mL 500PPB GX
ALS Vial : 29 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:22 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102443.D
Acq On : 25 Oct 2019 3:34 am
Operator : MM
Sample : 9J24043-CALG
Misc : 1X 5mL 1000PPB GX
ALS Vial : 30 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:25 2019
Quant Method : C:\msdchem\1\methods\~~VI191025G~~.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

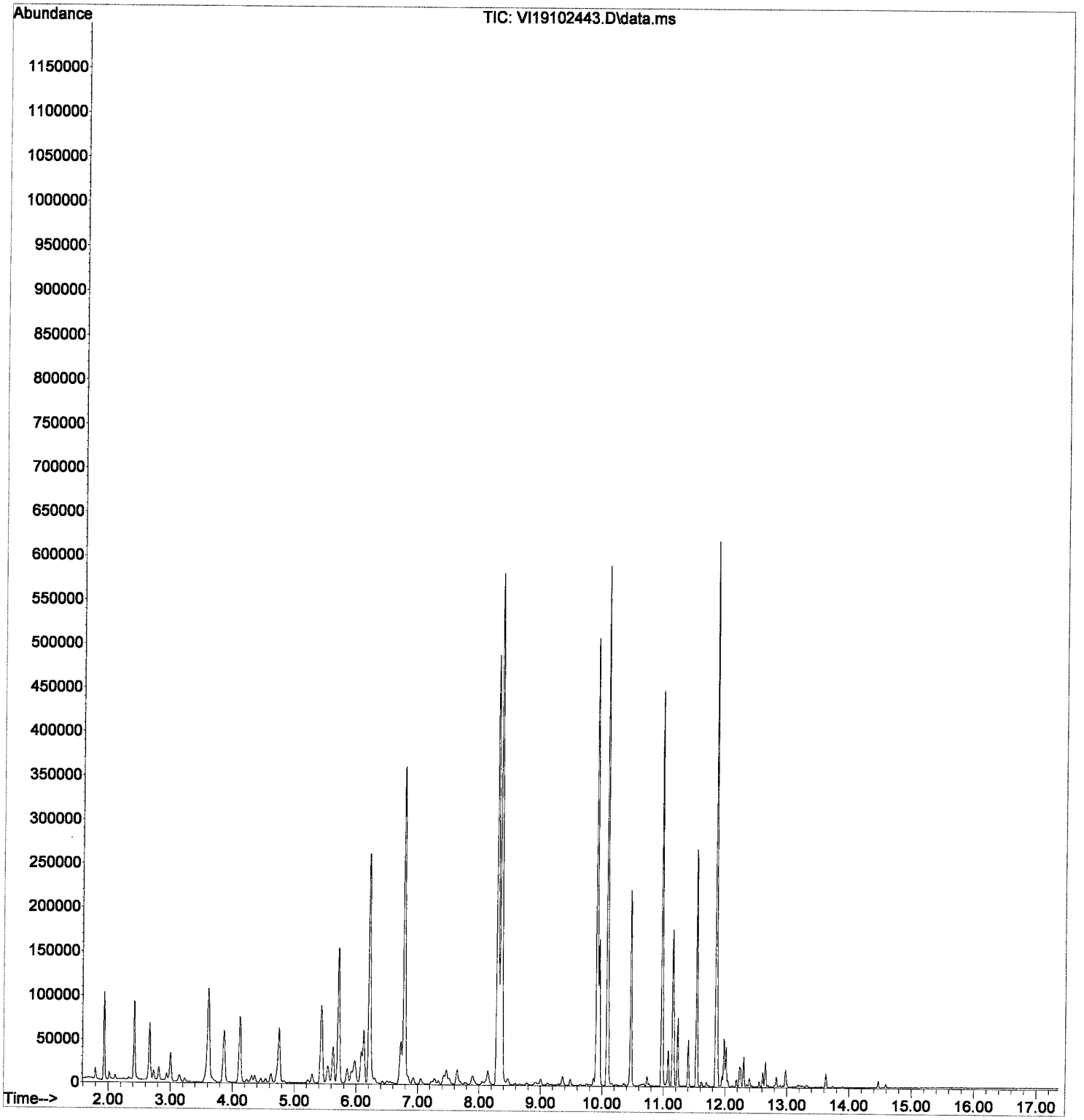
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	211453	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	348407	48.54	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	115114	45.90	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	392439	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	298529	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	222551	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	4888792m	727.40	ug/L	
5) TPHg (C5-C9)	9.890	TIC	5510904m	585.41	ug/L	
6) TPHg (C6-C10)	9.890	TIC	4867313m	622.06	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	6835714m	611.85	ug/L	
8) Benzene (NR)	6.119	78	58175	No Calib		
10) Toluene (NR)	8.358	91	520899	No Calib		
13) Naphthalene (NR)	13.627	128	12132	No Calib		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102443.D
Acq On : 25 Oct 2019 3:34 am
Operator : MM
Sample : 9J24043-CALG
Misc : 1X 5mL 1000PPB GX
ALS Vial : 30 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:25 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102444.D
Acq On : 25 Oct 2019 4:00 am
Operator : MM
Sample : 9J24043-CALH
Misc : 1X 5mL 2500PPB GX
ALS Vial : 31 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:28 2019
Quant Method : C:\msdchem\1\methods\~~VI191025~~G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

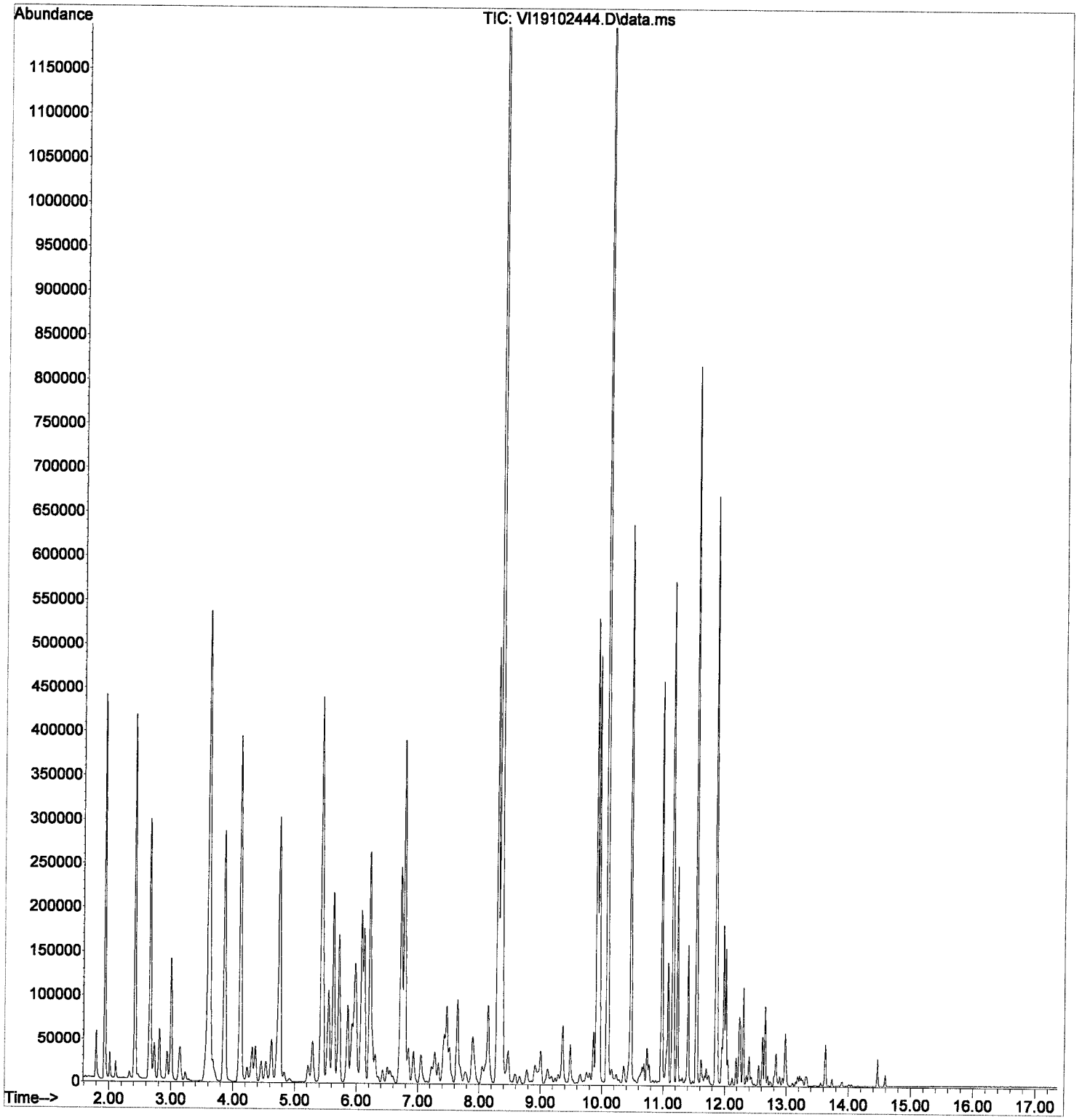
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	216435	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	352248	47.94	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	120135	46.80	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	398721	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	303642	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	237458	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	16775203m	2359.89	ug/L	
5) TPHg (C5-C9)	9.890	TIC	21028250m	2263.03	ug/L	
6) TPHg (C6-C10)	9.890	TIC	17780255m	2293.78	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	25461195m	2277.93	ug/L	
8) Benzene (NR)	6.119	78	158403	No Calib		
10) Toluene (NR)	8.358	91	1477009	No Calib		
13) Naphthalene (NR)	13.627	128	35052	No Calib		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102444.D
Acq On : 25 Oct 2019 4:00 am
Operator : MM
Sample : 9J24043-CALH
Misc : 1X 5mL 2500PPB GX
ALS Vial : 31 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:28 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102445.D
Acq On : 25 Oct 2019 4:27 am
Operator : MM
Sample : 9J24043-CALI
Misc : 1X 5mL 5000PPB GX
ALS Vial : 32 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:31 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

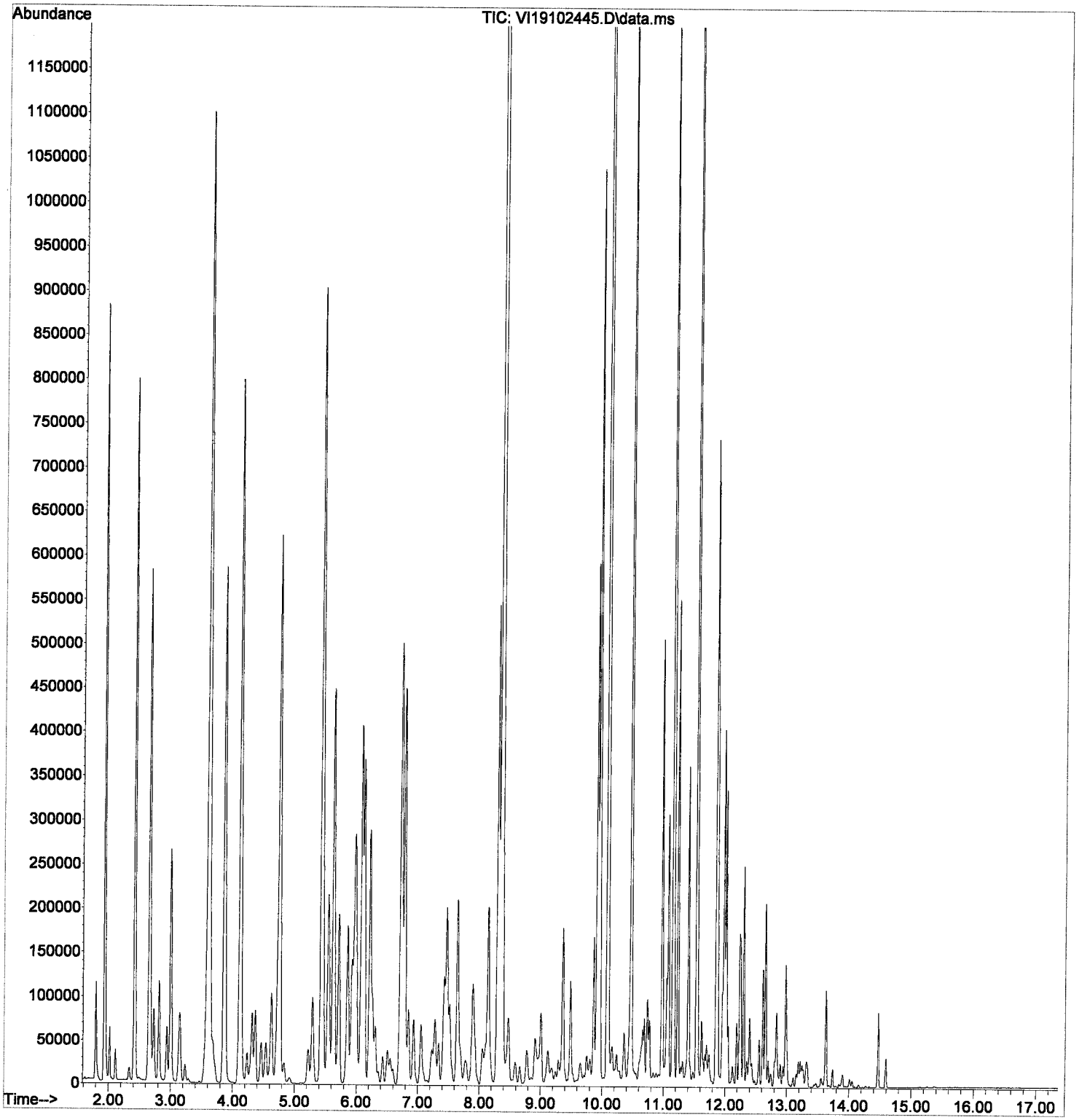
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	233849	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	379658	47.83	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	131653	47.47	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	428988	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	328511	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	265485	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	36698243m	4712.25	ug/L	
5) TPHg (C5-C9)	9.890	TIC	44004926m	4445.71	ug/L	
6) TPHg (C6-C10)	9.890	TIC	37352617m	4504.22	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	53937364m	4503.02	ug/L	
8) Benzene (NR)	6.119	78	331579	No Calib		
10) Toluene (NR)	8.358	91	3164737	No Calib		
13) Naphthalene (NR)	13.627	128	80787	No Calib		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102445.D
Acq On : 25 Oct 2019 4:27 am
Operator : MM
Sample : 9J24043-CALI
Misc : 1X 5mL 5000PPB GX
ALS Vial : 32 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:31 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102446.D
Acq On : 25 Oct 2019 4:54 am
Operator : MM
Sample : 9J24043-CALJ
Misc : 1X 5mL 10000PPB GX
ALS Vial : 33 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:34 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration

W 10/28/19

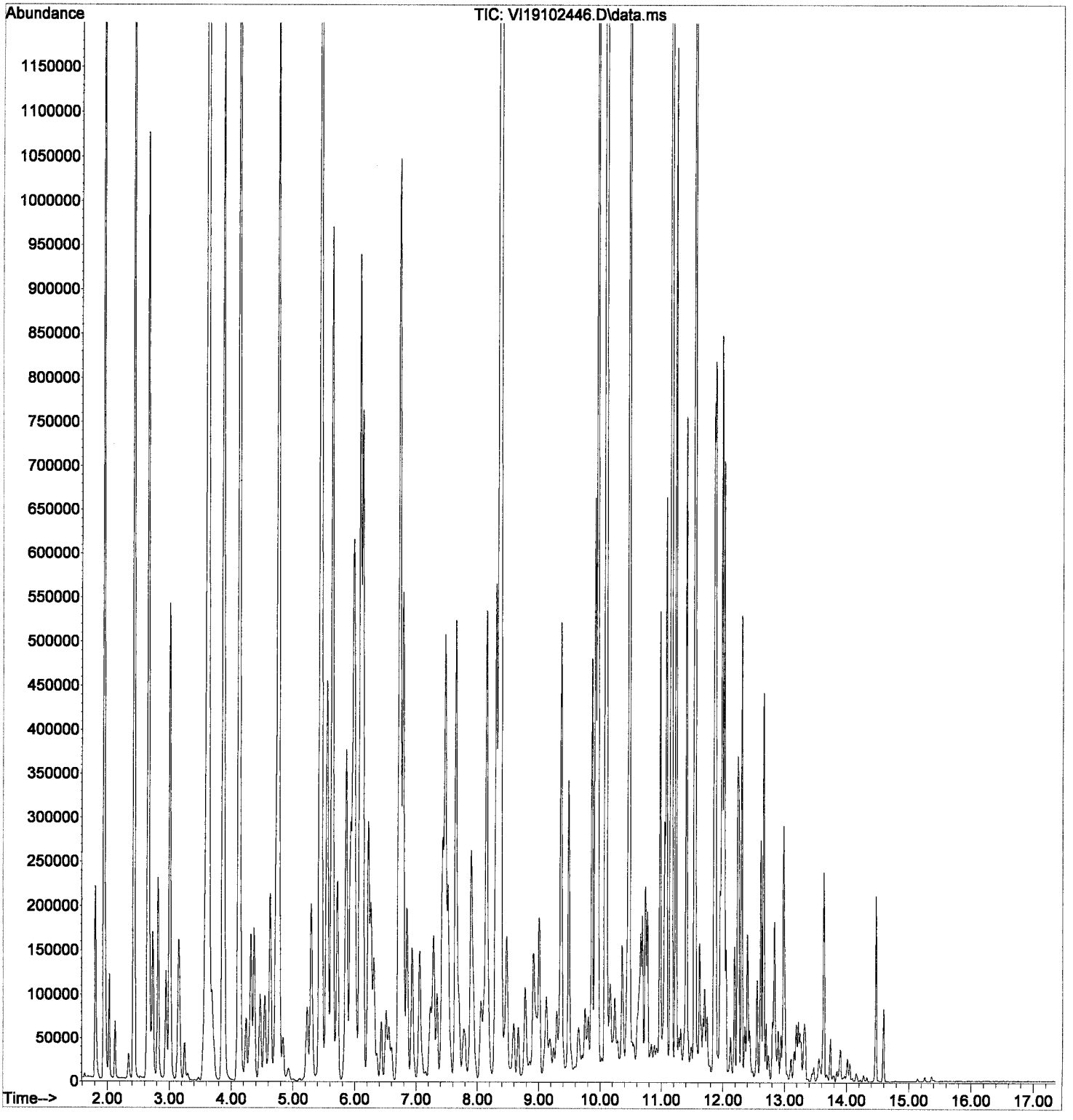
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	234183	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	384961	48.42	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	134509	48.43	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	441445	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	336849	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	271148	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	79562476m	9992.42	ug/L	
5) TPHg (C5-C9)	9.890	TIC	92937489m	9609.74	ug/L	
6) TPHg (C6-C10)	9.890	TIC	79339461m	9683.51	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	114341182m	9654.93	ug/L	
8) Benzene (NR)	6.126	78	681943	No Calib		
10) Toluene (NR)	8.358	91	6524048	No Calib		
13) Naphthalene (NR)	13.627	128	171453	No Calib		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102446.D
Acq On : 25 Oct 2019 4:54 am
Operator : MM
Sample : 9J24043-CALJ
Misc : 1X 5mL 10000PPB GX
ALS Vial : 33 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 08:55:34 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 06 09:35:12 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102447.D
Acq On : 25 Oct 2019 5:21 am
Operator : MM
Sample : 9J24043-IBL8
Misc : 1X 5mL DI
ALS Vial : 34 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:23 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

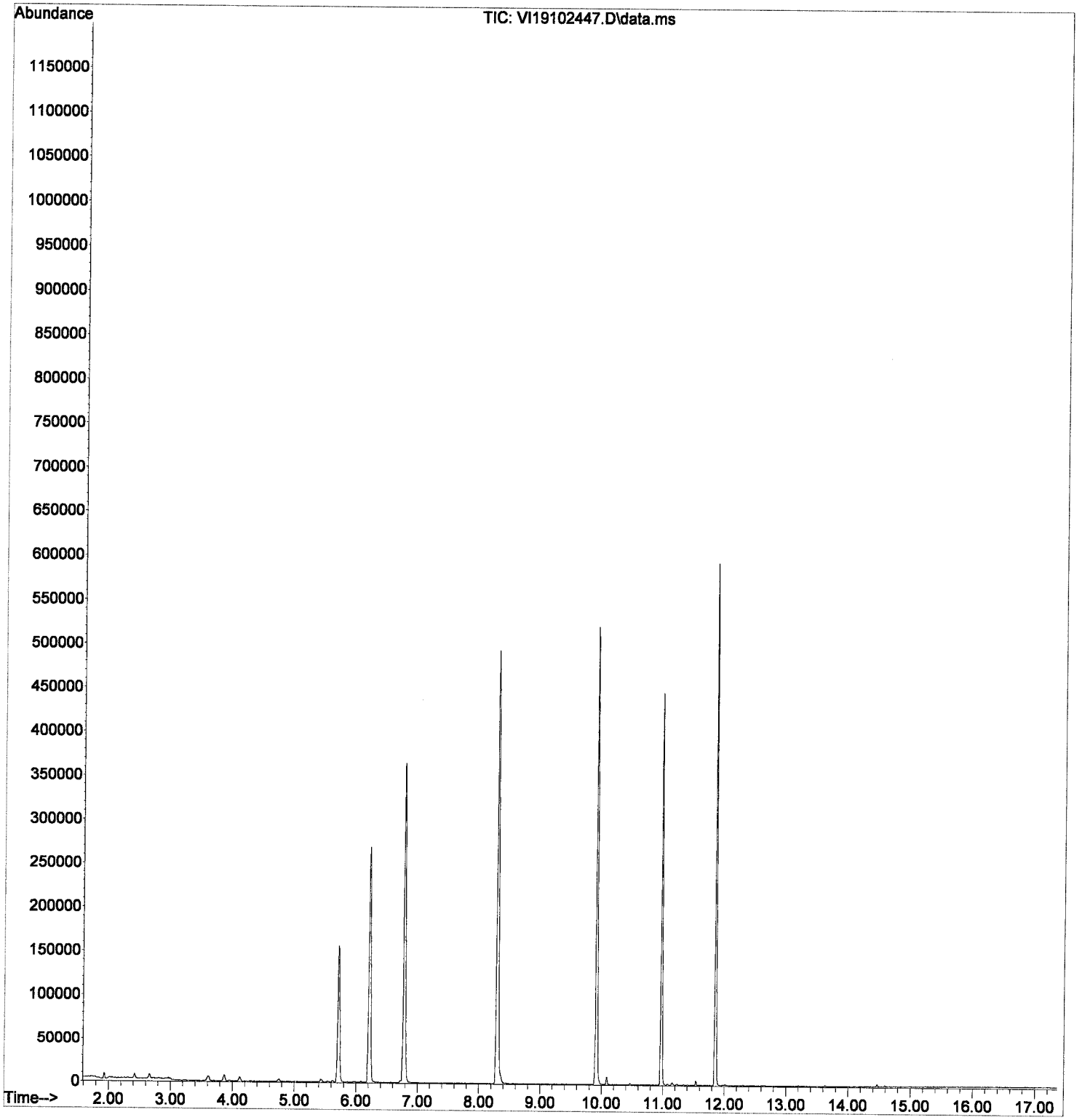
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	220300	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	358131	50.00	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	115759	48.41	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	401614	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	304304	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	217857	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	67010m	34.98	ug/L	
5) TPHg (C5-C9)	9.890	TIC	462754m	29.19	ug/L	
6) TPHg (C6-C10)	9.890	TIC	415778m	30.25	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	479273m	32.16	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102447.D
Acq On : 25 Oct 2019 5:21 am
Operator : MM
Sample : 9J24043-IBL8
Misc : 1X 5mL DI
ALS Vial : 34 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:23 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102448.D
Acq On : 25 Oct 2019 5:48 am
Operator : MM
Sample : 9J24043-IBL9
Misc : 1X 5mL DI
ALS Vial : 35 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:26 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

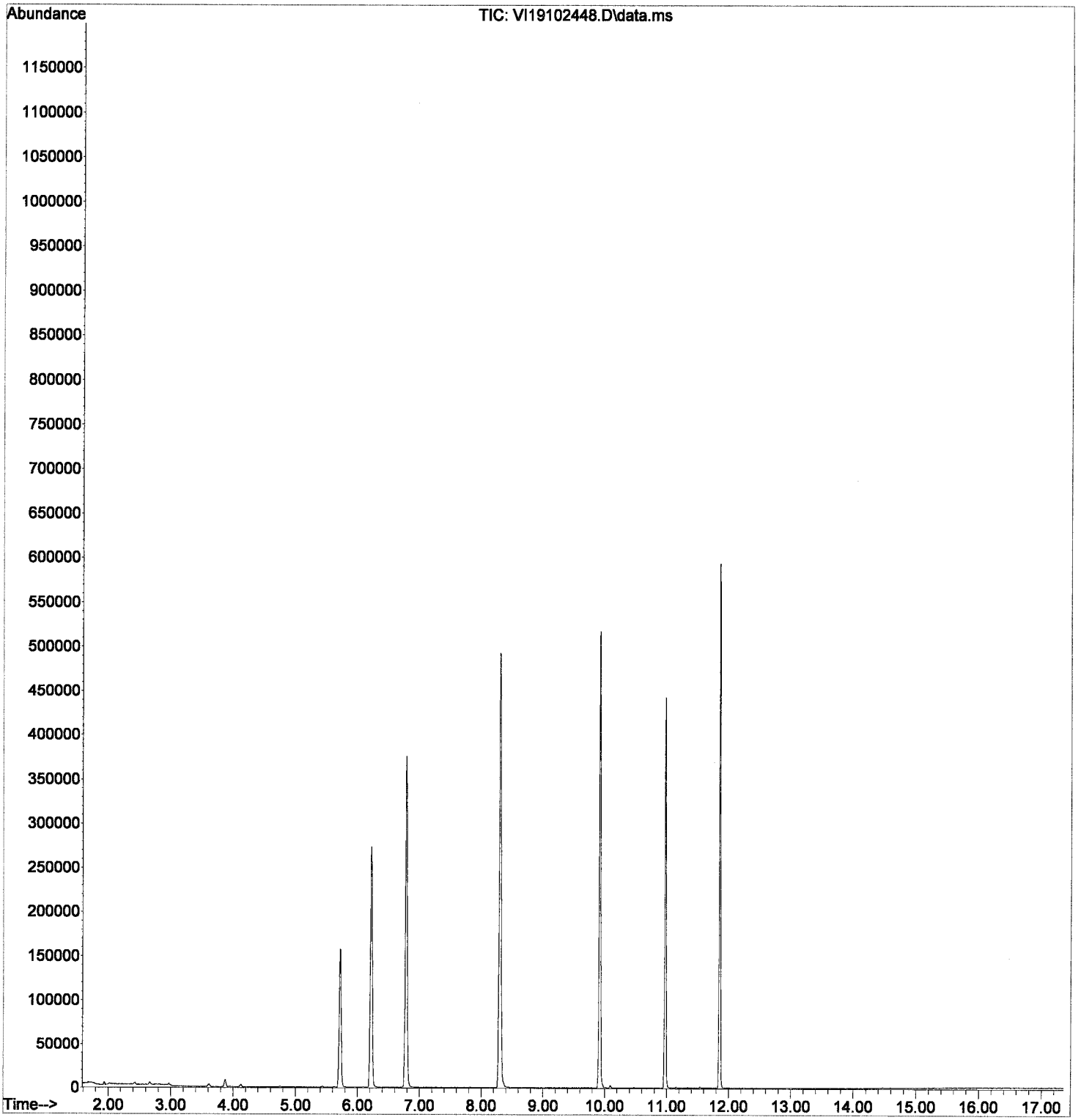
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	224165	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	364141	49.96	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	116148	47.73	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	404017	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	307716	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	221768	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	6246m	25.58	ug/L	
5) TPHg (C5-C9)	9.890	TIC	423048m	23.38	ug/L	
6) TPHg (C6-C10)	9.890	TIC	367482m	22.24	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	414999m	24.87	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102448.D
Acq On : 25 Oct 2019 5:48 am
Operator : MM
Sample : 9J24043-IBL9
Misc : 1X 5mL DI
ALS Vial : 35 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:26 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102449.D
Acq On : 25 Oct 2019 6:15 am
Operator : MM
Sample : NOT USED-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 36 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:29 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

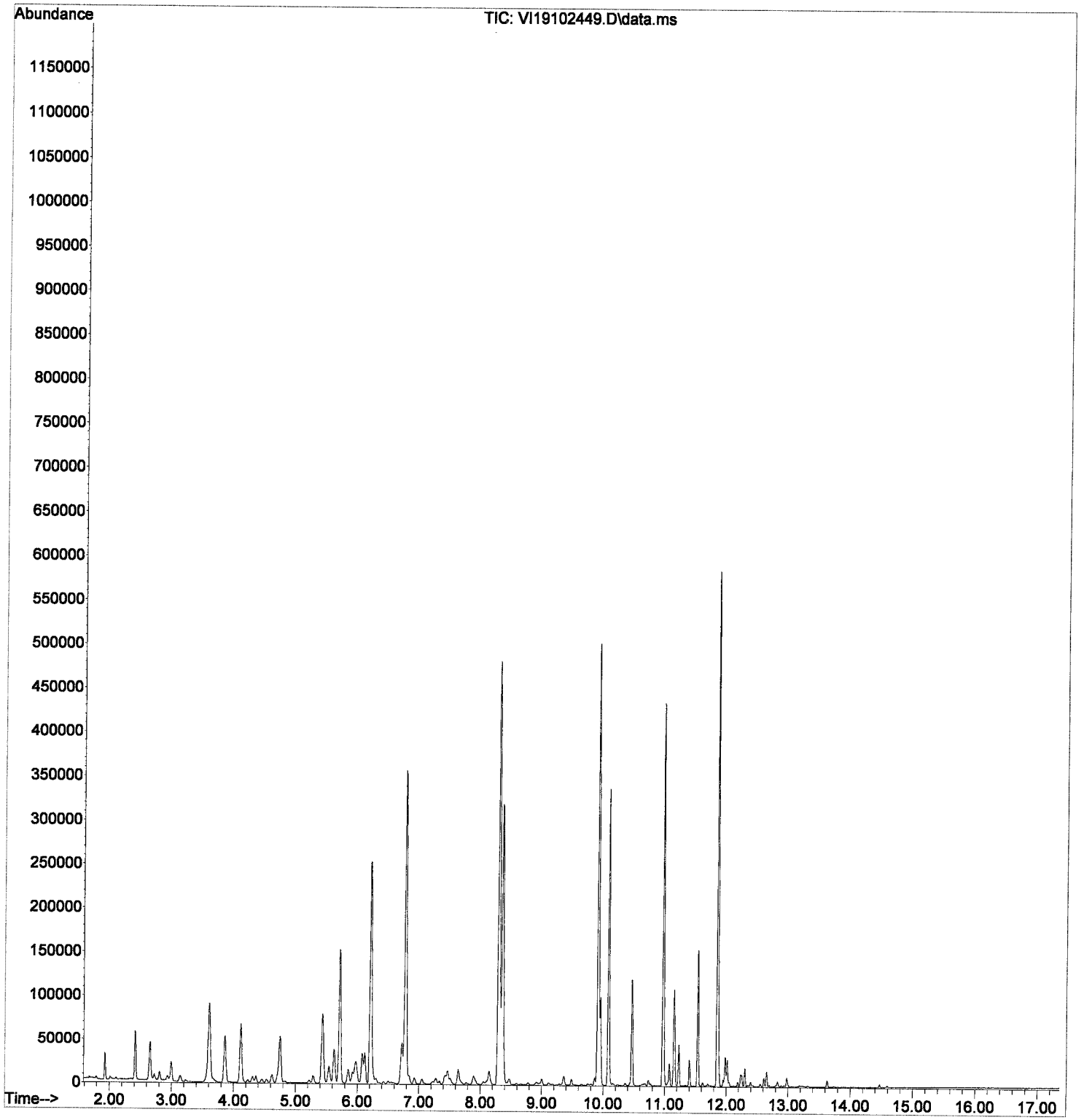
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	210169	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	342543	50.13	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	111447	48.85	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	389625	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	294881	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	215811	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	3057398m	515.56	ug/L	
5) TPHg (C5-C9)	9.890	TIC	4012577m	490.15	ug/L	
6) TPHg (C6-C10)	9.890	TIC	3490261m	503.63	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	4796224m	494.15	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102449.D
Acq On : 25 Oct 2019 6:15 am
Operator : MM
Sample : NOT USED-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 36 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:29 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102450.D
Acq On : 25 Oct 2019 6:42 am
Operator : MM
Sample : 9J24043-IBLA
Misc : 1X 5mL DI
ALS Vial : 37 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:32 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

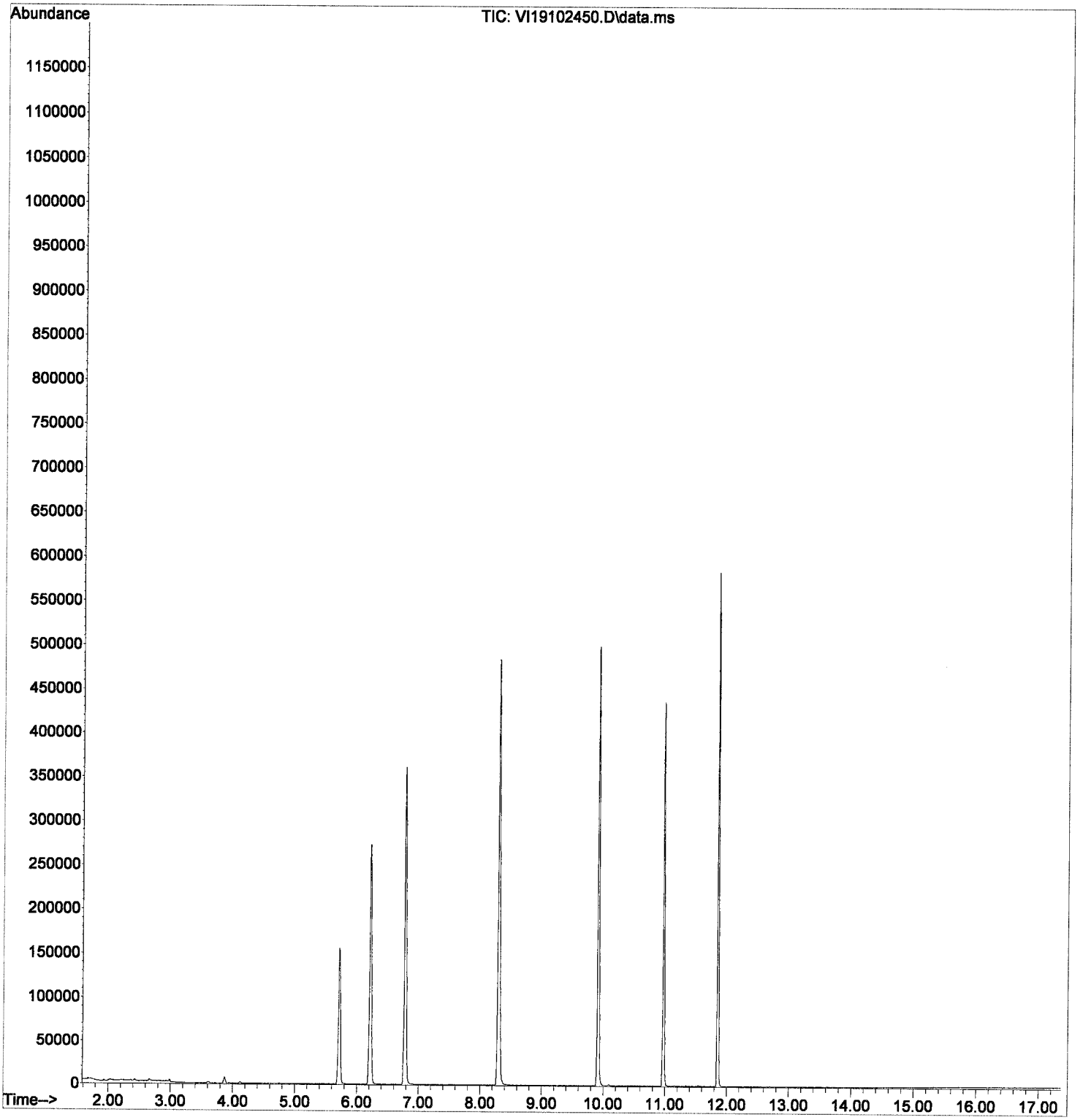
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	220005	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	355641	49.72	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	113694	47.61	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	395183	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	297812	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	216661	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	1338m	24.84	ug/L	
5) TPHg (C5-C9)	9.890	TIC	395852m	20.99	ug/L	
6) TPHg (C6-C10)	9.890	TIC	356830m	21.68	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	380718m	22.16	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102450.D
Acq On : 25 Oct 2019 6:42 am
Operator : MM
Sample : 9J24043-IBLA
Misc : 1X 5mL DI
ALS Vial : 37 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:32 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102451.D
Acq On : 25 Oct 2019 9:37 am
Operator : MM
Sample : 9J24043-IBLB
Misc : 1X 5mL DI
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:35 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

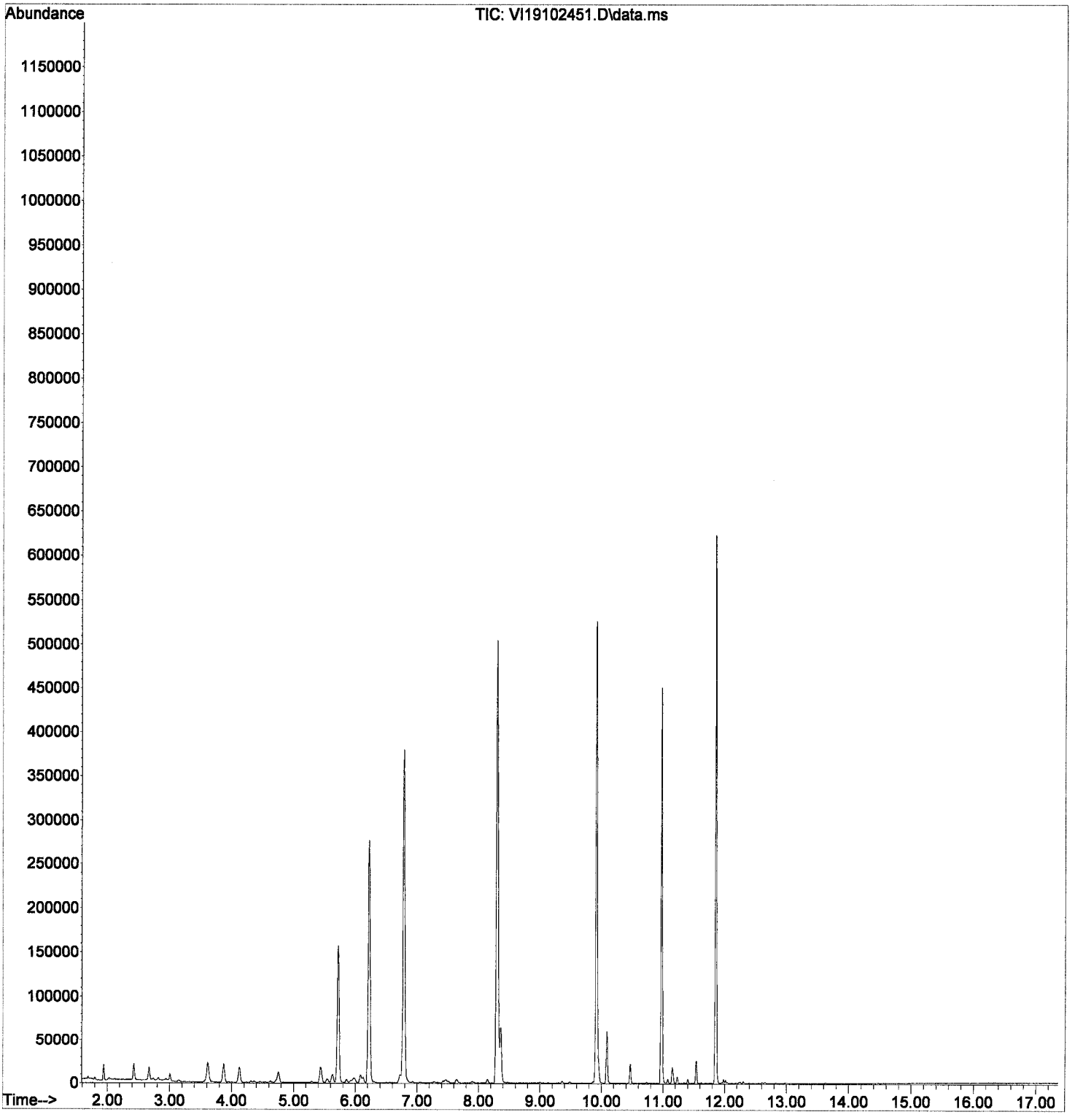
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	220874	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	362775	50.51	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	117808	49.14	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	408461	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	309494	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	224643	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	516538m	104.07	ug/L	
5) TPHg (C5-C9)	9.890	TIC	1099818m	107.51	ug/L	
6) TPHg (C6-C10)	9.890	TIC	929473m	105.15	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	1204383m	105.77	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102451.D
Acq On : 25 Oct 2019 9:37 am
Operator : MM
Sample : 9J24043-IBLB
Misc : 1X 5mL DI
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:36:35 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102452.D
Acq On : 25 Oct 2019 10:13 am
Operator : MM
Sample : 9J24043-CALG
Misc : 1X 5mL 1000PPB GX
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:30:48 2019
Quant Method : C:\msdchem\1\methods\~~VI191025G~~.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 09:04:24 2019
Response via : Initial Calibration

MM 10/25/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	234293	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	376297	49.24	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	126230	49.57	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	425778	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.916	117	321320	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	240304	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	6735895m	1025.45	ug/L	
5) TPHg (C5-C9)	9.890	TIC	9031832m	1085.81	ug/L	
6) TPHg (C6-C10)	9.890	TIC	7648071m	1079.95	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	10733621m	1066.65	ug/L	
8) Benzene (NR)	6.126	78	64412	No Calib		
10) Toluene (NR)	8.358	91	587525	No Calib		
13) Naphthalene (NR)	13.627	128	13369	No Calib		

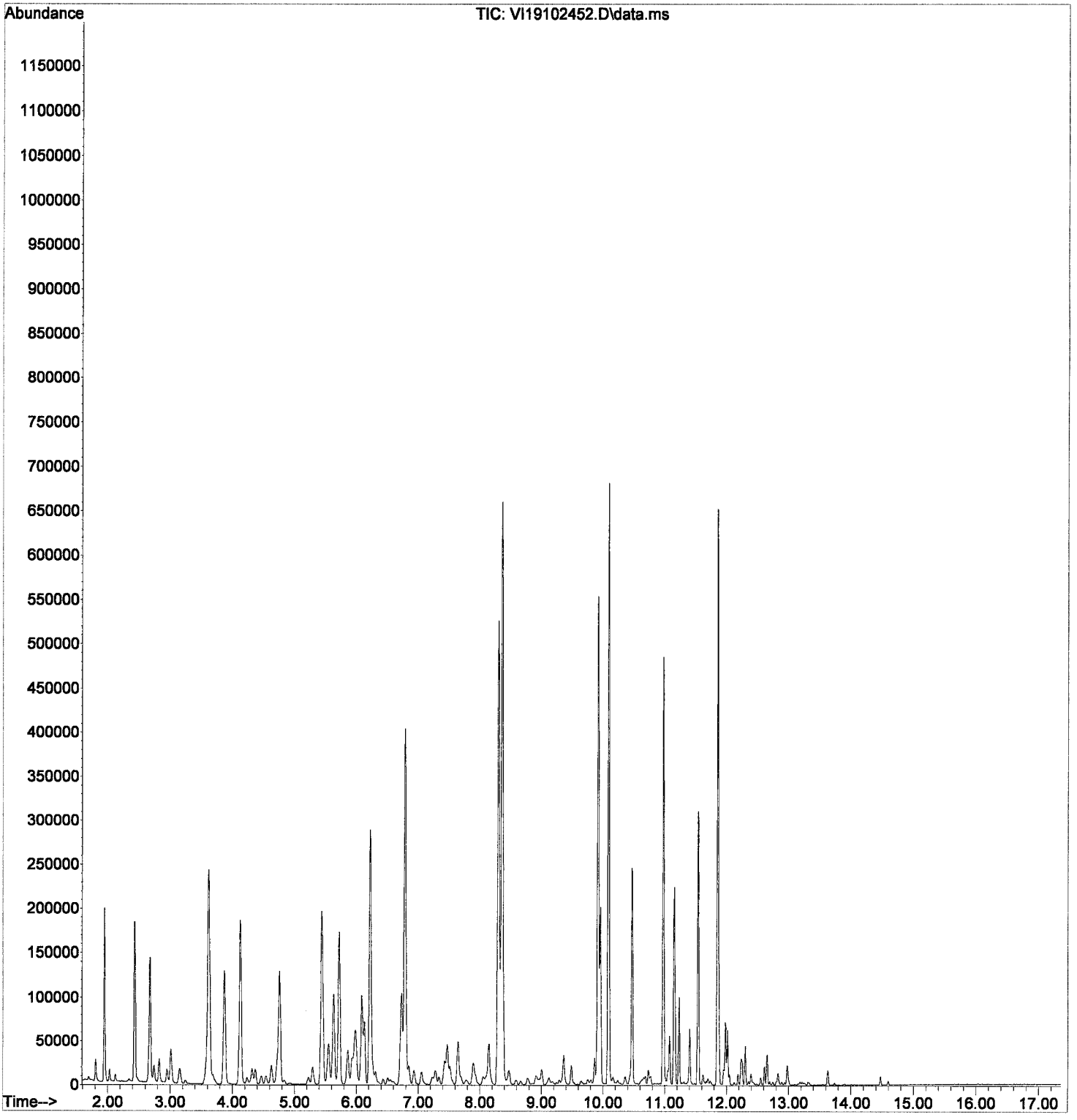
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Re-prepped @ 10/25/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102452.D
Acq On : 25 Oct 2019 10:13 am
Operator : MM
Sample : 9J24043-CALG
Misc : 1X 5mL 1000PPB GX
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:30:48 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 09:04:24 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102453.D
Acq On : 25 Oct 2019 10:40 am
Operator : MM
Sample : 9J24043-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:55:48 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration

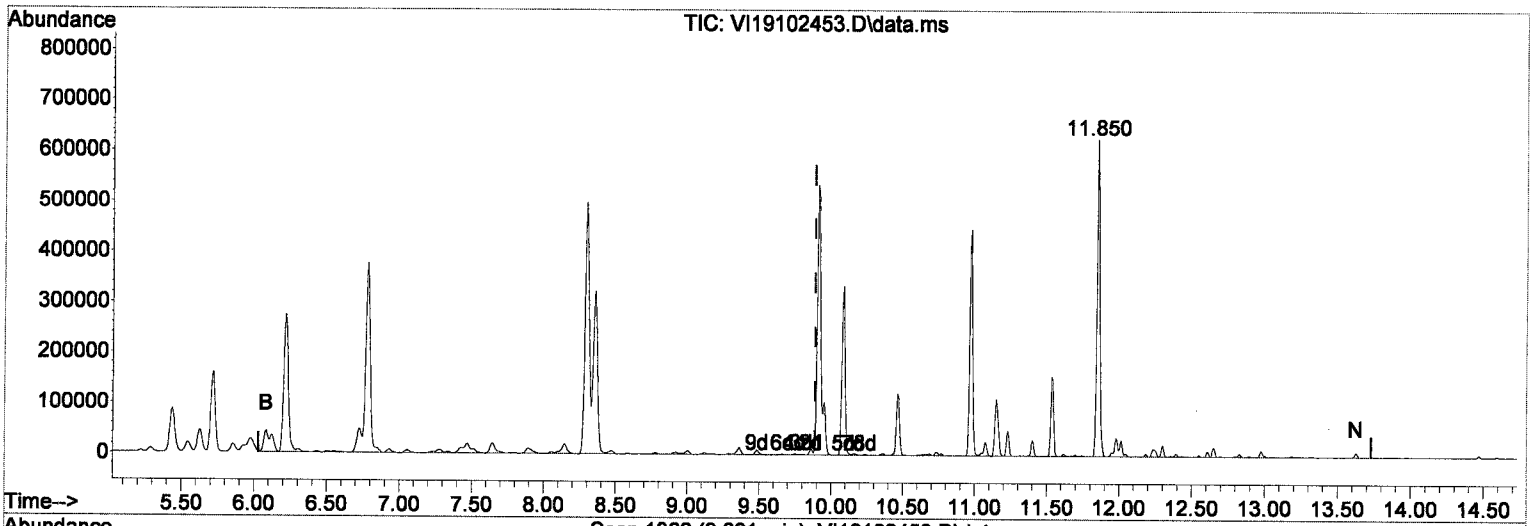
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.217	168	221958	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.783	114	358721	49.70	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.974	174	117543	48.79	ug/L	0.00
9) Toluene-d8 (NR)	8.297	98	403727	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.910	117	307598	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.850	150	224832	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	9.890	TIC	3205343m	512.01	ug/L	
5) TPHg (C5-C9)	9.890	TIC	4234043m	489.71	ug/L	
6) TPHg (C6-C10)	9.890	TIC	3681976m	503.04	ug/L	
7) CA-LUFT (C5-C12)	9.890	TIC	5059070m	493.53	ug/L	

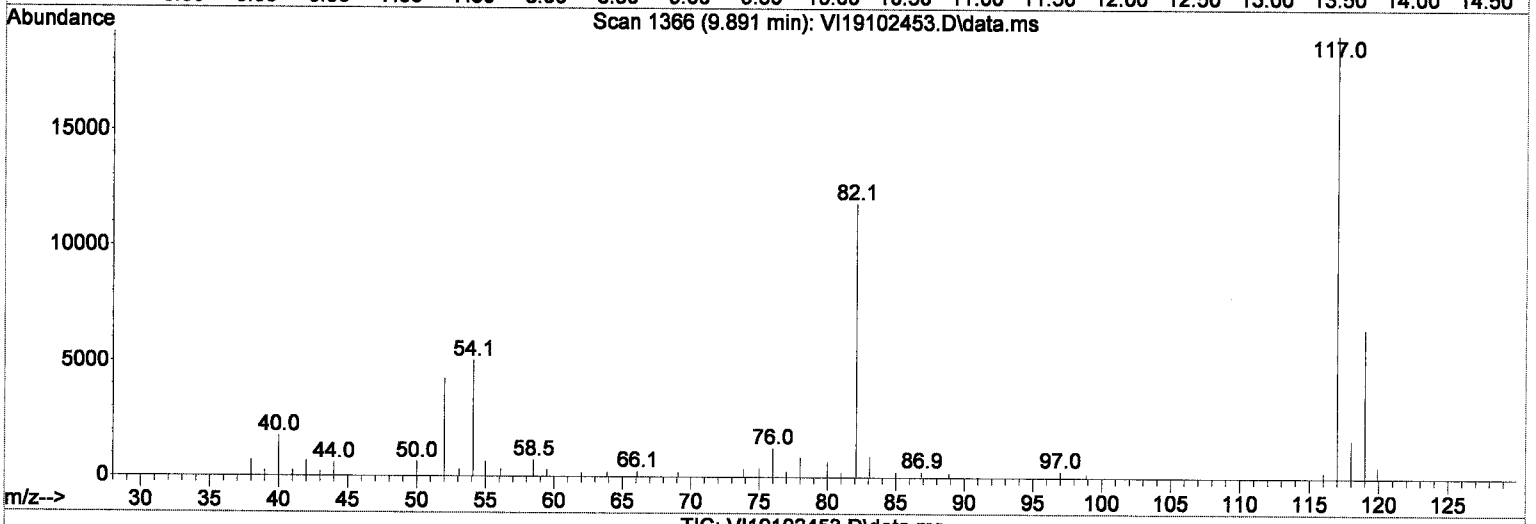
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102453.D
Acq On : 25 Oct 2019 10:40 am
Operator : MM
Sample : 9J24043-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:55:48 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration





TIC: VI19102453.D\data.ms

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

9.890min (0.000) 512.01 ug/L m

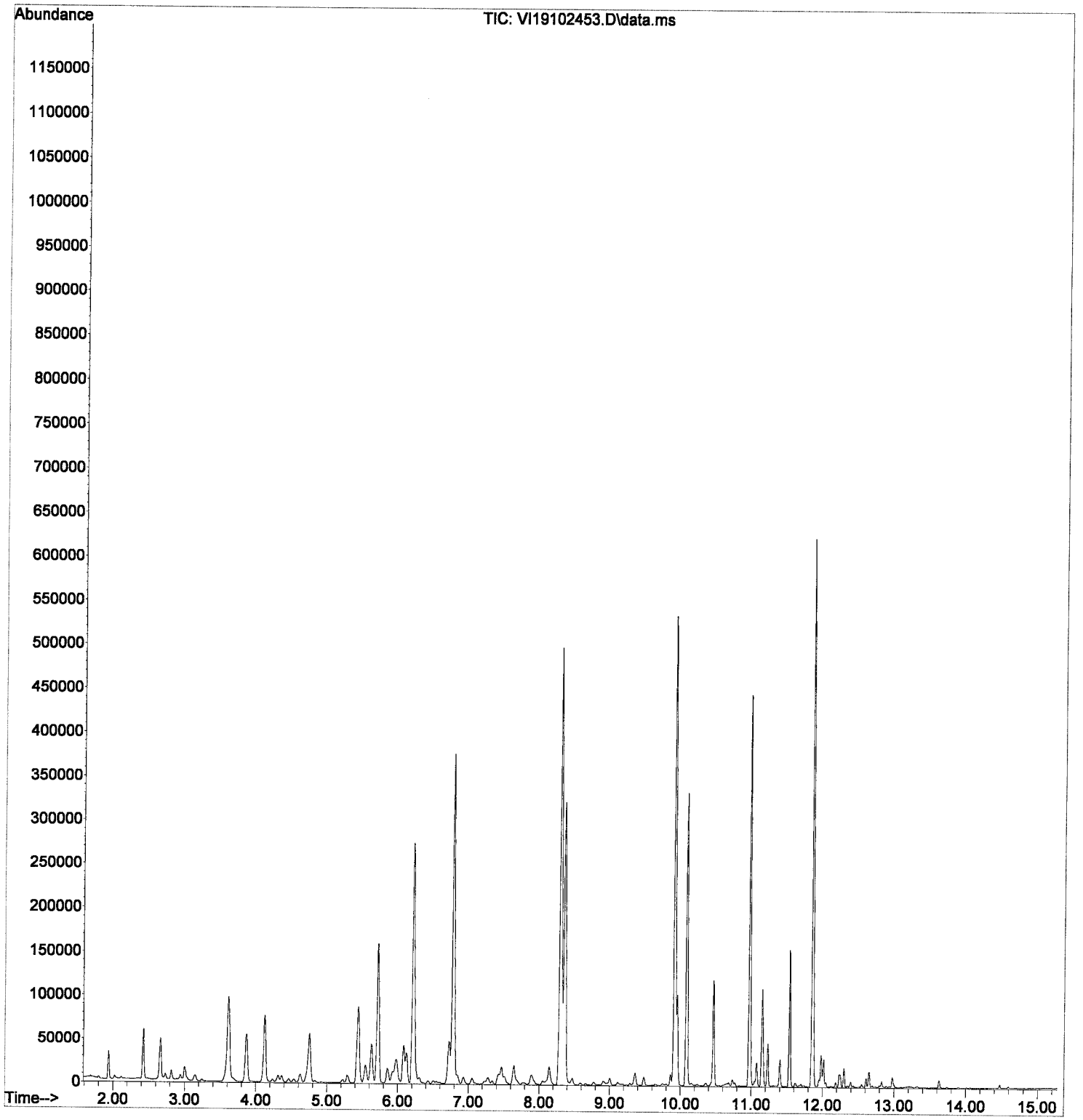
response 3205343

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J24043\
Data File : VI19102453.D
Acq On : 25 Oct 2019 10:40 am
Operator : MM
Sample : 9J24043-ICV3
Misc : 1X 5mL 500PPB GX
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VI1611RUN.M

Quant Time: Oct 25 10:55:48 2019
Quant Method : C:\msdchem\1\methods\VI191025G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Oct 25 10:31:05 2019
Response via : Initial Calibration



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

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

Batch 9101588
Sequence 9J25029 (A9J0954-01)

PREPARATION BENCH SHEET

BATCH #: 9101588 (Soil)

Apex Laboratories

Prep Method: EPA 5035A

OCT 2 0 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*
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

Methanol Reagent ID: A19I219~ Balance ID: A18J327~

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**

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

BTEX + HALOG Due: TAT:

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

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

Due: TAT:

Weighed by: (8) @ 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

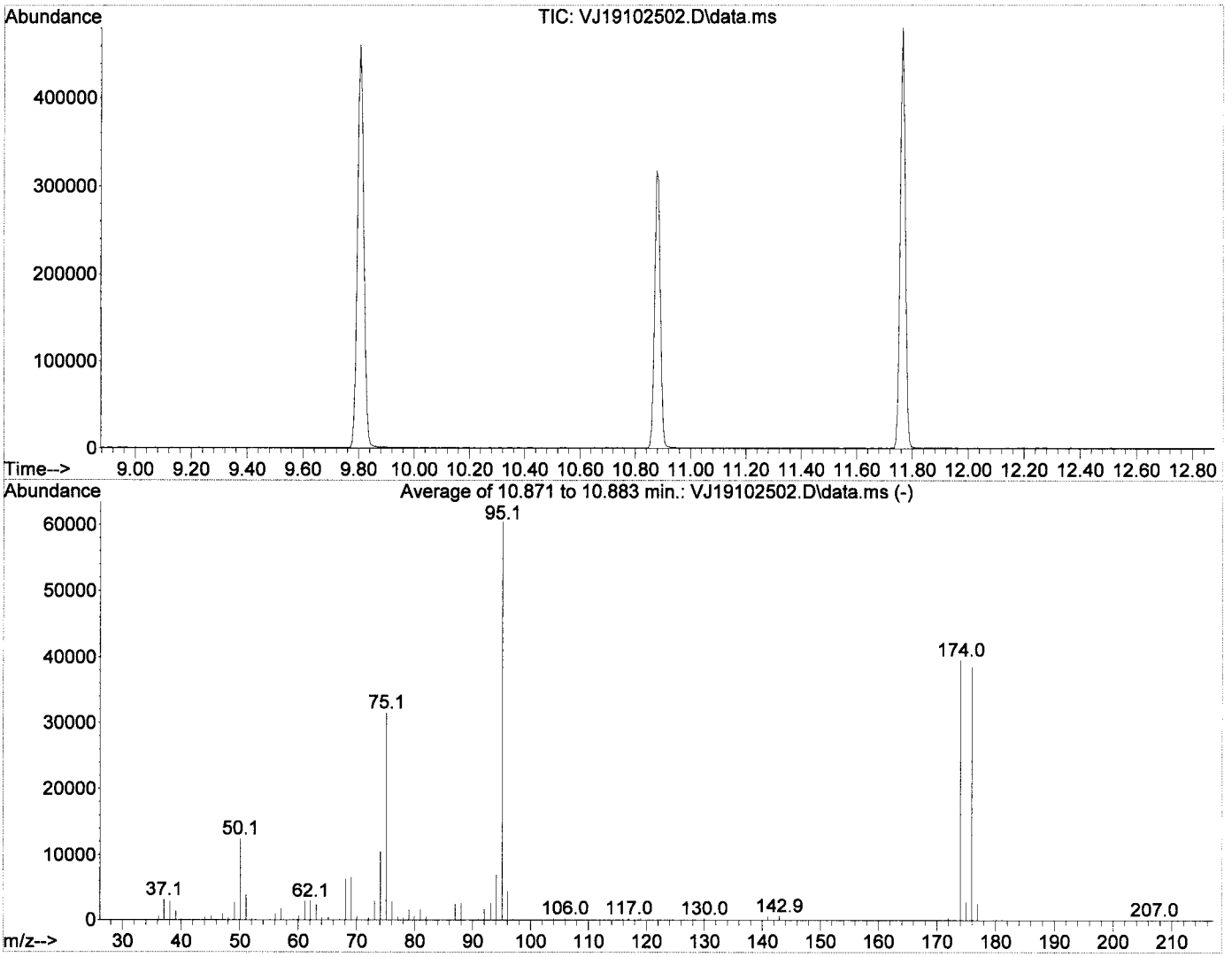
Comments: 12DCP ↑ 1/2 ppb (MDL)

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

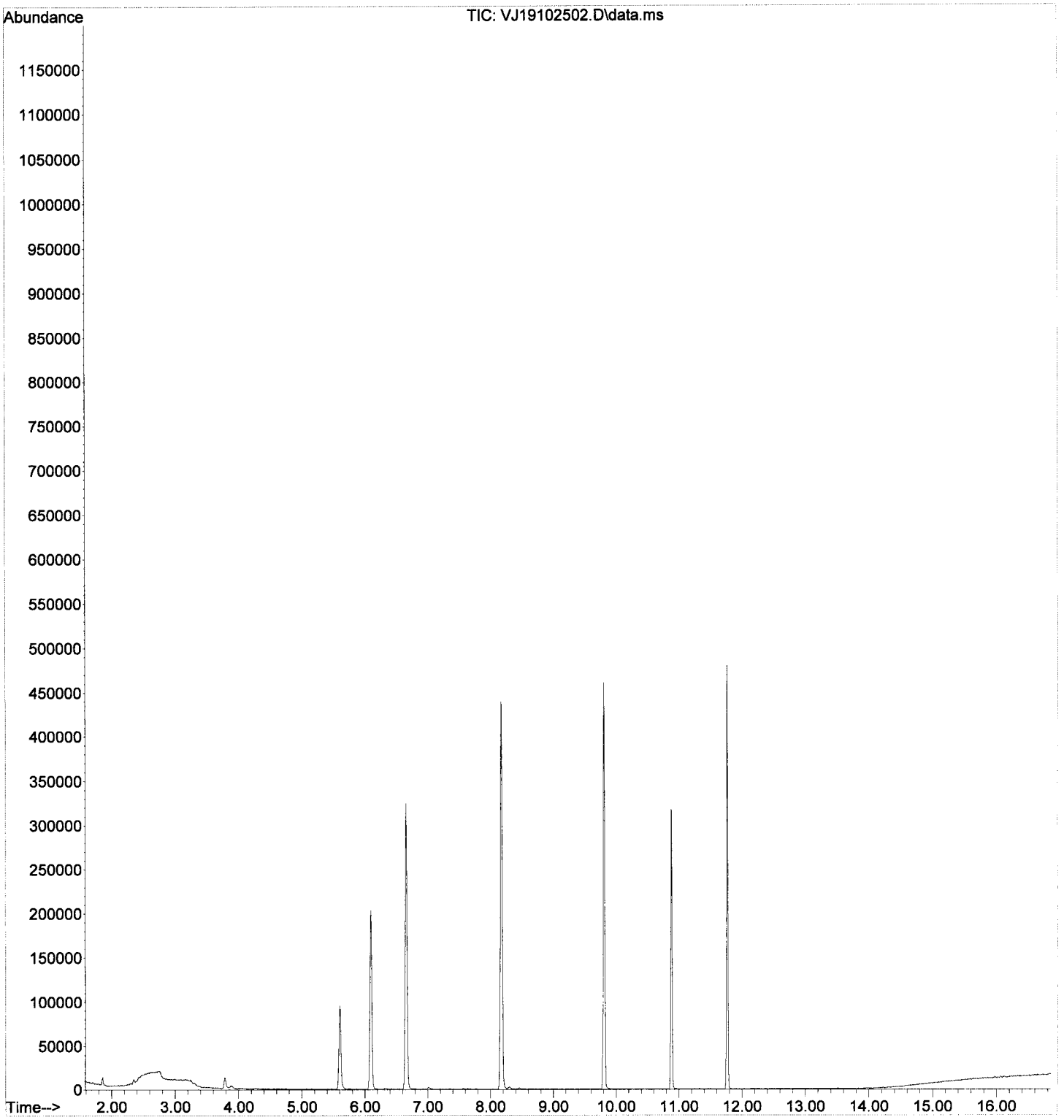
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	88493	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	233453	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	95848	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (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

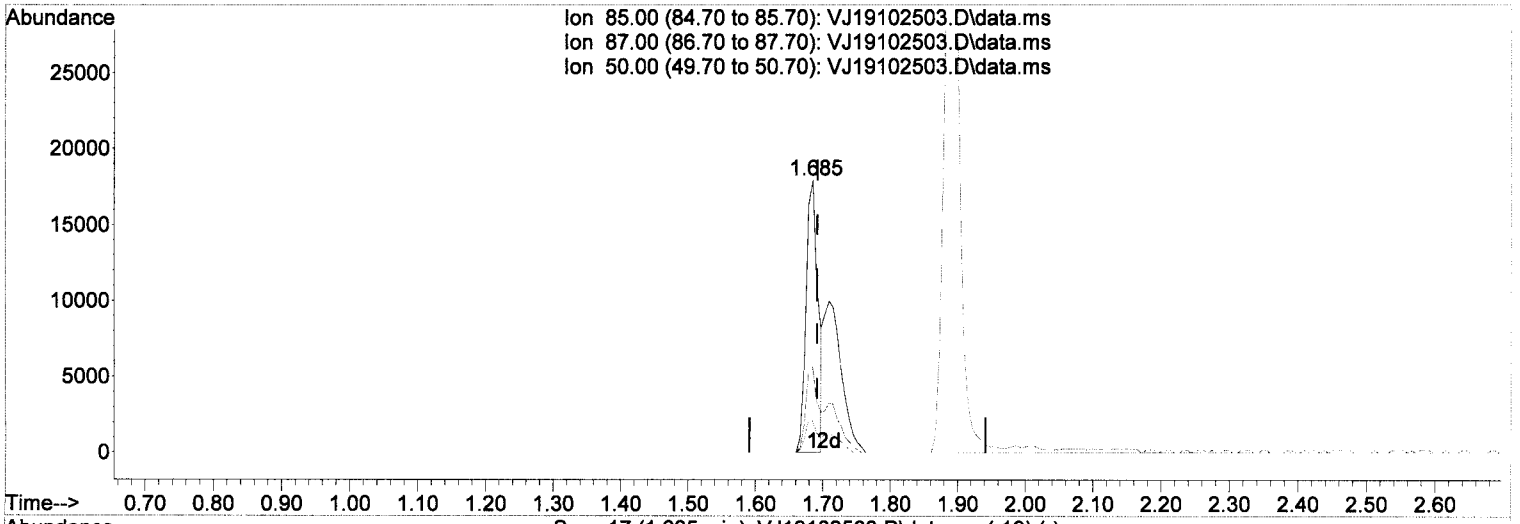
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	77558	21.90	ug/L		98
50) 1,1,2-Trichloroethane	8.875	97	47668	20.51	ug/L		95
51) Dibromochloromethane	9.064	129	36155	19.27	ug/L		98
52) 1,3-Dichloropropane	9.161	76	87511	20.04	ug/L		96
53) 1,2-Dibromoethane (EDB)	9.301	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

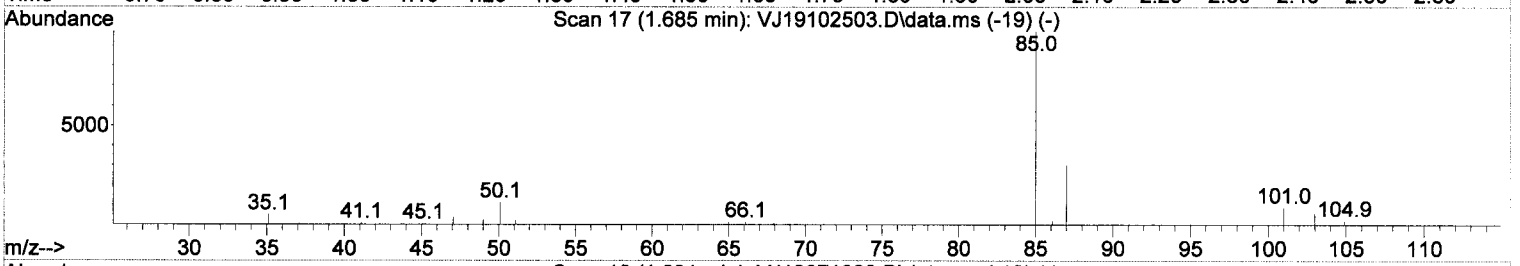
(#) = qualifier out of range (m) = manual integration (+) = signals summed

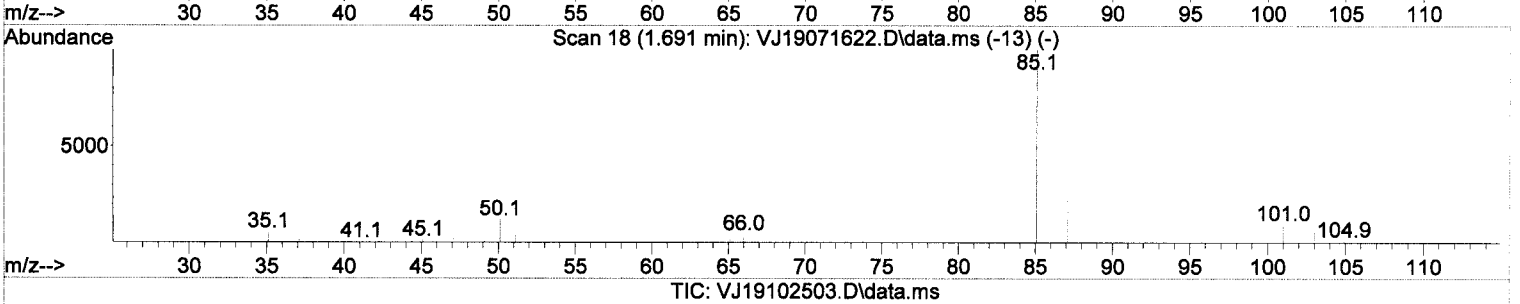
Quantitation Report (Qedit)

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

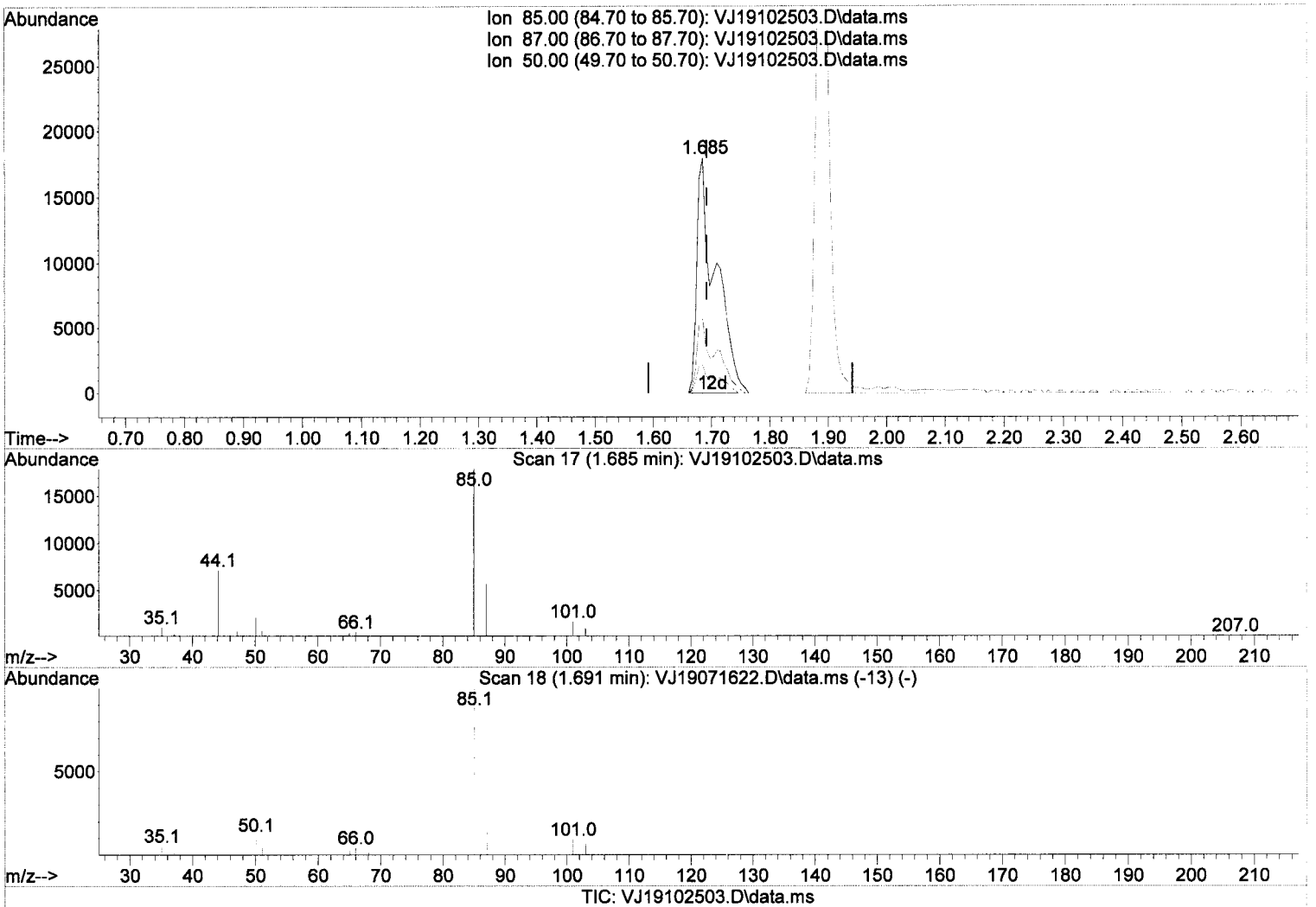
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	31.55
50.00	11.20	11.95
0.00	0.00	0.00

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

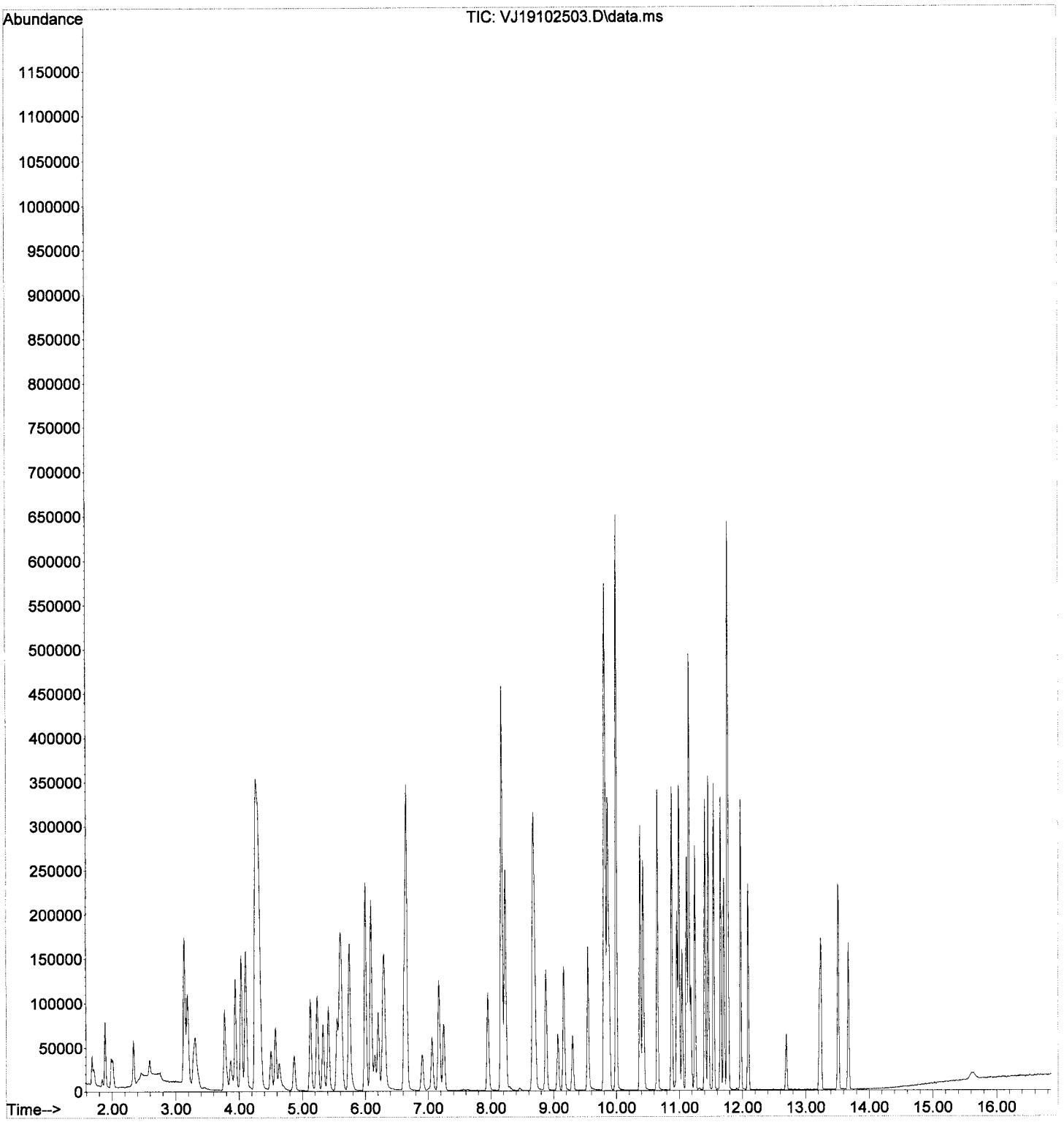
response 40277

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%

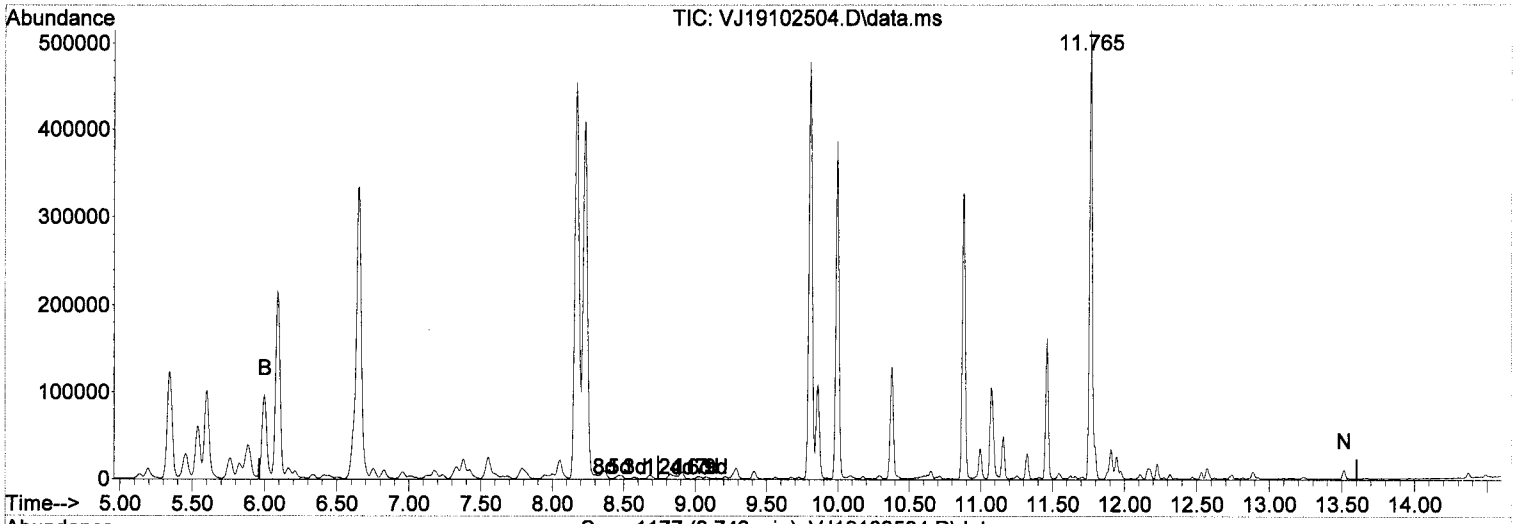
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (IS)	50.000	50.000	0.0	93	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	50.404	-0.8	93	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	47.655	4.7	87	0.00
4	H	NWTPH-Gx (TPH)	500.000	501.362	-0.3	96	0.00
5	H	TPHg (C5-C9)	500.000	524.026	-4.8	98	0.00
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

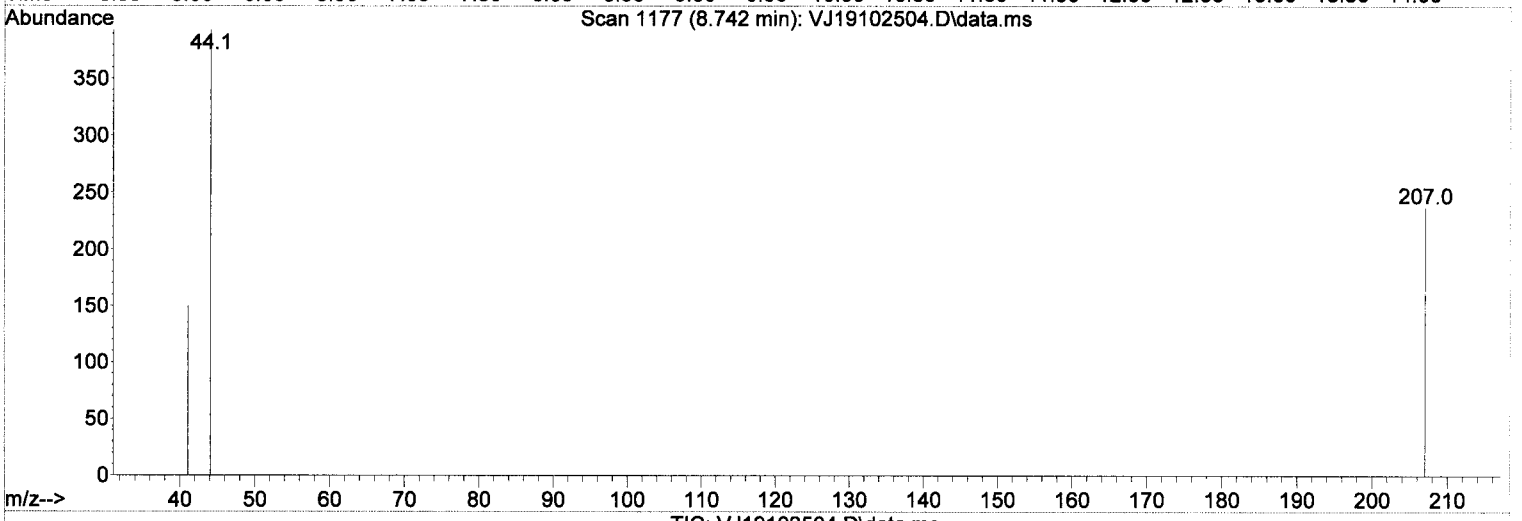
(#) = Out of Range SPCC's out = 0 CCC's out = 0

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)

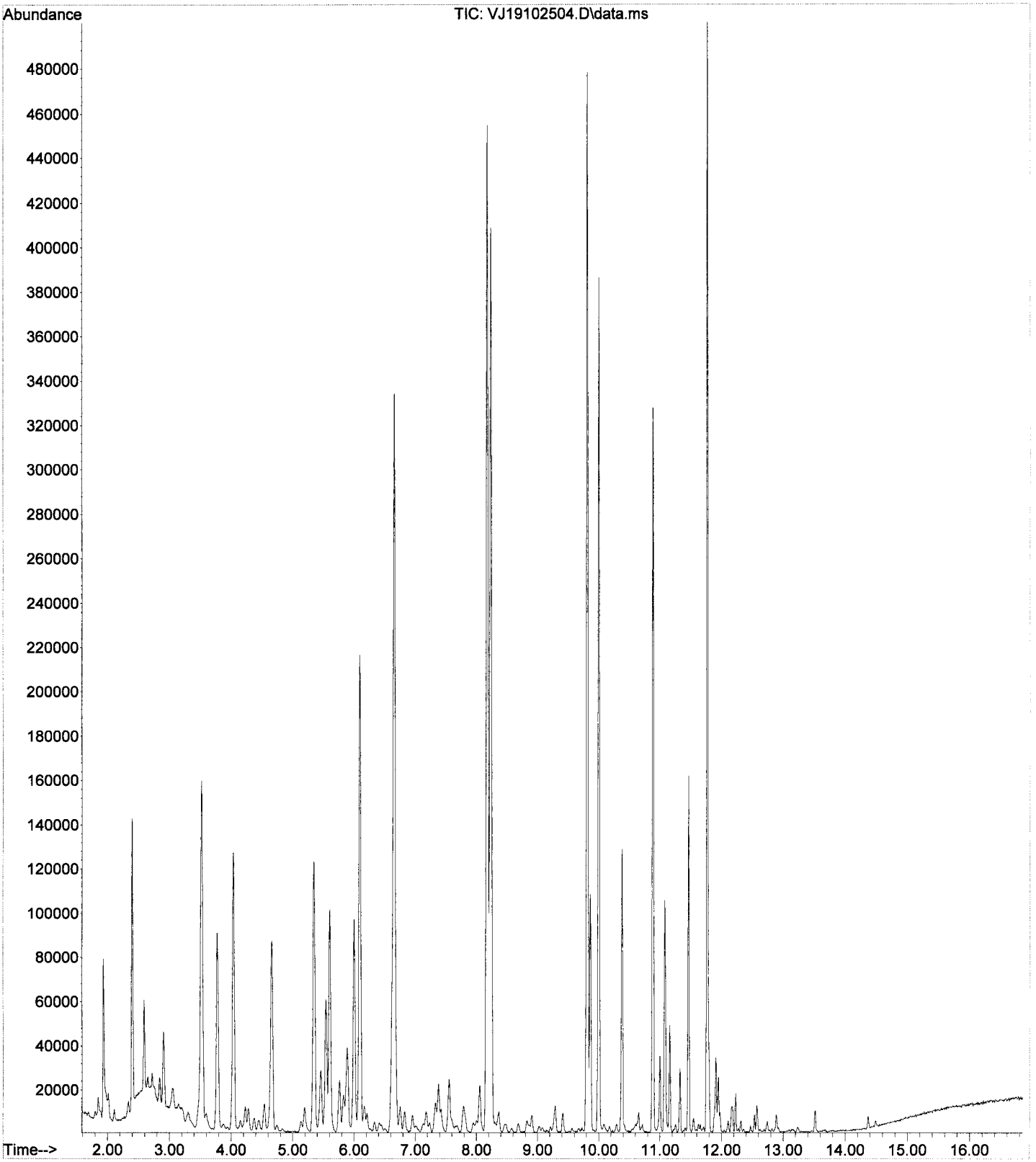
Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102504.D
Acq On : 25 Oct 2019 11:10 am
Operator : MM/IMA
Sample : 9101588-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19J354
ALS Vial : 4 Sample Multiplier: 1

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

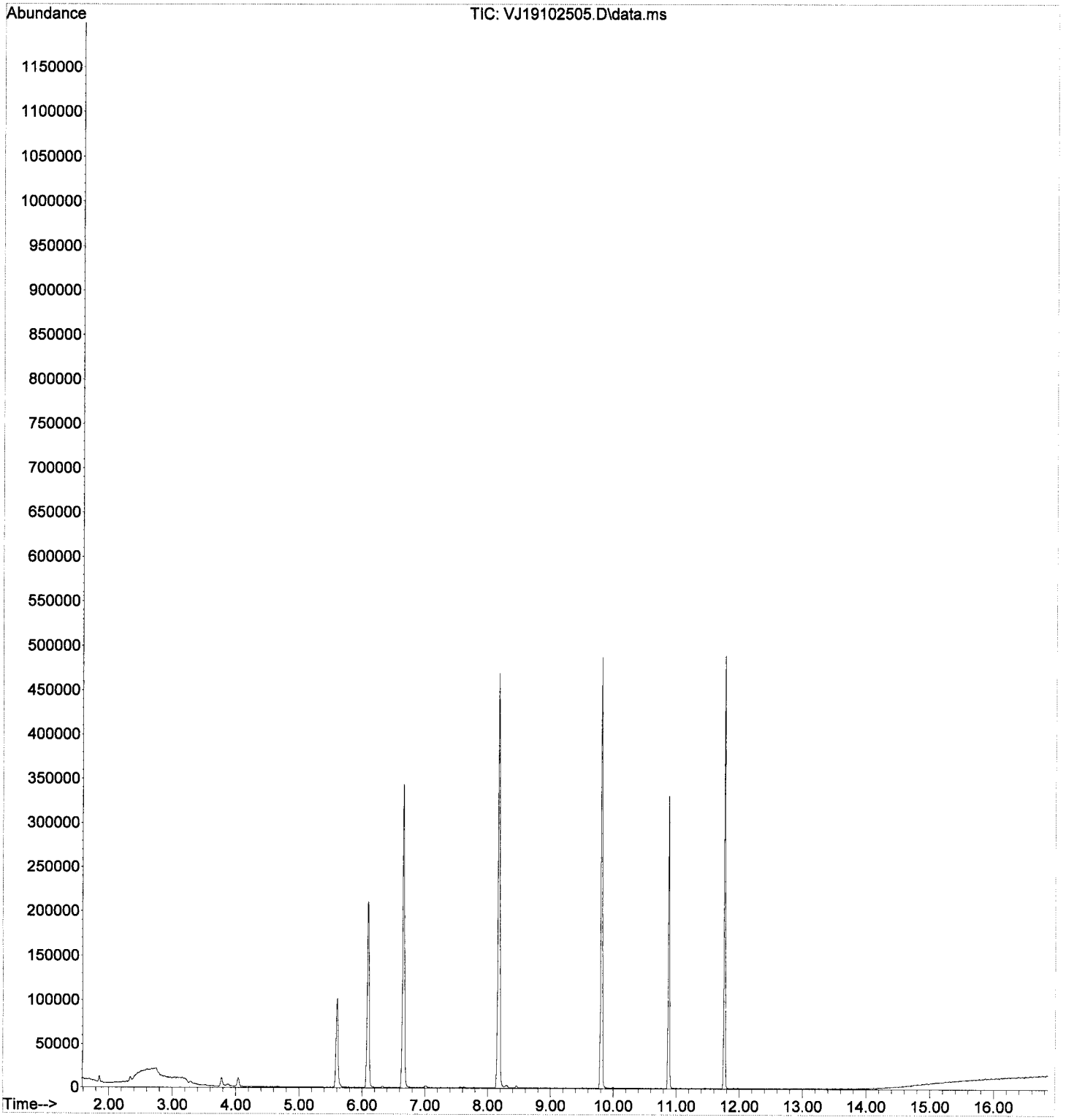
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	93295	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	247439	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	97646	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (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 : VJ19102524.D
Acq On : 25 Oct 2019 8:09 pm
Operator : MM/IMA
Sample : A9J0954-01
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 24 Sample Multiplier: 1

IMA 10/28/19

Quant Time: Oct 28 10:27:46 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	100908	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	279116	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	117586	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	89429	56.07	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	309642	49.88	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	388302	49.89	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	83474	49.17	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.892	50	1300	0.33	ug/L	<MDL	84
5) Bromomethane	2.336	96	2698	Below Cal			99
6) Chloroethane	2.457	64	69	1.39	ug/L	#	47
8) Ethanol	3.345	45	64	Below Cal		#	29
12) Iodomethane	3.291	142	321	0.42	ug/L	#	47
13) Methylene Chloride	3.777	84	2964	0.41	ug/L		92
14) Acetone	3.863	43	2505	1.63	ug/L		92
18) tert-Butanol (TBA)	4.258	59	207	0.26	ug/L	#	7
33) Benzene	6.004	78	3709	0.29	ug/L		94
36) iso-Butyl Alcohol	6.320	43	539	1.74	ug/L	<MDL	71
39) tert-Amyl ethyl ether ...	6.880	59	559	0.10	ug/L	#	63
46) Toluene	8.225	91	1080	0.08	ug/L		93
56) Ethylbenzene	9.861	91	58457	4.61	ug/L		96
58) m,p-Xylenes (2)	9.995	91	3294	0.36	ug/L	<MDL	93
59) o-Xylene	10.378	91	12874	1.49	ug/L		93
60) Styrene	10.427	104	363	0.23	ug/L	#<MDL	40
62) Isopropylbenzene	10.652	105	16705	1.61	ug/L		95
66) n-Propylbenzene	10.999	91	8052	0.63	ug/L		96
69) 1,3,5-Trimethylbenzene	11.157	105	32278	4.11	ug/L		93
73) tert-Butylbenzene	11.424	91	1115	0.24	ug/L	#<MDL	1
74) 1,2,4-Trimethylbenzene	11.461	105	96719	12.20	ug/L		97
75) sec-Butylbenzene	11.546	105	11144	1.11	ug/L		91
76) 4-Isopropyltoluene	11.656	119	15093	1.97	ug/L		96
79) n-Butylbenzene	11.972	91	3395	0.46	ug/L	<MDL	97
84) Naphthalene	13.511	128	18470729	2112.53	ug/L		79 — NR2
85) 1,2,3-Trichlorobenzene	13.669	180	262	0.11	ug/L	#<MDL	1

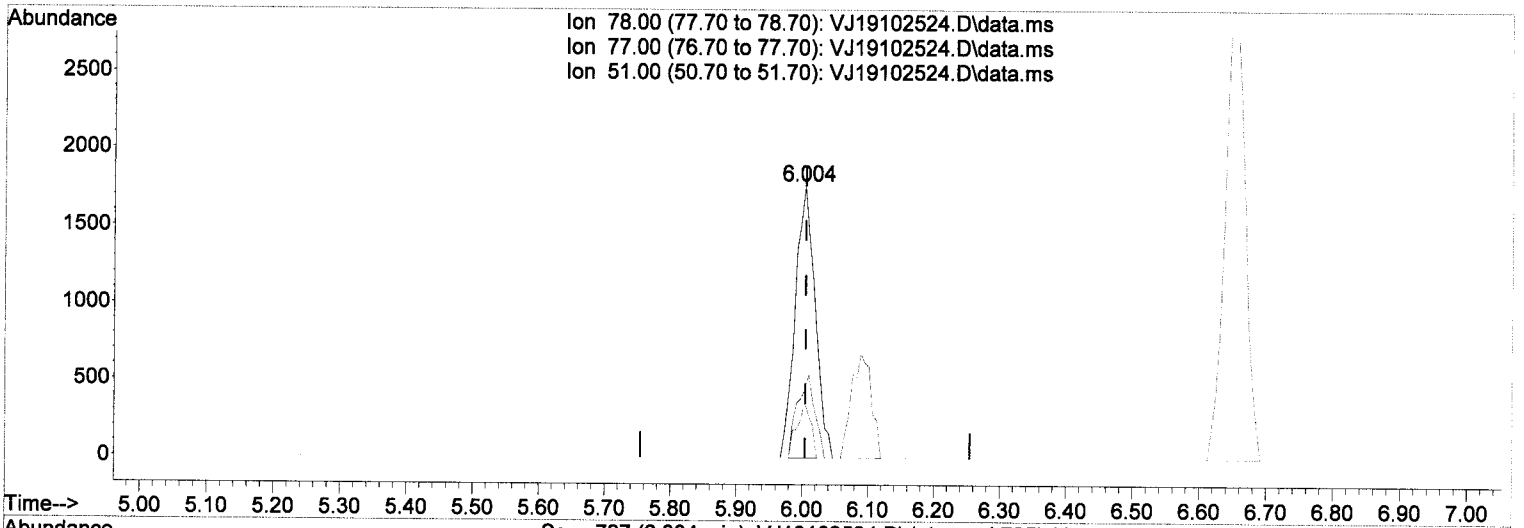
(#) = qualifier out of range (m) = manual integration (+) = signals summed

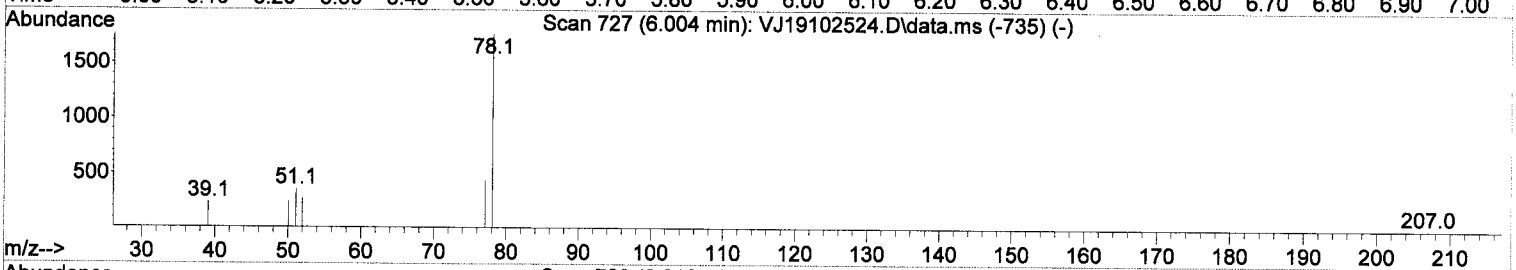
NAP

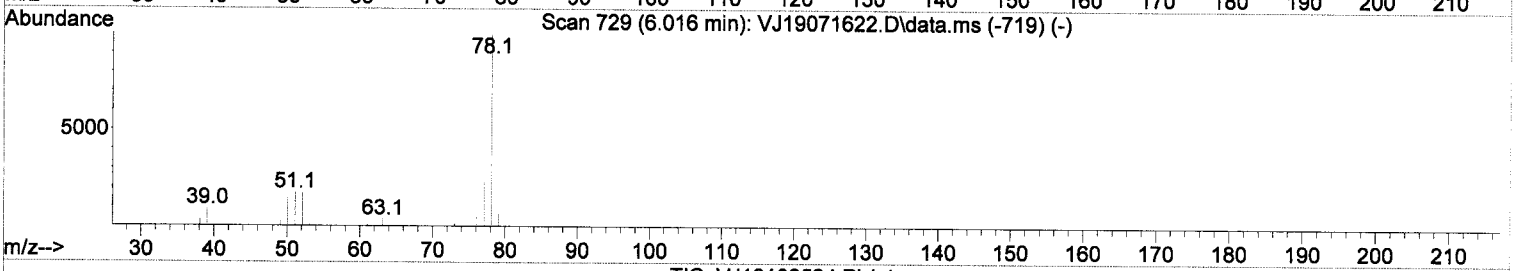
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102524.D
Acq On : 25 Oct 2019 8:09 pm
Operator : MM/IMA
Sample : A9J0954-01
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 28 10:27:46 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: VJ19102524.D\data.ms

(33) Benzene

6.004min (-0.000) 0.29 ug/L

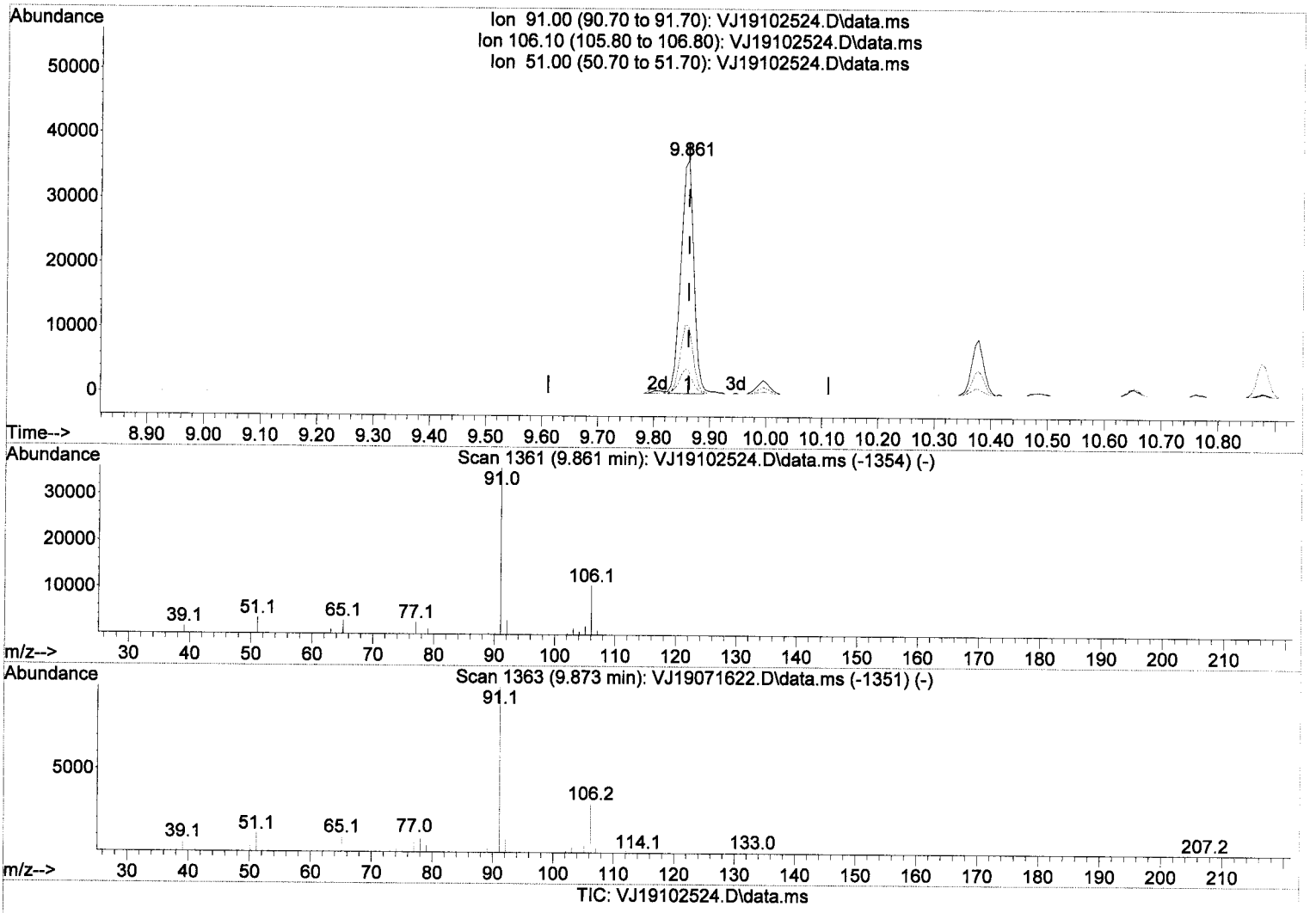
response 3709

Ion	Exp%	Act%
78.00	100.00	100.00
77.00	23.60	25.13
51.00	16.20	20.43
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102524.D
Acq On : 25 Oct 2019 8:09 pm
Operator : MM/IMA
Sample : A9J0954-01
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 28 10:27:46 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: VJ19102524.D\data.ms

(56) Ethylbenzene (C)

9.861min (-0.000) 4.61 ug/L

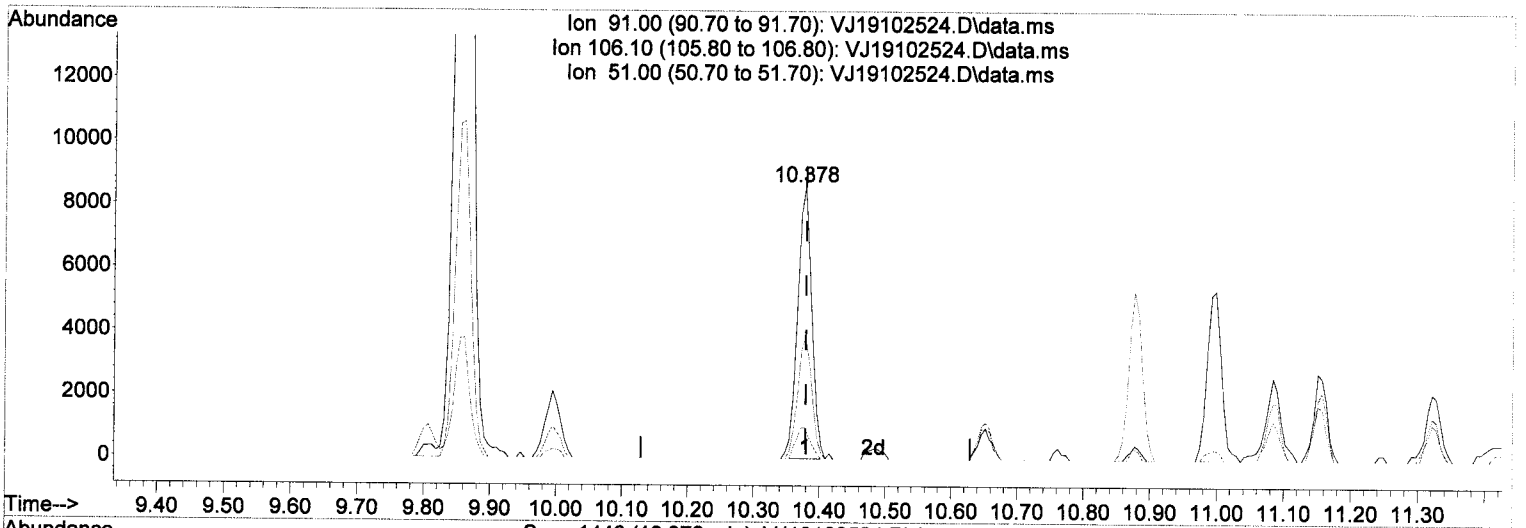
response 58457

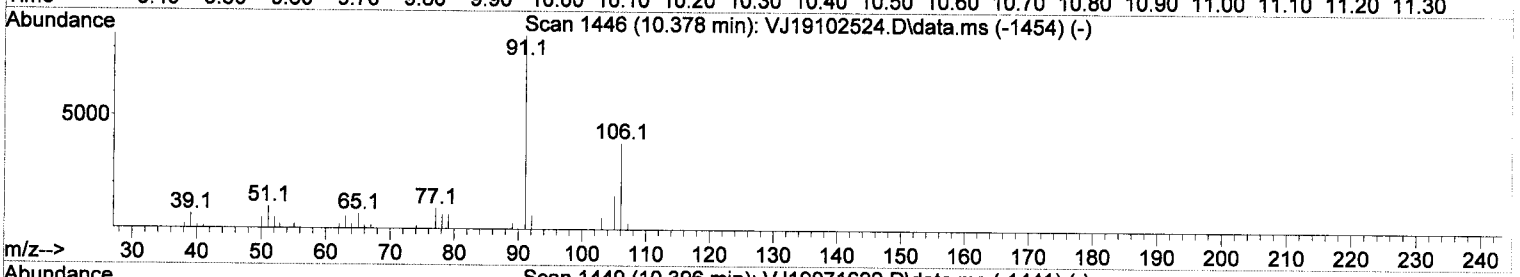
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	31.80	29.43
51.00	9.80	10.45
0.00	0.00	0.00

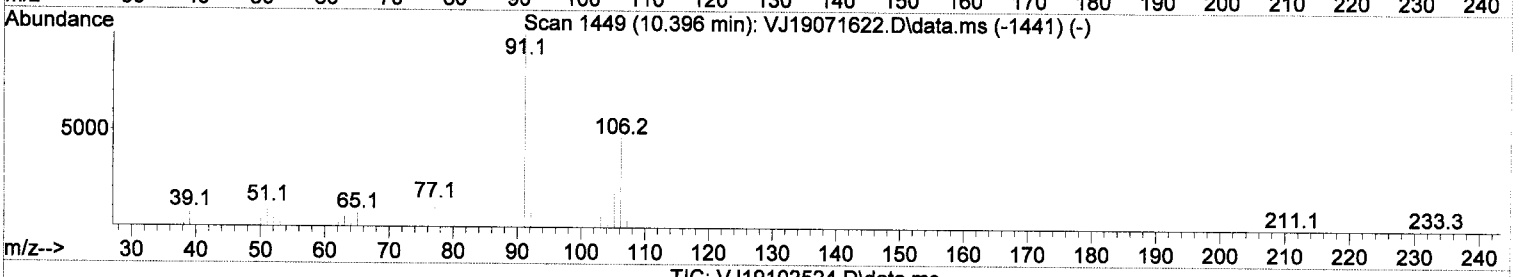
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102524.D
Acq On : 25 Oct 2019 8:09 pm
Operator : MM/IMA
Sample : A9J0954-01
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 28 10:27:46 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: VJ19102524.D\data.ms

(59) o-Xylene

10.378min (-0.000) 1.49 ug/L

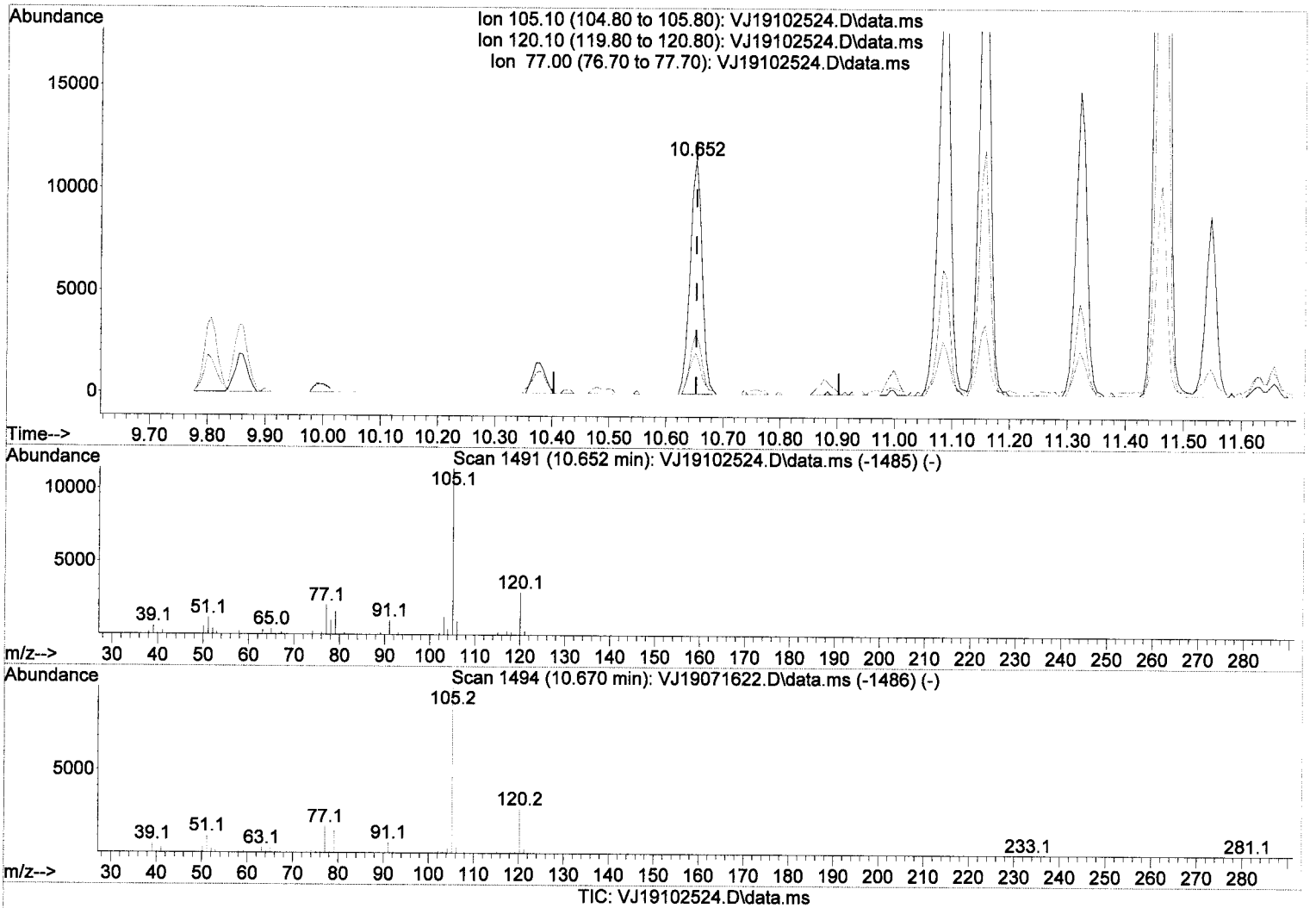
response 12874

Ion	Exp%	Act%
91.00	100.00	100.00
106.10	49.80	44.67
51.00	9.70	11.26
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102524.D
Acq On : 25 Oct 2019 8:09 pm
Operator : MM/IMA
Sample : A9J0954-01
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 28 10:27:46 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: VJ19102524.D\data.ms

(62) Isopropylbenzene

10.652min (-0.000) 1.61 ug/L

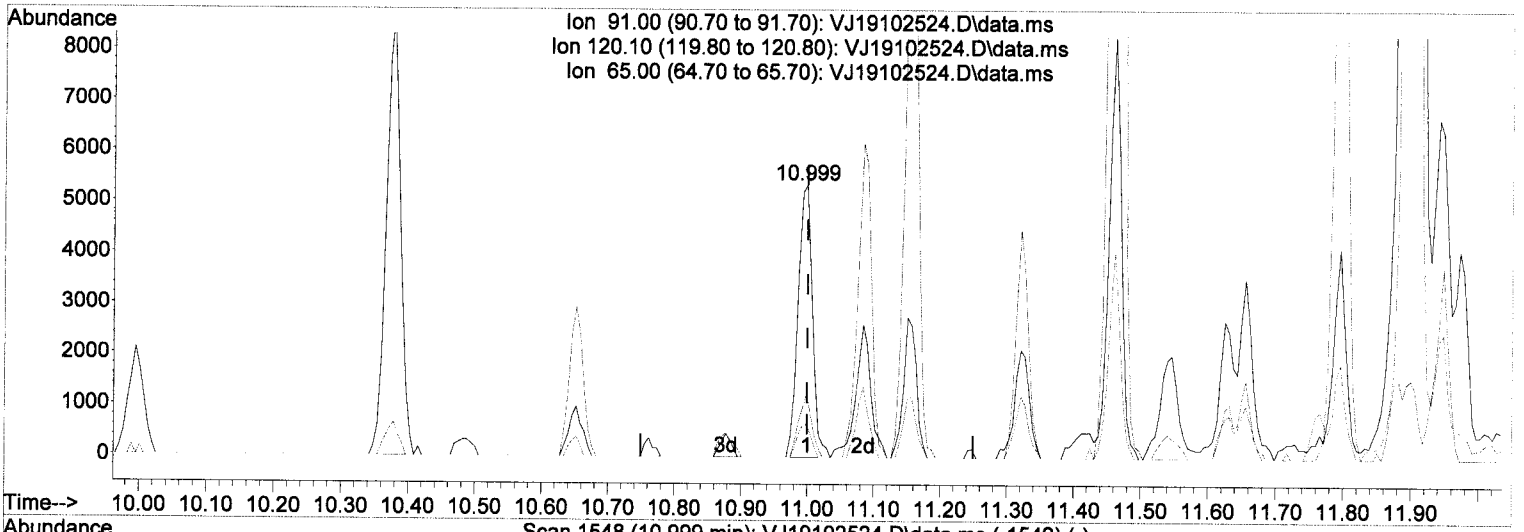
response 16705

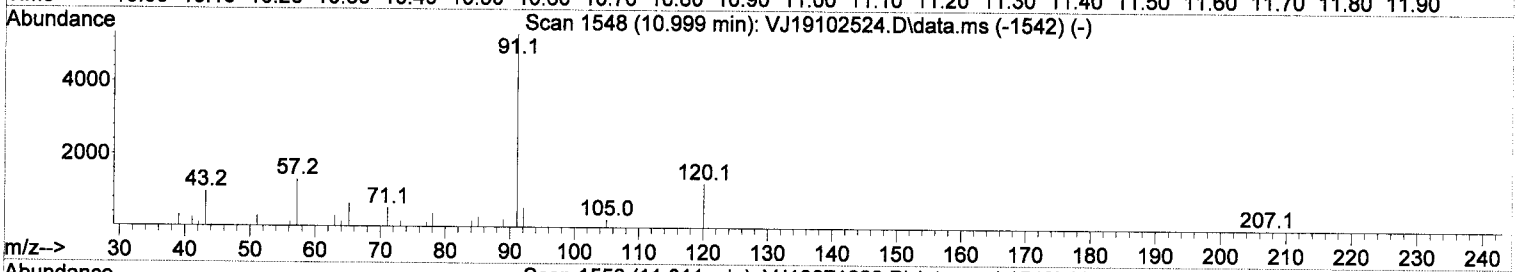
Ion	Exp%	Act%
105.10	100.00	100.00
120.10	27.80	25.63
77.00	14.50	17.71
0.00	0.00	0.00

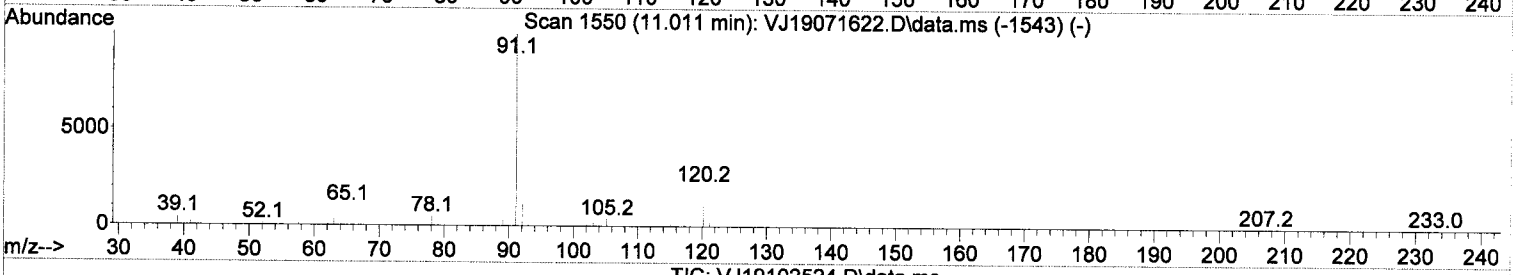
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102524.D
Acq On : 25 Oct 2019 8:09 pm
Operator : MM/IMA
Sample : A9J0954-01
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 28 10:27:46 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: VJ19102524.D\data.ms

(66) n-Propylbenzene

10.999min (-0.000) 0.63 ug/L

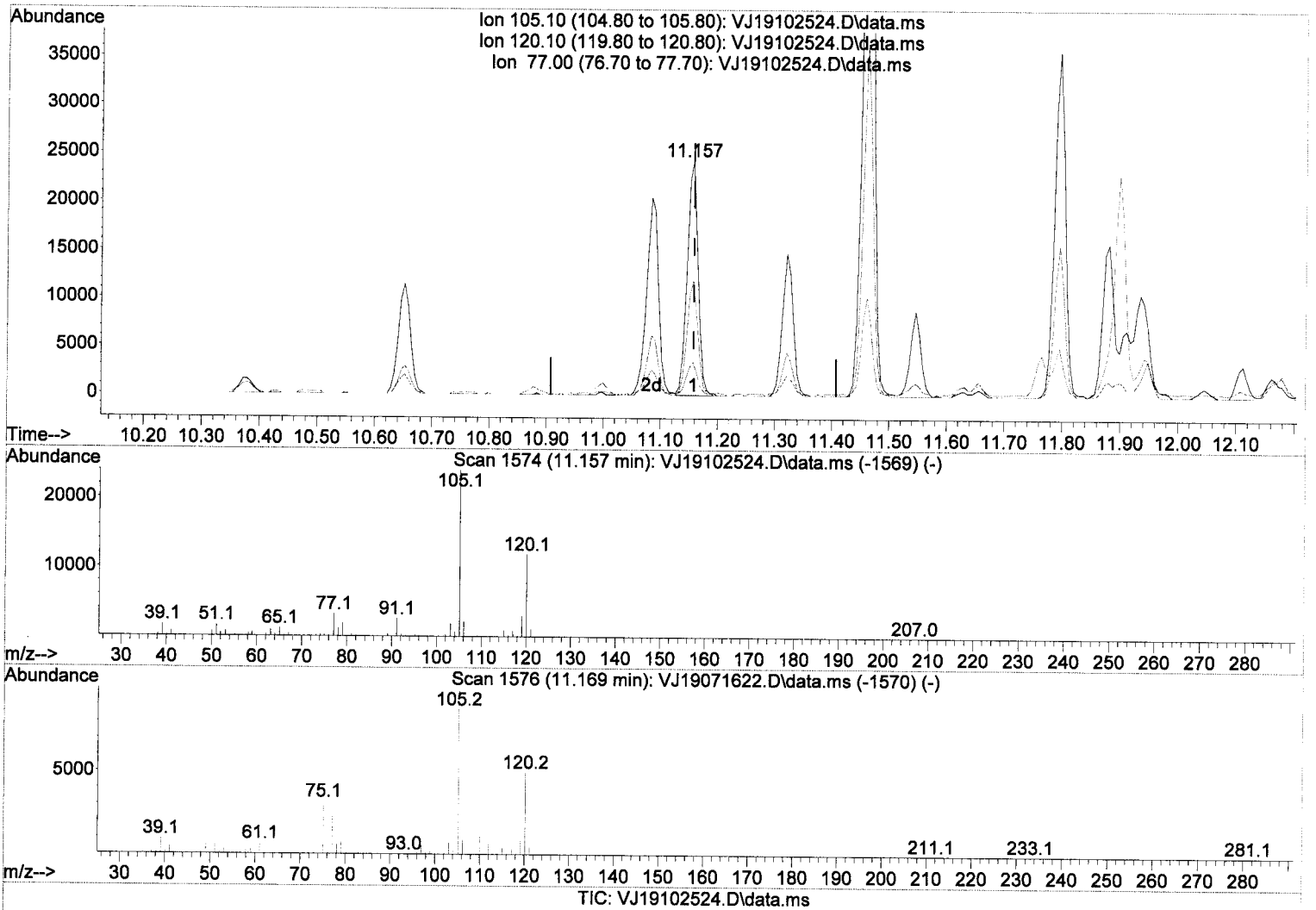
response 8052

Ion	Exp%	Act%
91.00	100.00	100.00
120.10	25.20	23.30
65.00	10.10	12.25
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102524.D
Acq On : 25 Oct 2019 8:09 pm
Operator : MM/IMA
Sample : A9J0954-01
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 28 10:27:46 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: VJ19102524.D\data.ms

(69) 1,3,5-Trimethylbenzene

11.157min (-0.000) 4.11 ug/L

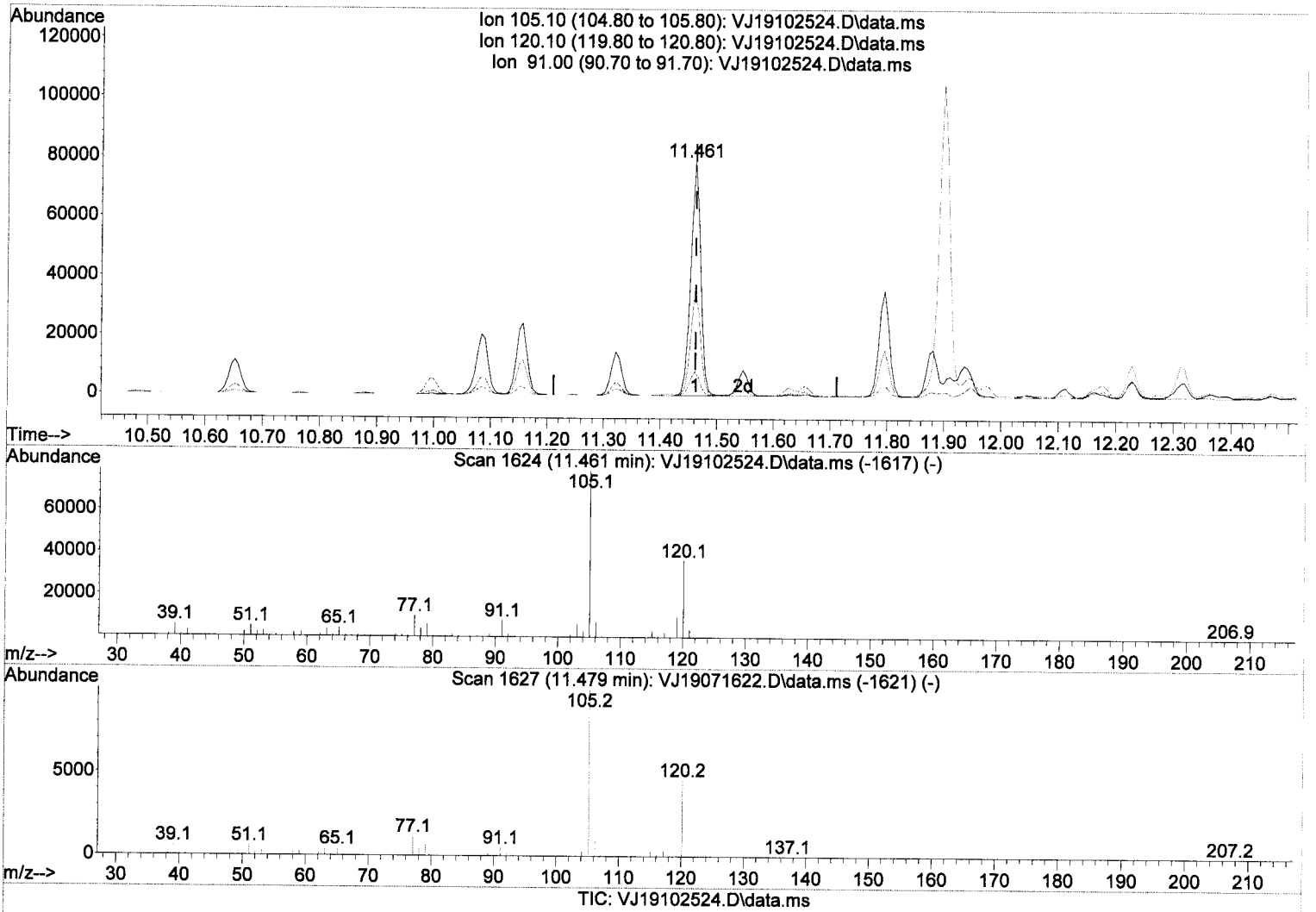
response 32278

Ion	Exp%	Act%
105.10	100.00	100.00
120.10	52.80	49.08
77.00	19.20	13.34
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102524.D
Acq On : 25 Oct 2019 8:09 pm
Operator : MM/IMA
Sample : A9J0954-01
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 28 10:27:46 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: VJ19102524.D\data.ms

(74) 1,2,4-Trimethylbenzene

11.461min (-0.000) 12.20 ug/L

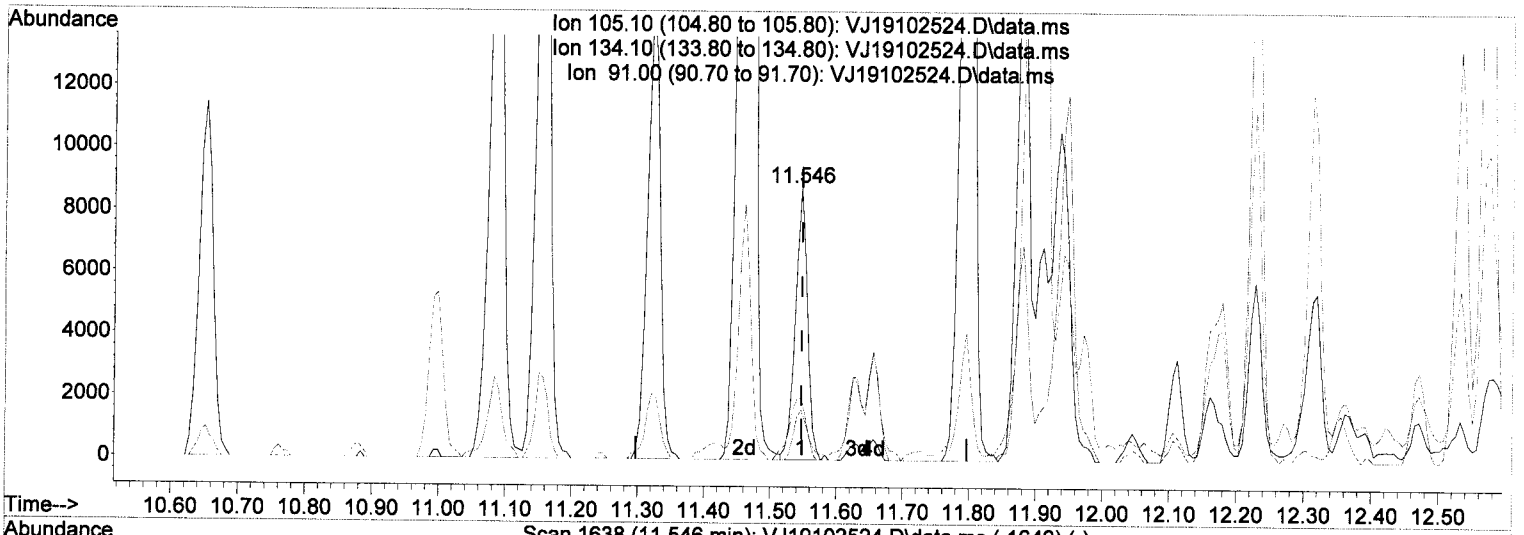
response 96719

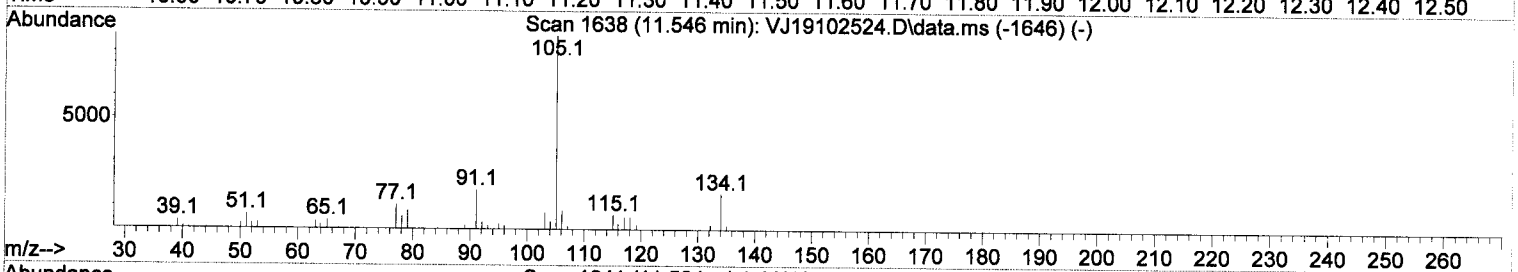
Ion	Exp%	Act%
105.10	100.00	100.00
120.10	48.60	46.09
91.00	9.80	9.97
0.00	0.00	0.00

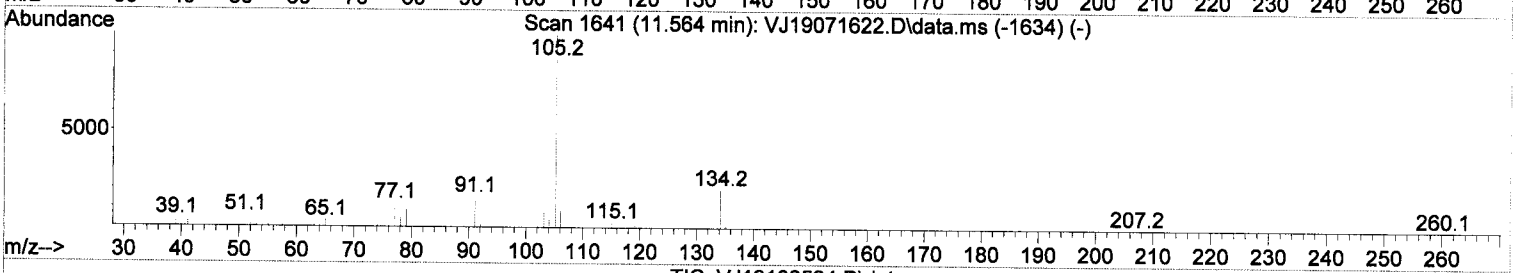
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102524.D
Acq On : 25 Oct 2019 8:09 pm
Operator : MM/IMA
Sample : A9J0954-01
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 28 10:27:46 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: VJ19102524.D\data.ms

(75) sec-Butylbenzene

11.546min (-0.000) 1.11 ug/L

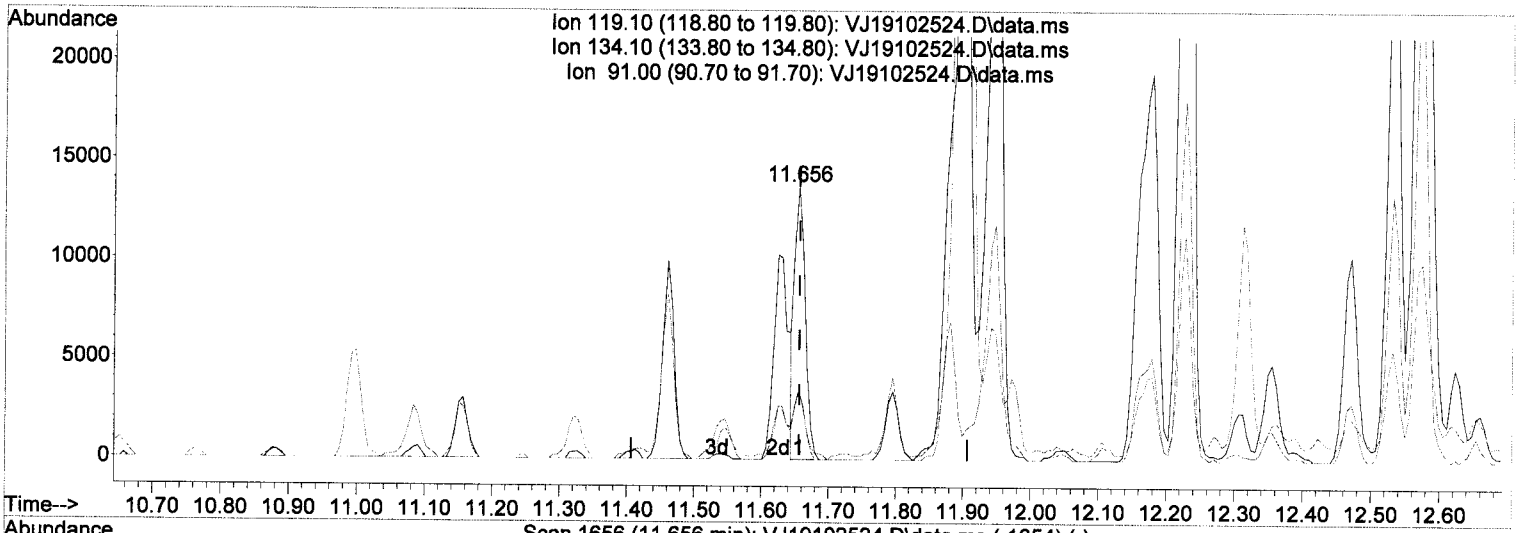
response 11144

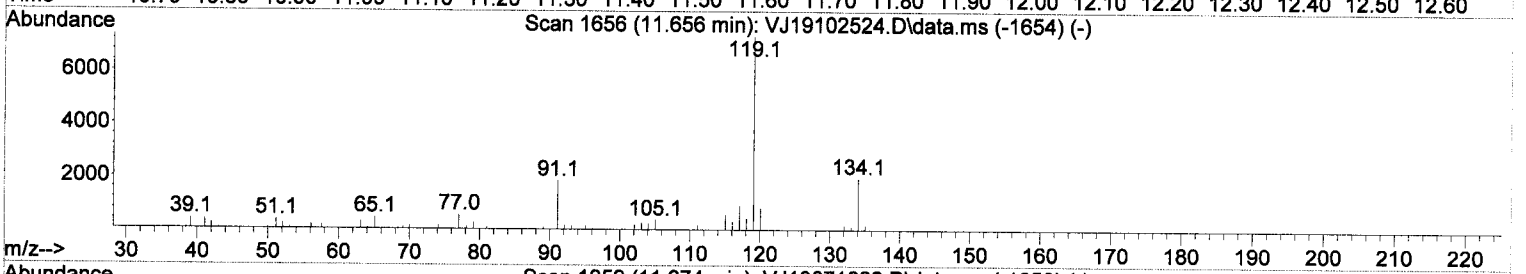
Ion	Exp%	Act%
105.10	100.00	100.00
134.10	21.70	18.33
91.00	14.90	19.99
0.00	0.00	0.00

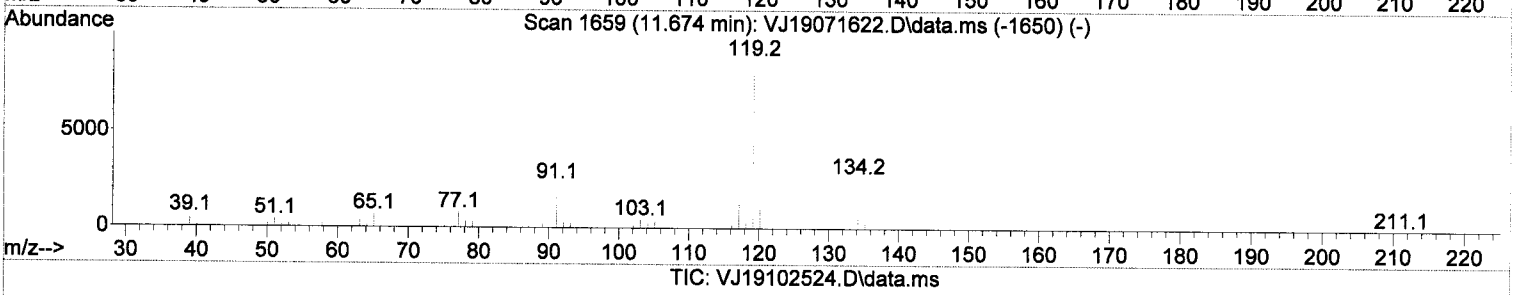
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102524.D
Acq On : 25 Oct 2019 8:09 pm
Operator : MM/IMA
Sample : A9J0954-01
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 28 10:27:46 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: VJ19102524.D\data.ms

(76) 4-Isopropyltoluene

11.656min (-0.000) 1.97 ug/L

response 15093

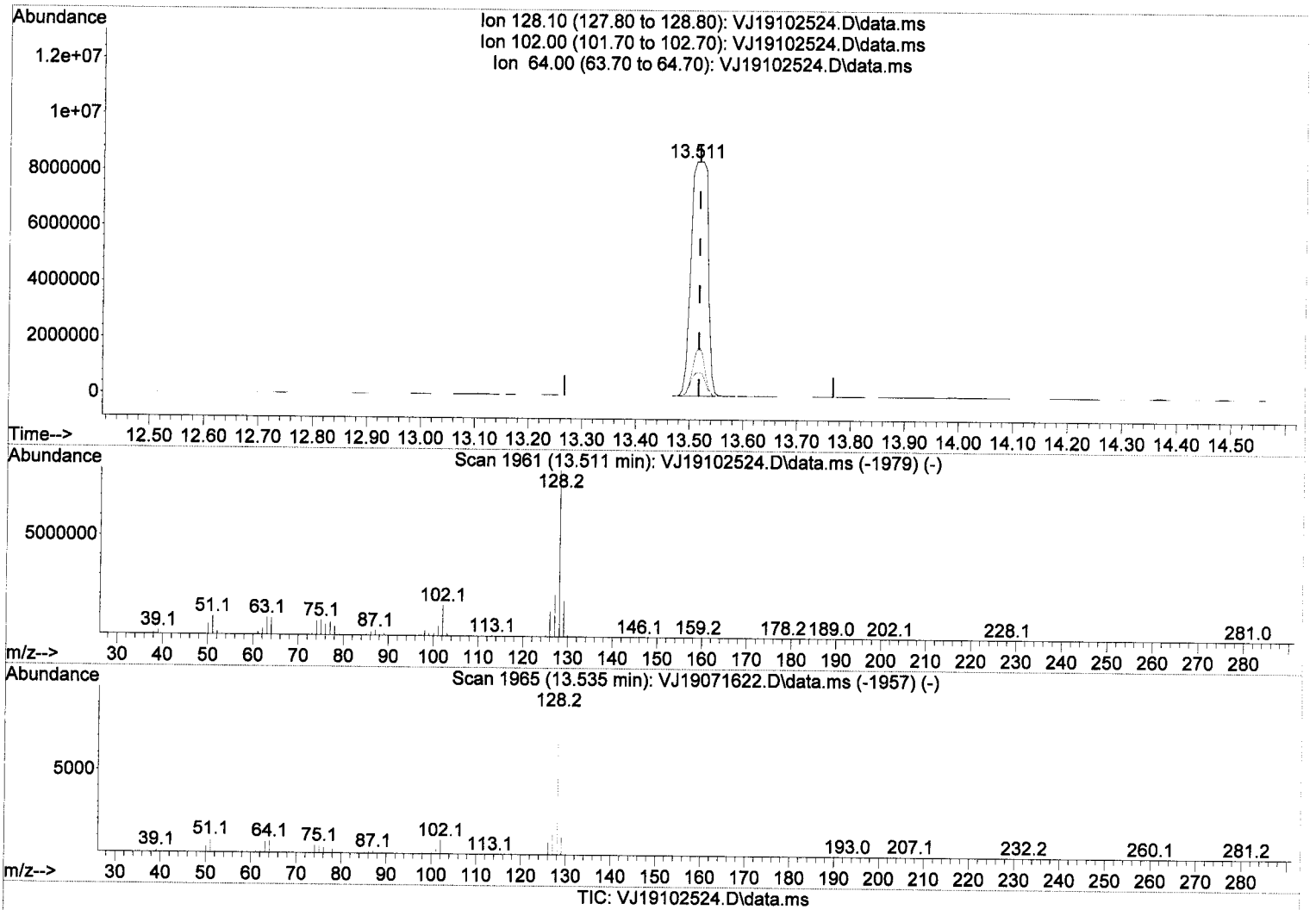
Ion	Exp%	Act%
119.10	100.00	100.00
134.10	26.60	25.21
91.00	21.70	24.22
0.00	0.00	0.00

MO2

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102524.D
Acq On : 25 Oct 2019 8:09 pm
Operator : MM/IMA
Sample : A9J0954-01
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 28 10:27:46 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



(84) Naphthalene

13.511min (-0.006) 2112.53 ug/L

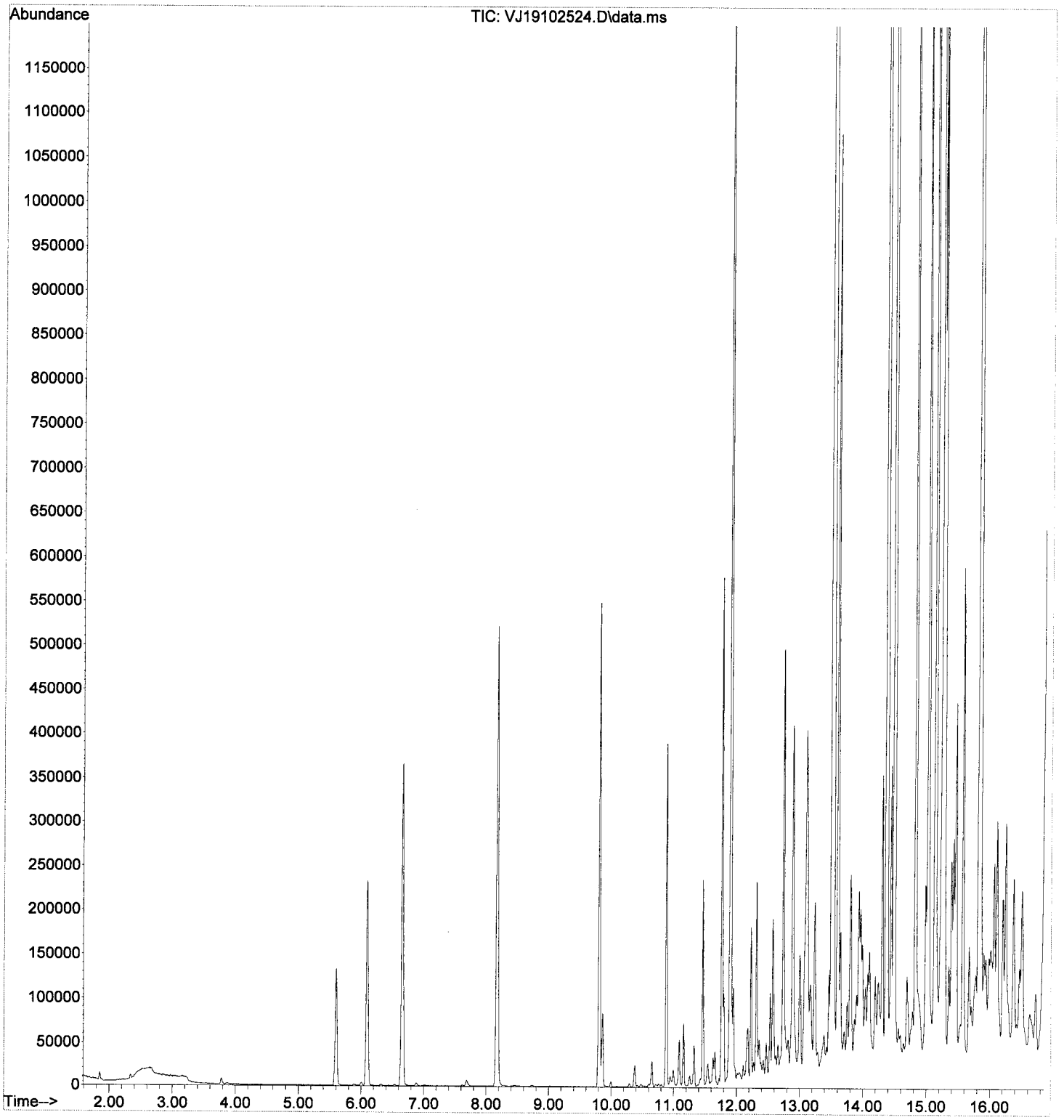
response 18470729

Ion	Exp%	Act%
128.10	100.00	100.00
102.00	7.90	18.36
64.00	6.30	9.85
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102524.D
Acq On : 25 Oct 2019 8:09 pm
Operator : MM/IMA
Sample : A9J0954-01
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 28 10:27:46 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 : VJ19102525.D
Acq On : 25 Oct 2019 8:36 pm
Operator : MM/IMA
Sample : A9J0954-02
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 25 Sample Multiplier: 1

IMA
10/28/19

Quant Time: Oct 28 10:27:49 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

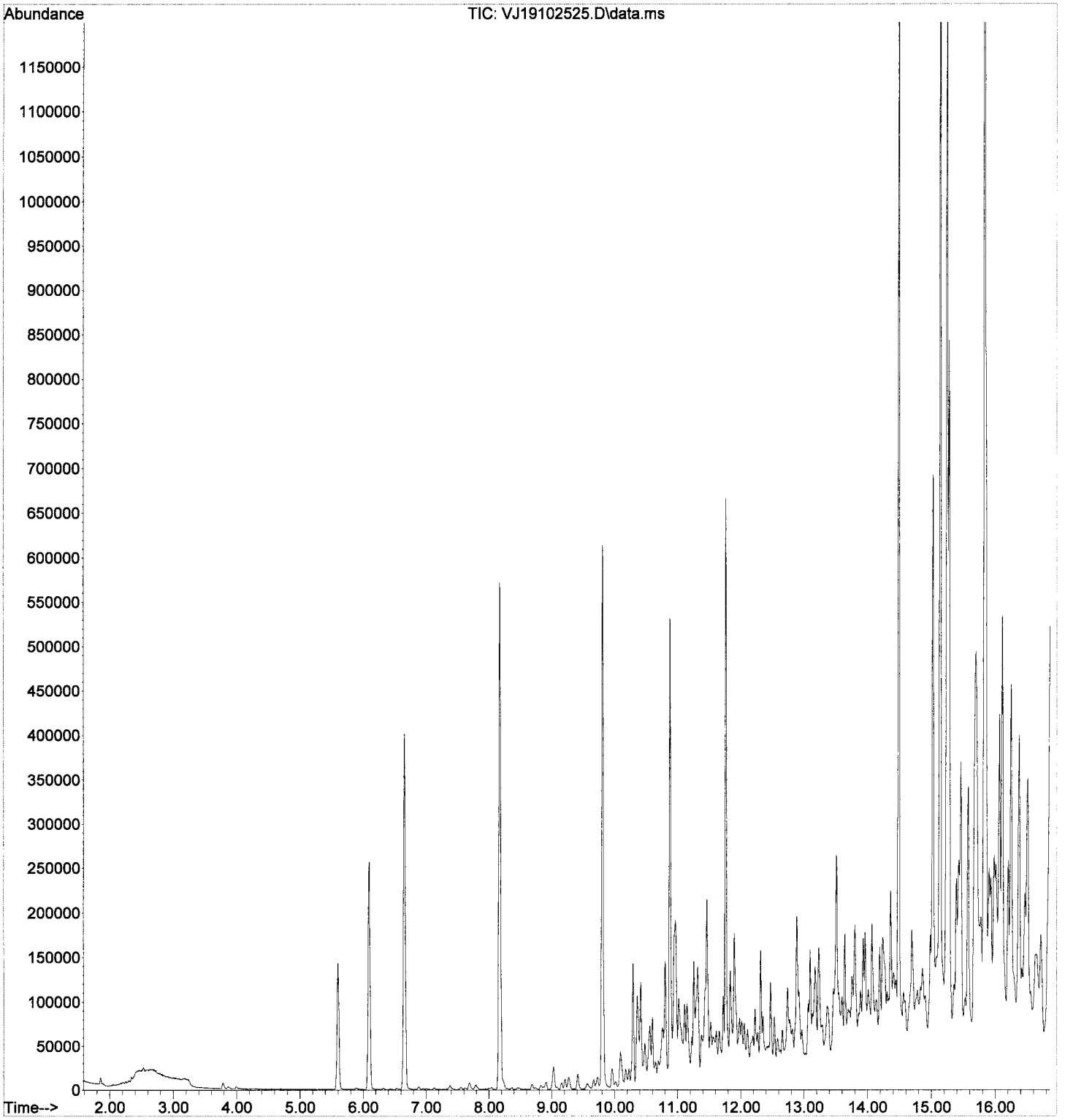
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.095	99	110312	50.00 ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	316870	50.00 ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	134408	50.00 ug/L		0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.596	111	97251	55.78 ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	344971	50.83 ug/L		0.00
45) Toluene-d8 (S)	8.170	98	429517	48.61 ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	99707	51.38 ug/L		0.00
Target Compounds						Qvalue
3) Chloromethane	1.891	50	1154	0.27 ug/L		88
5) Bromomethane	2.342	96	2382	Below Cal		99
6) Chloroethane	2.463	64	348	1.99 ug/L	#	1
8) Ethanol	3.315	45	65	Below Cal	#	29
12) Iodomethane	3.303	142	390	0.47 ug/L	#	47
13) Methylene Chloride	3.783	84	3233	0.40 ug/L		94
14) Acetone	3.863	43	3485	2.07 ug/L		98
18) tert-Butanol (TBA)	4.258	59	516	0.60 ug/L	#	41
32) 2-Butanone (MEK)	5.736	43	727	0.25 ug/L		52
36) iso-Butyl Alcohol	6.320	43	469	1.38 ug/L		75
48) 4-Methyl-2-Pentanone (...	8.687	43	2634	0.57 ug/L	#	49
50) 1,1,2-Trichloroethane	8.869	97	271	0.09 ug/L	#	64
54) 2-Hexanone	9.563	43	750	0.22 ug/L	#	1
58) m,p-Xylenes (2)	10.001	91	980	0.10 ug/L		77
59) o-Xylene	10.378	91	2324	0.24 ug/L		67
60) Styrene	10.427	104	652	0.26 ug/L	#	62
62) Isopropylbenzene	10.652	105	2381	0.20 ug/L		83
66) n-Propylbenzene	10.993	91	2770	0.19 ug/L		87
67) 1,1,2,2-Tetrachloroethane	11.053	83	7953	1.87 ug/L	#	33
68) 2-Chlorotoluene	11.114	126	670	0.26 ug/L	#	1
70) 1,2,3-Trichloropropane	11.163	110	580	0.43 ug/L	#	1
74) 1,2,4-Trimethylbenzene	11.461	105	1510	0.17 ug/L		83
75) sec-Butylbenzene	11.546	105	3567	0.31 ug/L	#	63
76) 4-Isopropyltoluene	11.656	119	1291	0.15 ug/L		95
79) n-Butylbenzene	11.972	91	2564	0.30 ug/L		95
83) 1,2,4-Trichlorobenzene	13.256	180	1459	0.52 ug/L	#	11
84) Naphthalene	13.511	128	132984	13.31 ug/L		97
85) 1,2,3-Trichlorobenzene	13.645	180	7308	2.70 ug/L	#	1

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J25029\
Data File : VJ19102525.D
Acq On : 25 Oct 2019 8:36 pm
Operator : MM/IMA
Sample : A9J0954-02
Misc : 50X ~5g/5mLx1000uL/50mL 8260
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 28 10:27:49 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
Benchsheet & Analysis Sequence Data

Batch 9101631
Sequence 9J28034 (A9J0954-02RE1)

PREPARATION BENCH SHEET

BATCH #: 9101631 (Soil)

Apex Laboratories

OCT 3 1 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*
9101631-BLK1		QC	10/28/19 09:30	7.5	5							
9101631-BS1		QC	10/28/19 09:30	5	5	A19J290		250				
9101631-BS2		QC	10/28/19 09:30	5	5	A19J354		250				
A9J0893-04RE1	B	8260C BTEX+Halo6	(Date Sampled)	4.64	5					PDI-057SC-B-00-02-191023	50X (RR01) FP	
A9J0893-15RE1	B	8260C BTEX+Halo6	(Date Sampled)	4.75	5					PDI-062SC-B-00-02-191023	2500X (RR01) FP	
A9J0893-18RE1	B	8260C BTEX+Halo6	(Date Sampled)	5.13	5					PDI-062SC-B-06-08-191023	50X (RR01) FP	
A9J0950-02RE1	D	8260C Full List	(Date Sampled)	5.88	5					PDI-026SC-C-00-3.9-191024	50000X N (RR02) FP	
A9J0950-03RE1	D	8260C Full List	(Date Sampled)	6.08	5					PDI-037SC-C-00-12.4-191024	50000X N (RR02) FP	
A9J0950-04RE1	D	8260C Full List	(Date Sampled)	5.78	5					PDI-073SC-C-00-13.7-191024	200000X N (RR02) FP	
A9J0953-01RE1	B	8260C Full List	10/25/19 14:32	5.87	5					#1-Solid	100000X DCM (RR02) MOD	
A9J0954-01RE1	D	8260C Full List	(Date Sampled)	5.85	5					PDI-019SC-C-00-3.2-191025	5000X N (RR02) FP	
A9J0954-02RE1	D	8260C Full List	(Date Sampled)	4.74	5					PDI-095SC-C-00-8.8-191025	50X (RR03) FP	
A9J0973-01	B	NWTPH-Gx	(Date Sampled)	6.21	5					B13-7	FP	
A9J0973-02	B	8260C Full List	(Date Sampled)	5.57	5					B13-17	FP Added for BatchQC in: 9101631	
A9J0973-02	B	8260C BTEX+Halo6	(Date Sampled)	5.57	5					B13-17	FP Added for BatchQC in: 9101631	
A9J0973-02	B	NWTPH-Gx	(Date Sampled)	5.57	5					B13-17	FP	
9101631-DUP1		QC	10/26/19 09:40	5.38	5		A9J0973-02					
A9J0973-06	B	NWTPH-Gx	(Date Sampled)	6.34 10.40	5	(W) 10/30/19				B15-16	FP	
A9J0973-07	B	NWTPH-Gx	(Date Sampled)	4.43	5					B15-18	FP	
A9J0973-08	B	8260C Full List	(Date Sampled)	5.77	5					B16-14	FP	
A9J0973-08	B	8260C BTEX+Halo6	(Date Sampled)	5.77	5					B16-14	FP Added for BatchQC in: 9101631	
A9J0973-08	B	NWTPH-Gx	(Date Sampled)	5.77	5					B16-14	FP	

IMA 10/29/19
Prepared By: Date

MM 10/30/19
Reviewed By: Date

PREPARATION BENCH SHEET

BATCH #: 9101631 (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*
9101631-MS1		QC	10/26/19 13:46	5.77	5	A19J290	A9J0973-08	332			DW = 71.6% @50X	
A9J0973-09	B	NWTPH-Gx	(Date Sampled)	5.64	5					B17-13	FP	
A9J0973-11	B	NWTPH-Gx	(Date Sampled)	6.15	5					B18-13	FP	
A9J0973-12	B	NWTPH-Gx	(Date Sampled)	6.18	5					B19-14	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

Worksheet

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

Sample ID	Container	Container Weight (g)	Tare Weight (g)	Net Sample Weight (g)	Formula Check
A9J0973-01	B	39.78	33.57	6.21	
2	B	38.63	33.06	5.57	
2	C	38.64	33.26	5.38	
6	B	39.91	33.57	6.34	
7	B	37.98	33.55	4.43	
8	B	39.31	33.54	5.77	
9	B	38.88	33.24	5.64	
11	B	40.03	33.88	6.15	
12	B	39.86	33.68	6.18	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	

DW 10/30/19

JMA
10/29/19

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: 9101631

Matrix Spike

Sample Weight	Final Volume	Dilution	Dry Weight
g	mL		%
5.770	5	50	71.6
			0.716

Final Spike Level	**Spike Amount**
ug/kg	**ul**
1606.91	**332**

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

A9J0973-08

IMA
10/29/19

A9J0973

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0973-01 — **B13-7** — Sampled: **10/26/19 09:28**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	39.78	33.57	5 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	37.25	33.53	5 10 15 Other	

Due: TAT: GX

A9J0973-02 — **B13-17** — Sampled: **10/26/19 09:40**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	38.63	33.06	5 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	38.64	33.26	5 10 15 Other	DUP

Due: TAT:

A9J0973-06 — **B15-16** — Sampled: **10/26/19 12:57**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	39.91	33.57	5 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	40.26	33.57	5 10 15 Other	

Due: TAT:

A9J0973-07 — **B15-18** — Sampled: **10/26/19 13:00**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	37.98	33.55	5 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	38.36	33.62	5 10 15 Other	

Due: TAT:

A9J0973-08 — **B16-14** — Sampled: **10/26/19 ~~13:00~~ 13:46**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	39.31	33.54	5 10 15 Other	MS
C Soil	40 mL VOA - 5035 (MeOH)	39.81	34.04	5 10 15 Other	

Due: TAT: GX/8260 ✓

10/28

Weighed by: MG @ 10/28/19 12:22

Methanol Reagent ID: A191219~ Balance ID: A18J327~

A9J0973

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0973-09 | **B17-13** | Sampled: **10/26/19 ~~13:00~~** 14:38

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	38.88	33.24	5 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	39.27	32.91	5 10 15 Other	

Due: TAT: Gx

A9J0973-10 | **B17-13D** | Sampled: **10/26/19 14:40**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	39.76	33.67	5 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	39.67	33.61	5 10 15 Other	

Due: TAT:

A9J0973-11 | **B18-13** | Sampled: **10/26/19 15:15**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	40.03	33.88	5 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	39.72	33.32	5 10 15 Other	

Due: TAT: Gx

A9J0973-12 | **B19-14** | Sampled: **10/26/19 15:47**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	39.86	33.68	5 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	40.00	33.86	5 10 15 Other	

Due: TAT: Gx

Weighed by: MS @ 10/28/19 12:22

Methanol Reagent ID: A19I219~ Balance ID: A18J327~

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9J28034	Instrument:	VOA-GCMS10
Date:	10/28/19 09:30	Calibration:	A9J2404

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J28034-IBL1	Soil	QC	QC			A19G118	
2	9J28034-TUN1	Soil	QC	QC			A19G118	
3	9J28034-CCV1	Soil	QC	QC			A19G118	
4	9101631-BS1	Soil	QC	QC		9101631	A19G118	
5	9J28034-CCV2	Soil	QC	QC			A19G118	
6	9101631-BS2	Soil	QC	QC		9101631	A19G118	
7	9101631-BLK1	Soil	QC	QC		9101631	A19G118	
8	A9J0893-04RE1	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	11/06/19	9101631	A19G118	
9	A9J0893-18RE1	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	11/06/19	9101631	A19G118	
10	A9J0893-15RE1	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	11/06/19	9101631	A19G118	
11	9J28034-IBL2	Soil	QC	QC			A19G118	
12	A9J0954-02RE1	Soil	8260C Full List	Anchor QEA, LLC	11/07/19	9101631	A19G118	
13	A9J0954-01RE1	Soil	8260C Full List	Anchor QEA, LLC	11/07/19	9101631	A19G118	
14	A9J0950-04RE1	Soil	8260C Full List	Anchor QEA, LLC	11/07/19	9101631	A19G118	
15	A9J0953-01RE1	Soil	8260C Full List		10/29/19	9101631	A19G118	
16	A9J0950-03RE1	Soil	8260C Full List	Anchor QEA, LLC	11/07/19	9101631	A19G118	
17	A9J0950-02RE1	Soil	8260C Full List	Anchor QEA, LLC	11/07/19	9101631	A19G118	
18	9J28034-IBL3	Soil	QC	QC			A19G118	
19	A9J0973-01	Soil	NWTPH-Gx		11/01/19	9101631	A19G118	
20	A9J0973-02	Soil	NWTPH-Gx		11/01/19	9101631	A19G118	
"	"	Soil	8260C Full List	(QC Source)		9101631	A19G118	
"	"	Soil	8260C BTEX+Halo6	(QC Source)		9101631	A19G118	
21	9101631-DUP1	Soil	QC	QC		9101631	A19G118	
22	A9J0973-07	Soil	NWTPH-Gx		11/01/19	9101631	A19G118	
23	A9J0973-09	Soil	NWTPH-Gx		11/01/19	9101631	A19G118	
24	A9J0973-11	Soil	NWTPH-Gx		11/01/19	9101631	A19G118	
25	A9J0973-12	Soil	NWTPH-Gx		11/01/19	9101631	A19G118	
26	A9J0973-08	Soil	8260C Full List		11/01/19	9101631	A19G118	
"	"	Soil	NWTPH-Gx	"	11/01/19	9101631	A19G118	
"	"	Soil	8260C BTEX+Halo6	(QC Source)		9101631	A19G118	
27	9101631-MS1	Soil	QC	QC		9101631	A19G118	
28	9J28034-IBL4	Soil	QC	QC			A19G118	
29	A9J0973-06	Soil	NWTPH-Gx		11/01/19	9101631	A19G118	
30	9J28034-IBL5	Soil	QC	QC			A19G118	

Data Entered By: IMA 10/29/19

Data Reviewed By: 10/30/19

Comments: ↑ 1,2 DCPA to 1/2 ppb

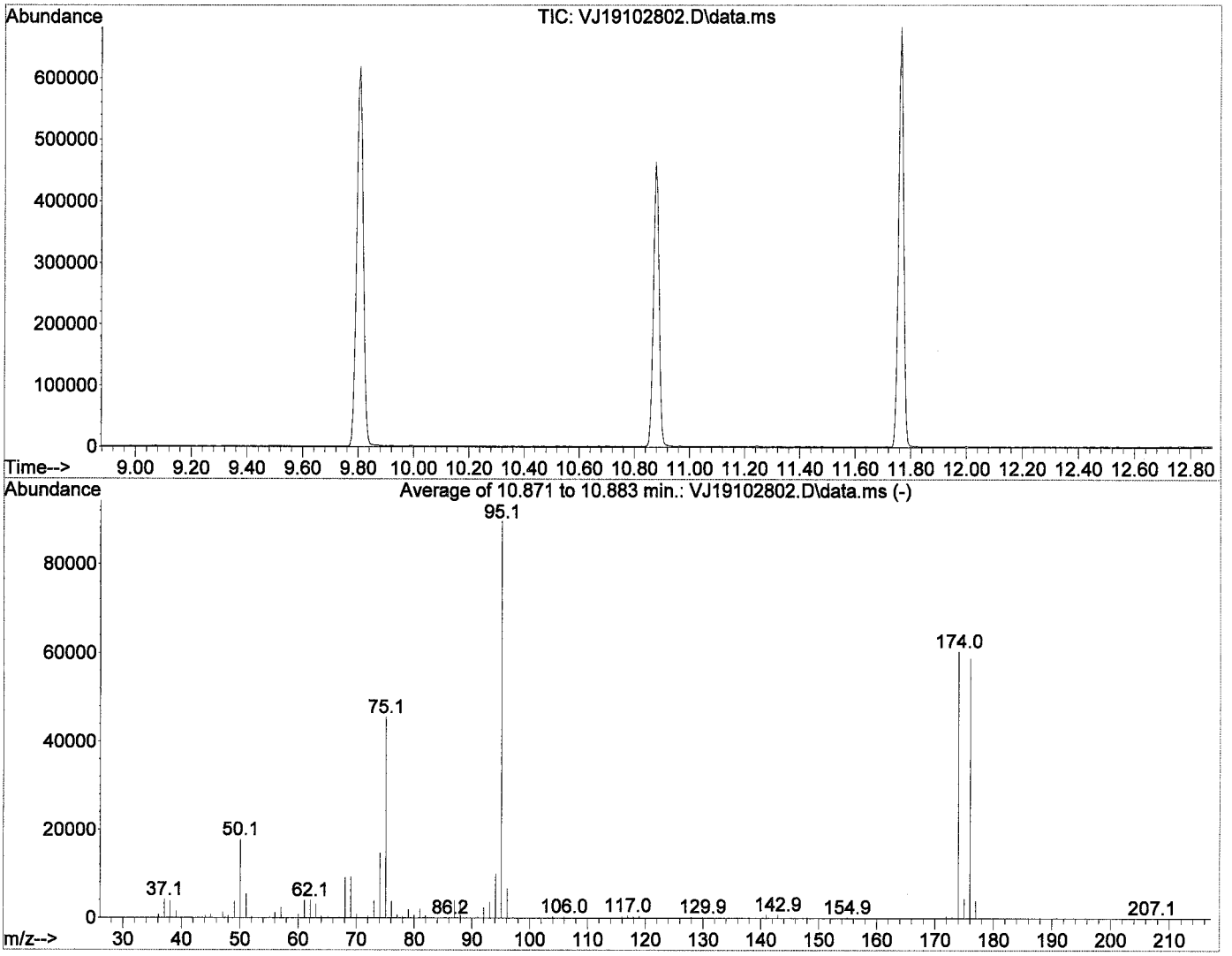
↑MDL=MRL Dichlorodifluoro + (Q55)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102802.D
Acq On : 28 Oct 2019 10:21 am
Operator : IMA
Sample : 9J28034-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

IMA
10/28/19

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



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

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	148.6	89808	PASS
96	95	5	9	7.4	6607	PASS
173	174	0.00	2	0.6	344	PASS
174	95	50	200	67.3	60437	PASS
175	174	5	9	7.4	4443	PASS
176	174	95	105	97.4	58856	PASS
177	176	5	10	6.6	3902	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102802.D
Acq On : 28 Oct 2019 10:21 am
Operator : IMA
Sample : 9J28034-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 28 13:47:25 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

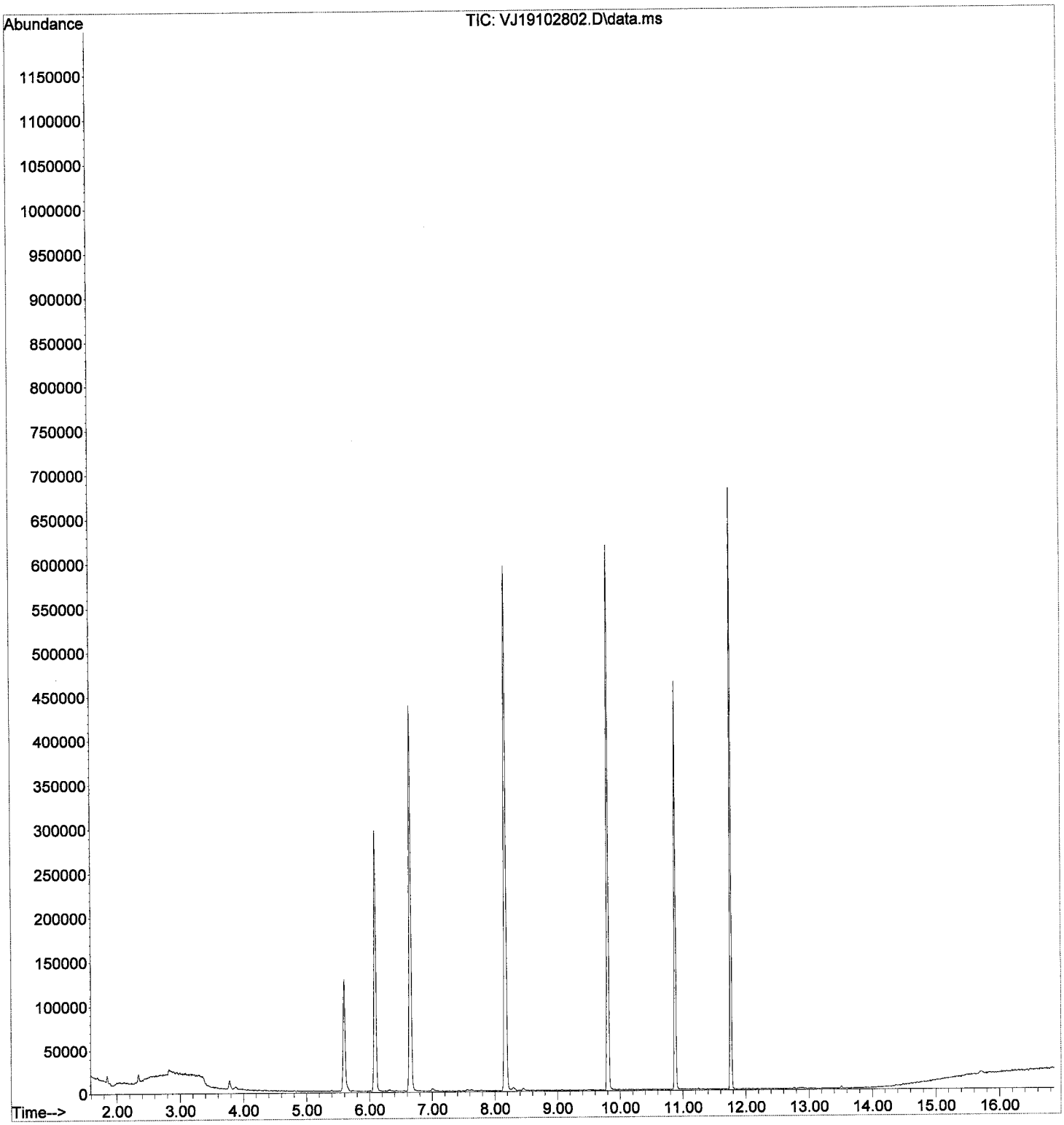
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	123916	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	332254	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	137325	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.597	111	90594	46.25	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.649	114	376174	49.35	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	467795	50.49	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.877	174	100209	50.54	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.892	50	2017	0.42	ug/L		96
5) Bromomethane	2.342	96	5029	0.90	ug/L		97
6) Chloroethane	2.476	64	66	1.35	ug/L	#	47
8) Ethanol	3.291	45	595	Below Cal			76
12) Iodomethane	3.291	142	467	0.50	ug/L	#	47
13) Methylene Chloride	3.778	84	4605	0.75	ug/L		89
14) Acetone	3.863	43	1873	0.99	ug/L		84
18) tert-Butanol (TBA)	4.270	59	203	0.21	ug/L	#	1
28) Tetrahydrofuran	5.584	42	606	0.24	ug/L	#	45
32) 2-Butanone (MEK)	5.743	43	1030	0.31	ug/L		52
36) iso-Butyl Alcohol	6.320	43	749	1.97	ug/L		70
84) Naphthalene	13.517	128	1965	0.19	ug/L		71

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102802.D
Acq On : 28 Oct 2019 10:21 am
Operator : IMA
Sample : 9J28034-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 28 13:47:25 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



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 29 09:34:50 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

IMA
10/29/19

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	124	0.00	
2		Dichlorodifluoromethane	20.000	15.412	L 22.9#	98	0.00	Q55
3	P	Chloromethane	20.000	15.875	20.6#	100	0.00	
4	C	Vinyl Chloride	20.000	17.282	13.6	106	0.00	
5		Bromomethane	20.000	24.190	# -21.0#	142	0.00	Q56
6		Chloroethane	20.000	17.658	11.7	128	0.00	
7		Trichlorofluoromethane	20.000	19.112	4.4	120	0.01	
8		Ethanol	1250.000	1158.348	7.3	110	0.04	
9	C	1,1-Dichloroethene	20.000	16.320	18.4	101	0.01	
10		Carbon Disulfide	20.000	16.494	17.5	111	0.01	
11		Freon 113	20.000	19.956	0.2	122	0.00	
12		Iodomethane	20.000	11.421	NR 42.9#	71	0.00	
13		Methylene Chloride	20.000	19.801	1.0	118	0.00	
14		Acetone	40.000	35.709	10.7	103	0.00	
15		t-1,2-Dichloroethene	20.000	18.447	7.8	114	0.00	
16		n-Hexane	20.000	20.311	-1.6	126	0.00	
17		Methyl-tert-butyl-ether	20.000	18.793	6.0	116	0.00	
18		tert-Butanol (TBA)	1250.000	1200.333	4.0	107	0.07	
19		Diisopropyl ether (DIPE)	5.000	4.996	0.1	119	0.00	
20	P	1,1-Dichloroethane	20.000	18.271	8.6	109	0.00	
21		Acrylonitrile	20.000	20.363	-1.8	113	0.00	
22		Ethyl-tert-butyl ether (ETB	5.000	4.880	2.4	118	0.00	
23		c-1,2-Dichloroethene	20.000	18.567	7.2	114	0.00	
24		2,2-Dichloropropane	20.000	21.009	-5.0	132	0.00	
25		Bromochloromethane	20.000	18.644	6.8	111	0.00	
26	C	Chloroform	20.000	18.927	5.4	113	0.00	
27		Carbon Tetrachloride	20.000	20.025	-0.1	115	0.00	
28		Tetrahydrofuran	20.000	17.289	13.6	111	0.00	
29		1,1,1-Trichloroethane	20.000	19.482	2.6	115	0.00	
30	S	Dibromofluoromethane (S)	50.000	47.928	4.1	119	0.00	
31		1,1-Dichloropropene	20.000	18.727	6.4	114	0.00	
32		2-Butanone (MEK)	40.000	36.045	9.9	112	0.00	
33		Benzene	20.000	18.283	8.6	114	0.00	
34		tert-Amyl methyl ether (TAM	5.000	4.489	10.2	114	0.00	
35		1,2-Dichloroethane (EDC)	20.000	19.677	1.6	117	0.00	
36		iso-Butyl Alcohol	500.000	470.558	5.9	110	0.02	
37	S	1,4-Difluorobenzene (S)	50.000	49.510	1.0	125	0.00	
38		Trichloroethene (TCE)	20.000	19.333	3.3	116	0.00	
39		tert-Amyl ethyl ether (TAEE	5.000	5.091	-1.8	117	0.00	
40		Dibromomethane	20.000	19.651	1.7	117	0.00	
41	C	1,2-Dichloropropane	20.000	18.904	5.5	115	0.00	
42		Bromodichloromethane	20.000	20.343	-1.7	116	0.00	
43		Chlorobenzene-d5 (I)	50.000	50.000	0.0	122	0.00	
44		c-1,3-Dichloropropene	20.000	21.606	-8.0	123	0.00	
45	S	Toluene-d8 (S)	50.000	50.878	-1.8	125	0.00	
46	C	Toluene	20.000	18.812	5.9	114	0.00	
47		Tetrachloroethene (PCE)	20.000	20.118	-0.6	116	0.00	
48		4-Methyl-2-Pentanone (MIBK)	40.000	40.010	-0.0	110	0.00	
49		t-1,3-Dichloropropene	20.000	22.367	-11.8	122	0.00	
50		1,1,2-Trichloroethane	20.000	20.463	-2.3	116	0.00	

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 29 09:34:50 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration

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

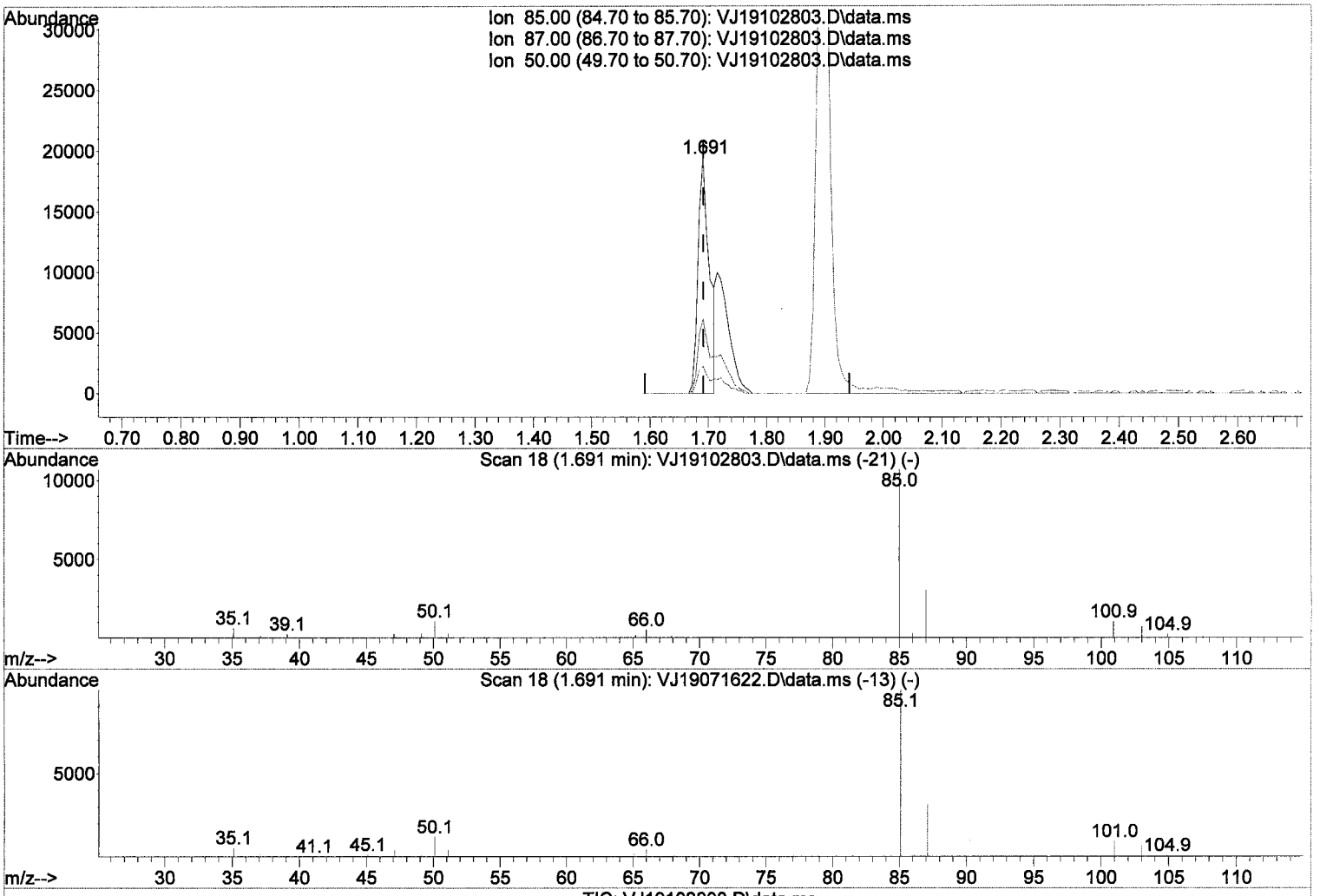
		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51		Dibromochloromethane	20.000	20.400	-2.0	120	0.00
52		1,3-Dichloropropane	20.000	20.098	-0.5	115	0.00
53		1,2-Dibromoethane (EDB)	20.000	20.578	-2.9	114	0.00
54		2-Hexanone	40.000	39.165	2.1	110	0.00
55	P	Chlorobenzene	20.000	19.274	3.6	115	0.00
56	C	Ethylbenzene	20.000	20.134	-0.7	114	0.00
57		1,1,1,2-Tetrachloroethane	20.000	20.769	-3.8	119	0.00
58		m,p-Xylenes (2)	40.000	41.337	-3.3	114	0.00
59		o-Xylene	20.000	20.485	-2.4	113	0.00
60		Styrene	20.000	18.074	9.6	114	0.00
61	P	Bromoform	20.000	18.995	5.0	120	0.00
62		Isopropylbenzene	20.000	21.100	-5.5	114	0.00
63	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	119	0.00
64	S	4-Bromofluorobenzene (S)	50.000	50.282	-0.6	120	0.00
65		Bromobenzene	20.000	19.640	1.8	113	0.00
66		n-Propylbenzene	20.000	20.005	-0.0	113	0.00
67	P	1,1,2,2-Tetrachloroethane	20.000	19.585	2.1	109	0.00
68		2-Chlorotoluene	20.000	19.974	0.1	113	0.00
69		1,3,5-Trimethylbenzene	20.000	22.219	-11.1	117	0.00
70		1,2,3-Trichloropropane	20.000	19.991	0.0	112	0.00
71		t-1,4-Dichloro-2-butene	20.000	22.322	-11.6	123	0.00
72		4-Chlorotoluene	20.000	20.313	-1.6	113	0.00
73		tert-Butylbenzene	20.000	20.603	-3.0	113	0.00
74		1,2,4-Trimethylbenzene	20.000	22.726	-13.6	121	0.00
75		sec-Butylbenzene	20.000	20.846	-4.2	113	0.00
76		4-Isopropyltoluene	20.000	21.472	-7.4	115	0.00
77		1,3-Dichlorobenzene	20.000	19.800	1.0	112	0.00
78		1,4-Dichlorobenzene	20.000	18.842	5.8	114	0.00
79		n-Butylbenzene	20.000	21.544	-7.7	121	0.00
80		1,2-Dichlorobenzene	20.000	19.878	0.6	112	0.00
81		1,2-Dibromo-3-Chloropropane	20.000	18.968	5.2	113	0.00
82		Hexachlorobutadiene	20.000	21.467	-7.3	120	0.00
83		1,2,4-Trichlorobenzene	20.000	20.585	-2.9	115	0.00
84		Naphthalene	20.000	21.442	-7.2	117	0.00
85		1,2,3-Trichlorobenzene	20.000	20.731	-3.7	116	0.00

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 28 13:47:38 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: VJ19102803.D\data.ms

(2) Dichlorodifluoromethane

1.691min (-0.000) 9.64 ug/L

response 26099

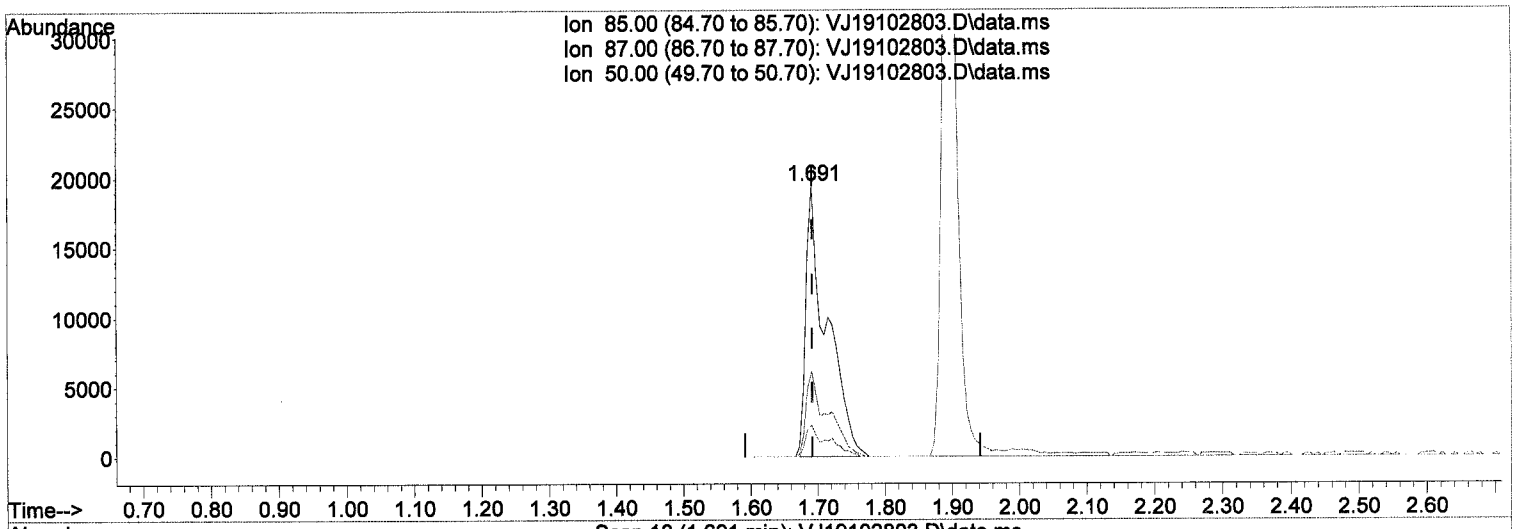
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	31.50
50.00	11.20	11.57
0.00	0.00	0.00

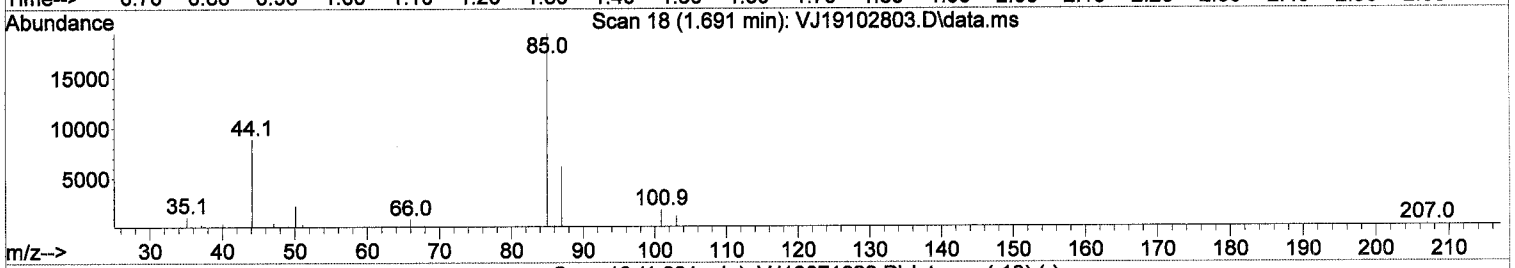
M2

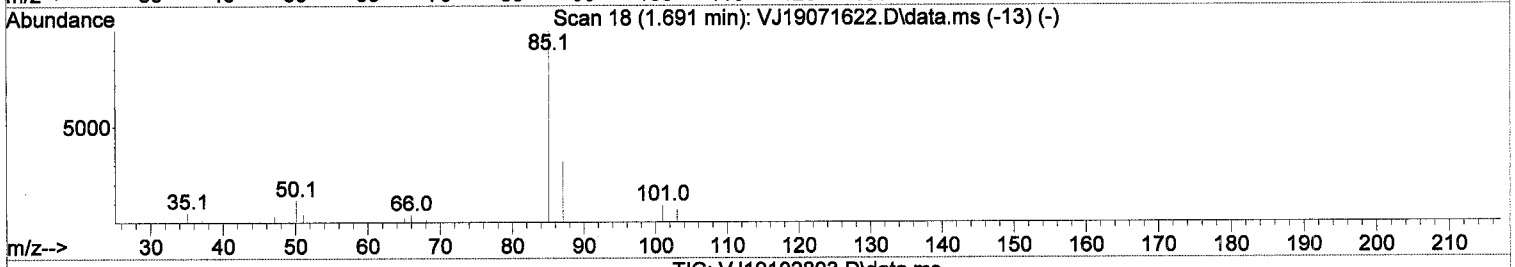
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 29 09:32:23 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: VJ19102803.D\data.ms

(2) Dichlorodifluoromethane

1.691min (-0.000) 15.41 ug/L m IMA 10/29/19

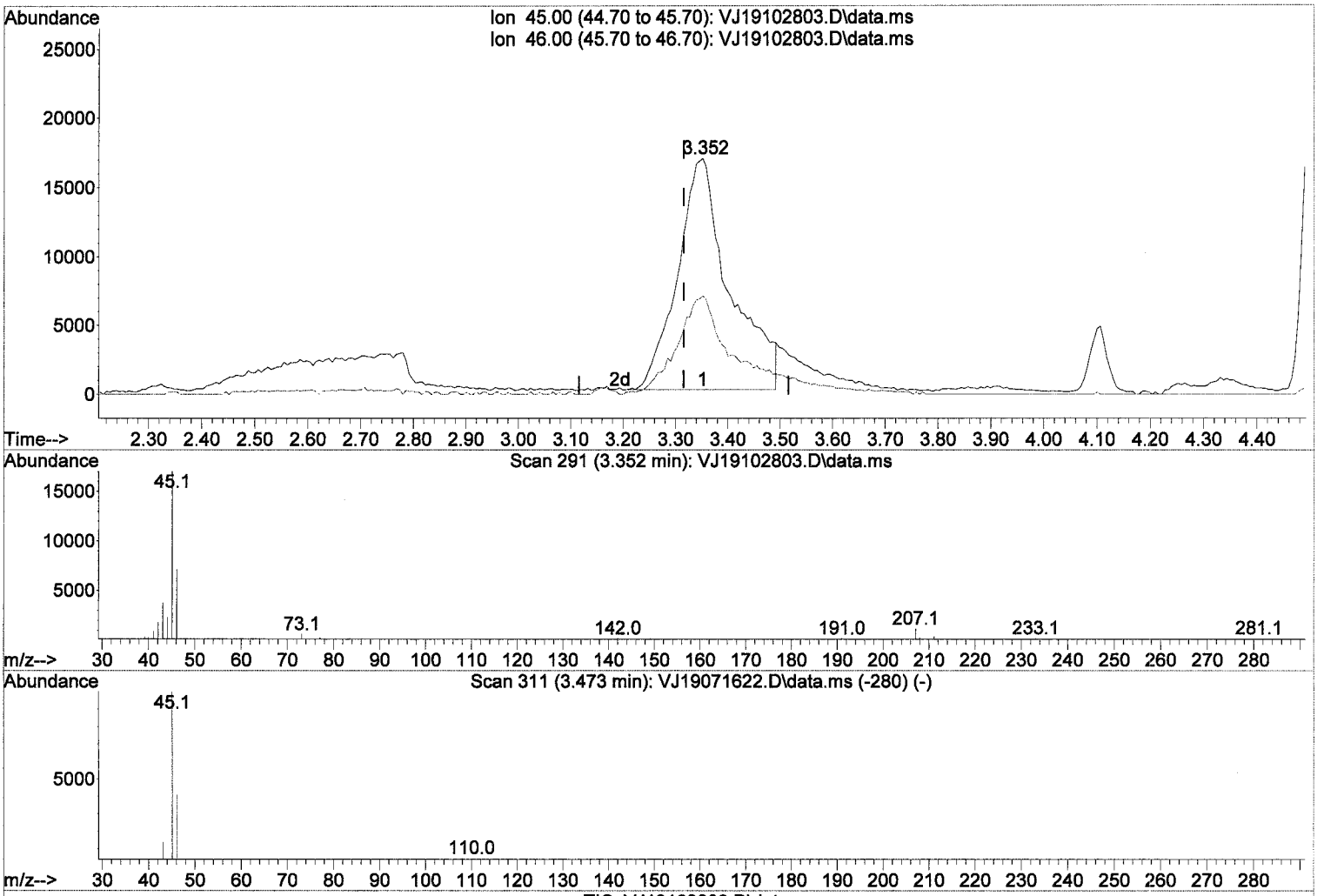
response 41740

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	31.50
50.00	11.20	11.57
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 28 13:47:38 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: VJ19102803.D\data.ms

(8) Ethanol

3.352min (+ 0.037) 976.32 ug/L

response 115754

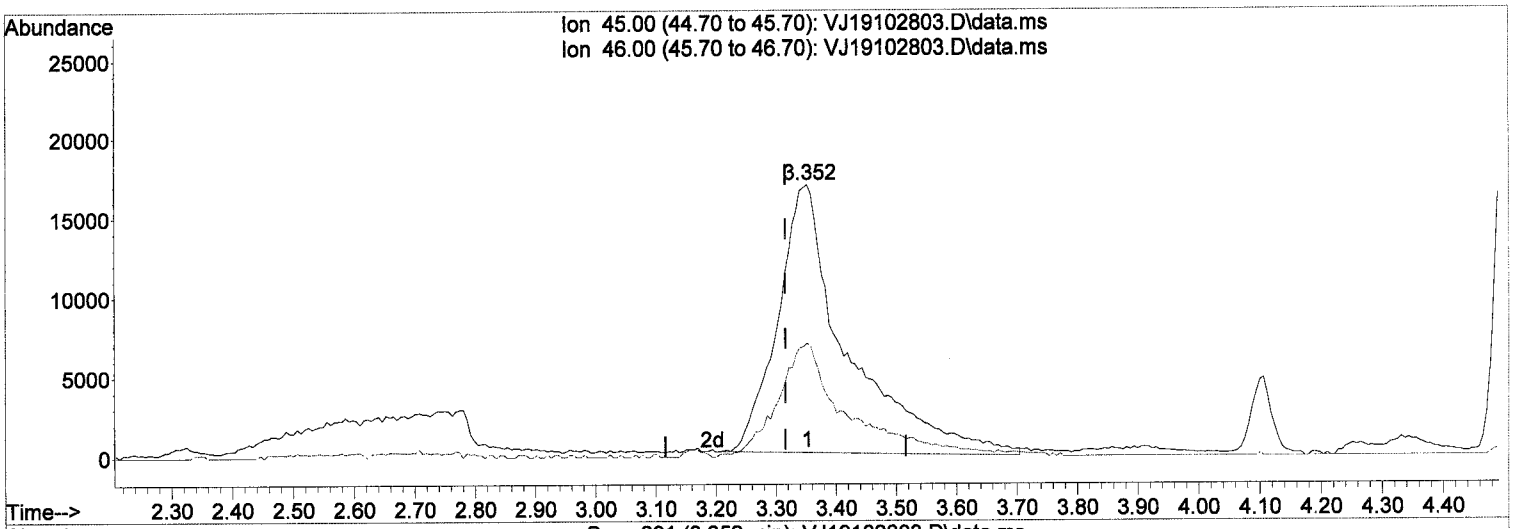
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	41.75
0.00	0.00	0.00
0.00	0.00	0.00

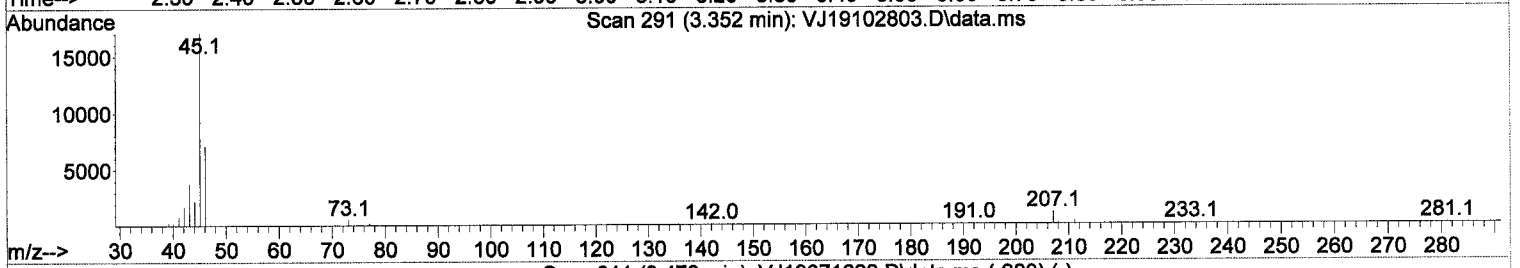
M2

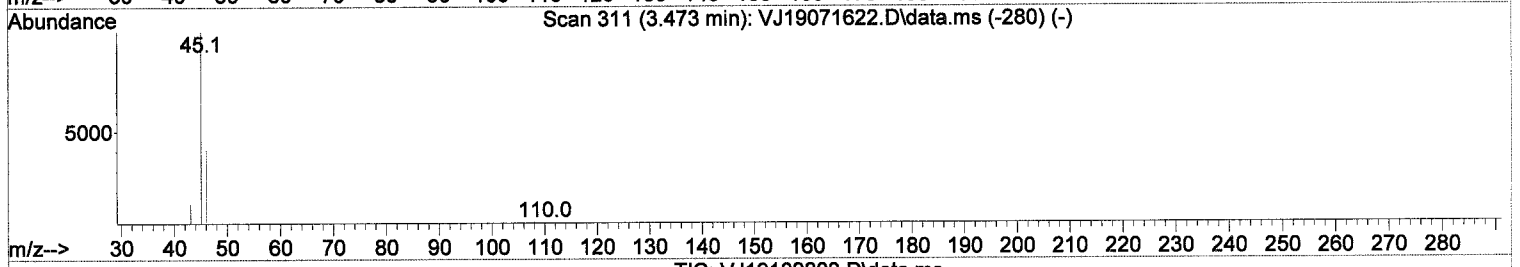
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 29 09:32:23 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: VJ19102803.D\data.ms

(8) Ethanol

3.352min (+ 0.037) 1158.35 ug/L m IMA 10/29/19

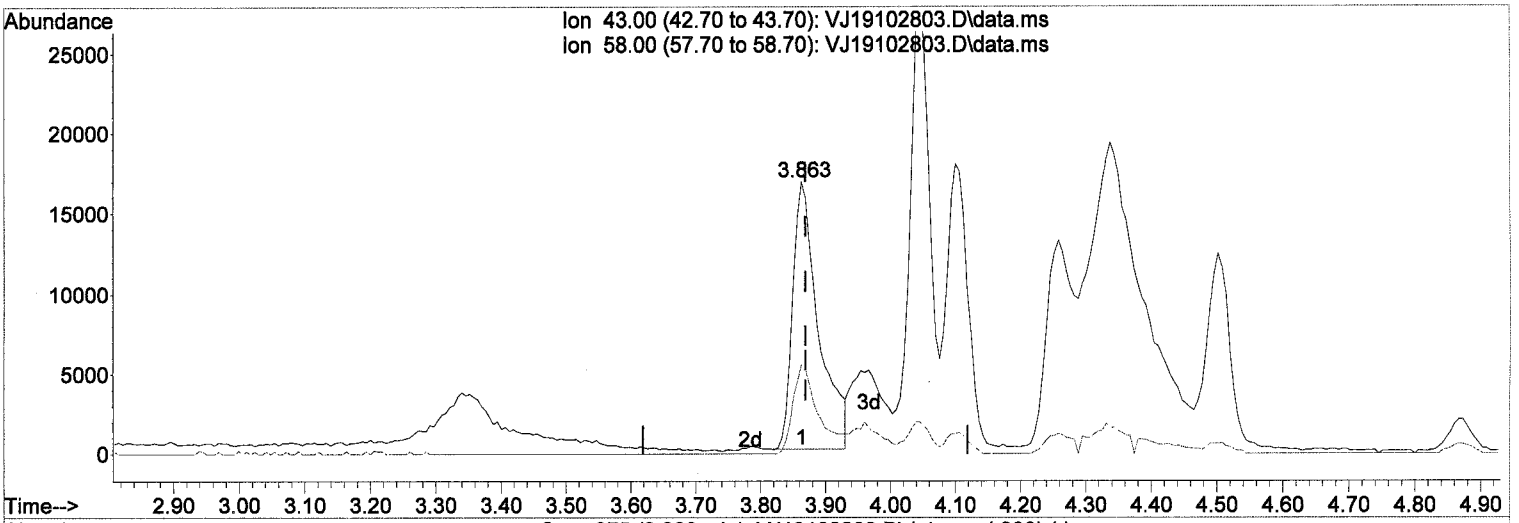
response 134926

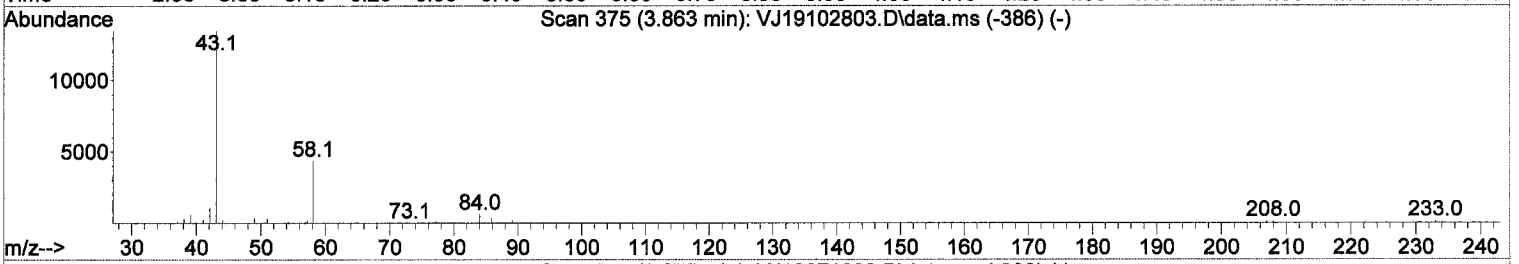
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	41.75
0.00	0.00	0.00
0.00	0.00	0.00

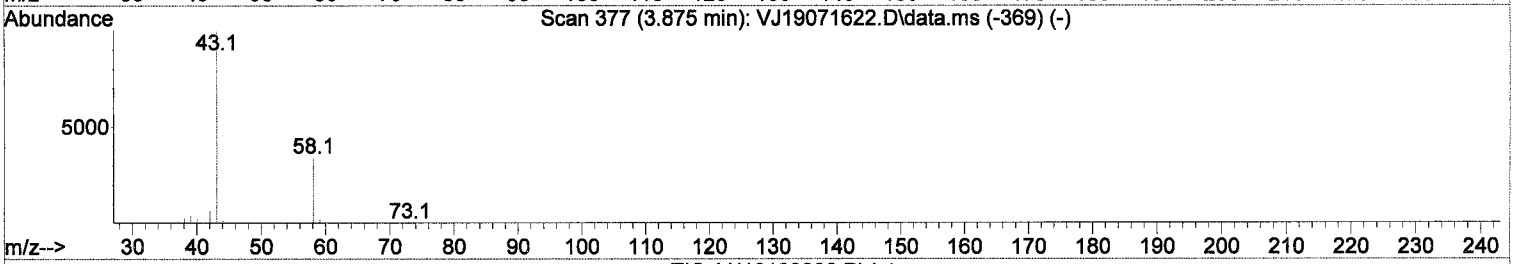
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 28 13:47:38 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: VJ19102803.D\data.ms

(14) Acetone

3.863min (-0.005) 26.00 ug/L

response 46439

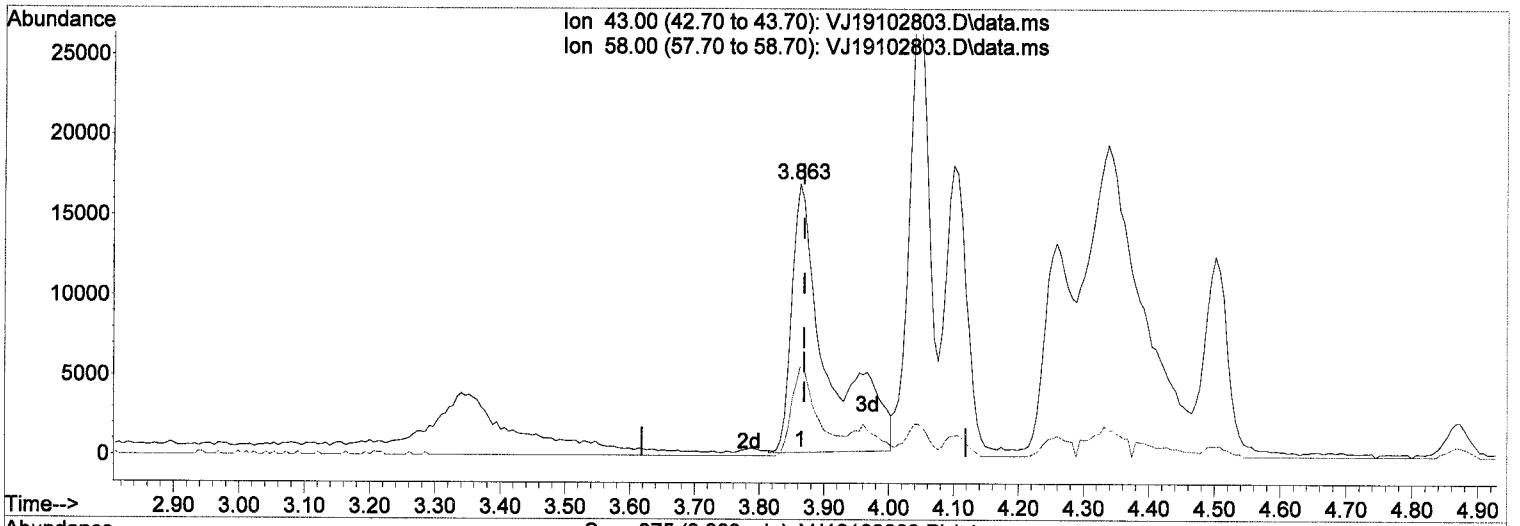
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.63
0.00	0.00	0.00
0.00	0.00	0.00

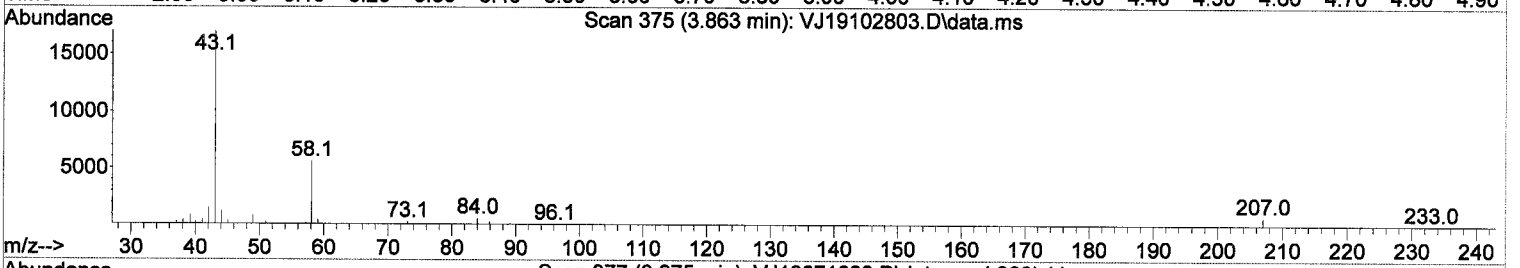
MJ.

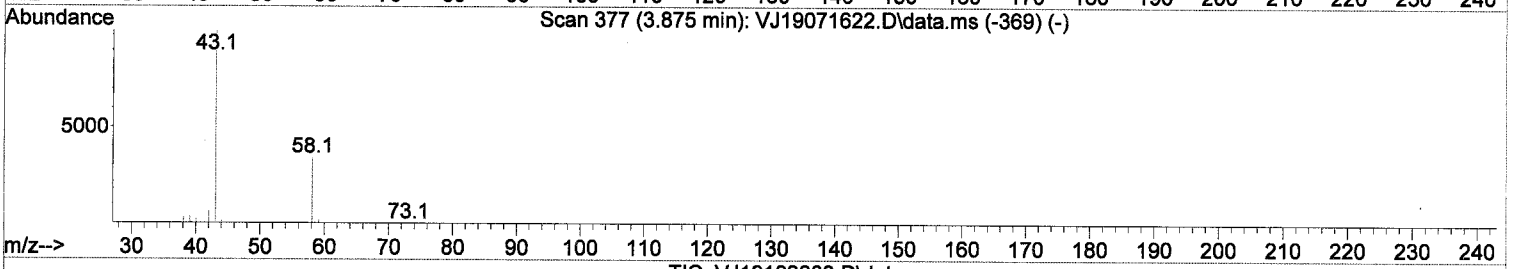
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 29 09:32:23 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: VJ19102803.D\data.ms

(14) Acetone

3.863min (-0.005) 35.71 ug/L (m) IMA 10/29/19

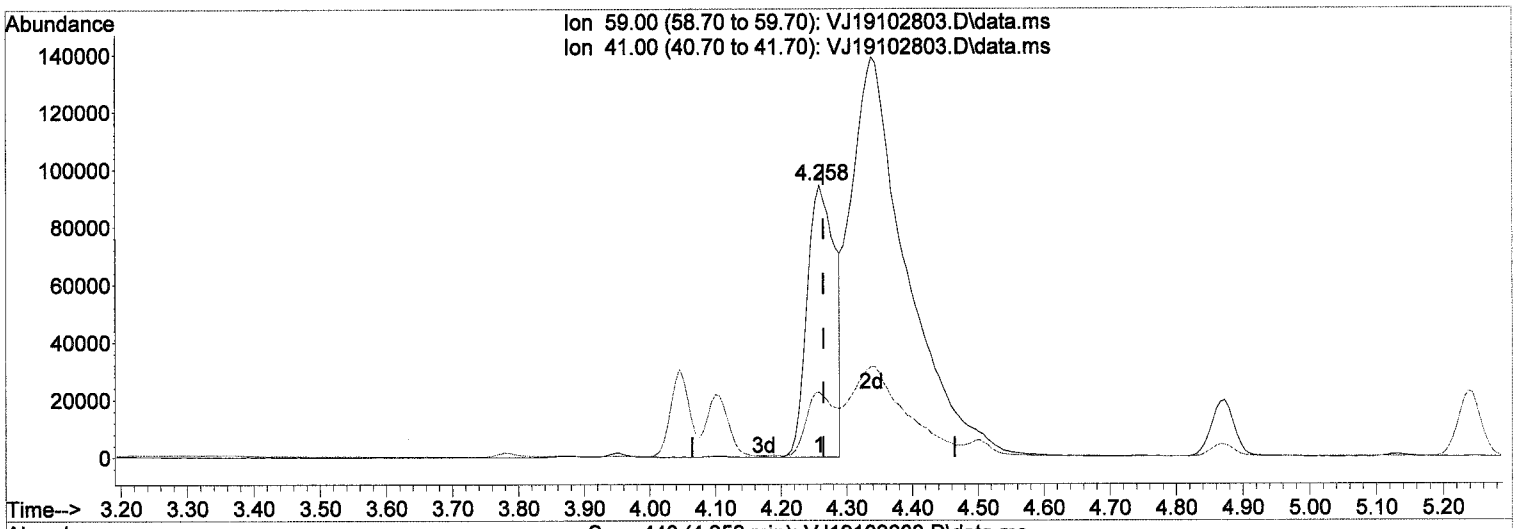
response 63770

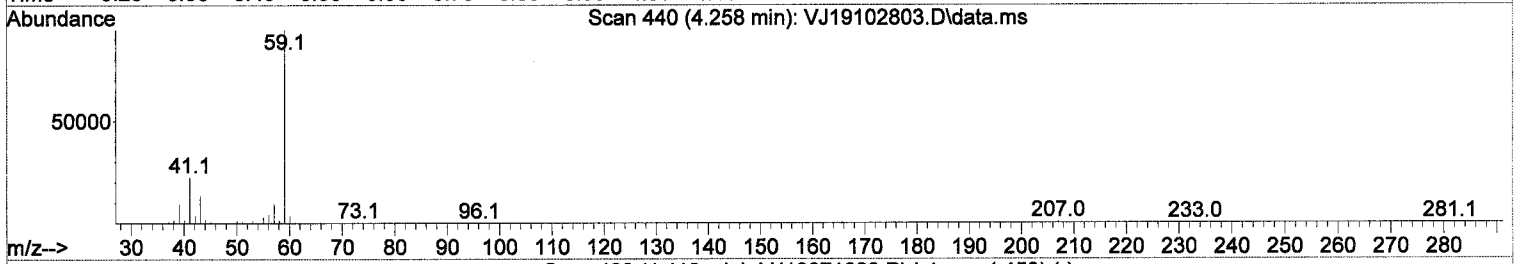
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.06
0.00	0.00	0.00
0.00	0.00	0.00

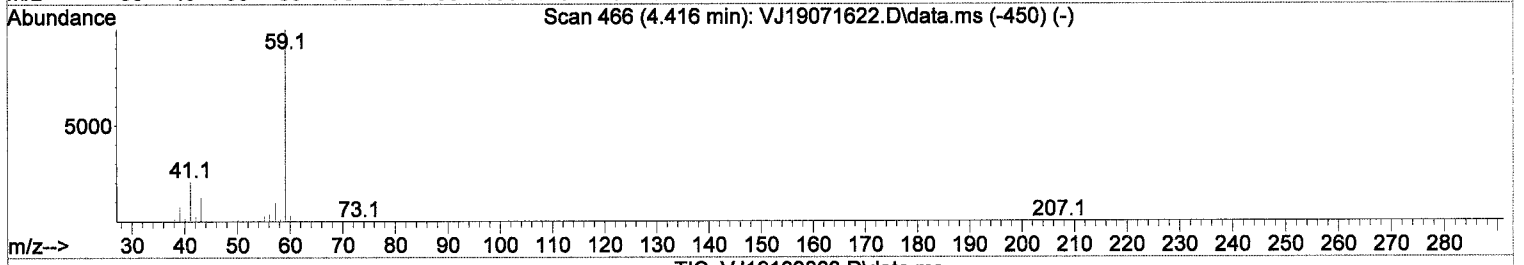
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 28 13:47:38 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: VJ19102803.D\data.ms

(18) tert-Butanol (TBA)

4.258min (-0.006) 306.43 ug/L

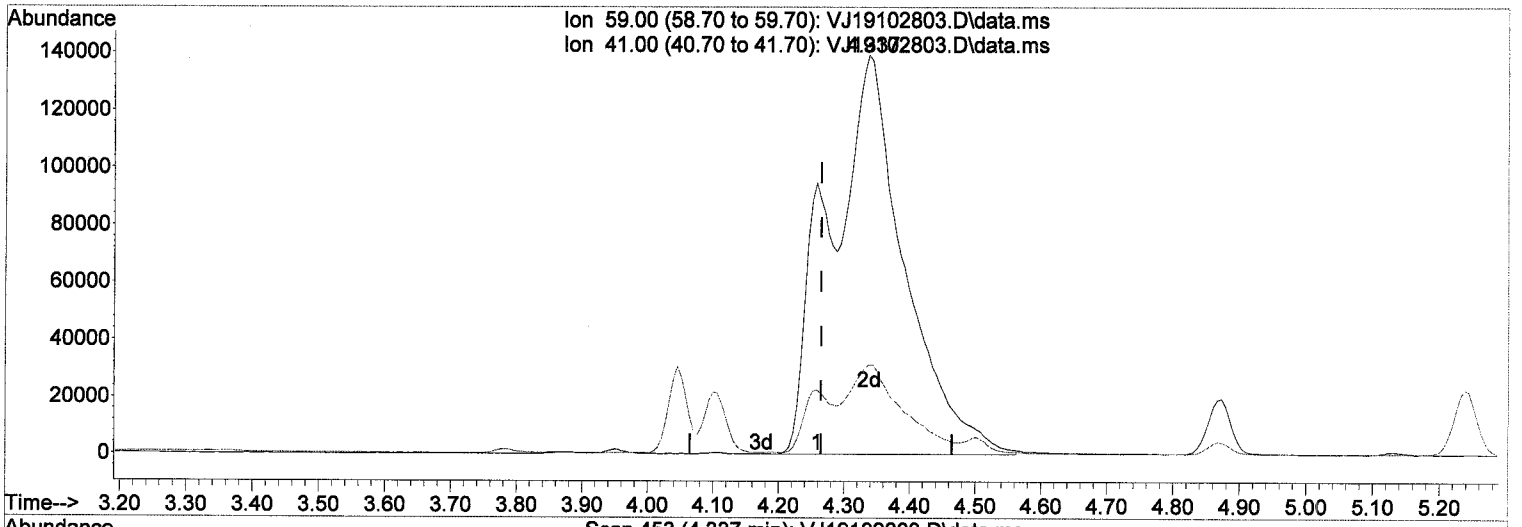
response 281573

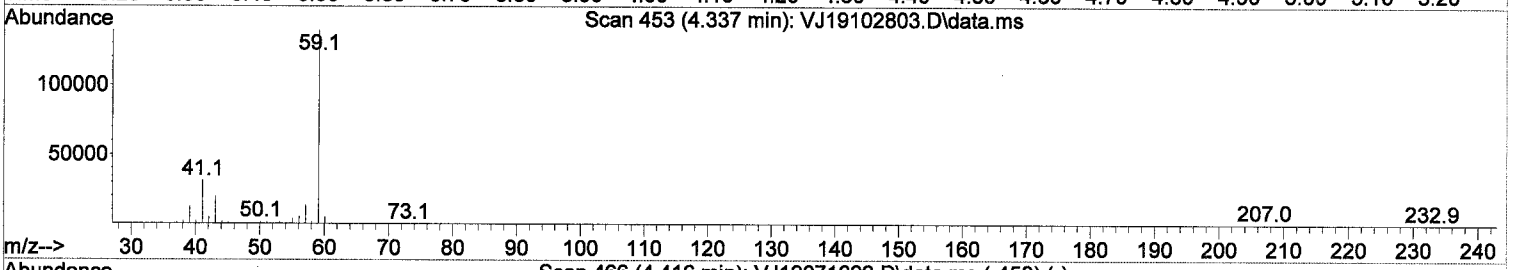
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	23.77#
0.00	0.00	0.00
0.00	0.00	0.00

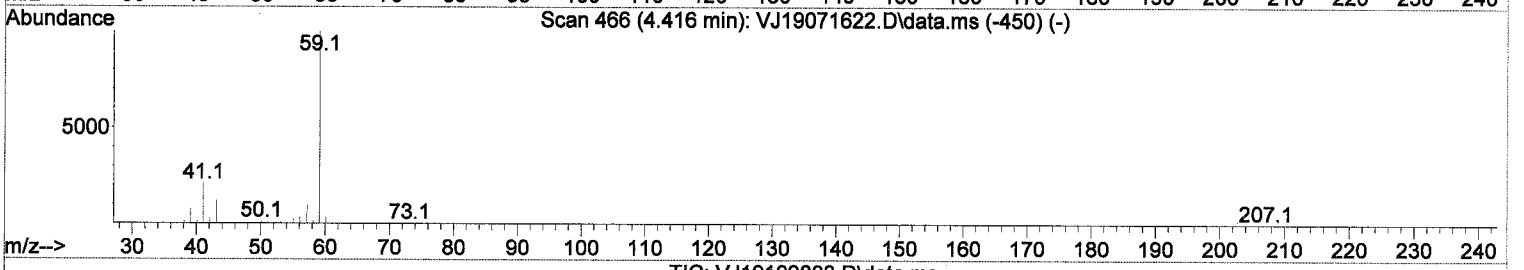
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 29 09:32:23 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: VJ19102803.D\data.ms

(18) tert-Butanol (TBA)

4.337min (+ 0.073) 1200.33 ug/L (m)

IMA
10/29/19

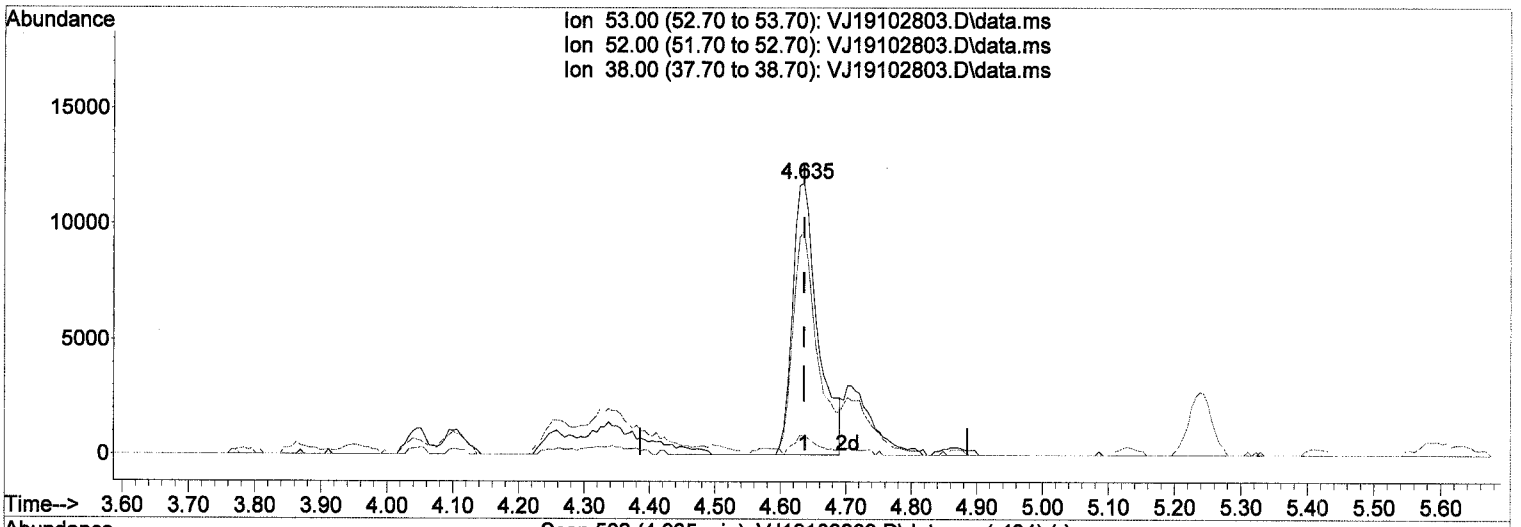
response 1102959

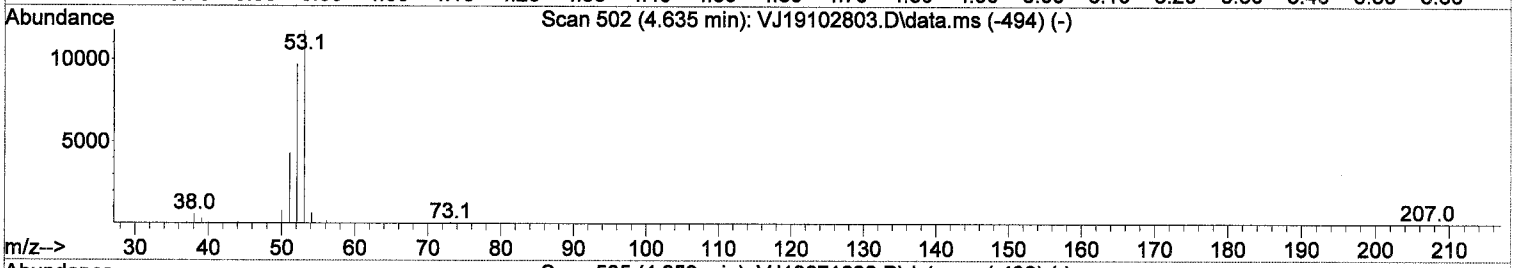
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	22.57#
0.00	0.00	0.00
0.00	0.00	0.00

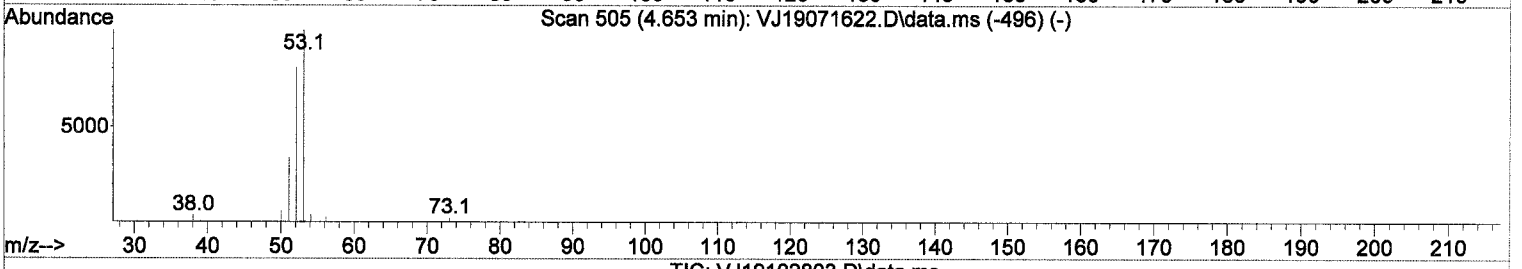
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 28 13:47:38 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: VJ19102803.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 15.66 ug/L

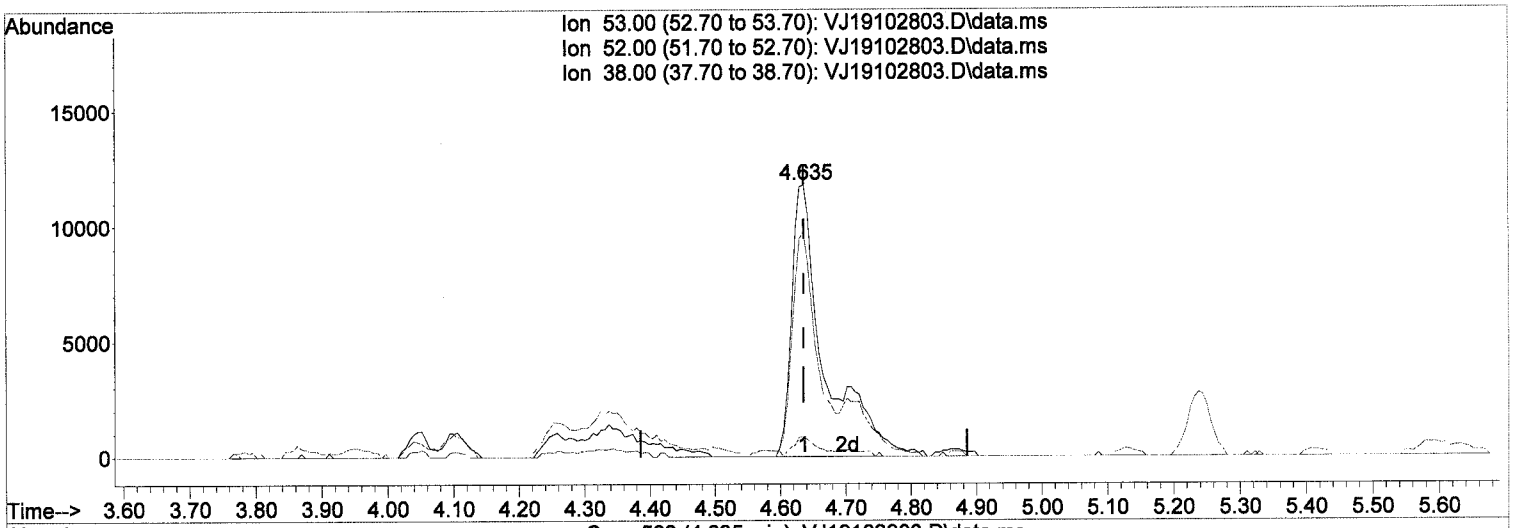
response 31654

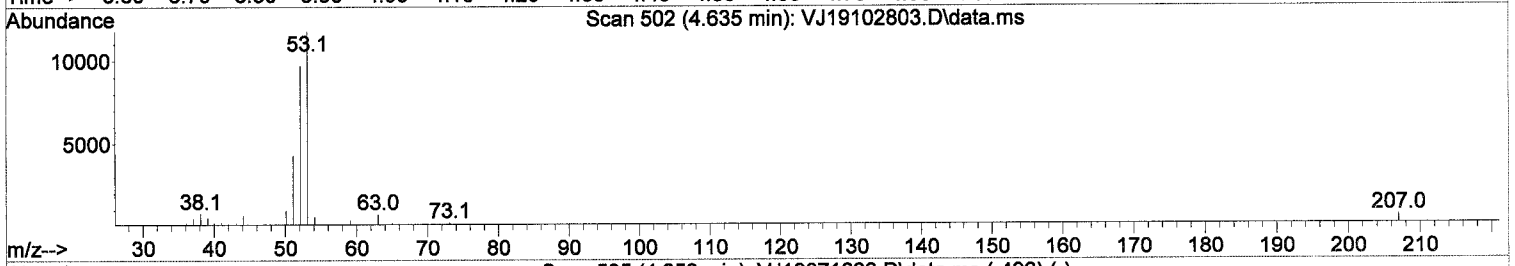
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.40
38.00	5.50	4.96
0.00	0.00	0.00

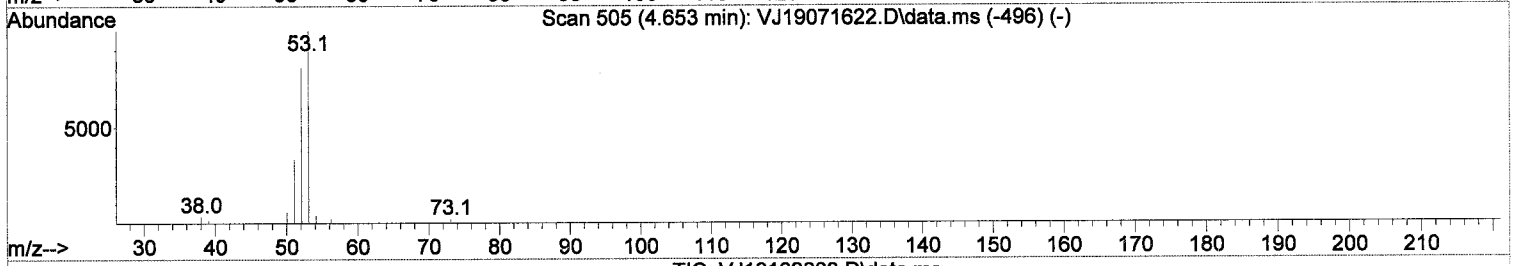
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 29 09:32:23 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: VJ19102803.D\data.ms

(21) Acrylonitrile

4.635min (+ 0.000) 20.36 ug/L (m)

IMA 10/29/19

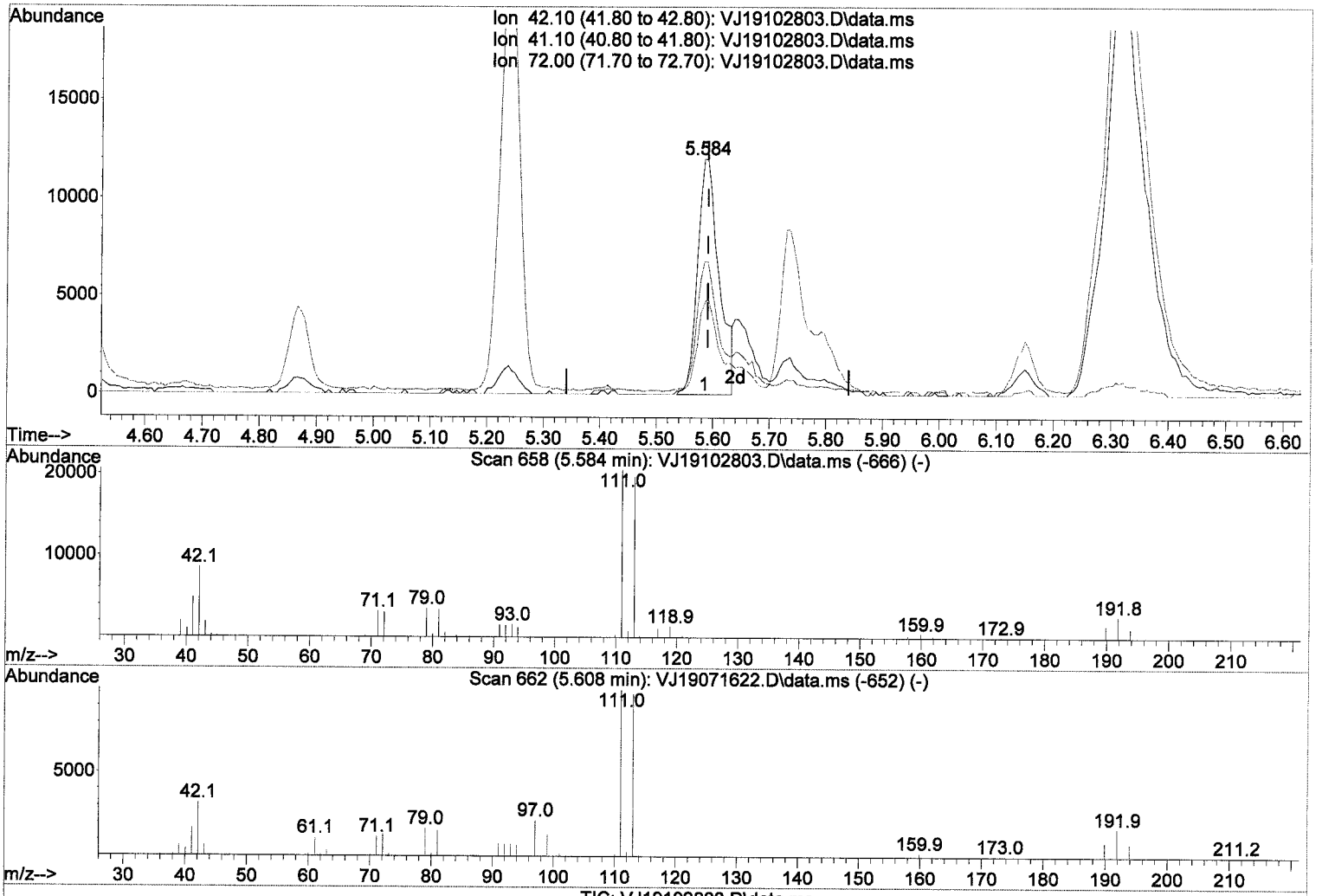
response 41165

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.40
38.00	5.50	7.01
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 28 13:57:50 2019
Quant Method : C:\msdchem\1\methods\VJ191024S.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Oct 24 08:55:09 2019
Response via : Initial Calibration



TIC: VJ19102803.D\data.ms

(28) Tetrahydrofuran

5.584min (-0.006) 13.42 ug/L

response 31874

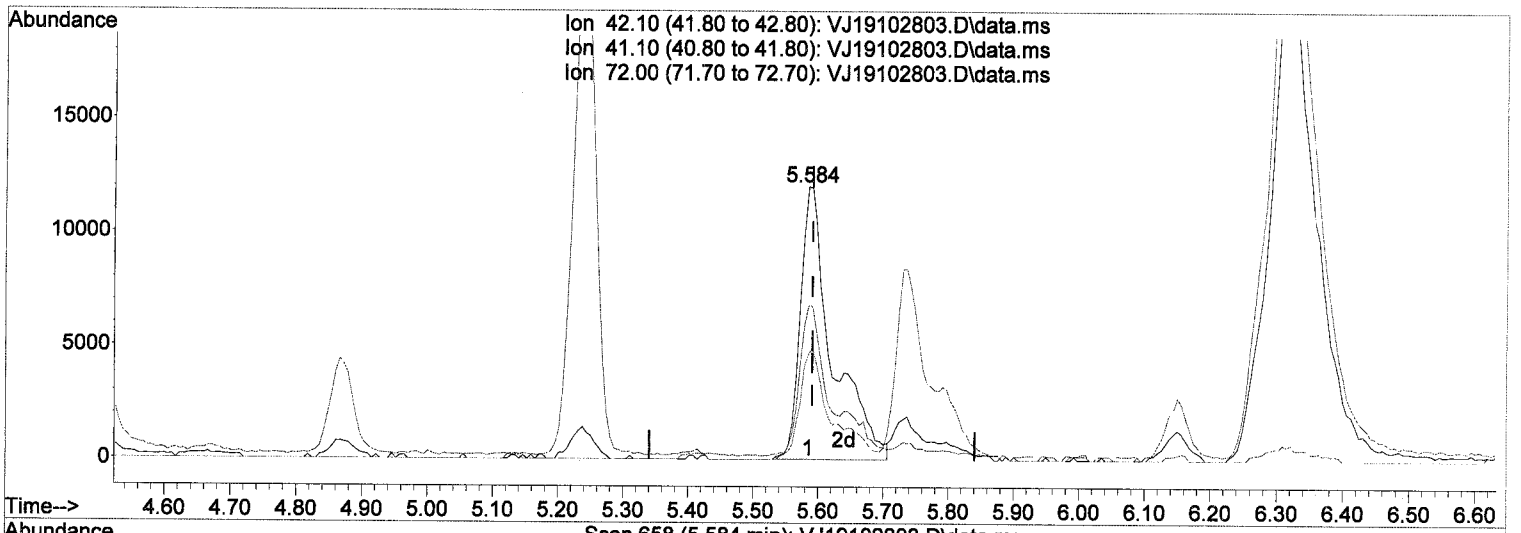
Ion	Exp%	Act%
42.10	100.00	100.00
41.10	52.70	54.95
72.00	40.40	38.51
0.00	0.00	0.00

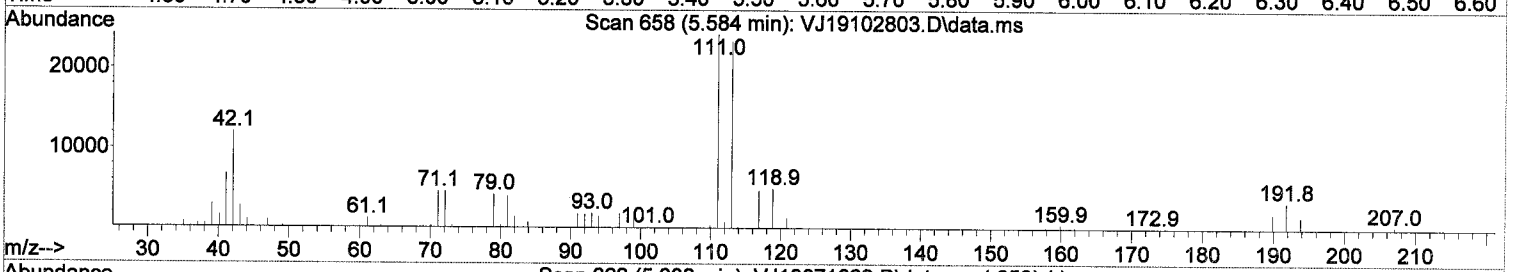
M2-

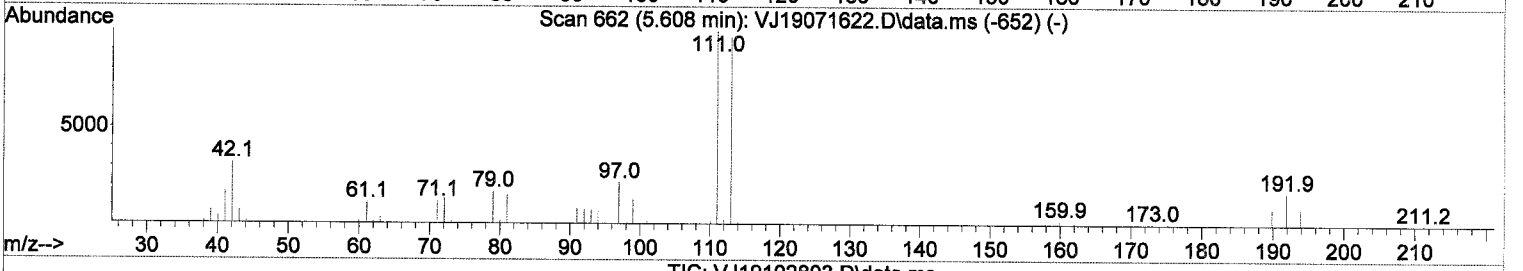
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 29 09:32:23 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: VJ19102803.D\data.ms

(28) Tetrahydrofuran

5.584min (-0.006) 17.29 ug/L m

IMA 10/29/19

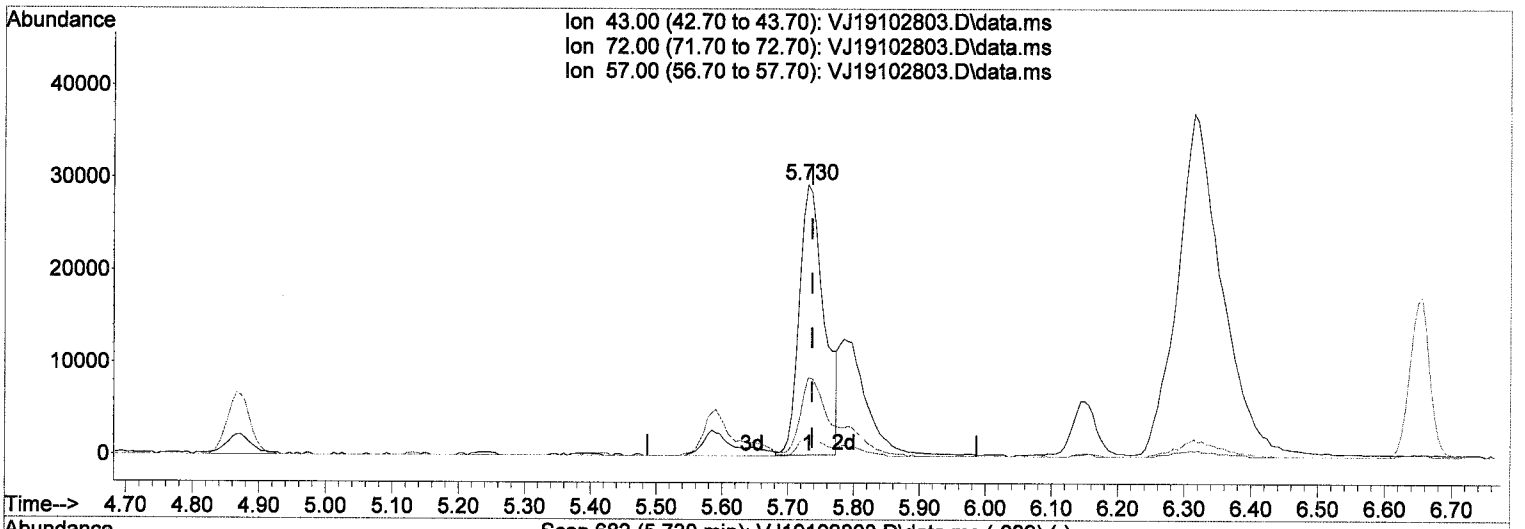
response 41053

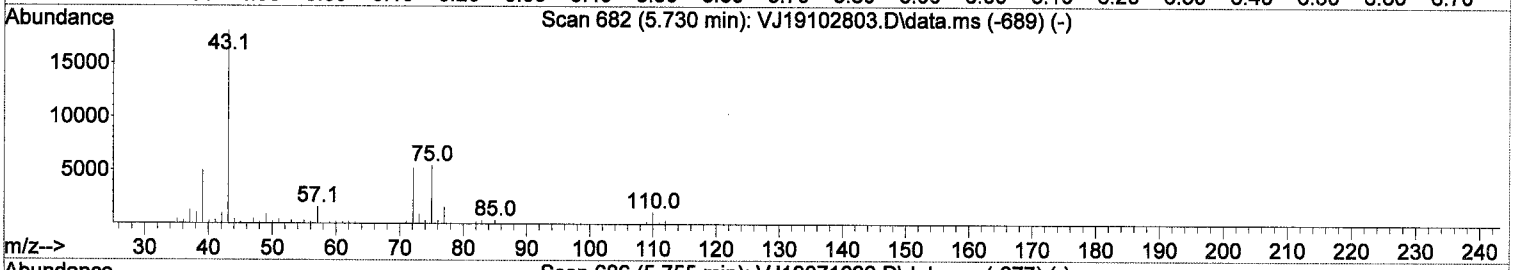
Ion	Exp%	Act%
42.10	100.00	100.00
41.10	52.70	56.45
72.00	40.40	38.51
0.00	0.00	0.00

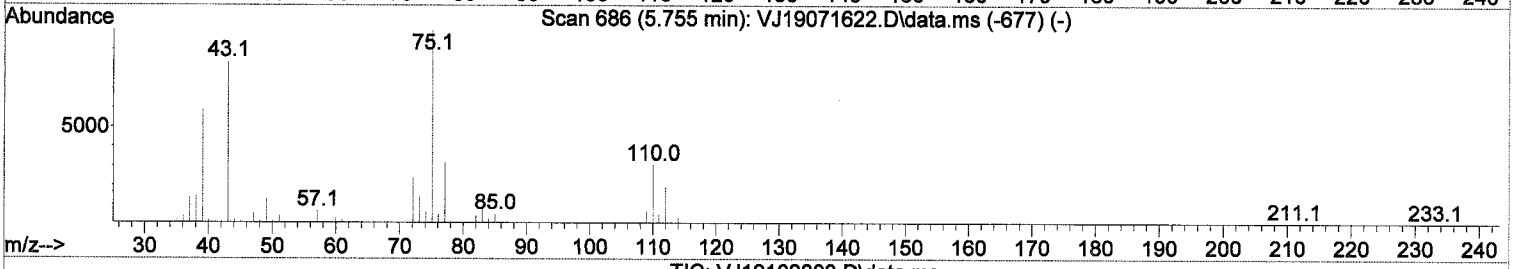
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 28 13:47:38 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: VJ19102803.D\data.ms

(32) 2-Butanone (MEK)

5.730min (-0.006) 24.49 ug/L

response 77044

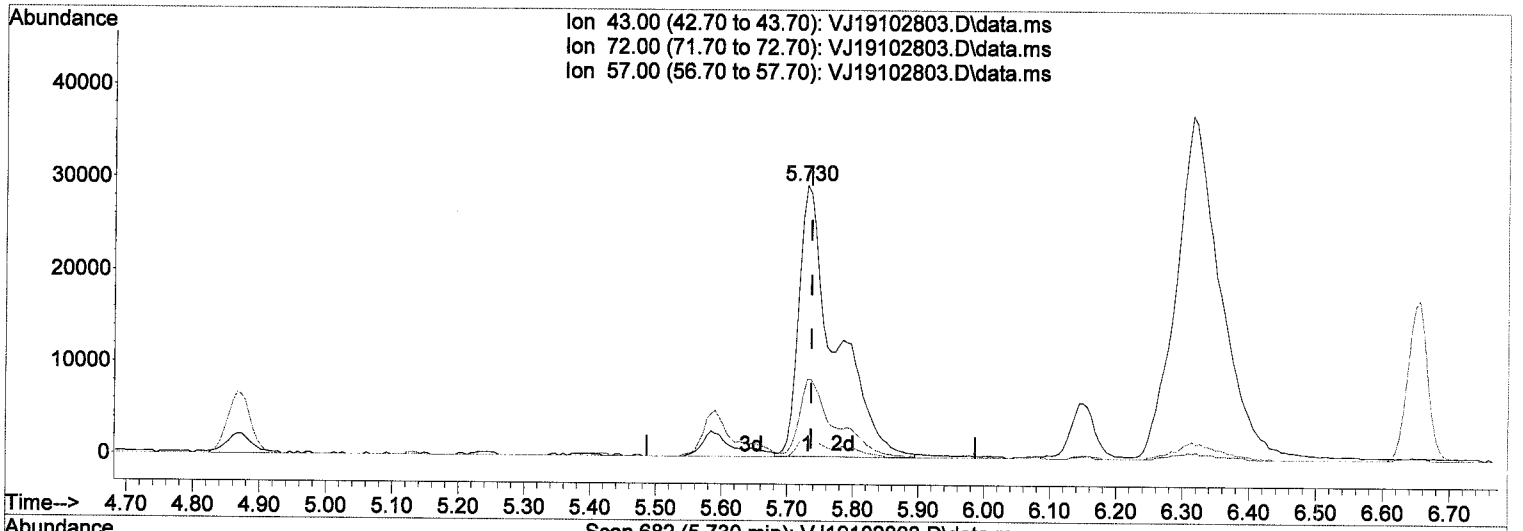
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	27.36
57.00	7.20	8.15
0.00	0.00	0.00

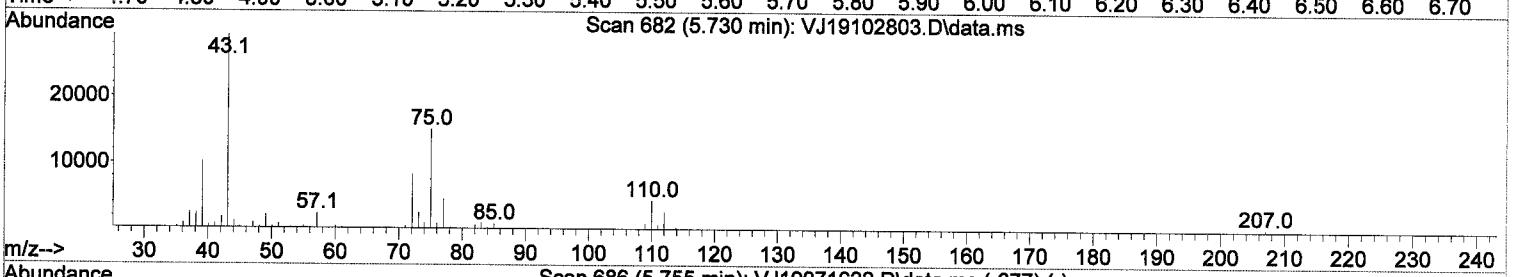
M2-

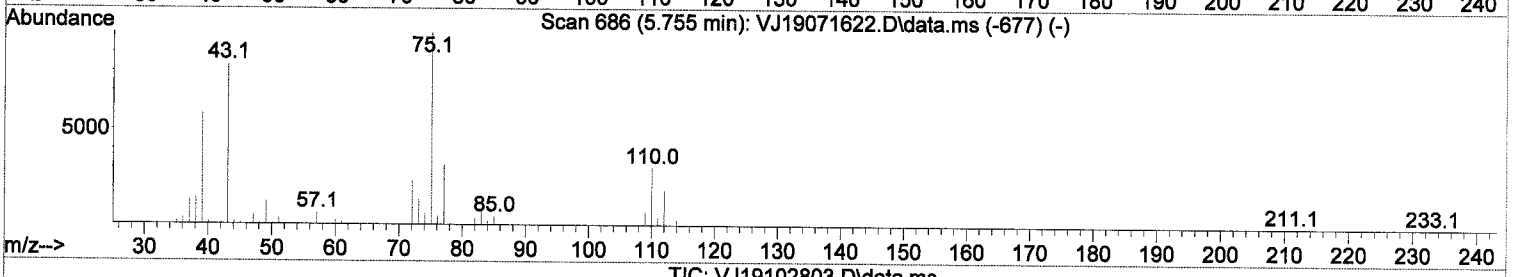
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 29 09:32:23 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: VJ19102803.D\data.ms

(32) 2-Butanone (MEK)

5.730min (-0.006) 36.04 ug/L m

IMA
10/29/19

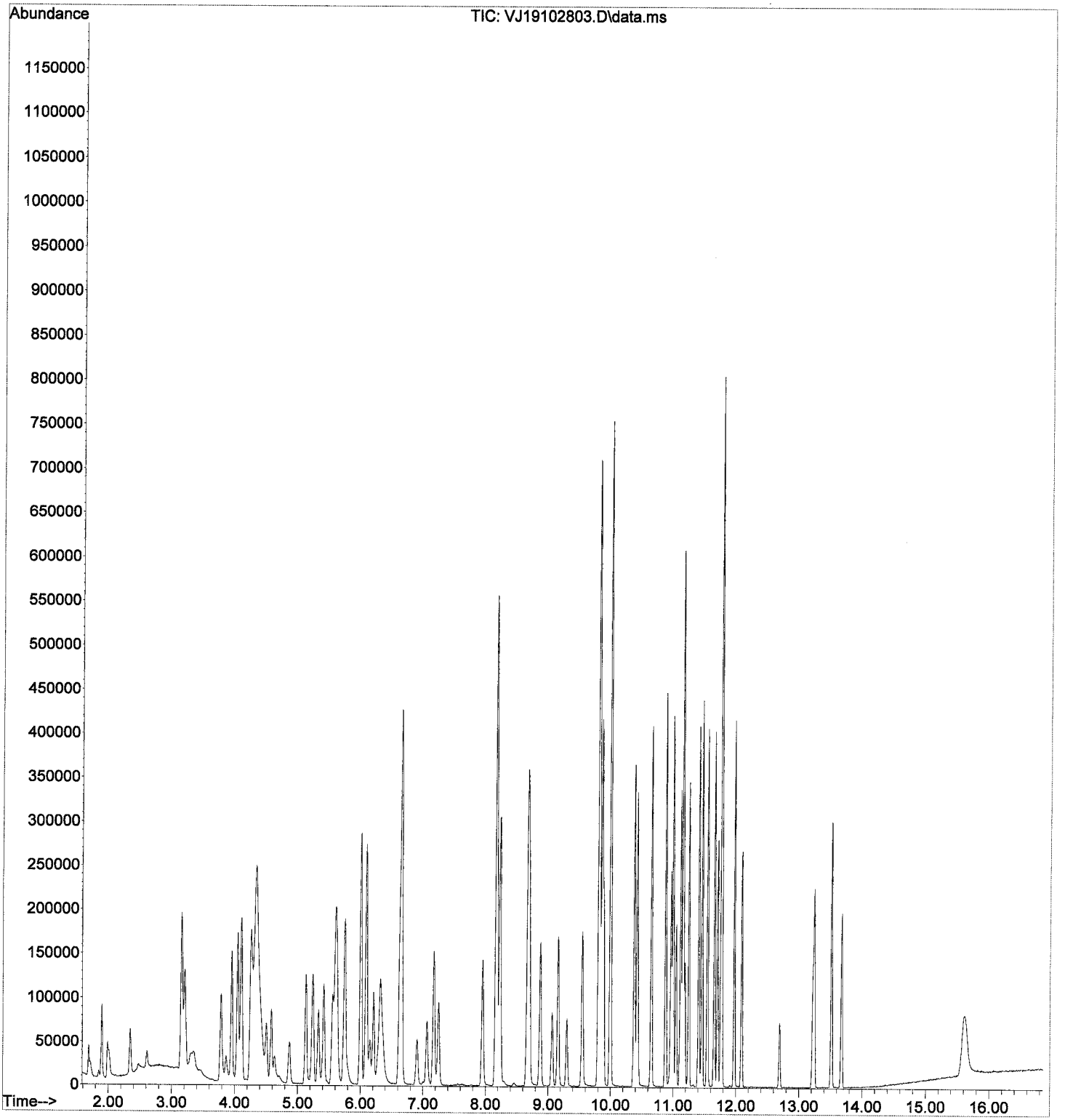
response 113375

Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	28.63
57.00	7.20	8.05
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102803.D
Acq On : 28 Oct 2019 10:48 am
Operator : IMA
Sample : 9101631-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19J290
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 28 13:47:38 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\9J28034\
Data File : VJ19102804.D
Acq On : 28 Oct 2019 11:15 am
Operator : IMA
Sample : 9101631-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19J354
ALS Vial : 4 Sample Multiplier: 1

IMA
10/28/19

Quant Time: Oct 28 13:47:52 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	115	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	50.291	-0.6	114	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	48.704	2.6	110	0.00
4	H	NWTPH-Gx (TPH)	500.000	510.373	-2.1	121	0.00
5	H	TPHg (C5-C9)	500.000	530.719	-6.1	122	0.00
6	H	TPHg (C6-C10)	500.000	523.197	-4.6	119	0.00
7	H	CA-LUFT (C5-C12)	500.000	523.774	-4.8	122	0.00
8		Benzene (NR)	-1.000	0.000	0.0	122	0.00
9	S	Toluene-d8 (NR)	-1.000	0.000	0.0	115	0.00
10		Toluene (NR)	-1.000	0.000	0.0	116	0.00
11	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	114	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	112	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	142	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\9J28034\
Data File : VJ19102804.D
Acq On : 28 Oct 2019 11:15 am
Operator : IMA
Sample : 9101631-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19J354
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 28 13:47:52 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

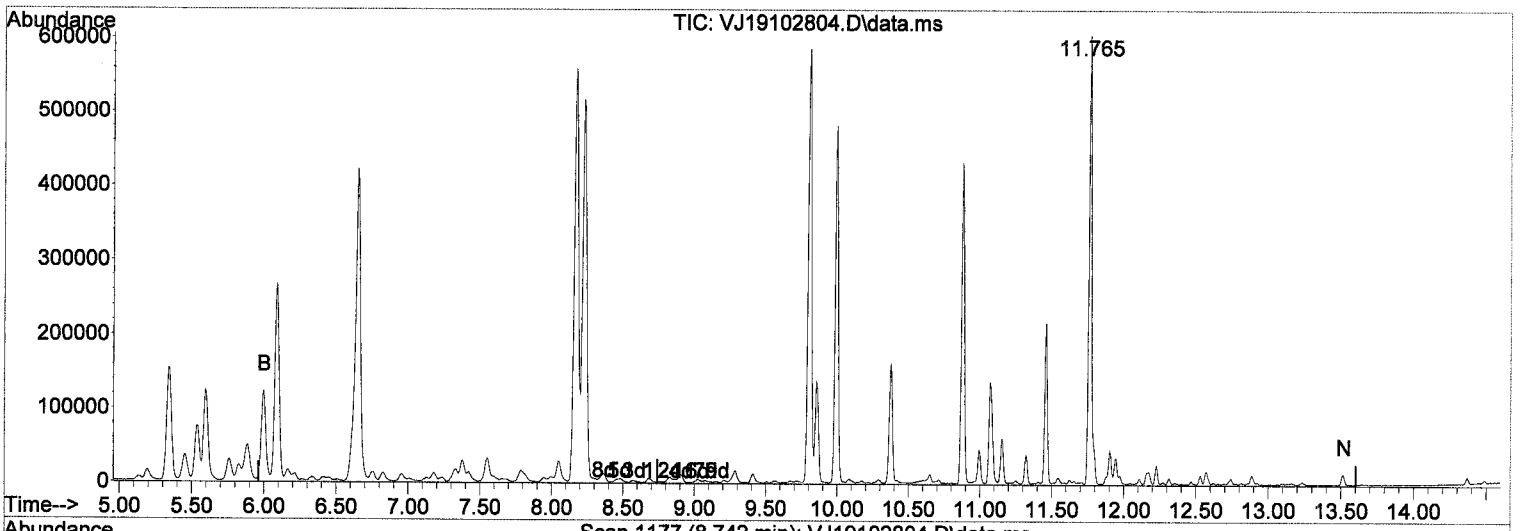
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	182636	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.649	114	349460	50.29	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.877	174	91172	48.70	ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	429945	0.00	ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	302548	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	196335	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	4662541m	510.37	ug/L	
5) TPHg (C5-C9)	9.239	TIC	6658838m	530.72	ug/L	
6) TPHg (C6-C10)	9.239	TIC	5578125m	523.20	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	7737368m	523.77	ug/L	

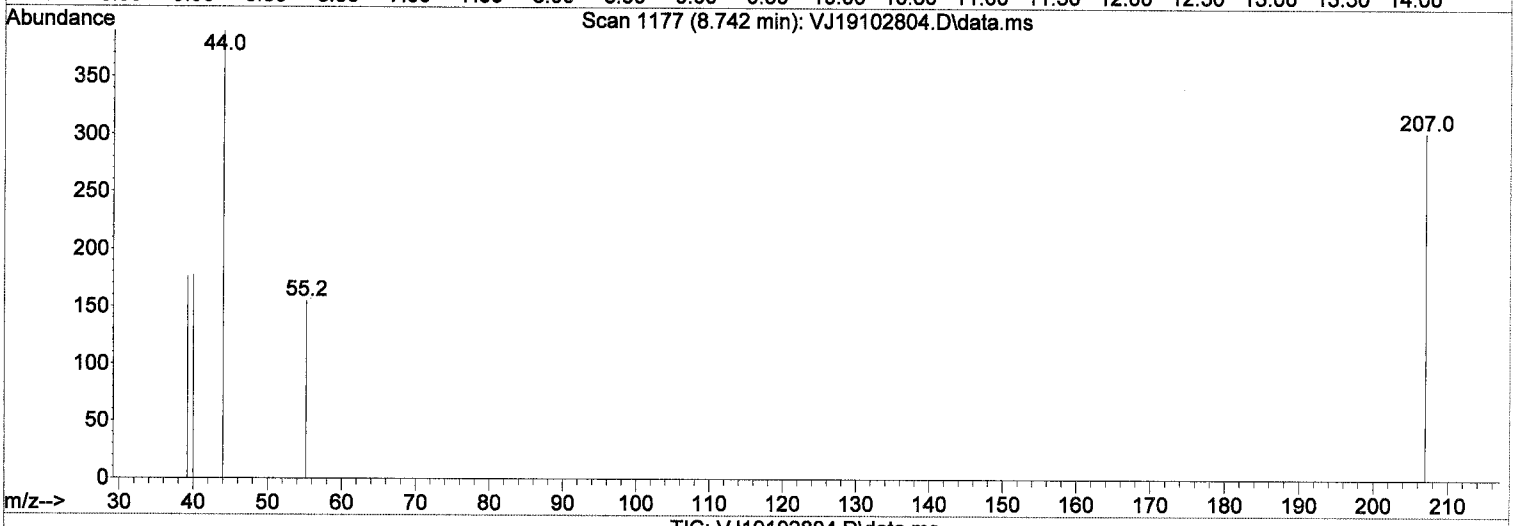
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102804.D
Acq On : 28 Oct 2019 11:15 am
Operator : IMA
Sample : 9101631-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19J354
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 28 13:47:52 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: VJ19102804.D\data.ms

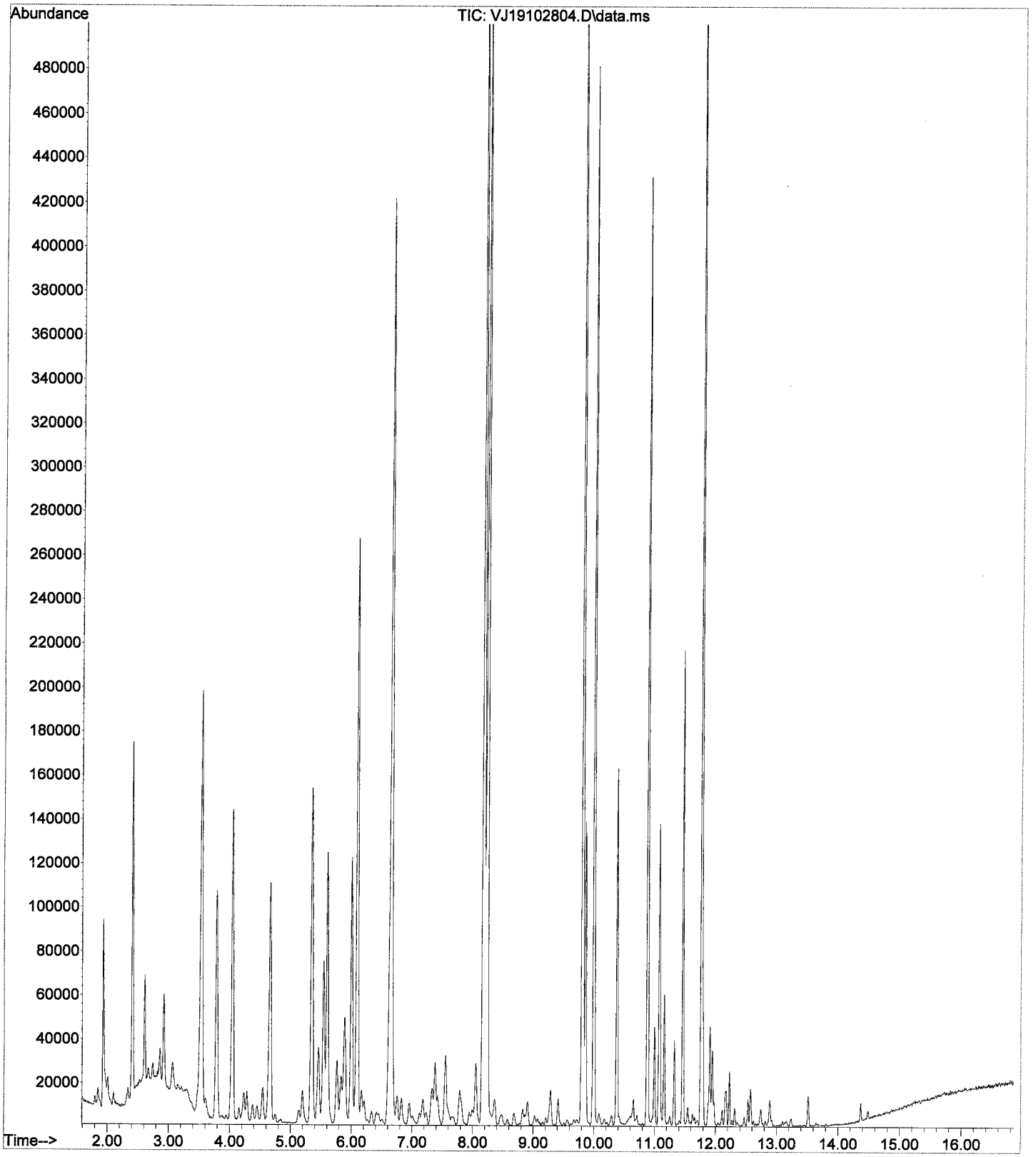
(4) NWTPH-Gx (TPH) (H)

8.739min (0.000) 510.37 ug/L m

response 4662541

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

File :C:\msdchem\1\data\2019-10\9J28034\VJ19102804.D
Operator : IMA
Acquired : 28 Oct 2019 11:15 am using AcqMethod VJ1907RUN.M
Instrument : VOA-GCMS10
Sample Name: 9101631-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\9J28034\
Data File : VJ19102805.D
Acq On : 28 Oct 2019 11:42 am
Operator : IMA
Sample : 9101631-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1

IMA
10/28/19

Quant Time: Oct 28 13:48:33 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	186612	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Difluorobenzene (Sur)	6.655	114	354699	49.96 ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	92940	48.59 ug/L	0.00
9) Toluene-d8 (NR)	8.170	98	437741	0.00 ug/L	0.00
11) Chlorobenzene-d5 (NR)	9.806	117	312543	0.00 ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	198817	0.00 ug/L	0.00
Target Compounds					Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	113336m	15.66 ug/L	<MDL
5) TPHg (C5-C9)	9.239	TIC	373629m	Below Cal	
6) TPHg (C6-C10)	9.239	TIC	350593m	8.15 ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	424023m	Below Cal	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102805.D
Acq On : 28 Oct 2019 11:42 am
Operator : IMA
Sample : 9101631-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 28 13:48:39 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

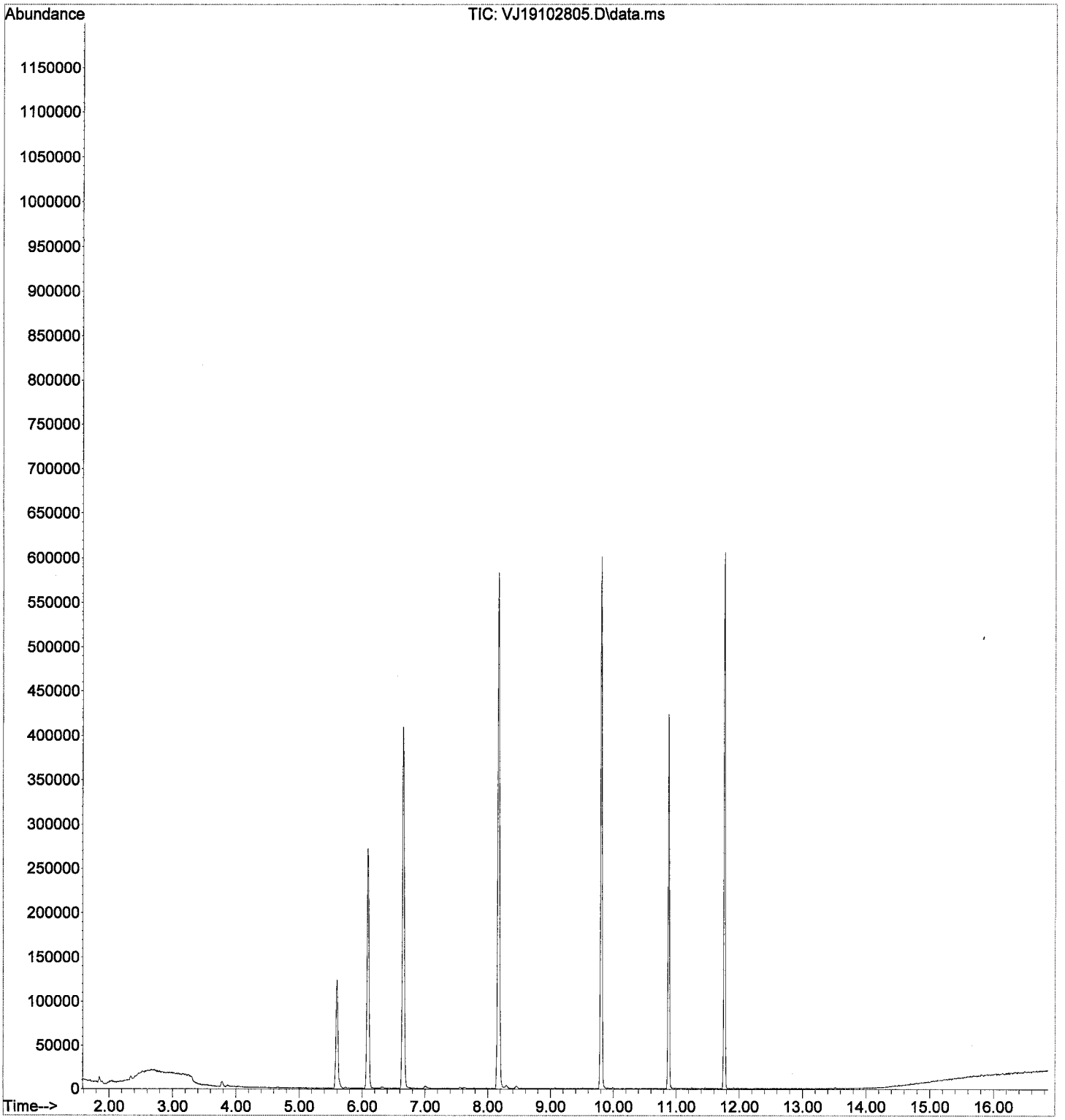
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	115556	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	312543	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	125846	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	87968	48.16	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	354699	49.89	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	436828	50.12	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	92940	51.15	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.898	50	1298	0.29	ug/L	<MDL	93
5) Bromomethane	2.342	96	3679	0.14	ug/L		95
6) Chloroethane	2.470	64	133	1.50	ug/L	#	1
8) Ethanol	3.303	45	1170	Below Cal			87
10) Carbon Disulfide	3.169	76	696	0.09	ug/L		96
12) Iodomethane	3.297	142	513	0.59	ug/L		74
13) Methylene Chloride	3.784	84	2646	0.12	ug/L		90
14) Acetone	3.857	43	1878	1.06	ug/L	#	42
18) tert-Butanol (TBA)	4.240	59	115	0.13	ug/L	#	1
28) Tetrahydrofuran	5.590	42	478	0.20	ug/L	#	36
32) 2-Butanone (MEK)	5.736	43	1186	0.38	ug/L		52
36) iso-Butyl Alcohol	6.314	43	815	2.29	ug/L	#	35
58) m,p-Xylenes (2)	9.995	91	902	0.09	ug/L		91
84) Naphthalene	13.517	128	1233	0.13	ug/L		72

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102805.D
Acq On : 28 Oct 2019 11:42 am
Operator : IMA
Sample : 9101631-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 28 13:48:39 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\9J28034\
Data File : VJ19102810.D
Acq On : 28 Oct 2019 1:56 pm
Operator : IMA
Sample : A9J0954-02RE1
Misc : 50X 5g/5mLx1000uL/50mL 8260
ALS Vial : 10 Sample Multiplier: 1

IMA
10/29/19

Quant Time: Oct 29 12:08:17 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

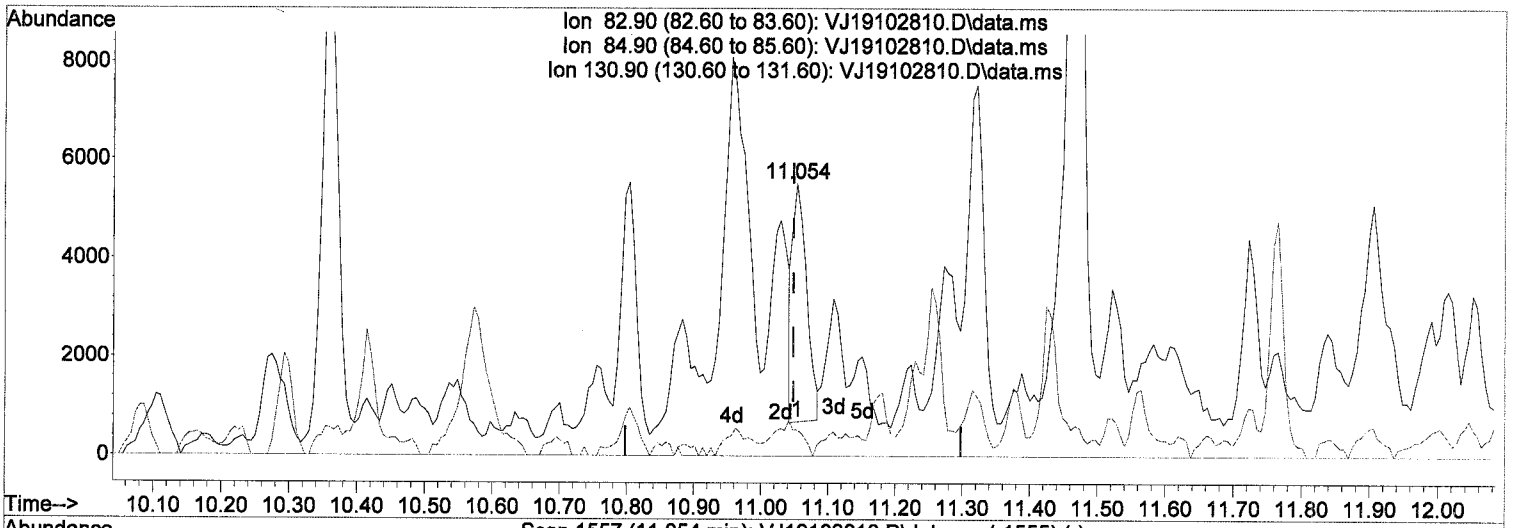
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	119072	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	345364	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	149513	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	106888	56.79	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	372976	50.92	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	464400	48.22	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.877	174	111603	51.70	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.904	50	950	0.20	ug/L	<MDL	94
5) Bromomethane	2.348	96	3272	Below Cal			95
6) Chloroethane	2.463	64	157	1.54	ug/L	#	16
8) Ethanol	3.315	45	58	Below Cal		#	29
10) Carbon Disulfide	3.163	76	903	0.11	ug/L		93
12) Iodomethane	3.303	142	270	0.30	ug/L	#	47
13) Methylene Chloride	3.790	84	3296	0.33	ug/L		95
14) Acetone	3.869	43	5300	2.92	ug/L		97
18) tert-Butanol (TBA)	4.252	59	1307	1.40	ug/L	#	55
32) 2-Butanone (MEK)	5.743	43	1552	0.48	ug/L		52
36) iso-Butyl Alcohol	6.320	43	682	1.86	ug/L	#	58
39) tert-Amyl ethyl ether ...	6.880	59	771	0.11	ug/L	#	65
48) 4-Methyl-2-Pentanone (...	8.687	43	2623	0.52	ug/L	#	49
50) 1,1,2-Trichloroethane	8.863	97	263	0.08	ug/L	#	12
54) 2-Hexanone	9.557	43	417	0.11	ug/L	#	1
59) o-Xylene	10.378	91	1940	0.18	ug/L		69
60) Styrene	10.427	104	563	0.24	ug/L	#	59
62) Isopropylbenzene	10.652	105	2422	0.19	ug/L		85
66) n-Propylbenzene	10.993	91	2940	0.18	ug/L		88
67) 1,1,2,2-Tetrachloroethane	~~11.054~~	~~83~~	~~7112~~	~~1.51 ug/L~~		~~#~~	~~32~~ MI. 0.68 ↑MDL = RL
68) 2-Chlorotoluene	11.120	126	381	0.13	ug/L	# <MDL	1
70) 1,2,3-Trichloropropane	~~11.181~~	~~110~~	~~1314~~	~~0.87 ug/L~~		~~#~~	1 QDEL
75) sec-Butylbenzene	11.546	105	3345	0.26	ug/L	<MDL	60
76) 4-Isopropyltoluene	11.662	119	834	0.09	ug/L		47
79) n-Butylbenzene	11.978	91	2573	0.27	ug/L		90
84) Naphthalene	13.511	128	101837	9.16	ug/L		97
85) 1,2,3-Trichlorobenzene	13.657	180	410	0.14	ug/L	# <MDL	1

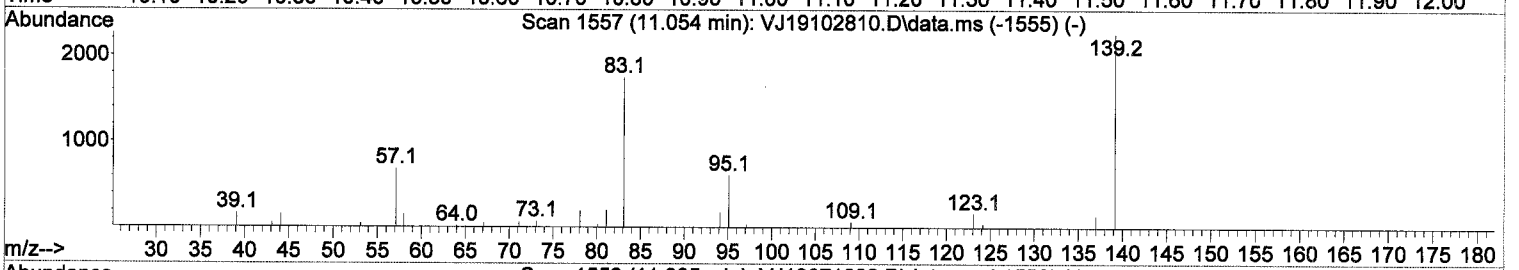
(#) = qualifier out of range (m) = manual integration (+) = signals summed

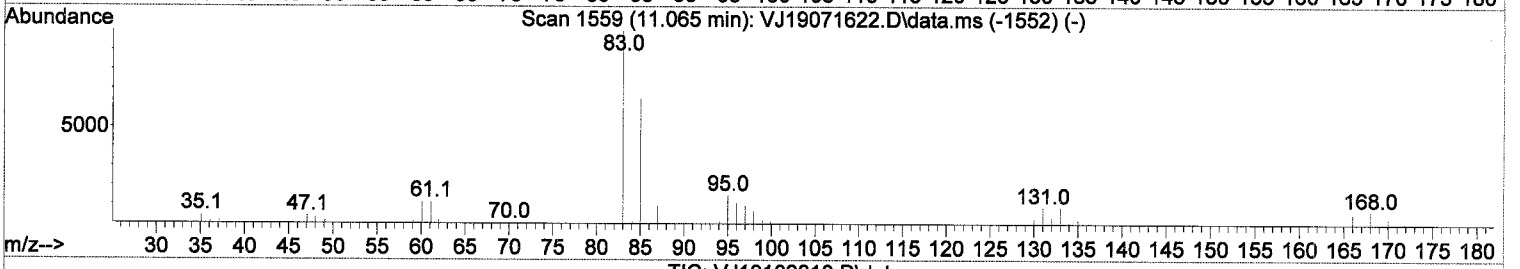
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102810.D
Acq On : 28 Oct 2019 1:56 pm
Operator : IMA
Sample : A9J0954-02RE1
Misc : 50X 5g/5mLx1000uL/50mL 8260
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 29 12:08:17 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: VJ19102810.D\data.ms

(67) 1,1,2,2-Tetrachloroethane (P)

11.054min (+ 0.006) 1.51 ug/L

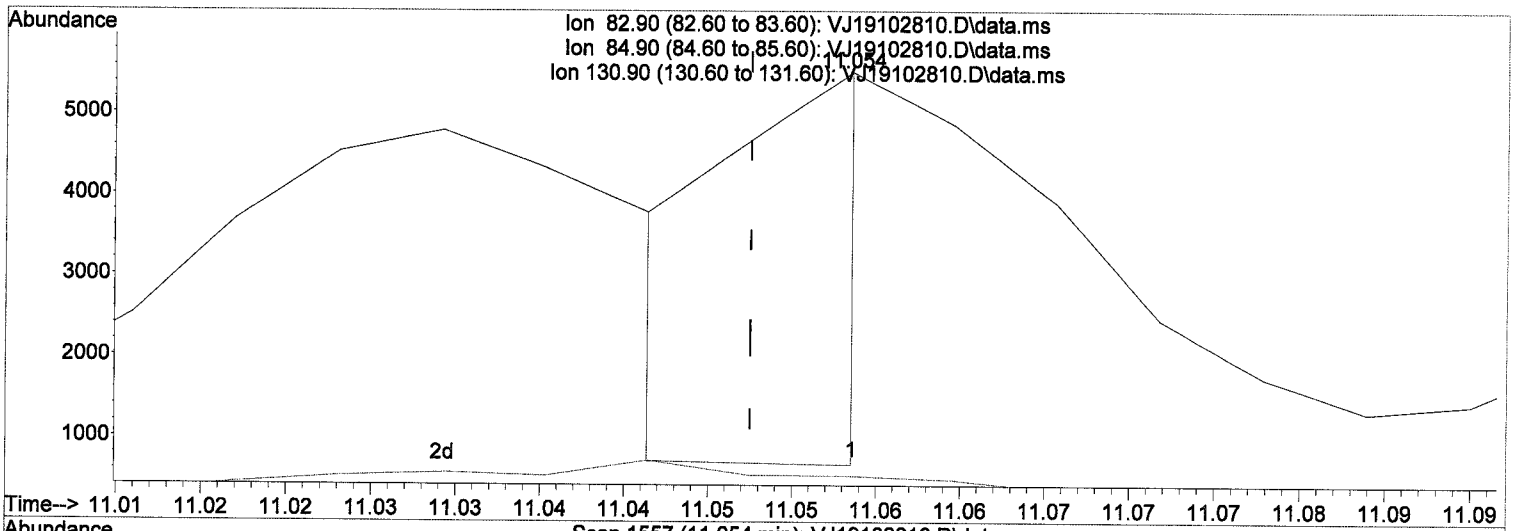
response 7112

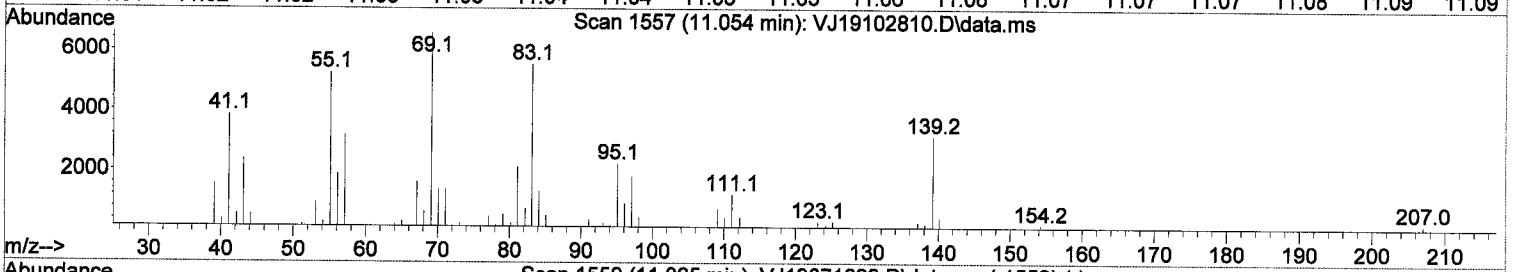
Ion	Exp%	Act%
82.90	100.00	100.00
84.90	66.40	6.80#
130.90	10.70	0.00
0.00	0.00	0.00

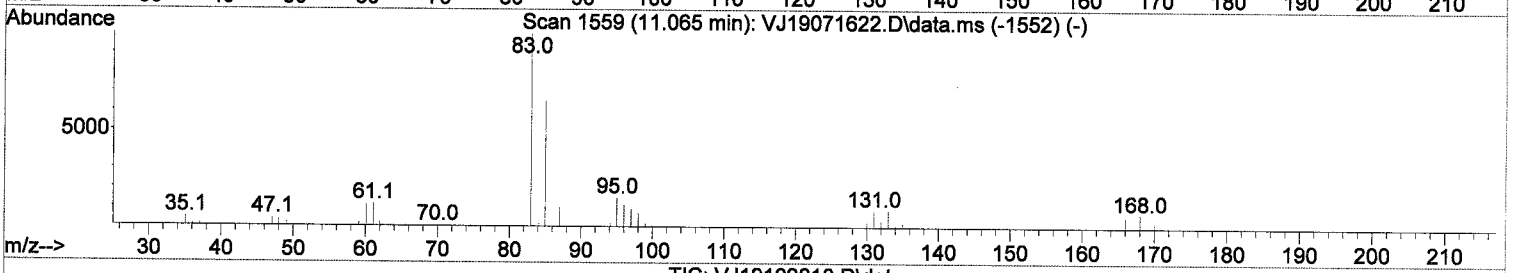
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102810.D
Acq On : 28 Oct 2019 1:56 pm
Operator : IMA
Sample : A9J0954-02RE1
Misc : 50X 5g/5mLx1000uL/50mL 8260
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 29 12:08:17 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: VJ19102810.D\data.ms

(67) 1,1,2,2-Tetrachloroethane (P)

11.054min (+ 0.006) 0.68 ug/L m IMA 10/29/19

response 3222

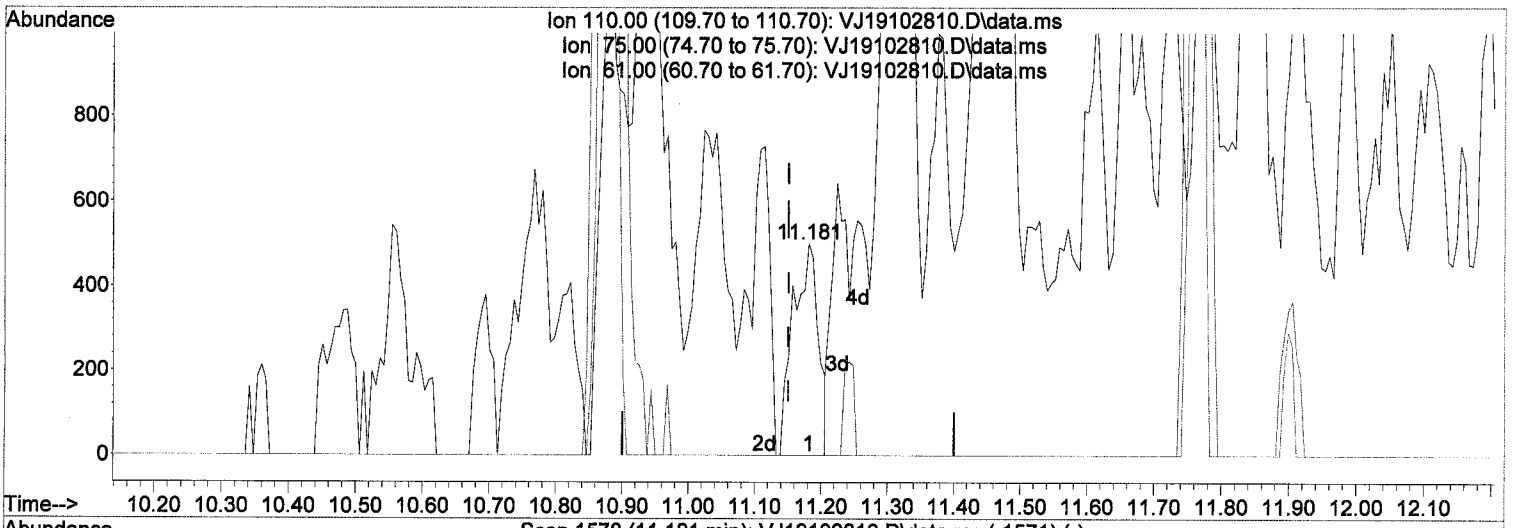
Ion	Exp%	Act%
82.90	100.00	100.00
84.90	66.40	9.49#
130.90	10.70	0.00
0.00	0.00	0.00

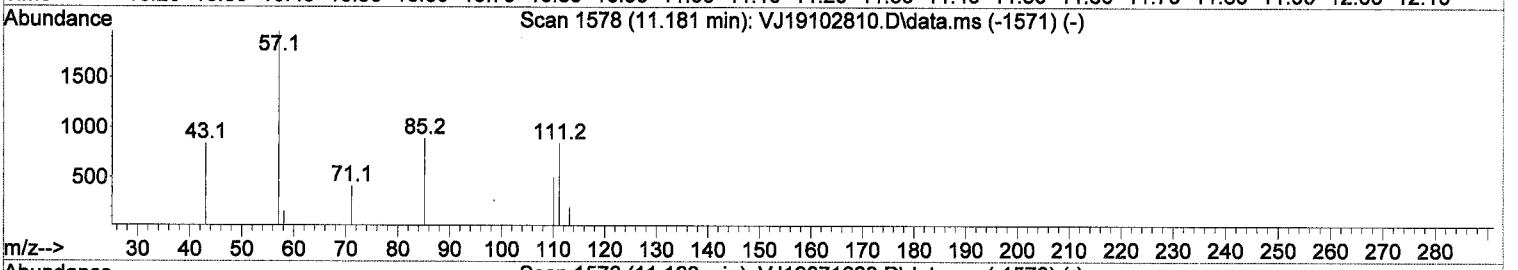
↑MDL = RL

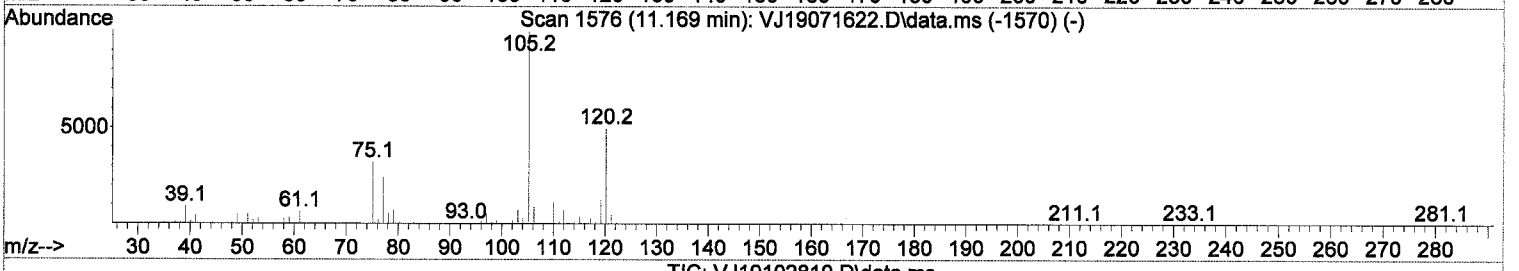
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102810.D
Acq On : 28 Oct 2019 1:56 pm
Operator : IMA
Sample : A9J0954-02RE1
Misc : 50X 5g/5mLx1000uL/50mL 8260
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 29 12:08:17 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: VJ19102810.D\data.ms

(70) 1,2,3-Trichloropropane

11.181min (+ 0.031) 0.87 ug/L

response 1314

Ion	Exp%	Act%
110.00	100.00	100.00
75.00	266.80	0.00#
61.00	65.00	0.00#
0.00	0.00	0.00

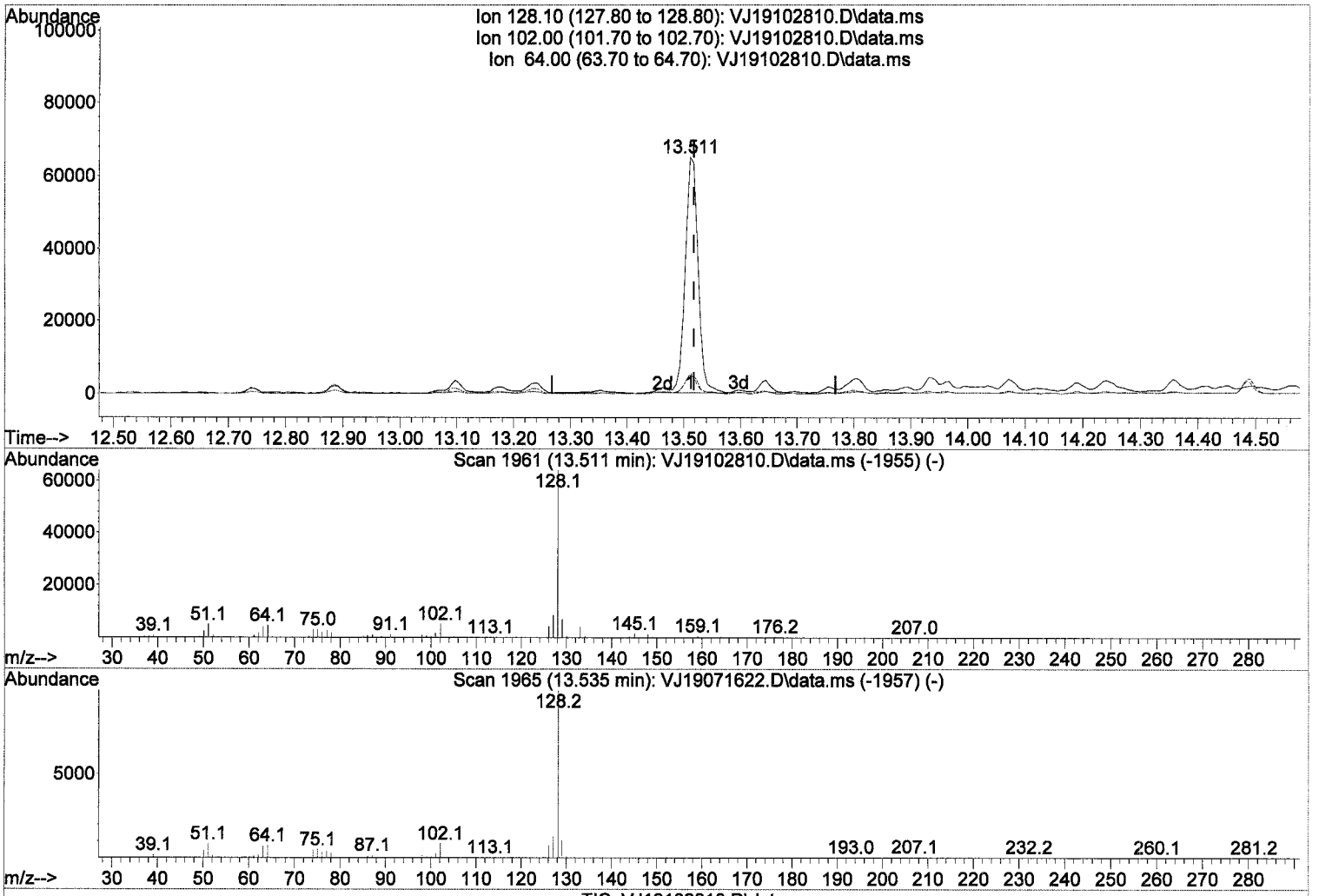
QDEL

IMA
10/29/19

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102810.D
Acq On : 28 Oct 2019 1:56 pm
Operator : IMA
Sample : A9J0954-02RE1
Misc : 50X 5g/5mLx1000uL/50mL 8260
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 29 12:08:17 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: VJ19102810.D\data.ms

(84) Naphthalene

13.511min (-0.006) 9.16 ug/L

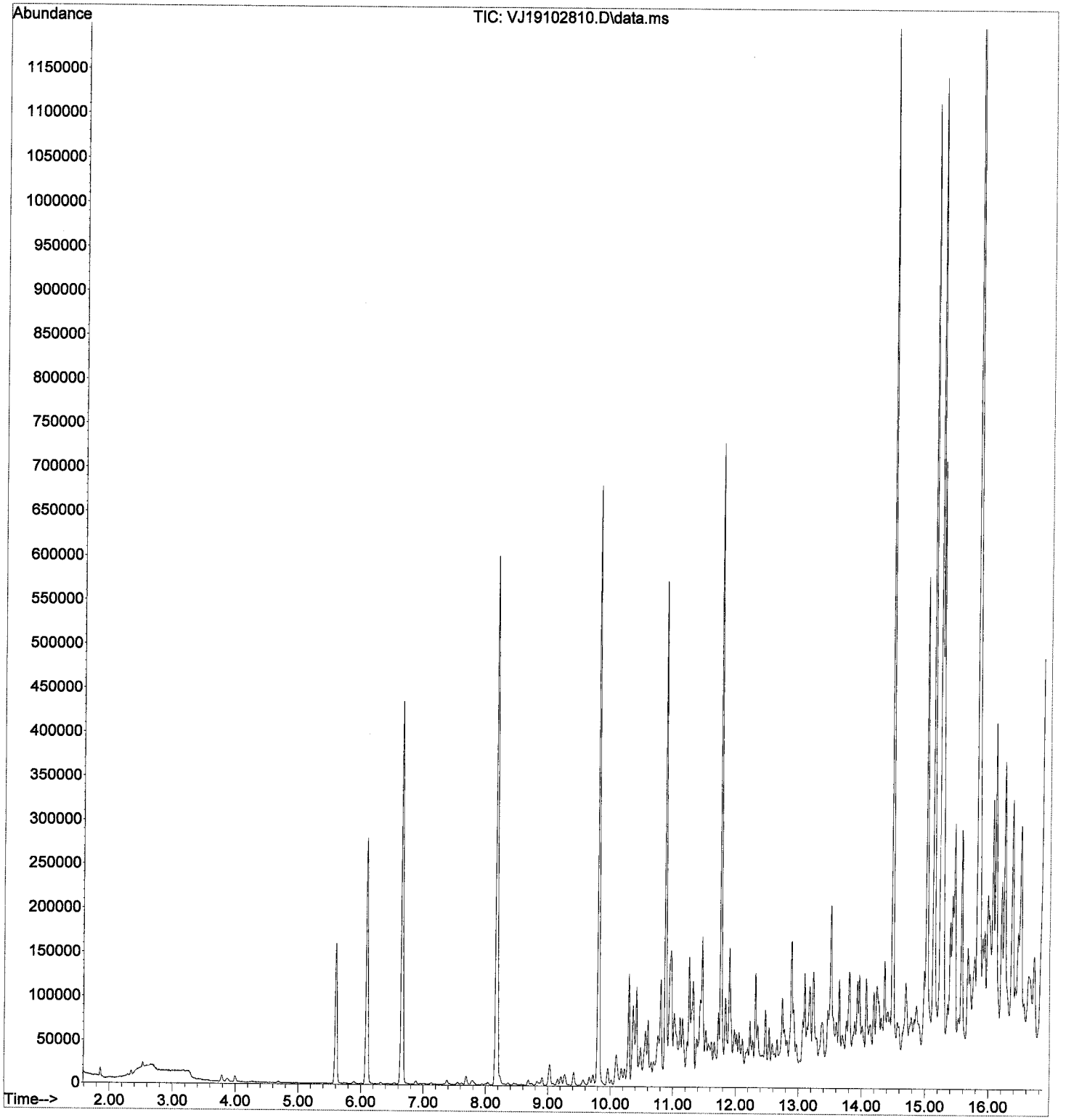
response 101837

Ion	Exp%	Act%
128.10	100.00	100.00
102.00	7.90	8.48
64.00	6.30	7.59
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102810.D
Acq On : 28 Oct 2019 1:56 pm
Operator : IMA
Sample : A9J0954-02RE1
Misc : 50X 5g/5mLx1000uL/50mL 8260
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 29 12:08:17 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\9J28034\
Data File : VJ19102811.D
Acq On : 28 Oct 2019 2:23 pm
Operator : IMA
Sample : A9J0954-01RE1@5000
Misc : 5000X 5g/5mLx10uL/50mL ~~8260~~ N only
ALS Vial : 11 Sample Multiplier: 1

IMA
10/29/19

Quant Time: Oct 29 12:08:20 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

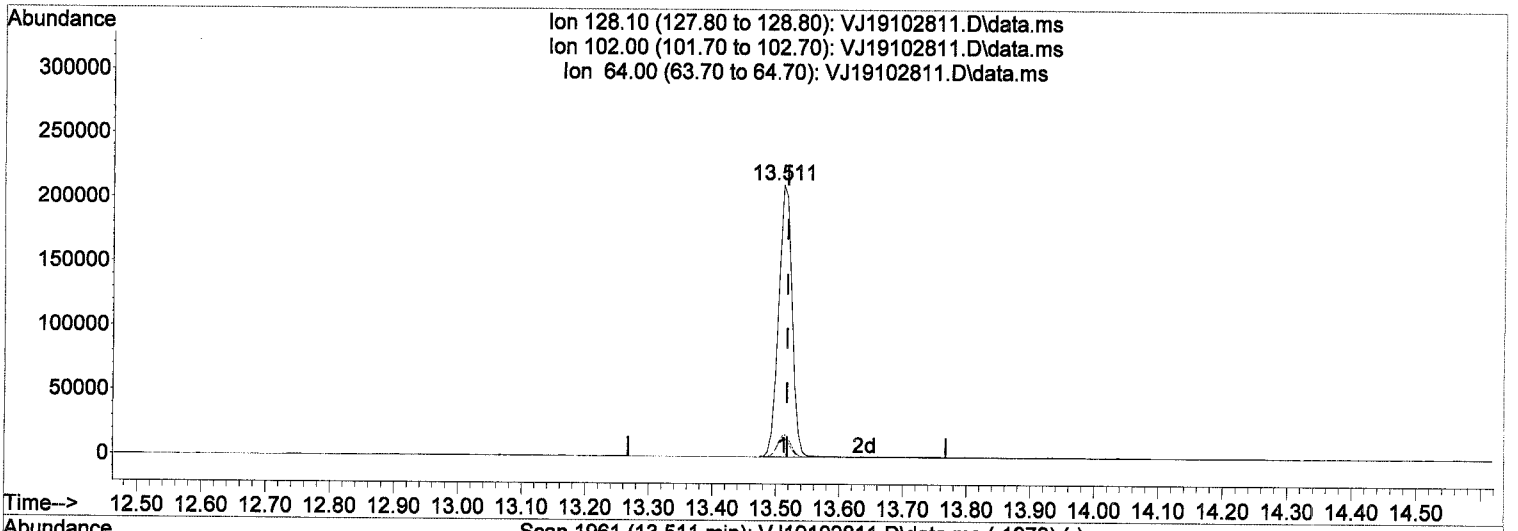
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	127581	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	359671	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	153911	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.596	111	97367	48.28	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	399542	50.91	ug/L		0.00
45) Toluene-d8 (S)	8.170	98	491543	49.01	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	112893	50.80	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.898	50	1034	0.21	ug/L		79
5) Bromomethane	2.348	96	3314	Below Cal			97
6) Chloroethane	2.482	64	322	1.84	ug/L	#	4
8) Ethanol	3.327	45	7121	Below Cal			96
12) Iodomethane	3.297	142	522	0.54	ug/L	#	47
13) Methylene Chloride	3.784	84	3847	0.44	ug/L		99
14) Acetone	3.875	43	2755	1.42	ug/L	#	42
28) Tetrahydrofuran	5.609	42	547	0.21	ug/L	#	30
32) 2-Butanone (MEK)	5.736	43	1210	0.35	ug/L		52
36) iso-Butyl Alcohol	6.327	43	800	2.04	ug/L		73
56) Ethylbenzene	9.861	91	1617	0.10	ug/L		83
58) m,p-Xylenes (2)	9.995	91	933	0.08	ug/L	#	34
74) 1,2,4-Trimethylbenzene	11.461	105	1399	0.13	ug/L		81
83) 1,2,4-Trichlorobenzene	13.244	180	479	0.15	ug/L	#	42
84) Naphthalene	13.511	128	311711	27.24	ug/L		98
85) 1,2,3-Trichlorobenzene	13.651	180	8621	2.78	ug/L	#	12

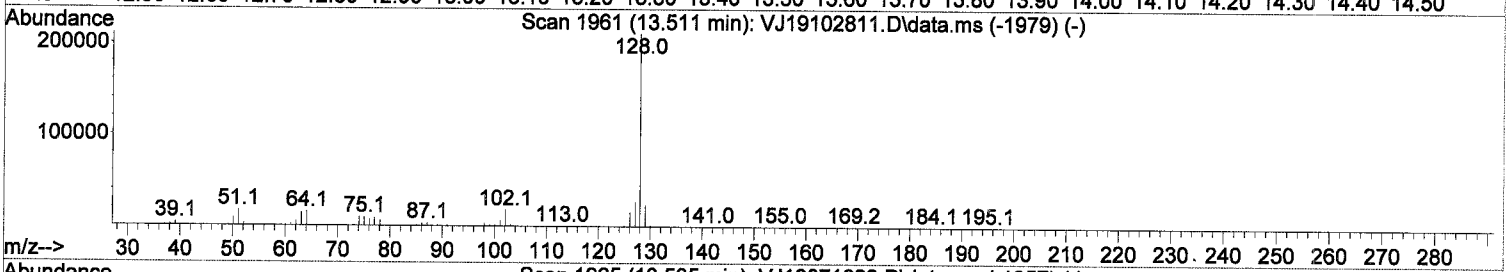
(#) = qualifier out of range (m) = manual integration (+) = signals summed

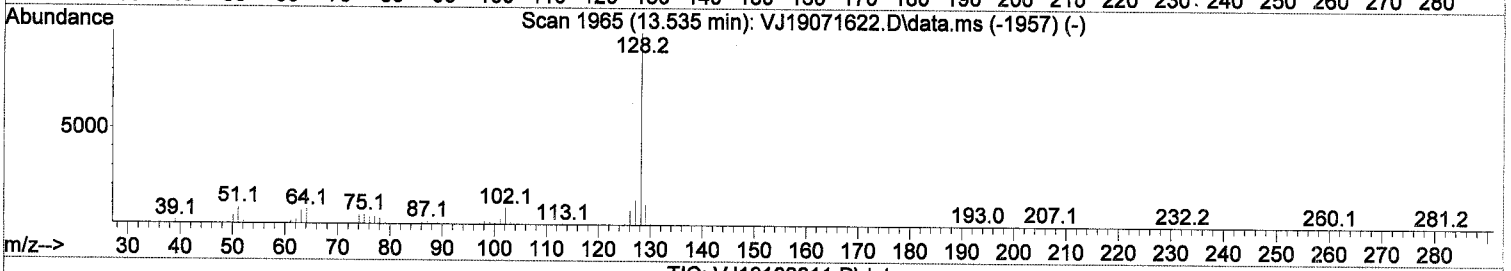
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102811.D
Acq On : 28 Oct 2019 2:23 pm
Operator : IMA
Sample : A9J0954-01RE1@5000
Misc : 5000X 5g/5mLx10uL/50mL 8260
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 29 12:08:20 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: VJ19102811.D\data.ms

(84) Naphthalene

13.511min (-0.006) 27.24 ug/L

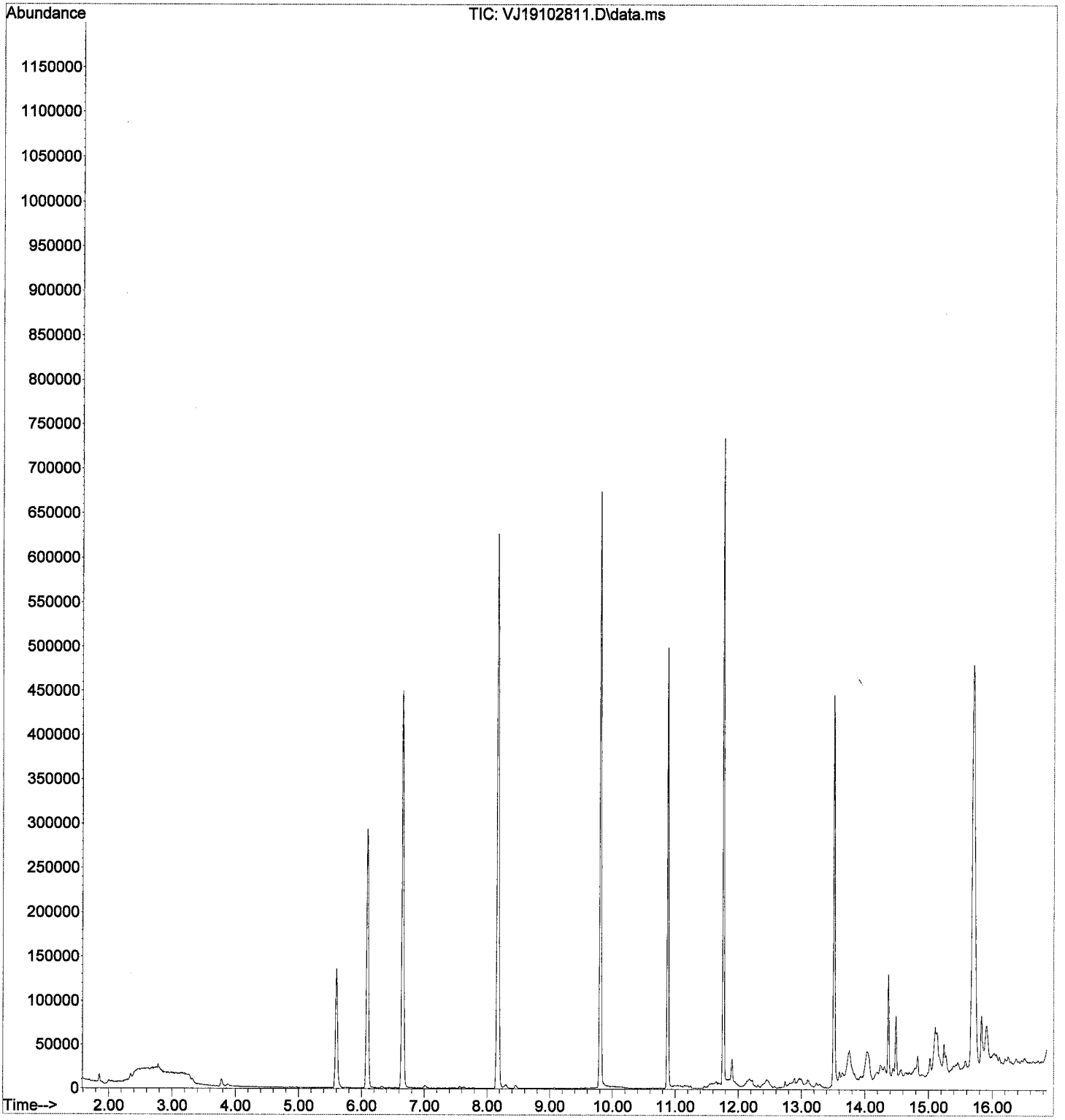
response 311711

Ion	Exp%	Act%
128.10	100.00	100.00
102.00	7.90	8.37
64.00	6.30	7.26
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J28034\
Data File : VJ19102811.D
Acq On : 28 Oct 2019 2:23 pm
Operator : IMA
Sample : A9J0954-01RE1@5000
Misc : 5000X 5g/5mLx10uL/50mL 8260
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 29 12:08:20 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

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

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

Method Path : C:\msdchem\1\methods\
Method File : VJ191024S.M
Title : EPA 8260C: Volatile Organic Compounds

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\
Method File : VJ191024S.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Thu Oct 24 08:55:09 2019
Response Via : Initial Calibration

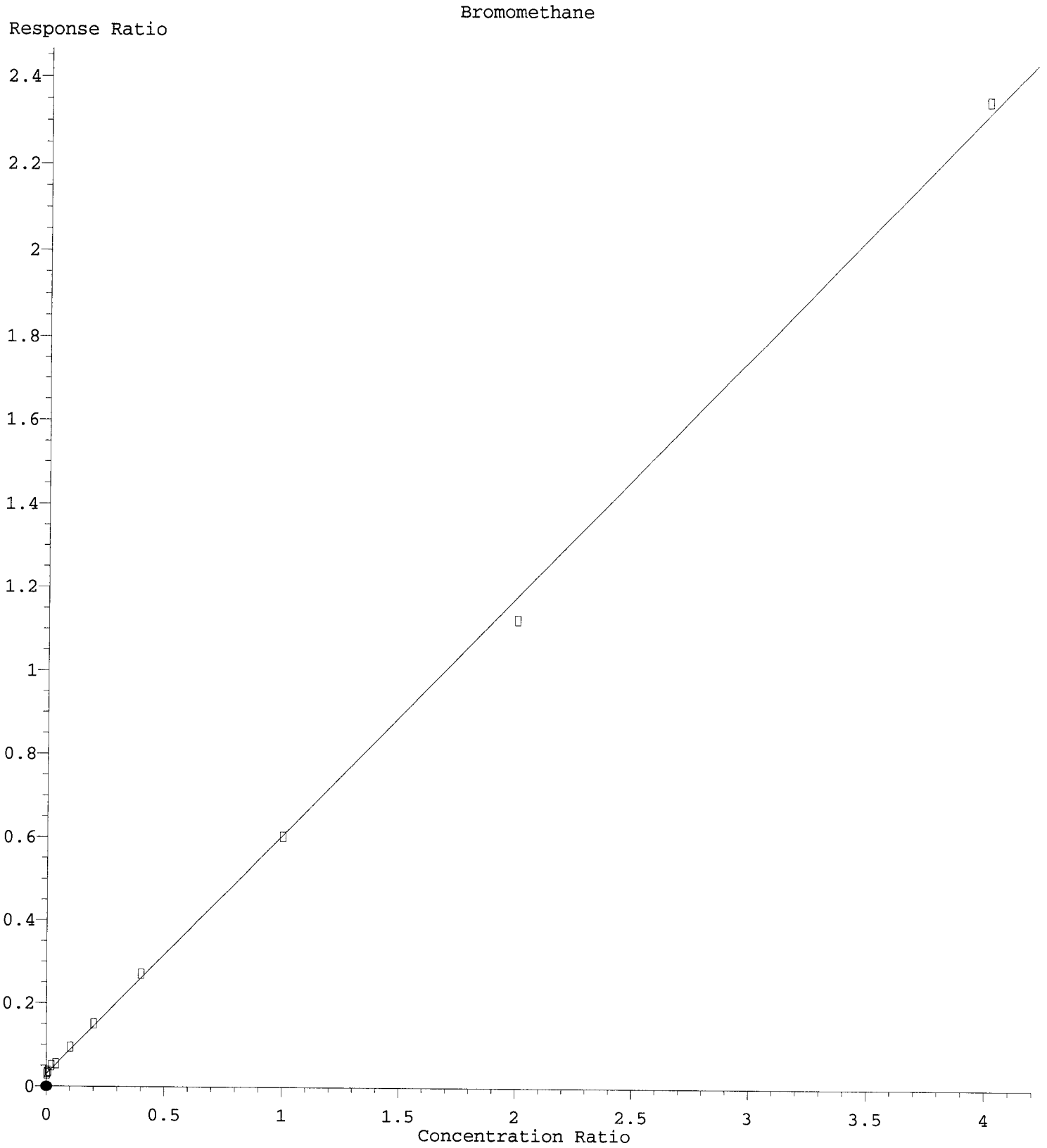
Total Cpnds : 85

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	9.313	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

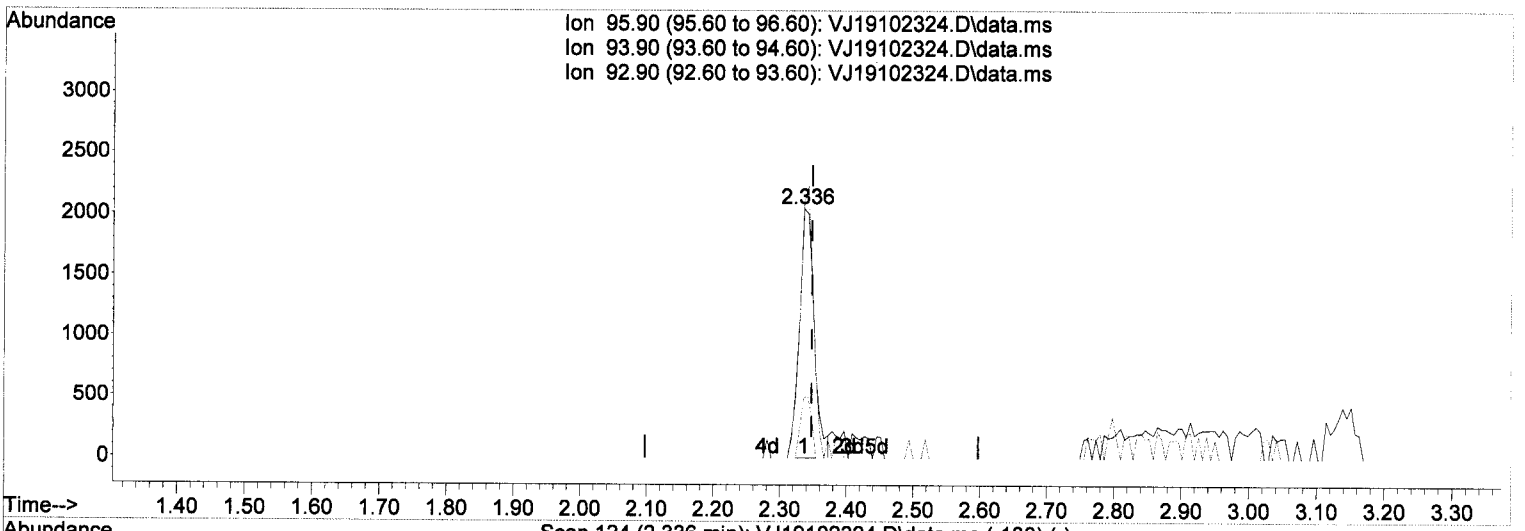


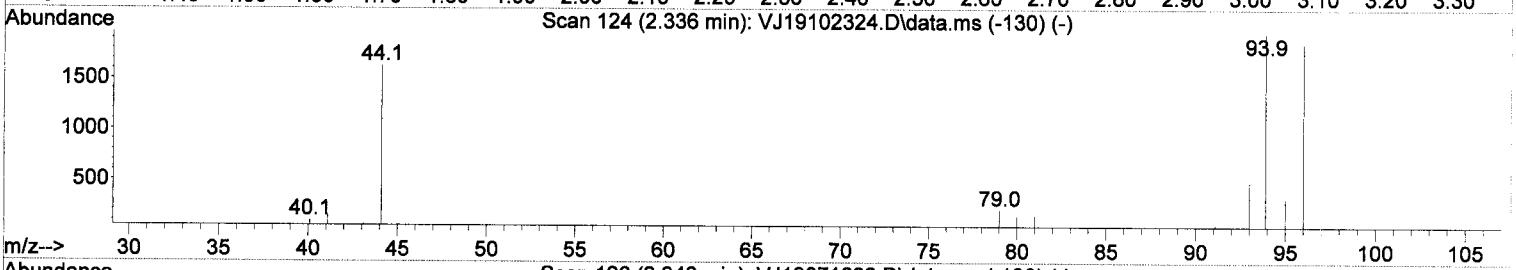
R = -1.25e-003 A*A + 5.77e-001 A + 3.02e-002
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\v191024s.M 12/26/19 Anchor QEA, LLC - Gasco DreRD DG 2019 -4c. Waste Characterization Page 666 of 2394
Calibration Table Last Updated: Thu Oct 24 08:55:53 2019

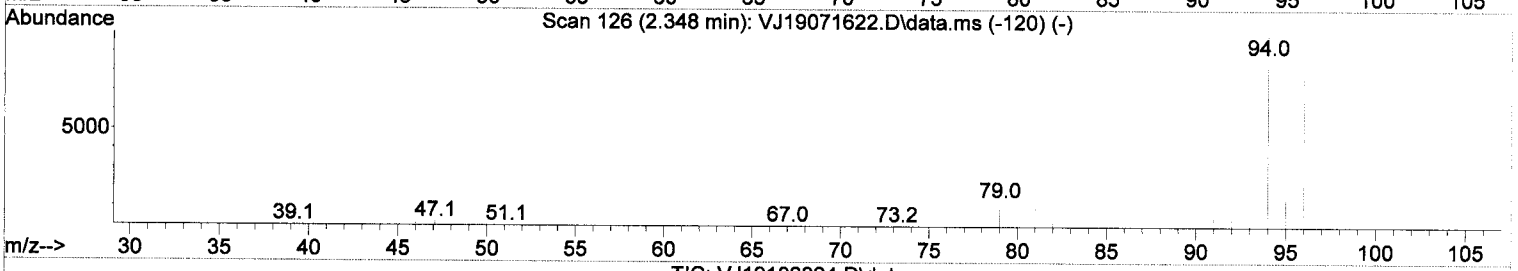
Quantitation Report (Qedit)

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







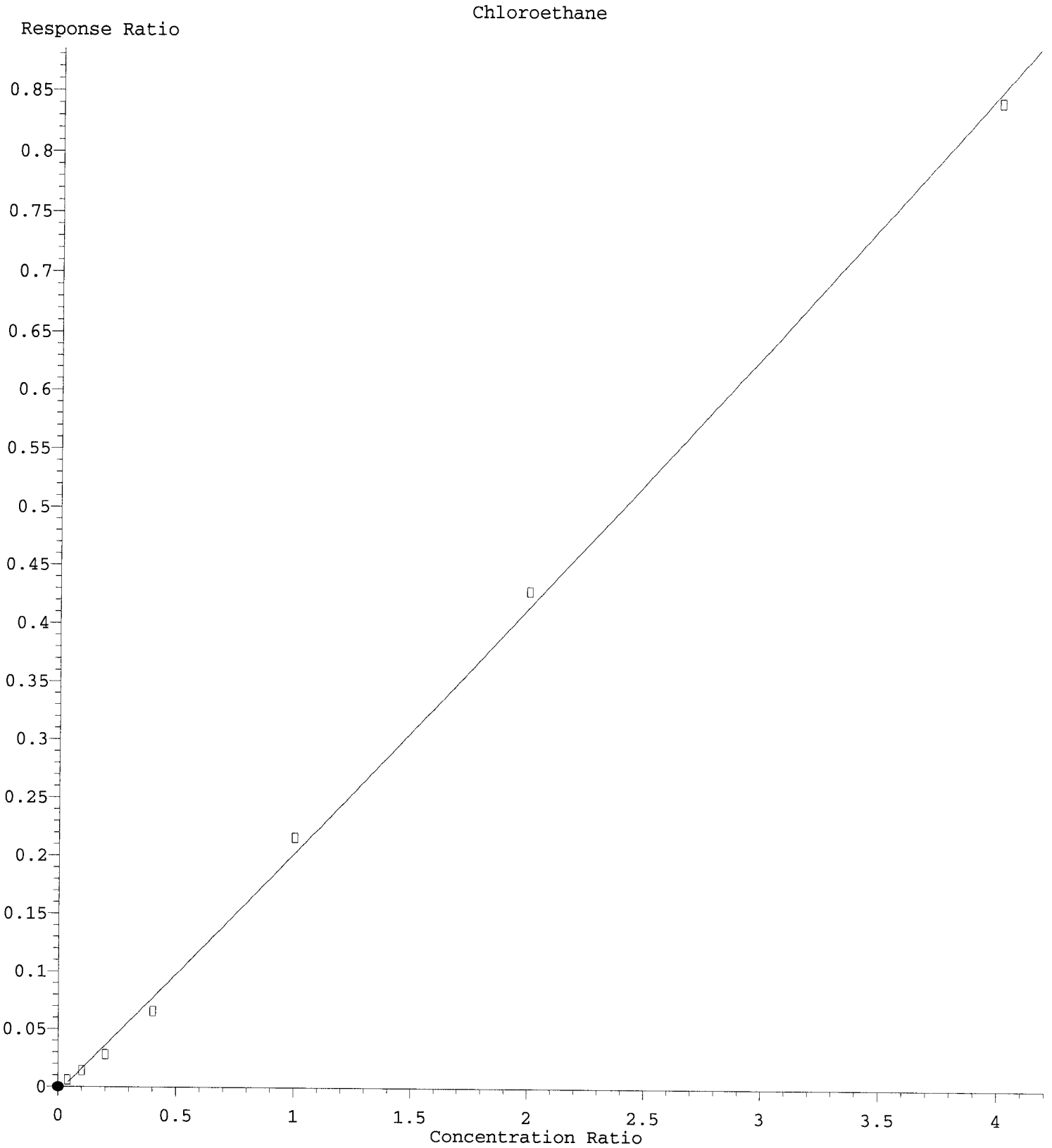
TIC: VJ19102324.D\data.ms

(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

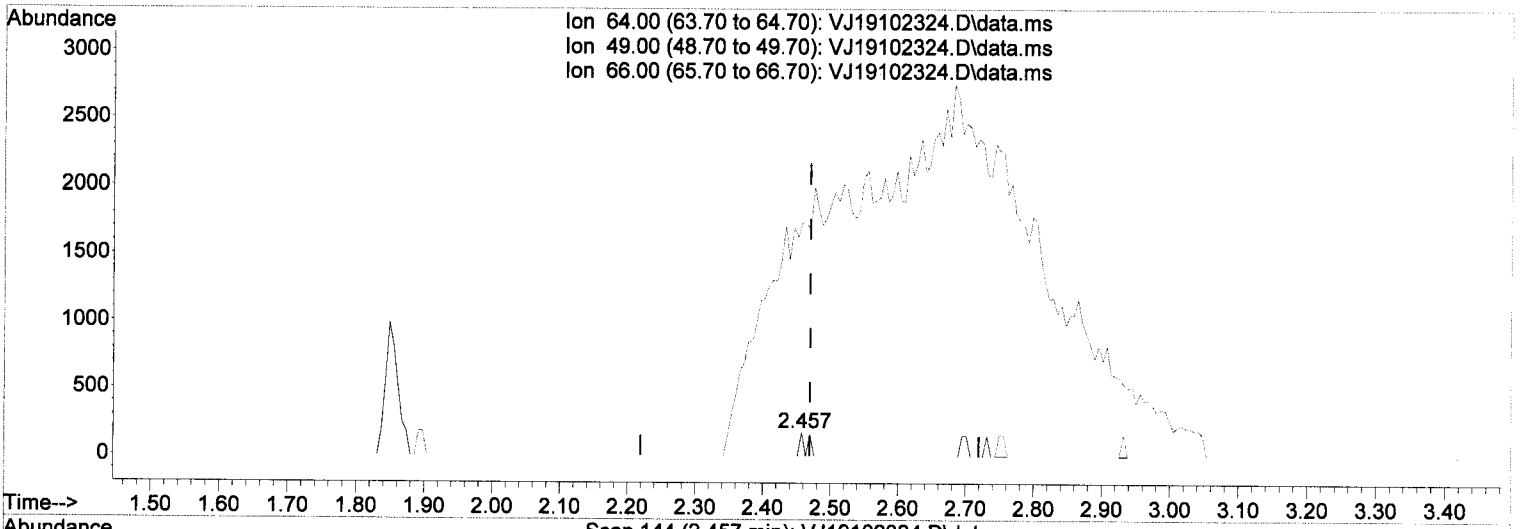


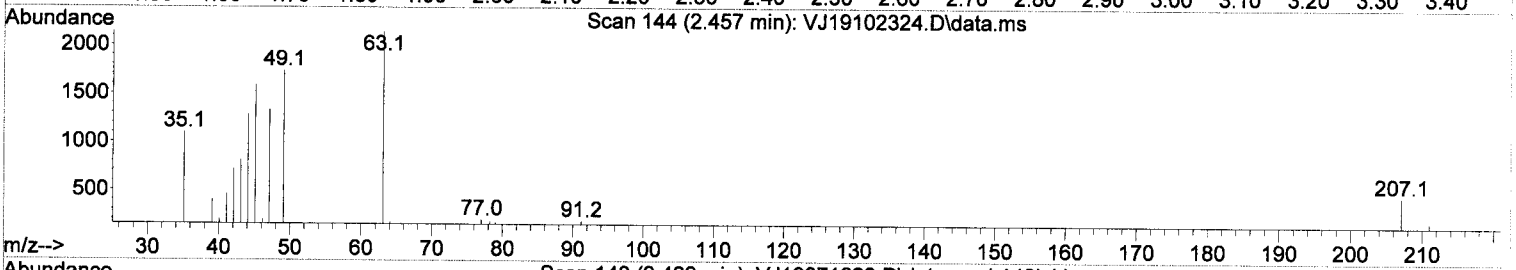
R = 2.15e-003 A*A + 2.06e-001 A - 5.03e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\v191024.M
Calibration Table Last Updated: Thu Oct 24 08:56:18 2019

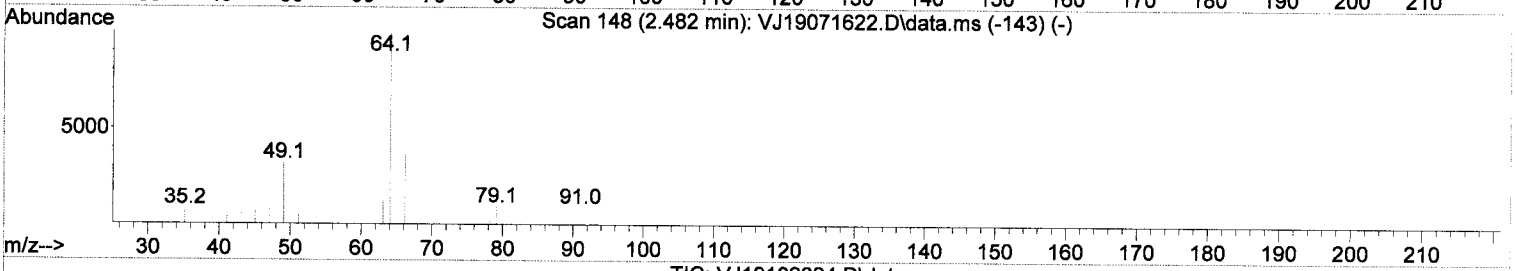
Quantitation Report (Qedit)

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







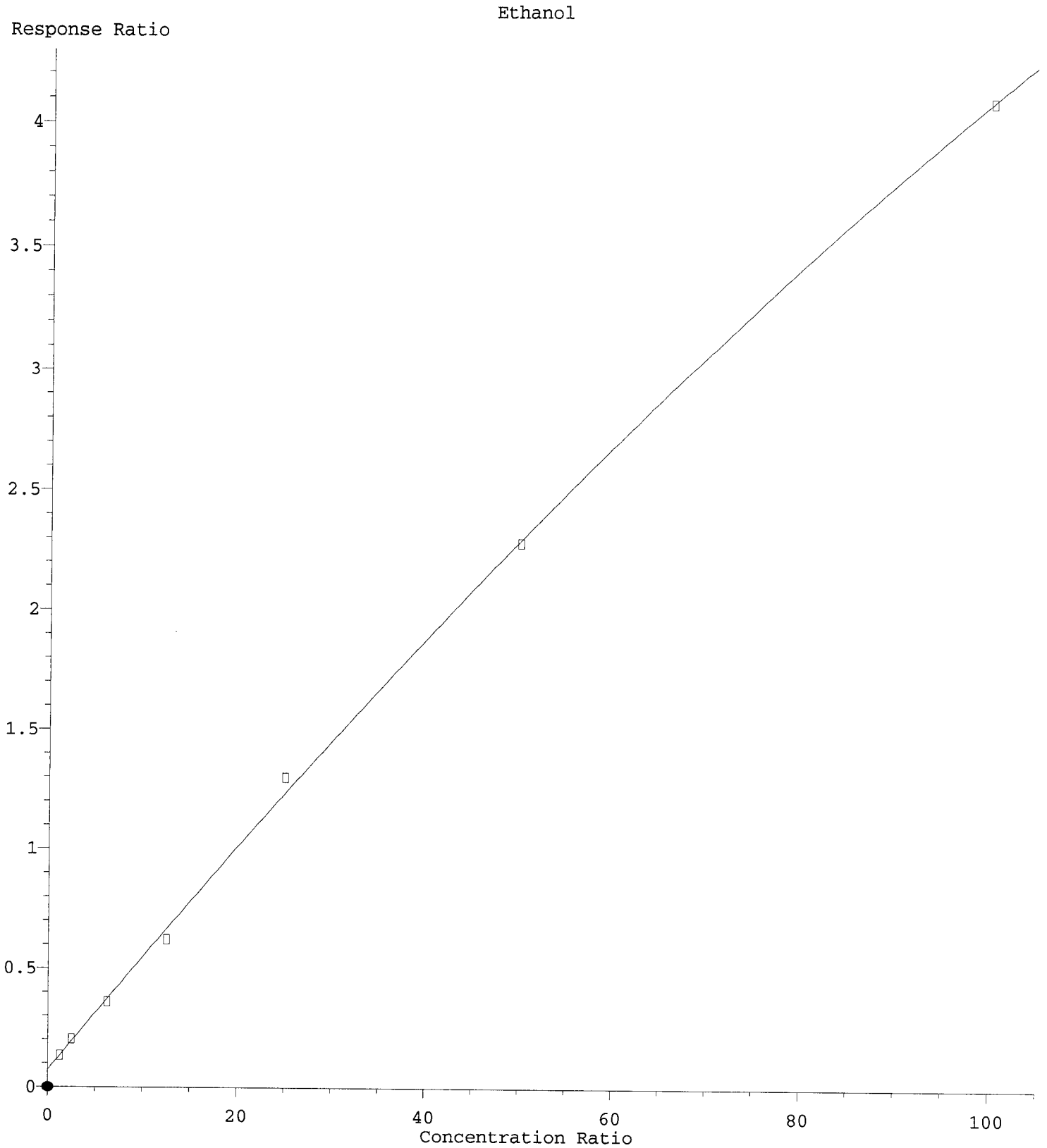
TIC: VJ19102324.D\data.ms

(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

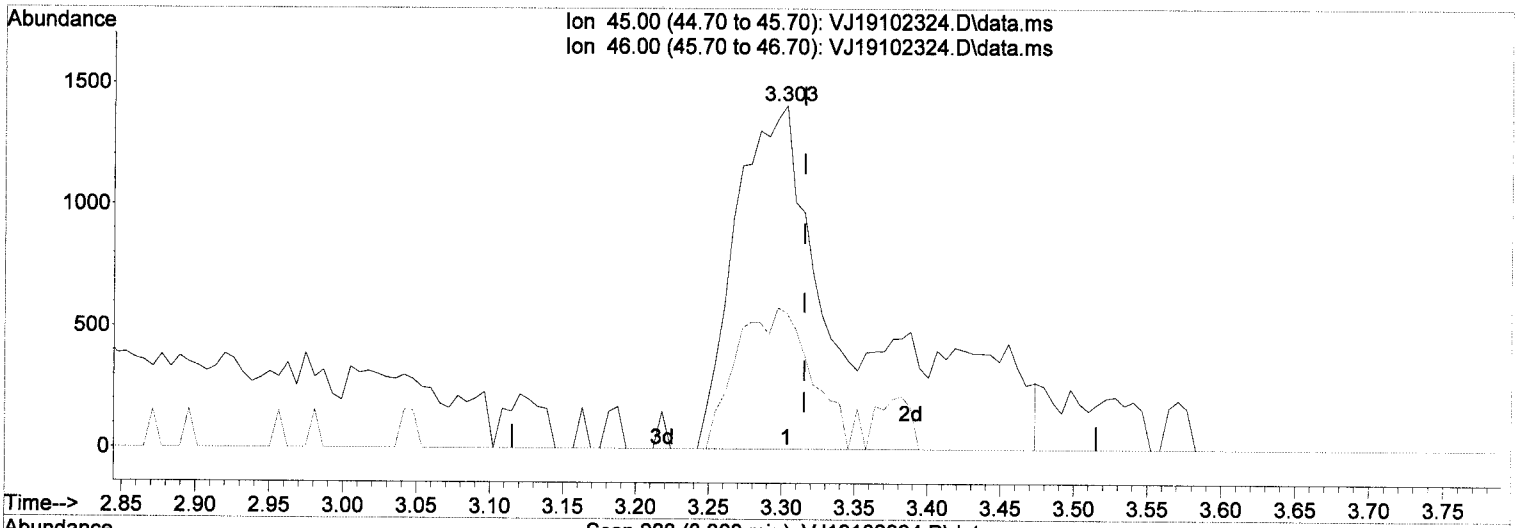


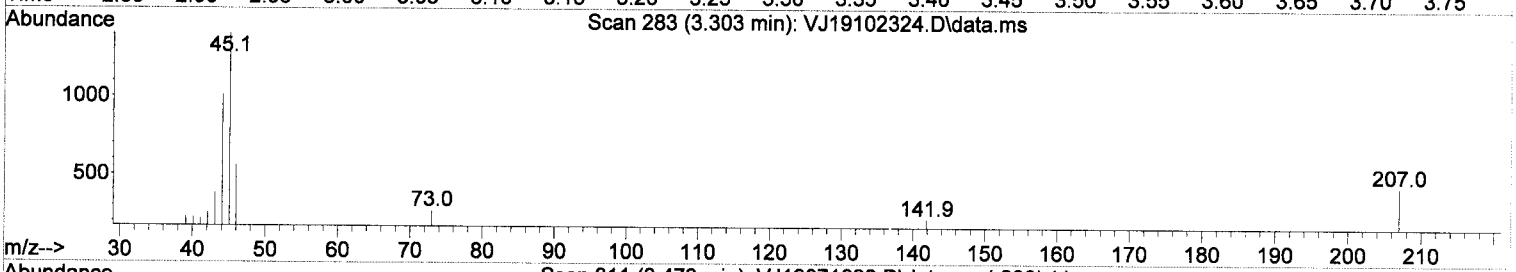
R = -8.41e-005 A*A + 4.86e-002 A + 7.24e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\Va1910245.M
Calibration Table Last Updated: Thu Oct 24 08:56:39 2019

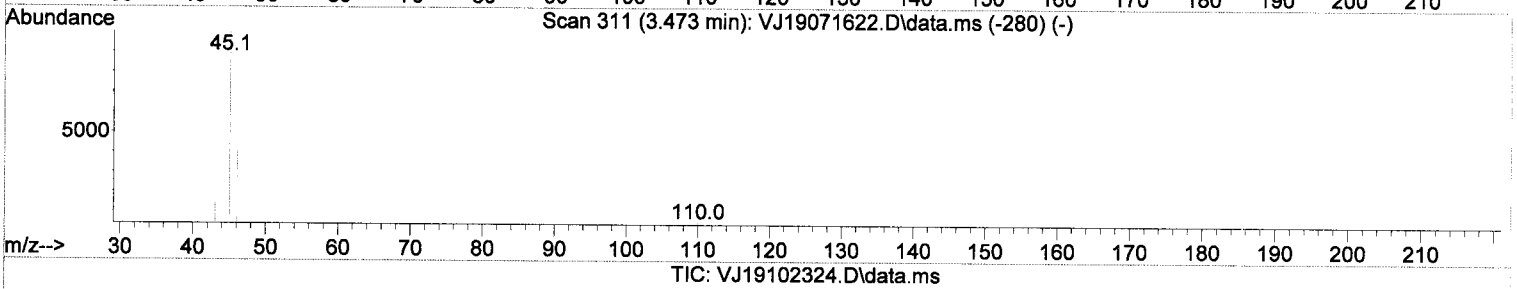
Quantitation Report (Qedit)

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







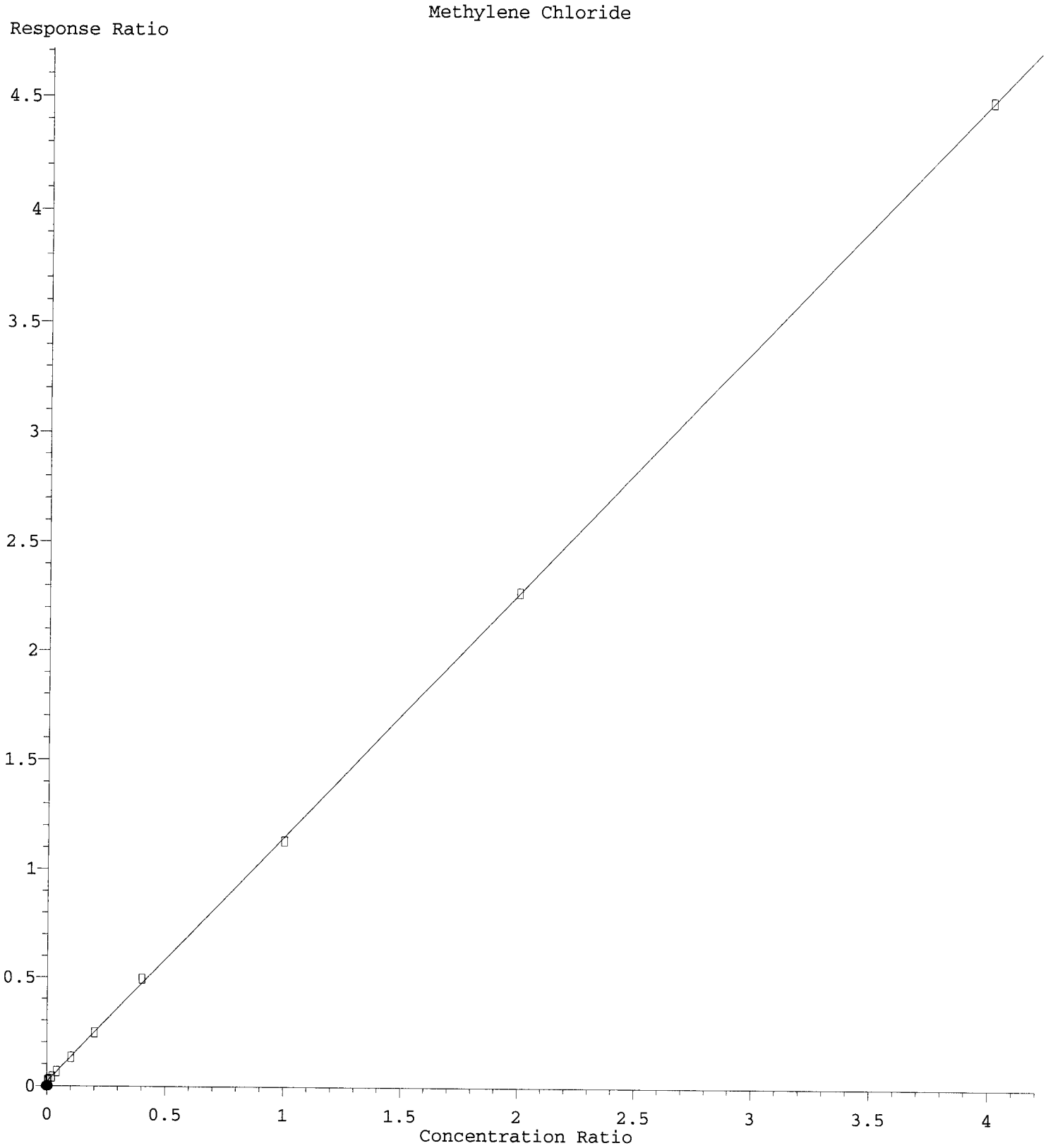
TIC: VJ19102324.D\data.ms

(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

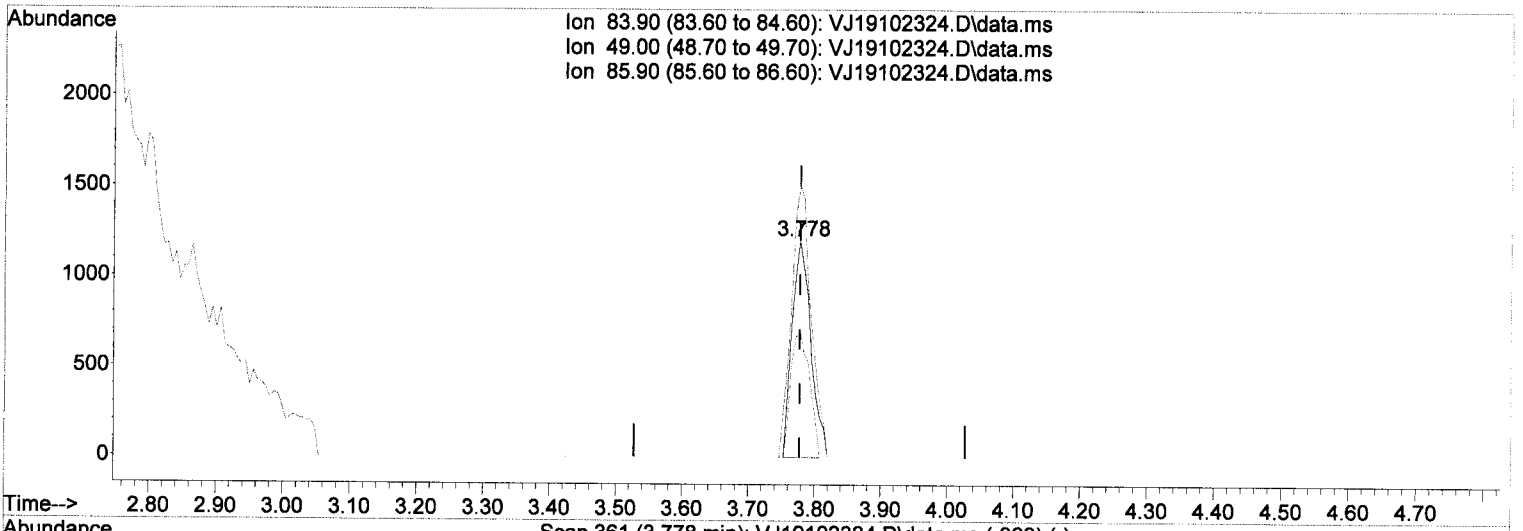


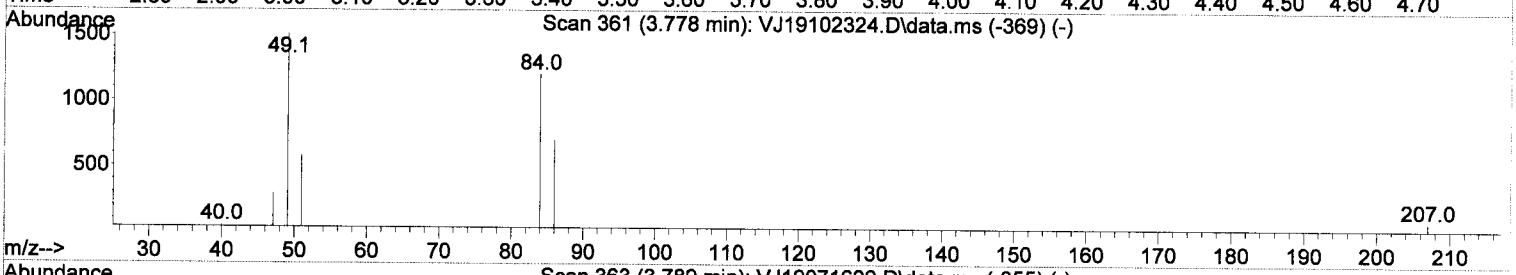
R = -4.57e-003 A*A + 1.13e+000 A + 2.02e-002
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VC191024R.M
Calibration Table Last Updated: Thu Oct 24 08:58:11 2019

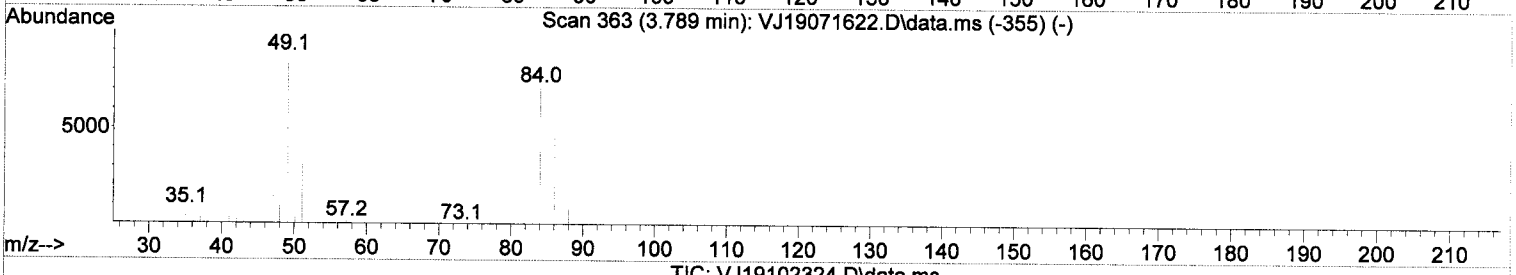
Quantitation Report (Qedit)

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







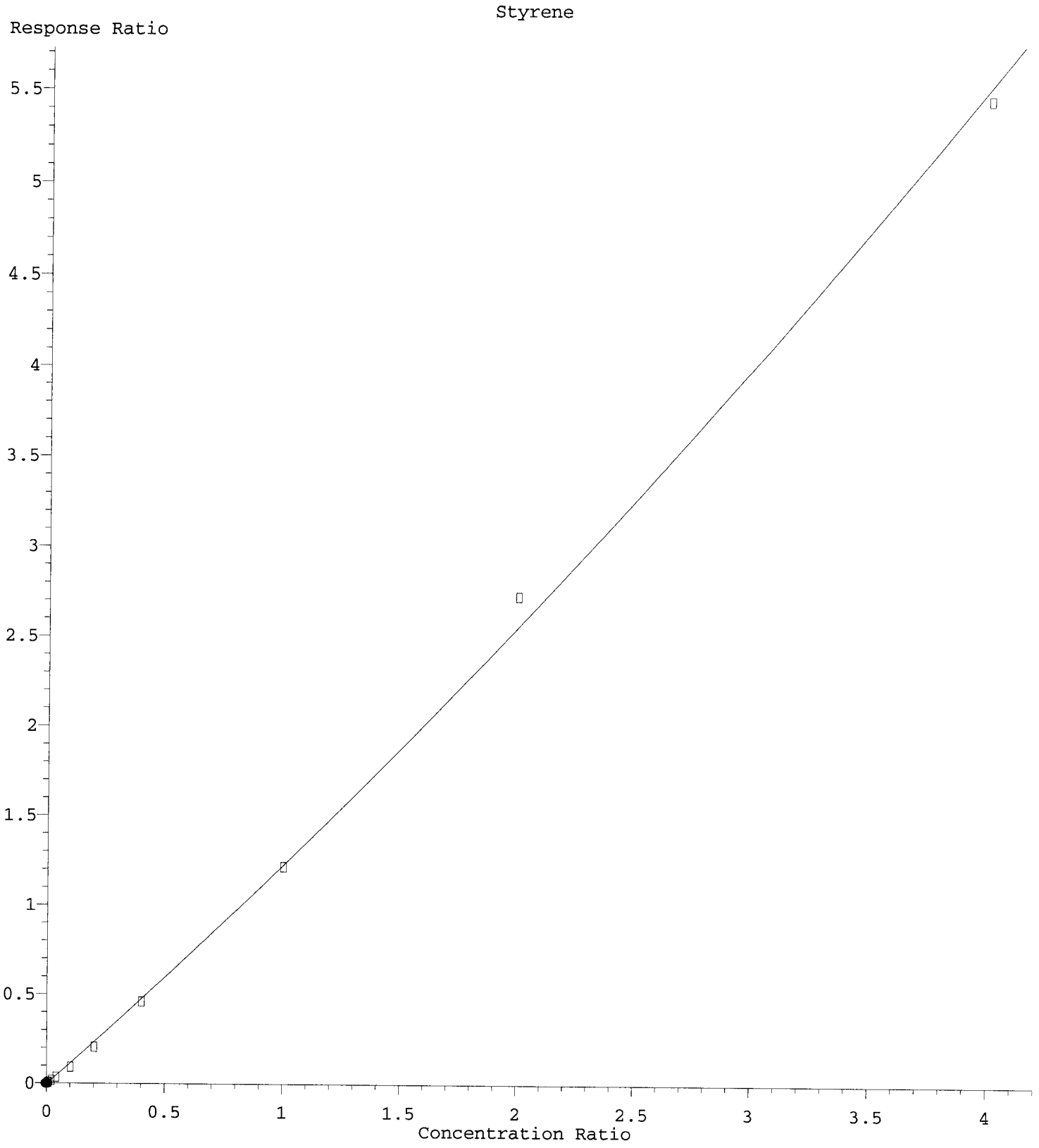
TIC: VJ19102324.D\data.ms

(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

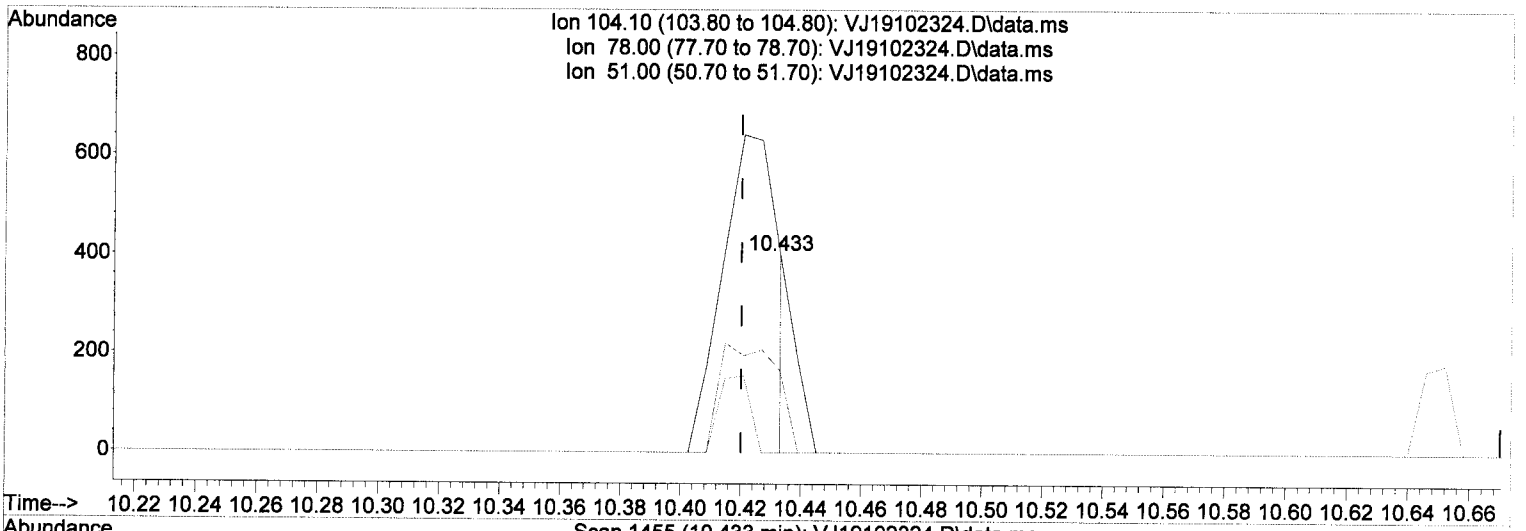


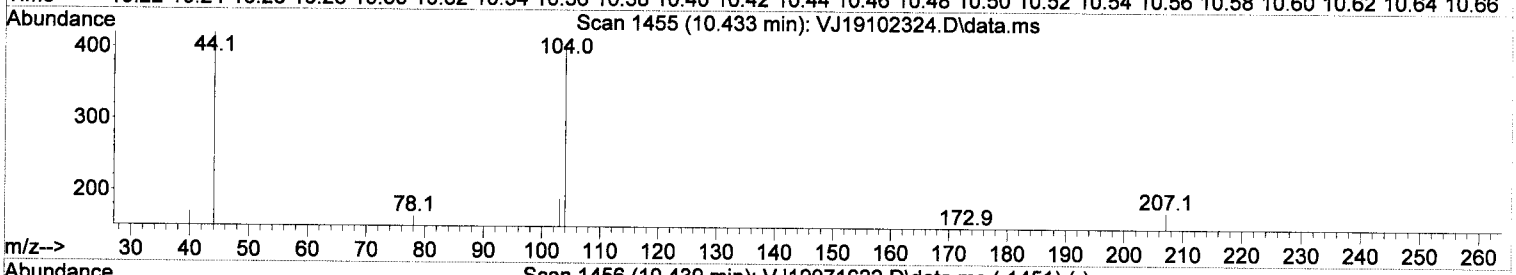
R = 5.07e-002 A*A + 1.18e+000 A - 4.08e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VOA_10-1024.M
Calibration Table Last Updated: Thu Oct 24 09:02:33 2019

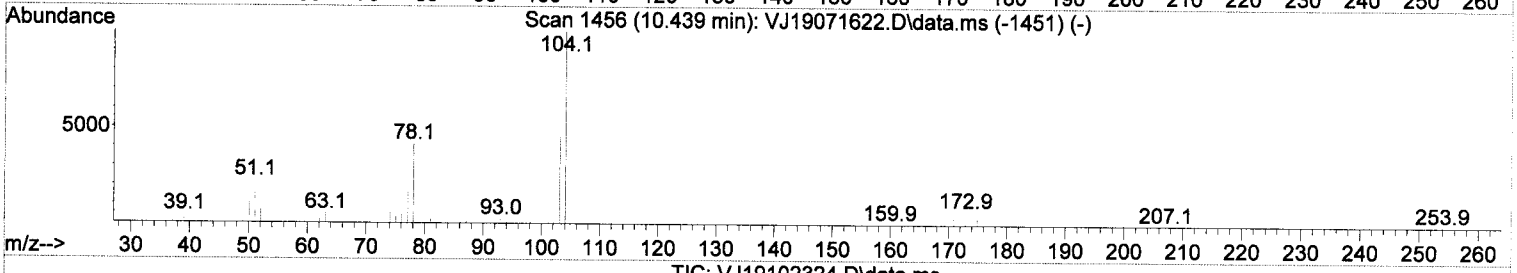
Quantitation Report (Qedit)

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







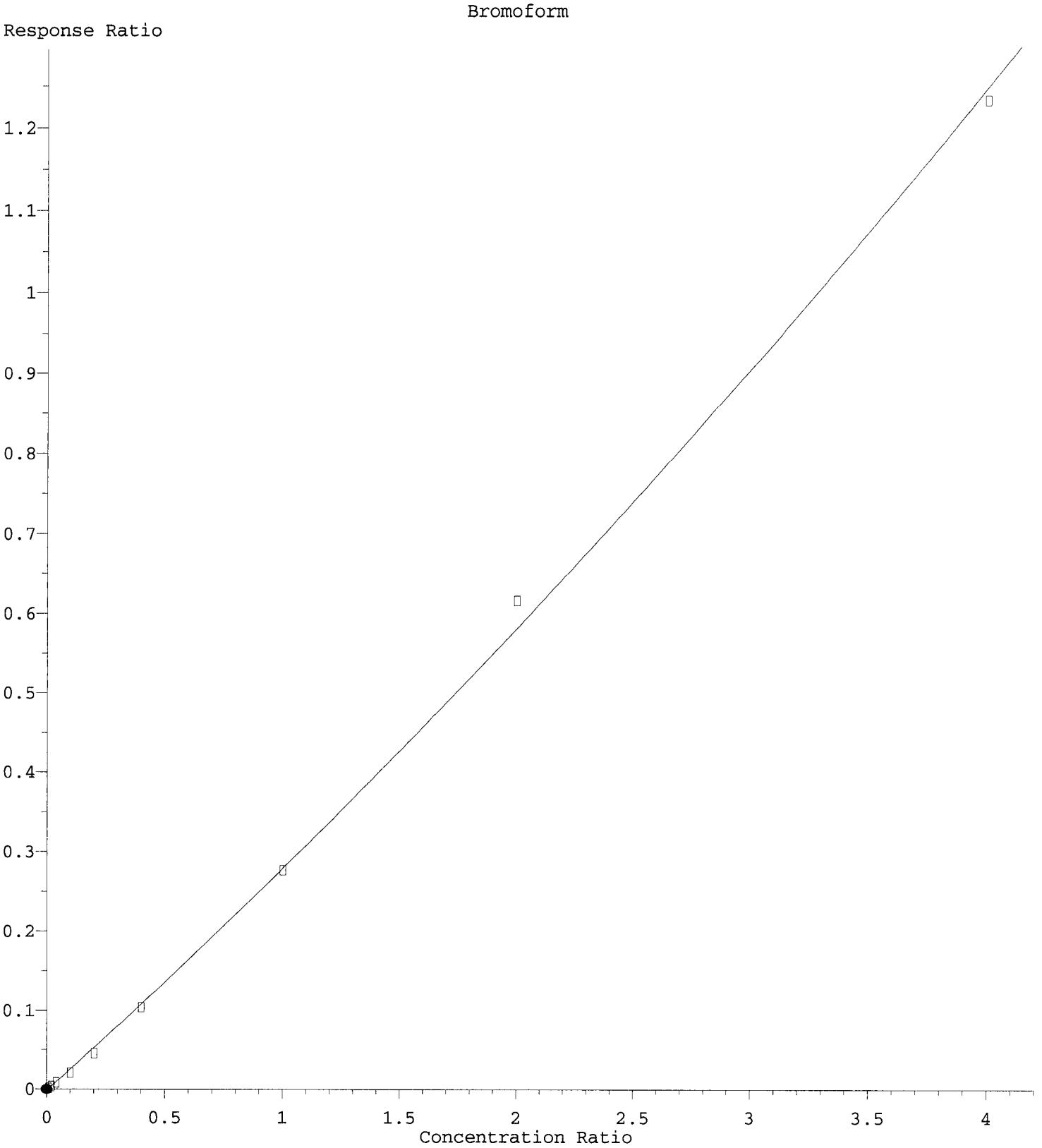
TIC: VJ19102324.D\data.ms

(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

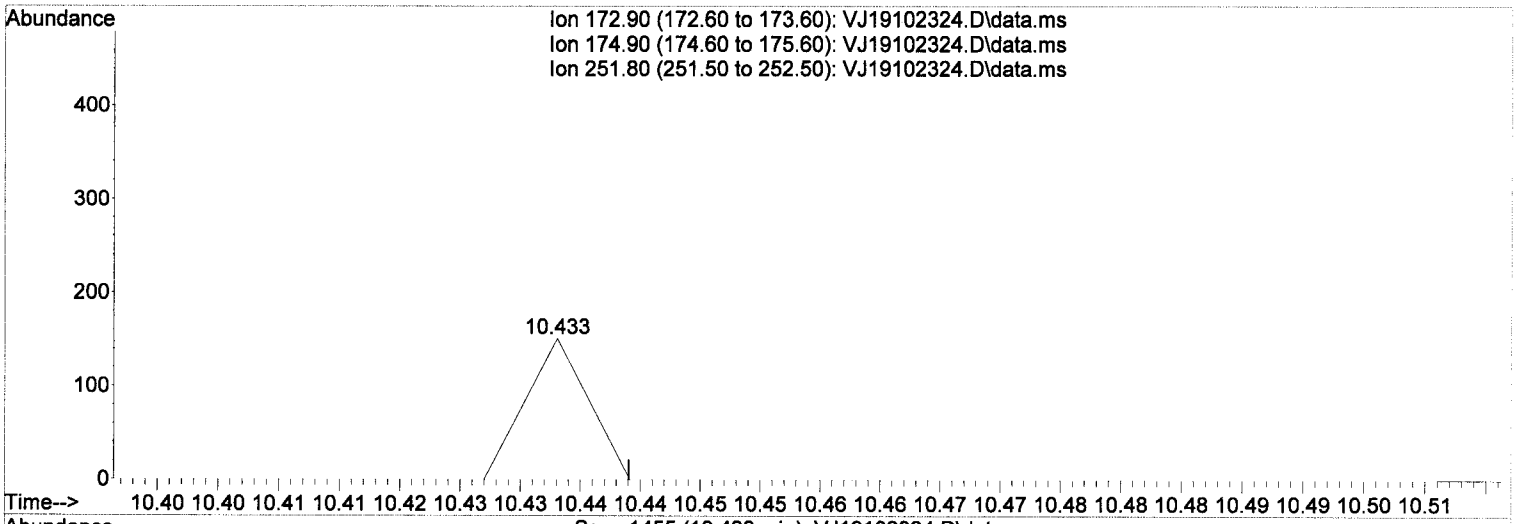


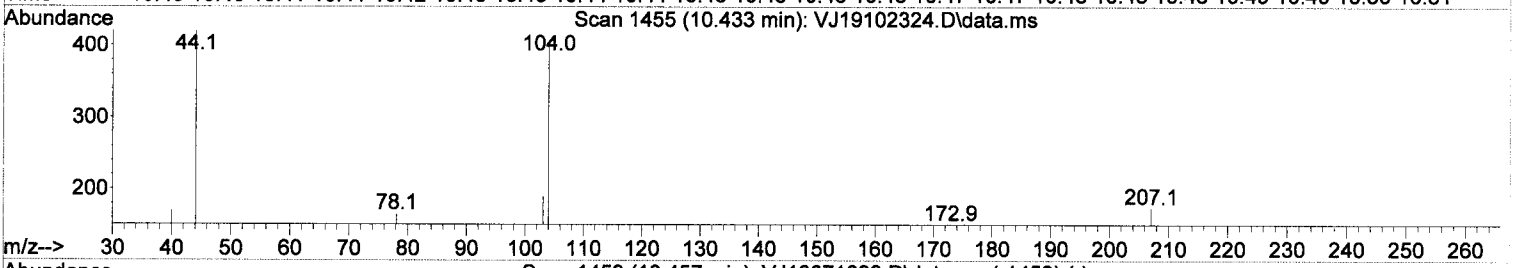
R = 1.05e-002 A*A + 2.71e-001 A - 1.82e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VJ191024S.M
Calibration Table Last Updated: Thu Oct 24 09:03:19 2019

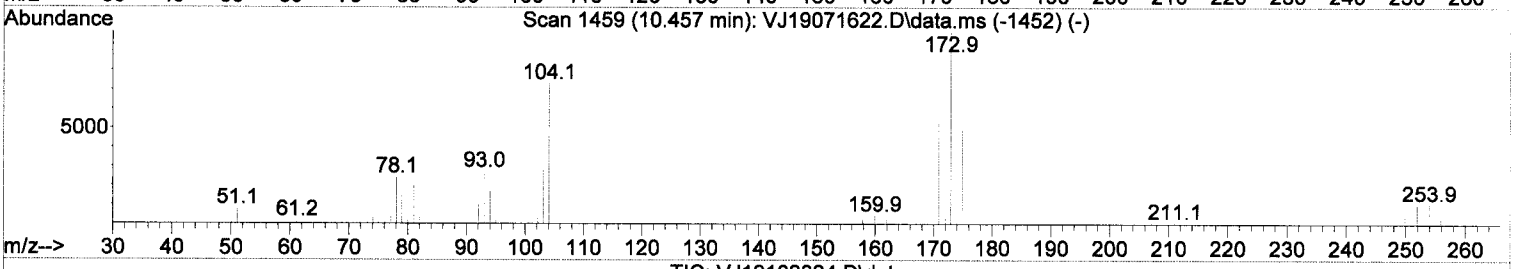
Quantitation Report (Qedit)

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.

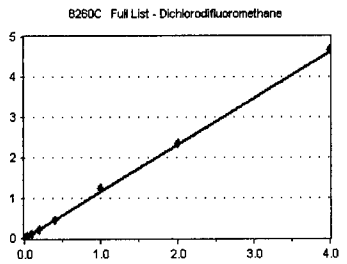
Element Calibration Review Sheet

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**

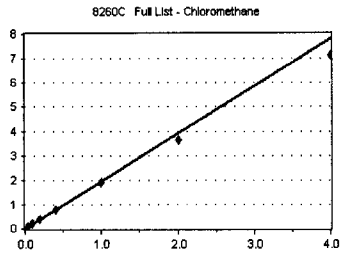


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	2035	1.102	1.70
9J23072-CAL5	2	4456	1.175	1.69
9J23072-CAL6	5	11145	1.126	1.70
9J23072-CAL7	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**

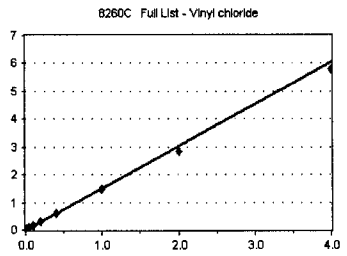


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~2383~~	~~12.136~~	~~1.89~~
~~9J23072-CAL2~~	~~0.2~~	~~2774~~	~~7.289~~	~~1.90~~
~~9J23072-CAL3~~	~~0.4~~	~~3285~~	~~4.405~~	~~1.90~~
~~9J23072-CAL4~~	~~1~~	~~5307~~	~~2.874~~	~~1.90~~
9J23072-CAL5	2	8944	2.359	1.89
9J23072-CAL6	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**

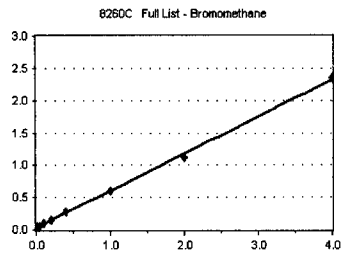


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	1110	1.488	2.01
9J23072-CAL4	1	3035	1.644	2.00
9J23072-CAL5	2	6249	1.648	1.98
9J23072-CAL6	5	14616	1.477	2.00
9J23072-CAL7	10	29953	1.463	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**

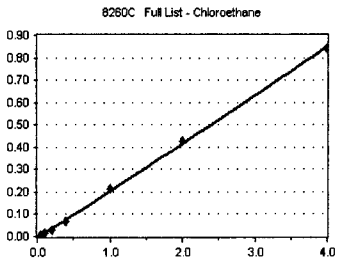
Element Calibration Review Sheet

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**

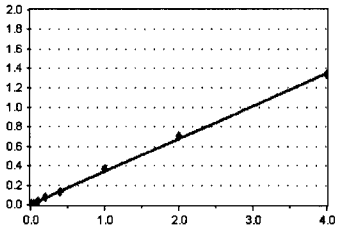


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL5	2	558	0.147	2.46
9J23072-CAL6	5	1384	0.140	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**

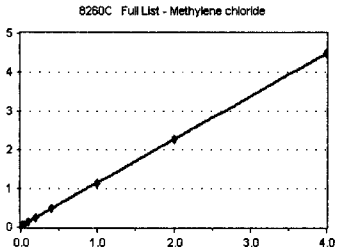


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	516	0.279	2.60
9J23072-CAL5	2	1251	0.330	2.60
9J23072-CAL6	5	3402	0.344	2.62
9J23072-CAL7	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**

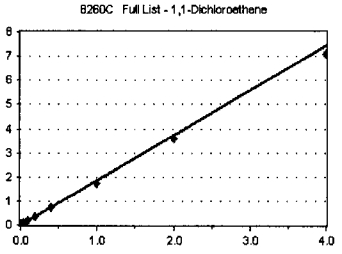


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	2211	11.260	0.00
9J23072-CAL2	0.2	2377	6.246	0.00
9J23072-CAL3	0.4	2718	3.645	0.00
9J23072-CAL4	1	3788	2.052	3.78
9J23072-CAL5	2	6212	1.638	3.78
9J23072-CAL6	5	12998	1.313	3.78
9J23072-CAL7	10	24987	1.221	3.78
9J23072-CAL8	20	46523	1.236	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**

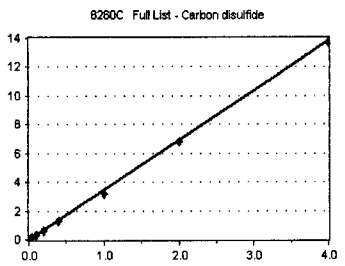
Element Calibration Review Sheet

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**

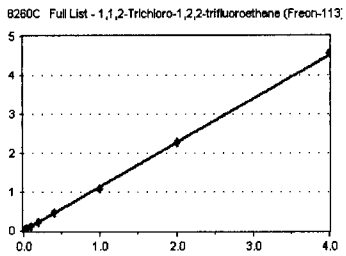


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	947	4.823	3.15
9J23072-CAL2	0.2	1499	3.939	3.15
9J23072-CAL3	0.4	2496	3.347	3.15
9J23072-CAL4	1	6000	3.250	3.16
9J23072-CAL5	2	12853	3.390	3.15
9J23072-CAL6	5	30469	3.078	3.16
9J23072-CAL7	10	63760	3.114	3.16
9J23072-CAL8	20	120674	3.206	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**

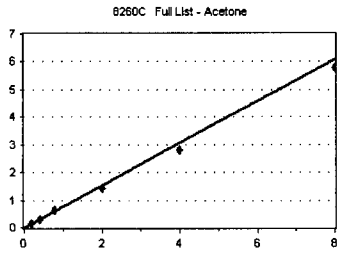


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	761	1.020	3.19
9J23072-CAL4	1	2153	1.166	3.21
9J23072-CAL5	2	4614	1.217	3.19
9J23072-CAL6	5	11080	1.119	3.21
9J23072-CAL7	10	23337	1.140	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**

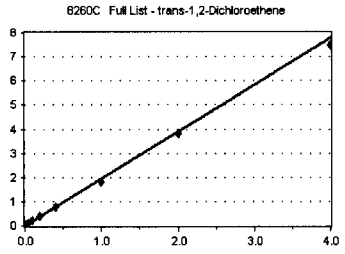


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.8~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL4~~	~~2~~	~~5145~~	~~1.393~~	~~3.88~~
~~9J23072-CAL5~~	~~4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL6	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**

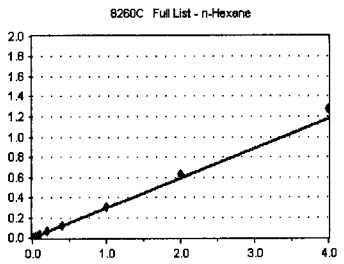
Element Calibration Review Sheet

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**

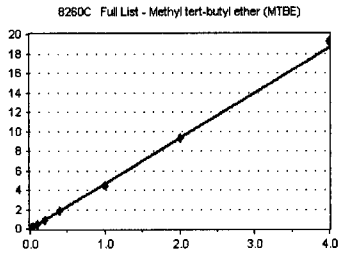


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	445	0.241	4.04
9J23072-CAL5	2	1139	0.300	4.04
9J23072-CAL6	5	2790	0.282	4.05
9J23072-CAL7	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**

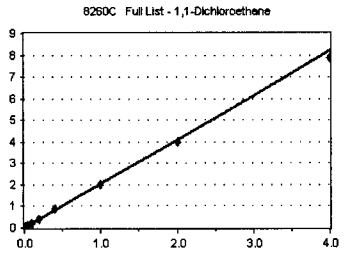


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	8793	4.762	4.12
9J23072-CAL5	2	18230	4.808	4.10
9J23072-CAL6	5	45549	4.602	4.11
9J23072-CAL7	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**

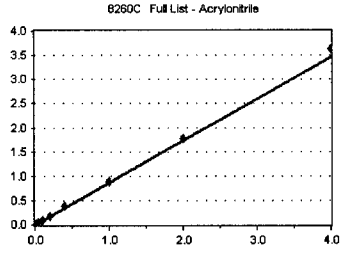


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	720	1.892	4.58
9J23072-CAL3	0.4	1458	1.955	4.58
9J23072-CAL4	1	4012	2.173	4.58
9J23072-CAL5	2	8482	2.237	4.58
9J23072-CAL6	5	21122	2.134	4.59
9J23072-CAL7	10	42318	2.067	4.59
9J23072-CAL8	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**

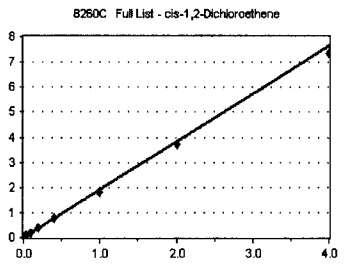
Element Calibration Review Sheet

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**

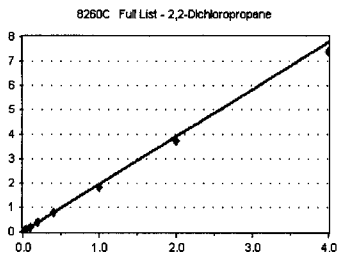


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	1499	2.010	5.13
9J23072-CAL4	1	3680	1.993	5.13
9J23072-CAL5	2	7651	2.018	5.13
9J23072-CAL6	5	18773	1.897	5.13
9J23072-CAL7	10	38569	1.884	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**

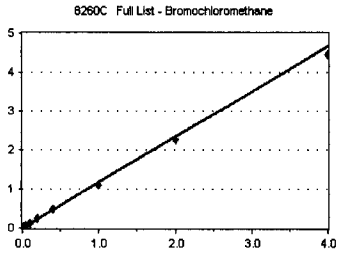


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	761	2.000	5.24
9J23072-CAL3	0.4	1640	2.199	5.24
9J23072-CAL4	1	3688	1.997	5.24
9J23072-CAL5	2	7702	2.031	5.24
9J23072-CAL6	5	18540	1.873	5.24
9J23072-CAL7	10	38645	1.888	5.24
9J23072-CAL8	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**

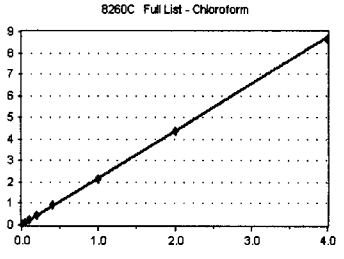


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	807	1.082	5.33
9J23072-CAL4	1	2314	1.253	5.34
9J23072-CAL5	2	4784	1.262	5.32
9J23072-CAL6	5	11641	1.176	5.34
9J23072-CAL7	10	23752	1.160	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**

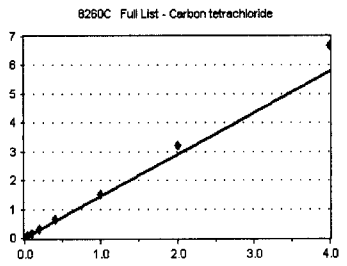
Element Calibration Review Sheet

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**

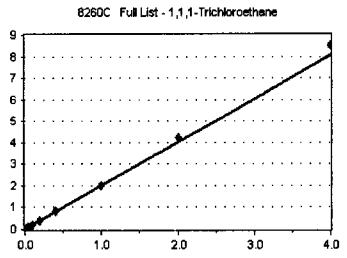


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	367	0.964	5.55
9J23072-CAL3	0.4	934	1.252	5.55
9J23072-CAL4	1	2727	1.477	5.56
9J23072-CAL5	2	5728	1.511	5.55
9J23072-CAL6	5	14343	1.449	5.55
9J23072-CAL7	10	30244	1.477	5.56
9J23072-CAL8	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**

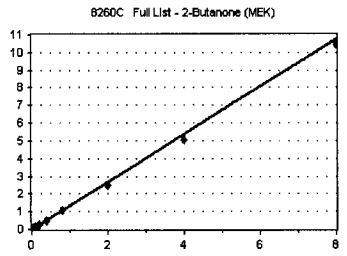


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	686	1.803	5.63
9J23072-CAL3	0.4	1334	1.789	5.62
9J23072-CAL4	1	3664	1.984	5.62
9J23072-CAL5	2	8216	2.167	5.62
9J23072-CAL6	5	20044	2.025	5.62
9J23072-CAL7	10	41348	2.020	5.63
9J23072-CAL8	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**

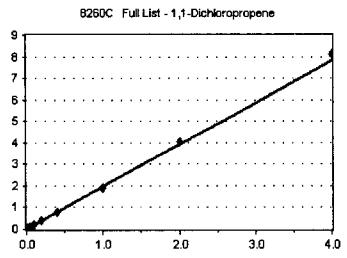


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.8~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	2	5985	1.621	5.74
9J23072-CAL5	4	10911	1.439	5.74
9J23072-CAL6	10	25206	1.273	5.74
9J23072-CAL7	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**

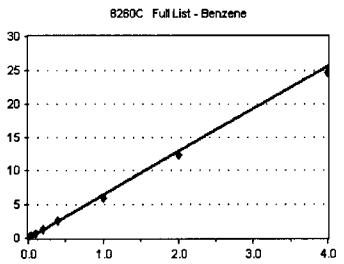
Element Calibration Review Sheet

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**

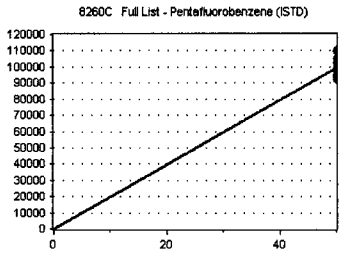


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	1432	7.293	6.00
9J23072-CAL2	0.2	2559	6.724	6.00
9J23072-CAL3	0.4	4719	6.328	6.00
9J23072-CAL4	1	11702	6.338	6.00
9J23072-CAL5	2	25316	6.677	6.00
9J23072-CAL6	5	62213	6.286	6.00
9J23072-CAL7	10	128327	6.268	6.00
9J23072-CAL8	20	240789	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**

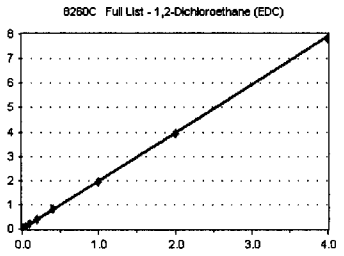


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	98175	1963.500	6.09
9J23072-CAL2	50	95145	1902.900	6.09
9J23072-CAL3	50	93220	1864.400	6.09
9J23072-CAL4	50	92321	1846.420	6.10
9J23072-CAL5	50	94791	1895.820	6.09
9J23072-CAL6	50	98978	1979.560	6.09
9J23072-CAL7	50	102360	2047.200	6.10
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**

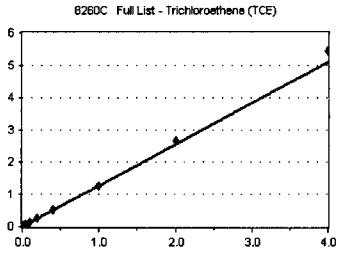


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	709	1.863	6.21
9J23072-CAL3	0.4	1352	1.813	6.21
9J23072-CAL4	1	3762	2.037	6.21
9J23072-CAL5	2	8154	2.151	6.21
9J23072-CAL6	5	19717	1.992	6.21
9J23072-CAL7	10	40742	1.990	6.21
9J23072-CAL8	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**

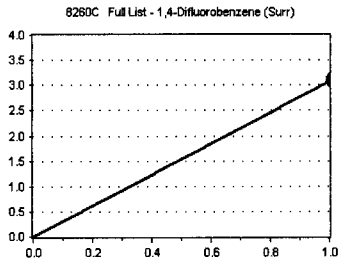
Element Calibration Review Sheet

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**

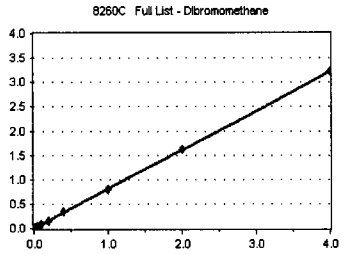


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	299782	3.054	6.66
9J23072-CAL2	50	296071	3.112	6.66
9J23072-CAL3	50	285274	3.060	6.66
9J23072-CAL4	50	284090	3.077	6.66
9J23072-CAL5	50	289317	3.052	6.66
9J23072-CAL6	50	303595	3.067	6.66
9J23072-CAL7	50	313300	3.061	6.66
9J23072-CAL8	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**

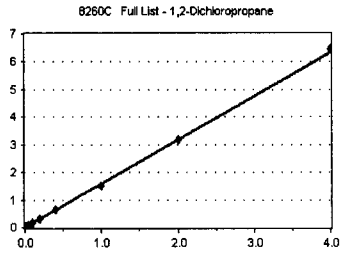


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	565	0.758	7.06
9J23072-CAL4	1	1439	0.779	7.07
9J23072-CAL5	2	3204	0.845	7.06
9J23072-CAL6	5	8013	0.810	7.06
9J23072-CAL7	10	16435	0.803	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**

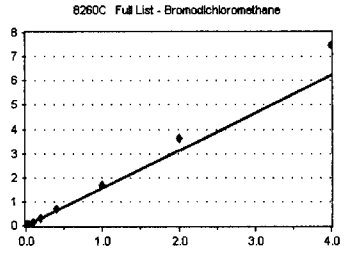


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	1176	1.577	7.17
9J23072-CAL4	1	2881	1.560	7.17
9J23072-CAL5	2	6237	1.645	7.17
9J23072-CAL6	5	15592	1.575	7.18
9J23072-CAL7	10	32431	1.584	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**

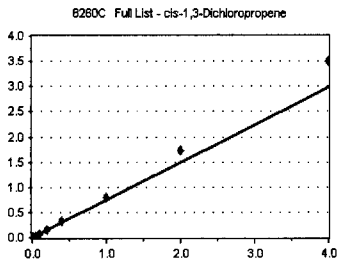
Element Calibration Review Sheet

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**

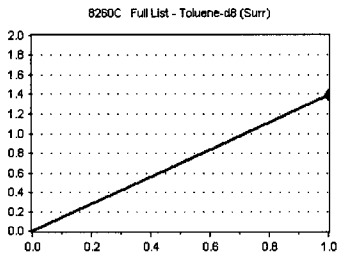


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	596	0.568	7.95
9J23072-CAL3	0.4	1346	0.665	7.96
9J23072-CAL4	1	3342	0.668	7.96
9J23072-CAL5	2	7516	0.740	7.95
9J23072-CAL6	5	19353	0.729	7.95
9J23072-CAL7	10	40620	0.742	7.95
9J23072-CAL8	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**

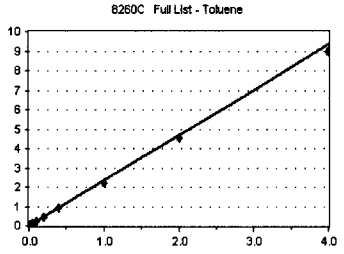


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	367697	1.398	8.17
9J23072-CAL2	50	363461	1.385	8.17
9J23072-CAL3	50	352756	1.395	8.17
9J23072-CAL4	50	350128	1.399	8.17
9J23072-CAL5	50	358352	1.410	8.17
9J23072-CAL6	50	369631	1.392	8.17
9J23072-CAL7	50	383154	1.399	8.17
9J23072-CAL8	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**

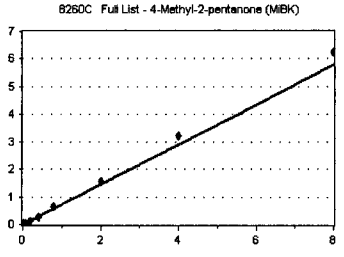


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	1352	2.571	8.23
9J23072-CAL2	0.2	2544	2.423	8.24
9J23072-CAL3	0.4	4766	2.356	8.23
9J23072-CAL4	1	11638	2.326	8.23
9J23072-CAL5	2	24811	2.441	8.23
9J23072-CAL6	5	59671	2.246	8.23
9J23072-CAL7	10	124843	2.279	8.23
9J23072-CAL8	20	237451	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**

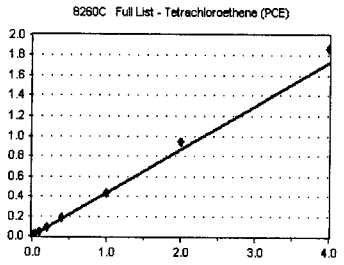
Element Calibration Review Sheet

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**

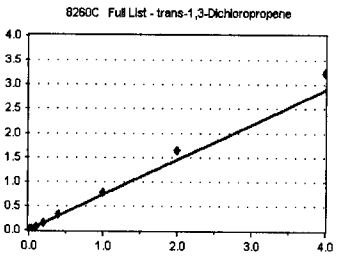


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	350	0.333	8.68
9J23072-CAL3	0.4	805	0.398	8.68
9J23072-CAL4	1	2158	0.431	8.68
9J23072-CAL5	2	4654	0.458	8.68
9J23072-CAL6	5	11684	0.440	8.68
9J23072-CAL7	10	24512	0.448	8.68
9J23072-CAL8	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**

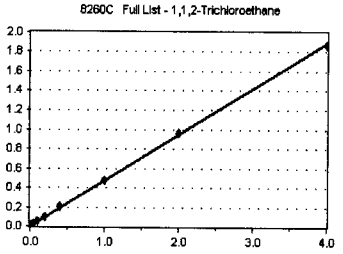


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	580	0.552	8.71
9J23072-CAL3	0.4	1392	0.688	8.70
9J23072-CAL4	1	3091	0.618	8.71
9J23072-CAL5	2	7062	0.695	8.70
9J23072-CAL6	5	18504	0.697	8.71
9J23072-CAL7	10	41087	0.750	8.71
9J23072-CAL8	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**

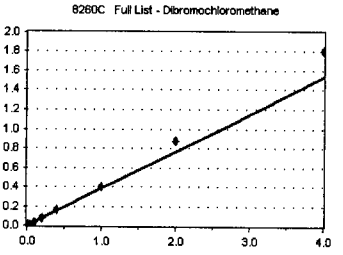


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	417	0.397	8.88
9J23072-CAL3	0.4	933	0.461	8.88
9J23072-CAL4	1	2304	0.460	8.88
9J23072-CAL5	2	5217	0.513	8.88
9J23072-CAL6	5	13046	0.491	8.88
9J23072-CAL7	10	26718	0.488	8.88
9J23072-CAL8	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**

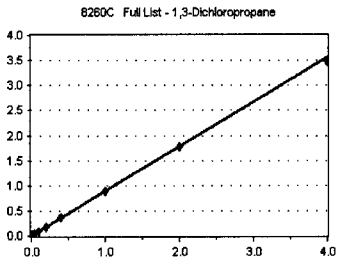
Element Calibration Review Sheet

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**

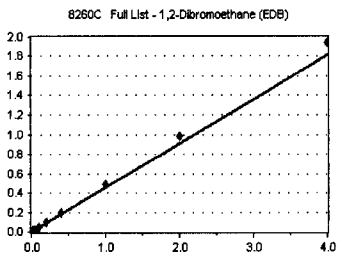


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	851	0.810	9.16
9J23072-CAL3	0.4	1718	0.849	9.17
9J23072-CAL4	1	4392	0.878	9.16
9J23072-CAL5	2	9958	0.980	9.16
9J23072-CAL6	5	24045	0.905	9.16
9J23072-CAL7	10	49530	0.904	9.16
9J23072-CAL8	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**

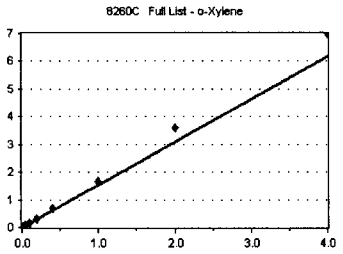


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	426	0.406	9.30
9J23072-CAL3	0.4	788	0.390	9.30
9J23072-CAL4	1	2060	0.412	9.30
9J23072-CAL5	2	4697	0.462	9.30
9J23072-CAL6	5	12041	0.453	9.30
9J23072-CAL7	10	25458	0.465	9.30
9J23072-CAL8	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**

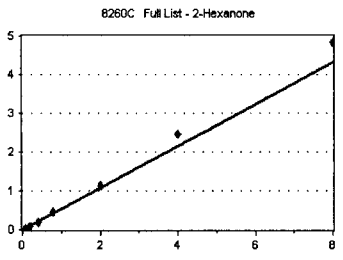


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	723	1.375	0.00
9J23072-CAL2	0.2	1440	1.371	10.38
9J23072-CAL3	0.4	2627	1.299	10.38
9J23072-CAL4	1	7125	1.424	10.38
9J23072-CAL5	2	15404	1.516	10.38
9J23072-CAL6	5	39703	1.495	10.38
9J23072-CAL7	10	86841	1.585	10.38
9J23072-CAL8	20	172231	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**

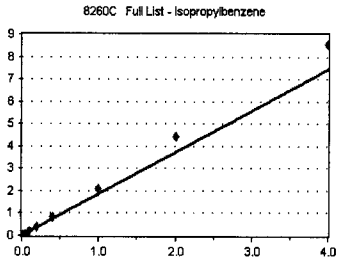
Element Calibration Review Sheet

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**

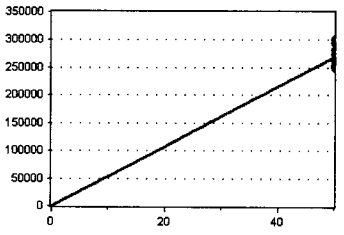


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	797	1.515	0.00
9J23072-CAL2	0.2	1688	1.608	10.65
9J23072-CAL3	0.4	3200	1.582	10.65
9J23072-CAL4	1	8399	1.678	10.65
9J23072-CAL5	2	18251	1.796	10.65
9J23072-CAL6	5	47833	1.801	10.65
9J23072-CAL7	10	107252	1.958	10.65
9J23072-CAL8	20	211570	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**

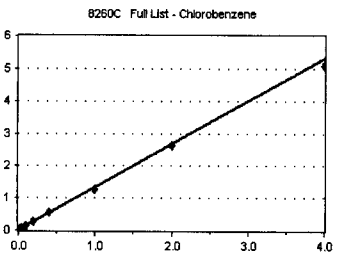


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	262966	5259.320	9.81
9J23072-CAL2	50	262504	5250.080	9.81
9J23072-CAL3	50	252875	5057.500	9.81
9J23072-CAL4	50	250210	5004.200	9.81
9J23072-CAL5	50	254089	5081.780	9.81
9J23072-CAL6	50	265619	5312.380	9.81
9J23072-CAL7	50	273877	5477.540	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**

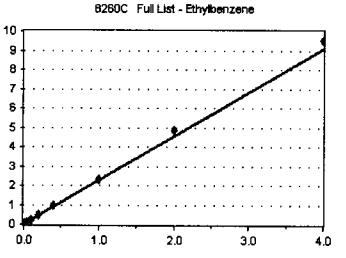


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	695	1.321	9.82
9J23072-CAL2	0.2	1422	1.354	9.83
9J23072-CAL3	0.4	2767	1.368	9.83
9J23072-CAL4	1	6563	1.311	9.82
9J23072-CAL5	2	14691	1.445	9.82
9J23072-CAL6	5	35206	1.325	9.83
9J23072-CAL7	10	72570	1.325	9.82
9J23072-CAL8	20	137767	1.363	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**

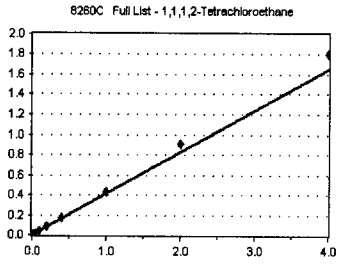
Element Calibration Review Sheet

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**

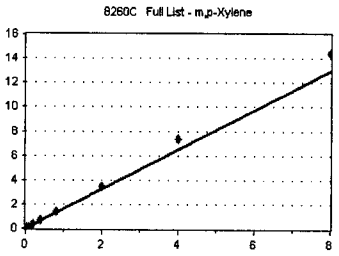


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	712	0.352	9.89
9J23072-CAL4	1	1888	0.377	9.89
9J23072-CAL5	2	4053	0.399	9.89
9J23072-CAL6	5	10760	0.405	9.89
9J23072-CAL7	10	22448	0.410	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**

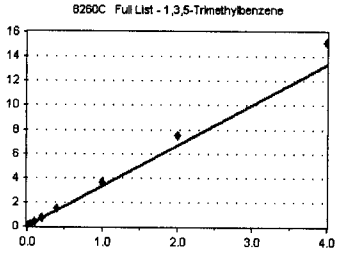


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.2	1531	1.456	10.00
9J23072-CAL2	0.4	3071	1.462	10.00
9J23072-CAL3	0.8	5672	1.402	10.00
9J23072-CAL4	2	14581	1.457	10.00
9J23072-CAL5	4	32148	1.582	10.00
9J23072-CAL6	10	85048	1.601	10.00
9J23072-CAL7	20	185431	1.693	10.00
9J23072-CAL8	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**

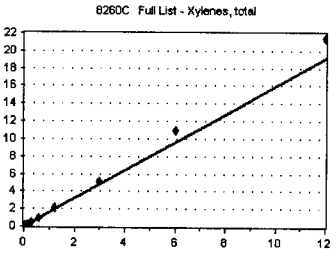


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	562	2.560	0.00
9J23072-CAL2	0.2	1298	2.938	11.16
9J23072-CAL3	0.4	2457	2.907	11.16
9J23072-CAL4	1	6251	3.006	11.16
9J23072-CAL5	2	14119	3.372	11.16
9J23072-CAL6	5	37585	3.354	11.16
9J23072-CAL7	10	83861	3.668	11.16
9J23072-CAL8	20	167903	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**

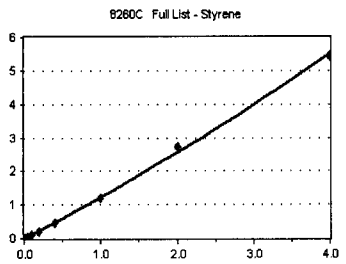
Element Calibration Review Sheet

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**

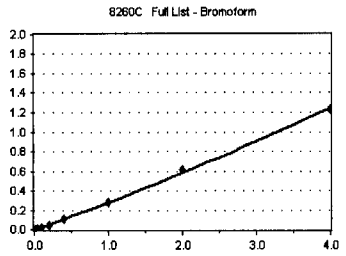


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	892	0.850	10.42
9J23072-CAL3	0.4	1570	0.776	10.42
9J23072-CAL4	1	3854	0.770	10.42
9J23072-CAL5	2	8686	0.855	10.42
9J23072-CAL6	5	24248	0.913	10.42
9J23072-CAL7	10	55991	1.022	10.42
9J23072-CAL8	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**

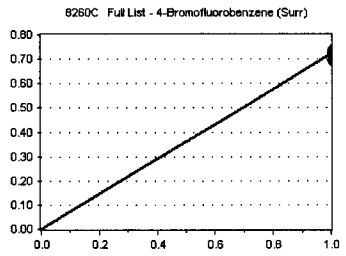


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	307	0.152	10.43
9J23072-CAL4	1	884	0.177	10.44
9J23072-CAL5	2	2069	0.204	10.44
9J23072-CAL6	5	5470	0.206	10.44
9J23072-CAL7	10	12367	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**

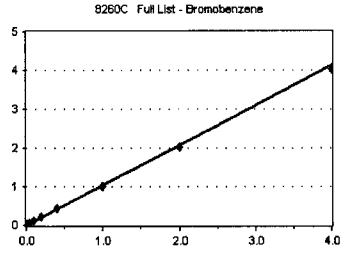


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	81163	0.739	10.88
9J23072-CAL2	50	80374	0.728	10.88
9J23072-CAL3	50	77055	0.729	10.88
9J23072-CAL4	50	75855	0.730	10.88
9J23072-CAL5	50	76386	0.730	10.88
9J23072-CAL6	50	81641	0.728	10.88
9J23072-CAL7	50	84648	0.740	10.88
9J23072-CAL8	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**

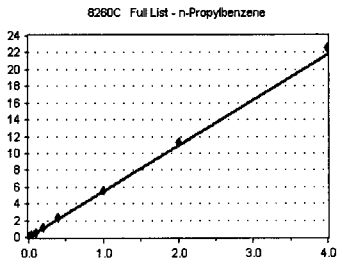
Element Calibration Review Sheet

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**

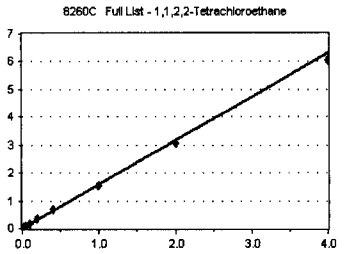


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	1106	5.038	10.99
9J23072-CAL2	0.2	2321	5.253	10.99
9J23072-CAL3	0.4	4342	5.136	11.00
9J23072-CAL4	1	10891	5.237	11.00
9J23072-CAL5	2	23478	5.607	10.99
9J23072-CAL6	5	60466	5.395	11.00
9J23072-CAL7	10	131143	5.736	11.00
9J23072-CAL8	20	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**

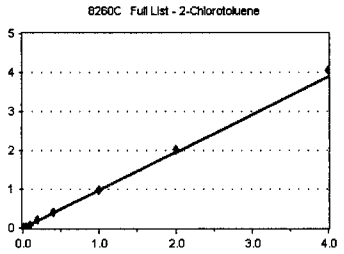


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~305~~	~~1.389~~	~~11.04~~
9J23072-CAL2	0.2	669	1.514	11.04
9J23072-CAL3	0.4	1189	1.407	11.05
9J23072-CAL4	1	3210	1.544	11.05
9J23072-CAL5	2	7515	1.795	11.05
9J23072-CAL6	5	17963	1.603	11.05
9J23072-CAL7	10	37925	1.659	11.05
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**

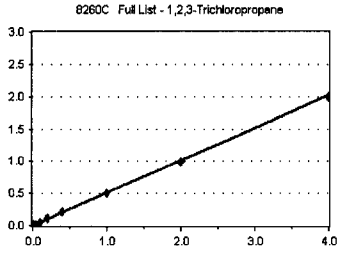


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	366	0.828	11.11
9J23072-CAL3	0.4	805	0.952	11.11
9J23072-CAL4	1	2013	0.968	11.11
9J23072-CAL5	2	4132	0.987	11.11
9J23072-CAL6	5	10583	0.944	11.11
9J23072-CAL7	10	23286	1.019	11.12
9J23072-CAL8	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**

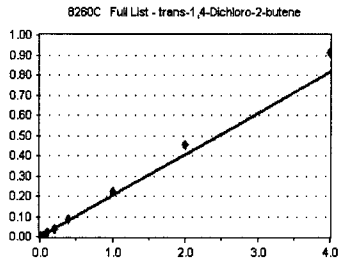
Element Calibration Review Sheet

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**

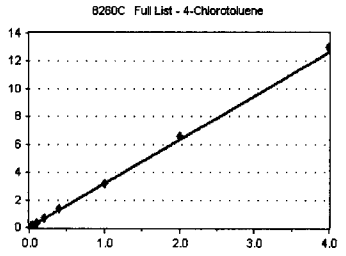


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	1	335	0.161	11.19
9J23072-CAL5	2	731	0.175	11.19
9J23072-CAL6	5	2176	0.194	11.19
9J23072-CAL7	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**

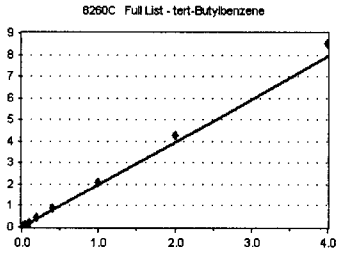


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1325	2.999	11.25
9J23072-CAL3	0.4	2330	2.756	11.25
9J23072-CAL4	1	6138	2.952	11.25
9J23072-CAL5	2	13748	3.283	11.25
9J23072-CAL6	5	35148	3.136	11.25
9J23072-CAL7	10	76302	3.337	11.25
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**

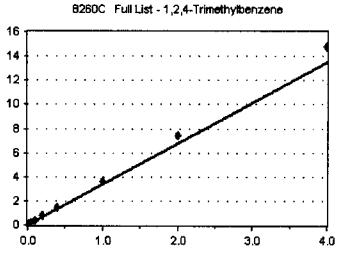


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	795	1.799	11.40
9J23072-CAL3	0.4	1388	1.642	11.41
9J23072-CAL4	1	3751	1.804	11.41
9J23072-CAL5	2	8173	1.952	11.41
9J23072-CAL6	5	22268	1.987	11.41
9J23072-CAL7	10	48165	2.107	11.41
9J23072-CAL8	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**

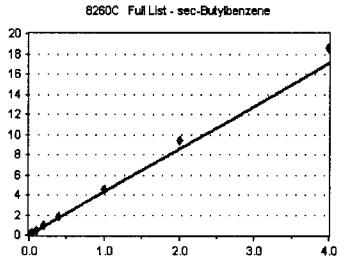
Element Calibration Review Sheet

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**

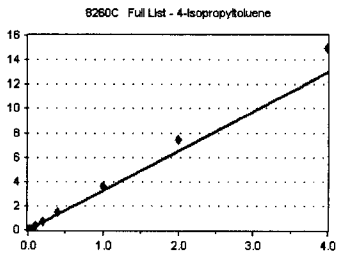


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1629	3.687	11.55
9J23072-CAL3	0.4	3021	3.574	11.55
9J23072-CAL4	1	7629	3.668	11.55
9J23072-CAL5	2	17439	4.164	11.55
9J23072-CAL6	5	47859	4.270	11.55
9J23072-CAL7	10	107745	4.713	11.55
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**

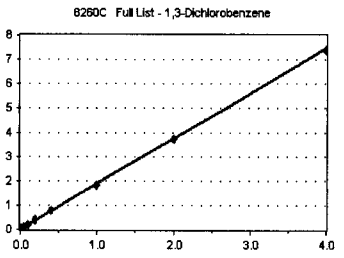


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1231	2.786	11.66
9J23072-CAL3	0.4	2242	2.652	11.66
9J23072-CAL4	1	5514	2.651	11.66
9J23072-CAL5	2	12982	3.100	11.66
9J23072-CAL6	5	35139	3.135	11.66
9J23072-CAL7	10	80264	3.511	11.66
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**

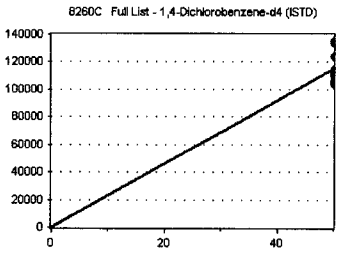


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	347	1.581	11.72
9J23072-CAL2	0.2	806	1.824	11.71
9J23072-CAL3	0.4	1573	1.861	11.71
9J23072-CAL4	1	3912	1.881	11.71
9J23072-CAL5	2	8614	2.057	11.71
9J23072-CAL6	5	21435	1.913	11.71
9J23072-CAL7	10	45072	1.971	11.71
9J23072-CAL8	20	87437	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**

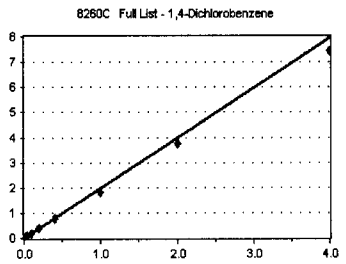
Element Calibration Review Sheet

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**

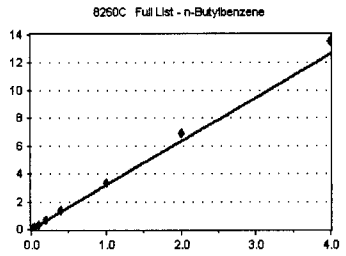


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	478	2.177	11.78
9J23072-CAL2	0.2	866	1.960	11.77
9J23072-CAL3	0.4	1787	2.114	11.78
9J23072-CAL4	1	4198	2.019	11.78
9J23072-CAL5	2	9088	2.170	11.78
9J23072-CAL6	5	21770	1.943	11.78
9J23072-CAL7	10	45209	1.977	11.78
9J23072-CAL8	20	87387	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**

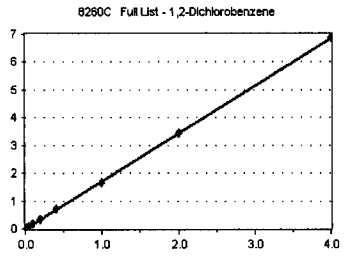


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1325	2.999	11.97
9J23072-CAL3	0.4	2427	2.871	11.97
9J23072-CAL4	1	5940	2.856	11.97
9J23072-CAL5	2	12799	3.056	11.97
9J23072-CAL6	5	33924	3.027	11.97
9J23072-CAL7	10	74888	3.276	11.97
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**

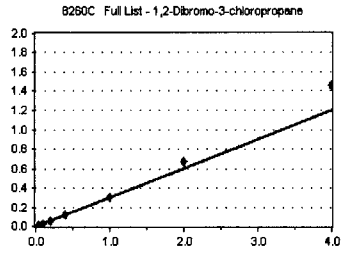


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	0.1	333	1.517	12.09
9J23072-CAL2	0.2	725	1.641	12.09
9J23072-CAL3	0.4	1421	1.681	12.09
9J23072-CAL4	1	3541	1.703	12.09
9J23072-CAL5	2	7821	1.868	12.09
9J23072-CAL6	5	19542	1.744	12.09
9J23072-CAL7	10	41072	1.796	12.09
9J23072-CAL8	20	80490	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**

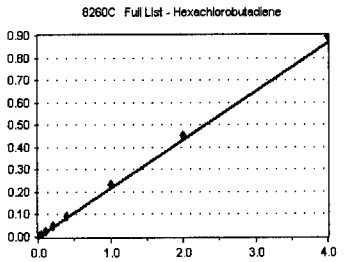
Element Calibration Review Sheet

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**

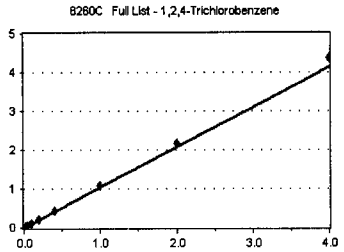


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.4	139	0.164	13.22
9J23072-CAL4	1	383	0.184	13.22
9J23072-CAL5	2	910	0.217	13.22
9J23072-CAL6	5	2682	0.239	13.21
9J23072-CAL7	10	5408	0.237	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**

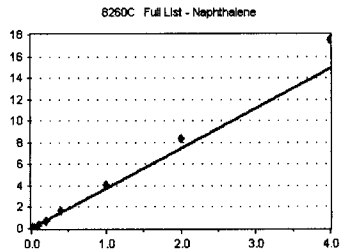


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	416	0.942	13.24
9J23072-CAL3	0.4	804	0.951	13.24
9J23072-CAL4	1	2063	0.992	13.24
9J23072-CAL5	2	4581	1.094	13.24
9J23072-CAL6	5	11011	0.983	13.24
9J23072-CAL7	10	24214	1.059	13.24
9J23072-CAL8	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**

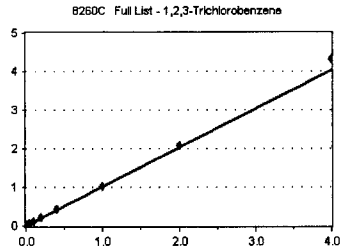


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL2	0.2	1558	3.526	13.52
9J23072-CAL3	0.4	2847	3.368	13.52
9J23072-CAL4	1	6478	3.115	13.52
9J23072-CAL5	2	14900	3.558	13.52
9J23072-CAL6	5	36533	3.260	13.52
9J23072-CAL7	10	83341	3.645	13.52
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**

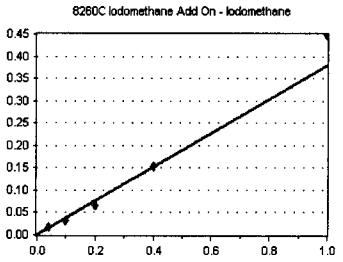
Element Calibration Review Sheet

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**

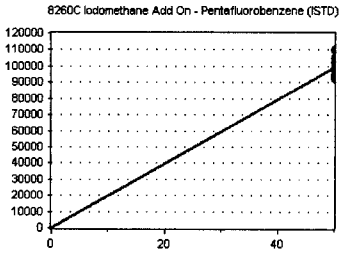


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.1~~	~~851~~	~~4.334~~	~~3.29~~
~~9J23072-CAL2~~	~~0.2~~	~~823~~	~~2.162~~	~~3.29~~
~~9J23072-CAL3~~	~~0.4~~	~~849~~	~~1.138~~	~~3.30~~
~~9J23072-CAL4~~	~~1~~	~~1059~~	~~0.574~~	~~3.30~~
9J23072-CAL5	2	1558	0.411	3.29
9J23072-CAL6	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**

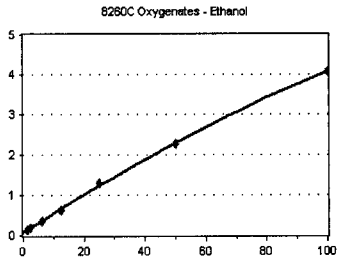
Element Calibration Review Sheet

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**

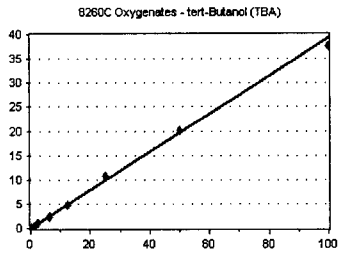


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~6.25~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~25~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	62.5	12276	0.106	3.33
9J23072-CAL5	125	19108	8.063	3.35
9J23072-CAL6	312	35634	5.770	3.38
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**

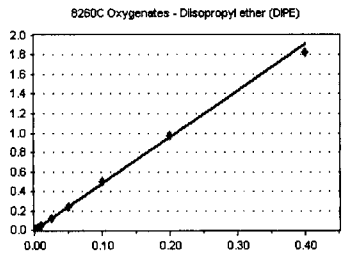


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~6.25~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	25	17903	0.384	4.26
9J23072-CAL4	62.5	43663	0.378	4.28
9J23072-CAL5	125	97251	0.410	4.32
9J23072-CAL6	312	228821	0.370	4.34
9J23072-CAL7	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**

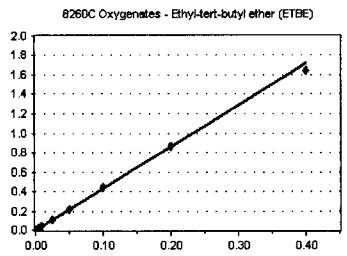


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL3	0.1	894	4.795	4.51
9J23072-CAL4	0.25	2248	4.870	4.51
9J23072-CAL5	0.5	4580	4.832	4.51
9J23072-CAL6	1.25	11435	4.621	4.51
9J23072-CAL7	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**

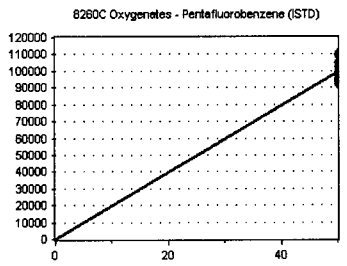
Element Calibration Review Sheet

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**

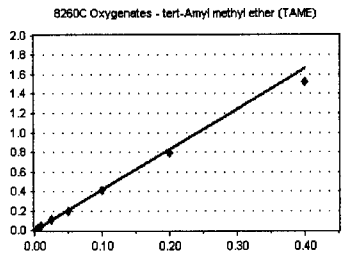


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	98175	1963.500	6.09
9J23072-CAL2	50	95145	1902.900	6.09
9J23072-CAL3	50	93220	1864.400	6.09
9J23072-CAL4	50	92321	1846.420	6.10
9J23072-CAL5	50	94791	1895.820	6.09
9J23072-CAL6	50	98978	1979.560	6.09
9J23072-CAL7	50	102360	2047.200	6.10
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**

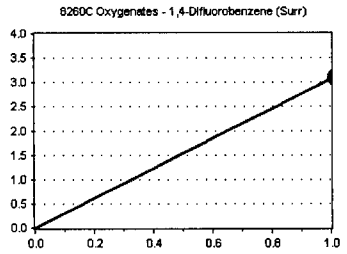


Standard	Concentration	Response	Response Factor	RT
~~9J23072-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J23072-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J23072-CAL4	0.25	2154	4.666	6.16
9J23072-CAL5	0.5	4293	4.529	6.15
9J23072-CAL6	1.25	10184	4.116	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**

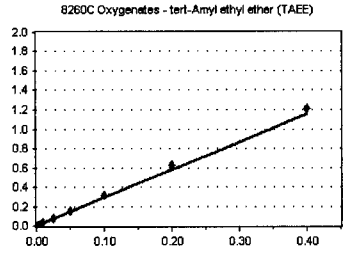


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	299782	3.054	6.66
9J23072-CAL2	50	296071	3.112	6.66
9J23072-CAL3	50	285274	3.060	6.66
9J23072-CAL4	50	284090	3.077	6.66
9J23072-CAL5	50	289317	3.052	6.66
9J23072-CAL6	50	303595	3.067	6.66
9J23072-CAL7	50	313300	3.061	6.66
9J23072-CAL8	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**

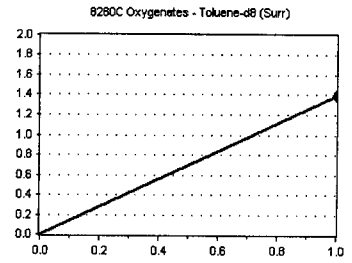
Element Calibration Review Sheet

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**

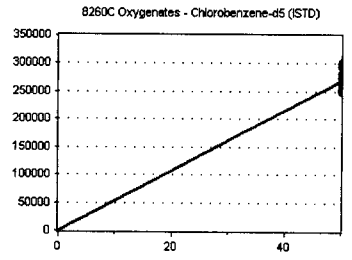


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	367697	1.398	8.17
9J23072-CAL2	50	363461	1.385	8.17
9J23072-CAL3	50	352756	1.395	8.17
9J23072-CAL4	50	350128	1.399	8.17
9J23072-CAL5	50	358352	1.410	8.17
9J23072-CAL6	50	369631	1.392	8.17
9J23072-CAL7	50	383154	1.399	8.17
9J23072-CAL8	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**

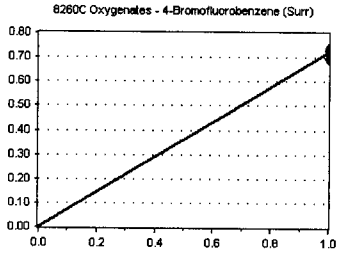


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	262966	5259.320	9.81
9J23072-CAL2	50	262504	5250.080	9.81
9J23072-CAL3	50	252875	5057.500	9.81
9J23072-CAL4	50	250210	5004.200	9.81
9J23072-CAL5	50	254089	5081.780	9.81
9J23072-CAL6	50	265619	5312.380	9.81
9J23072-CAL7	50	273877	5477.540	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**

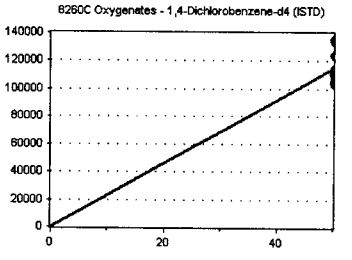


Standard	Concentration	Response	Response Factor	RT
9J23072-CAL1	50	81163	0.739	10.88
9J23072-CAL2	50	80374	0.728	10.88
9J23072-CAL3	50	77055	0.729	10.88
9J23072-CAL4	50	75855	0.730	10.88
9J23072-CAL5	50	76386	0.730	10.88
9J23072-CAL6	50	81641	0.728	10.88
9J23072-CAL7	50	84648	0.740	10.88
9J23072-CAL8	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

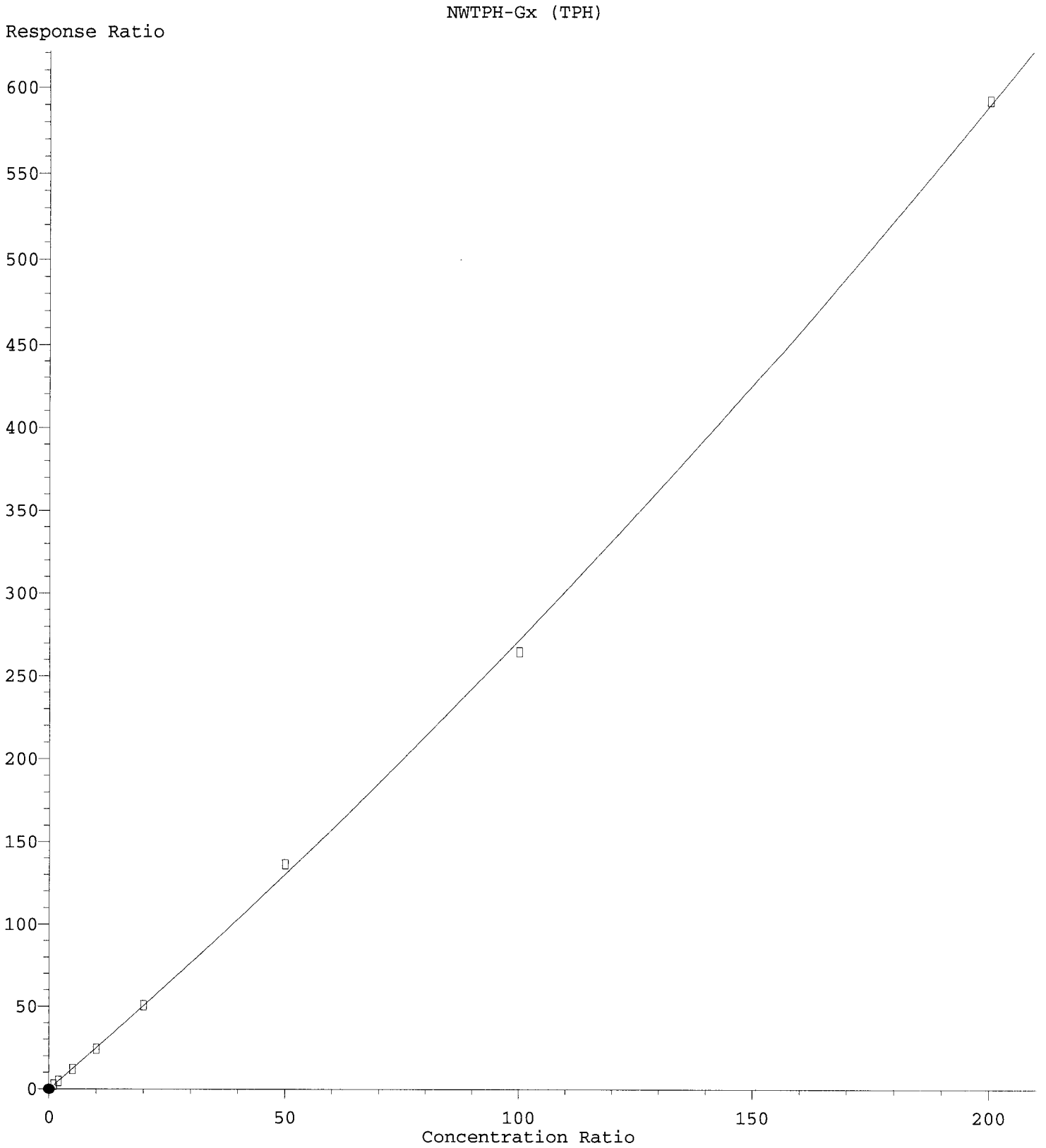
Method Path : C:\msdchem\1\methods\
Method File : VJ191024G.M
Title : NWTPH-Gx by GC/MS
Last Update : Thu Oct 24 12:01:51 2019
Response Via : Initial Calibration

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

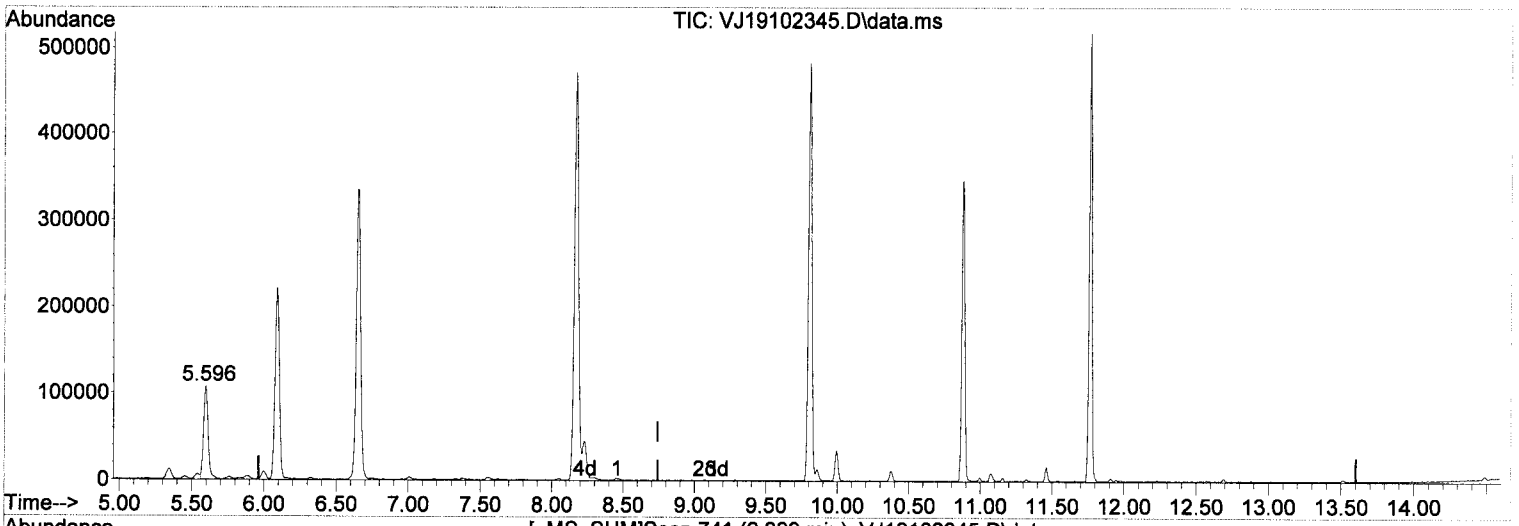


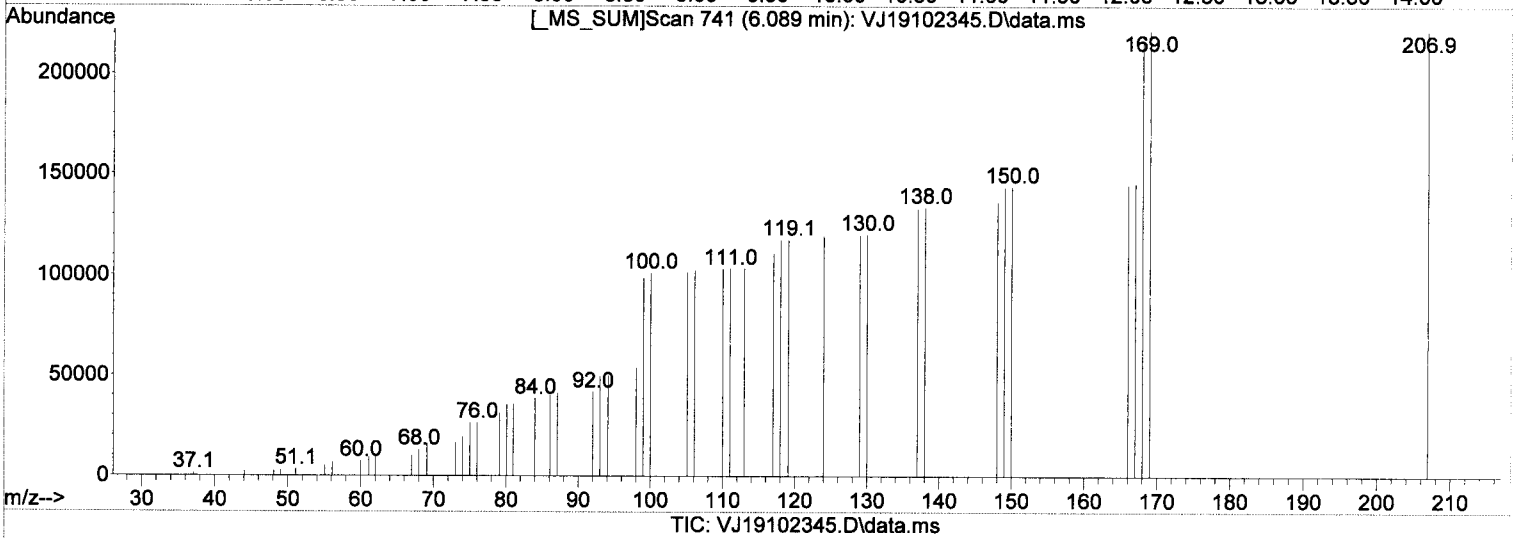
R = 2.27e-003 A*A + 2.49e+000 A - 1.74e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VJ191024G.M
Calibration Table Last Updated: Thu Oct 24 12:02:16 2019

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





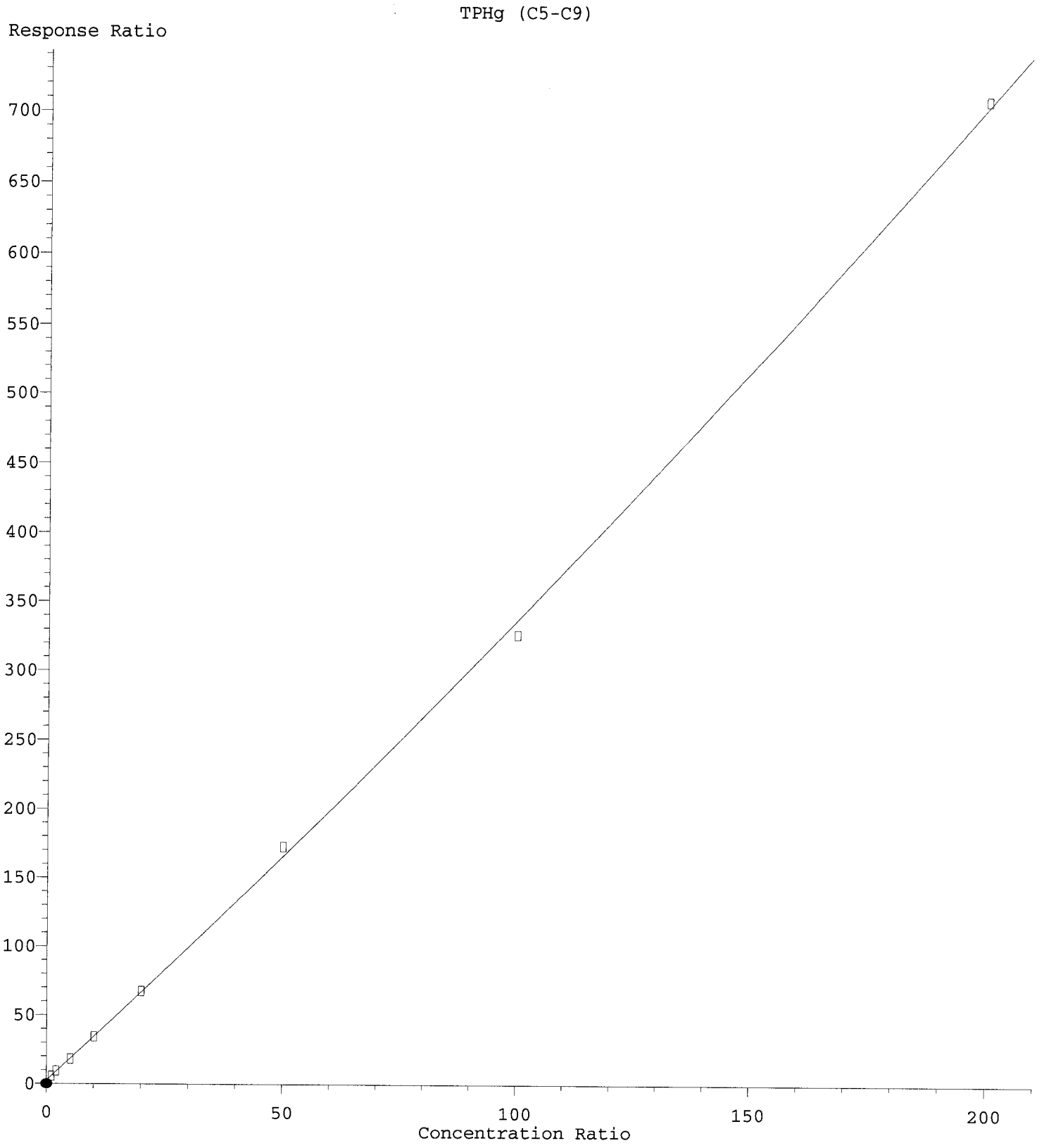
TIC: VJ19102345.D\data.ms

(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

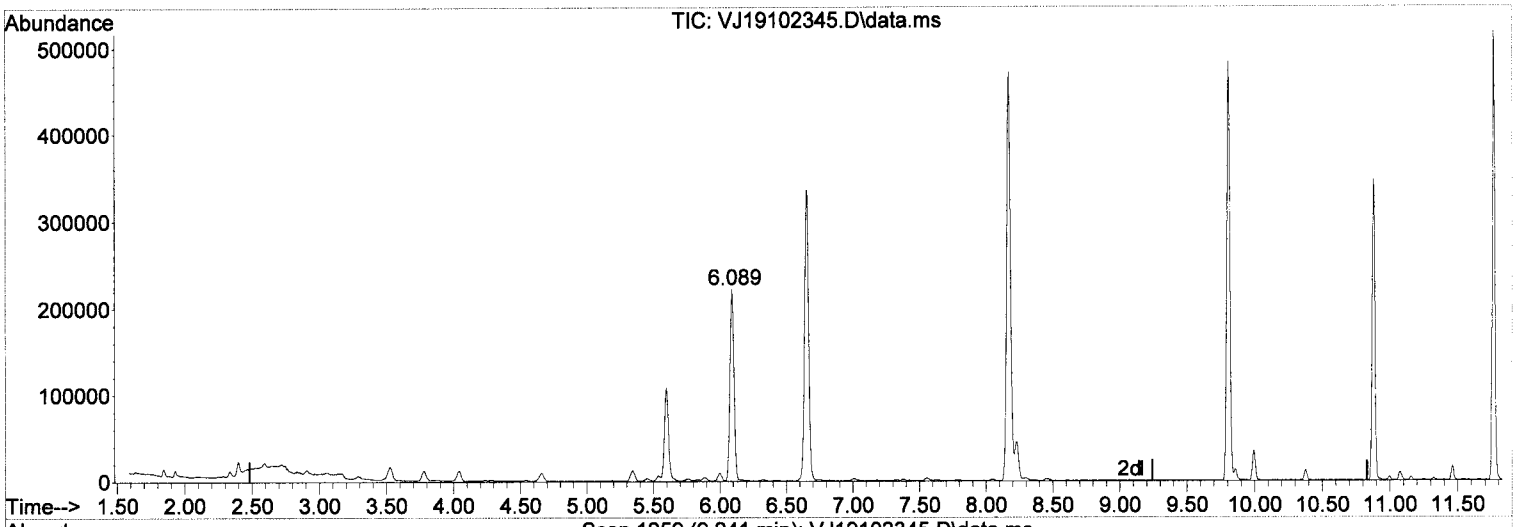


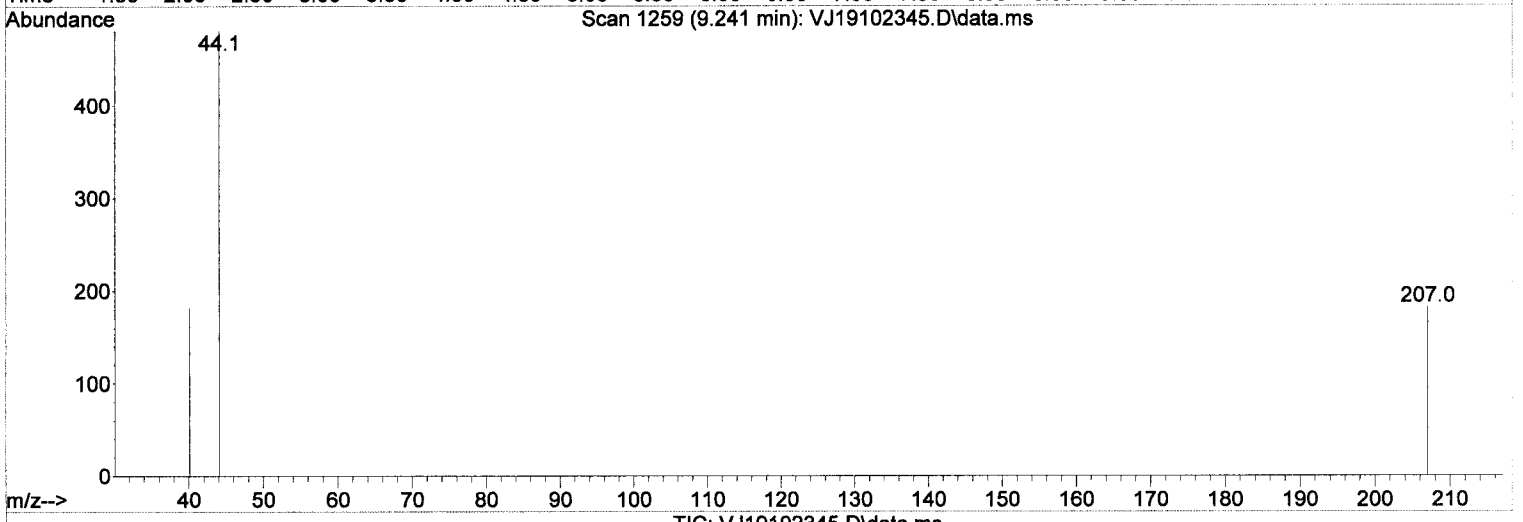
R = 1.62e-003 A*A + 3.18e+000 A + 2.52e+000
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VJ191024ERM
Calibration Table Last Updated: Thu Oct 24 12:02:25 2019

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





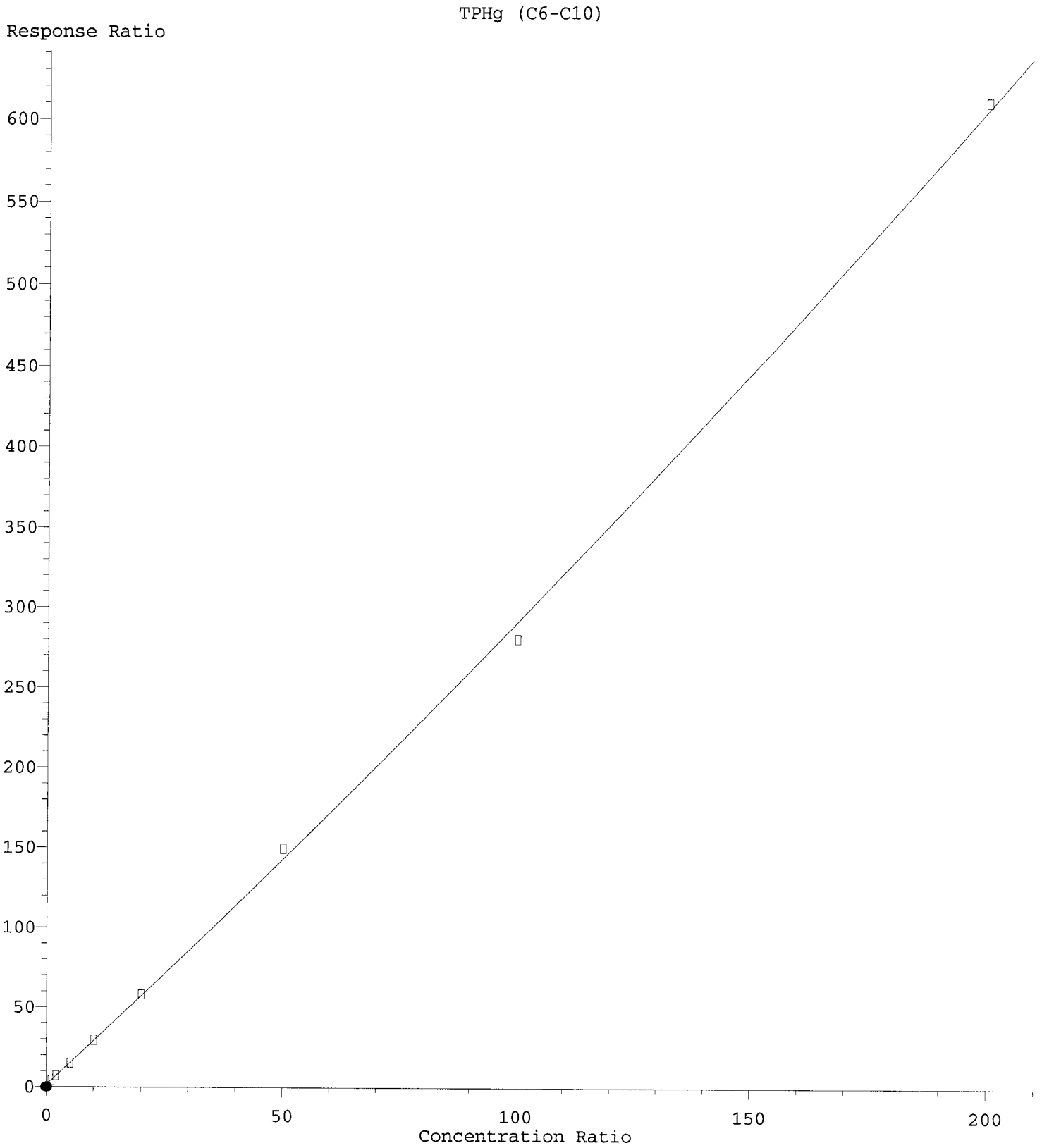
TIC: VJ19102345.D\data.ms

(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

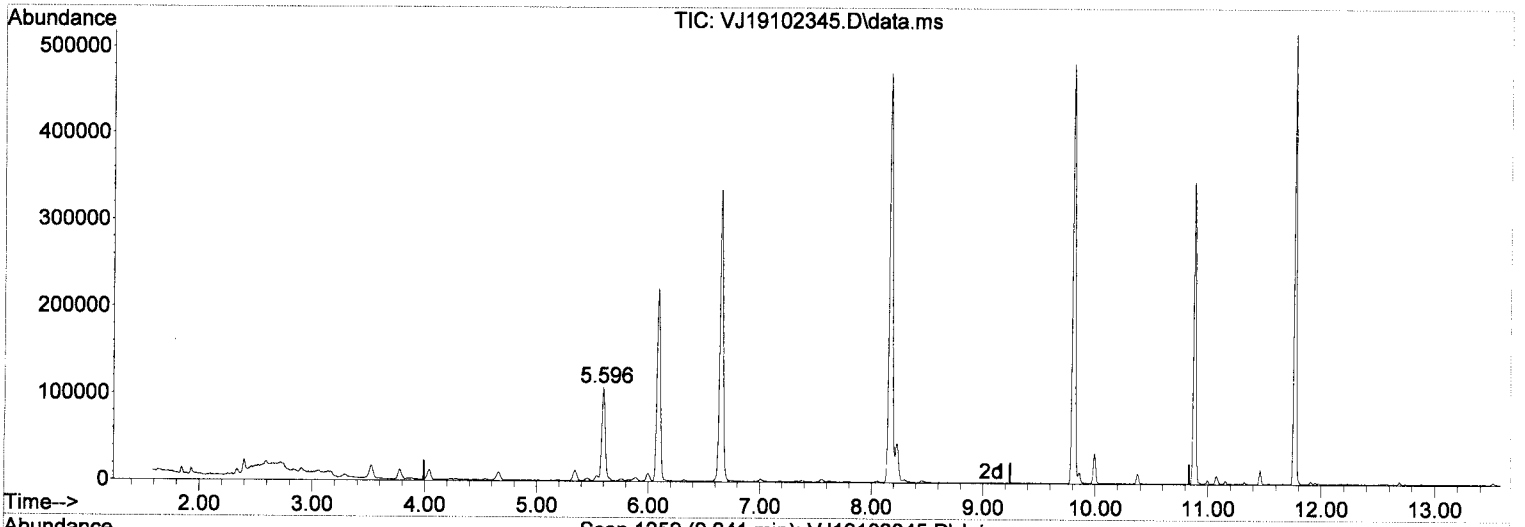


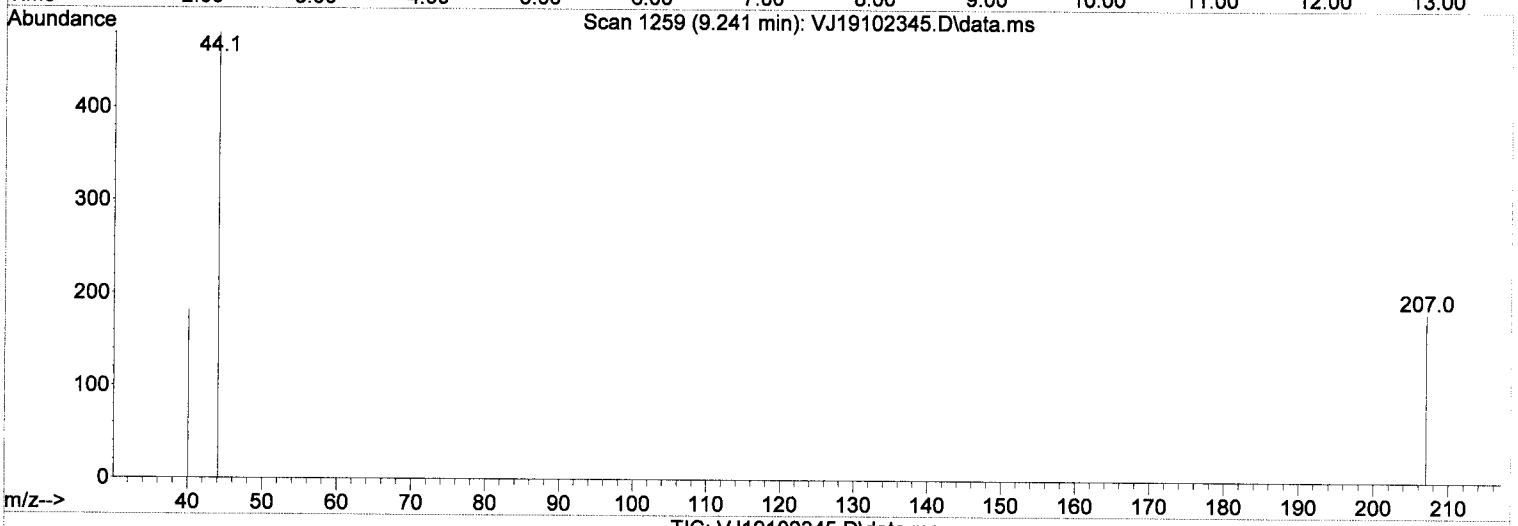
R = 1.29e-003 A*A + 2.77e+000 A + 1.43e+000
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\v191024e.m
Calibration Table Last Updated: Thu Oct 24 12:02:34 2019

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





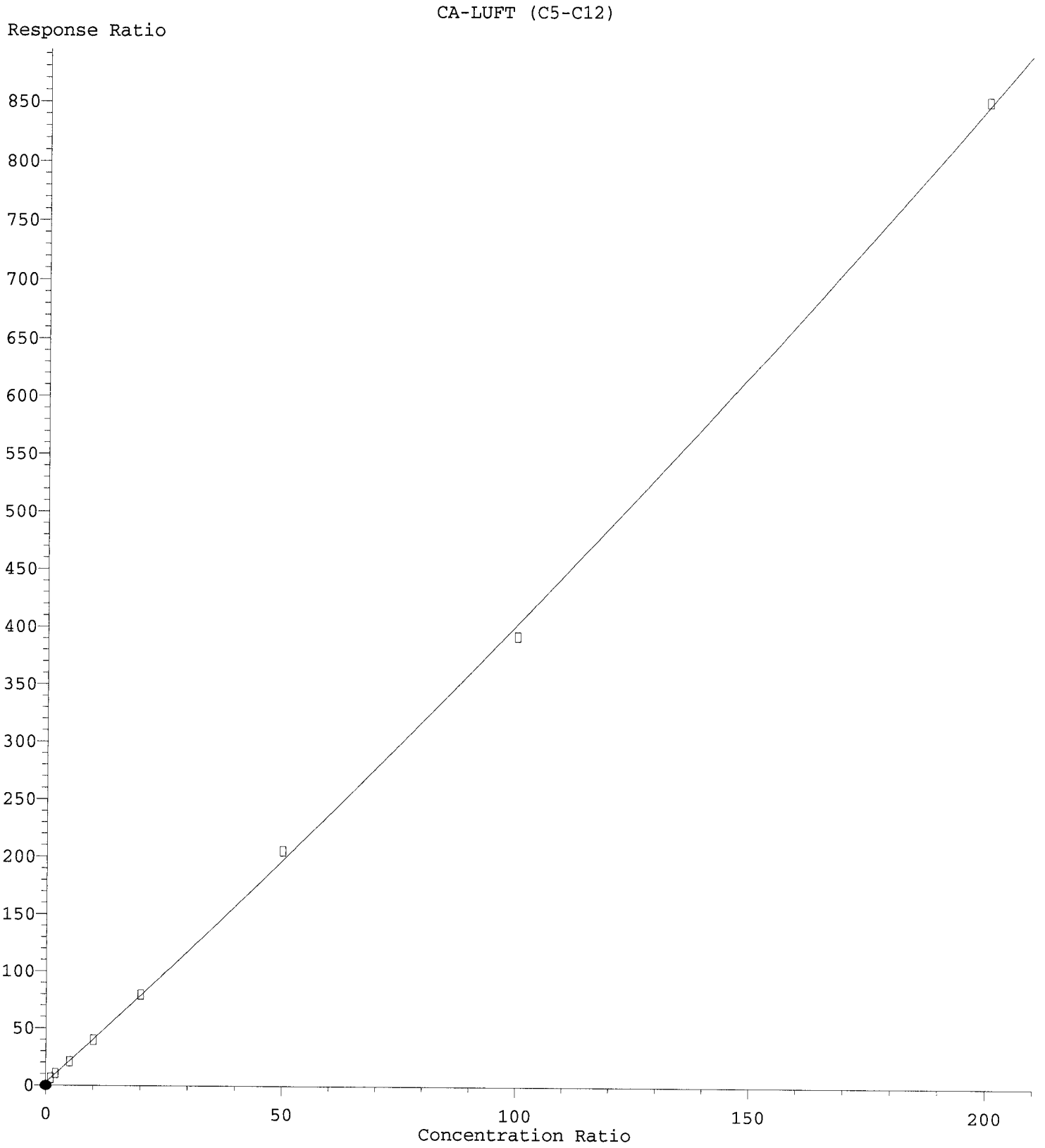
TIC: VJ19102345.D\data.ms

(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

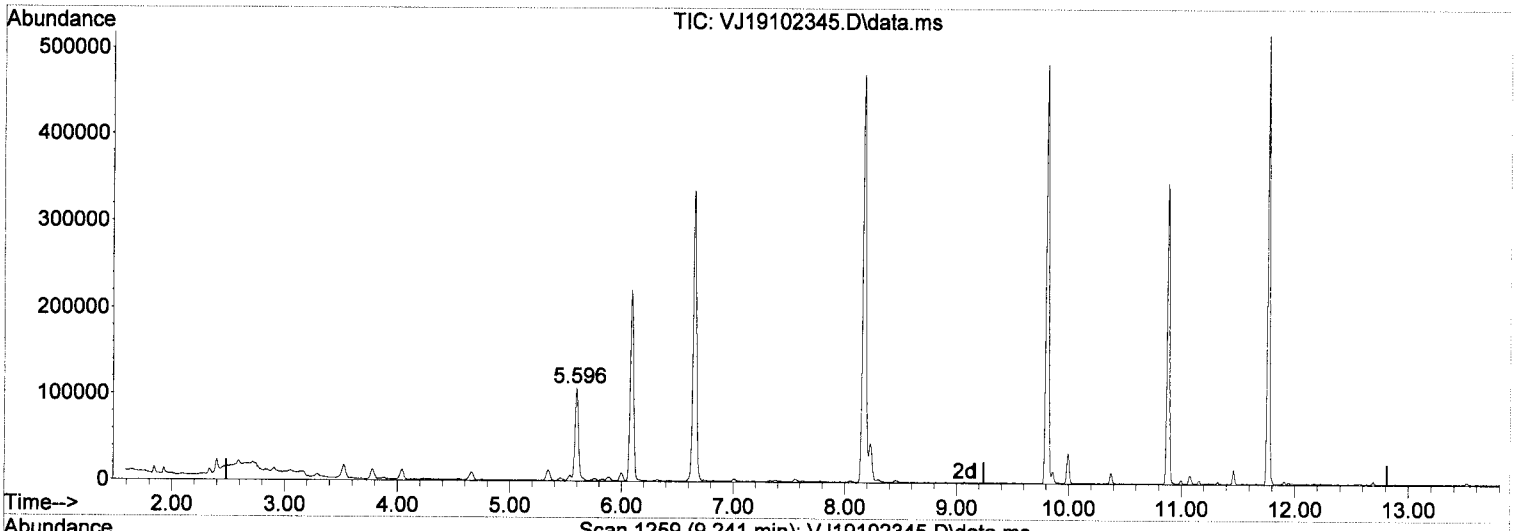


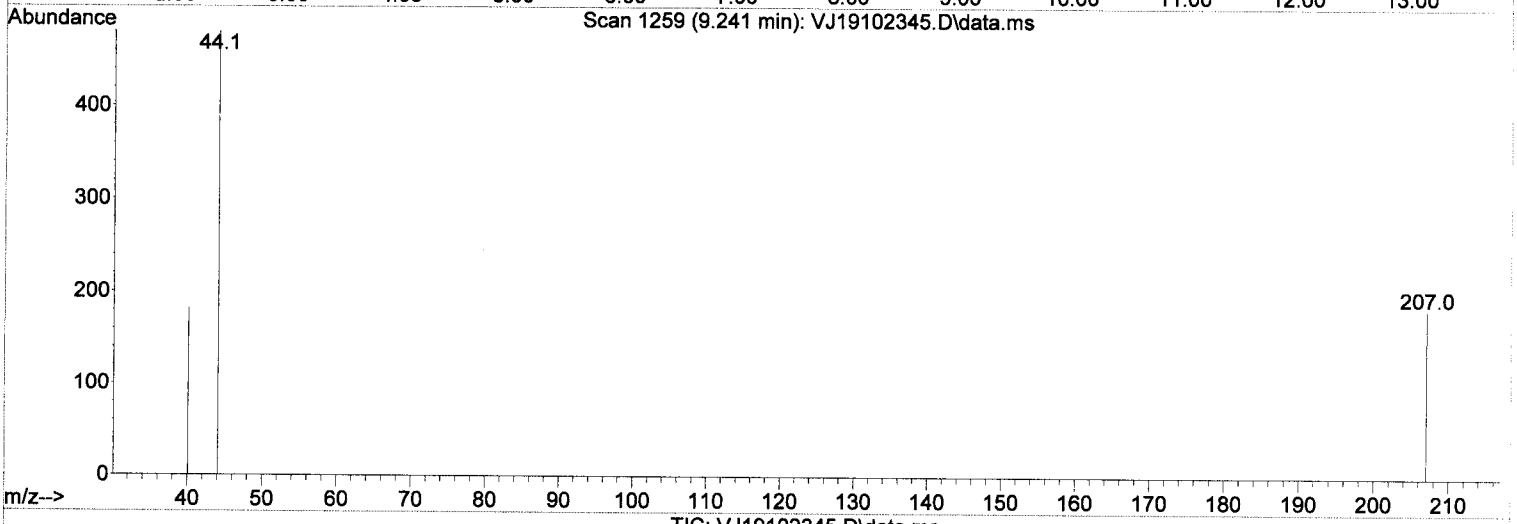
R = 2.20e-003 A*A + 3.78e+000 A + 2.48e+000
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VC-191024GRO_
Calibration Table Last Updated: Thu Oct 24 12:02:34 2019

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.

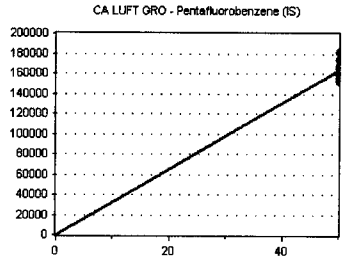
Element Calibration Review Sheet

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**

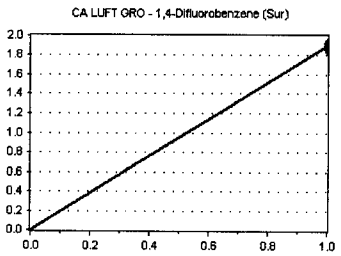


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	152567	3051.340	6.09
9J23072-CALD	50	153392	3067.840	6.09
9J23072-CALE	50	155593	3111.860	6.10
9J23072-CALF	50	159177	3183.540	6.10
9J23072-CALG	50	167155	3343.100	6.09
9J23072-CALH	50	165305	3306.100	6.10
9J23072-CALI	50	174020	3480.400	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**

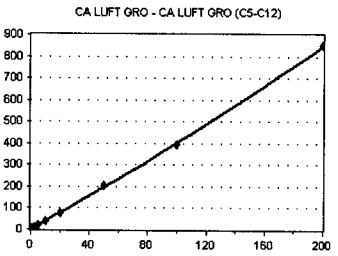


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	289686	1.899	6.66
9J23072-CALD	50	292121	1.904	6.66
9J23072-CALE	50	296265	1.904	6.66
9J23072-CALF	50	305907	1.922	6.66
9J23072-CALG	50	318452	1.905	6.66
9J23072-CALH	50	318152	1.925	6.66
9J23072-CALI	50	330721	1.900	6.66
9J23072-CALJ	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**

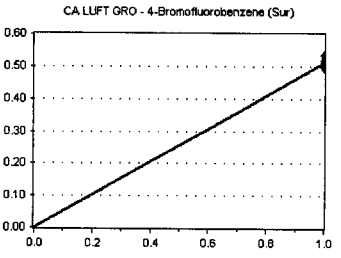


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	946025	6.201	0.00
9J23072-CALD	100	1596035	5.202	9.24
9J23072-CALE	250	3235032	4.158	9.24
9J23072-CALF	500	6336737	3.981	9.24
9J23072-CALG	1000	1.328617E+07	3.974	9.24
9J23072-CALH	2500	3.392865E+07	4.105	9.24
9J23072-CALI	5000	6.826362E+07	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**

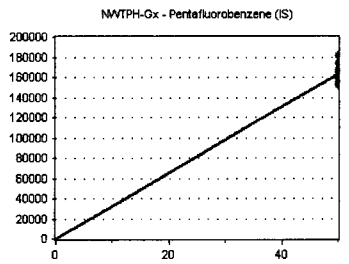
Element Calibration Review Sheet

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**

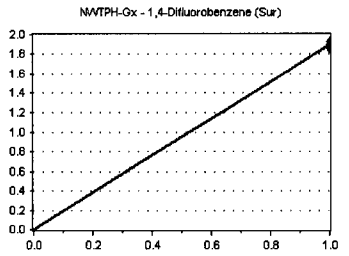


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	152567	3051.340	6.09
9J23072-CALD	50	153392	3067.840	6.09
9J23072-CALE	50	155593	3111.860	6.10
9J23072-CALF	50	159177	3183.540	6.10
9J23072-CALG	50	167155	3343.100	6.09
9J23072-CALH	50	165305	3306.100	6.10
9J23072-CALI	50	174020	3480.400	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**

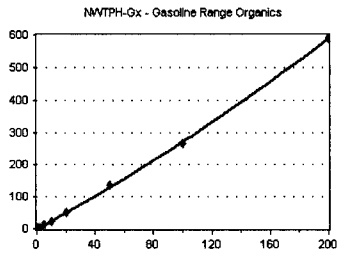


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	289686	1.899	6.66
9J23072-CALD	50	292121	1.904	6.66
9J23072-CALE	50	296265	1.904	6.66
9J23072-CALF	50	305907	1.922	6.66
9J23072-CALG	50	318452	1.905	6.66
9J23072-CALH	50	318152	1.925	6.66
9J23072-CALI	50	330721	1.900	6.66
9J23072-CALJ	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**

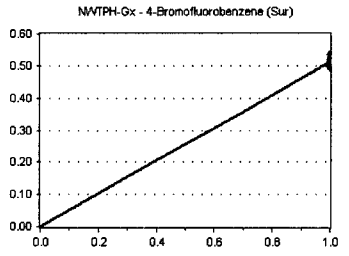


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	375320	2.460	8.74
9J23072-CALD	100	727259	2.371	8.74
9J23072-CALE	250	1852913	2.382	8.74
9J23072-CALF	500	3865293	2.428	8.74
9J23072-CALG	1000	8482501	2.537	8.74
9J23072-CALH	2500	2.254156E+07	2.727	8.74
9J23072-CALI	5000	4.606917E+07	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**

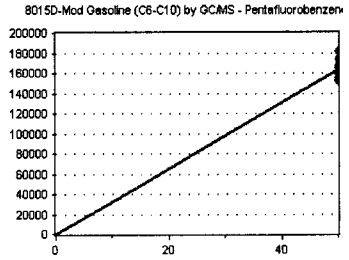
Element Calibration Review Sheet

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**

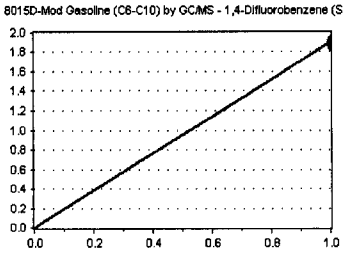


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	152567	3051.340	6.09
9J23072-CALD	50	153392	3067.840	6.09
9J23072-CALE	50	155593	3111.860	6.10
9J23072-CALF	50	159177	3183.540	6.10
9J23072-CALG	50	167155	3343.100	6.09
9J23072-CALH	50	165305	3306.100	6.10
9J23072-CALI	50	174020	3480.400	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**

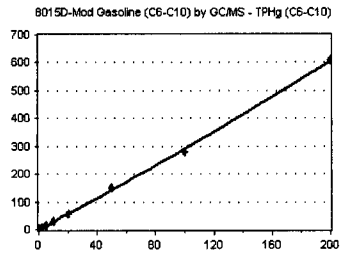


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	289686	1.899	6.66
9J23072-CALD	50	292121	1.904	6.66
9J23072-CALE	50	296265	1.904	6.66
9J23072-CALF	50	305907	1.922	6.66
9J23072-CALG	50	318452	1.905	6.66
9J23072-CALH	50	318152	1.925	6.66
9J23072-CALI	50	330721	1.900	6.66
9J23072-CALJ	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**

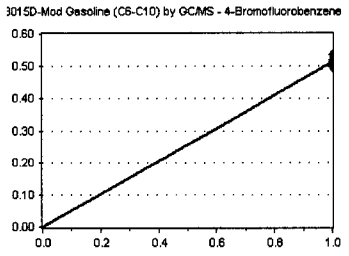


Standard	Concentration	Response	Response Factor	RT
9J23072-CALC	50	631711	4.141	9.24
9J23072-CALD	100	1074809	3.503	9.24
9J23072-CALE	250	2339645	3.007	9.24
9J23072-CALF	500	4678414	2.939	9.24
9J23072-CALG	1000	9708618	2.904	9.24
9J23072-CALH	2500	2.471193E+07	2.990	9.24
9J23072-CALI	5000	4.881578E+07	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

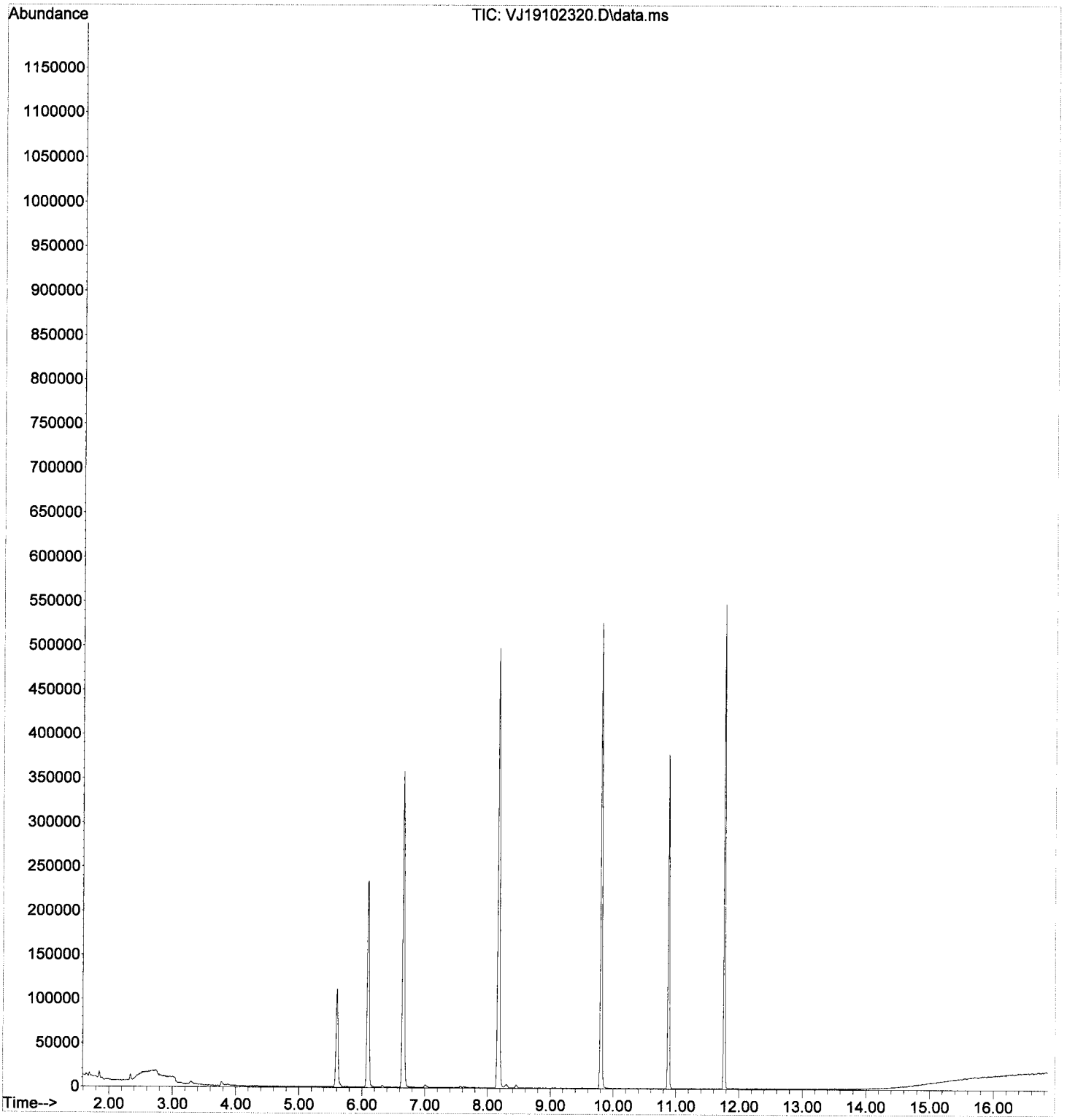
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.089	99	101329	50.00	ug/L	0.00
43) Chlorobenzene-d5 (I)	9.806	117	279302	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	115194	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (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

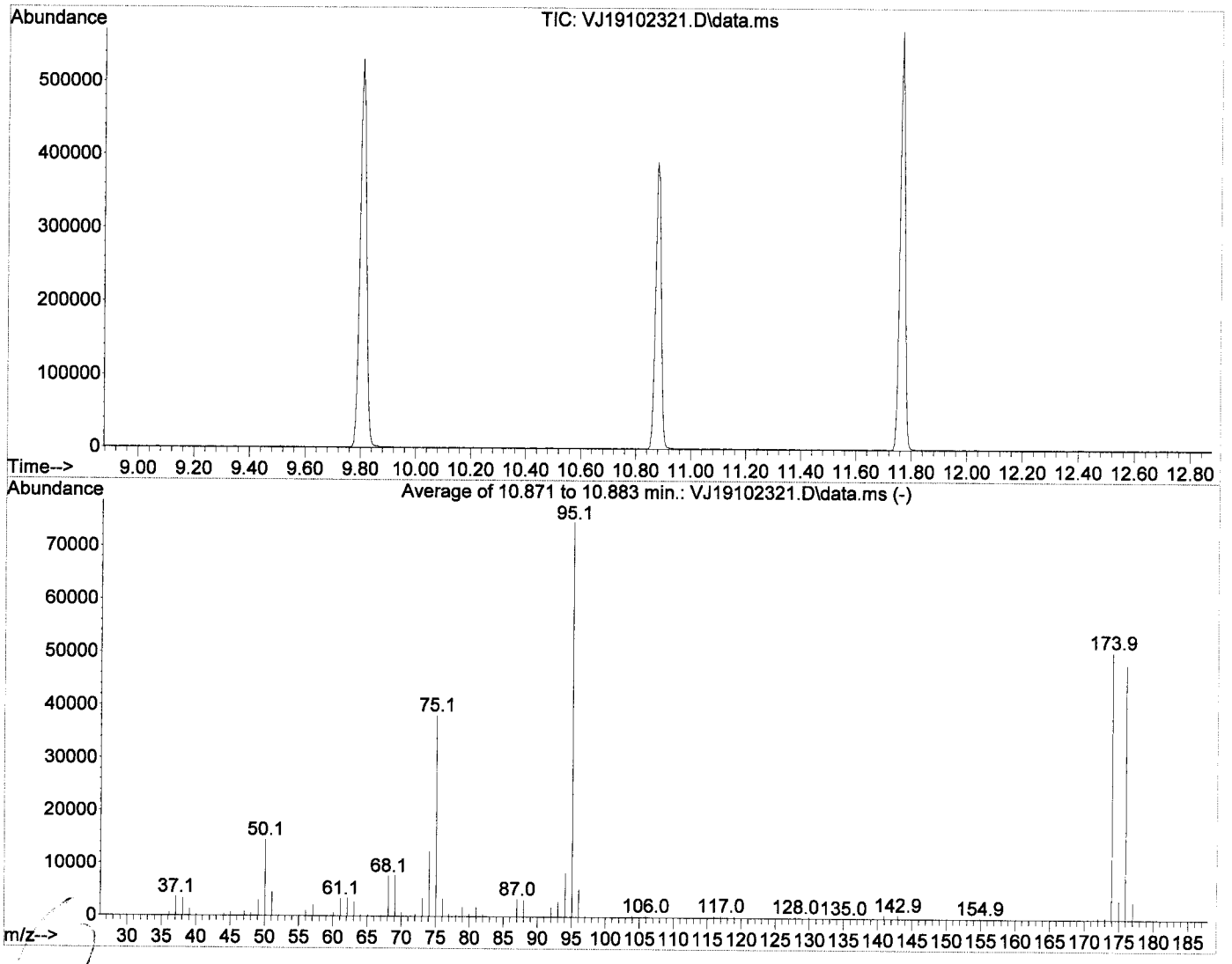


BFB

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

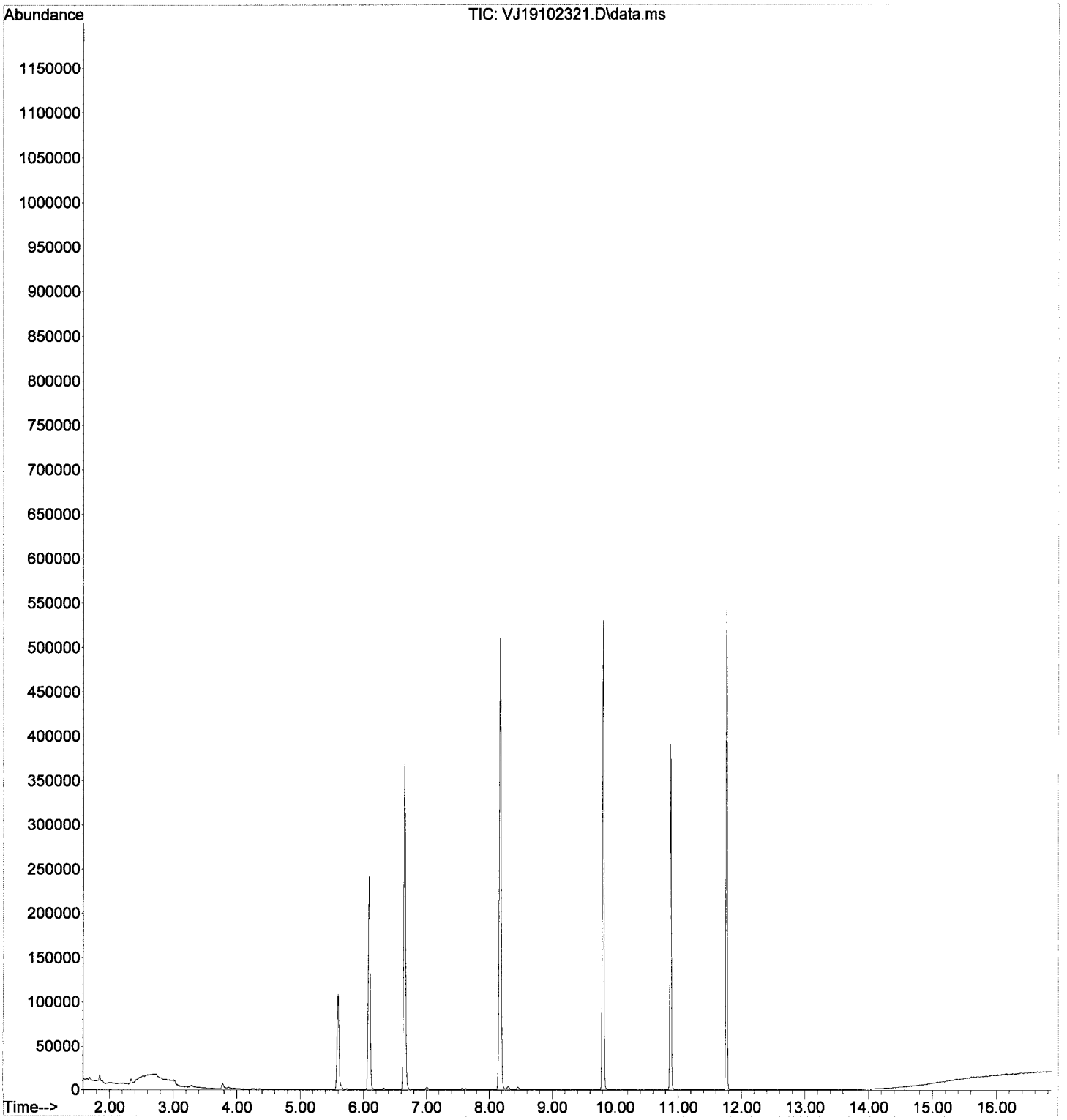
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.089	99	102916	50.00	ug/L	0.00
43) Chlorobenzene-d5 (I)	9.806	117	281718	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	115749	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (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

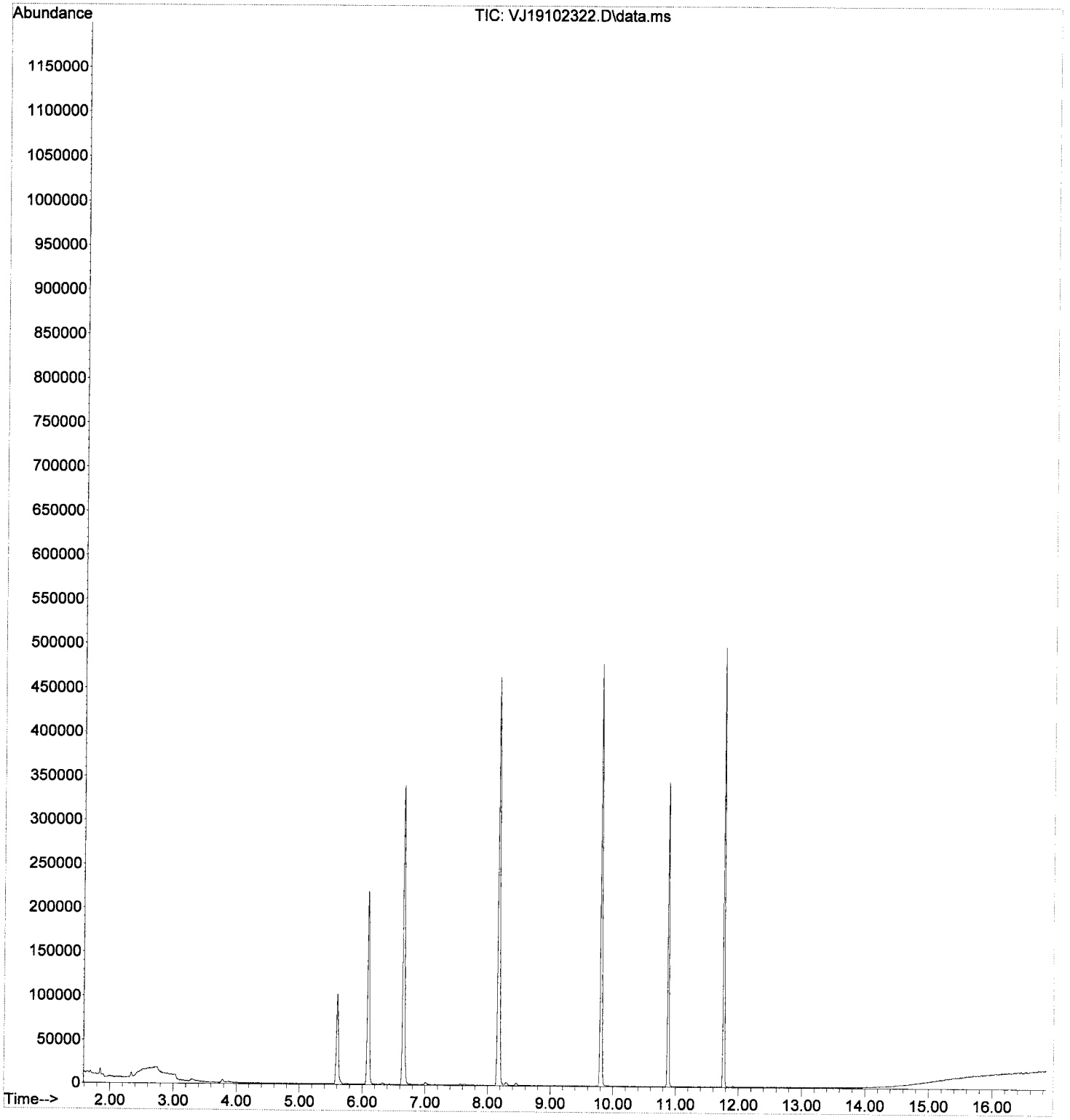
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	96423	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	253840	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	104143	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (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

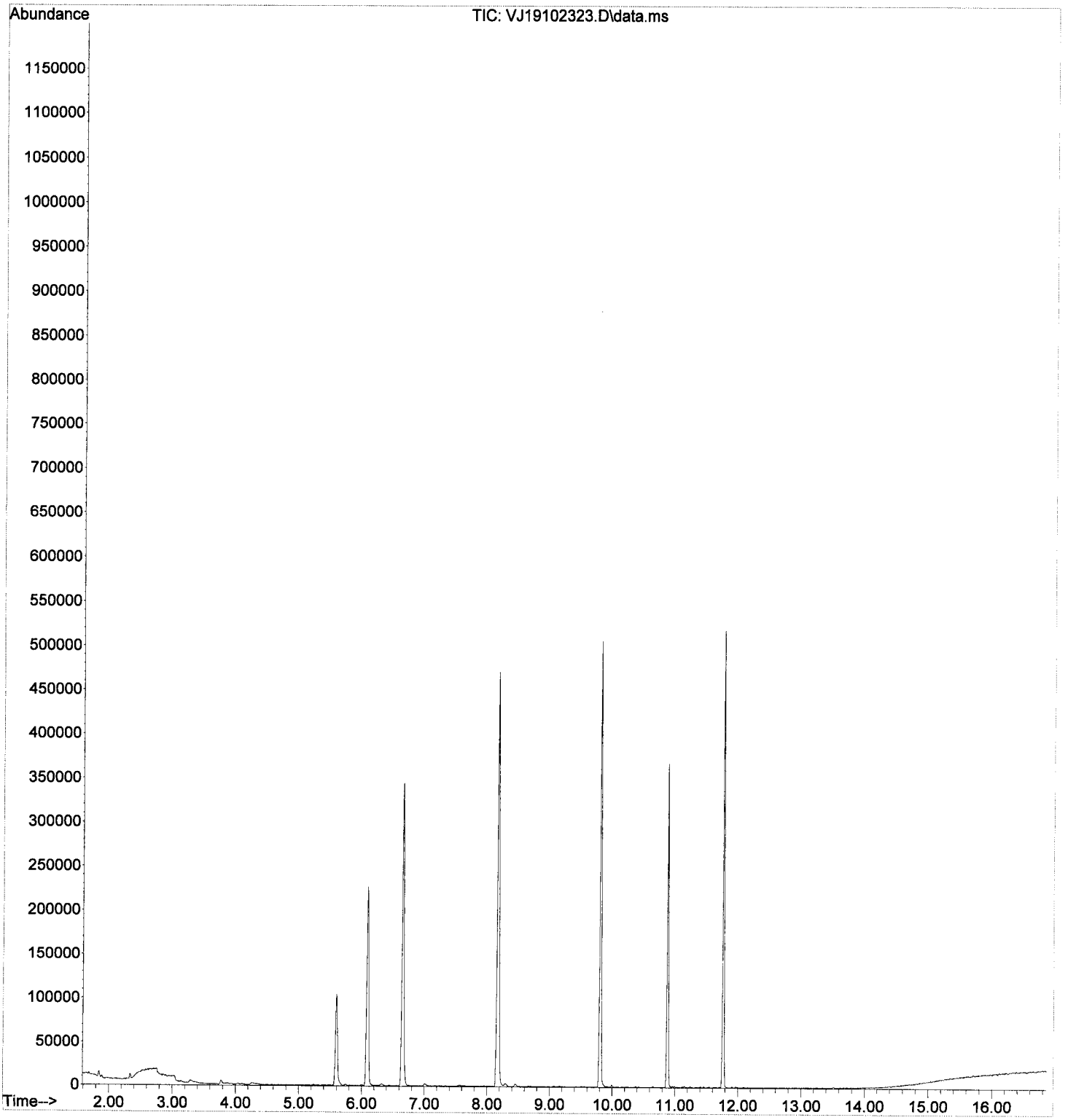
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	149	0.03	ug/L	#	45
50) 1,1,2-Trichloroethane	8.869	97	69	0.14	ug/L	#	64
51) Dibromochloromethane	0.000		0	N.D.			
52) 1,3-Dichloropropane	9.161	76	315	0.07	ug/L	#	56
53) 1,2-Dibromoethane (EDB)	0.000		0	N.D.			
54) 2-Hexanone	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.		
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

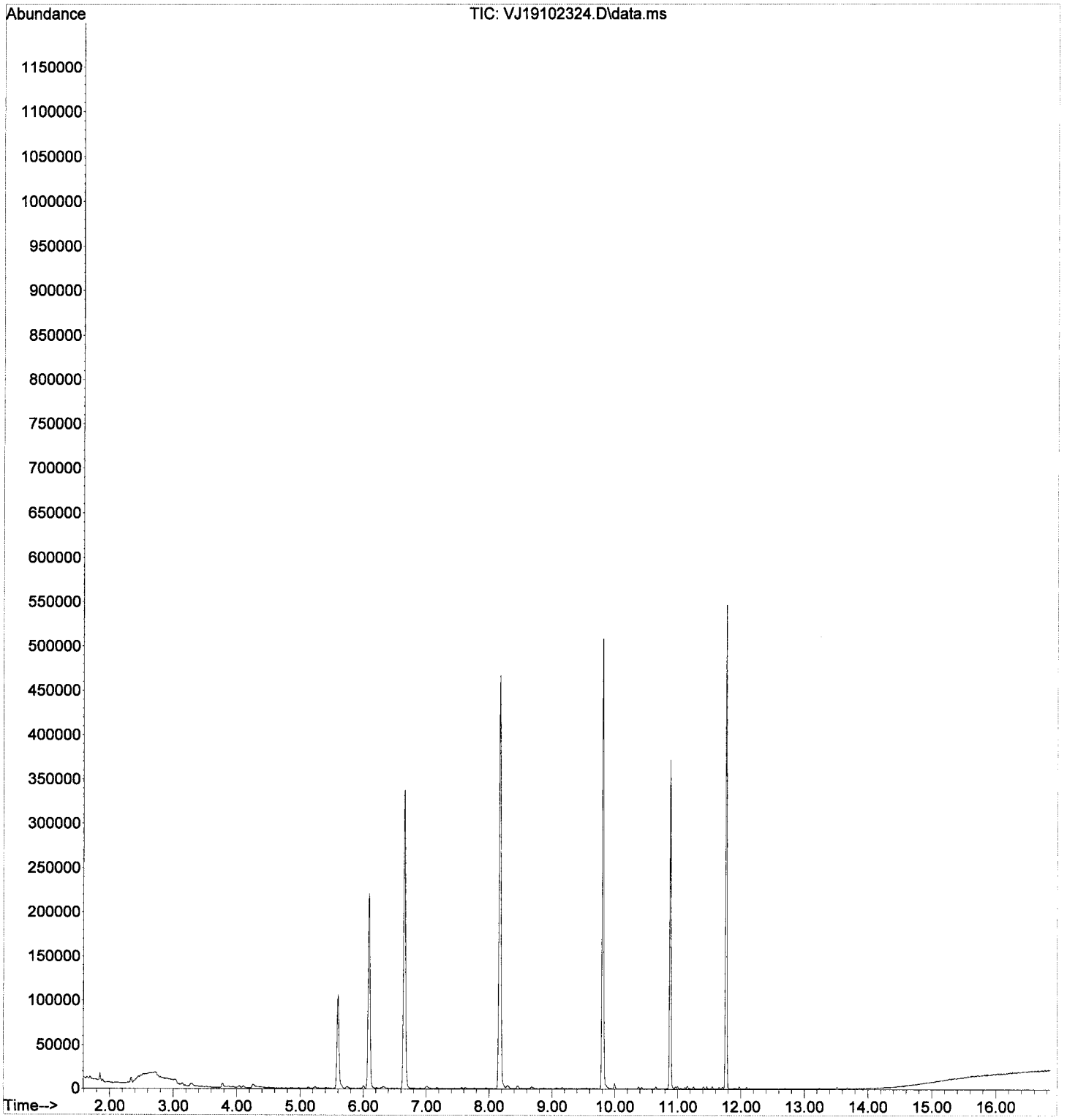
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	580	0.13	ug/L	70
50) 1,1,2-Trichloroethane	8.876	97	417	0.29	ug/L #	63
51) Dibromochloromethane	9.058	129	61	0.03	ug/L #	17
52) 1,3-Dichloropropane	9.162	76	851	0.18	ug/L	69
53) 1,2-Dibromoethane (EDB)	9.302	107	426	0.18	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

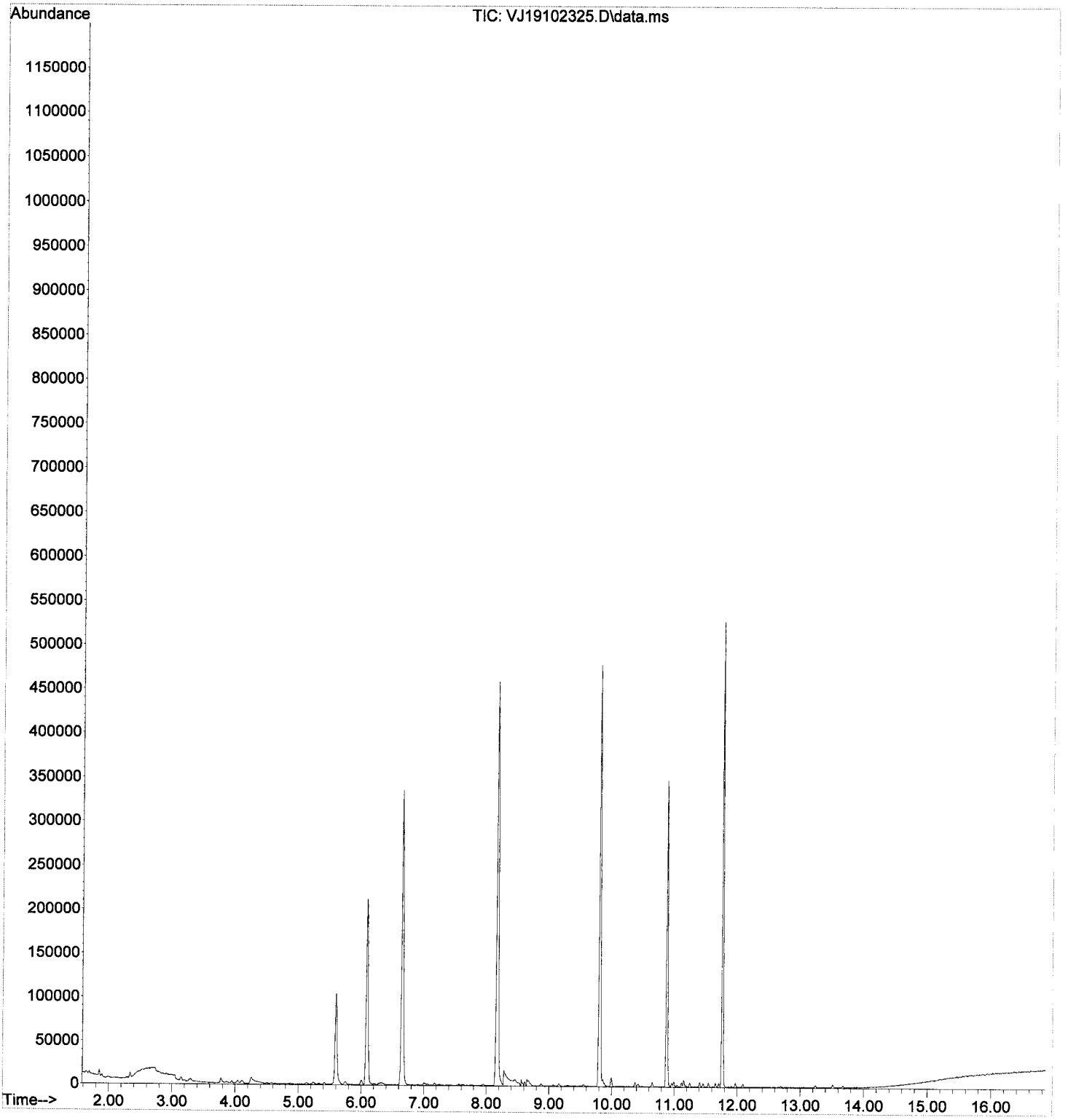
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	1392	0.33	ug/L	70
50) 1,1,2-Trichloroethane	8.876	97	933	0.53	ug/L	94
51) Dibromochloromethane	9.064	129	522	0.22	ug/L	88
52) 1,3-Dichloropropane	9.168	76	1718	0.38	ug/L	91
53) 1,2-Dibromoethane (EDB)	9.301	107	788	0.34	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

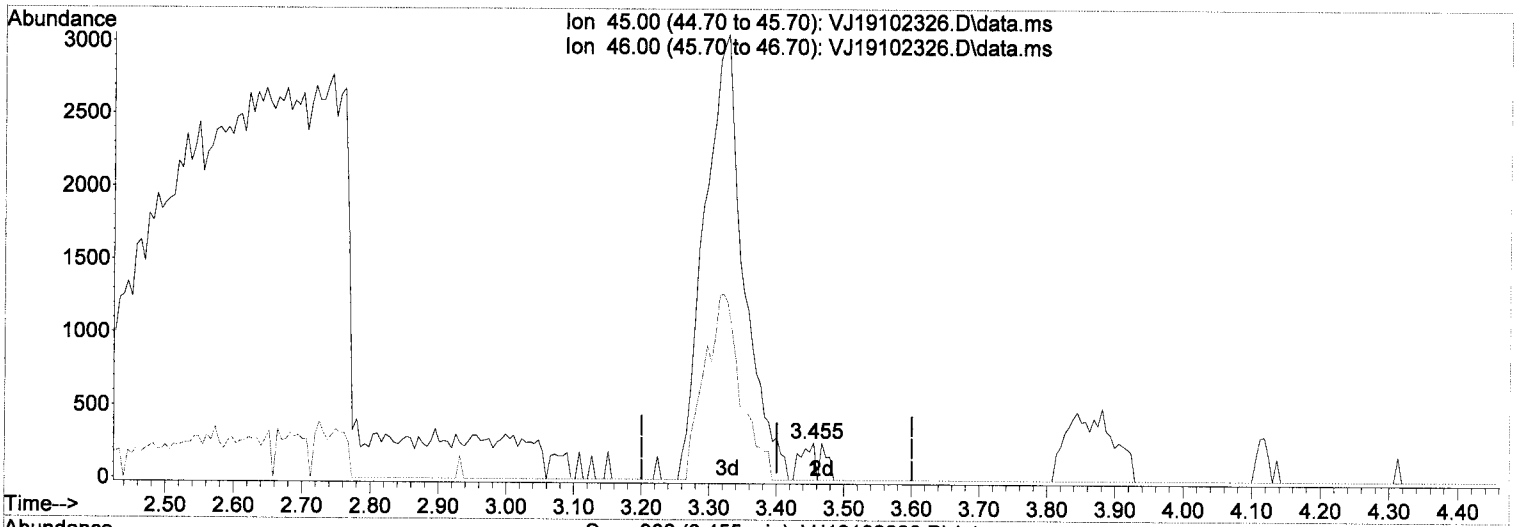
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	3091	0.75	ug/L	91
50) 1,1,2-Trichloroethane	8.875	97	2304	1.16	ug/L	94
51) Dibromochloromethane	9.070	129	1520	0.65	ug/L	87
52) 1,3-Dichloropropane	9.161	76	4392	0.99	ug/L	95
53) 1,2-Dibromoethane (EDB)	9.301	107	2060	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

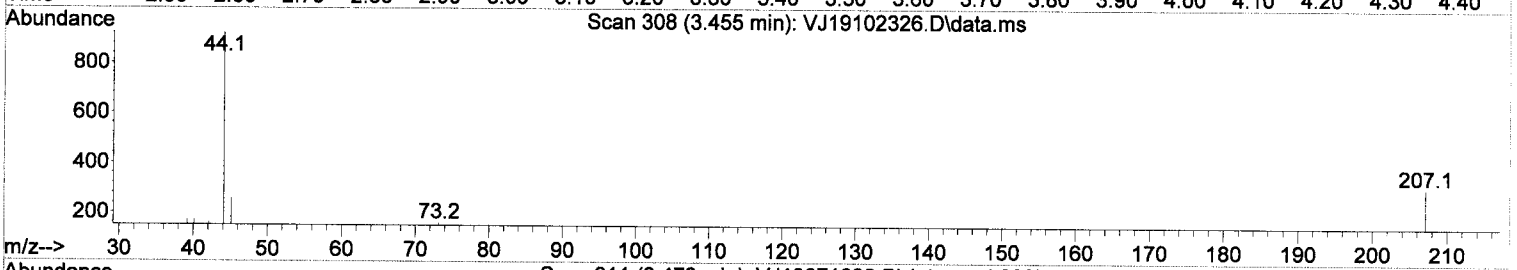
(#) = qualifier out of range (m) = manual integration (+) = signals summed

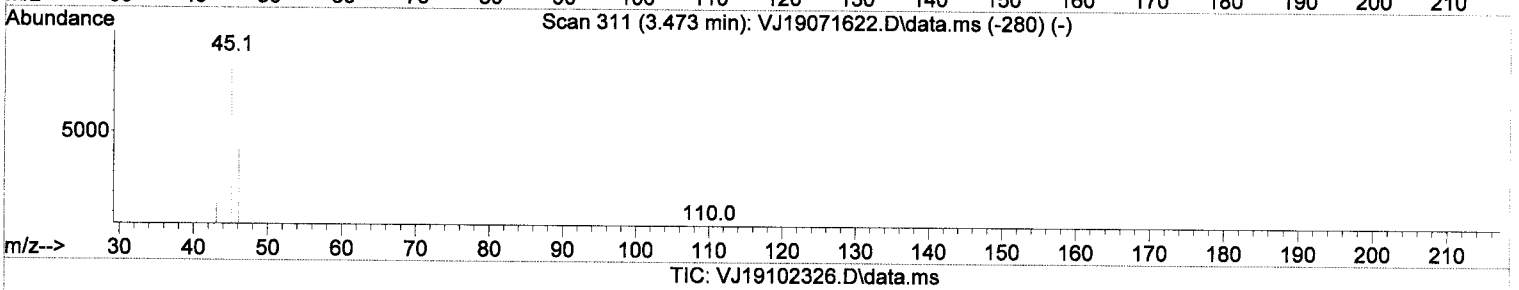
Quantitation Report (Qedit)

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

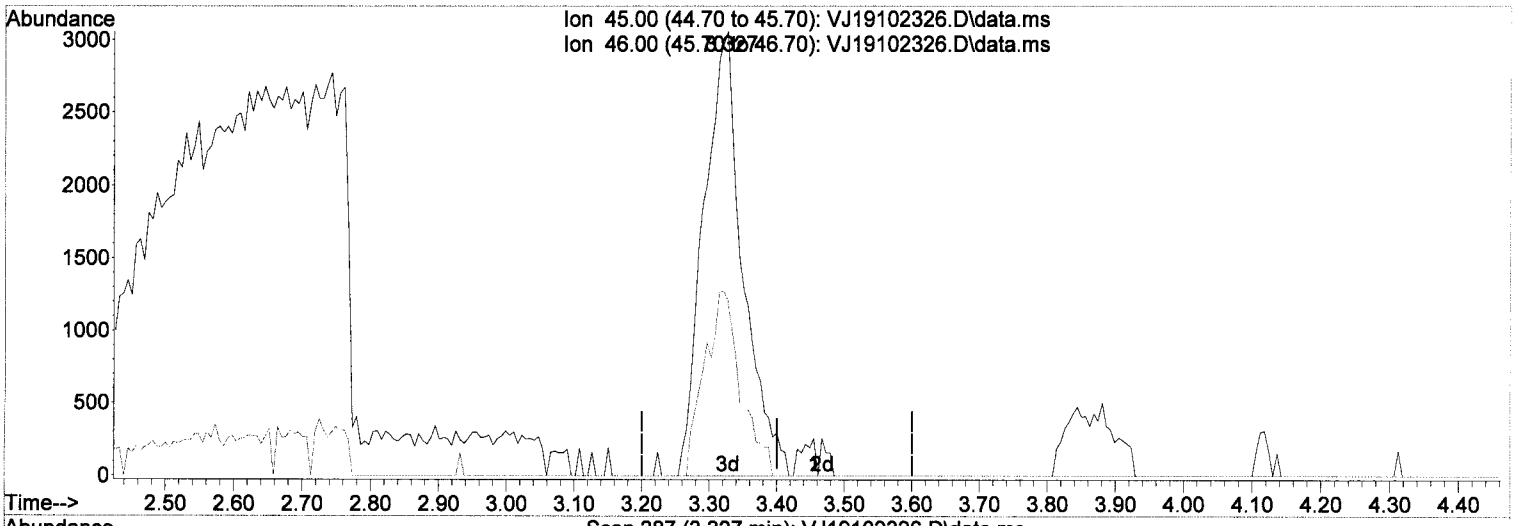
response 369

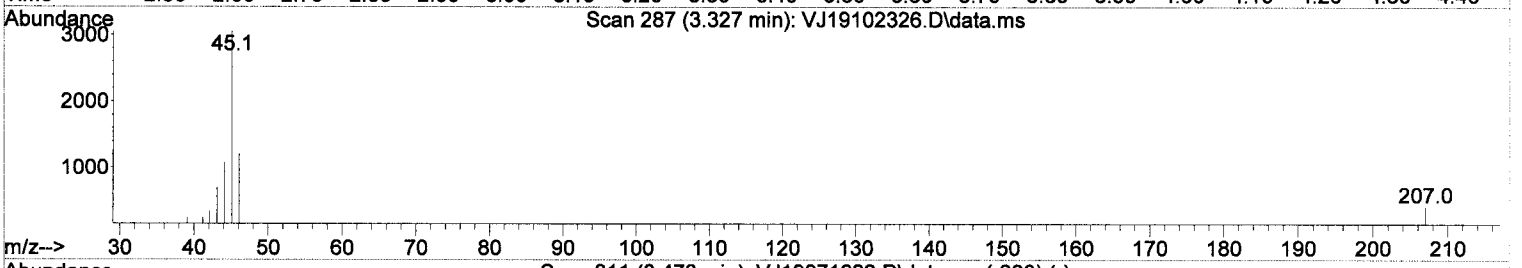
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

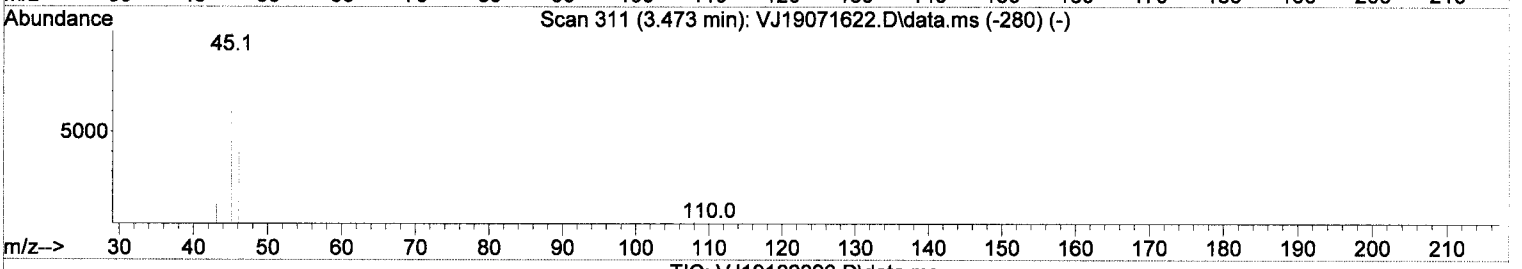
Quantitation Report (Qedit)

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

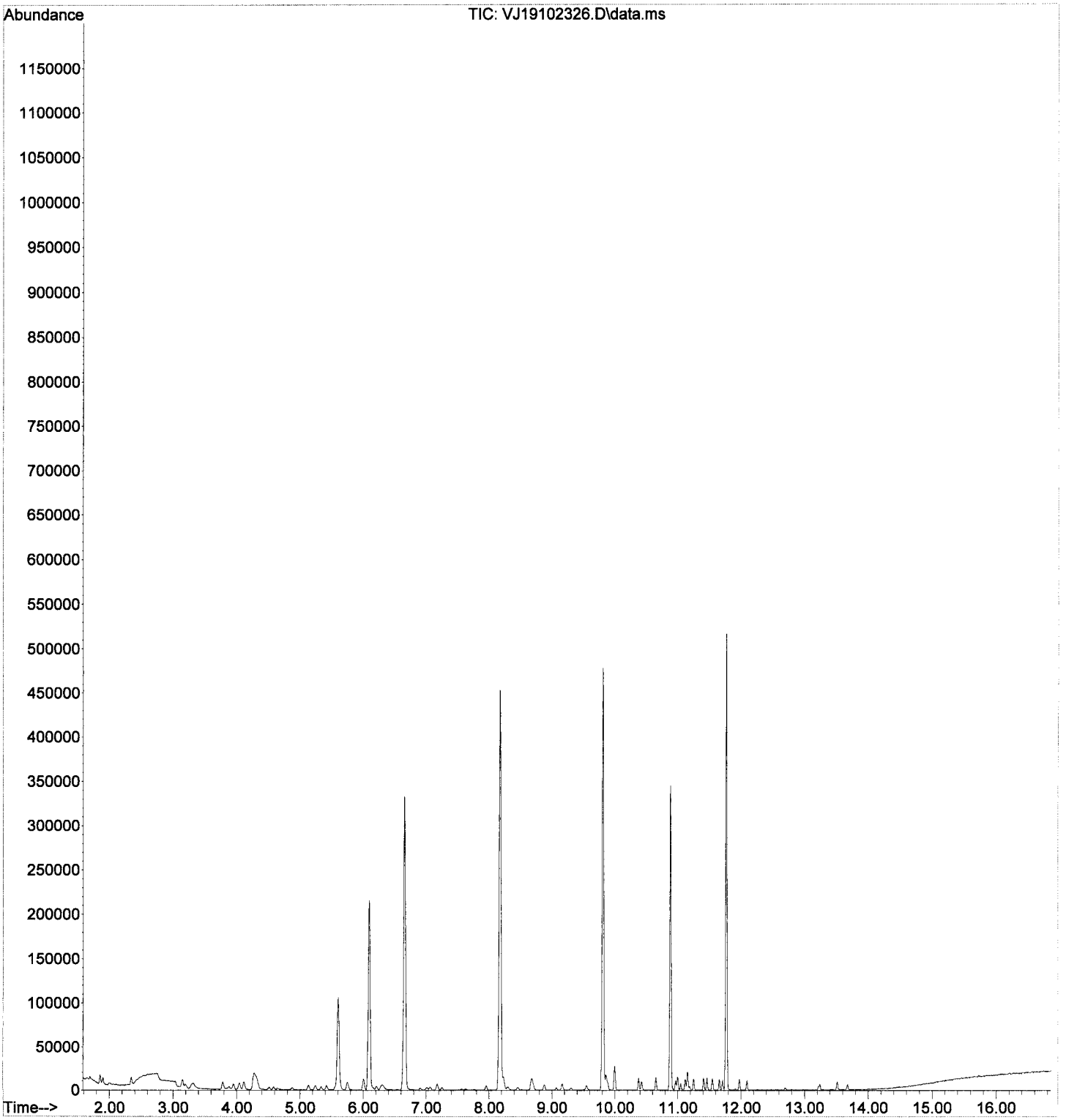
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	39.72
0.00	0.00	0.00
0.00	0.00	0.00

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

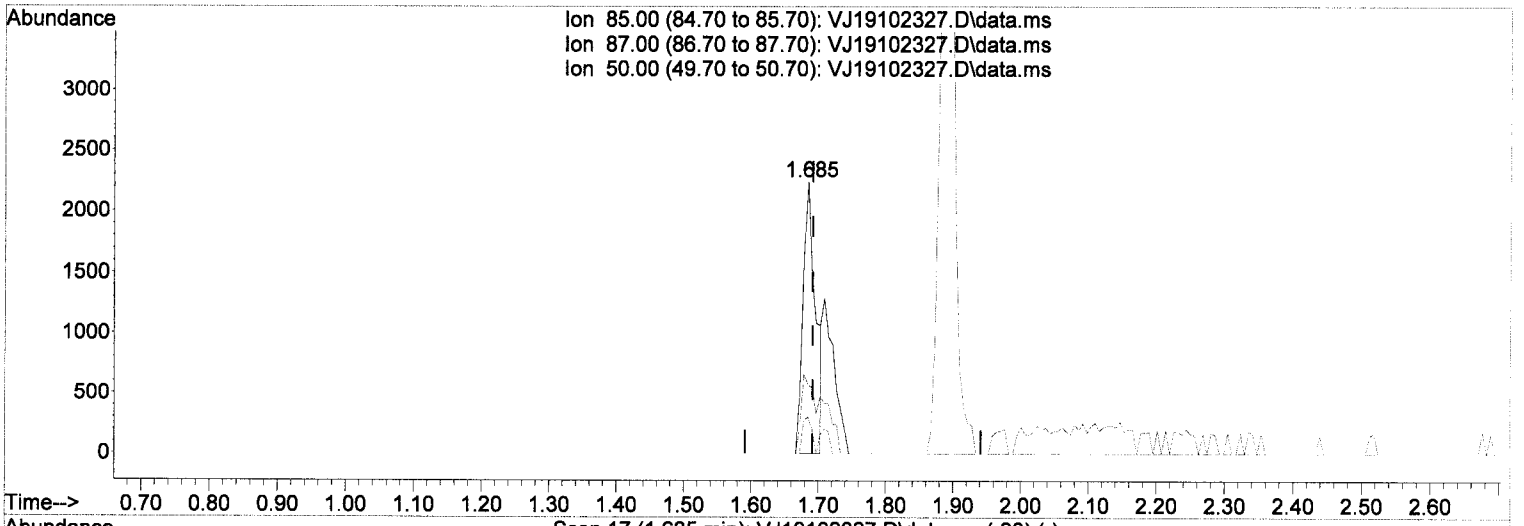
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	7062	1.69	ug/L		91
50) 1,1,2-Trichloroethane	8.875	97	5217	2.44	ug/L		94
51) Dibromochloromethane	9.064	129	3616	1.53	ug/L		96
52) 1,3-Dichloropropane	9.161	76	9958	2.22	ug/L		95
53) 1,2-Dibromoethane (EDB)	9.301	107	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

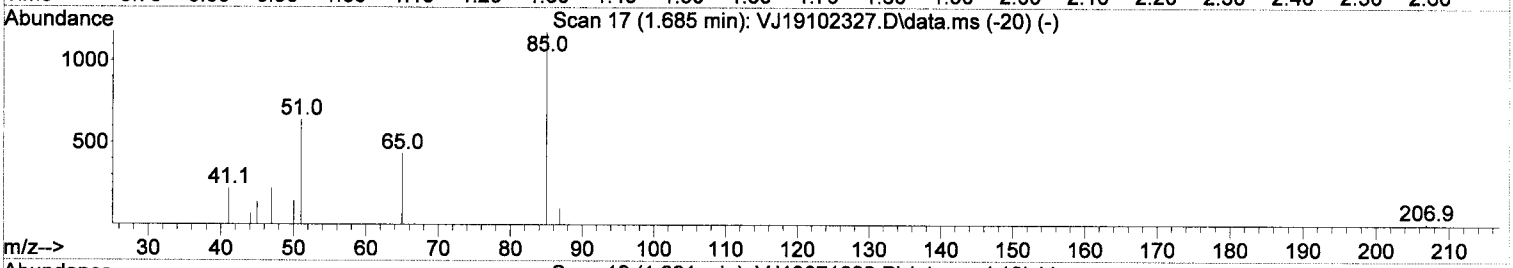
(#) = qualifier out of range (m) = manual integration (+) = signals summed

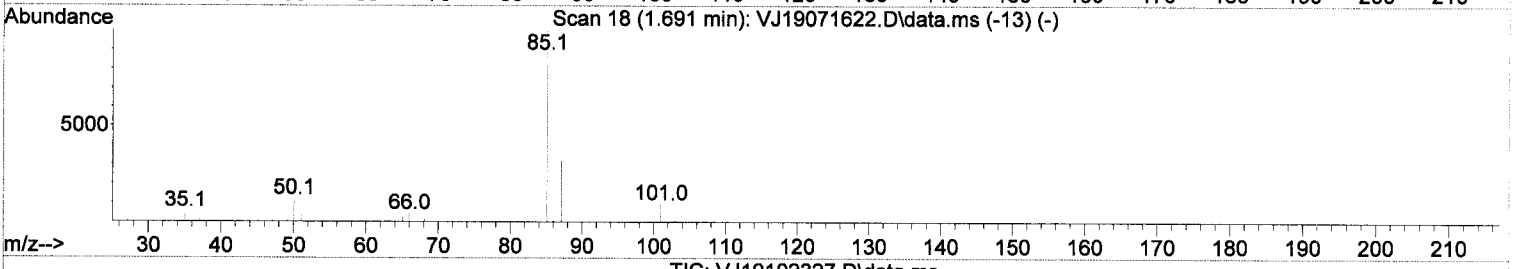
Quantitation Report (Qedit)

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

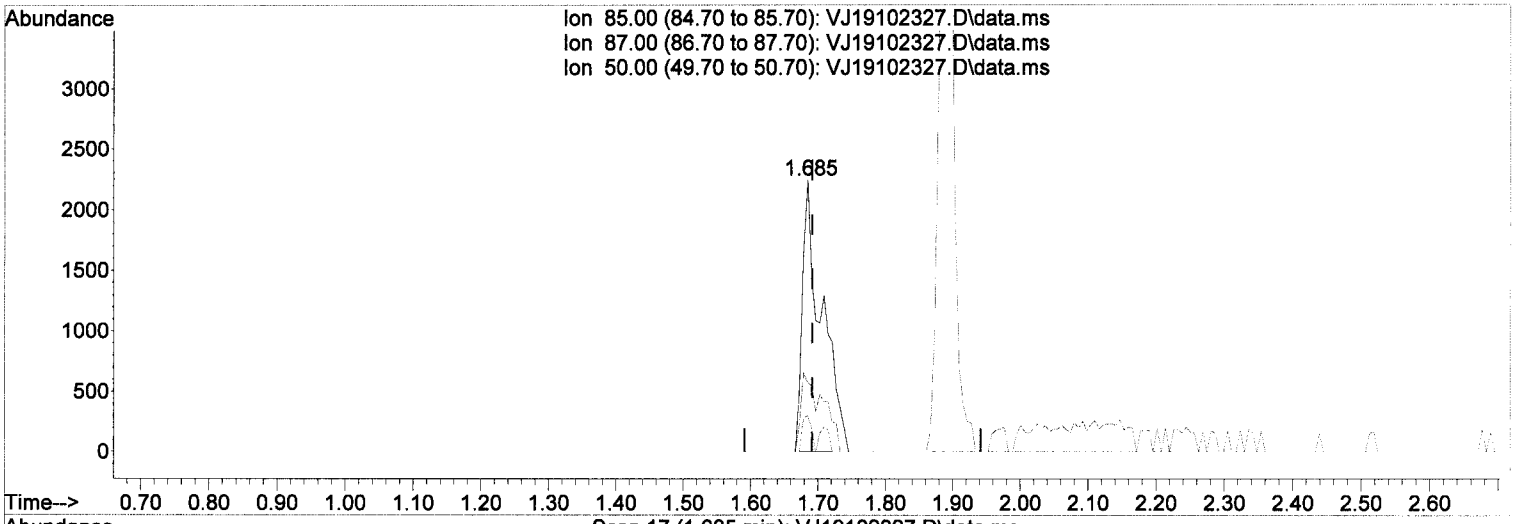
response 2909

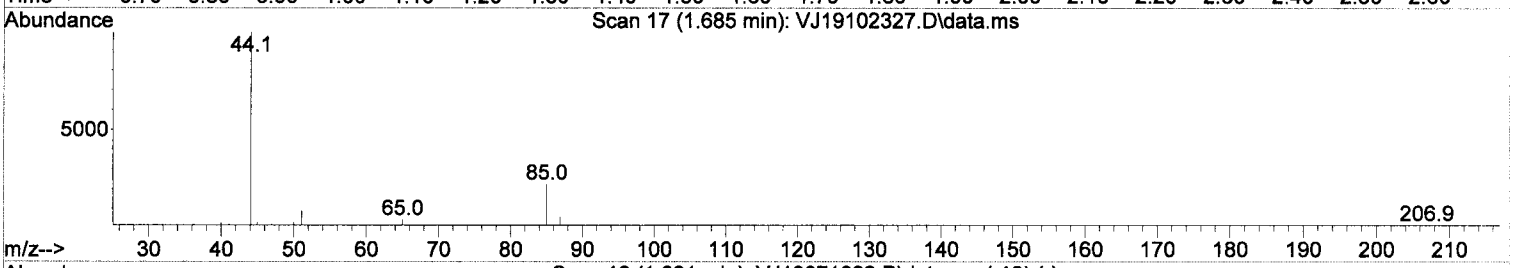
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	25.45
50.00	11.20	13.41
0.00	0.00	0.00

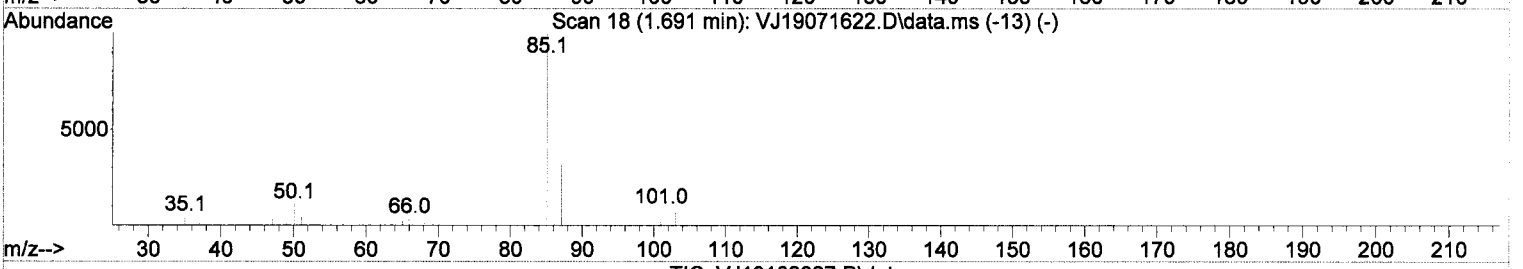
Quantitation Report (Qedit)

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

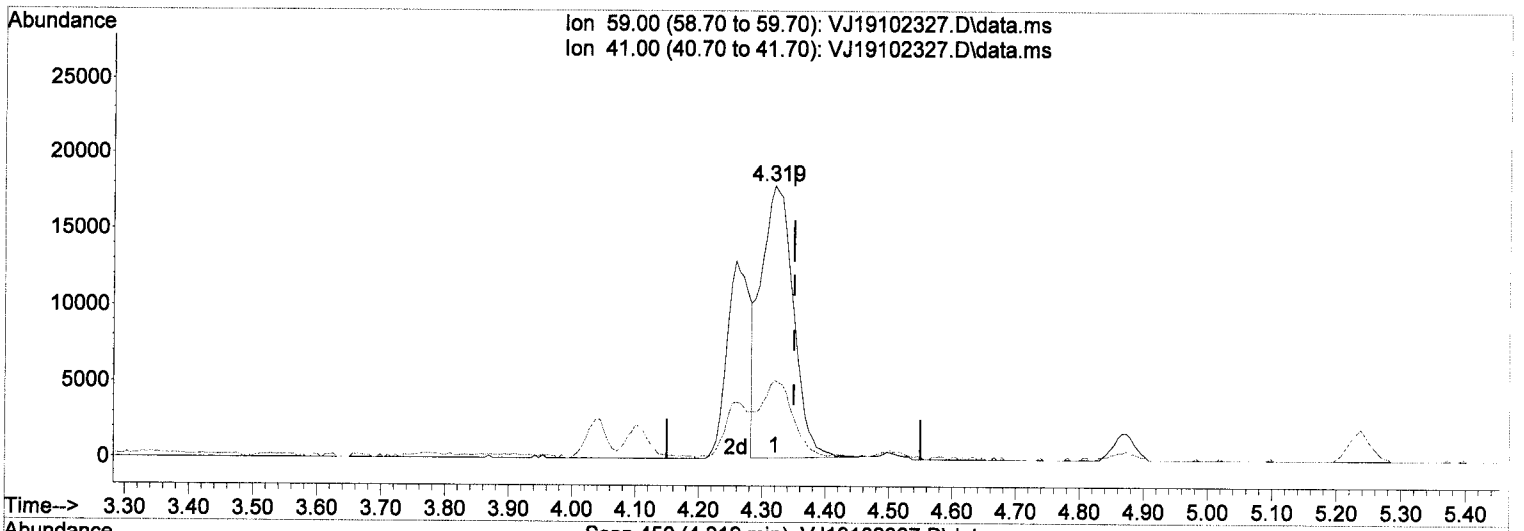
response 4456

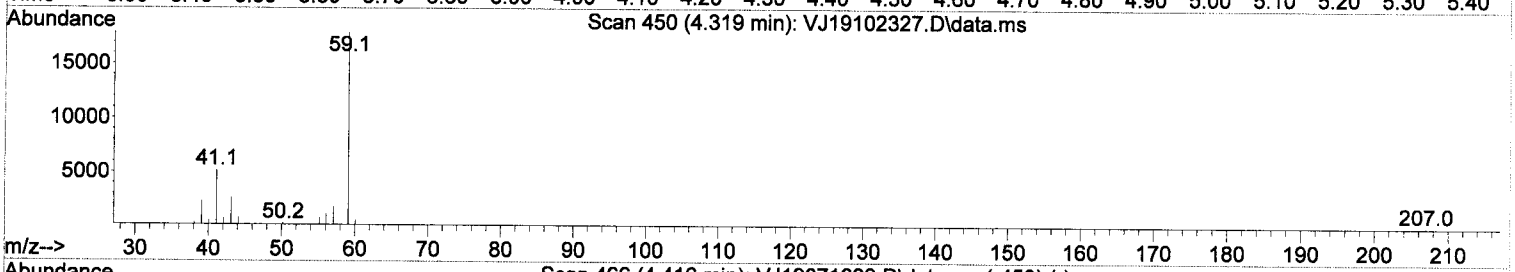
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	25.45
50.00	11.20	13.41
0.00	0.00	0.00

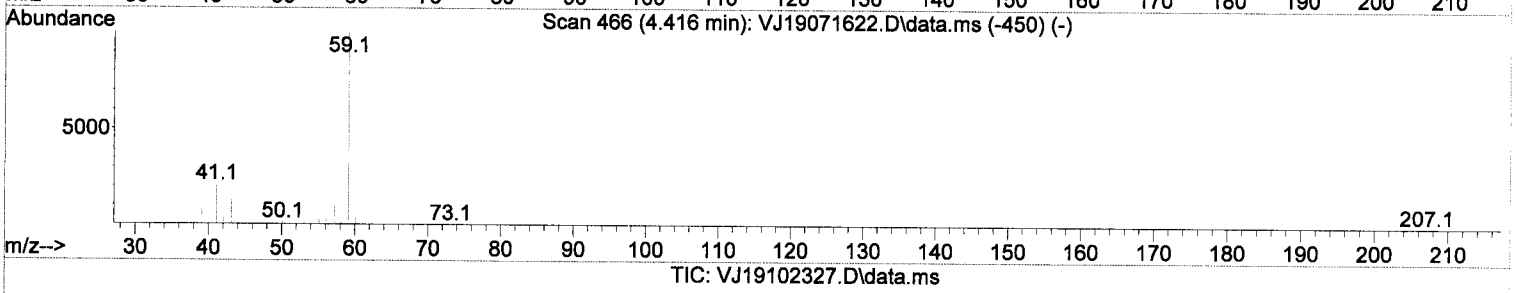
Quantitation Report (Qedit)

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

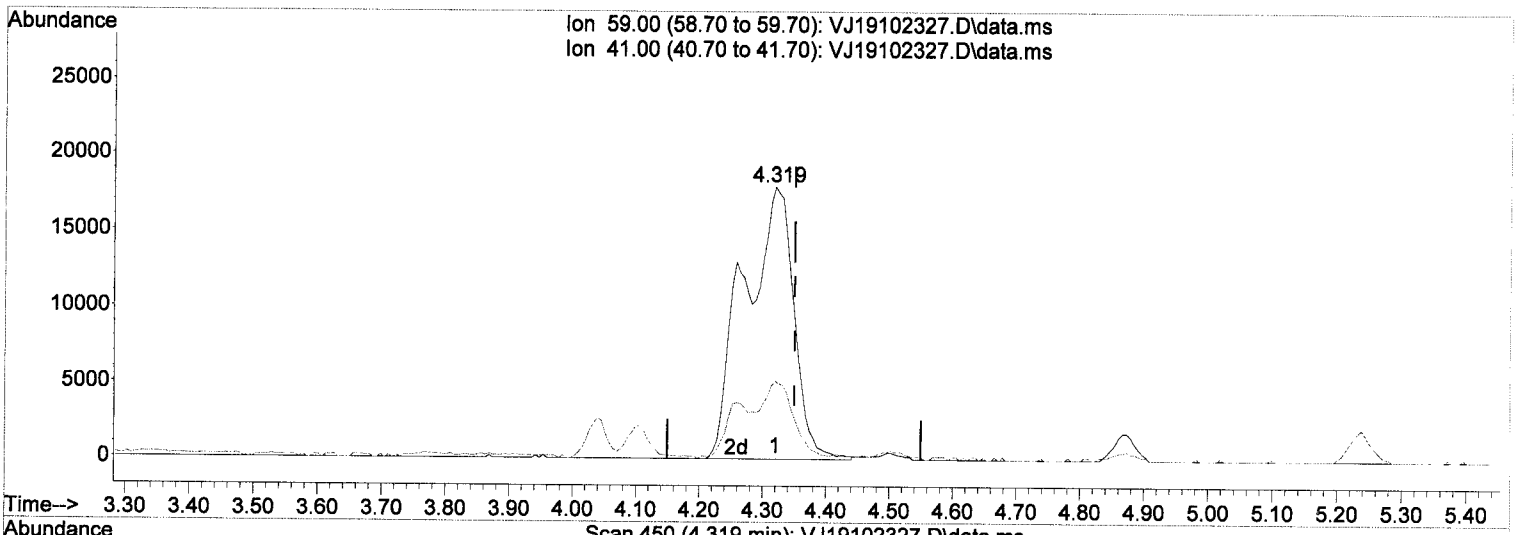
response 63582

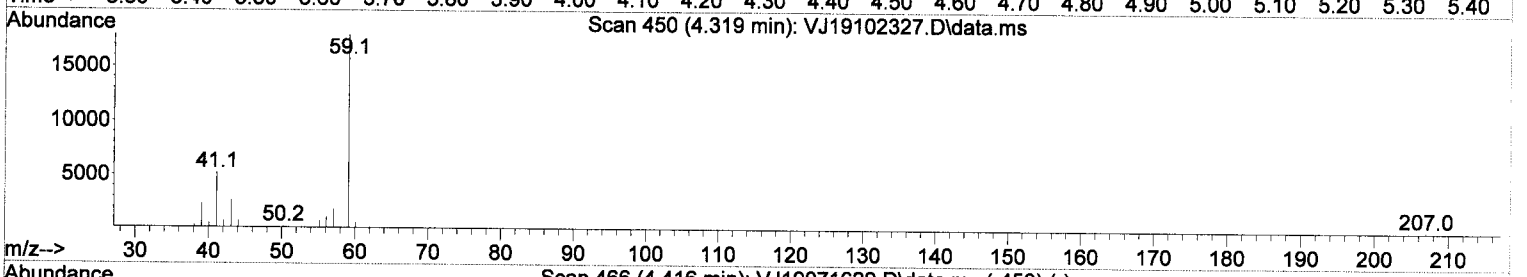
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	28.95#
0.00	0.00	0.00
0.00	0.00	0.00

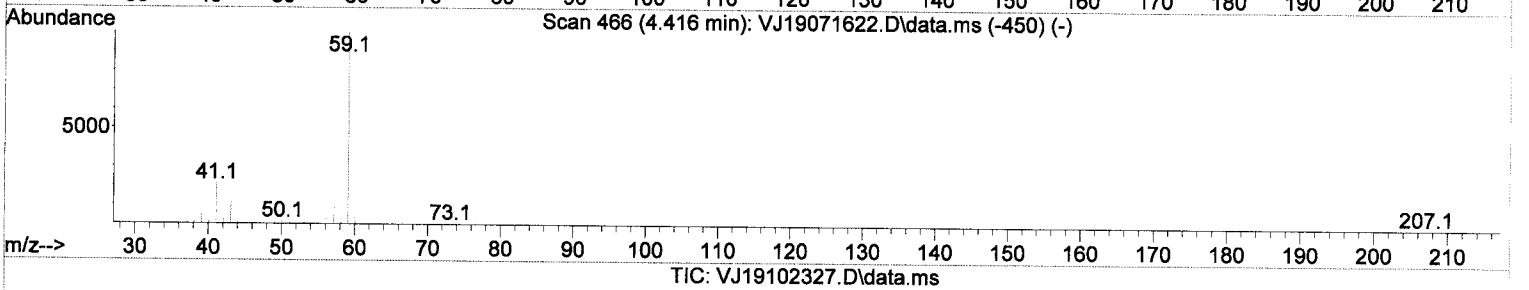
Quantitation Report (Qedit)

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

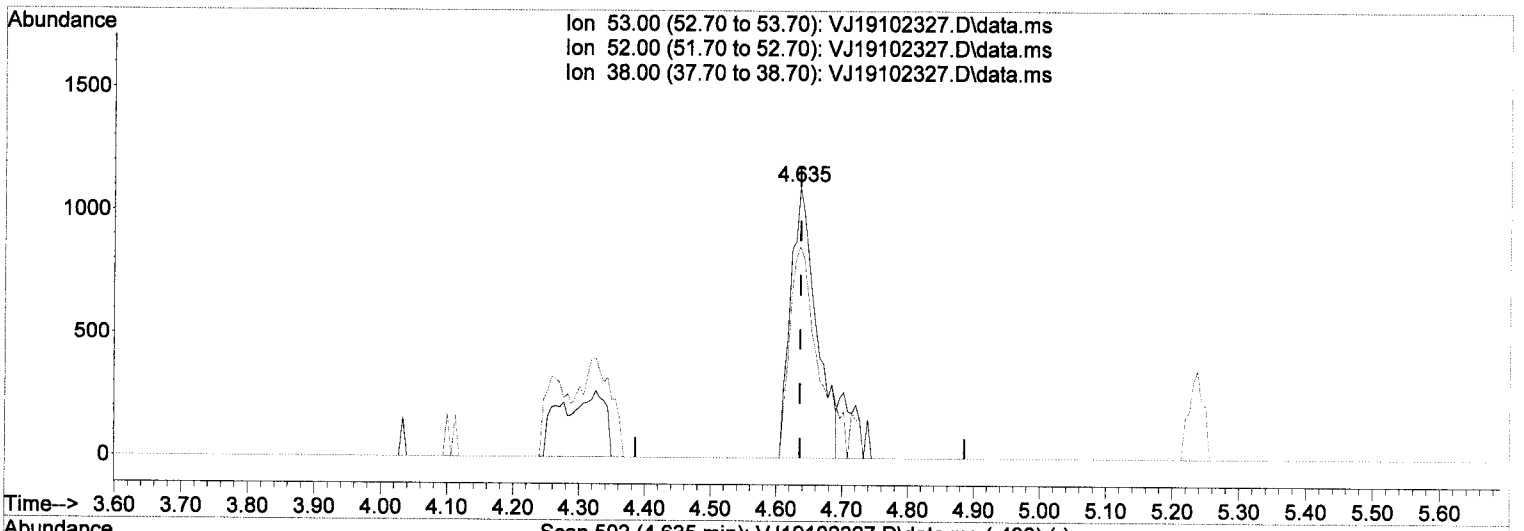
response 97251

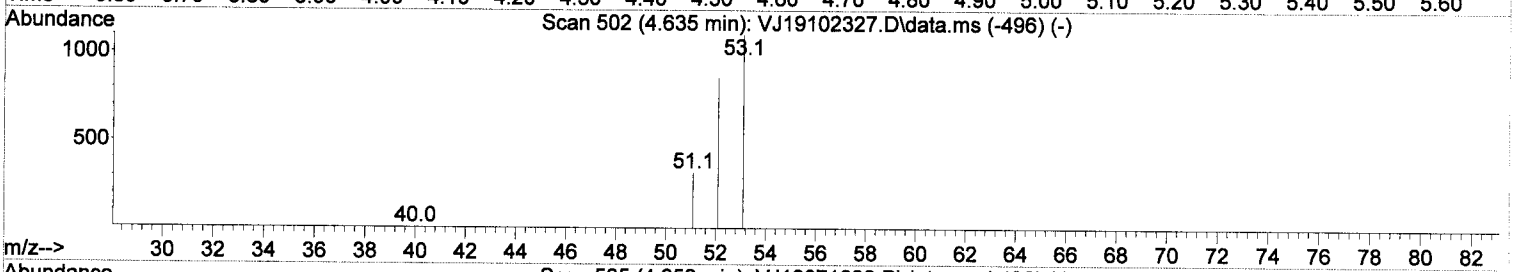
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	28.95#
0.00	0.00	0.00
0.00	0.00	0.00

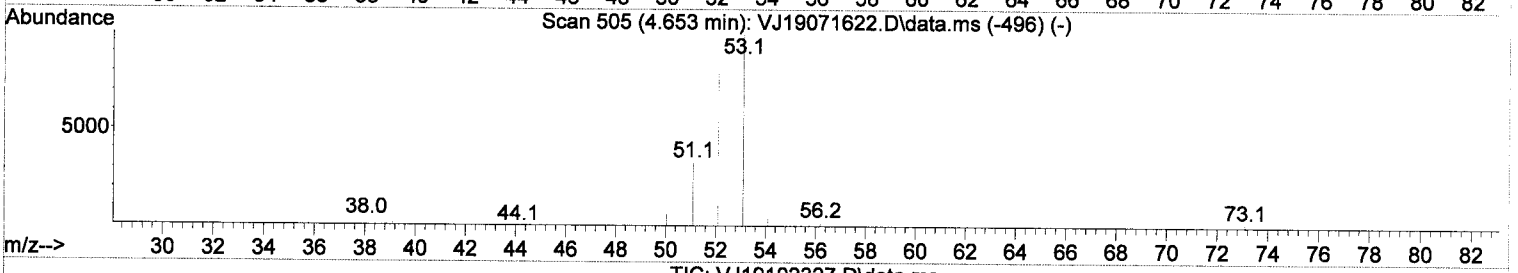
Quantitation Report (Qedit)

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

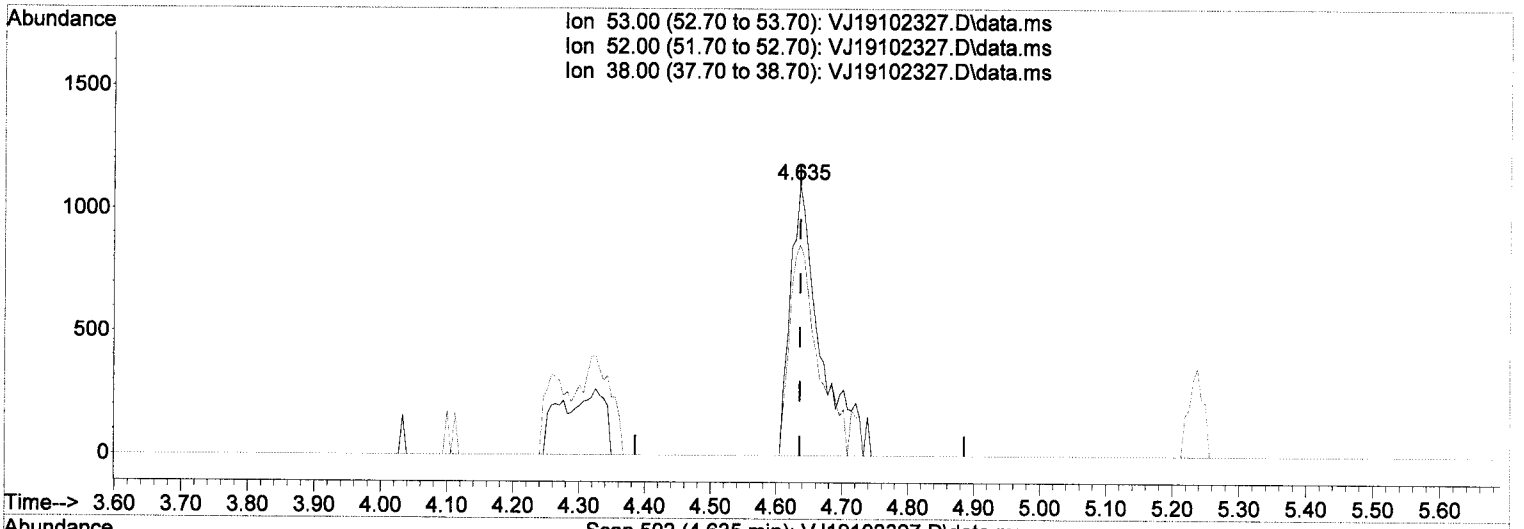
response 2980

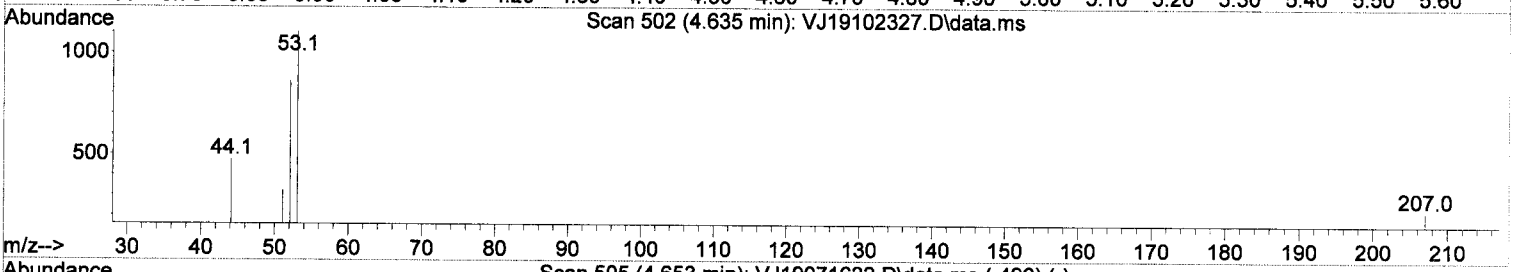
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	77.79
38.00	5.50	0.00
0.00	0.00	0.00

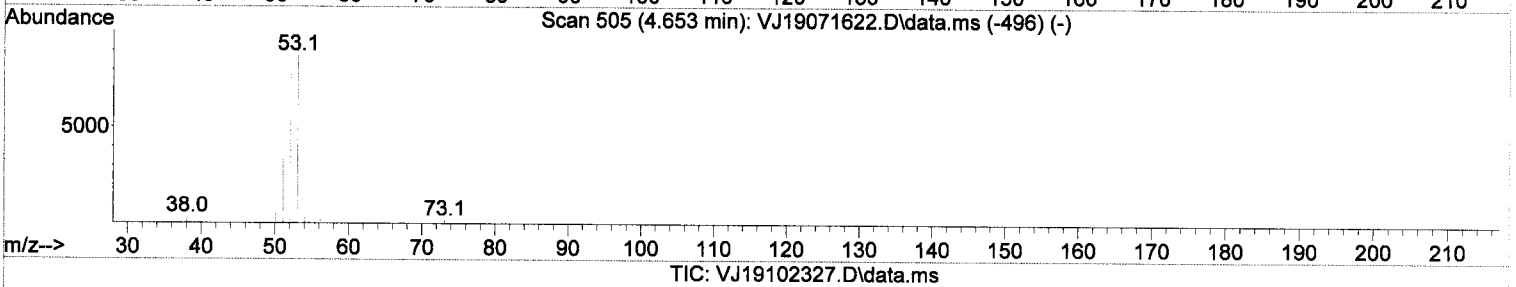
Quantitation Report (Qedit)

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

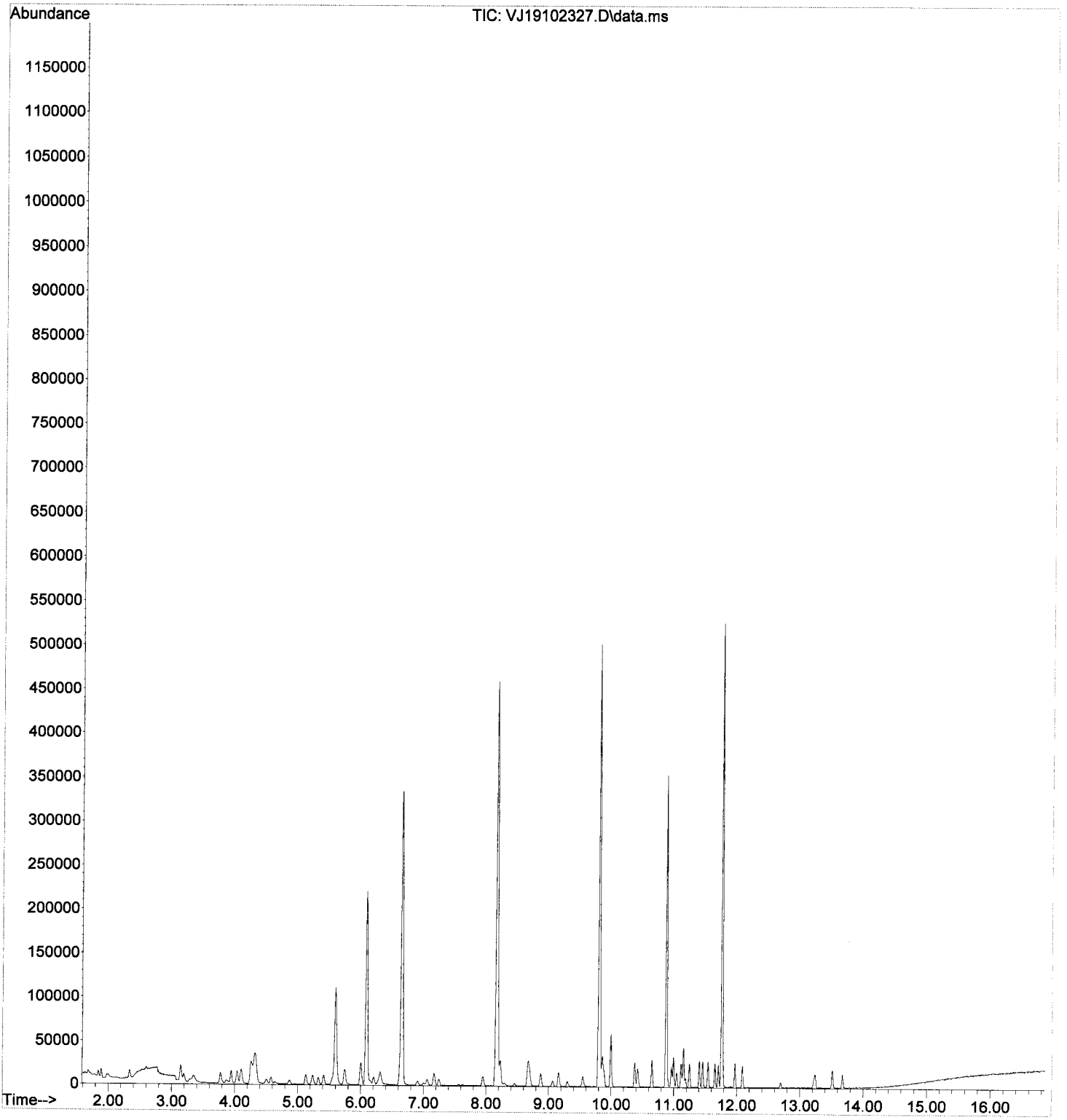
response 3497

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

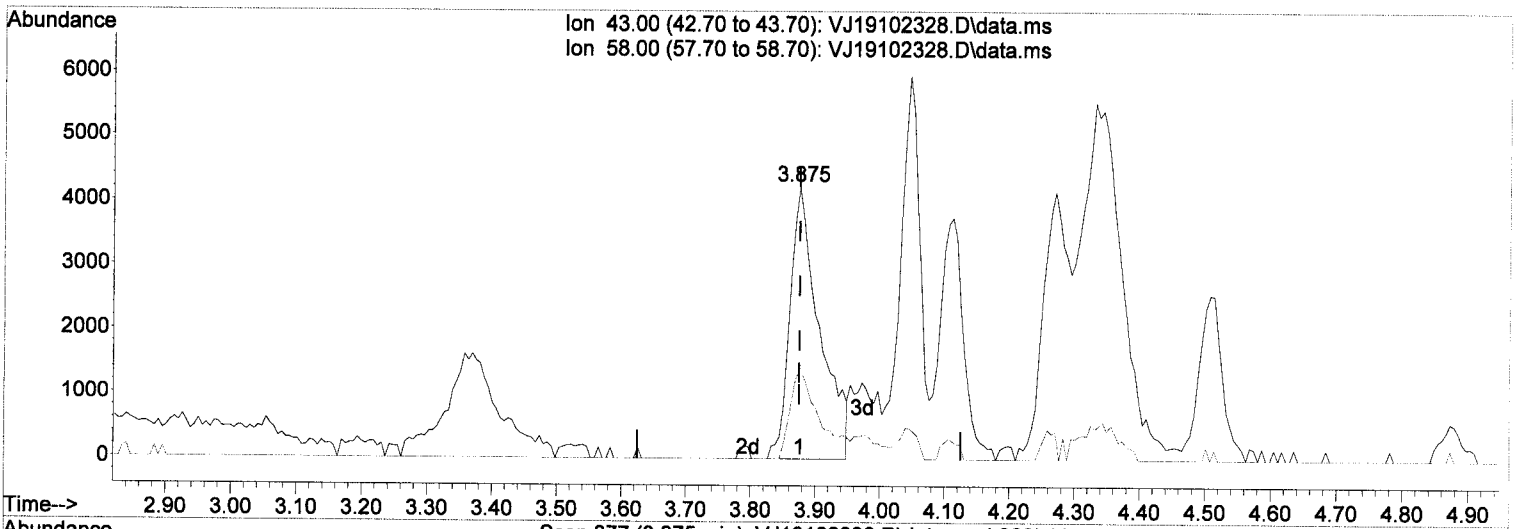
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	18504	4.24	ug/L	97
50) 1,1,2-Trichloroethane	8.876	97	13046	5.68	ug/L	95
51) Dibromochloromethane	9.064	129	9350	3.79	ug/L	90
52) 1,3-Dichloropropane	9.161	76	24045	5.12	ug/L	96
53) 1,2-Dibromoethane (EDB)	9.301	107	12041	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

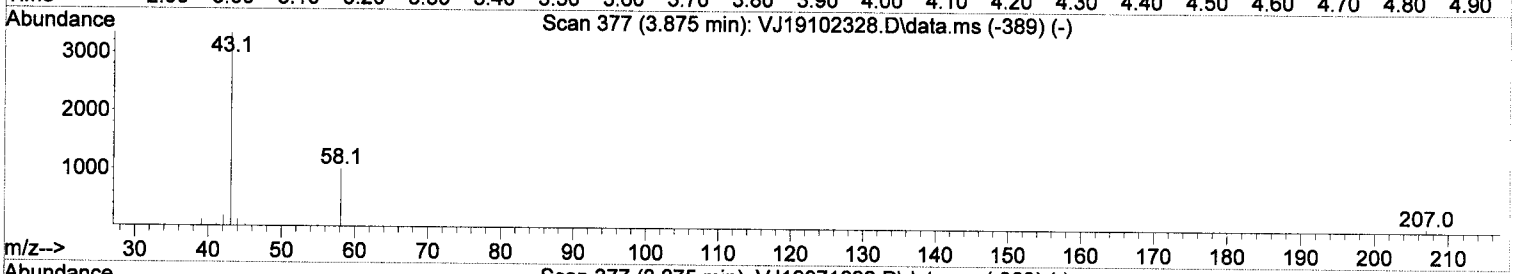
(#) = qualifier out of range (m) = manual integration (+) = signals summed

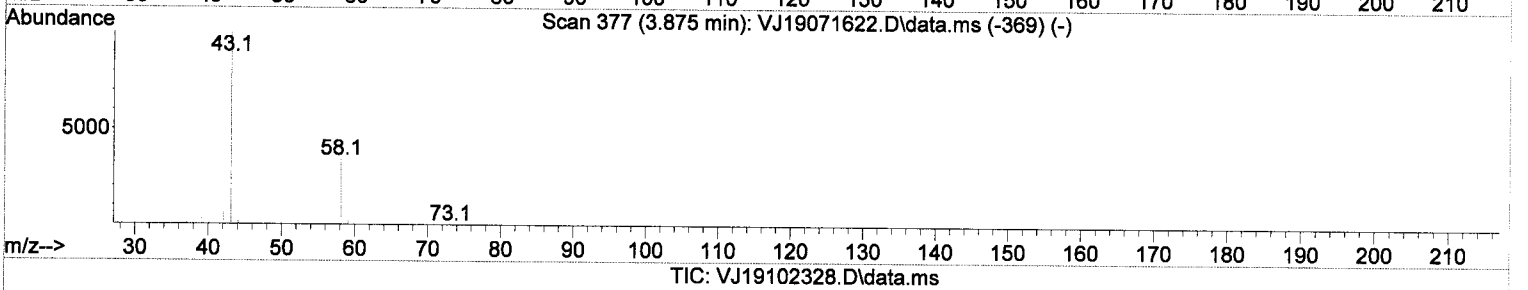
Quantitation Report (Qedit)

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

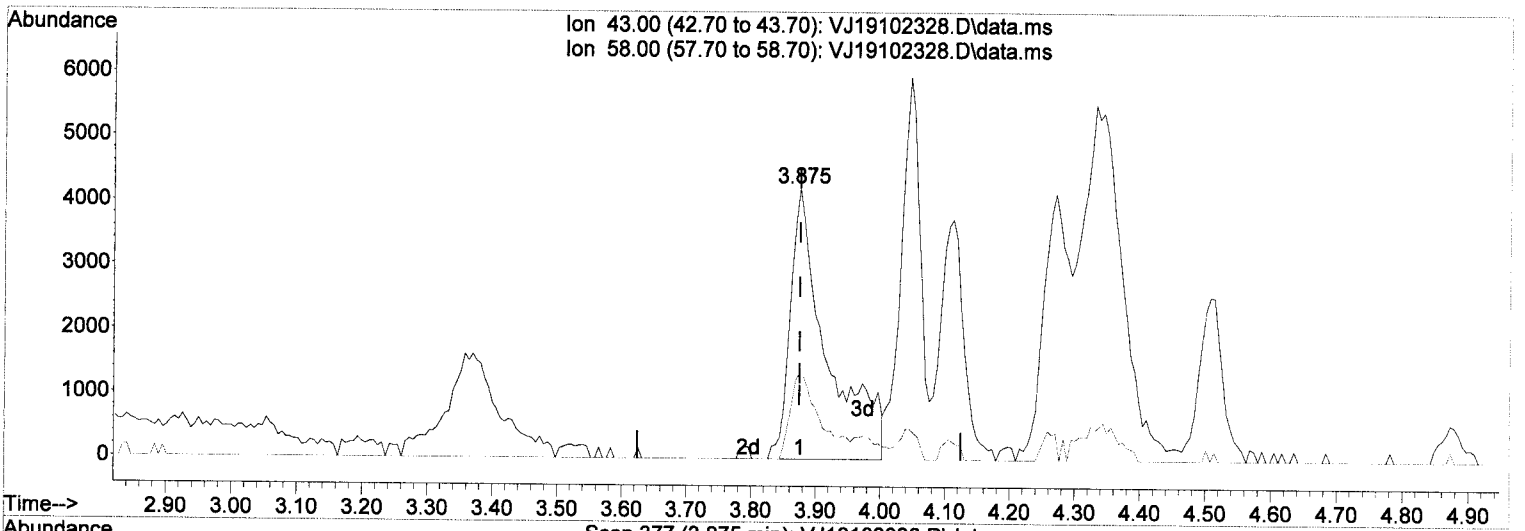
M.2.

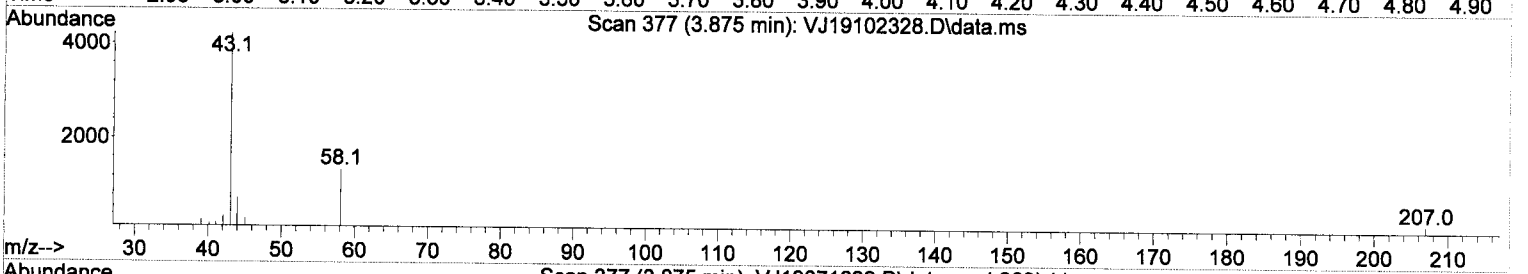
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	31.99
0.00	0.00	0.00
0.00	0.00	0.00

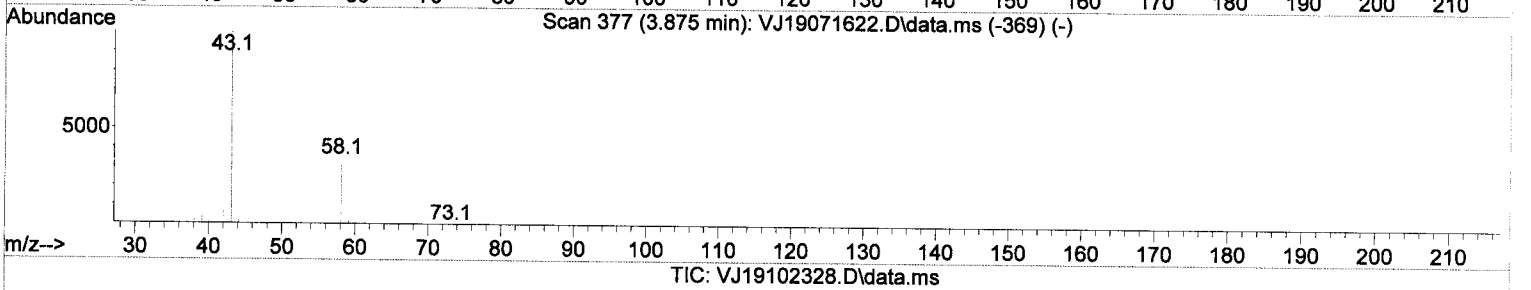
Quantitation Report (Qedit)

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

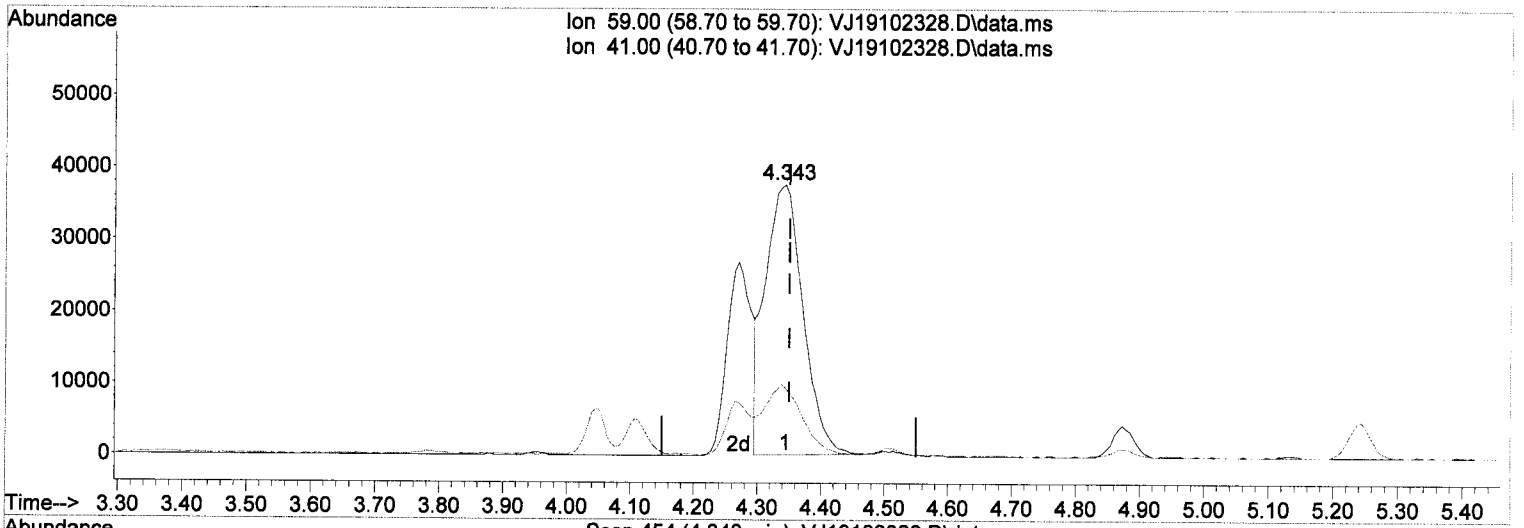
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	31.99
0.00	0.00	0.00
0.00	0.00	0.00

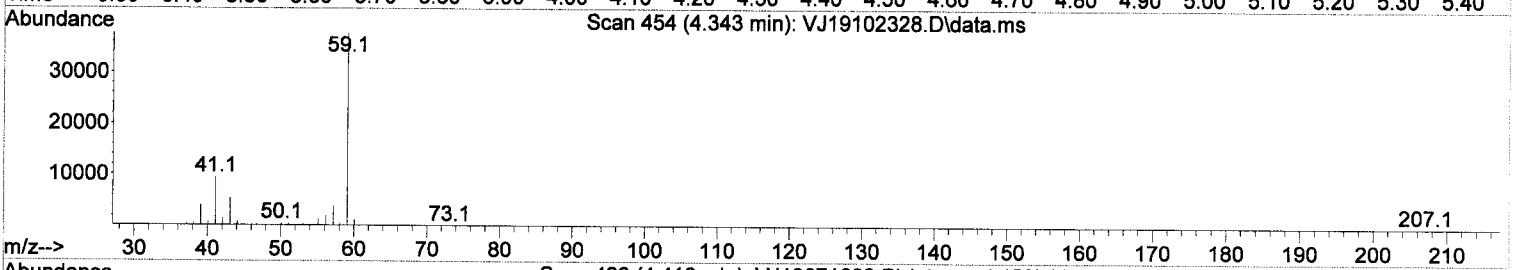
M
10/24/19

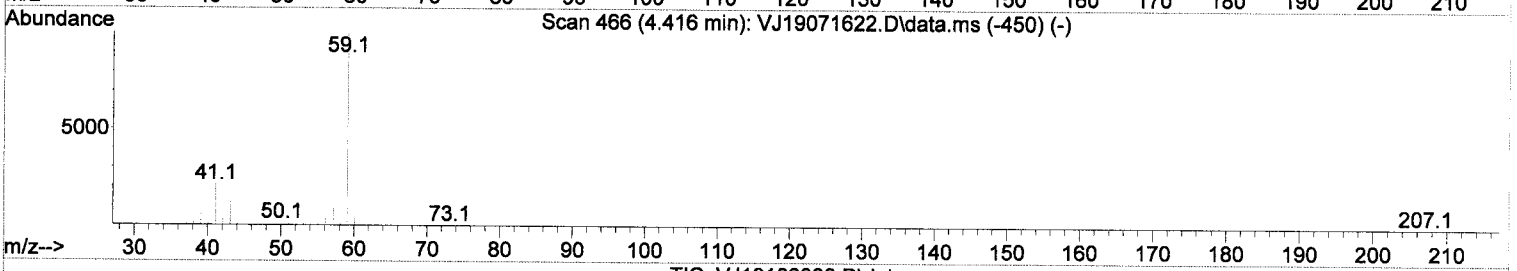
Quantitation Report (Qedit)

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

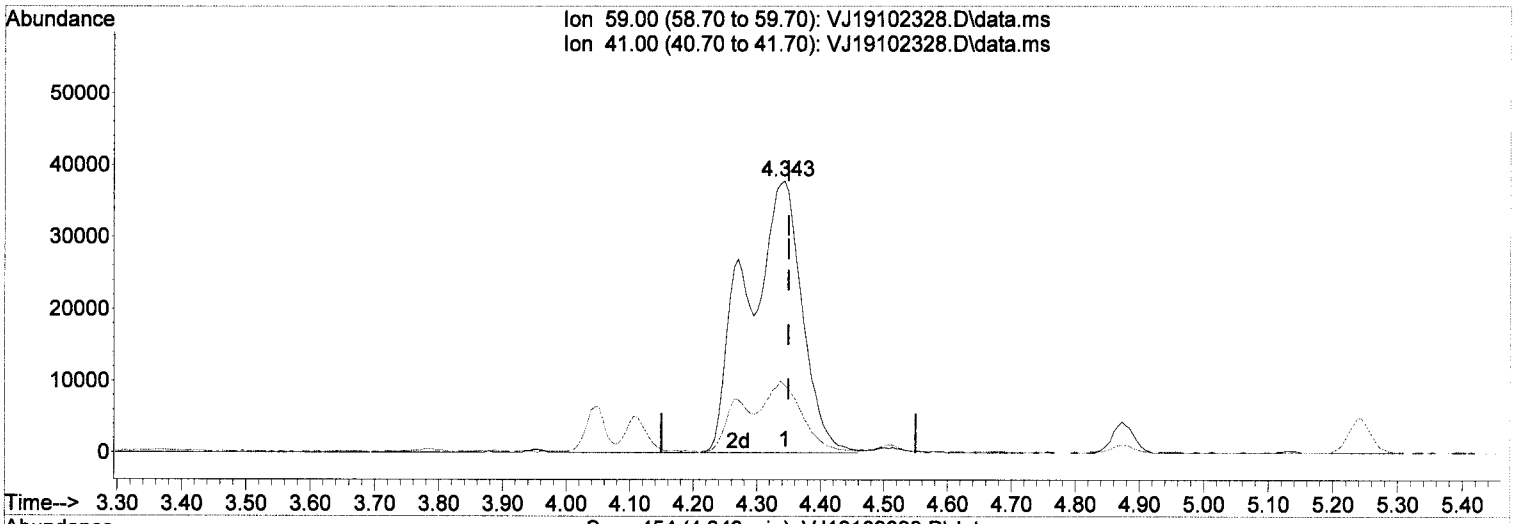
response 154829

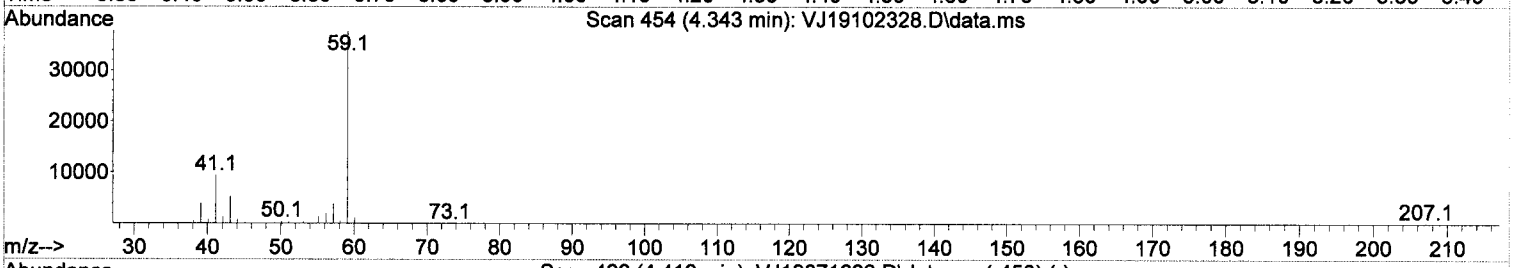
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	25.04#
0.00	0.00	0.00
0.00	0.00	0.00

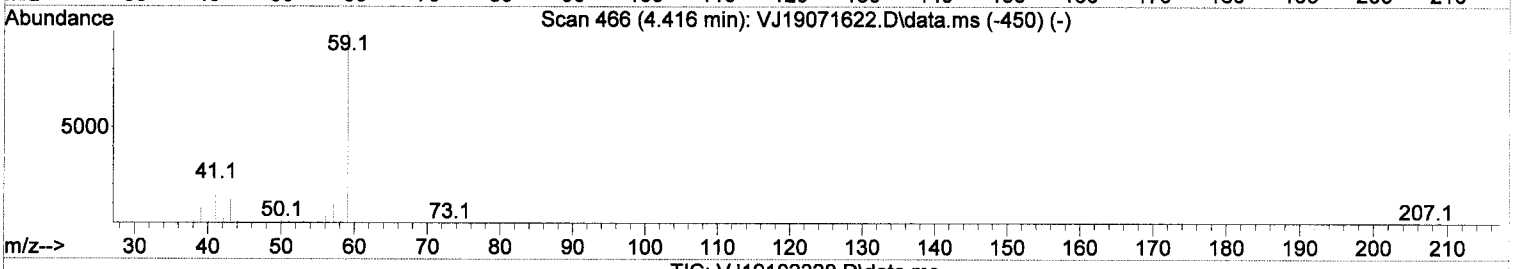
Quantitation Report (Qedit)

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

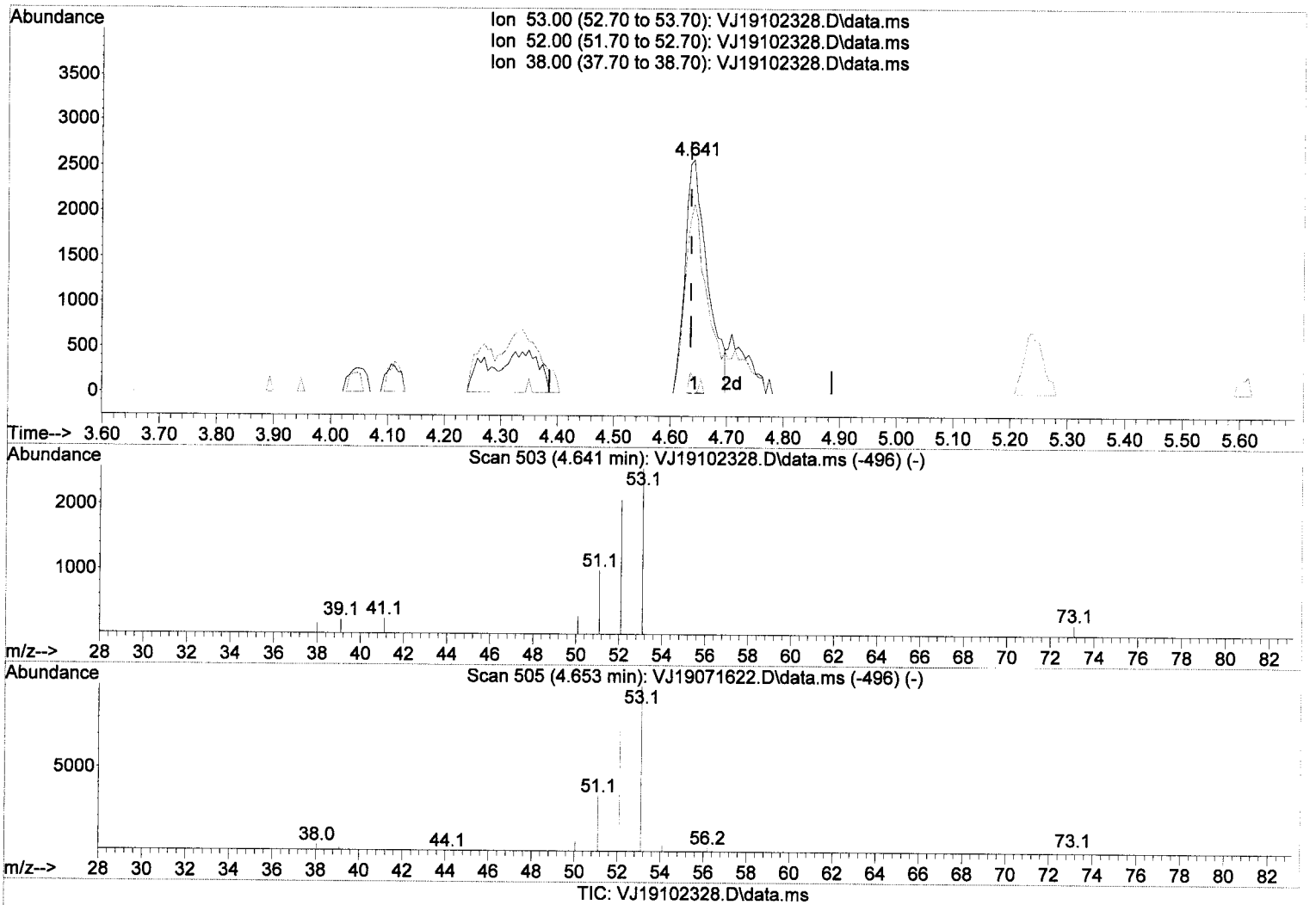
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	25.04#
0.00	0.00	0.00
0.00	0.00	0.00

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

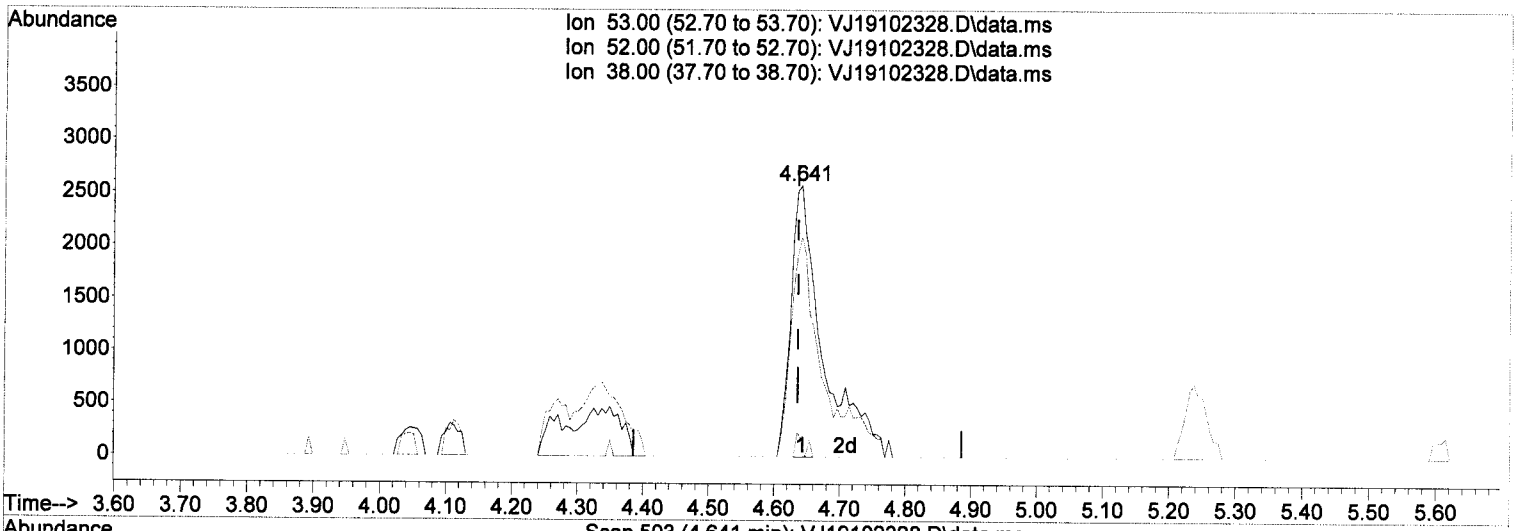
response 7128

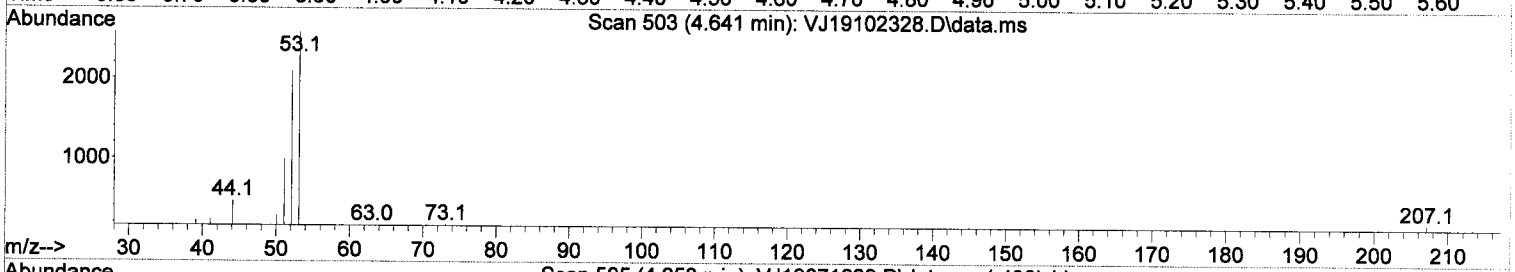
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.98
38.00	5.50	6.25
0.00	0.00	0.00

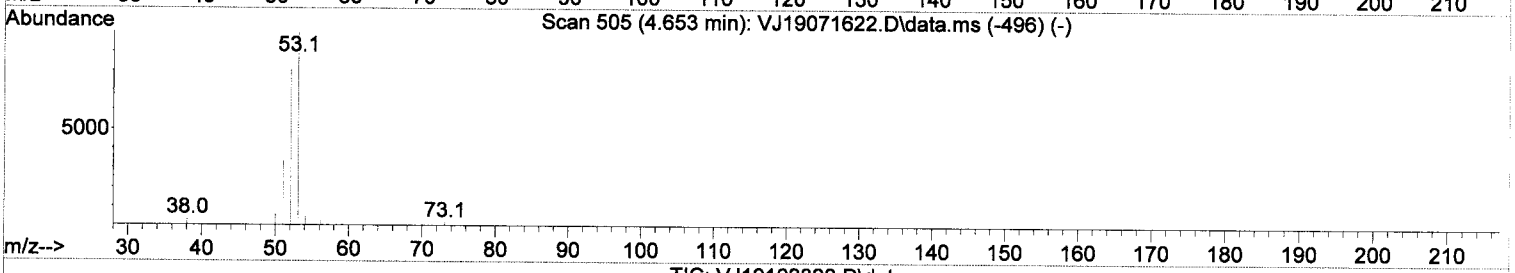
Quantitation Report (Qedit)

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

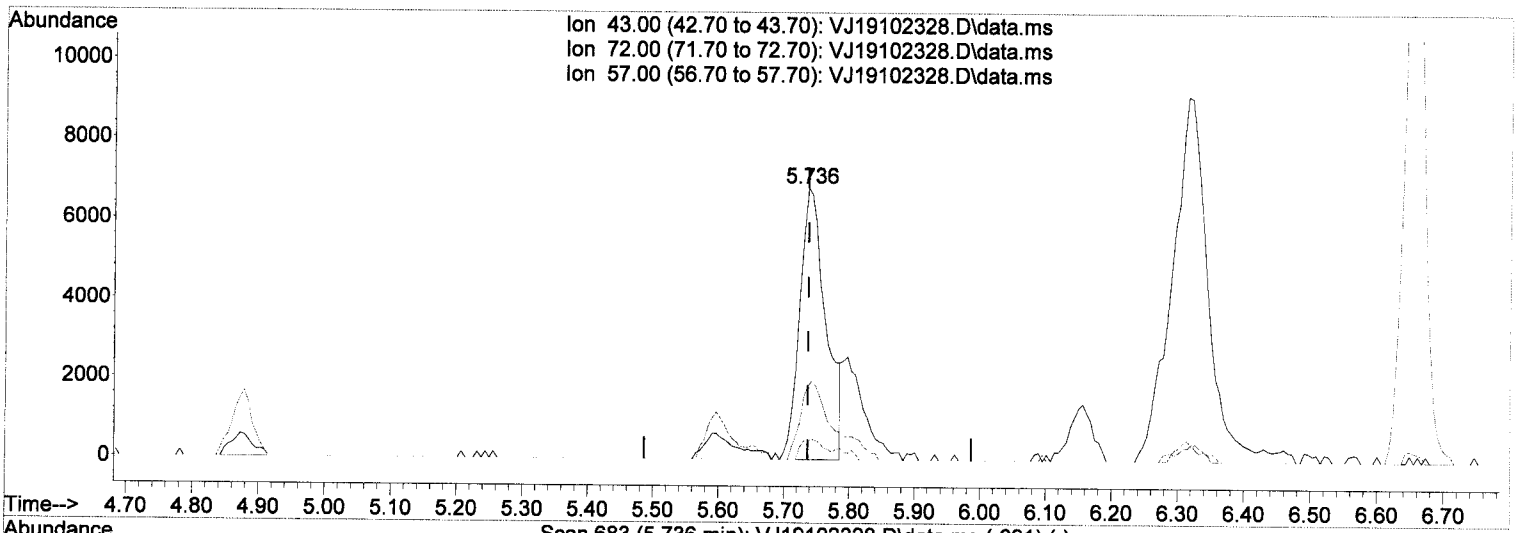
response 8805

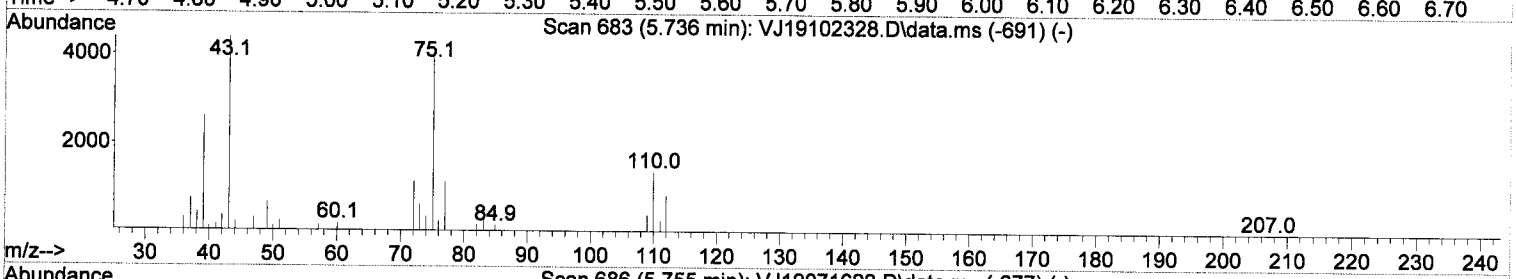
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.98
38.00	5.50	6.25
0.00	0.00	0.00

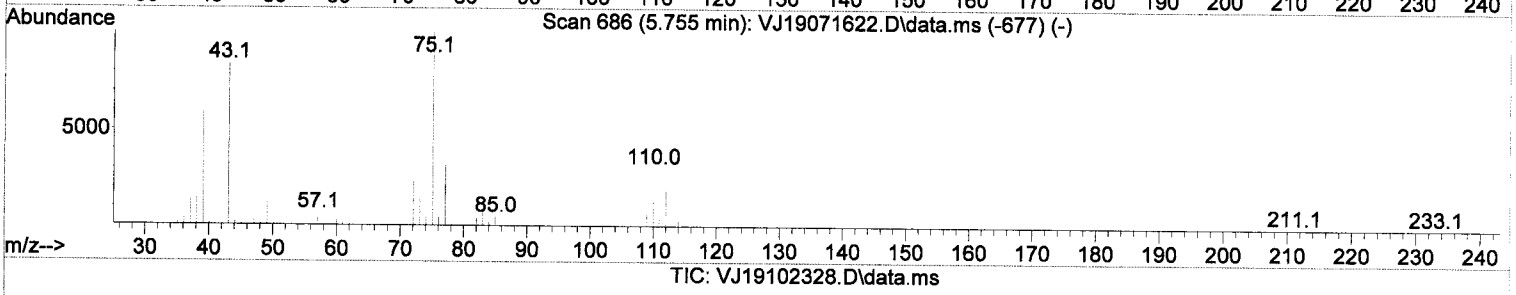
Quantitation Report (Qedit)

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

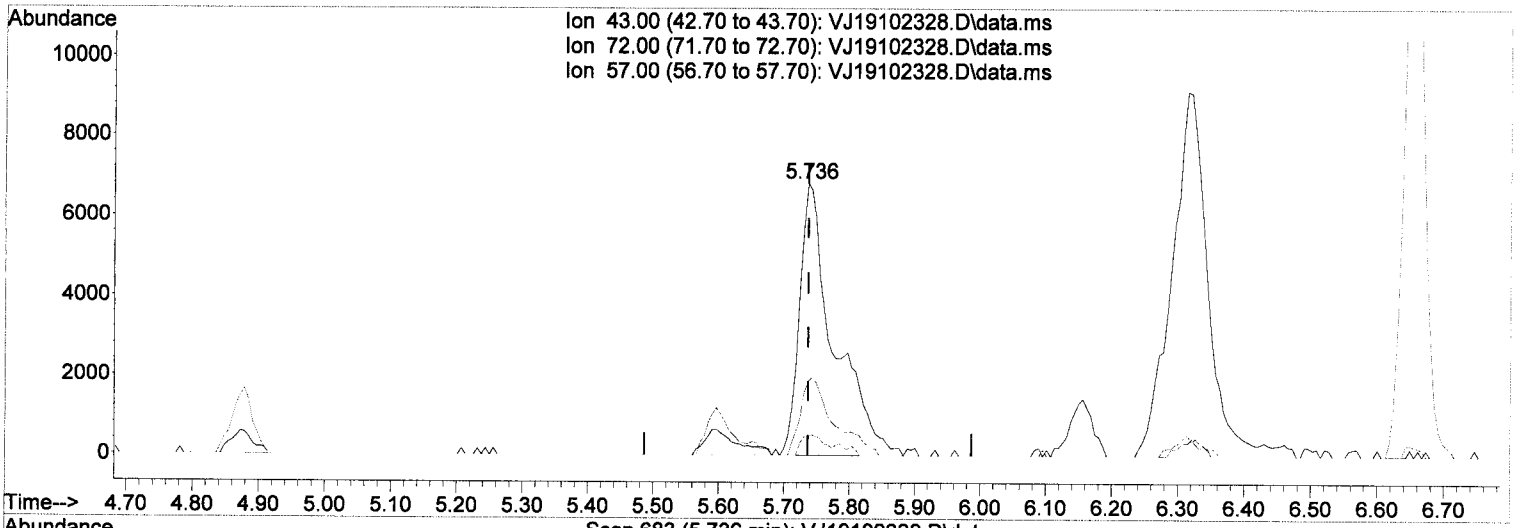
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	27.10
57.00	7.20	6.96
0.00	0.00	0.00

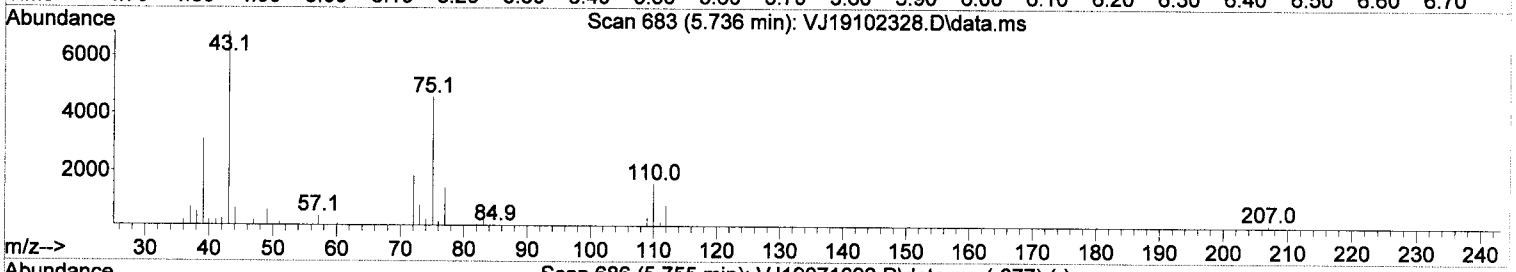
M.2.

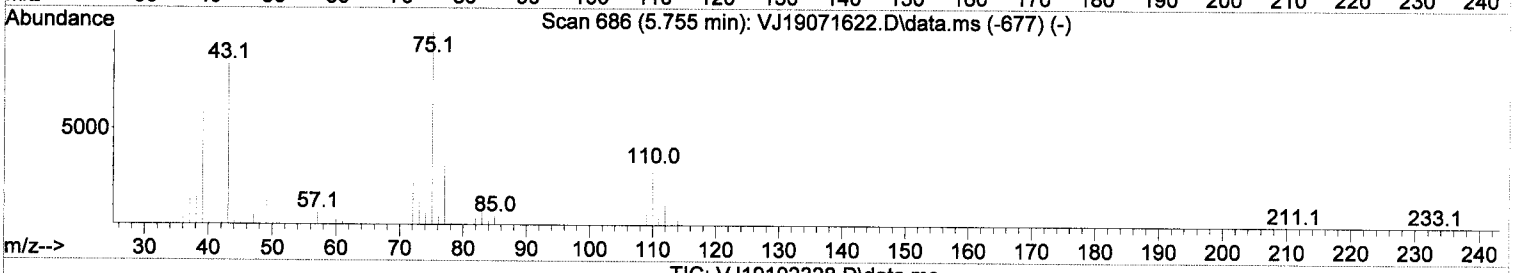
Quantitation Report (Qedit)

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

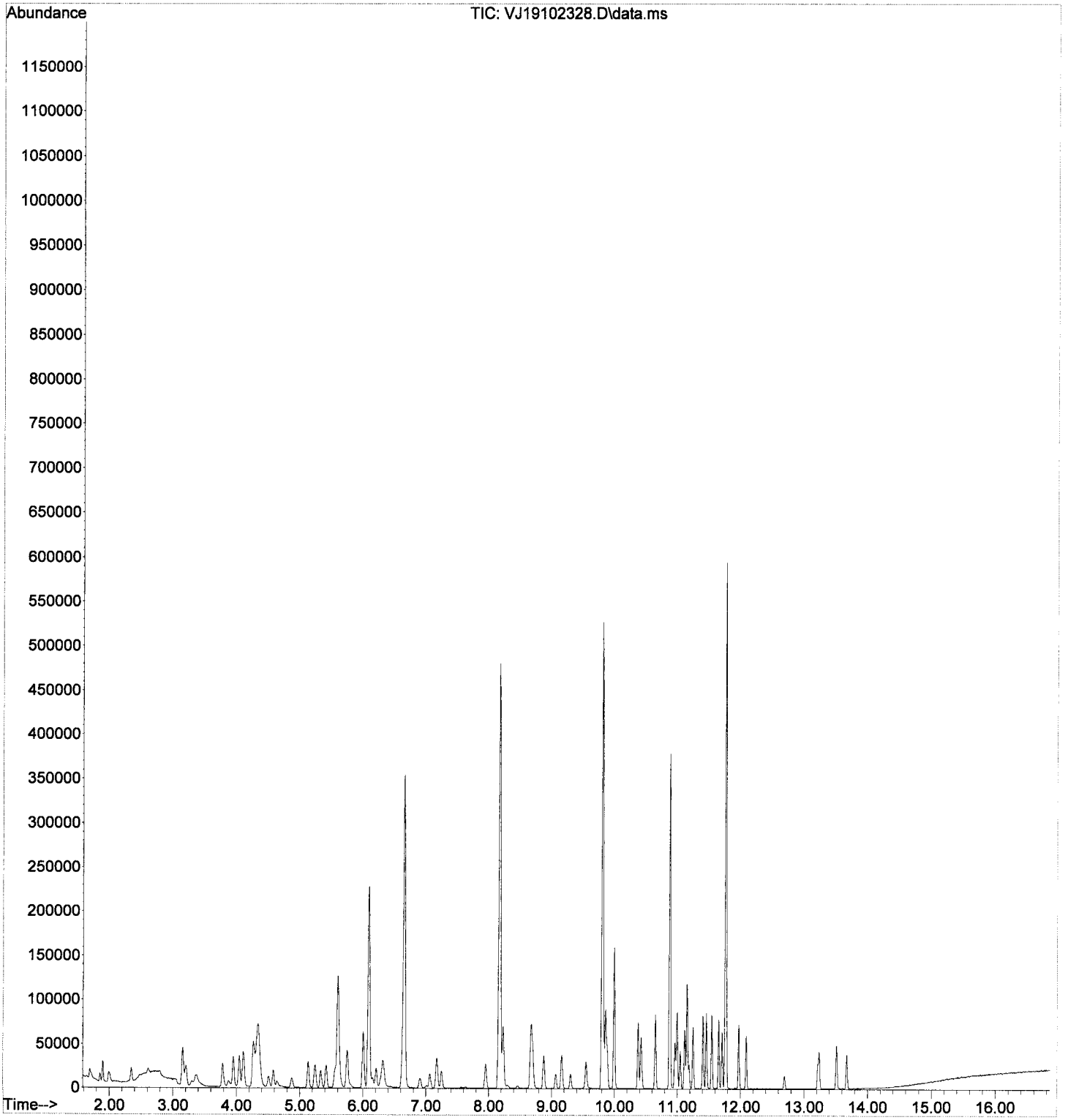
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	27.10
57.00	7.20	6.96
0.00	0.00	0.00

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\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	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

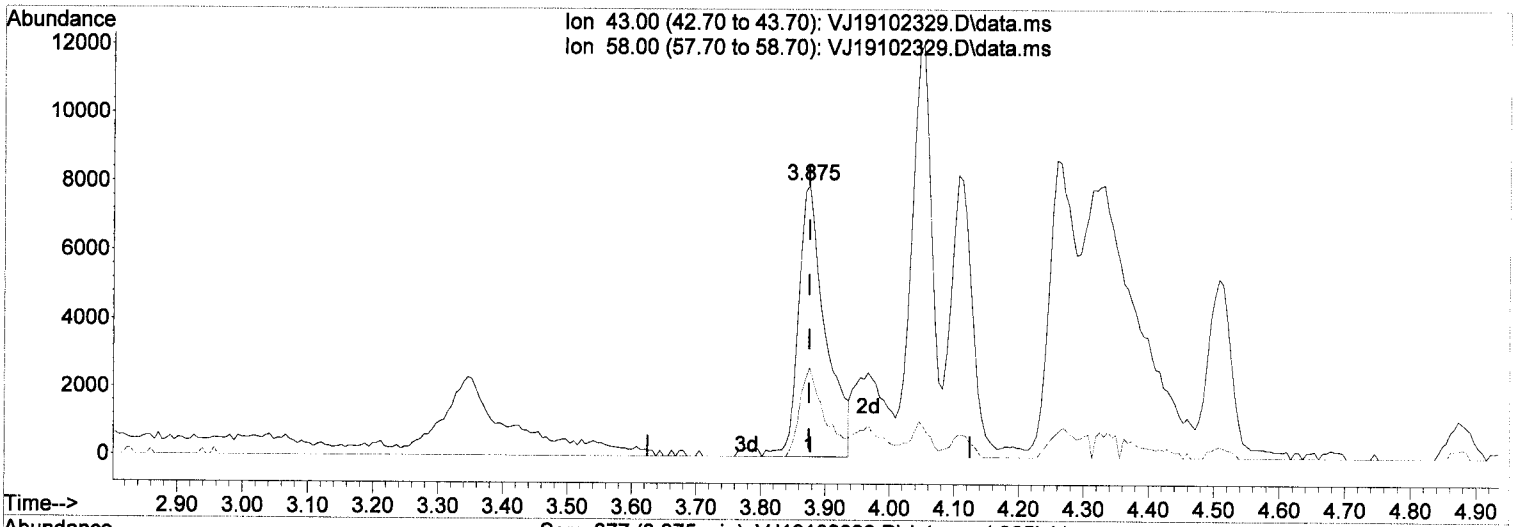
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	41087	9.13	ug/L		94
50) 1,1,2-Trichloroethane	8.876	97	26718	11.18	ug/L		95
51) Dibromochloromethane	9.064	129	19925	7.84	ug/L		98
52) 1,3-Dichloropropane	9.162	76	49530	10.23	ug/L		98
53) 1,2-Dibromoethane (EDB)	9.301	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

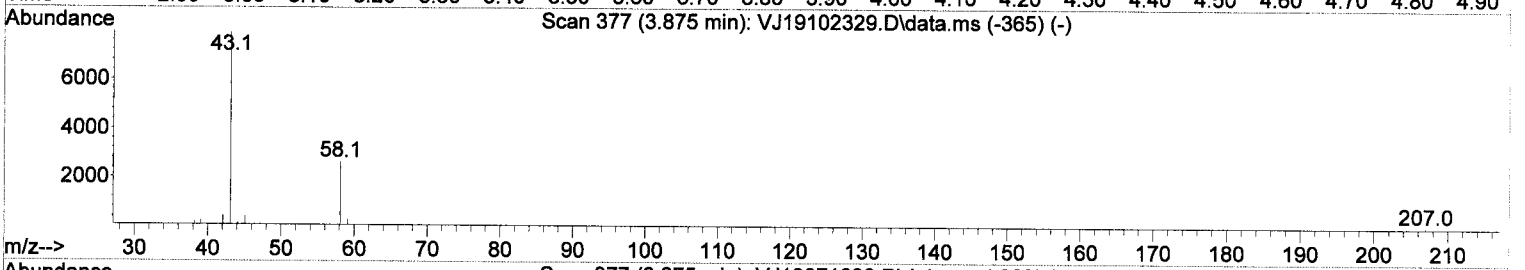
(#) = qualifier out of range (m) = manual integration (+) = signals summed

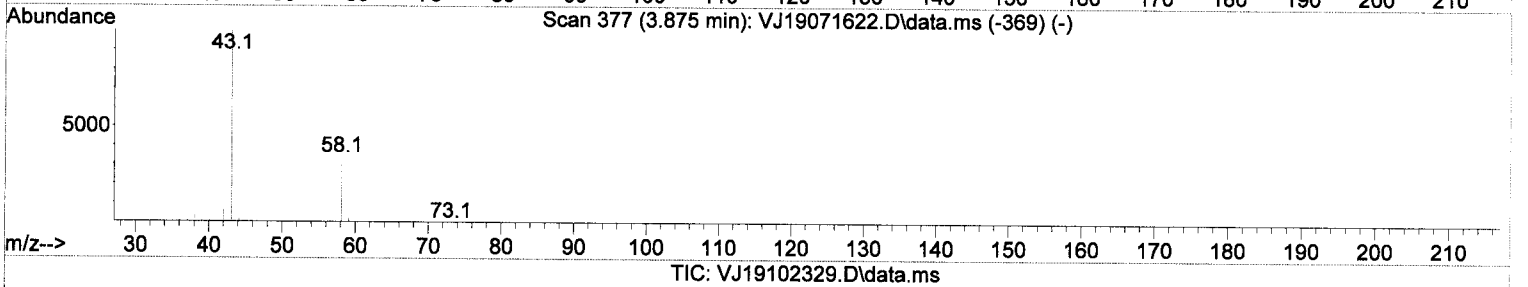
Quantitation Report (Qedit)

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

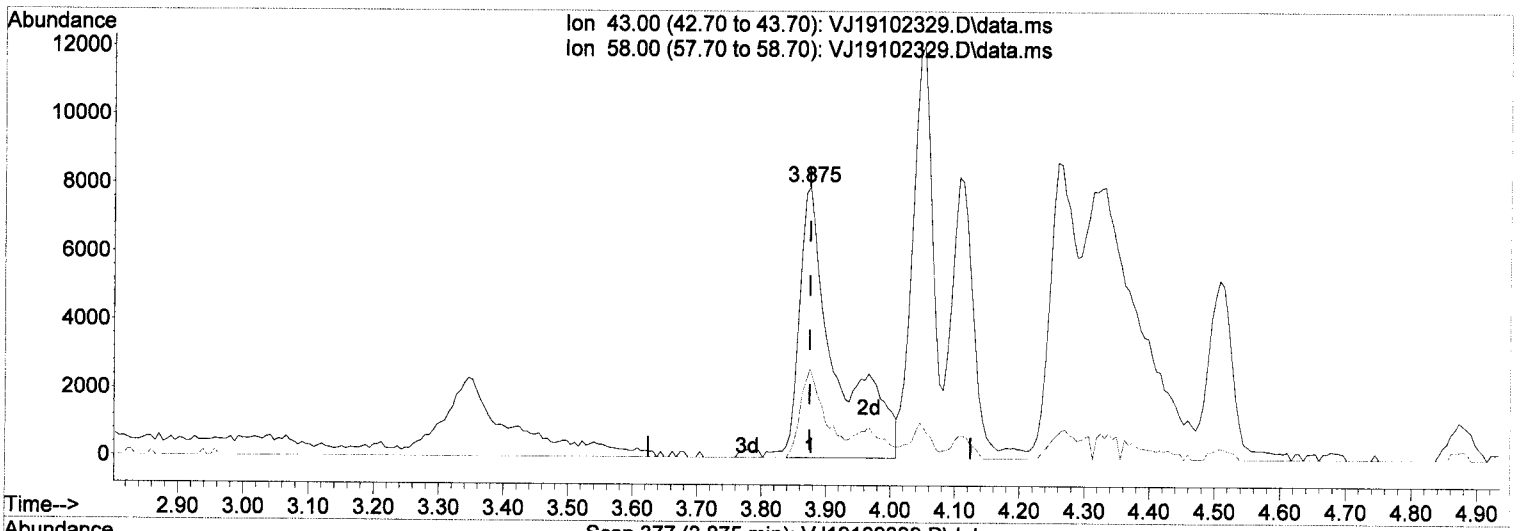
M.2.

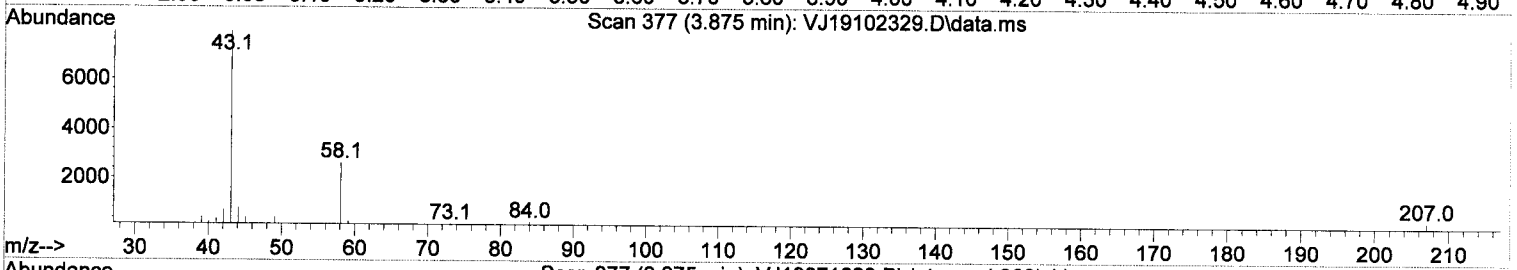
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.15
0.00	0.00	0.00
0.00	0.00	0.00

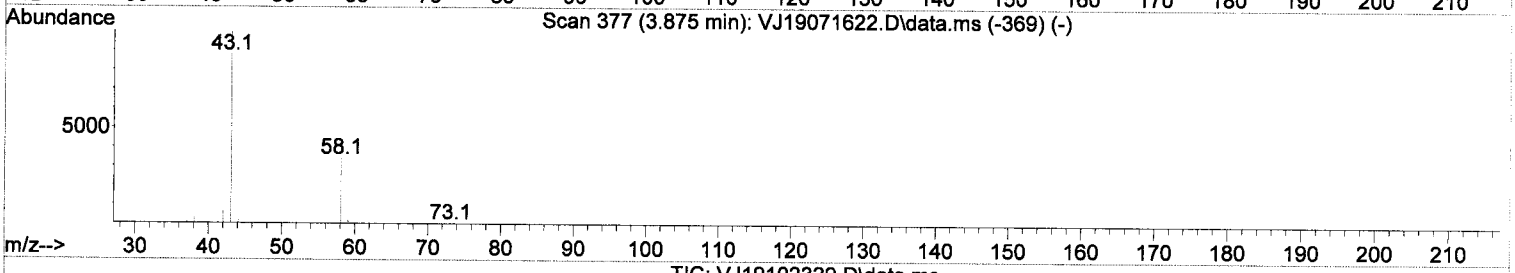
Quantitation Report (Qedit)

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

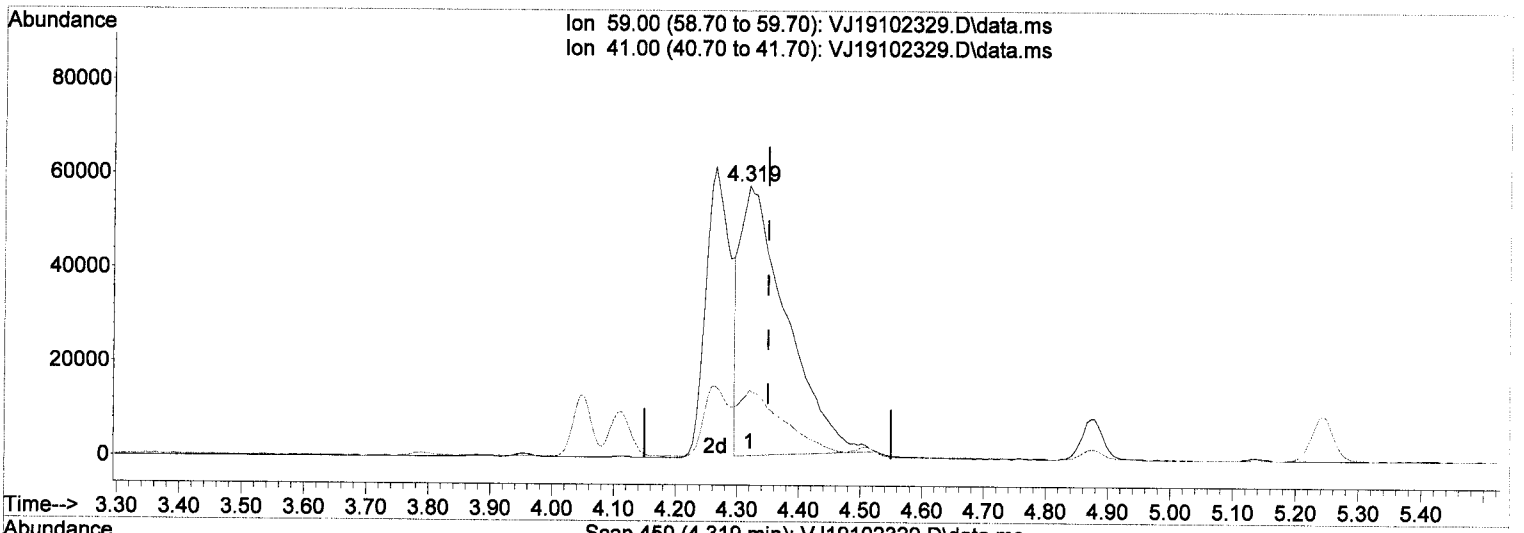
response 31545

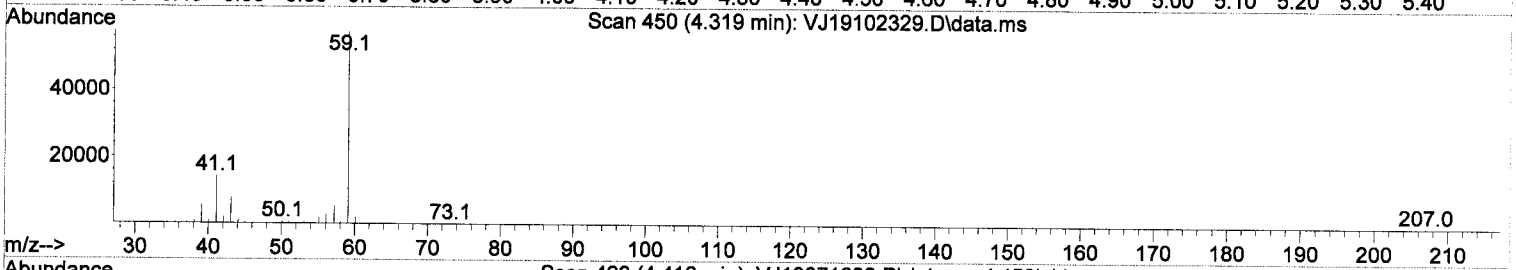
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.15
0.00	0.00	0.00
0.00	0.00	0.00

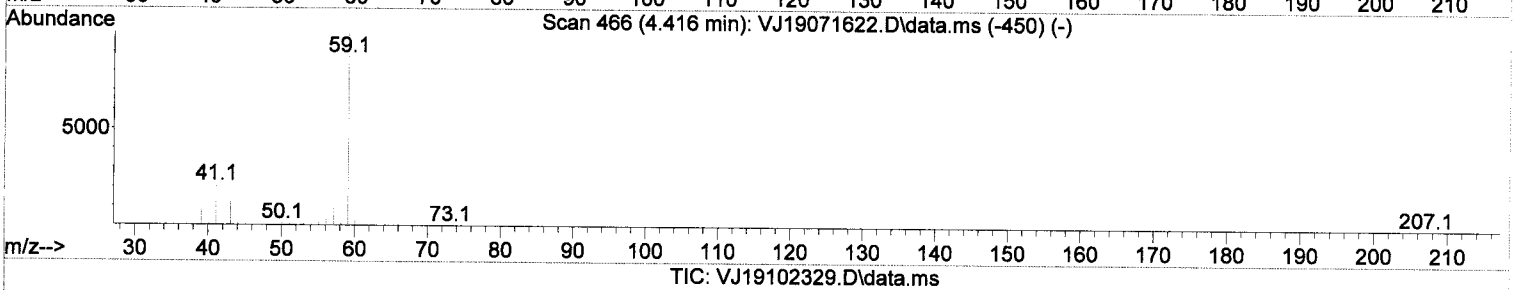
Quantitation Report (Qedit)

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

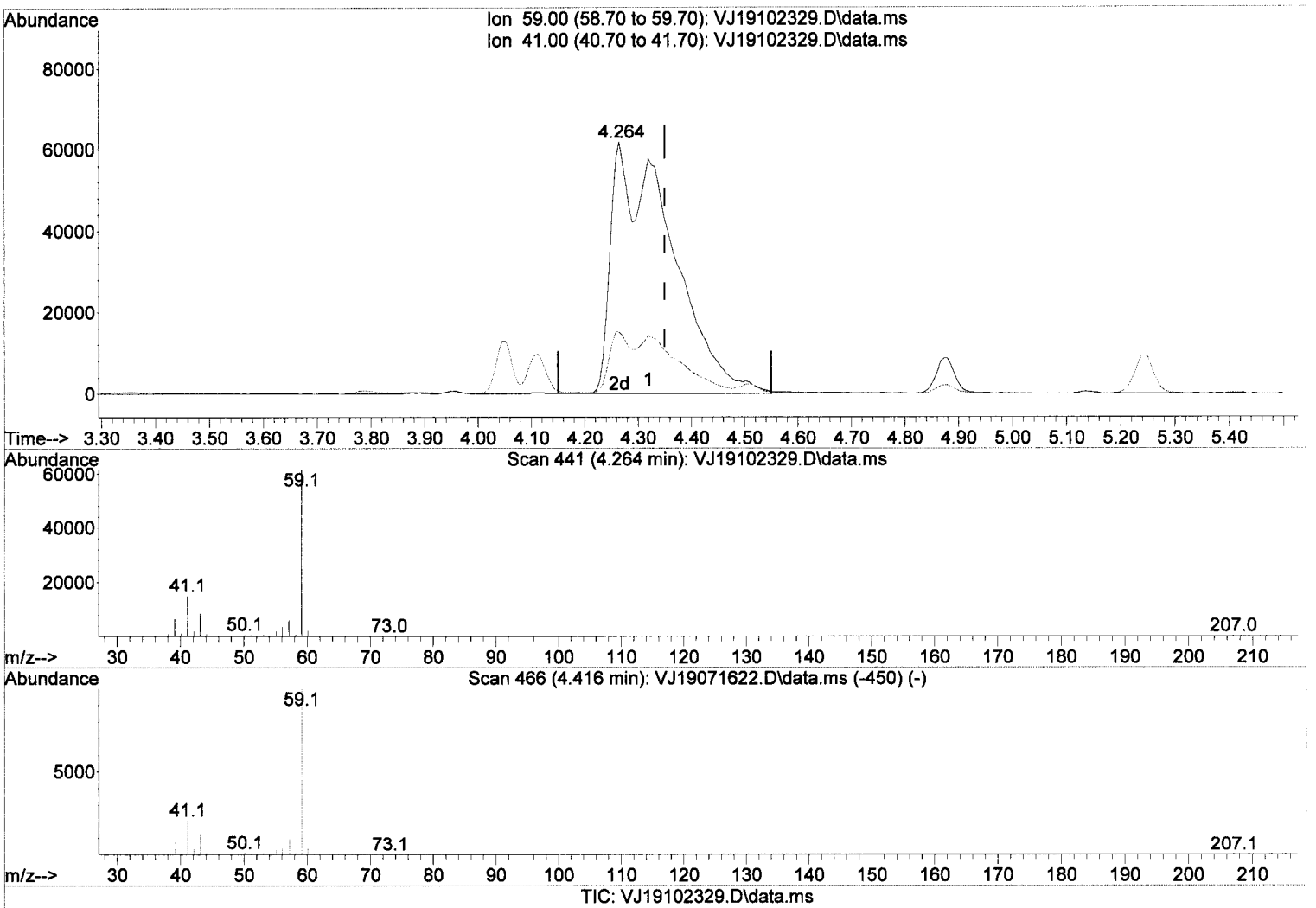
M.2.

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

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

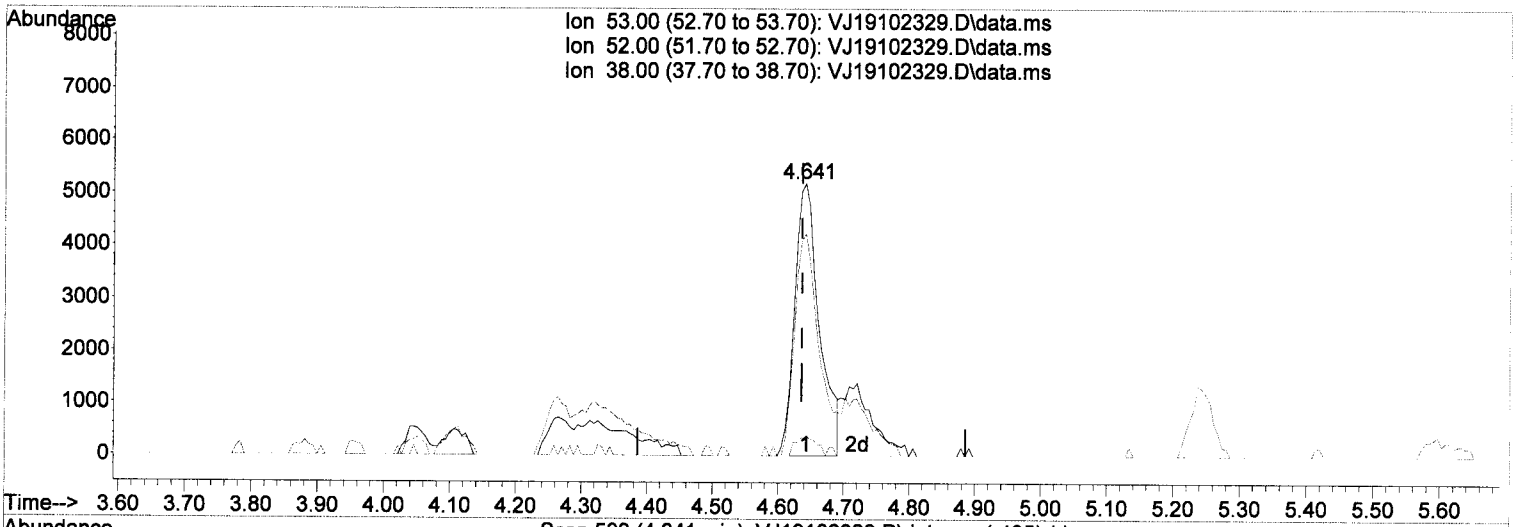
response 487639

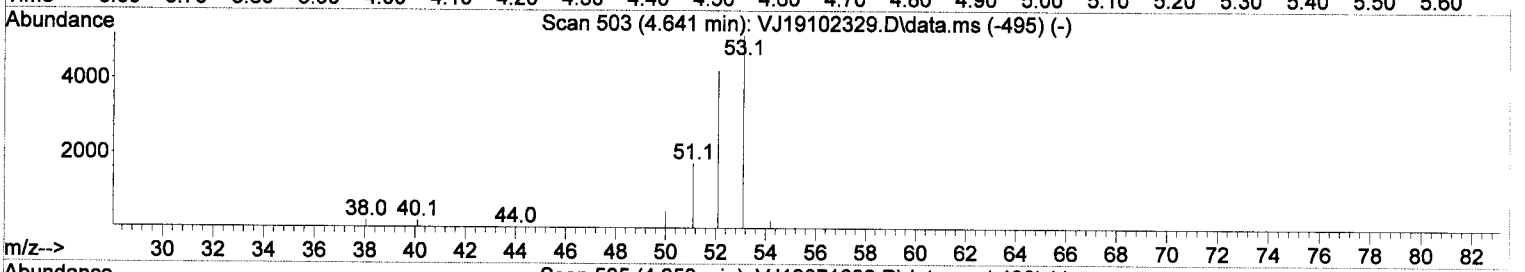
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	24.53#
0.00	0.00	0.00
0.00	0.00	0.00

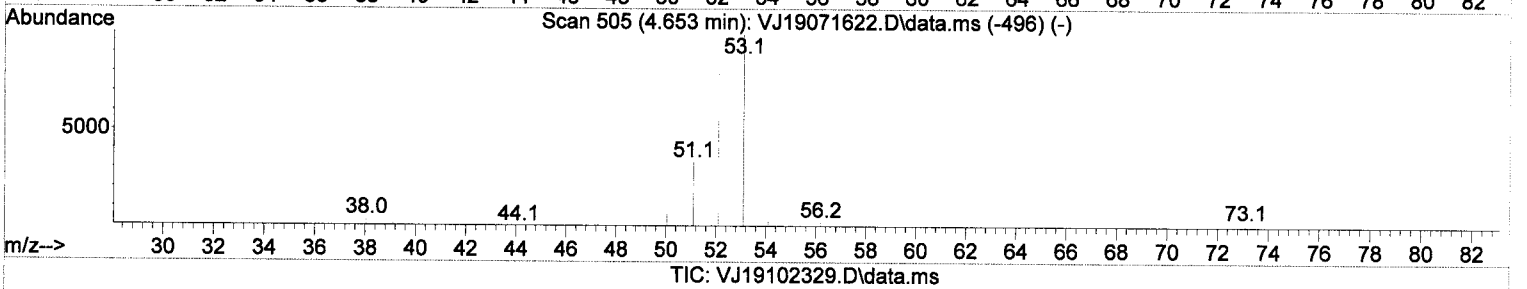
Quantitation Report (Qedit)

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

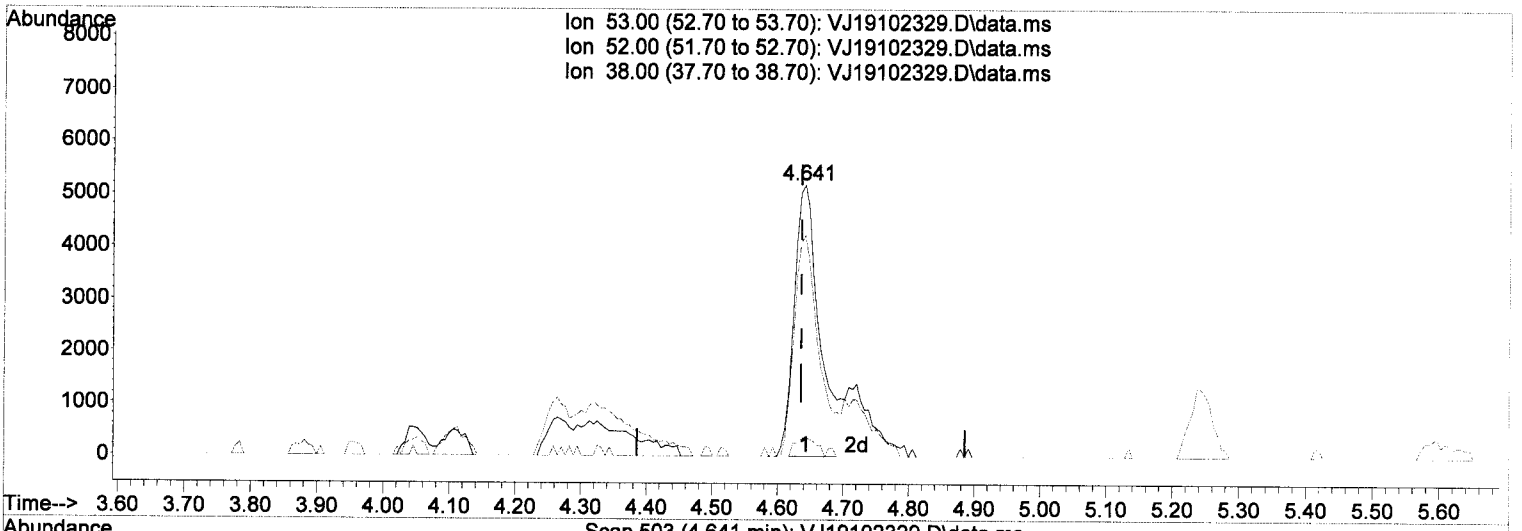
M.2.

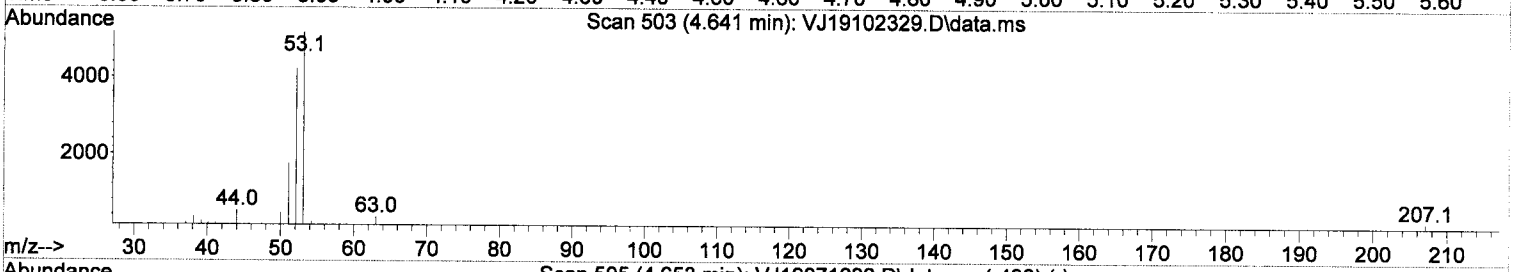
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	81.49
38.00	5.50	7.06
0.00	0.00	0.00

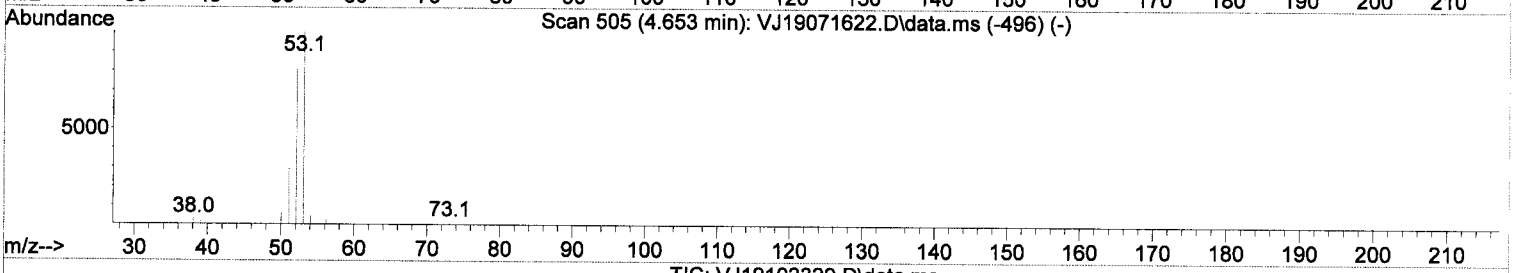
Quantitation Report (Qedit)

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

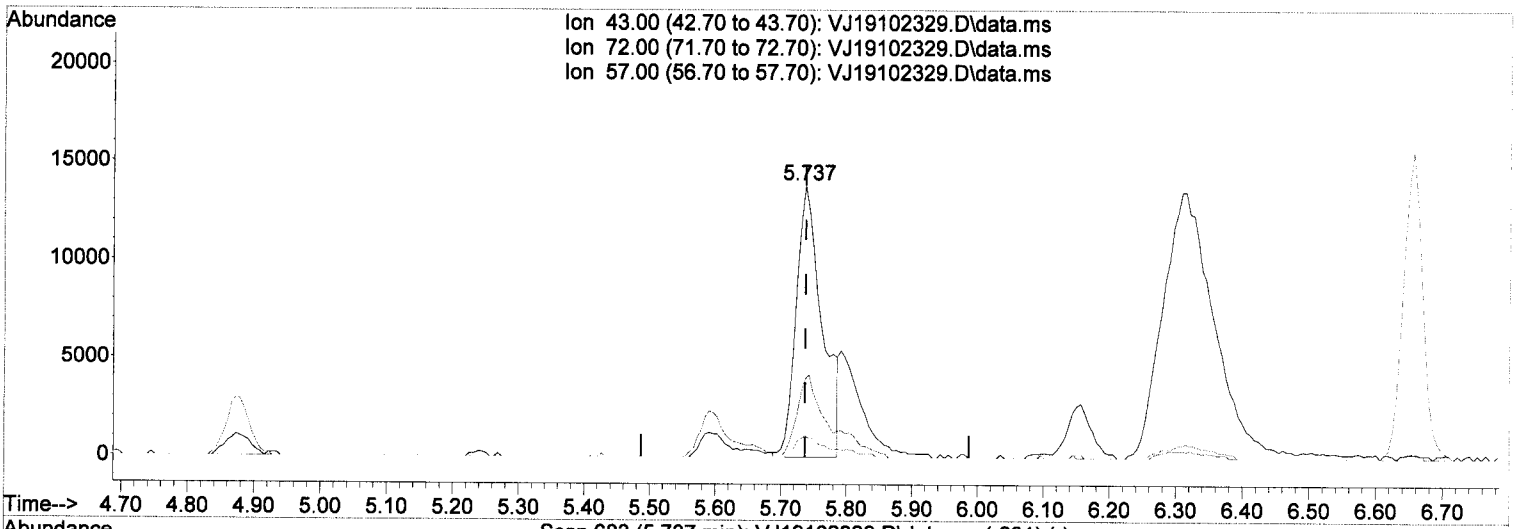
response 18110

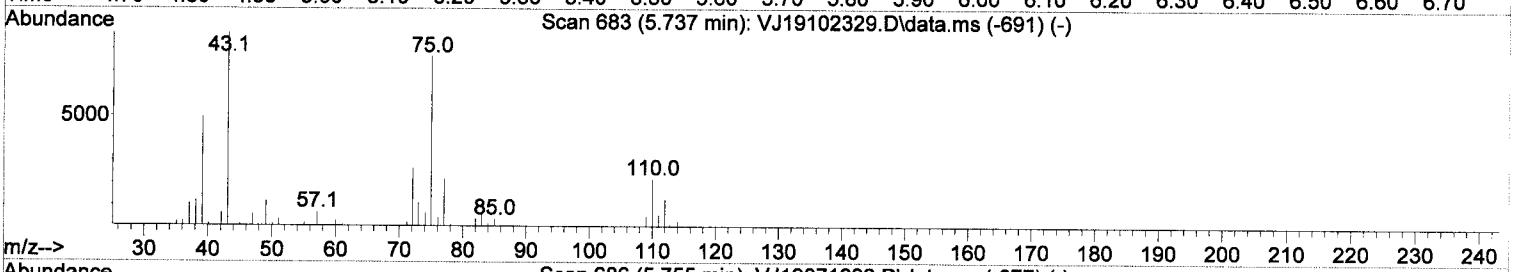
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	81.49
38.00	5.50	7.06
0.00	0.00	0.00

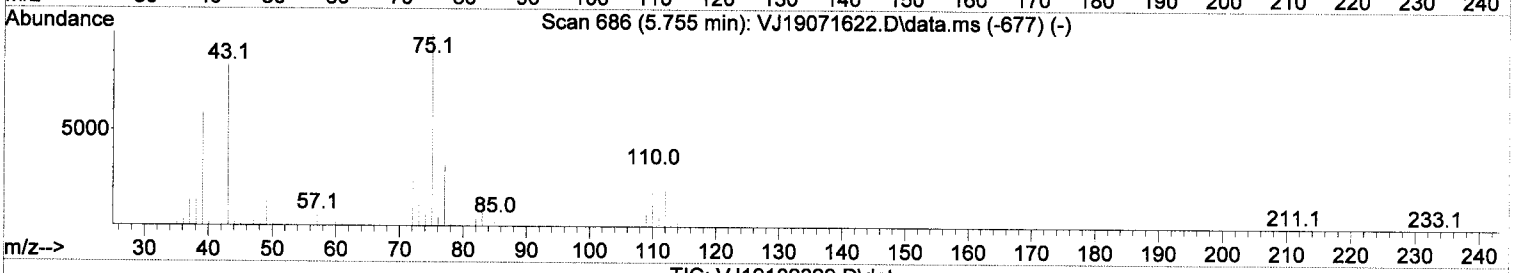
Quantitation Report (Qedit)

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

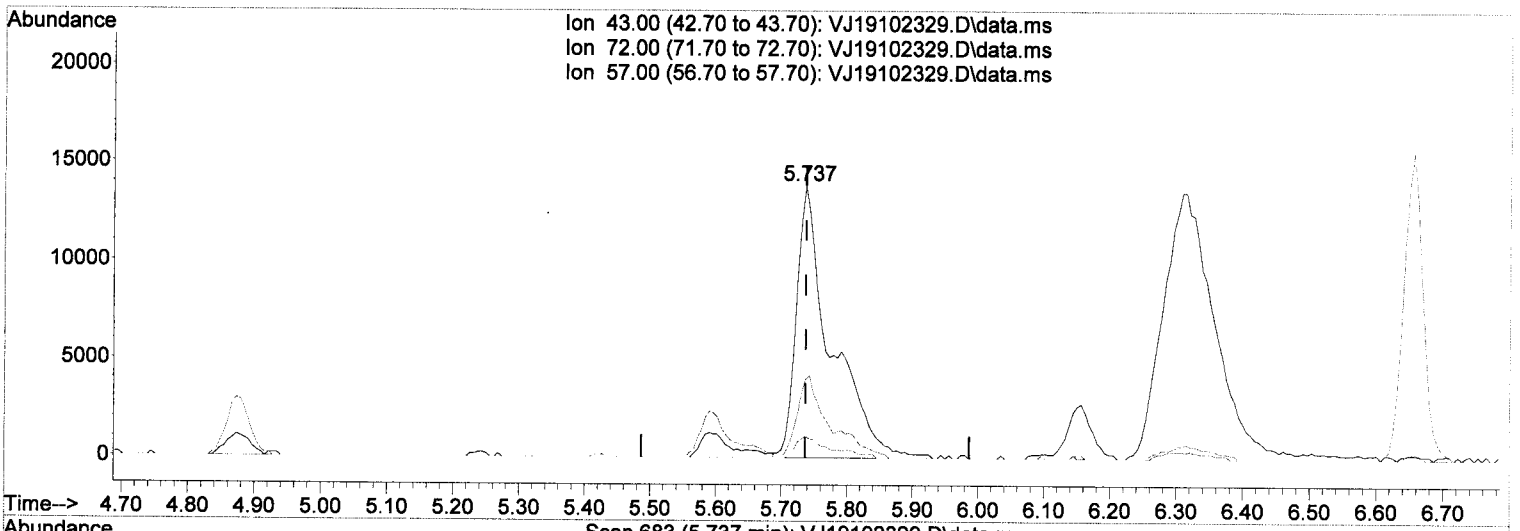
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	28.02
57.00	7.20	8.14
0.00	0.00	0.00

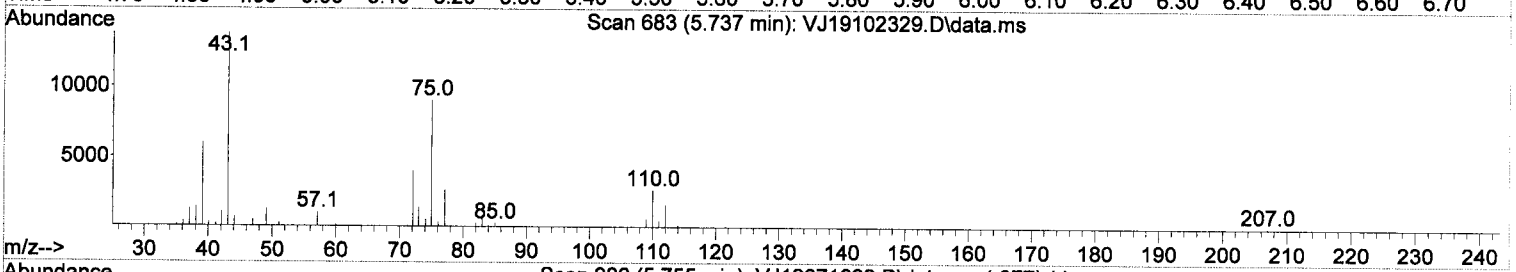
M.2

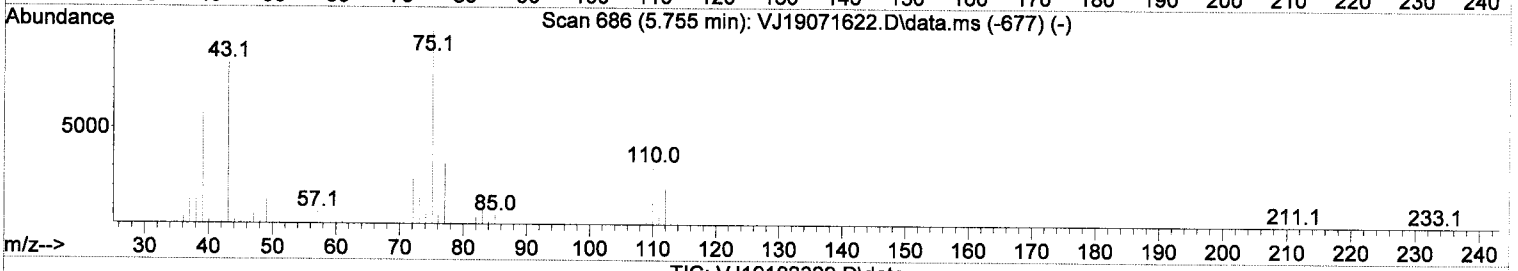
Quantitation Report (Qedit)

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

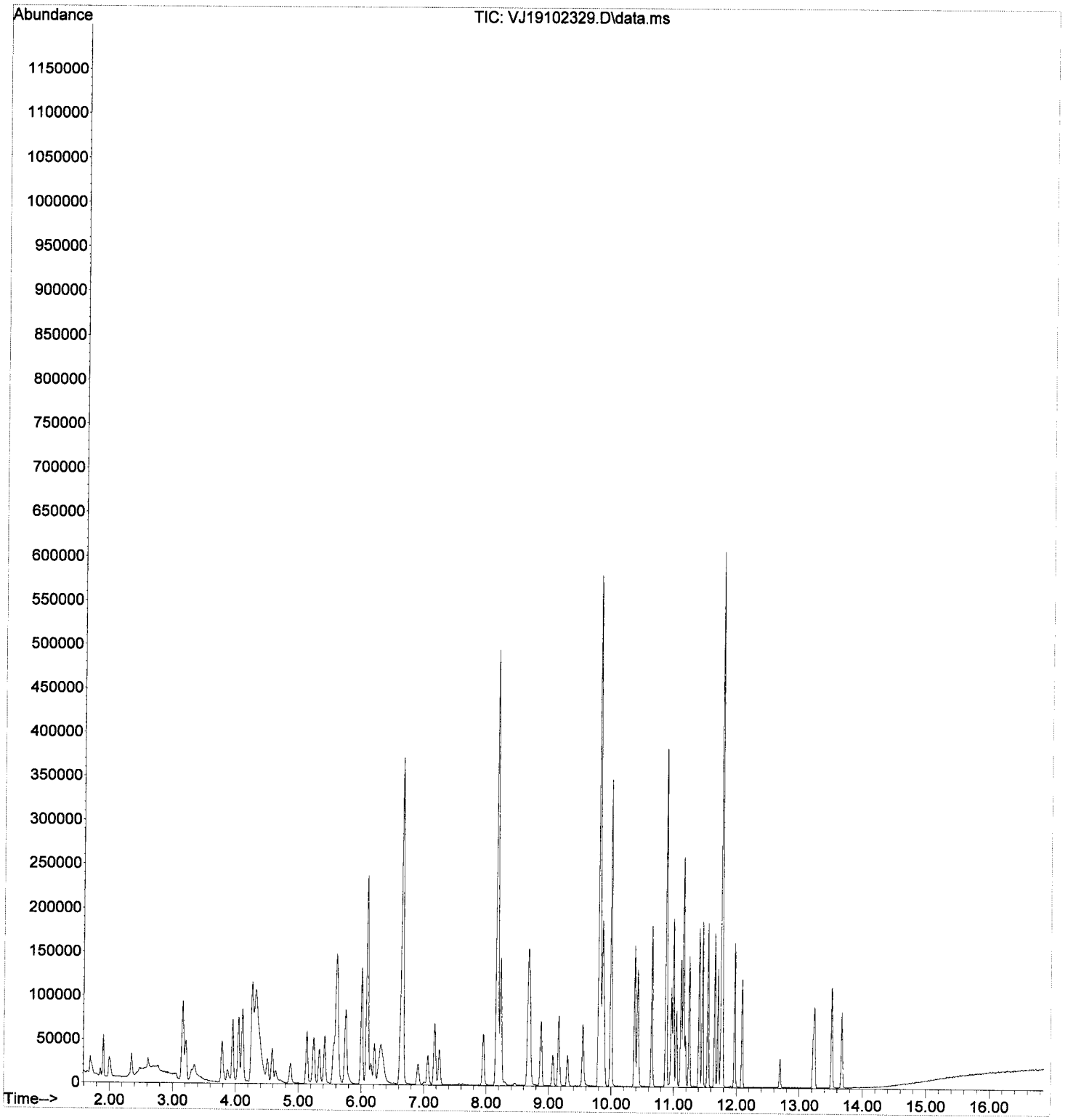
response 51036

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

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

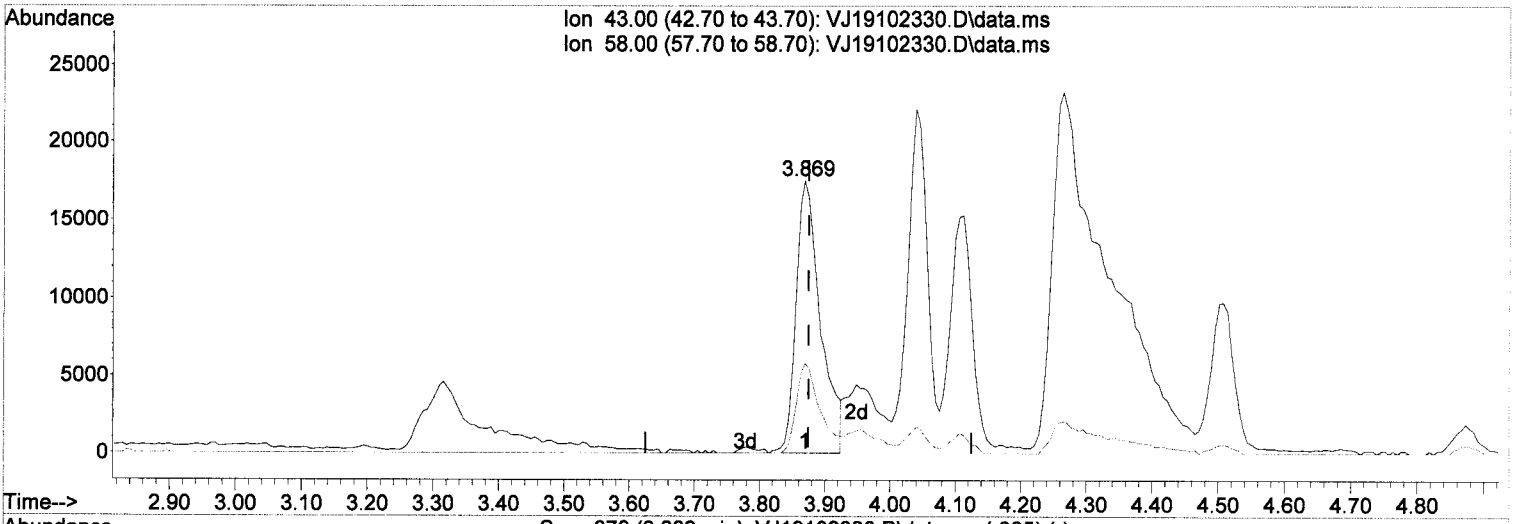
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	81643	19.65	ug/L		94
50) 1,1,2-Trichloroethane	8.876	97	51573	23.28	ug/L		95
51) Dibromochloromethane	9.064	129	40104	17.09	ug/L		99
52) 1,3-Dichloropropane	9.162	76	95374	21.36	ug/L		99
53) 1,2-Dibromoethane (EDB)	9.301	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

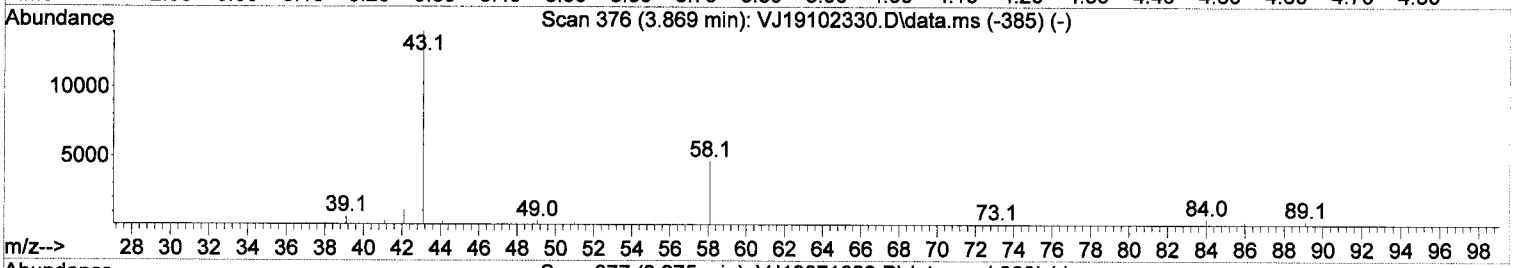
(#) = qualifier out of range (m) = manual integration (+) = signals summed

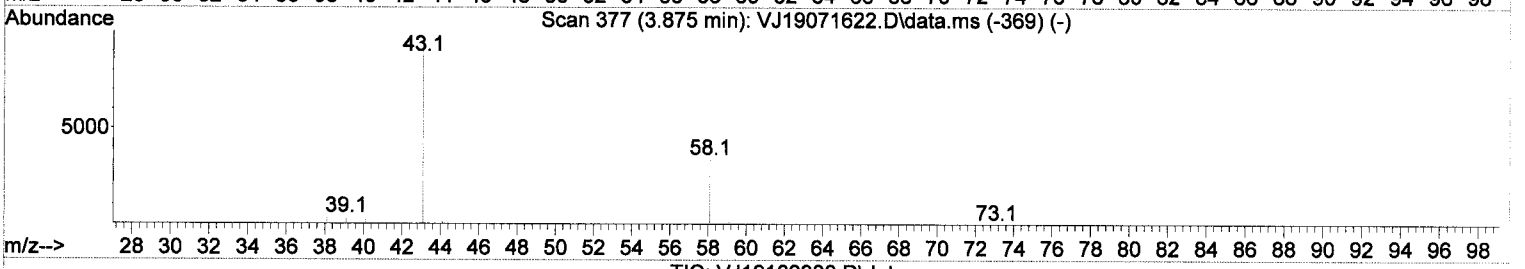
Quantitation Report (Qedit)

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

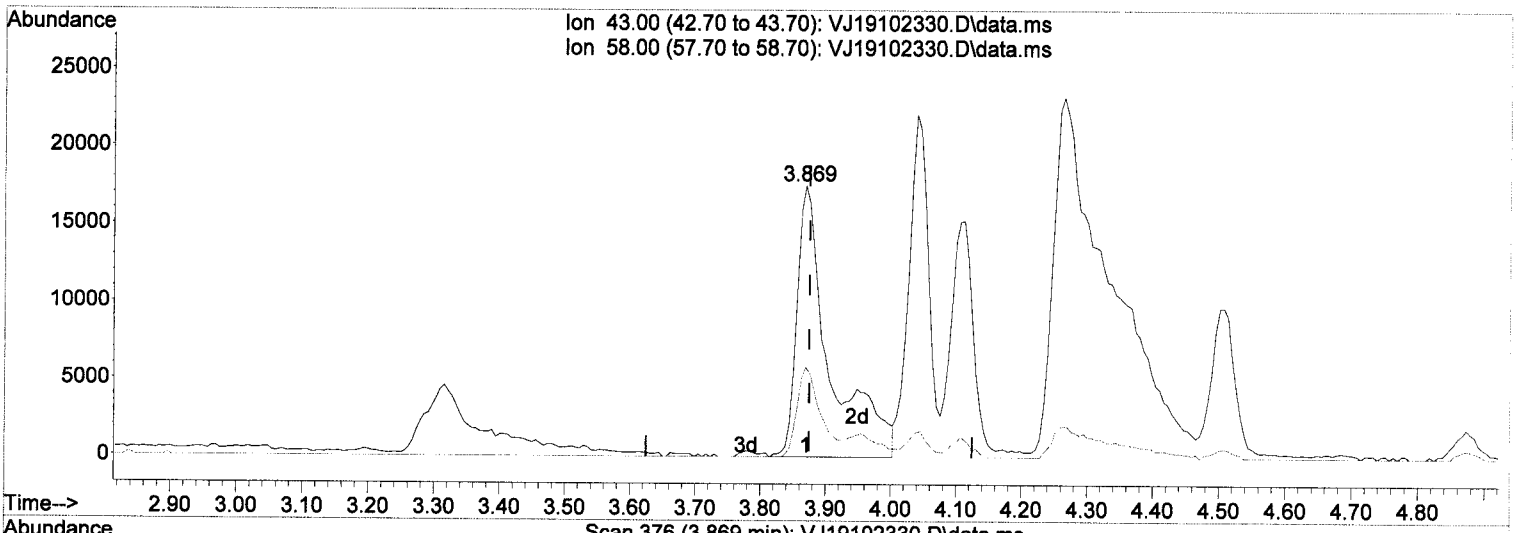
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.04
0.00	0.00	0.00
0.00	0.00	0.00

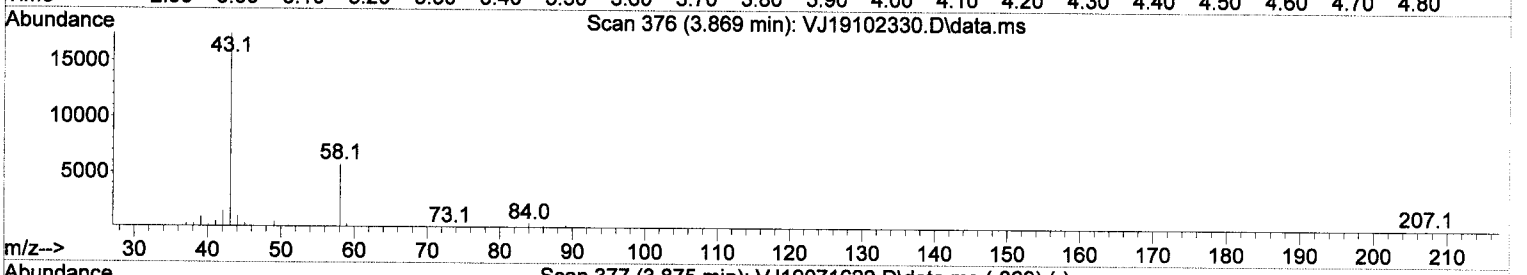
MJ.

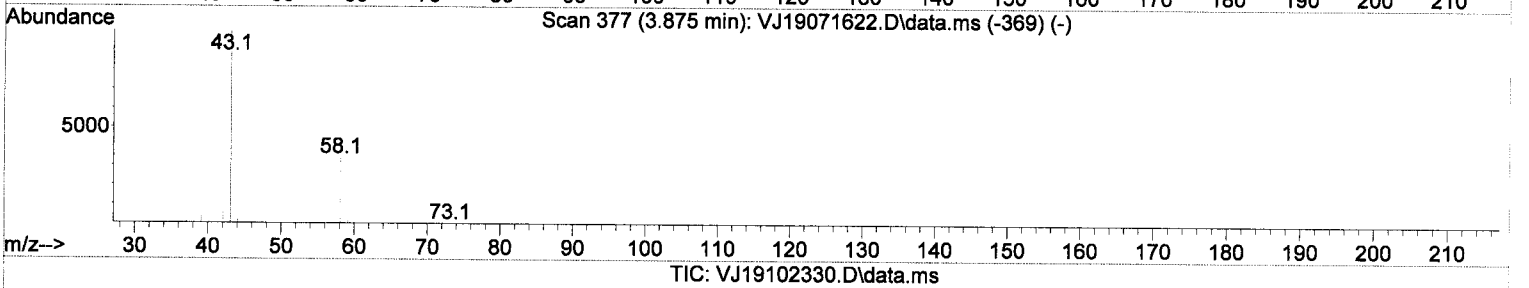
Quantitation Report (Qedit)

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

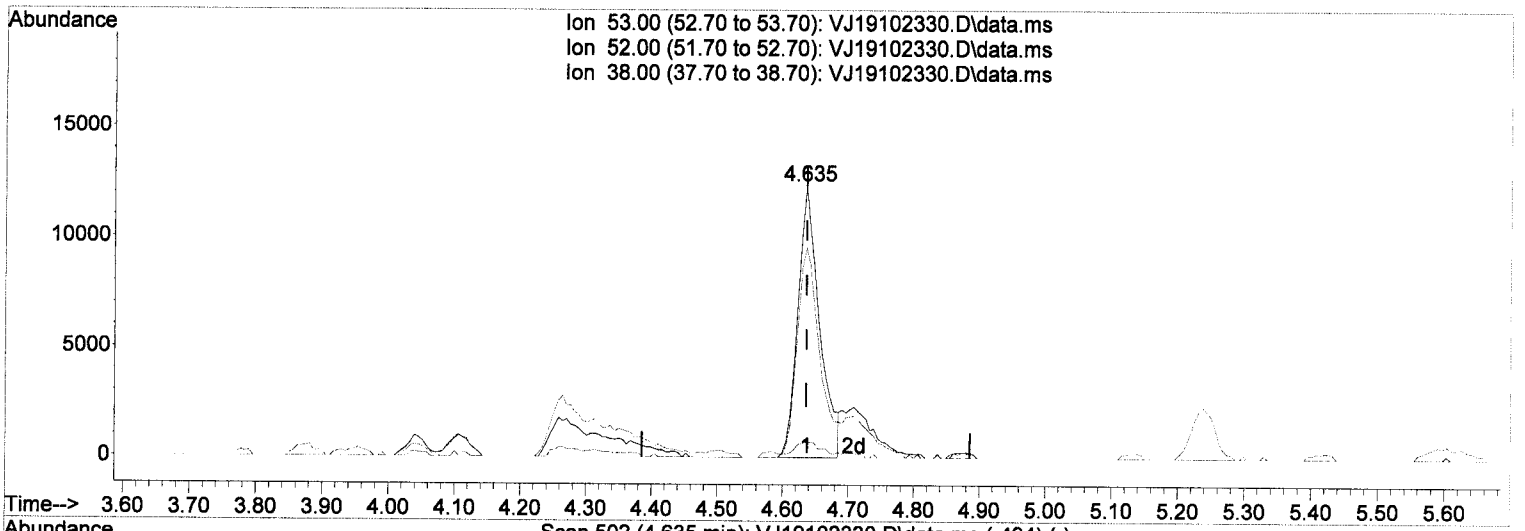
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.04
0.00	0.00	0.00
0.00	0.00	0.00

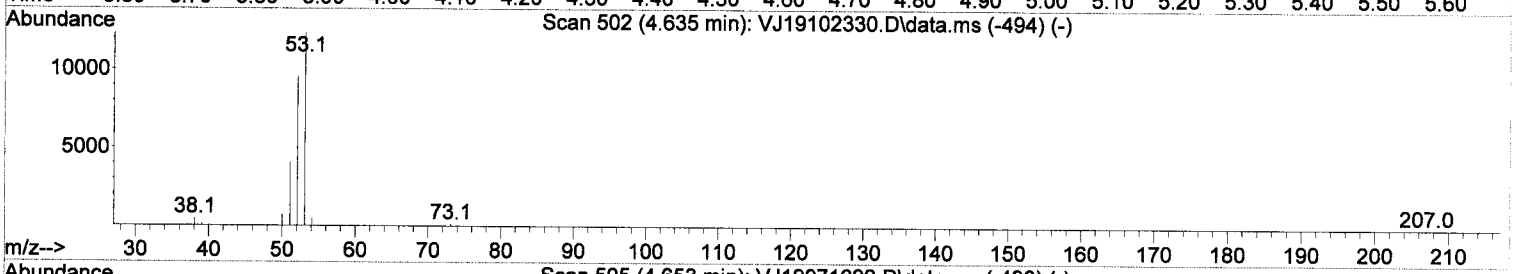
M 12/24/19

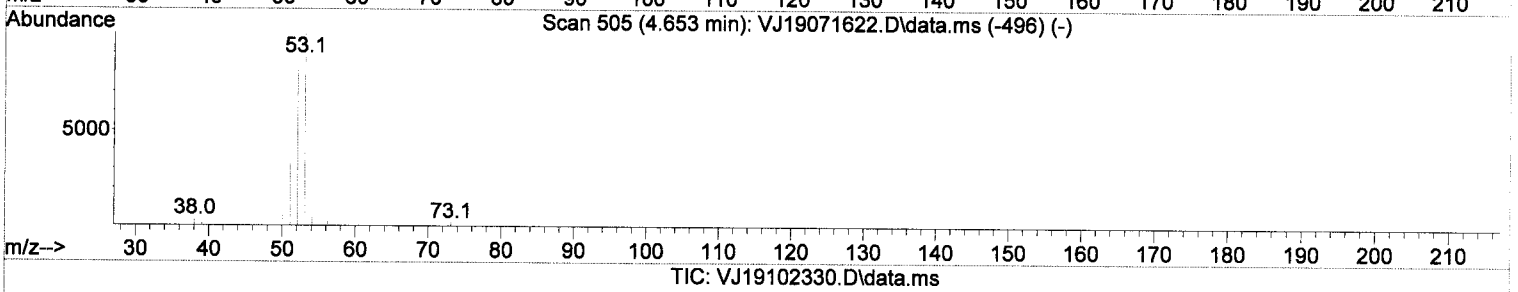
Quantitation Report (Qedit)

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

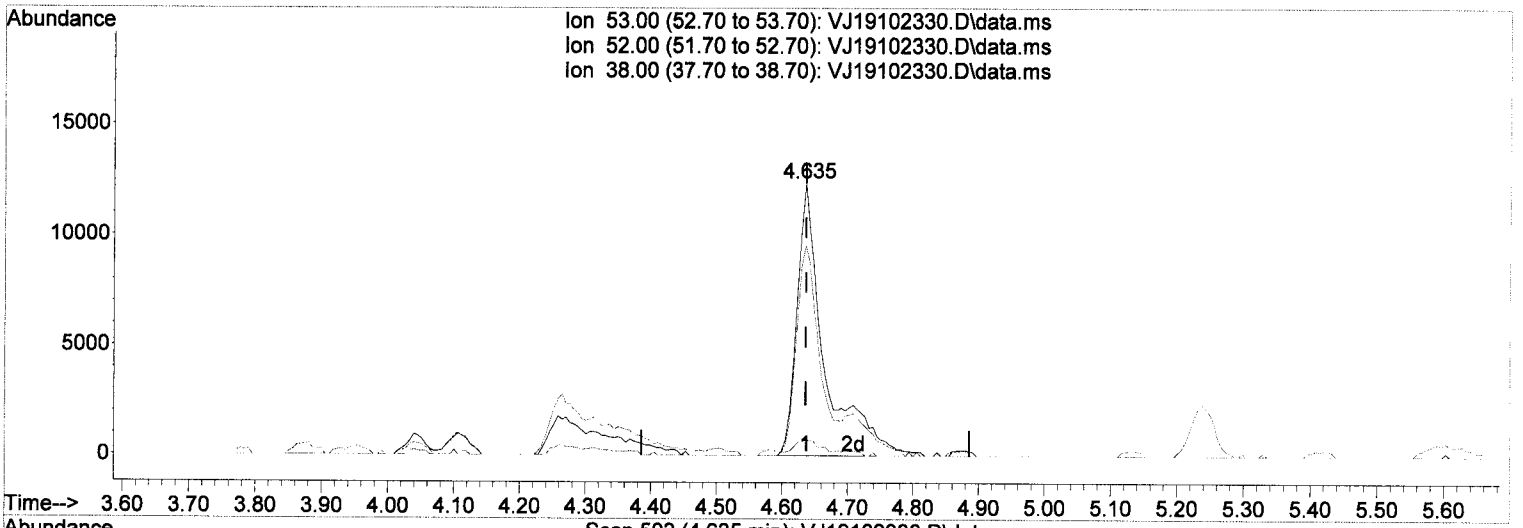
M.2.

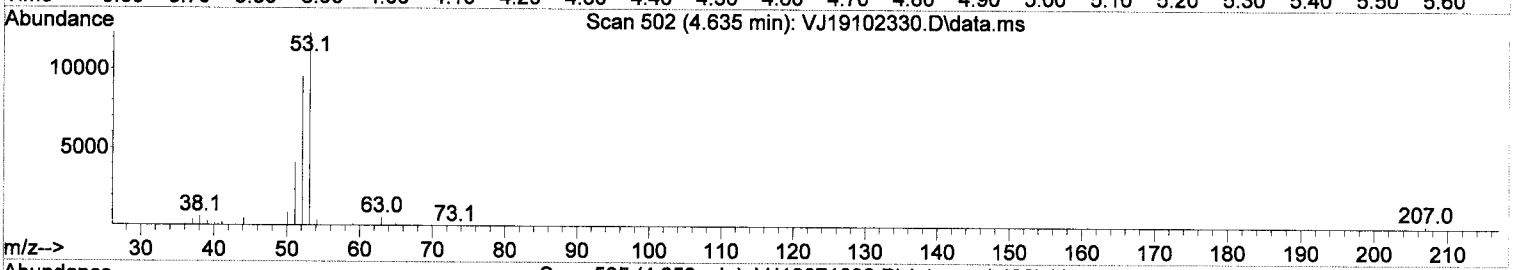
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	77.16
38.00	5.50	3.70
0.00	0.00	0.00

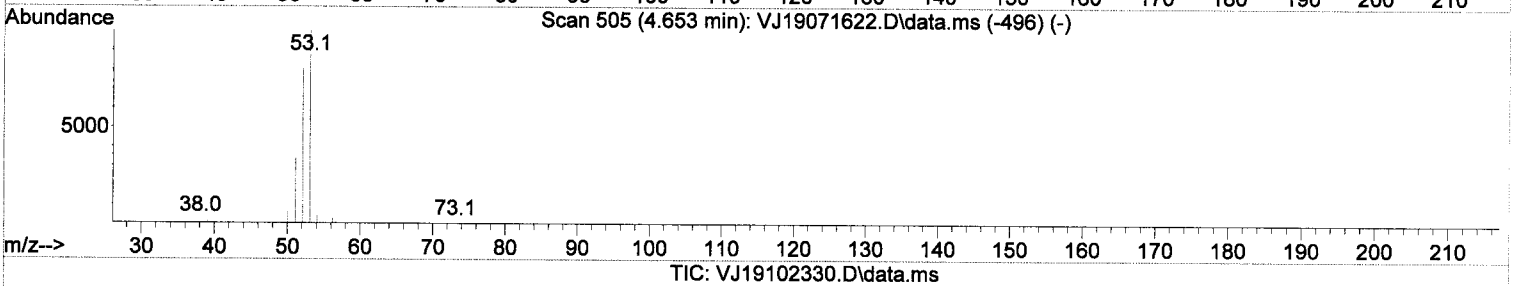
Quantitation Report (Qedit)

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

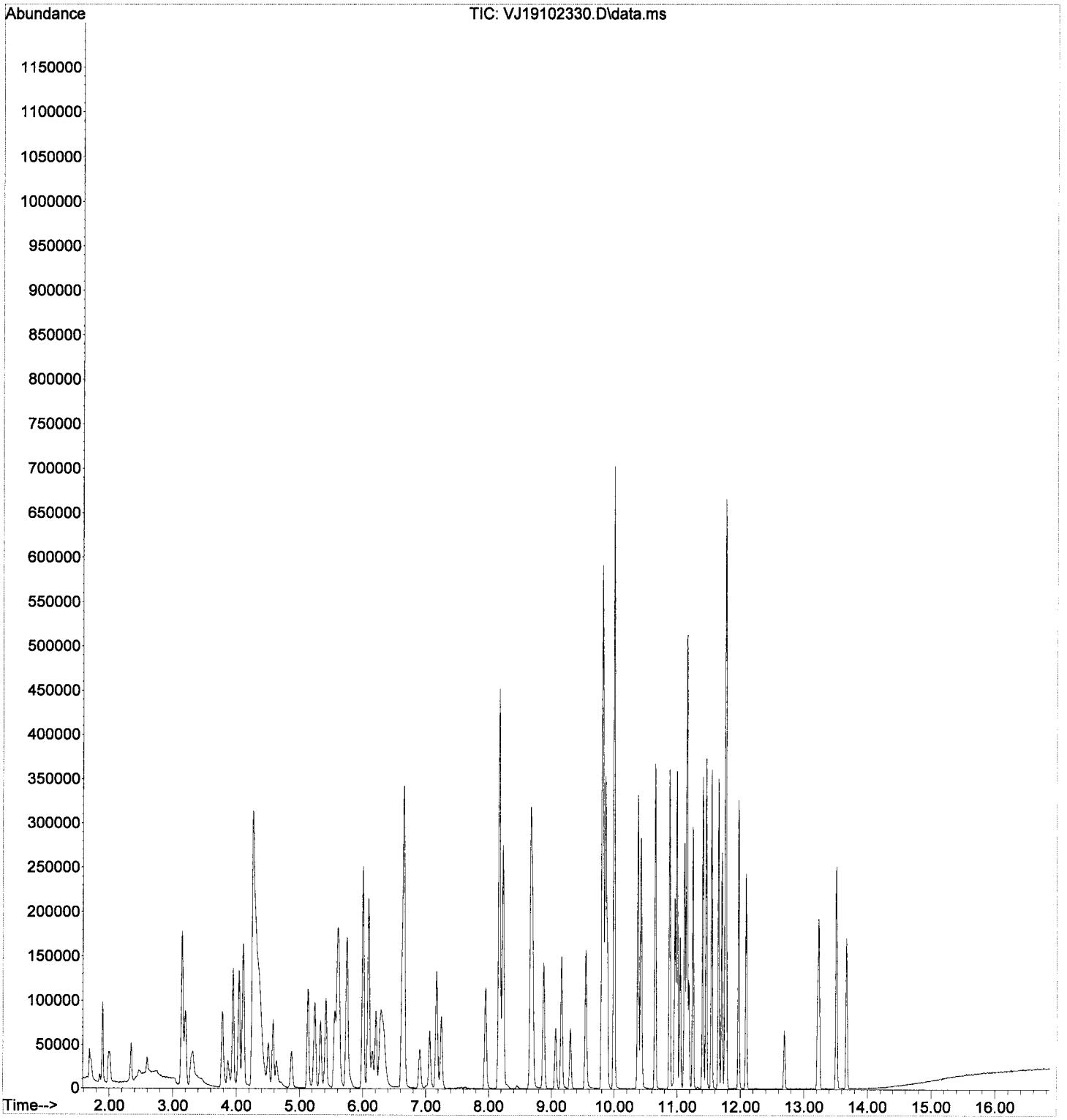
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	77.16
38.00	5.50	5.64
0.00	0.00	0.00

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

VV 10/24/19

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

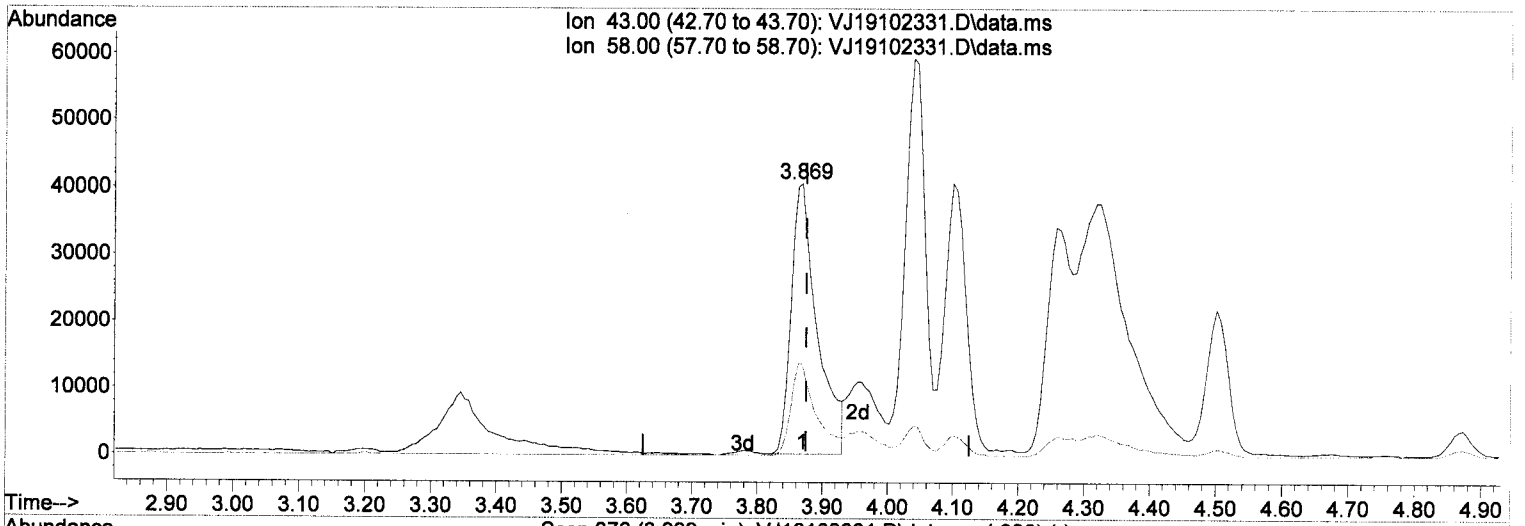
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	221998	47.89	ug/L		96
50) 1,1,2-Trichloroethane	8.876	97	133185	53.79	ug/L		97
51) Dibromochloromethane	9.064	129	113957	43.52	ug/L		99
52) 1,3-Dichloropropane	9.161	76	247593	49.68	ug/L		99
53) 1,2-Dibromoethane (EDB)	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

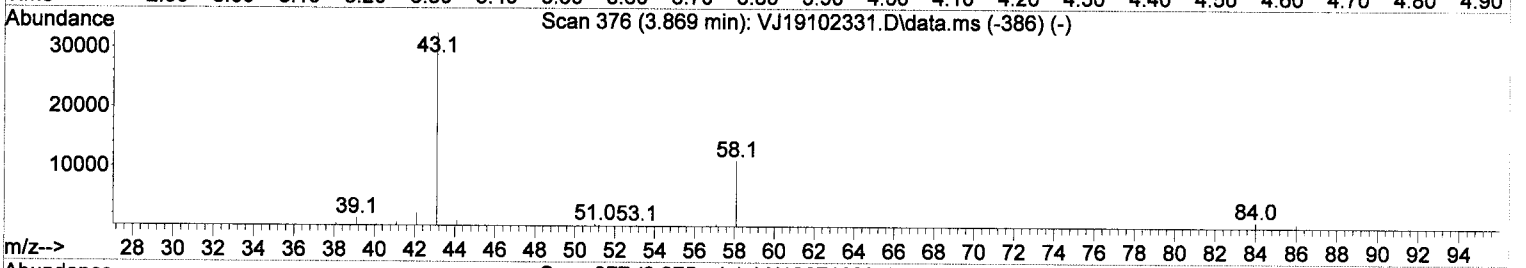
(#) = qualifier out of range (m) = manual integration (+) = signals summed

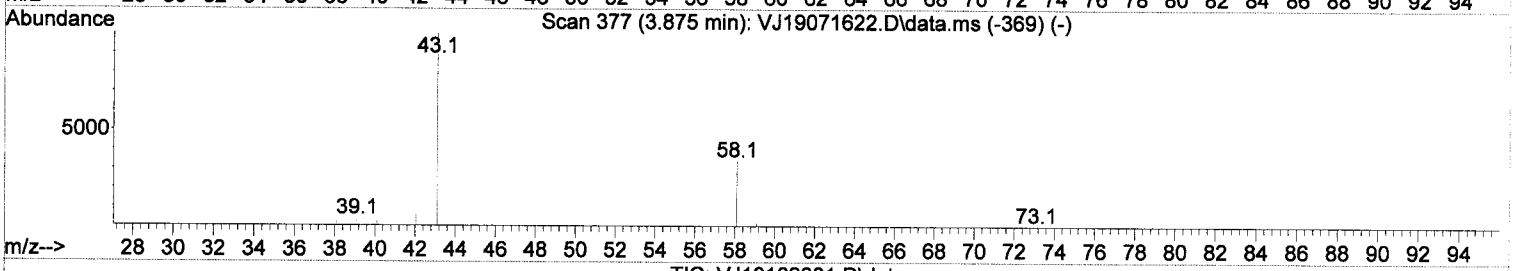
Quantitation Report (Qedit)

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

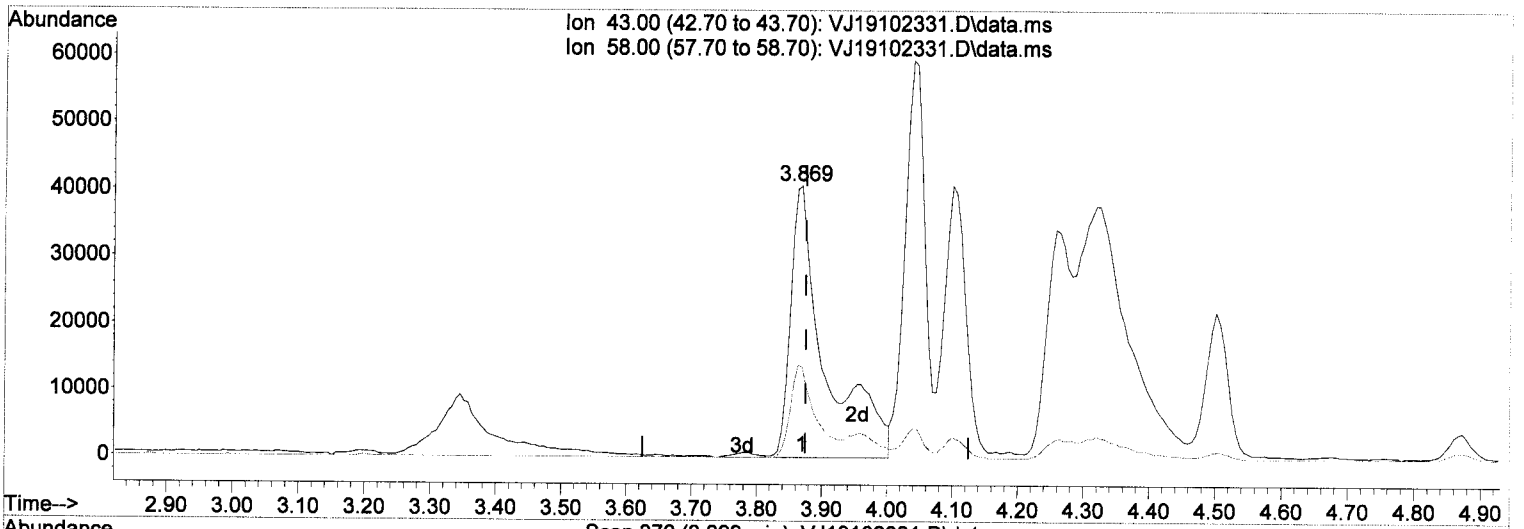
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.86
0.00	0.00	0.00
0.00	0.00	0.00

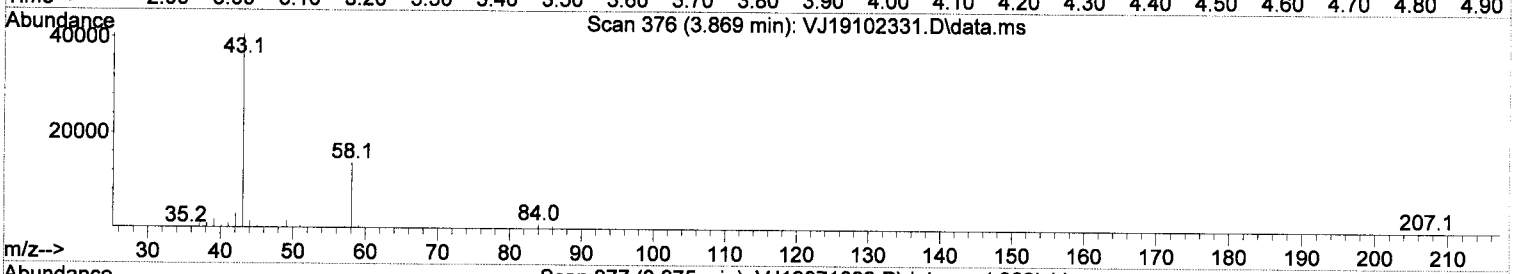
M.2.

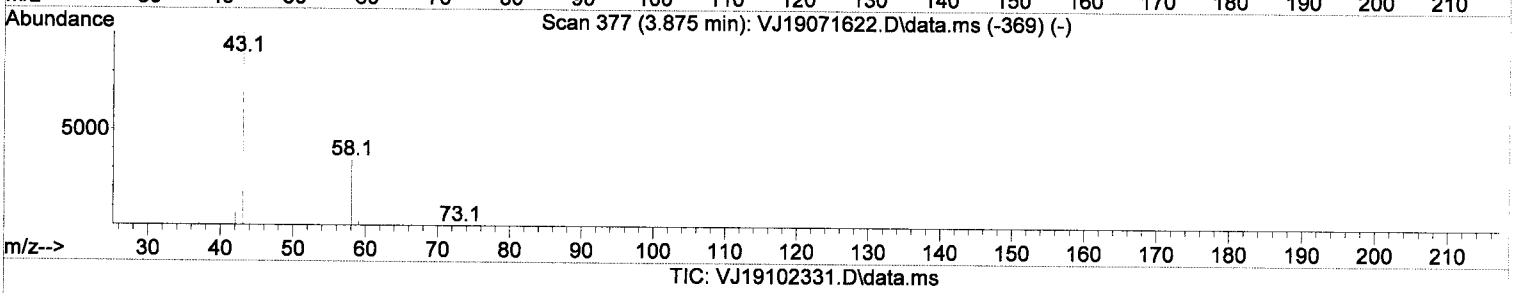
Quantitation Report (Qedit)

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

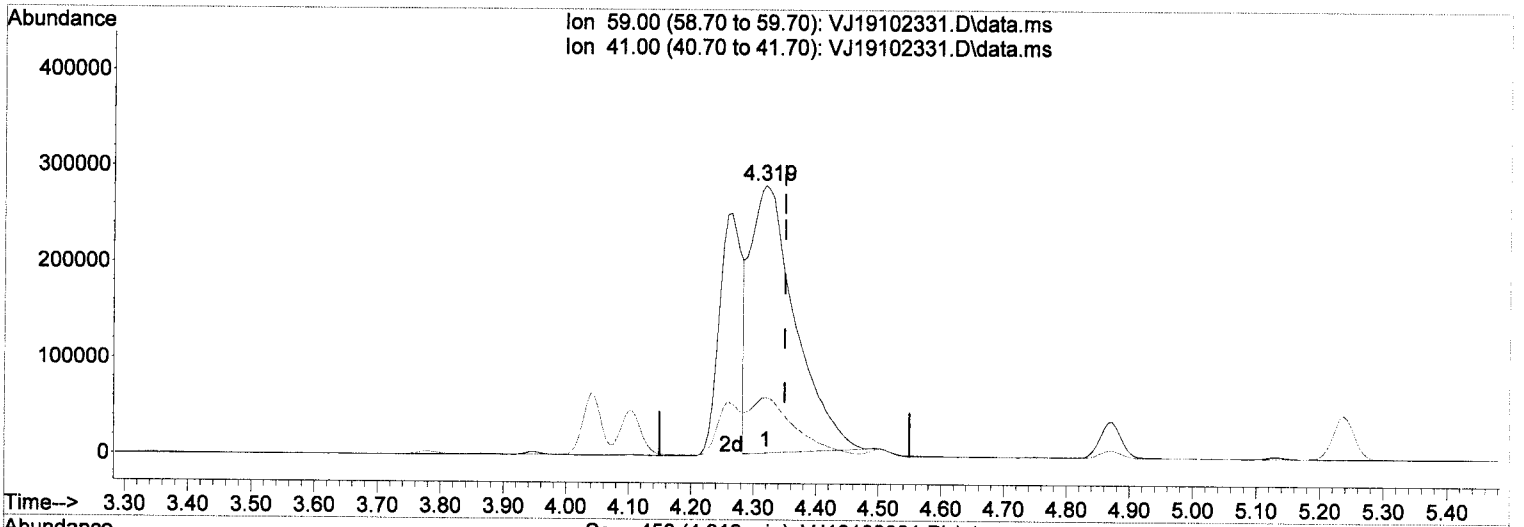
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.68
0.00	0.00	0.00
0.00	0.00	0.00

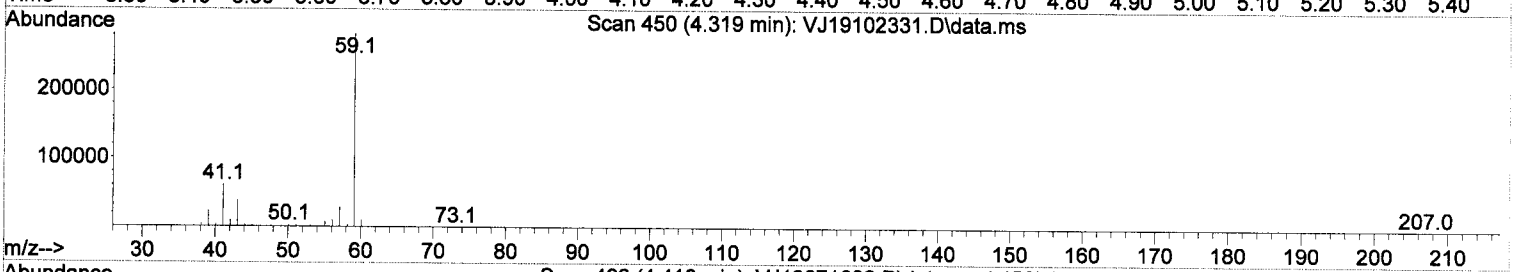
10/24/19

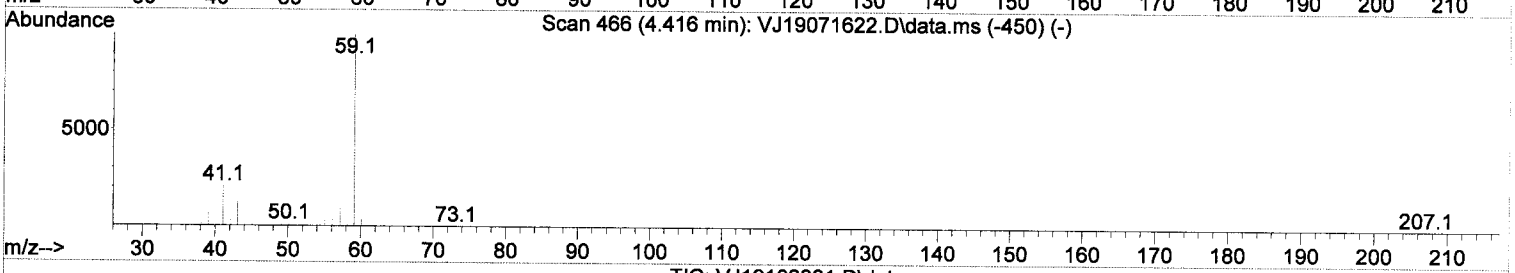
Quantitation Report (Qedit)

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

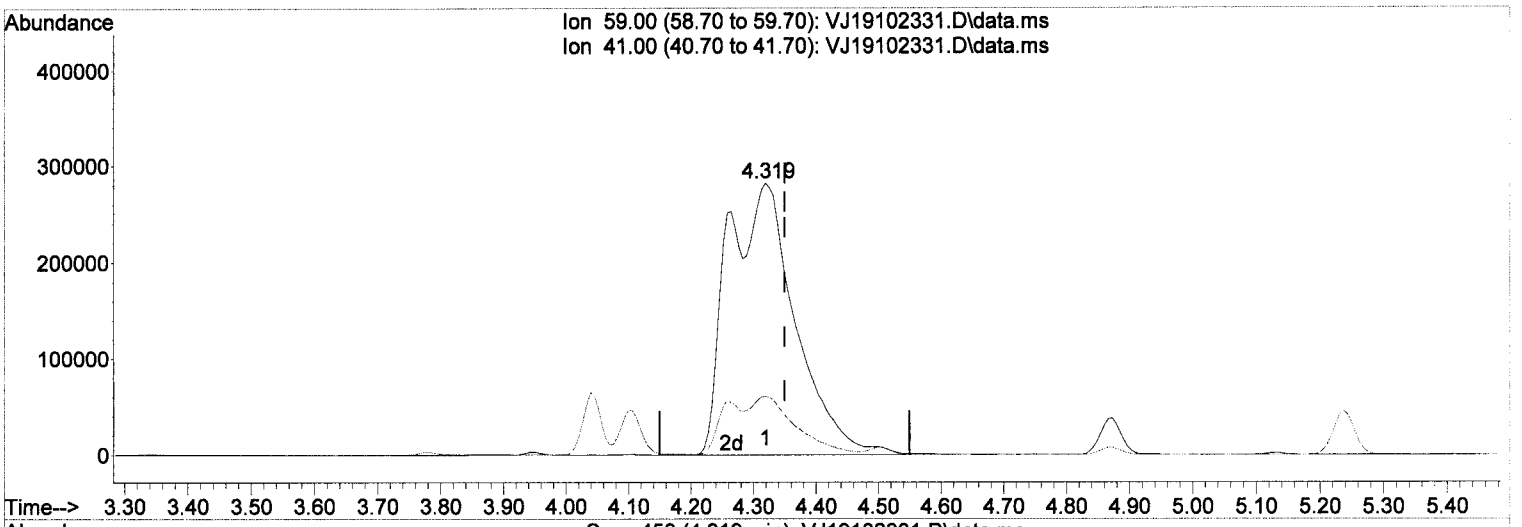
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	21.59#
0.00	0.00	0.00
0.00	0.00	0.00

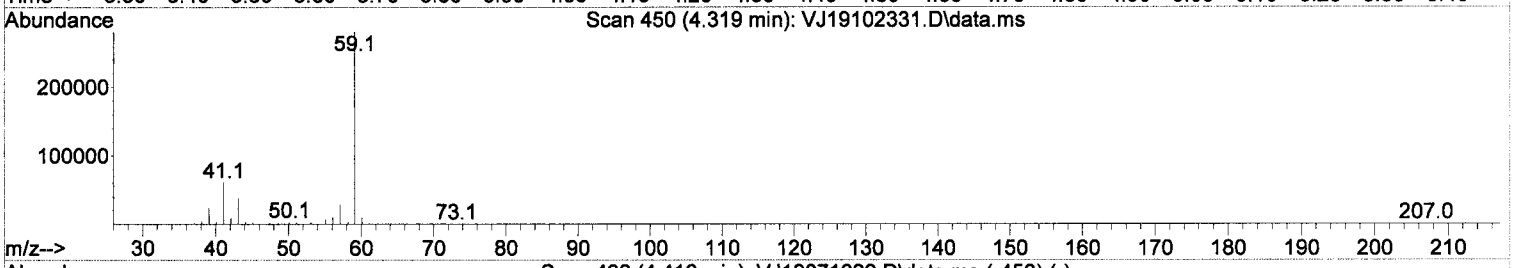
M.L.

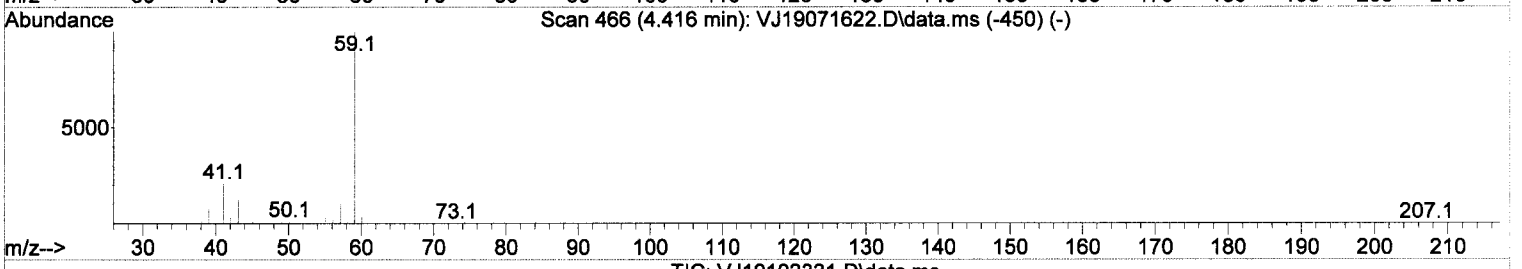
Quantitation Report (Qedit)

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

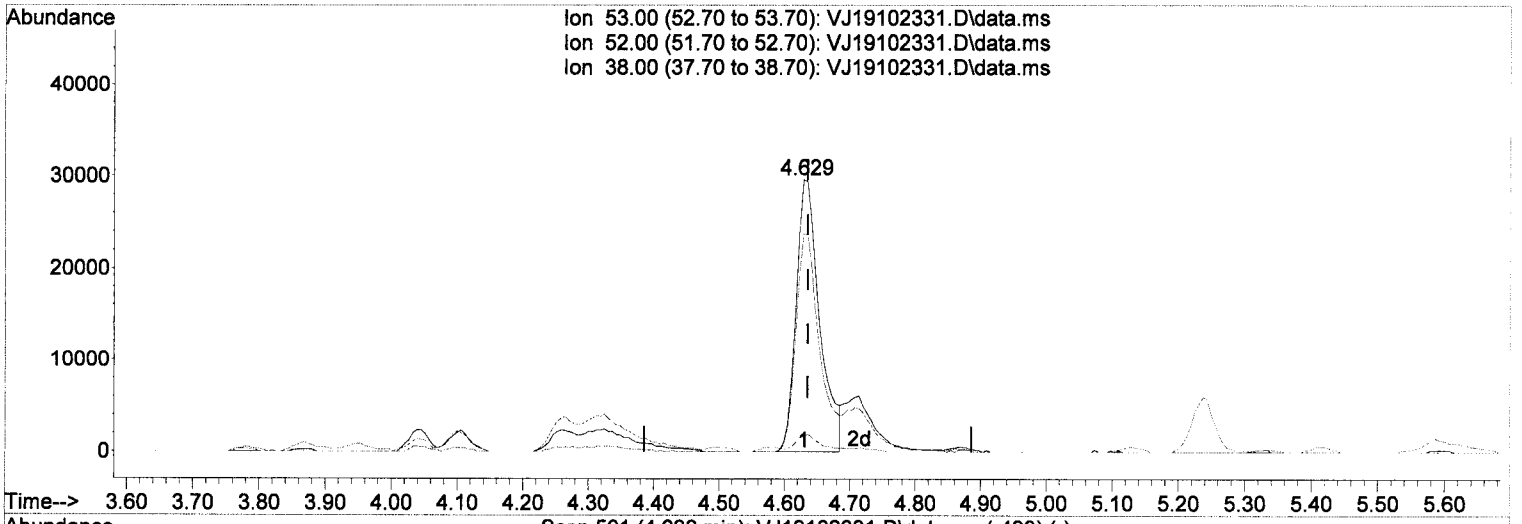
response 2117115

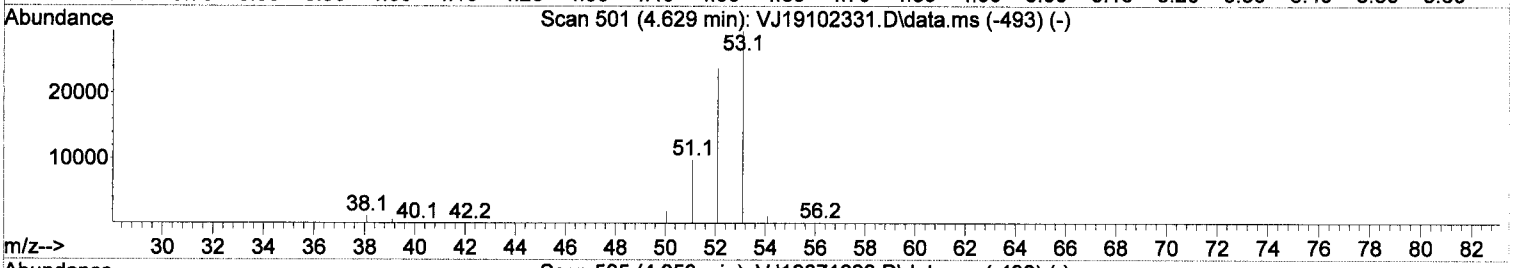
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	21.59#
0.00	0.00	0.00
0.00	0.00	0.00

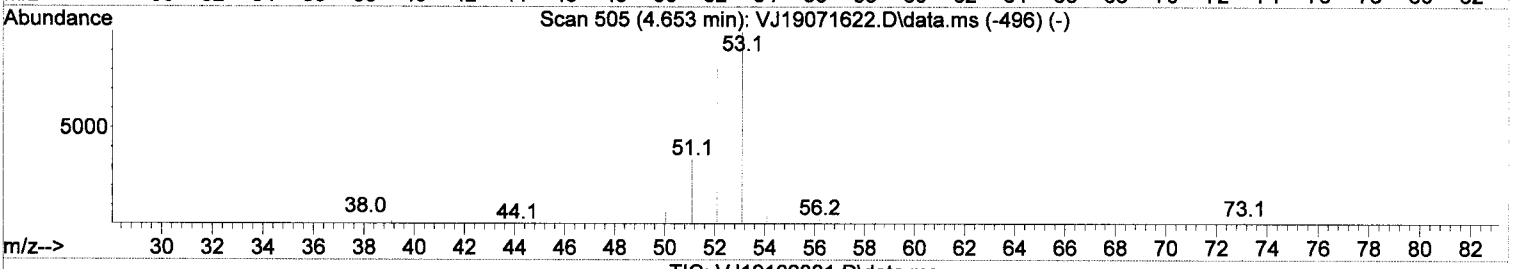
Quantitation Report (Qedit)

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

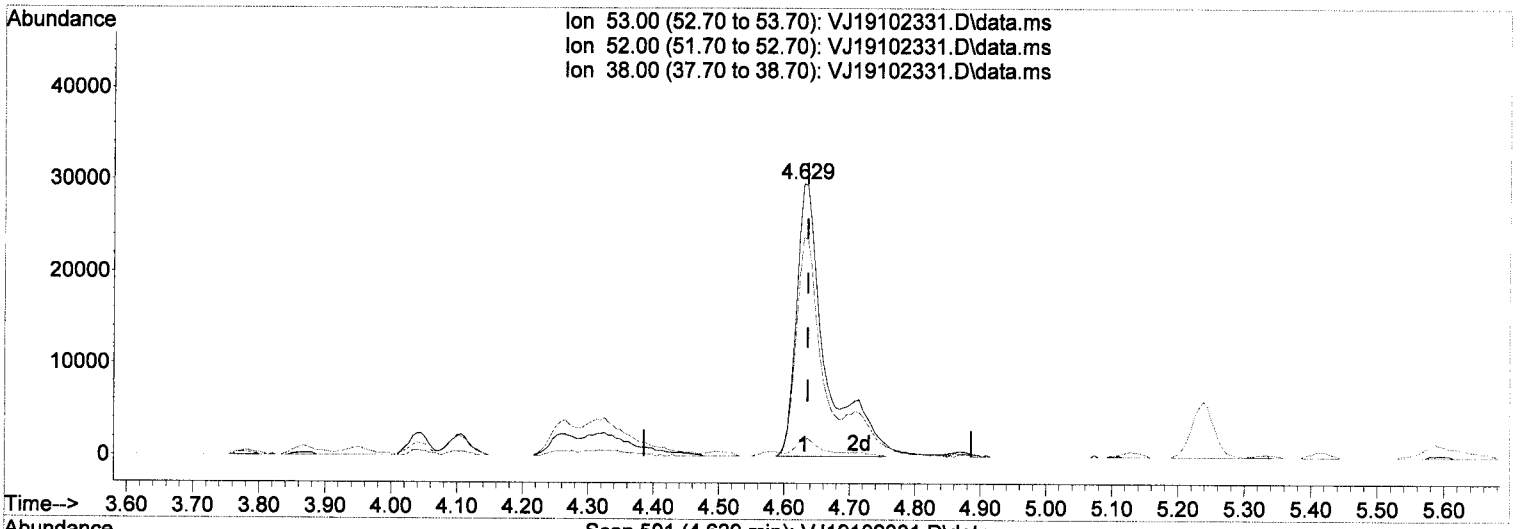
M2

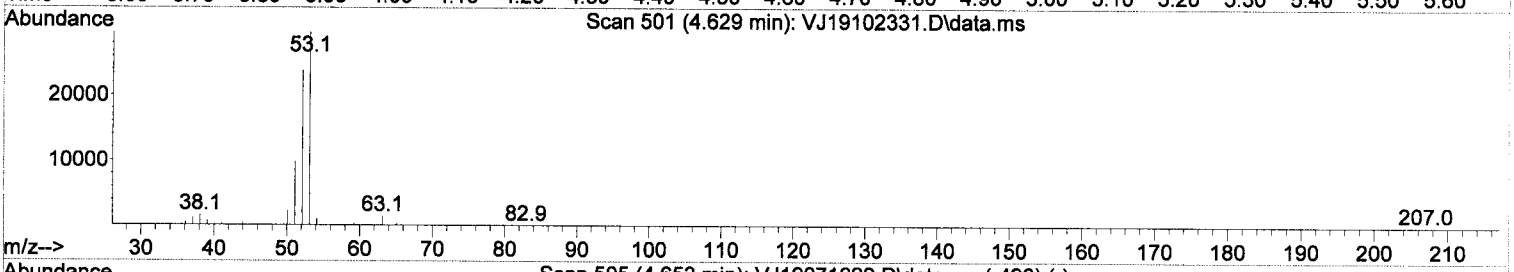
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.38
38.00	5.50	4.25
0.00	0.00	0.00

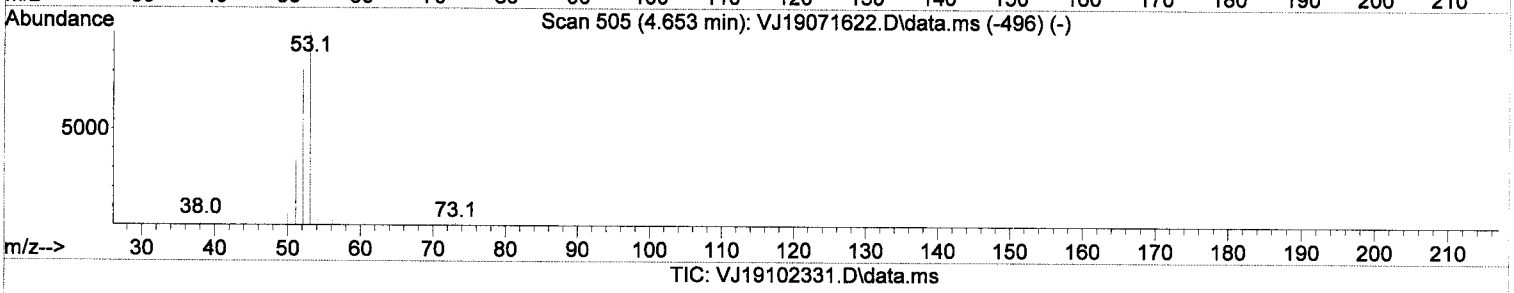
Quantitation Report (Qedit)

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

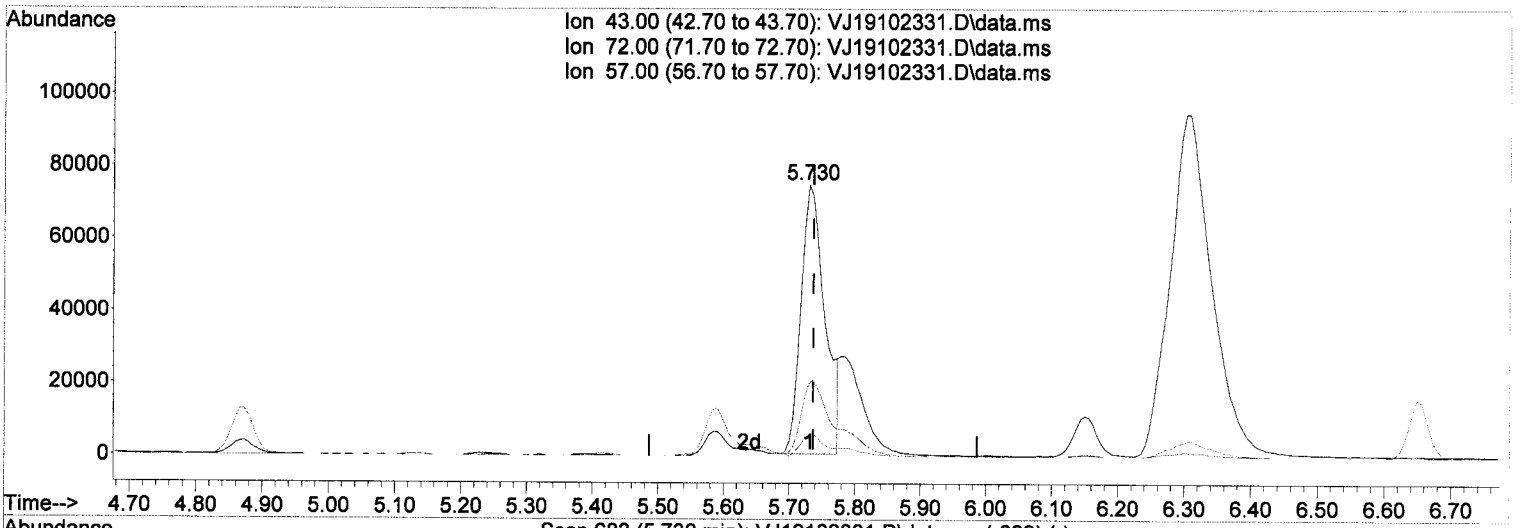
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.38
38.00	5.50	5.68
0.00	0.00	0.00

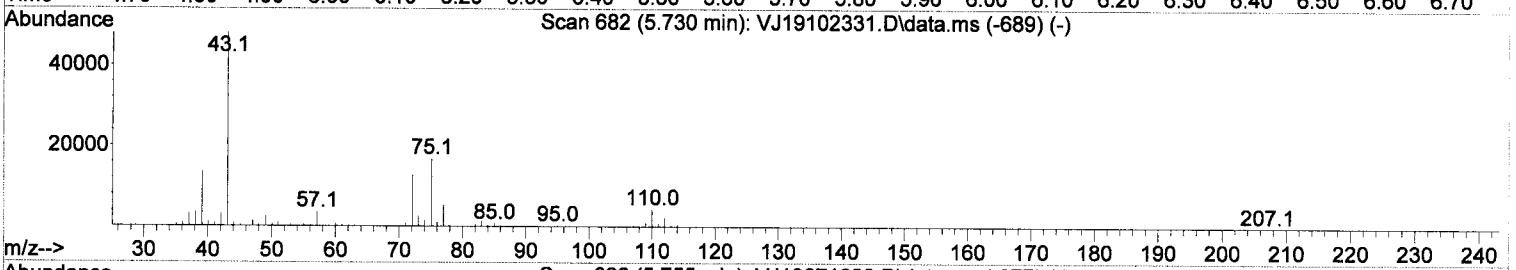
10/24/19

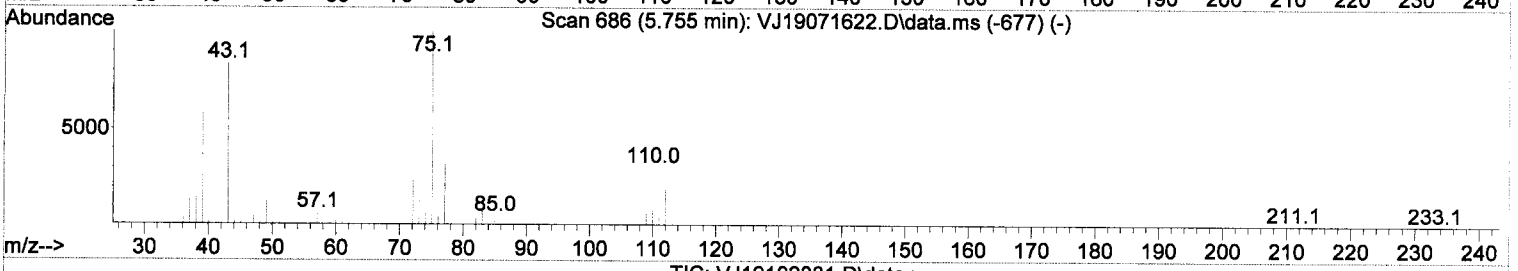
Quantitation Report (Qedit)

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

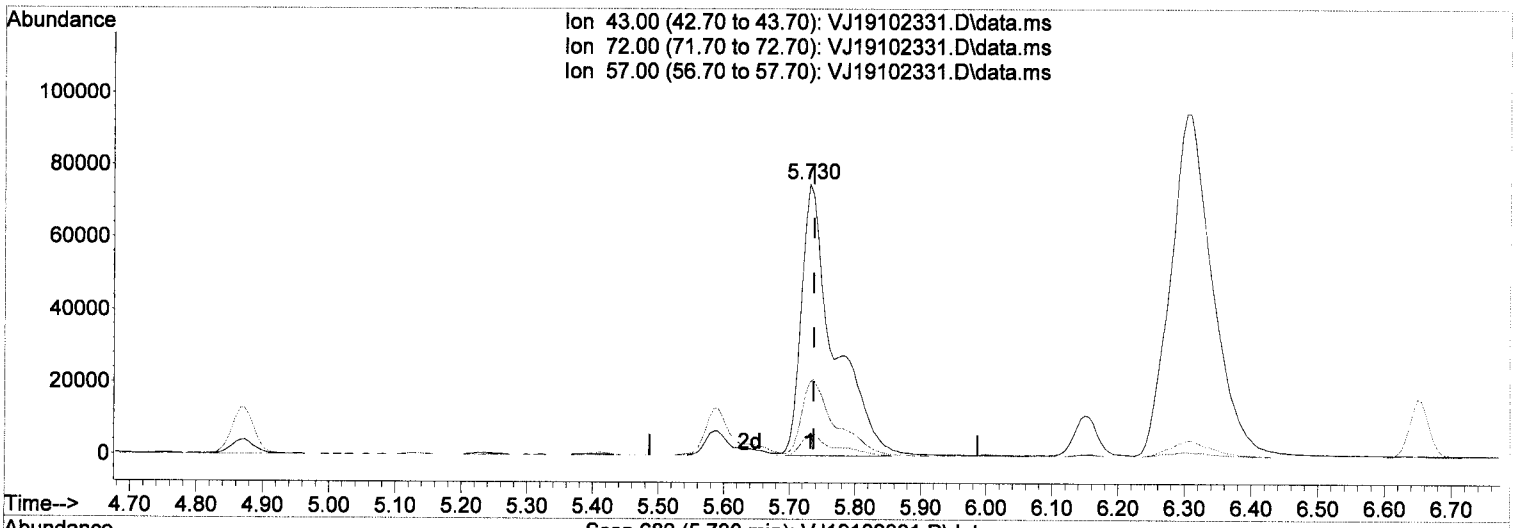
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	25.57
57.00	7.20	7.73
0.00	0.00	0.00

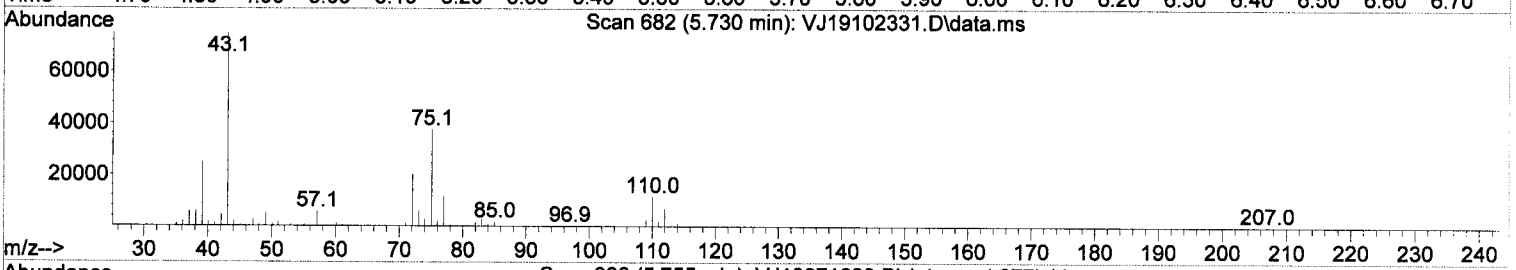
M.2.

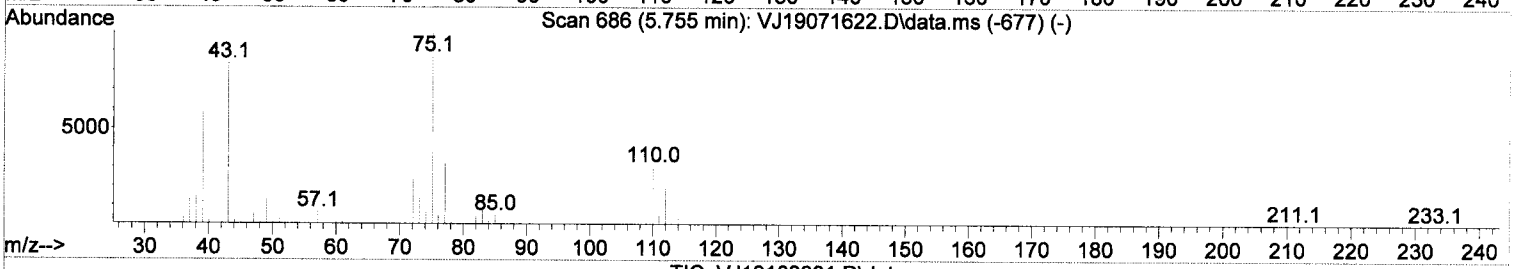
Quantitation Report (Qedit)

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

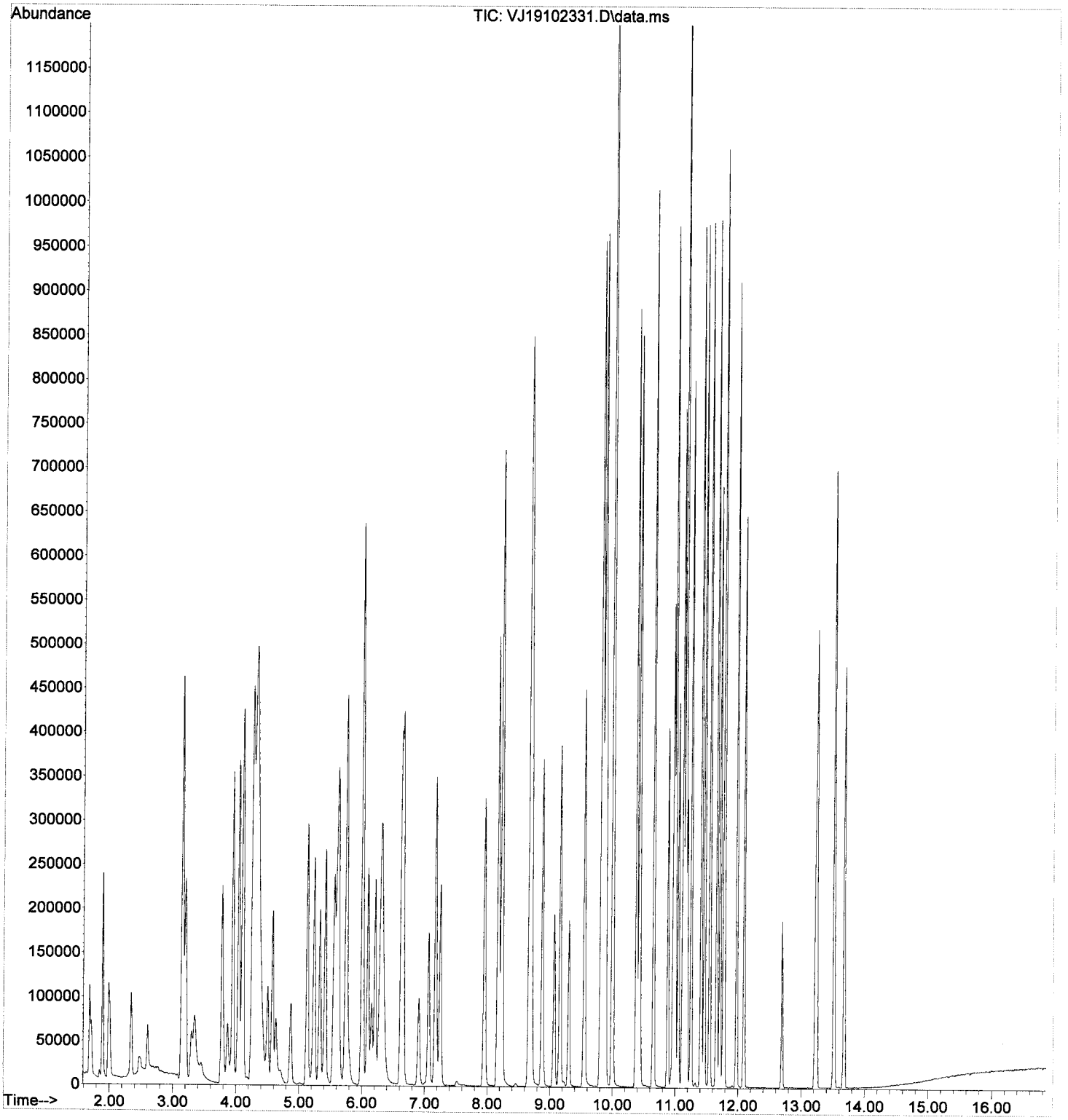
response 262305

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

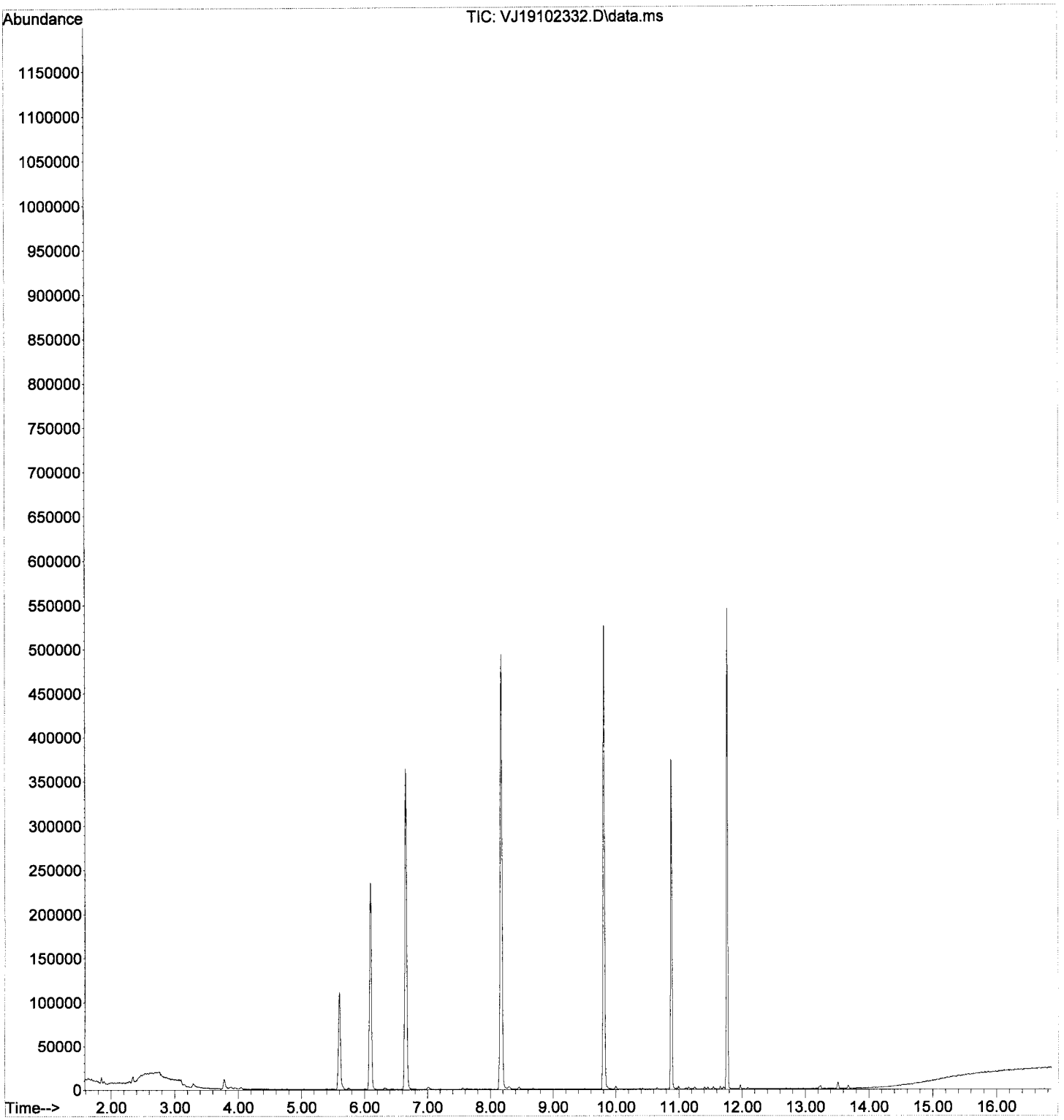
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	102386	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	273341	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	110048	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (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)

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

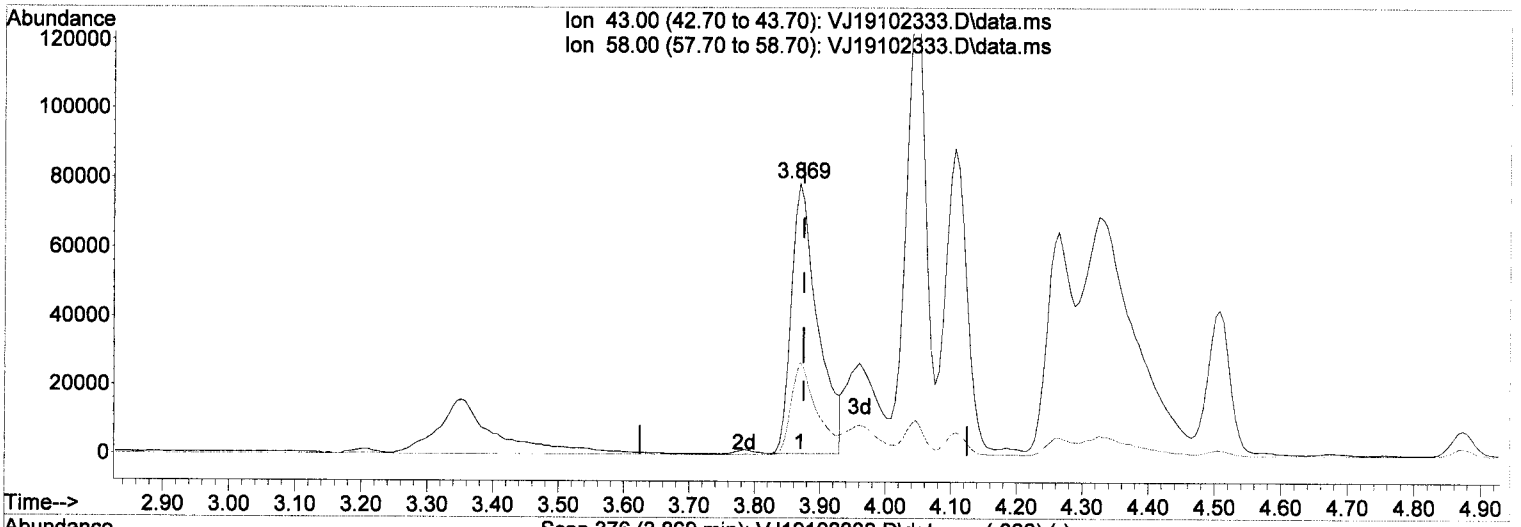
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	481174	99.42	ug/L		96
50) 1,1,2-Trichloroethane	8.881	97	282770	109.51	ug/L		98
51) Dibromochloromethane	9.070	129	256674	93.89	ug/L		99
52) 1,3-Dichloropropane	9.161	76	523949	100.70	ug/L		99
53) 1,2-Dibromoethane (EDB)	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

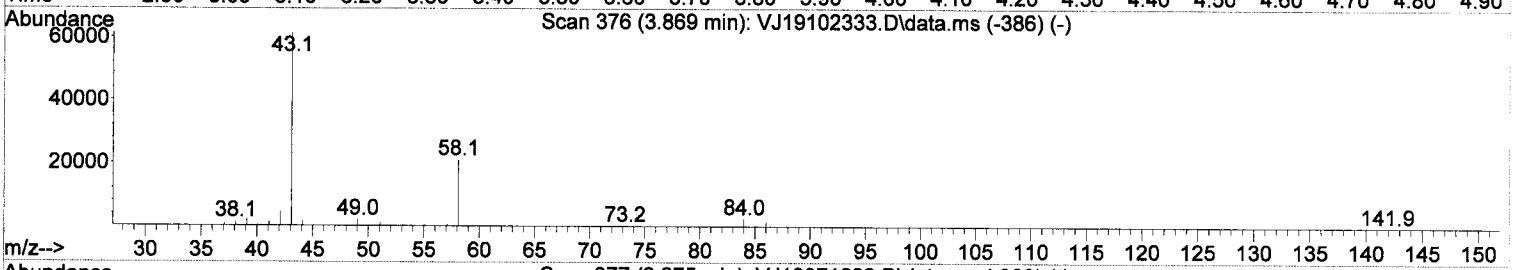
(#) = qualifier out of range (m) = manual integration (+) = signals summed

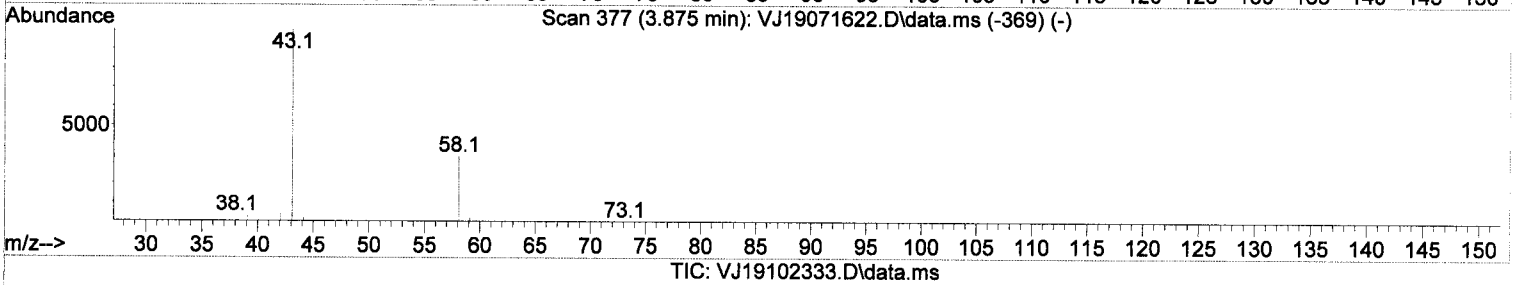
Quantitation Report (Qedit)

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

(14) Acetone

3.869min (-0.005) 180.51 ug/L

response 219265

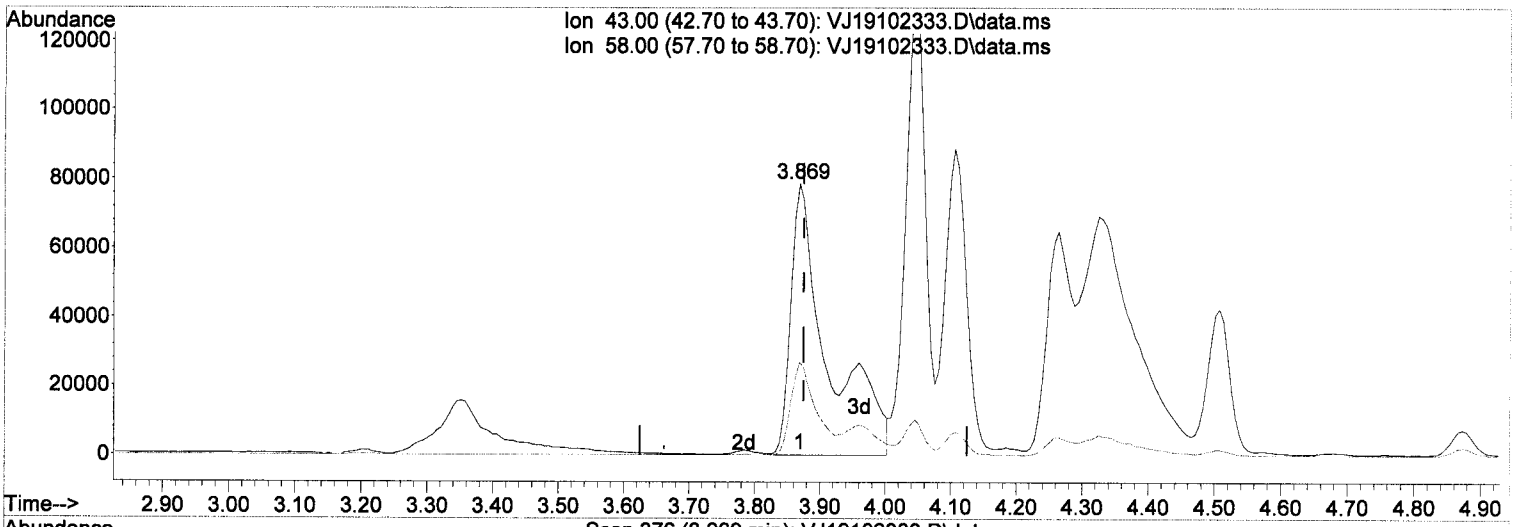
M.2.

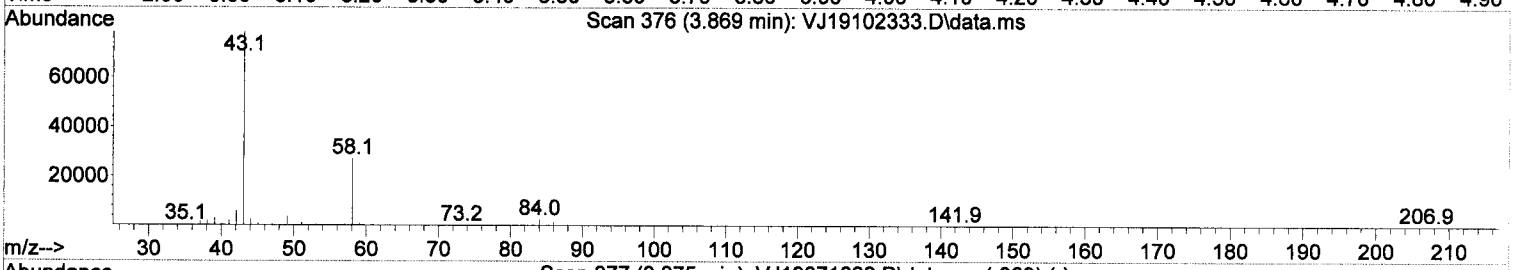
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	34.49
0.00	0.00	0.00
0.00	0.00	0.00

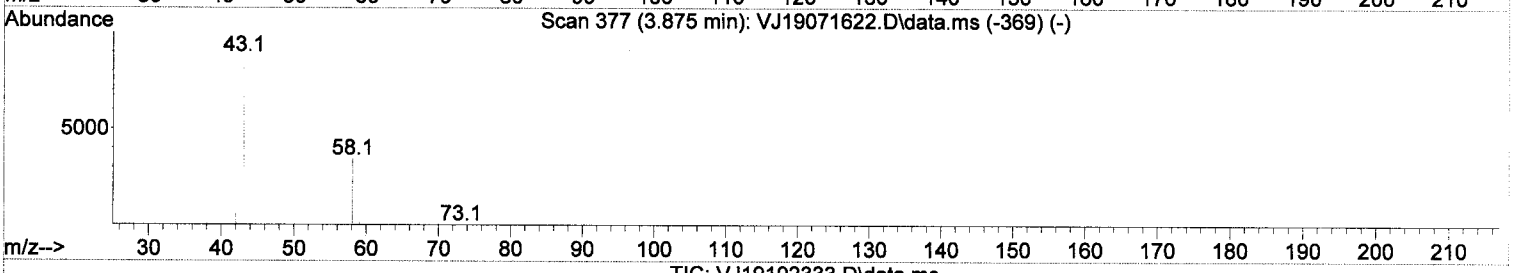
Quantitation Report (Qedit)

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

(14) Acetone

3.869min (-0.005) 253.83 ug/L m

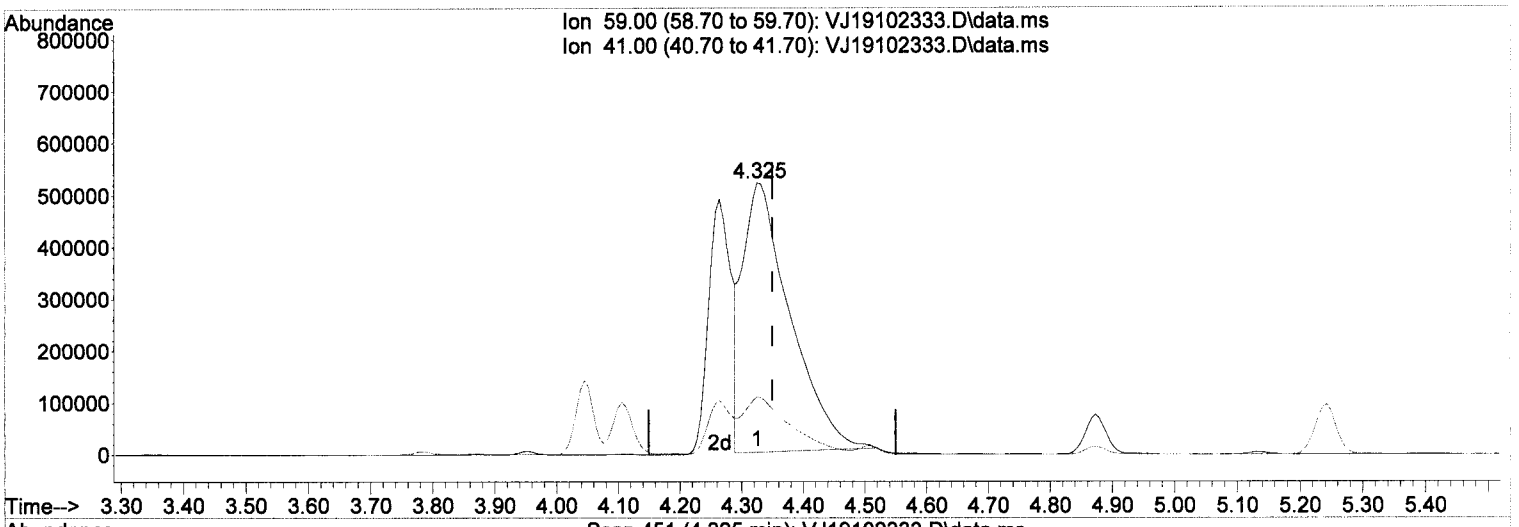
response 308333

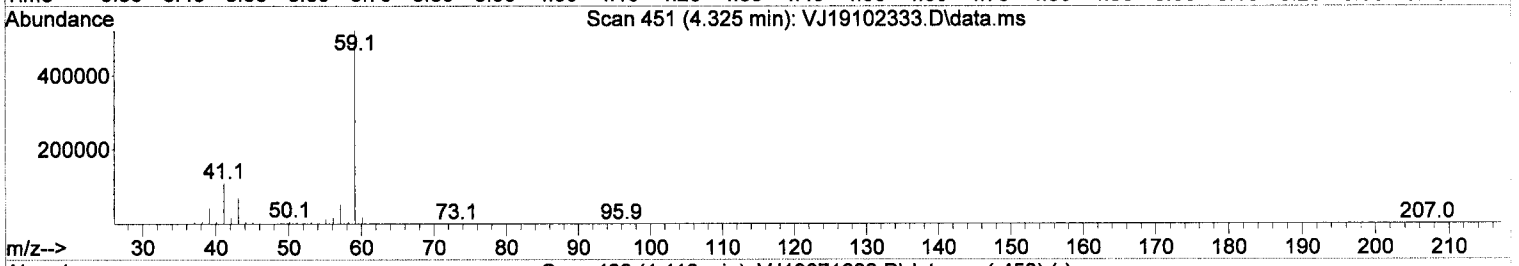
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	34.33
0.00	0.00	0.00
0.00	0.00	0.00

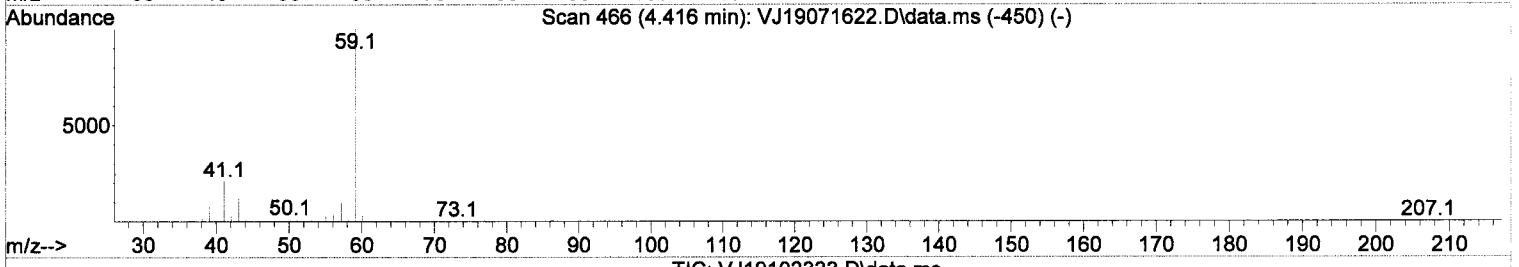
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
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

(18) tert-Butanol (TBA)

4.325min (-0.024) 3888.55 ug/L

response 2773547

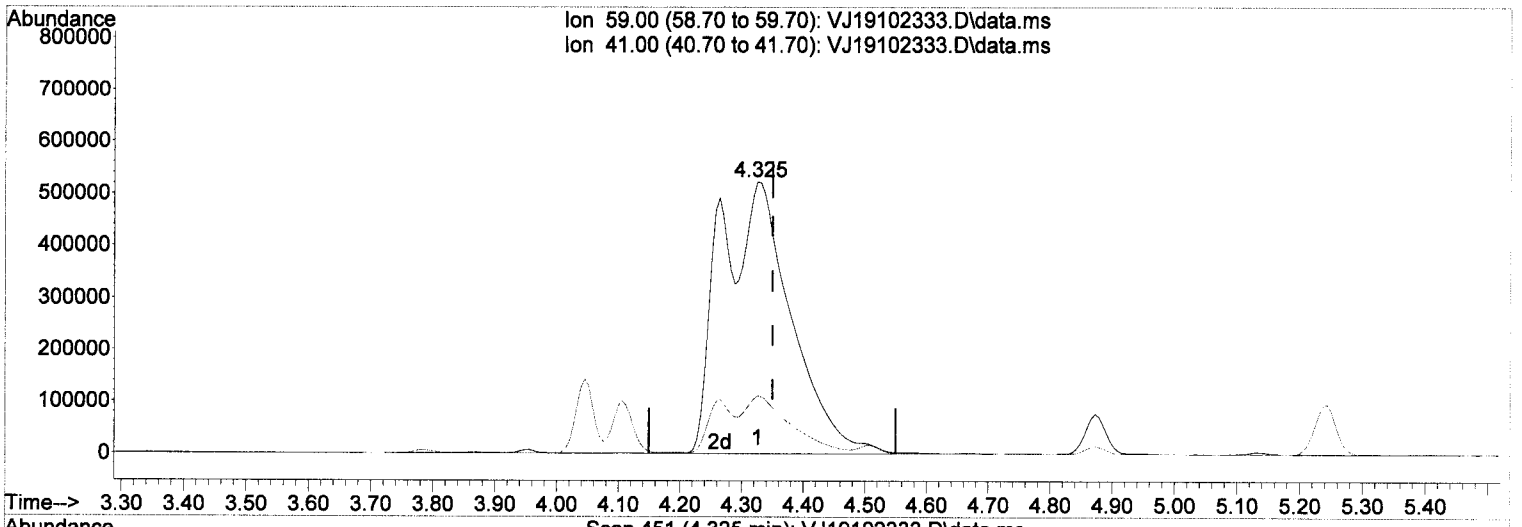
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	21.18#
0.00	0.00	0.00
0.00	0.00	0.00

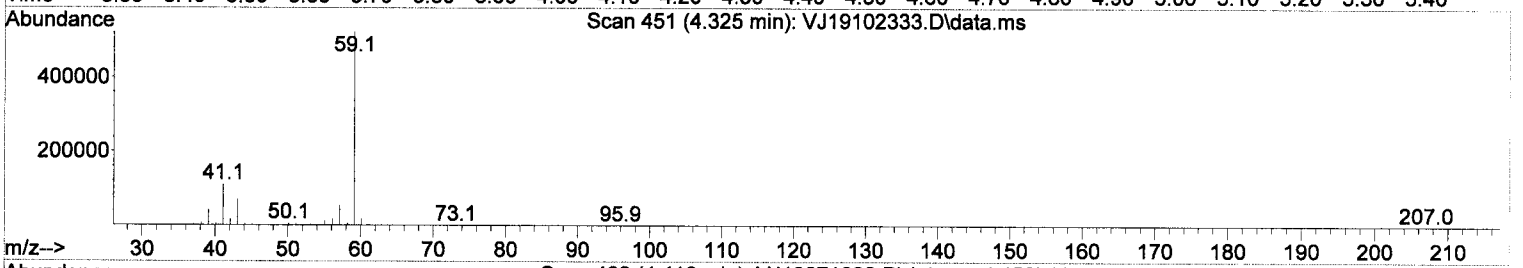
M.2.

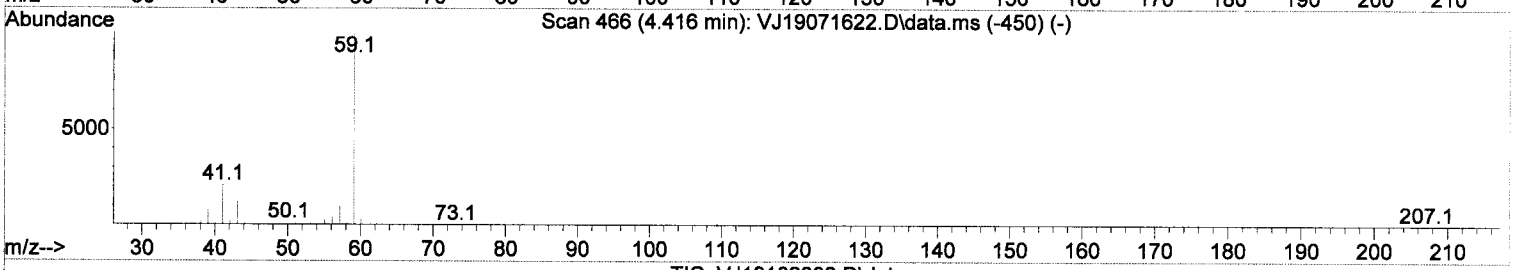
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J23072\
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

(18) tert-Butanol (TBA)

4.325min (-0.024) 5356.48 ug/L m

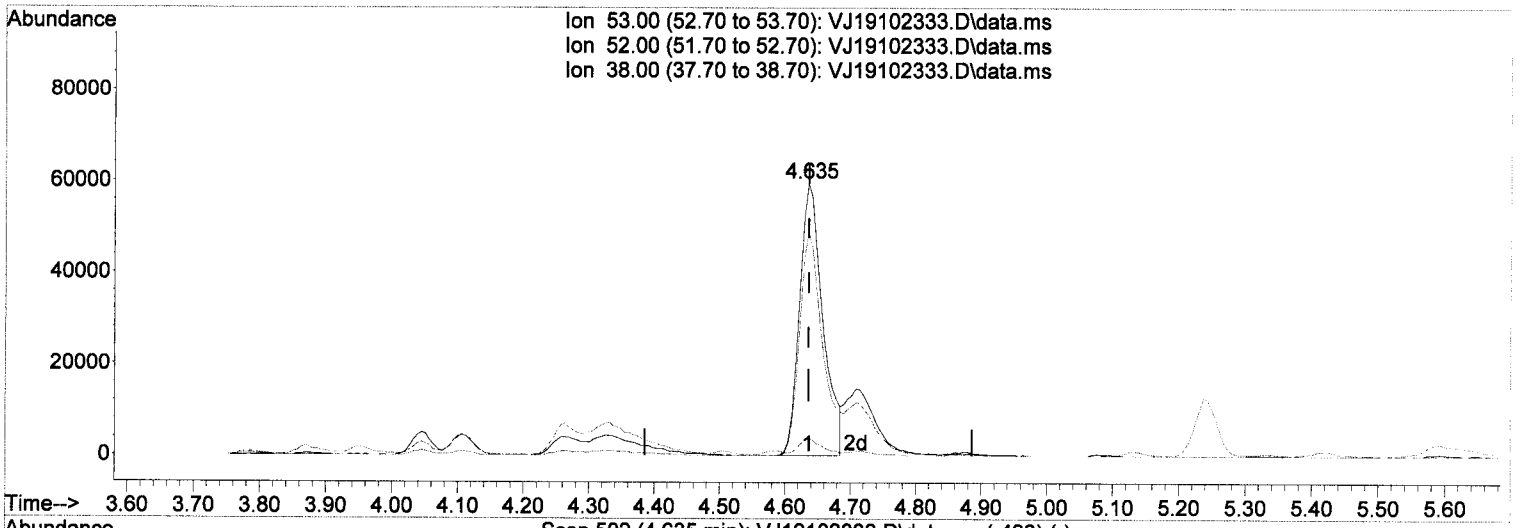
response 4143802

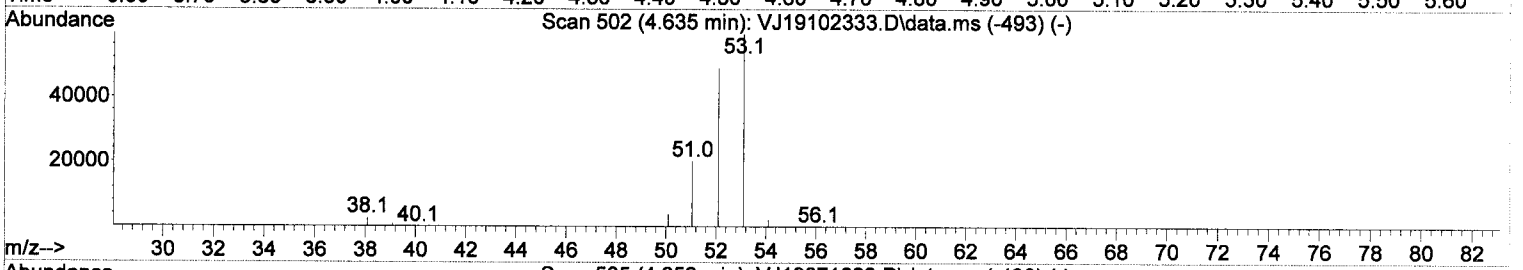
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	21.18#
0.00	0.00	0.00
0.00	0.00	0.00

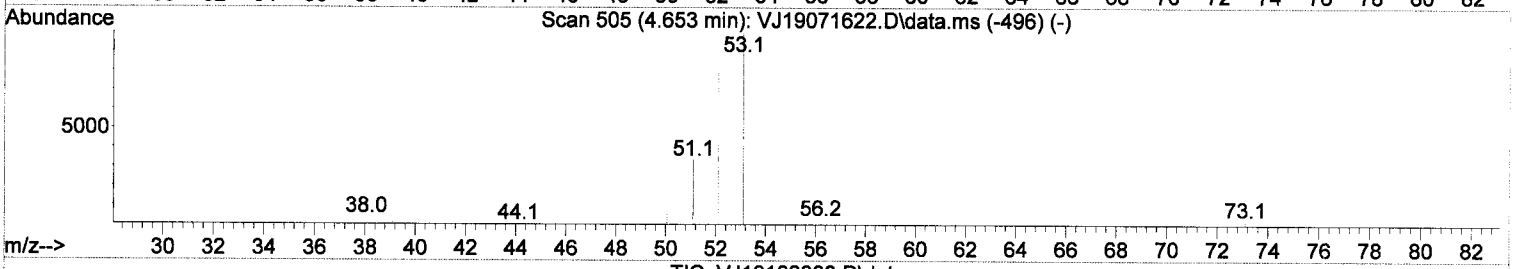
Quantitation Report (Qedit)

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

(21) Acrylonitrile

4.635min (+ 0.000) 154.84 ug/L

response 147629

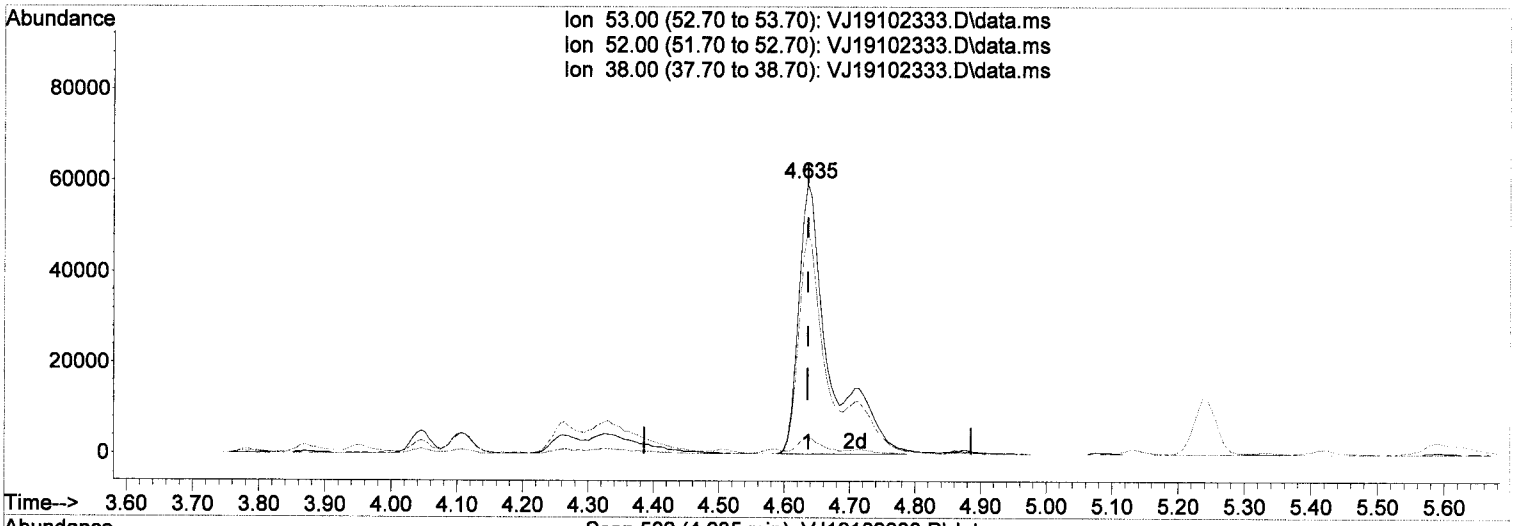
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.06
38.00	5.50	5.06
0.00	0.00	0.00

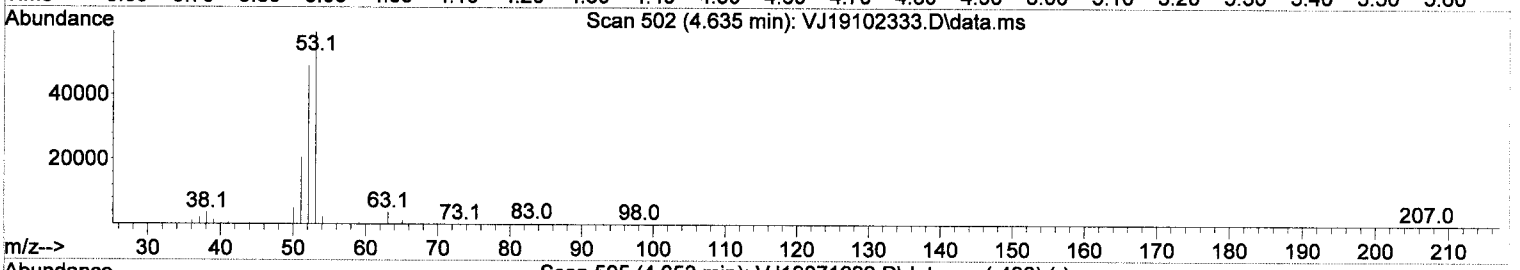
M.2.

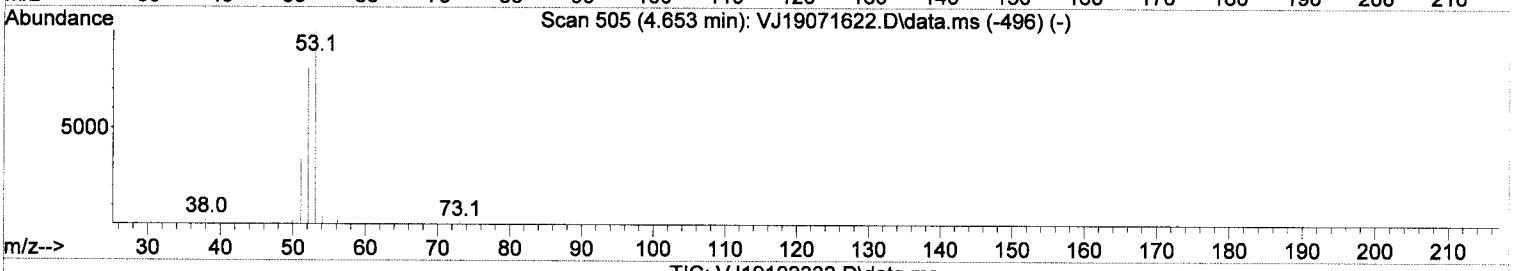
Quantitation Report (Qedit)

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

(21) Acrylonitrile

4.635min (+ 0.000) 205.11 ug/L m

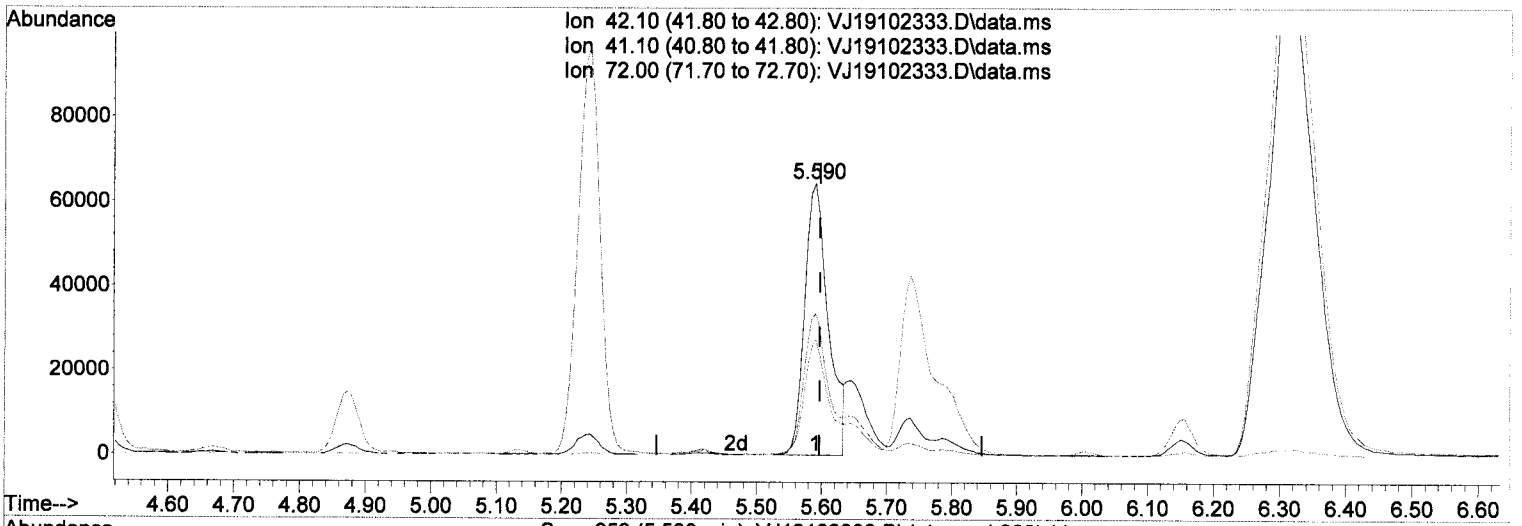
response 195553

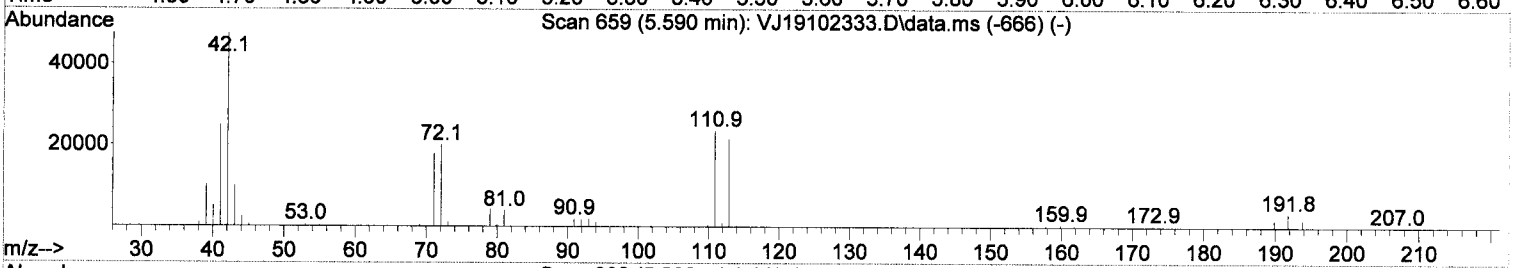
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.06
38.00	5.50	6.20
0.00	0.00	0.00

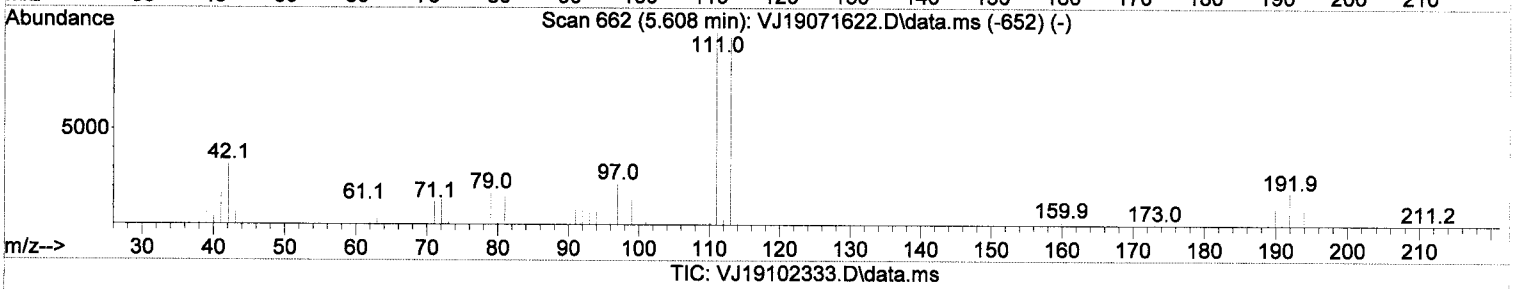
Quantitation Report (Qedit)

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) 141.19 ug/L

response 162789

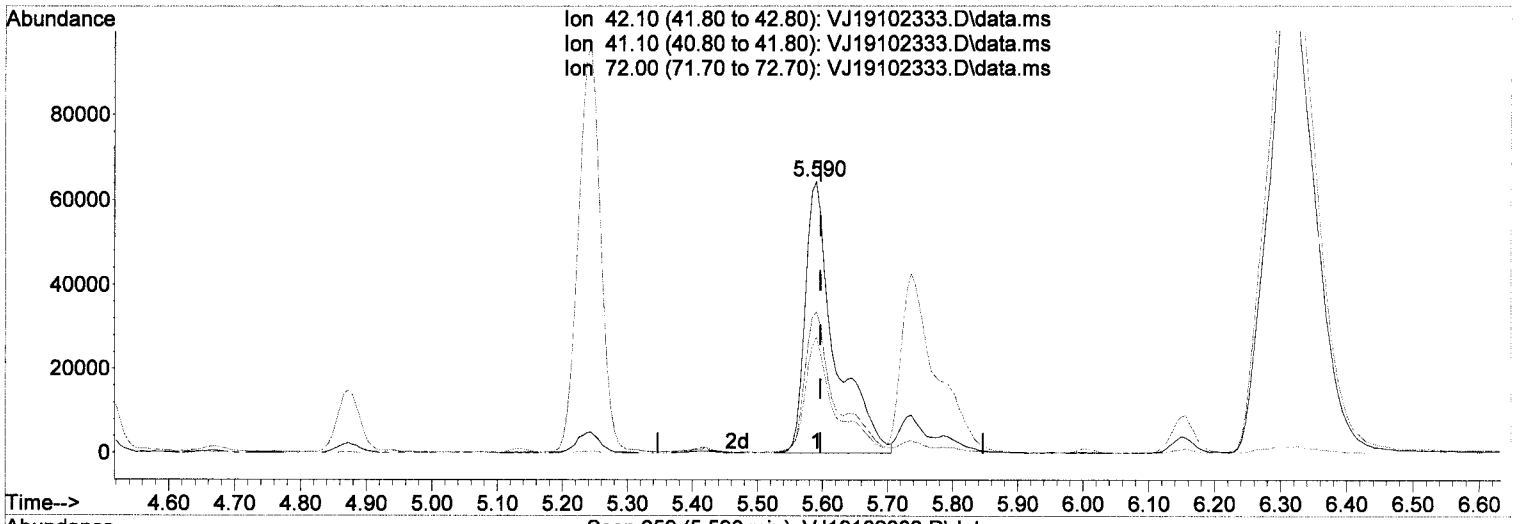
Ion	Exp%	Act%
42.10	100.00	100.00
41.10	52.70	51.87
72.00	40.40	42.79
0.00	0.00	0.00

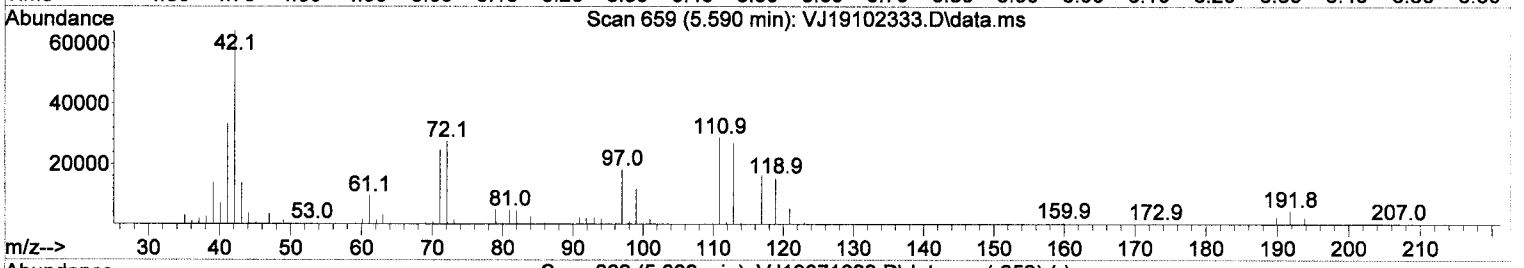
M.2.

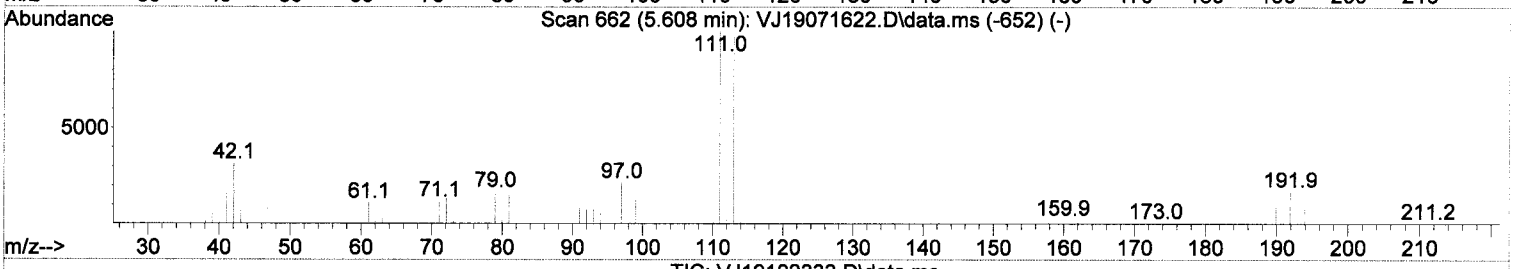
Quantitation Report (Qedit)

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

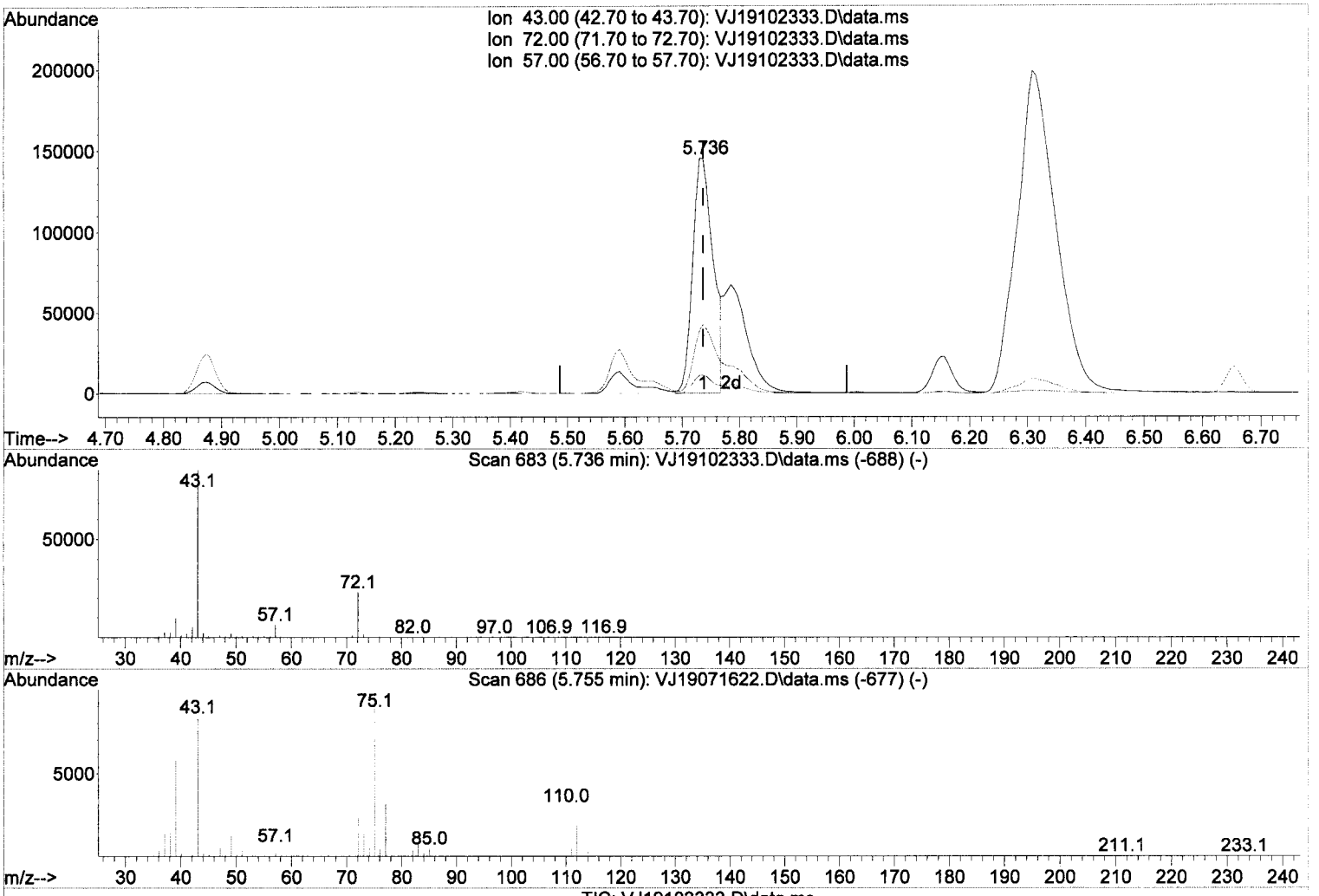
response 204078

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

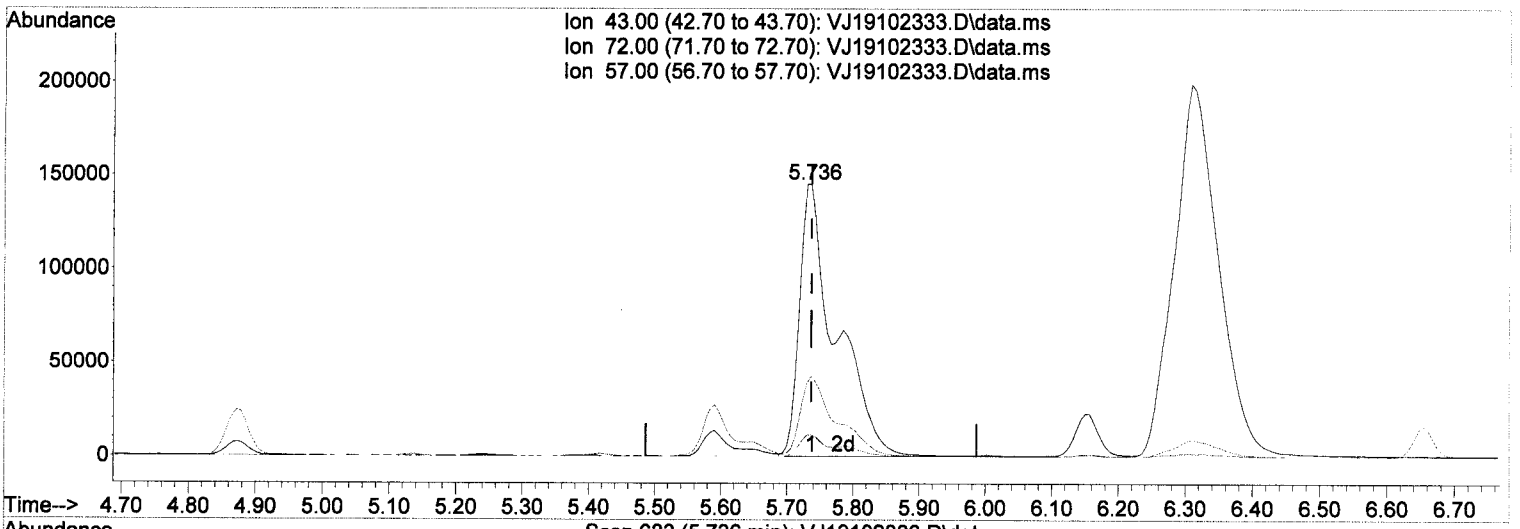
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	28.42
57.00	7.20	7.96
0.00	0.00	0.00

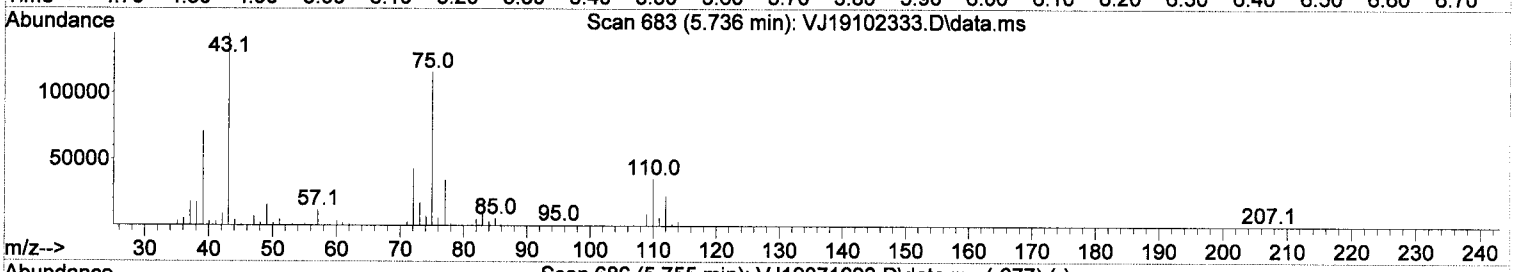
M.J.

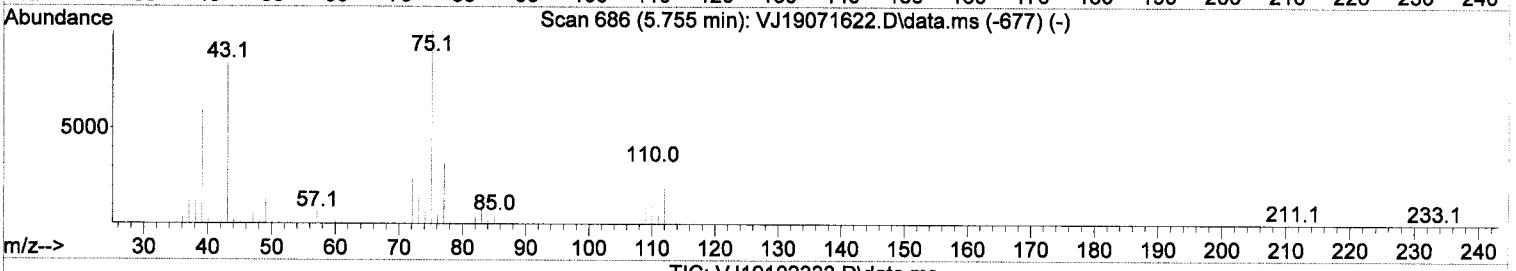
Quantitation Report (Qedit)

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

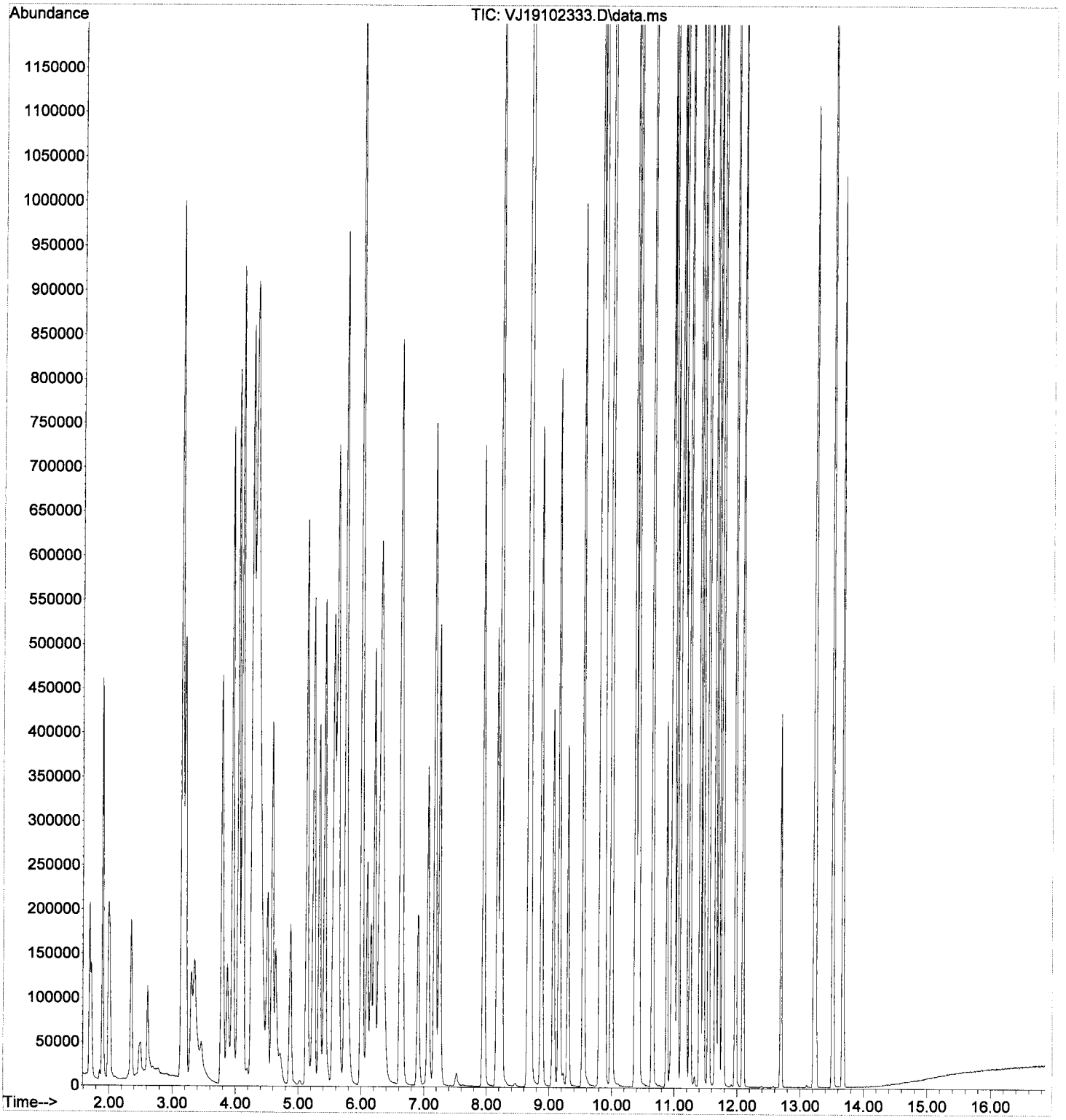
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	29.40
57.00	7.20	7.90
0.00	0.00	0.00

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

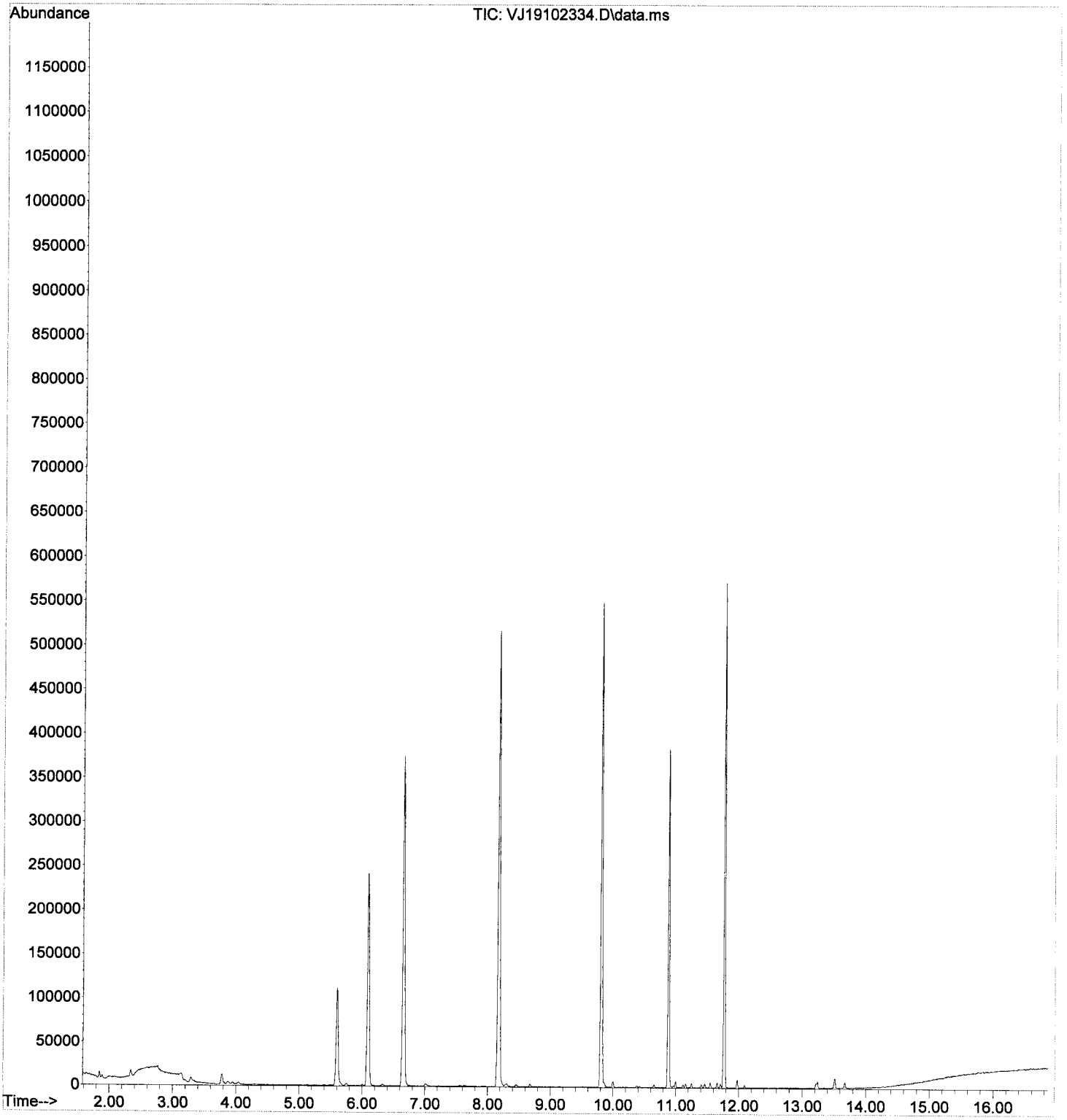
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
85) 1,2,3-Trichlorobenzene	13.675	180	2207	0.94	ug/L	90

(#) = 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

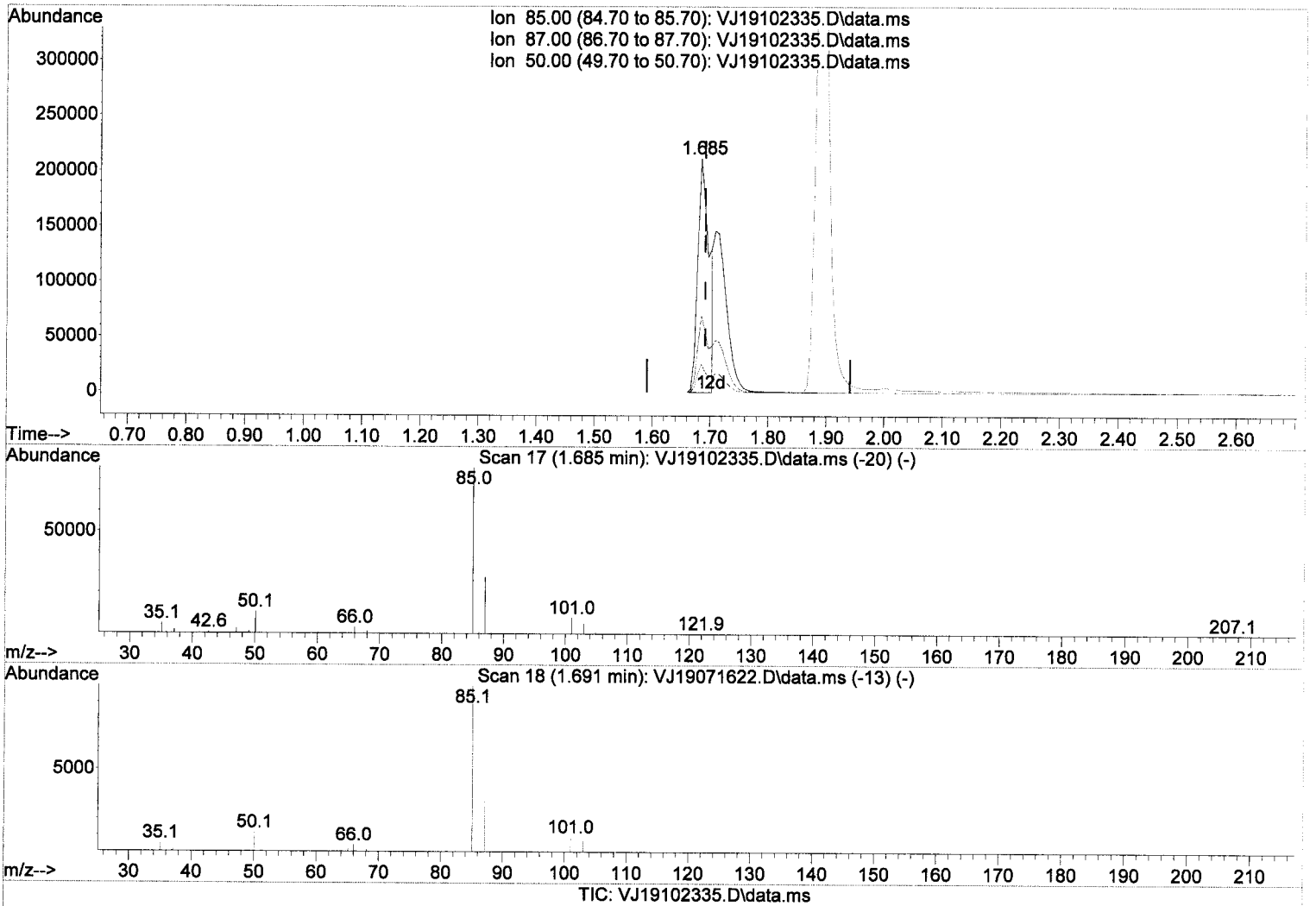
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	979397	197.94	ug/L		98
50) 1,1,2-Trichloroethane	8.875	97	564264	214.50	ug/L		97
51) Dibromochloromethane	9.064	129	542189	193.99	ug/L		99
52) 1,3-Dichloropropane	9.161	76	1049067	197.21	ug/L		98
53) 1,2-Dibromoethane (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

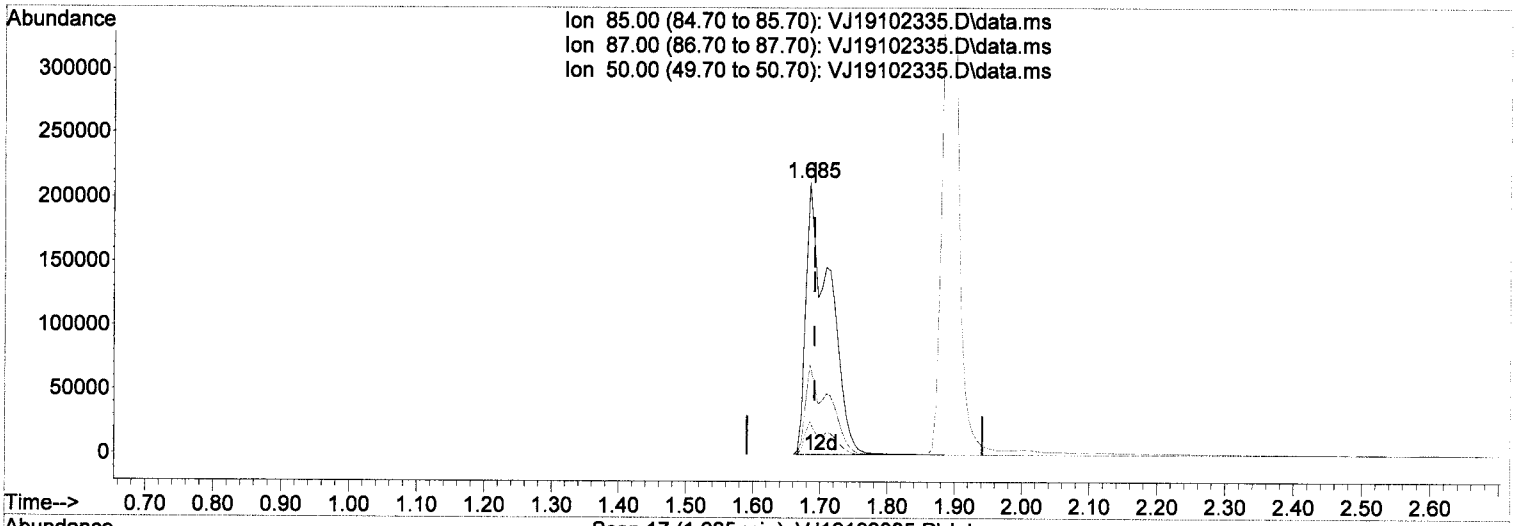
M.2.

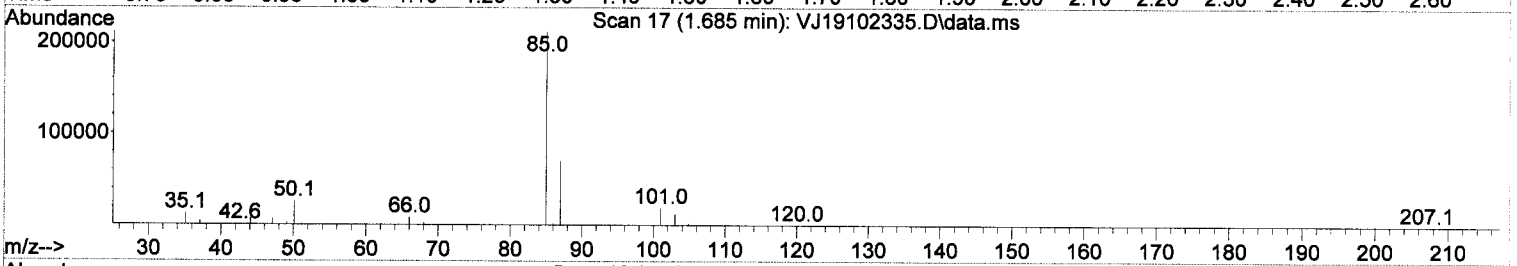
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	32.99
50.00	11.20	12.13
0.00	0.00	0.00

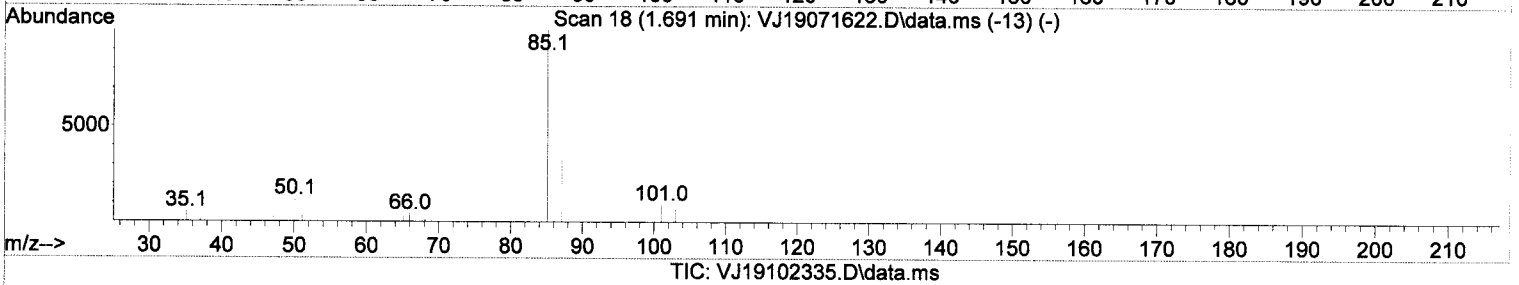
Quantitation Report (Qedit)

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

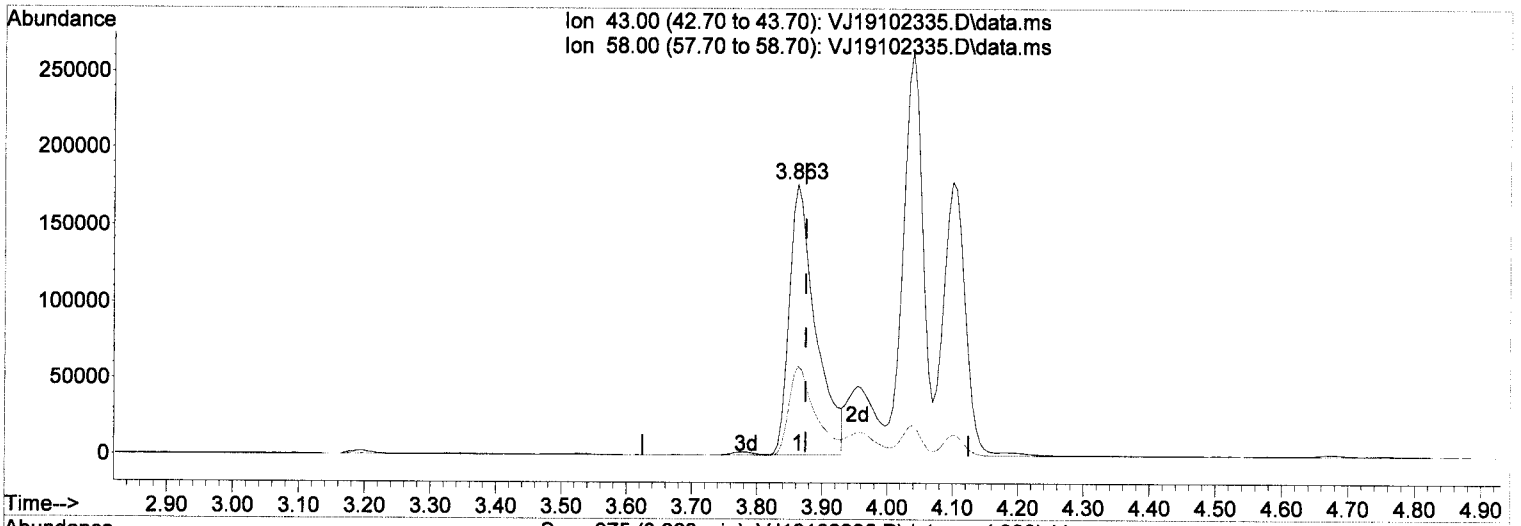
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	32.99
50.00	11.20	12.13
0.00	0.00	0.00

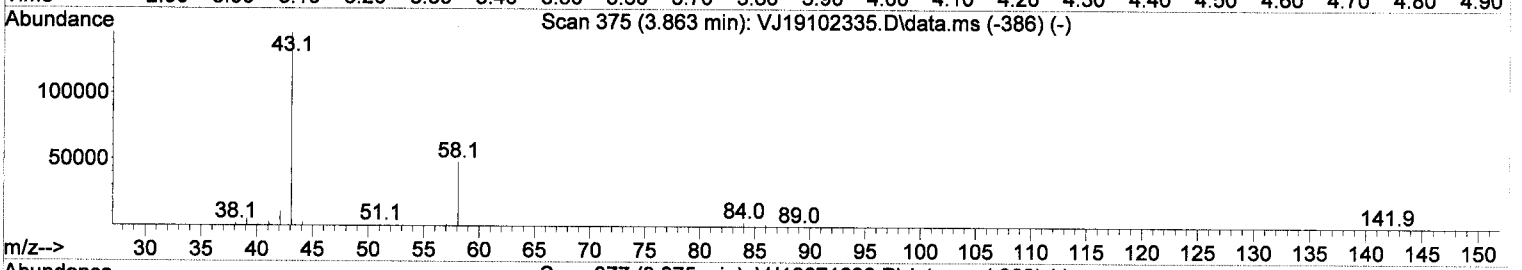
10/24/19

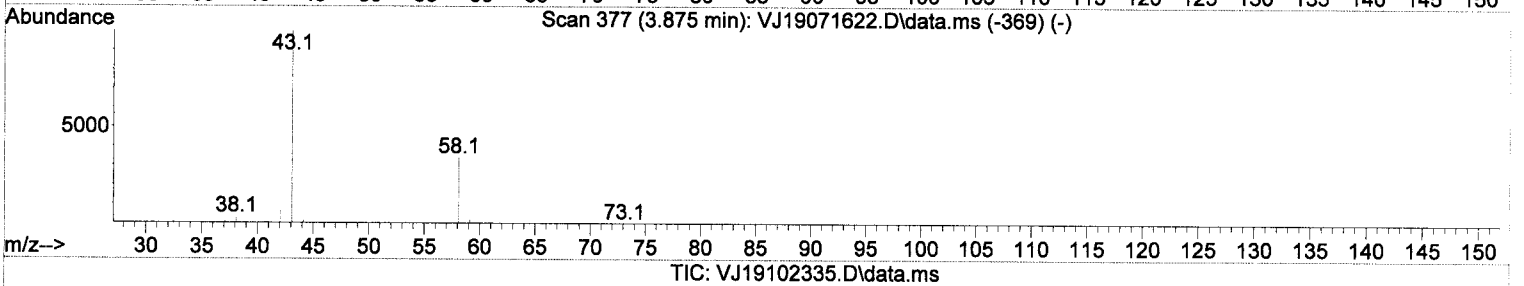
Quantitation Report (Qedit)

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

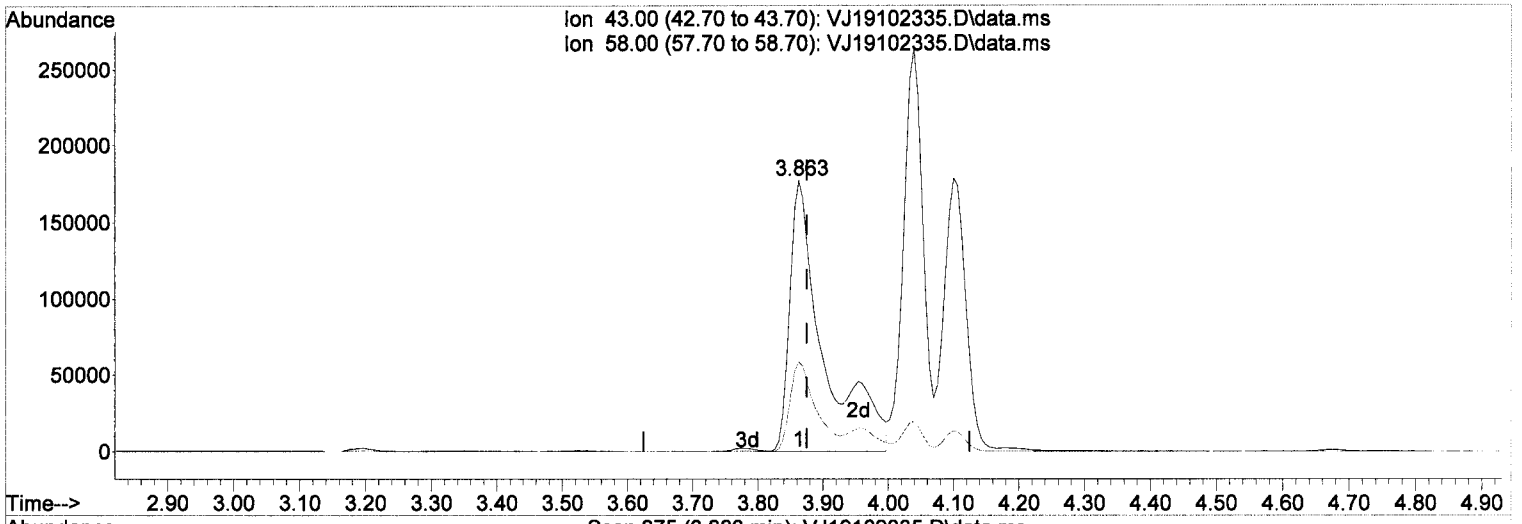
response 496457

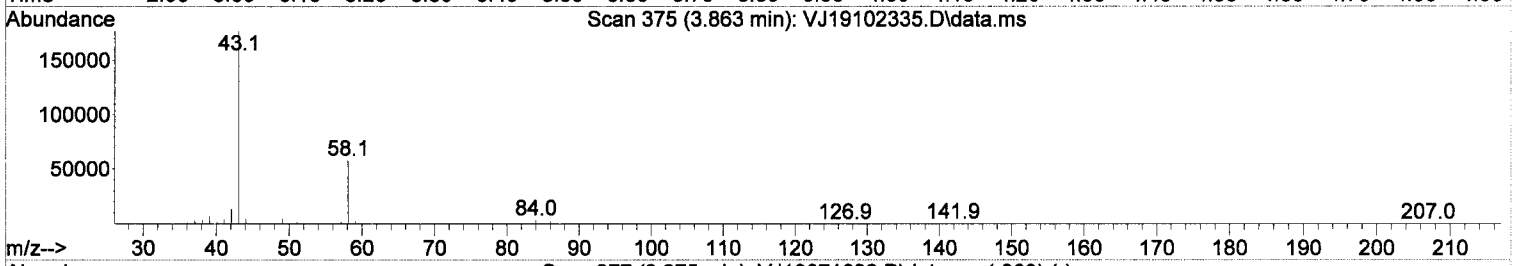
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.01
0.00	0.00	0.00
0.00	0.00	0.00

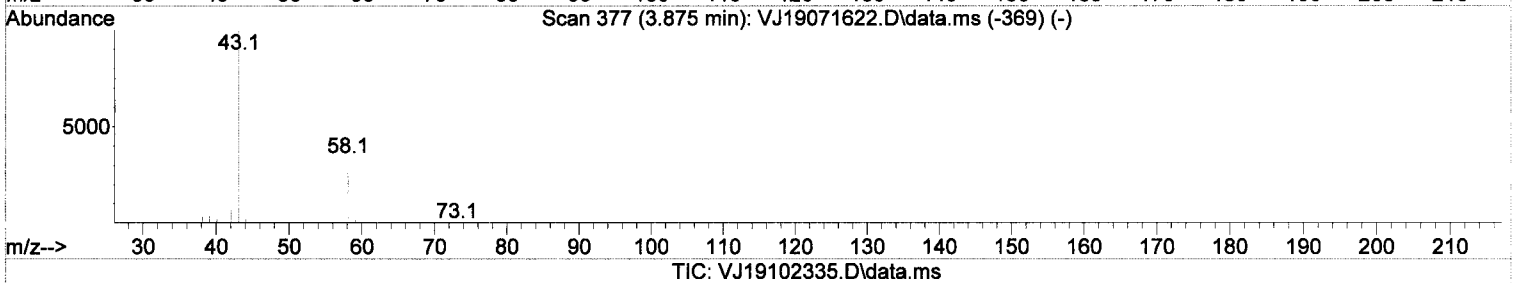
Quantitation Report (Qedit)

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

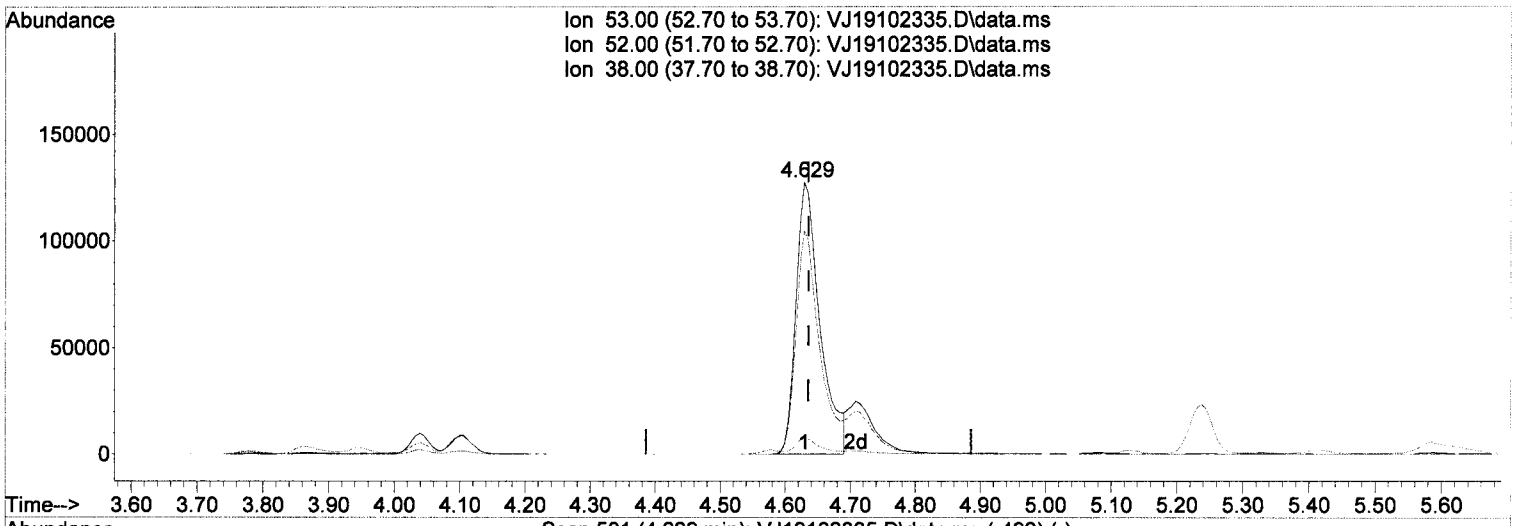
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	32.93
0.00	0.00	0.00
0.00	0.00	0.00

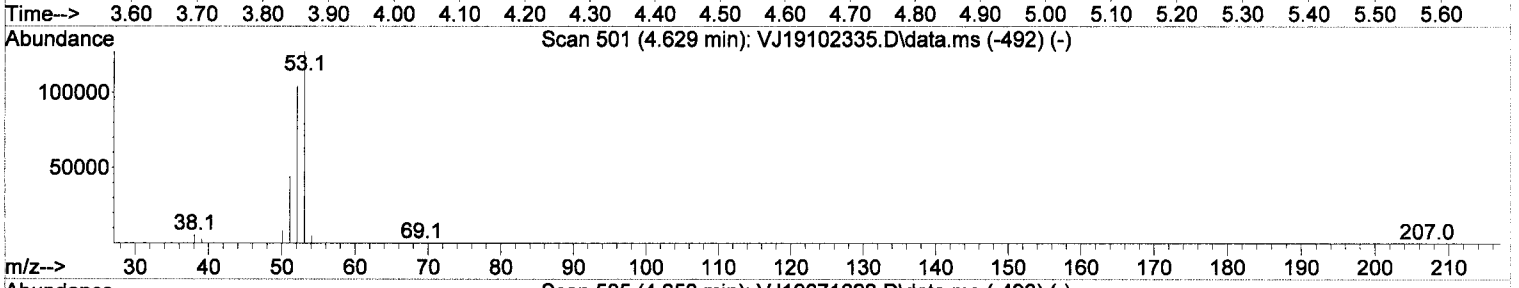
M
10/24/19

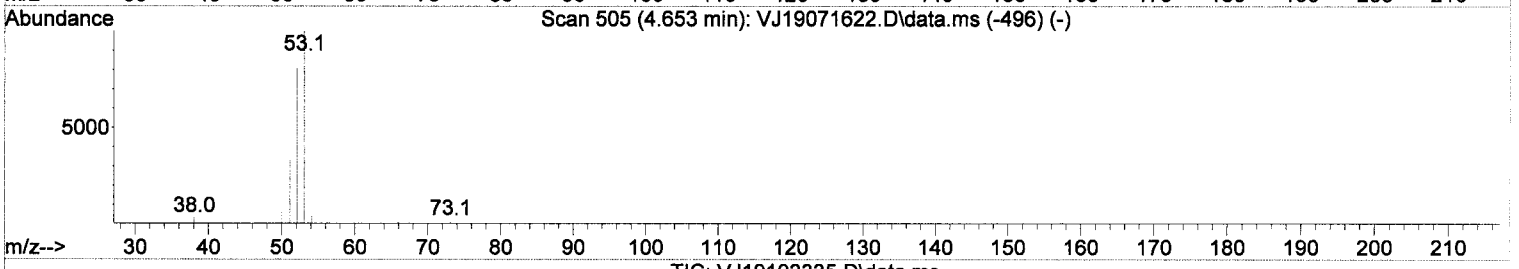
Quantitation Report (Qedit)

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

(21) Acrylonitrile

4.629min (-0.006) 344.33 ug/L

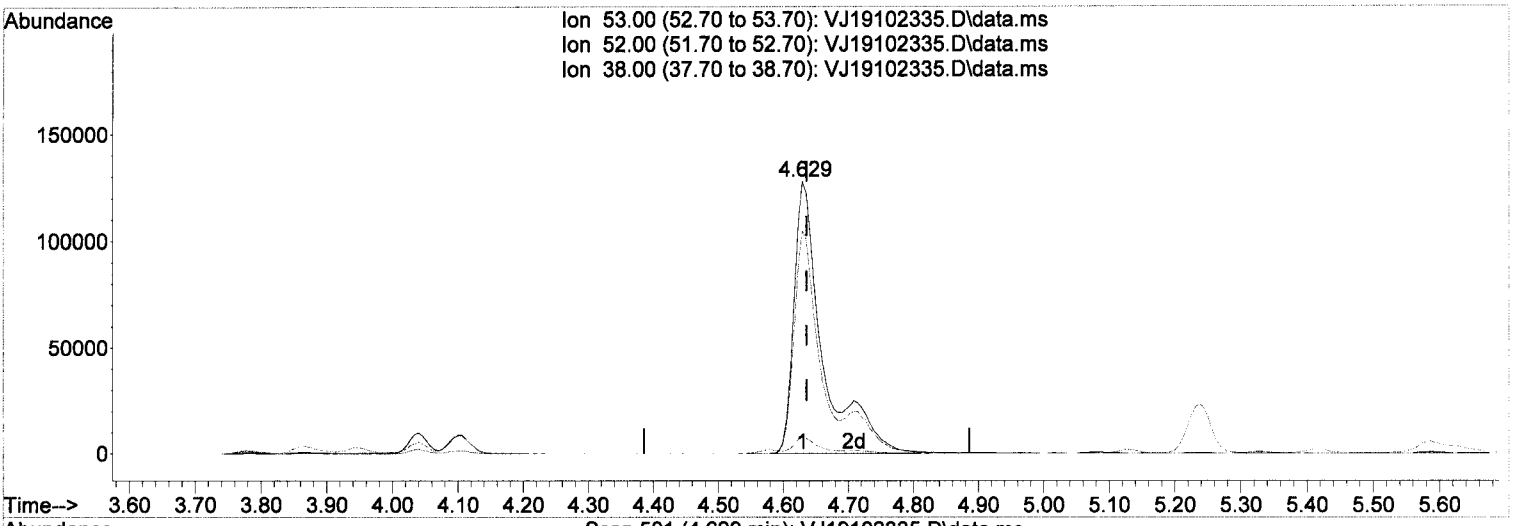
response 328546

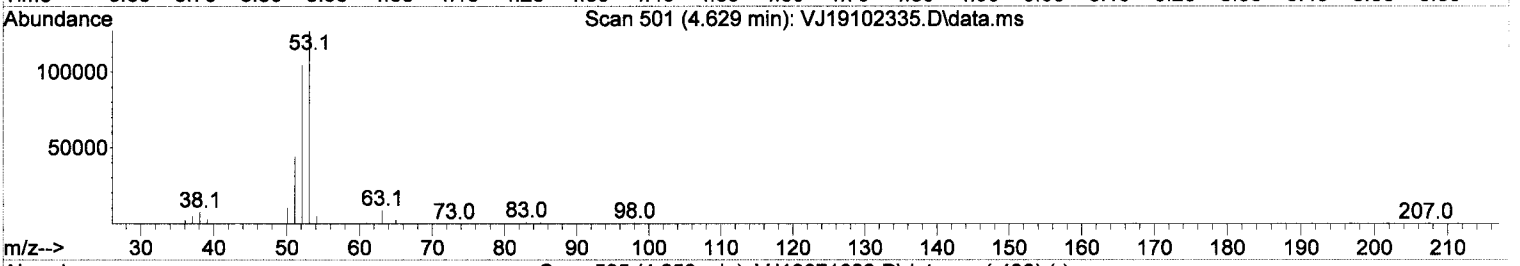
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	81.87
38.00	5.50	4.78
0.00	0.00	0.00

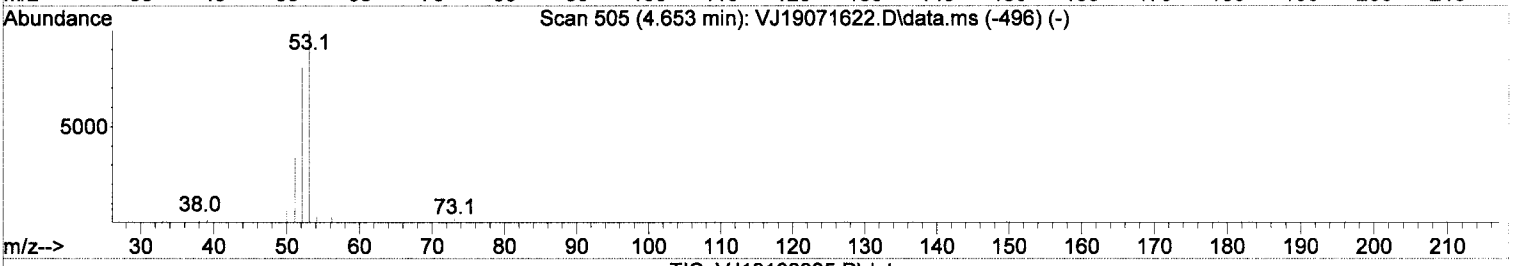
Quantitation Report (Qedit)

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

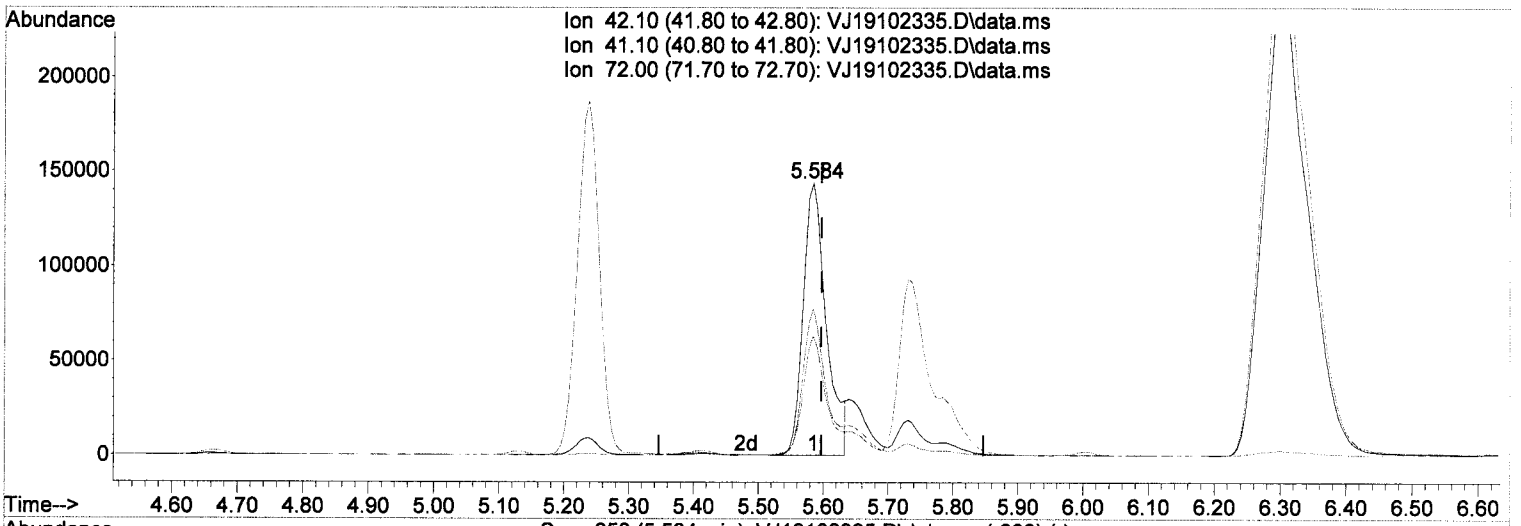
response 400678

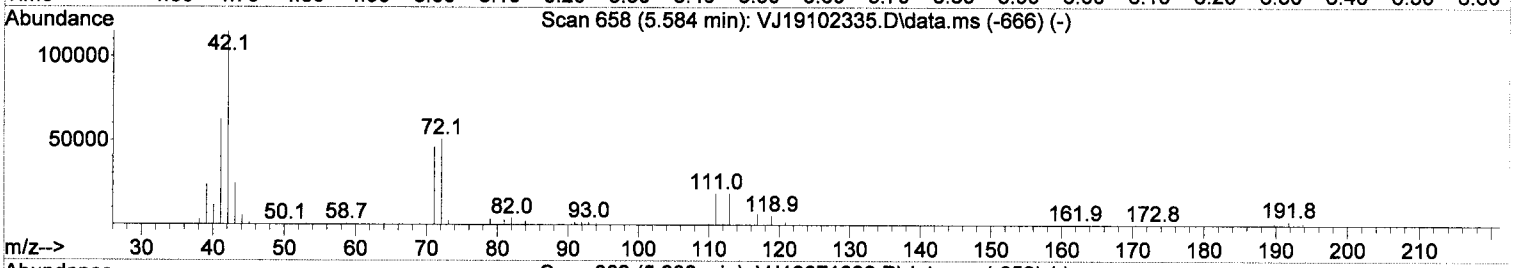
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	81.87
38.00	5.50	5.82
0.00	0.00	0.00

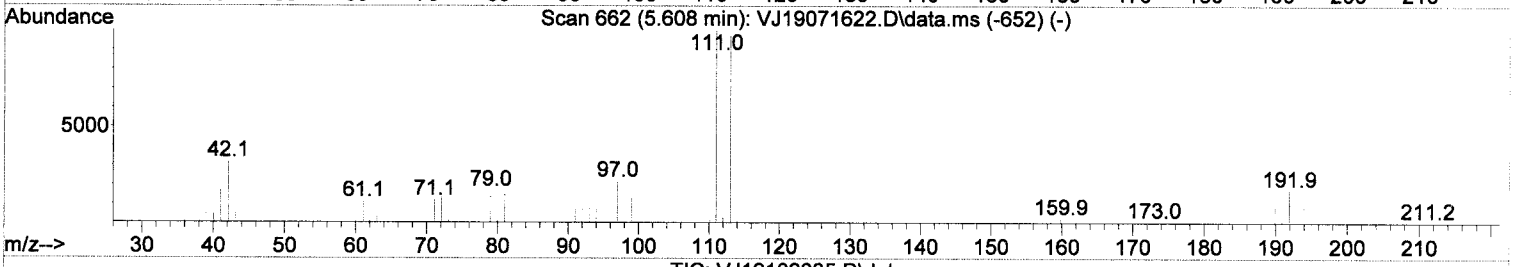
Quantitation Report (Qedit)

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

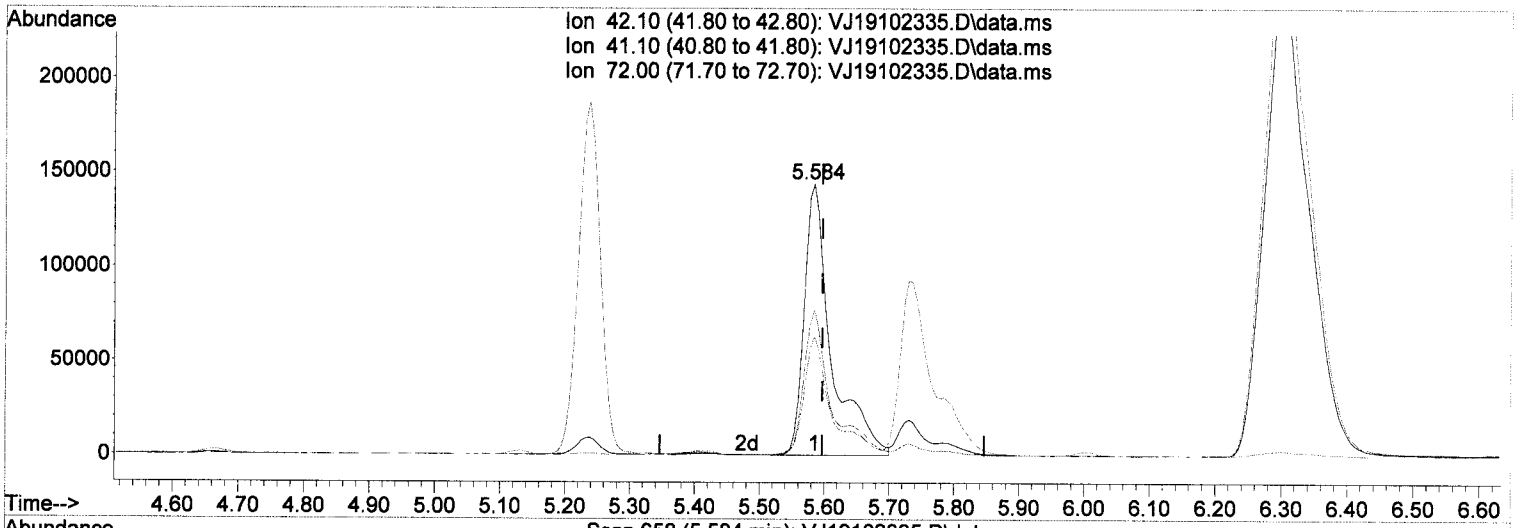
response 357281

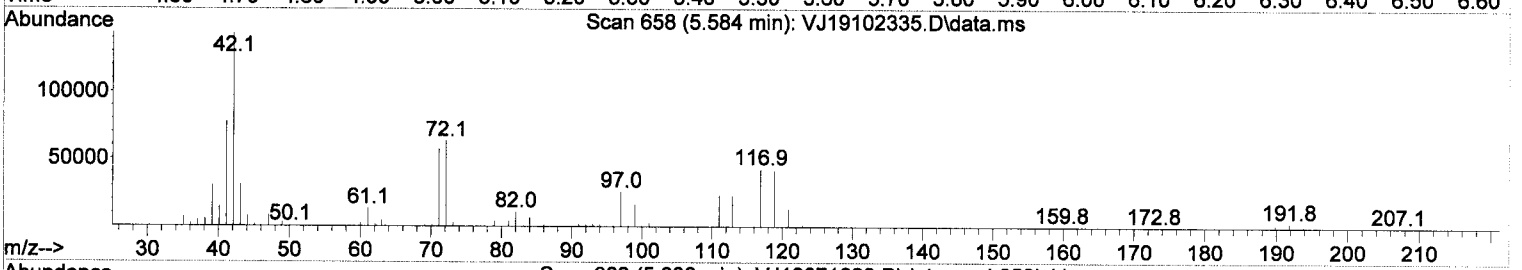
Ion	Exp%	Act%
42.10	100.00	100.00
41.10	52.70	53.96
72.00	40.40	44.03
0.00	0.00	0.00

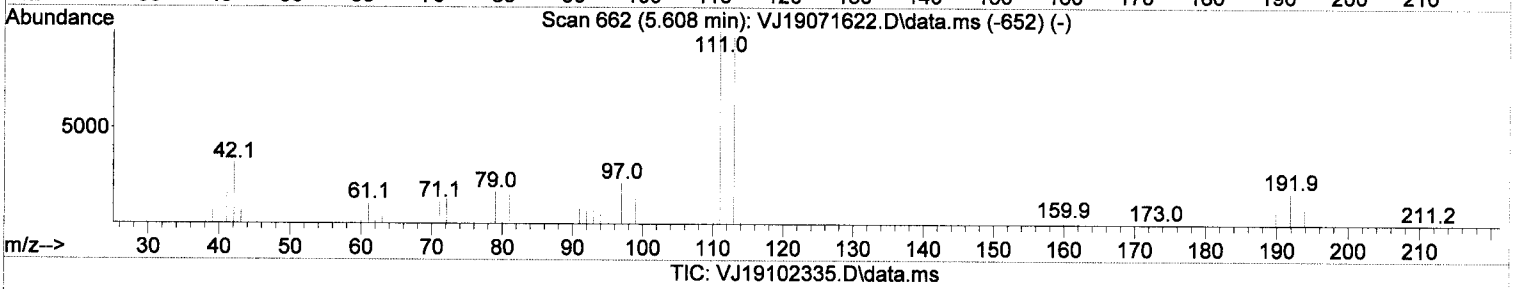
Quantitation Report (Qedit)

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

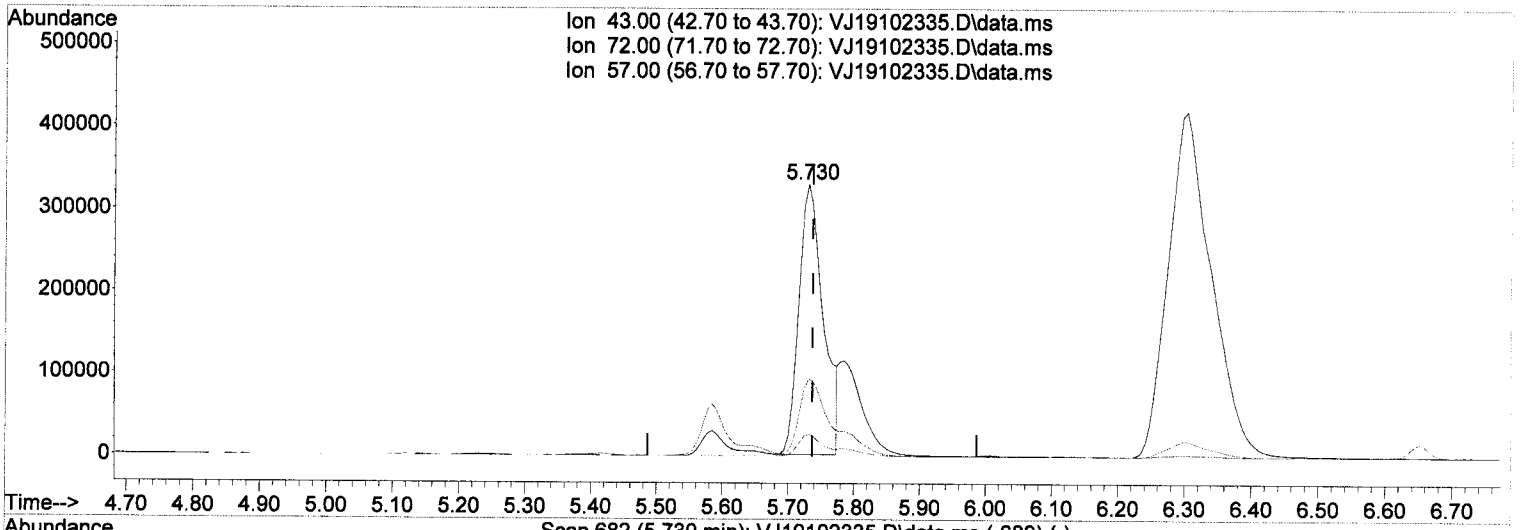
response 421666

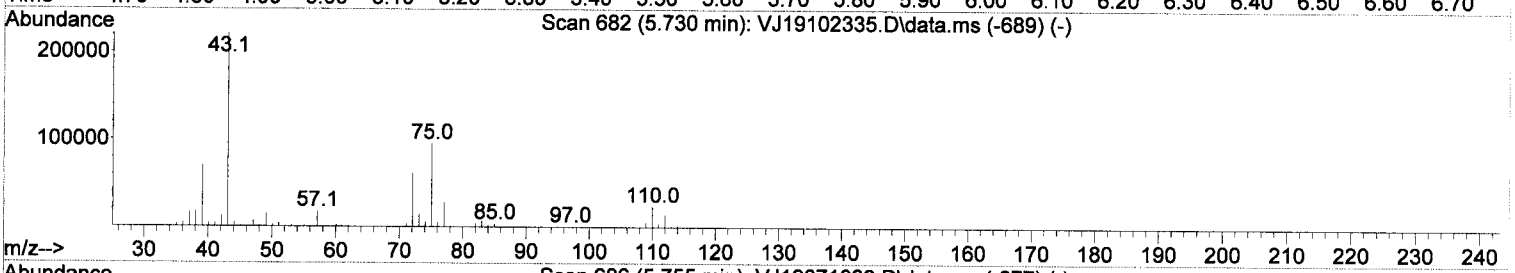
Ion	Exp%	Act%
42.10	100.00	100.00
41.10	52.70	54.14
72.00	40.40	44.03
0.00	0.00	0.00

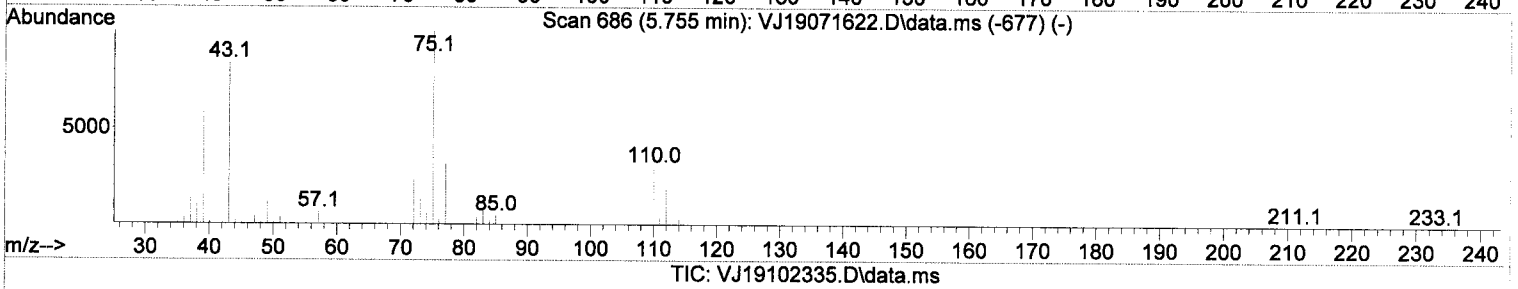
Quantitation Report (Qedit)

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

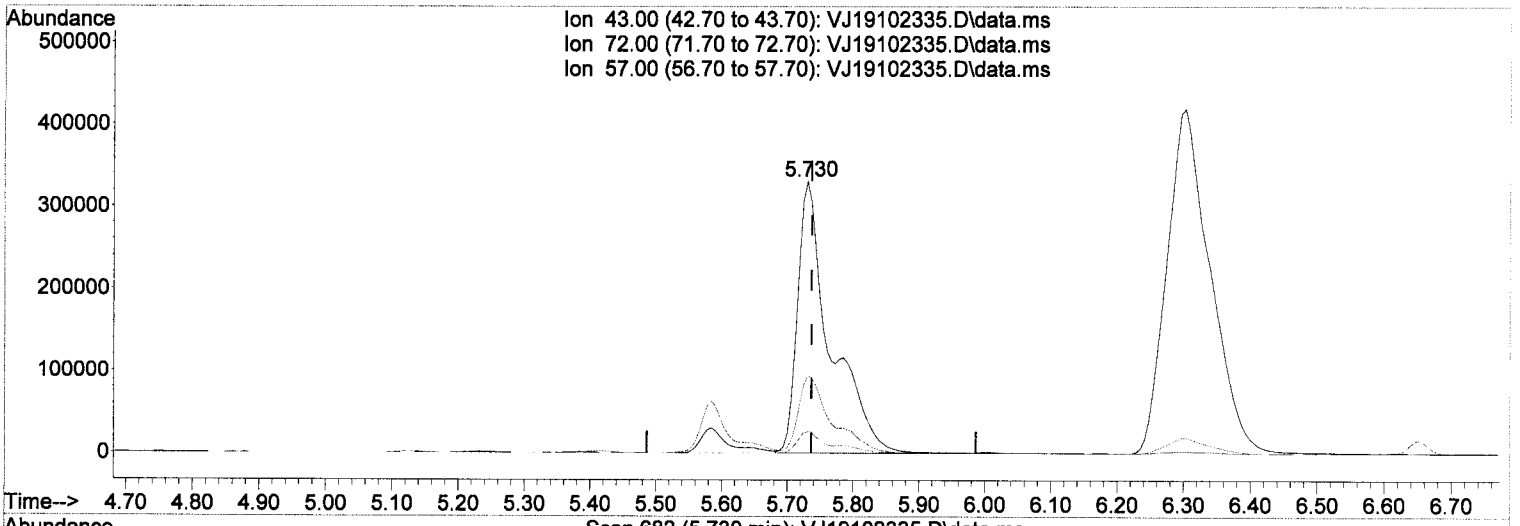
M.2

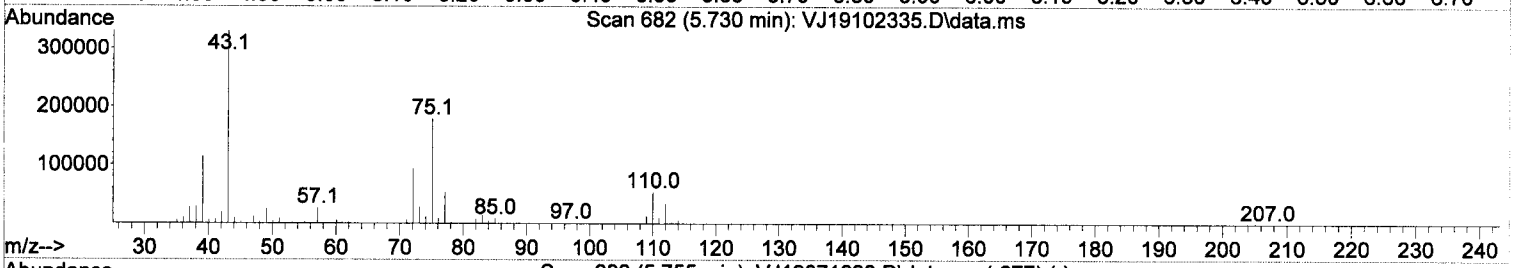
Ion	Exp%	Act%
43.00	100.00	100.00
72.00	29.10	27.19
57.00	7.20	7.98
0.00	0.00	0.00

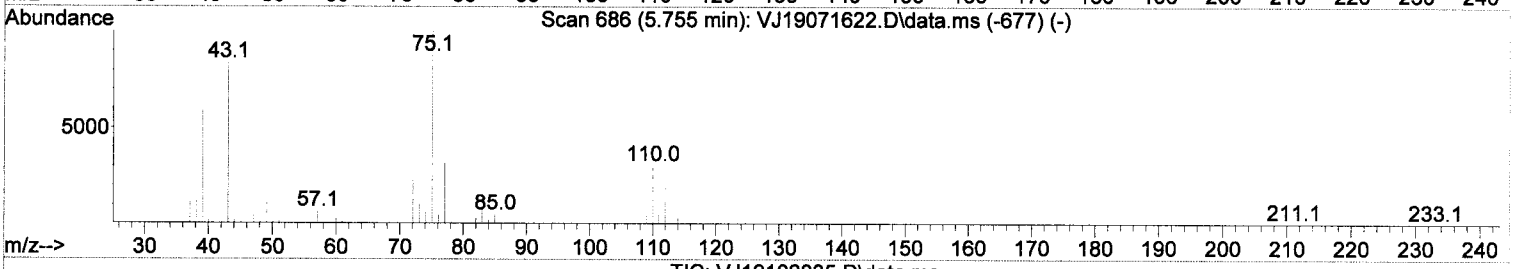
Quantitation Report (Qedit)

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

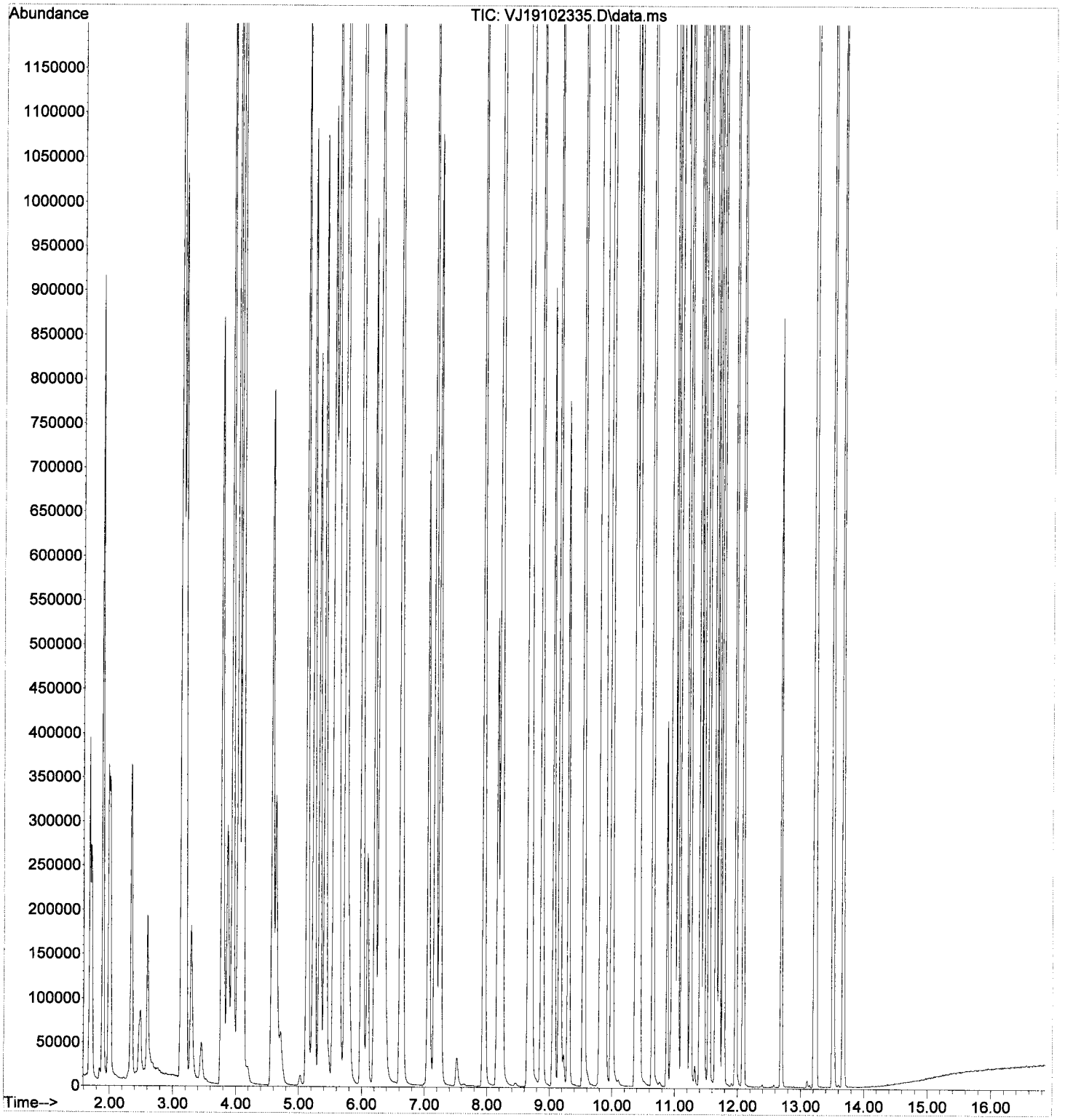
response 1150574

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
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 : 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

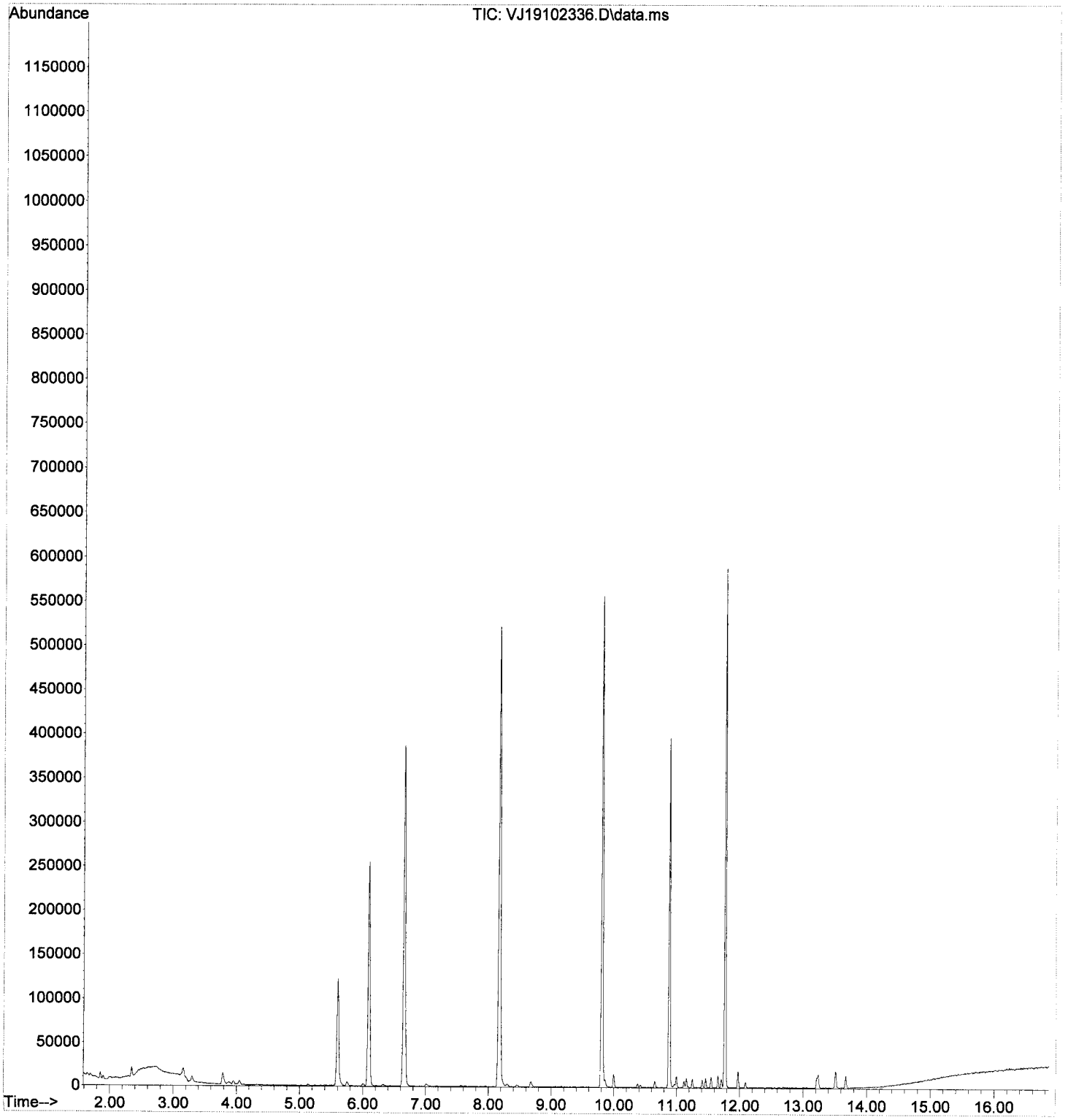
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
74) 1,2,4-Trimethylbenzene	11.461	105	5075	0.61	ug/L	98
75) sec-Butylbenzene	11.546	105	7209	0.69	ug/L	97
76) 4-Isopropyltoluene	11.656	119	6234	0.78	ug/L	95
77) 1,3-Dichlorobenzene	11.711	146	3787	0.82	ug/L	93
78) 1,4-Dichlorobenzene	11.777	146	4050	0.83	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

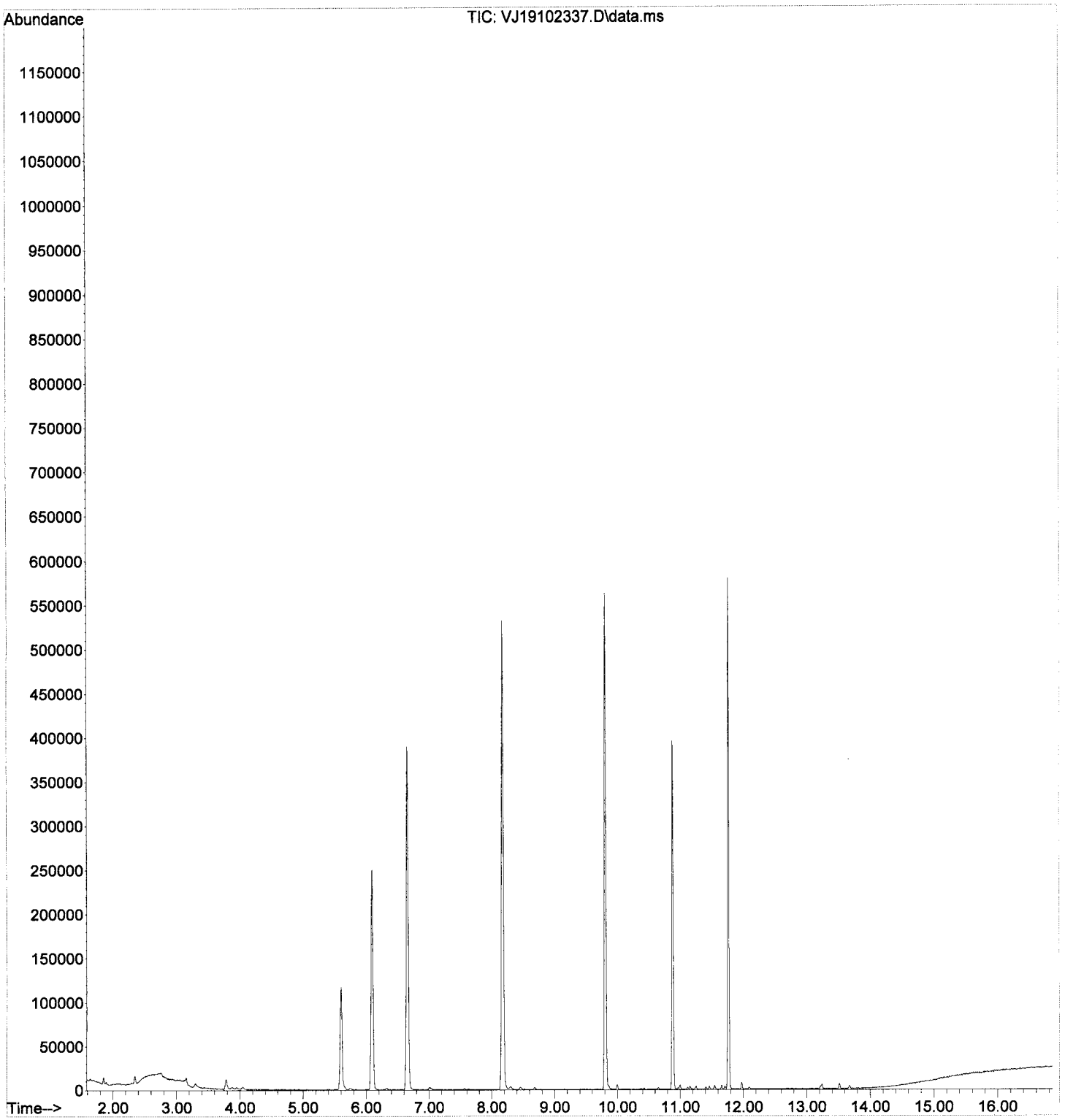
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = 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

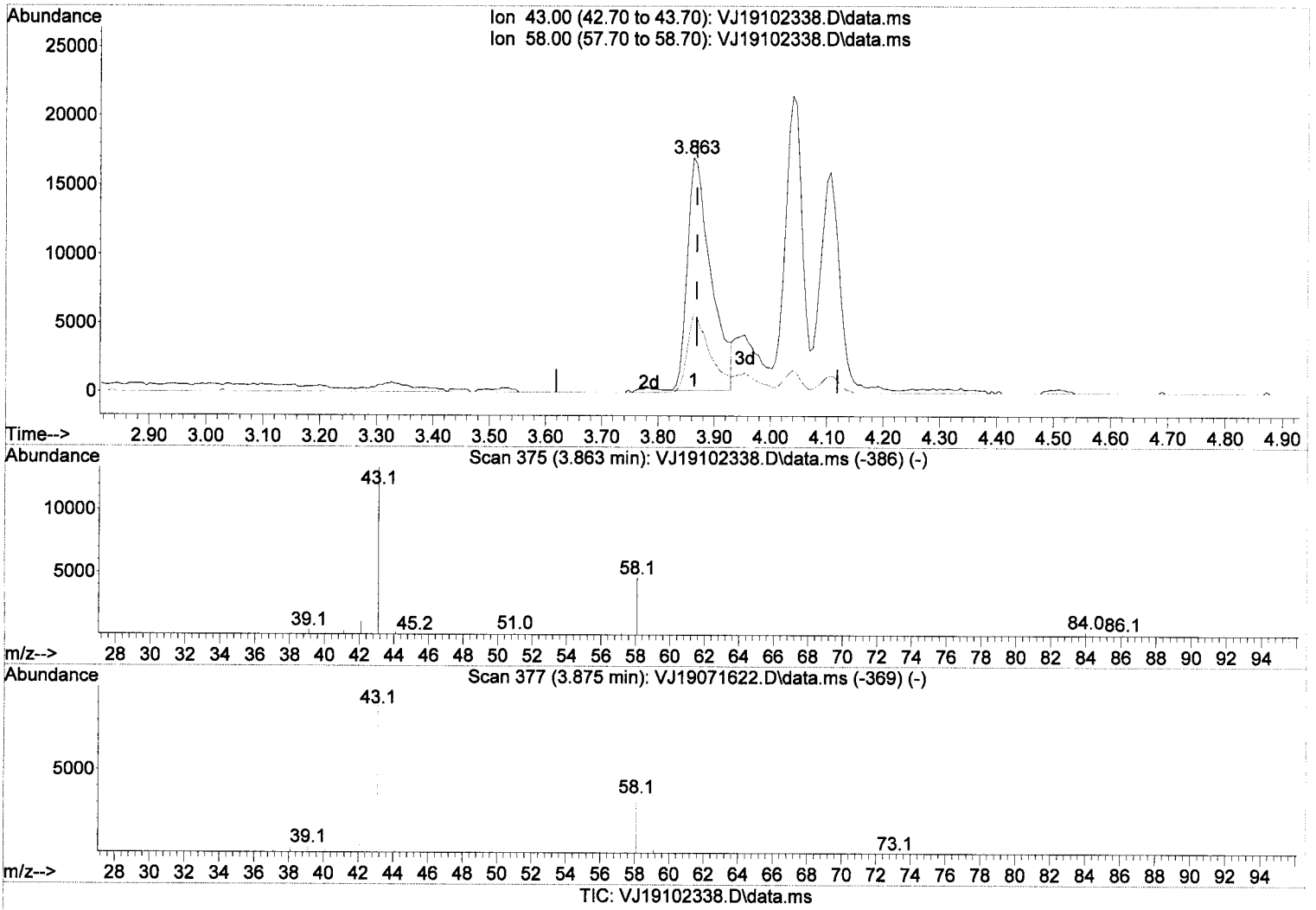
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) 1,1,2-Trichloroethane	8.875	97	55320	21.85	ug/L		96
51) Dibromochloromethane	9.064	129	44137	21.60	ug/L		99
52) 1,3-Dichloropropane	9.161	76	101709	21.39	ug/L		99
53) 1,2-Dibromoethane (EDB)	9.301	107	53497	22.05	ug/L		97
54) 2-Hexanone	9.545	43	121336	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

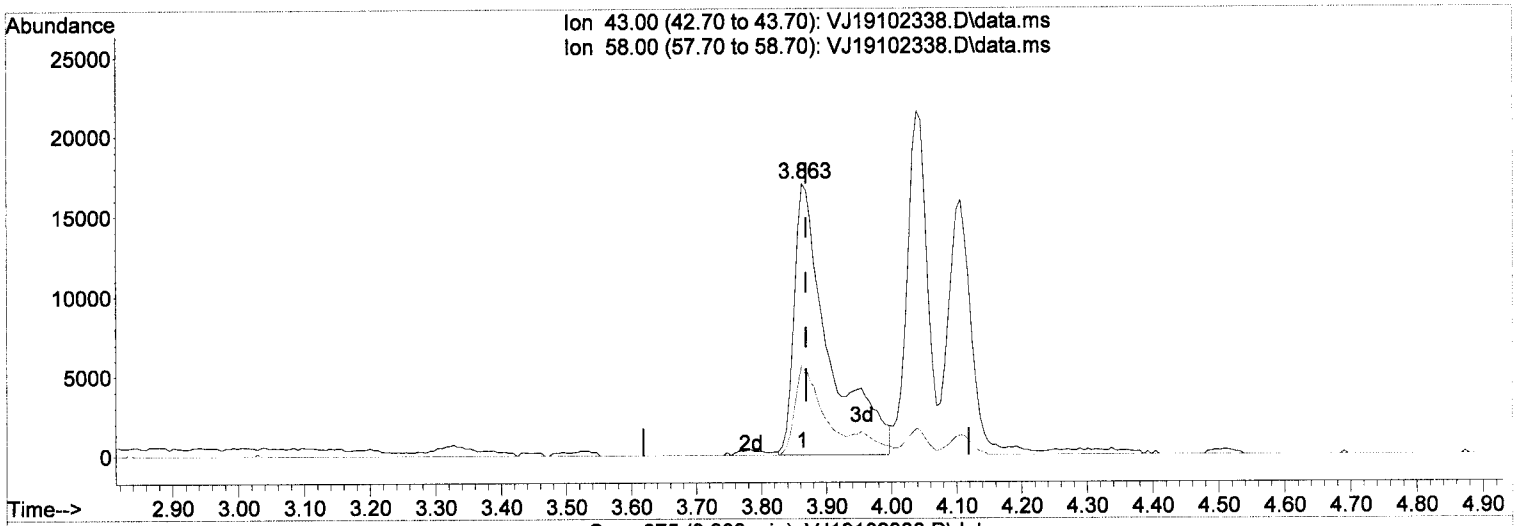
response 49385

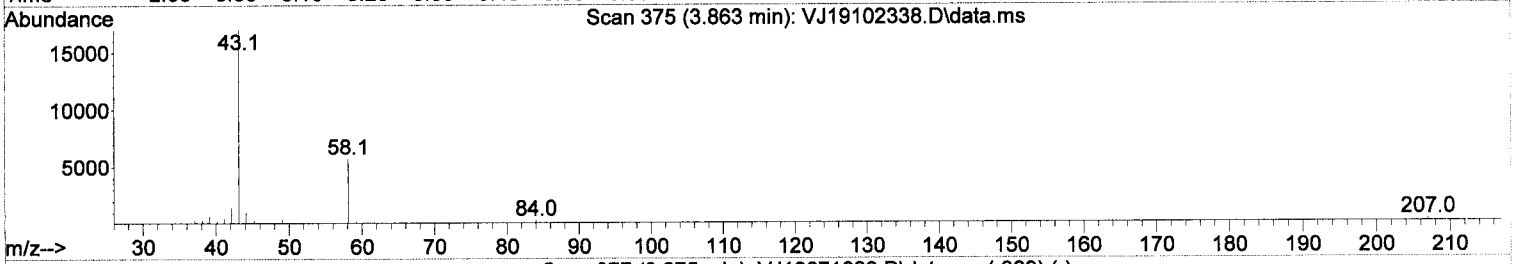
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	34.06
0.00	0.00	0.00
0.00	0.00	0.00

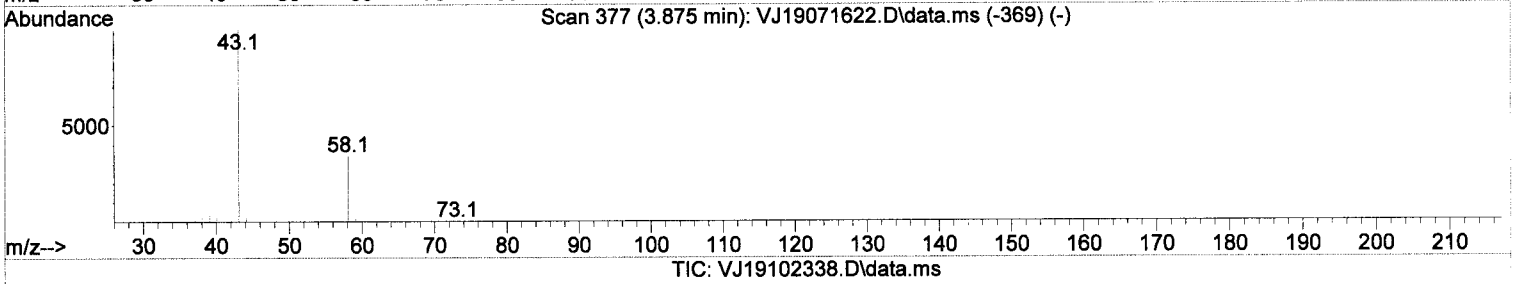
Quantitation Report (Qedit)

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

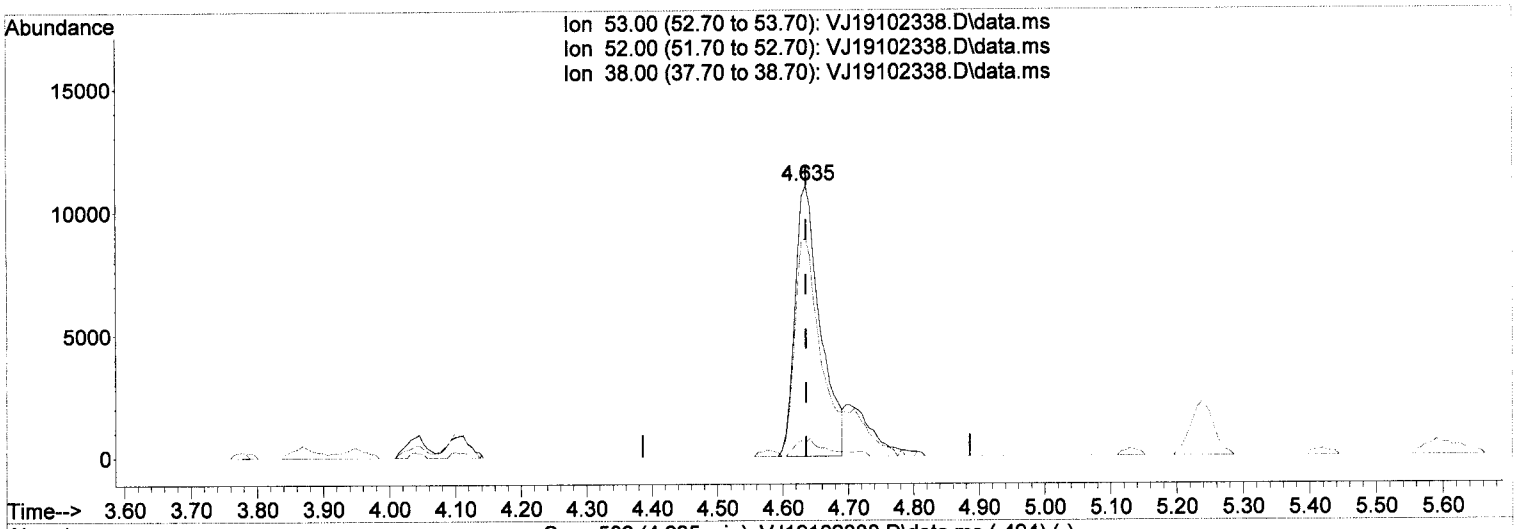
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	33.75
0.00	0.00	0.00
0.00	0.00	0.00

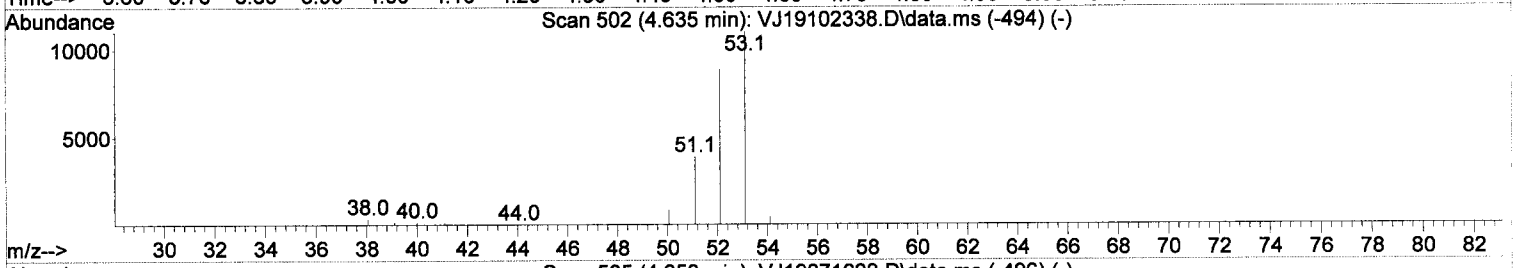
M 10/24/19

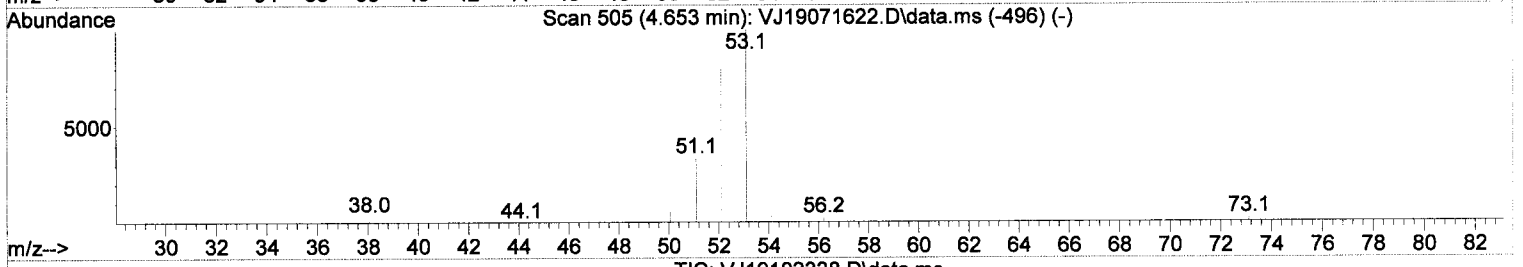
Quantitation Report (Qedit)

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

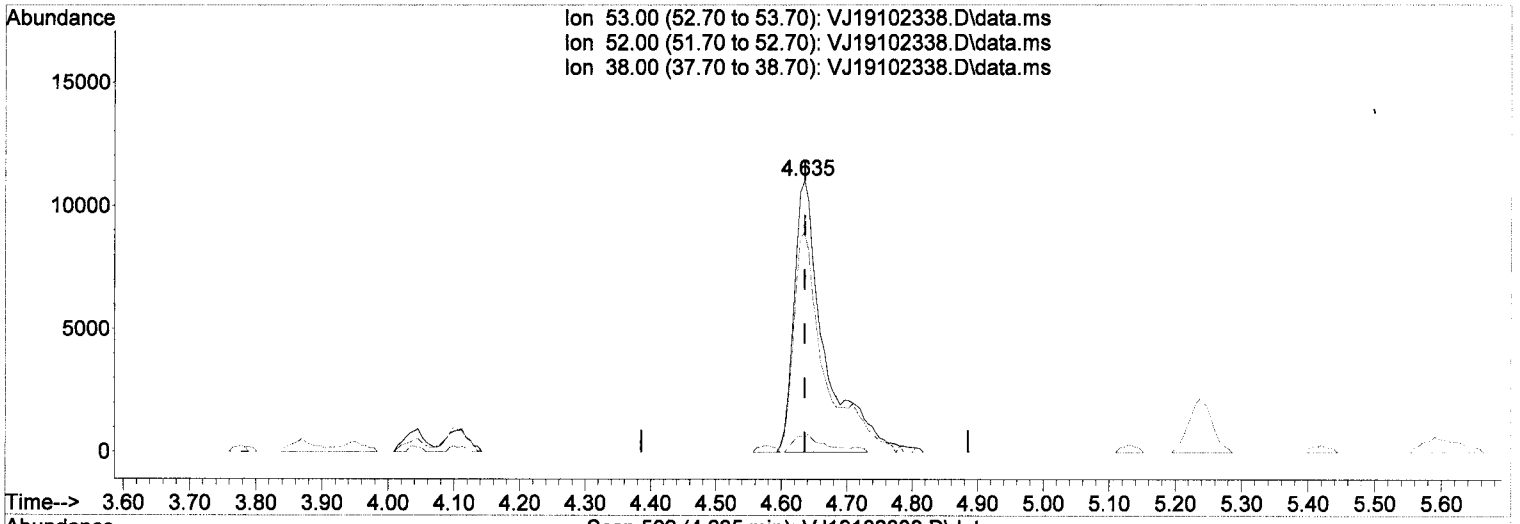
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	80.51
38.00	5.50	3.81
0.00	0.00	0.00

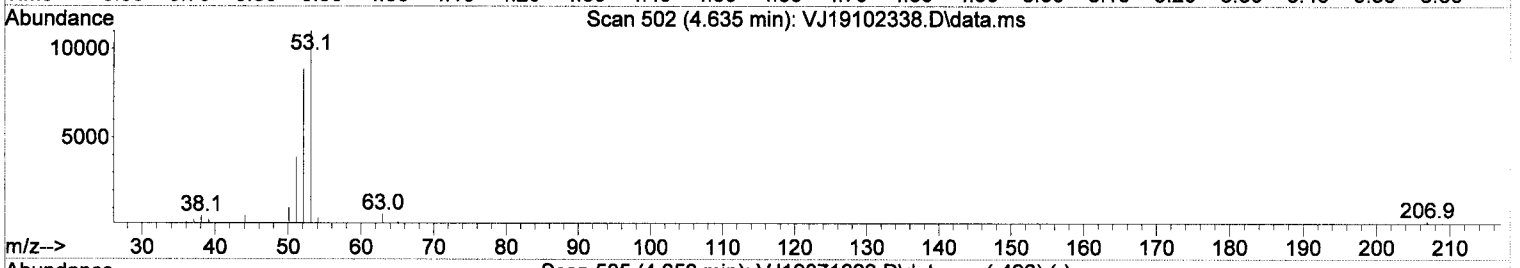
M.2

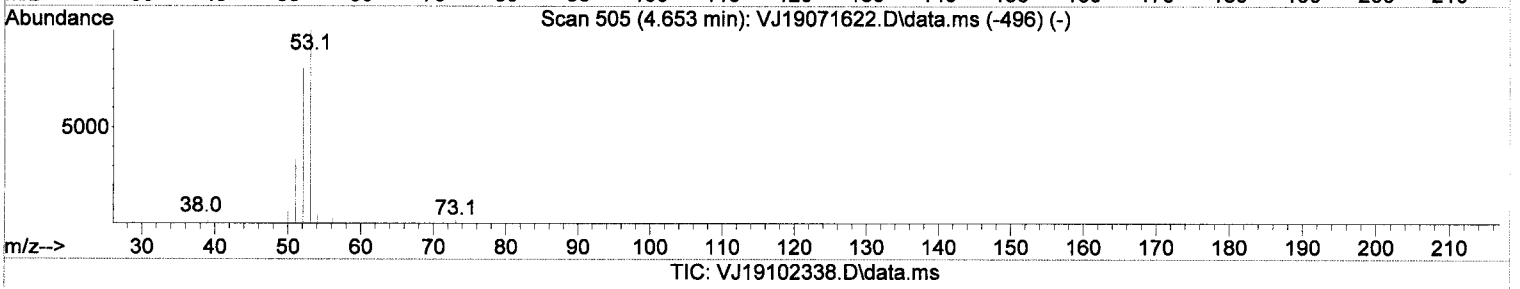
Quantitation Report (Qedit)

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

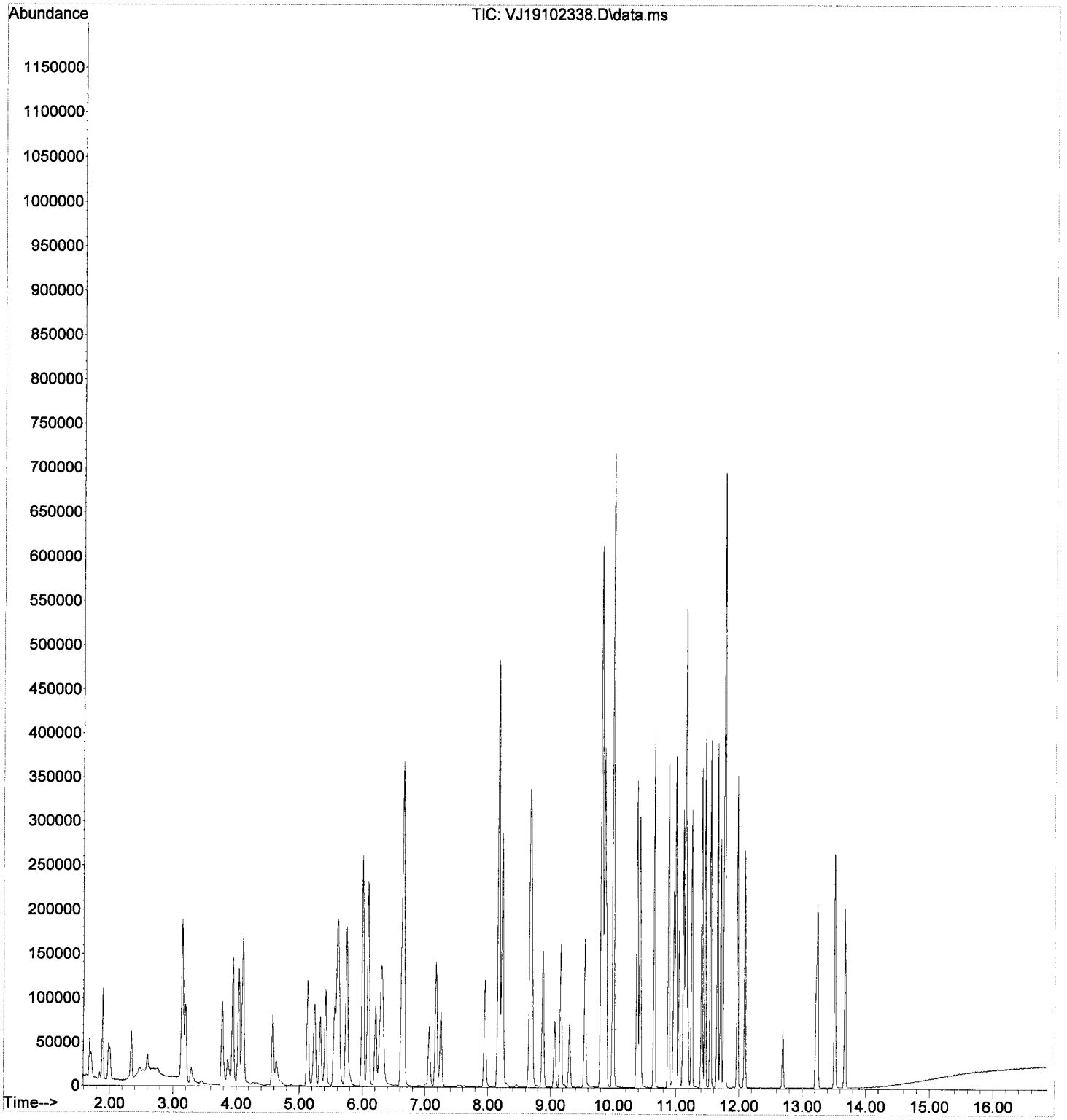
response 36020

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

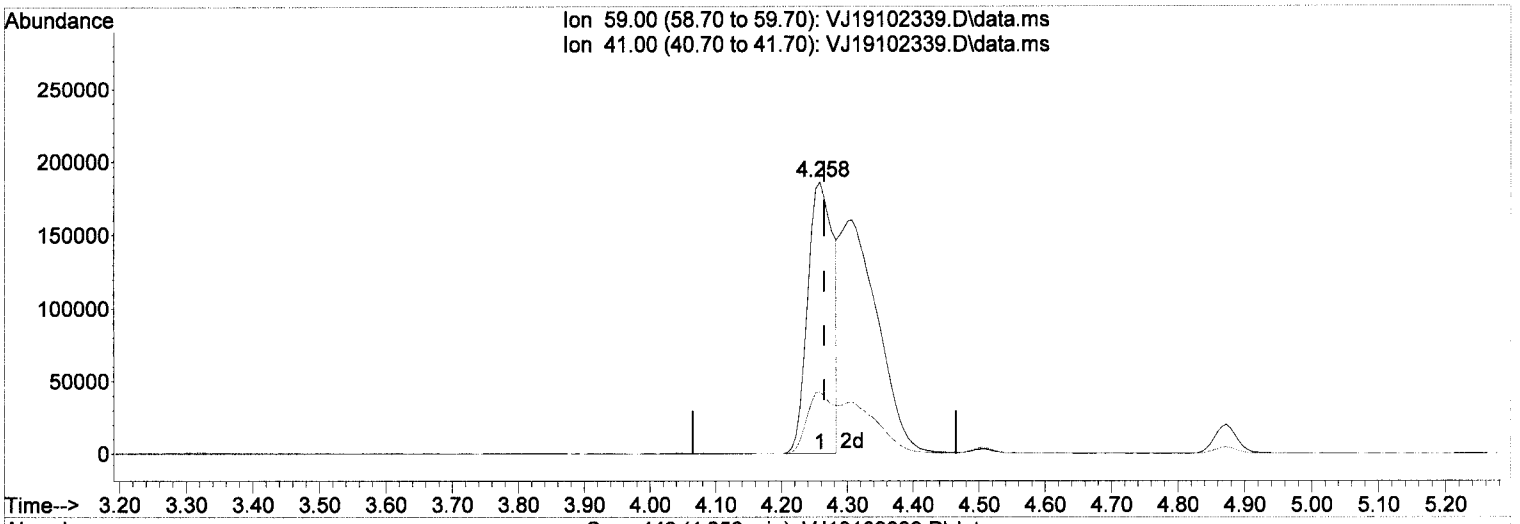
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
58) m,p-Xylenes (2)	9.995	91	4873	0.54 ug/L	94
59) o-Xylene	10.372	91	2135	0.25 ug/L	82
60) Styrene	10.427	104	1126	0.34 ug/L	95
62) Isopropylbenzene	10.652	105	2409	0.23 ug/L	93
65) Bromobenzene	10.968	156	607	0.25 ug/L	93
66) n-Propylbenzene	10.993	91	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

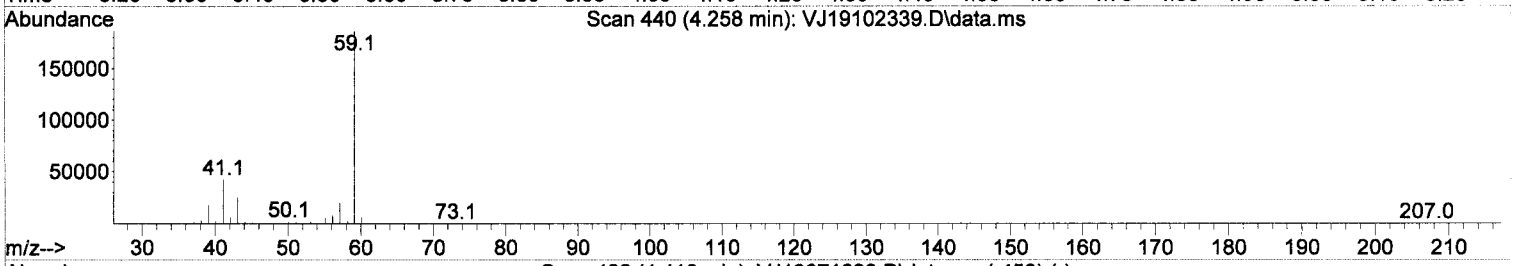
(#) = qualifier out of range (m) = manual integration (+) = signals summed

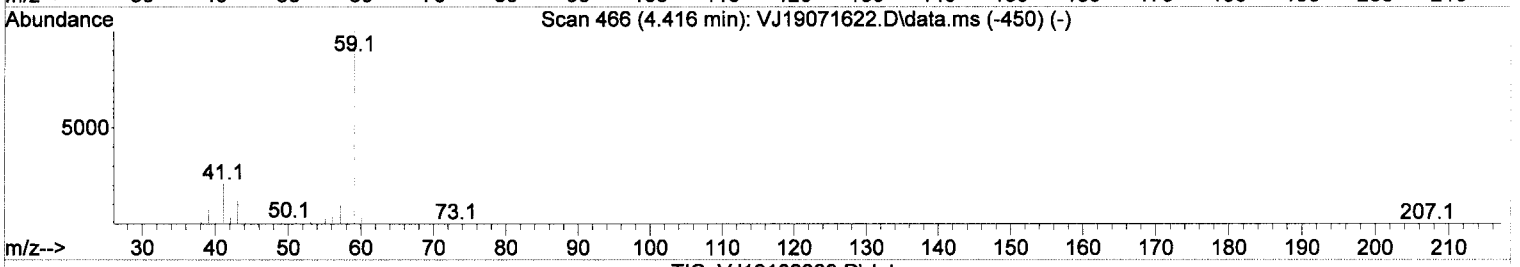
Quantitation Report (Qedit)

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

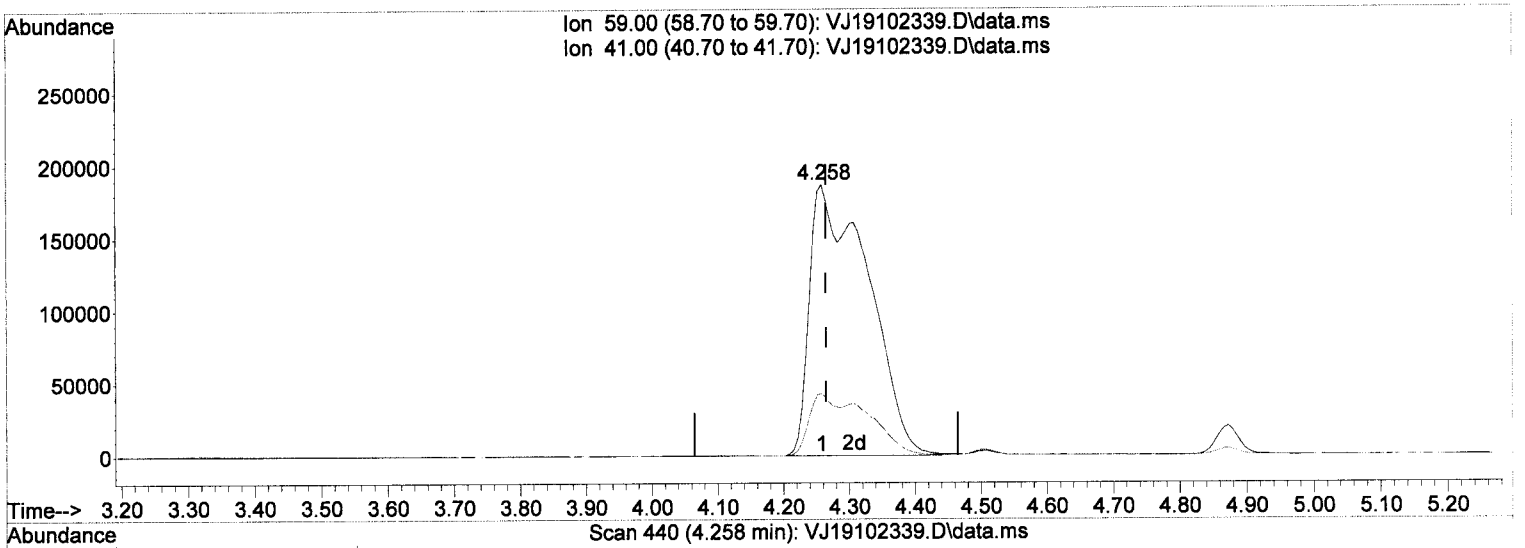
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	22.78#
0.00	0.00	0.00
0.00	0.00	0.00

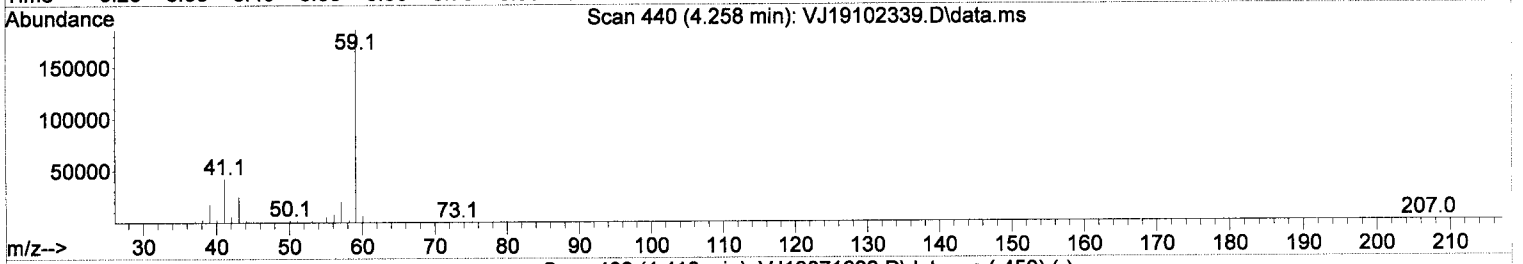
M.T.

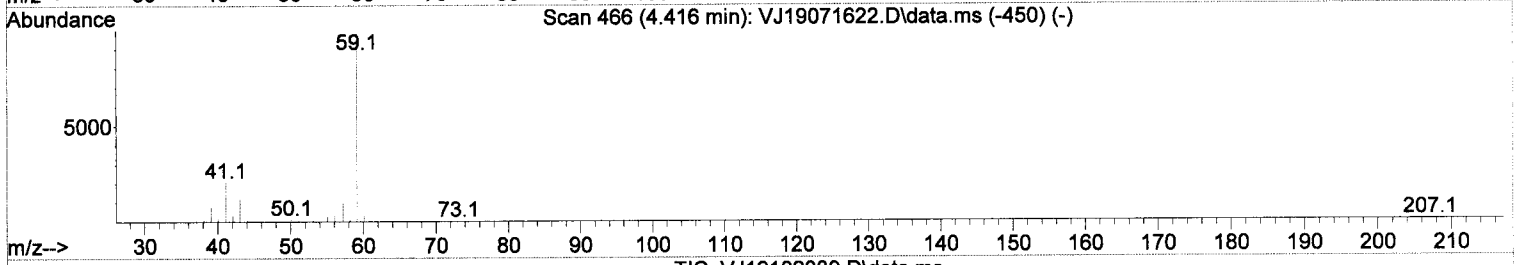
Quantitation Report (Qedit)

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

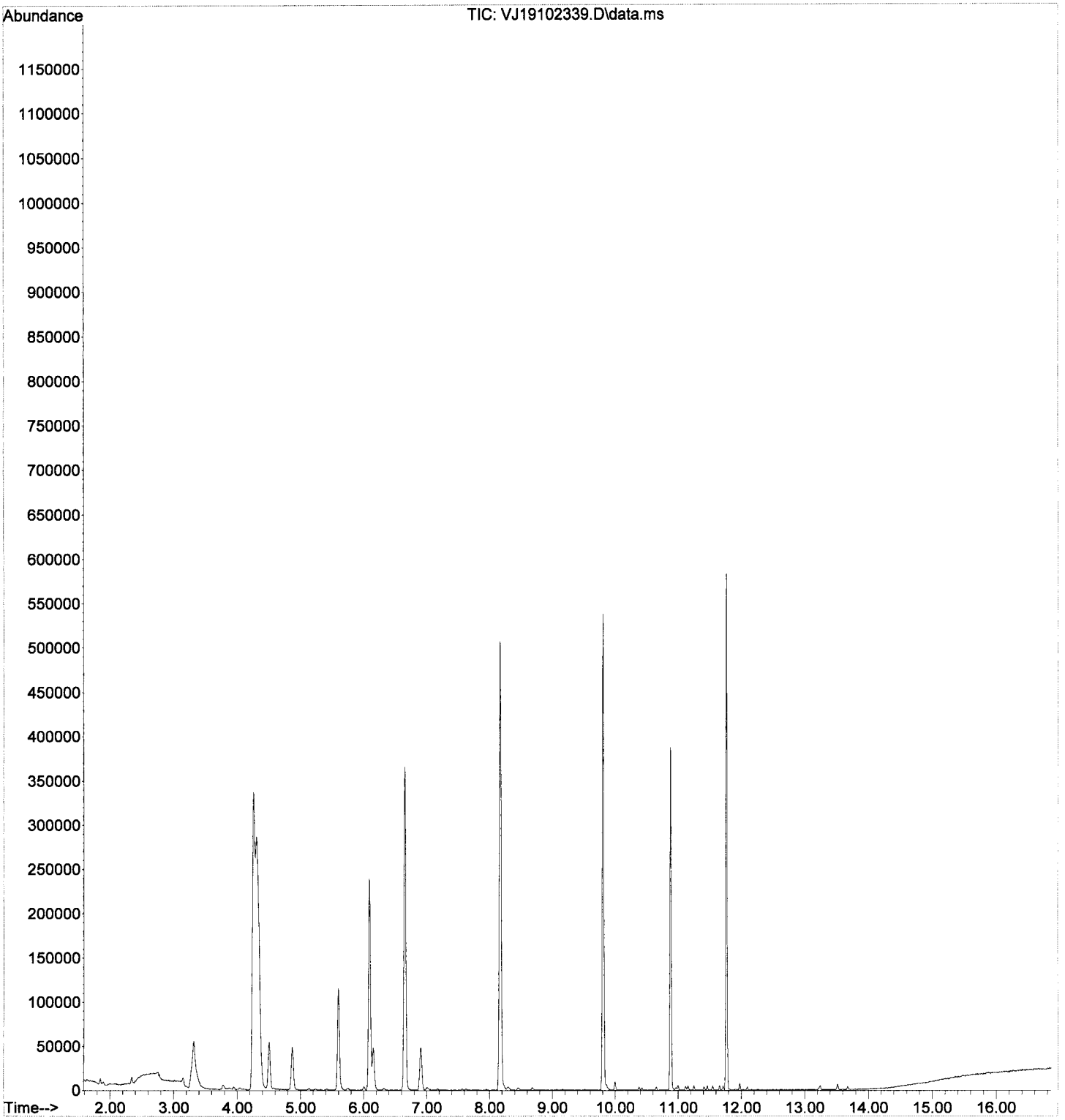
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	22.78#
0.00	0.00	0.00
0.00	0.00	0.00

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

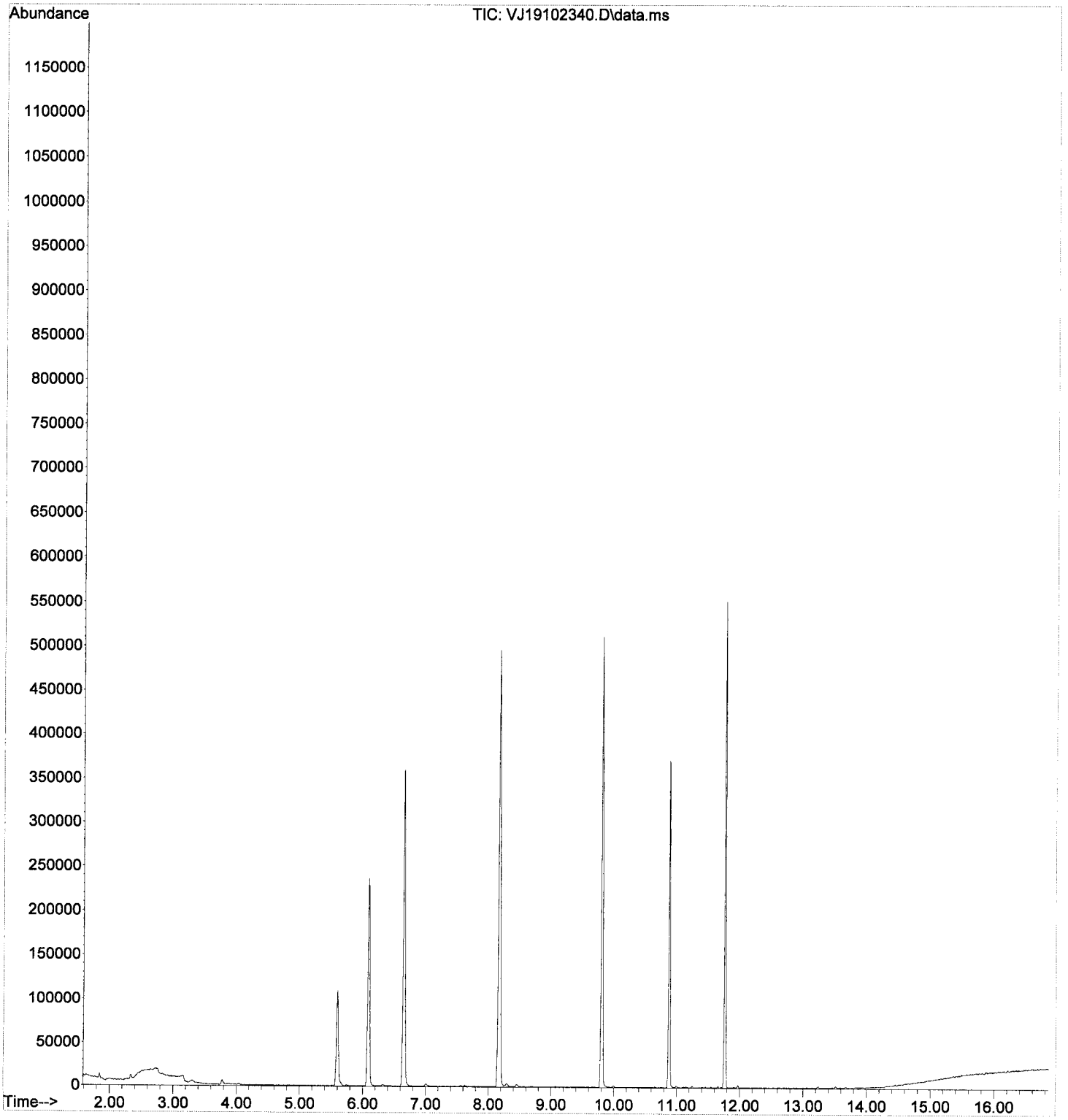
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	100948	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.806	117	272905	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	112217	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (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

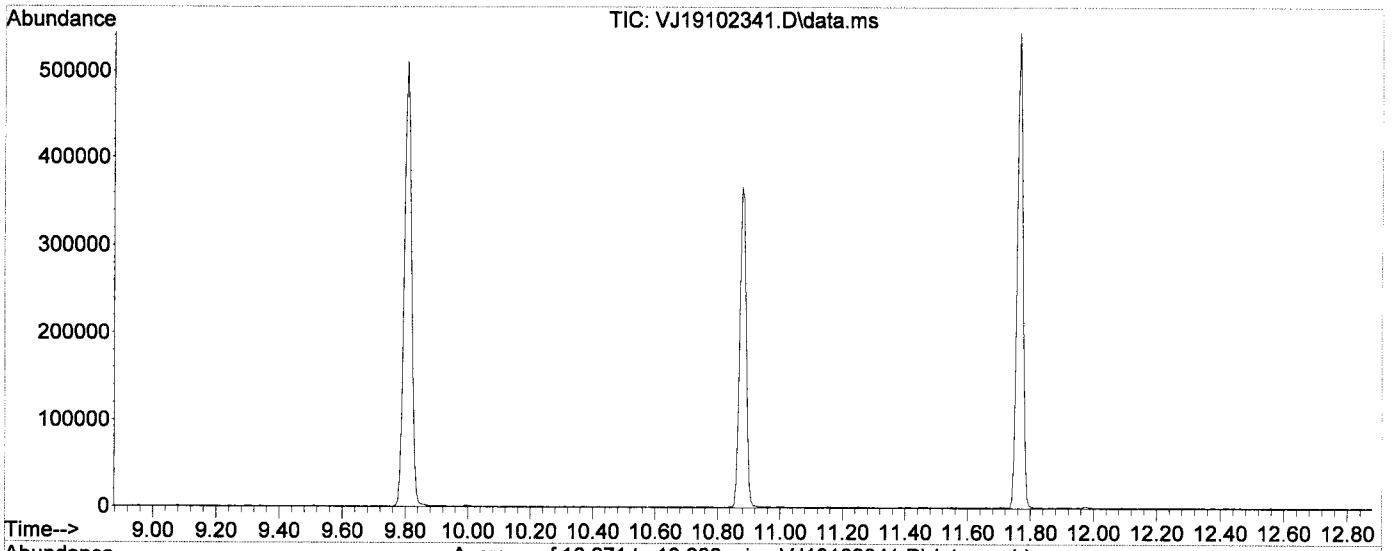


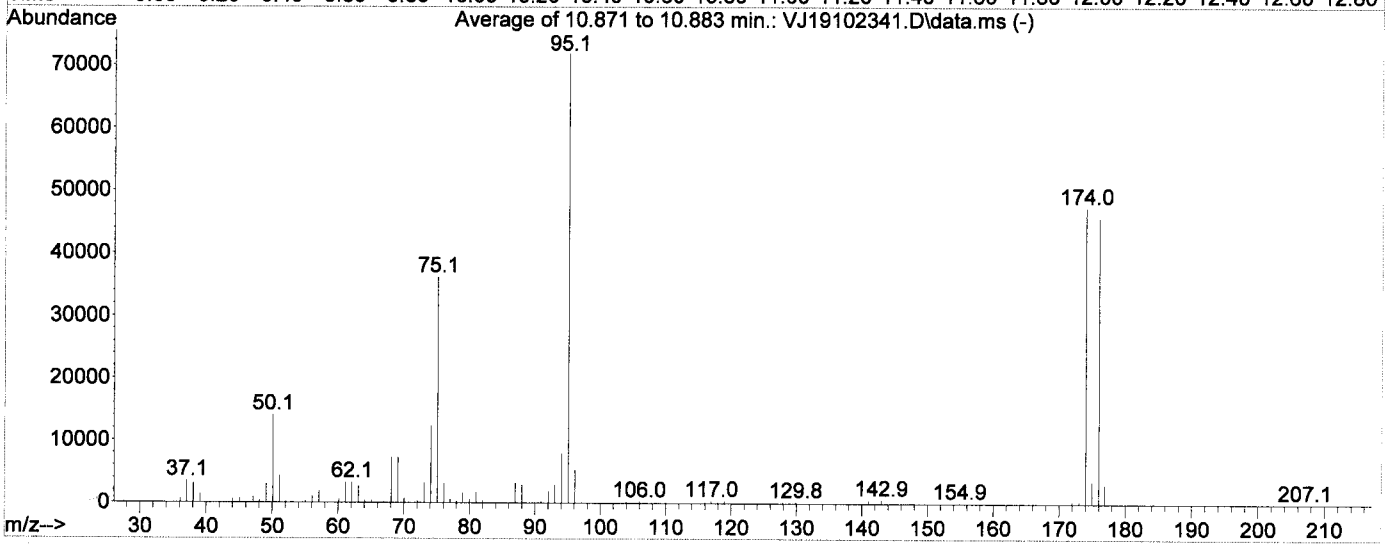
Data Path : C:\msdchem\1\data\2019-10\9J23072\
Data File : VJ19102341.D
Acq On : 24 Oct 2019 6:21 am
Operator : MM
Sample : 9J23072-TUN2
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 27 Sample Multiplier: 1

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

VJ 10/24/19





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

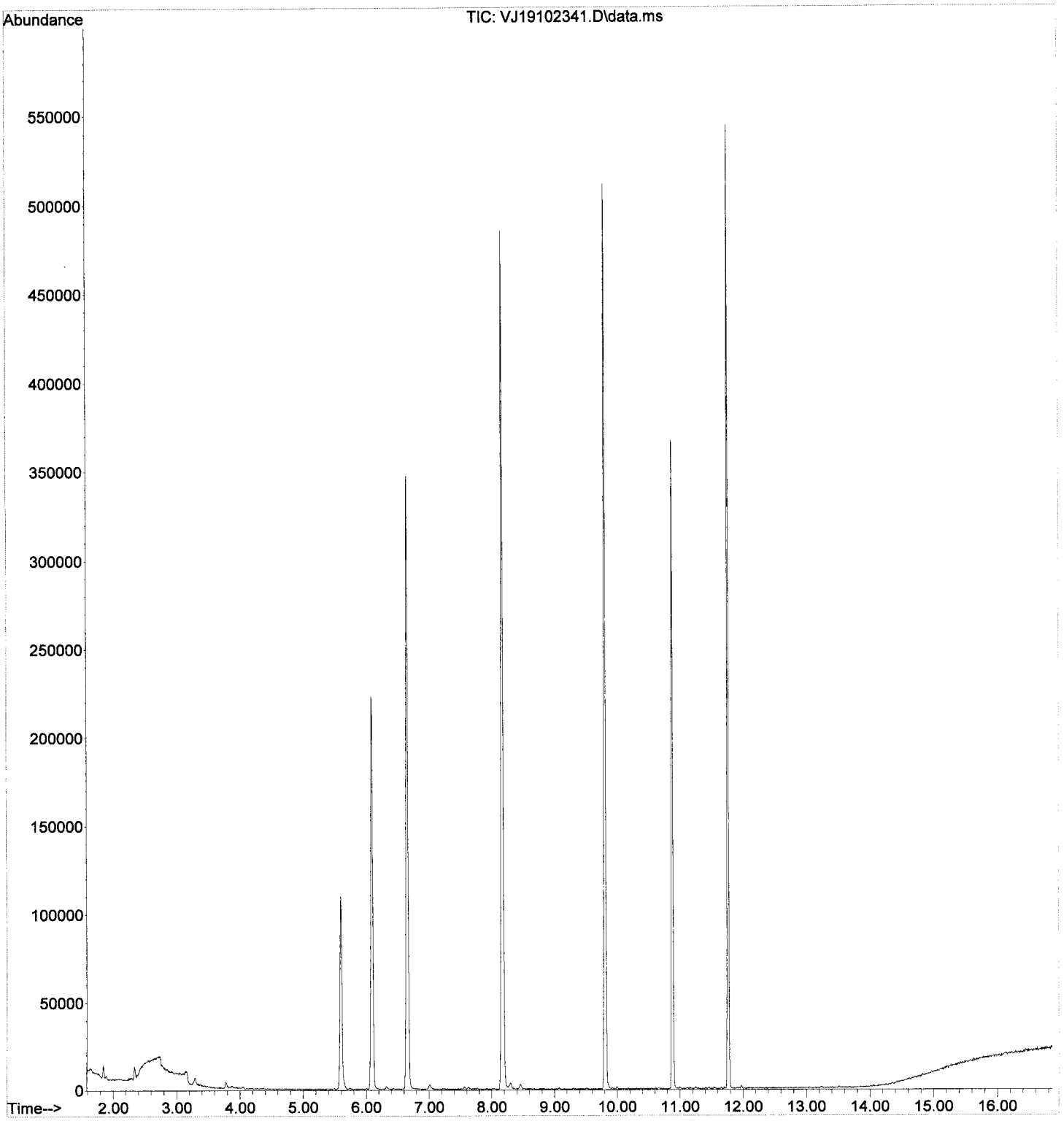
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	157543	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	301152	50.24	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	81118	50.24	ug/L	0.00
9) Toluene-d8 (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

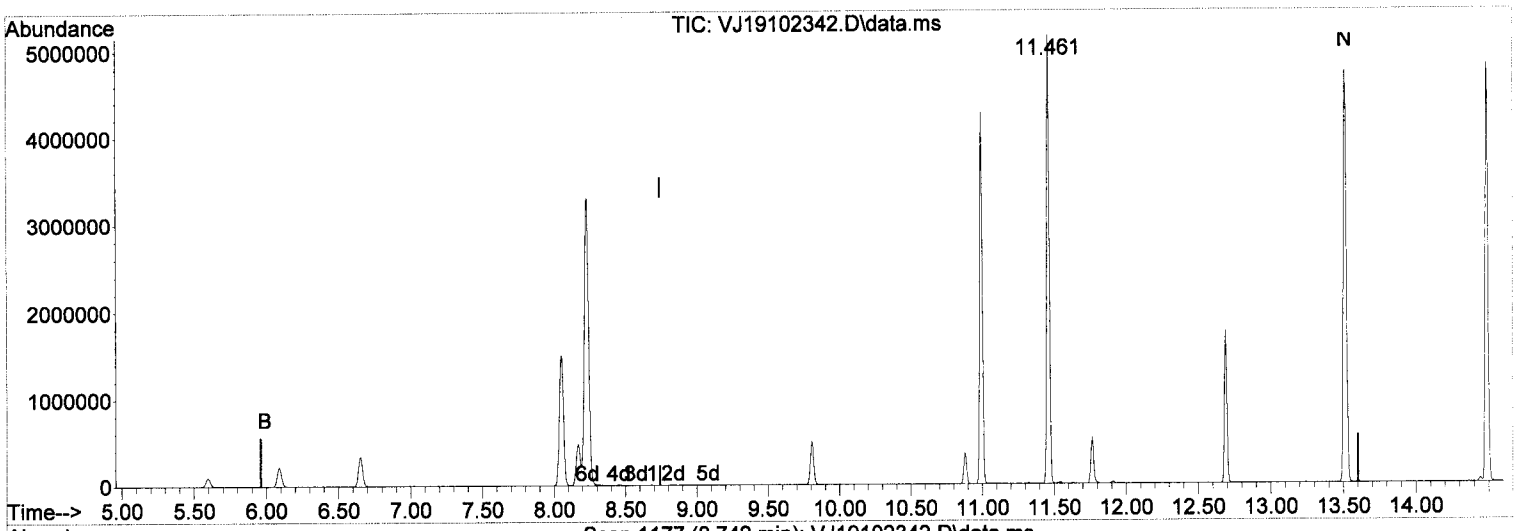
Quant Time: Oct 24 12:07:29 2019
Quant Method : C:\msdchem\1\methods\VJ191024G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Oct 24 12:01:51 2019
Response via : Initial Calibration

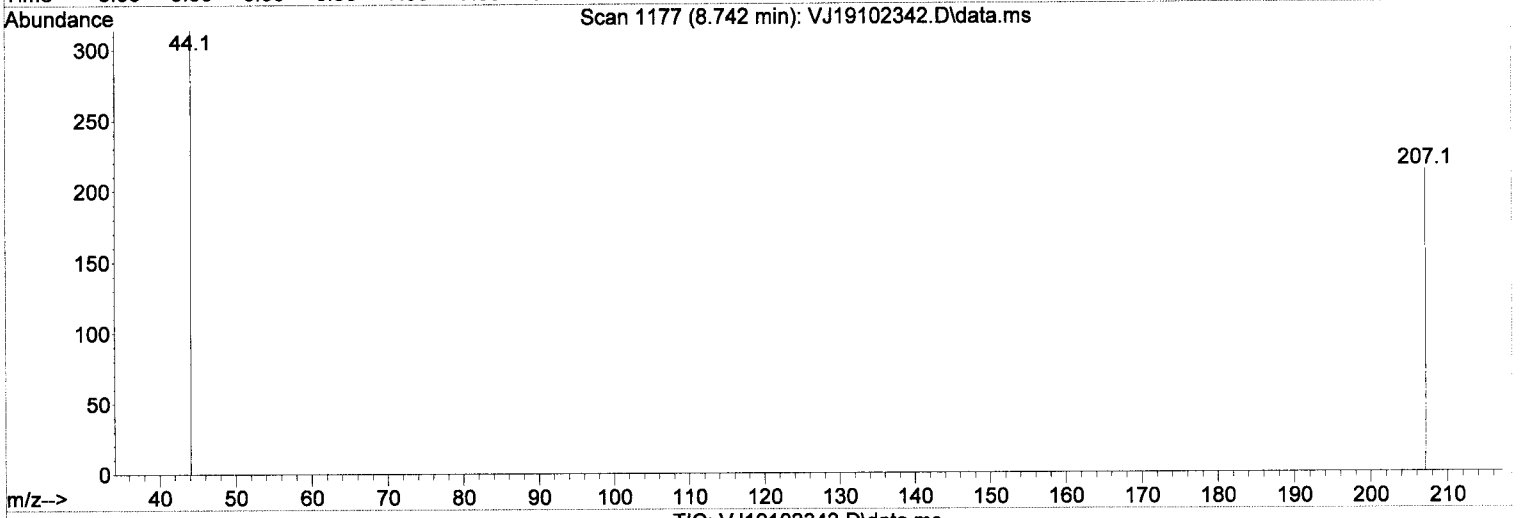


Quantitation Report (Qedit)

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

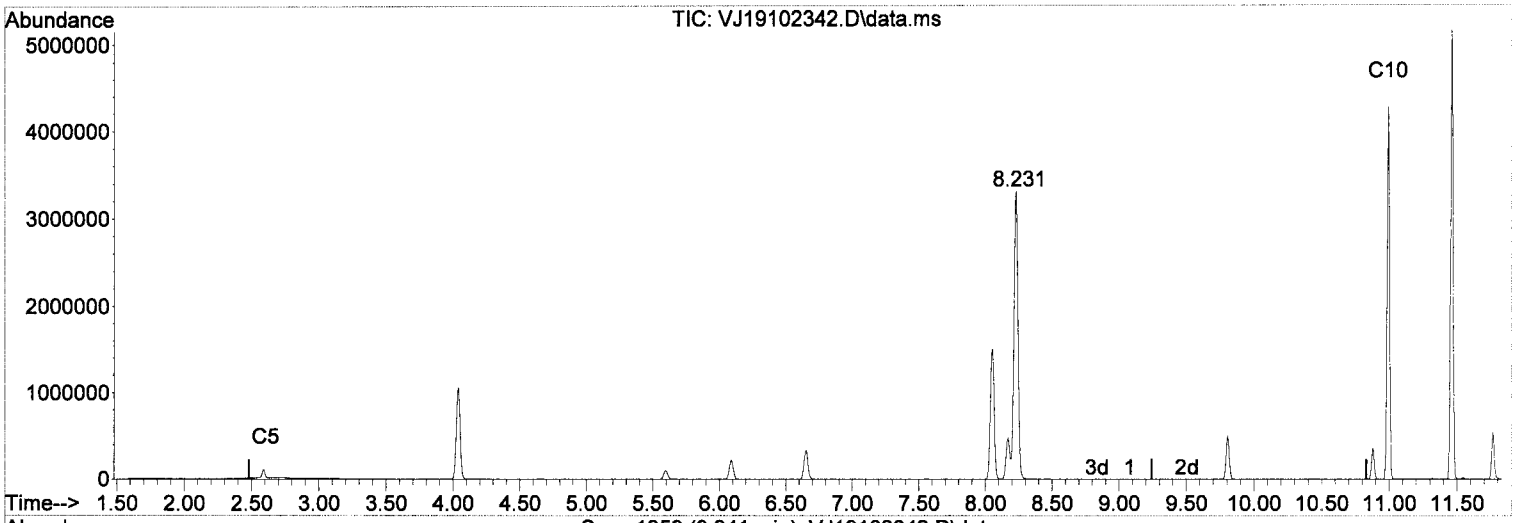
response 30811353

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

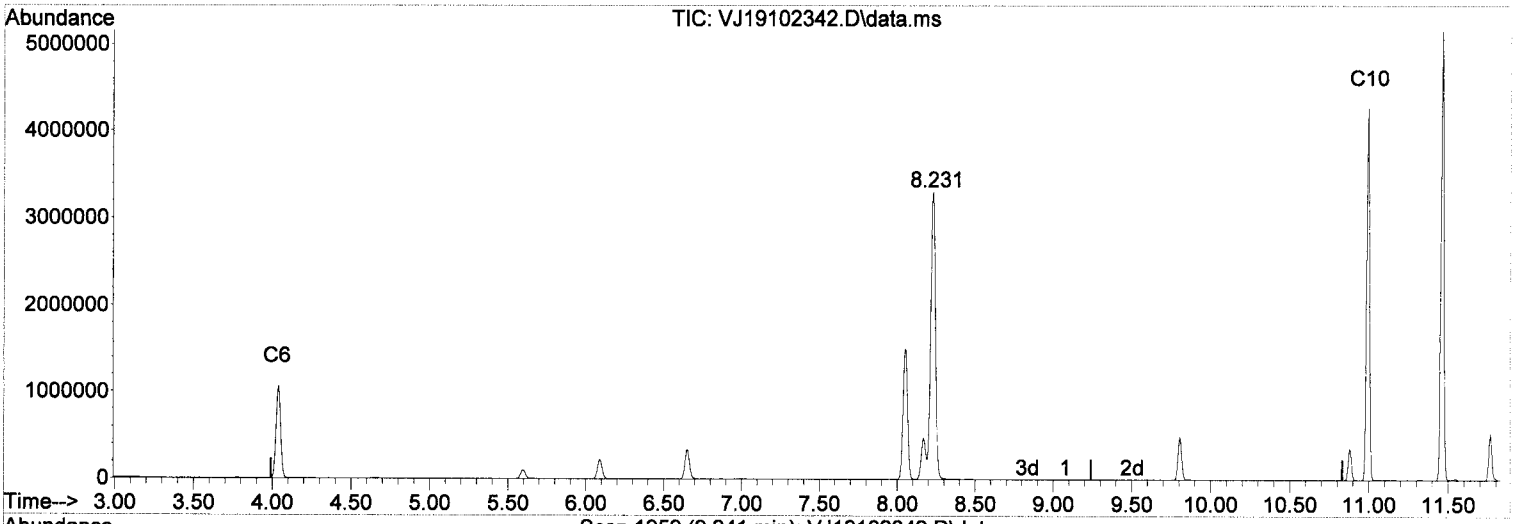
response 12973167

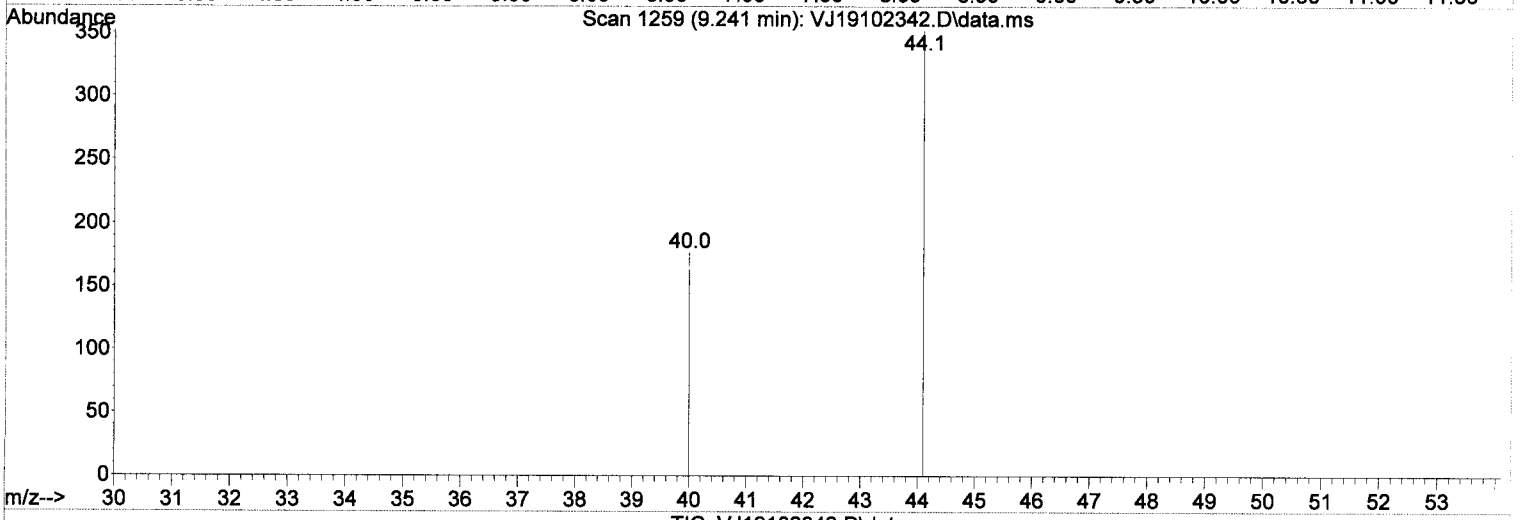
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.23#
0.00	0.00	1.78#
0.00	0.00	0.00

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

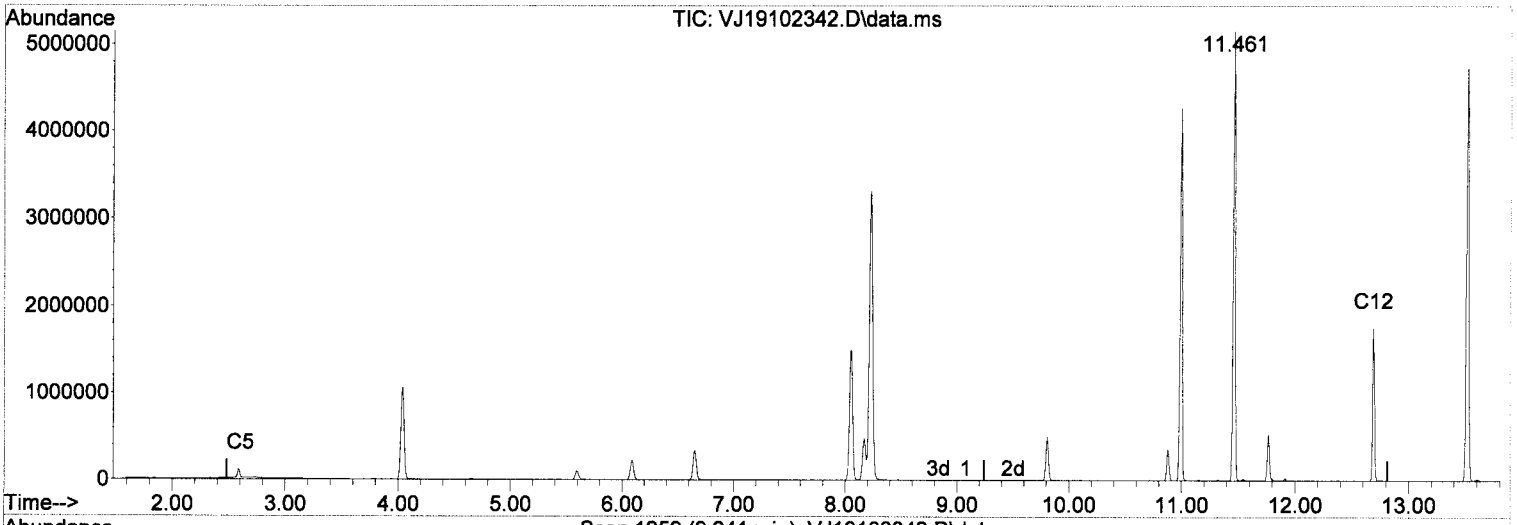
response 12428804

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

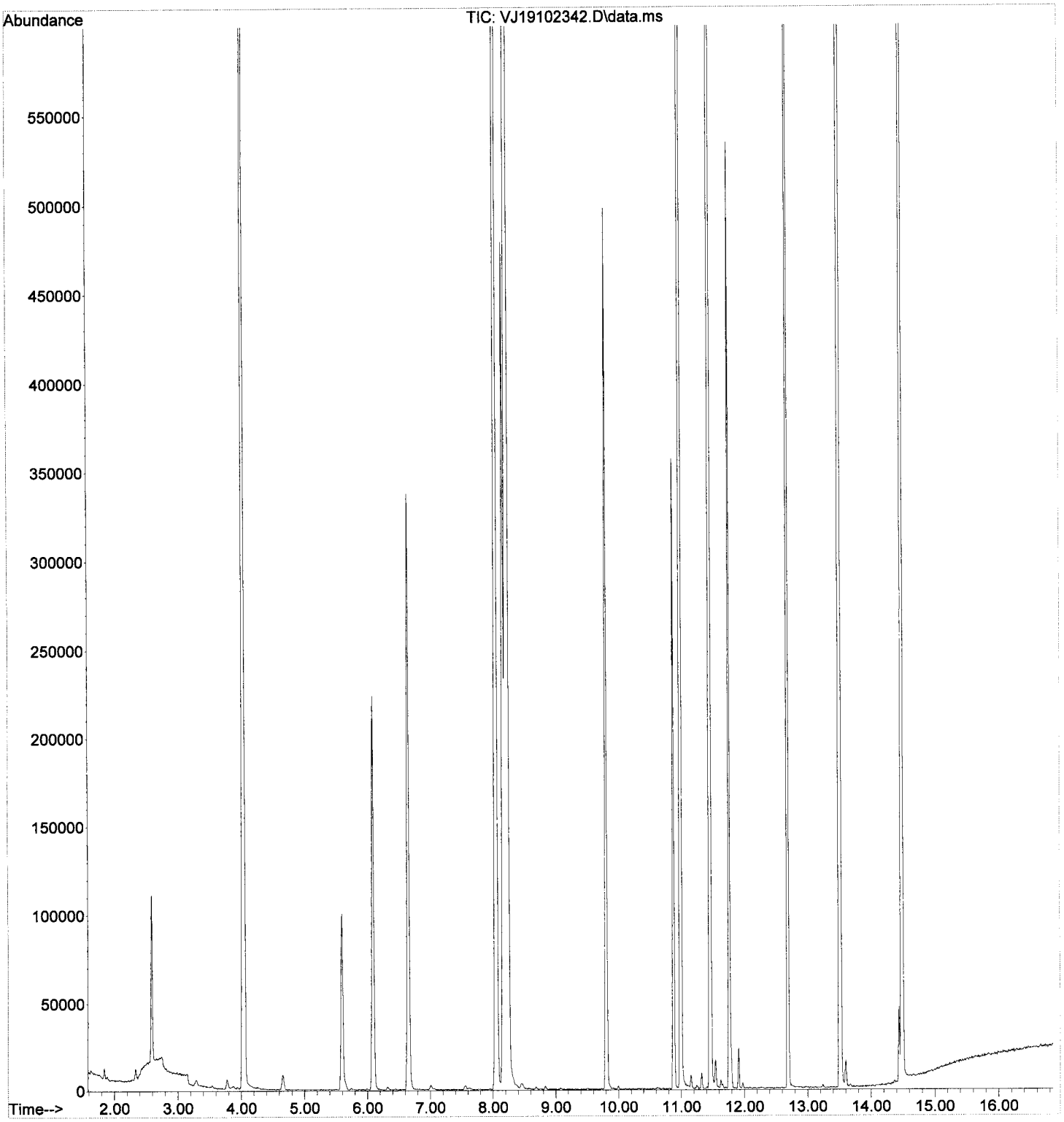
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	152504	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	291705	50.27	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	79181	50.66	ug/L	0.00
9) Toluene-d8 (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

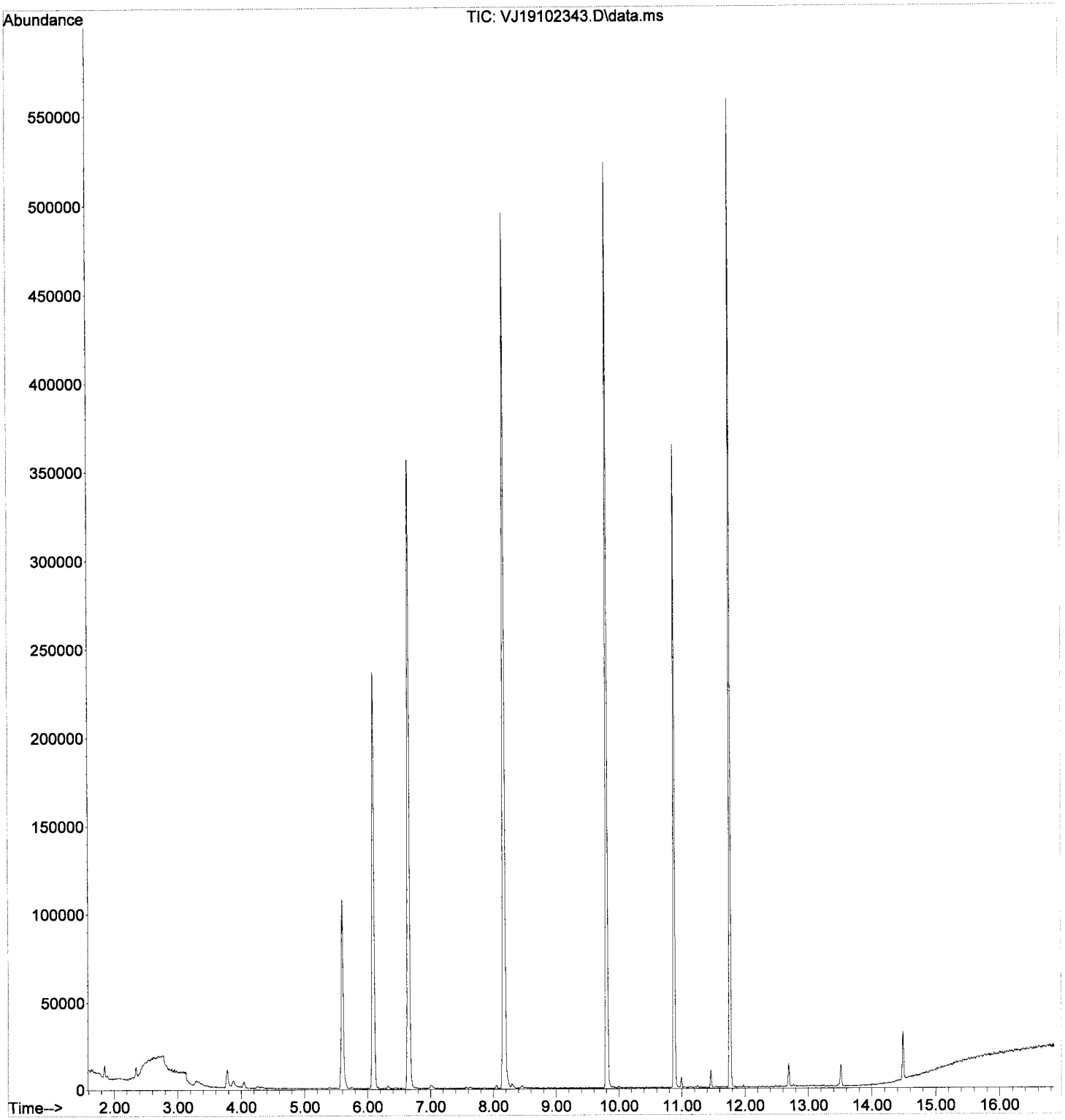
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	162093	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	309916	50.25	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	81881	49.28	ug/L	0.00
9) Toluene-d8 (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

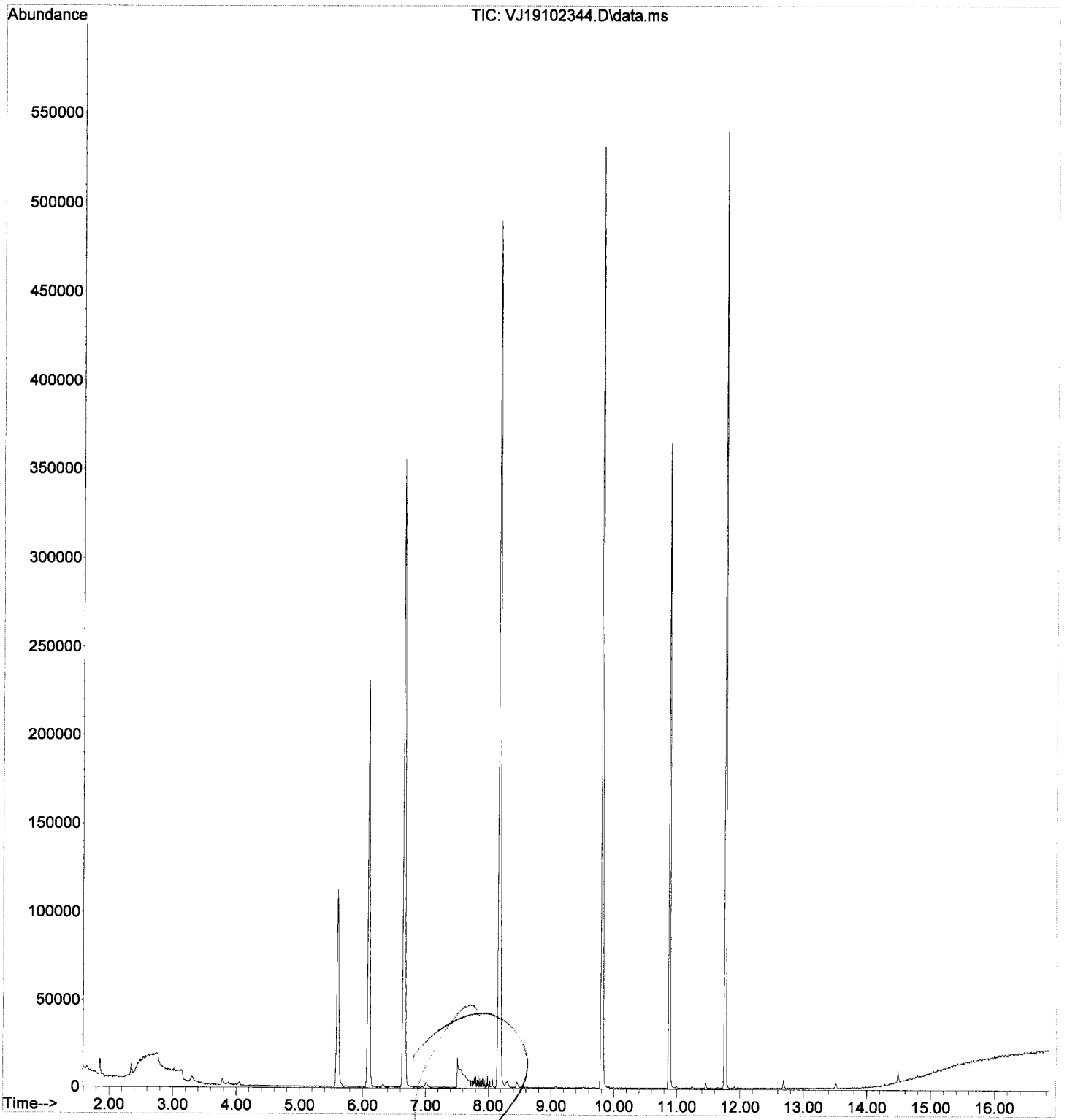
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	157703	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	301697	50.28	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	79924	49.45	ug/L	0.00
9) Toluene-d8 (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

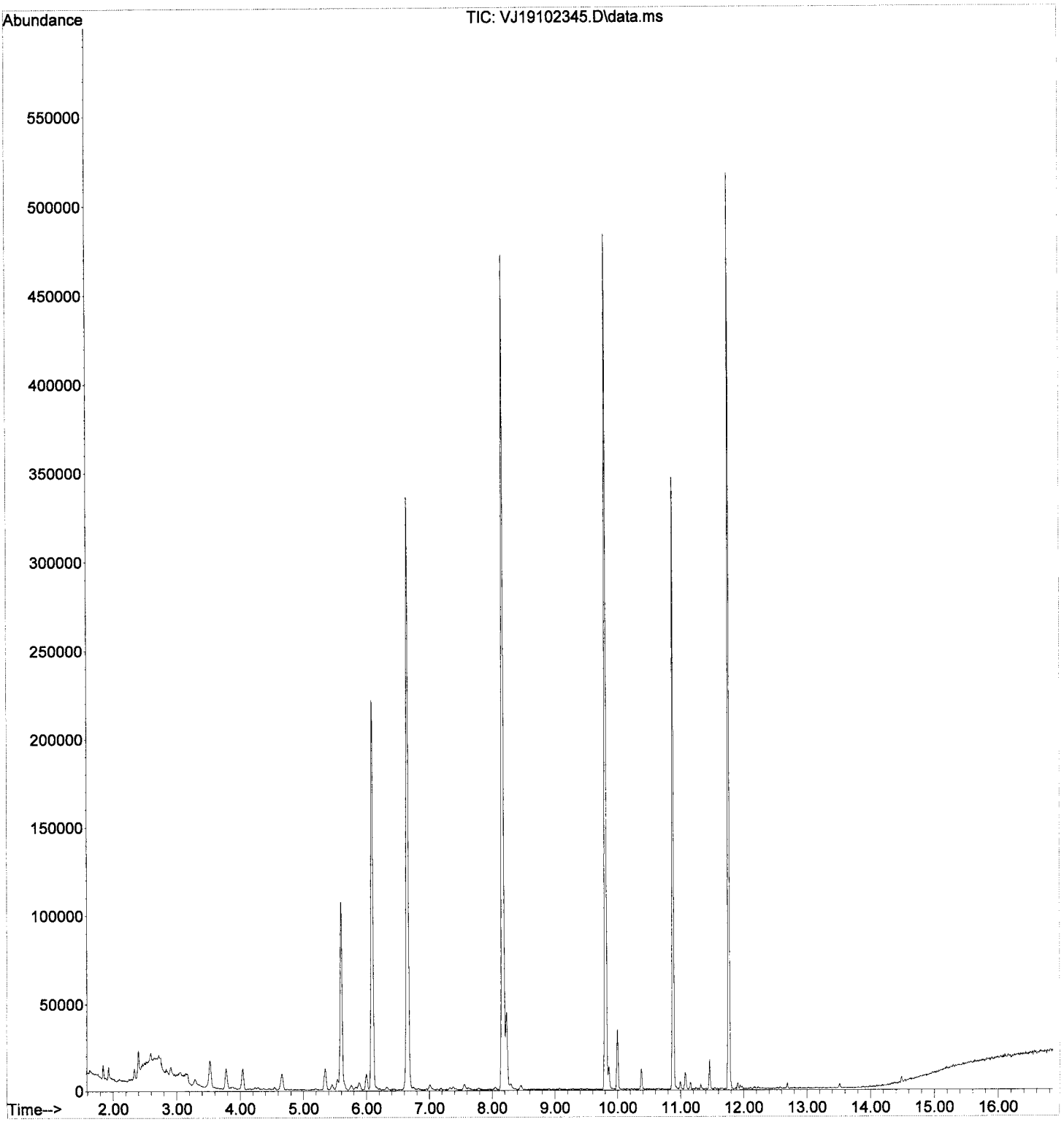
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	152567	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	289686	54.80	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	77731	44.73	ug/L	0.00
9) Toluene-d8 (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

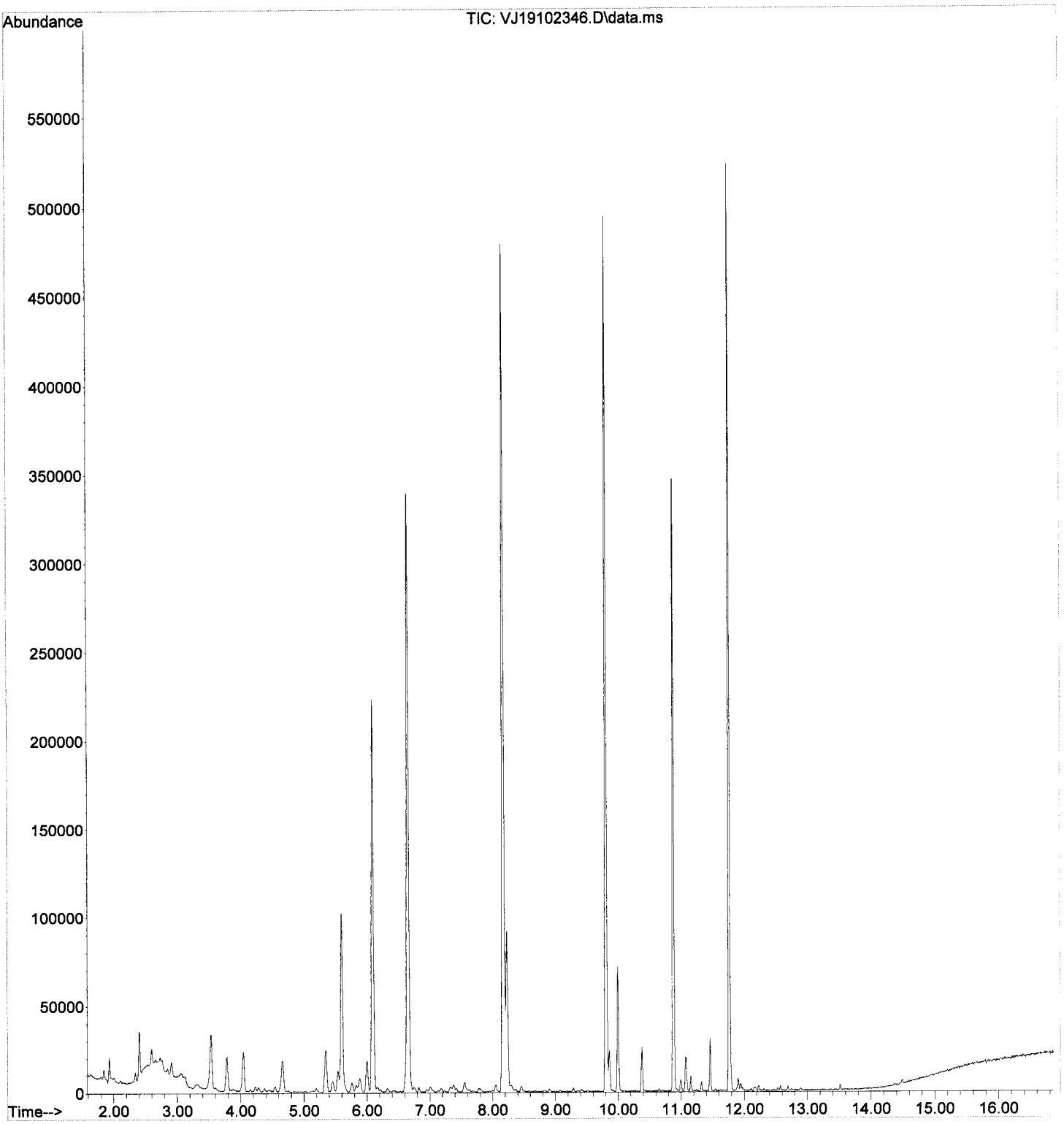
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	153392	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	292121	54.97	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	77996	44.64	ug/L	0.00
9) Toluene-d8 (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

MM 10/24/19

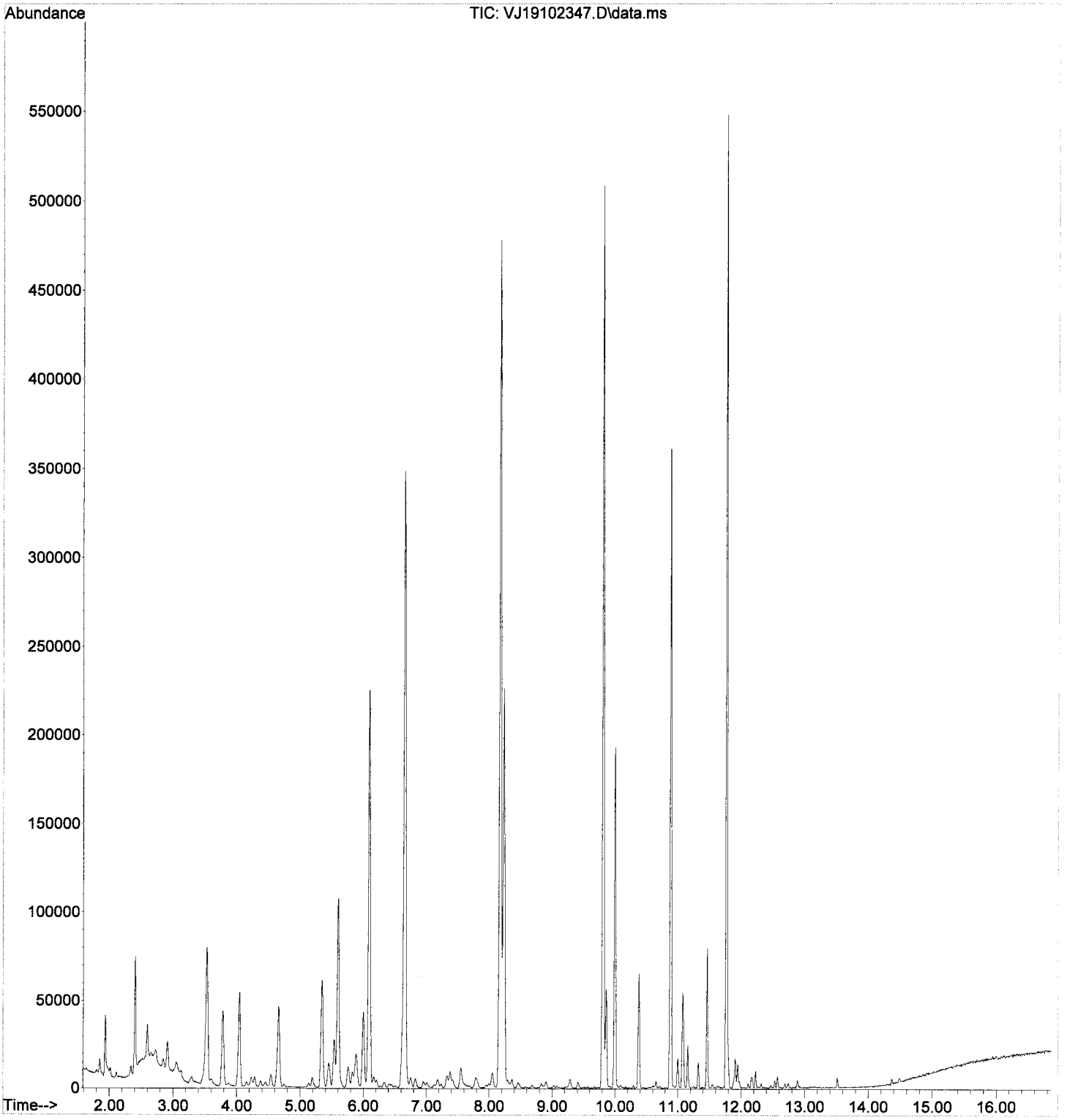
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	155593	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	296265	54.96	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	79823	45.04	ug/L	0.00
9) Toluene-d8 (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

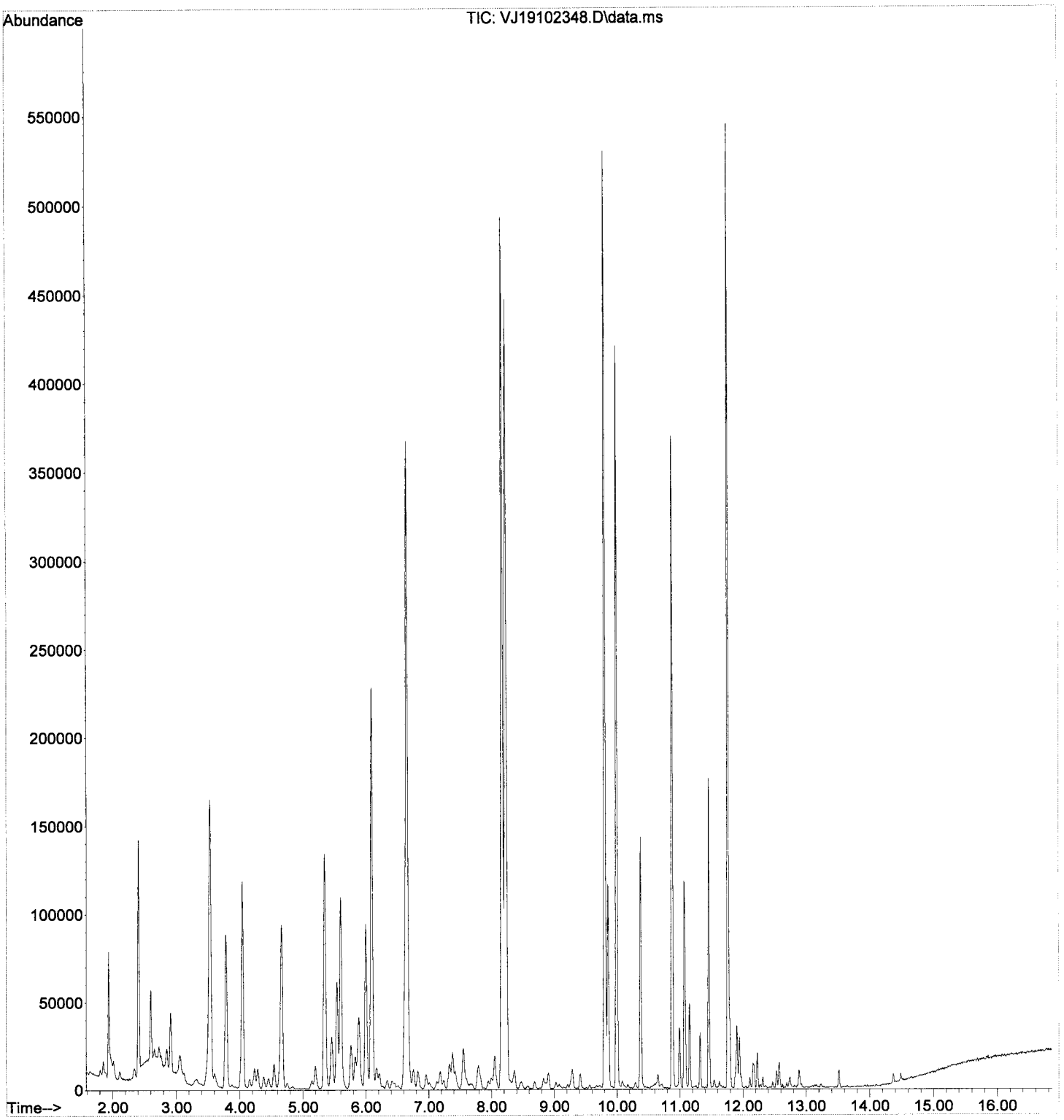
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	159177	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	305907	55.47	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	82765	45.65	ug/L	0.00
9) Toluene-d8 (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

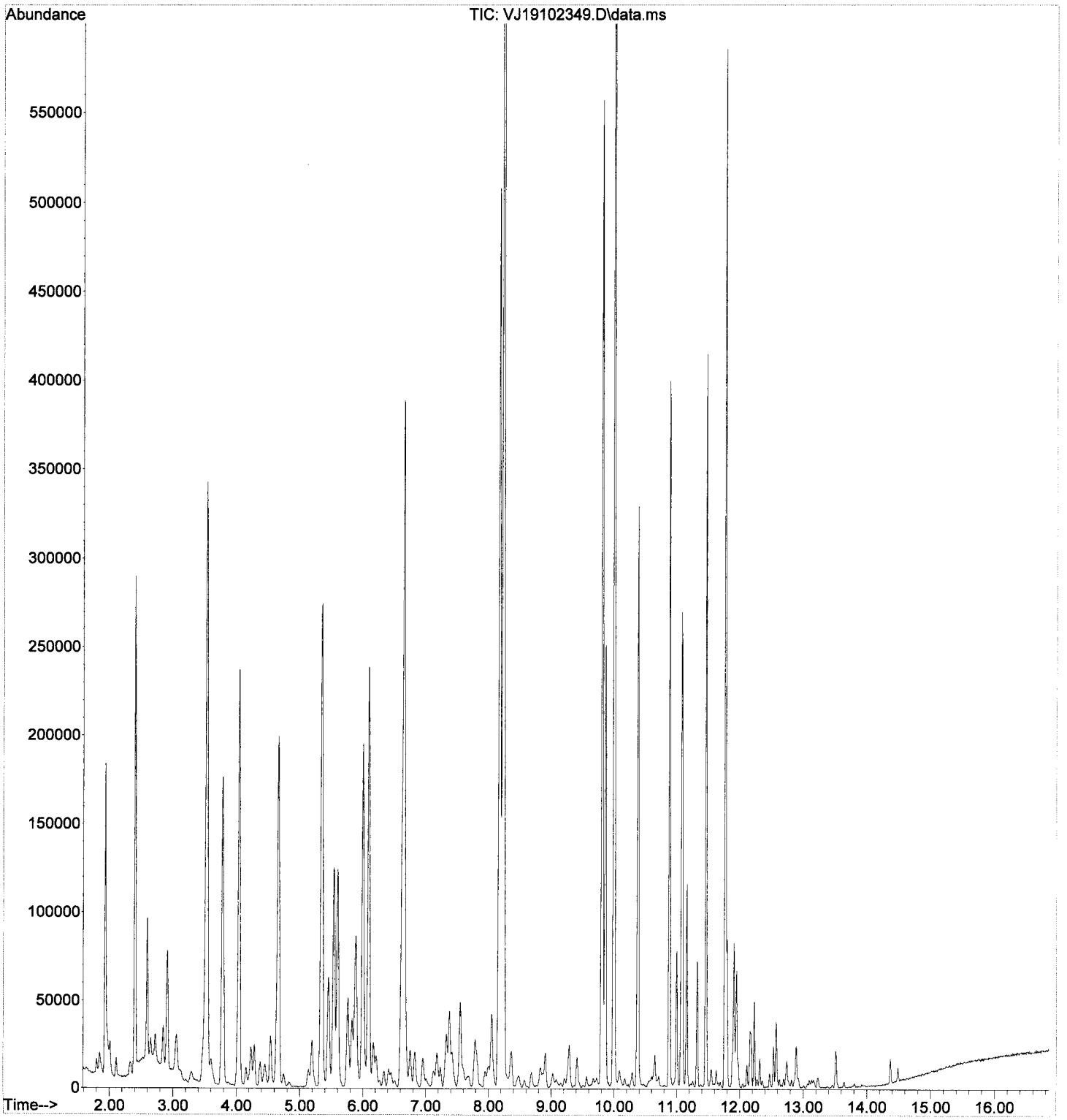
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	167155	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	318452	54.99	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	85756	45.04	ug/L	0.00
9) Toluene-d8 (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

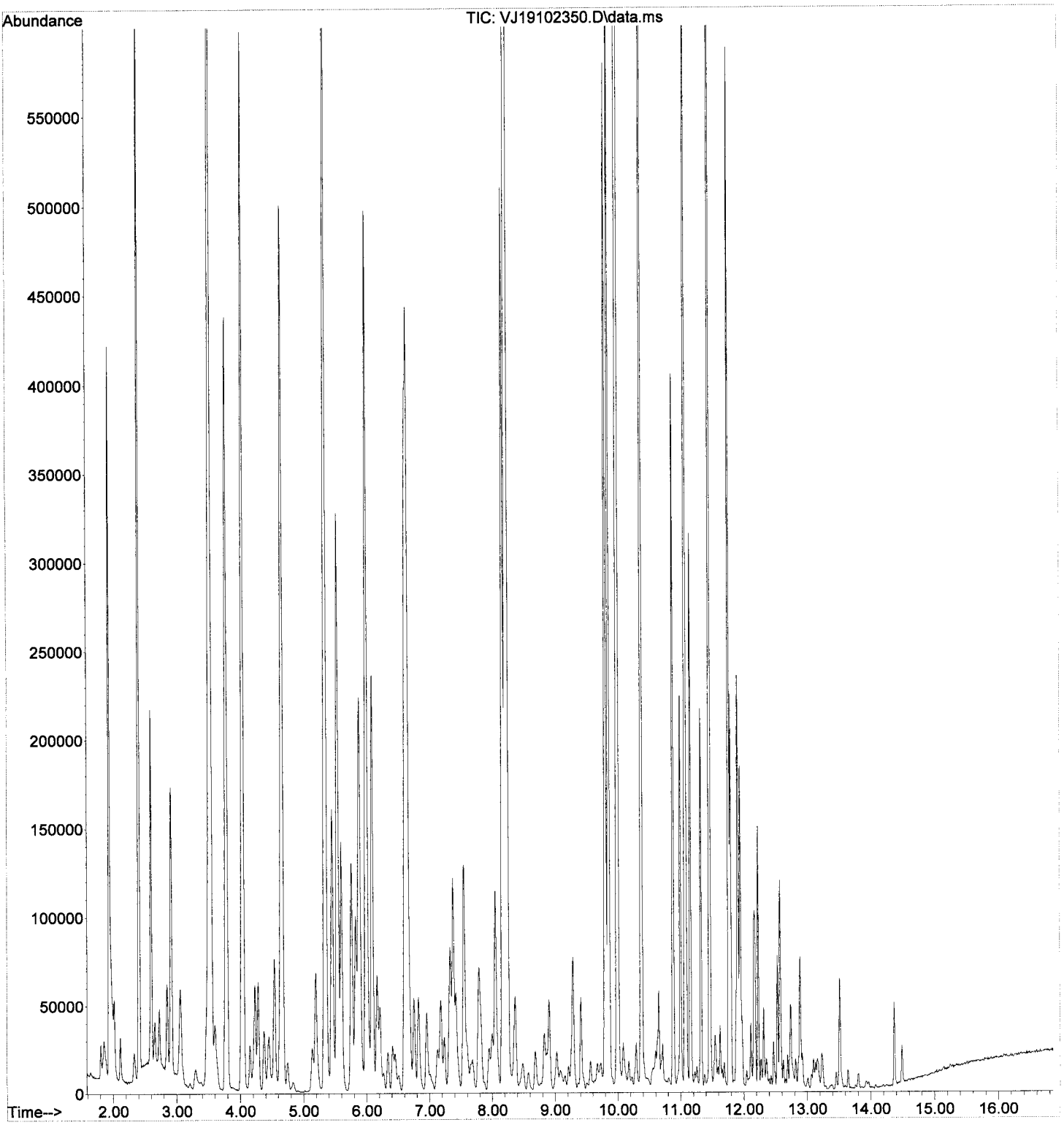
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	165305	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	318152	55.55	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	88206	46.85	ug/L	0.00
9) Toluene-d8 (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

VJ 10/24/19

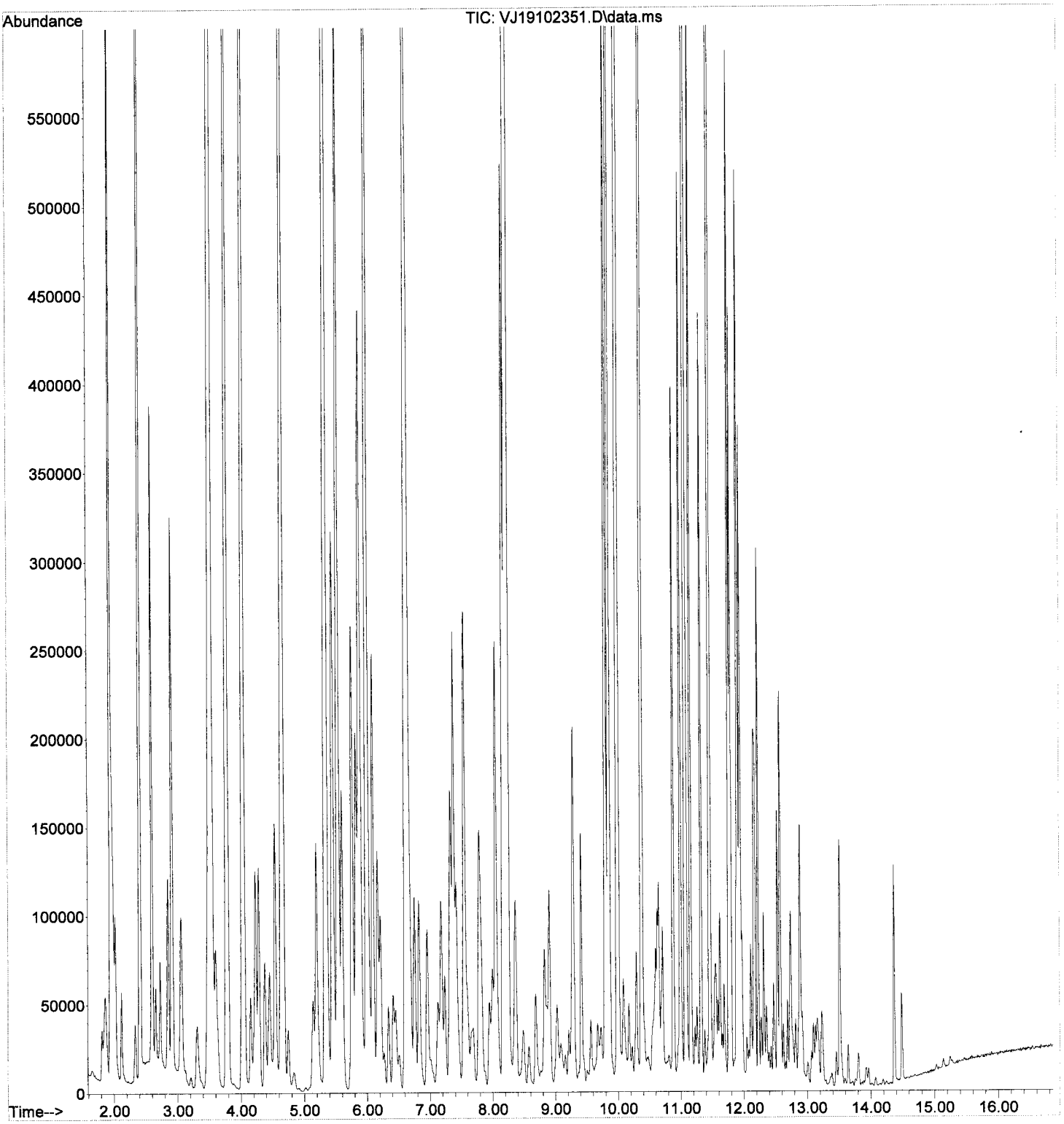
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	174020	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	330721	54.85	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	88041	44.42	ug/L	0.00
9) Toluene-d8 (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

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\VJ~~191024~~G.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

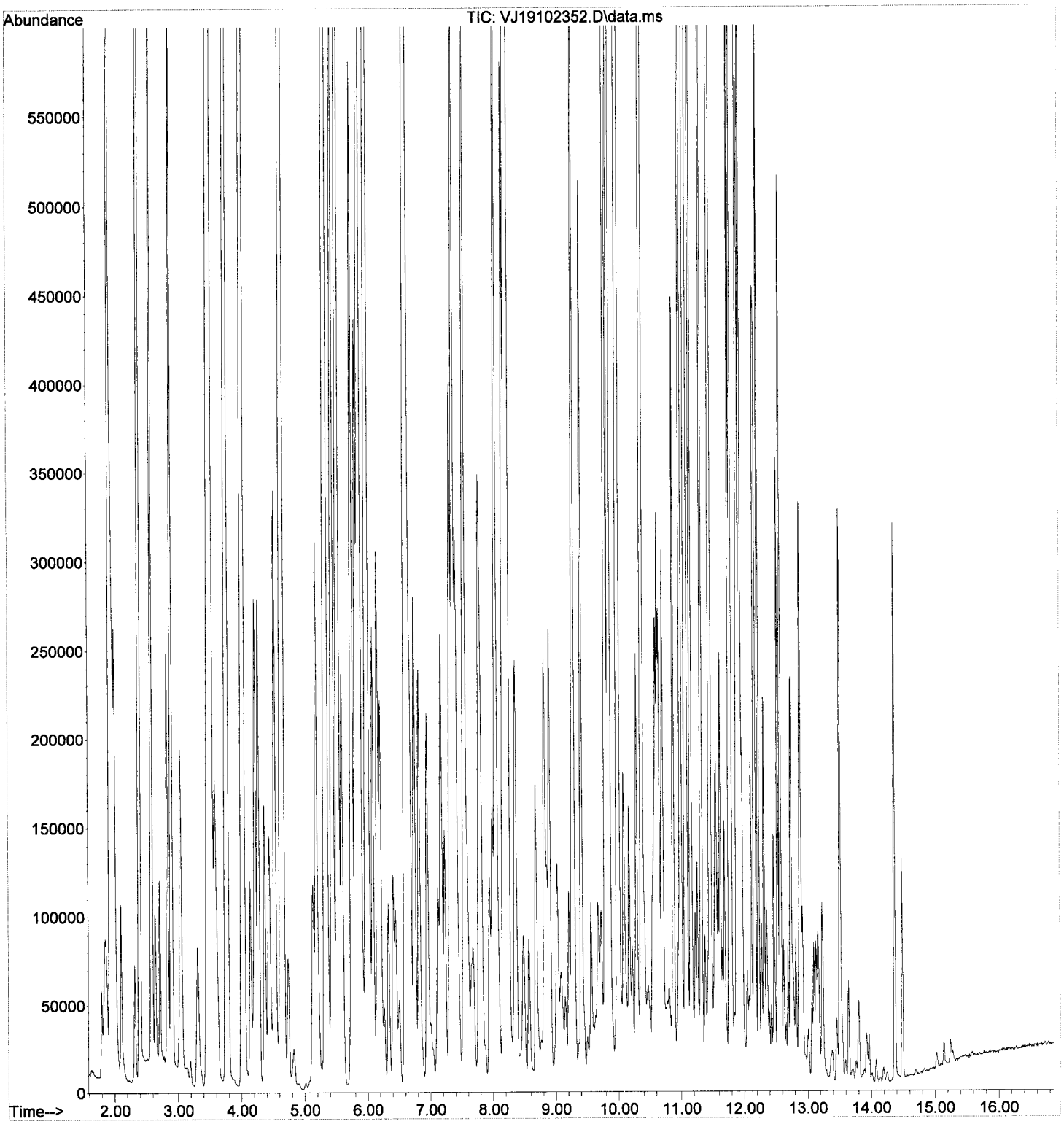
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	181337	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	337220	53.68	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	90011	43.58	ug/L	0.00
9) Toluene-d8 (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

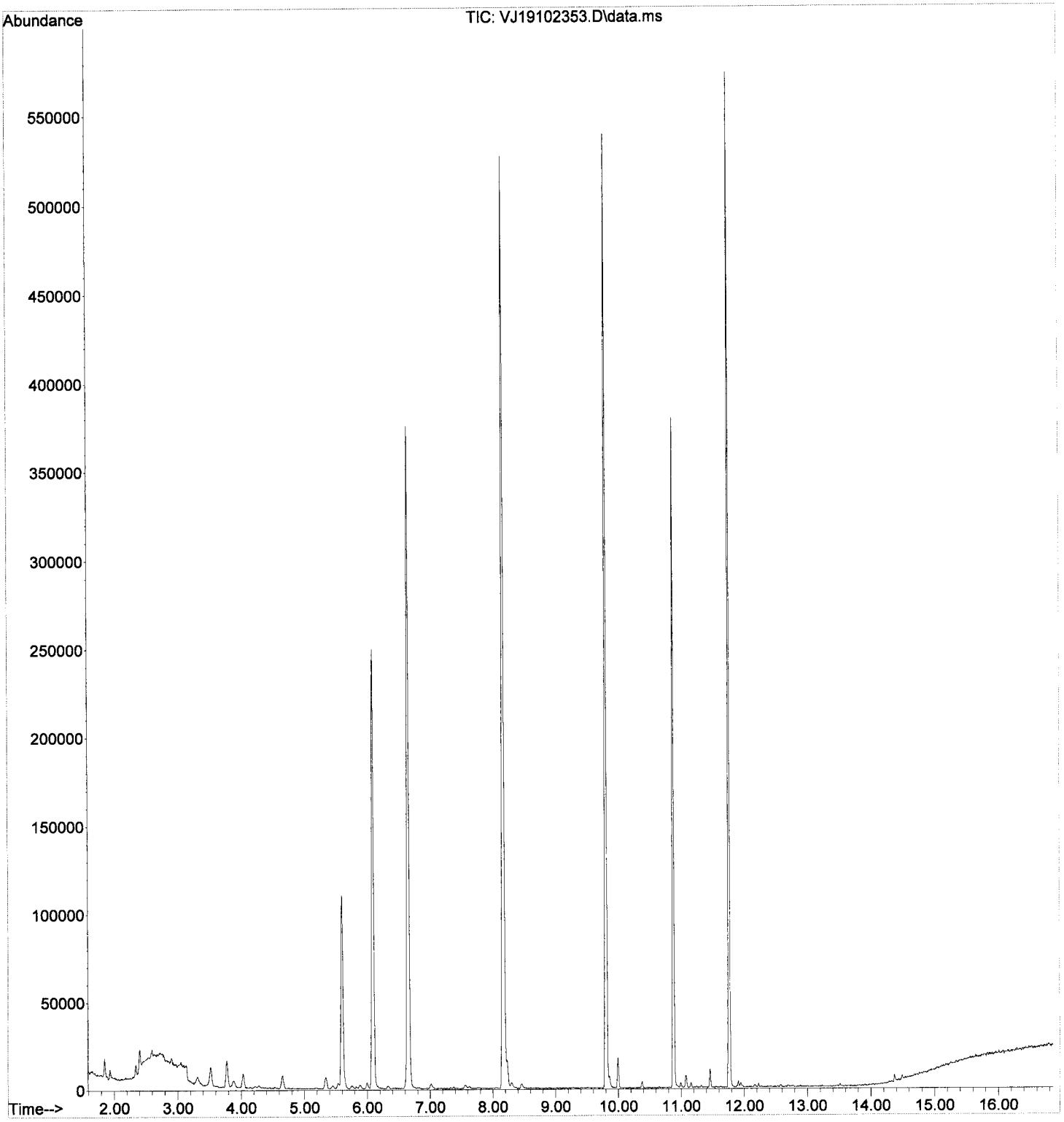
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	180184	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	335961	49.01	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	86624	46.90	ug/L	0.00
9) Toluene-d8 (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

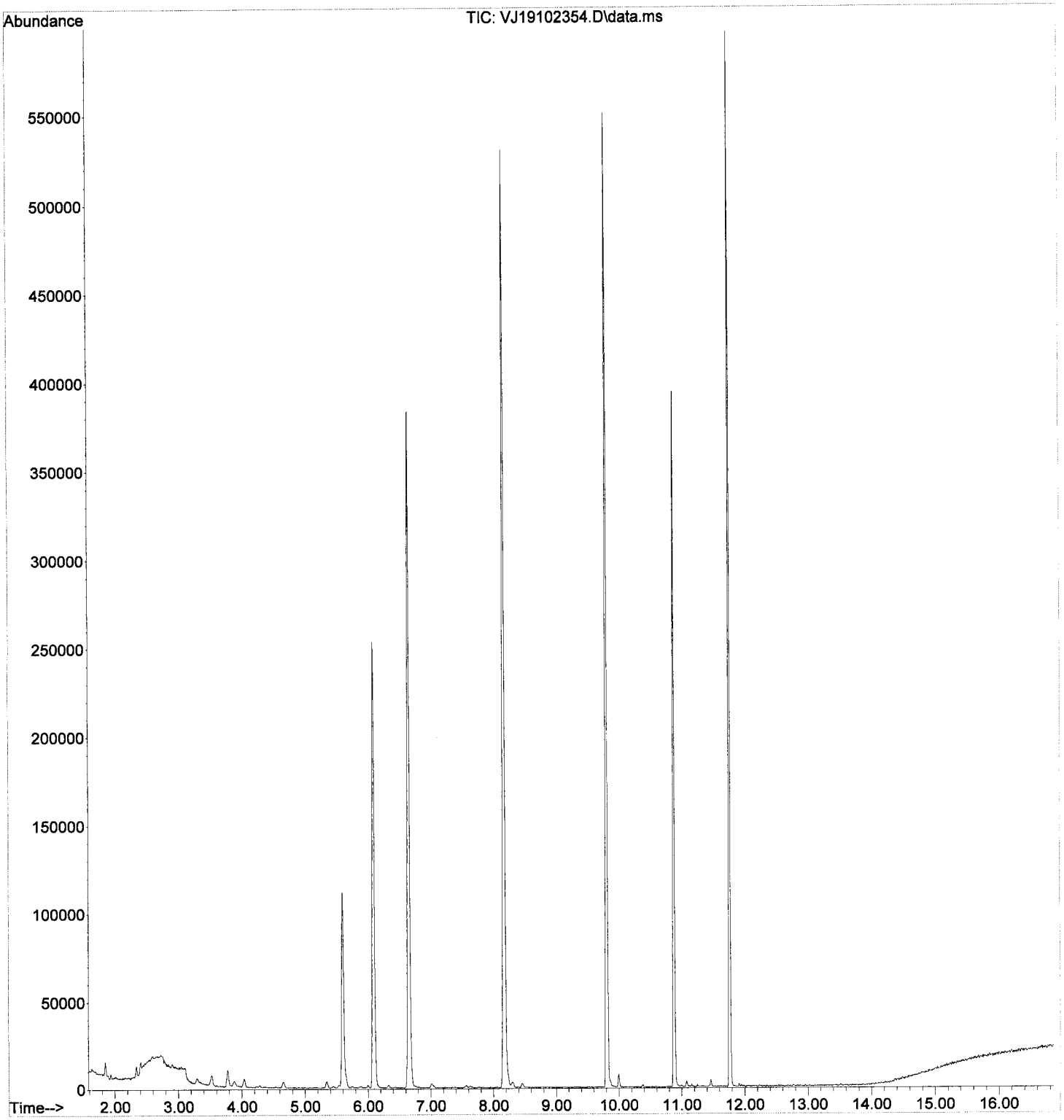
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	182663	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	342782	49.32	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	89835	47.98	ug/L	0.00
9) Toluene-d8 (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

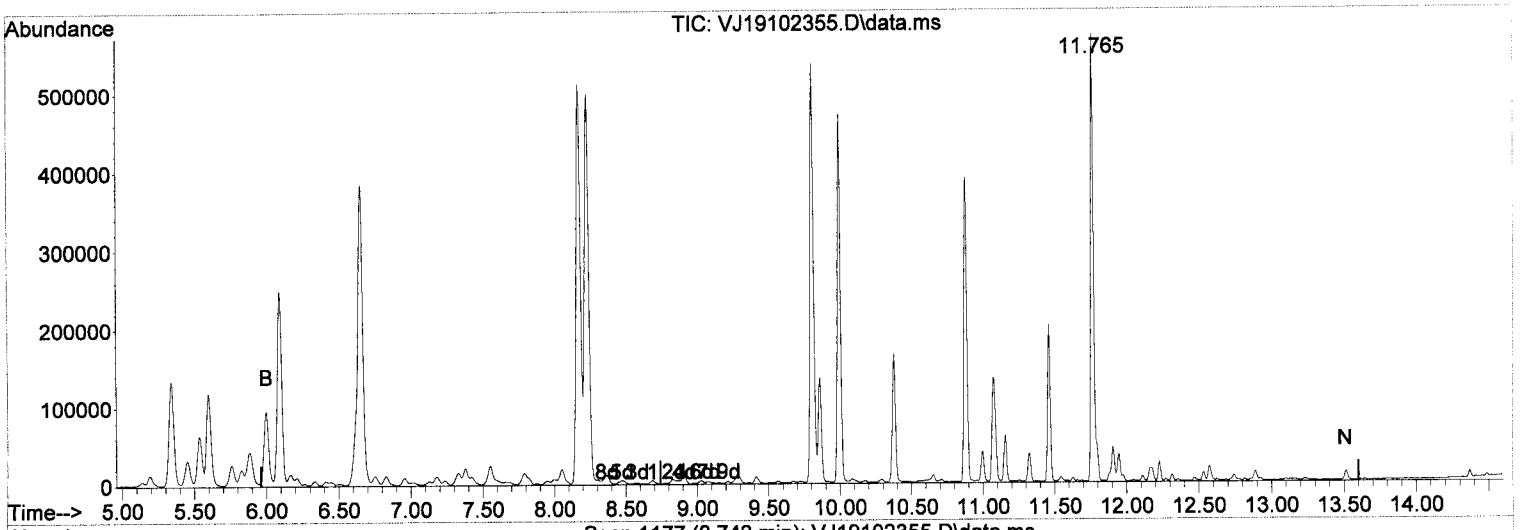
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.089	168	177331	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	333318	49.40	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	87092	47.92	ug/L	0.00
9) Toluene-d8 (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	

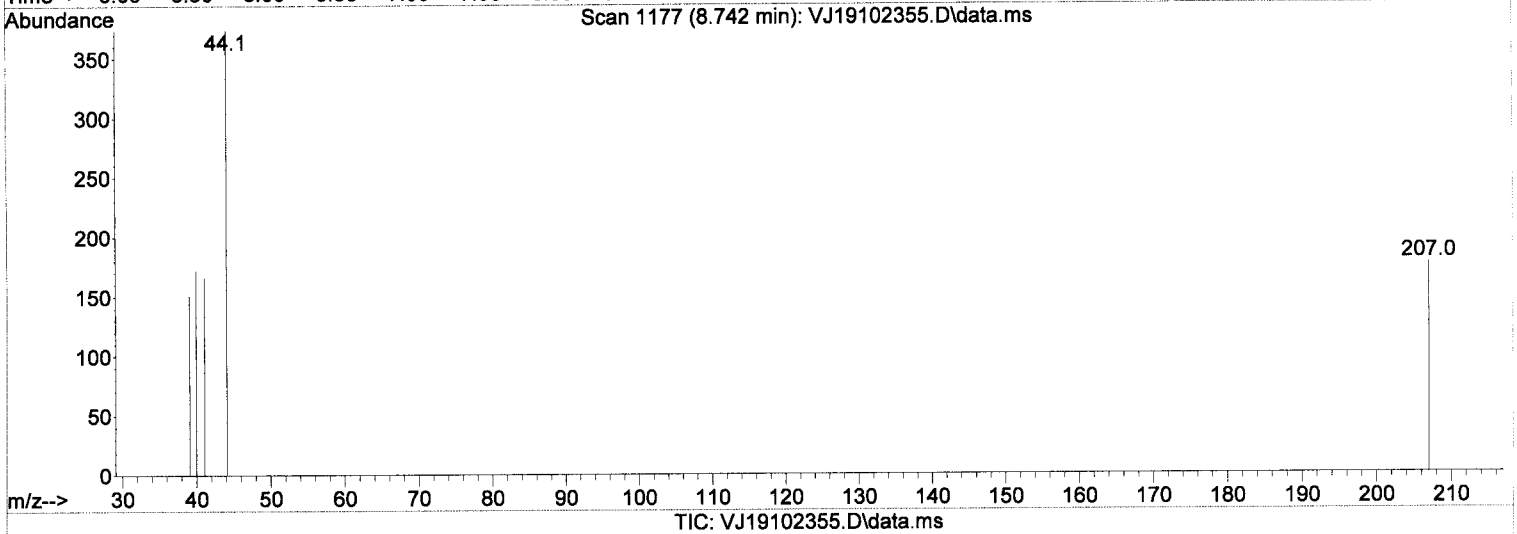
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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

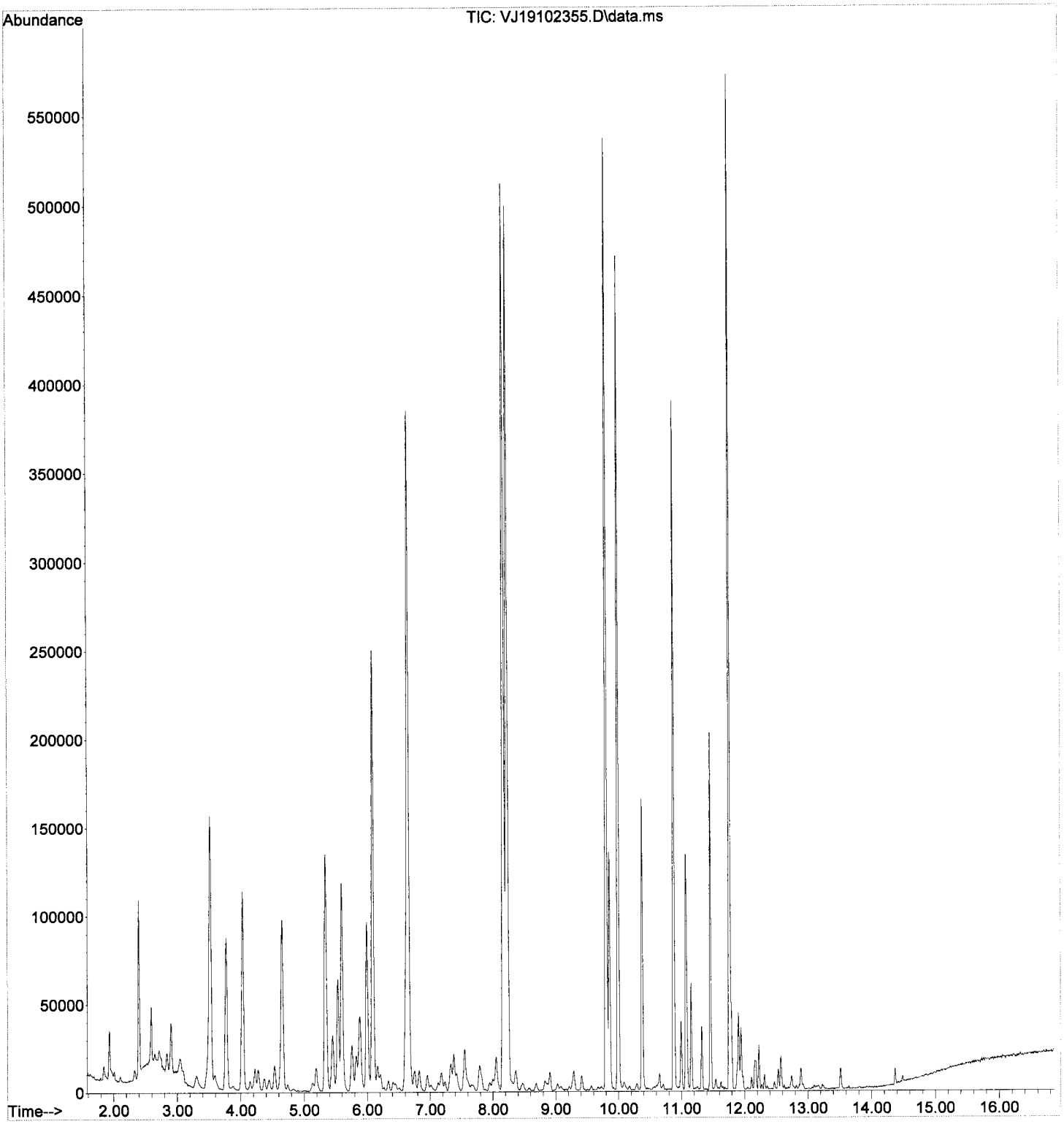
response 4329987

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 9110460
Sequence 9K05032 (A9J0954-01,02)

PREPARATION BENCH SHEET

BATCH #: 9110460 (Water)

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*
9110460-BLK1		QC	11/05/19 09:41	5	5						Extraction batch 9110443	
9110460-BS1		QC	11/05/19 09:41	5	5	A19K007		250				
A9J0954-01	C	1311/8260C TCLP/ZHE VOC	11/05/19 10:08	5	5					PDI-019SC-C-00-3.2-191025		<2
A9J0954-02	C	1311/8260C TCLP/ZHE VOC	11/05/19 10:08	5	5					PDI-095SC-C-00-8.8-191025		<2
A9J1007-01	C	1311/8260C TCLP/ZHE VOC	11/05/19 10:08	5	5					PDI-083SC-C-00-08-191028		<2
A9K0045-01	A	1311/8260C TCLP/ZHE Full	11/05/19 10:08	5	5					BF-110419-108	Added for BatchQC in: 9110460	<2
A9K0045-01	A	1311/8260C TCLP/ZHE VOC	11/05/19 10:08	5	5					BF-110419-108	mdl, ug/L	<2
9110460-DUP1		QC	11/05/19 09:41	5	5		A9K0045-01					<2
A9K0046-01	A	1311/8260C TCLP/ZHE VOC	11/05/19 10:08	5	5					FC-110419-1210	MDL, ug/L	<2
A9K0048-01	A	1311/8260C TCLP/ZHE Full	11/05/19 10:08	5	5					Vapor Carbon-T125-110119	ppb	<2
A9K0048-01	A	1311/8260C TCLP/ZHE VOC	11/05/19 10:08	5	5					Vapor Carbon-T125-110119	Added for BatchQC in: 9110460	<2
9110460-MS1		QC	11/05/19 10:08	5	5	A19K007	A9K0048-01	250				<2

*pH <2 verified NA

Standards/Reagents

Reagent(s)			Analyte Spike(s)			Surrogate(s)		
Std ID	Exp. Date	Description	Std ID	Exp. Date	Description	Std ID	Exp. Date	Description
			A19K007	11/09/19	8260 Cal. Std. B VOCR+OXY Spike (20-40ug/r			

GCMS7

Prepared By: 11/5/19 Date

Reviewed By: 11/5/19 Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9K05032**	Instrument:	**VOA-GCMS7**
Date:	**11/05/19 08:33**	Calibration:	**A9J2806**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K05032-IBL1	Water	QC	QC			A19F381	
2	9K05032-IBL2	Water	QC	QC			A19F381	
3	9K05032-TUN1	Water	QC	QC			A19F381	
4	9K05032-CCV1	Water	QC	QC			A19F381	
5	9110460-BS1	Water	QC	QC		9110460	A19F381	
6	9110460-BLK1	Water	QC	QC		9110460	A19F381	
7	A9K0045-01	Water	1311/8260C TCLP/ZHE VOC Reg List		11/08/19	9110460	A19F381	
"	"	Water	1311/8260C TCLP/ZHE Full List VOAs	(QC Source)		9110460	A19F381	
8	9110460-DUP1	Water	QC	QC		9110460	A19F381	
9	A9K0046-01	Water	1311/8260C TCLP/ZHE VOC Reg List		11/08/19	9110460	A19F381	
10	A9J0954-01	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/07/19	9110460	A19F381	
11	A9J0954-02	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/07/19	9110460	A19F381	
12	A9J1007-01	Water	1311/8260C TCLP/ZHE VOC Reg List	Anchor QEA, LLC	11/11/19	9110460	A19F381	
13	9K05032-IBL3	Water	QC	QC			A19F381	
14	A9K0048-01	Water	1311/8260C TCLP/ZHE Full List VOAs		11/08/19	9110460	A19F381	
"	"	Water	1311/8260C TCLP/ZHE VOC Reg List	(QC Source)		9110460	A19F381	
15	9110460-MS1	Water	QC	QC		9110460	A19F381	
16	9K05032-IBL4	Water	QC	QC			A19F381	

Data Entered By: 11/5/19

Data Reviewed By: 11/5/19

Comments:

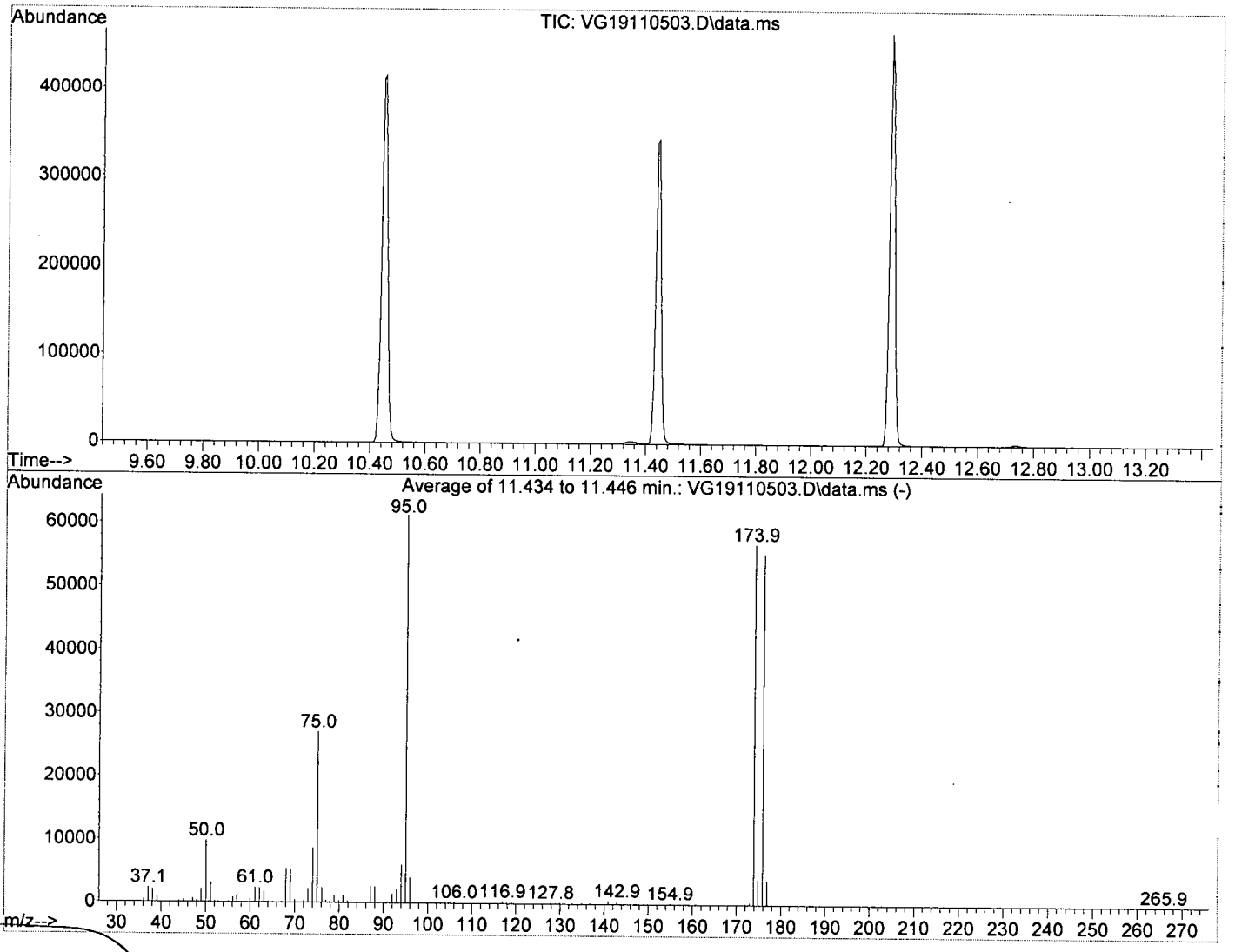
BFB

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110503.D
Acq On : 5 Nov 2019 9:41 am
Operator : tb
Sample : 9K05032-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 3 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

11/5/19



AutoFind: Scans 1607, 1608, 1609; Background Corrected with Scan 1600

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	107.6	61251	PASS
96	95	5	9	6.7	4100	PASS
173	174	0.00	2	0.6	326	PASS
174	95	50	200	93.0	56933	PASS
175	174	5	9	7.3	4157	PASS
176	174	95	105	97.3	55413	PASS
177	176	5	10	6.9	3797	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110503.D
Acq On : 5 Nov 2019 9:41 am
Operator : tb
Sample : 9K05032-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:45 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

11/5/19

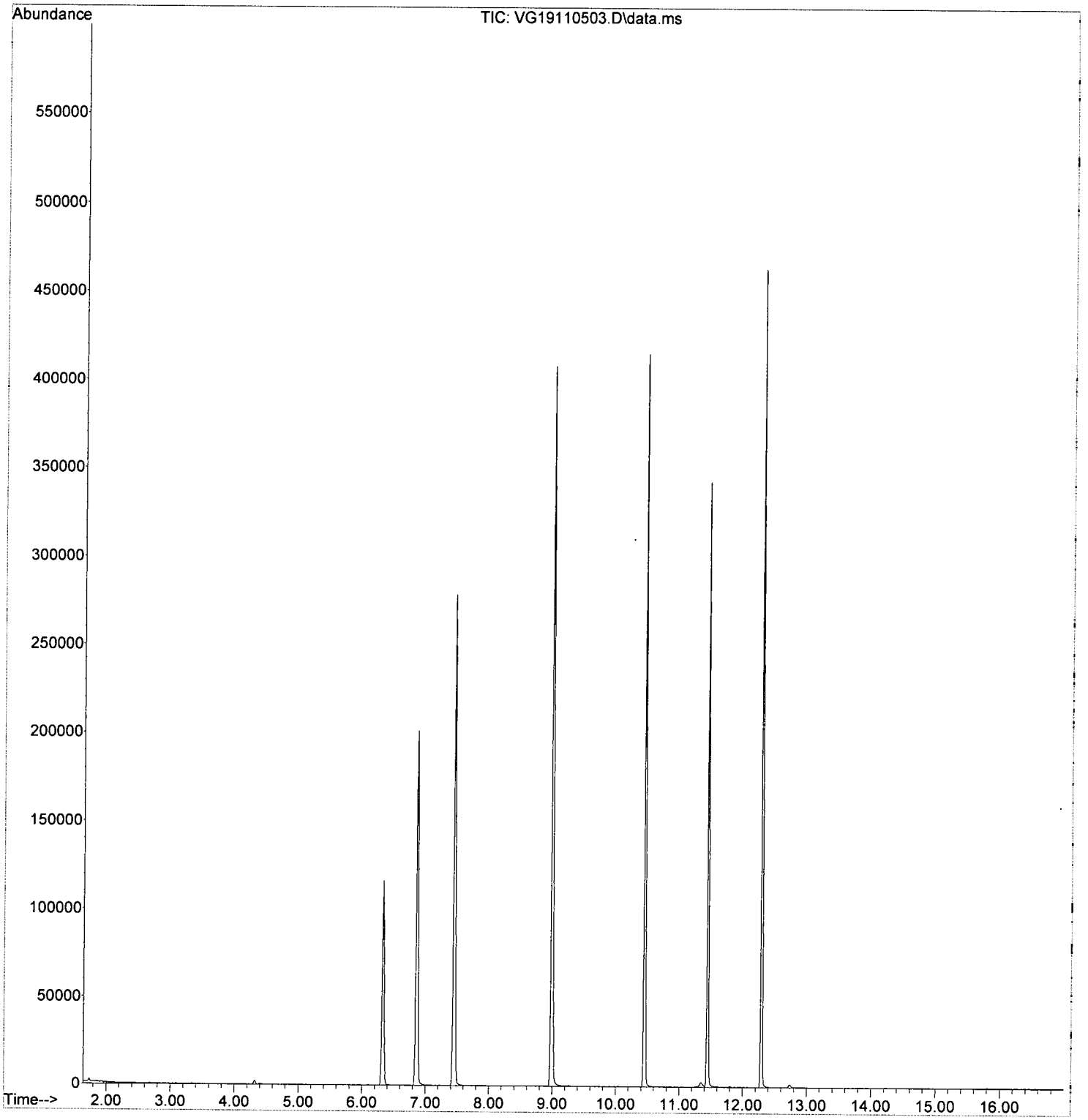
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	75893	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	231395	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	116757	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	79612	49.83	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	267539	51.32	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	~~297~~250	49.27	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	97189	49.29	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.990	50	255	0.15	ug/L		81
6) Chloroethane	2.771	64	10	Below Cal		#	47
14) Methylene Chloride	4.319	84	1204	Below Cal			92
15) Acetone	4.398	43	959	1.21	ug/L		99
19) tert-Butanol (TBA)	4.831	59	332	1.11	ug/L	#	100
87) Naphthalene	14.201	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\2019-11\9K05032\
Data File : VG19110503.D
Acq On : 5 Nov 2019 9:41 am
Operator : tb
Sample : 9K05032-TUN1
Misc : A19F381 BFB (IS/SURR)
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:45 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



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110504.D
Acq On : 5 Nov 2019 10:08 am
Operator : tb
Sample : 9110460-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K007
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:48 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

11/5/19

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

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene (I)	50.000	50.000	0.0	102	0.00
2		Dichlorodifluoromethane	20.000	19.535	2.3	106	0.00
3	P	Chloromethane	20.000	18.287	8.6	100	0.00
4	C	Vinyl Chloride	20.000	20.514	-2.6	104	0.00
5		Bromomethane	20.000	20.025	-0.1	109	0.00
6		Chloroethane	20.000	22.417	-12.1	117	0.00
7		Trichlorofluoromethane	20.000	22.330	-11.6	112	0.00
8		Ethanol	1250.000	1058.038	15.4	82	0.00
9	C	1,1-Dichloroethene	20.000	21.378	-6.9	108	0.00
10		Carbon Disulfide	20.000	20.519	-2.6	107	0.00
11		Freon 113	20.000	21.641	-8.2	110	0.00
12		Iodomethane	20.000	16.366	18.2	92	0.00
13		Acrolein	20.000	19.307	3.5	100	0.00
14		Methylene Chloride	20.000	21.323	-6.6	104	0.00
15		Acetone	40.000	36.834	7.9	95	0.00
16		t-1,2-Dichloroethene	20.000	21.600	-8.0	106	0.00
17		n-Hexane	20.000	23.925	-19.6	122	0.00
18		Methyl-tert-butyl-ether	20.000	22.687	-13.4	106	0.00
19		tert-Butanol (TBA)	1250.000	1230.041	1.6	88	0.00
20		Diisopropyl ether (DIPE)	5.000	4.673	6.5	85	0.00
21	P	1,1-Dichloroethane	20.000	20.528	-2.6	104	0.00
22		Acrylonitrile	20.000	20.116	-0.6	94	0.00
23		Vinyl Acetate	20.000	18.878	5.6	97	0.00
24		Ethyl-tert-butyl ether (ETB	5.000	5.085	-1.7	90	0.00
25		c-1,2-Dichloroethene	20.000	21.423	-7.1	104	0.00
26		2,2-Dichloropropane	20.000	26.227	-31.1#	130	0.00 -Q56
27		Bromochloromethane	20.000	20.210	-1.1	100	0.00
28	C	Chloroform	20.000	21.280	-6.4	105	0.00
29		Carbon Tetrachloride	20.000	23.800	-19.0	109	0.00
30		Tetrahydrofuran	20.000	19.879	0.6	93	0.00
31		1,1,1-Trichloroethane	20.000	22.786	-13.9	112	0.00
32	S	Dibromofluoromethane (S)	50.000	48.794	2.4	101	0.00
33		1,1-Dichloropropene	20.000	24.014	-20.1#	107	0.00
34		2-Butanone (MEK)	40.000	40.209	-0.5	93	0.00
35		Benzene	20.000	21.316	-6.6	104	0.00
36		tert-Amyl methyl ether (TAM	5.000	4.640	7.2	92	0.00
37		1,2-Dichloroethane (EDC)	20.000	20.617	-3.1	103	0.00
38		iso-Butyl Alcohol	500.000	476.297	4.7	93	0.00
39	S	1,4-Difluorobenzene (S)	50.000	48.459	3.1	101	0.00
40		Trichloroethene (TCE)	20.000	20.725	-3.6	109	0.00
41		tert-Amyl ethyl ether (TAEE	5.000	4.983	0.3	94	0.00
42		Dibromomethane	20.000	20.990	-4.9	101	0.00
43	C	1,2-Dichloropropane	20.000	20.326	-1.6	100	0.00
44		Bromodichloromethane	20.000	21.307	-6.5	103	0.00
45		Chlorobenzene-d5 (I)	50.000	50.000	0.0	101	0.00
46		2-Chloroethyl Vinyl Ether	20.000	18.715	6.4	97	0.00
47		c-1,3-Dichloropropene	20.000	21.445	-7.2	103	0.00
48	S	Toluene-d8 (S)	50.000	49.269	1.5	100	0.00
49	C	Toluene	20.000	20.468	-2.3	106	0.00
50		Tetrachloroethene (PCE)	20.000	22.420	-12.1	113	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110504.D
Acq On : 5 Nov 2019 10:08 am
Operator : tb
Sample : 9110460-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K007
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:48 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

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	42.433	-6.1	96	0.00	
52		t-1,3-Dichloropropene	20.000	23.374	-16.9	107	0.00	
53		1,1,2-Trichloroethane	20.000	21.359	-6.8	102	0.00	
54		Dibromochloromethane	20.000	21.001	-5.0	104	0.00	
55		1,3-Dichloropropane	20.000	21.214	-6.1	101	0.00	
56		1,2-Dibromoethane (EDB)	20.000	21.763	-8.8	101	0.00	
57		2-Hexanone	40.000	43.059	-7.6	97	0.00	
58	P	Chlorobenzene	20.000	20.770	-3.8	105	0.00	
59	C	Ethylbenzene	20.000	21.765	-8.8	106	0.00	
60		1,1,1,2-Tetrachloroethane	20.000	22.380	-11.9	106	0.00	
61		m,p-Xylenes (2)	40.000	46.395	-16.0	106	0.00	
62		o-Xylene	20.000	23.808	-19.0	106	0.00	
63		Styrene	20.000	21.782	-8.9	106	0.00	
64	P	Bromoform	20.000	19.669	1.7	101	0.00	
65		Isopropylbenzene	20.000	23.304	-16.5	108	0.00	
66	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	102	0.00	
67	S	4-Bromofluorobenzene (S)	50.000	50.726	-1.5	104	0.00	
68		Bromobenzene	20.000	21.645	-8.2	106	0.00	
69		n-Propylbenzene	20.000	22.040	-10.2	106	0.00	
70	P	1,1,2,2-Tetrachloroethane	20.000	20.690	-3.5	100	0.00	
71		2-Chlorotoluene	20.000	22.668	-13.3	107	0.00	
72		1,3,5-Trimethylbenzene	20.000	23.400	-17.0	106	0.00	
73		1,2,3-Trichloropropane	20.000	20.777	-3.9	104	0.00	
74		t-1,4-Dichloro-2-butene	20.000	21.301	-6.5	106	0.00	
75		4-Chlorotoluene	20.000	22.824	-14.1	106	0.00	
76		tert-Butylbenzene	20.000	22.911	-14.6	107	0.00	
77		1,2,4-Trimethylbenzene	20.000	23.082	-15.4	105	0.00	
78		sec-Butylbenzene	20.000	22.688	-13.4	106	0.00	
79		4-Isopropyltoluene	20.000	22.904	-14.5	107	0.00	
80		1,3-Dichlorobenzene	20.000	22.299	-11.5	108	0.00	
81		1,4-Dichlorobenzene	20.000	20.117	-0.6	108	0.00	
82		n-Butylbenzene	20.000	23.937	-19.7	106	0.00	
83		1,2-Dichlorobenzene	20.000	22.070	-10.4	106	0.00	
84		1,2-Dibromo-3-Chloropropane	20.000	20.939	-4.7	106	0.00	
85		Hexachlorobutadiene	20.000	23.716	-18.6	110	0.00	
86		1,2,4-Trichlorobenzene	20.000	24.086	-20.4#	109	0.00	-QSL OKM 11/5/19
87		Naphthalene	20.000	21.463	-7.3	105	0.00	
88		1,2,3-Trichlorobenzene	20.000	24.246	-21.2#	107	0.00	-QSL

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110504.D
Acq On : 5 Nov 2019 10:08 am
Operator : tb
Sample : 9110460-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K007
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:48 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

11/5/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.855	99	88234	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	255971	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	130913	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	90631	48.79	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	293730	48.46	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	328805	49.27	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	112138	50.73	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.728	85	28906	19.53	ug/L		96
3) Chloromethane	1.984	50	36748	18.29	ug/L		99
4) Vinyl Chloride	2.112	62	35192	20.51	ug/L		95
5) Bromomethane	2.551	96	18275	20.02	ug/L		97
6) Chloroethane	2.722	64	9452	22.42	ug/L		91
7) Trichlorofluoromethane	2.917	101	41336	22.33	ug/L		97
8) Ethanol	3.636	45	48964	1058.04	ug/L		82
9) 1,1-Dichloroethene	3.582	61	43924	21.38	ug/L		97
10) Carbon Disulfide	3.582	76	63974	20.52	ug/L		98
11) Freon 113	3.661	101	36444	21.64	ug/L		97
12) Iodomethane	3.746	142	10809	16.37	ug/L		95
13) Acrolein	4.033	56	8761	19.31	ug/L		98
14) Methylene Chloride	4.319	84	35672	21.32	ug/L		91
15) Acetone	4.398	43	33881	36.83	ug/L		98
16) t-1,2-Dichloroethene	4.502	61	45967	21.60	ug/L		94
17) n-Hexane	4.600	86	5768	23.92	ug/L	#	64
18) Methyl-tert-butyl-ether	4.661	73	91052	22.69	ug/L		94
19) tert-Butanol (TBA)	4.819	59	428367	1230.04	ug/L	#	89
20) Diisopropyl ether (DIPE)	5.106	45	20572	4.67	ug/L		97
21) 1,1-Dichloroethane	5.215	63	59547	20.53	ug/L		98
22) Acrylonitrile	5.282	53	19787	20.12	ug/L		97
23) Vinyl Acetate	5.526	43	59457	18.88	ug/L		99
24) Ethyl-tert-butyl ether...	5.514	59	19272	5.09	ug/L		97
25) c-1,2-Dichloroethene	5.819	61	46352	21.42	ug/L		93
26) 2,2-Dichloropropane	5.929	77	34548	26.23	ug/L		77
27) Bromochloromethane	6.032	49	27664	20.21	ug/L		82
28) Chloroform	6.130	83	62088	21.28	ug/L		95
29) Carbon Tetrachloride	6.258	117	38196	23.80	ug/L		95
30) Tetrahydrofuran	6.300	42	16958	19.88	ug/L		93
31) 1,1,1-Trichloroethane	6.337	97	49999	22.79	ug/L		97
33) 1,1-Dichloropropene	6.477	75	47346	24.01	ug/L		97
34) 2-Butanone (MEK)	6.471	43	52341	40.21	ug/L		96
35) Benzene	6.746	78	145525	21.32	ug/L		99
36) tert-Amyl methyl ether...	6.892	73	18131	4.64	ug/L		85
37) 1,2-Dichloroethane (EDC)	6.977	62	48042	20.62	ug/L		99
38) iso-Butyl Alcohol	7.038	43	69606	476.30	ug/L		91
40) Trichloroethene (TCE)	7.404	130	41325	20.73	ug/L		98
41) tert-Amyl ethyl ether ...	7.684	59	12518	4.98	ug/L		96
42) Dibromomethane	7.879	93	24181	20.99	ug/L		92
43) 1,2-Dichloropropane	7.989	63	35217	20.33	ug/L		100
44) Bromodichloromethane	8.075	83	40163	21.31	ug/L		94
46) 2-Chloroethyl Vinyl Ether	8.733	63	19701	18.72	ug/L	#	1
47) c-1,3-Dichloropropene	8.794	75	46320	21.44	ug/L		95

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110504.D
Acq On : 5 Nov 2019 10:08 am
Operator : tb
Sample : 9110460-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K007
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:48 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

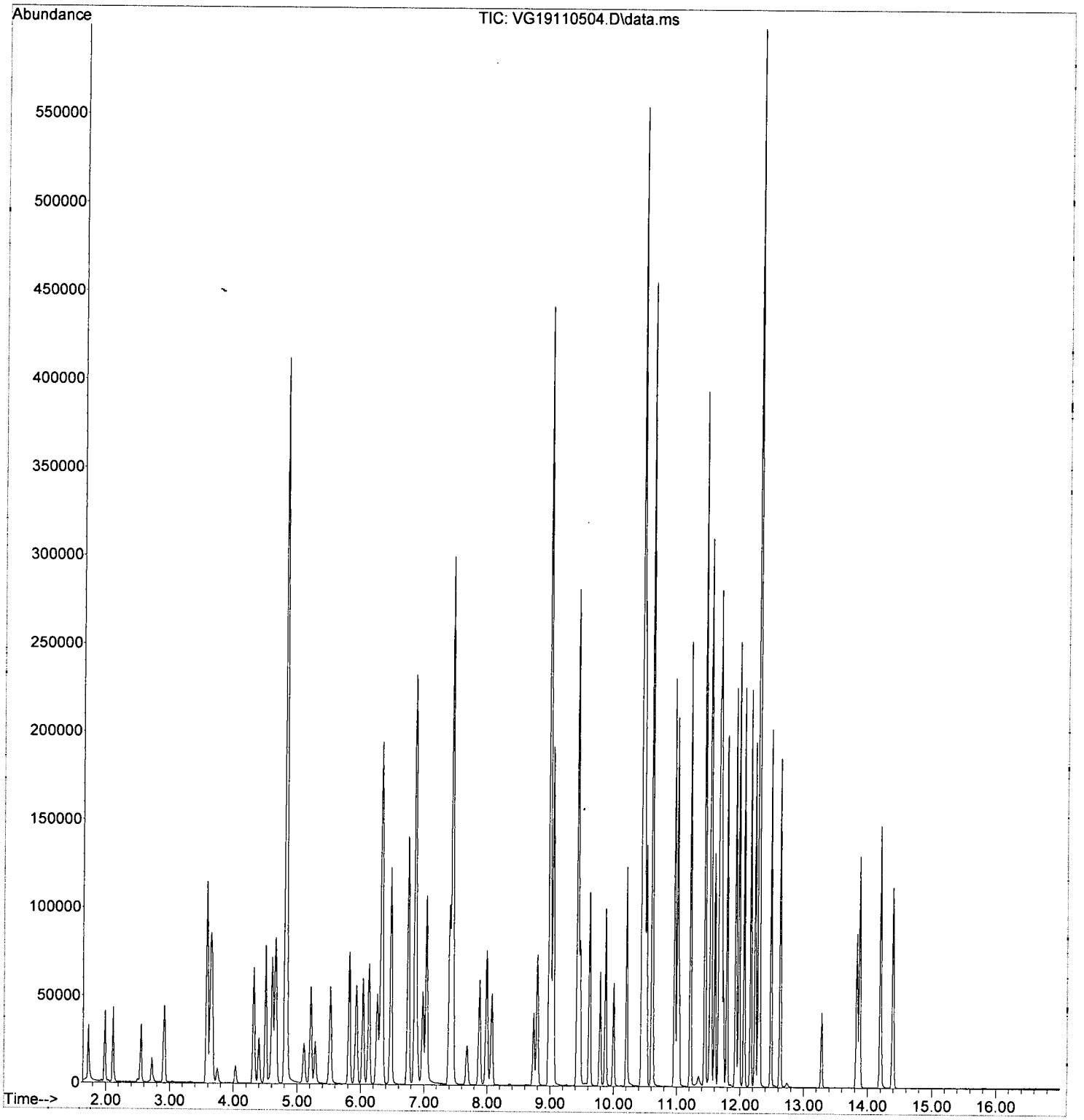
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.038	91	156842	20.47	ug/L		100
50) Tetrachloroethene (PCE)	9.428	166	45592	22.42	ug/L		95
51) 4-Methyl-2-Pentanone (...	9.434	43	94198	42.43	ug/L		92
52) t-1,3-Dichloropropene	9.471	75	40473	23.37	ug/L		98
53) 1,1,2-Trichloroethane	9.623	97	37737	21.36	ug/L		95
54) Dibromochloromethane	9.788	129	35046	21.00	ug/L		99
55) 1,3-Dichloropropane	9.873	76	57935	21.21	ug/L		97
56) 1,2-Dibromoethane (EDB)	10.001	107	38720	21.76	ug/L		96
57) 2-Hexanone	10.208	43	69769	43.06	ug/L		97
58) Chlorobenzene	10.464	112	103707	20.77	ug/L		96
59) Ethylbenzene	10.483	91	159481	21.77	ug/L		99
60) 1,1,1,2-Tetrachloroethane	10.519	131	33535	22.38	ug/L		96
61) m,p-Xylenes (2)	10.611	91	233808	46.39	ug/L		99
62) o-Xylene	10.964	91	113633	23.81	ug/L		98
63) Styrene	11.007	104	93406	21.78	ug/L		96
64) Bromoform	11.037	173	26622	19.67	ug/L		98
65) Isopropylbenzene	11.214	105	142674	23.30	ug/L		99
68) Bromobenzene	11.525	156	46575	21.65	ug/L		98
69) n-Propylbenzene	11.537	91	158482	22.04	ug/L		99
70) 1,1,2,2-Tetrachloroethane	11.598	83	56665	20.69	ug/L		97
71) 2-Chlorotoluene	11.665	126	37097	22.67	ug/L		90
72) 1,3,5-Trimethylbenzene	11.684	105	118725	23.40	ug/L		94
73) 1,2,3-Trichloropropane	11.702	110	17272	20.78	ug/L		97
74) t-1,4-Dichloro-2-butene	11.732	88	5076	21.30	ug/L	#	83
75) 4-Chlorotoluene	11.793	91	100329	22.82	ug/L		96
76) tert-Butylbenzene	11.927	91	58437	22.91	ug/L		99
77) 1,2,4-Trimethylbenzene	11.982	105	121368	23.08	ug/L		99
78) sec-Butylbenzene	12.062	105	131613	22.69	ug/L		99
79) 4-Isopropyltoluene	12.165	119	111924	22.90	ug/L		98
80) 1,3-Dichlorobenzene	12.232	146	75922	22.30	ug/L		99
81) 1,4-Dichlorobenzene	12.299	146	77271	20.12	ug/L		97
82) n-Butylbenzene	12.482	91	93379	23.94	ug/L		99
83) 1,2-Dichlorobenzene	12.629	146	73747	22.07	ug/L		98
84) 1,2-Dibromo-3-Chloropr...	13.281	157	12675	20.94	ug/L		94
85) Hexachlorobutadiene	13.829	223	12360	23.72	ug/L		99
86) 1,2,4-Trichlorobenzene	13.872	180	47139	24.09	ug/L		96
87) Naphthalene	14.195	128	129726	21.46	ug/L		97
88) 1,2,3-Trichlorobenzene	14.390	180	46439	24.25	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110504.D
Acq On : 5 Nov 2019 10:08 am
Operator : tb
Sample : 9110460-BS1@50
Misc : 50X 1mL/50mL 20/40PPB VOCRO A19K007
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:48 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\2019-11\9K05032\
Data File : VG19110505.D
Acq On : 5 Nov 2019 10:35 am
Operator : tb
Sample : 9110460-BLK1@50
Misc : 50X 1mL/50mL ZHE FLUID 1
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

11/5/19

Quant Time: Nov 05 10:52:51 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)	6.861	99	83010	50.00 ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	248631	50.00 ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	122429	50.00 ug/L		0.00
System Monitoring Compounds						
32) Dibromofluoromethane (S)	6.325	111	87392	50.01 ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	289769	50.81 ug/L		0.00
48) Toluene-d8 (S)	8.989	98	320064	49.37 ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	105216	50.89 ug/L		0.00
Target Compounds						Qvalue
3) Chloromethane	1.984	50	261	0.14 ug/L		72
5) Bromomethane	2.551	96	88	0.10 ug/L	#	7
6) Chloroethane	2.704	64	11	Below Cal	#	47
8) Ethanol	3.642	45	19	0.44 ug/L	#	29
10) Carbon Disulfide	3.588	76	447	0.15 ug/L		78
14) Methylene Chloride	4.319	84	700	Below Cal		88
15) Acetone	4.404	43	807	0.93 ug/L		92
19) tert-Butanol (TBA)	4.825	59	398	1.21 ug/L	#	45
28) Chloroform	6.124	83	434	0.16 ug/L		90
61) m,p-Xylenes (2)	10.617	91	468	0.10 ug/L		90
81) 1,4-Dichlorobenzene	12.299	146	390	0.11 ug/L	#	13
82) n-Butylbenzene	12.494	91	296	0.08 ug/L		90
85) Hexachlorobutadiene	13.829	223	101	0.21 ug/L	#	68
86) 1,2,4-Trichlorobenzene	13.878	180	161	0.09 ug/L		97
87) Naphthalene	14.207	128	330	0.33 ug/L		79
88) 1,2,3-Trichlorobenzene	14.403	180	156	0.09 ug/L		81

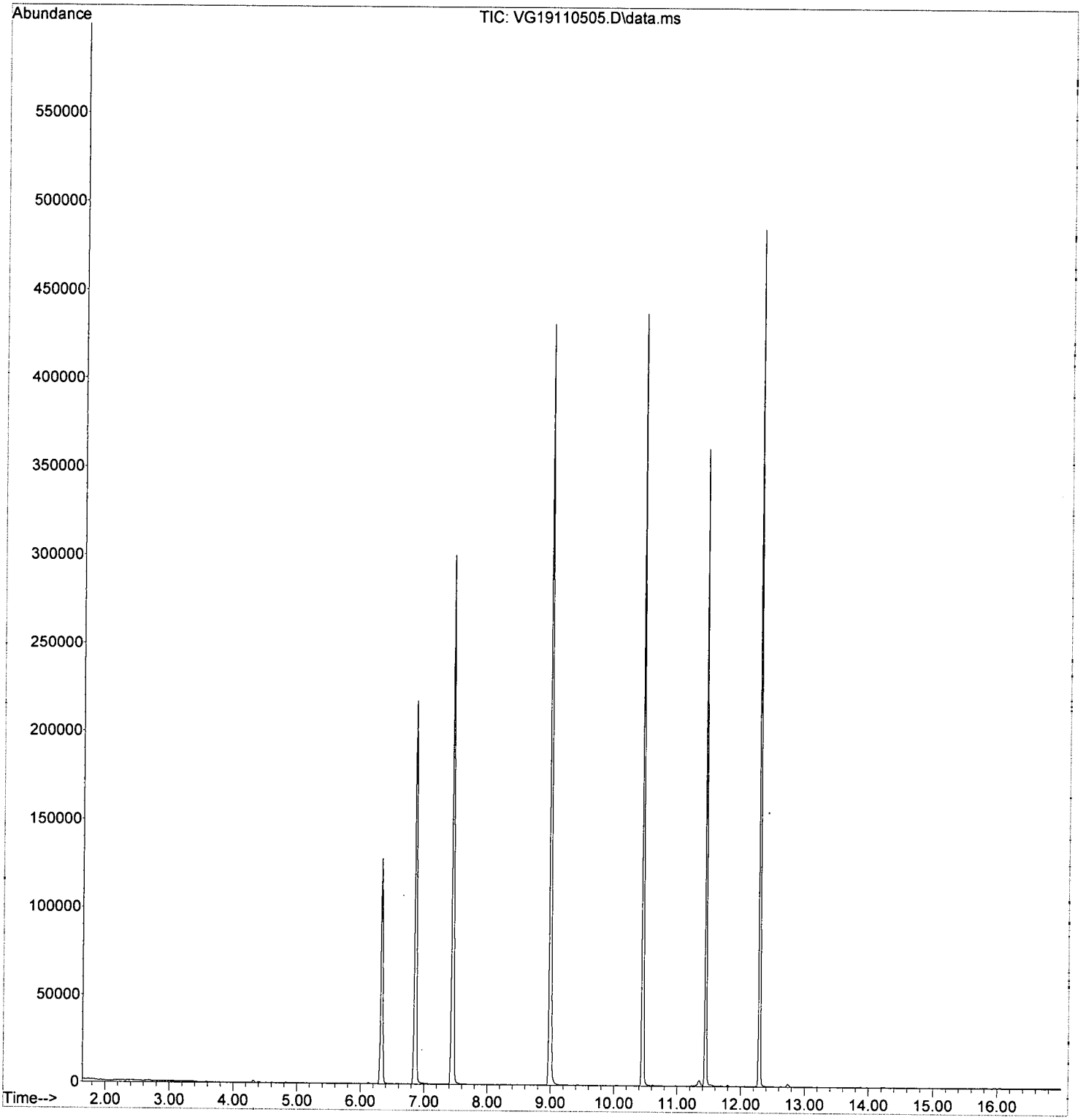
<LMDL

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110505.D
Acq On : 5 Nov 2019 10:35 am
Operator : tb
Sample : 9110460-BLK1@50
Misc : 50X 1mL/50mL ZHE FLUID 1
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 10:52:51 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\2019-11\9K05032\
Data File : VG19110509.D
Acq On : 5 Nov 2019 12:23 pm
Operator : tb
Sample : A9J0954-01
Misc : 50X 1mL/50mL TCLPLIST
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

11/5/19

Quant Time: Nov 05 12:40:50 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	70153	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.446	117	216632	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	110345	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	75448	51.09	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	248186	51.50	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	277396	49.11	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	91789	49.26	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.990	50	167	0.10	ug/L		79
6) Chloroethane	2.722	64	38	Below Cal		#	47
14) Methylene Chloride	4.319	84	1600	0.16	ug/L		95
15) Acetone	4.411	43	700	0.96	ug/L		83
19) tert-Butanol (TBA)	4.825	59	132	0.48	ug/L	#	46
28) Chloroform	6.136	83	289	0.12	ug/L		86
59) Ethylbenzene	10.483	91	6750	1.09	ug/L		94
62) o-Xylene	10.970	91	989	0.24	ug/L		98
63) Styrene	10.976	104	10	0.10	ug/L	#	28
65) Isopropylbenzene	11.214	105	705	0.14	ug/L		95
72) 1,3,5-Trimethylbenzene	11.684	105	1186	0.28	ug/L		96
76) tert-Butylbenzene	11.982	91	344	0.16	ug/L	#	72
77) 1,2,4-Trimethylbenzene	11.982	105	3491	0.79	ug/L		99
87) Naphthalene	14.195	128	552566	101.02	ug/L		98

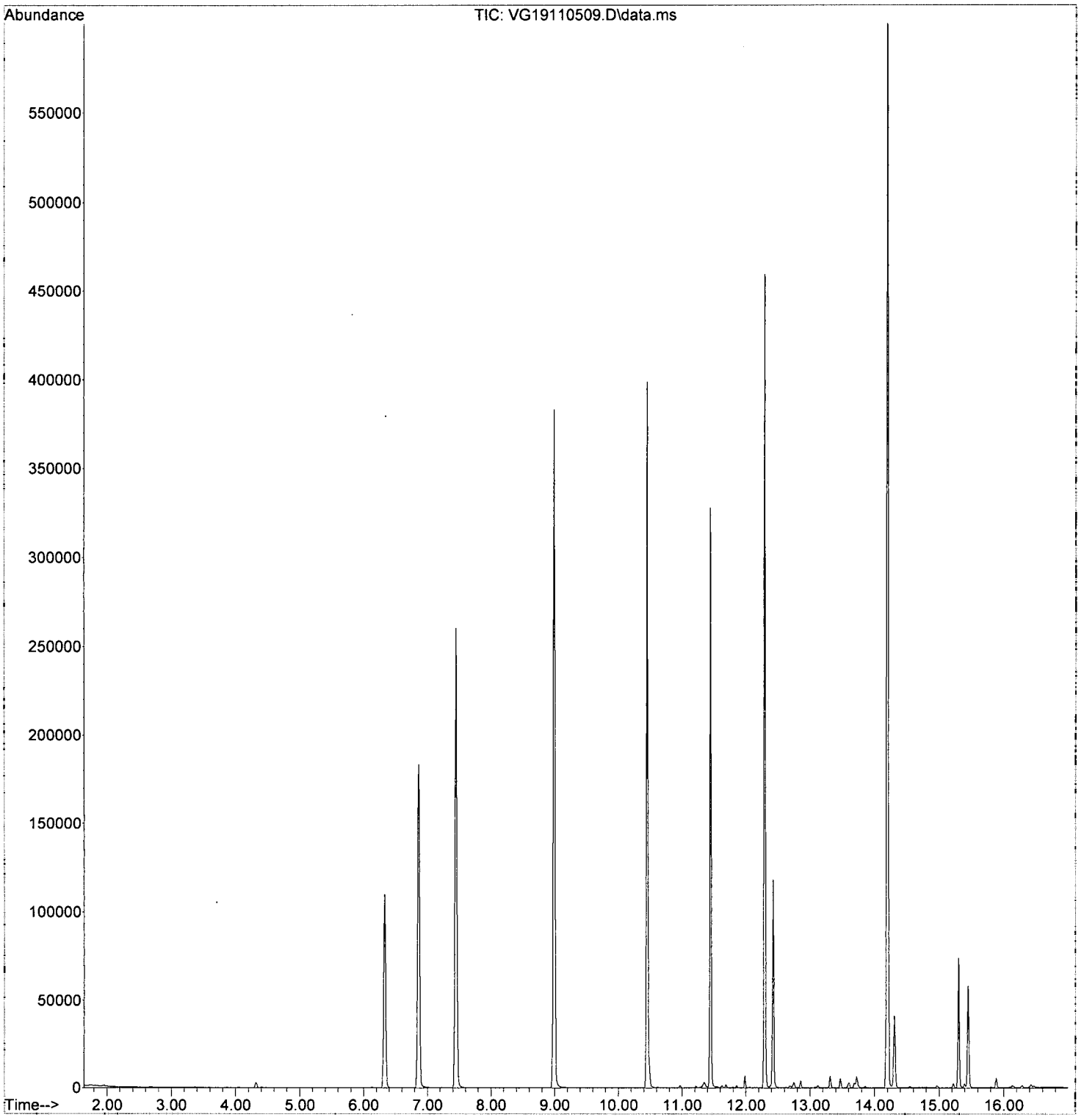
<MDL

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110509.D
Acq On : 5 Nov 2019 12:23 pm
Operator : tb
Sample : A9J0954-01
Misc : 50X 1mL/50mL TCLPLIST
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 12:40:50 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\2019-11\9K05032\
Data File : VG19110510.D
Acq On : 5 Nov 2019 12:50 pm
Operator : tb
Sample : A9J0954-02
Misc : 50X 1mL/50mL TCLPLIST
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 13:18:15 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

11/5/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.855	99	81504	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.446	117	243881	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.287	152	121343	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (S)	6.325	111	86108	50.19	ug/L		0.00
39) 1,4-Difluorobenzene (S)	7.447	114	287136	51.28	ug/L		0.00
48) Toluene-d8 (S)	8.989	98	317069	49.87	ug/L		0.00
67) 4-Bromofluorobenzene (S)	11.446	174	103260	50.39	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.990	50	214	0.12	ug/L		83
6) Chloroethane	2.710	64	39	Below Cal		#	47
14) Methylene Chloride	4.313	84	1555	Below Cal			89
15) Acetone	4.411	43	745	0.88	ug/L		93
19) tert-Butanol (TBA)	4.819	59	172	0.53	ug/L	#	46
28) Chloroform	6.130	83	326	0.12	ug/L		75
87) Naphthalene	14.201	128	3352	0.87	ug/L		98

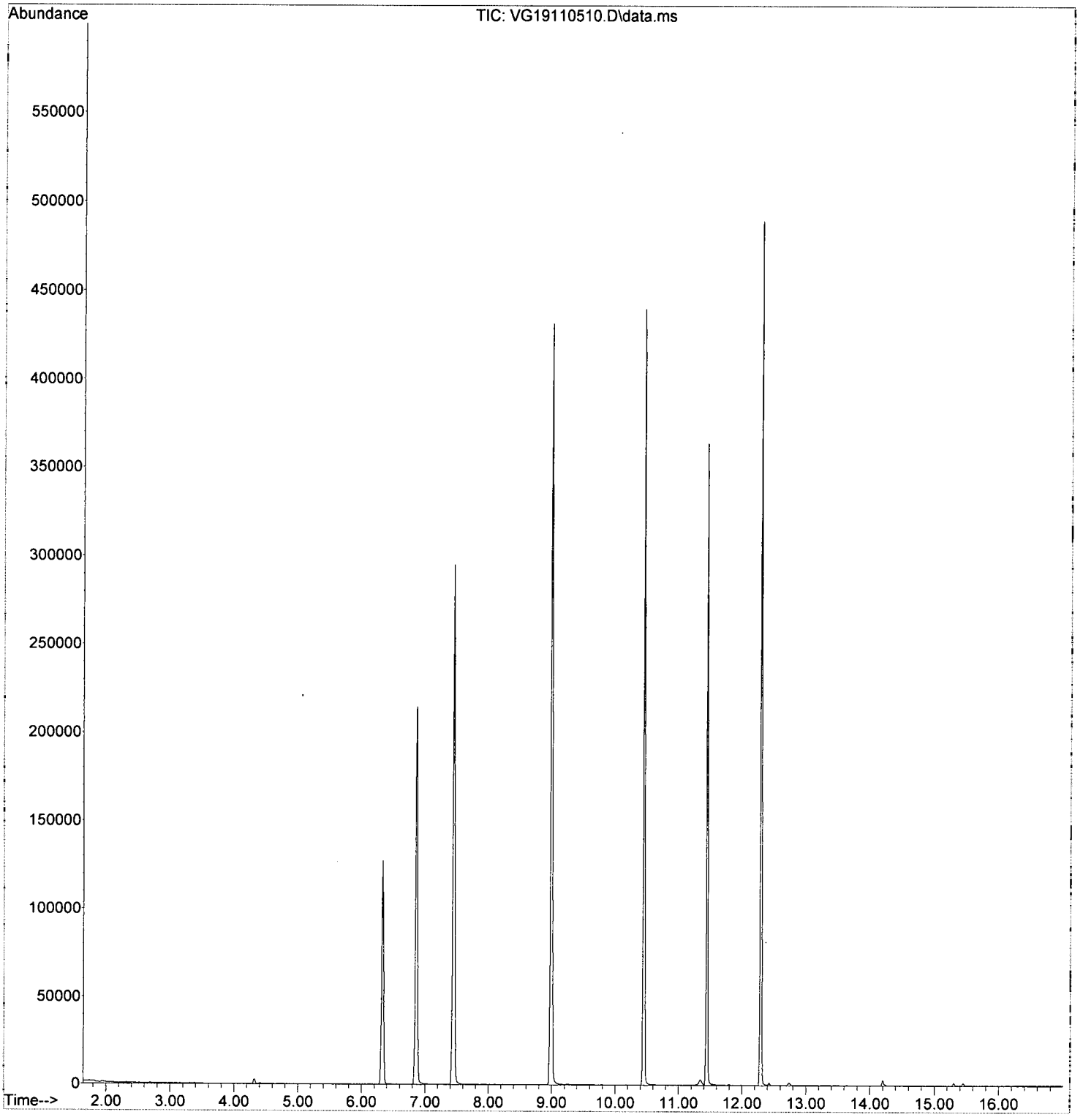
CMC

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K05032\
Data File : VG19110510.D
Acq On : 5 Nov 2019 12:50 pm
Operator : tb
Sample : A9J0954-02
Misc : 50X 1mL/50mL TCLPLIST
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VG1808RUN.M

Quant Time: Nov 05 13:18:15 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



TCLP / SPLP* (circle one) Batch # 9110477/9110478/9110479 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")
A9J0954-01	5	96.5	4.5	NA			1	100	N
A9J0954-02	5	96.5	4.5	NA			1	100	N
A9K0045-01	5	96.5	5	3.5	✓	2	1	54.632	N
A9K0046-01	5	96.5	5.5	3.5	✓	4	1	100	N
A9K0048-01	5	96.5	4.5	NA			1	100	N
A9K0067-01	5	96.5	4.5	NA			1	100	N

**pH<5, FD is done, use fluid #1

Extraction

Weight*20

Sample ID	Tare Weight	Weight 100±0.1	Fluid 2000±1%	Fluid #	Fluid ID	Extract pH (to nearest 0.5)
	(g)	(g)	(g)	("1" or "2")		(s.u.)
9110477-BLK1		50	1000	1	A9K039	4.91
9110478-BLK1		43.15	863	1		↓
9110479-BLK1		50	1000	1		↓
A9J0954-01	1133.3	50.5	1010	1		4.5
A9J0954-02	1150	100.1	2002	1		4.5
A9K0045-01	~~25.6~~ 109.7	43.15	863	1		5
A9K0046-01	110.7	100.1	2002	1		7
A9K0048-01	1181.8	100.6	2012	1		4.5
A9K0067-01	111.6	100	2000	1	↓	5.5

EK 11/5/19

Extraction Start/Stop

	Date	Time	Intl.
START	11/5/19	1645	CRL
STOP	11/6/19	0905	CRL

Stop time window:

RPM 31

Reset Min/Max Temp ☒

	Min Temp	Max Temp
As read:	21.7	23.1
Corr factor:	-0	-0
Actual:	21.7	23.1

Thermometer ID: S/N RC-5-001

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: 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

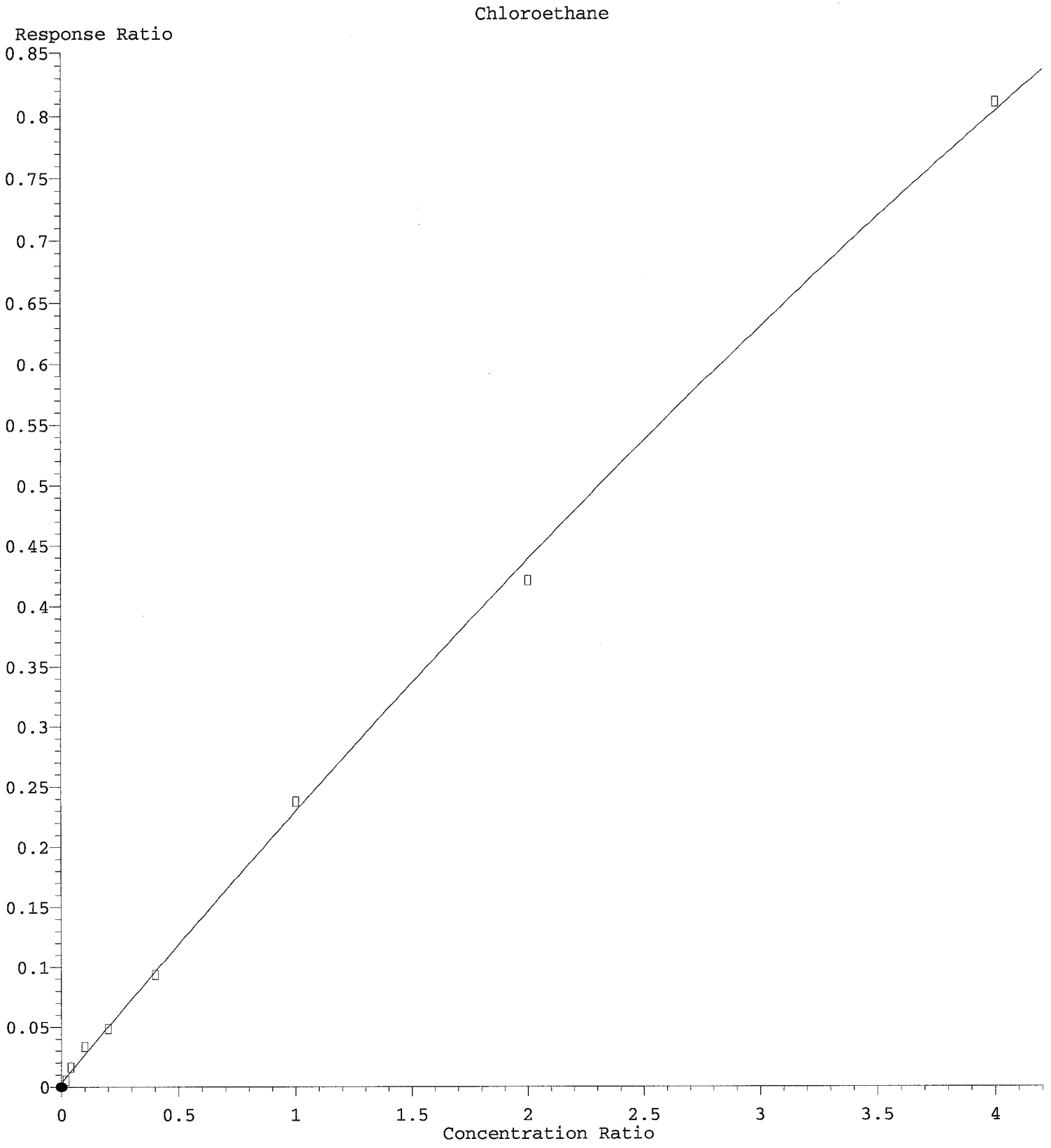
Calibration Files
1 =VG19102514.D 2 =VG19102515.D 3 =VG19102516.D 4 =VG19102517.D 5 =VG19102518.D 6 =VG19102519.D
7 =VG19102520.D 8 =VG19102521.D 9 =VG19102522.D 10 =VG19102524.D 1a =VG19102526.D

		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\
Method File : VG191025W.M
Title : EPA 8260C: Volatile Organic Compounds

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



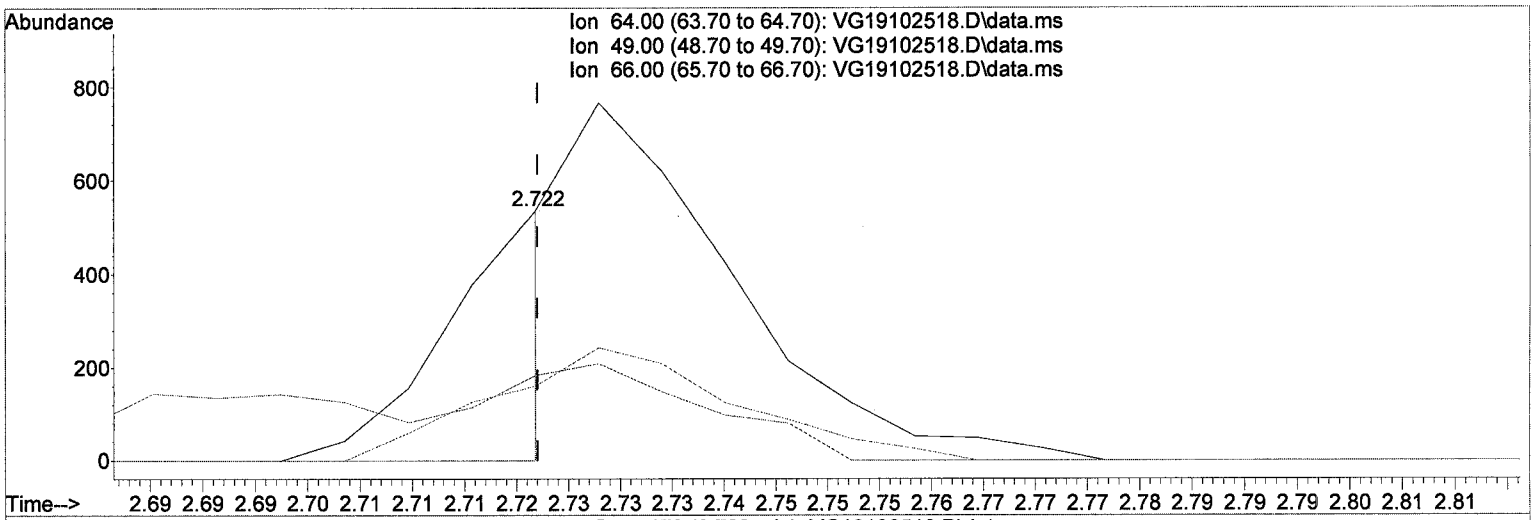
Int = (−)

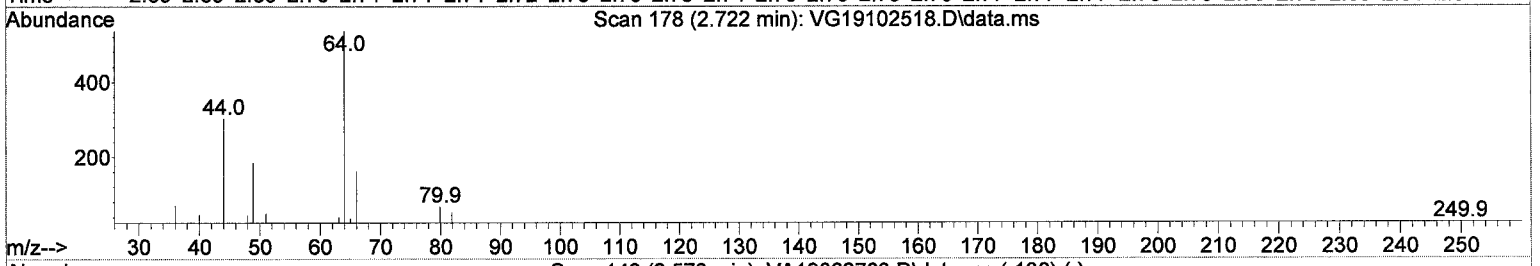
R = -8.88e-003 A*A + 2.35e-001 A + 3.40e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

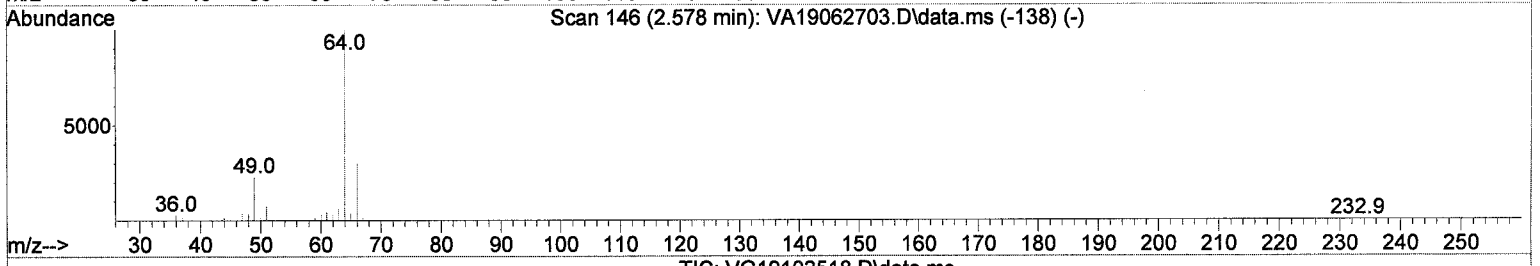
Quantitation Report (Qedit)

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







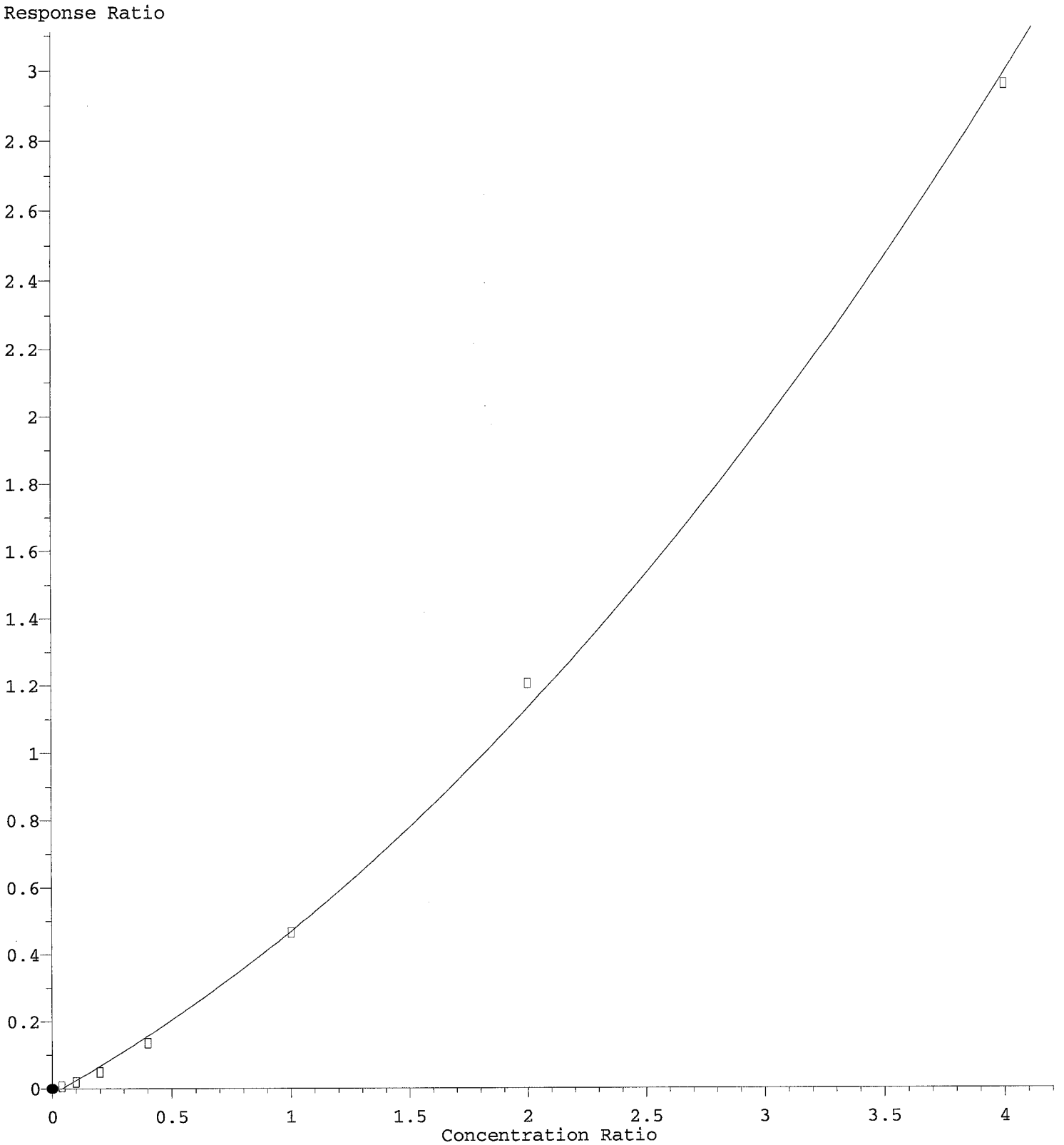
TIC: VG19102518.D\data.ms

(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



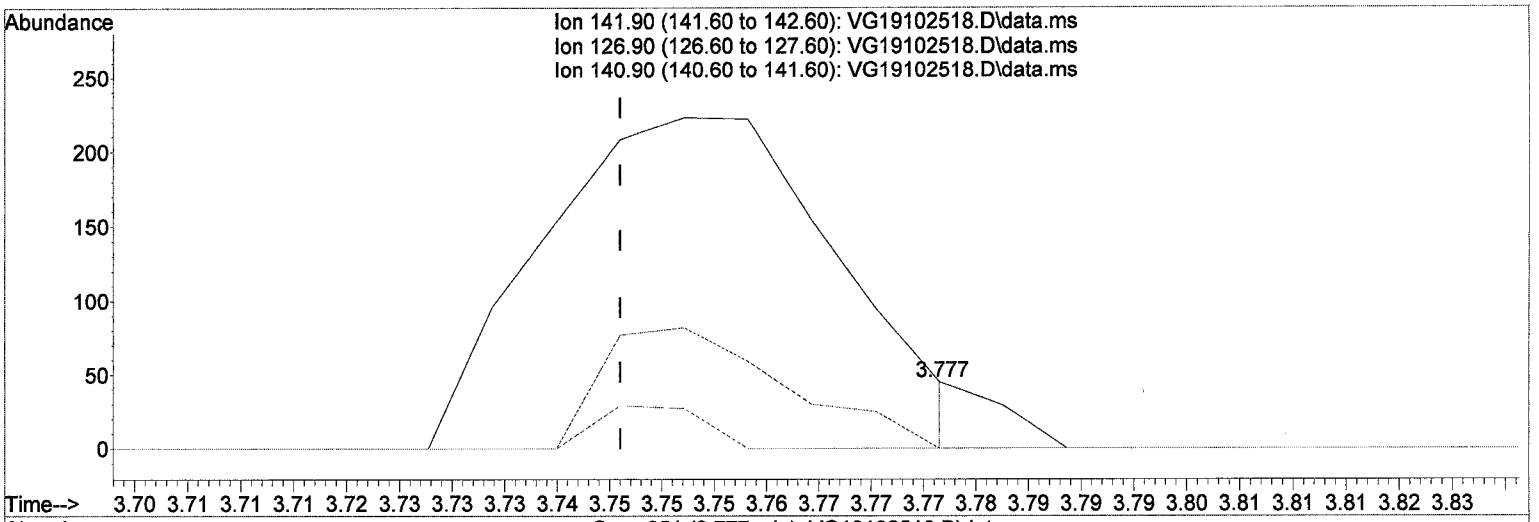
Int = 2.11

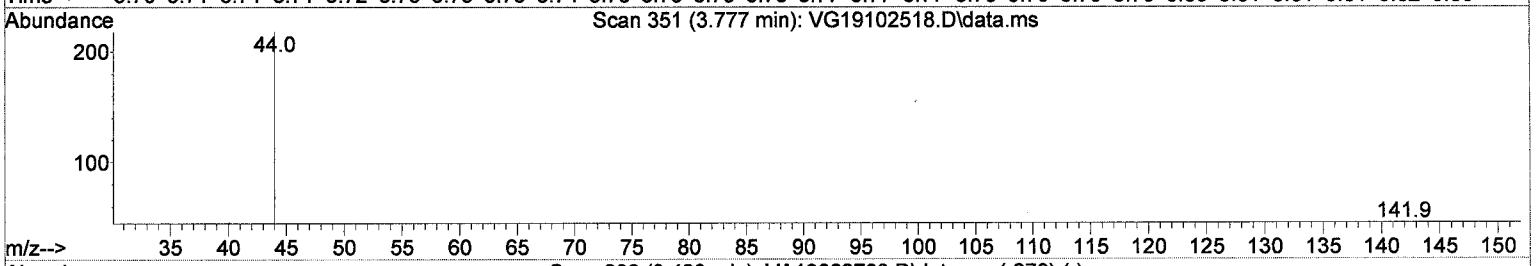
R = 8.93e-002 A*A + 3.96e-001 A - 1.67e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

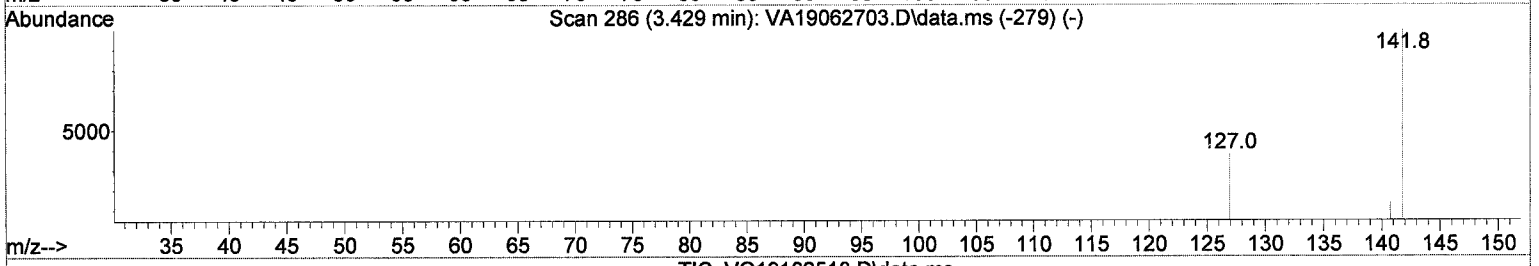
Quantitation Report (Qedit)

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







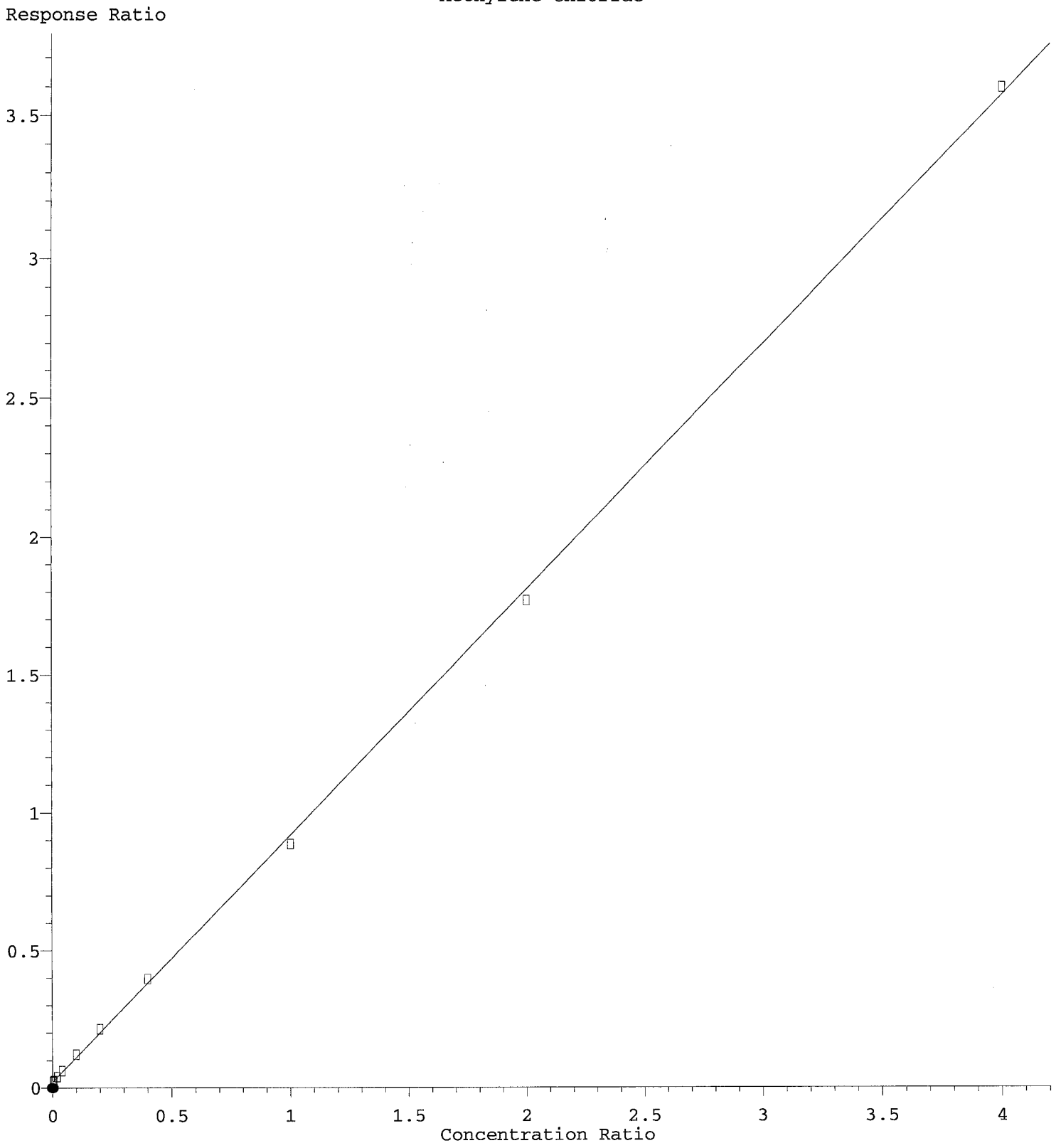
TIC: VG19102518.D\data.ms

(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



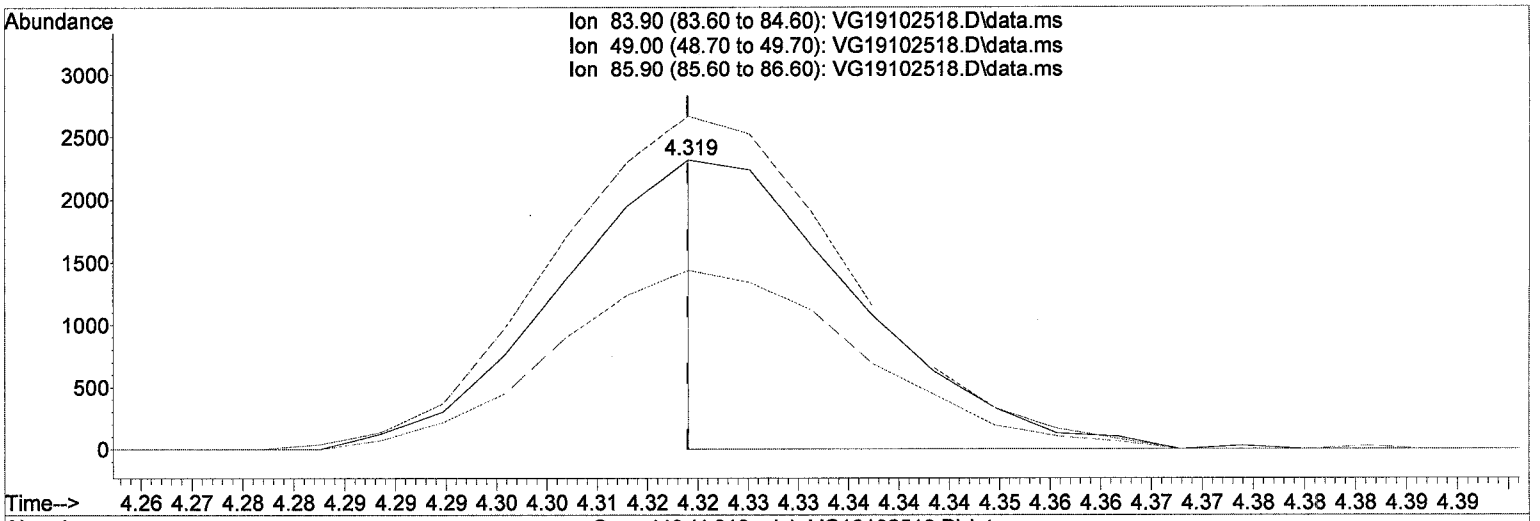
Int = (—)
0.52

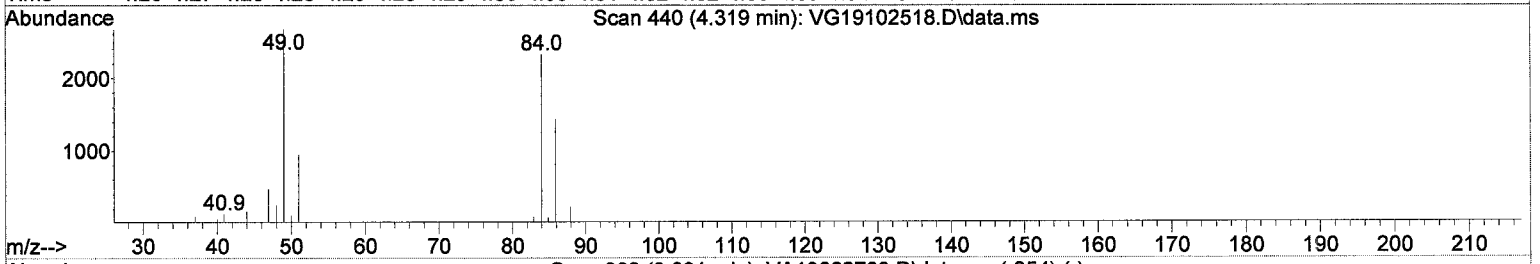
R = -3.40e-003 A*A + 9.03e-001 A + 2.00e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

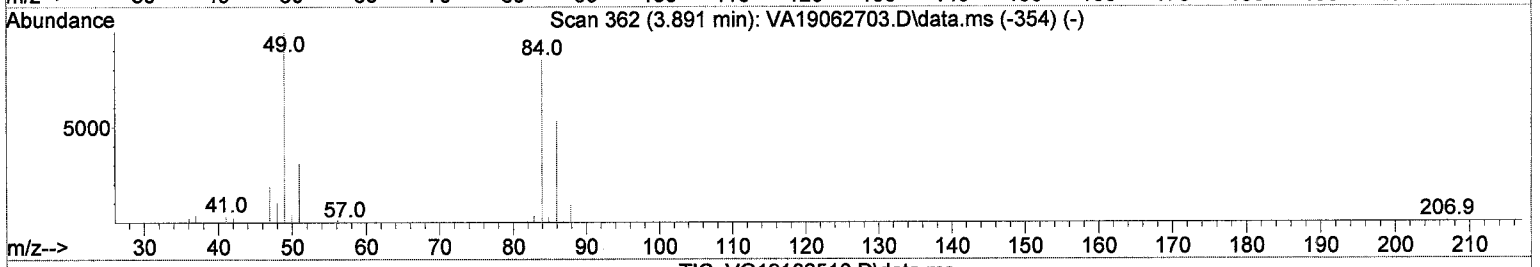
Quantitation Report (Qedit)

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







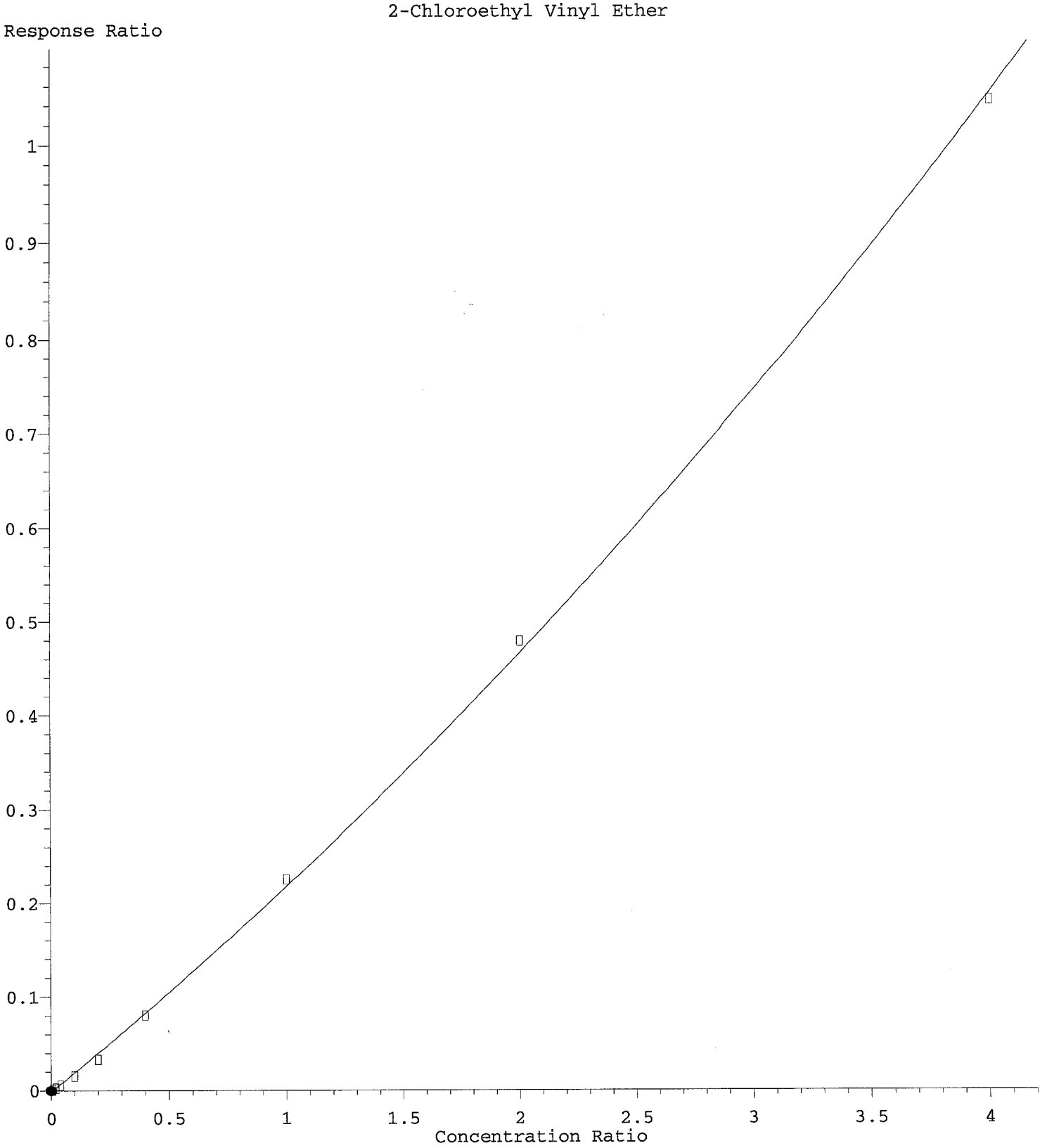
TIC: VG19102518.D\data.ms

(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



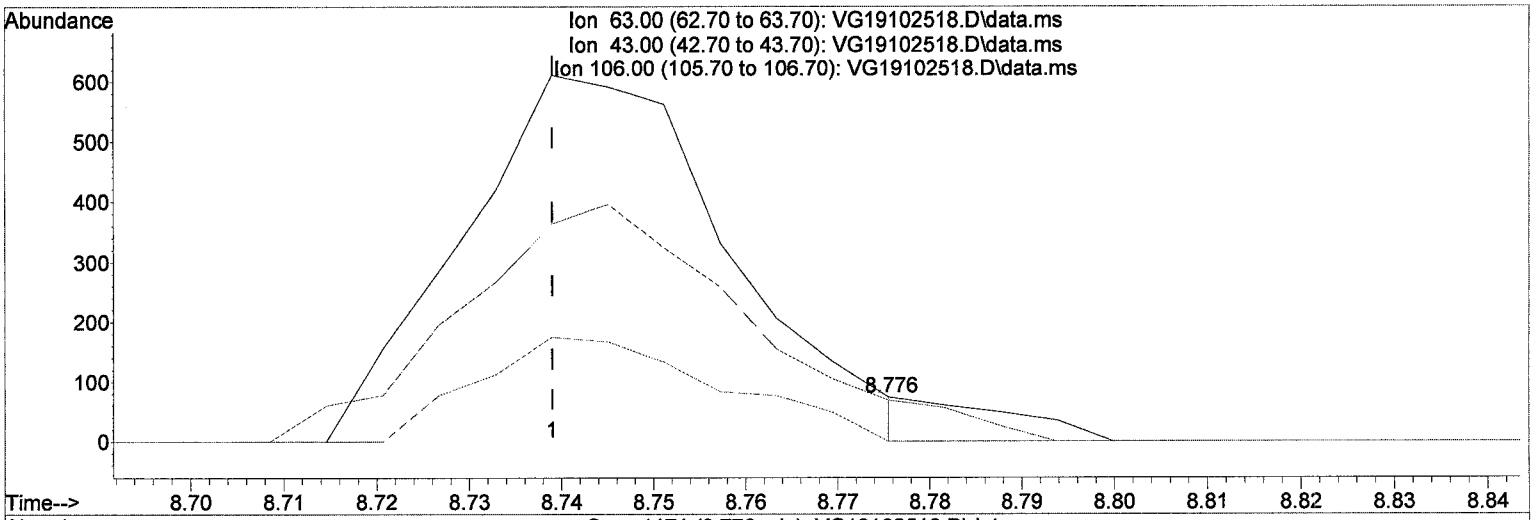
Int = 0.47

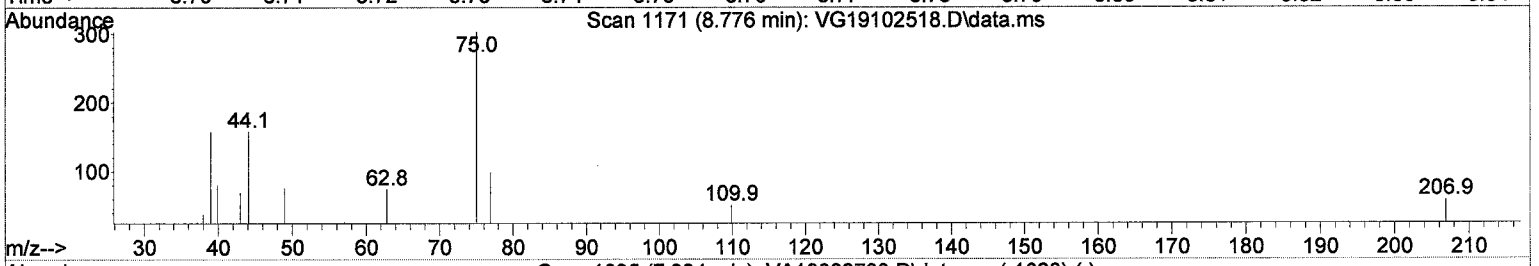
R = 1.48e-002 A*A + 2.05e-001 A - 1.70e-003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M

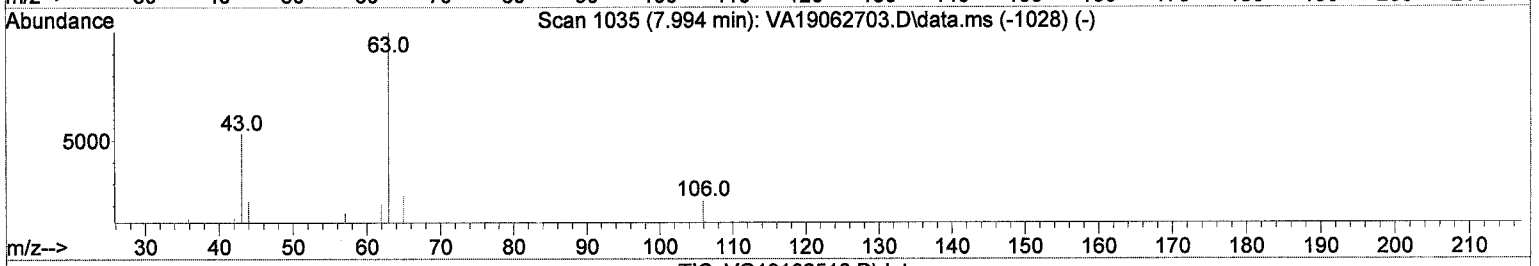
Quantitation Report (Qedit)

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







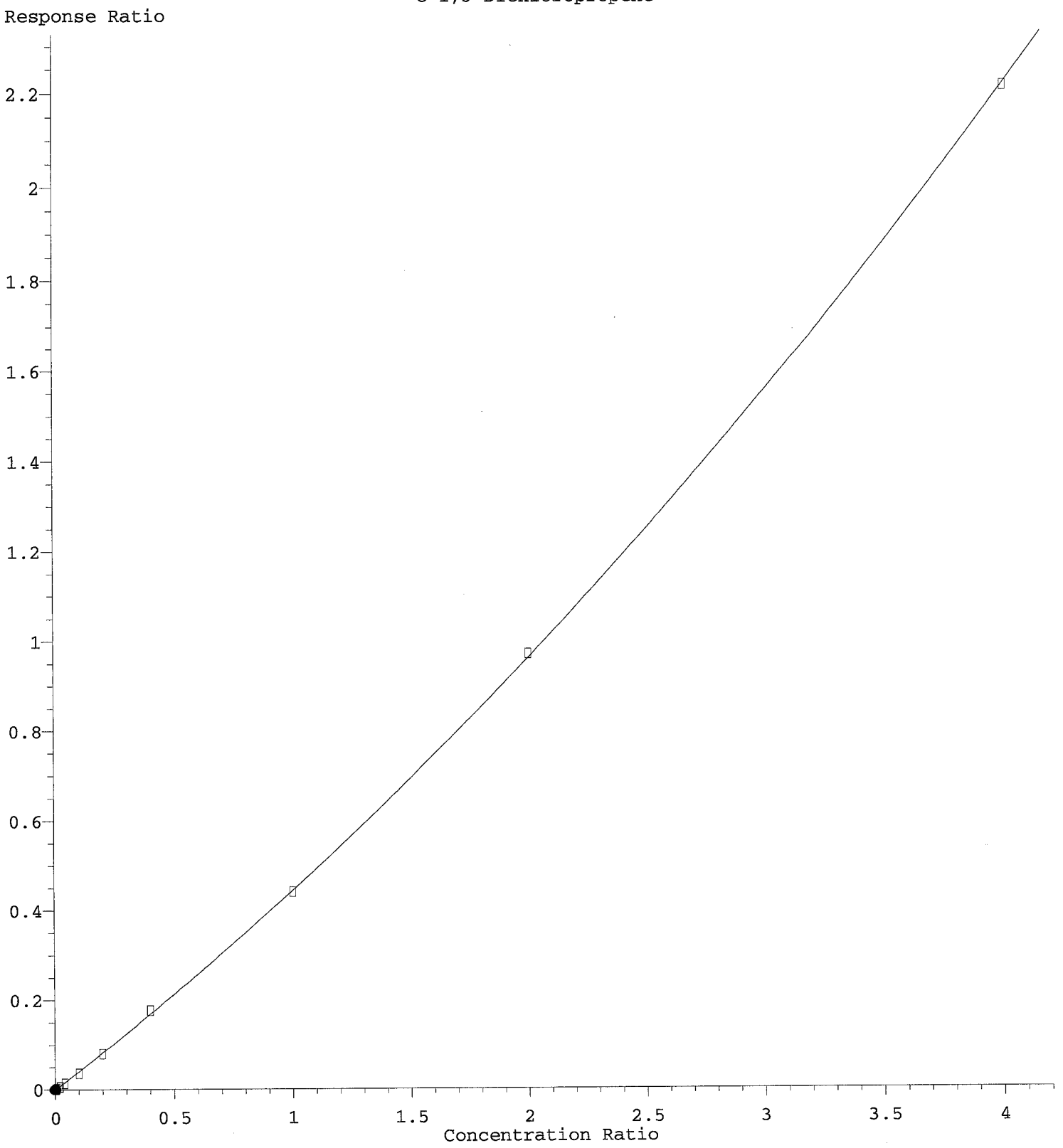
TIC: VG19102518.D\data.ms

(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



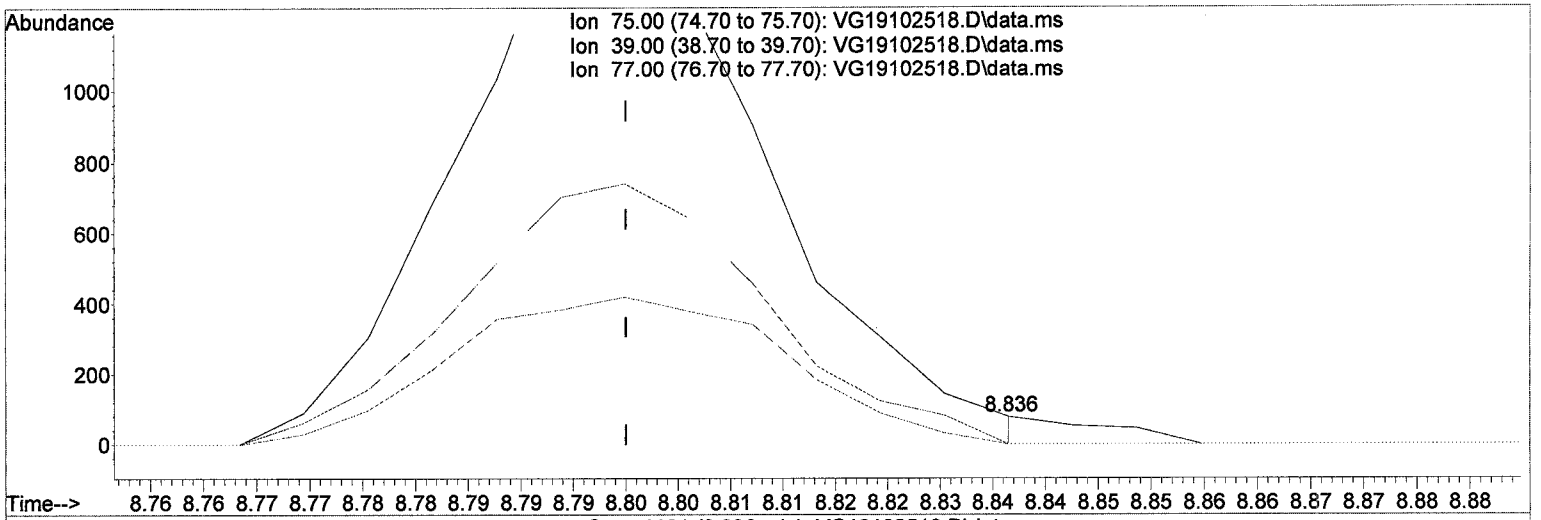
Int = 0.11

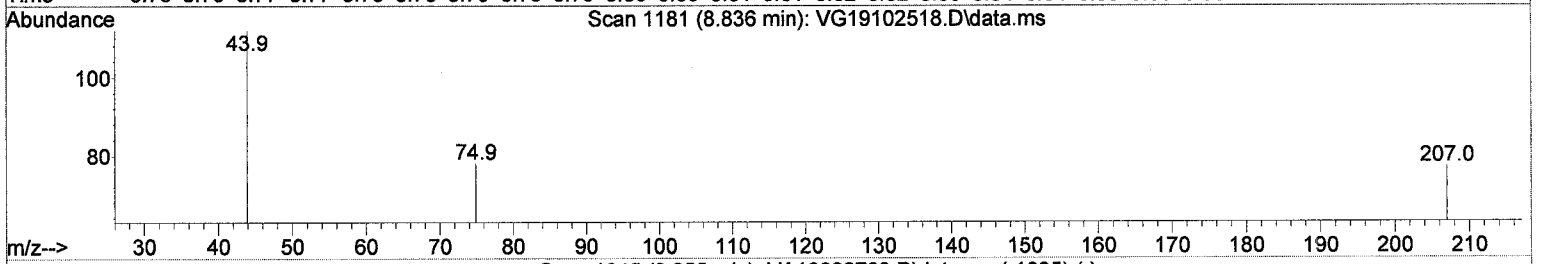
R = 3.67e-002 A*A + 4.08e-001 A - 7.59e-004
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

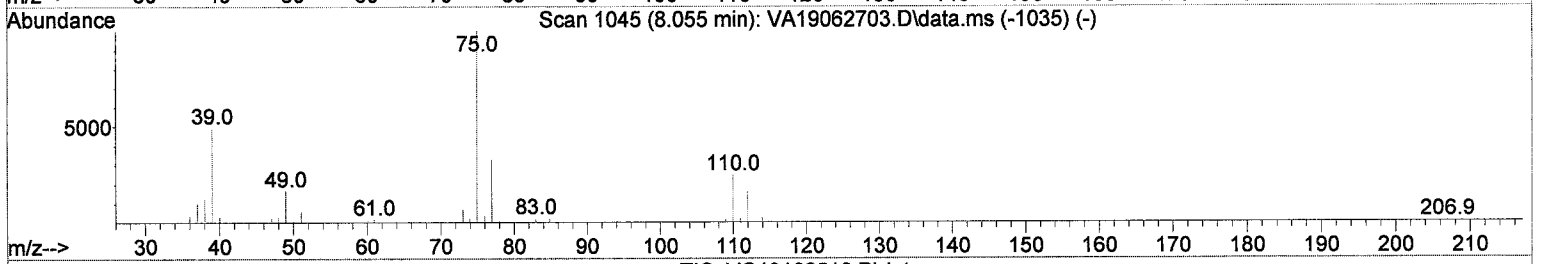
Quantitation Report (Qedit)

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







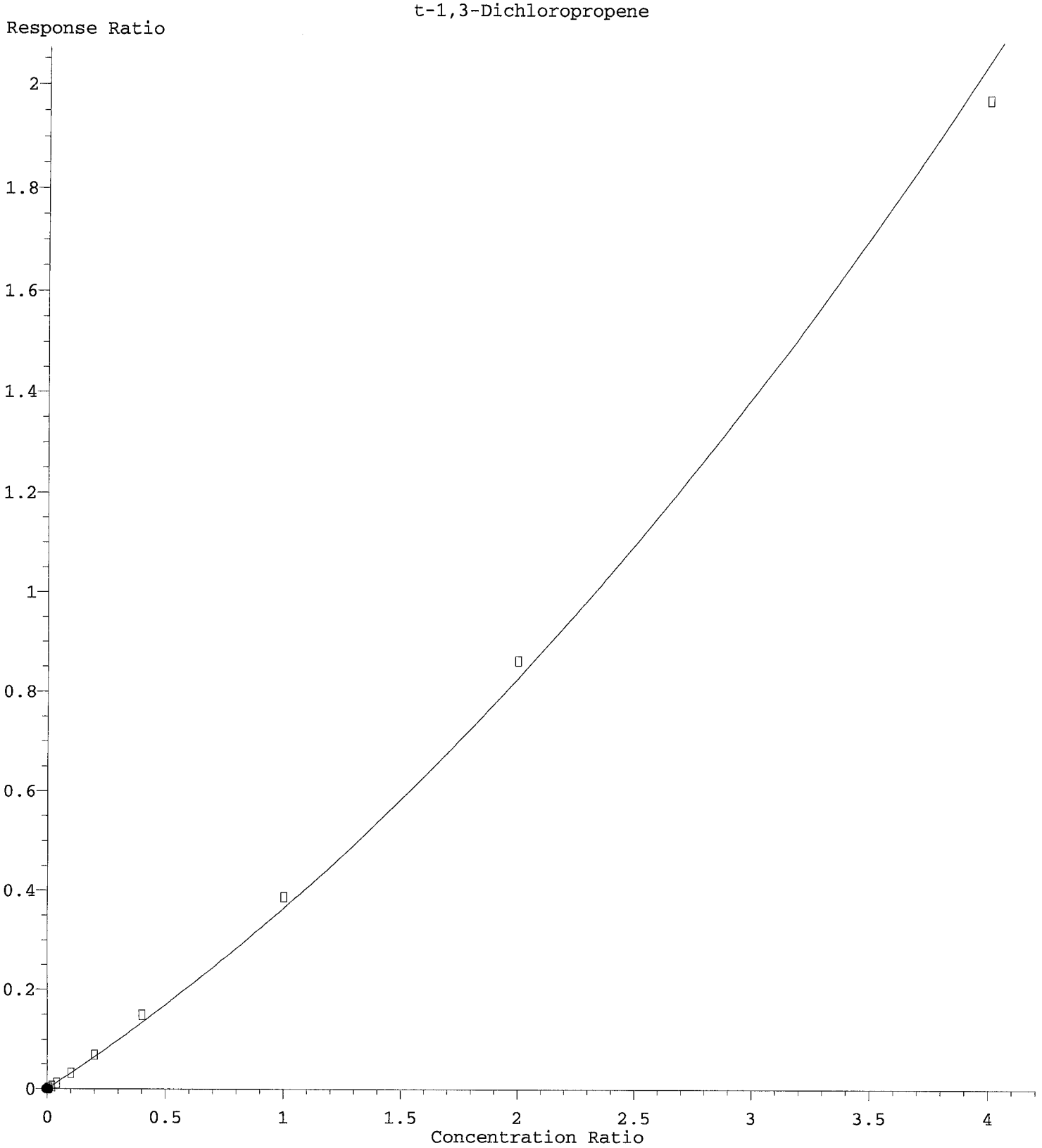
TIC: VG19102518.D\data.ms

(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



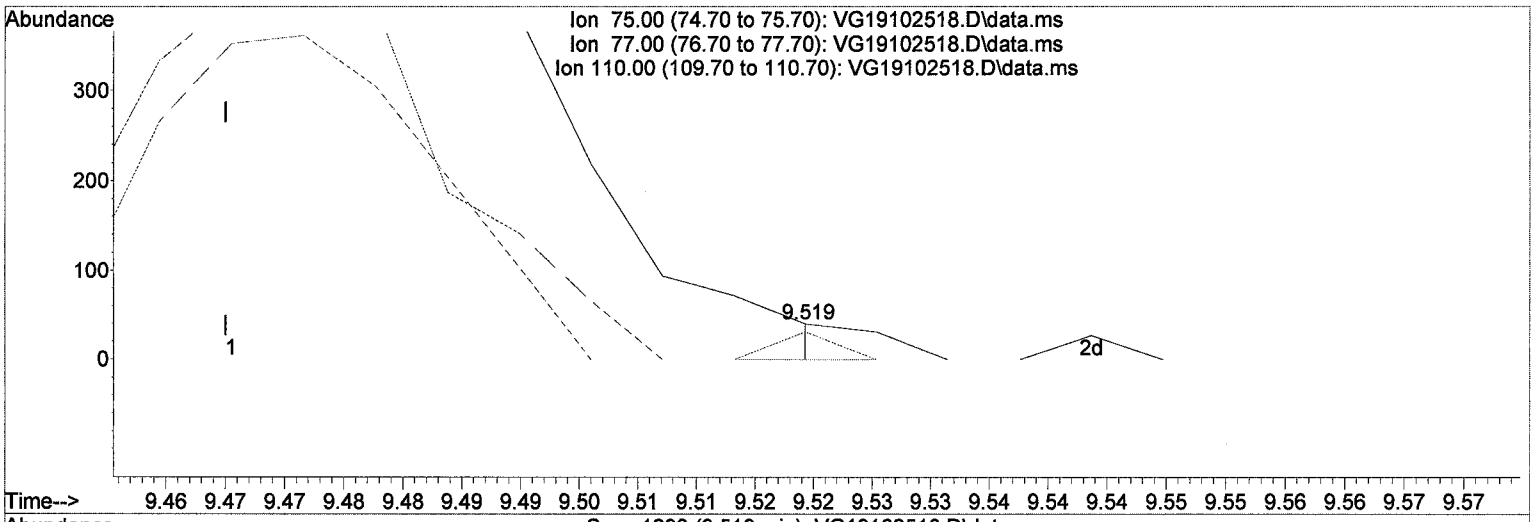
Int= 0.09

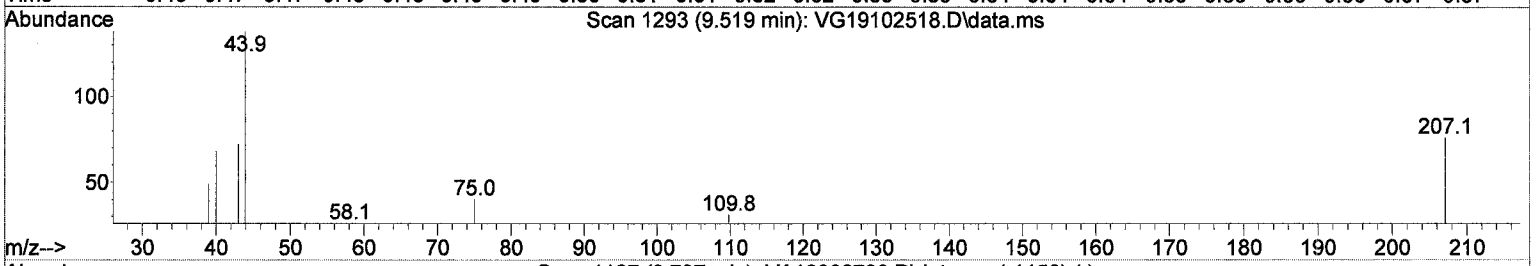
R = 4.88e-002 A*A + 3.17e-001 A - 5.38e-004
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\VGI91025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

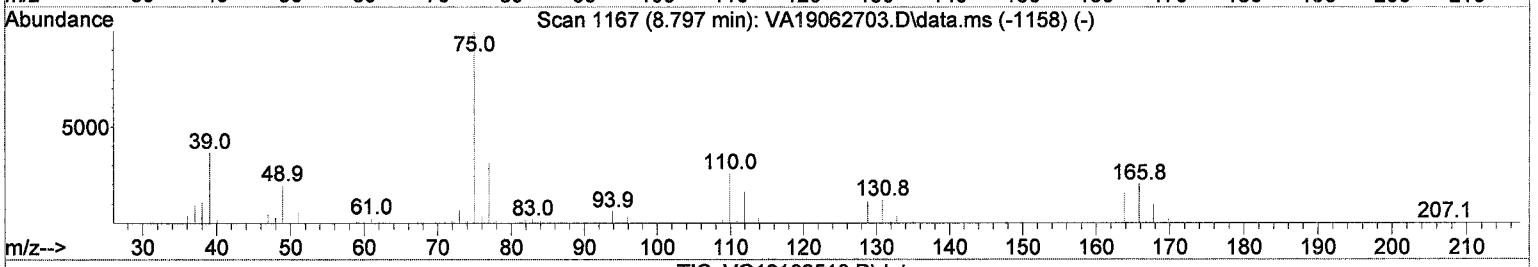
Quantitation Report (Qedit)

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







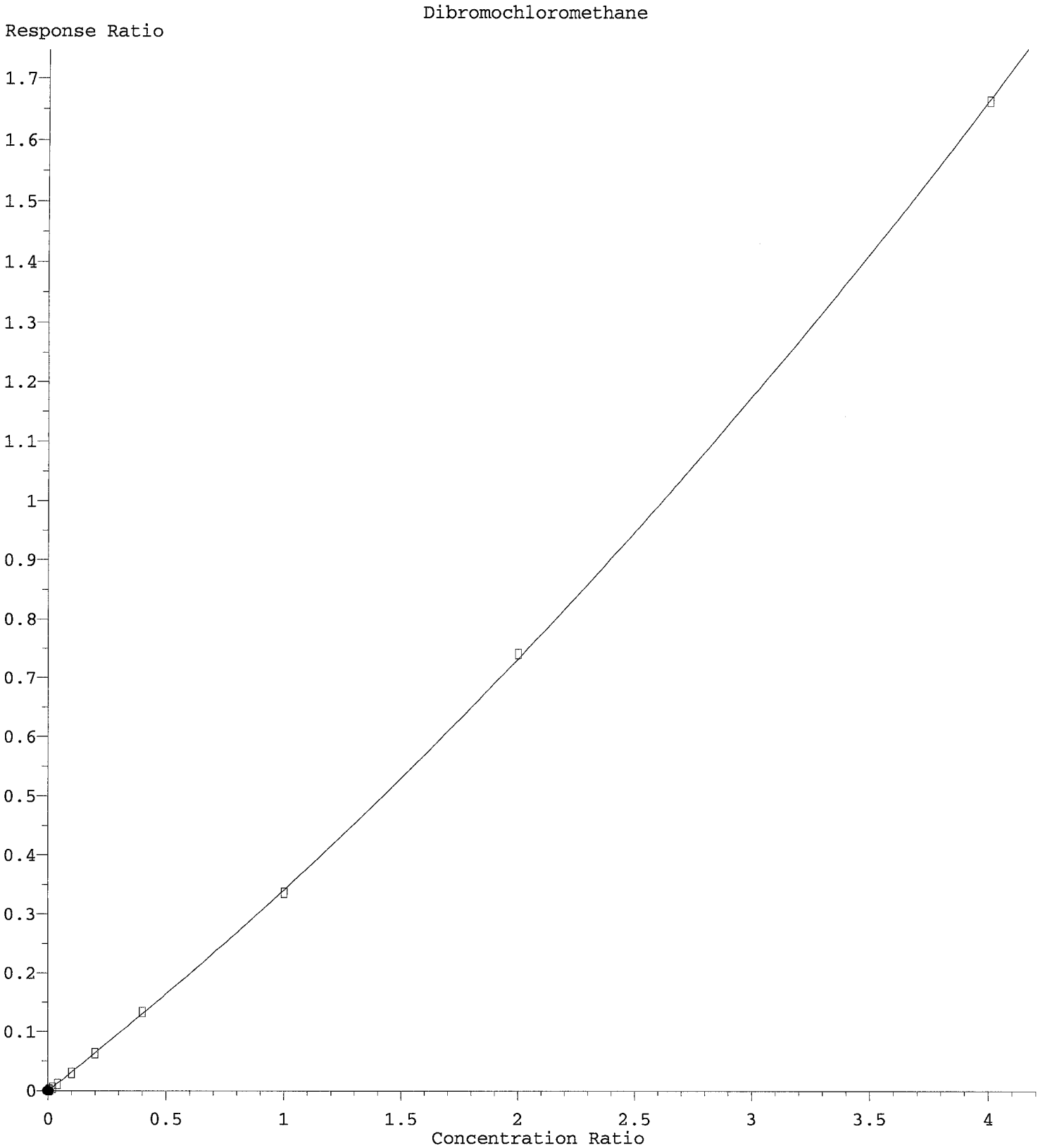
TIC: VG19102518.D\data.ms

(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



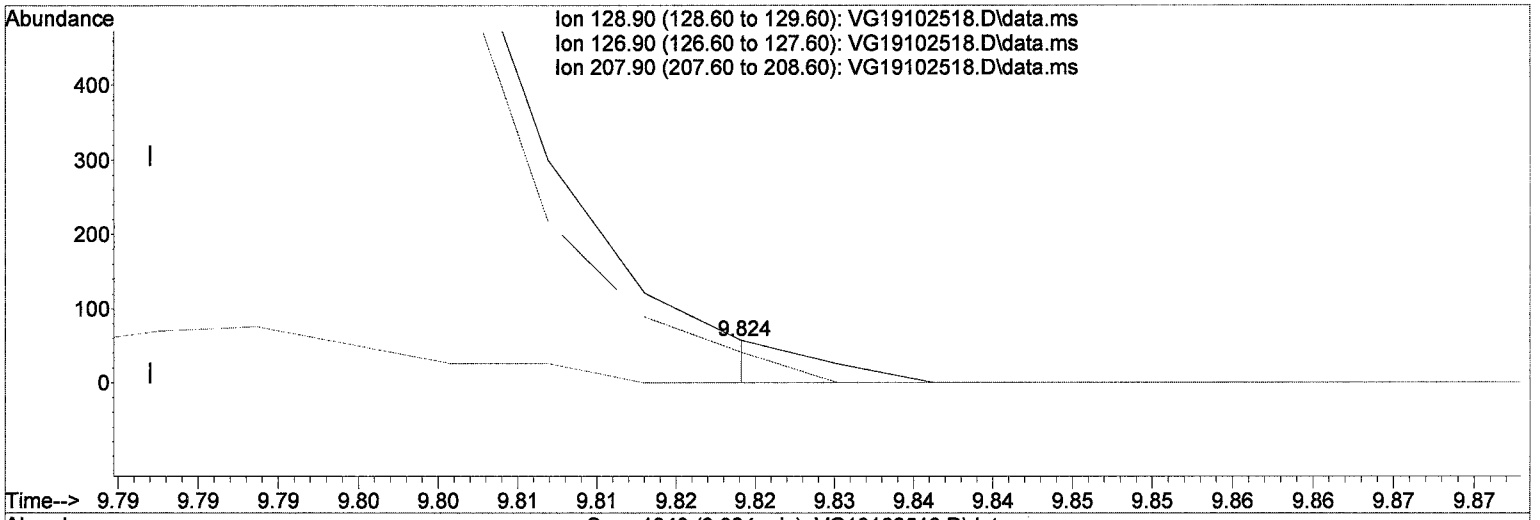
Int = 0,13

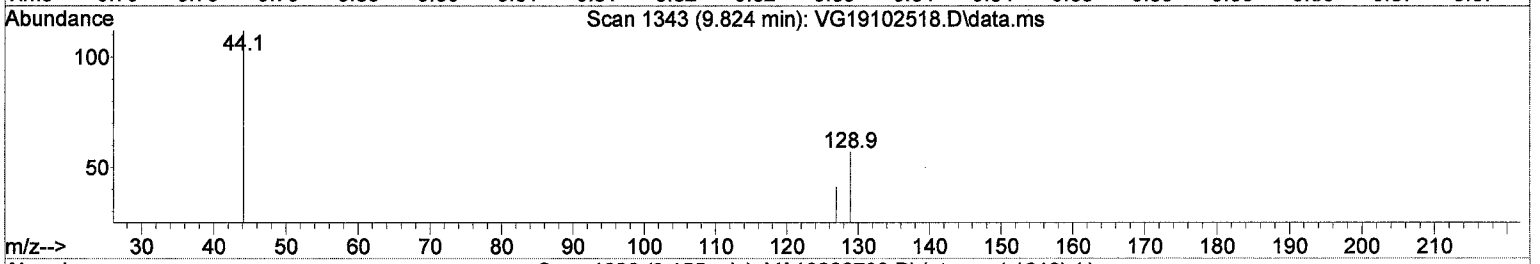
R = 2.49e-002 A*A + 3.17e-001 A - 7.80e-004
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

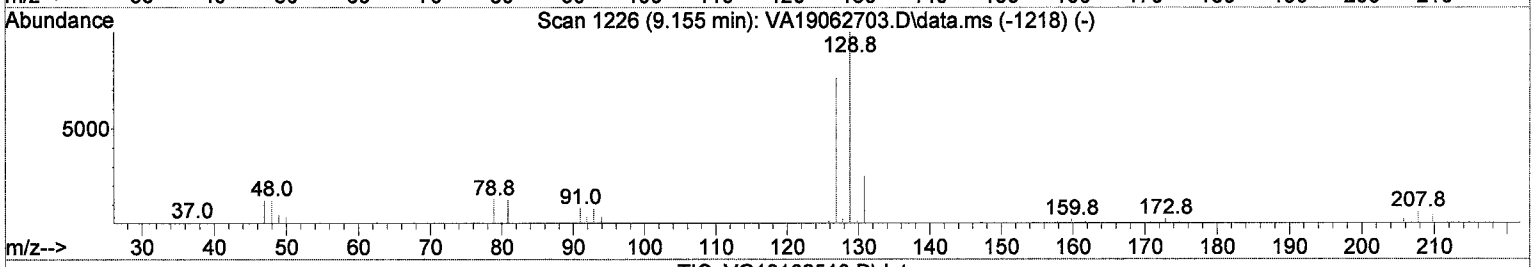
Quantitation Report (Qedit)

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







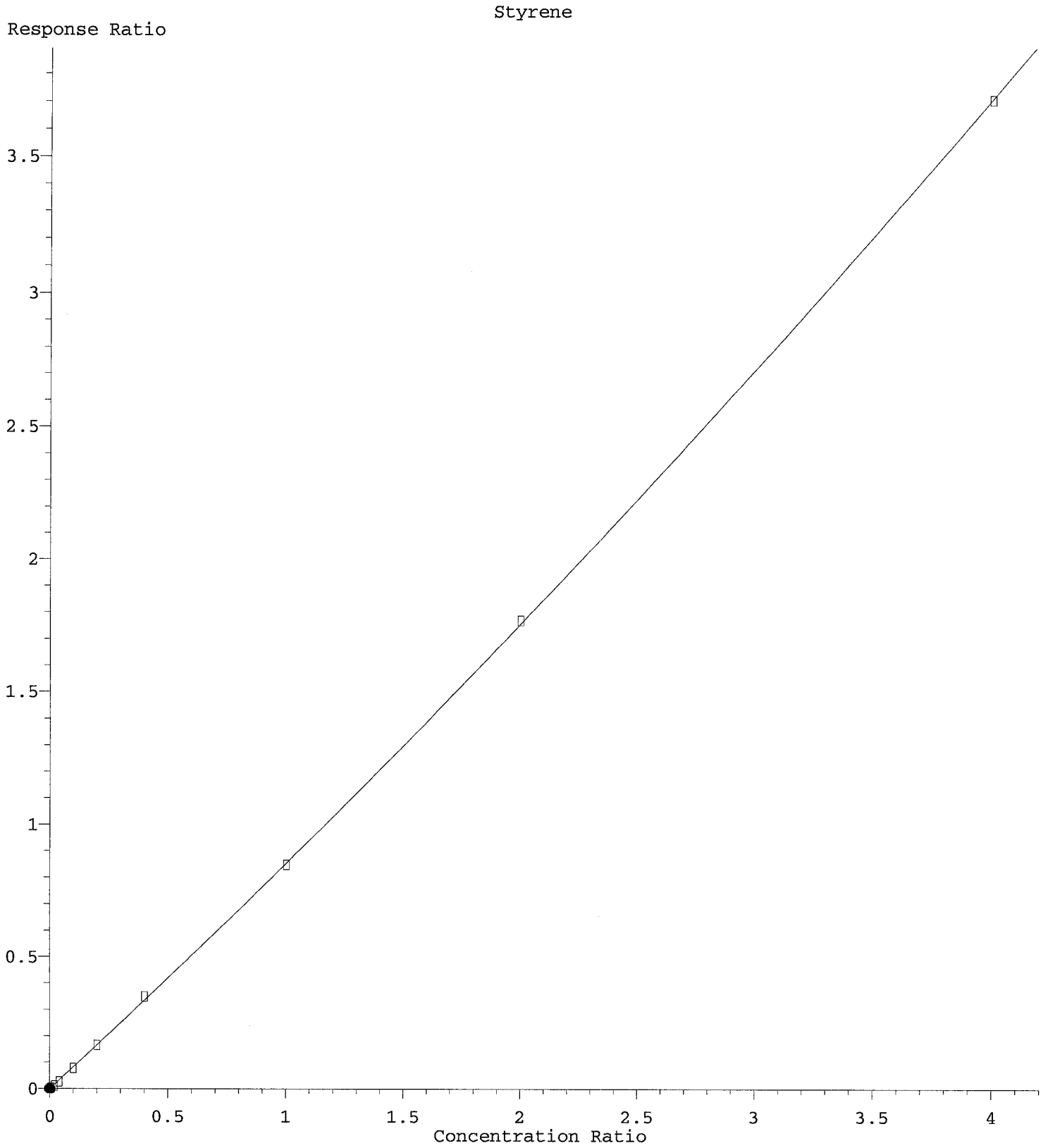
TIC: VG19102518.D\data.ms

(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



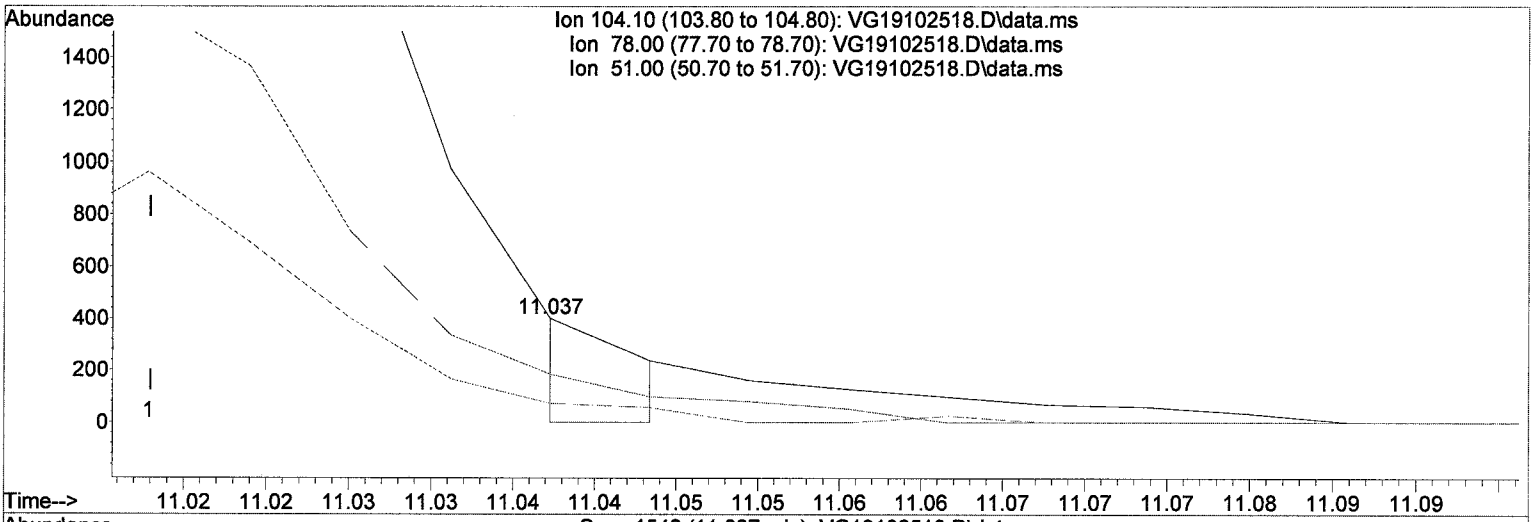
Int = 0.12

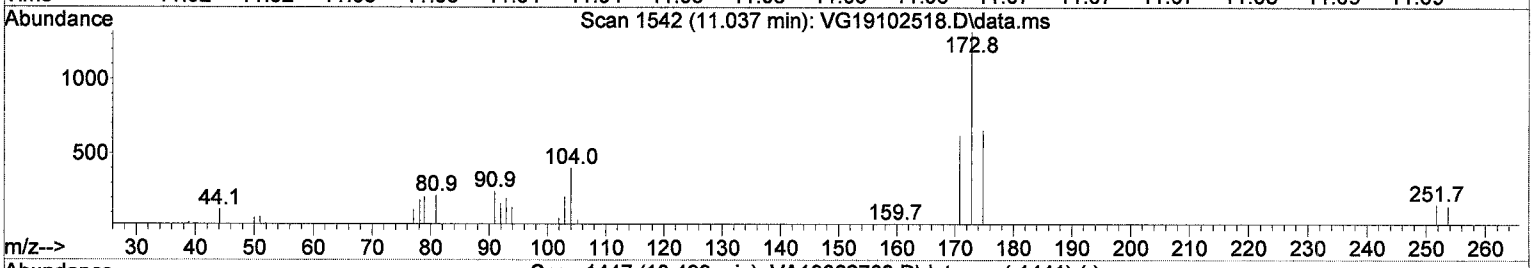
R = 2.43e-002 A*A + 8.31e-001 A - 1.67e-003
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

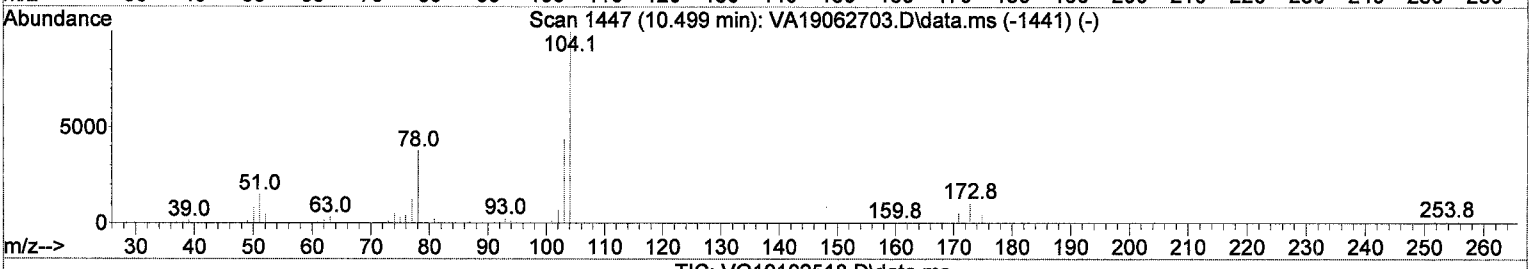
Quantitation Report (Qedit)

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







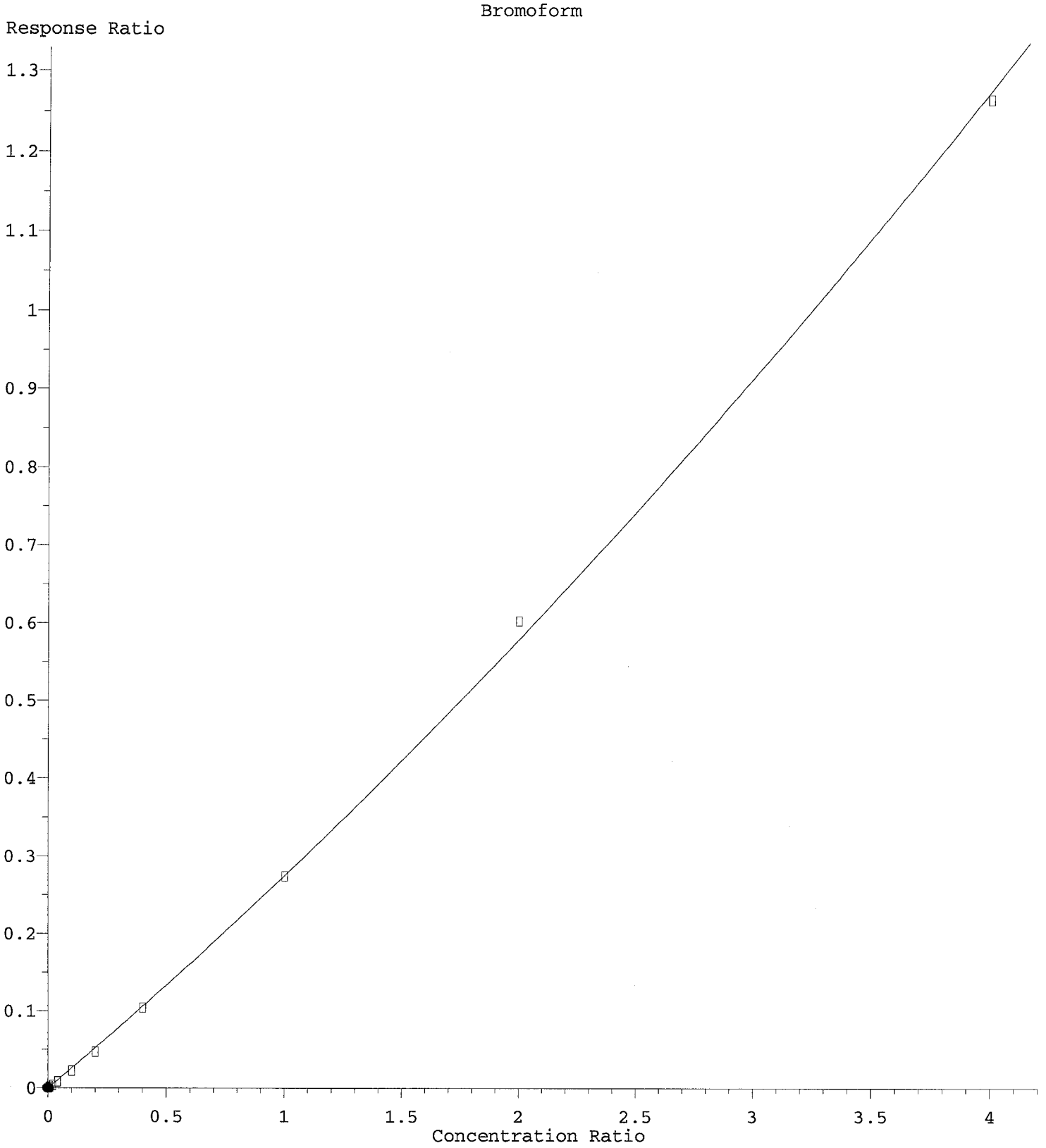
TIC: VG19102518.D\data.ms

(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



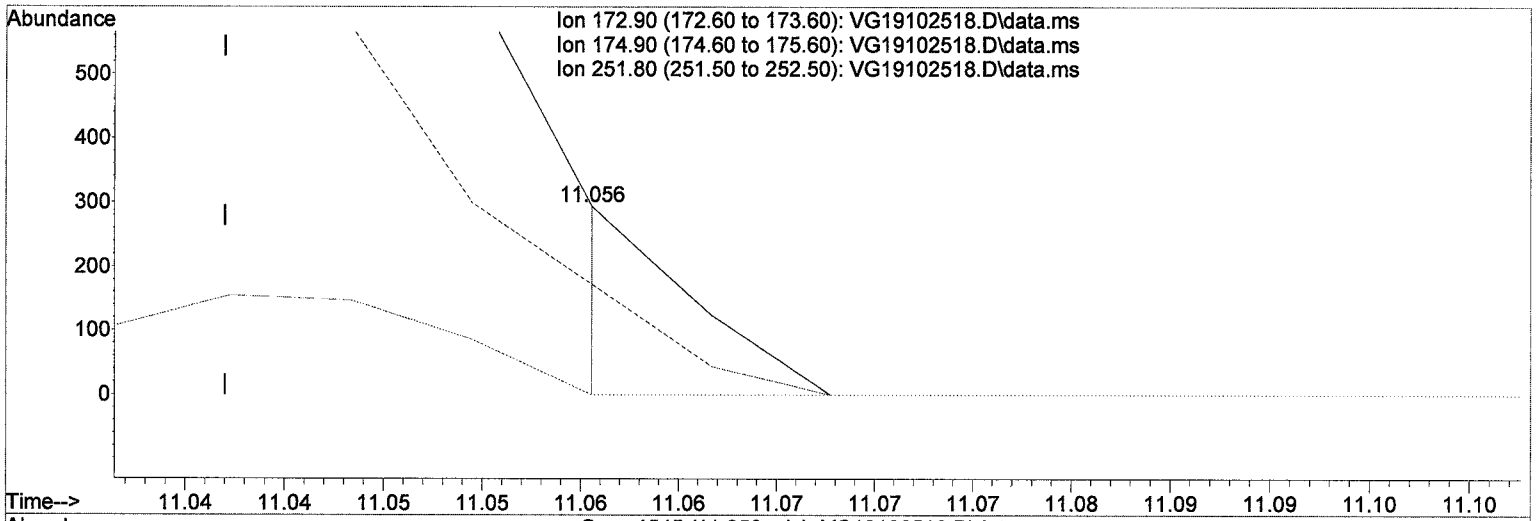
INT = 0,21

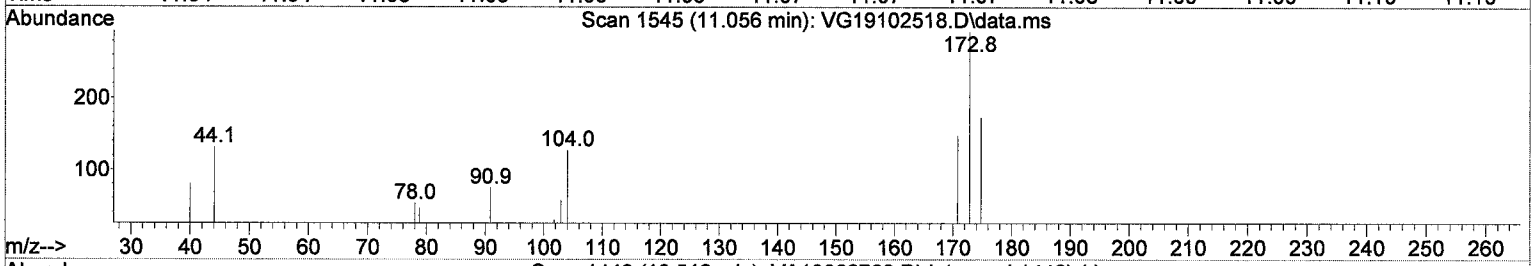
R = 1.46e-002 A*A + 2.61e-001 A - 9.25e-004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

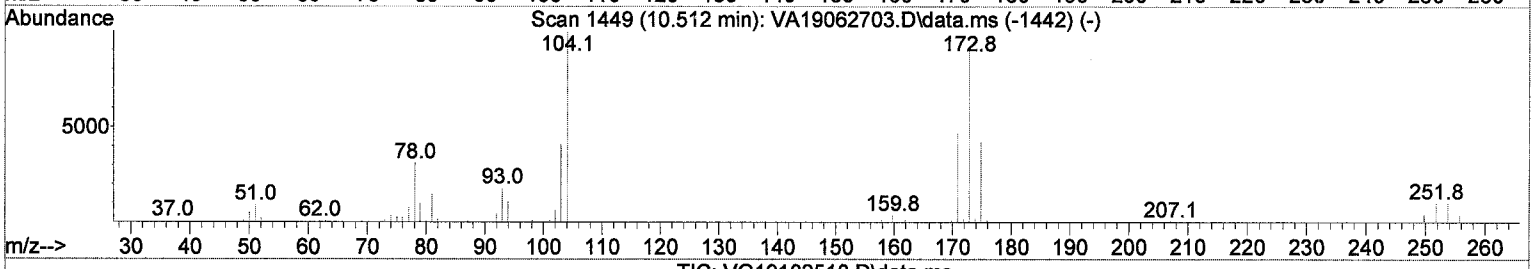
Quantitation Report (Qedit)

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







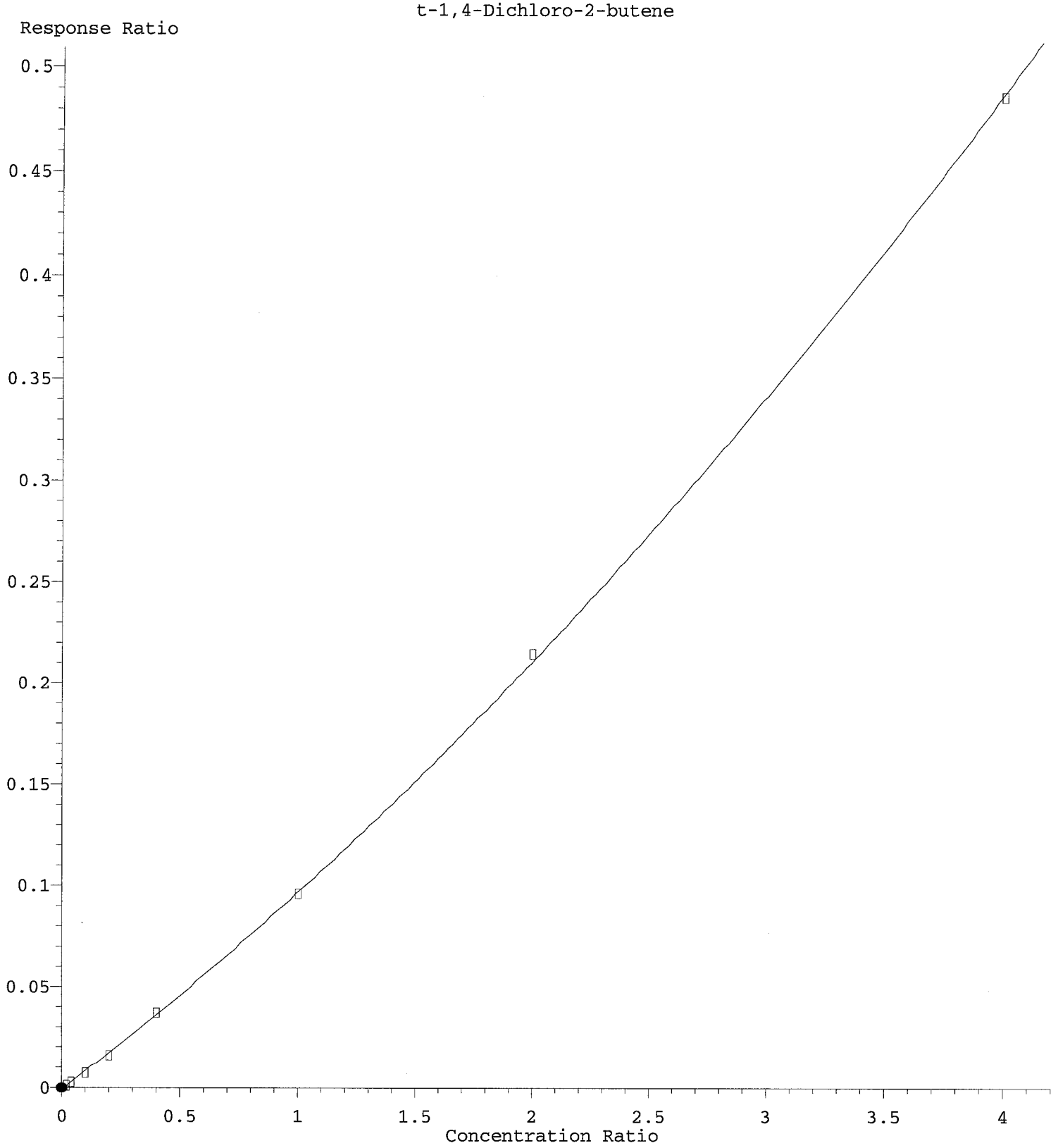
TIC: VG19102518.D\data.ms

(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



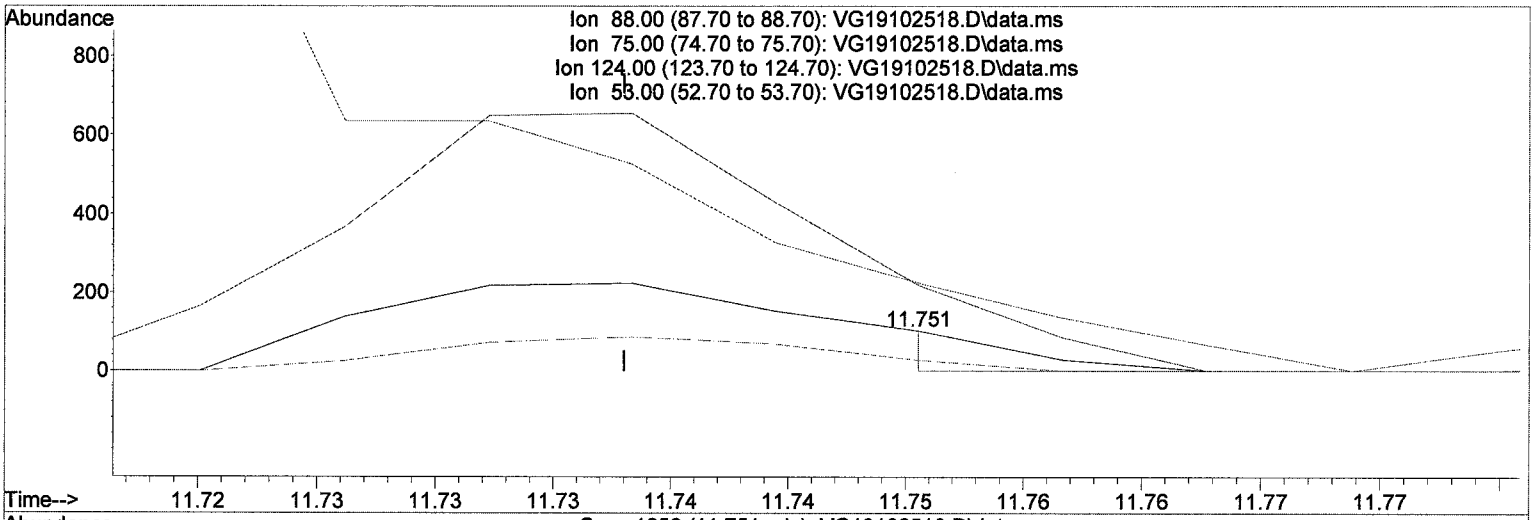
Fut = 0.56

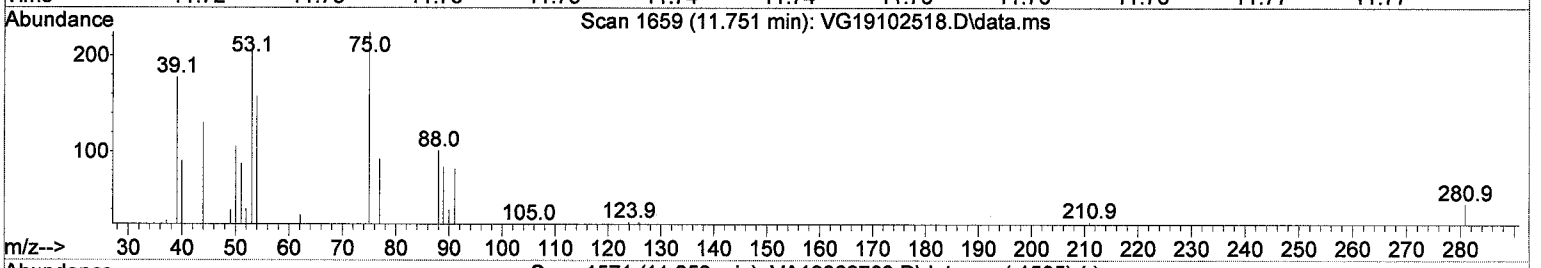
R = 8.09e-003 A*A + 8.97e-002 A - 9.14e-004
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VGI191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

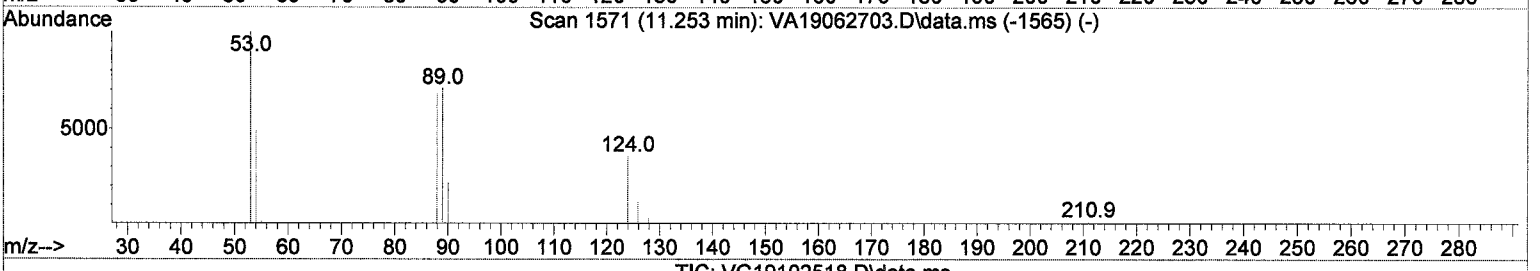
Quantitation Report (Qedit)

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







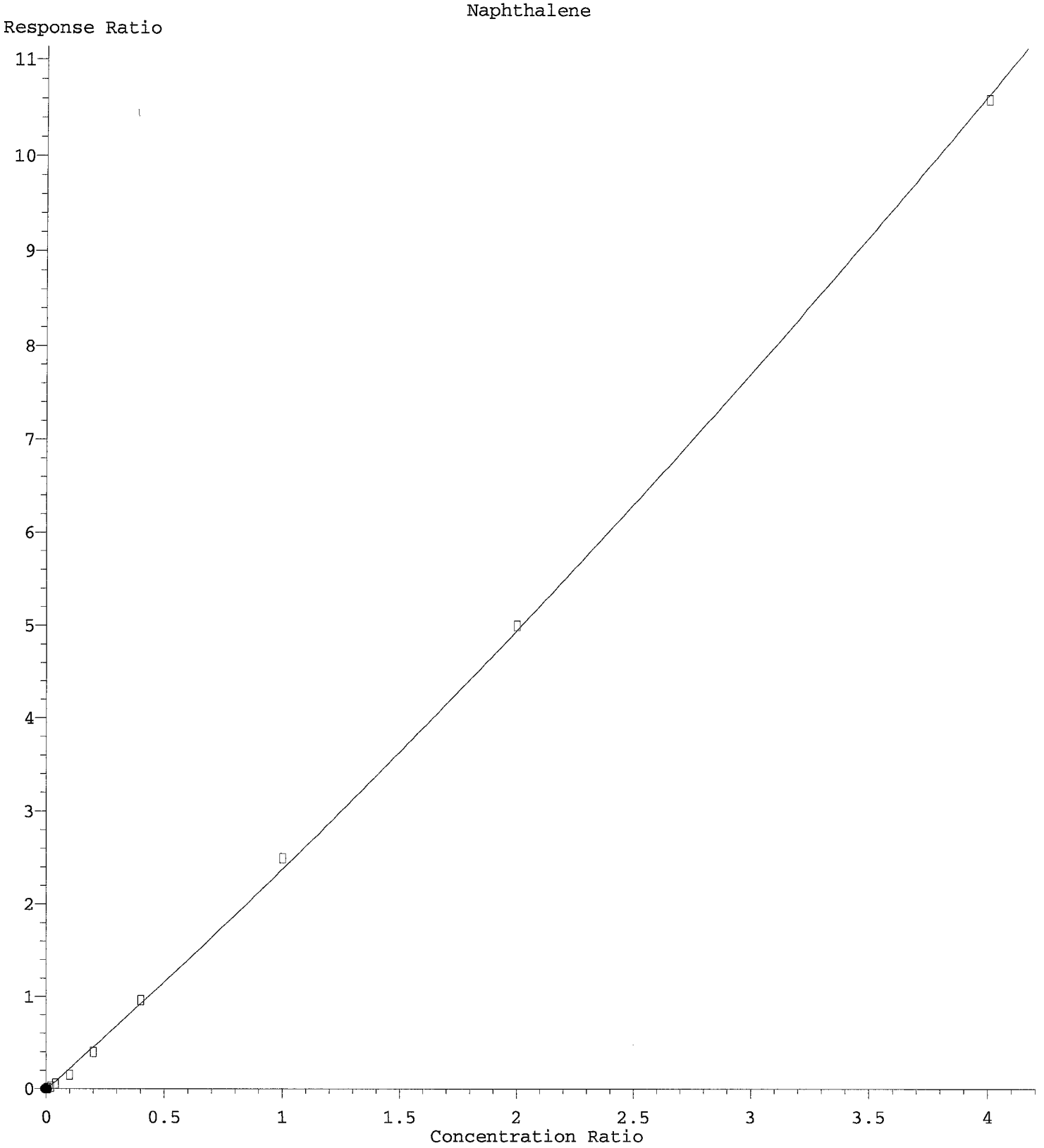
TIC: VG19102518.D\data.ms

(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



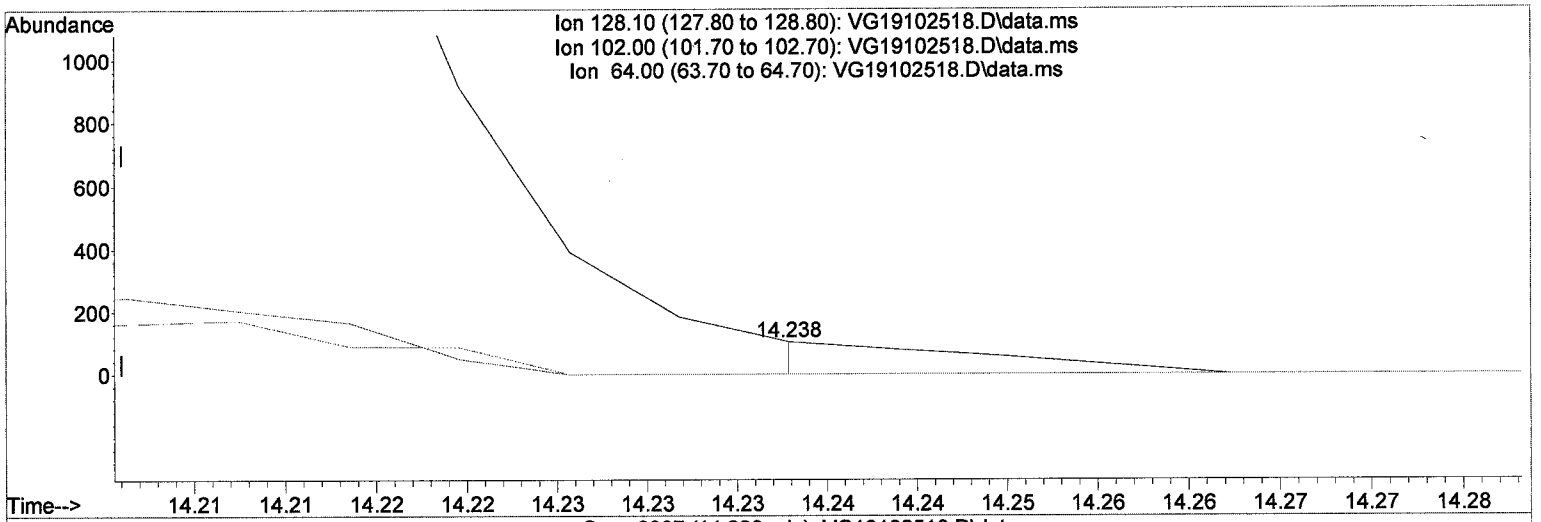
Int = 0.28

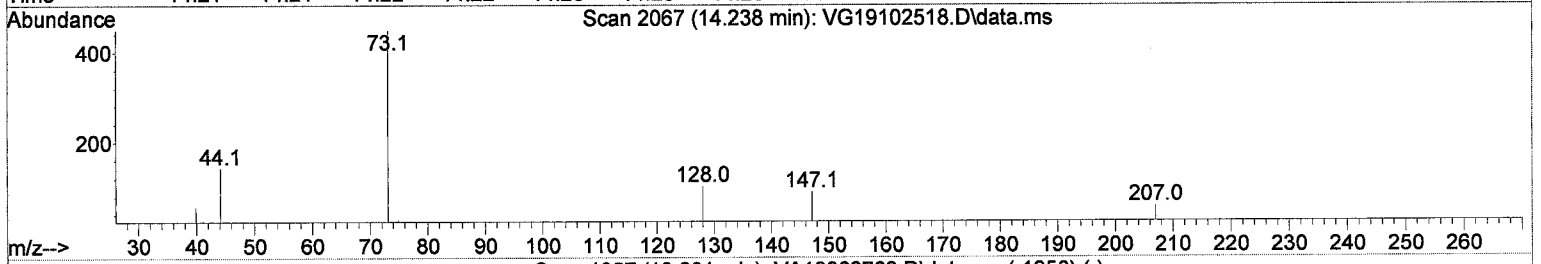
R = 9.23e-002 A*A + 2.30e+000 A - 1.26e-002
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025W.M
Calibration Table Last Updated: Mon Oct 28 12:05:29 2019

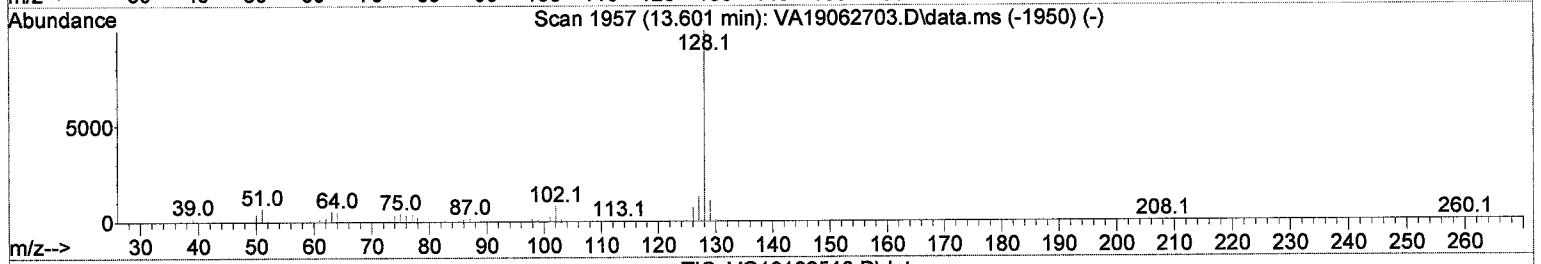
Quantitation Report (Qedit)

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

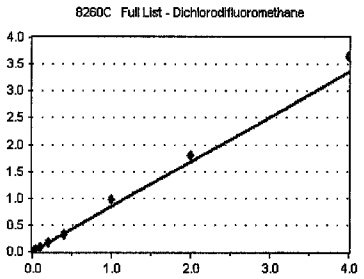
Element Calibration Review Sheet

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**

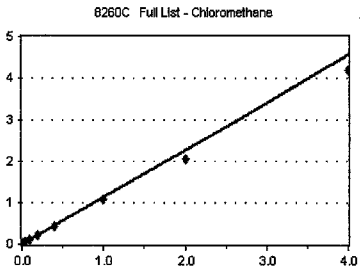


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	263	0.807	1.73
9J25051-CAL3	0.4	405	0.646	1.73
9J25051-CAL4	1	1328	0.756	1.73
9J25051-CAL5	2	2795	0.913	1.73
9J25051-CAL6	5	7404	0.879	1.73
9J25051-CAL7	10	15599	0.821	1.73
9J25051-CAL8	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**

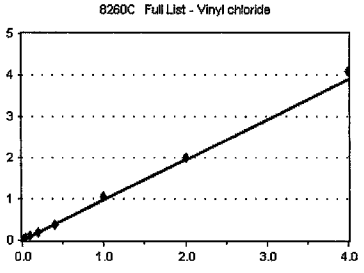


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~449~~	~~2.609~~	~~1.98~~
~~9J25051-CAL2~~	~~0.2~~	~~619~~	~~1.899~~	~~1.98~~
9J25051-CAL3	0.4	914	1.457	1.98
9J25051-CAL4	1	2027	1.154	1.98
9J25051-CAL5	2	3700	1.209	1.98
9J25051-CAL6	5	9675	1.149	1.98
9J25051-CAL7	10	20315	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**

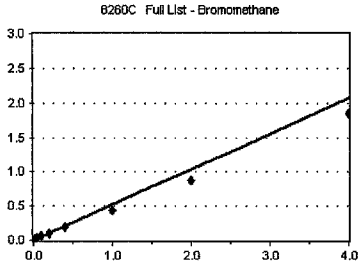


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	144	0.837	2.11
9J25051-CAL2	0.2	313	0.960	2.11
9J25051-CAL3	0.4	546	0.870	2.11
9J25051-CAL4	1	1682	0.957	2.11
9J25051-CAL5	2	3136	1.025	2.11
9J25051-CAL6	5	8598	1.021	2.11
9J25051-CAL7	10	18609	0.980	2.11
9J25051-CAL8	20	33851	0.976	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**

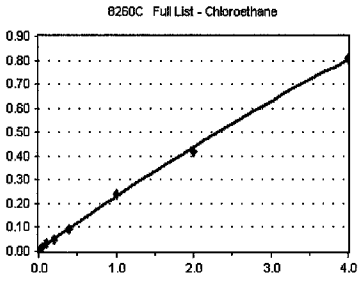
Element Calibration Review Sheet

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**

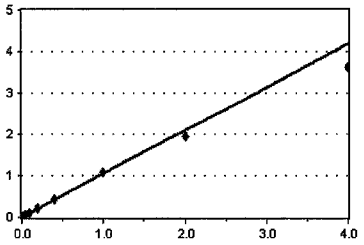


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~183~~	~~0.292~~	~~2.72~~
9J25051-CAL4	1	473	0.269	2.72
9J25051-CAL5	2	1240	0.405	2.73
9J25051-CAL6	5	2805	0.333	2.73
9J25051-CAL7	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**

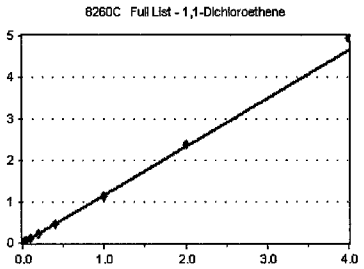


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	165	0.959	2.92
9J25051-CAL2	0.2	338	1.037	2.92
9J25051-CAL3	0.4	650	1.036	2.92
9J25051-CAL4	1	1893	1.078	2.92
9J25051-CAL5	2	3605	1.178	2.92
9J25051-CAL6	5	9548	1.134	2.92
9J25051-CAL7	10	20980	1.104	2.92
9J25051-CAL8	20	37053	1.068	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**

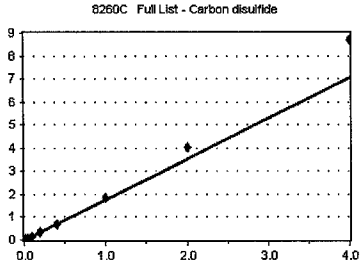


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	208	1.208	3.59
9J25051-CAL2	0.2	353	1.083	3.58
9J25051-CAL3	0.4	720	1.148	3.59
9J25051-CAL4	1	2001	1.139	3.58
9J25051-CAL5	2	3661	1.196	3.59
9J25051-CAL6	5	9956	1.182	3.59
9J25051-CAL7	10	21638	1.139	3.59
9J25051-CAL8	20	40497	1.168	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**

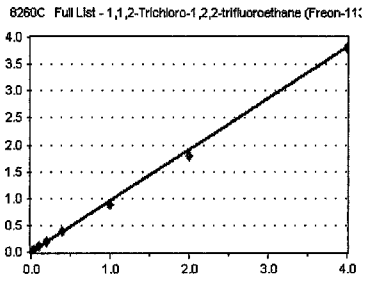
Element Calibration Review Sheet

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**

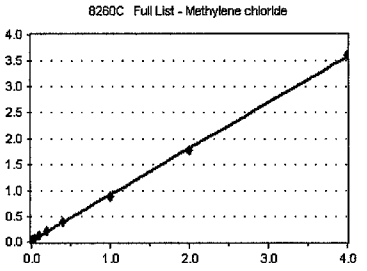


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	319	0.979	3.67
9J25051-CAL3	0.4	578	0.921	3.66
9J25051-CAL4	1	1595	0.908	3.66
9J25051-CAL5	2	3171	1.036	3.66
9J25051-CAL6	5	8623	1.024	3.66
9J25051-CAL7	10	18630	0.981	3.66
9J25051-CAL8	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**

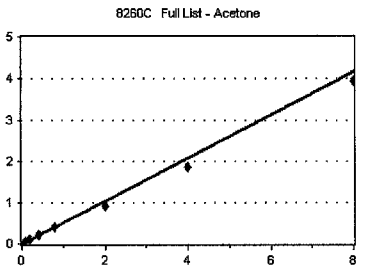


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	1819	10.568	4.32
9J25051-CAL2	0.2	1942	5.958	4.32
9J25051-CAL3	0.4	2043	3.257	4.32
9J25051-CAL4	1	3475	1.978	4.32
9J25051-CAL5	2	4760	1.556	4.32
9J25051-CAL6	5	10277	1.220	4.32
9J25051-CAL7	10	20314	1.069	4.32
9J25051-CAL8	20	34415	0.992	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**

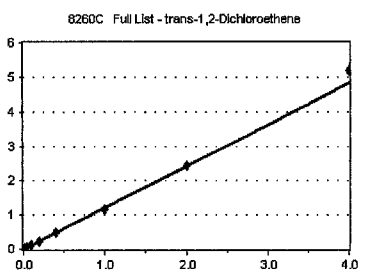


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~1032~~	~~2.998~~	~~4.41~~
~~9J25051-CAL2~~	~~0.4~~	~~1117~~	~~1.713~~	~~4.40~~
~~9J25051-CAL3~~	~~0.8~~	~~1426~~	~~1.137~~	~~4.40~~
~~9J25051-CAL4~~	~~2~~	~~2696~~	~~0.767~~	~~4.40~~
9J25051-CAL5	4	3962	0.647	4.40
9J25051-CAL6	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**

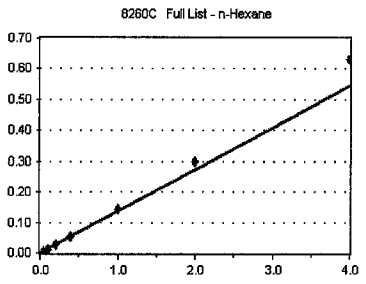
Element Calibration Review Sheet

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**

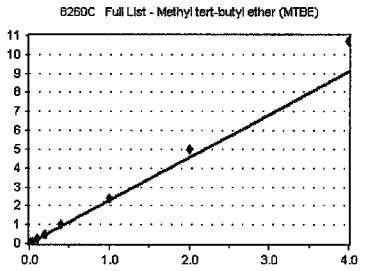


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~10~~	~~1.594~~	~~0.00~~
~~9J25051-CAL4~~	~~1~~	~~168~~	~~9.563~~	~~4.61~~
9J25051-CAL5	2	342	0.112	4.61
9J25051-CAL6	5	1014	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**

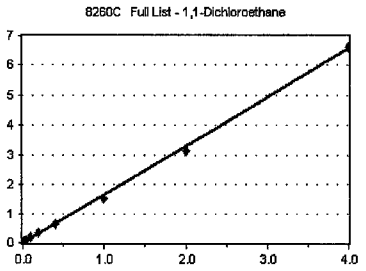


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	356	2.068	4.67
9J25051-CAL2	0.2	645	1.979	4.67
9J25051-CAL3	0.4	1243	1.982	4.67
9J25051-CAL4	1	3585	2.041	4.67
9J25051-CAL5	2	6706	2.191	4.67
9J25051-CAL6	5	19407	2.305	4.66
9J25051-CAL7	10	45758	2.409	4.66
9J25051-CAL8	20	86097	2.482	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**

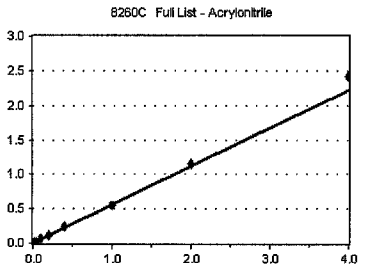


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	301	1.749	5.22
9J25051-CAL2	0.2	508	1.558	5.22
9J25051-CAL3	0.4	980	1.562	5.22
9J25051-CAL4	1	2990	1.702	5.22
9J25051-CAL5	2	5406	1.767	5.22
9J25051-CAL6	5	14473	1.719	5.22
9J25051-CAL7	10	31196	1.642	5.22
9J25051-CAL8	20	57239	1.650	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**

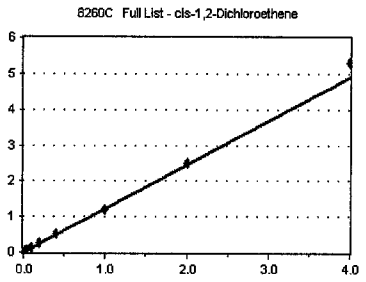
Element Calibration Review Sheet

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**

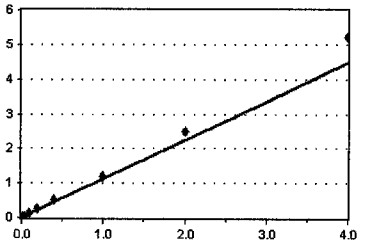


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	198	1.150	5.83
9J25051-CAL2	0.2	368	1.129	5.83
9J25051-CAL3	0.4	741	1.181	5.83
9J25051-CAL4	1	2038	1.160	5.82
9J25051-CAL5	2	3898	1.274	5.83
9J25051-CAL6	5	10725	1.274	5.83
9J25051-CAL7	10	24037	1.265	5.82
9J25051-CAL8	20	44663	1.288	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**

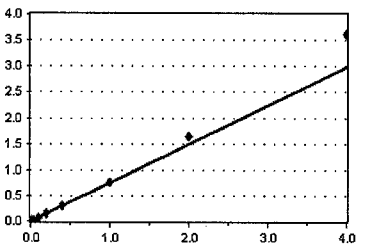


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	132	0.767	0.00
9J25051-CAL2	0.2	307	0.942	6.48
9J25051-CAL3	0.4	621	0.990	6.48
9J25051-CAL4	1	1862	1.060	6.48
9J25051-CAL5	2	3368	1.101	6.48
9J25051-CAL6	5	9935	1.180	6.48
9J25051-CAL7	10	23256	1.224	6.48
9J25051-CAL8	20	44179	1.274	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**

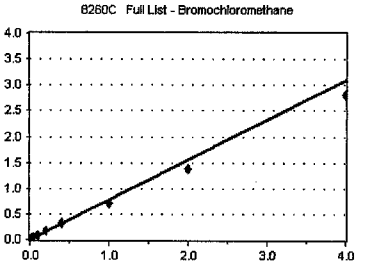


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	218	0.669	5.94
9J25051-CAL3	0.4	361	0.576	5.94
9J25051-CAL4	1	1277	0.727	5.94
9J25051-CAL5	2	2329	0.761	5.94
9J25051-CAL6	5	6301	0.748	5.94
9J25051-CAL7	10	14137	0.744	5.94
9J25051-CAL8	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**

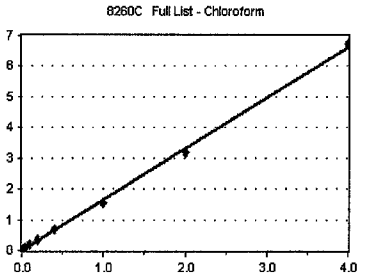
Element Calibration Review Sheet

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**

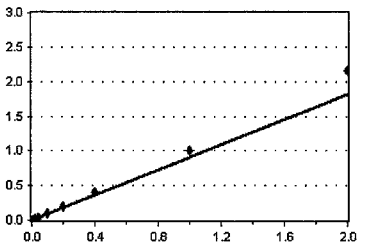


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	266	1.545	6.13
9J25051-CAL2	0.2	550	1.687	6.14
9J25051-CAL3	0.4	984	1.569	6.14
9J25051-CAL4	1	2916	1.660	6.14
9J25051-CAL5	2	5455	1.783	6.14
9J25051-CAL6	5	14639	1.738	6.14
9J25051-CAL7	10	31968	1.683	6.14
9J25051-CAL8	20	59036	1.702	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**

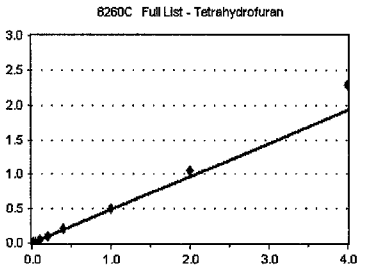


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	240	0.736	6.26
9J25051-CAL3	0.4	447	0.713	6.26
9J25051-CAL4	1	1387	0.790	6.26
9J25051-CAL5	2	2771	0.906	6.26
9J25051-CAL6	5	8051	0.956	6.26
9J25051-CAL7	10	18676	0.983	6.26
9J25051-CAL8	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**

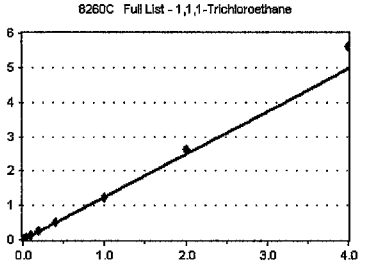


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.4	247	0.394	6.31
9J25051-CAL4	1	728	0.414	6.32
9J25051-CAL5	2	1403	0.458	6.31
9J25051-CAL6	5	4008	0.476	6.31
9J25051-CAL7	10	9225	0.486	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**

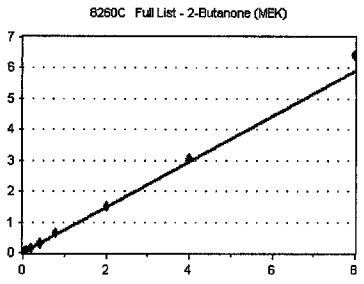
Element Calibration Review Sheet

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**

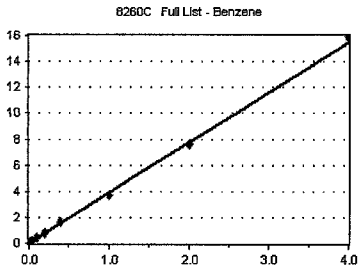


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.8	681	0.543	6.48
9J25051-CAL4	2	2324	0.661	6.48
9J25051-CAL5	4	4574	0.747	6.48
9J25051-CAL6	10	13080	0.777	6.48
9J25051-CAL7	20	29709	0.782	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**

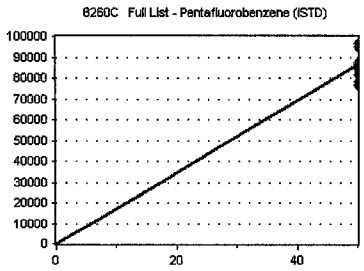


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	628	3.649	6.76
9J25051-CAL2	0.2	1235	3.789	6.75
9J25051-CAL3	0.4	2314	3.689	6.75
9J25051-CAL4	1	6507	3.704	6.75
9J25051-CAL5	2	12371	4.043	6.76
9J25051-CAL6	5	34545	4.102	6.76
9J25051-CAL7	10	76881	4.047	6.75
9J25051-CAL8	20	140134	4.040	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**

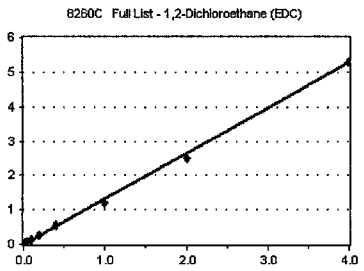


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	86062	1721.240	6.86
9J25051-CAL2	50	81493	1629.860	6.86
9J25051-CAL3	50	78410	1568.200	6.86
9J25051-CAL4	50	87837	1756.740	6.86
9J25051-CAL5	50	76501	1530.020	6.86
9J25051-CAL6	50	84206	1684.120	6.86
9J25051-CAL7	50	94987	1899.740	6.86
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**

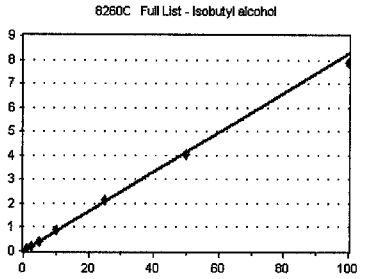
Element Calibration Review Sheet

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**

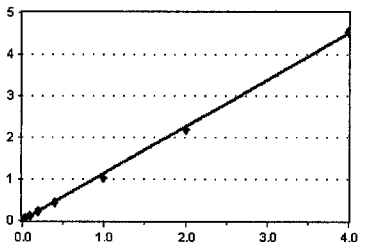


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~2.5~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~5~~	~~506~~	~~6.209~~	~~7.05~~
~~9J25051-CAL3~~	~~10~~	~~1036~~	~~0.066~~	~~7.05~~
~~9J25051-CAL4~~	~~25~~	~~3182~~	~~7.245~~	~~7.04~~
9J25051-CAL5	50	6444	8.423	7.04
9J25051-CAL6	125	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**

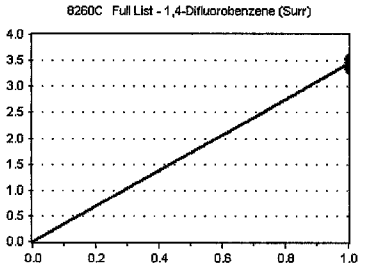


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	203	1.179	7.40
9J25051-CAL2	0.2	383	1.175	7.40
9J25051-CAL3	0.4	739	1.178	7.40
9J25051-CAL4	1	1961	1.116	7.41
9J25051-CAL5	2	3521	1.151	7.41
9J25051-CAL6	5	9556	1.135	7.40
9J25051-CAL7	10	21560	1.135	7.41
9J25051-CAL8	20	37986	1.095	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**

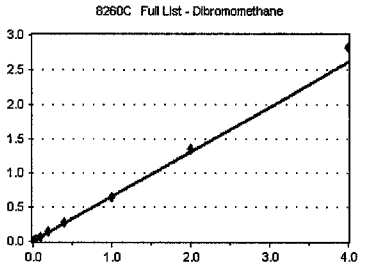


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	305946	3.555	7.45
9J25051-CAL2	50	287858	3.532	7.45
9J25051-CAL3	50	275500	3.514	7.45
9J25051-CAL4	50	309533	3.524	7.45
9J25051-CAL5	50	264143	3.453	7.45
9J25051-CAL6	50	285436	3.390	7.45
9J25051-CAL7	50	322104	3.391	7.45
9J25051-CAL8	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**

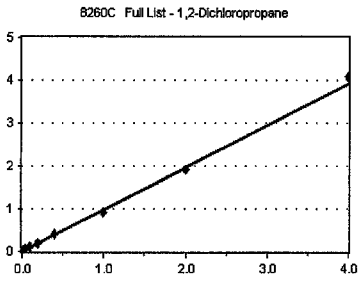
Element Calibration Review Sheet

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**

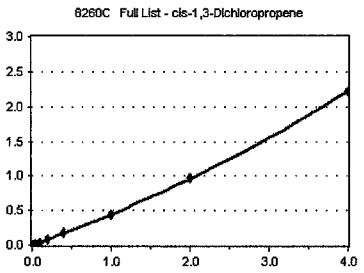


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	158	0.918	8.00
9J25051-CAL2	0.2	327	1.003	8.00
9J25051-CAL3	0.4	585	0.933	7.99
9J25051-CAL4	1	1670	0.951	8.00
9J25051-CAL5	2	3229	1.055	8.00
9J25051-CAL6	5	8575	1.018	8.00
9J25051-CAL7	10	19019	1.001	8.00
9J25051-CAL8	20	35146	1.013	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**

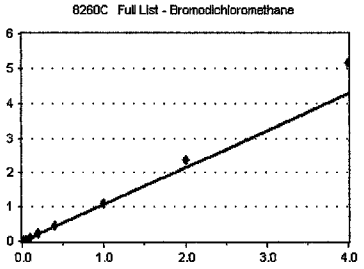


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	120	0.228	0.00
9J25051-CAL2	0.2	237	0.239	8.80
9J25051-CAL3	0.4	512	0.270	8.81
9J25051-CAL4	1	1512	0.284	8.80
9J25051-CAL5	2	3075	0.336	8.80
9J25051-CAL6	5	8925	0.358	8.80
9J25051-CAL7	10	22428	0.400	8.80
9J25051-CAL8	20	44754	0.442	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**

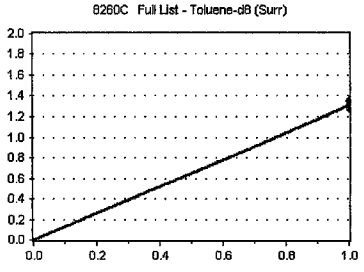


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	281	0.862	8.07
9J25051-CAL3	0.4	561	0.894	8.08
9J25051-CAL4	1	1774	1.010	8.08
9J25051-CAL5	2	3272	1.069	8.07
9J25051-CAL6	5	9117	1.083	8.08
9J25051-CAL7	10	20600	1.084	8.08
9J25051-CAL8	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**

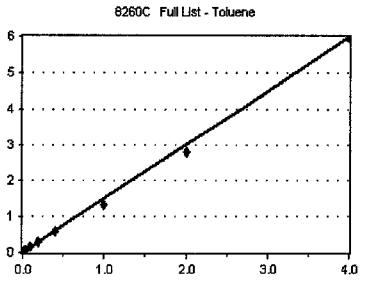
Element Calibration Review Sheet

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**

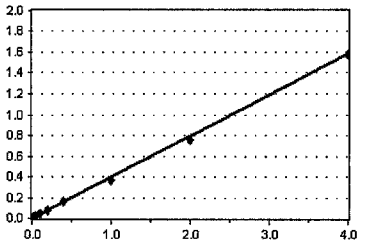


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	991	1.884	9.05
9J25051-CAL2	0.2	1534	1.545	9.05
9J25051-CAL3	0.4	2717	1.435	9.05
9J25051-CAL4	1	7737	1.451	9.04
9J25051-CAL5	2	13799	1.508	9.04
9J25051-CAL6	5	37021	1.486	9.04
9J25051-CAL7	10	81964	1.463	9.04
9J25051-CAL8	20	148631	1.467	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**

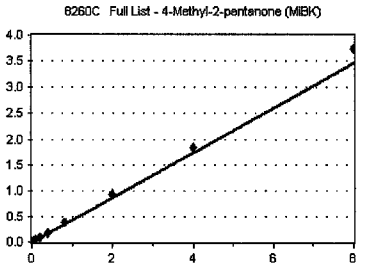


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	215	0.409	9.44
9J25051-CAL2	0.2	428	0.431	9.43
9J25051-CAL3	0.4	724	0.382	9.44
9J25051-CAL4	1	2028	0.380	9.44
9J25051-CAL5	2	3761	0.411	9.43
9J25051-CAL6	5	10200	0.409	9.43
9J25051-CAL7	10	22594	0.403	9.43
9J25051-CAL8	20	40323	0.398	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**

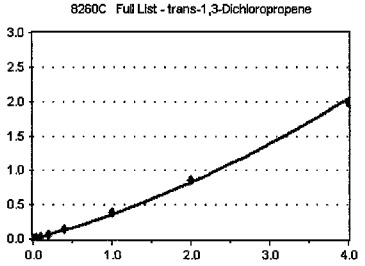


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~316~~	~~0.300~~	~~9.45~~
~~9J25051-CAL2~~	~~0.4~~	~~661~~	~~0.333~~	~~9.44~~
9J25051-CAL3	0.8	1338	0.353	9.45
9J25051-CAL4	2	3944	0.370	9.44
9J25051-CAL5	4	7750	0.424	9.44
9J25051-CAL6	10	21651	0.434	9.44
9J25051-CAL7	20	50335	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**

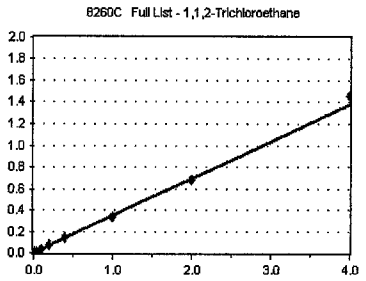
Element Calibration Review Sheet

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**

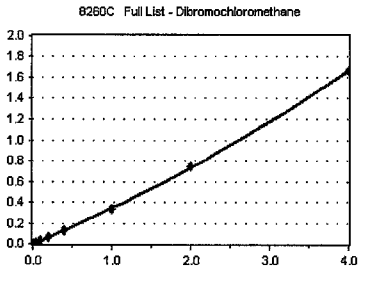


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	163	0.310	9.63
9J25051-CAL2	0.2	312	0.314	9.64
9J25051-CAL3	0.4	608	0.321	9.62
9J25051-CAL4	1	1761	0.330	9.62
9J25051-CAL5	2	3489	0.381	9.63
9J25051-CAL6	5	9239	0.371	9.62
9J25051-CAL7	10	20512	0.366	9.62
9J25051-CAL8	20	36821	0.363	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**

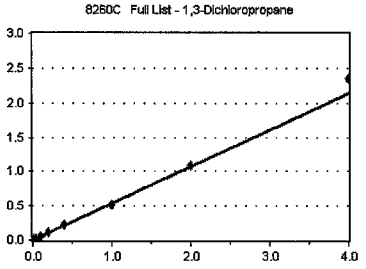


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~42~~	~~7.985~~	~~0.00~~
9J25051-CAL2	0.2	181	0.182	9.79
9J25051-CAL3	0.4	425	0.224	9.79
9J25051-CAL4	1	1298	0.243	9.79
9J25051-CAL5	2	2572	0.281	9.79
9J25051-CAL6	5	7461	0.299	9.79
9J25051-CAL7	10	17581	0.314	9.79
9J25051-CAL8	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**

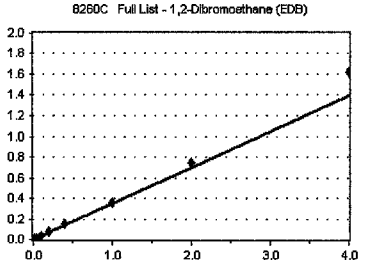


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	265	0.504	9.88
9J25051-CAL2	0.2	464	0.467	9.88
9J25051-CAL3	0.4	881	0.465	9.88
9J25051-CAL4	1	2761	0.518	9.88
9J25051-CAL5	2	5172	0.565	9.88
9J25051-CAL6	5	14110	0.566	9.88
9J25051-CAL7	10	31655	0.565	9.88
9J25051-CAL8	20	57259	0.565	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**

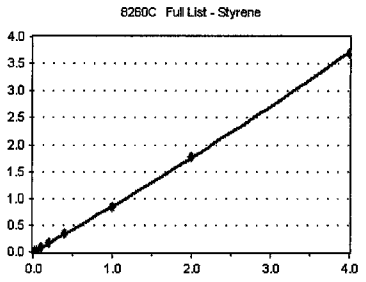
Element Calibration Review Sheet

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**

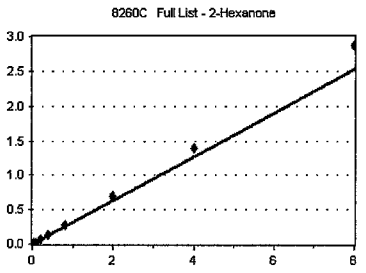


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	224	0.426	0.00
9J25051-CAL2	0.2	473	0.477	11.02
9J25051-CAL3	0.4	899	0.475	11.02
9J25051-CAL4	1	2917	0.547	11.01
9J25051-CAL5	2	6029	0.659	11.01
9J25051-CAL6	5	19241	0.772	11.01
9J25051-CAL7	10	46210	0.825	11.01
9J25051-CAL8	20	88408	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**

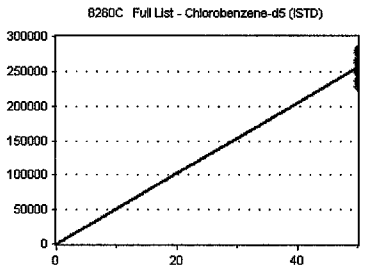


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.4~~	~~303~~	~~0.153~~	~~10.22~~
~~9J25051-CAL3~~	~~0.8~~	~~717~~	~~0.189~~	~~10.21~~
9J25051-CAL4	2	2488	0.233	10.21
9J25051-CAL5	4	5003	0.273	10.21
9J25051-CAL6	10	14919	0.299	10.21
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**

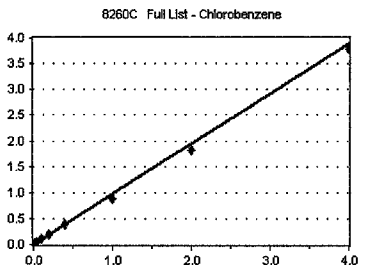


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	262978	5259.560	10.45
9J25051-CAL2	50	248140	4962.800	10.45
9J25051-CAL3	50	236751	4735.020	10.45
9J25051-CAL4	50	266623	5332.460	10.45
9J25051-CAL5	50	228711	4574.220	10.45
9J25051-CAL6	50	249179	4983.580	10.45
9J25051-CAL7	50	280212	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**

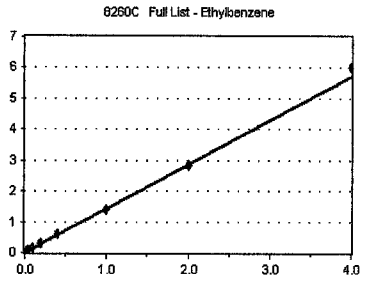
Element Calibration Review Sheet

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**

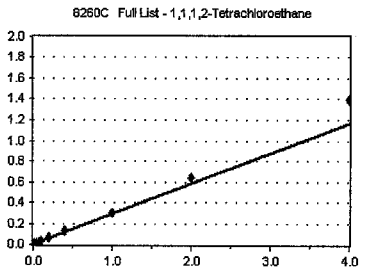


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	756	1.437	10.49
9J25051-CAL2	0.2	1384	1.394	10.49
9J25051-CAL3	0.4	2478	1.308	10.49
9J25051-CAL4	1	7230	1.356	10.49
9J25051-CAL5	2	13598	1.486	10.49
9J25051-CAL6	5	37238	1.494	10.49
9J25051-CAL7	10	82267	1.468	10.49
9J25051-CAL8	20	150206	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**

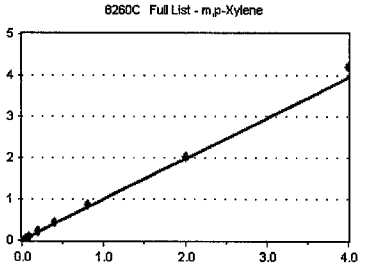


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	228	0.230	10.53
9J25051-CAL3	0.4	486	0.257	10.53
9J25051-CAL4	1	1443	0.271	10.52
9J25051-CAL5	2	2578	0.282	10.53
9J25051-CAL6	5	7365	0.296	10.53
9J25051-CAL7	10	17260	0.308	10.53
9J25051-CAL8	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**

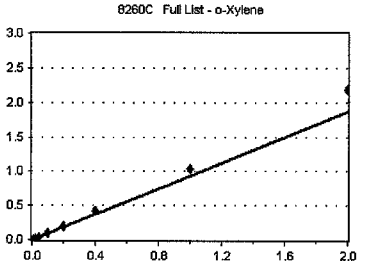


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.2~~	~~920~~	~~0.875~~	~~10.62~~
~~9J25051-CAL2~~	~~0.4~~	~~1670~~	~~0.841~~	~~10.62~~
9J25051-CAL3	0.8	3107	0.820	10.62
9J25051-CAL4	2	9040	0.848	10.61
9J25051-CAL5	4	17637	0.964	10.62
9J25051-CAL6	10	51157	1.027	10.61
9J25051-CAL7	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**

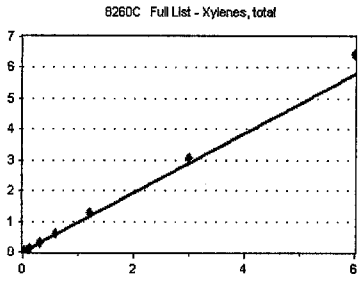
Element Calibration Review Sheet

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**

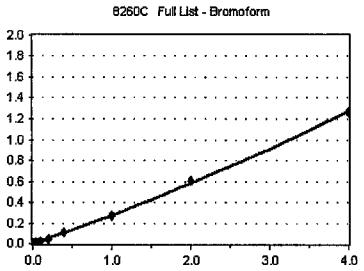


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.3~~	~~1298~~	~~0.823~~	~~10.62~~
~~9J25051-CAL2~~	~~0.6~~	~~2418~~	~~0.812~~	~~10.97~~
9J25051-CAL3	1.2	4494	0.791	10.97
9J25051-CAL4	3	13184	0.824	10.97
9J25051-CAL5	6	25442	0.927	10.97
9J25051-CAL6	15	74342	0.994	10.97
9J25051-CAL7	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**

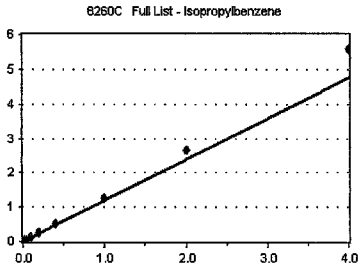


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	134	0.135	11.04
9J25051-CAL3	0.4	316	0.167	11.04
9J25051-CAL4	1	931	0.175	11.04
9J25051-CAL5	2	1883	0.206	11.04
9J25051-CAL6	5	5513	0.221	11.04
9J25051-CAL7	10	13109	0.234	11.04
9J25051-CAL8	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**

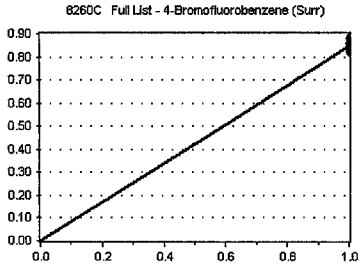


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~392~~	~~0.745~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~829~~	~~0.835~~	~~11.22~~
~~9J25051-CAL3~~	~~0.4~~	~~1525~~	~~0.805~~	~~11.22~~
9J25051-CAL4	1	4739	0.889	11.22
9J25051-CAL5	2	9314	1.018	11.22
9J25051-CAL6	5	28750	1.154	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**

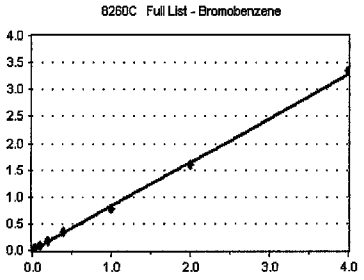
Element Calibration Review Sheet

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**

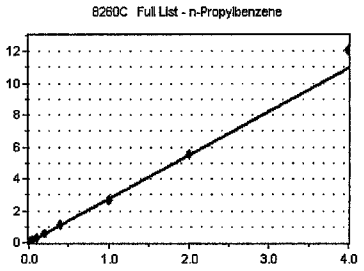


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	212	0.823	11.53
9J25051-CAL2	0.2	389	0.792	11.53
9J25051-CAL3	0.4	732	0.783	11.53
9J25051-CAL4	1	2221	0.824	11.53
9J25051-CAL5	2	3862	0.844	11.53
9J25051-CAL6	5	10809	0.860	11.53
9J25051-CAL7	10	23997	0.846	11.53
9J25051-CAL8	20	43790	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**

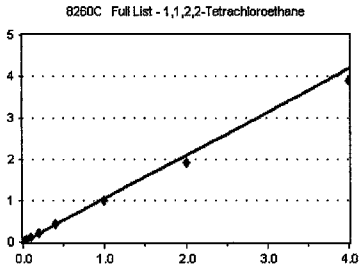


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	703	2.728	11.54
9J25051-CAL2	0.2	1268	2.581	11.54
9J25051-CAL3	0.4	2261	2.417	11.54
9J25051-CAL4	1	6998	2.595	11.54
9J25051-CAL5	2	13043	2.852	11.54
9J25051-CAL6	5	35745	2.843	11.54
9J25051-CAL7	10	80330	2.831	11.54
9J25051-CAL8	20	148949	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**

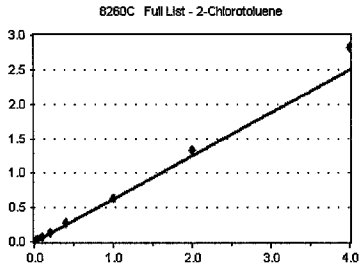


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	251	0.974	11.60
9J25051-CAL2	0.2	488	0.993	11.60
9J25051-CAL3	0.4	967	1.034	11.60
9J25051-CAL4	1	2820	1.046	11.60
9J25051-CAL5	2	5527	1.209	11.60
9J25051-CAL6	5	14004	1.114	11.60
9J25051-CAL7	10	31762	1.119	11.60
9J25051-CAL8	20	56394	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**

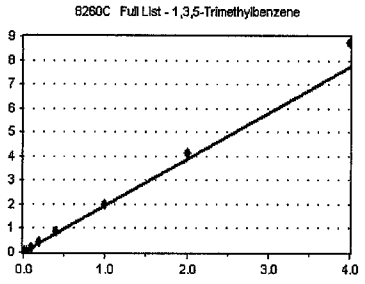
Element Calibration Review Sheet

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**

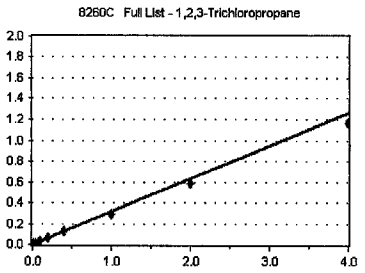


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~347~~	~~1.347~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~719~~	~~1.464~~	~~11.69~~
9J25051-CAL3	0.4	1388	1.484	11.69
9J25051-CAL4	1	4147	1.538	11.69
9J25051-CAL5	2	8326	1.821	11.69
9J25051-CAL6	5	25171	2.002	11.69
9J25051-CAL7	10	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**

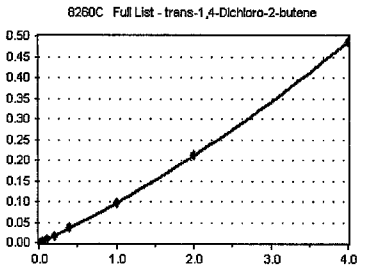


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	154	0.313	11.71
9J25051-CAL3	0.4	290	0.310	11.70
9J25051-CAL4	1	889	0.330	11.71
9J25051-CAL5	2	1624	0.355	11.71
9J25051-CAL6	5	4250	0.338	11.71
9J25051-CAL7	10	9293	0.328	11.71
9J25051-CAL8	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**

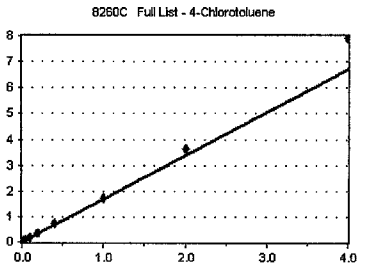


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL4	1	151	5.599	11.73
9J25051-CAL5	2	314	6.866	11.74
9J25051-CAL6	5	920	0.073	11.74
9J25051-CAL7	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**

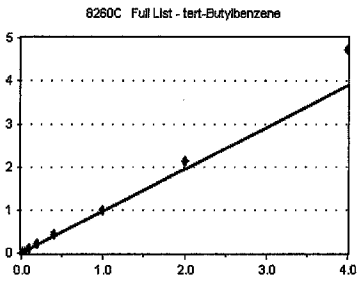
Element Calibration Review Sheet

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**

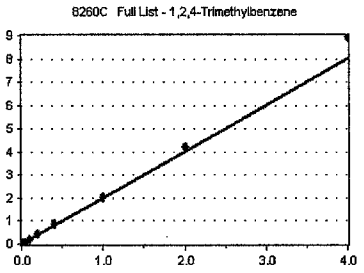


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~160~~	~~0.621~~	~~0.00~~
9J25051-CAL2	0.2	398	0.810	11.93
9J25051-CAL3	0.4	728	0.778	11.93
9J25051-CAL4	1	2301	0.853	11.93
9J25051-CAL5	2	4363	0.954	11.93
9J25051-CAL6	5	12557	0.999	11.93
9J25051-CAL7	10	28831	1.016	11.93
9J25051-CAL8	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**

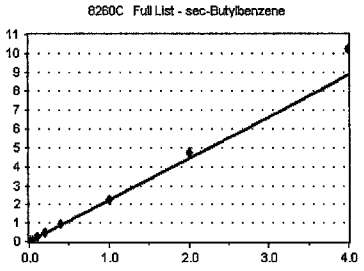


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~385~~	~~1.494~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~700~~	~~1.425~~	~~11.98~~
~~9J25051-CAL3~~	~~0.4~~	~~1235~~	~~1.320~~	~~11.98~~
9J25051-CAL4	1	3979	1.475	11.98
9J25051-CAL5	2	7870	1.721	11.98
9J25051-CAL6	5	25589	2.035	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**

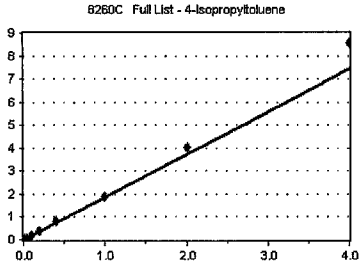


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~435~~	~~1.688~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~773~~	~~1.574~~	~~12.07~~
9J25051-CAL3	0.4	1554	1.661	12.06
9J25051-CAL4	1	5081	1.884	12.06
9J25051-CAL5	2	9664	2.113	12.06
9J25051-CAL6	5	29229	2.325	12.06
9J25051-CAL7	10	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**

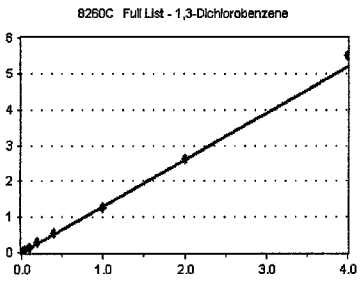
Element Calibration Review Sheet

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**

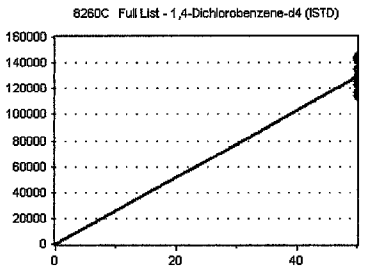


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	309	1.199	12.24
9J25051-CAL2	0.2	622	1.266	12.24
9J25051-CAL3	0.4	1072	1.146	12.24
9J25051-CAL4	1	3266	1.211	12.24
9J25051-CAL5	2	6240	1.364	12.24
9J25051-CAL6	5	17620	1.401	12.24
9J25051-CAL7	10	39173	1.381	12.24
9J25051-CAL8	20	70439	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**

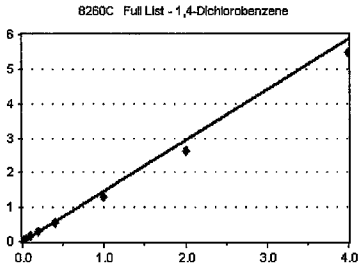


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	128844	2576.880	12.29
9J25051-CAL2	50	122815	2456.300	12.29
9J25051-CAL3	50	116929	2338.580	12.29
9J25051-CAL4	50	134840	2696.800	12.29
9J25051-CAL5	50	114333	2286.660	12.29
9J25051-CAL6	50	125726	2514.520	12.29
9J25051-CAL7	50	141868	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**

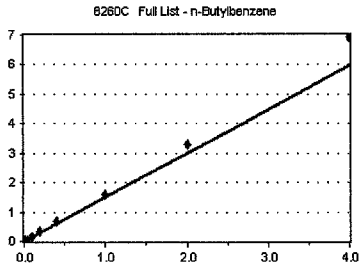


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	450	1.746	12.31
9J25051-CAL2	0.2	808	1.645	12.30
9J25051-CAL3	0.4	1394	1.490	12.31
9J25051-CAL4	1	3909	1.449	12.31
9J25051-CAL5	2	6942	1.518	12.31
9J25051-CAL6	5	18805	1.496	12.31
9J25051-CAL7	10	40327	1.421	12.31
9J25051-CAL8	20	71878	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**

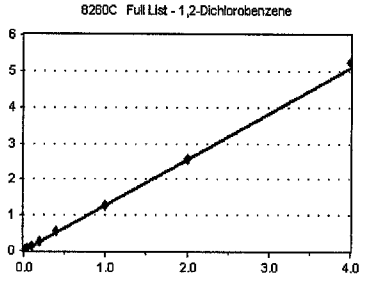
Element Calibration Review Sheet

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**

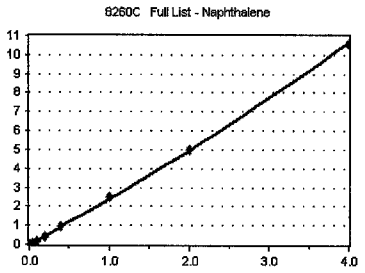


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	0.1	309	1.199	12.64
9J25051-CAL2	0.2	584	1.189	12.64
9J25051-CAL3	0.4	1052	1.125	12.63
9J25051-CAL4	1	3393	1.258	12.64
9J25051-CAL5	2	6204	1.357	12.64
9J25051-CAL6	5	16971	1.350	12.64
9J25051-CAL7	10	38505	1.357	12.64
9J25051-CAL8	20	69775	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**

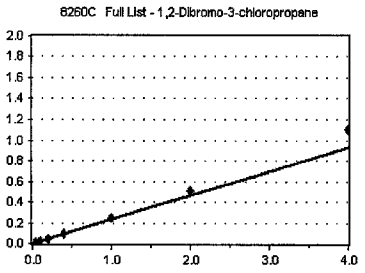


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL2	0.2	453	0.922	0.00
9J25051-CAL3	0.4	915	0.978	14.20
9J25051-CAL4	1	2843	1.054	14.20
9J25051-CAL5	2	5987	1.309	14.20
9J25051-CAL6	5	19030	1.514	14.20
9J25051-CAL7	10	56149	1.979	14.20
9J25051-CAL8	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**

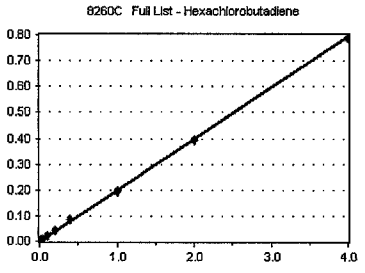


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~121~~	~~0.129~~	~~13.29~~
~~9J25051-CAL4~~	~~1~~	~~450~~	~~0.167~~	~~13.28~~
9J25051-CAL5	2	887	0.194	13.28
9J25051-CAL6	5	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**

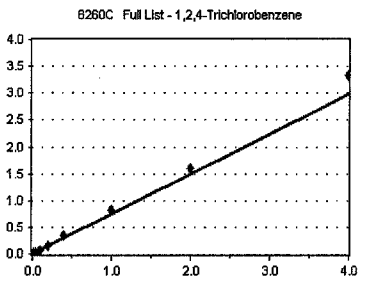
Element Calibration Review Sheet

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**

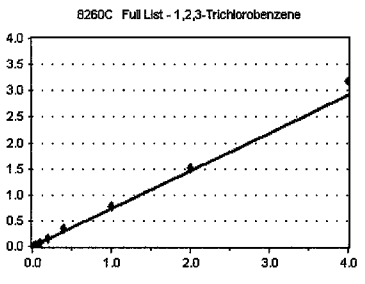


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~123~~	~~0.477~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~228~~	~~0.464~~	~~13.88~~
~~9J25051-CAL3~~	~~0.4~~	~~459~~	~~0.491~~	~~13.87~~
9J25051-CAL4	1	1602	0.594	13.87
9J25051-CAL5	2	2902	0.635	13.87
9J25051-CAL6	5	8550	0.680	13.87
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**

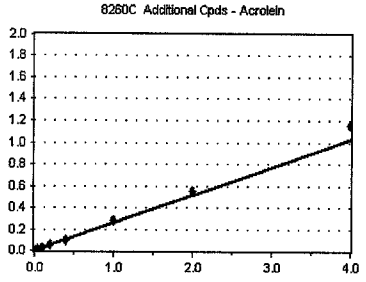
Element Calibration Review Sheet

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**

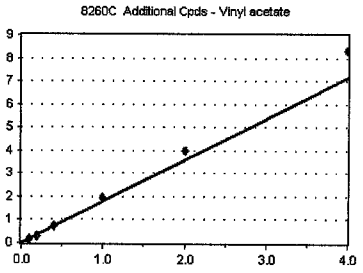


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL4	1	363	0.207	4.03
9J25051-CAL5	2	797	0.260	4.03
9J25051-CAL6	5	2034	0.242	4.04
9J25051-CAL7	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**

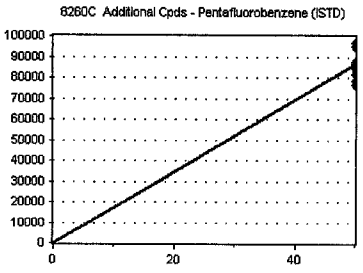


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL4~~	~~1~~	~~1655~~	~~0.942~~	~~5.53~~
~~9J25051-CAL5~~	~~2~~	~~3721~~	~~1.216~~	~~5.53~~
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**

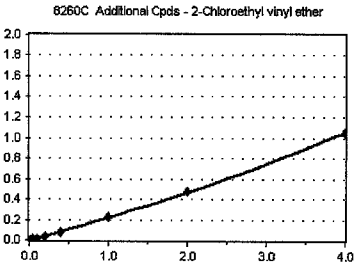


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	86062	1721.240	6.86
9J25051-CAL2	50	81493	1629.860	6.86
9J25051-CAL3	50	78410	1568.200	6.86
9J25051-CAL4	50	87837	1756.740	6.86
9J25051-CAL5	50	76501	1530.020	6.86
9J25051-CAL6	50	84206	1684.120	6.86
9J25051-CAL7	50	94987	1899.740	6.86
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**

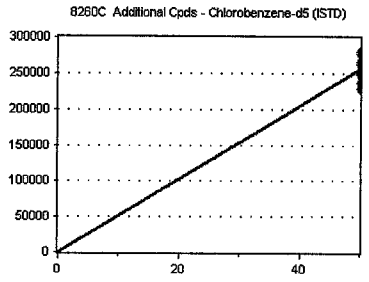
Element Calibration Review Sheet

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**

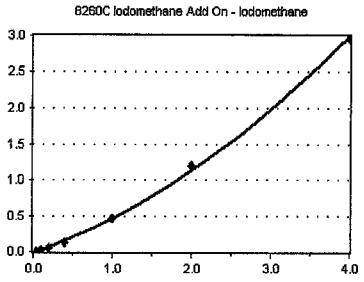
Element Calibration Review Sheet

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**

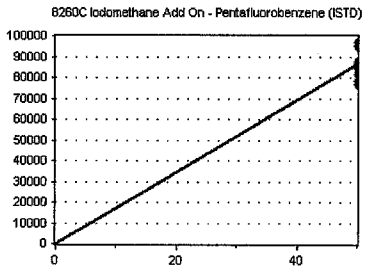


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL5	2	448	0.146	3.75
9J25051-CAL6	5	1592	0.189	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**

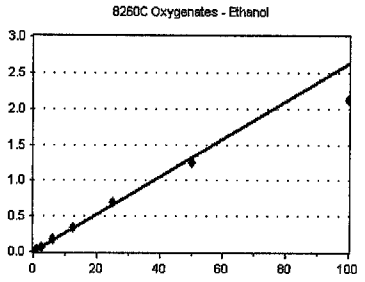
Element Calibration Review Sheet

Calibration ID: **A9J2806** Instrument: **VOA-GCMS7** Calibration Date: **10/28/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VG191025W VG191025G**

Ethanol

Curve Fit: **AVERAGE RF**

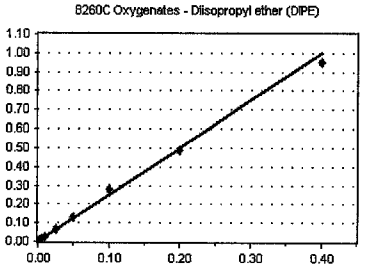


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~6.25~~	~~266~~	~~2.473~~	~~3.63~~
~~9J25051-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	25	1029	2.625	3.63
9J25051-CAL4	62.5	2873	2.617	3.64
9J25051-CAL5	125	5504	2.878	3.63
9J25051-CAL6	312	14603	2.779	3.63
9J25051-CAL7	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**

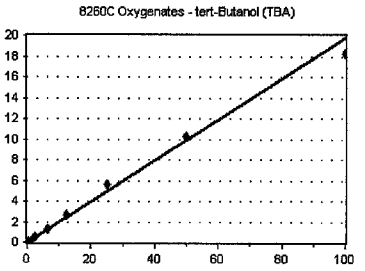


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL3	0.1	342	2.181	0.00
9J25051-CAL4	0.25	1029	2.343	5.11
9J25051-CAL5	0.5	2023	2.644	5.11
9J25051-CAL6	1.25	5485	2.606	5.11
9J25051-CAL7	2.5	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**

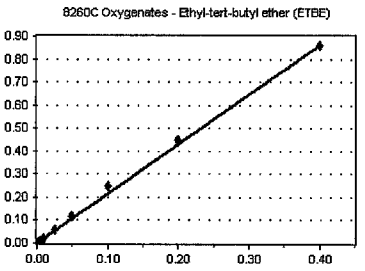


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	6.25	2096	0.195	4.83
9J25051-CAL2	12.5	3672	0.180	4.83
9J25051-CAL3	25	6902	0.176	4.83
9J25051-CAL4	62.5	19370	0.176	4.83
9J25051-CAL5	125	39779	0.208	4.82
9J25051-CAL6	312	110044	0.209	4.82
9J25051-CAL7	625	255470	0.215	4.82
9J25051-CAL8	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**

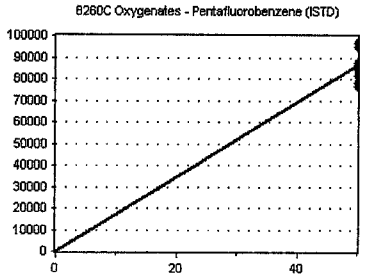
Element Calibration Review Sheet

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**

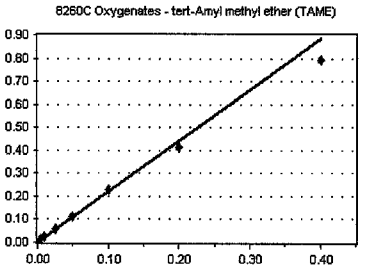


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	86062	1721.240	6.86
9J25051-CAL2	50	81493	1629.860	6.86
9J25051-CAL3	50	78410	1568.200	6.86
9J25051-CAL4	50	87837	1756.740	6.86
9J25051-CAL5	50	76501	1530.020	6.86
9J25051-CAL6	50	84206	1684.120	6.86
9J25051-CAL7	50	94987	1899.740	6.86
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**

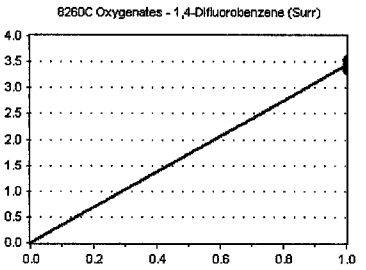


Standard	Concentration	Response	Response Factor	RT
~~9J25051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9J25051-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9J25051-CAL4	0.25	1071	2.439	6.90
9J25051-CAL5	0.5	1740	2.274	6.90
9J25051-CAL6	1.25	4717	2.241	6.90
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**

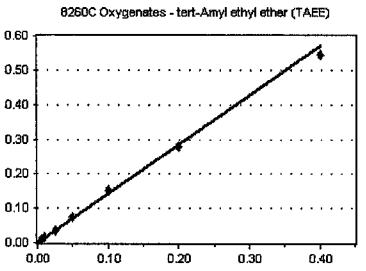


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	305946	3.555	7.45
9J25051-CAL2	50	287858	3.532	7.45
9J25051-CAL3	50	275500	3.514	7.45
9J25051-CAL4	50	309533	3.524	7.45
9J25051-CAL5	50	264143	3.453	7.45
9J25051-CAL6	50	285436	3.390	7.45
9J25051-CAL7	50	322104	3.391	7.45
9J25051-CAL8	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**

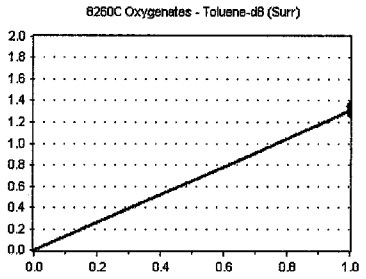
Element Calibration Review Sheet

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**

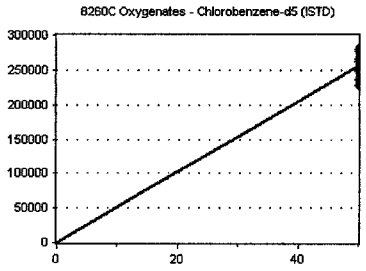


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	340973	1.297	8.99
9J25051-CAL2	50	320375	1.291	8.99
9J25051-CAL3	50	309475	1.307	8.99
9J25051-CAL4	50	348152	1.306	8.99
9J25051-CAL5	50	296218	1.295	8.99
9J25051-CAL6	50	321703	1.291	8.99
9J25051-CAL7	50	362985	1.295	8.99
9J25051-CAL8	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**

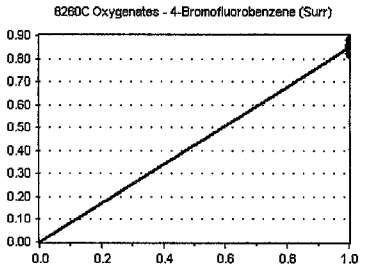


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	262978	5259.560	10.45
9J25051-CAL2	50	248140	4962.800	10.45
9J25051-CAL3	50	236751	4735.020	10.45
9J25051-CAL4	50	266623	5332.460	10.45
9J25051-CAL5	50	228711	4574.220	10.45
9J25051-CAL6	50	249179	4983.580	10.45
9J25051-CAL7	50	280212	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**

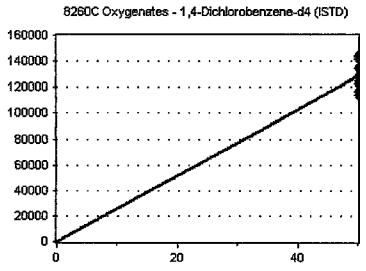


Standard	Concentration	Response	Response Factor	RT
9J25051-CAL1	50	110058	0.854	11.45
9J25051-CAL2	50	103556	0.843	11.45
9J25051-CAL3	50	97363	0.833	11.45
9J25051-CAL4	50	112252	0.832	11.45
9J25051-CAL5	50	93974	0.822	11.45
9J25051-CAL6	50	105208	0.837	11.45
9J25051-CAL7	50	119477	0.842	11.45
9J25051-CAL8	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

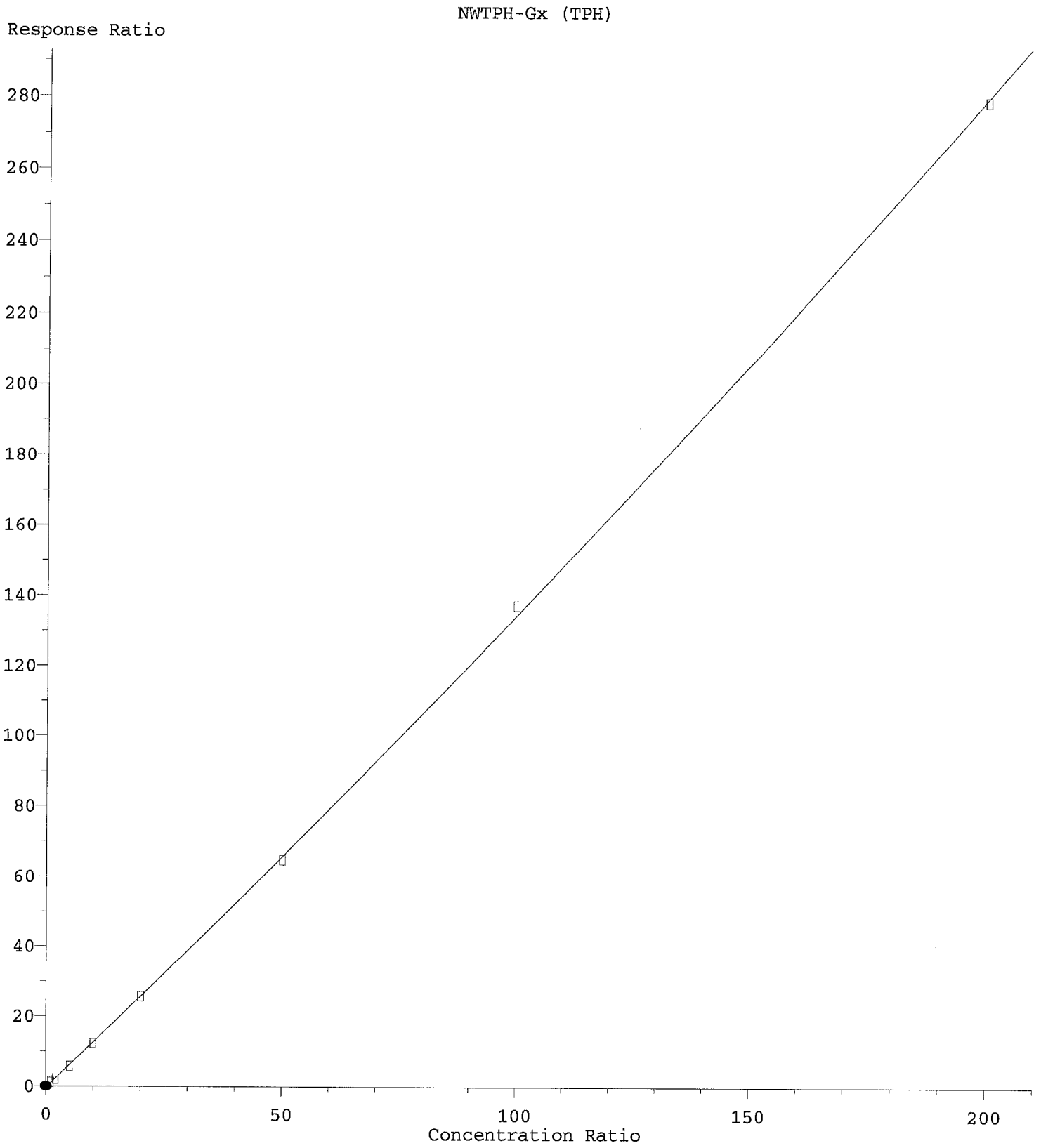
Method Path : C:\msdchem\1\methods\
Method File : VG191025G.M
Title : NWTPH-Gx by GC/MS
Last Update : Mon Oct 28 12:17:57 2019
Response Via : Initial Calibration

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



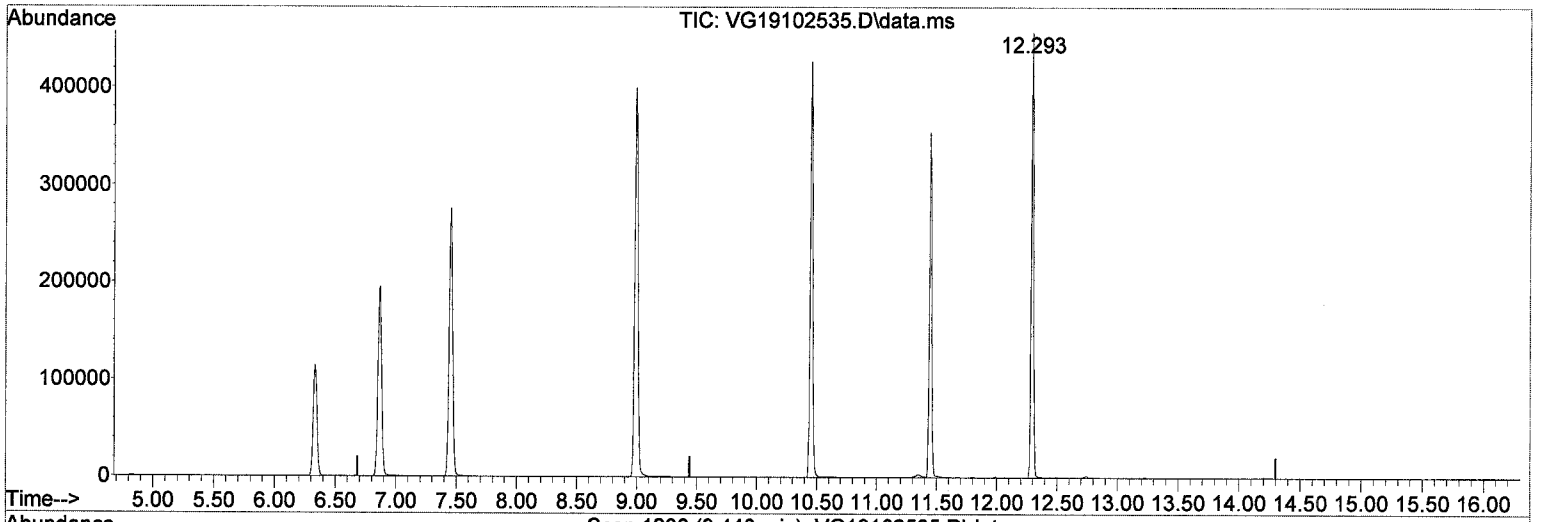
Int = 23,29 ✓

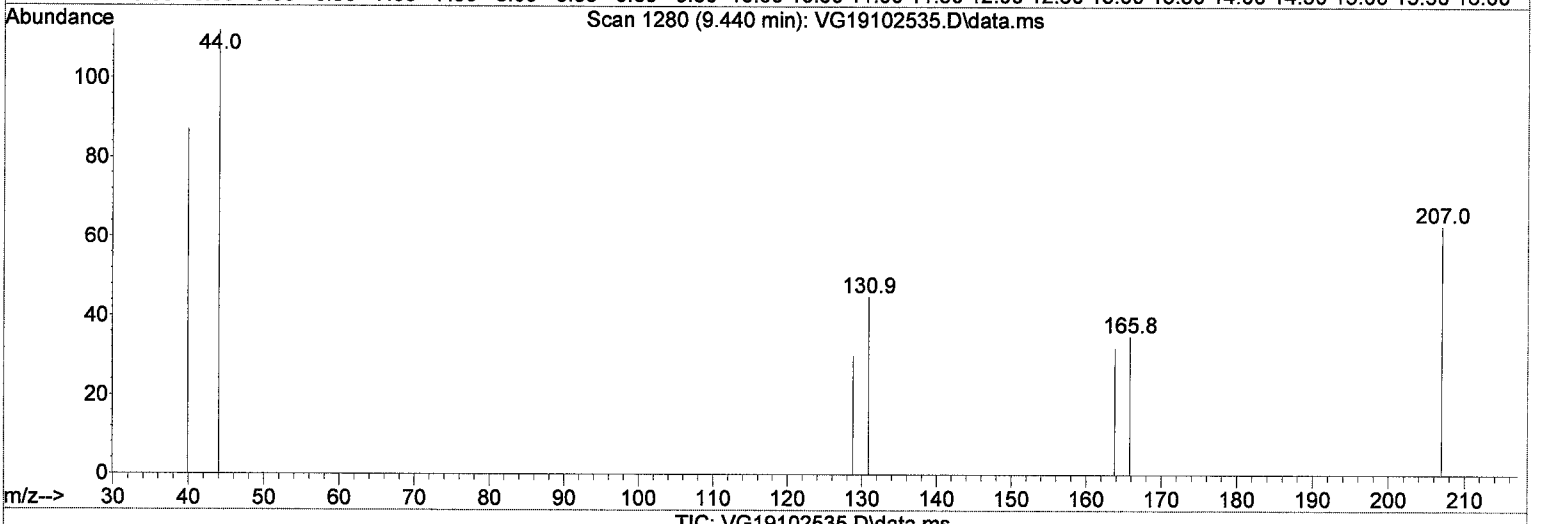
R = 5.30e-004 A*A + 1.30e+000 A - 4.15e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025G.M
Calibration Table Last Updated: Mon Oct 28 12:17:57 2019

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





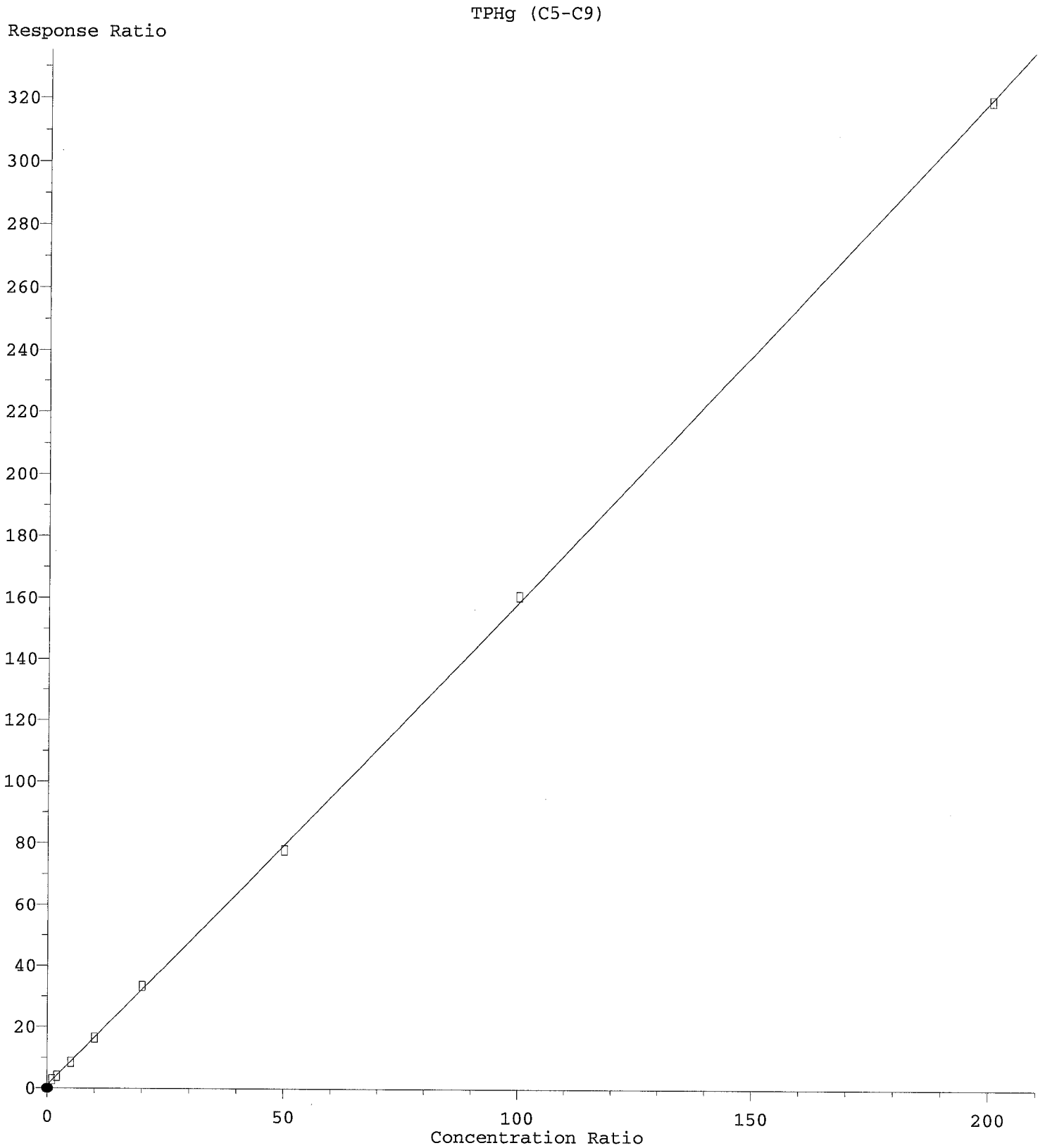
TIC: VG19102535.D\data.ms

(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



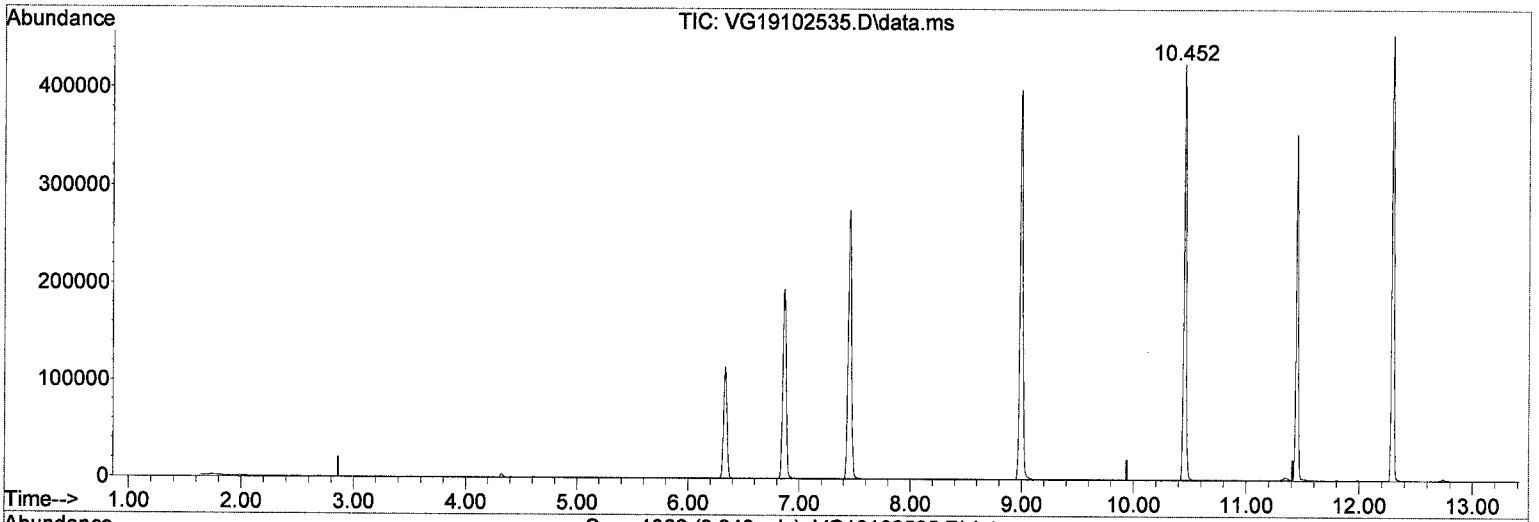
Int = 18.73

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



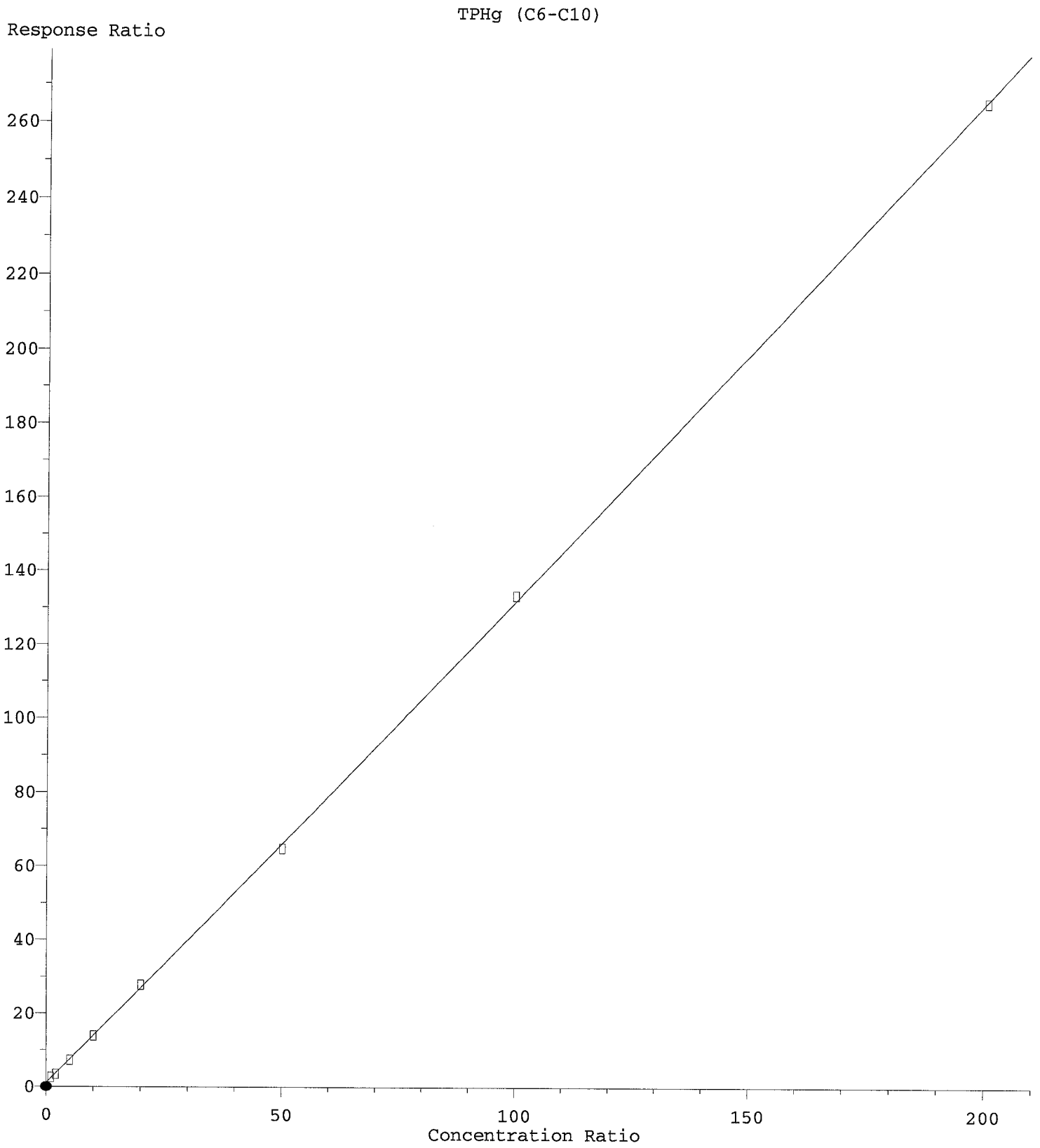
TIC: VG19102535.D\data.ms

(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



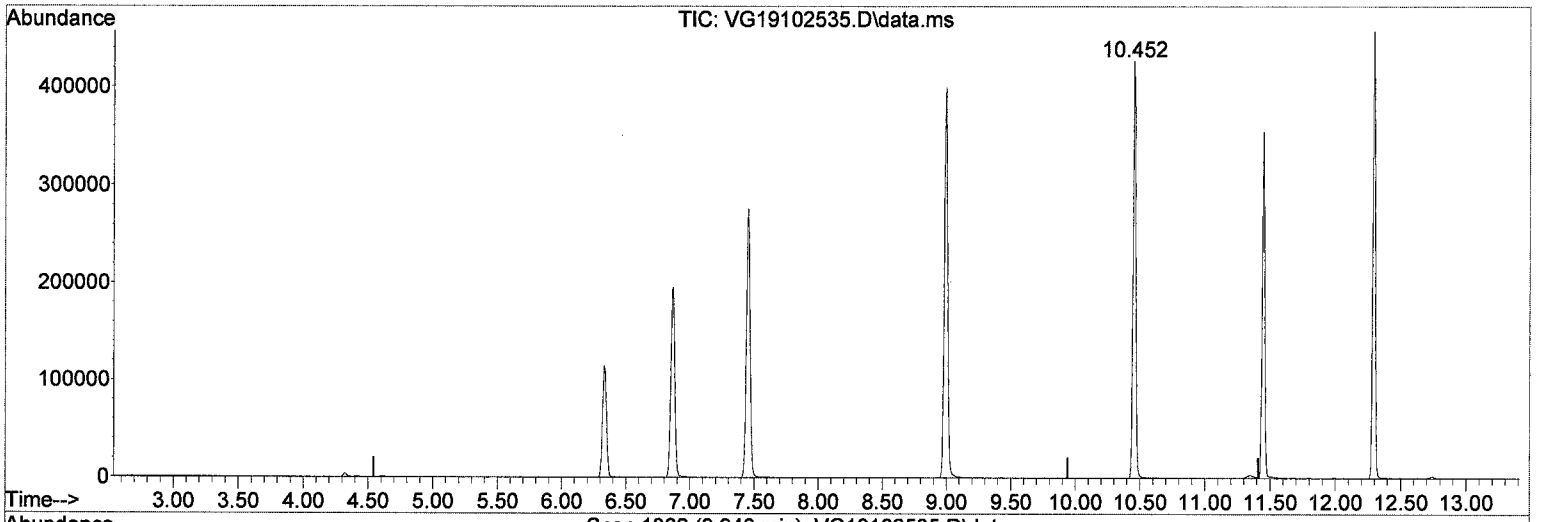
fmt = 21.67

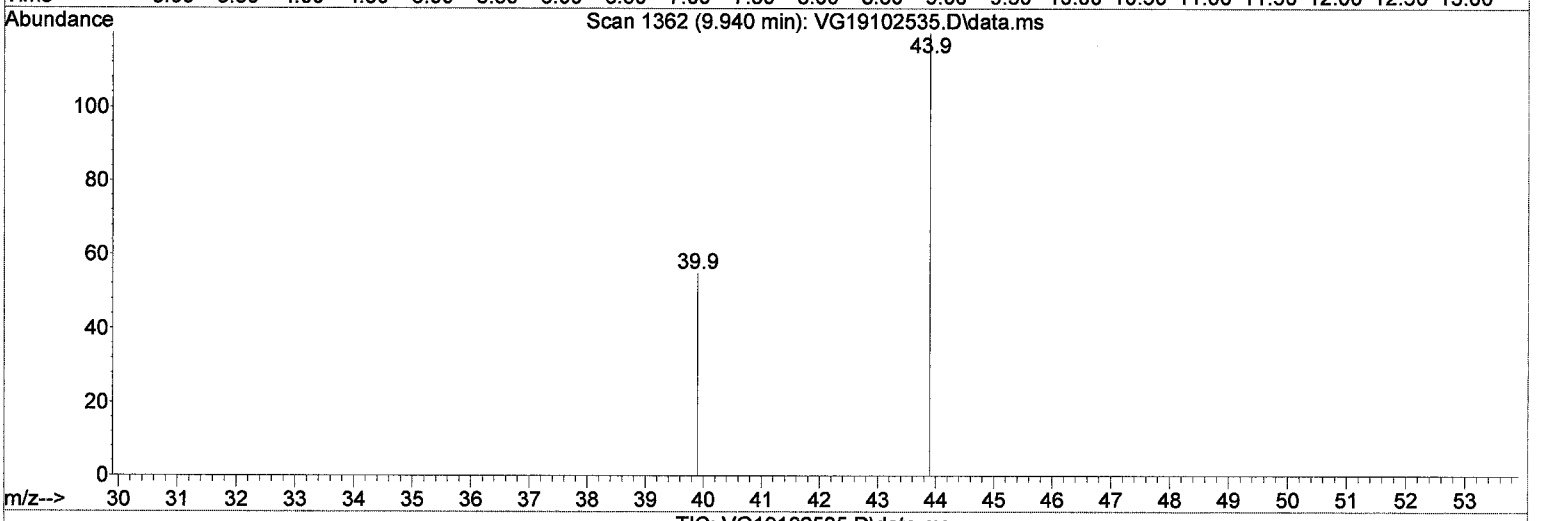
R = 1.62e-004 A*A + 1.29e+000 A + 1.01e+000
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025G.M
Calibration Table Last Updated: Mon Oct 28 12:17:57 2019

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





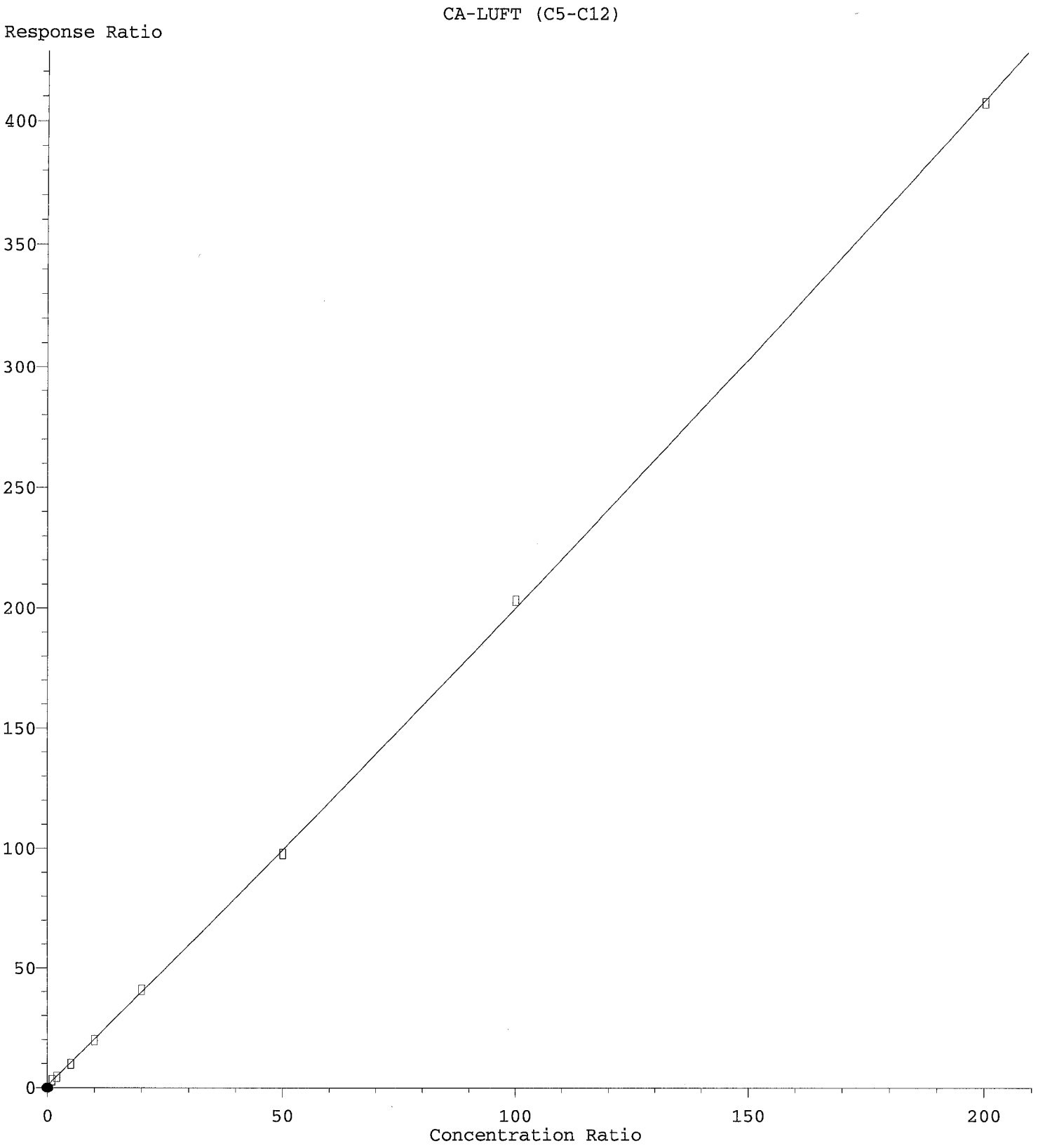
TIC: VG19102535.D\data.ms

(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



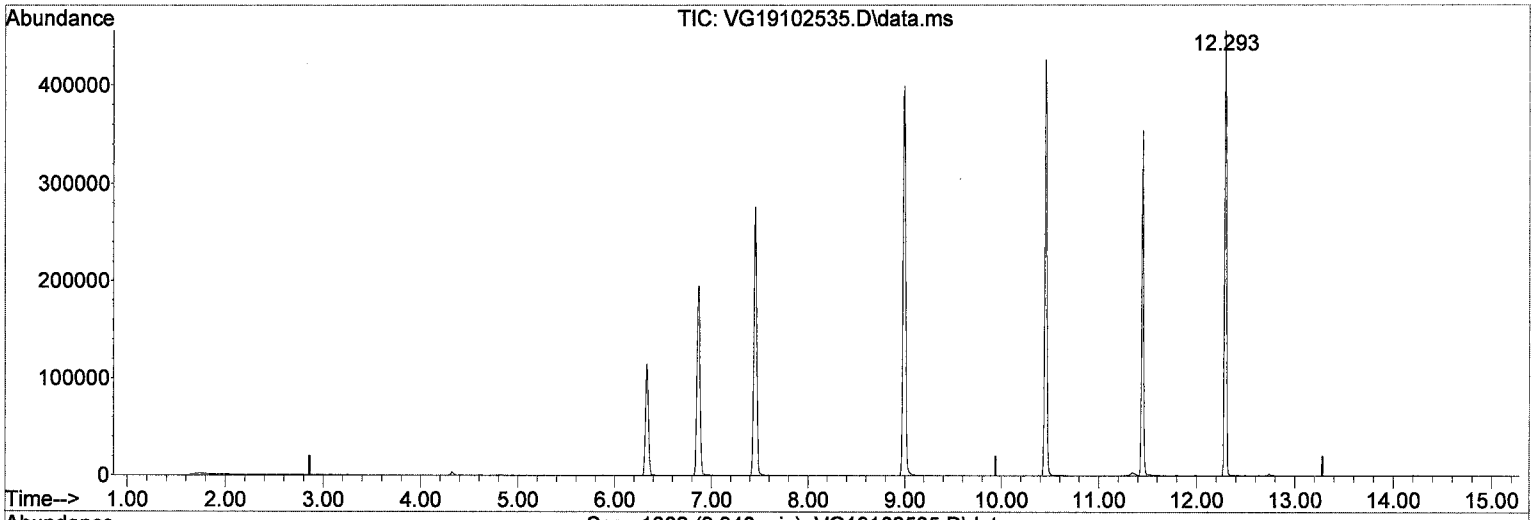
IUT = 22.78

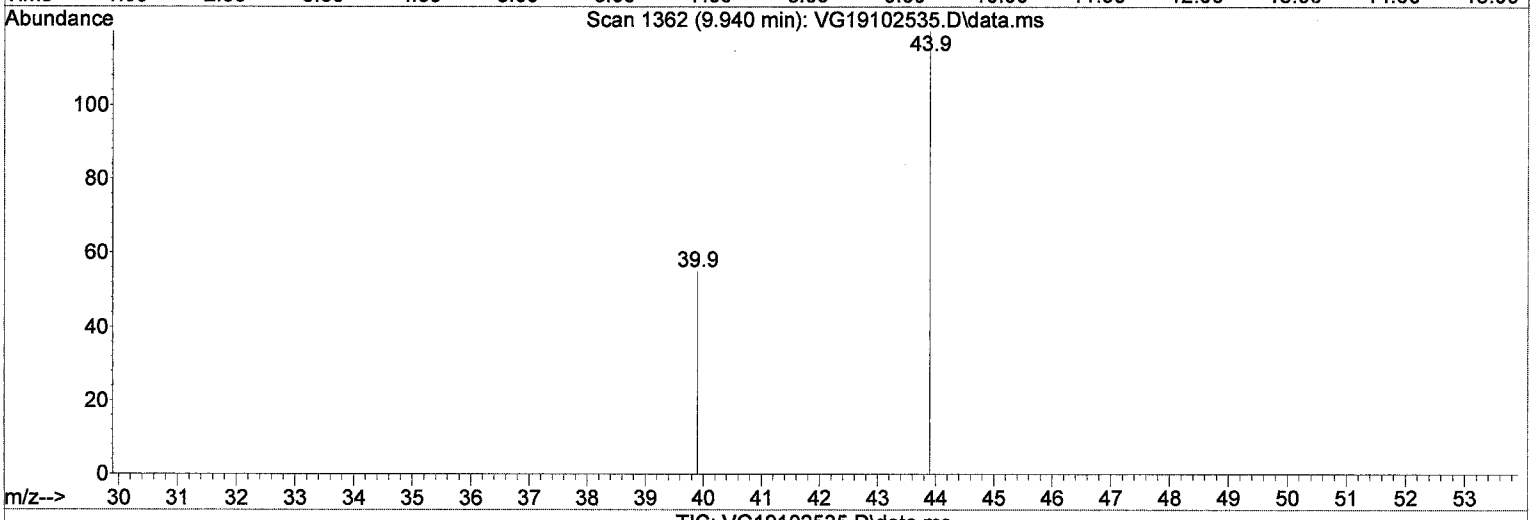
R = 4.75e-004 A*A + 1.95e+000 A + 8.13e-001
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VG191025G.M
Calibration Table Last Updated: Mon Oct 28 12:17:57 2019

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

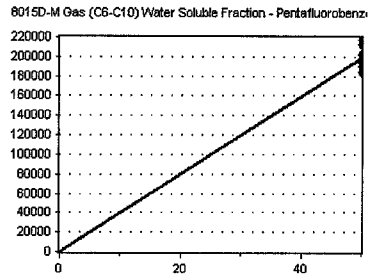
Element Calibration Review Sheet

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**

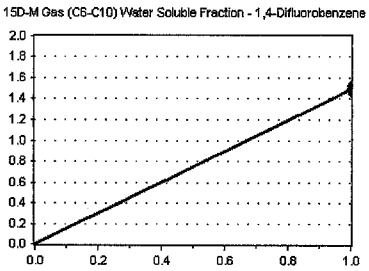


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	193559	3871.180	6.87
9J25051-CALD	50	202223	4044.460	6.87
9J25051-CALE	50	212459	4249.180	6.87
9J25051-CALF	50	184039	3680.780	6.86
9J25051-CALG	50	190639	3812.780	6.87
9J25051-CALH	50	218107	4362.140	6.87
9J25051-CALI	50	195244	3904.880	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**

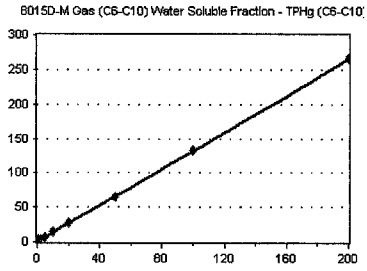


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	295012	1.524	7.45
9J25051-CALD	50	304919	1.508	7.45
9J25051-CALE	50	314600	1.481	7.45
9J25051-CALF	50	275552	1.497	7.45
9J25051-CALG	50	286580	1.503	7.45
9J25051-CALH	50	319682	1.466	7.45
9J25051-CALI	50	291674	1.494	7.45
9J25051-CALJ	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**

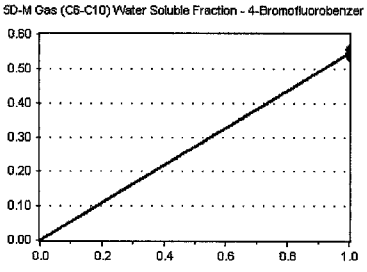


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	477926	2.469	9.94
9J25051-CALD	100	680725	1.683	9.94
9J25051-CALE	250	1521053	1.432	9.94
9J25051-CALF	500	2539707	1.380	9.94
9J25051-CALG	1000	5288509	1.387	9.94
9J25051-CALH	2500	1.41248E+07	1.295	9.94
9J25051-CALI	5000	2.605397E+07	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**

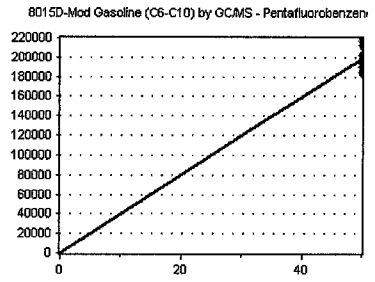
Element Calibration Review Sheet

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**

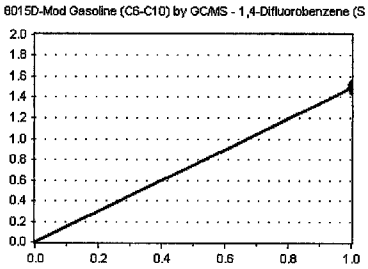


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	193559	3871.180	6.87
9J25051-CALD	50	202223	4044.460	6.87
9J25051-CALE	50	212459	4249.180	6.87
9J25051-CALF	50	184039	3680.780	6.86
9J25051-CALG	50	190639	3812.780	6.87
9J25051-CALH	50	218107	4362.140	6.87
9J25051-CALI	50	195244	3904.880	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**

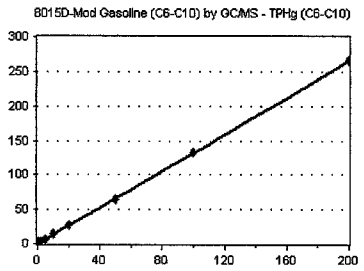


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	295012	1.524	7.45
9J25051-CALD	50	304919	1.508	7.45
9J25051-CALE	50	314600	1.481	7.45
9J25051-CALF	50	275552	1.497	7.45
9J25051-CALG	50	286580	1.503	7.45
9J25051-CALH	50	319682	1.466	7.45
9J25051-CALI	50	291674	1.494	7.45
9J25051-CALJ	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**

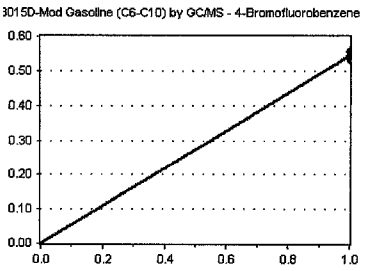


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	477926	2.469	9.94
9J25051-CALD	100	680725	1.683	9.94
9J25051-CALE	250	1521053	1.432	9.94
9J25051-CALF	500	2539707	1.380	9.94
9J25051-CALG	1000	5288509	1.387	9.94
9J25051-CALH	2500	1.41248E+07	1.295	9.94
9J25051-CALI	5000	2.605397E+07	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**

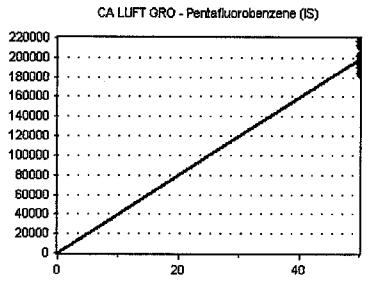
Element Calibration Review Sheet

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**

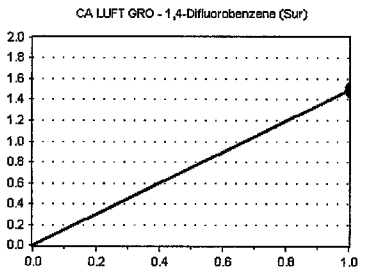


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	193559	3871.180	6.87
9J25051-CALD	50	202223	4044.460	6.87
9J25051-CALE	50	212459	4249.180	6.87
9J25051-CALF	50	184039	3680.780	6.86
9J25051-CALG	50	190639	3812.780	6.87
9J25051-CALH	50	218107	4362.140	6.87
9J25051-CALI	50	195244	3904.880	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**

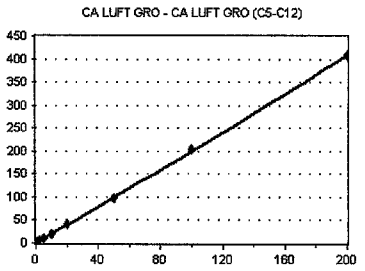


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	295012	1.524	7.45
9J25051-CALD	50	304919	1.508	7.45
9J25051-CALE	50	314600	1.481	7.45
9J25051-CALF	50	275552	1.497	7.45
9J25051-CALG	50	286580	1.503	7.45
9J25051-CALH	50	319682	1.466	7.45
9J25051-CALI	50	291674	1.494	7.45
9J25051-CALJ	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**

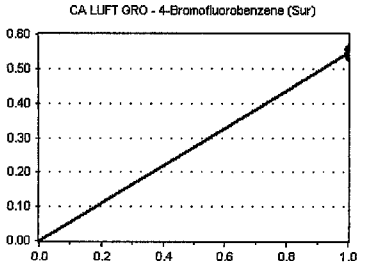


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	592441	3.061	9.94
9J25051-CALD	100	891666	2.205	9.94
9J25051-CALE	250	2098250	1.975	9.94
9J25051-CALF	500	3642980	1.979	9.94
9J25051-CALG	1000	7765125	2.037	9.94
9J25051-CALH	2500	2.13198E+07	1.955	9.94
9J25051-CALI	5000	3.968852E+07	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**

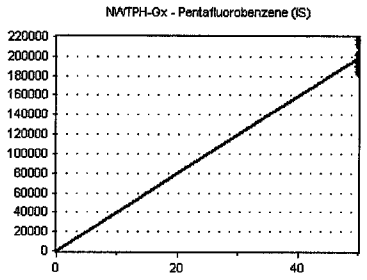
Element Calibration Review Sheet

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**

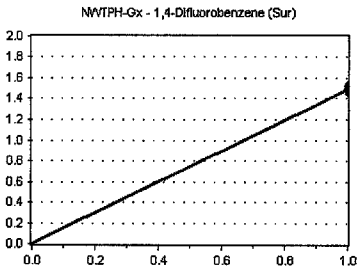


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	193559	3871.180	6.87
9J25051-CALD	50	202223	4044.460	6.87
9J25051-CALE	50	212459	4249.180	6.87
9J25051-CALF	50	184039	3680.780	6.86
9J25051-CALG	50	190639	3812.780	6.87
9J25051-CALH	50	218107	4362.140	6.87
9J25051-CALI	50	195244	3904.880	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**

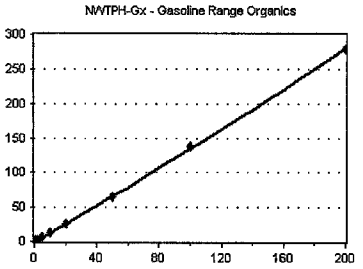


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	295012	1.524	7.45
9J25051-CALD	50	304919	1.508	7.45
9J25051-CALE	50	314600	1.481	7.45
9J25051-CALF	50	275552	1.497	7.45
9J25051-CALG	50	286580	1.503	7.45
9J25051-CALH	50	319682	1.466	7.45
9J25051-CALI	50	291674	1.494	7.45
9J25051-CALJ	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**

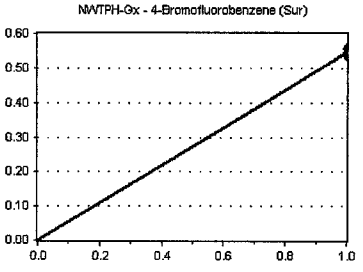


Standard	Concentration	Response	Response Factor	RT
9J25051-CALC	50	208521	1.077	9.44
9J25051-CALD	100	406857	1.006	9.44
9J25051-CALE	250	1206913	1.136	9.44
9J25051-CALF	500	2248368	1.222	9.44
9J25051-CALG	1000	4898415	1.285	9.44
9J25051-CALH	2500	1.413597E+07	1.296	9.44
9J25051-CALI	5000	2.67945E+07	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

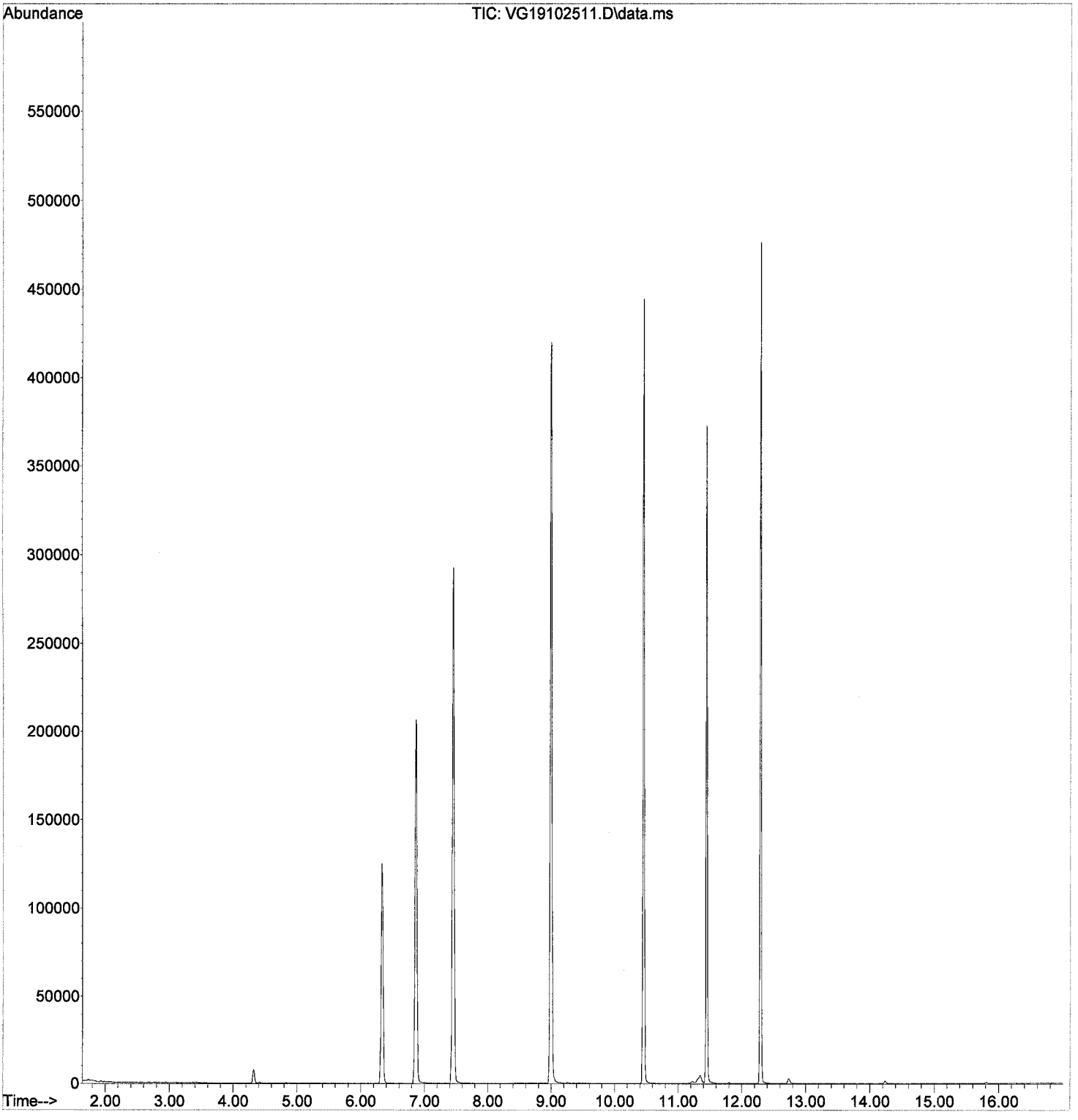
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	79679	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	238424	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	114211	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (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



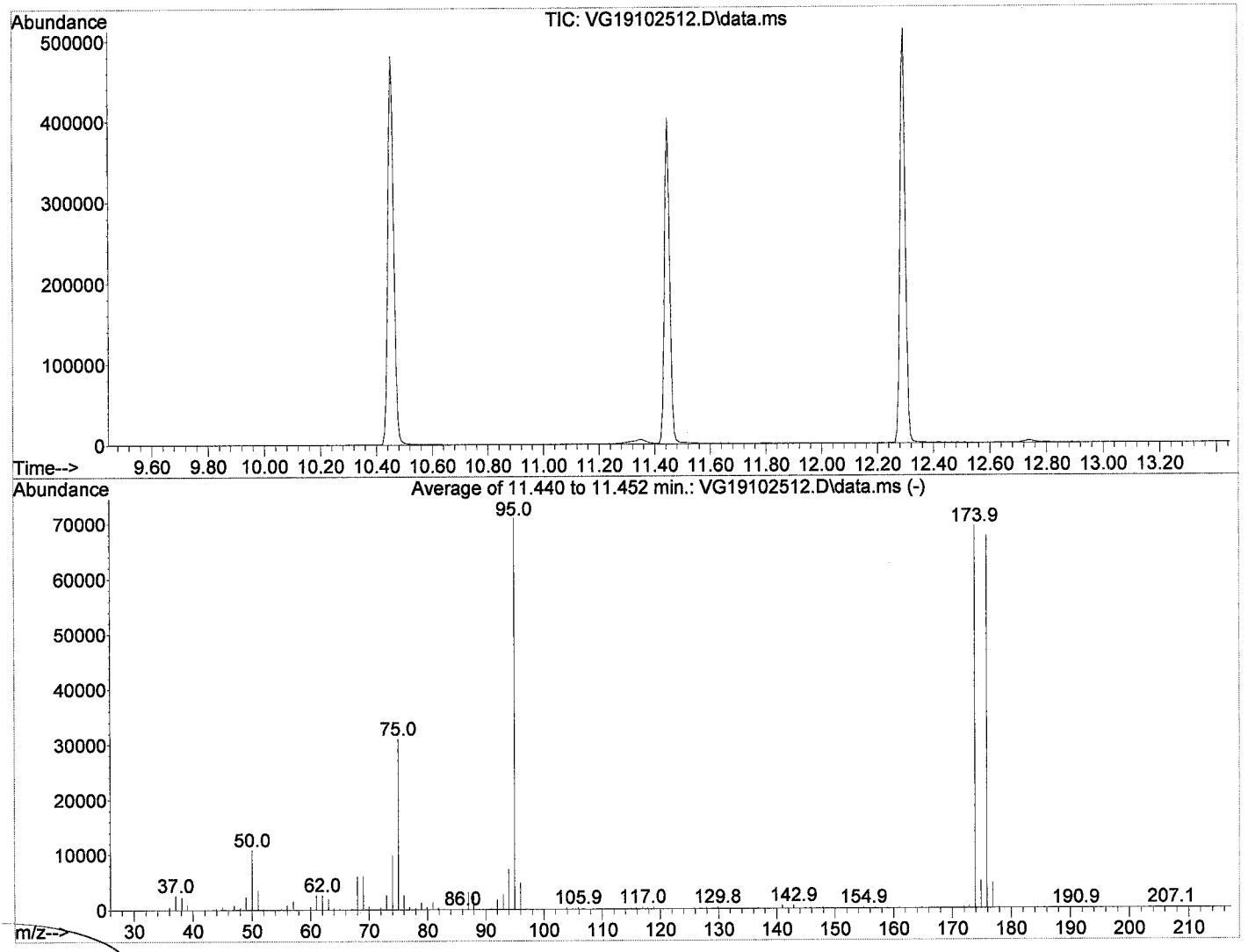
BFB

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

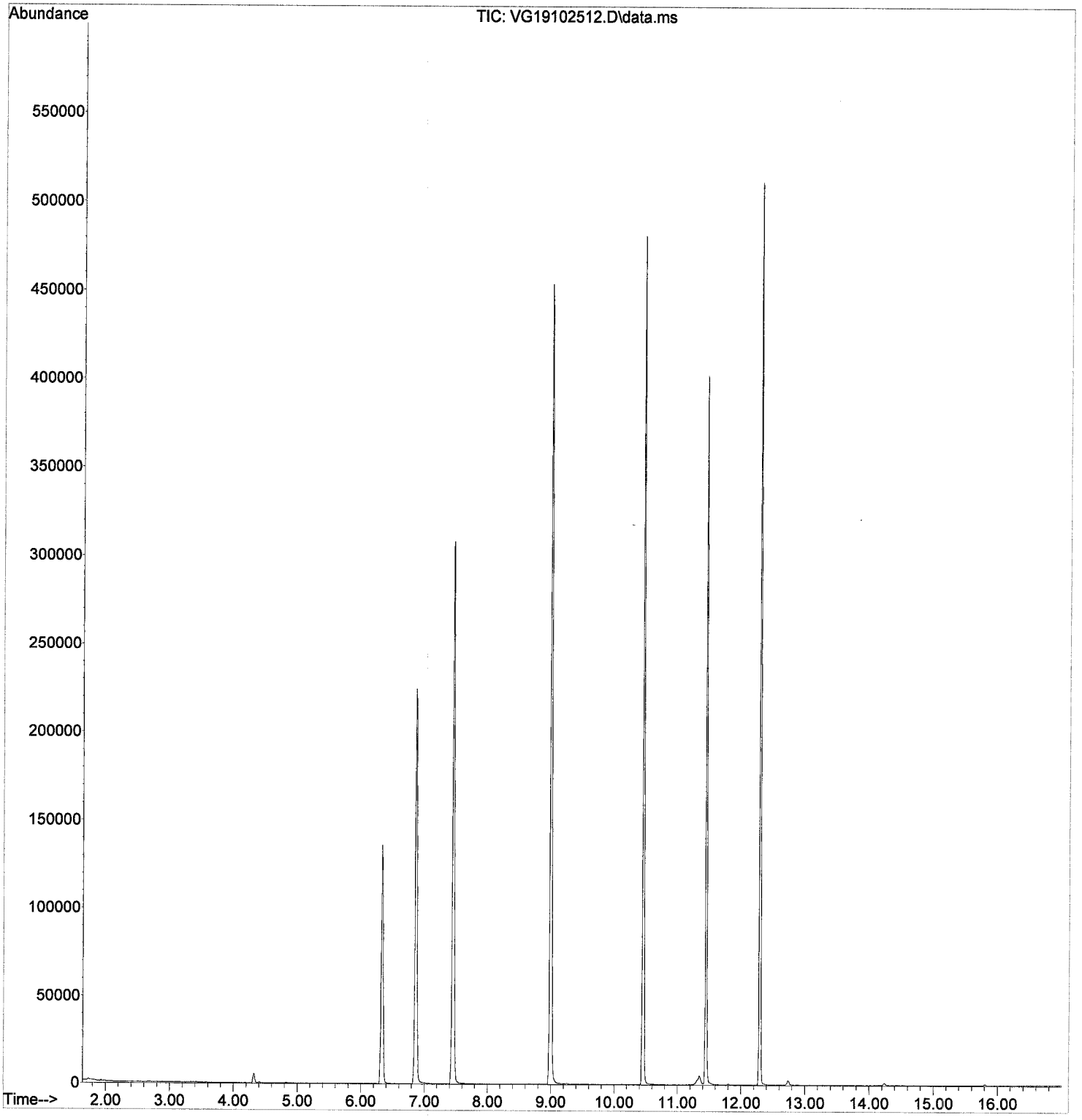
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.862	99	84248	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	258488	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	125829	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (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

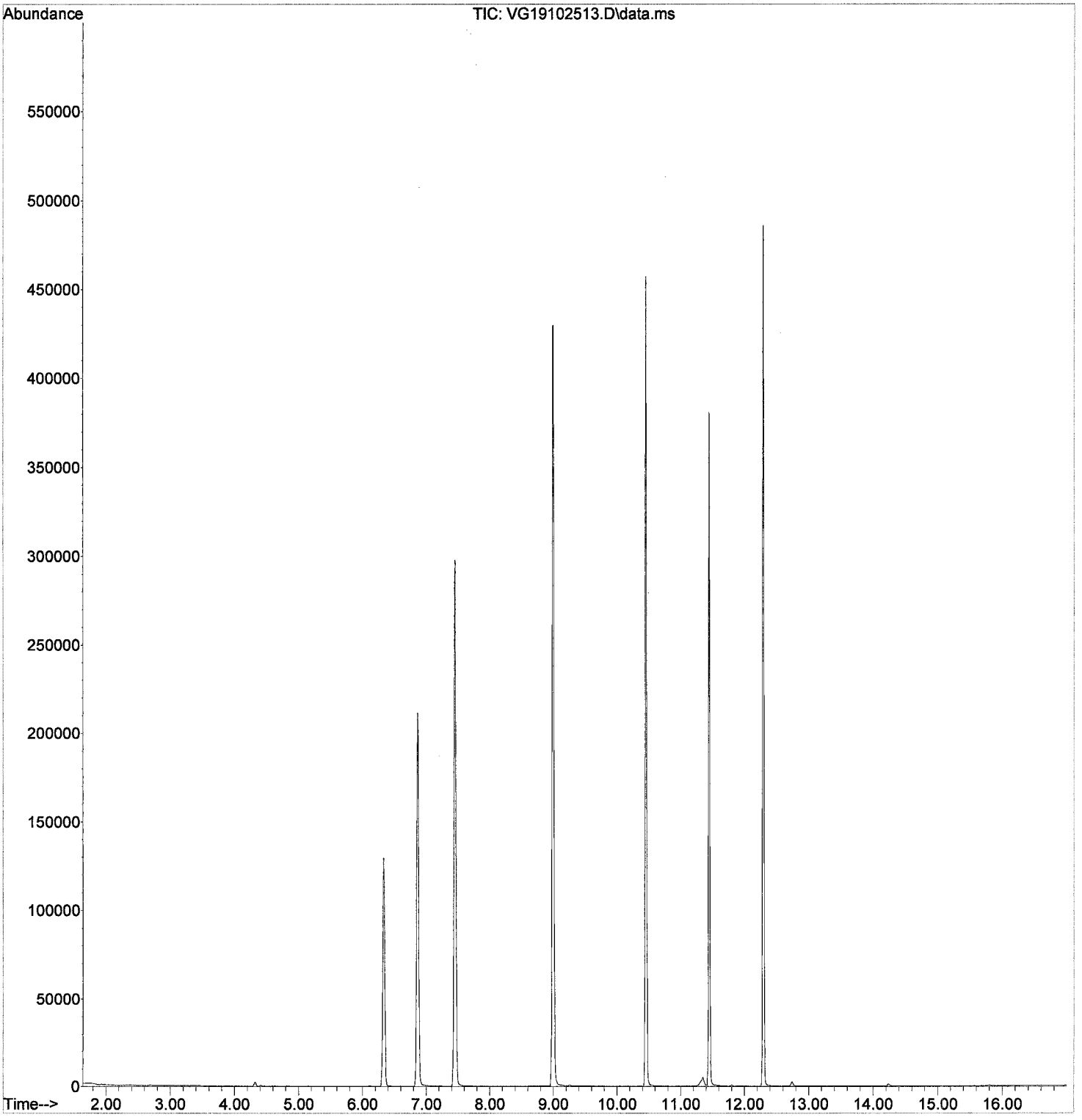
LMDC

(#) = 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

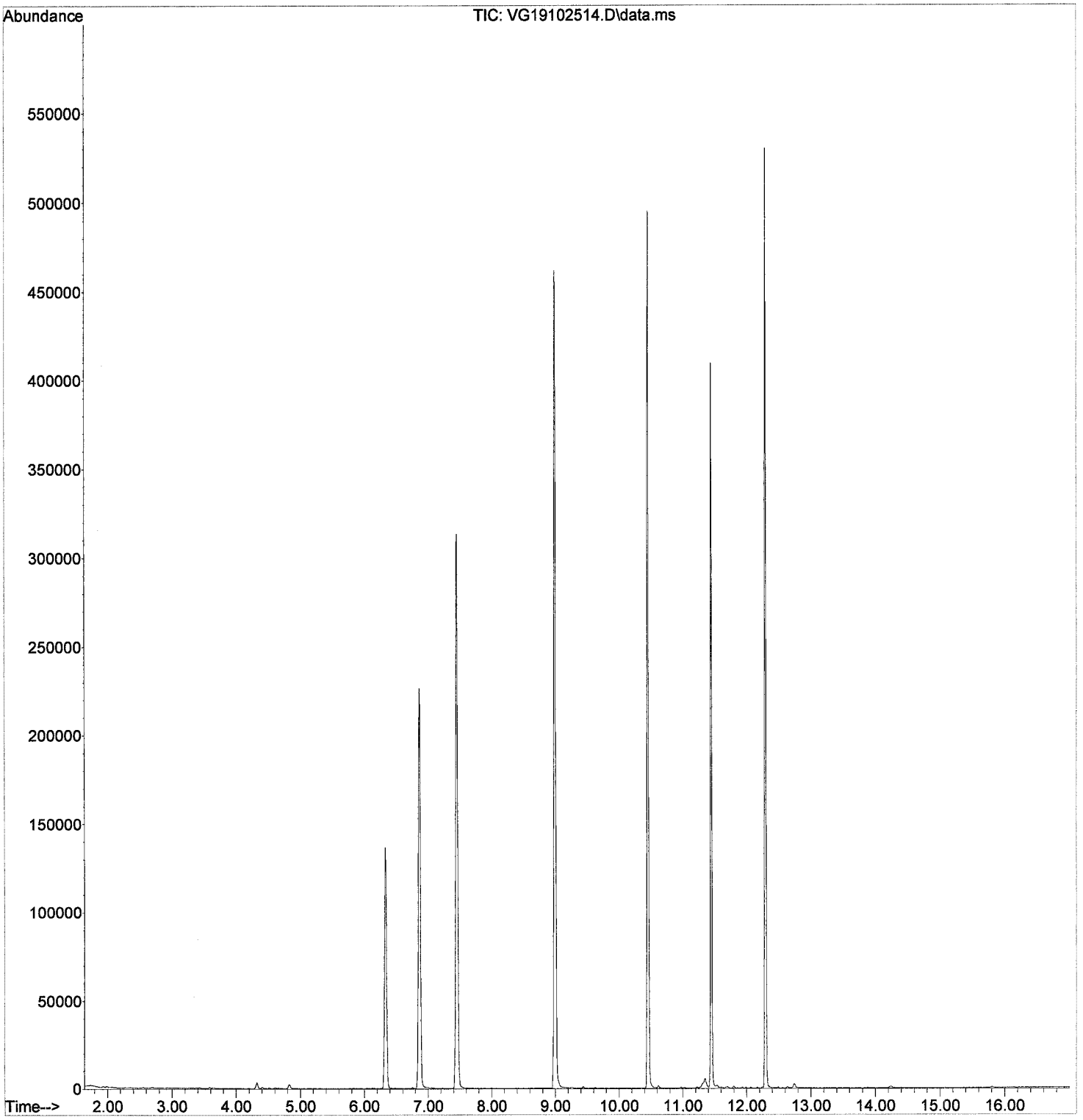
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	991	0.13	ug/L		90
50) Tetrachloroethene (PCE)	9.440	166	215	0.10	ug/L		74
51) 4-Methyl-2-Pentanone (...	9.446	43	316	0.12	ug/L		86
52) t-1,3-Dichloropropene	9.483	75	81	0.04	ug/L	#	45
53) 1,1,2-Trichloroethane	9.629	97	163	0.09	ug/L	#	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

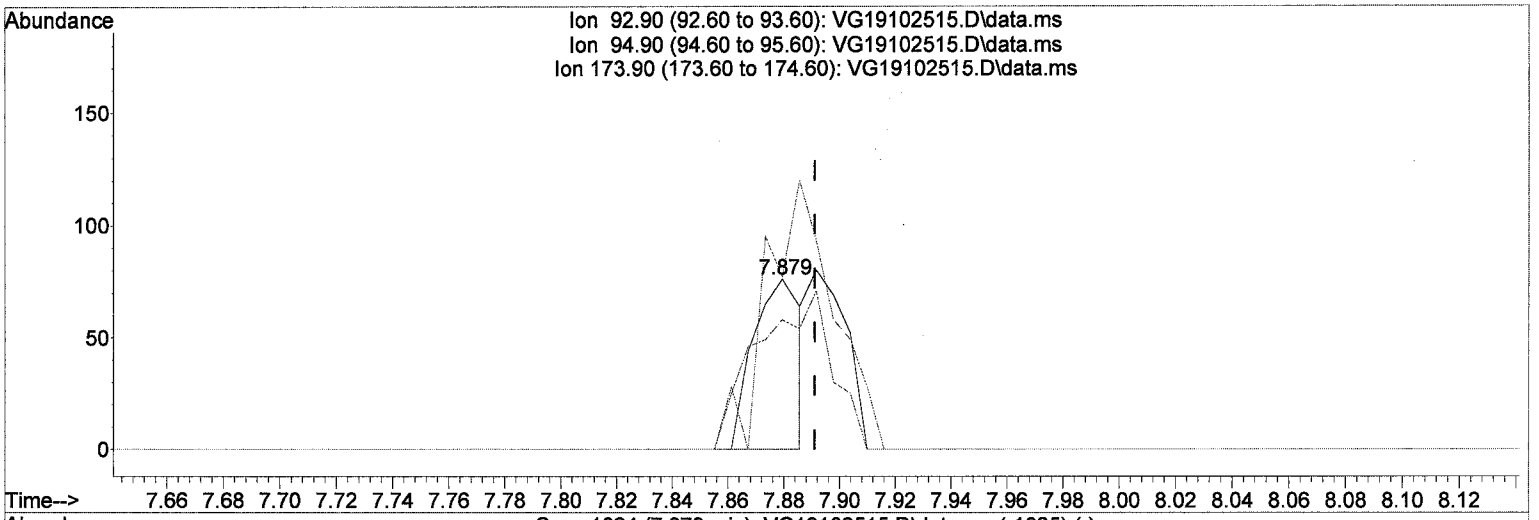
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	1534	0.21	ug/L		89
50) Tetrachloroethene (PCE)	9.434	166	428	0.22	ug/L		95
51) 4-Methyl-2-Pentanone (...	9.440	43	661	0.27	ug/L		78
52) t-1,3-Dichloropropene	9.483	75	211	0.11	ug/L		96
53) 1,1,2-Trichloroethane	9.635	97	312	0.17	ug/L		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

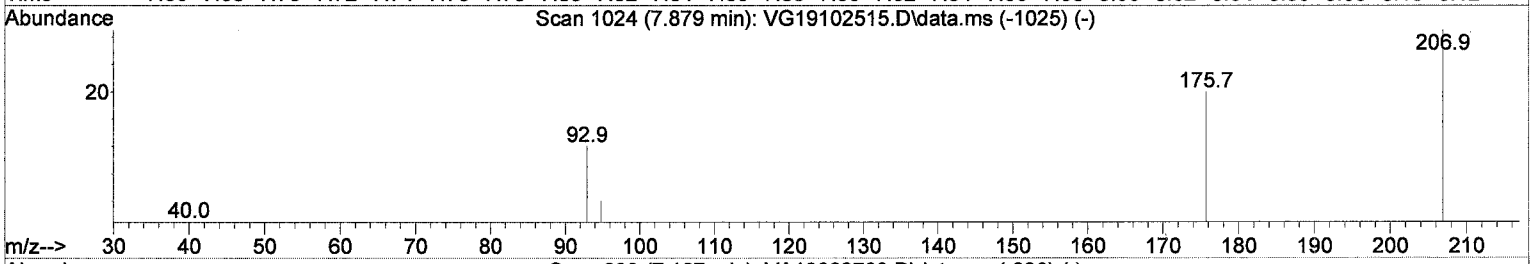
(#) = qualifier out of range (m) = manual integration (+) = signals summed

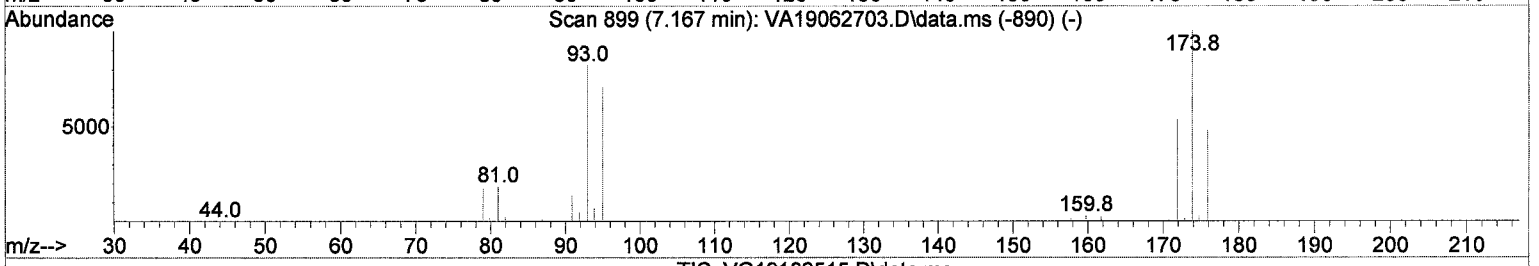
Quantitation Report (Qedit)

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

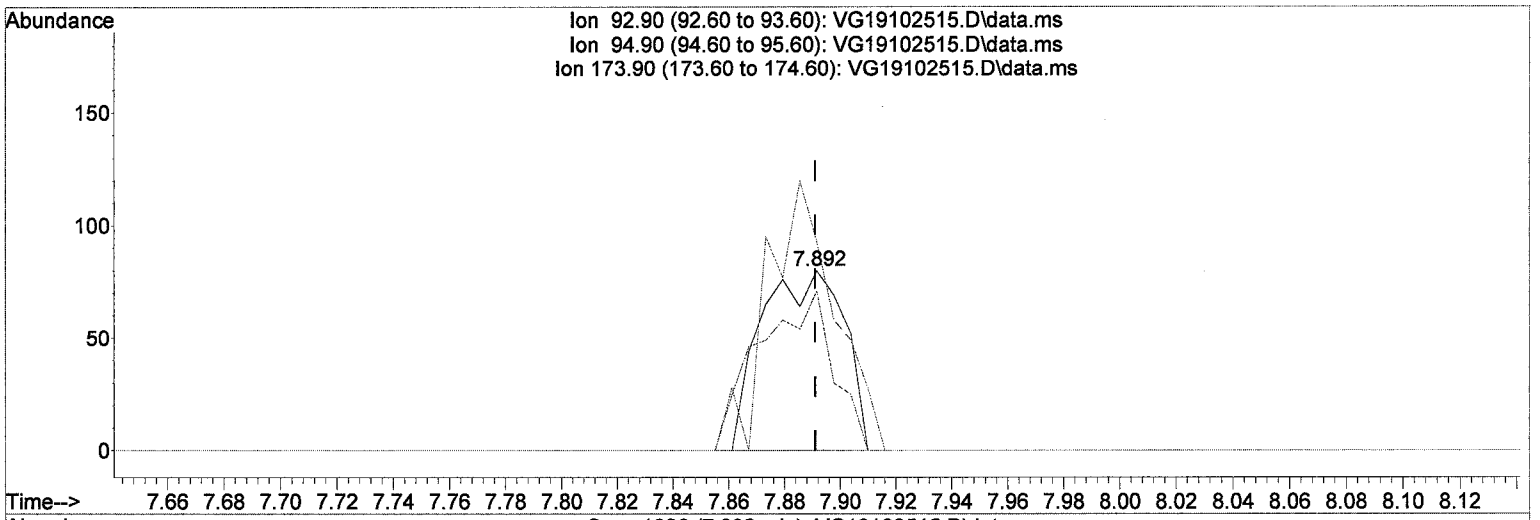
response 91

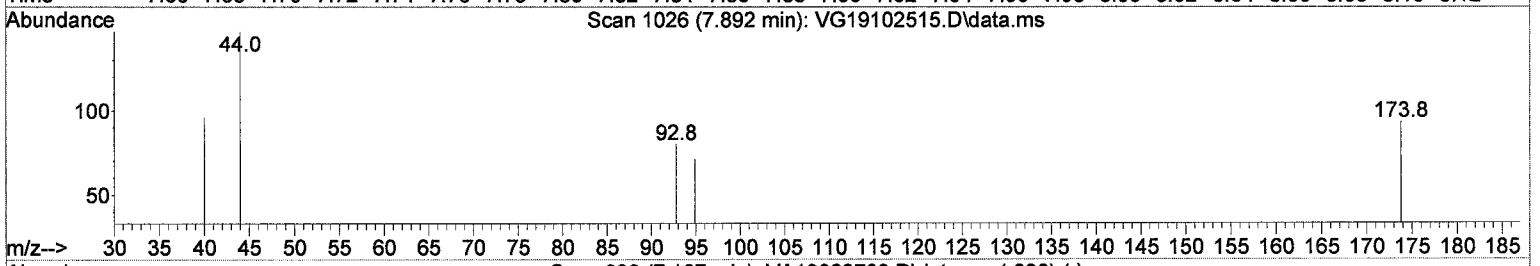
Ion	Exp%	Act%
92.90	100.00	100.00
94.90	83.10	76.32
173.90	115.70	101.32
0.00	0.00	0.00

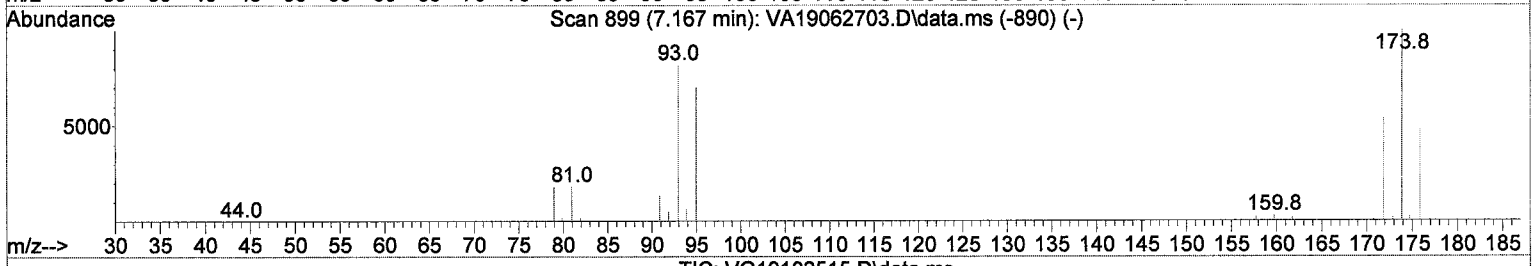
Quantitation Report (Qedit)

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

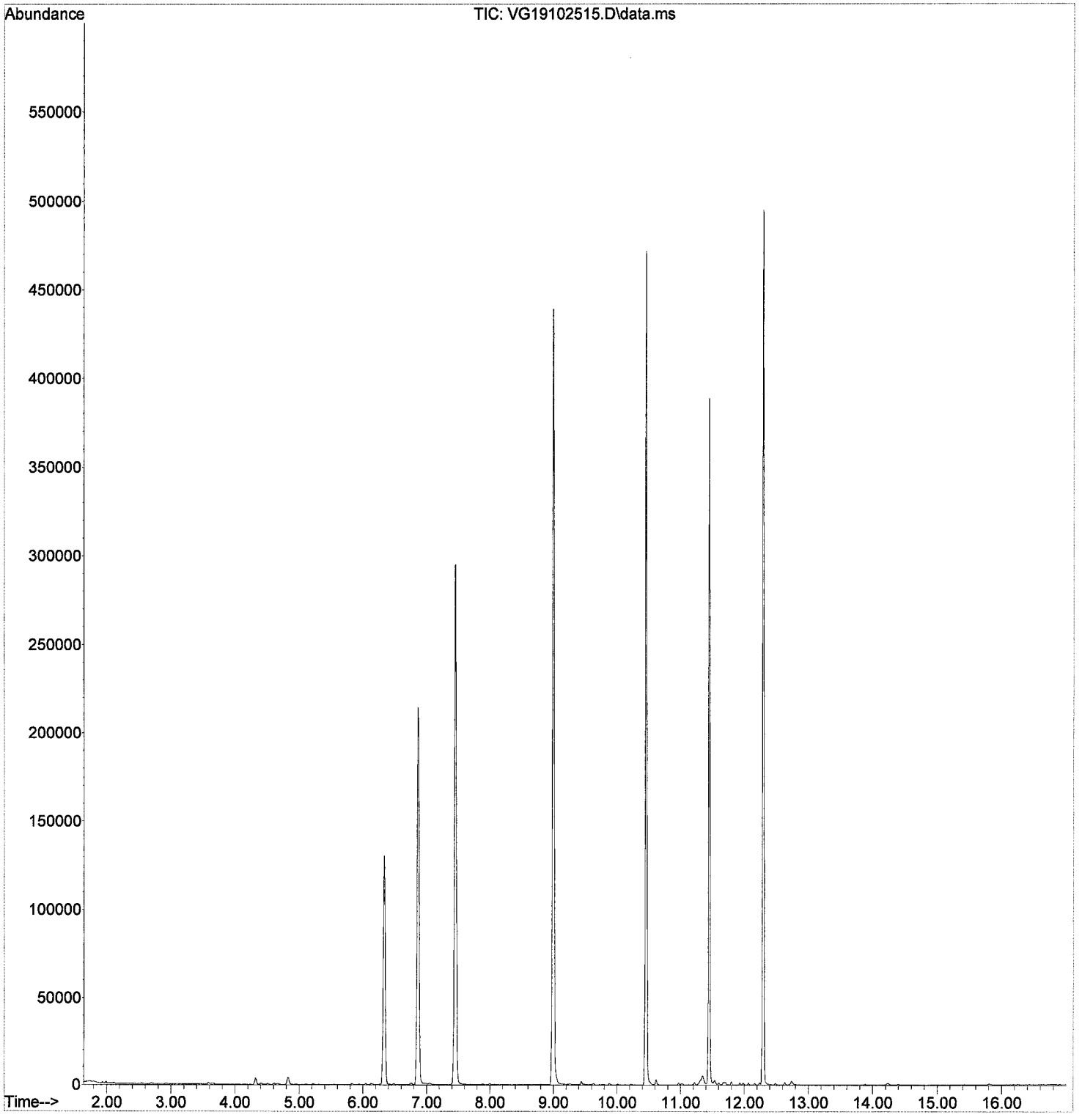
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	1534	0.21	ug/L		89
50) Tetrachloroethene (PCE)	9.434	166	428	0.22	ug/L		95
51) 4-Methyl-2-Pentanone (...	9.440	43	661	0.27	ug/L		78
52) t-1,3-Dichloropropene	9.483	75	211	0.11	ug/L		96
53) 1,1,2-Trichloroethane	9.635	97	312	0.17	ug/L		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

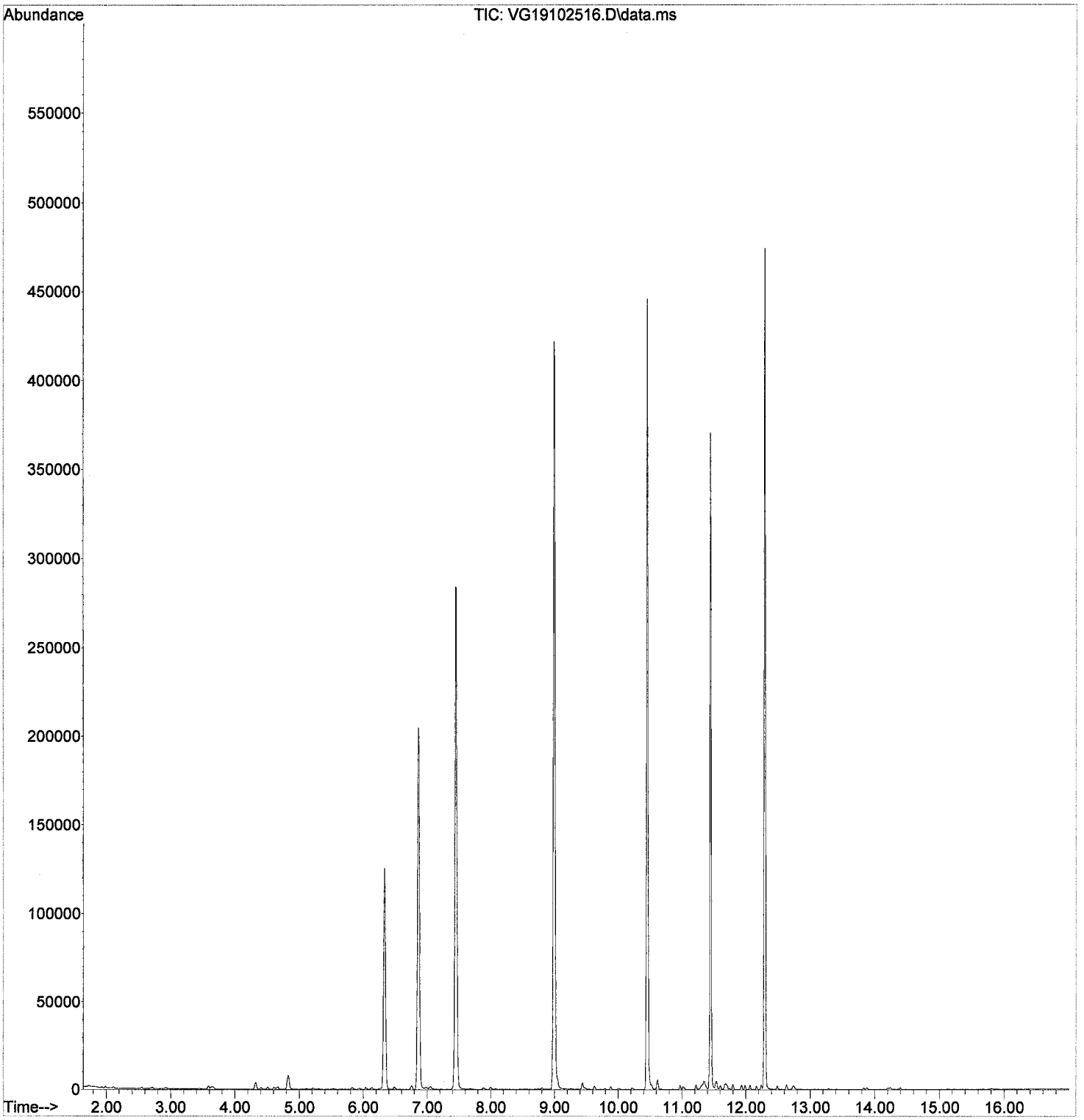
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	2717	0.39	ug/L		97
50) Tetrachloroethene (PCE)	9.440	166	724	0.38	ug/L		88
51) 4-Methyl-2-Pentanone (...	9.446	43	1338	0.58	ug/L		98
52) t-1,3-Dichloropropene	9.477	75	400	0.23	ug/L		97
53) 1,1,2-Trichloroethane	9.623	97	608	0.35	ug/L		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

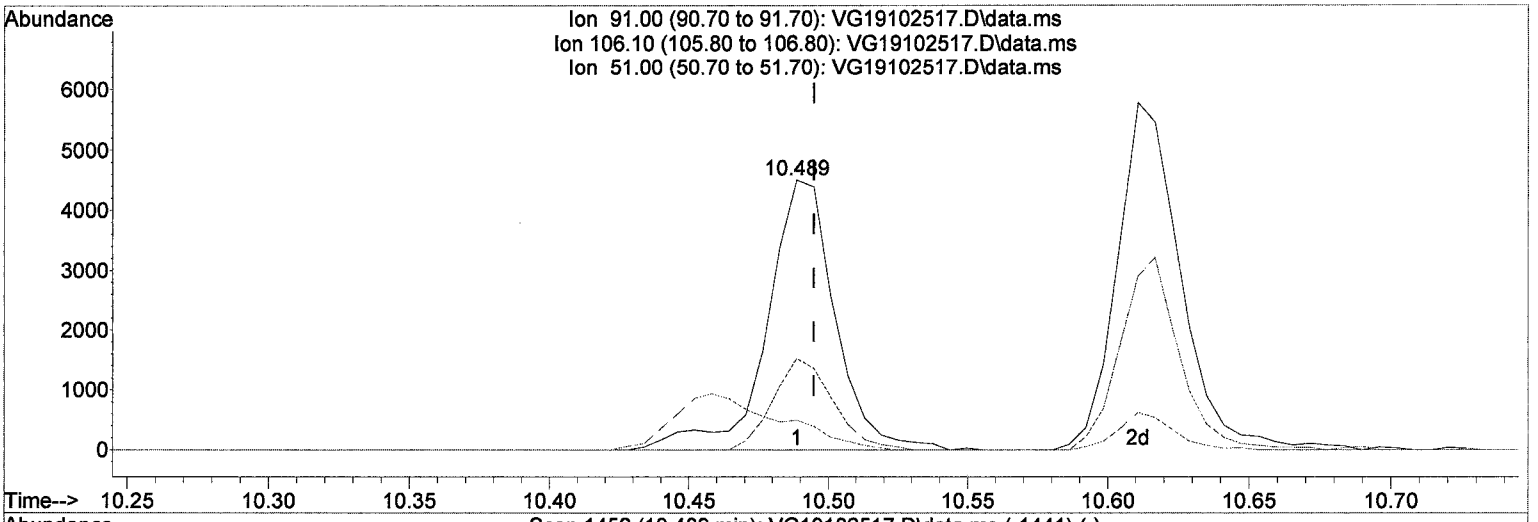
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	7737	0.99	ug/L		95
50) Tetrachloroethene (PCE)	9.440	166	2028	0.96	ug/L		86
51) 4-Methyl-2-Pentanone (...	9.440	43	3944	1.53	ug/L		93
52) t-1,3-Dichloropropene	9.471	75	1296	0.65	ug/L		86
53) 1,1,2-Trichloroethane	9.623	97	1761	0.91	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

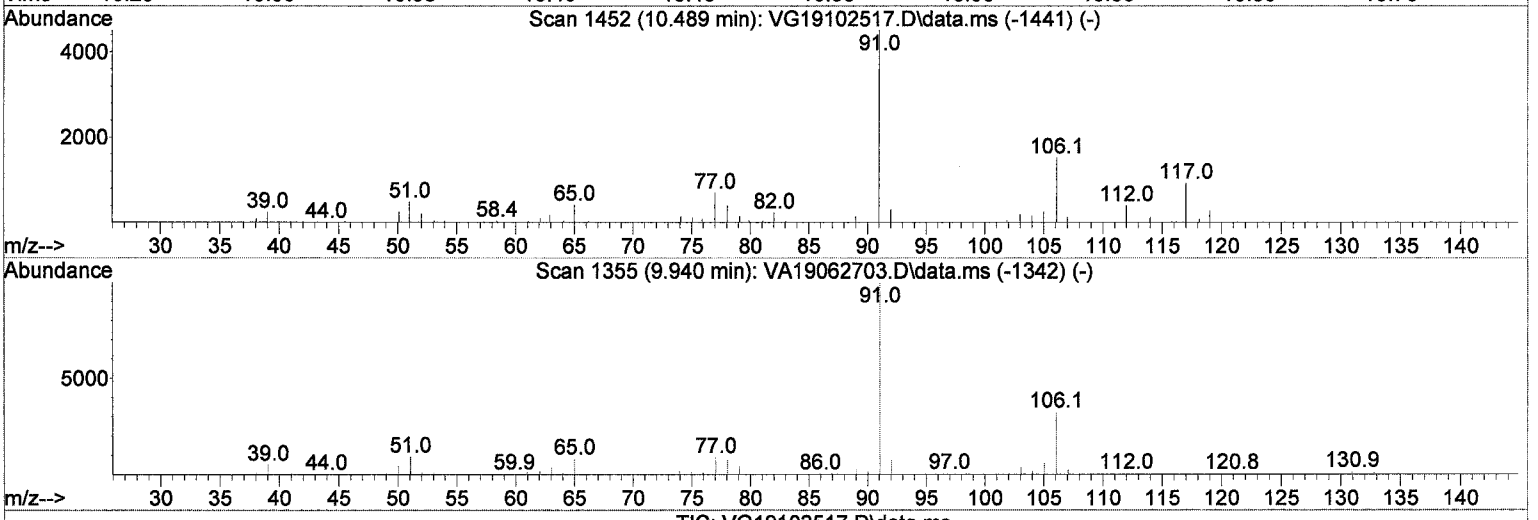
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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

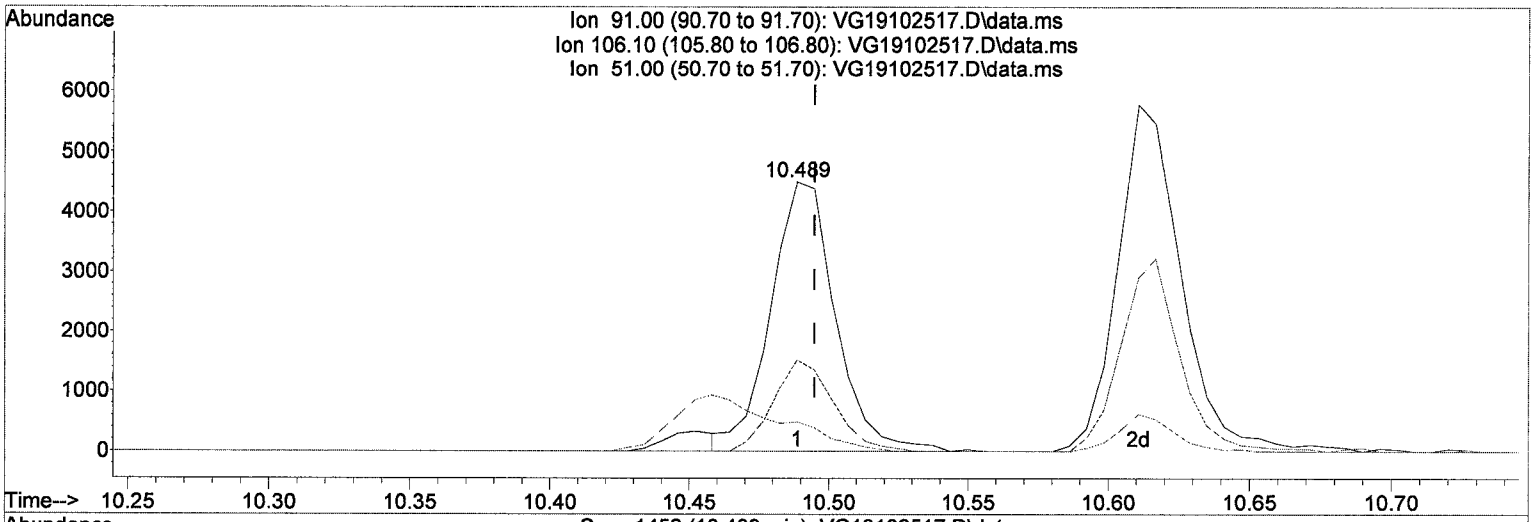
response 7653

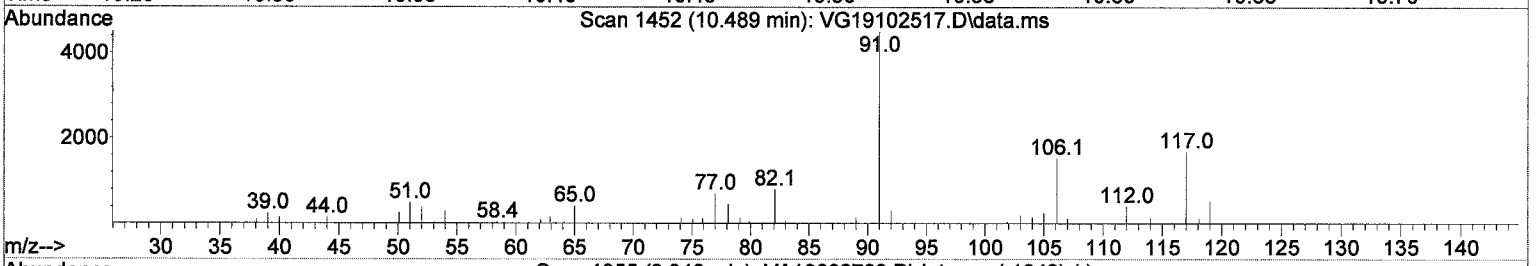
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	31.80	33.82
51.00	9.80	10.88
0.00	0.00	0.00

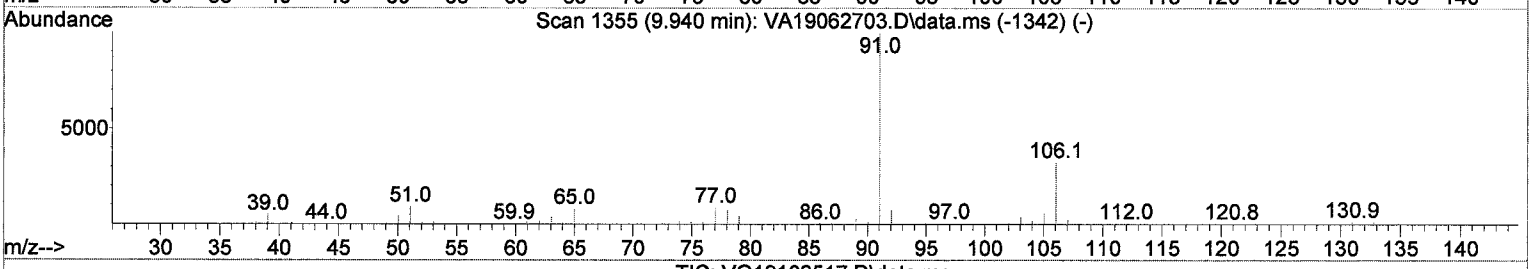
Quantitation Report (Qedit)

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

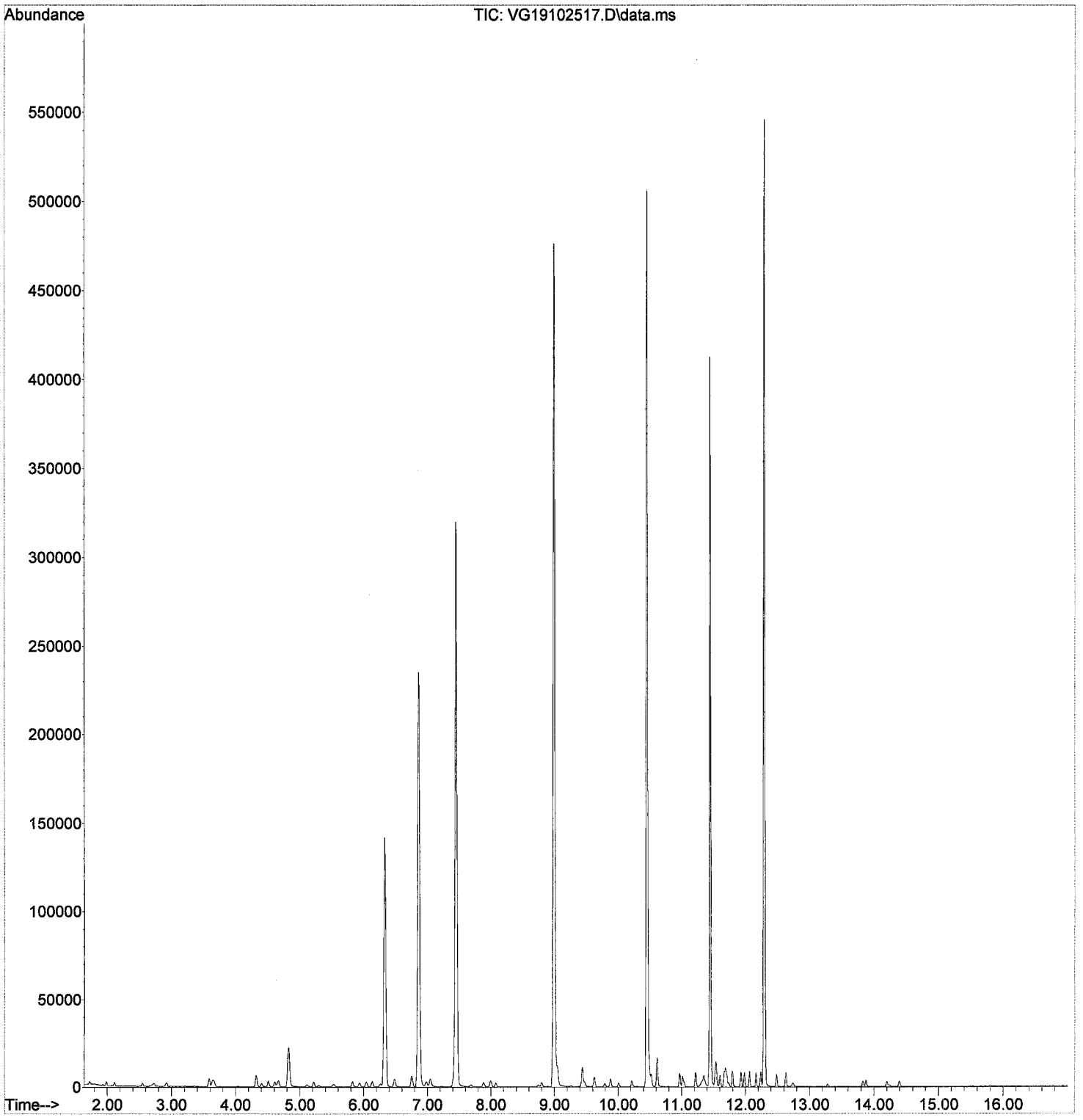
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	7737	0.99	ug/L		95
50) Tetrachloroethene (PCE)	9.440	166	2028	0.96	ug/L		86
51) 4-Methyl-2-Pentanone (...	9.440	43	3944	1.53	ug/L		93
52) t-1,3-Dichloropropene	9.471	75	1296	0.65	ug/L		86
53) 1,1,2-Trichloroethane	9.623	97	1761	0.91	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

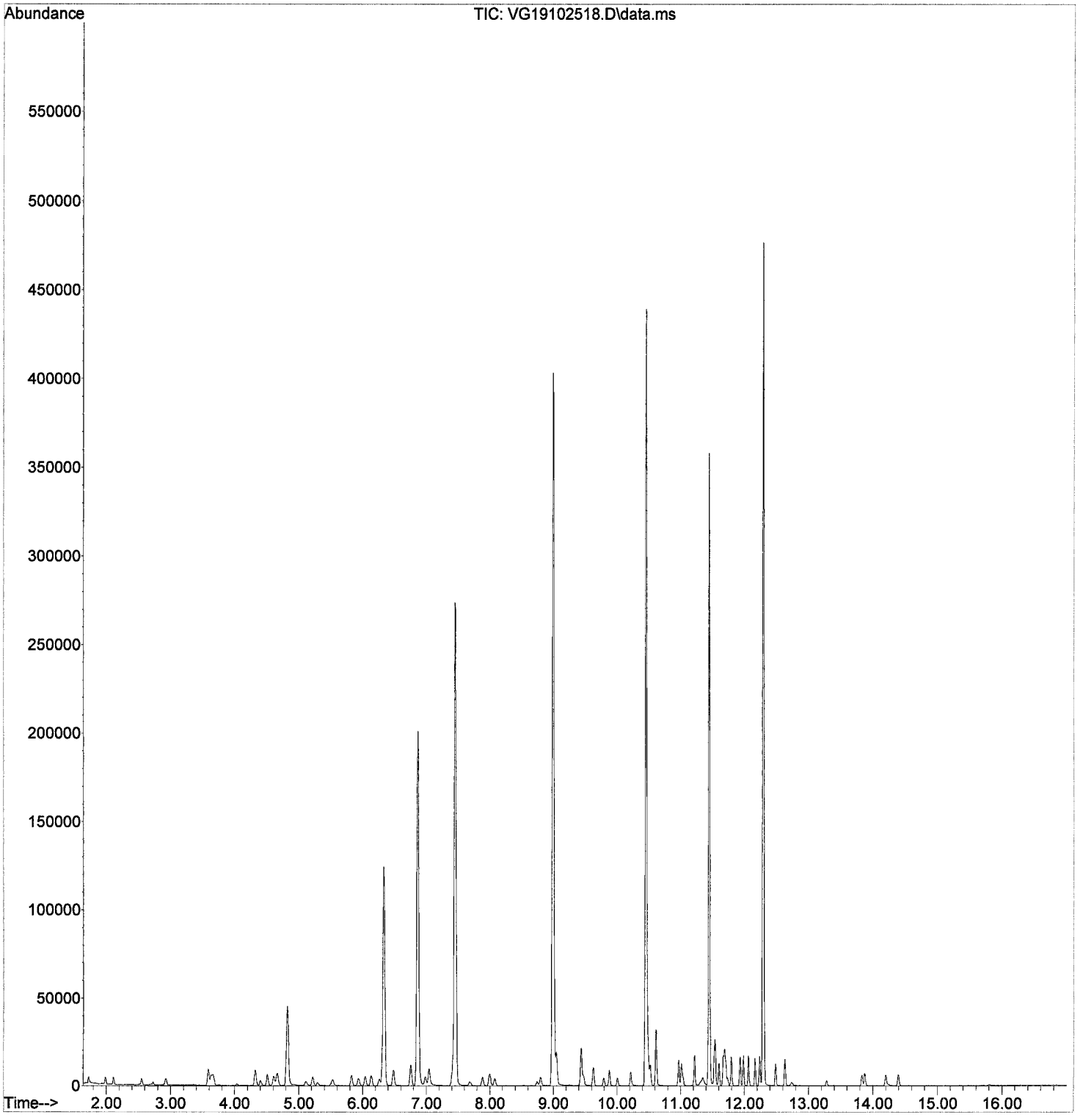
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	13799	2.06	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	3761	2.07	ug/L		97
51) 4-Methyl-2-Pentanone (...	9.440	43	7750	3.50	ug/L		98
52) t-1,3-Dichloropropene	9.470	75	2554	1.49	ug/L		96
53) 1,1,2-Trichloroethane	9.629	97	3489	2.10	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

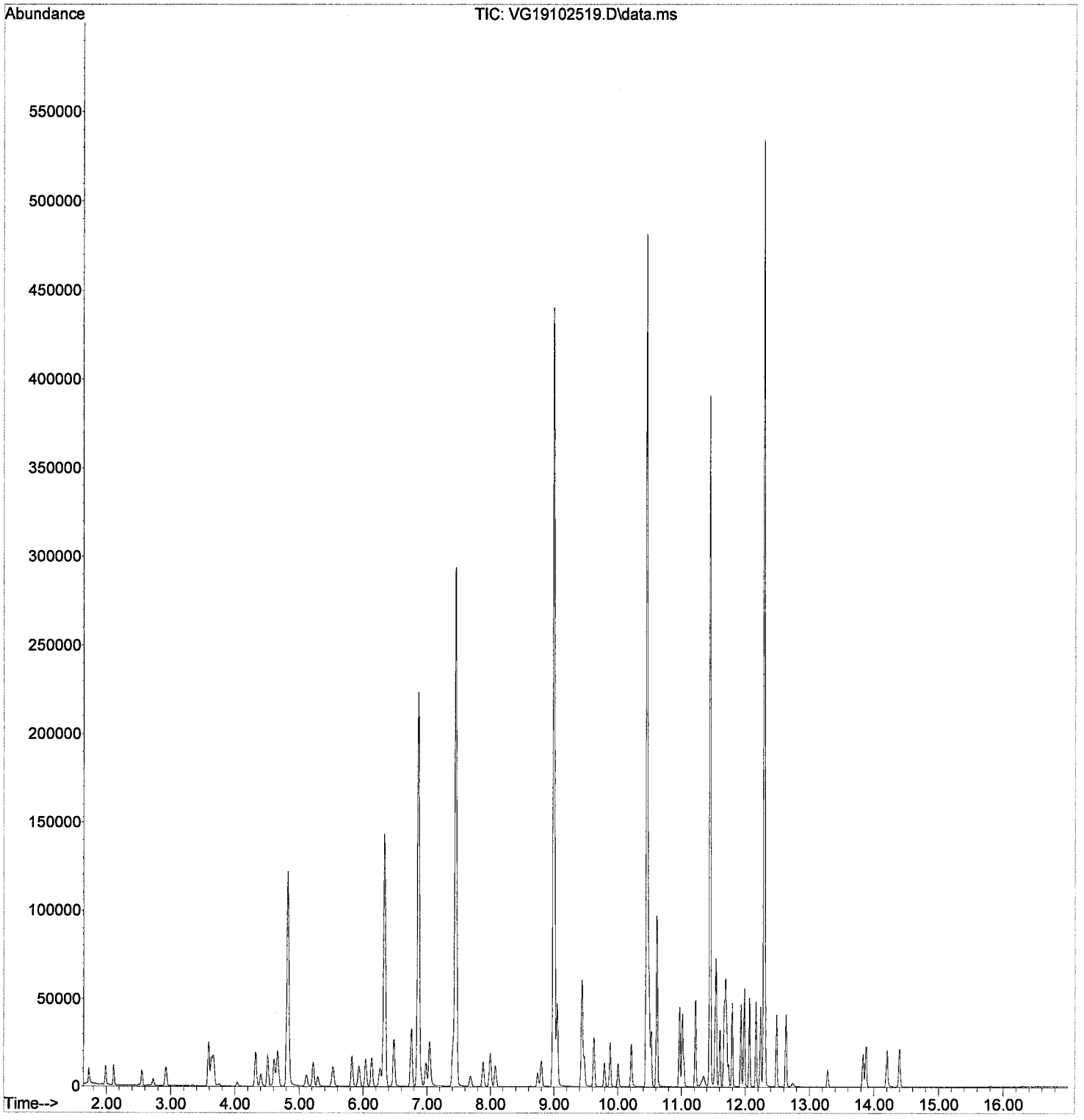
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	37021	5.06	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	10200	5.14	ug/L		96
51) 4-Methyl-2-Pentanone (...	9.440	43	21651	8.97	ug/L		96
52) t-1,3-Dichloropropene	9.471	75	7875	4.22	ug/L		96
53) 1,1,2-Trichloroethane	9.623	97	9239	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

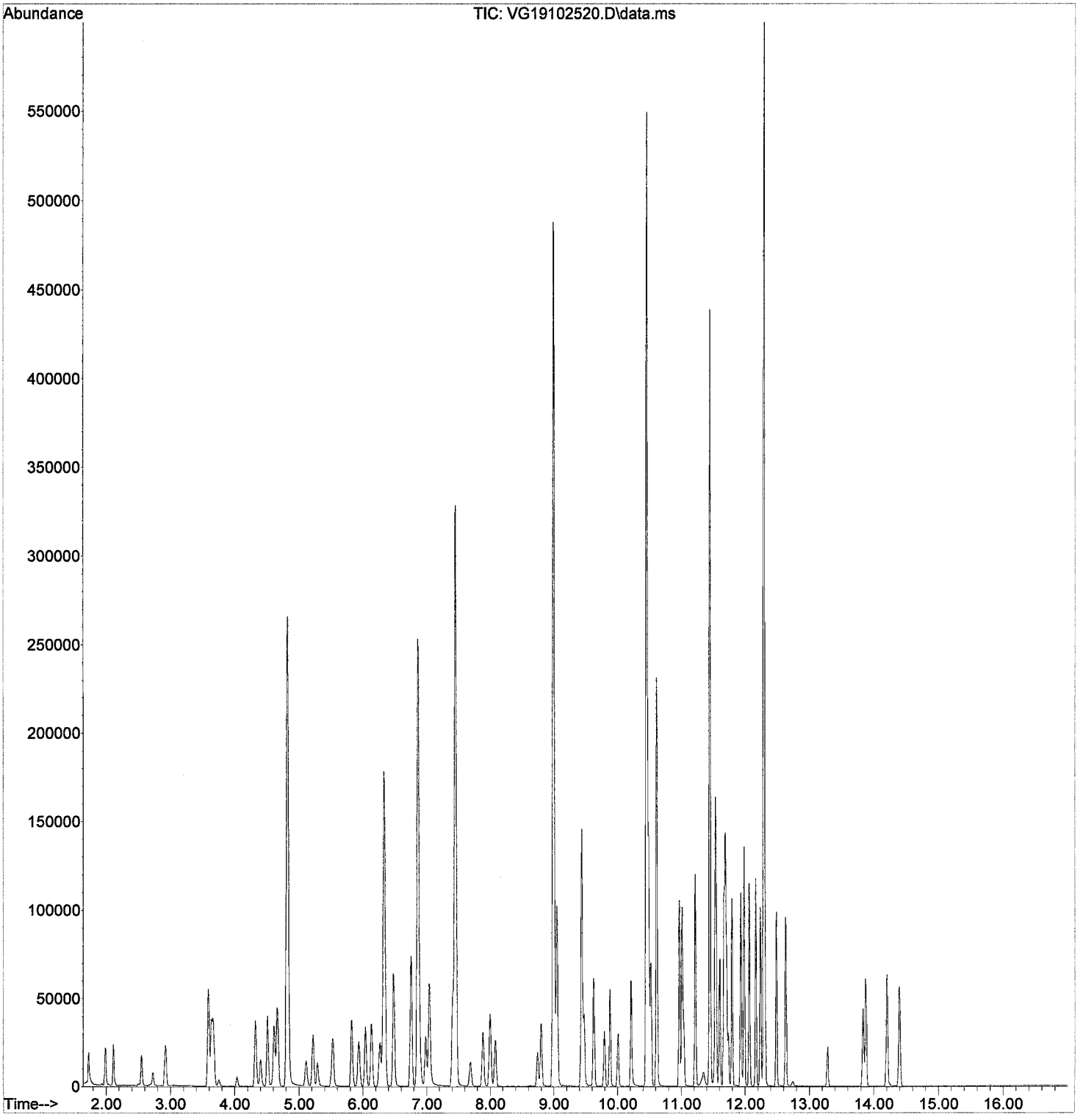
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	81964	9.97	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	22594	10.13	ug/L		98
51) 4-Methyl-2-Pentanone (...	9.440	43	50335	18.54	ug/L		94
52) t-1,3-Dichloropropene	9.471	75	19307	9.20	ug/L		97
53) 1,1,2-Trichloroethane	9.623	97	20512	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

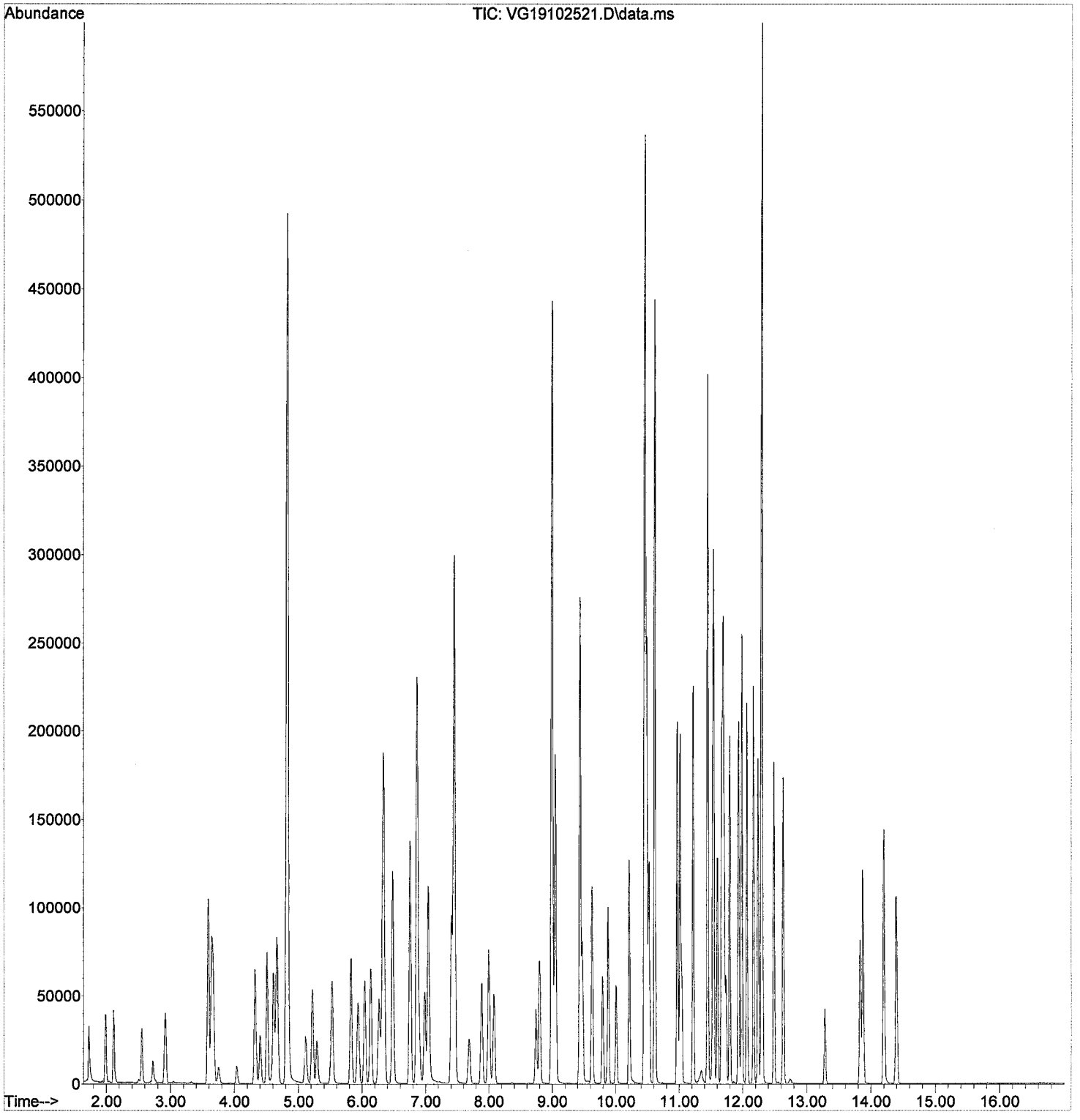
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	148631	20.00	ug/L		100
50) Tetrachloroethene (PCE)	9.434	166	40323	20.00	ug/L		97
51) 4-Methyl-2-Pentanone (...	9.434	43	98178	40.00	ug/L		97
52) t-1,3-Dichloropropene	9.471	75	37931	20.00	ug/L		99
53) 1,1,2-Trichloroethane	9.623	97	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

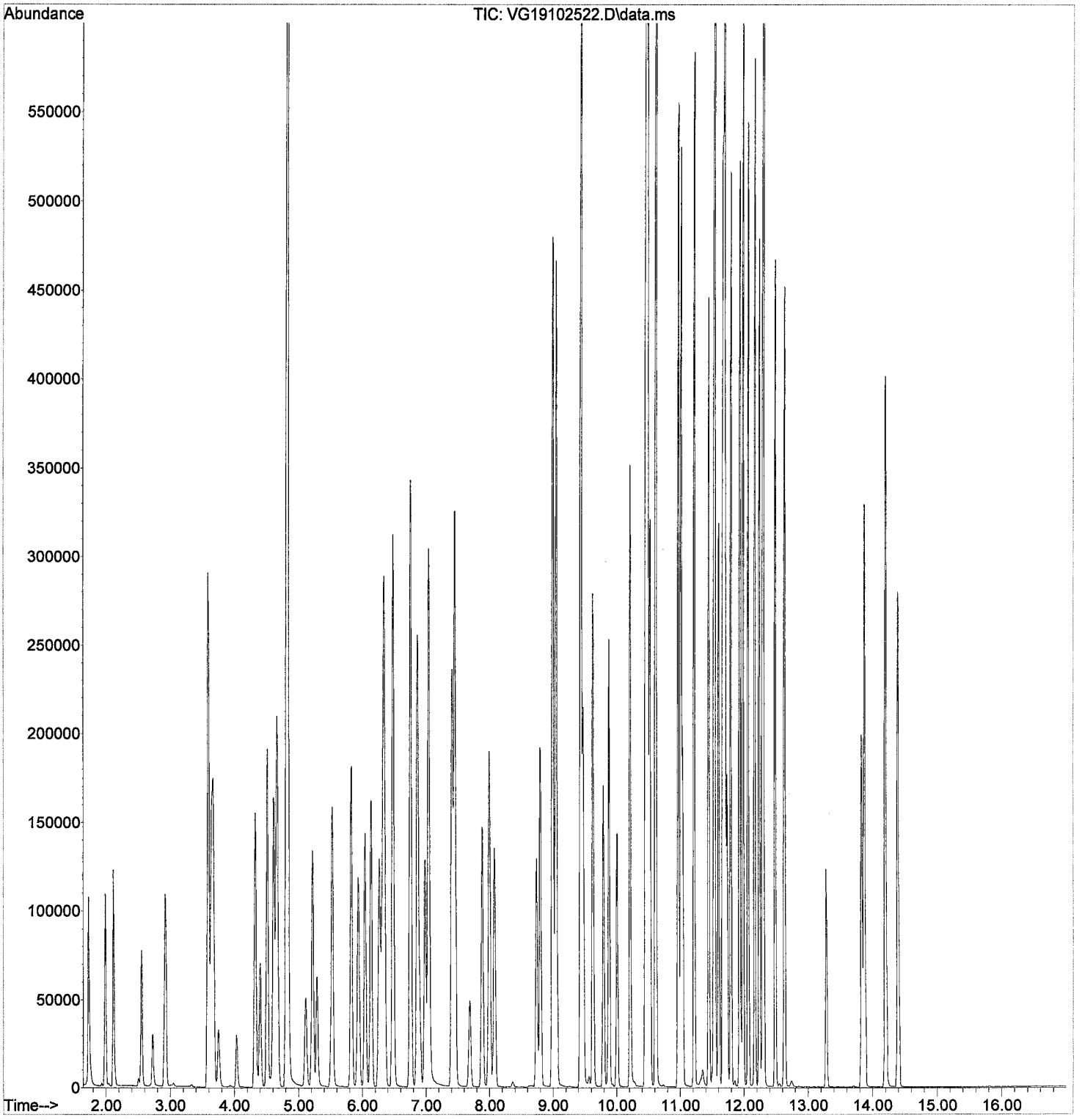
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.044	91	371837	45.77	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	102842	46.66	ug/L		98
51) 4-Methyl-2-Pentanone (...	9.434	43	254574	94.88	ug/L		93
52) t-1,3-Dichloropropene	9.471	75	107286	51.75	ug/L		99
53) 1,1,2-Trichloroethane	9.623	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

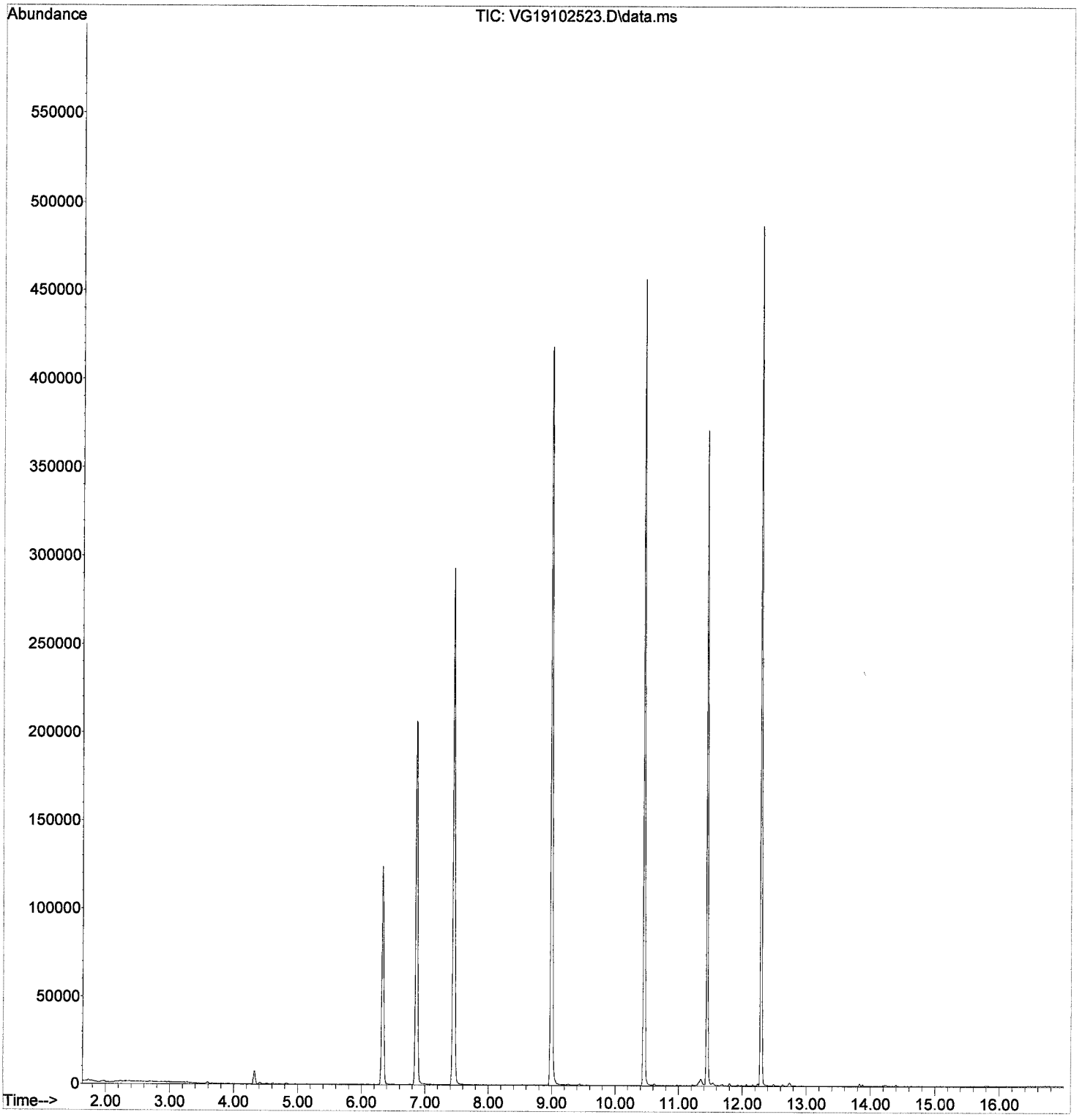
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.861	99	79919	50.00 ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	240589	50.00 ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	117739	50.00 ug/L		0.00
System Monitoring Compounds						
32) Dibromofluoromethane (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

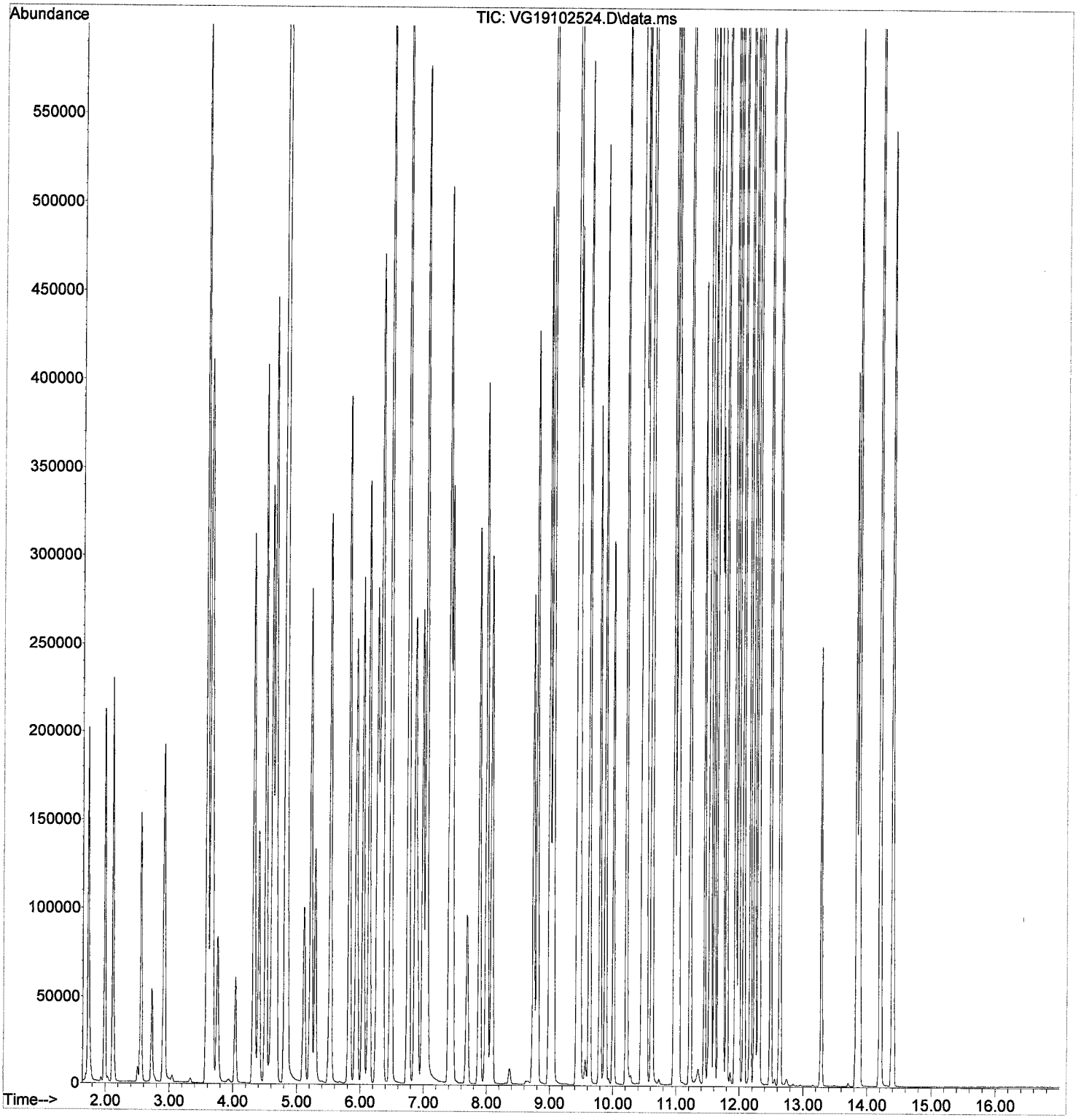
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	9.044	91	781810	94.90	ug/L	99
50) Tetrachloroethene (PCE)	9.434	166	212731	95.18	ug/L	98
51) 4-Methyl-2-Pentanone (...	9.434	43	518207	190.45	ug/L	93
52) t-1,3-Dichloropropene	9.471	75	242090	115.15	ug/L	98
53) 1,1,2-Trichloroethane	9.623	97	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

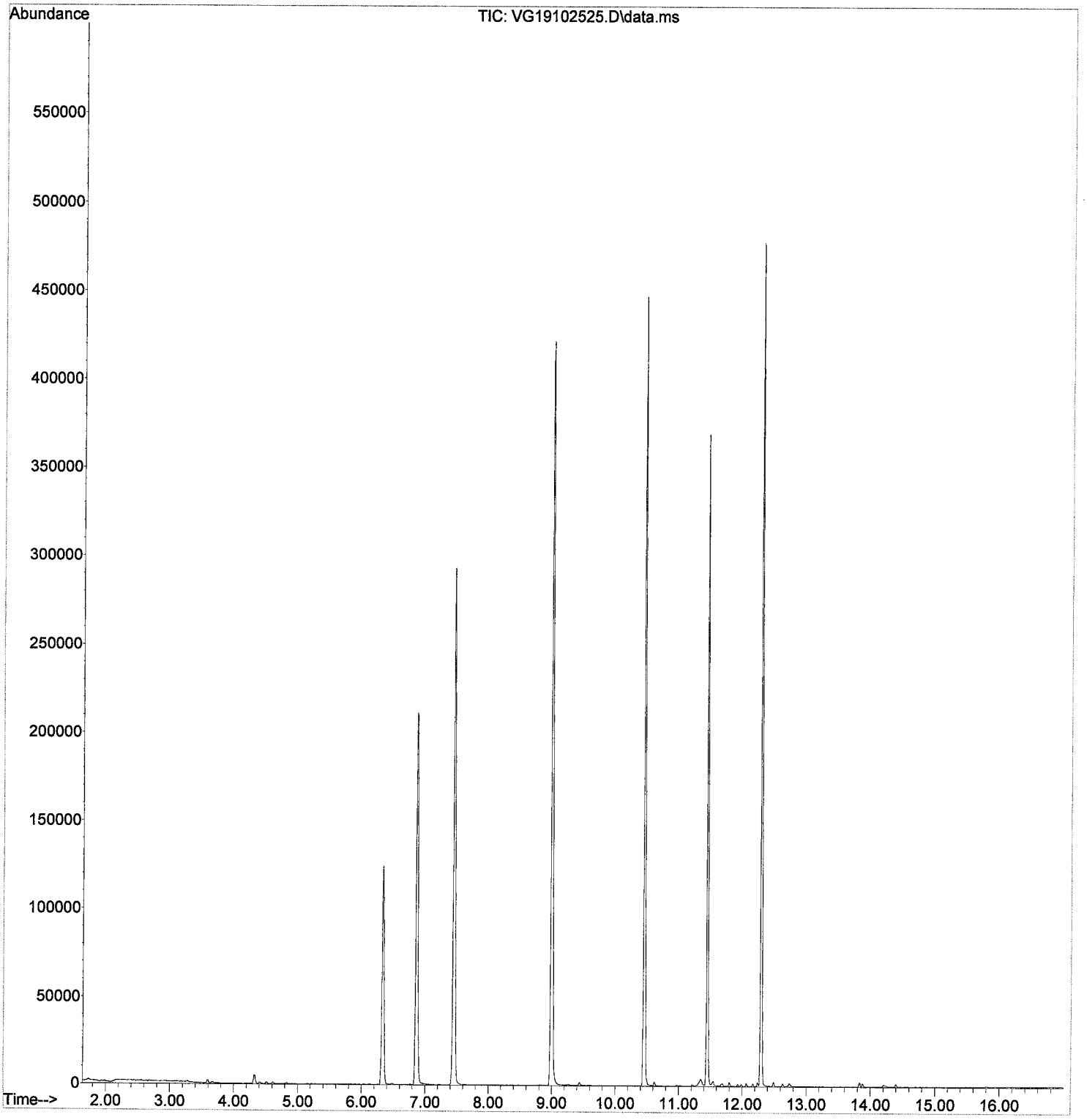
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
83) 1,2-Dichlorobenzene	12.635	146	683	0.23 ug/L	93
85) Hexachlorobutadiene	13.830	223	397	0.85 ug/L	94
86) 1,2,4-Trichlorobenzene	13.878	180	879	0.50 ug/L	89
87) Naphthalene	14.208	128	1414	0.54 ug/L	79
88) 1,2,3-Trichlorobenzene	14.397	180	774	0.45 ug/L	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

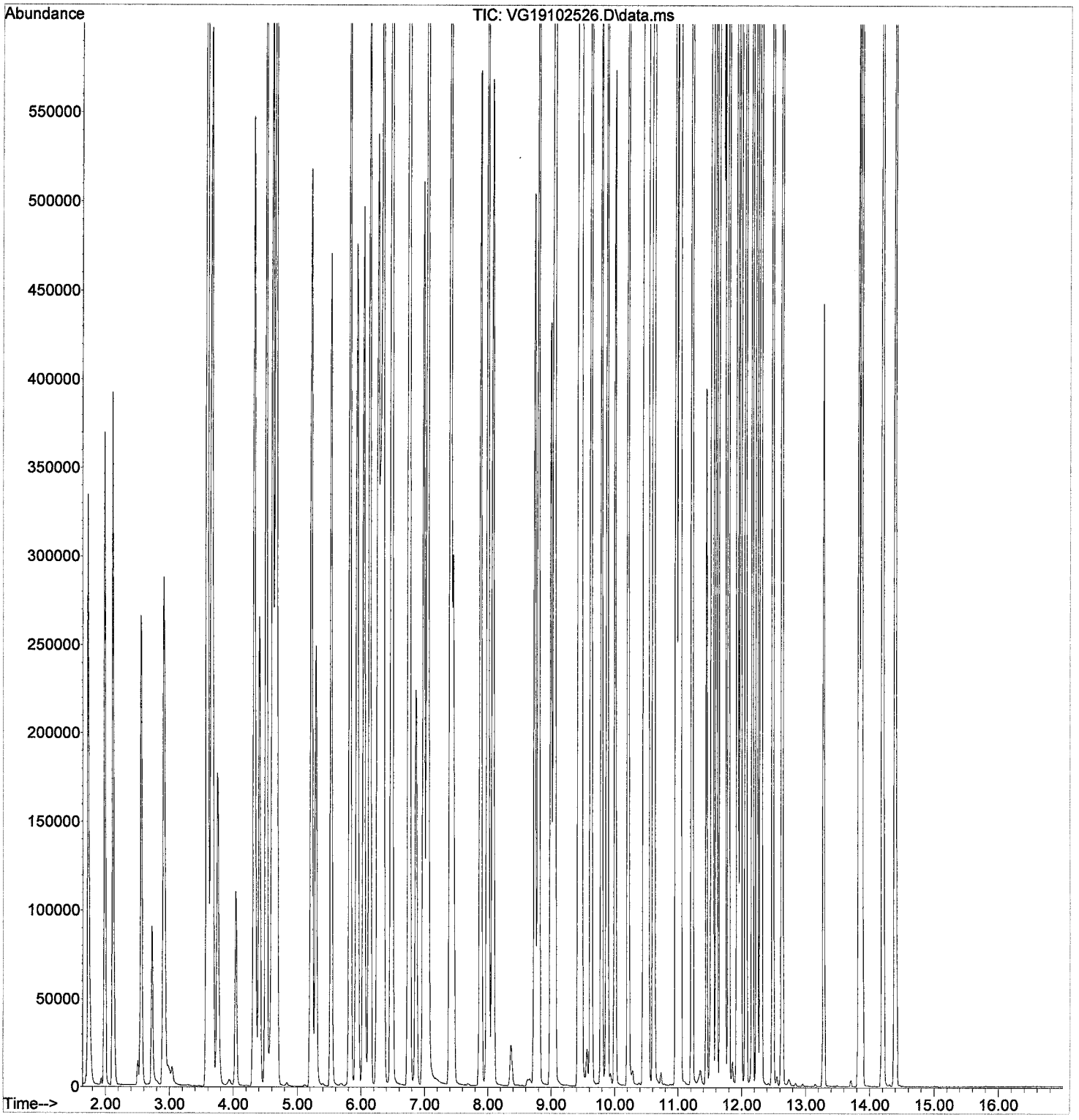
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Toluene	9.044	91	1414184	203.30	ug/L	100
50) Tetrachloroethene (PCE)	9.434	166	374693	198.55	ug/L	99
51) 4-Methyl-2-Pentanone (...	9.434	43	885884	385.61	ug/L	94
52) t-1,3-Dichloropropene	9.471	75	467620	263.42	ug/L	98
53) 1,1,2-Trichloroethane	9.623	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

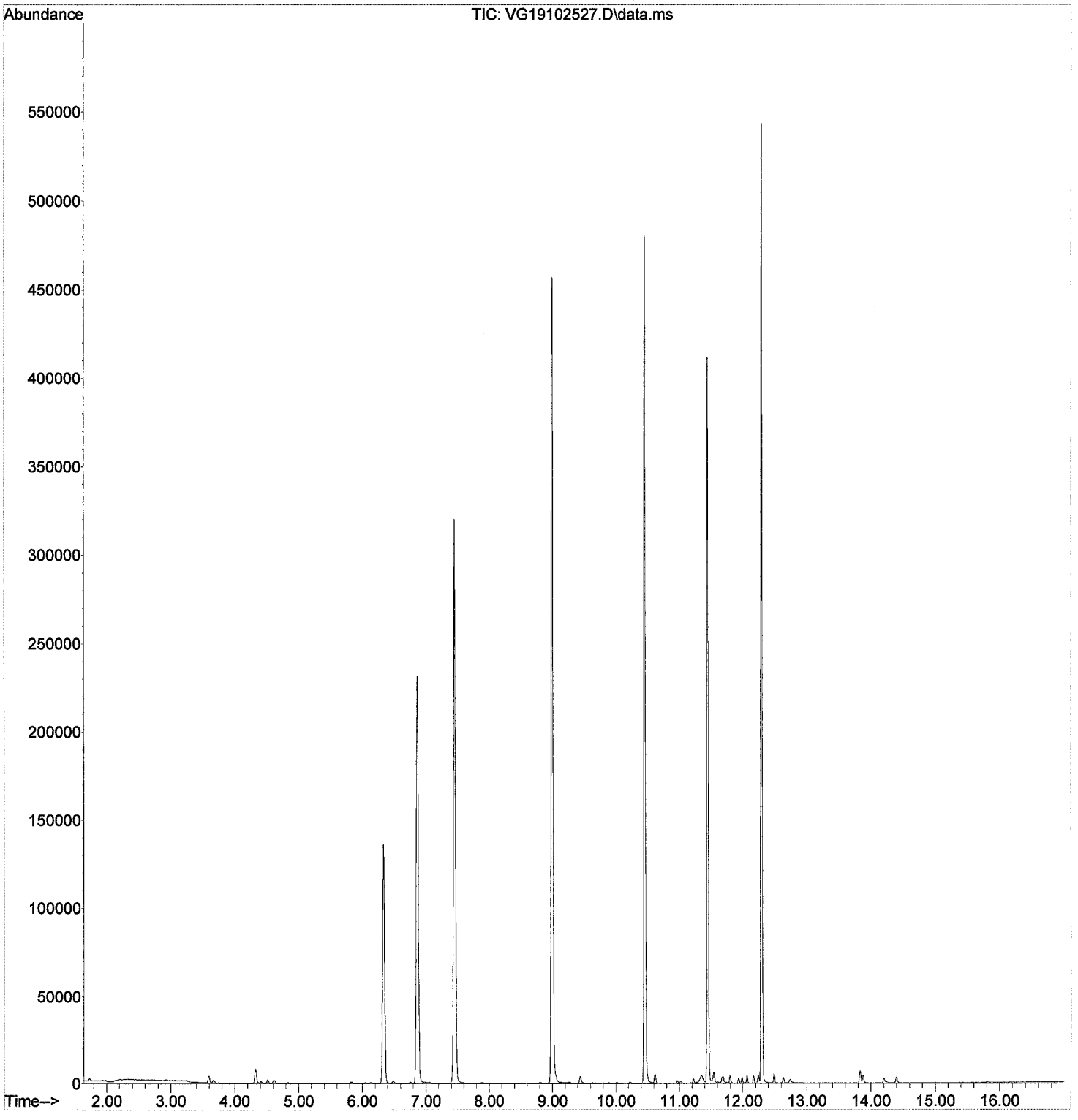
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) Bromobenzene	11.531	156	636	0.30	ug/L		85
69) n-Propylbenzene	11.543	91	3545	0.49	ug/L		95
71) 2-Chlorotoluene	11.671	126	545	0.33	ug/L	#	81
72) 1,3,5-Trimethylbenzene	11.690	105	1761	0.35	ug/L		88
75) 4-Chlorotoluene	11.799	91	2149	0.49	ug/L		98
76) 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

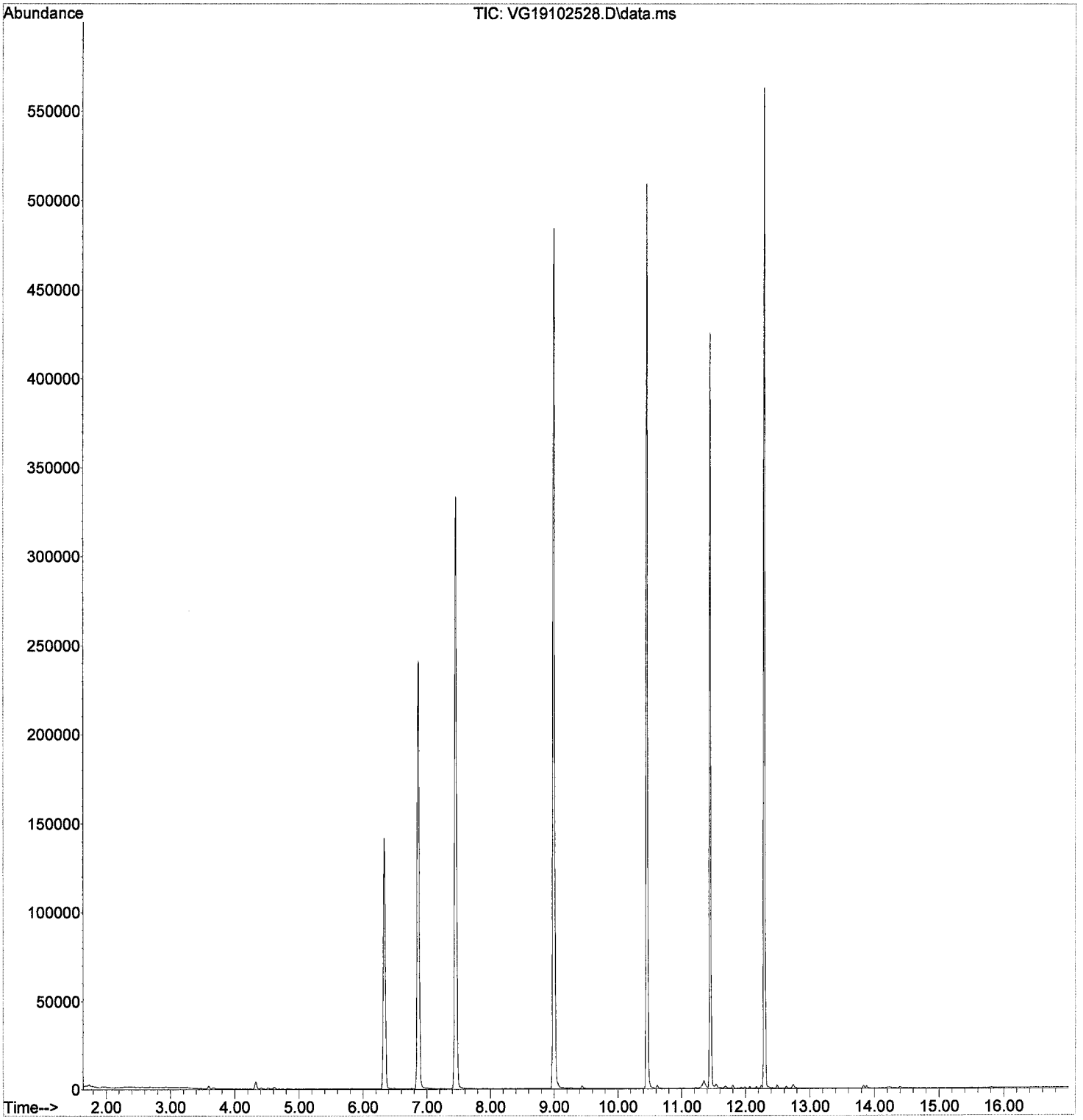
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) Naphthalene	14.207	128	735	0.39	ug/L	92
88) 1,2,3-Trichlorobenzene	14.396	180	489	0.24	ug/L	90

(#) = 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

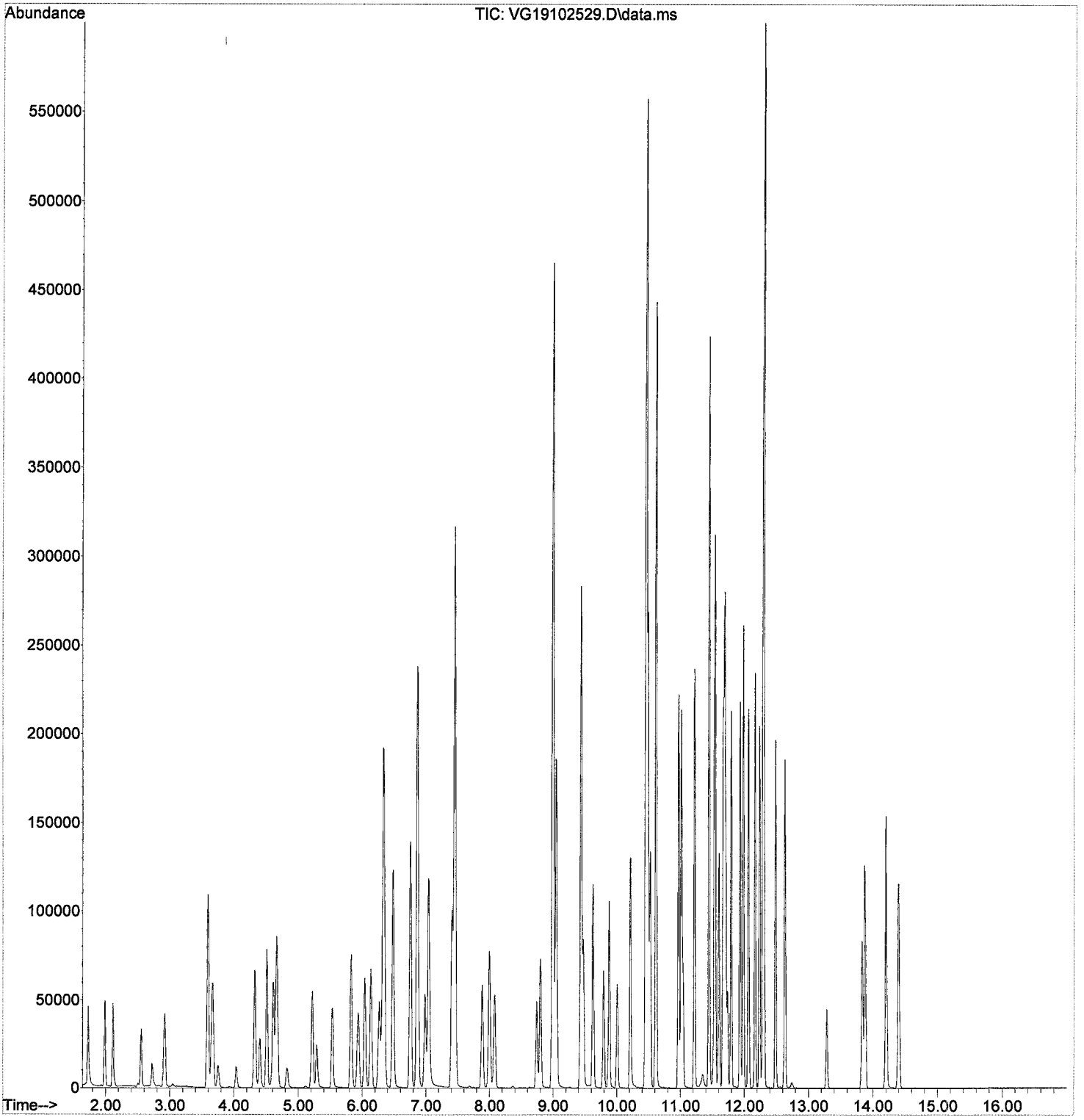
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) Toluene	9.050	91	154447	19.38	ug/L		99
50) Tetrachloroethene (PCE)	9.434	166	42359	20.03	ug/L		98
51) 4-Methyl-2-Pentanone (...	9.434	43	101327	43.90	ug/L		96
52) t-1,3-Dichloropropene	9.471	75	41037	22.83	ug/L		98
53) 1,1,2-Trichloroethane	9.623	97	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

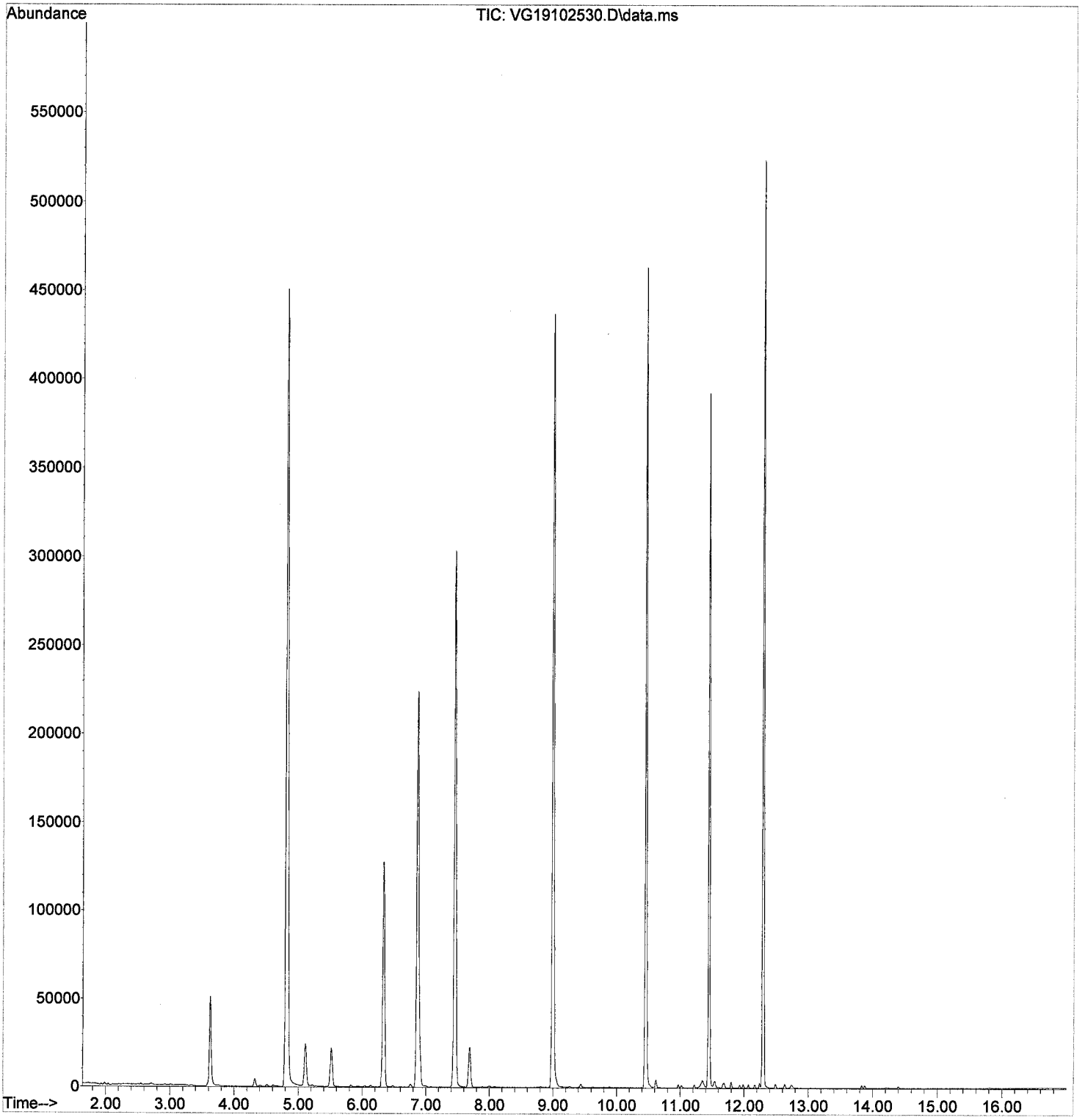
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
56) 1,2-Dibromoethane (EDB)	10.013	107	191	0.11 ug/L	83
58) Chlorobenzene	10.470	112	1573	0.32 ug/L	95
59) Ethylbenzene	10.495	91	1876	0.26 ug/L	93
60) 1,1,1,2-Tetrachloroethane	10.525	131	245	0.17 ug/L	74
61) m,p-Xylenes (2)	10.617	91	2604	0.53 ug/L	98
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

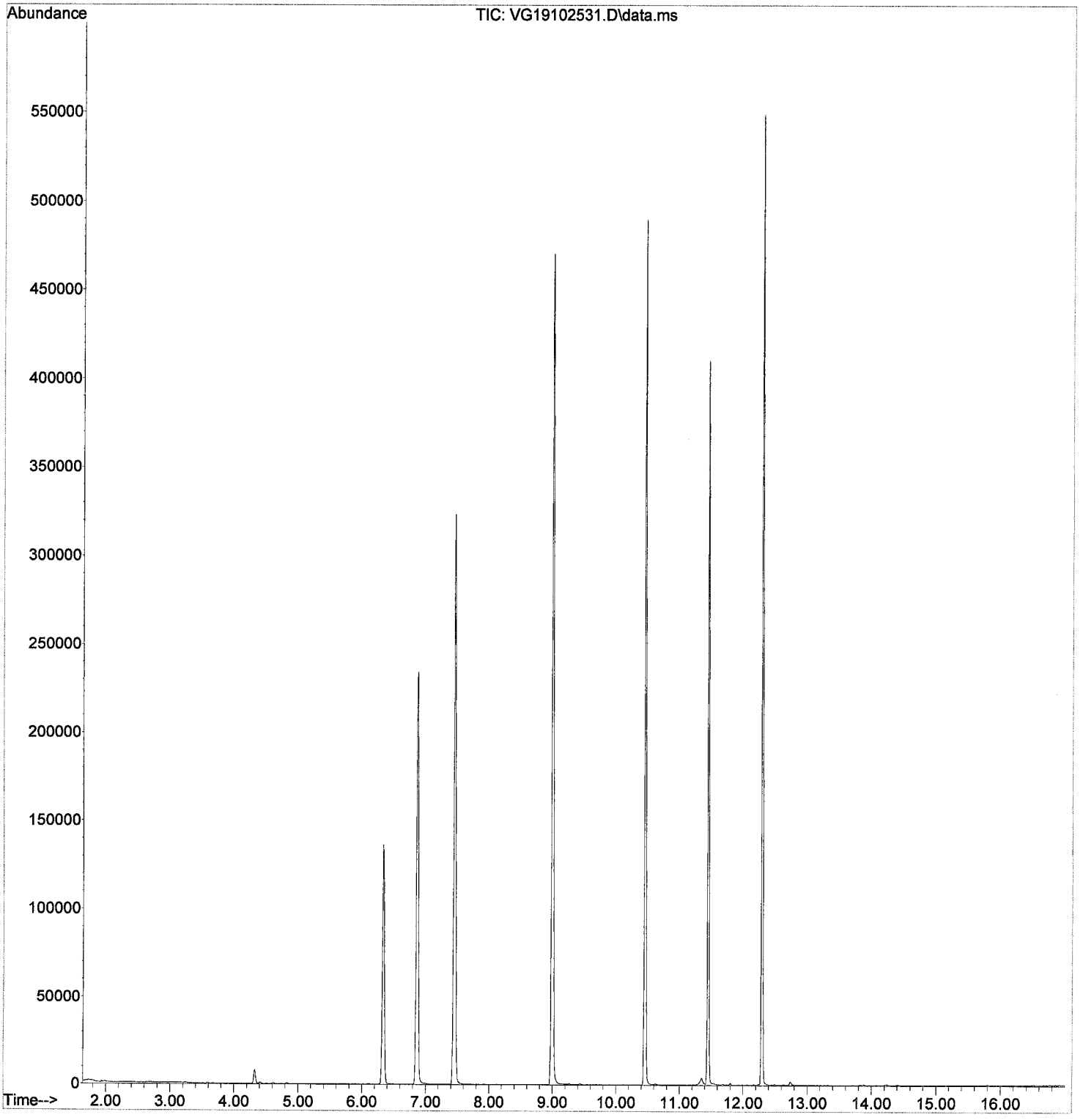
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.861	99	89250	50.00	ug/L		0.00
45) Chlorobenzene-d5 (I)	10.452	117	268337	50.00	ug/L		0.00
66) 1,4-Dichlorobenzene-d4...	12.293	152	133750	50.00	ug/L		0.00
System Monitoring Compounds							
32) Dibromofluoromethane (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



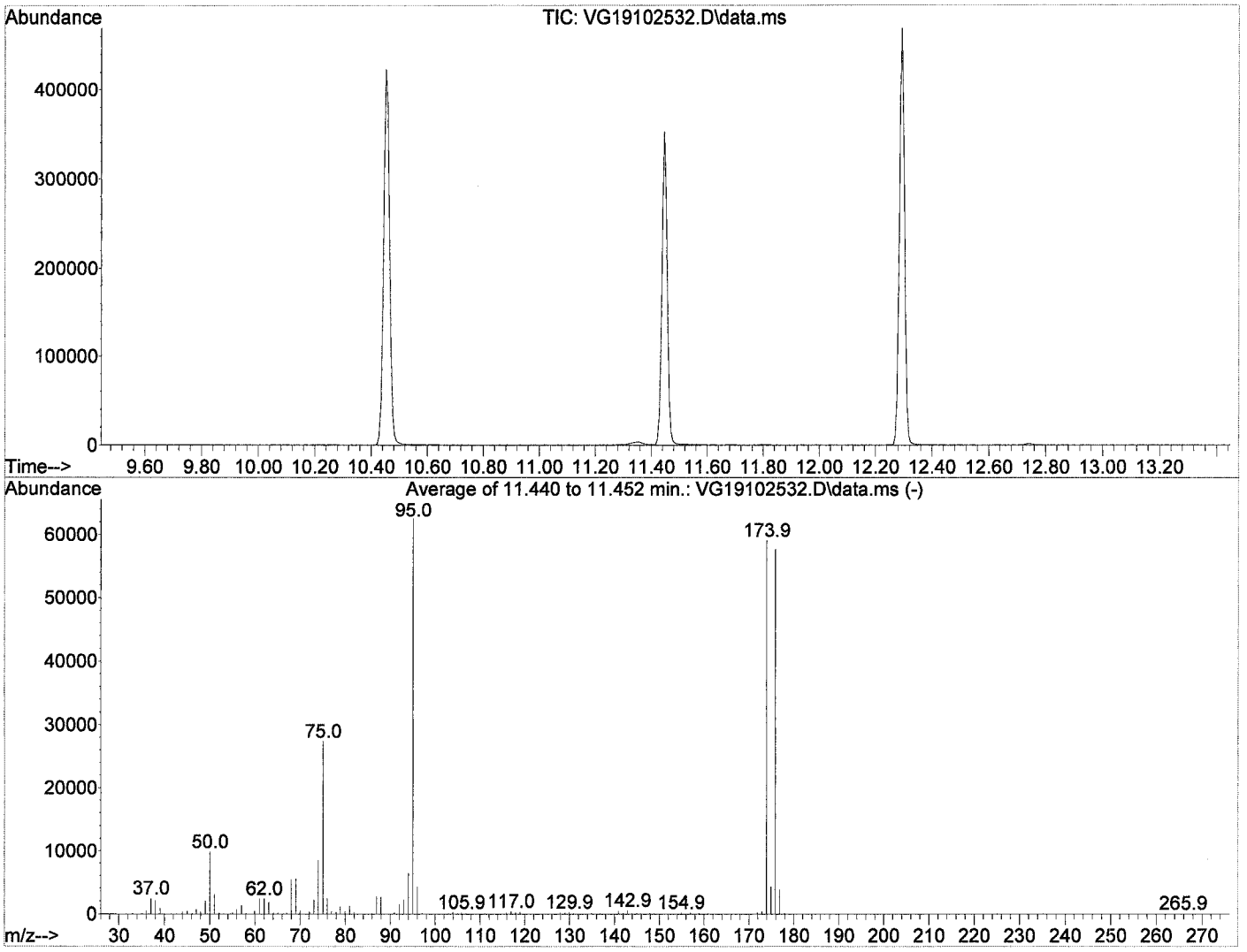
BFB

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

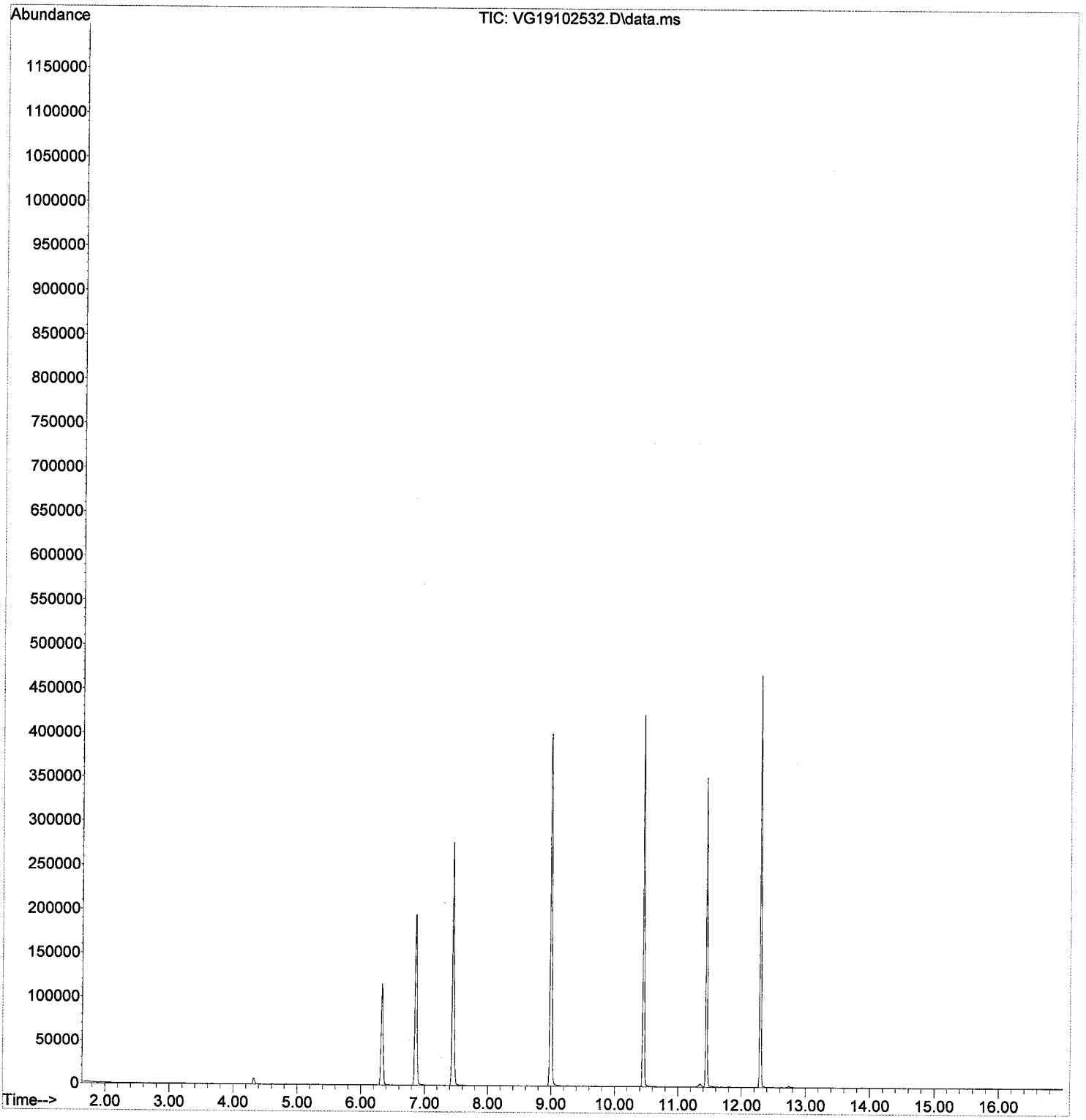
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	167672	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	264256	52.72	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	92938	50.90	ug/L	0.00
9) Toluene-d8 (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

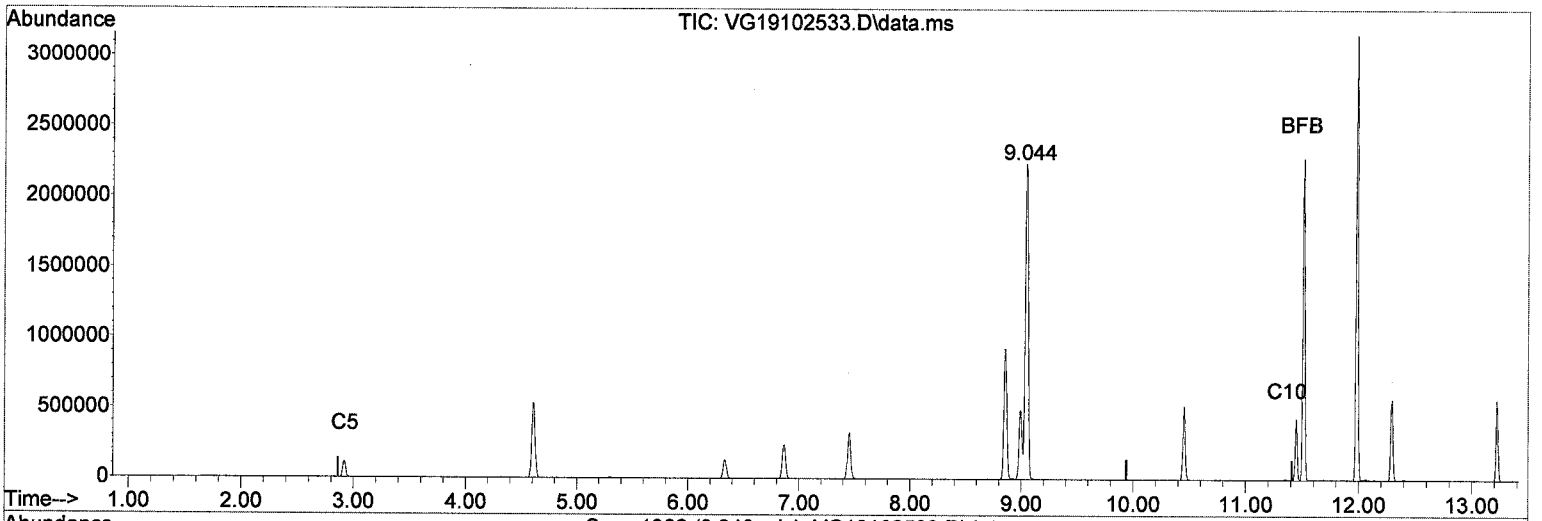
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	206554	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	314345	50.91	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	117175	52.09	ug/L	0.00
9) Toluene-d8 (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	

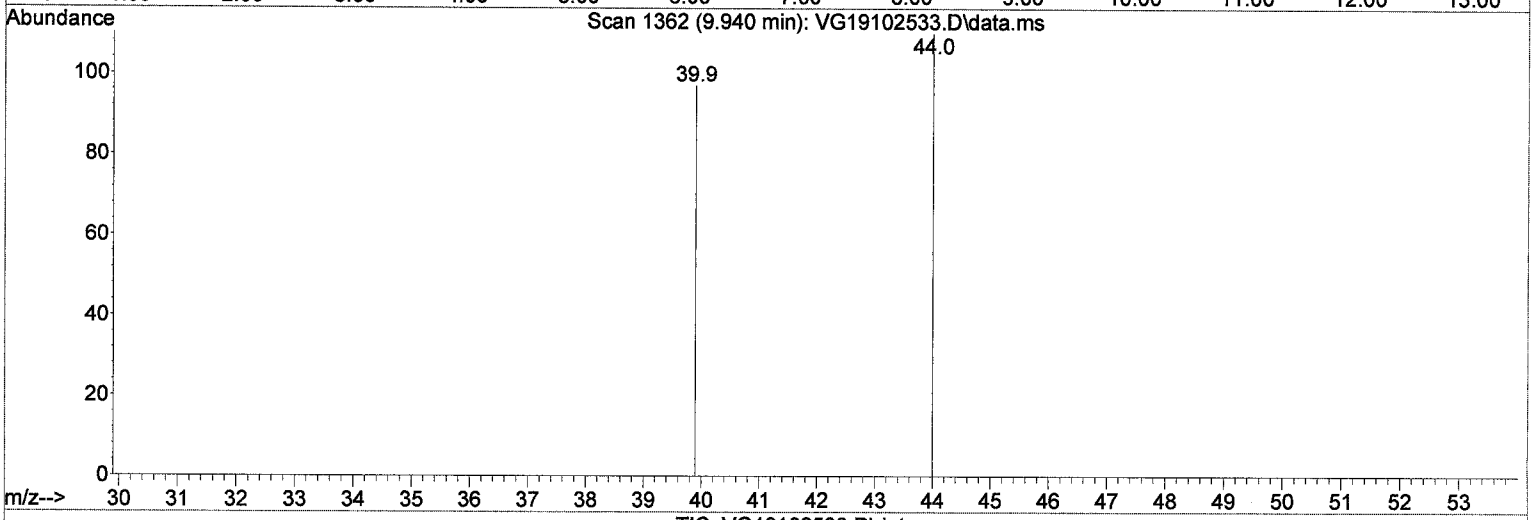
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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

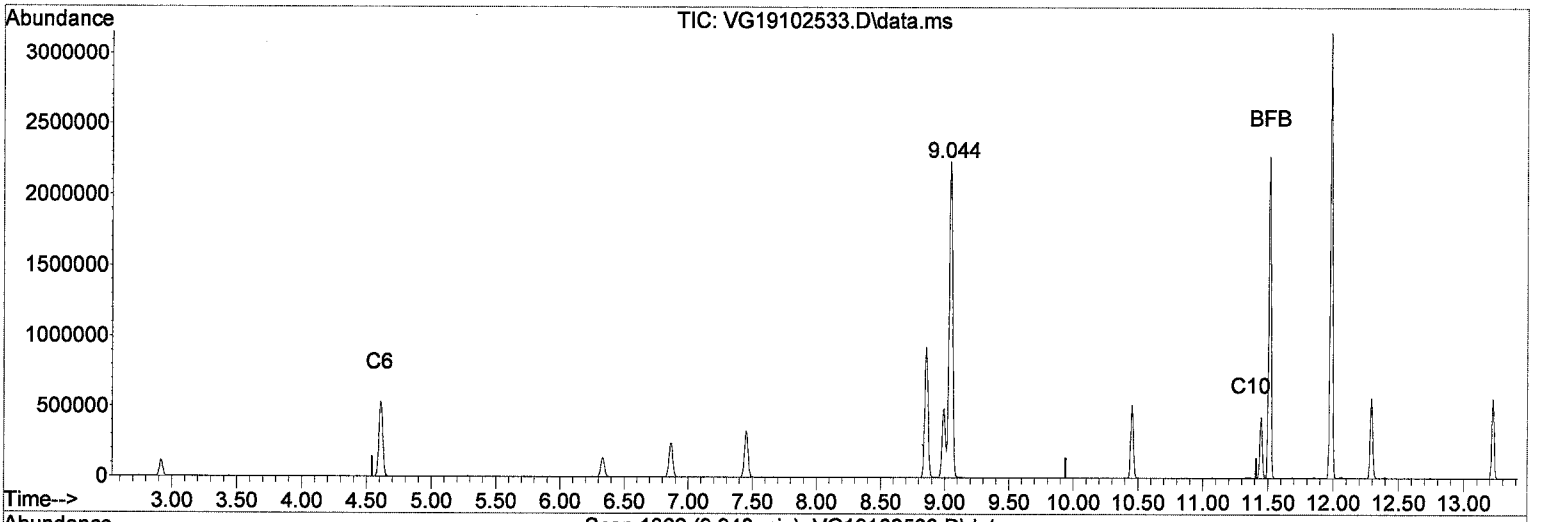
response 7577119

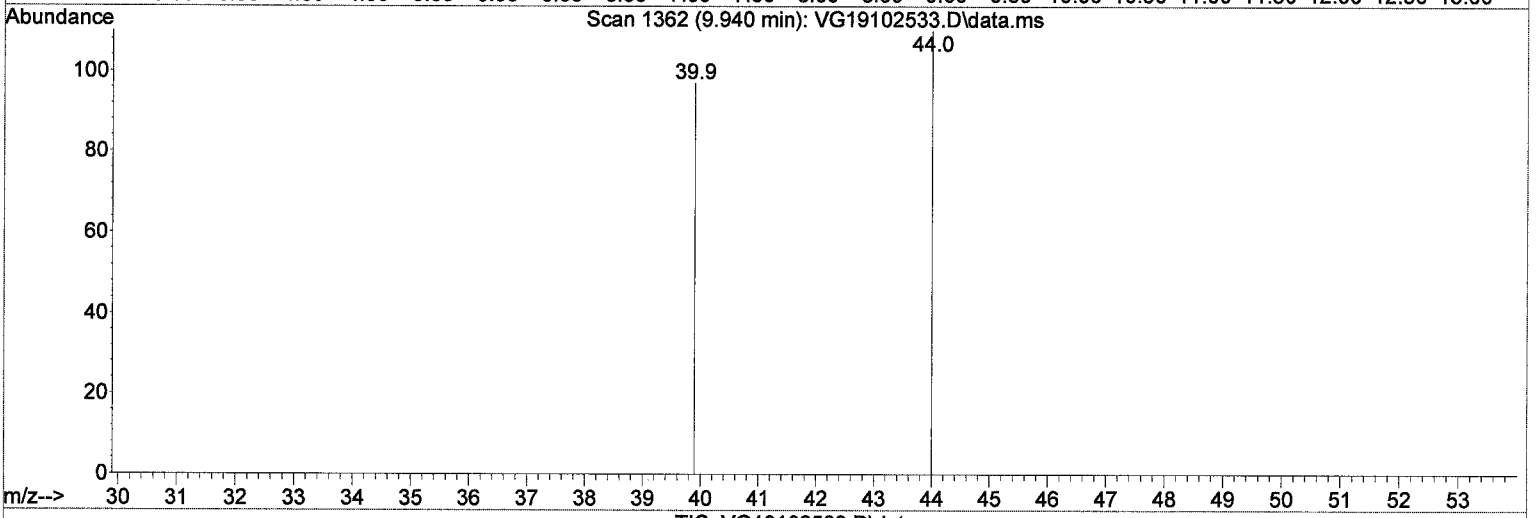
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.23#
0.00	0.00	1.50#
0.00	0.00	0.00

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

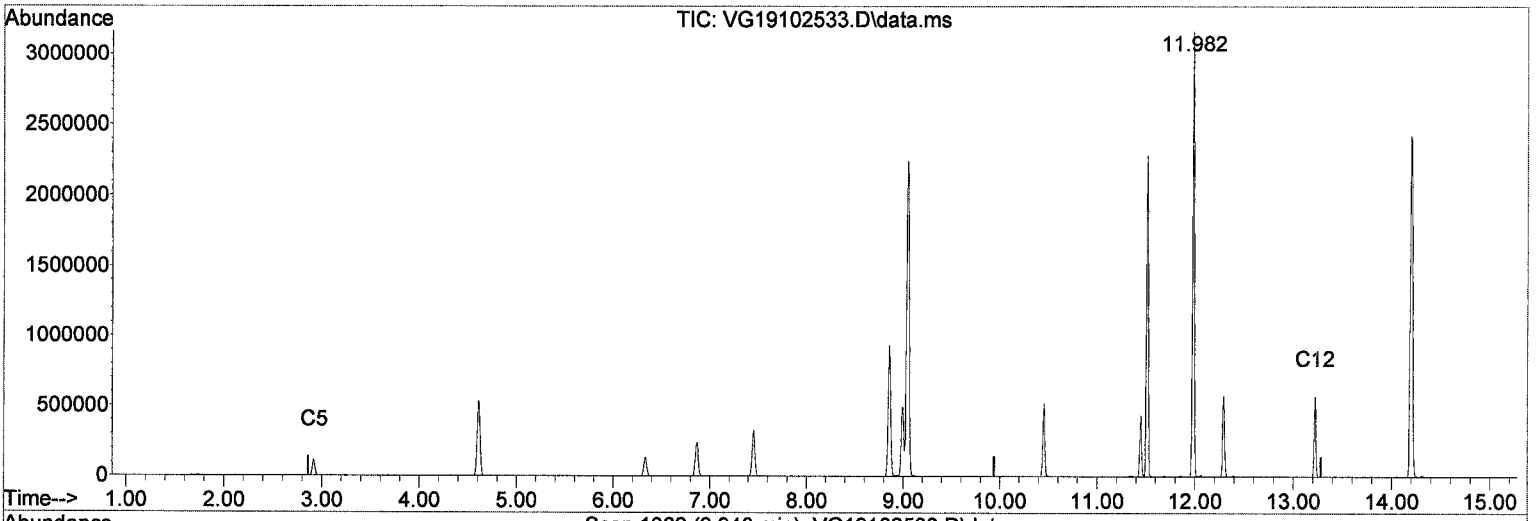
response 7354306

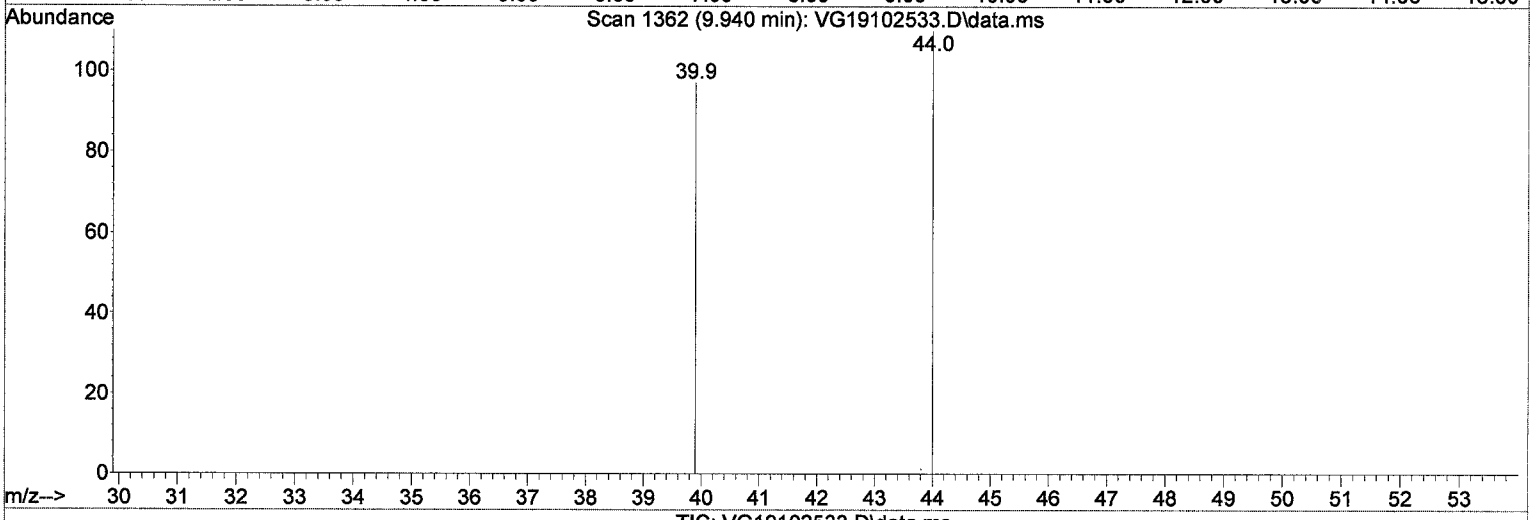
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.29#
0.00	0.00	1.55#
0.00	0.00	0.00

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

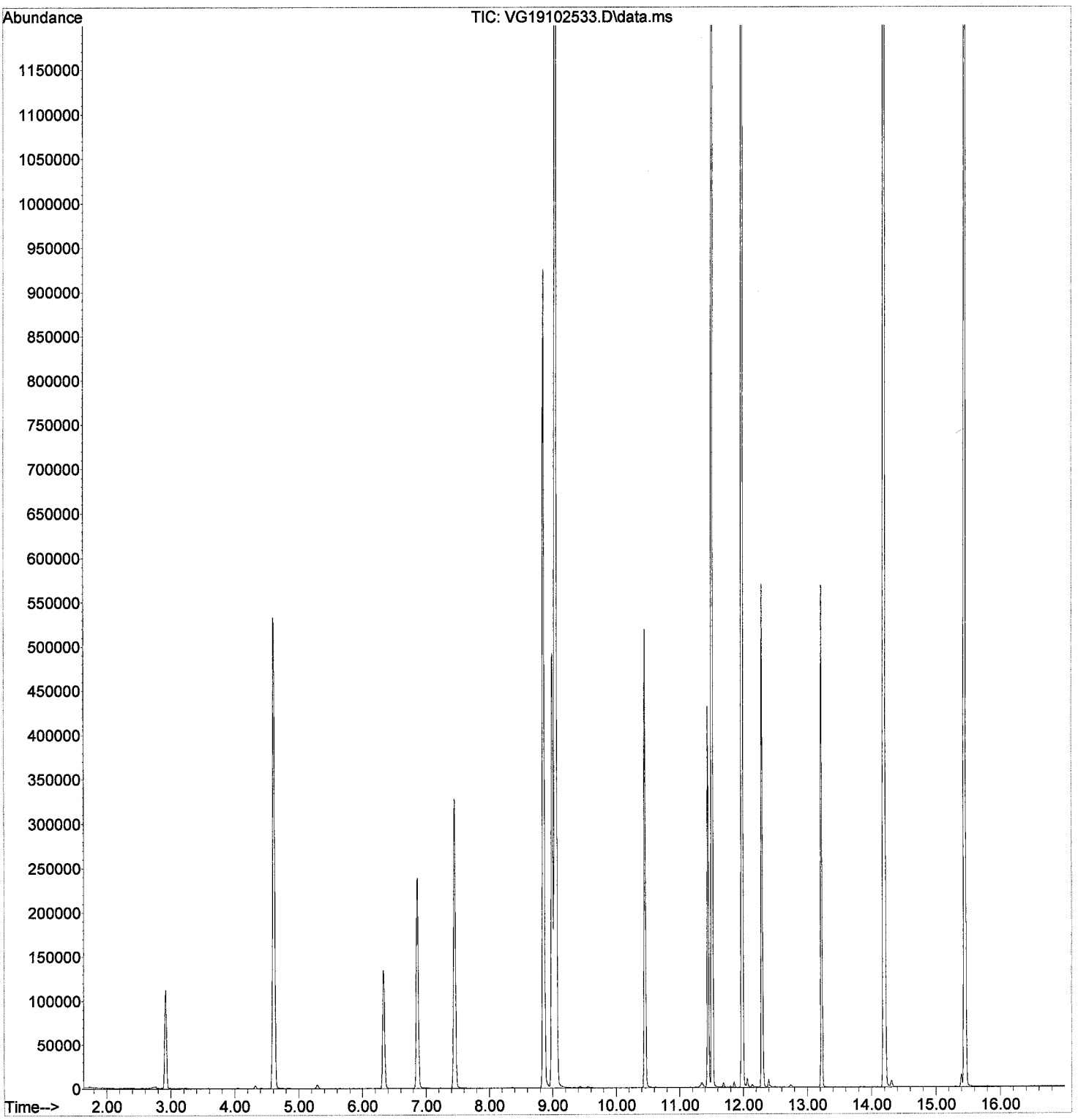
response 15242164

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

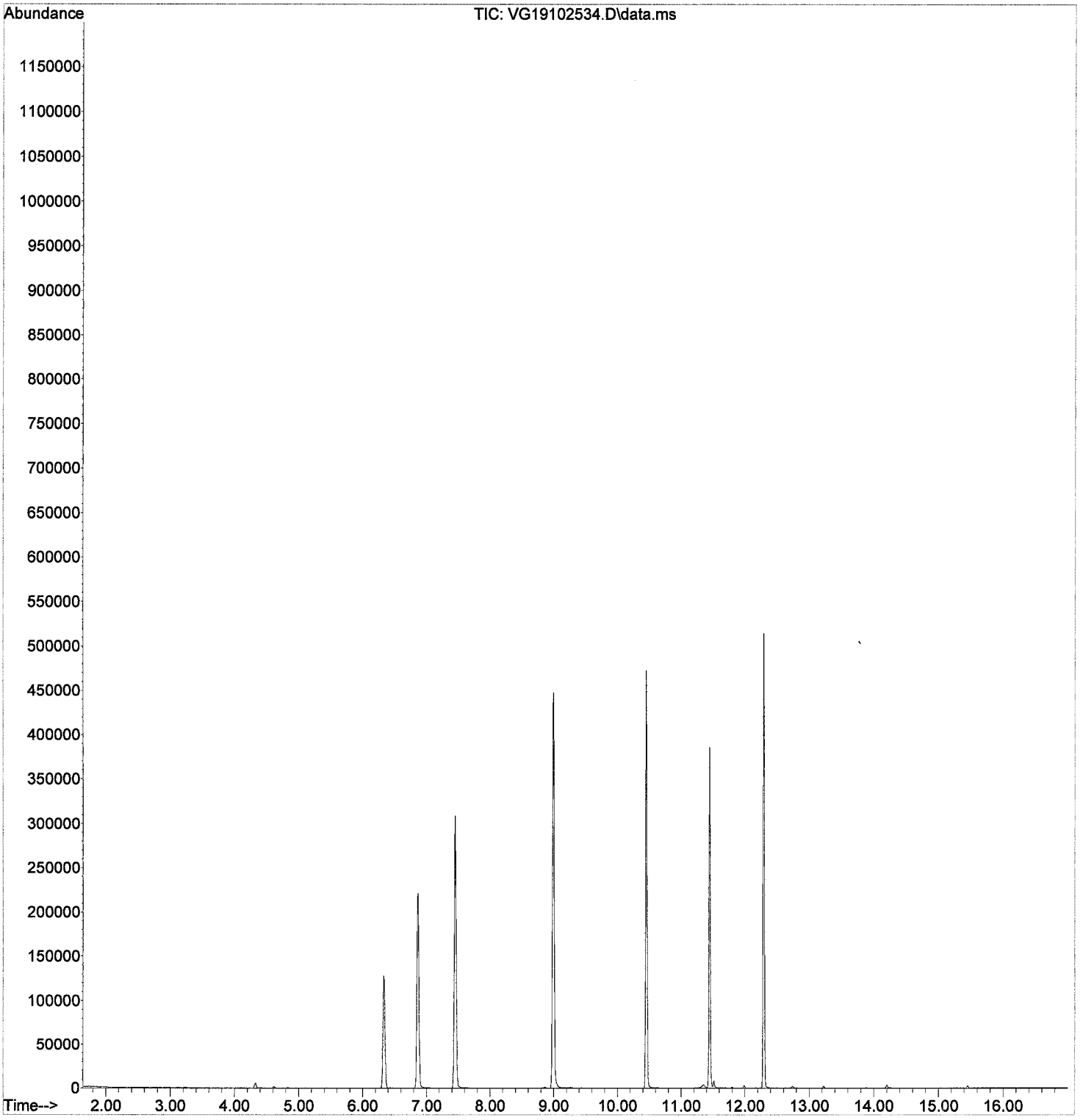
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	192420	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	297870	51.78	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	105012	50.11	ug/L	0.00
9) Toluene-d8 (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

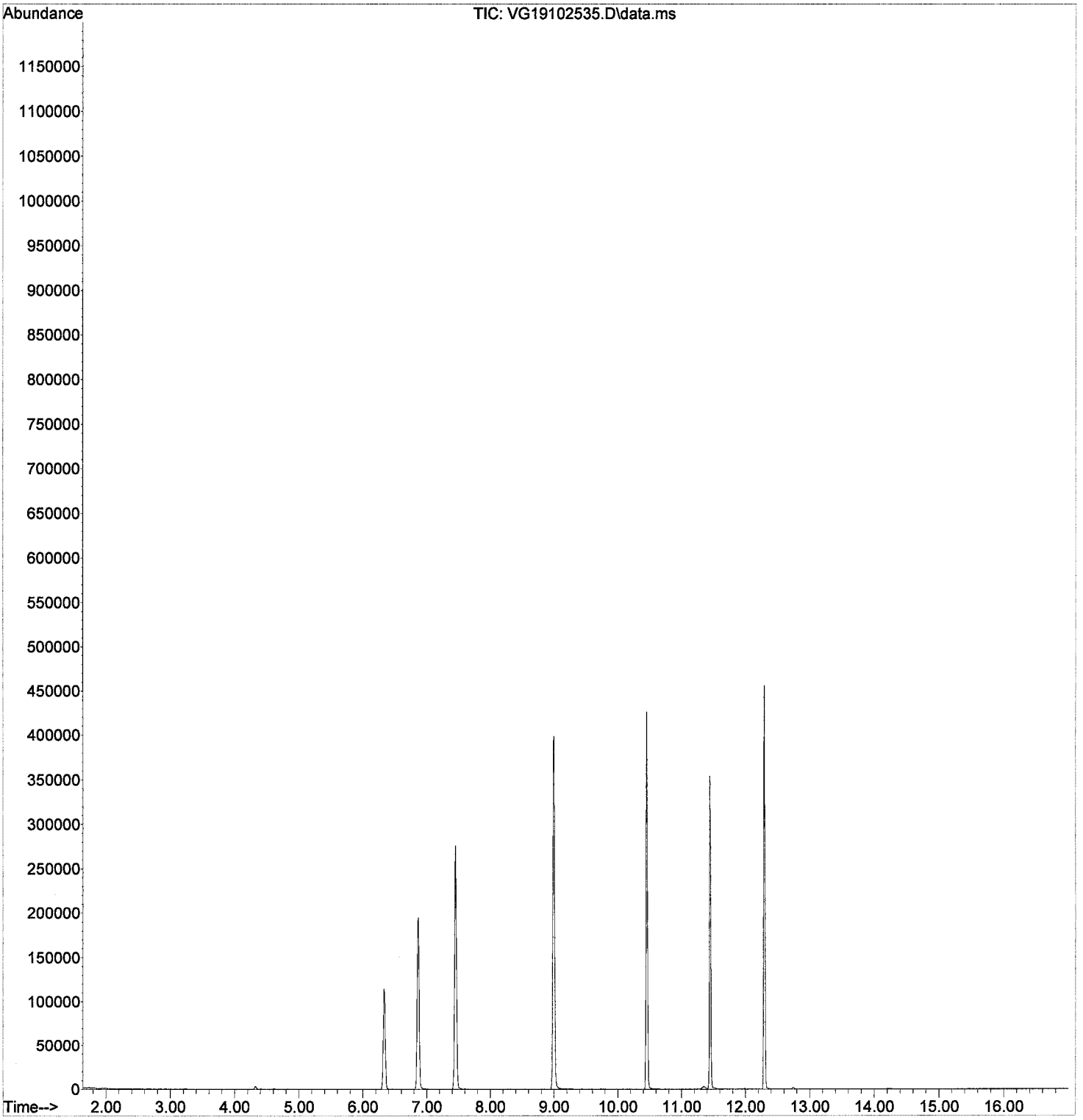
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	166825	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	262789	52.69	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	92634	50.99	ug/L	0.00
9) Toluene-d8 (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

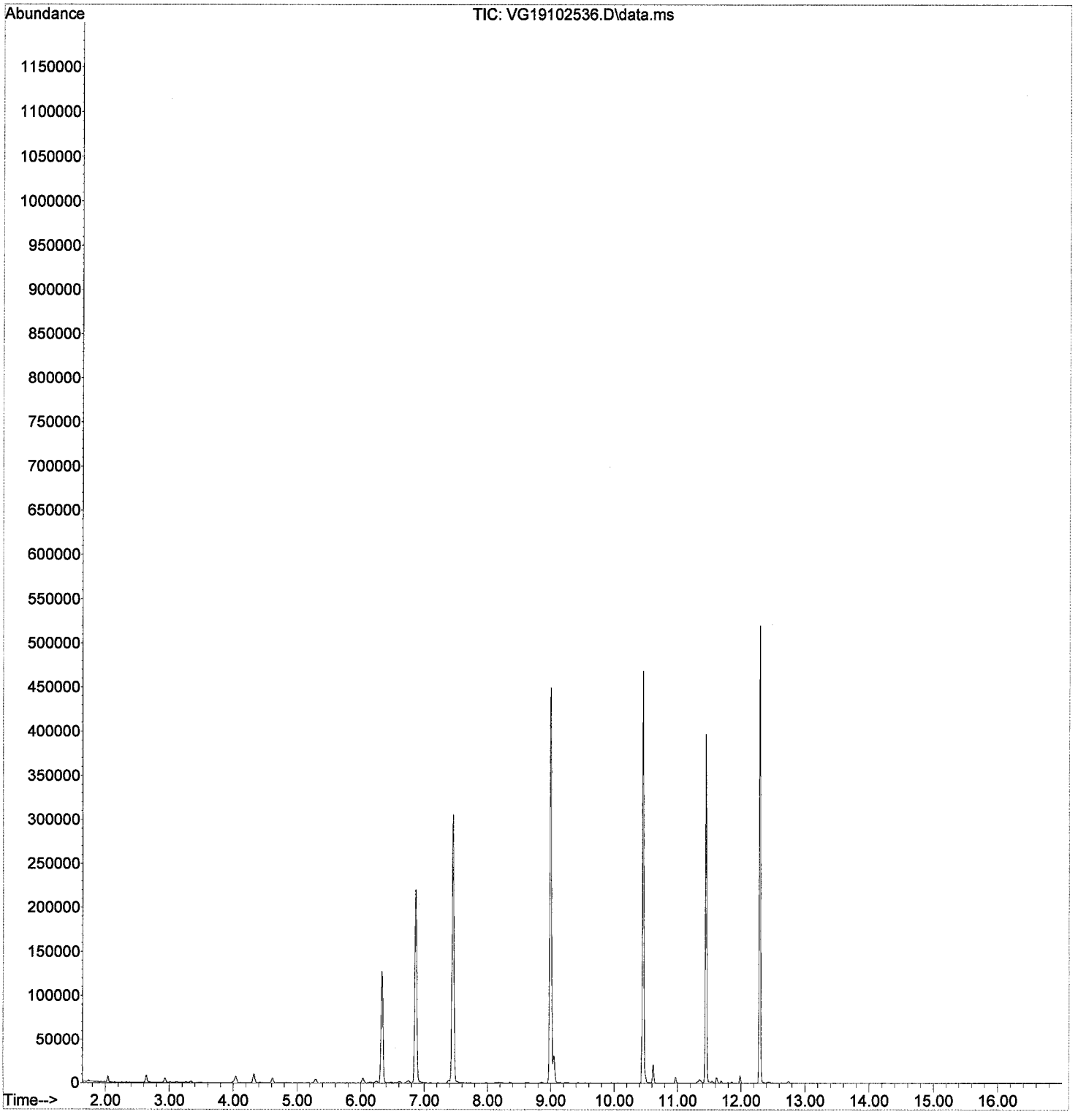
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	193559	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	295012	50.90	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	105074	50.40	ug/L	0.00
9) Toluene-d8 (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

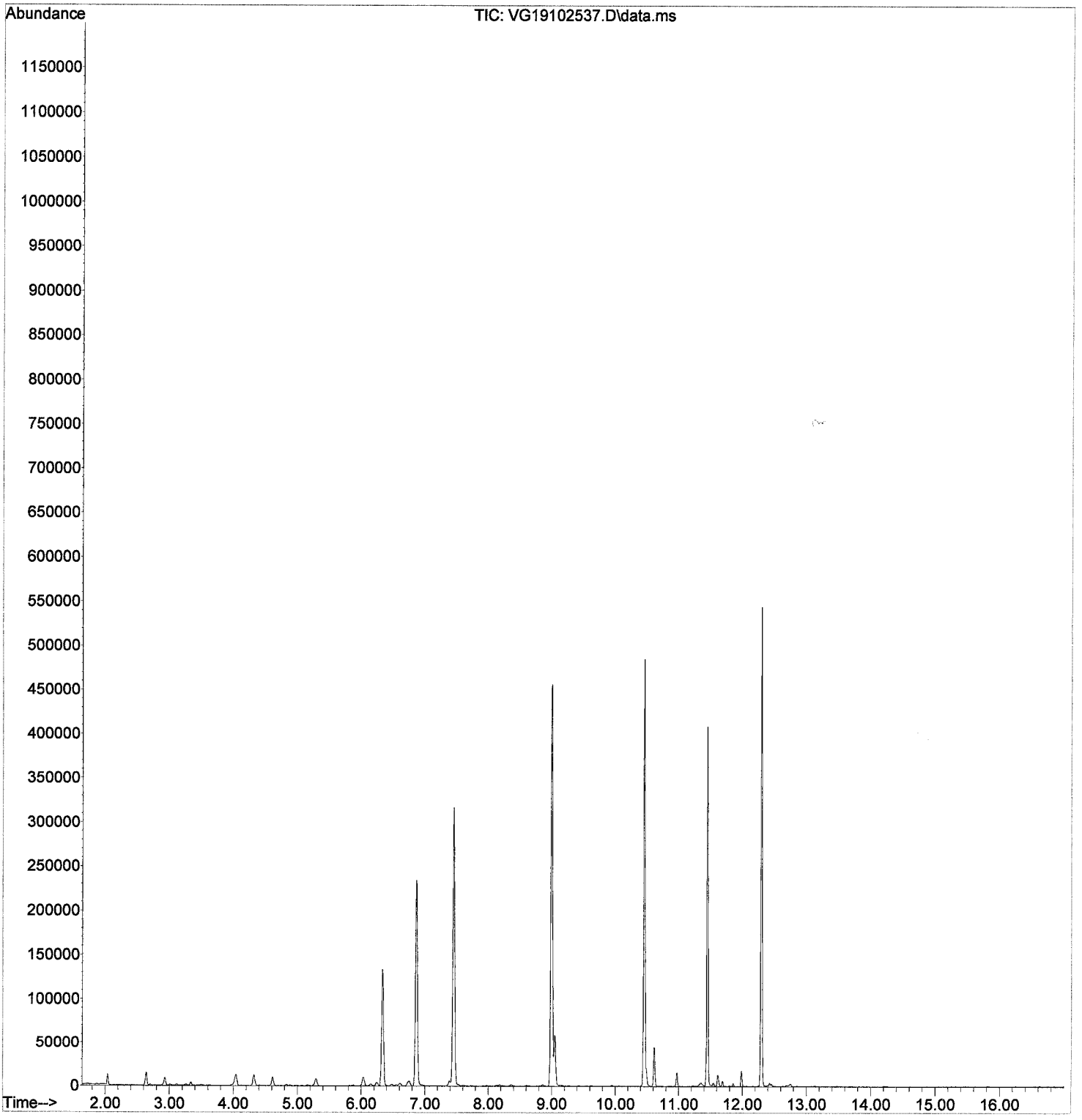
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.868	168	202223	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	304919	50.35	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	109800	50.42	ug/L	0.00
9) Toluene-d8 (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

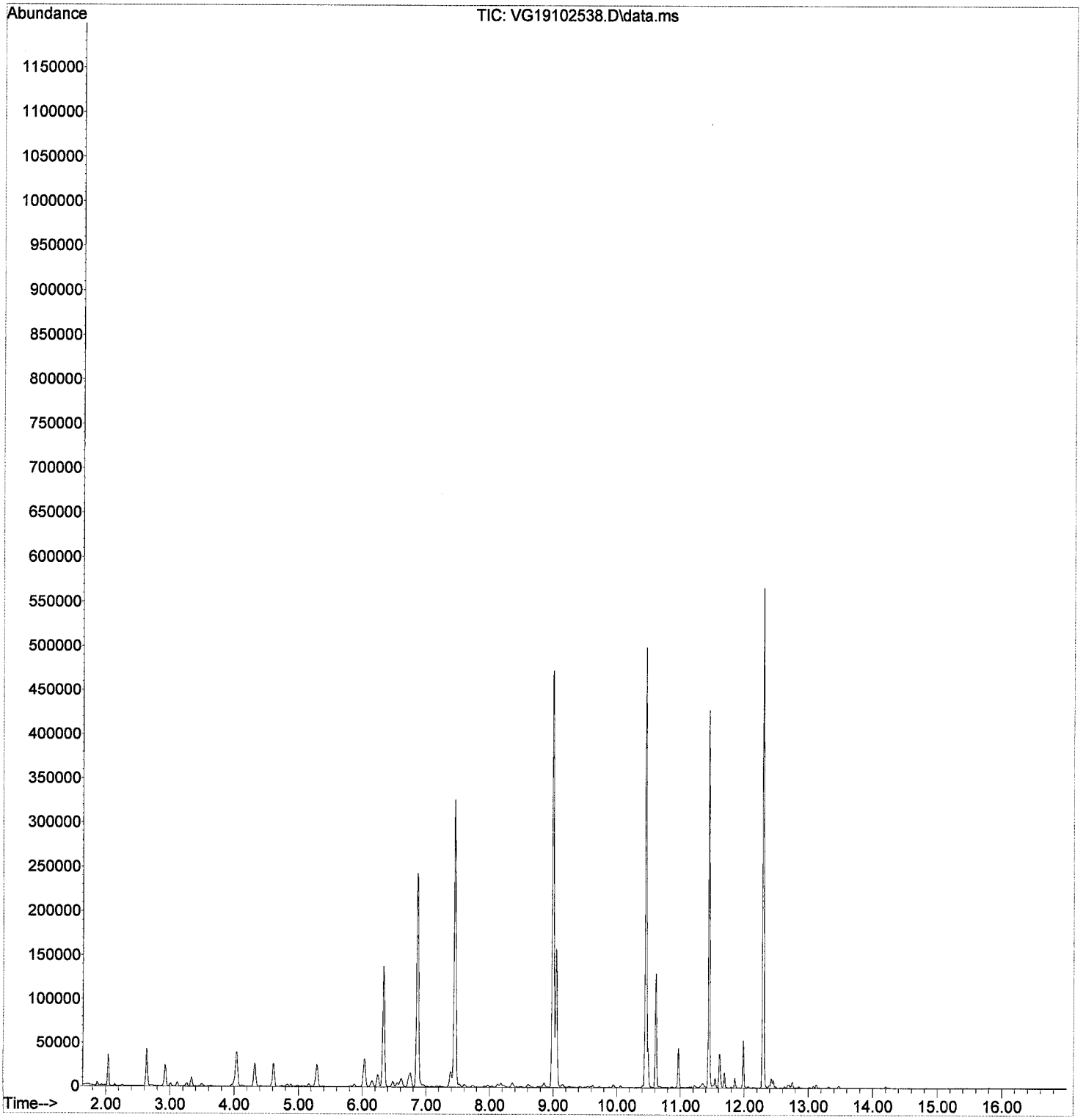
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	212459	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	314600	49.45	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	115645	50.54	ug/L	0.00
9) Toluene-d8 (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

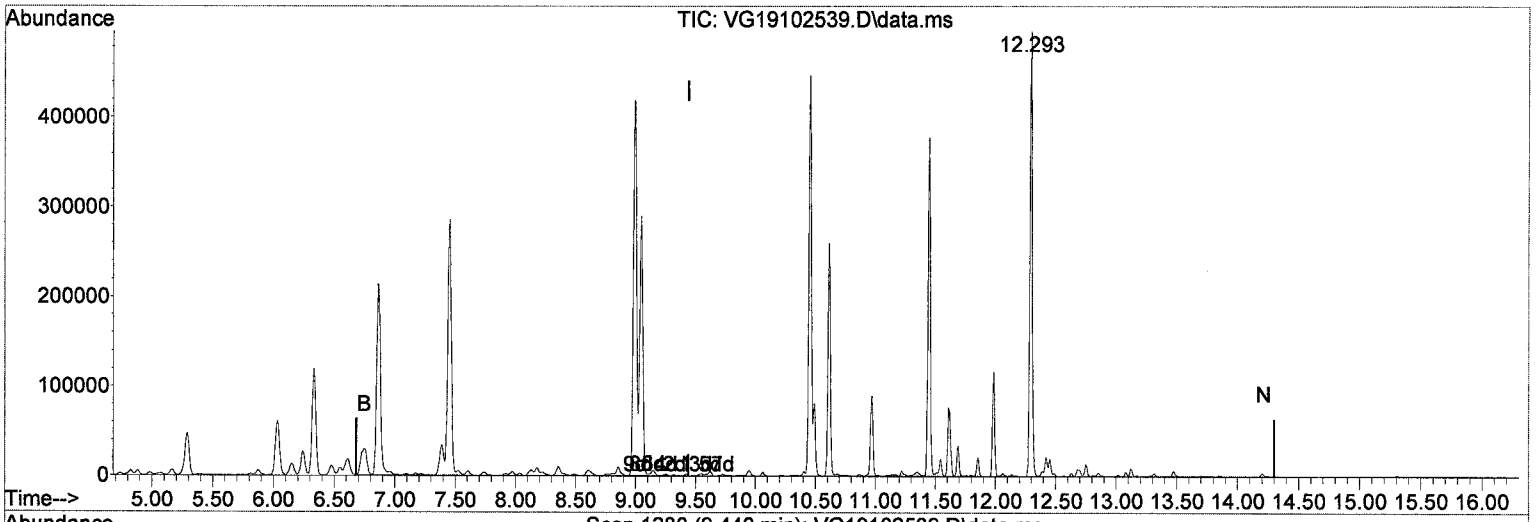
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.862	168	184039	50.00	ug/L	-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	275552	50.00	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	99104	50.00	ug/L	0.00
9) Toluene-d8 (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	

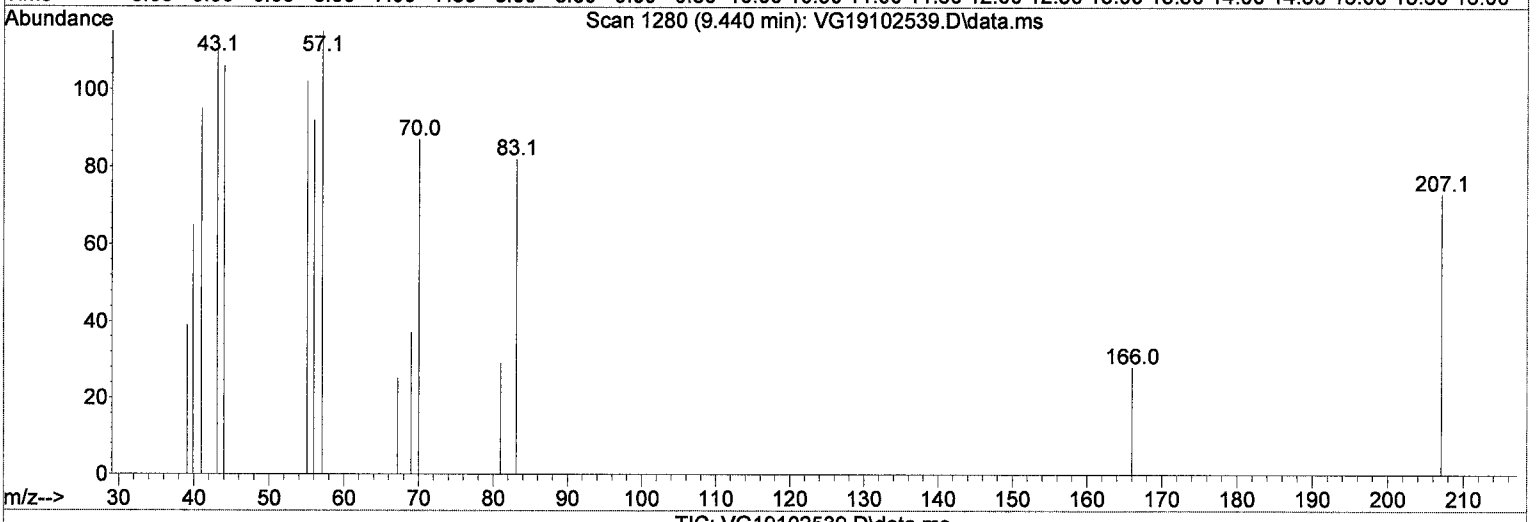
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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

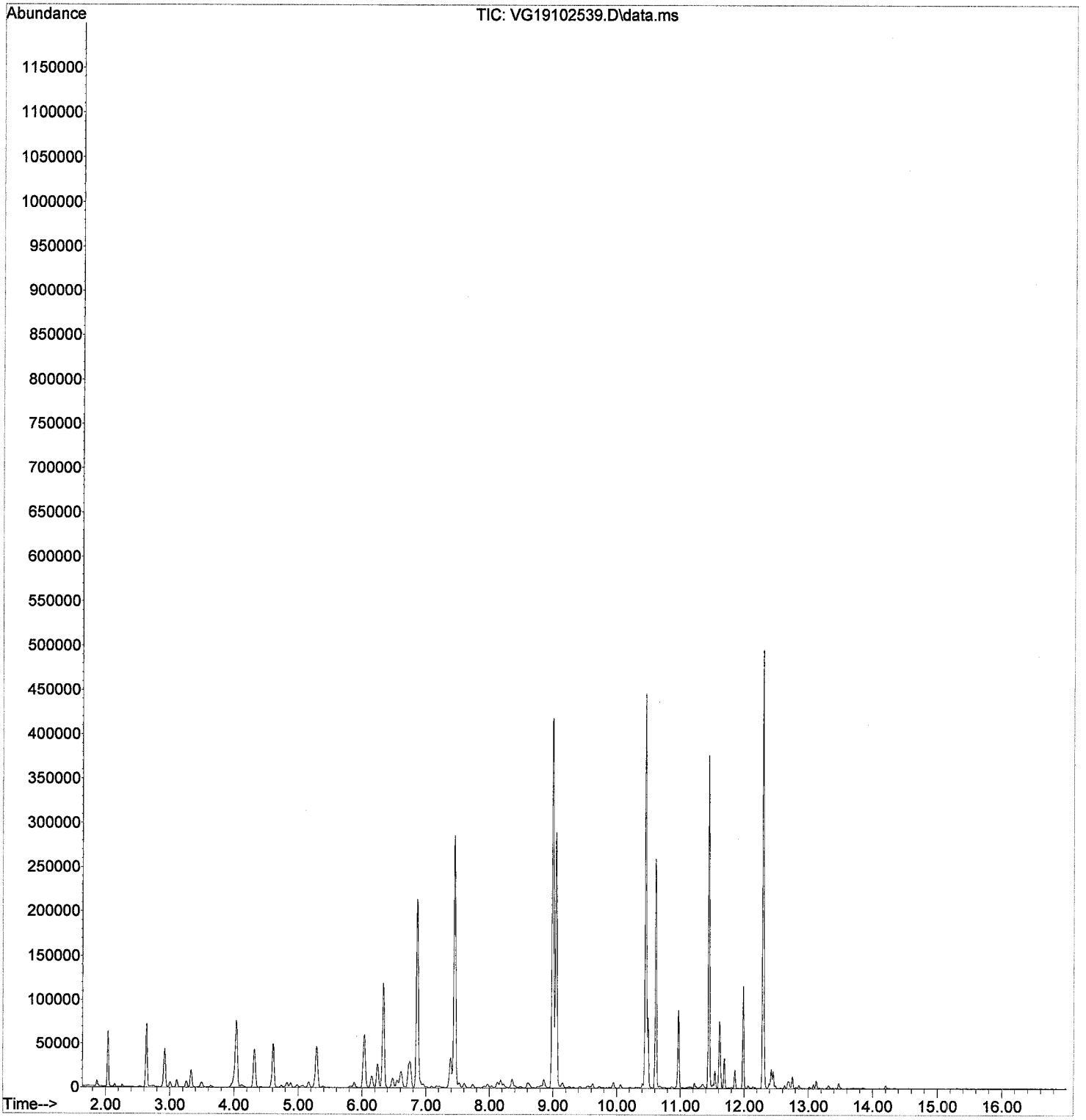
response 2248368

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

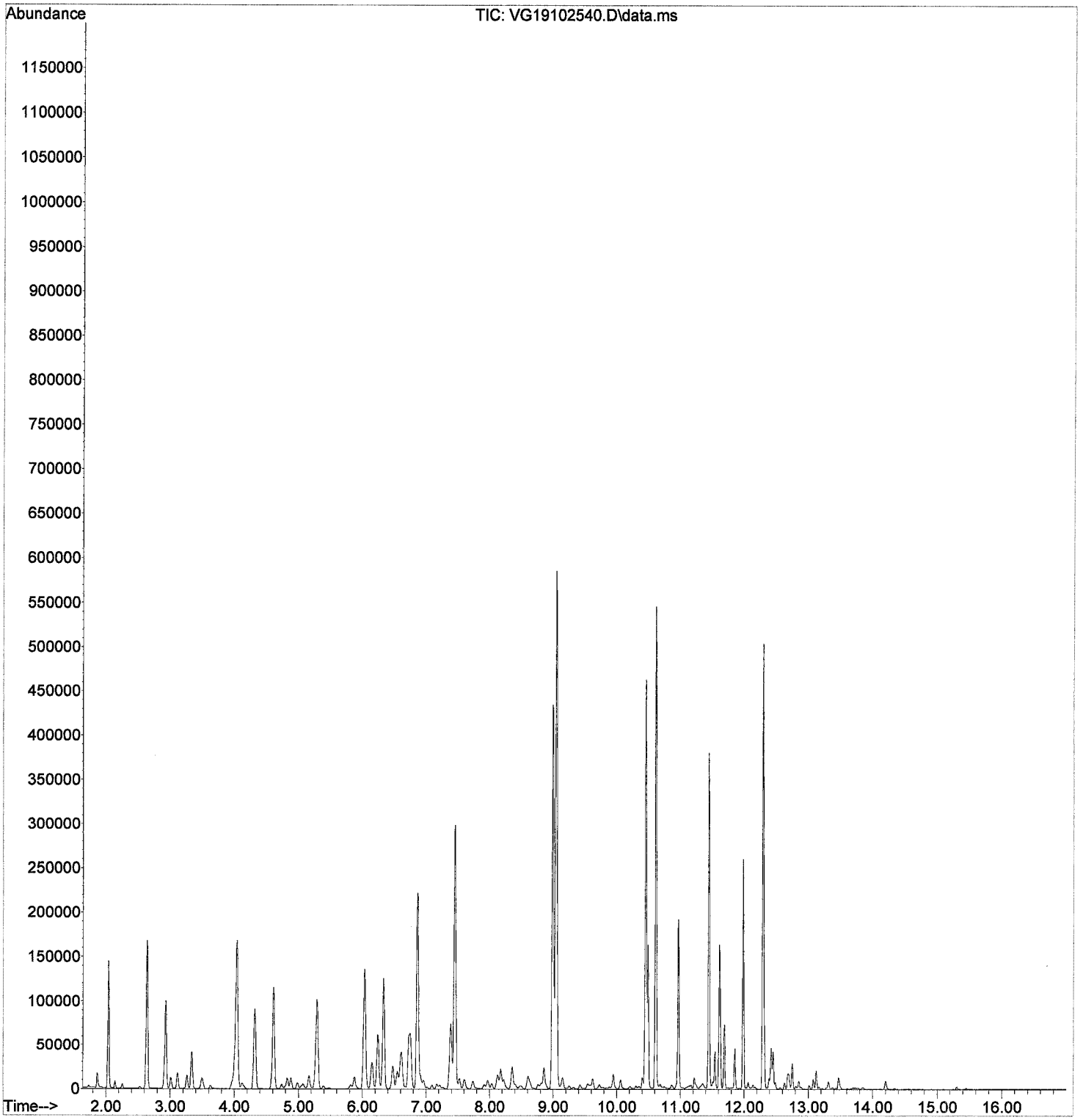
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	190639	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	286580	50.20	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	102218	49.79	ug/L	0.00
9) Toluene-d8 (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

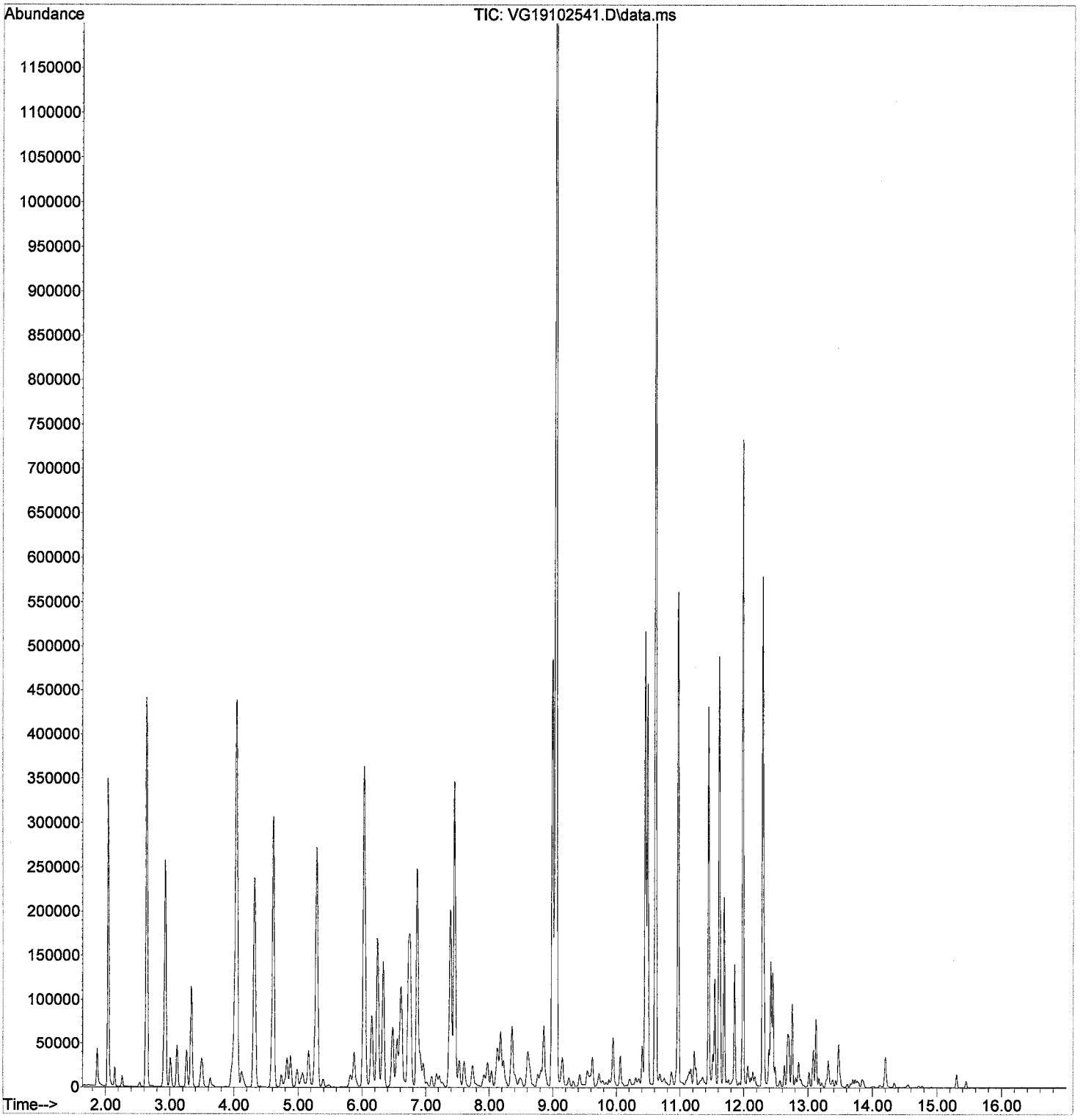
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	218107	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	319682	48.95	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	117998	50.23	ug/L	0.00
9) Toluene-d8 (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

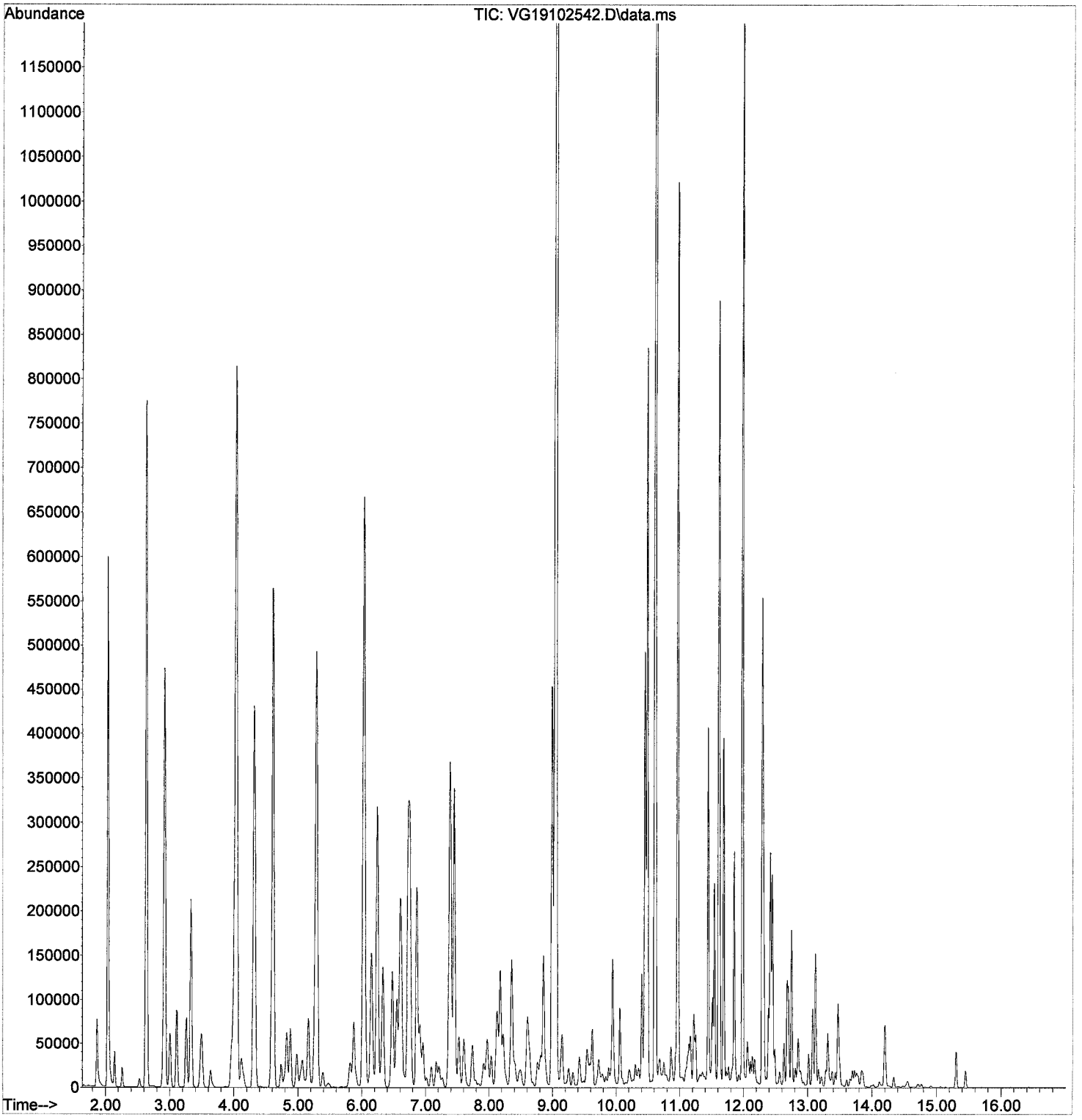
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.861	168	195244	50.00	ug/L	-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	291674	49.89	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	108752	51.72	ug/L	0.00
9) Toluene-d8 (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

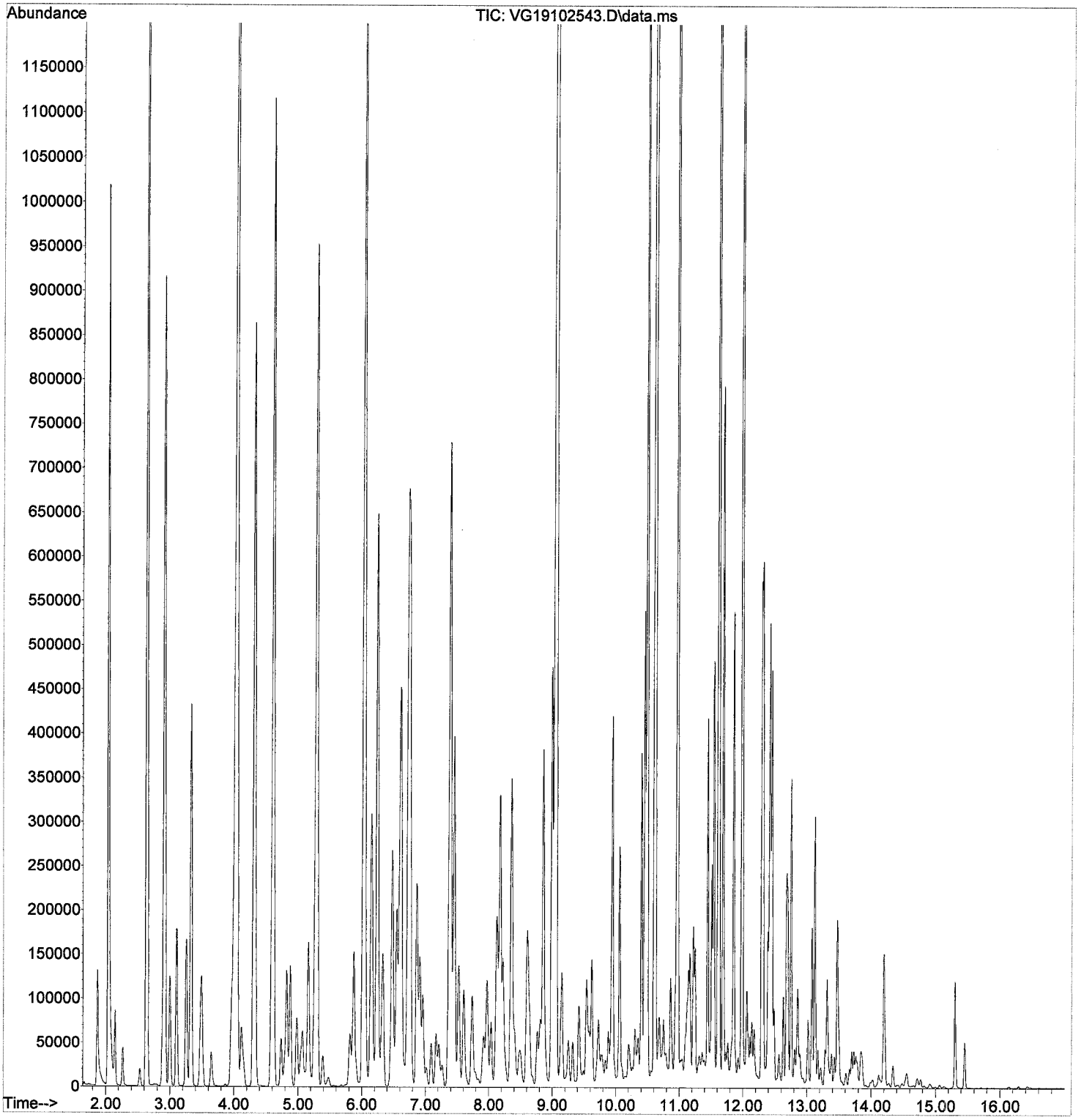
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.861	168	197171	50.00	ug/L	-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	292717	49.58	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	109113	51.38	ug/L	0.00
9) Toluene-d8 (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

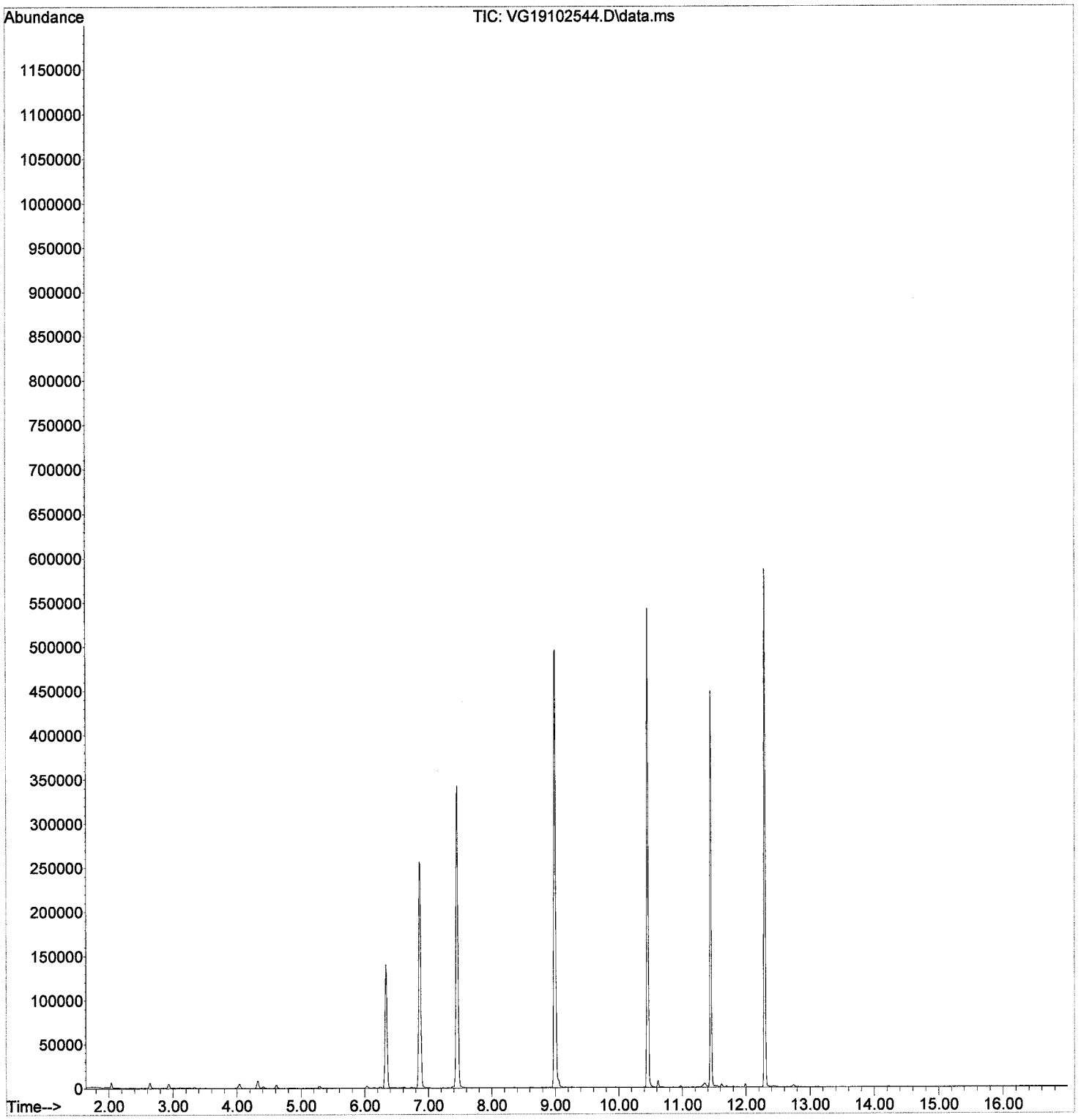
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	225495	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	337060	50.00	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	122114	49.73	ug/L	0.00
9) Toluene-d8 (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

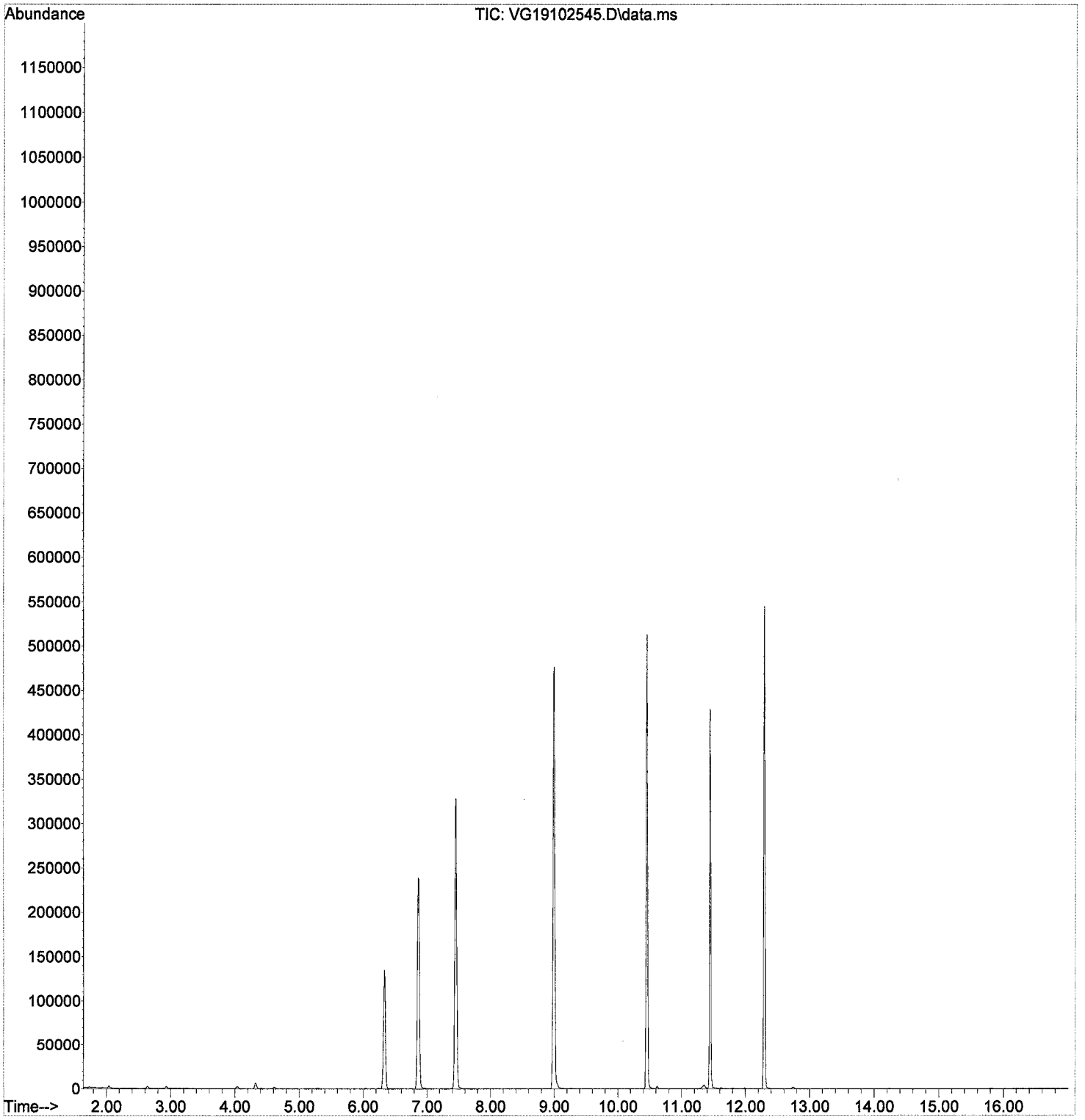
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	212130	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	321985	50.78	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	115469	49.98	ug/L	0.00
9) Toluene-d8 (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

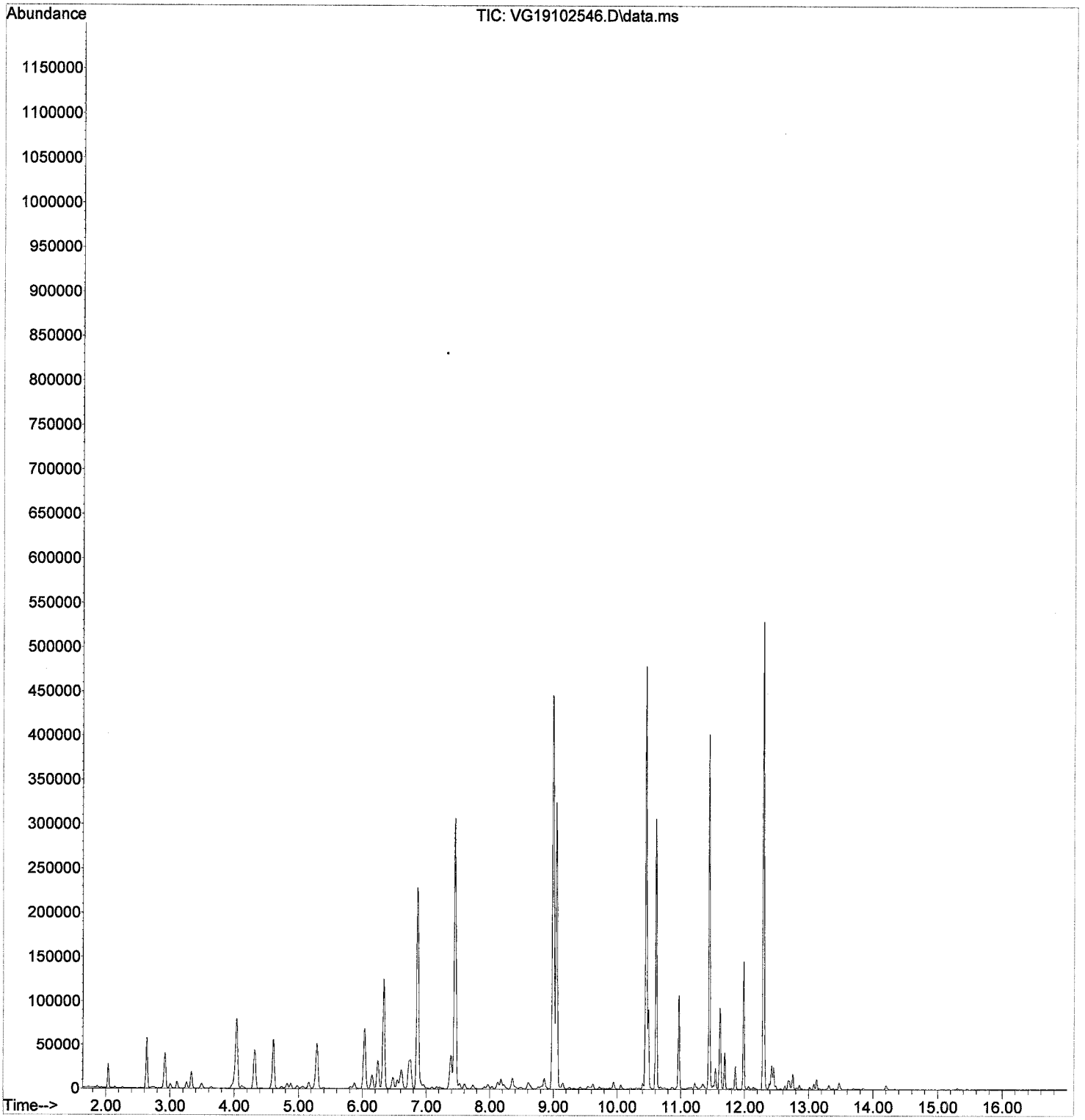
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	198918	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	295059	49.62	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	107800	49.76	ug/L	0.00
9) Toluene-d8 (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

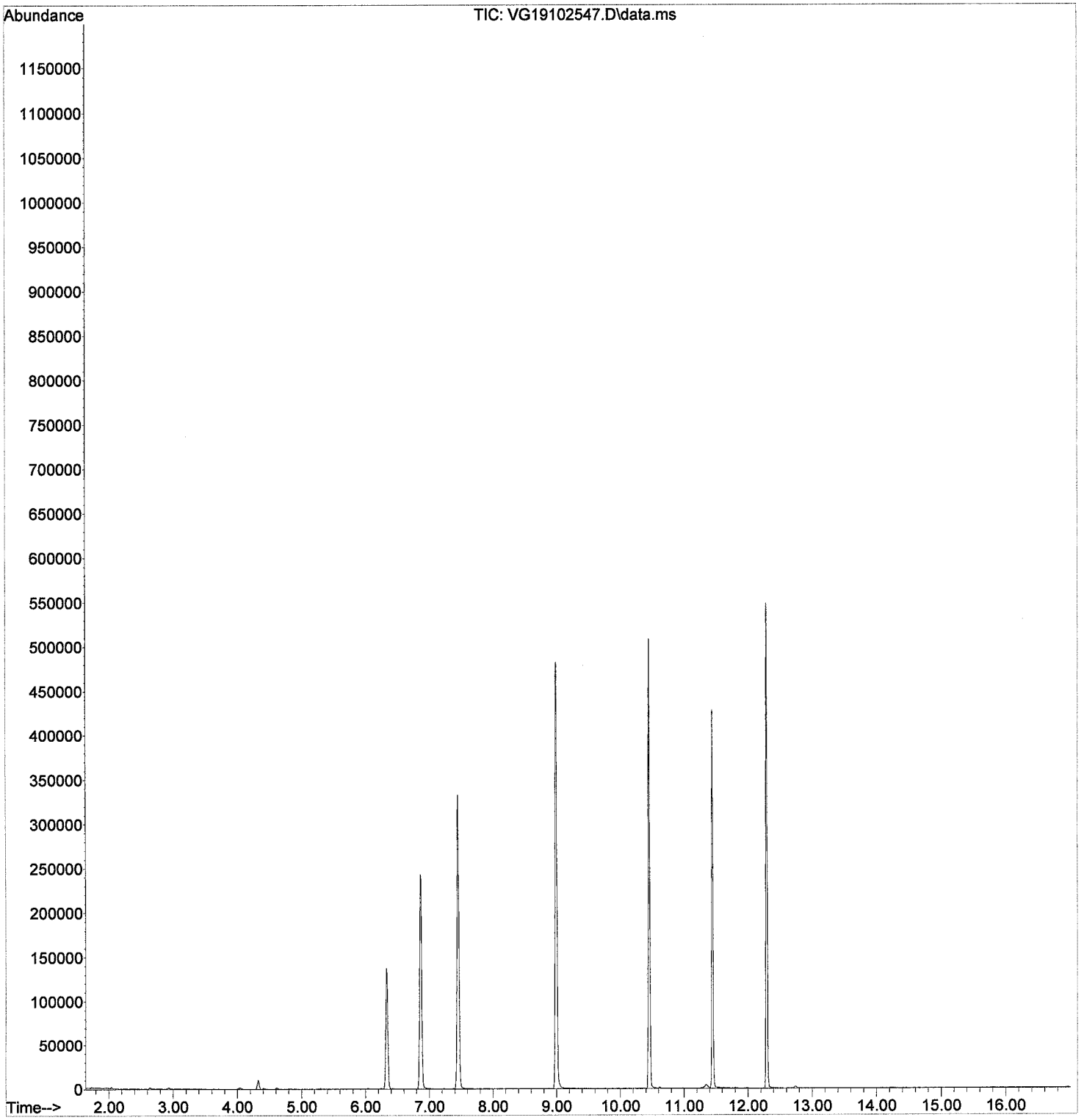
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.867	168	214380	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	7.453	114	325769	50.83	ug/L	0.00
3) 4-Bromofluorobenzene (...	11.446	174	115143	49.32	ug/L	0.00
9) Toluene-d8 (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 (A9J0954-01RE1,02RE1)

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 10:31PM

Reviewed By: SCG Date 10/31/2019

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

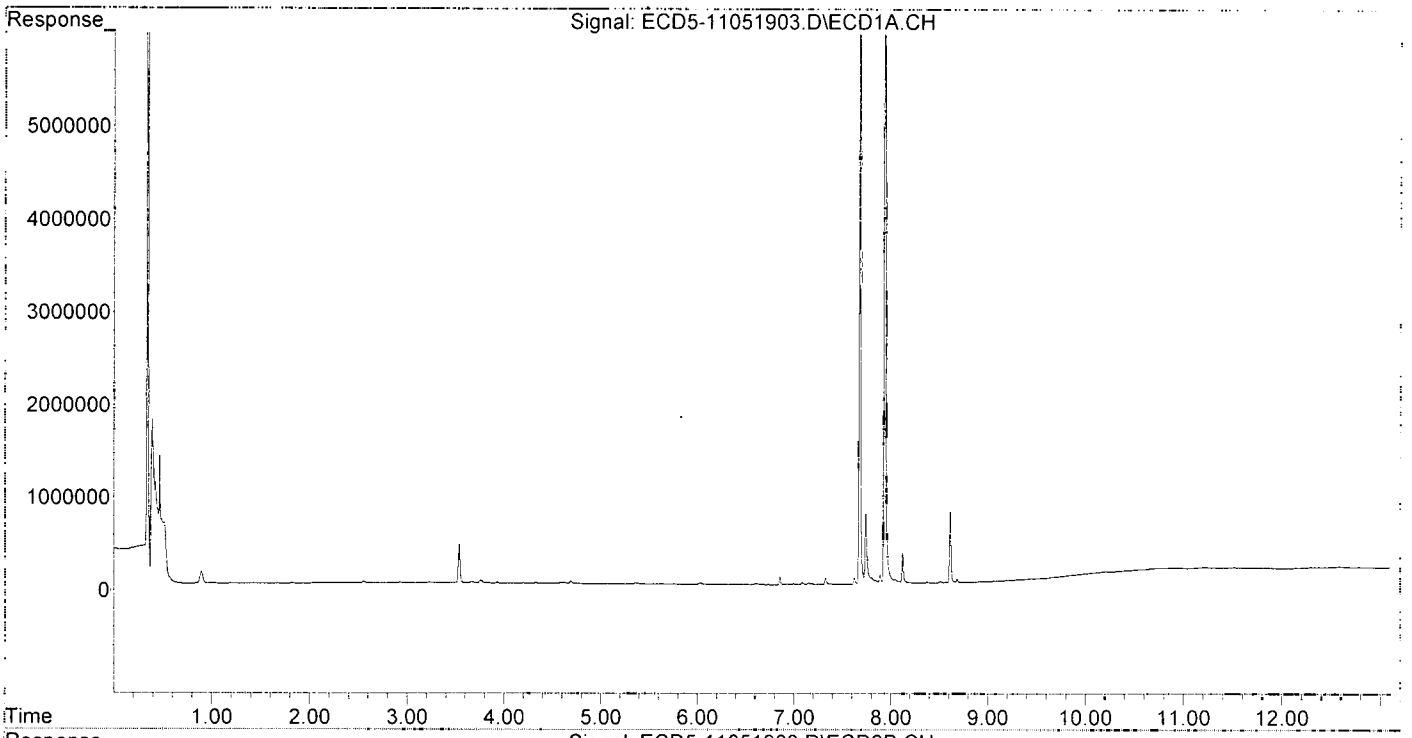
(f)=RT Delta > 1/2 Window (m)=manual int.

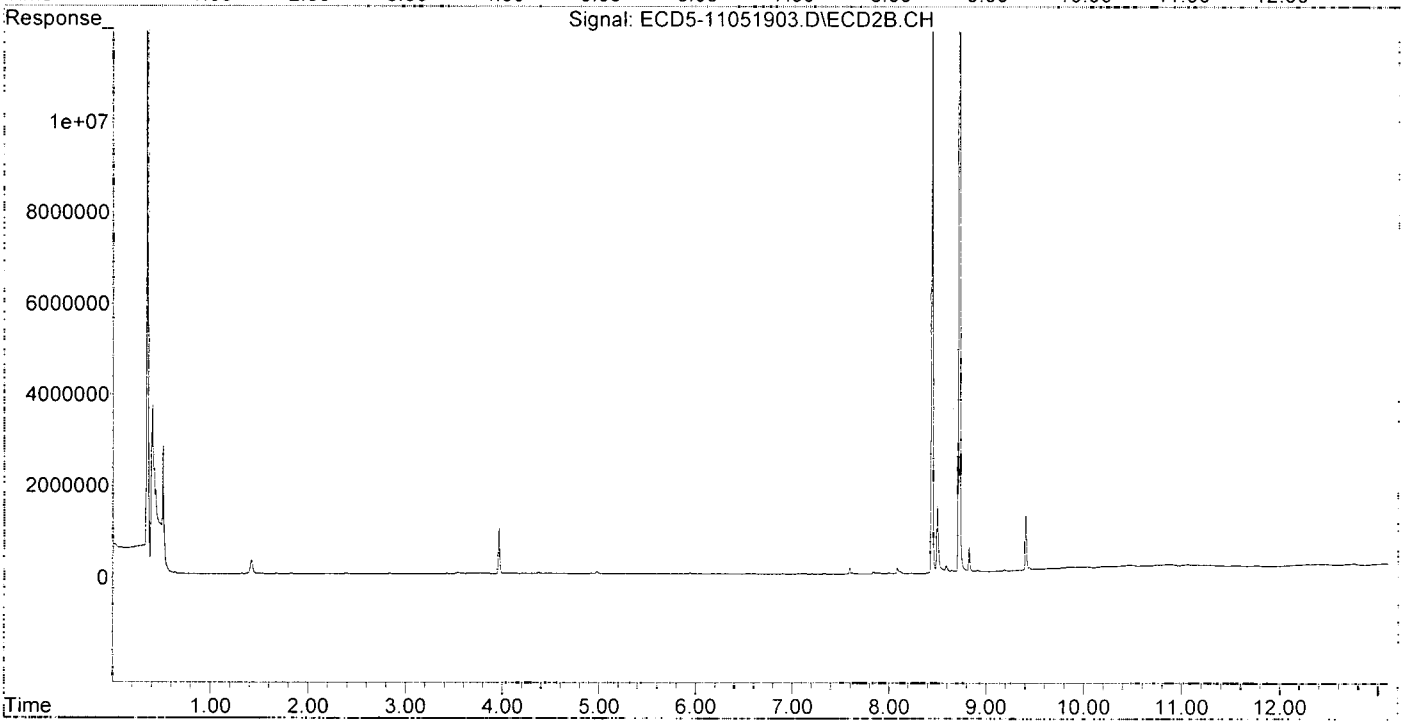
MJB 11/5/19

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

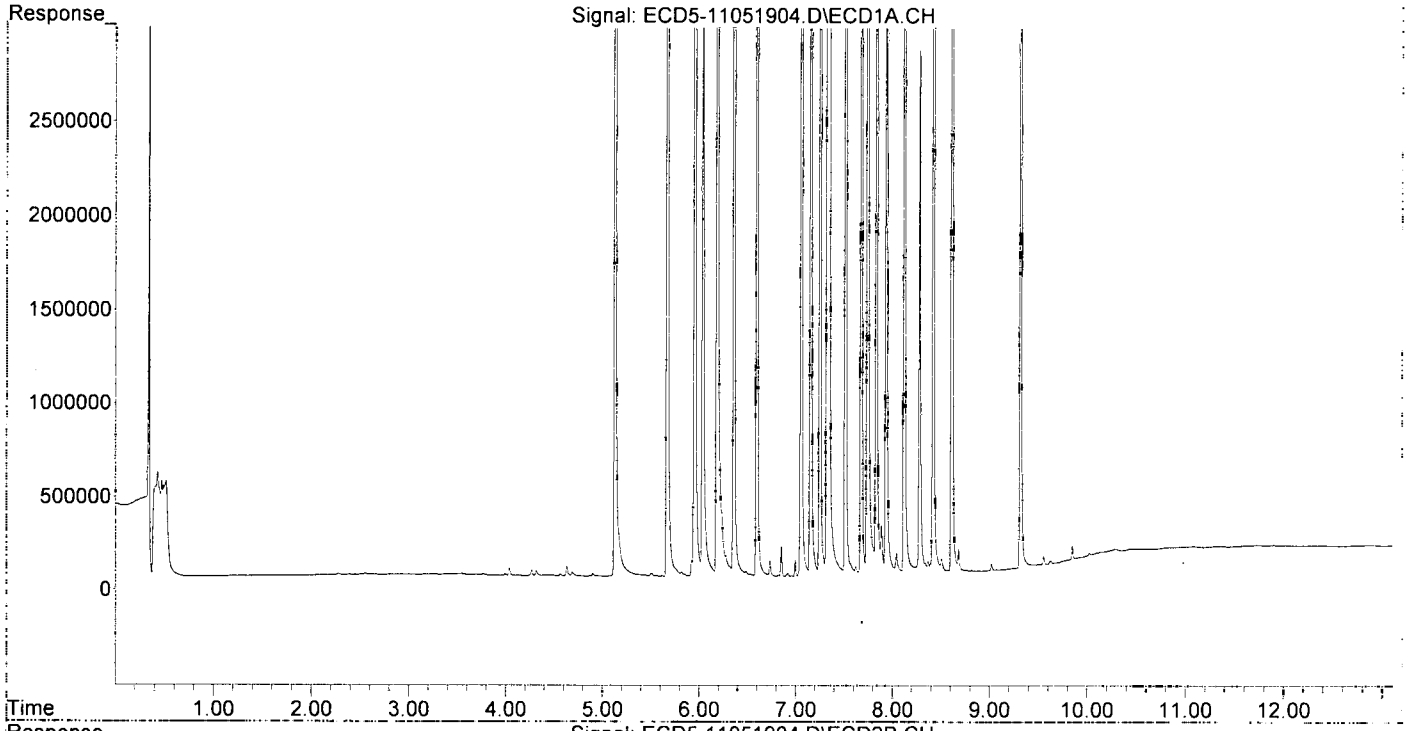
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.130	5.727	8305357	12858512	50.040	43.831	
22)	S	DCBP (S)	9.319	10.236	6710079	10051164	47.556	55.913	
		Target Compounds							
2)		a-BHC	5.669	6.336	11661191	21387464	50.849	52.121	
3)		g-BHC	5.955	6.654	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.	

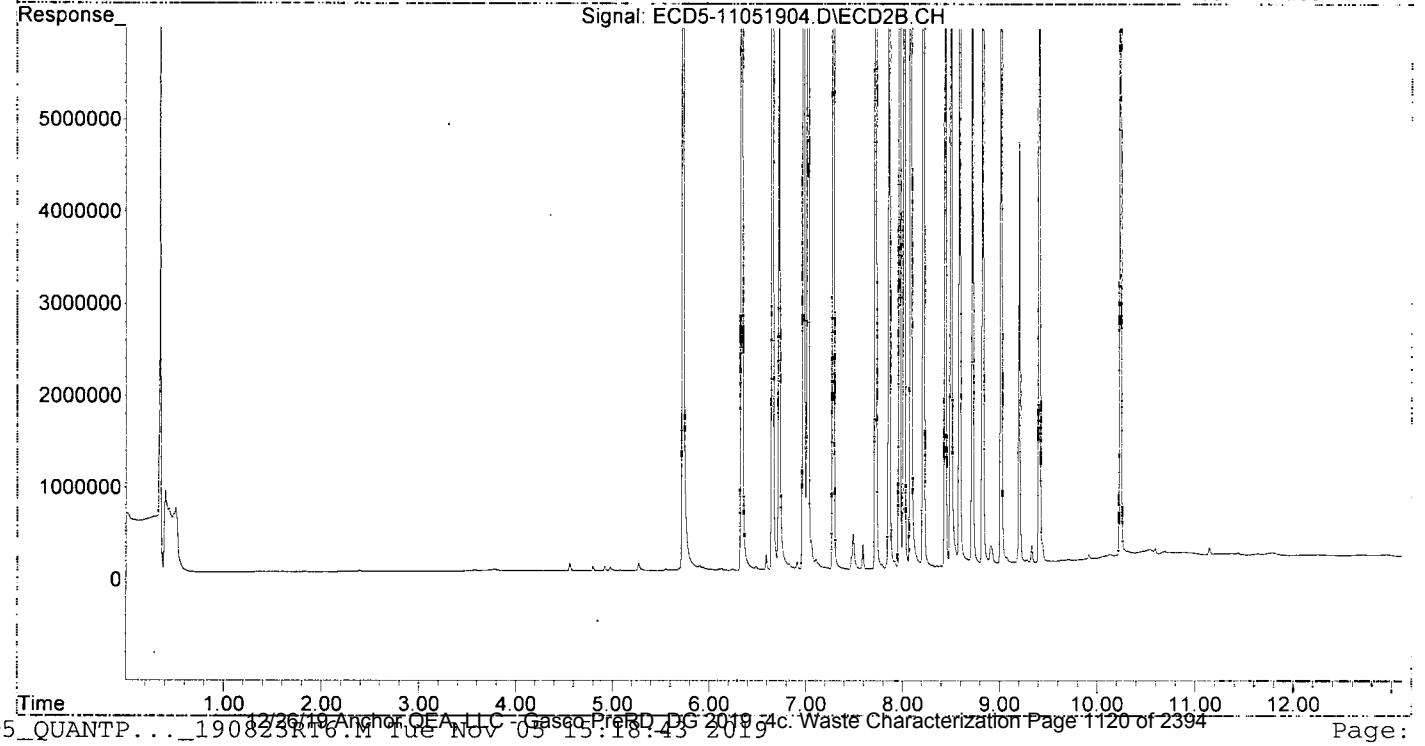
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

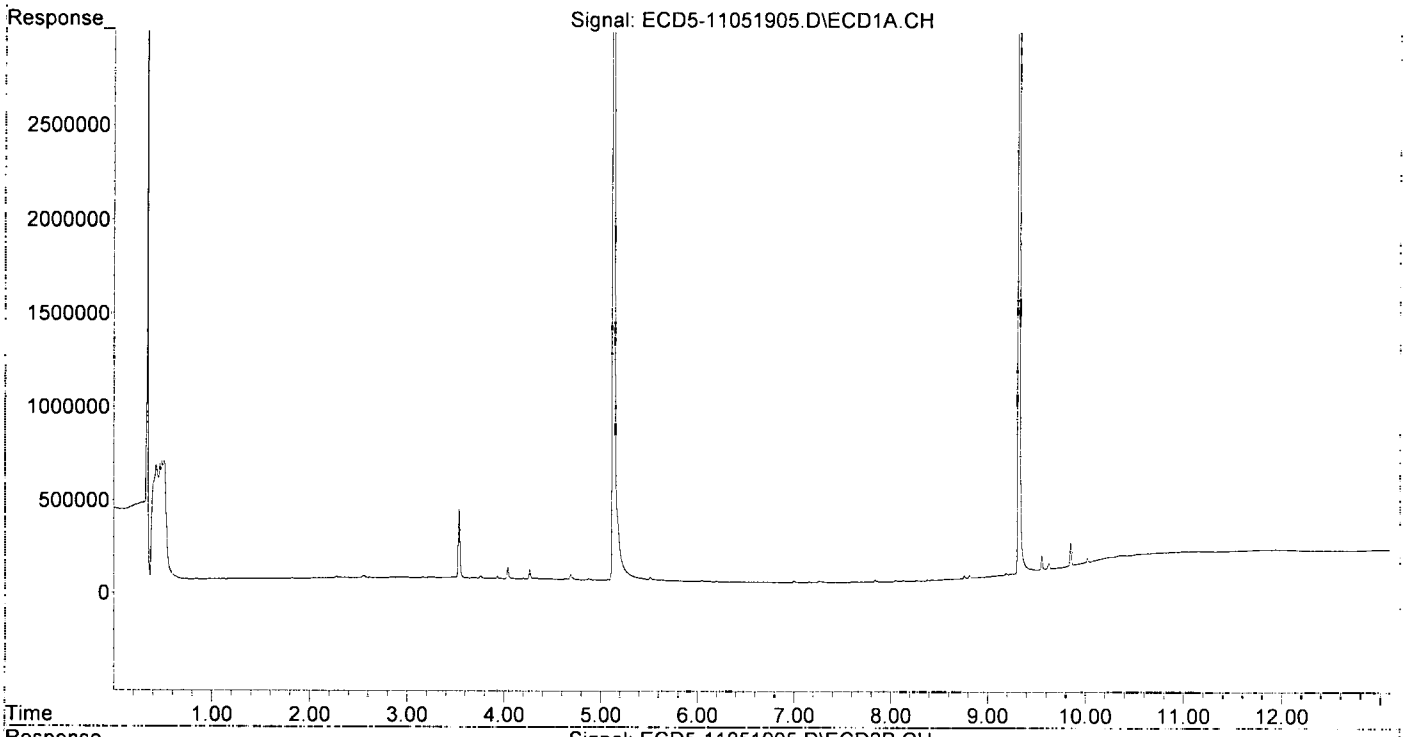
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.129	5.726	15077257	24007703	90.840	81.835	
22)	S	DCBP (S)	9.319	10.236	11811390	18138547	83.710	100.903	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
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.	

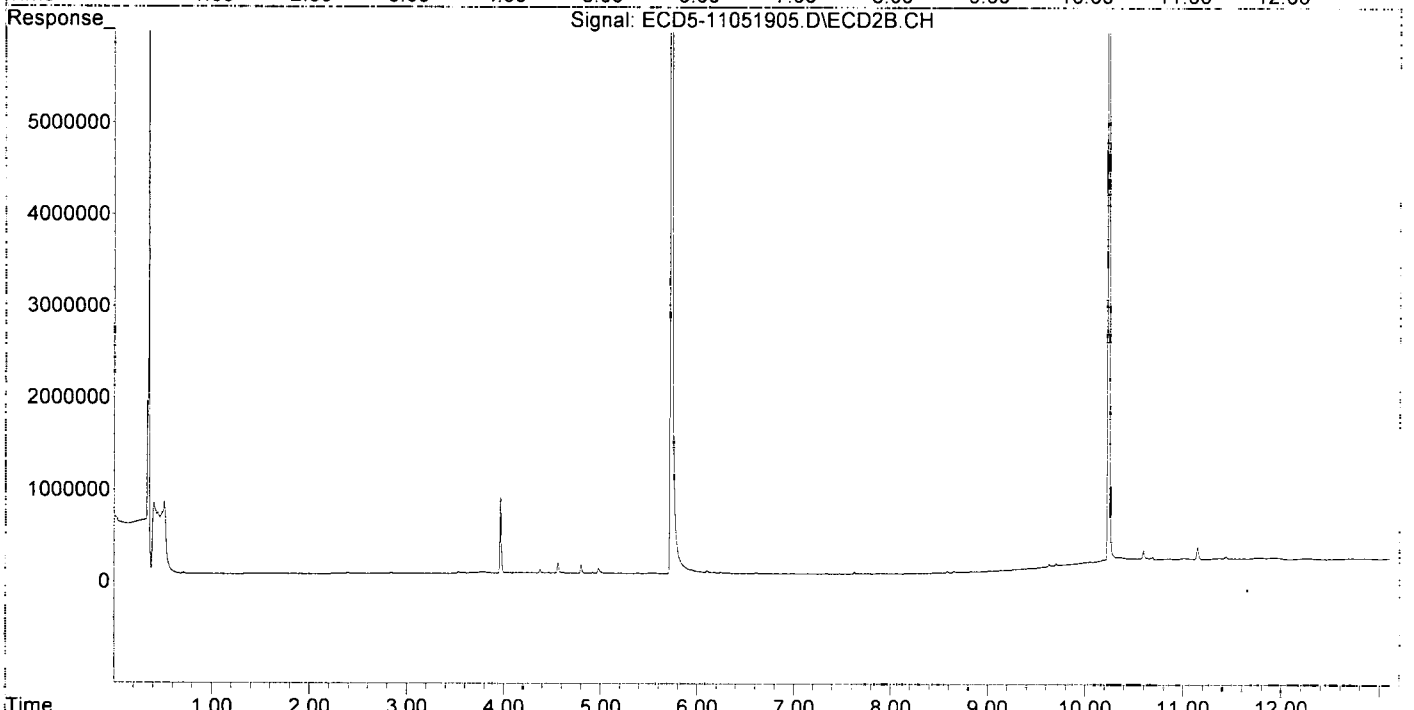
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

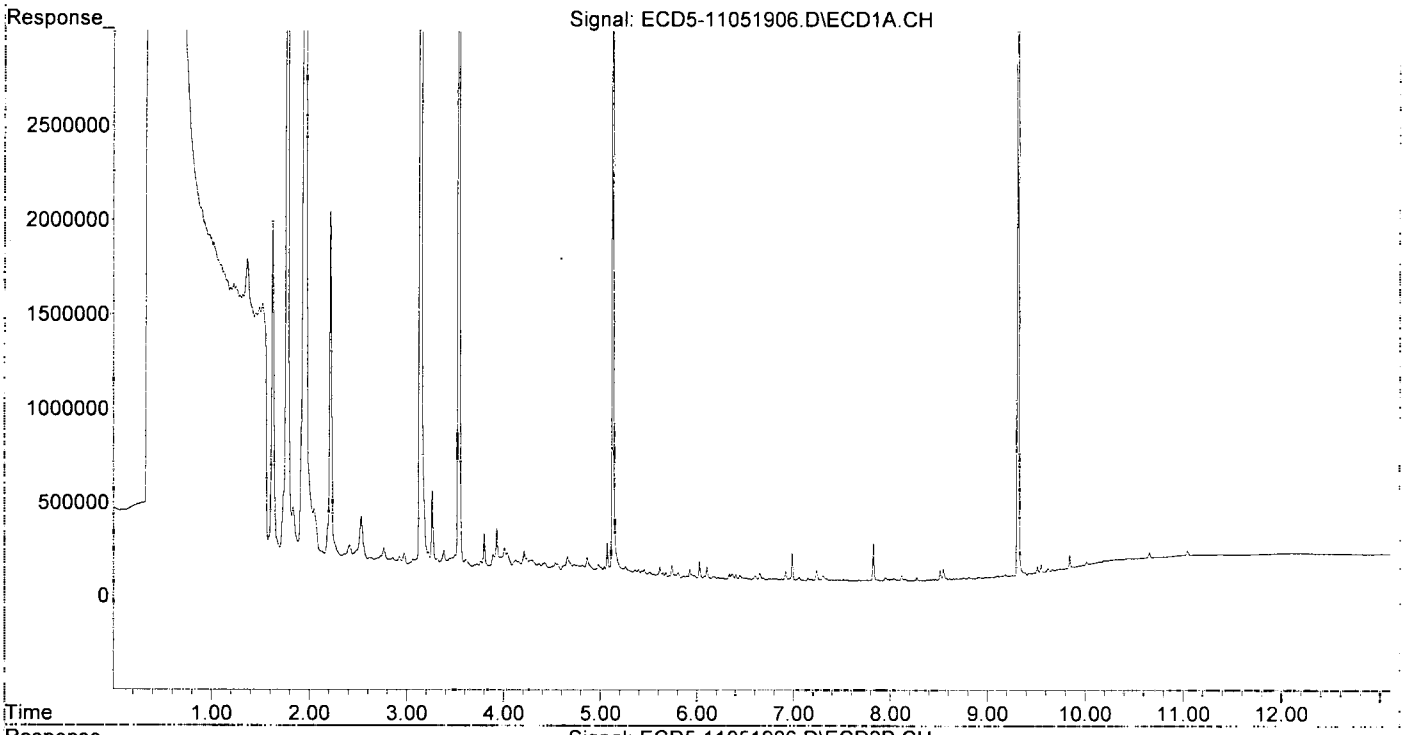
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.725	5807354	9508097	34.989	32.410	
22)	S	DCBP (S)	9.315	10.234	6291687	8960754	44.591	49.848	
		Target Compounds							
2)		a-BHC	5.678	6.345	24950	23854	0.109	0.058	#
3)		g-BHC	5.926f	6.655	46492	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	

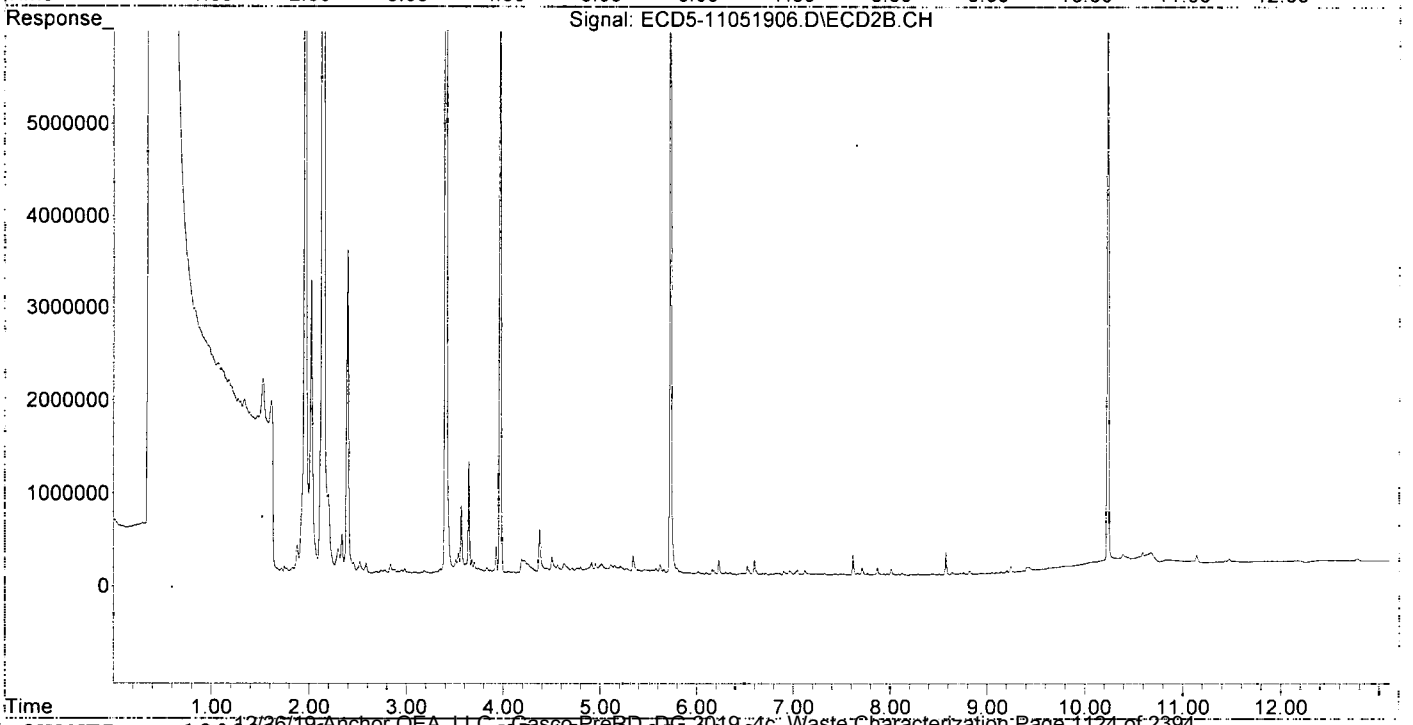
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

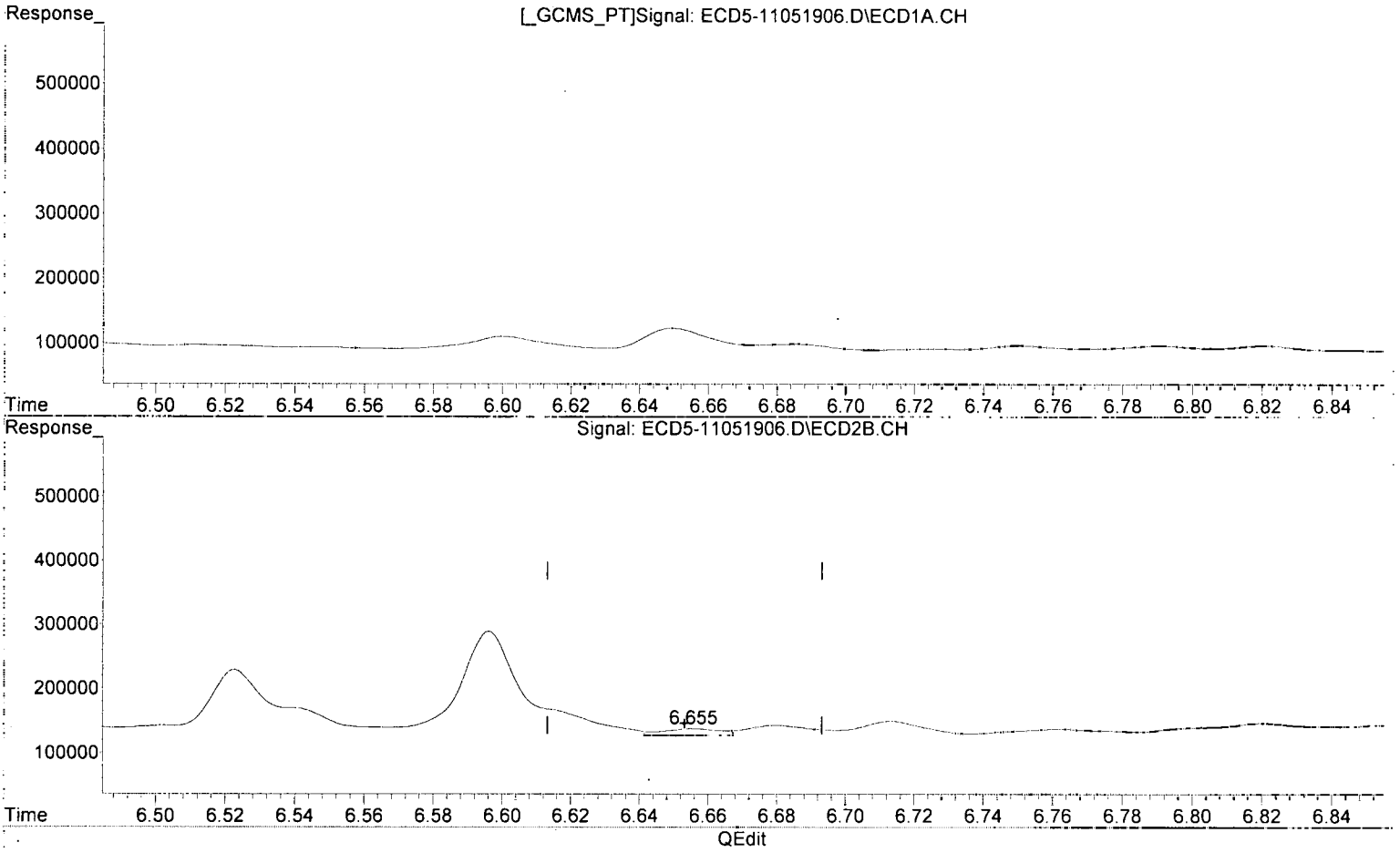




Quantitation Report (Qedit)

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

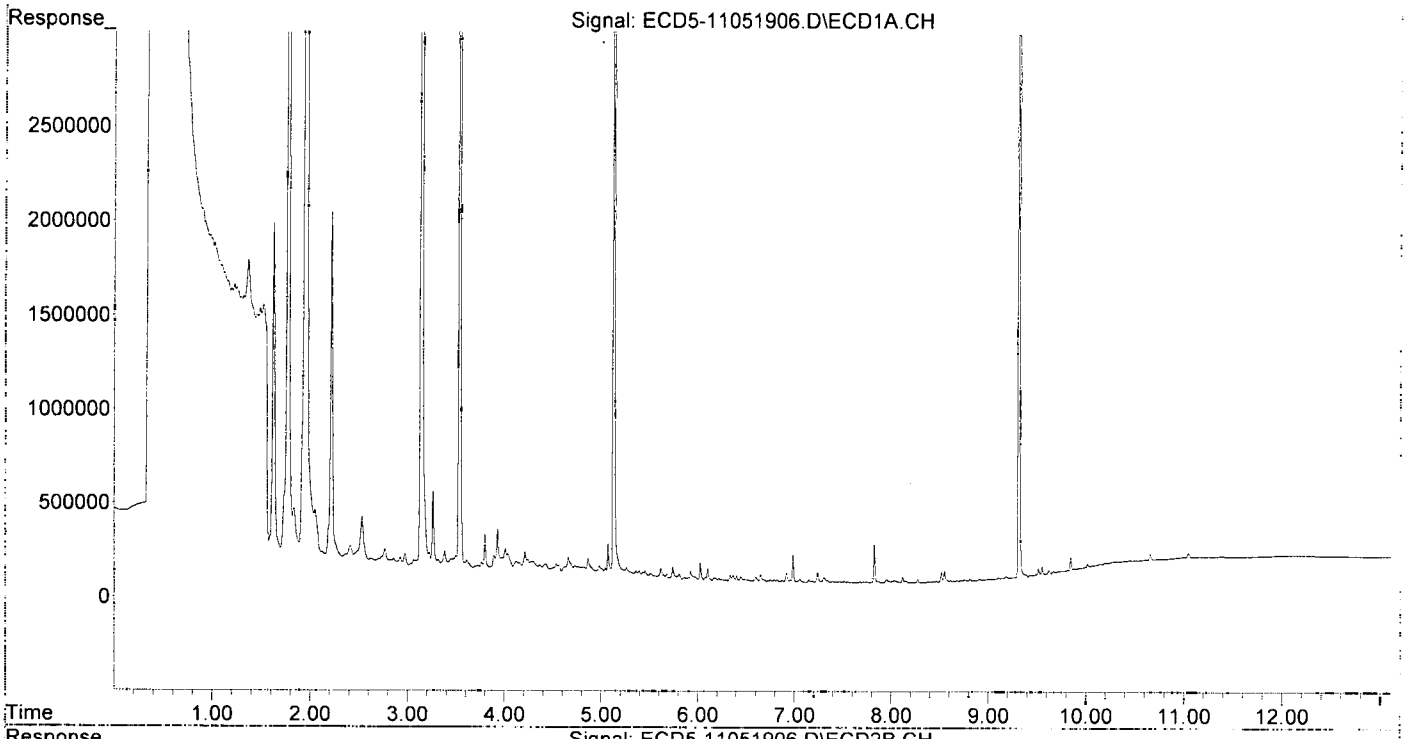
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.725	5807354	9508097	34.989	32.410	
22)	S	DCBP (S)	9.315	10.234	6291687	8960754	44.591	49.848	
		Target Compounds							
2)		a-BHC	5.678	6.345	24950	23854	0.109	0.058	#
3)		g-BHC	5.926f	6.680f	46492	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	

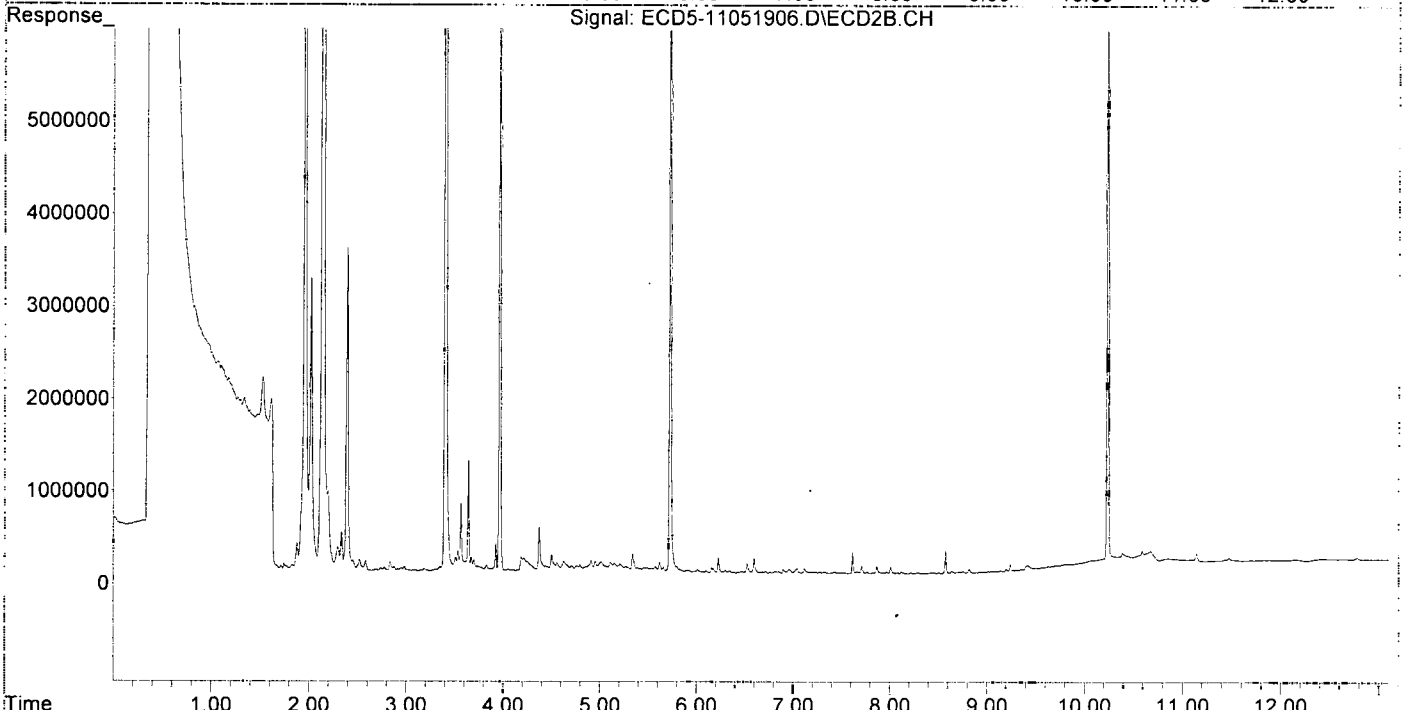
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

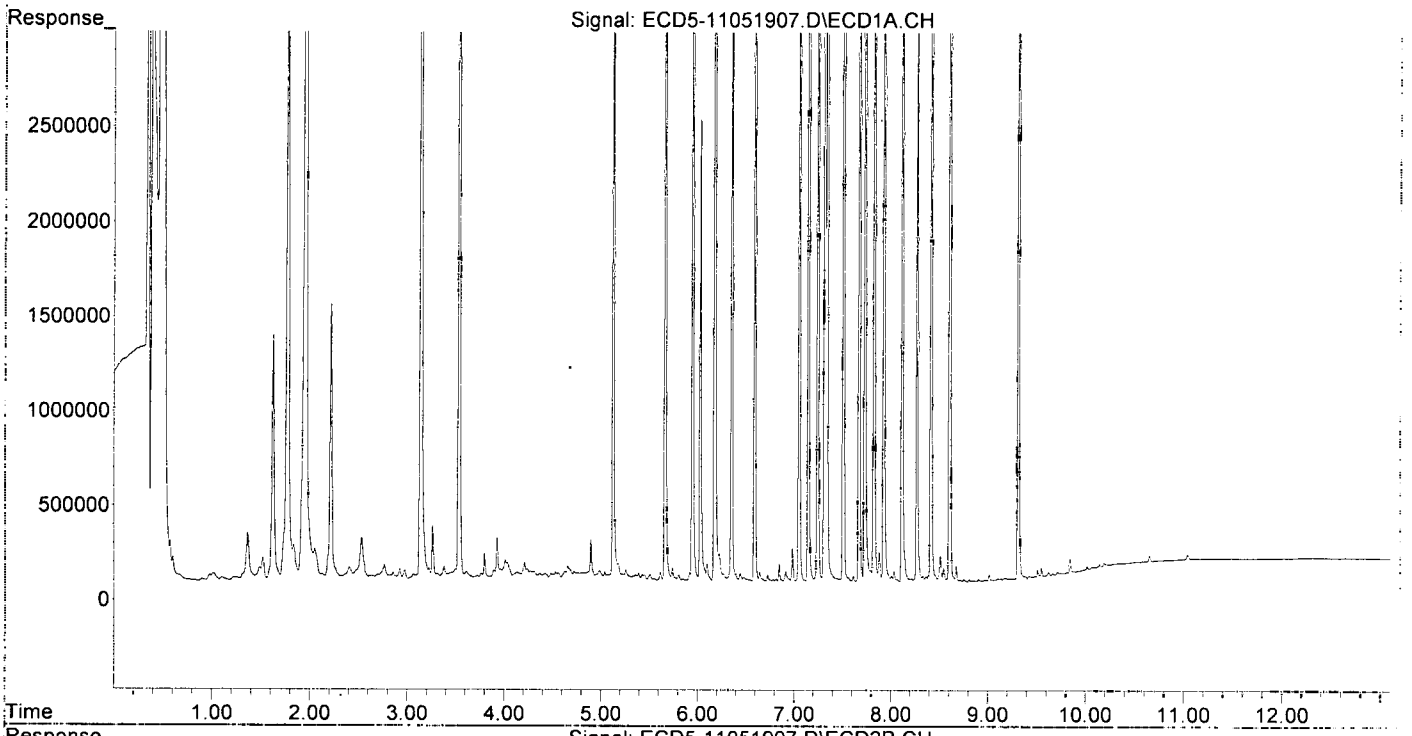
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.725	4552662	7285584	27.430	24.834	
22)	S	DCBP (S)	9.314	10.233	6384296	8819326	45.247	49.061	
		Target Compounds							
2)		a-BHC	5.666	6.333	6183452	10905604	26.963	26.577	
3)		g-BHC	5.949	6.650	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	

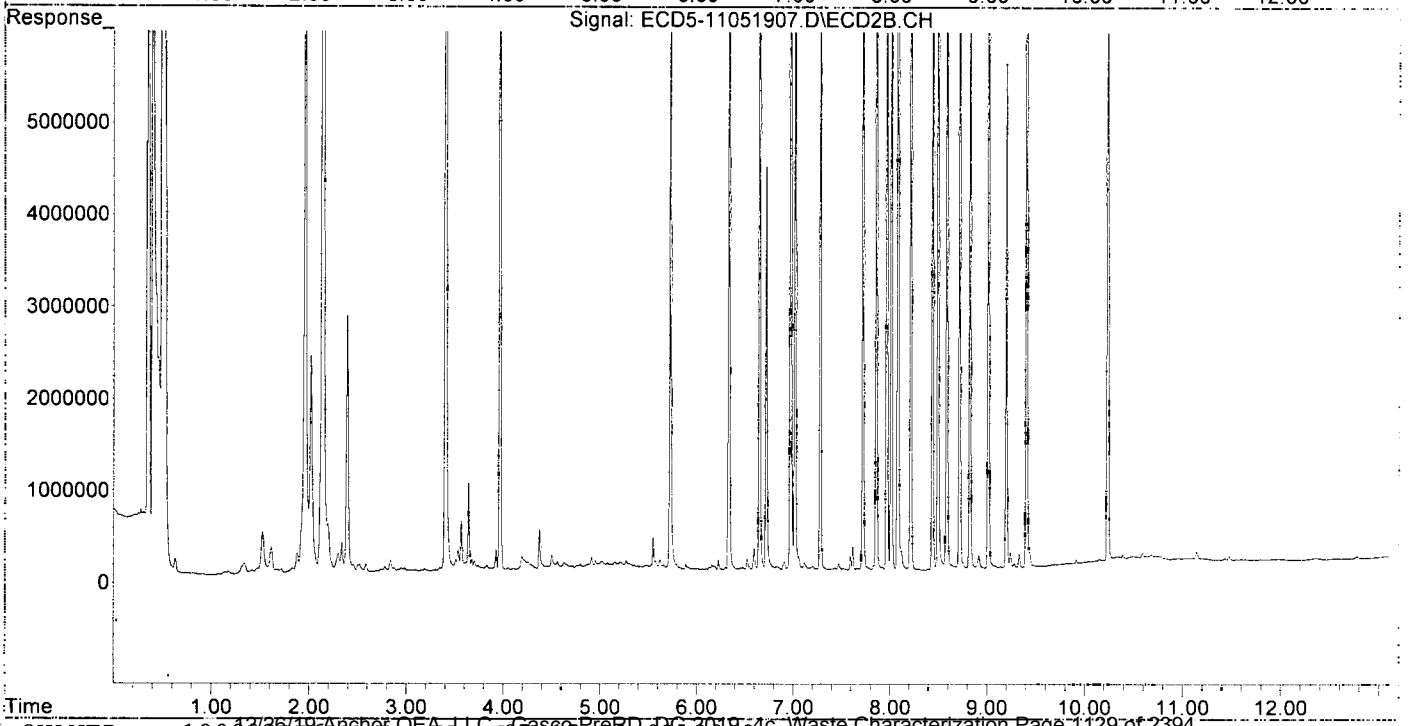
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 : ECD5-11051918.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

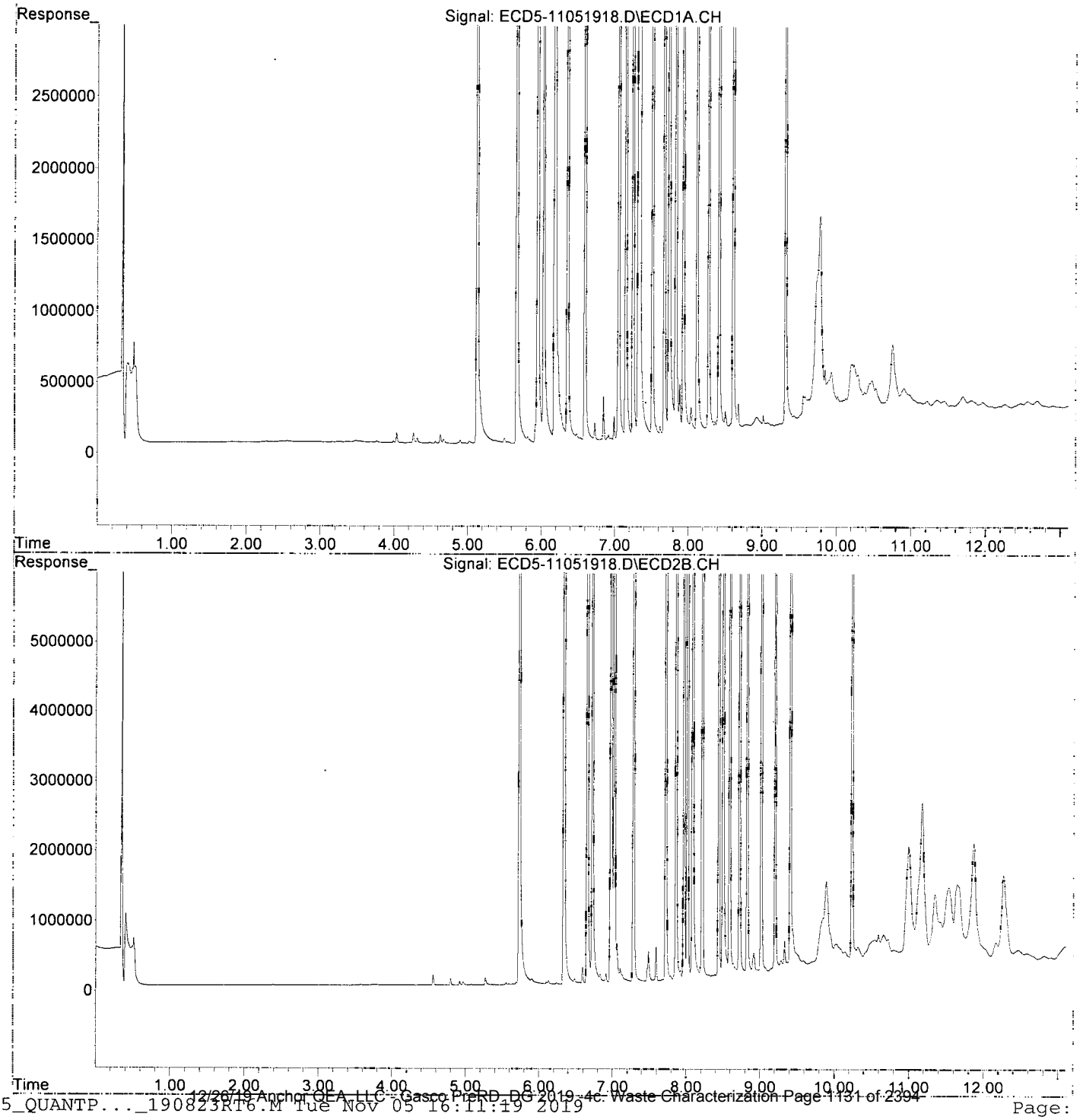
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.726	16501470	26786097	99.421	91.306	
22)	S	DCBP (S)	9.317	10.234	13789751	20632964	97.731	114.779	
		Target Compounds							
2)		a-BHC	5.667	6.334	24292428	45061637	105.928	109.816	
3)		g-BHC	5.951	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

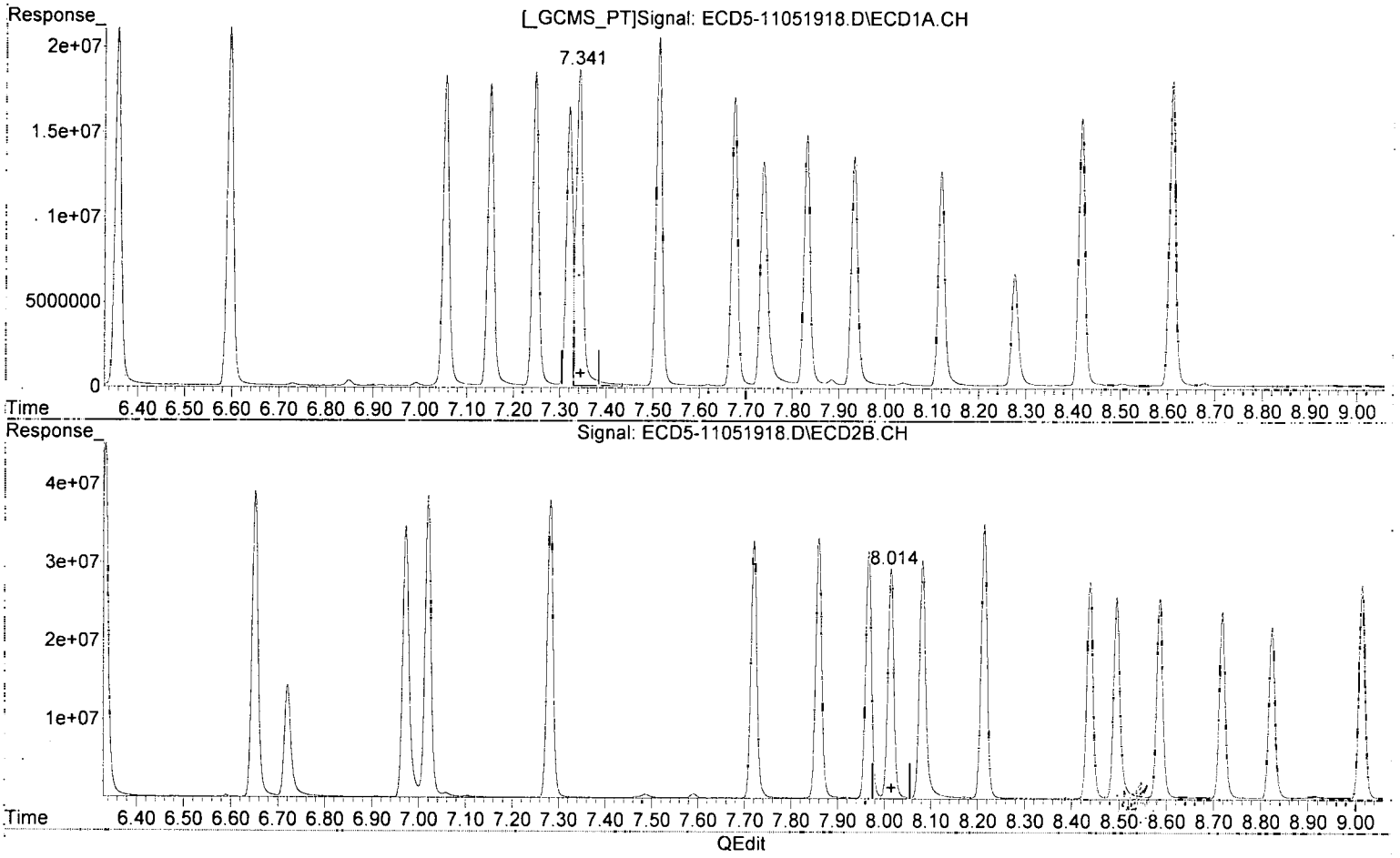
Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 05 16:10:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT6.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale 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

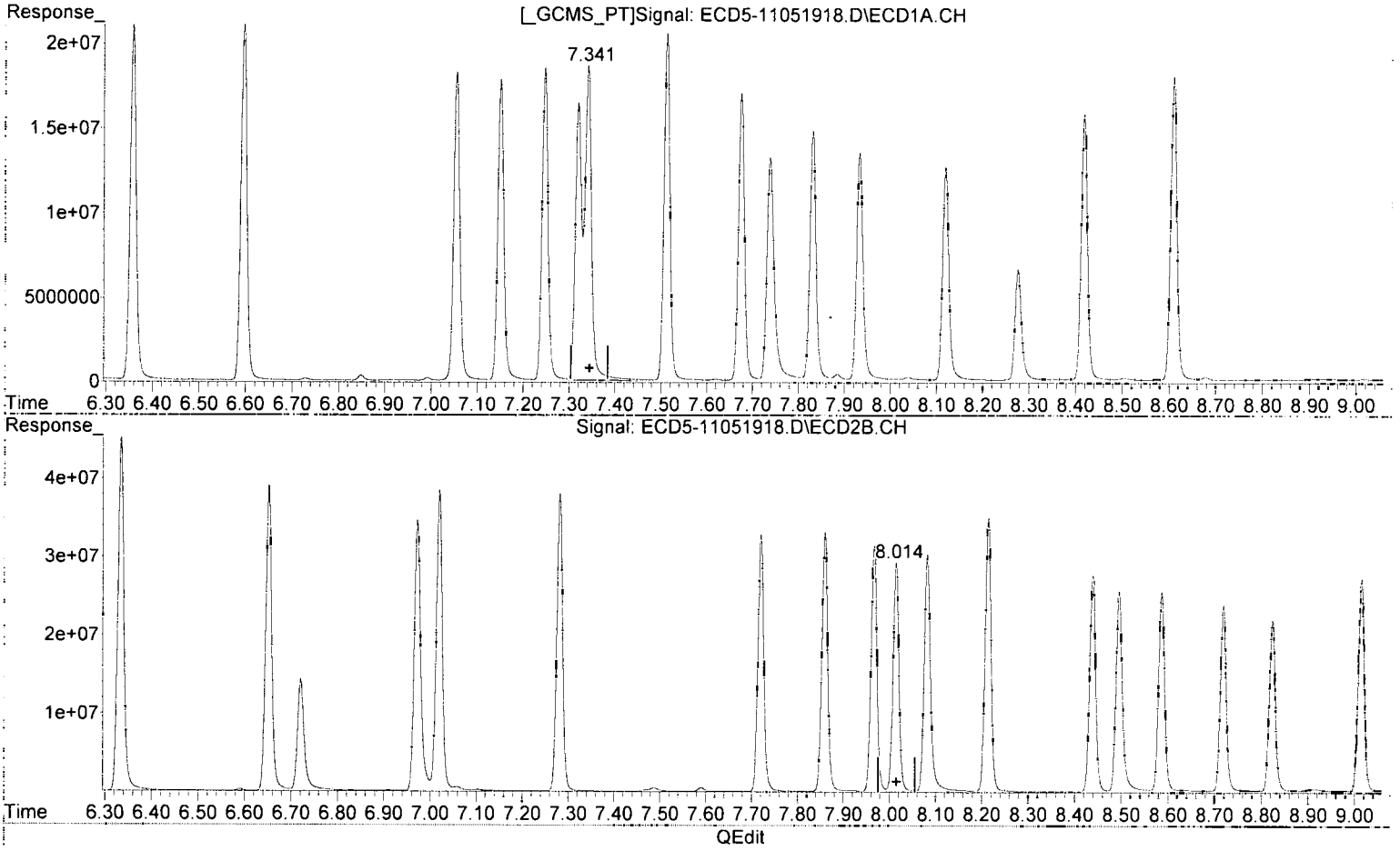
response 29266801

(+) = 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

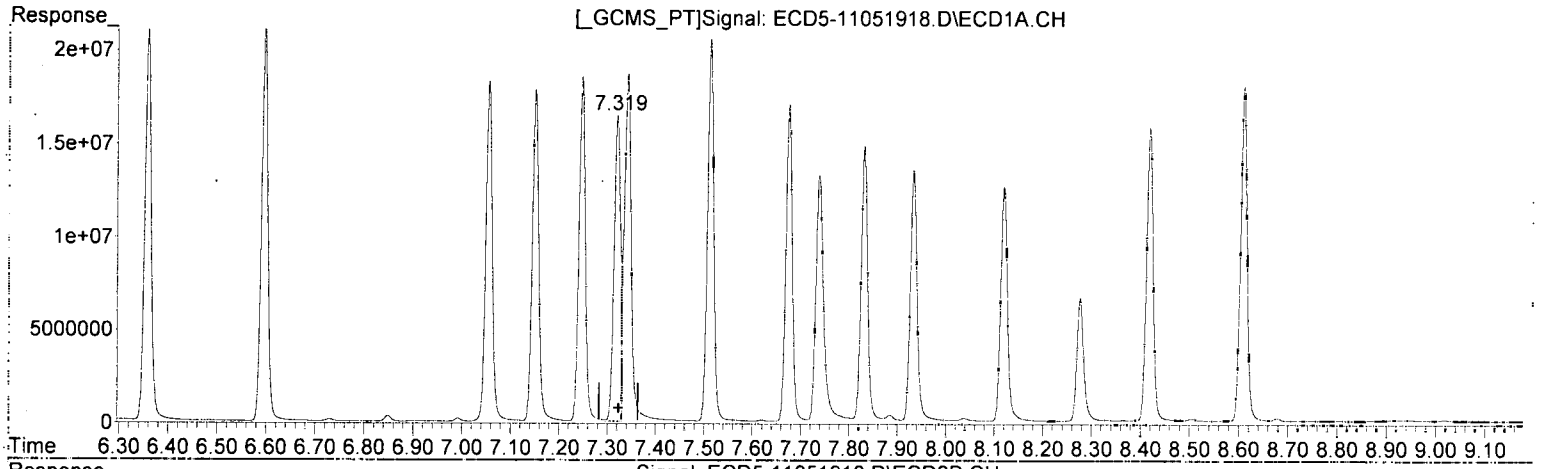
response 29266801

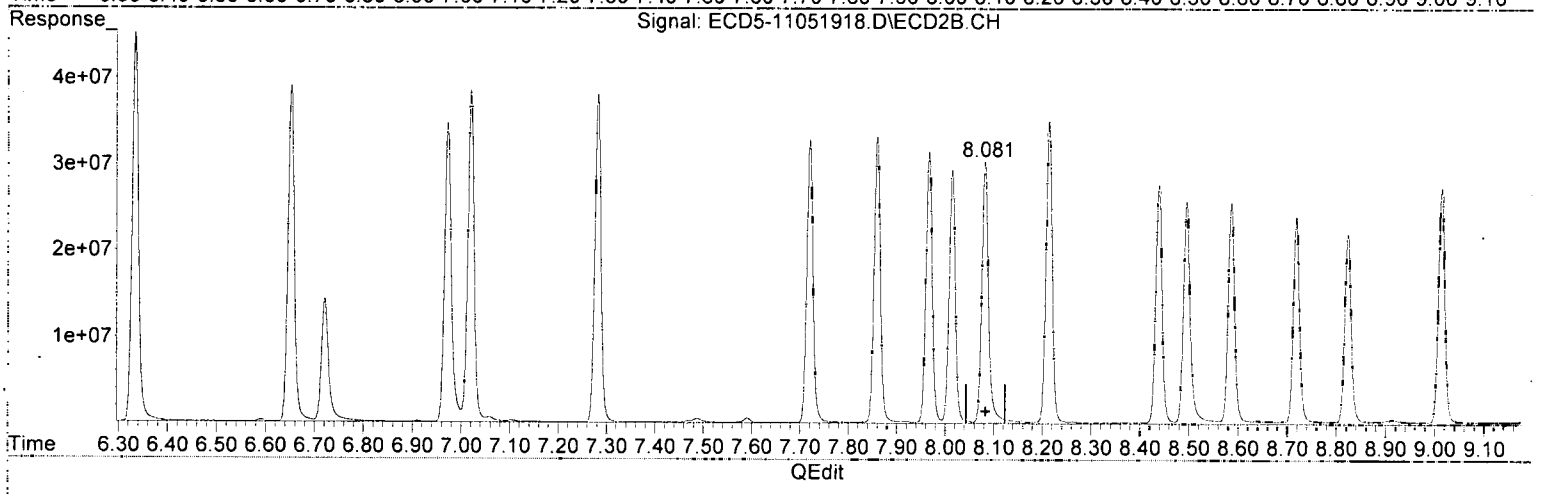
(+) = Expected Retention Time

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

WB 11/5/19

(12) 4,4'-DDE #2

8.082min 97.406 ng/mL

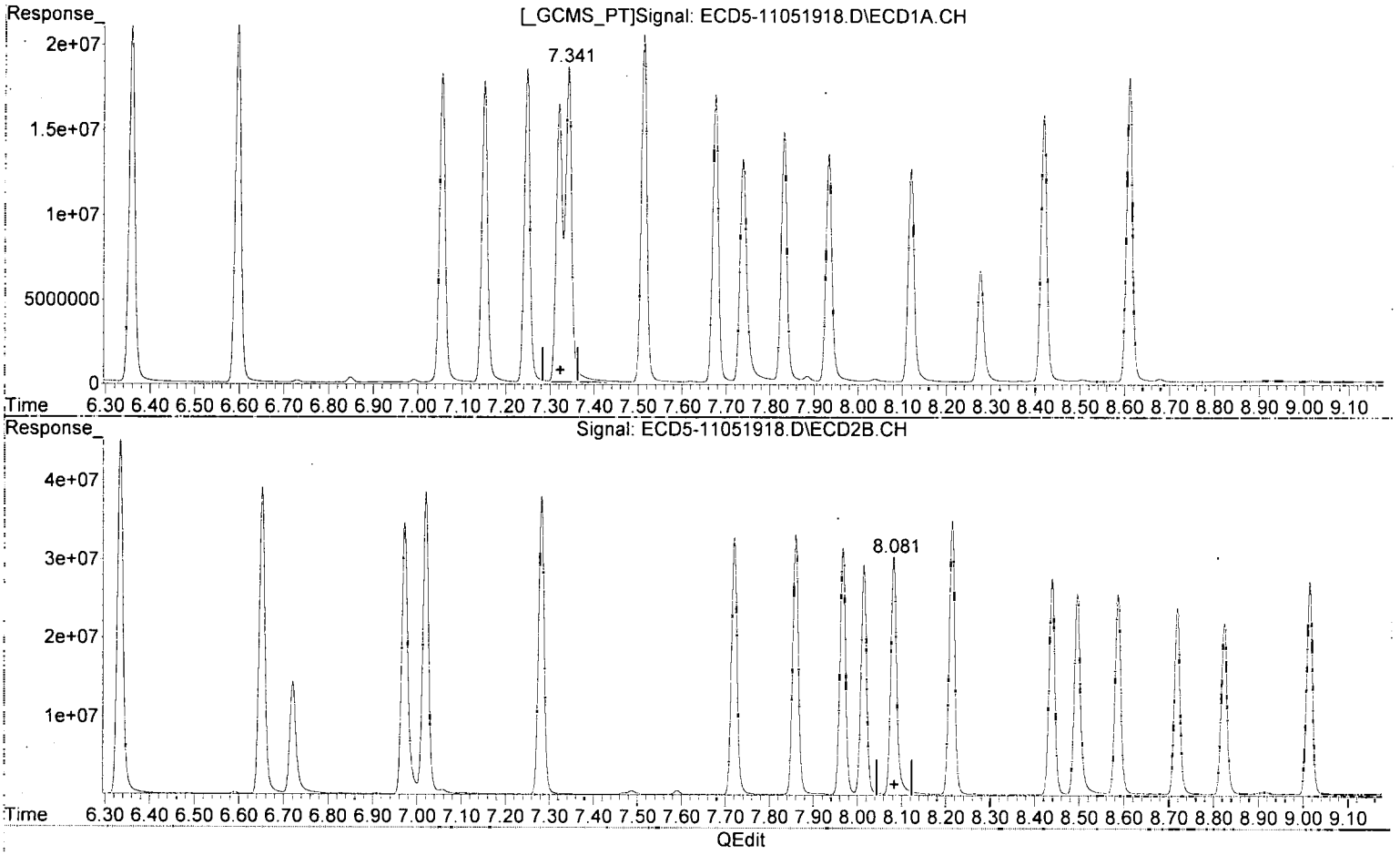
response 30261969

(+) = 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 101.495 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 WB 11/5/19

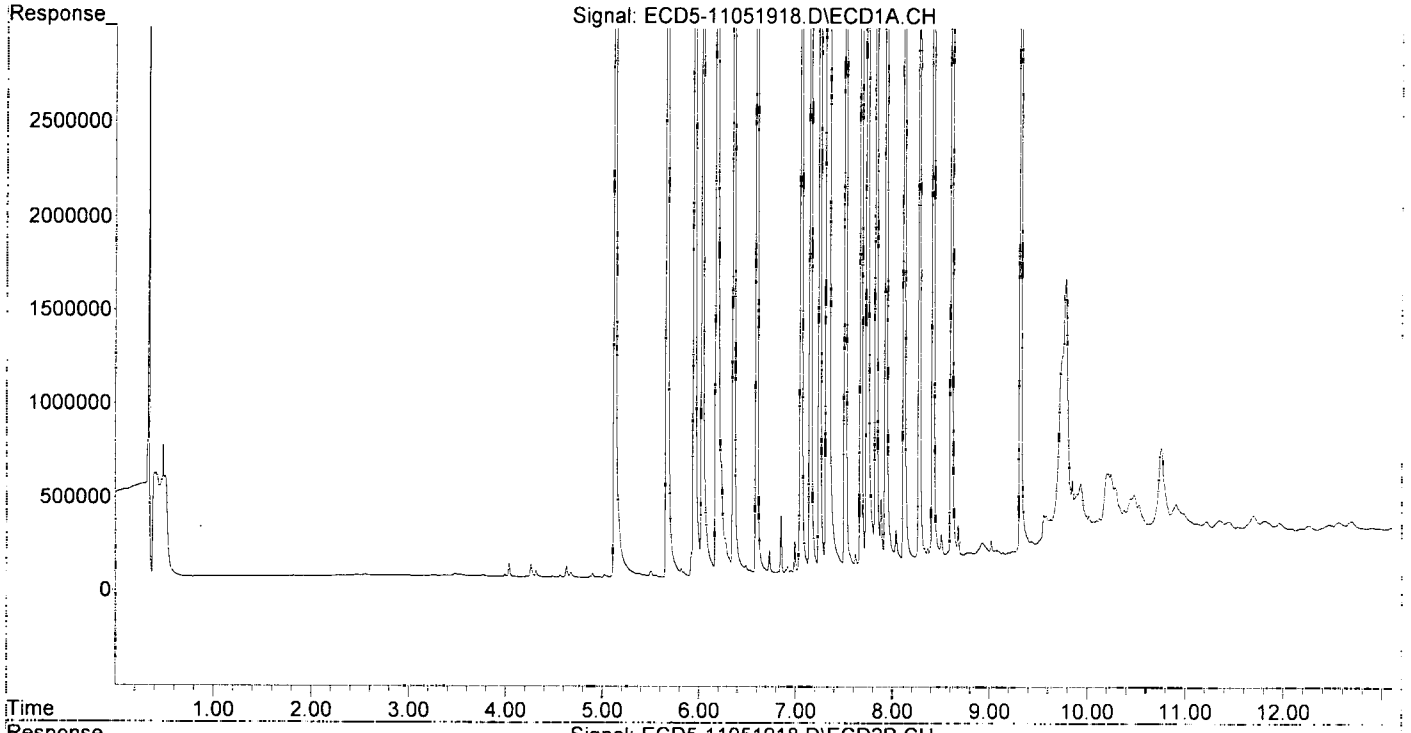
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.726	16501470	26786097	99.421	91.306	
22)	S	DCBP (S)	9.317	10.234	13789751	20632964	97.731	114.779	
		Target Compounds							
2)		a-BHC	5.667	6.334	24292428	45061637	105.928	109.816	
3)		g-BHC	5.951	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.	

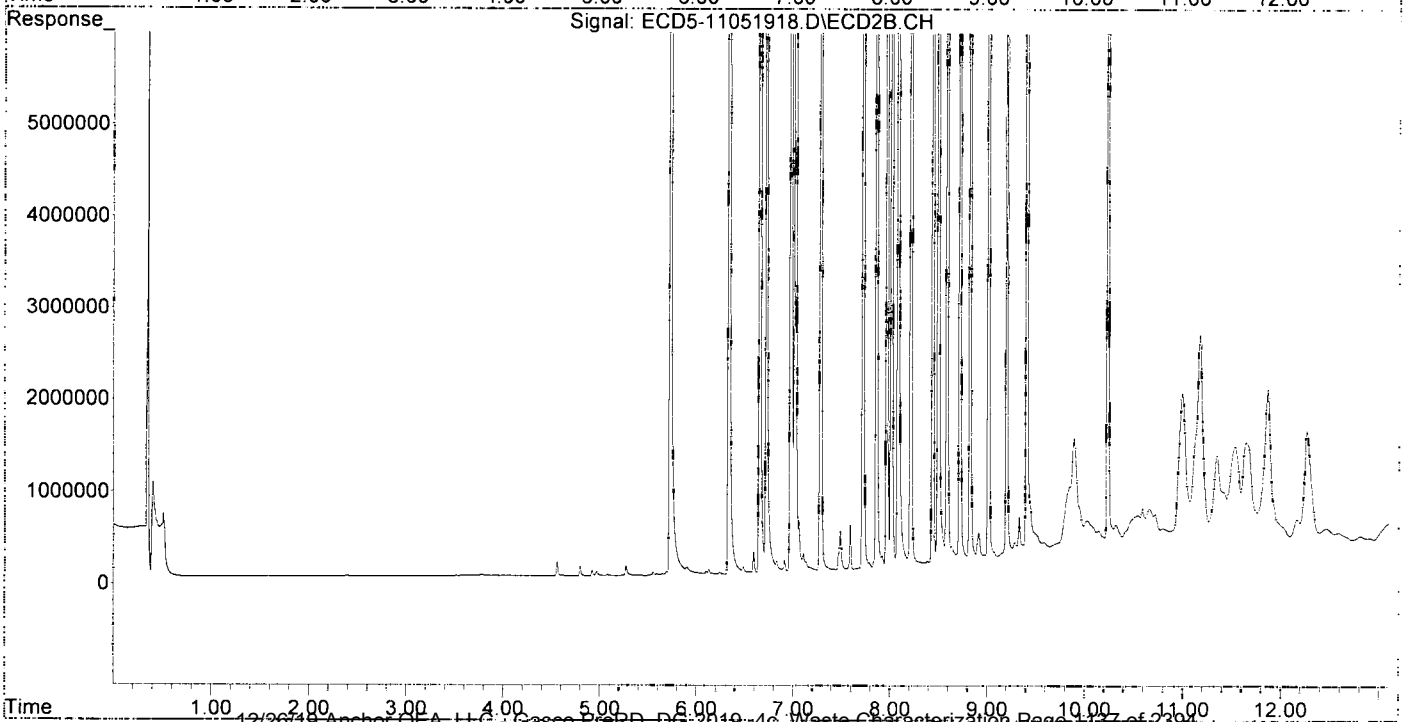
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

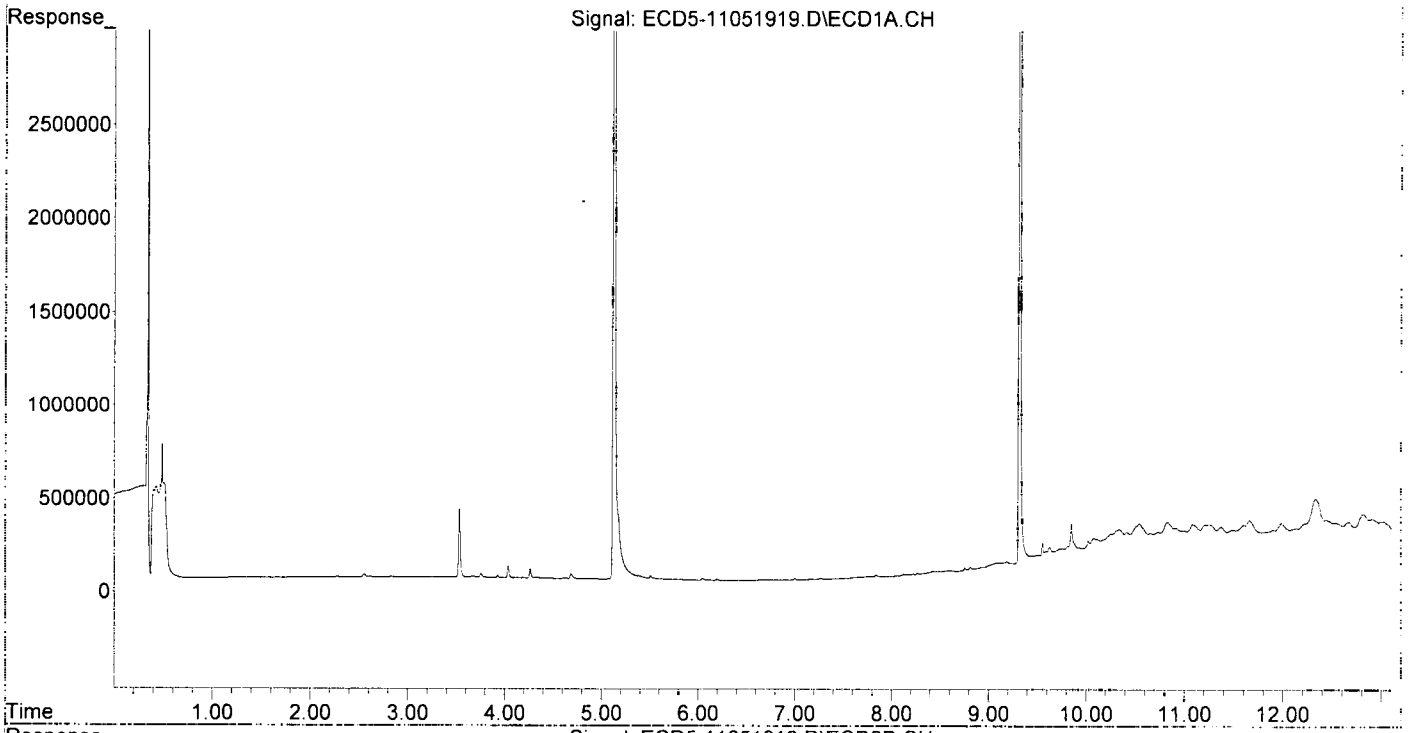
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.128	5.725	14903488	23732892	89.793	80.898
22)	S	DCBP (S)	9.318	10.235	11176139	17433119	79.208	96.978
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.
4)		b-BHC	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.

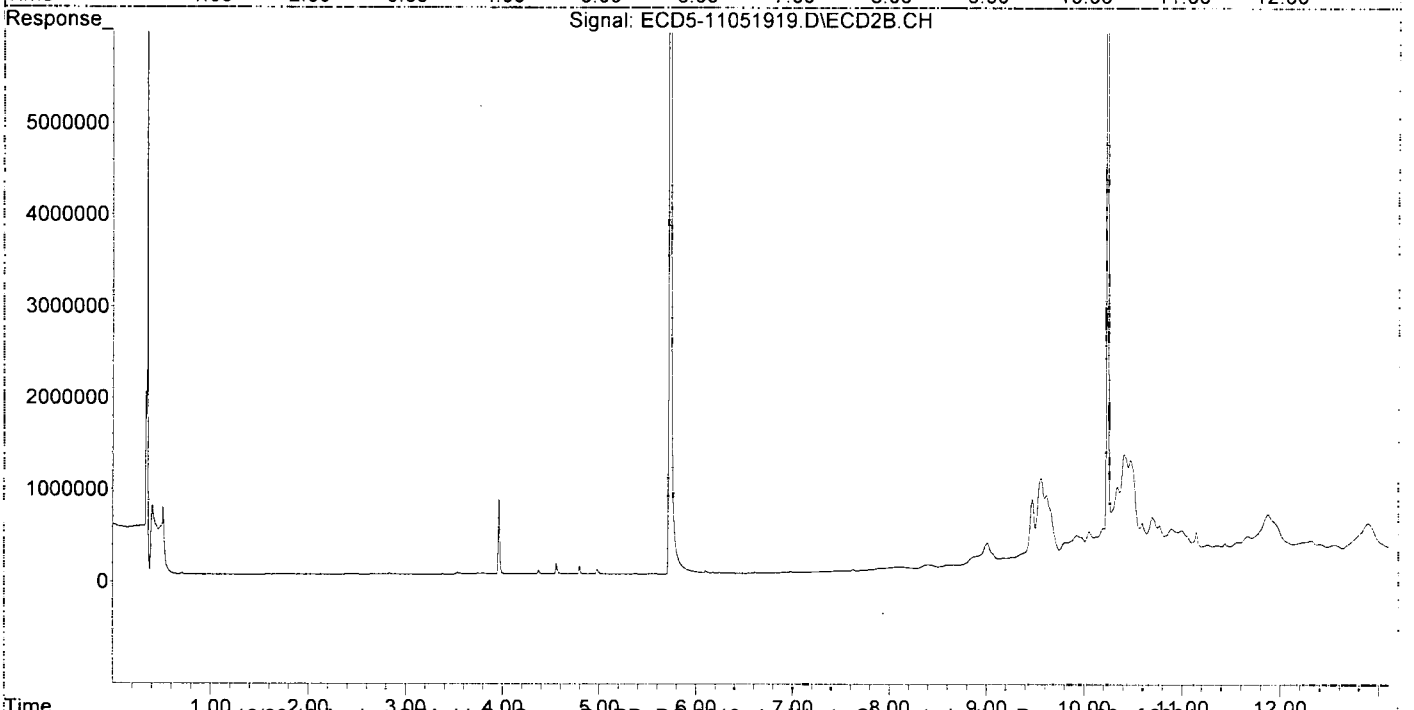
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

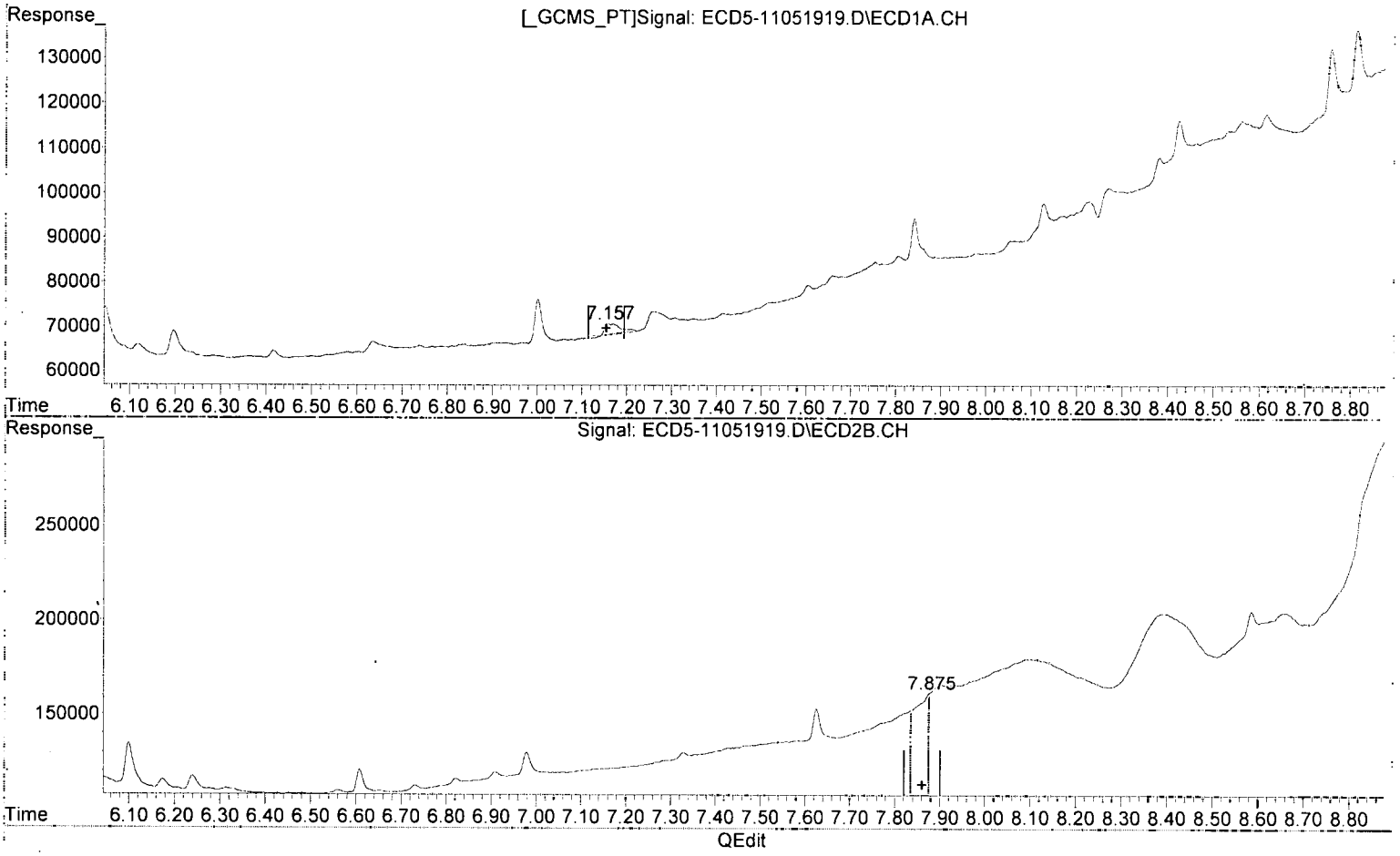




Quantitation Report (Qedit)

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

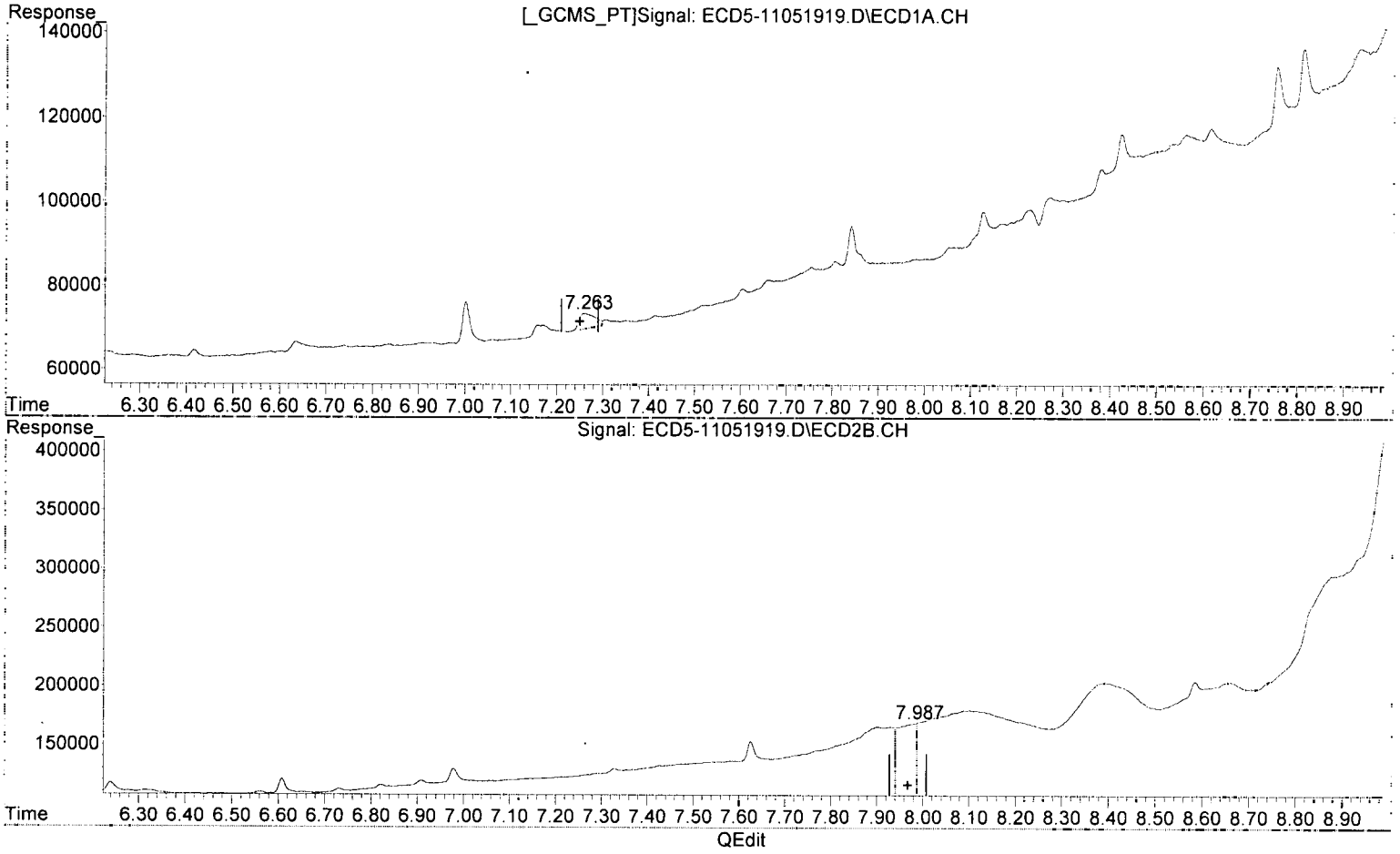
response 53749

(+) = 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)

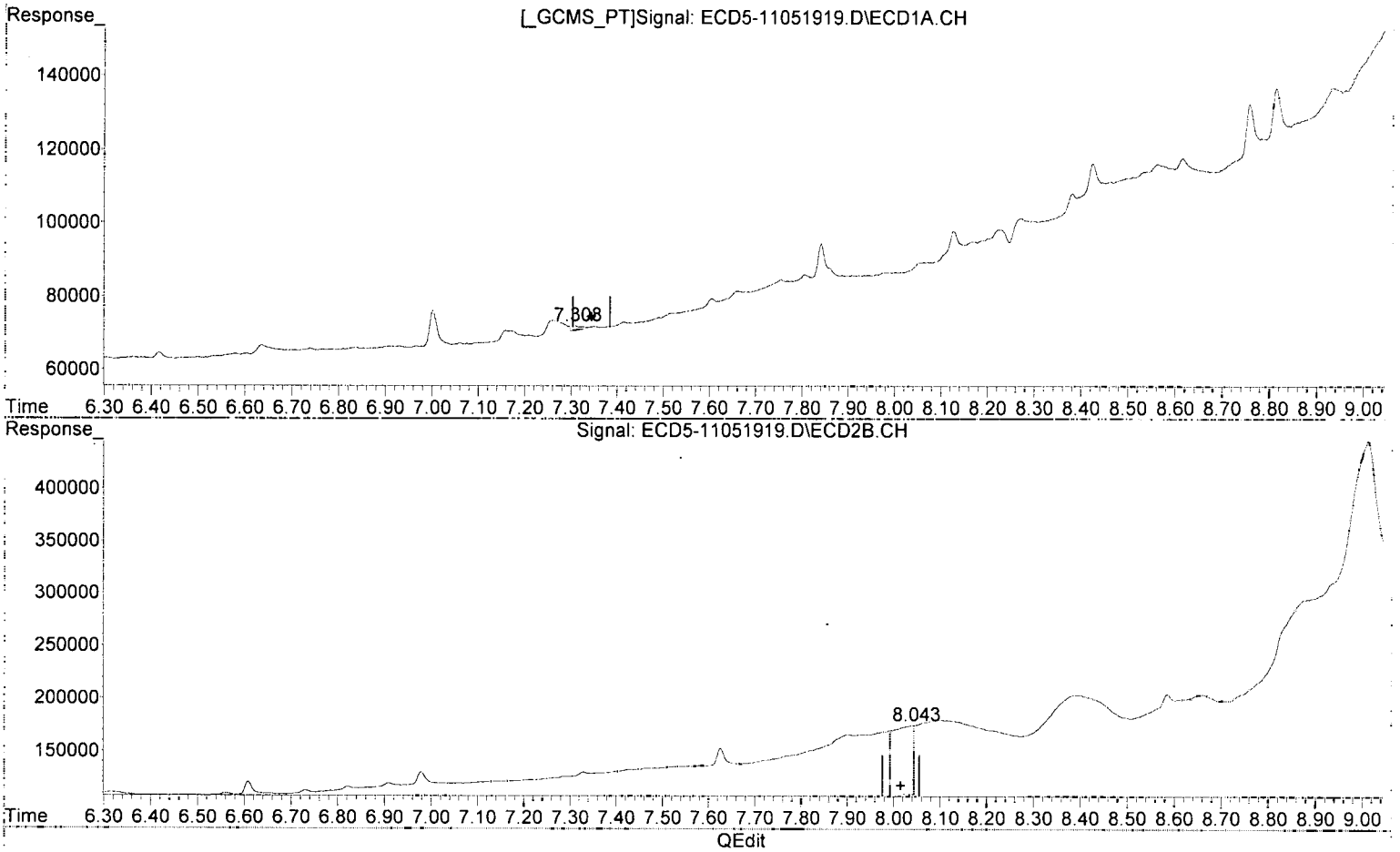
response 61589

(+) = 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)

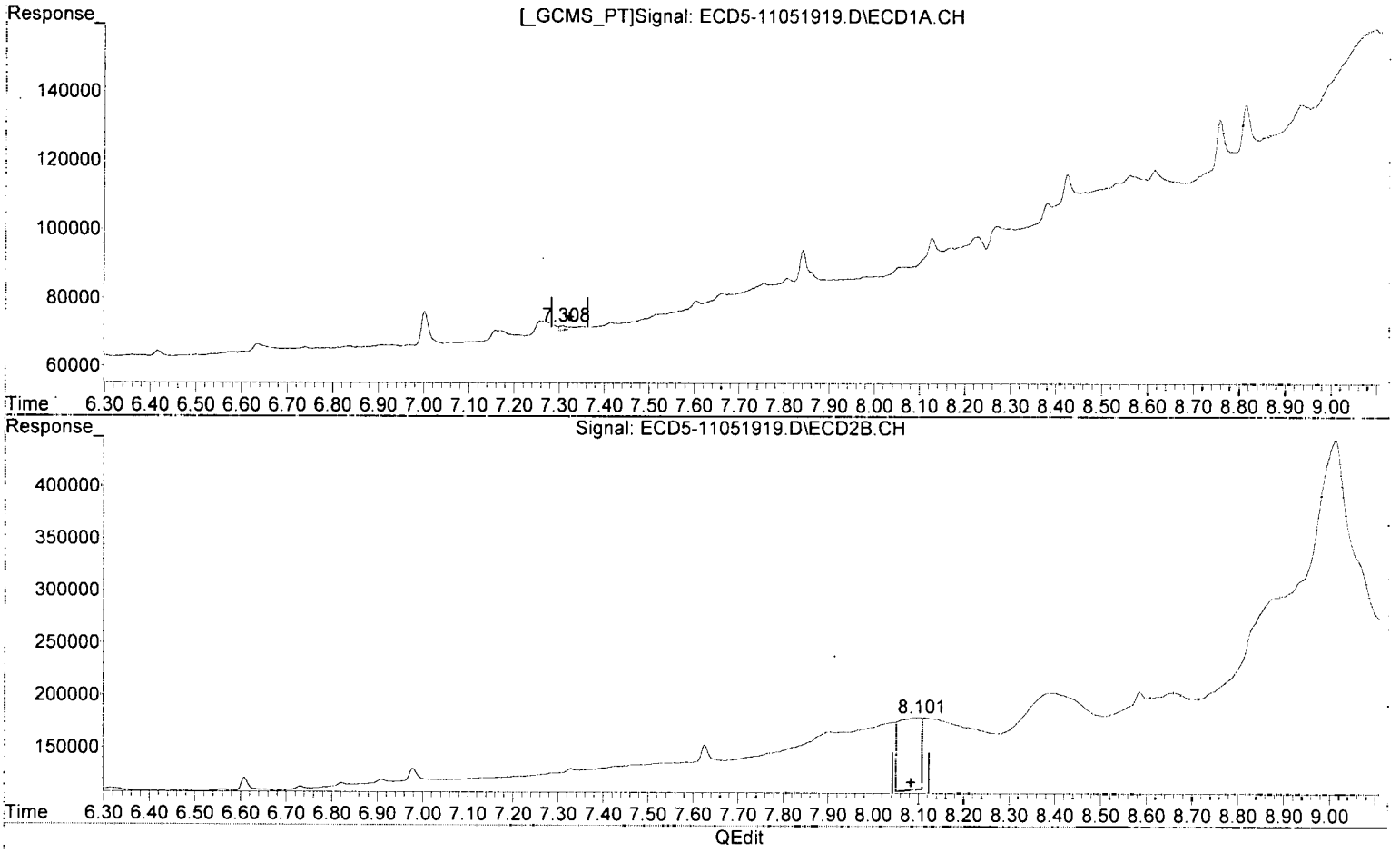
response 65761

(+) = 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)

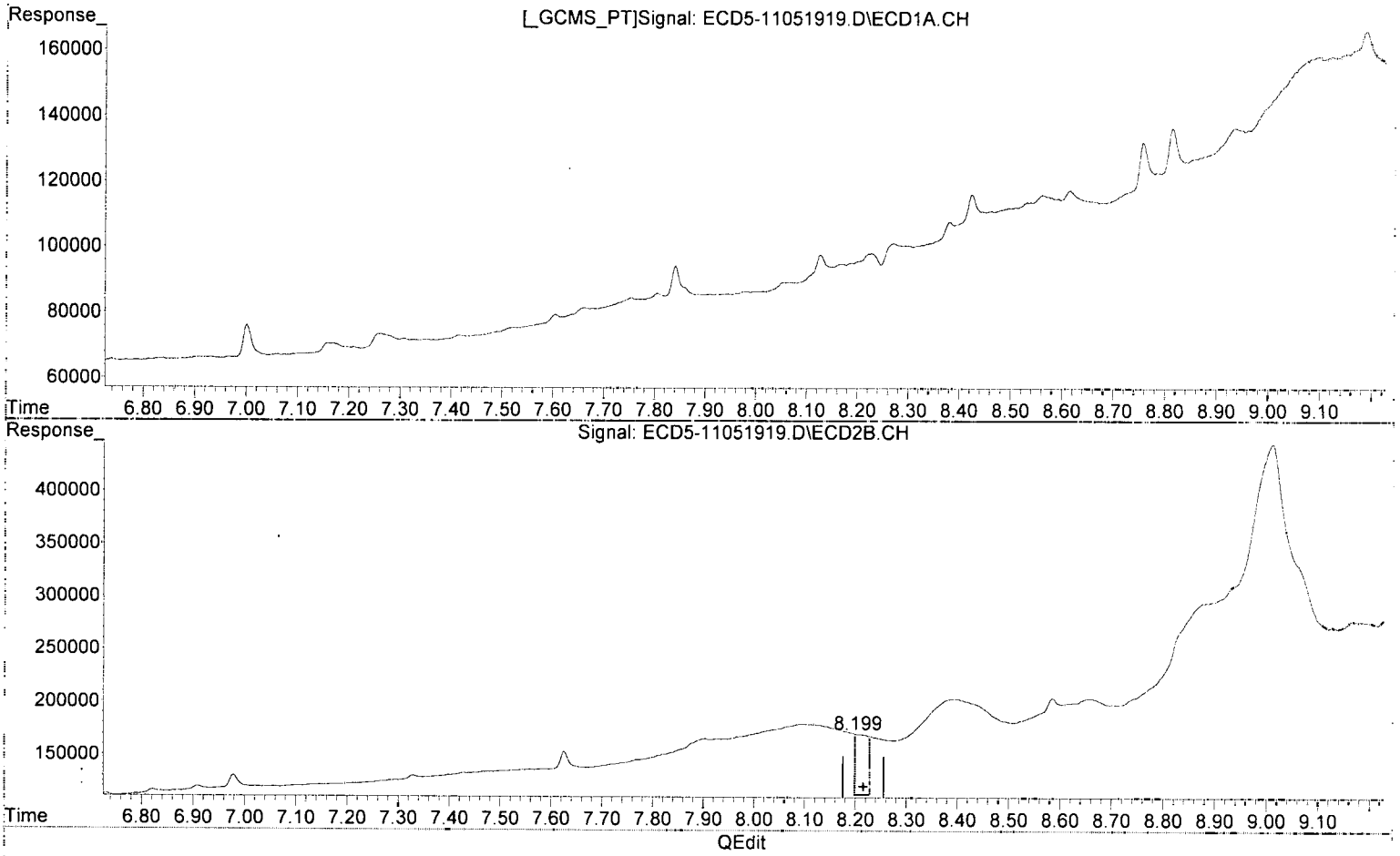
response 68692

(+) = 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)

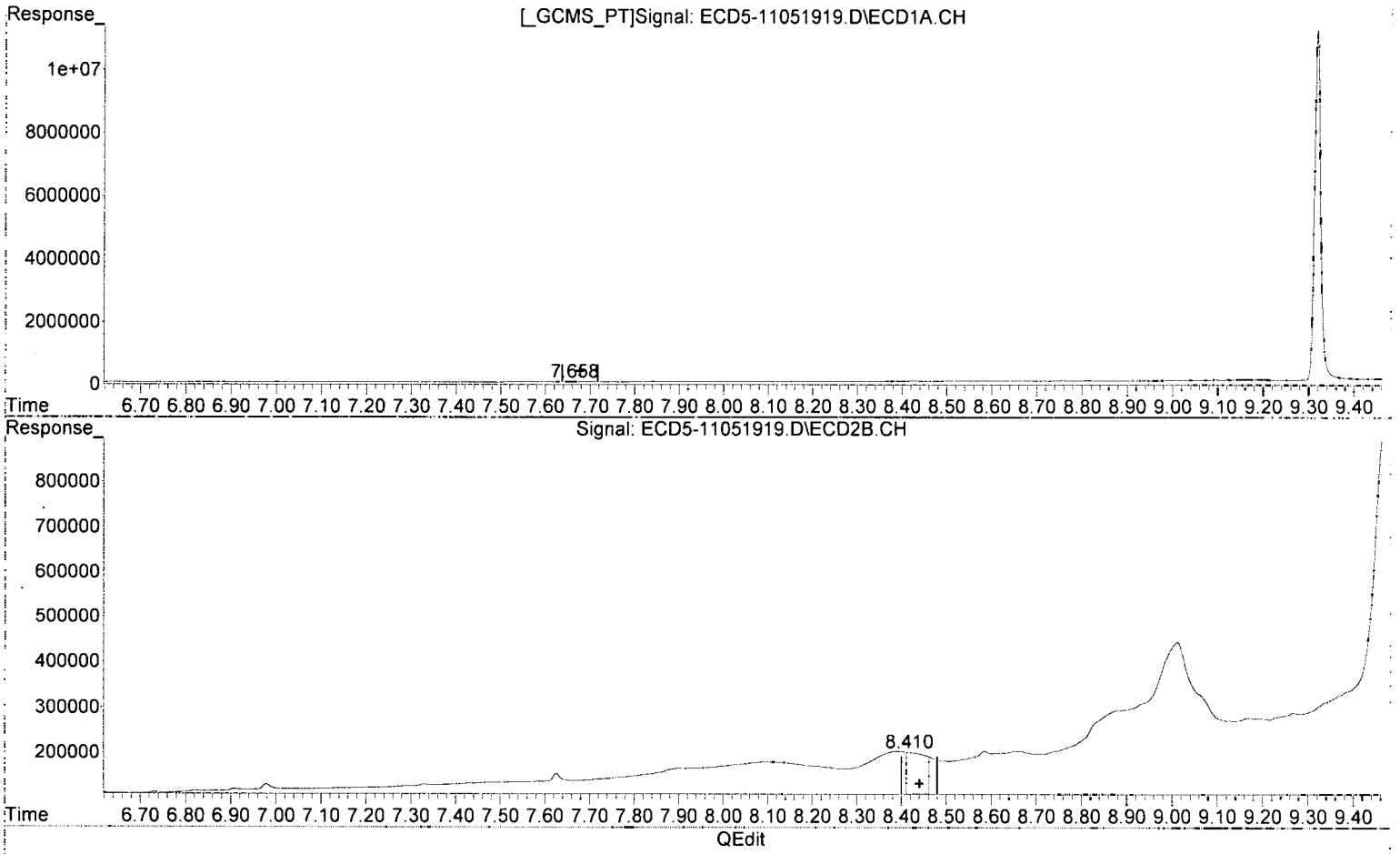
response 57989

(+) = 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)

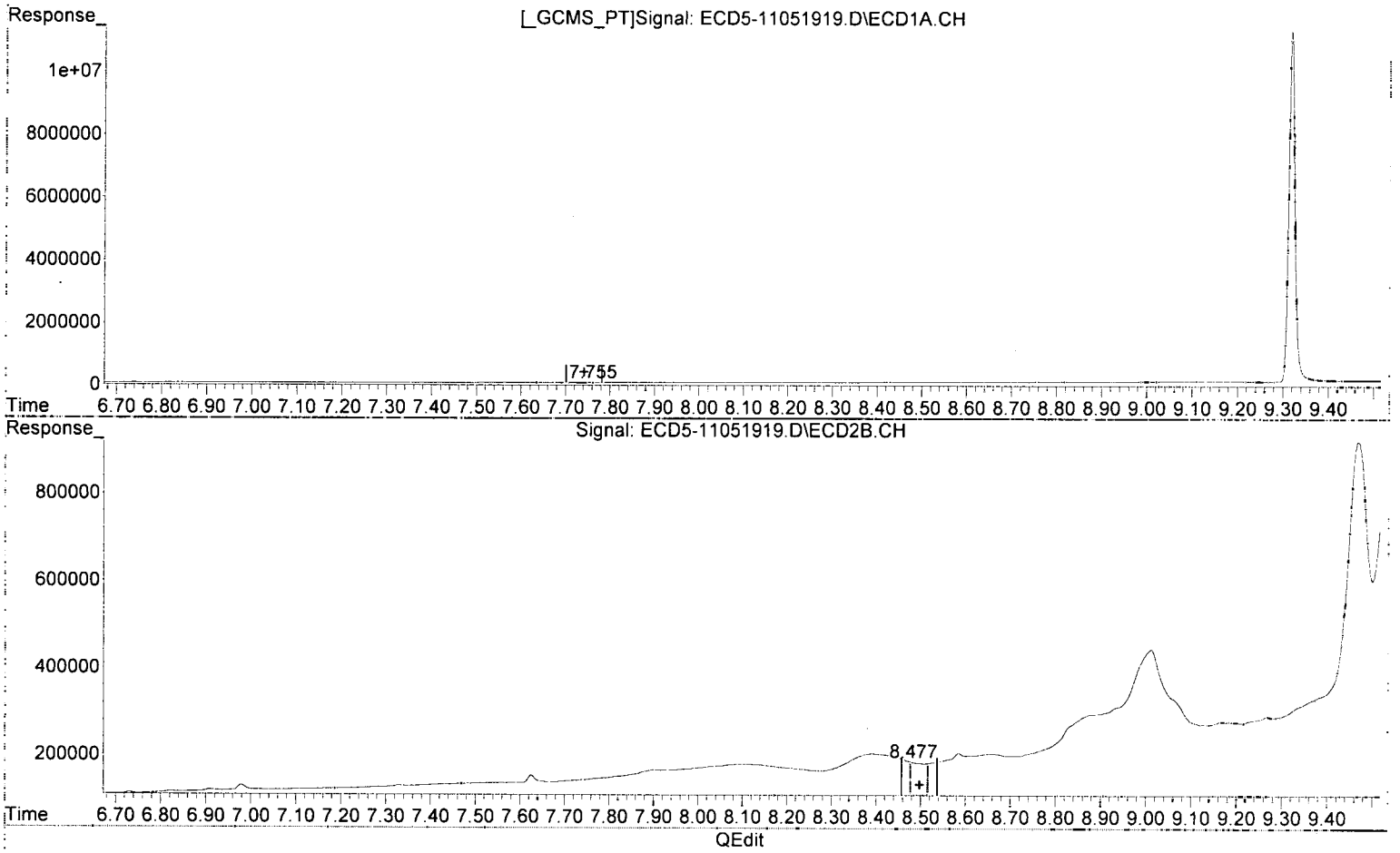
response 92097

(+) = 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)

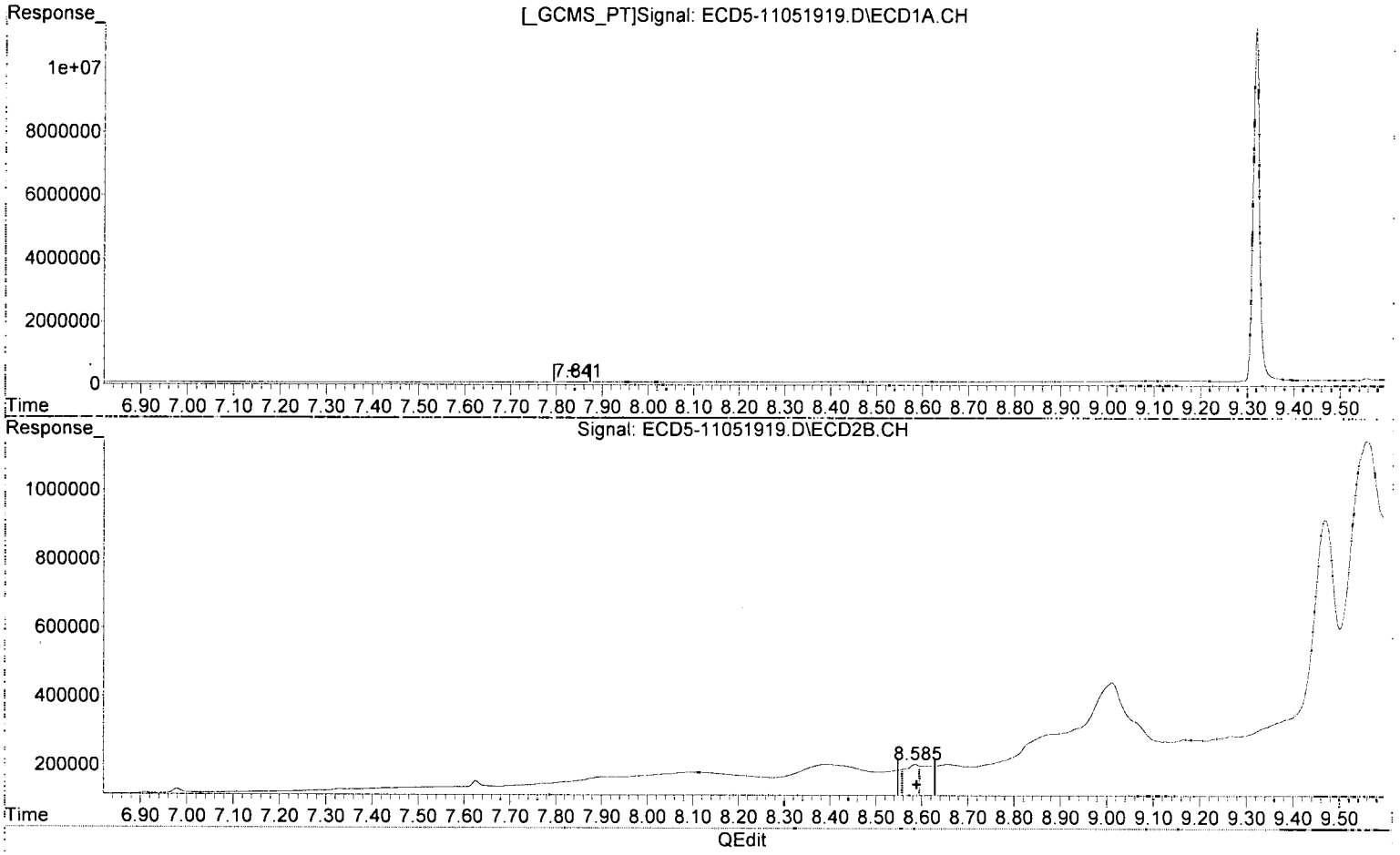
response 74461

(+) = 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

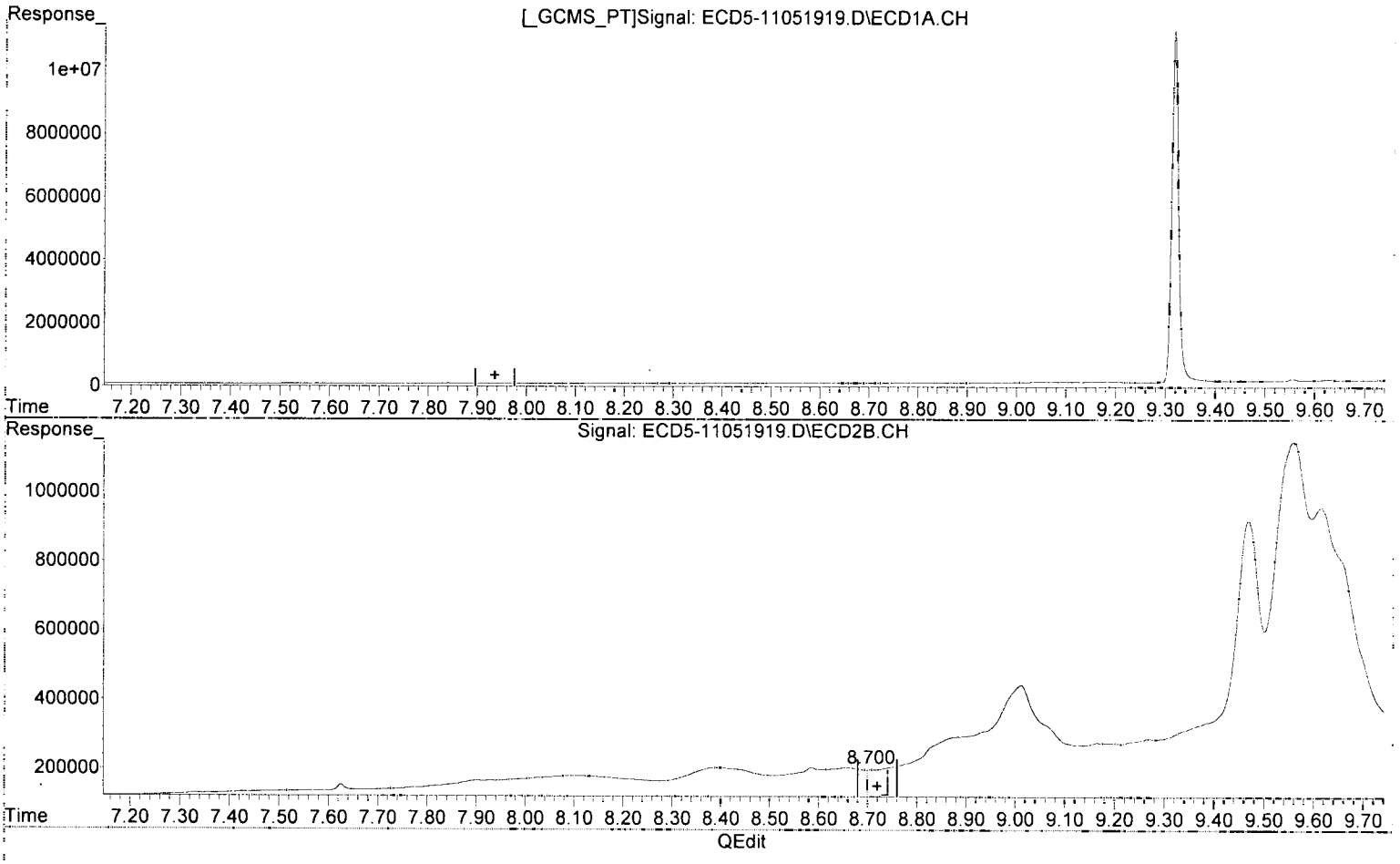
response 90808

(+) = 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)

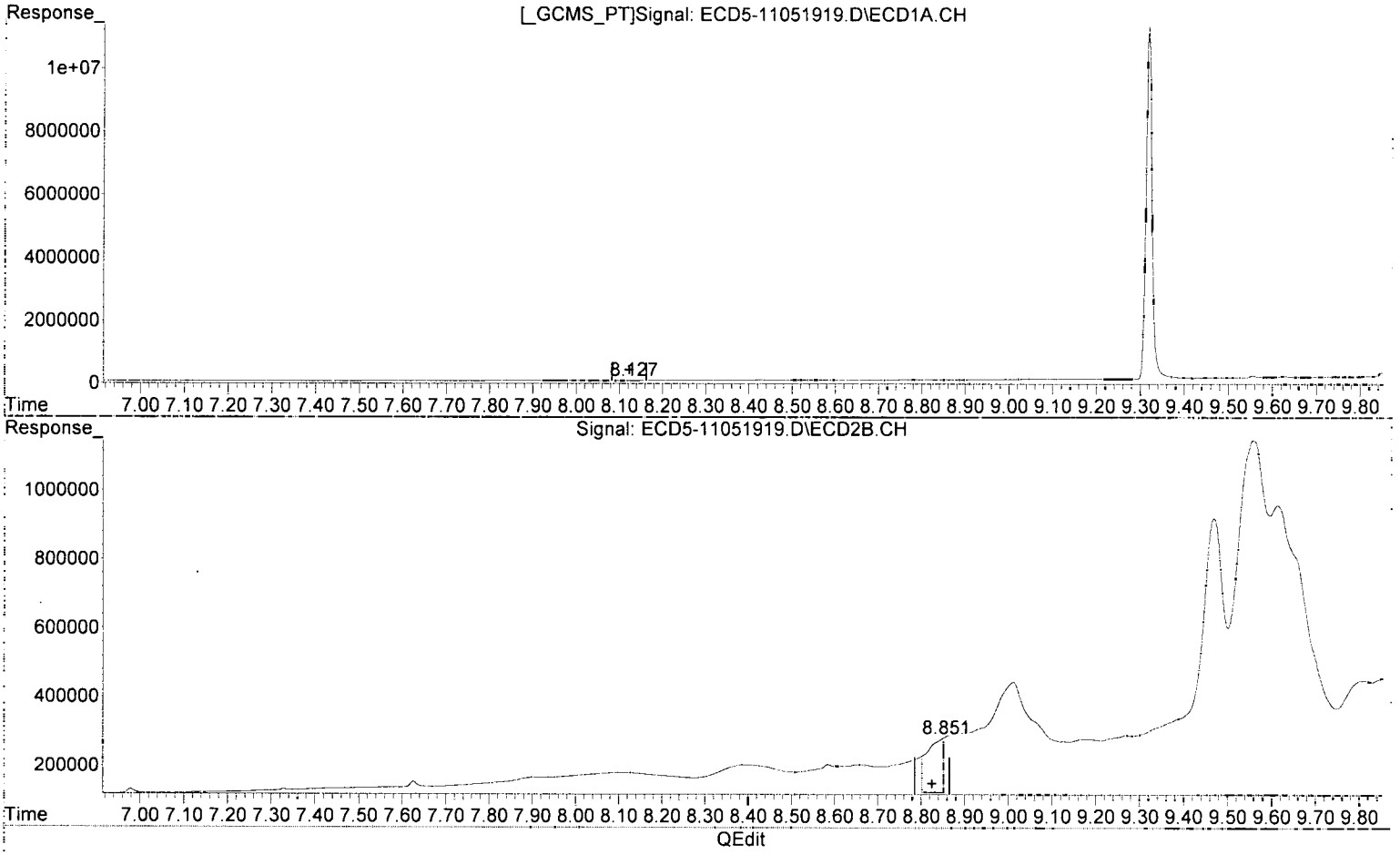
response 77629

(+) = 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)

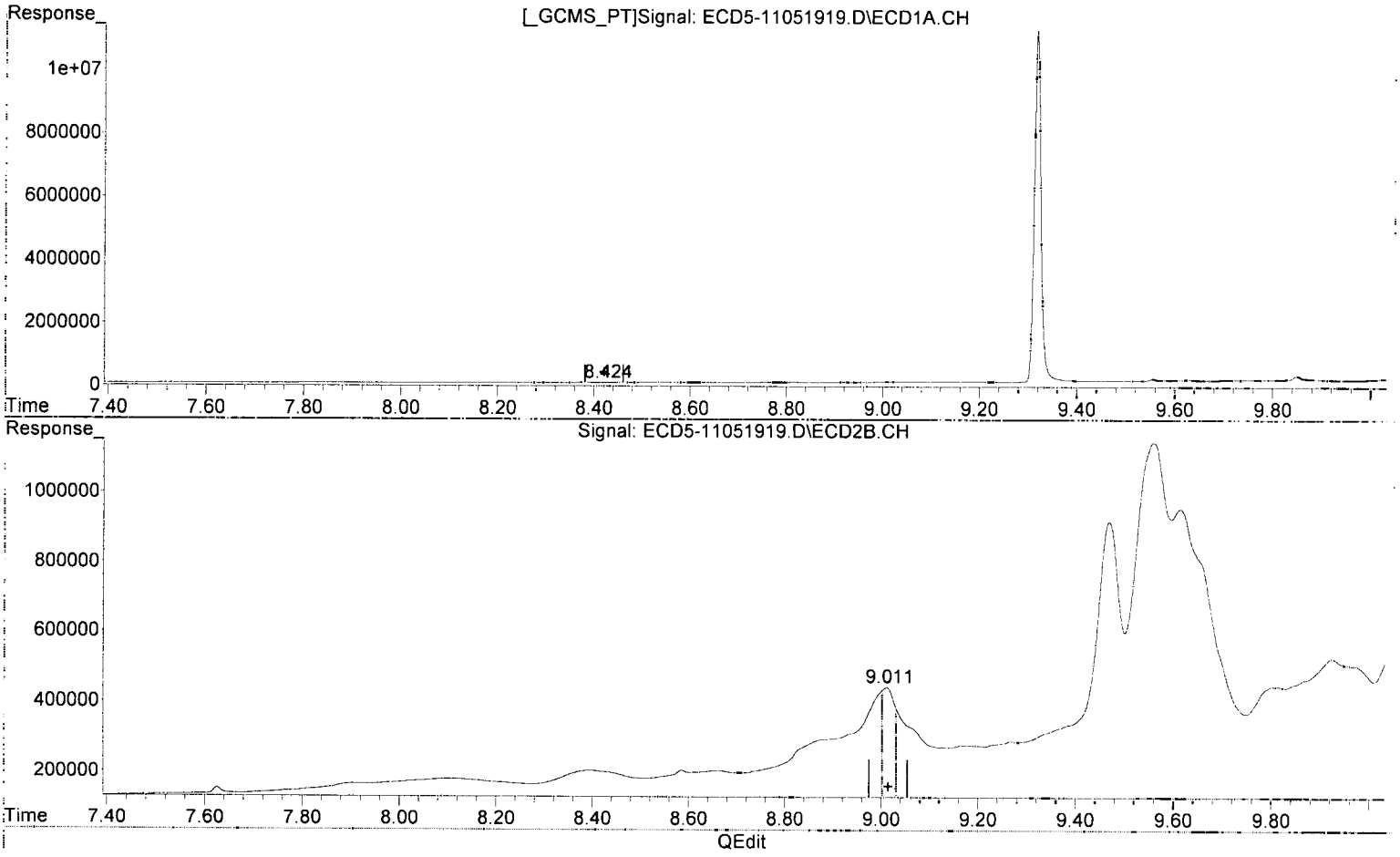
response 159366

(+) = 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

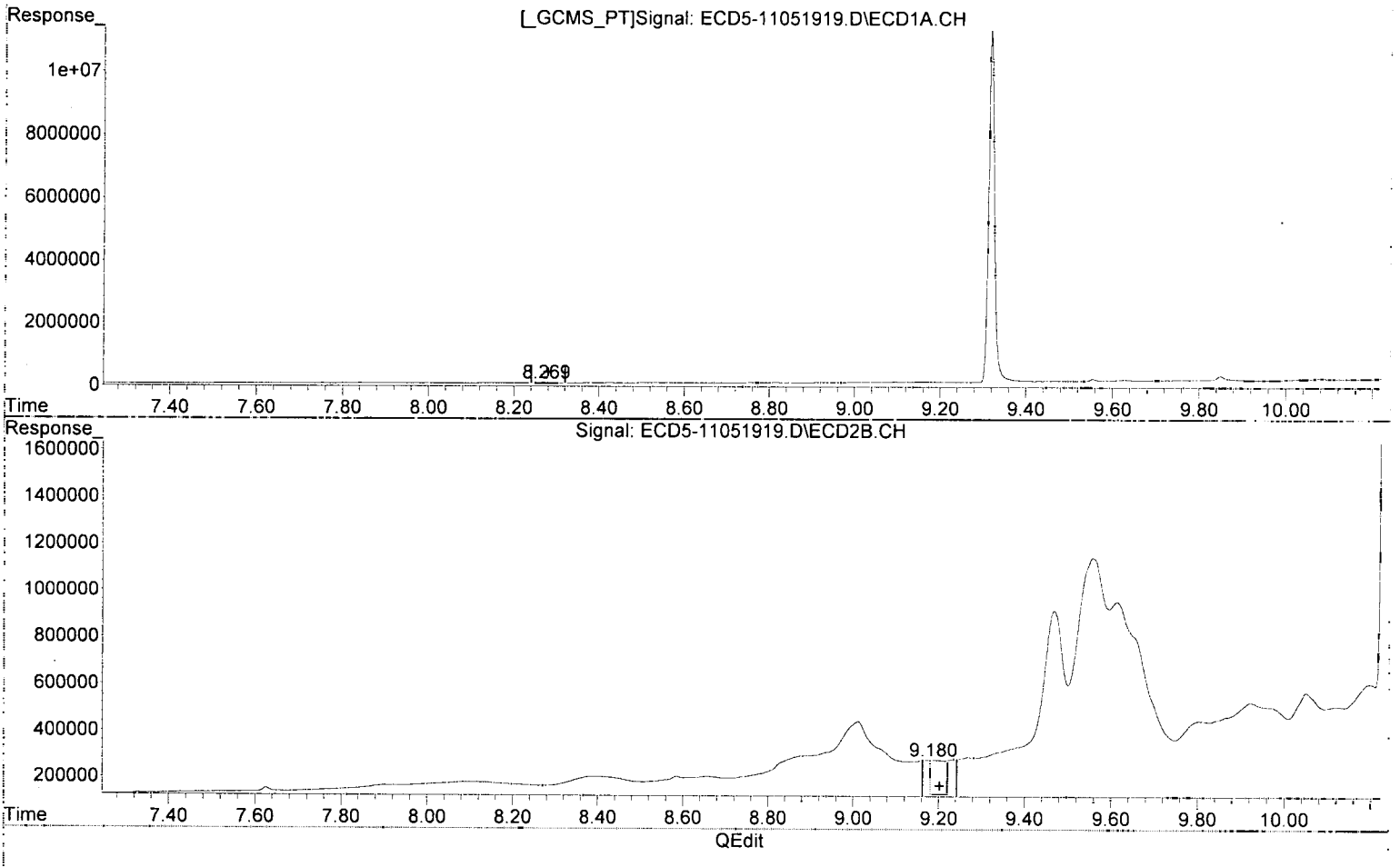
response 314104

(+) = 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

WJ 11/5/19

(20) Methoxychlor #2

9.180min 1.631 ng/mL (m)

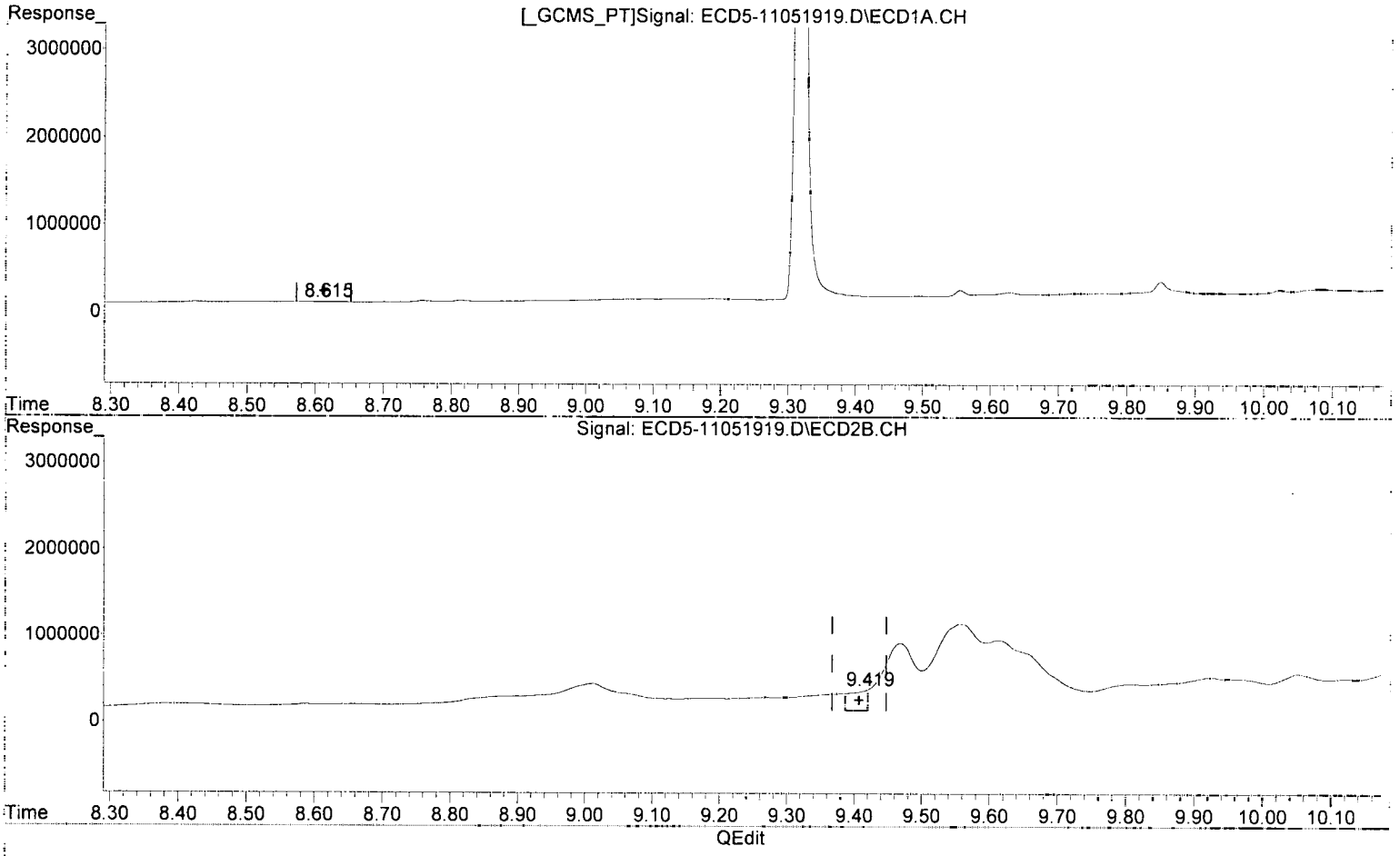
response 146645

(+) = 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

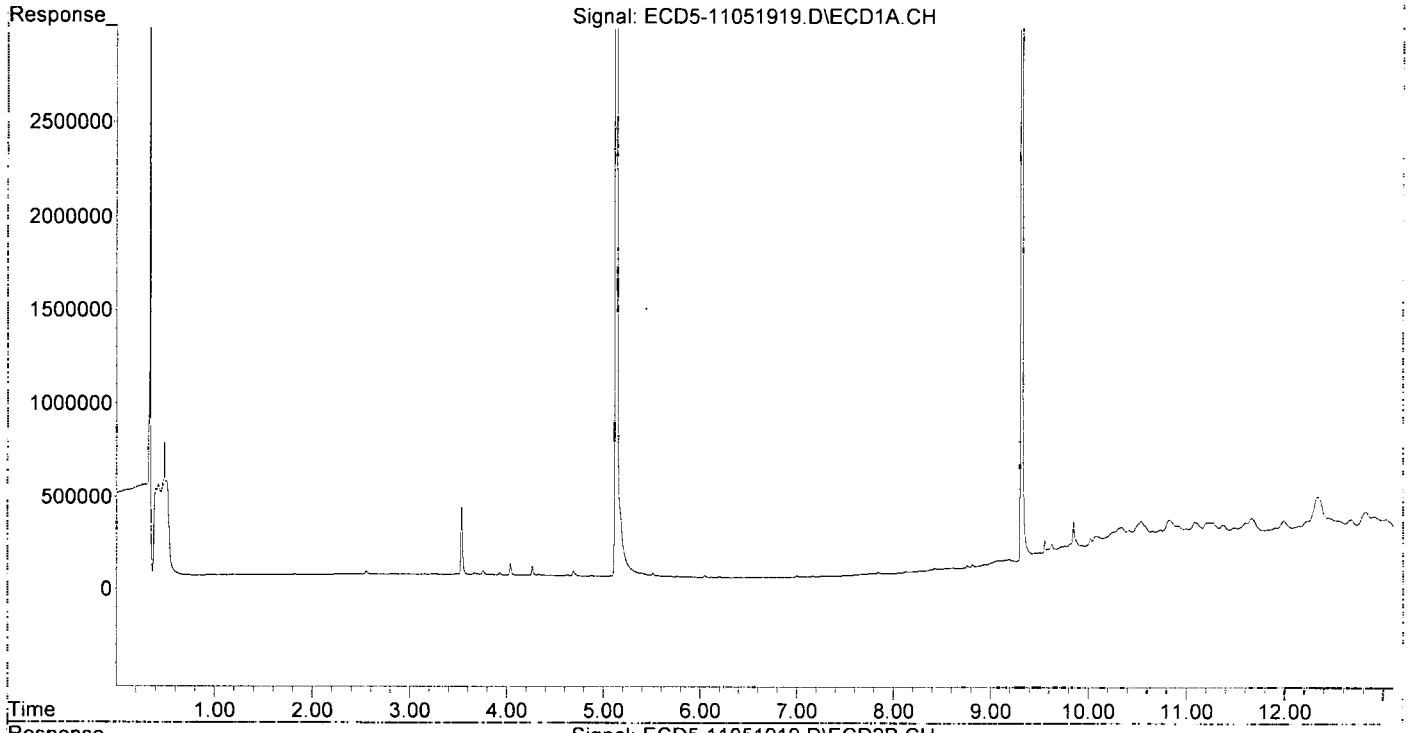
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.725	14903488	23732892	89.793	80.898	
22)	S	DCBP (S)	9.318	10.235	11176139	17433119	79.208	96.978	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
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.	

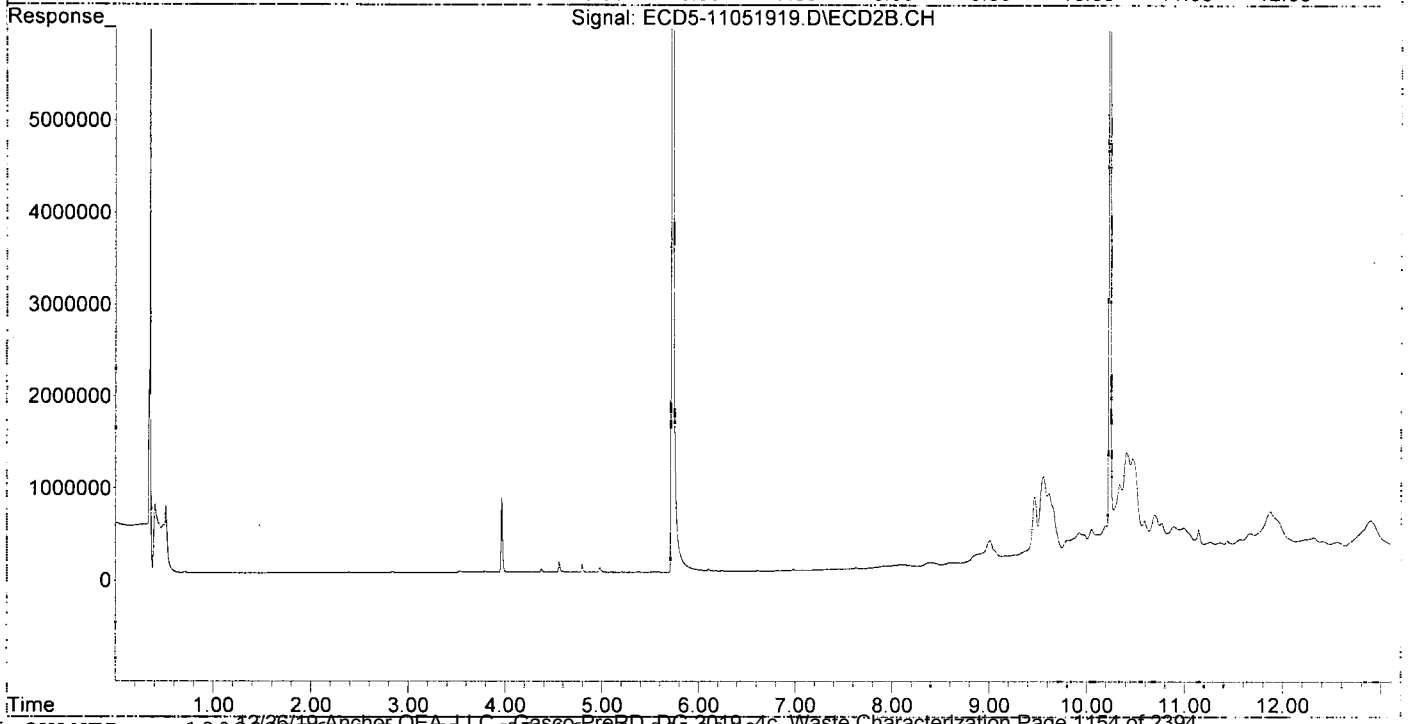
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:23
Operator : MJB
Sample : A9J0954-01RE1@10
Misc : 10x, 8081B, GPC
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 05 16:40:39 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

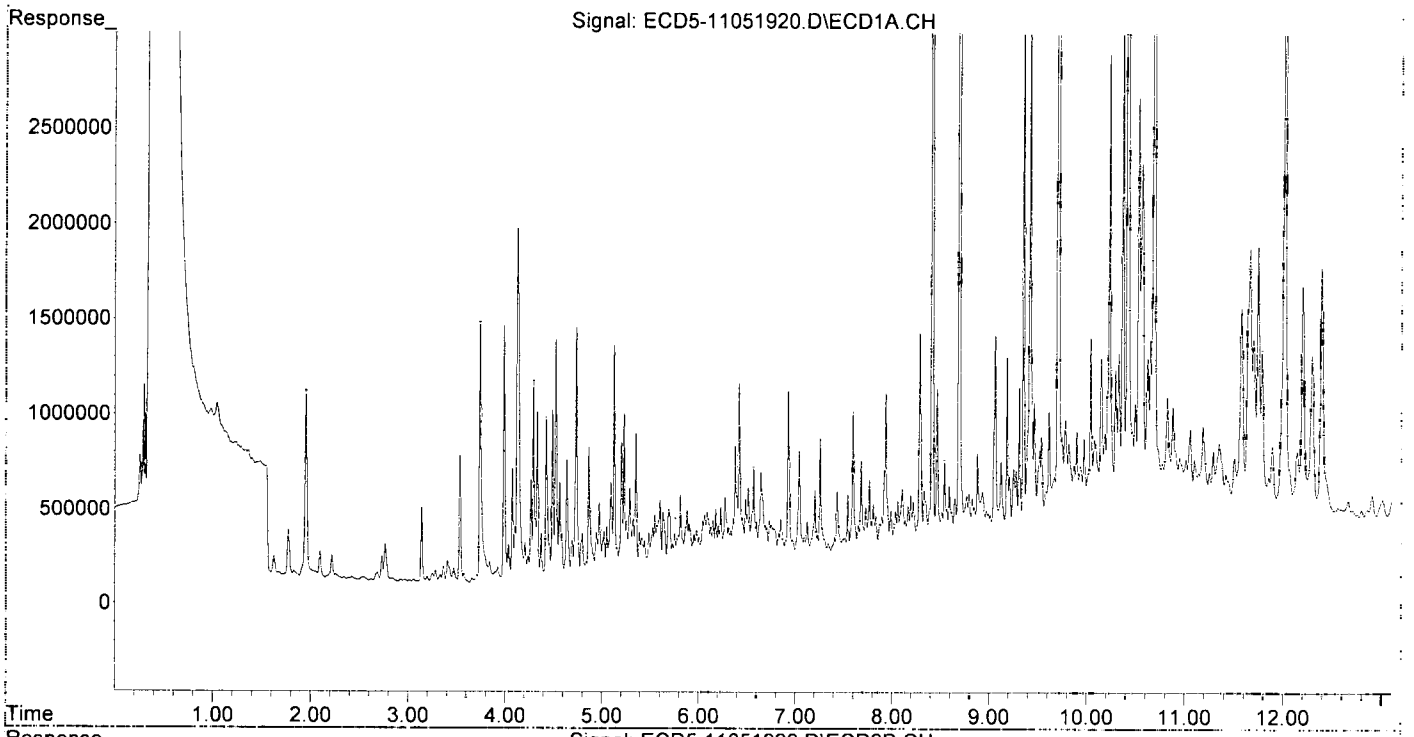
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1)	S TCMX (S)	5.128	5.725	1192910	1584162	7.187	5.400
22)	S DCBP (S)	9.312	10.231	816522	1898888	5.787	10.563 #
	Target Compounds						
2)	a-BHC	5.694f	6.334	313095	335636	1.365	0.818 #
3)	g-BHC	5.954	6.647	170390	371309	0.844	1.041
4)	b-BHC	6.066f	6.721	270083	376630	2.988	2.380
5)	Heptachlor	6.358	7.014	240442	550259	1.326m	1.798m
6)	d-BHC	6.180	6.962	295112	417018	1.500	1.182
7)	Aldrin	6.599	7.294	209688	344089	1.062	1.045
8)	Heptachlo...	7.044	7.716	566240	153729	3.074	0.511 #
9)	trans-Chl...	7.126f	7.859	193695	460725	1.048	1.470 #
10)	cis-Chlor...	7.259	7.963	622494	457634	3.419	1.571 #
11)	Endosulfa...	7.343	8.042f	68504	175349	0.403	0.637 #
12)	4,4'-DDE	7.343f	8.083	68504	884421	0.363	2.847 #
13)	Dieldrin	7.516	8.197	91583	838936	0.477	2.758 #
14)	Endrin	7.683	8.433	490372	232440	3.335	1.029 #
15)	4,4'-DDD	7.731	8.484	247635	600756	1.576	2.345 #
16)	Endosulfa...	7.835	8.576	196795	727471	1.370	3.155 #
17)	4,4'-DDT	7.939	8.721	840224	683133	7.028	3.918 #
18)	Endrin Al...	8.138	8.814	163325	357182	0.381	1.105 #
19)	Endosulfa...	8.417	9.023	8172579	1406687	52.734	5.647 #
20)	Methoxychlor	8.285	9.205	1009116	1190235	17.228m	14.163m
21)	Endrin Ke...	8.593	9.403	328272	899948	1.969	3.497 #
23)	Hexachlor...	2.922	3.400f	9332	707098	0.051	1.881 #
24)	Hexachlor...	5.487f	6.193	193917	496468	1.100	1.581 #
25)	Oxychlordane	6.974	7.638	99071	1095155	0.602	3.998 #
26)	2,4'-DDE	7.094f	7.859	109504	460725	0.854	2.172 #
27)	trans-Non...	7.259	7.941	622494	838573	3.158	2.780
28)	2,4'-DDD	7.436	8.251	340655	149555	2.985	0.792 #
29)	2,4'-DDT	7.600f	8.433f	755706	232440	6.890	1.303 #
30)	cis-Nonac...	7.731	8.484	247635	600756	1.193	1.791 #
31)	Mirex	8.334f	9.403	309987	899948	2.473	4.837 #
32)	Chlordane...	7.259f	7.941	622494	838573	31.615	23.175
33)	Chlordane...	7.343	8.042	68504	175349	2.733	5.775 #
34)	Chlordane...	7.877	8.697	153182	253304	26.497	28.252
35)	Chlordane...	3.361	3.348	82827	11910	NoCal	NoCal
36)	Toxaphene...	7.407	8.361	97684	175742	109.065	66.968
37)	Toxaphene...	7.683	8.721	490372	683133	303.647	207.575
38)	Toxaphene...	7.992	8.768f	218910	419820	65.007	82.832
39)	Toxaphene...	8.220f	8.814	256915	357182	79.291	42.777 #
40)	Toxaphene...	8.467	8.980	832294	584612	347.203	125.444 #
41)	Toxaphene...	8.544	9.365	451482	729833	142.667	153.642
42)	Toxaphene...	3.361	3.348	82827	11910	NoCal	NoCal

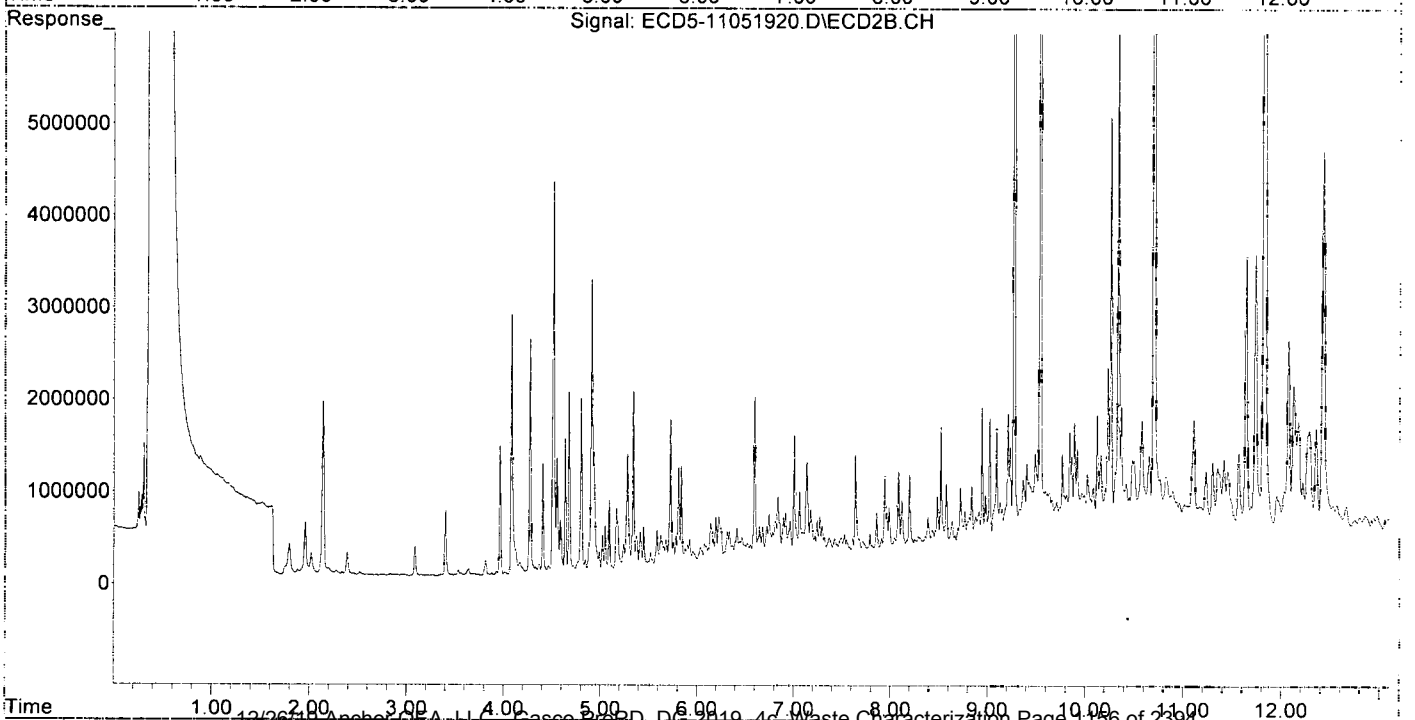
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:23
Operator : MJB
Sample : A9J0954-01RE1@10
Misc : 10x, 8081B, GPC
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 05 16:40:39 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

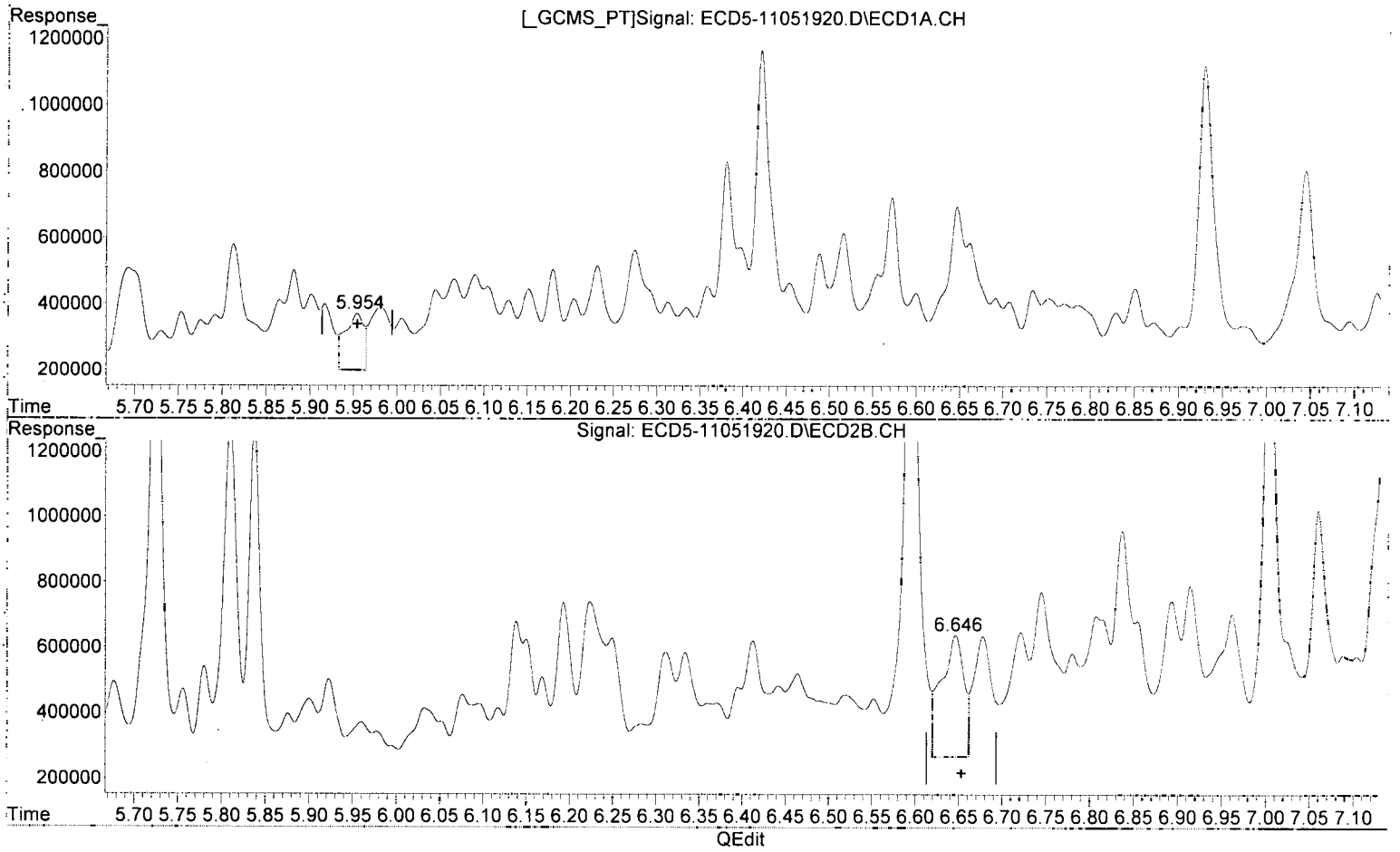




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:23
Operator : MJB
Sample : A9J0954-01RE1@10
Misc : 10x, 8081B, GPC
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 05 16:39:15 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

5.954min 0.844 ng/mL

response 170390

MB WS17

(3) g-BHC #2

6.647min 1.041 ng/mL P-01

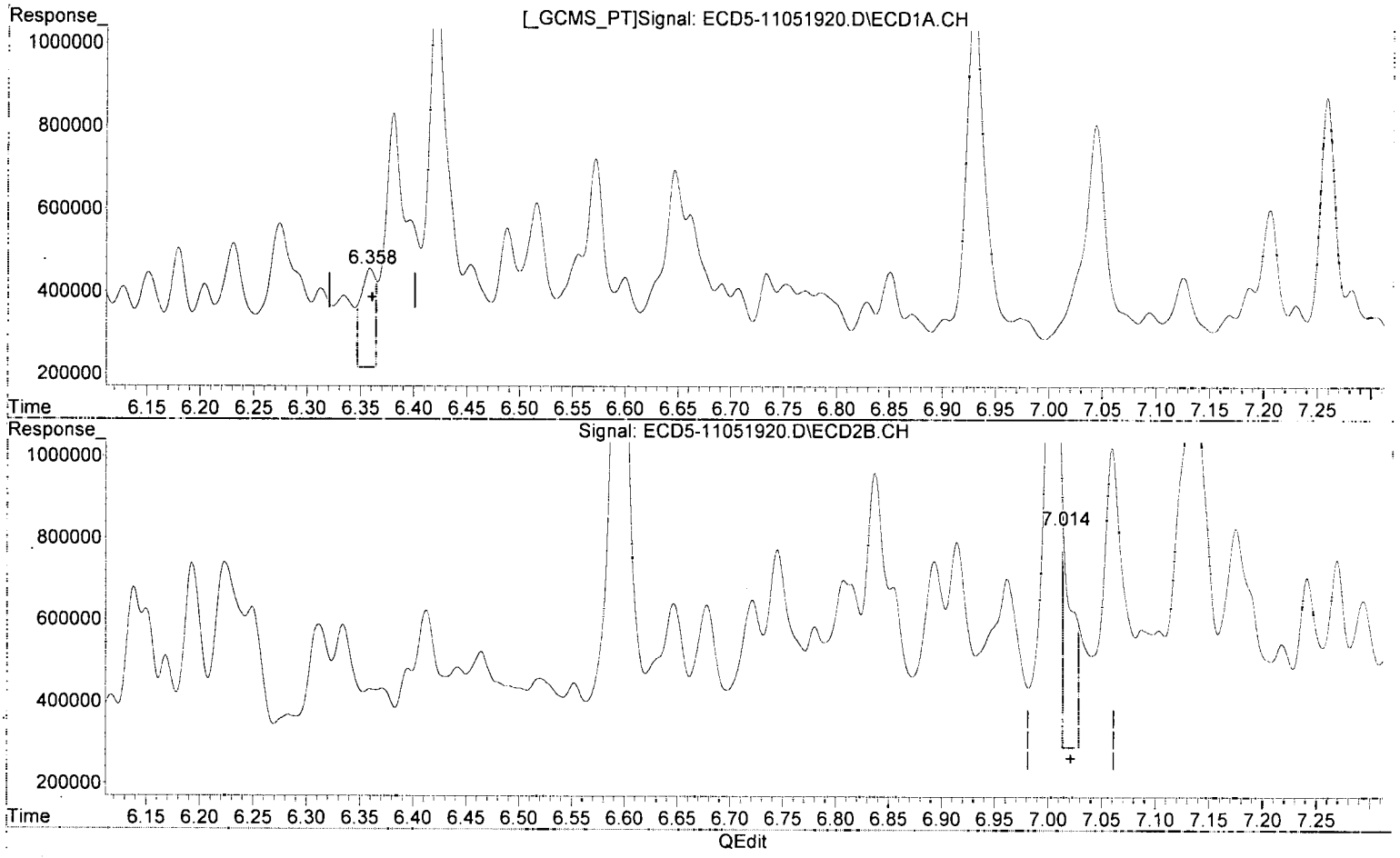
response 371309

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:23
Operator : MJB
Sample : A9J0954-01RE1@10
Misc : 10x, 8081B, GPC
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 05 16:39:15 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 1.326 ng/mL (m)

response 240442

MJB 11/5/19

(5) Heptachlor #2

7.014min 1.798 ng/mL (m) MDL=MRL

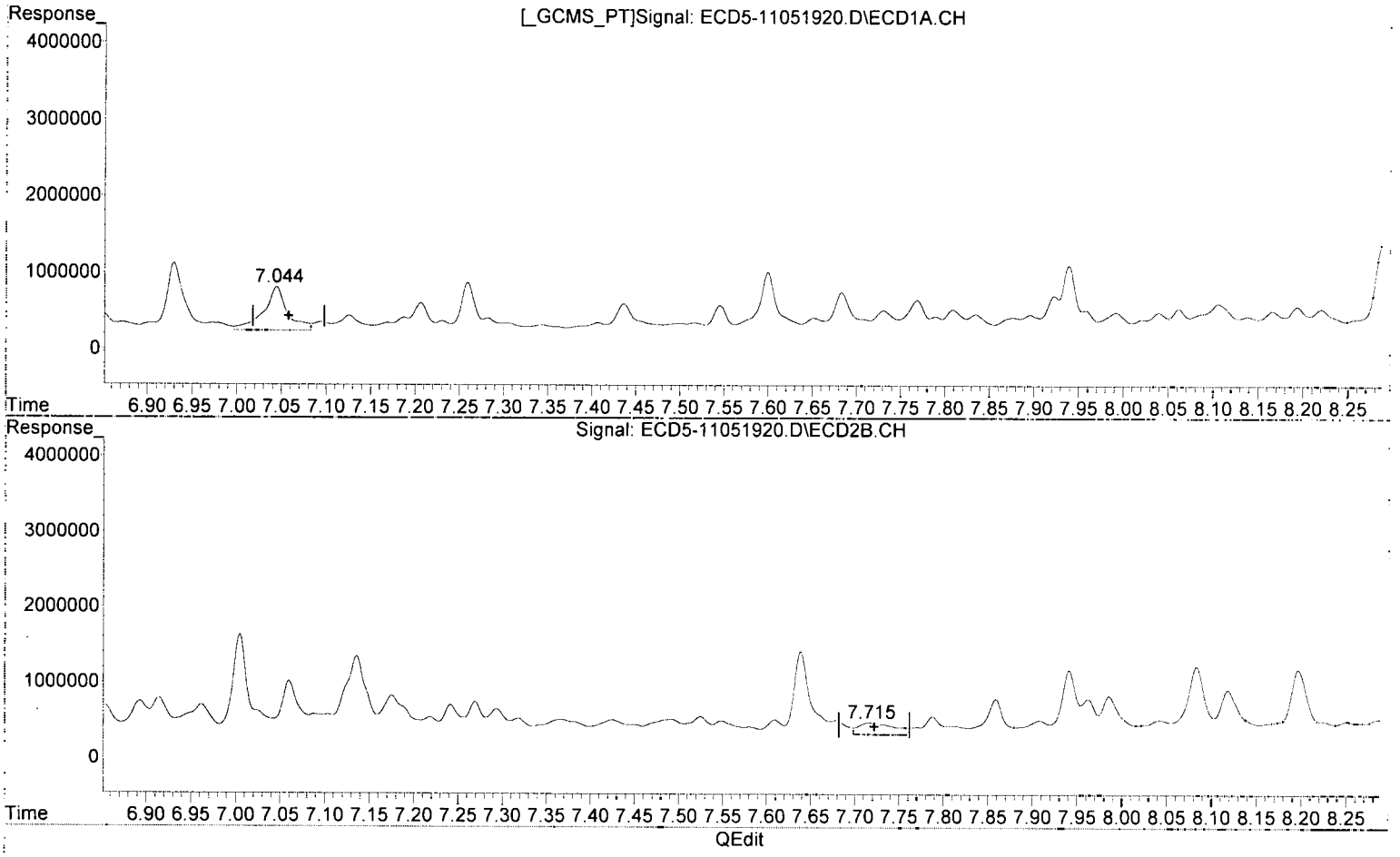
response 550259

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:23
Operator : MJB
Sample : A9J0954-01RE1@10
Misc : 10x, 8081B, GPC
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 05 16:39:15 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

7.044min 3.074 ng/mL

response 566240

MB 11/5/19

(8) Heptachlor Expoxide #2

7.716min 0.511 ng/mL

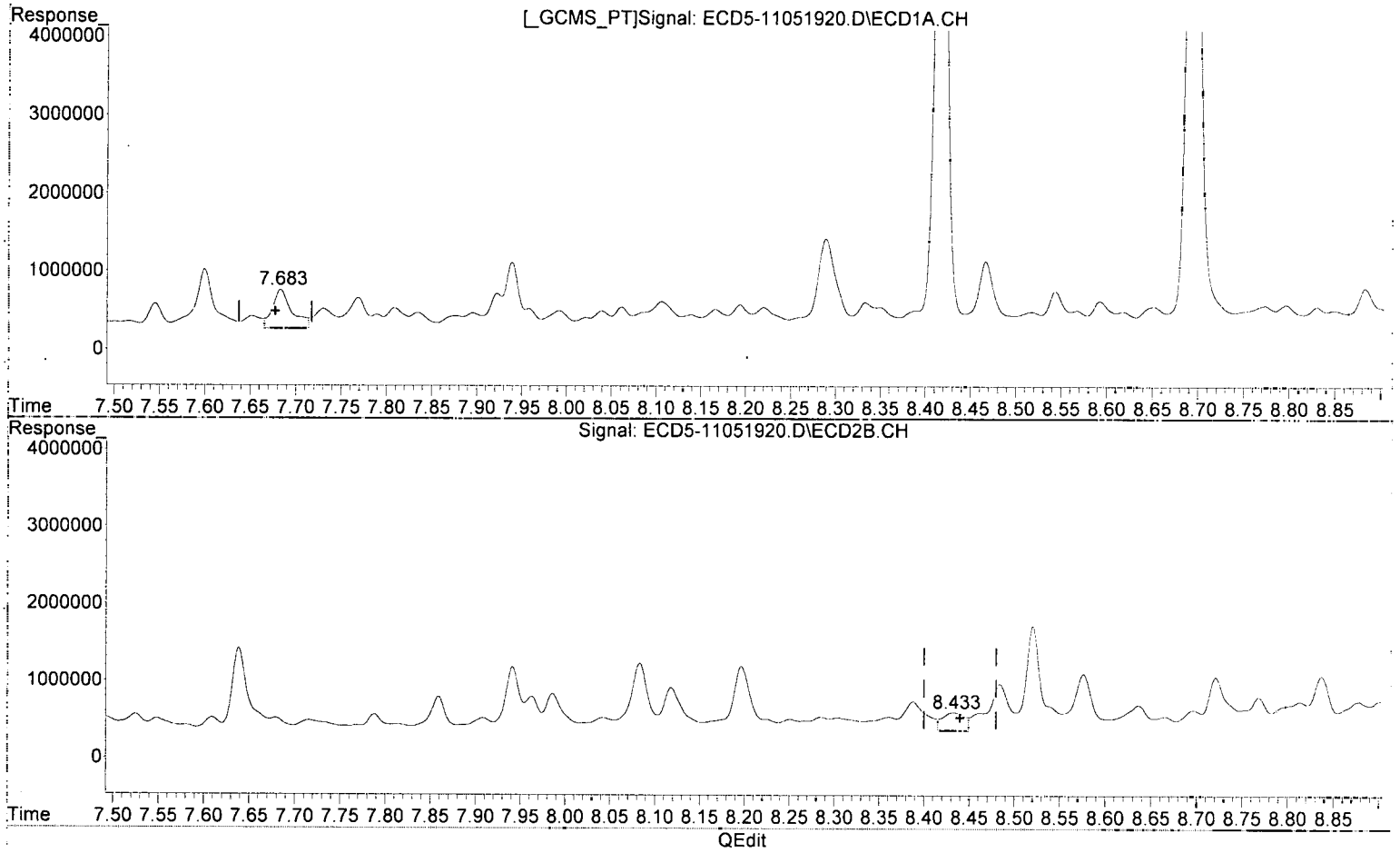
response 153729

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:23
Operator : MJB
Sample : A9J0954-01RE1@10
Misc : 10x, 8081B, GPC
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 05 16:39:15 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 3.335 ng/mL

response 490372

MJB 11/6/19

(14) Endrin #2

8.433min 1.029 ng/mL MDL-MRL

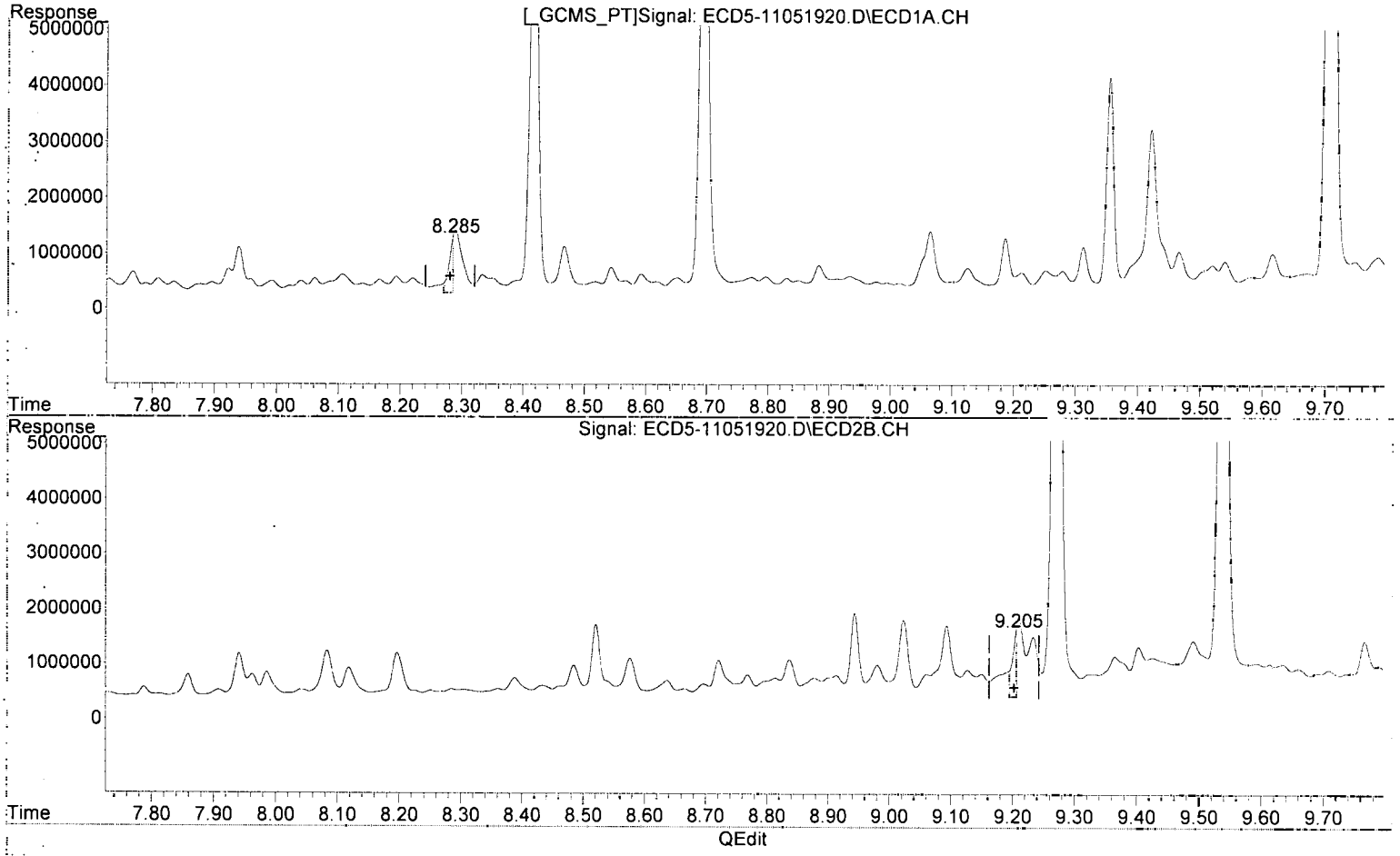
response 232440

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:23
Operator : MJB
Sample : A9J0954-01RE1@10
Misc : 10x, 8081B, GPC
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 05 16:39:15 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 17.228 ng/mL (m)

response 1009116

MJB 11/5/19

(20) Methoxychlor #2

9.205min 14.163 ng/mL (m) R-02

response 1190235

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:23
Operator : MJB
Sample : A9J0954-01RE1@10
Misc : 10x, 8081B, GPC
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 05 16:39:15 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

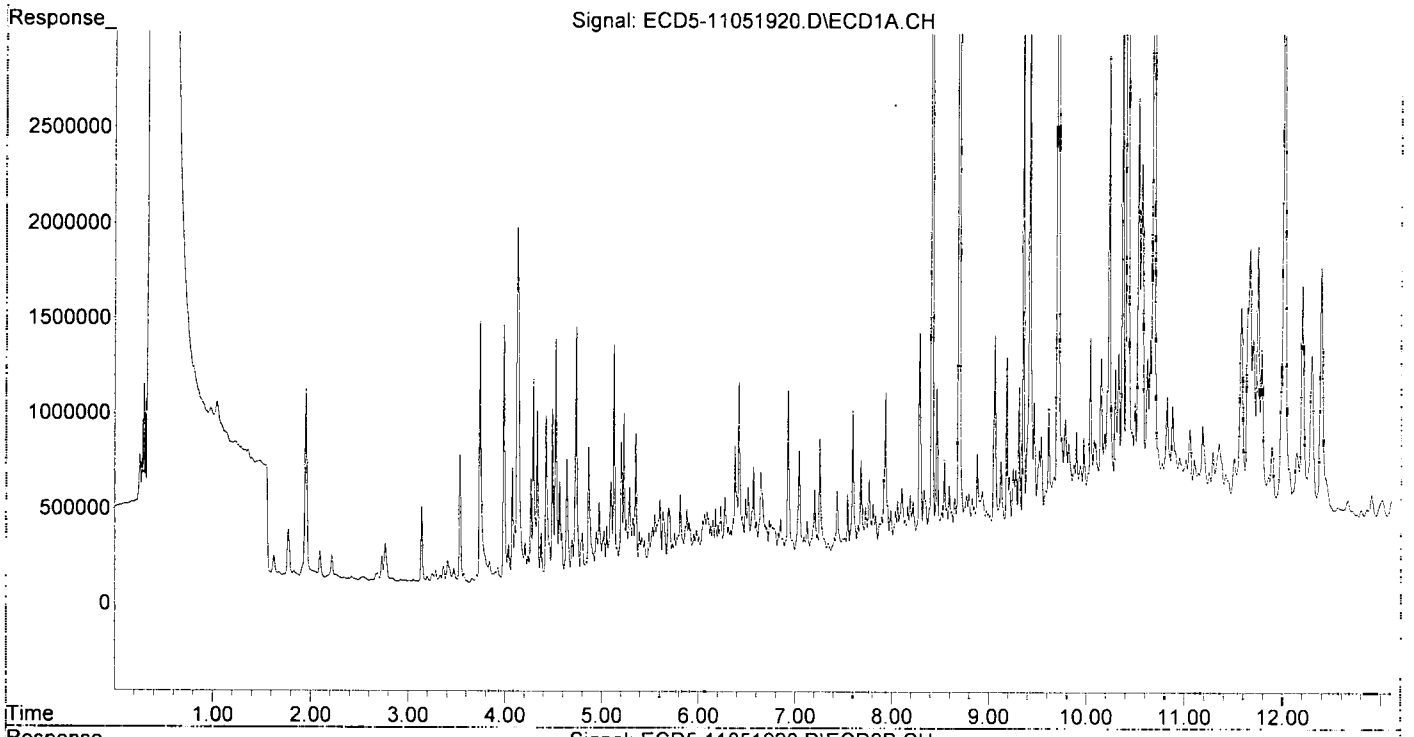
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.128	5.725	1192910	1584162	7.187	5.400	
22)	S	DCBP (S)	9.312	10.231	816522	1898888	5.787	10.563	#
		Target Compounds							
2)		a-BHC	5.694f	6.334	313095	335636	1.365	0.818	#
3)		g-BHC	5.954	6.647	170390	371309	0.844	1.041	
4)		b-BHC	6.066f	6.721	270083	376630	2.988	2.380	
5)		Heptachlor	6.381f	7.005	607658	1342543	3.352	4.388	
6)		d-BHC	6.180	6.962	295112	417018	1.500	1.182	
7)		Aldrin	6.599	7.294	209688	344089	1.062	1.045	
8)		Heptachlo...	7.044	7.716	566240	153729	3.074	0.511	#
9)		trans-Chl...	7.126f	7.859	193695	460725	1.048	1.470	#
10)		cis-Chlor...	7.259	7.963	622494	457634	3.419	1.571	#
11)		Endosulfa...	7.343	8.042f	68504	175349	0.403	0.637	#
12)		4,4'-DDE	7.343f	8.083	68504	884421	0.363	2.847	#
13)		Dieldrin	7.516	8.197	91583	838936	0.477	2.758	#
14)		Endrin	7.683	8.433	490372	232440	3.335	1.029	#
15)		4,4'-DDD	7.731	8.484	247635	600756	1.576	2.345	#
16)		Endosulfa...	7.835	8.576	196795	727471	1.370	3.155	#
17)		4,4'-DDT	7.939	8.721	840224	683133	7.028	3.918	#
18)		Endrin Al...	8.138	8.814	163325	357182	0.381	1.105	#
19)		Endosulfa...	8.417	9.023	8172579	1406687	52.734	5.647	#
20)		Methoxychlor	8.290	9.210	1138664	1453139	19.440	17.218	
21)		Endrin Ke...	8.593	9.403	328272	899948	1.969	3.497	#
23)		Hexachlor...	2.922	3.400f	9332	707098	0.051	1.881	#
24)		Hexachlor...	5.487f	6.193	193917	496468	1.100	1.581	#
25)		Oxychlordane	6.974	7.638	99071	1095155	0.602	3.998	#
26)		2,4'-DDE	7.094f	7.859	109504	460725	0.854	2.172	#
27)		trans-Non...	7.259	7.941	622494	838573	3.158	2.780	
28)		2,4'-DDD	7.436	8.251	340655	149555	2.985	0.792	#
29)		2,4'-DDT	7.600f	8.433f	755706	232440	6.890	1.303	#
30)		cis-Nonac...	7.731	8.484	247635	600756	1.193	1.791	#
31)		Mirex	8.334f	9.403	309987	899948	2.473	4.837	#
32)		Chlordane...	7.259f	7.941	622494	838573	31.615	23.175	
33)		Chlordane...	7.343	8.042	68504	175349	2.733	5.775	#
34)		Chlordane...	7.877	8.697	153182	253304	26.497	28.252	
35)		Chlordane...	3.361	3.348	82827	11910	NoCal	NoCal	
36)		Toxaphene...	7.407	8.361	97684	175742	109.065	66.968	
37)		Toxaphene...	7.683	8.721	490372	683133	303.647	207.575	
38)		Toxaphene...	7.992	8.768f	218910	419820	65.007	82.832	
39)		Toxaphene...	8.220f	8.814	256915	357182	79.291	42.777	#
40)		Toxaphene...	8.467	8.980	832294	584612	347.203	125.444	#
41)		Toxaphene...	8.544	9.365	451482	729833	142.667	153.642	
42)		Toxaphene...	3.361	3.348	82827	11910	NoCal	NoCal	

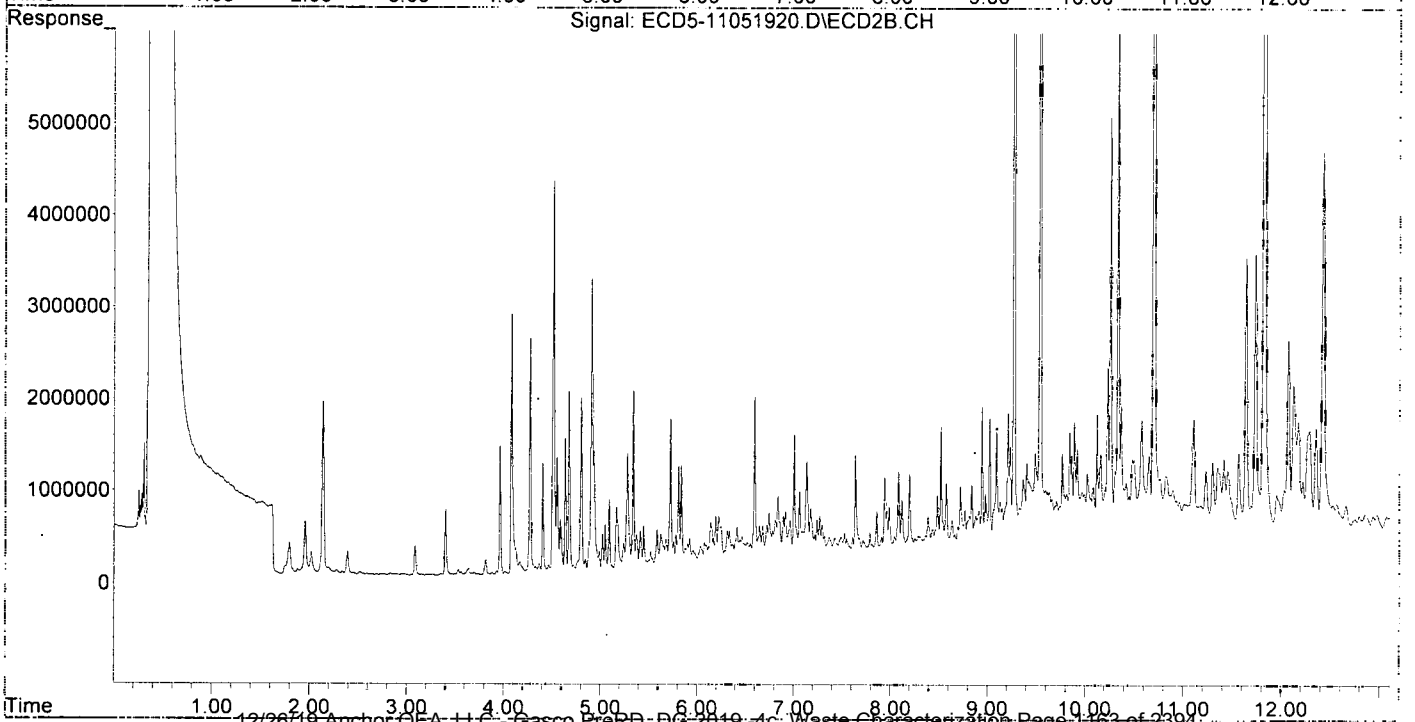
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:23
Operator : MJB
Sample : A9J0954-01RE1@10
Misc : 10x, 8081B, GPC
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 05 16:39:15 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 : ECD5-11051922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:57
Operator : MJB
Sample : A9J0954-02RE1@2
Misc : 2x, 8081B, GPC
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 05 17:17:50 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

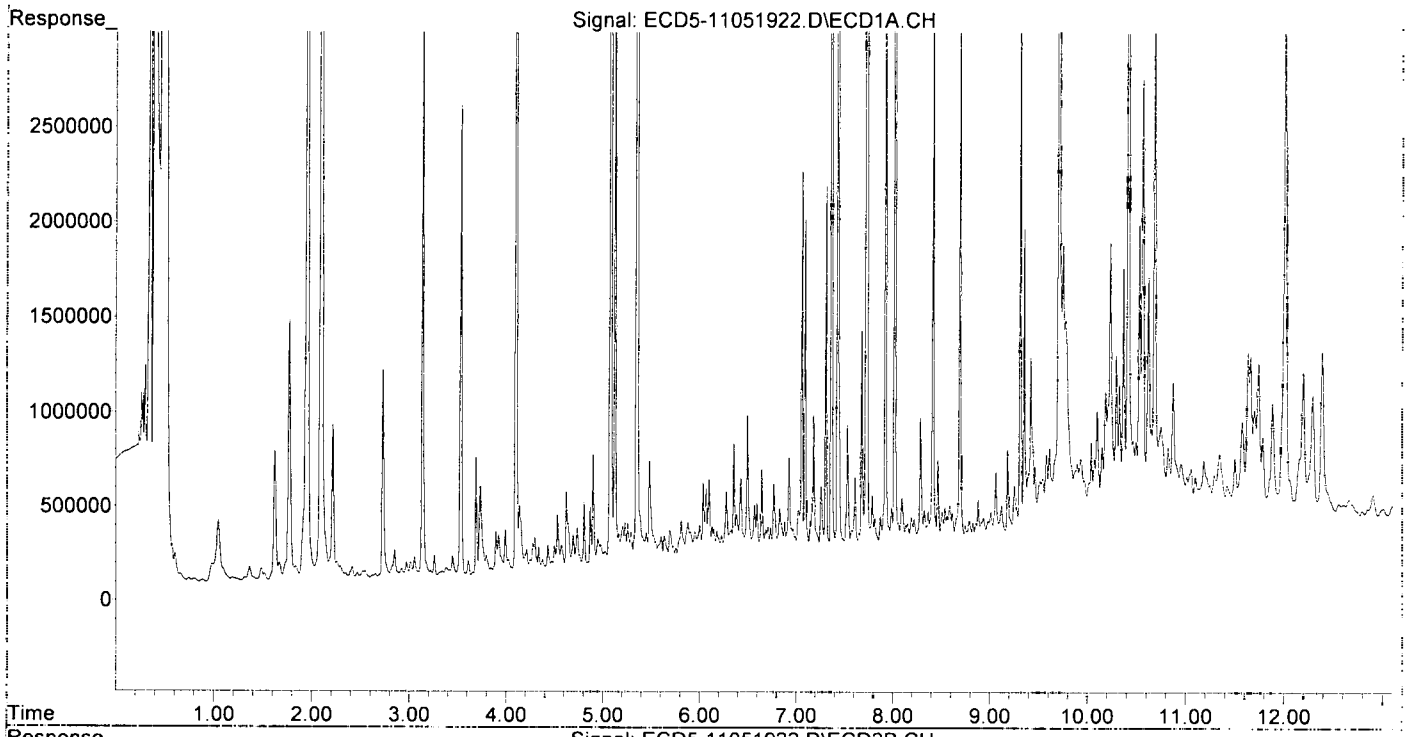
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.126	5.723	3675356	6289002	22.144	21.437	
22)	S	DCBP (S)	9.313	10.233	3129685	5133358	22.181	28.556	
		Target Compounds							
2)		a-BHC	5.695f	6.333	168600	153539	0.735	0.374	# R-01
3)		g-BHC	5.954	6.643	151599	521177	0.751	1.461	#
4)		b-BHC	6.039	6.720	404490	320909	4.475	2.028	#
5)		Heptachlor	6.357	7.013	600300	214856	3.311	0.702m	#
6)		d-BHC	6.182	6.965	147171	235396	0.748	0.667	
7)		Aldrin	6.596	7.294	280136	148425	1.419	0.451	#
8)		Heptachlo...	7.062	7.711	2004519	261374	10.884	0.869	#
9)		trans-Chl...	7.184f	7.853	727380	3632788	3.934	11.594	#
10)		cis-Chlor...	7.261	7.988f	346233	440415	1.902	1.512	
11)		Endosulfa...	7.367f	8.031	7985995	484539	46.927	1.761	#
12)		4,4'-DDE	7.310	8.087	1899860	15491437	10.077	49.863	#
13)		Dieldrin	7.533	8.226	653372	10681094	3.403	35.118	#
14)		Endrin	7.681	8.449	1149258	329128	7.817	1.457m	# MDL>MRL
15)		4,4'-DDD	7.730	8.491	23580780	41412863	150.062	161.634	
16)		Endosulfa...	7.816	8.578	161162	619386	1.122	2.686	#
17)		4,4'-DDT	7.926	8.715	4445635	7266588	37.183	39.371	
18)		Endrin Al...	8.097f	8.813	256790	322975	1.183	0.918	
19)		Endosulfa...	8.416	9.023	2901921	684569	18.725	2.748	#
20)		Methoxychlor	8.285	9.204	644882	703691	11.010m	8.404m	R-02
21)		Endrin Ke...	8.617	9.404	159317	503717	0.955	1.958	#
23)		Hexachlor...	2.922	3.399f	41030	5999032	0.225	15.958	#
24)		Hexachlor...	5.485f	6.199	536002	328440	3.040	1.046	#
25)		Oxychlordane	7.027f	7.639	229097	680642	1.392	2.485	#
26)		2,4'-DDE	7.062	7.853	2004519	3632788	15.628	17.125	
27)		trans-Non...	7.261	7.941	346233	329246	1.616	1.092	
28)		2,4'-DDD	7.431	8.226	6349984	10681094	55.641	56.555	
29)		2,4'-DDT	7.611	8.452	384914	342674	3.509	1.921	#
30)		cis-Nonac...	7.730	8.491	23580780	41412863	113.579	123.455	
31)		Mirex	8.368	9.404	174128	503717	1.389	2.707	#
32)		Chlordane...	7.261f	7.941	346233	329246	17.585	9.099	#
33)		Chlordane...	7.310f	8.031f	1899860	484539	75.799	15.958	#
34)		Chlordane...	7.873	8.715	165502	7266588	28.628	810.471	#
35)		Chlordane...	3.341	3.347	22175	120742	NoCal	NoCal	
36)		Toxaphene...	7.431f	8.379	6349984	566841	7089.826	216.000	#
37)		Toxaphene...	7.681	8.715	1149258	7266588	711.642	2208.001	#
38)		Toxaphene...	8.020	8.771f	6424593	337896	1907.829	66.668	#
39)		Toxaphene...	8.223f	8.813	142299	322975	43.917	38.680	
40)		Toxaphene...	8.467	8.985	445377	291005	185.795	62.443	#
41)		Toxaphene...	8.541	9.380	194197	299325	61.366	63.013	
42)		Toxaphene...	3.341	3.347	22175	120742	NoCal	NoCal	

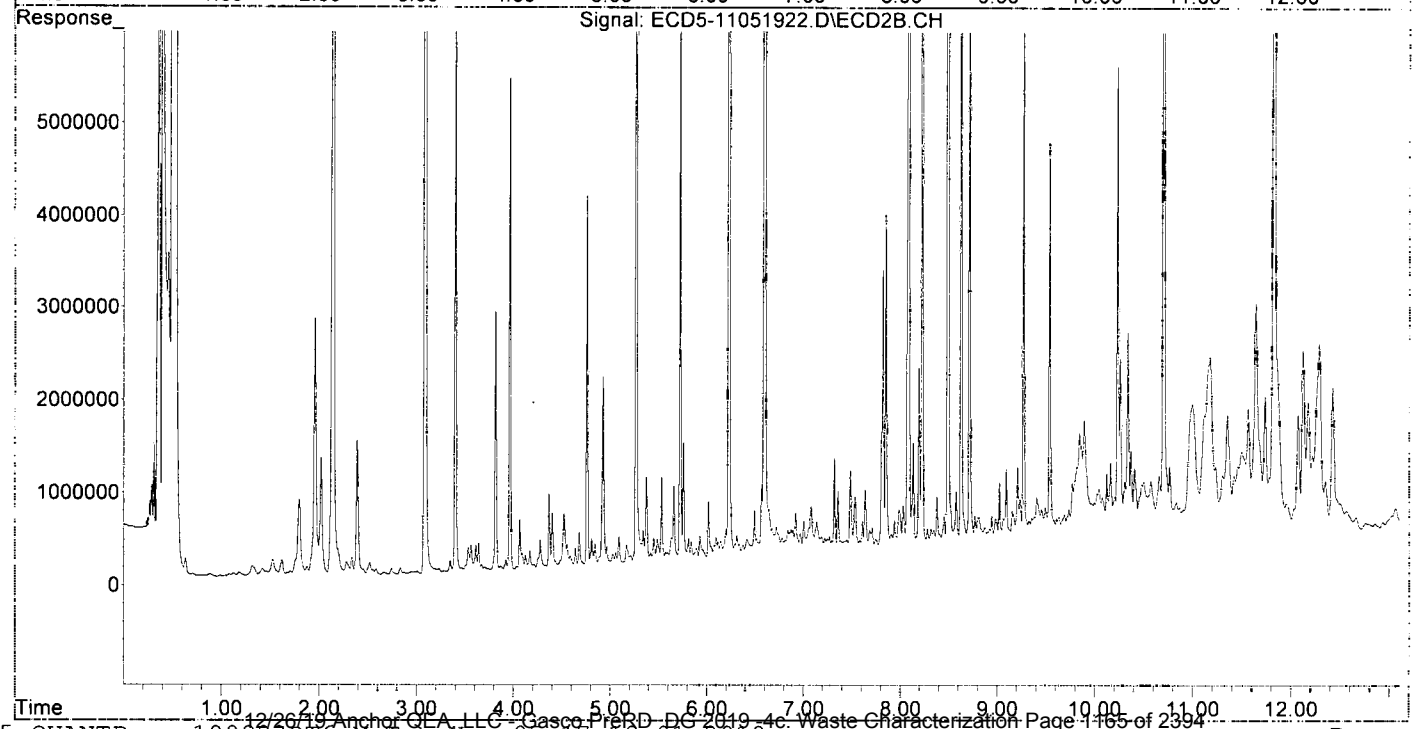
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:57
Operator : MJB
Sample : A9J0954-02RE1@2
Misc : 2x, 8081B, GPC
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 05 17:17:50 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

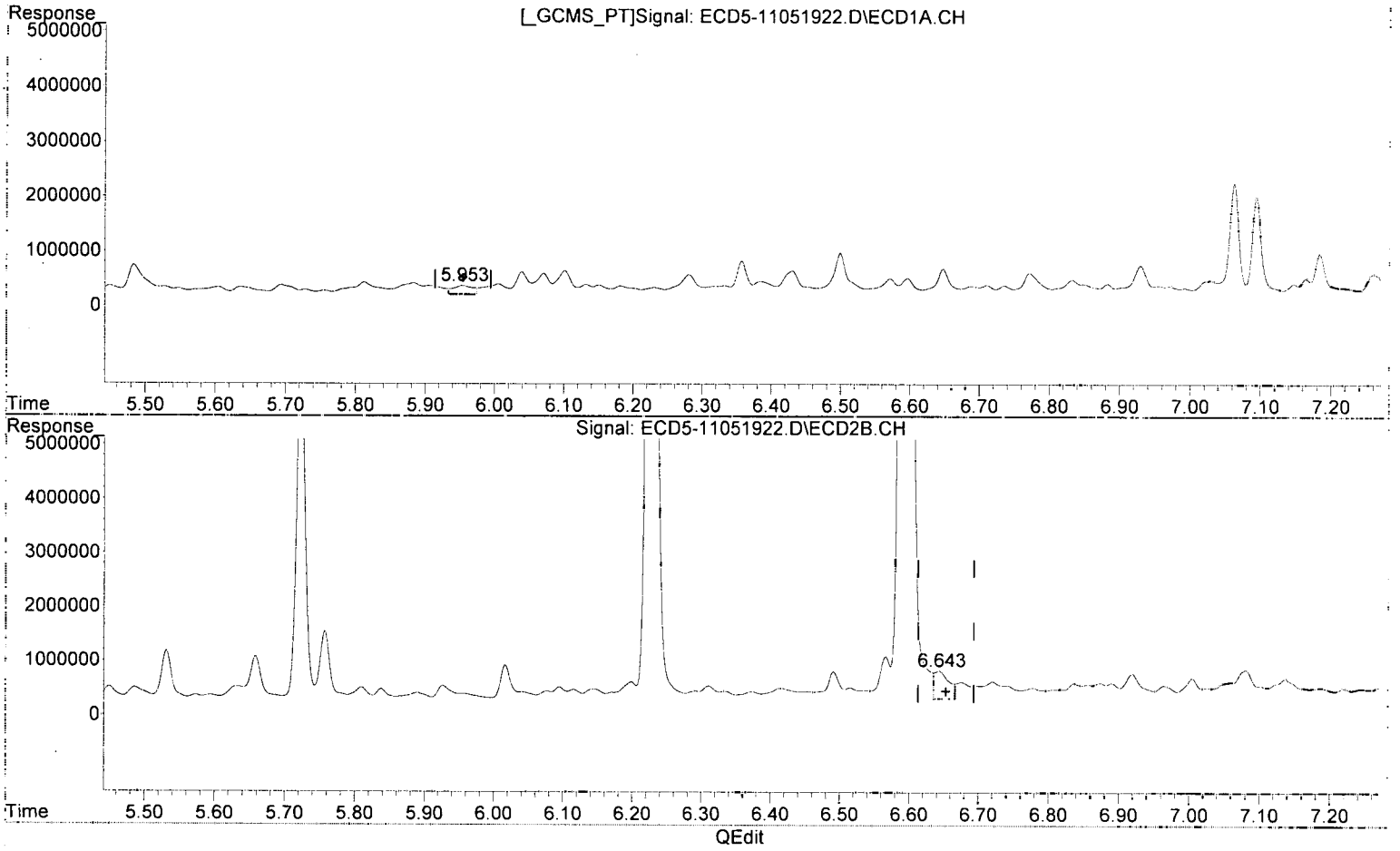




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:57
Operator : MJB
Sample : A9J0954-02RE1@2
Misc : 2x, 8081B, GPC
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 05 17:16:13 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



(3) g-BHC

5.954min 0.751 ng/mL

response 151599

WB 11/5/19

(3) g-BHC #2

6.643min 1.461 ng/mL P-01

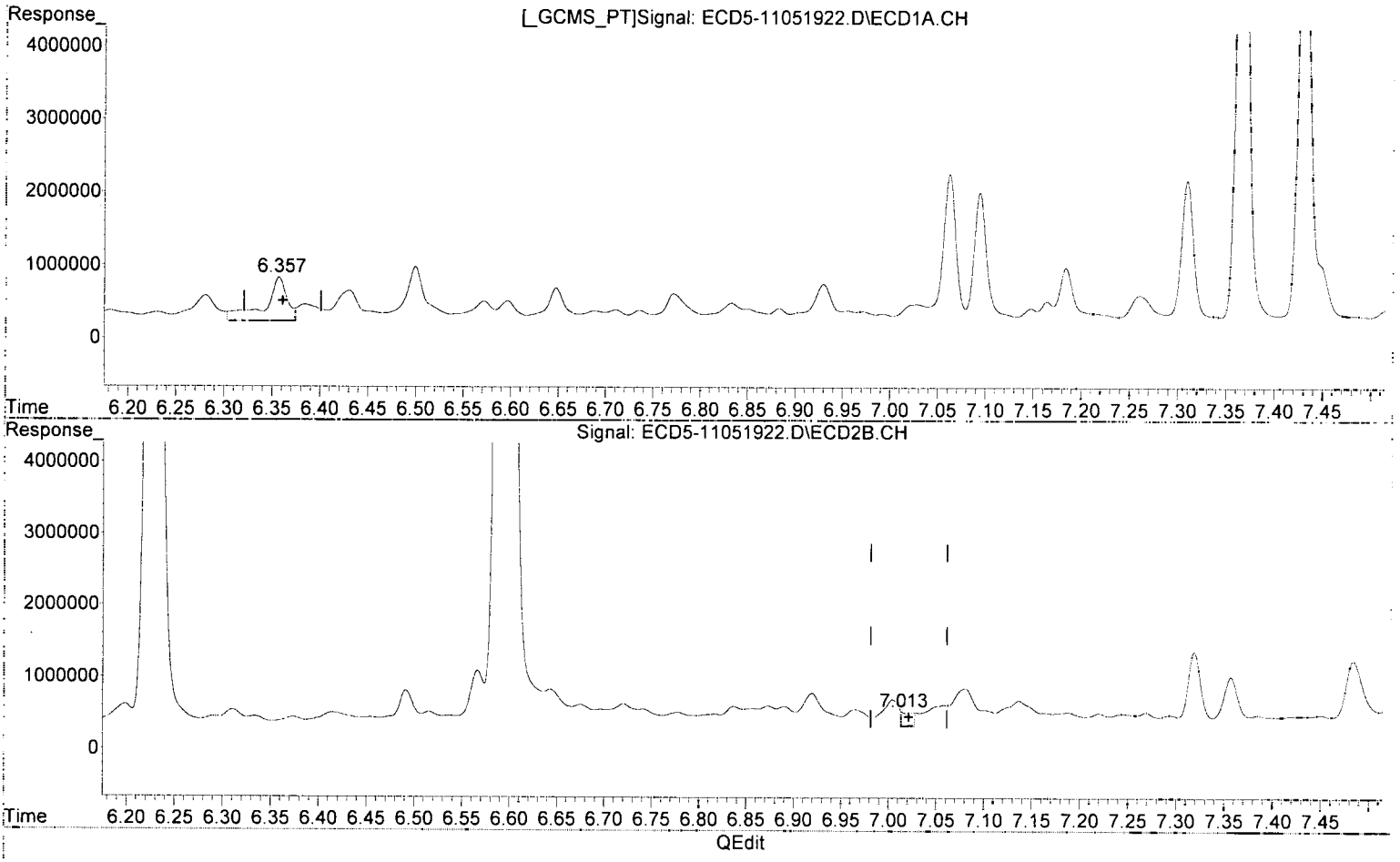
response 521177

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:57
Operator : MJB
Sample : A9J0954-02RE1@2
Misc : 2x, 8081B, GPC
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 05 17:16:13 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



(5) Heptachlor

6.357min 3.311 ng/mL

response 600300

MJB 11/5/19

(5) Heptachlor #2

7.013min 0.702 ng/mL m

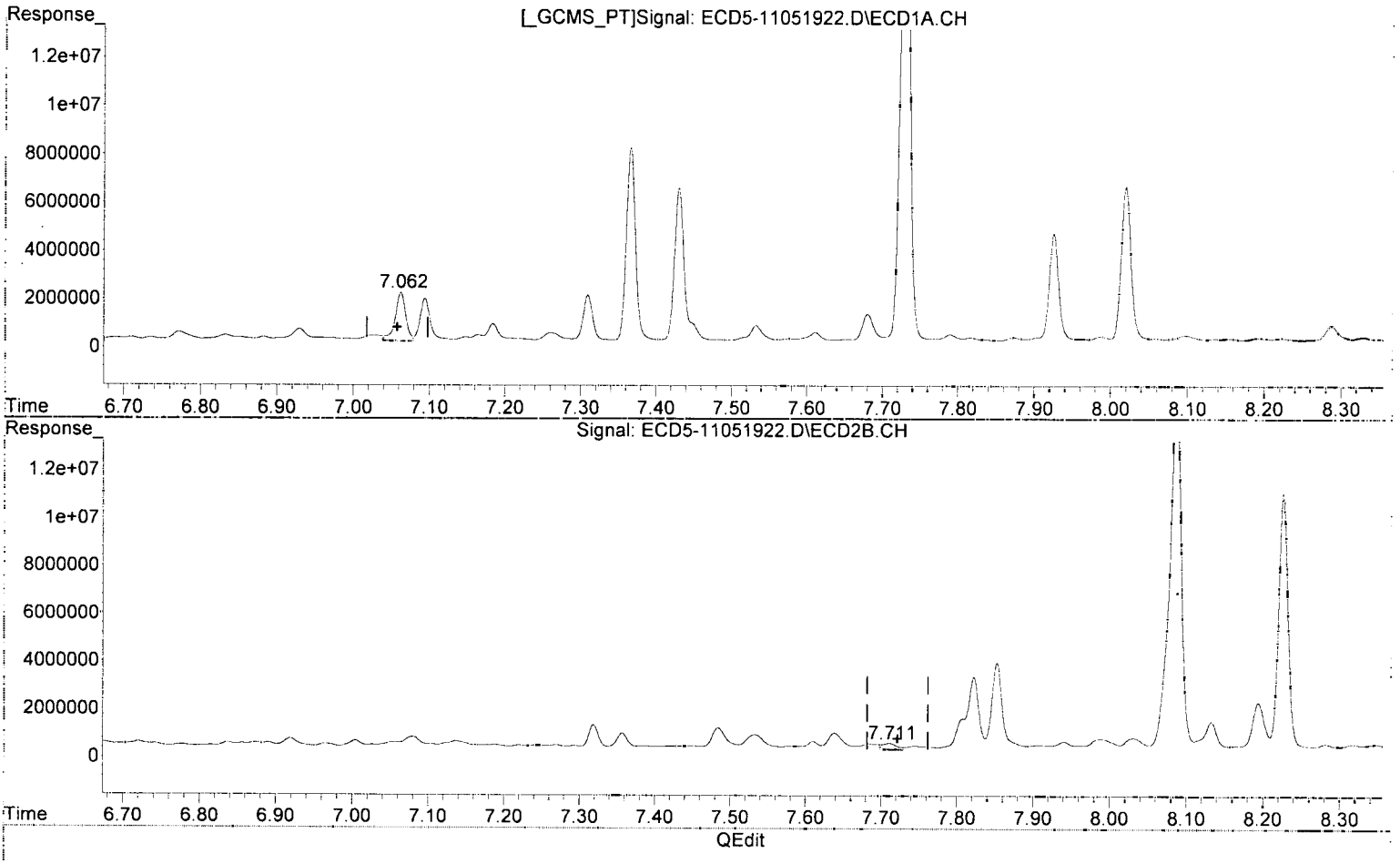
response 214856

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:57
Operator : MJB
Sample : A9J0954-02RE1@2
Misc : 2x, 8081B, GPC
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 05 17:16:13 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



(8) Heptachlor Expoxide

7.062min 10.884 ng/mL

response 2004519

MJB 11/5/19

(8) Heptachlor Expoxide #2

7.711min 0.869 ng/mL

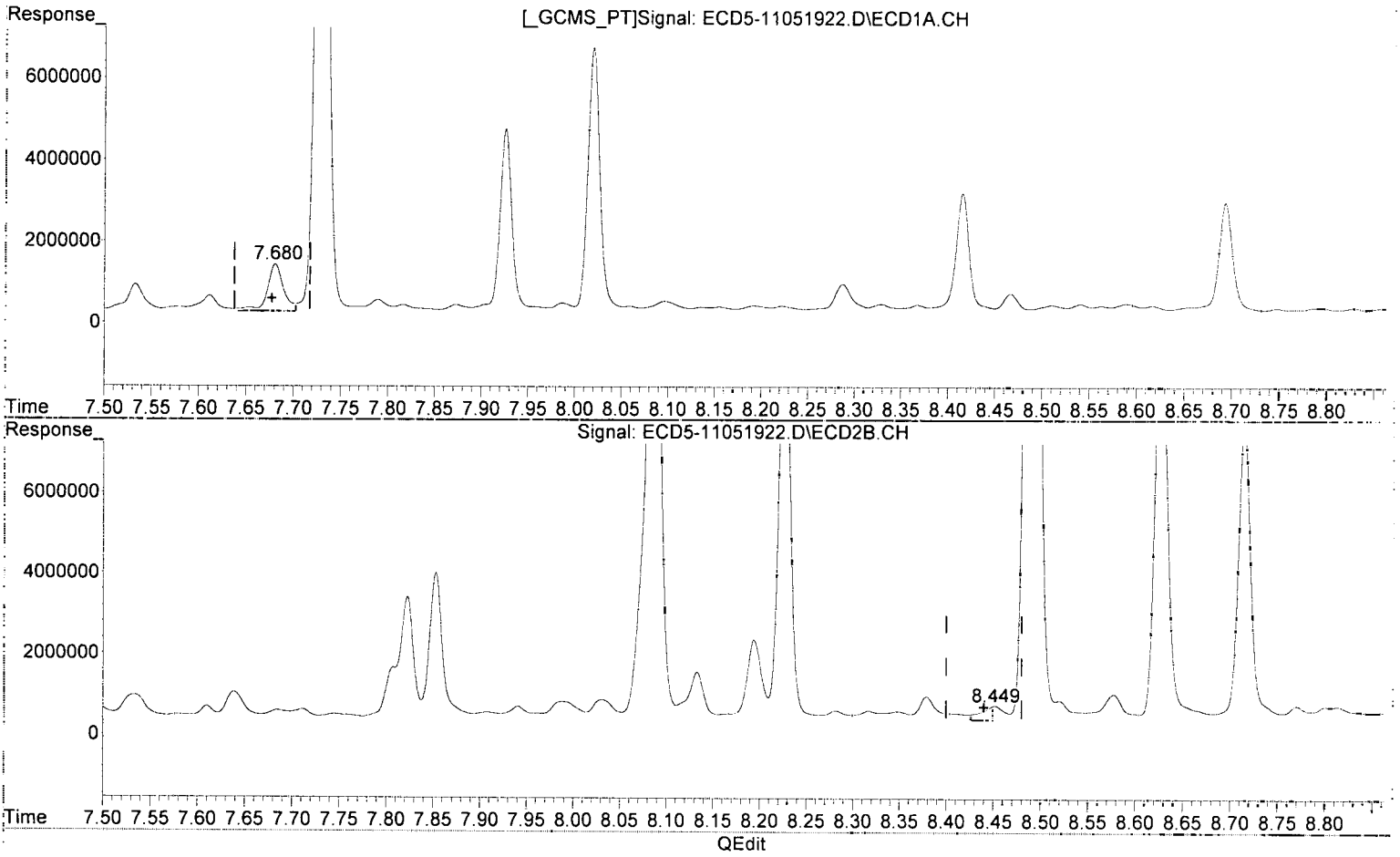
response 261374

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:57
Operator : MJB
Sample : A9J0954-02RE1@2
Misc : 2x, 8081B, GPC
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 05 17:16:13 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



(14) Endrin

7.681min 7.817 ng/mL

response 1149258

MJB 11/5/19

(14) Endrin #2

8.449min 1.457 ng/mL (m) MDL-MRL

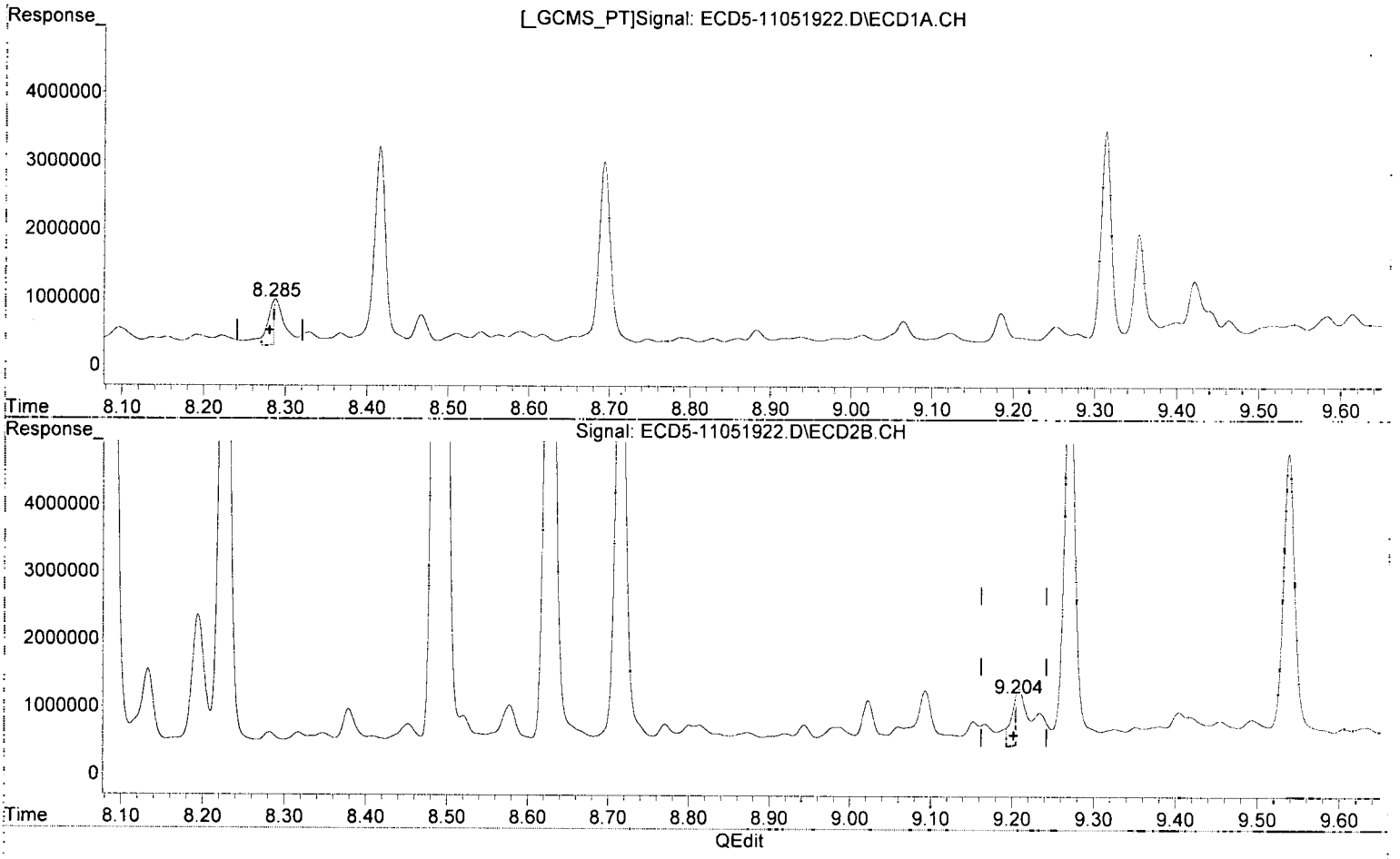
response 329128

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:57
Operator : MJB
Sample : A9J0954-02RE1@2
Misc : 2x, 8081B, GPC
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 05 17:16:13 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



(20) Methoxychlor

8.285min 11.010 ng/mL (m)

response 644882

MJB 11/5/19

(20) Methoxychlor #2

9.204min 8.404 ng/mL (m) R .02

response 703691

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:57
Operator : MJB
Sample : A9J0954-02RE1@2
Misc : 2x, 8081B, GPC
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 05 17:16:13 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

MI MJB 11/5/19

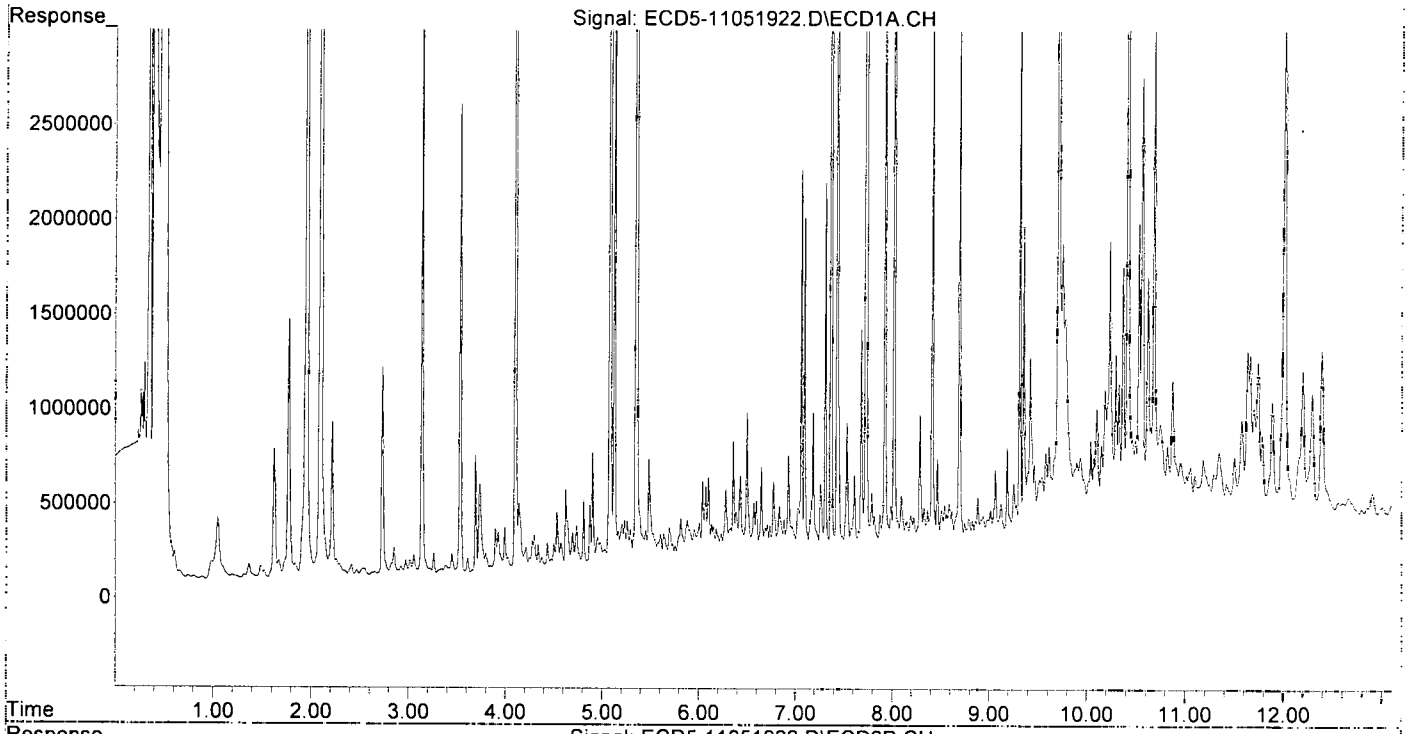
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.126	5.723	3675356	6289002	22.144	21.437	
22)	S	DCBP (S)	9.313	10.233	3129685	5133358	22.181	28.556	
		Target Compounds							
2)		a-BHC	5.695f	6.333	168600	153539	0.735	0.374	#
3)		g-BHC	5.954	6.643	151599	521177	0.751	1.461	#
4)		b-BHC	6.039	6.720	404490	320909	4.475	2.028	#
5)		Heptachlor	6.357	7.026	600300	191208	3.311	0.625	#
6)		d-BHC	6.182	6.965	147171	235396	0.748	0.667	
7)		Aldrin	6.596	7.294	280136	148425	1.419	0.451	#
8)		Heptachlo...	7.062	7.711	2004519	261374	10.884	0.869	#
9)		trans-Chl...	7.184f	7.853	727380	3632788	3.934	11.594	#
10)		cis-Chlor...	7.261	7.988f	346233	440415	1.902	1.512	
11)		Endosulfa...	7.367f	8.031	7985995	484539	46.927	1.761	#
12)		4,4'-DDE	7.310	8.087	1899860	15491437	10.077	49.863	#
13)		Dieldrin	7.533	8.226	653372	10681094	3.403	35.118	#
14)		Endrin	7.681	8.452	1149258	342674	7.817	1.517	#
15)		4,4'-DDD	7.730	8.491	23580780	41412863	150.062	161.634	
16)		Endosulfa...	7.816	8.578	161162	619386	1.122	2.686	#
17)		4,4'-DDT	7.926	8.715	4445635	7266588	37.183	39.371	
18)		Endrin Al...	8.097f	8.813	256790	322975	1.183	0.918	
19)		Endosulfa...	8.416	9.023	2901921	684569	18.725	2.748	#
20)		Methoxychlor	8.288	9.209	681684	856757	11.638	10.231	
21)		Endrin Ke...	8.617	9.404	159317	503717	0.955	1.958	#
23)		Hexachlor...	2.922	3.399f	41030	5999032	0.225	15.958	#
24)		Hexachlor...	5.485f	6.199	536002	328440	3.040	1.046	#
25)		Oxychlordane	7.027f	7.639	229097	680642	1.392	2.485	#
26)		2,4'-DDE	7.062	7.853	2004519	3632788	15.628	17.125	
27)		trans-Non...	7.261	7.941	346233	329246	1.616	1.092	
28)		2,4'-DDD	7.431	8.226	6349984	10681094	55.641	56.555	
29)		2,4'-DDT	7.611	8.452	384914	342674	3.509	1.921	#
30)		cis-Nonac...	7.730	8.491	23580780	41412863	113.579	123.455	
31)		Mirex	8.368	9.404	174128	503717	1.389	2.707	#
32)		Chlordane...	7.261f	7.941	346233	329246	17.585	9.099	#
33)		Chlordane...	7.310f	8.031f	1899860	484539	75.799	15.958	#
34)		Chlordane...	7.873	8.715	165502	7266588	28.628	810.471	#
35)		Chlordane...	3.341	3.347	22175	120742	NoCal	NoCal	
36)		Toxaphene...	7.431f	8.379	6349984	566841	7089.826	216.000	#
37)		Toxaphene...	7.681	8.715	1149258	7266588	711.642	2208.001	#
38)		Toxaphene...	8.020	8.771f	6424593	337896	1907.829	66.668	#
39)		Toxaphene...	8.223f	8.813	142299	322975	43.917	38.680	
40)		Toxaphene...	8.467	8.985	445377	291005	185.795	62.443	#
41)		Toxaphene...	8.541	9.380	194197	299325	61.366	63.013	
42)		Toxaphene...	3.341	3.347	22175	120742	NoCal	NoCal	

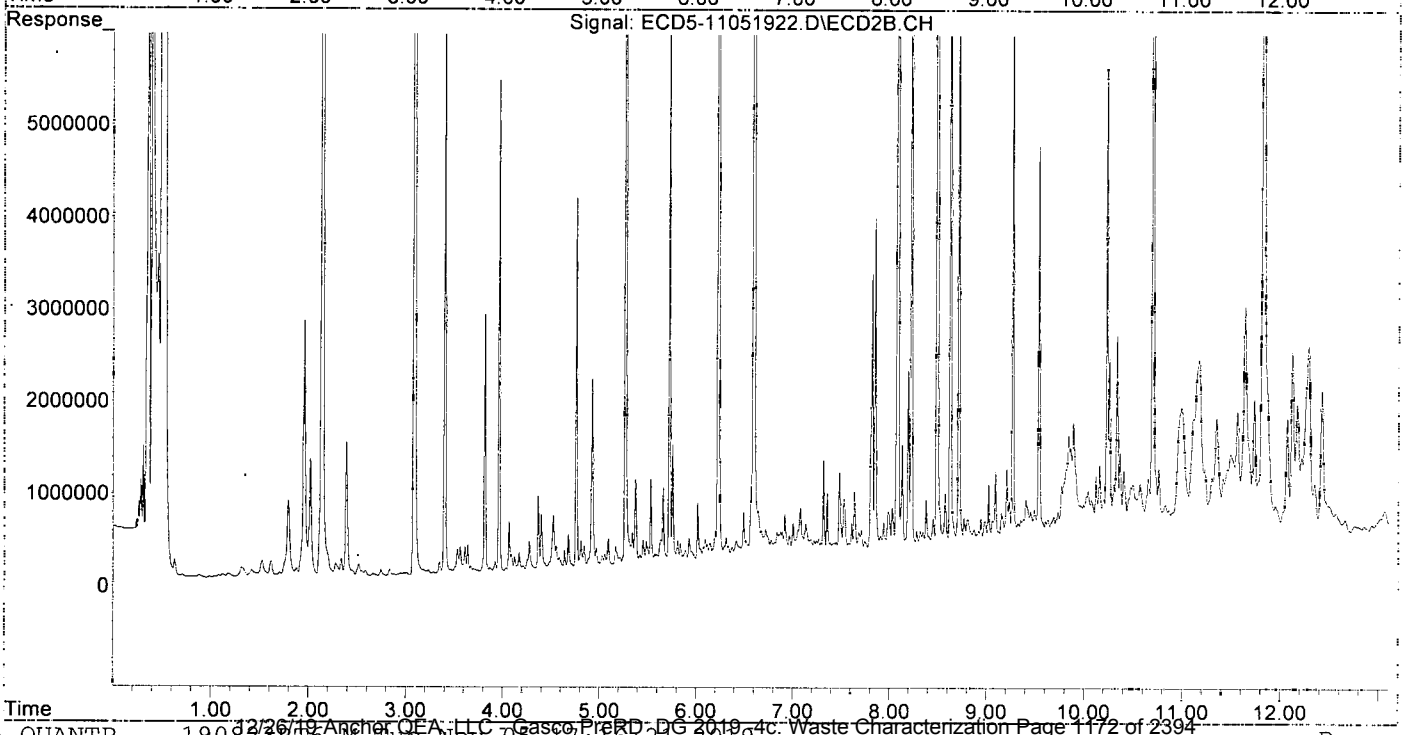
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K05039\
Data File : ECD5-11051922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Nov 2019 16:57
Operator : MJB
Sample : A9J0954-02RE1@2
Misc : 2x, 8081B, GPC
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 05 17:16:13 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 (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

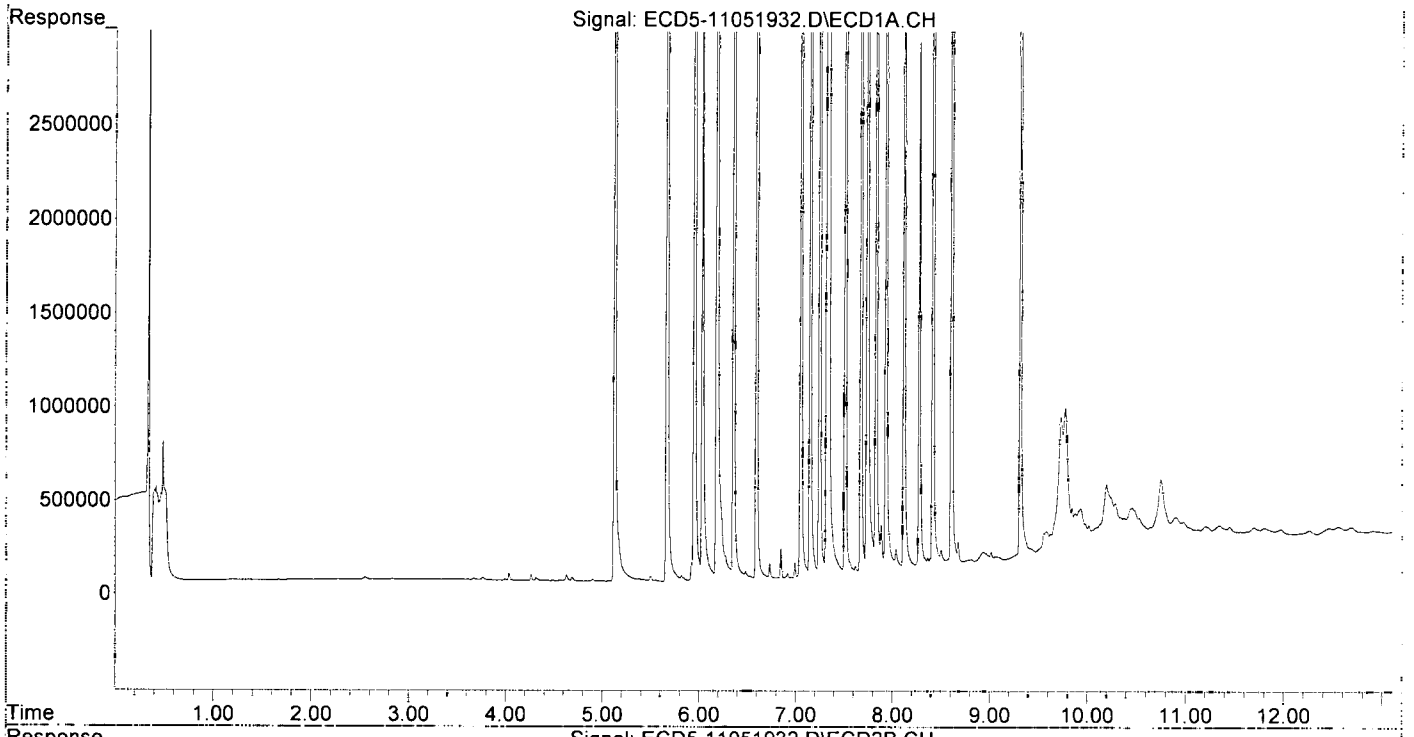
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.128	5.725	8285376	12635444	49.919	43.070	
22)	S DCBP (S)	9.318	10.235	6612459	10081199	46.864	56.080	
	Target Compounds							
2)	a-BHC	5.668	6.334	11816699	20592519	51.527	50.184	
3)	g-BHC	5.953	6.652	9805378	18426521	48.595 (Q-3)	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-2)	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-2)	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.	

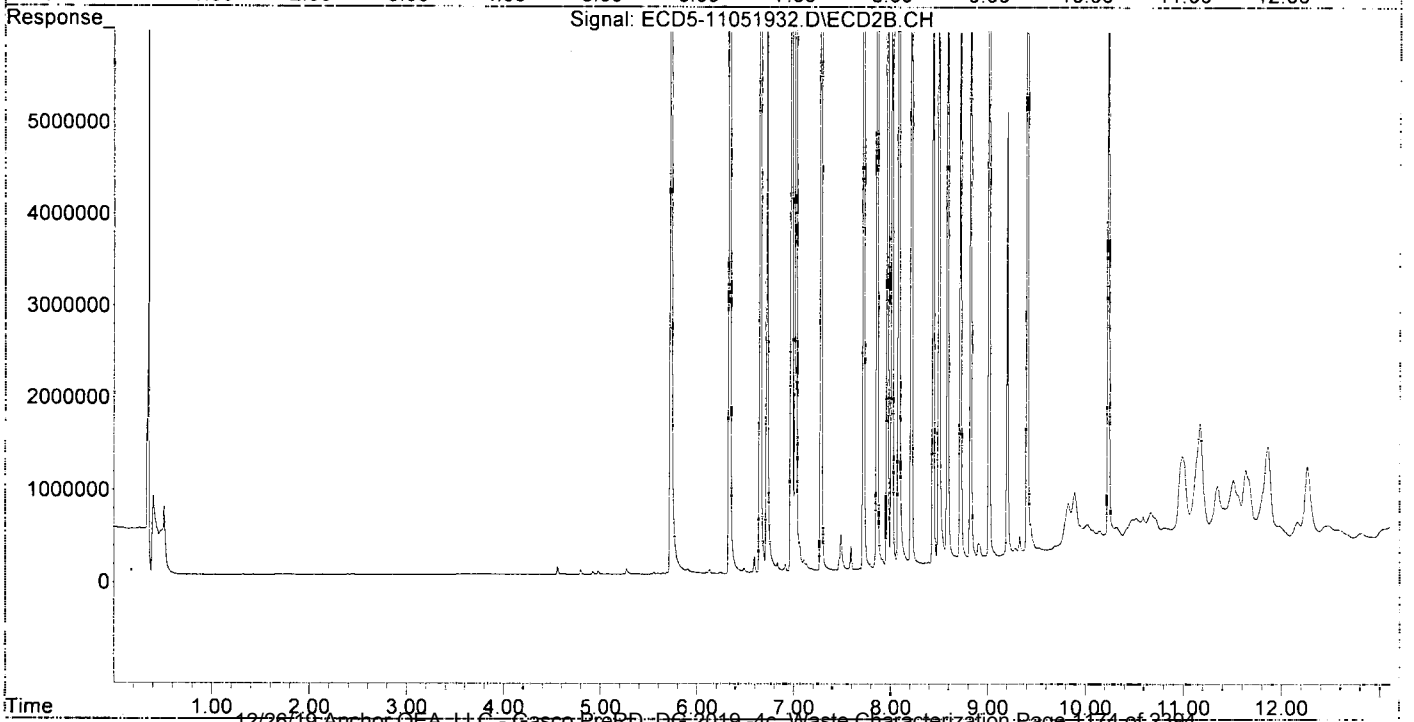
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

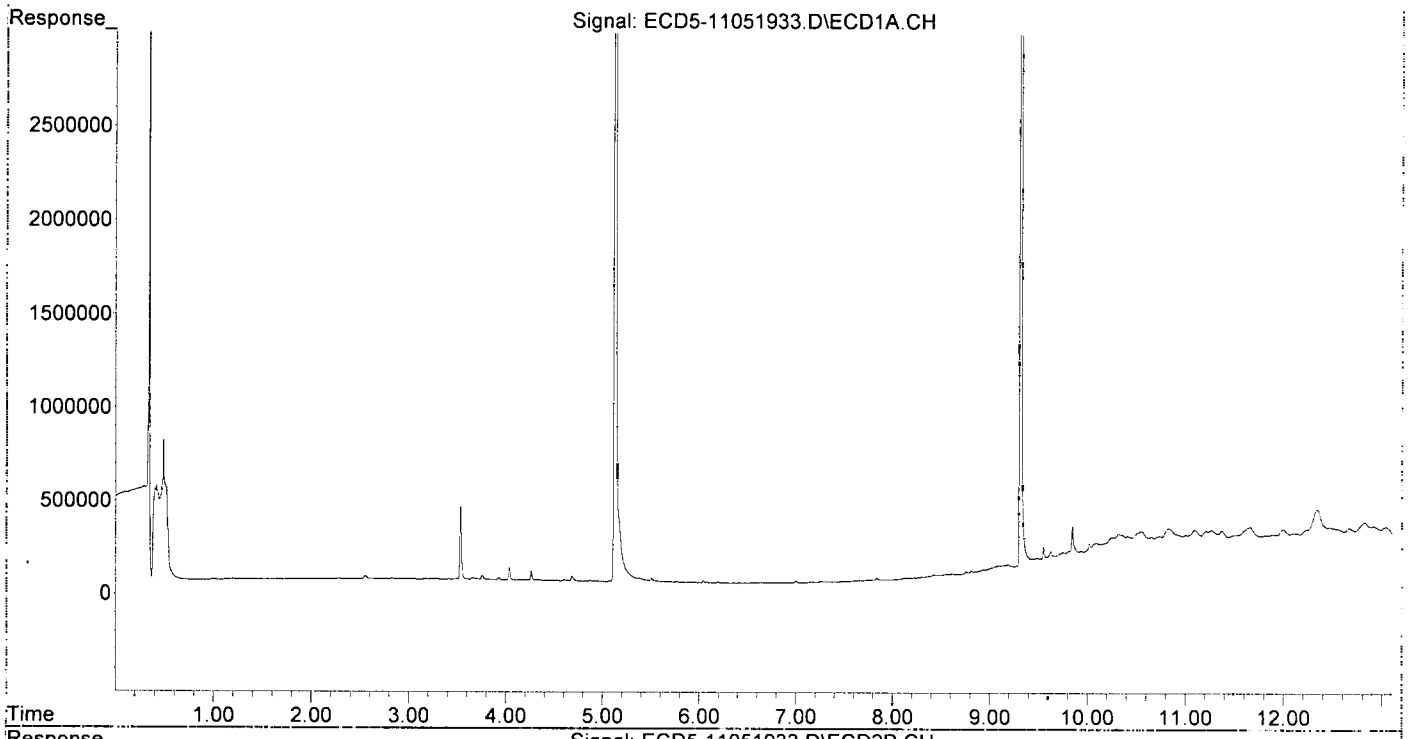
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.127	5.724	15271390	25235446	92.010	86.020
22) S	DCBP (S)	9.318	10.235	11806848	19188170	83.678	106.741
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.
3)	g-BHC	0.000	0.000	0	0	N.D.	N.D.
4)	b-BHC	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.

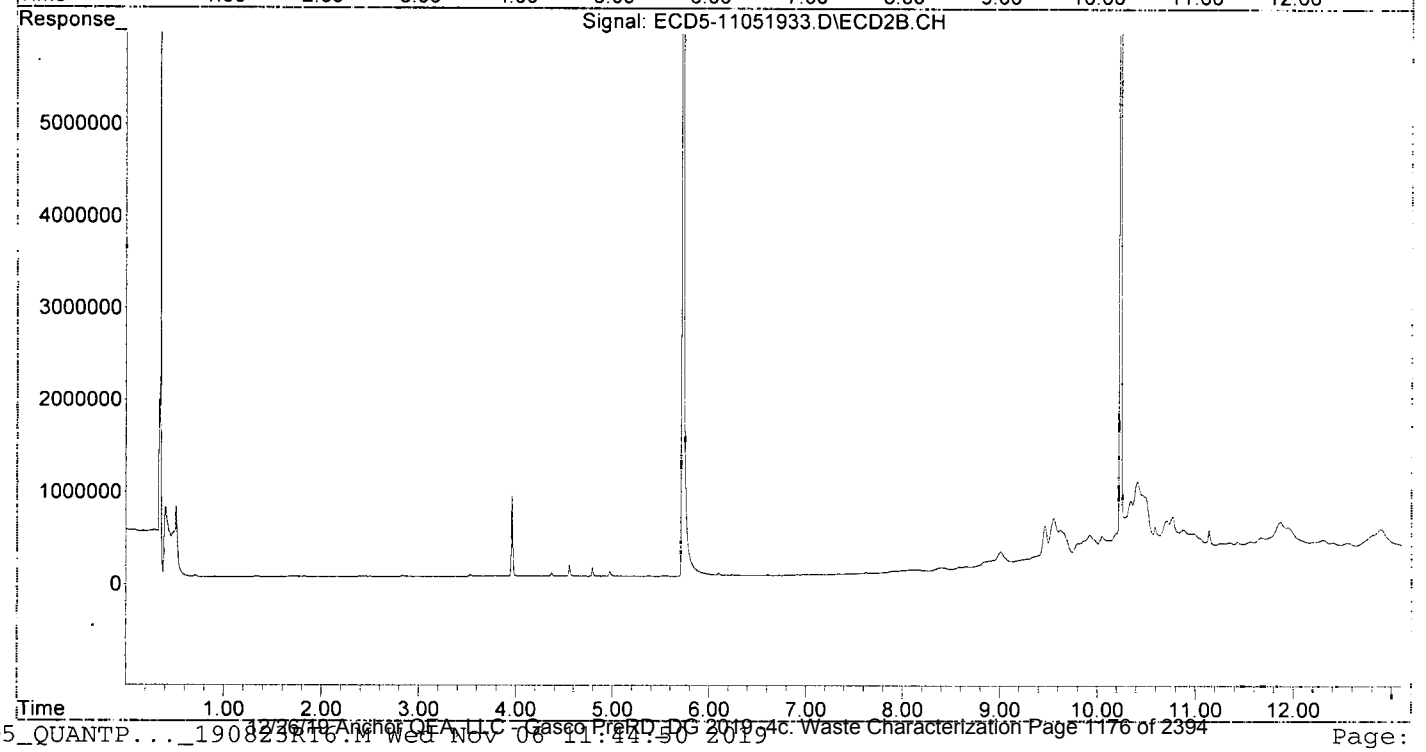
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

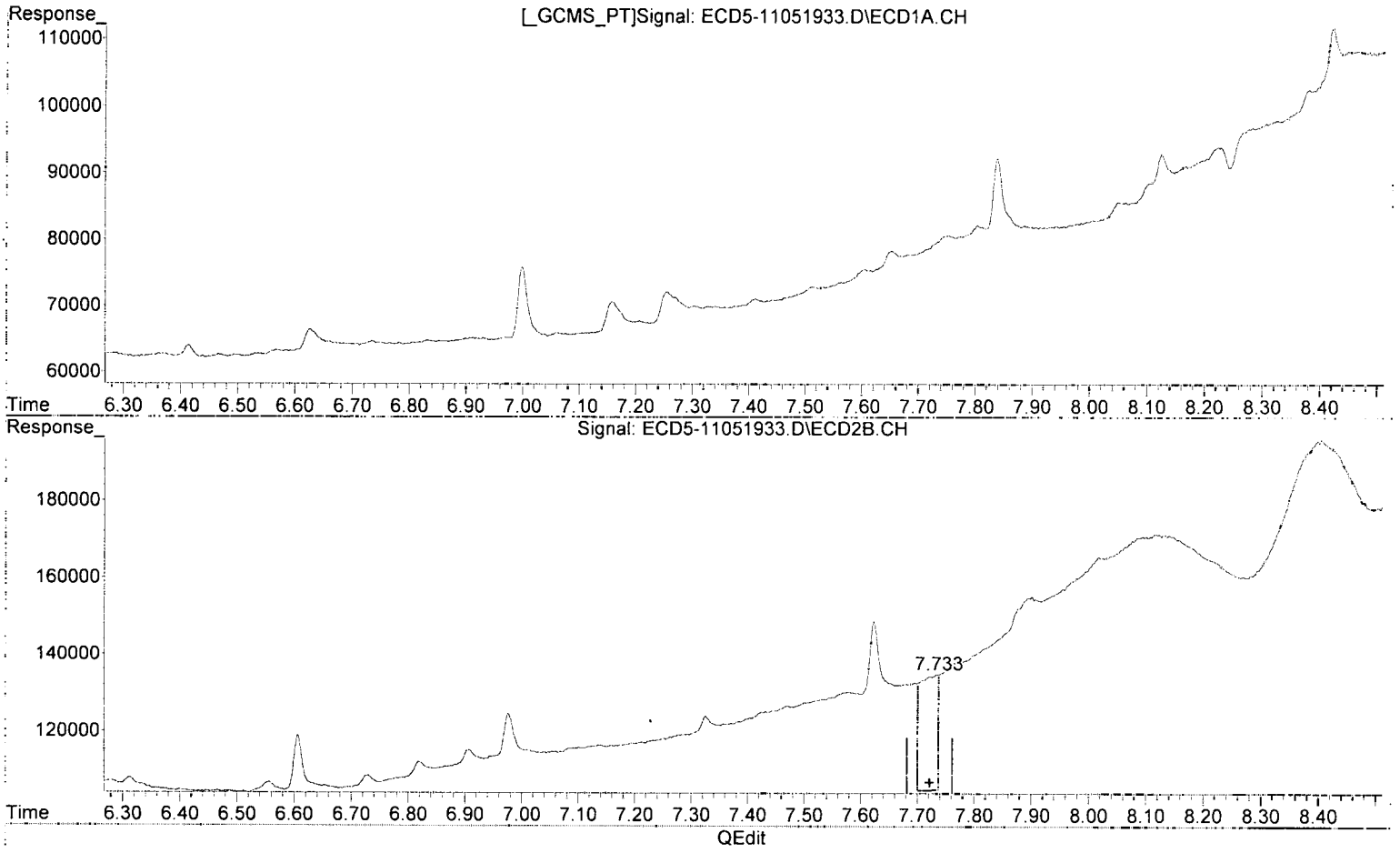




Quantitation Report (Qedit)

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)

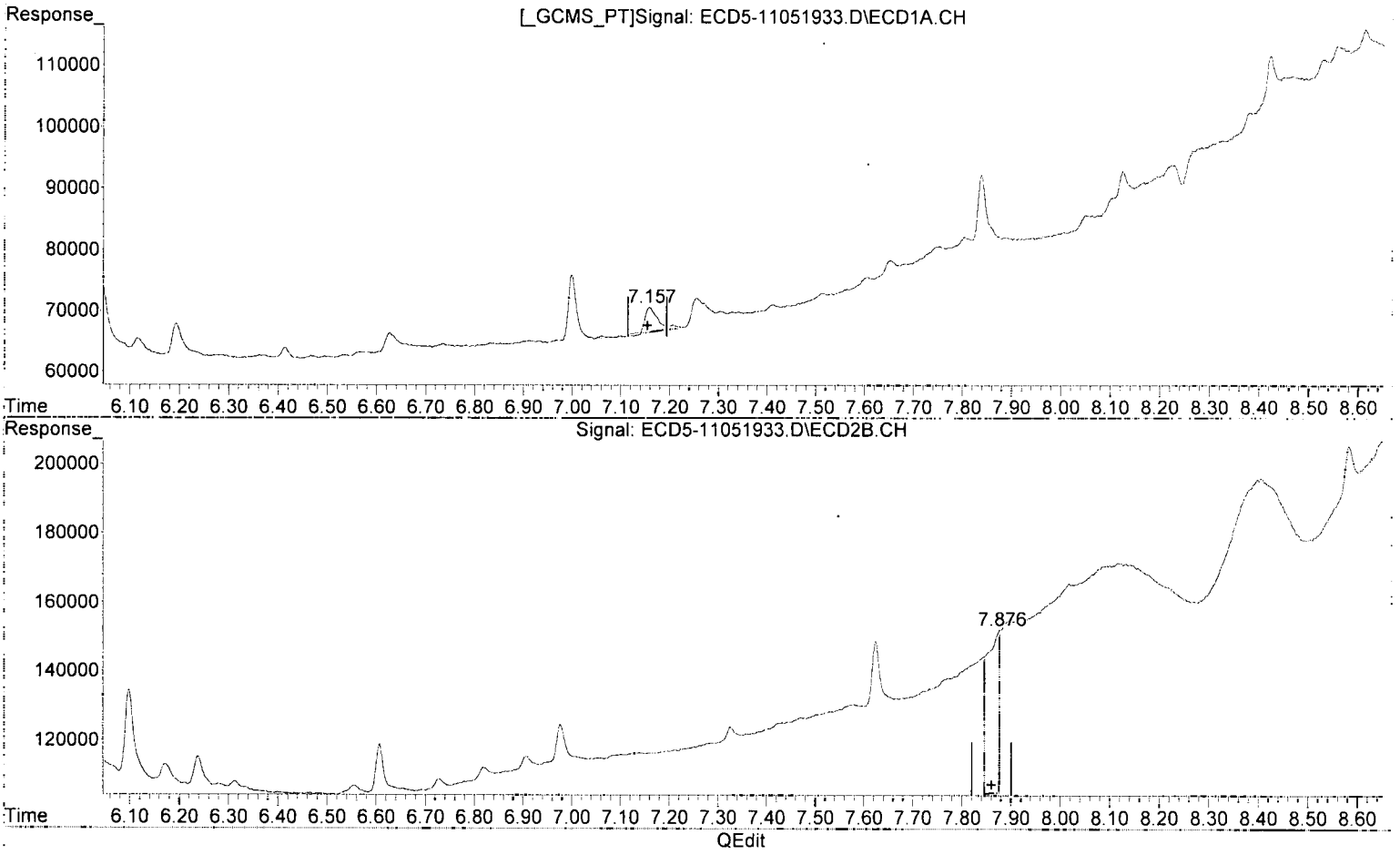
response 29958

(+) = 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

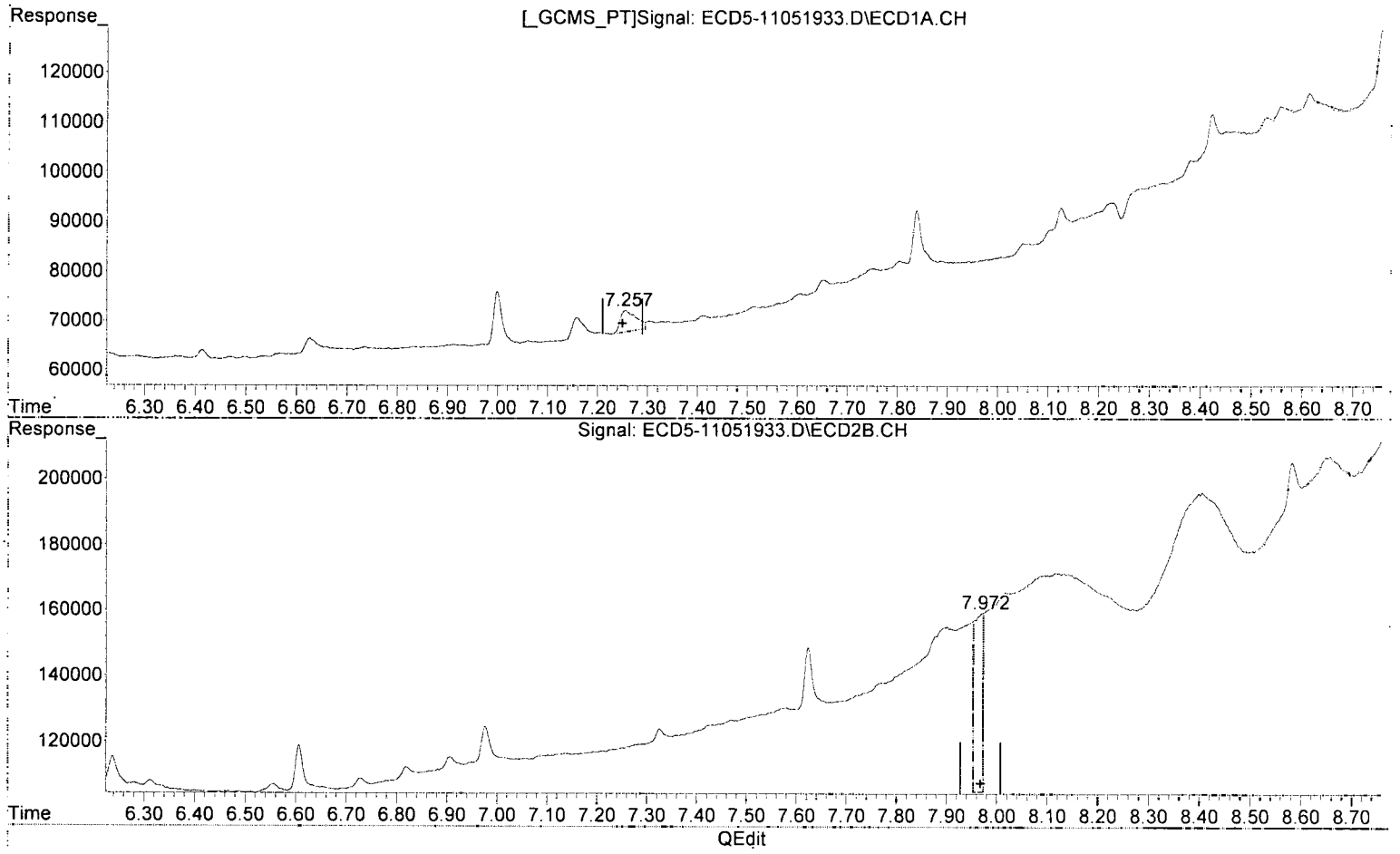
response 47242

(+) = 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)

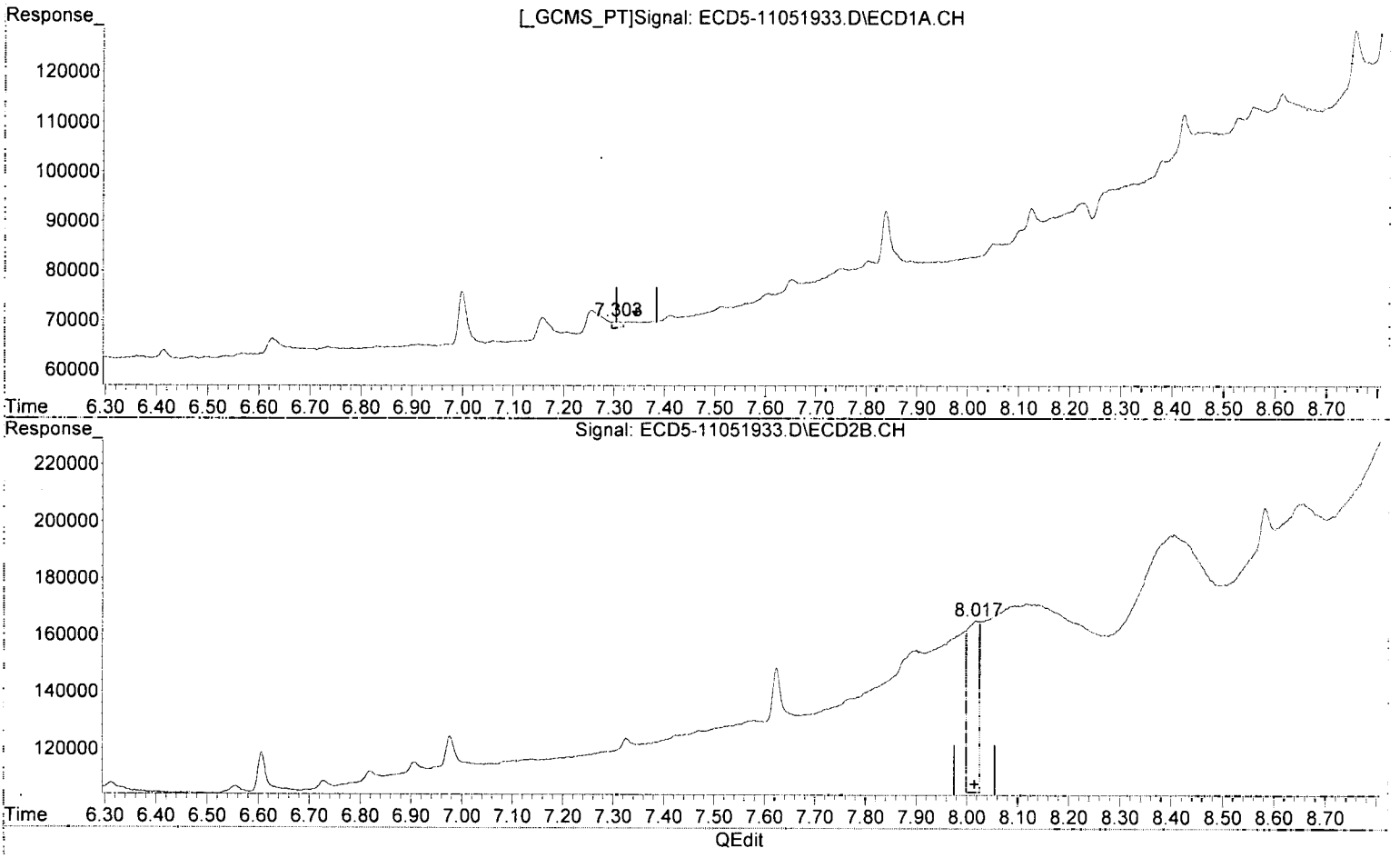
response 54507

(+) = 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)

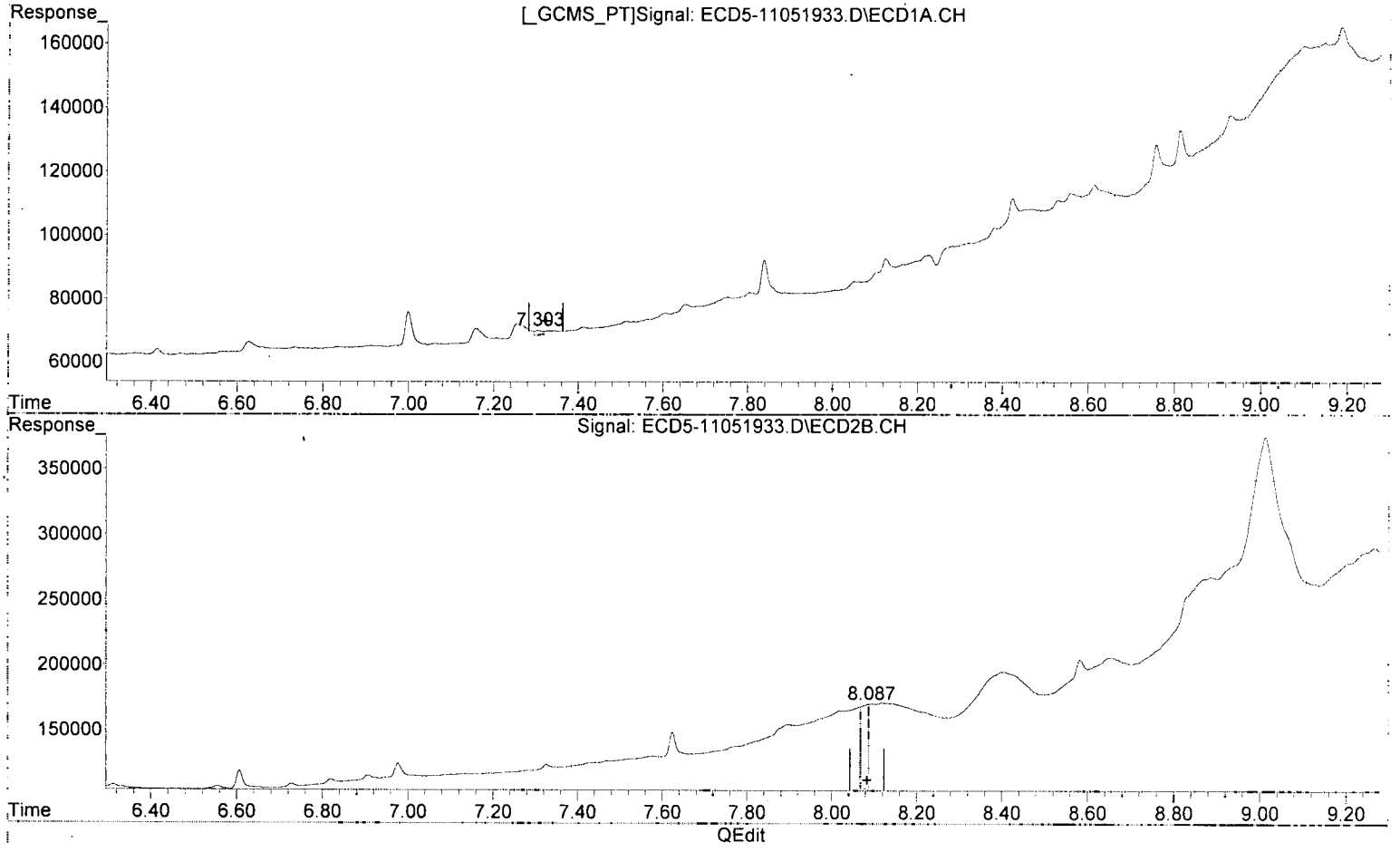
response 60519

(+) = 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)

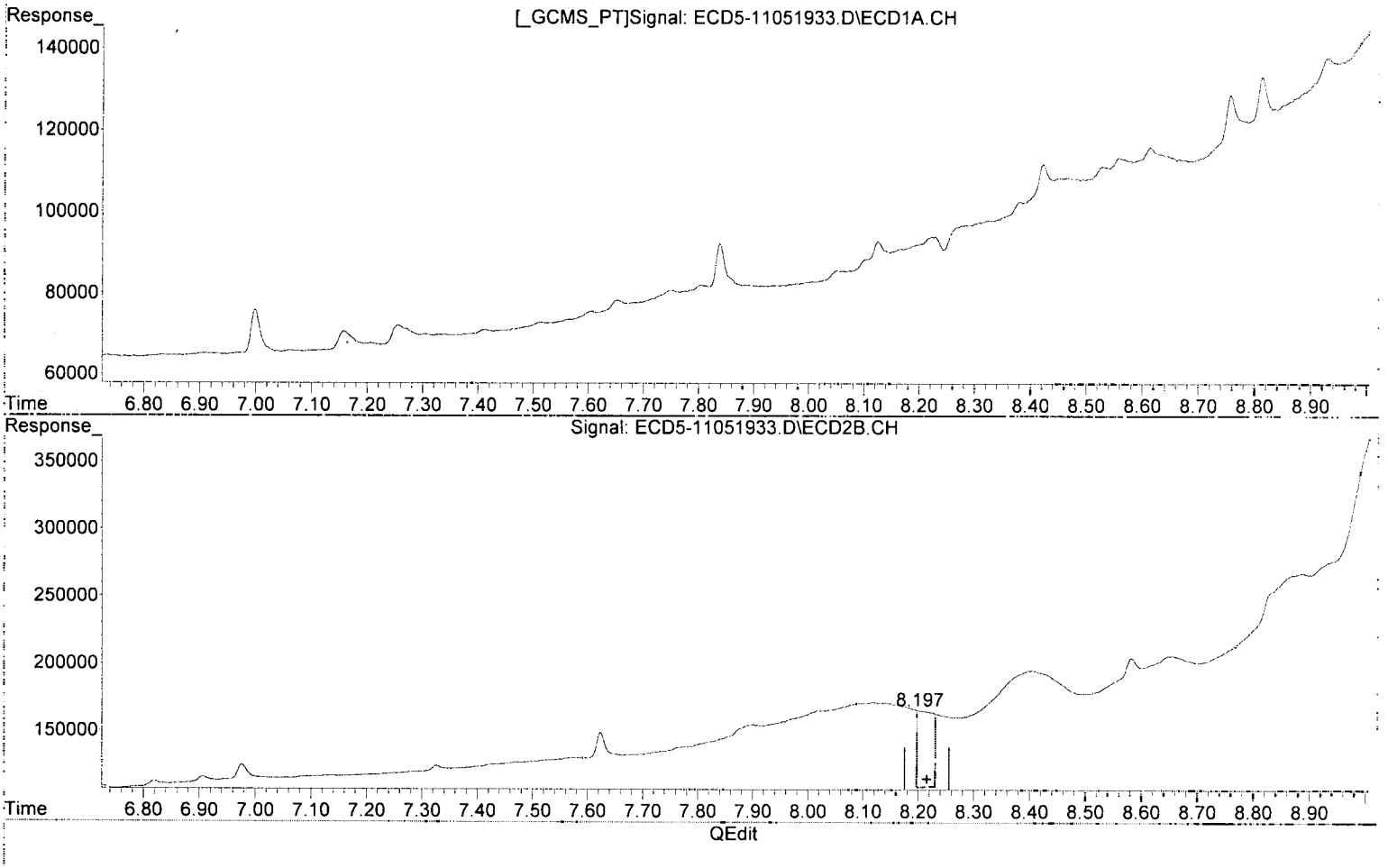
response 65732

(+) = 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

MB 11/6/19

(13) Dieldrin #2

8.197min 0.188 ng/mL (m)

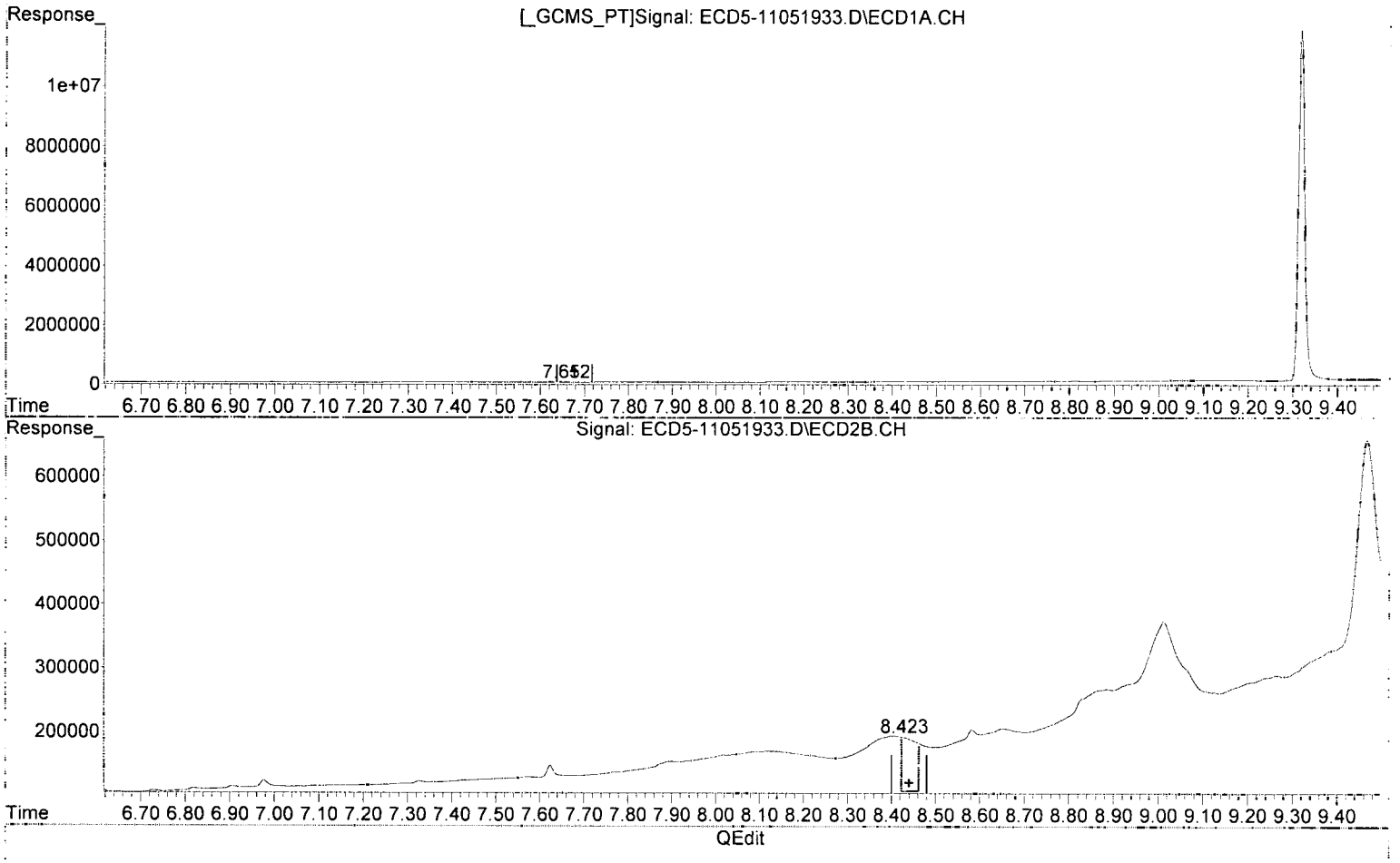
response 57057

(+) = 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

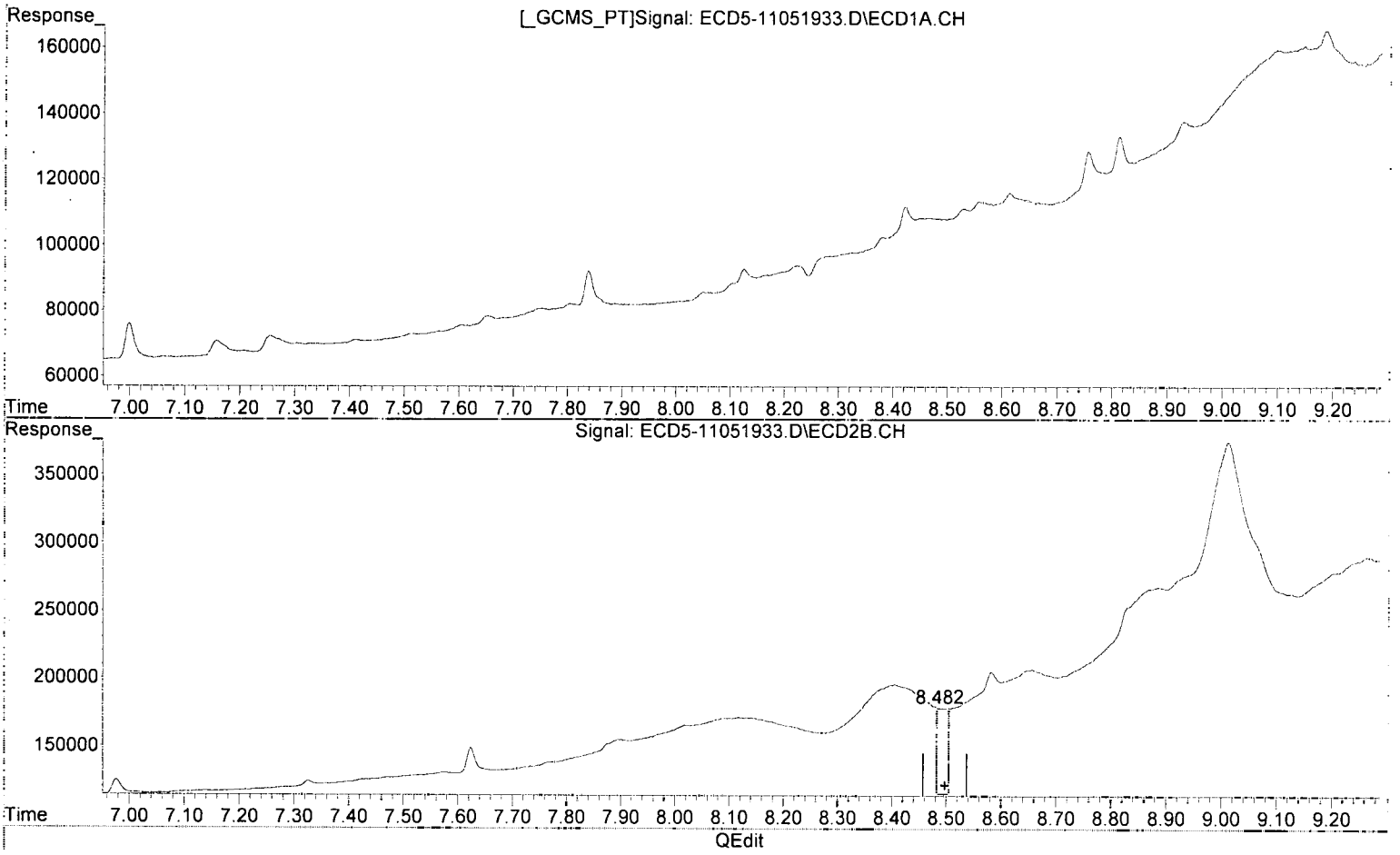
response 85738

(+) = 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)

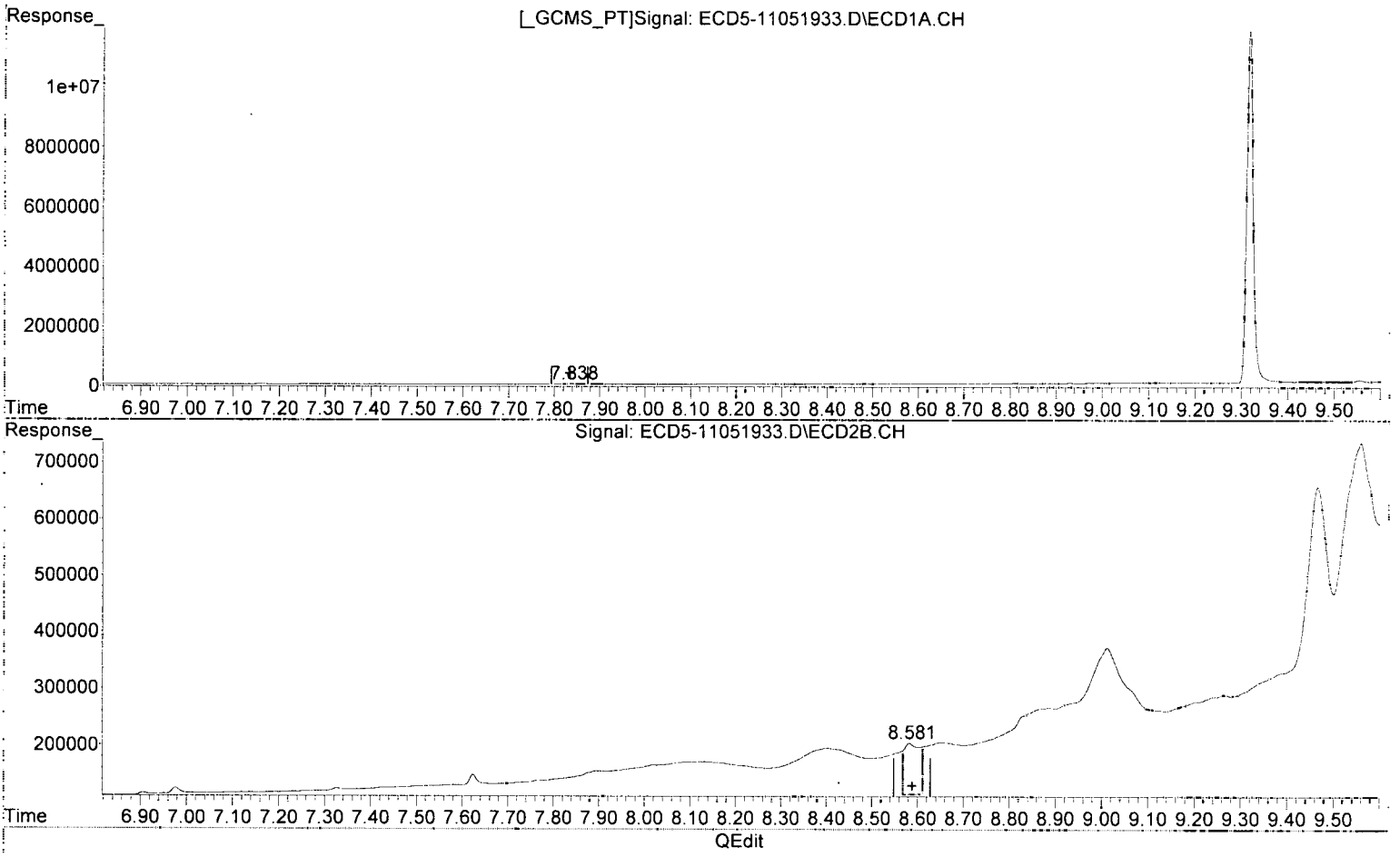
response 64140

(+) = 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 11/6/19

(16) Endosulfan II #2

8.581min 0.395 ng/mL (m)

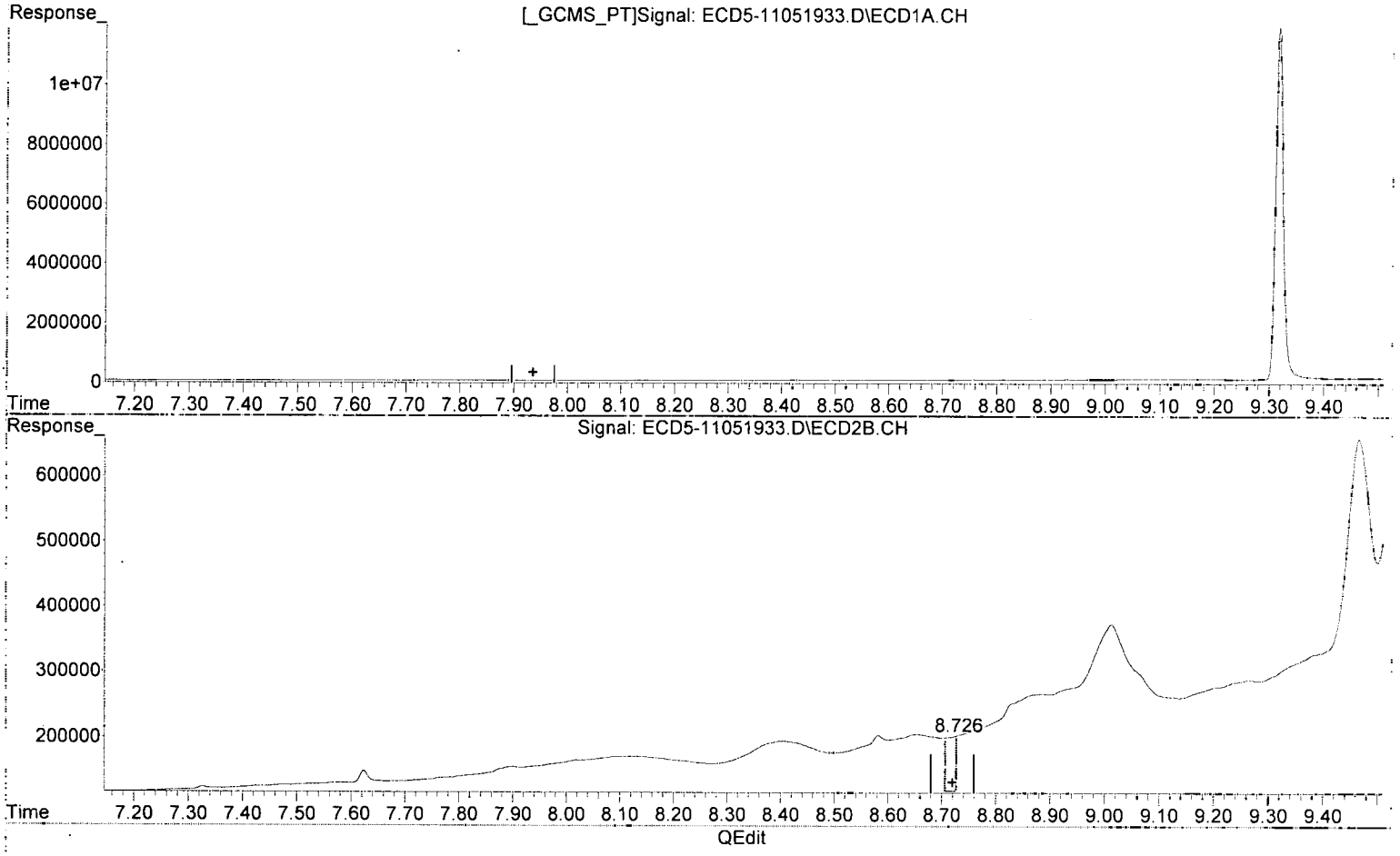
response 91134

(+) = 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)

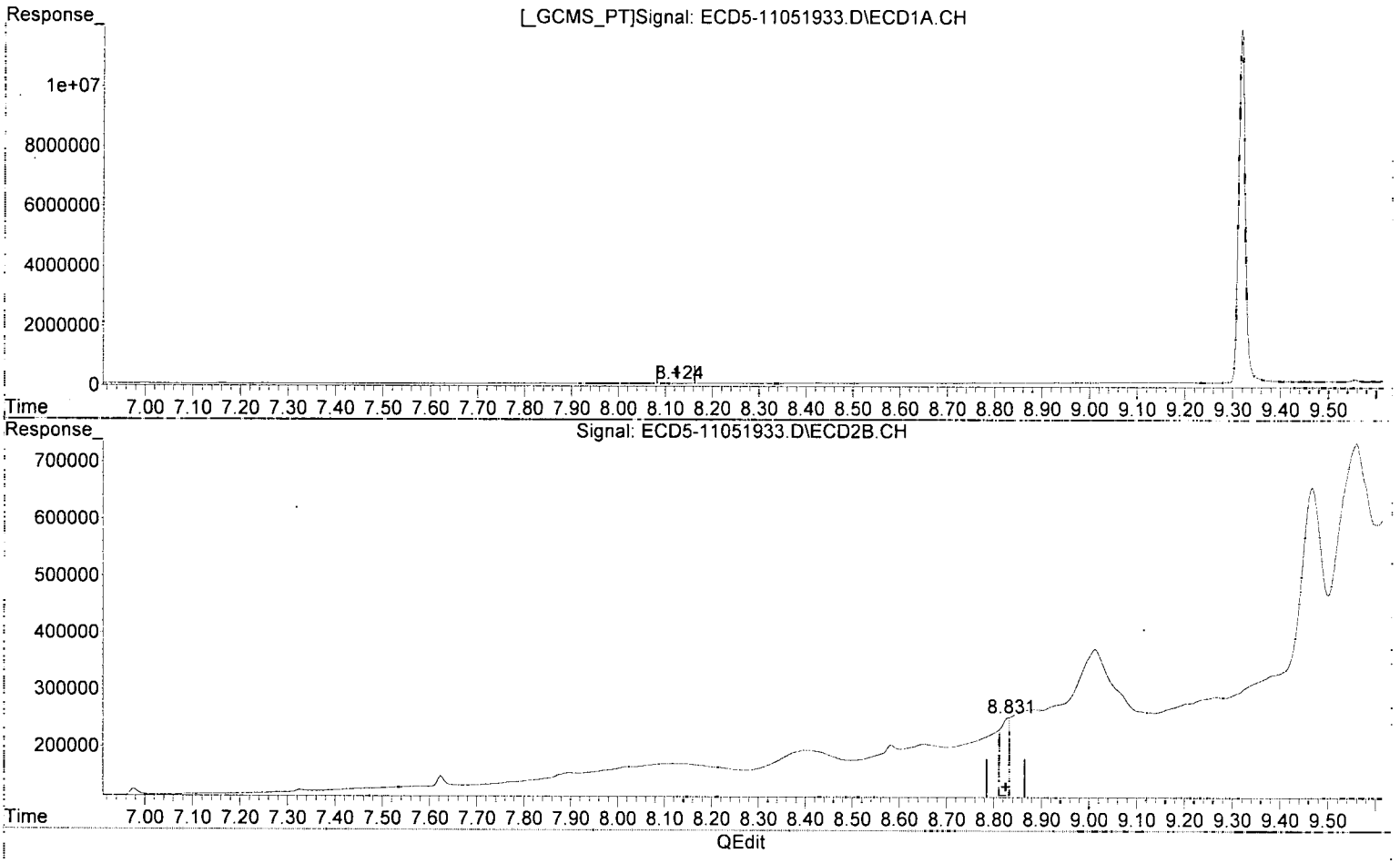
response 85413

(+) = 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

MJB 11/6/19

(18) Endrin Aldehyde #2

8.831min -0.095 ng/mL (m)

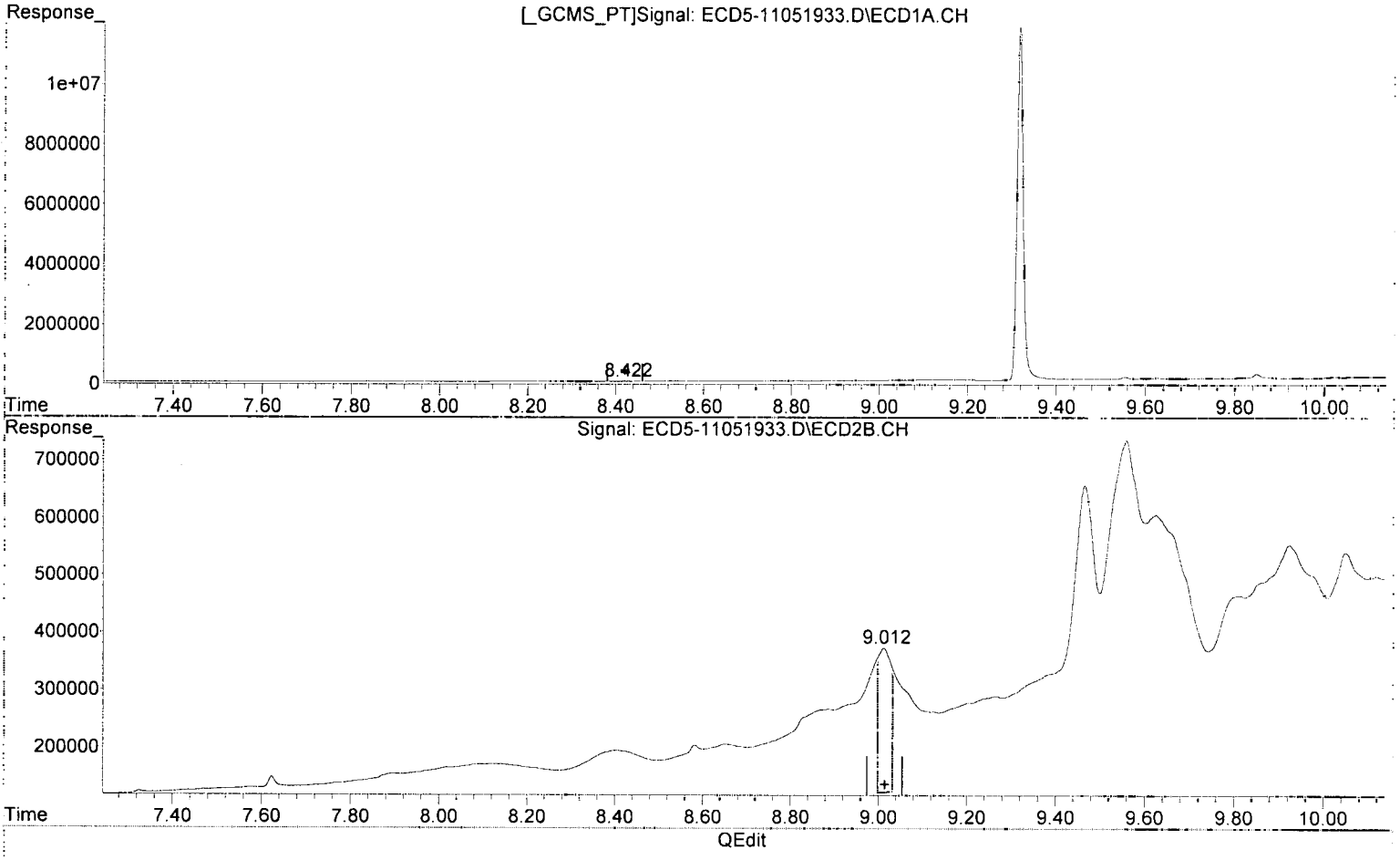
response 137698

(+) = 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

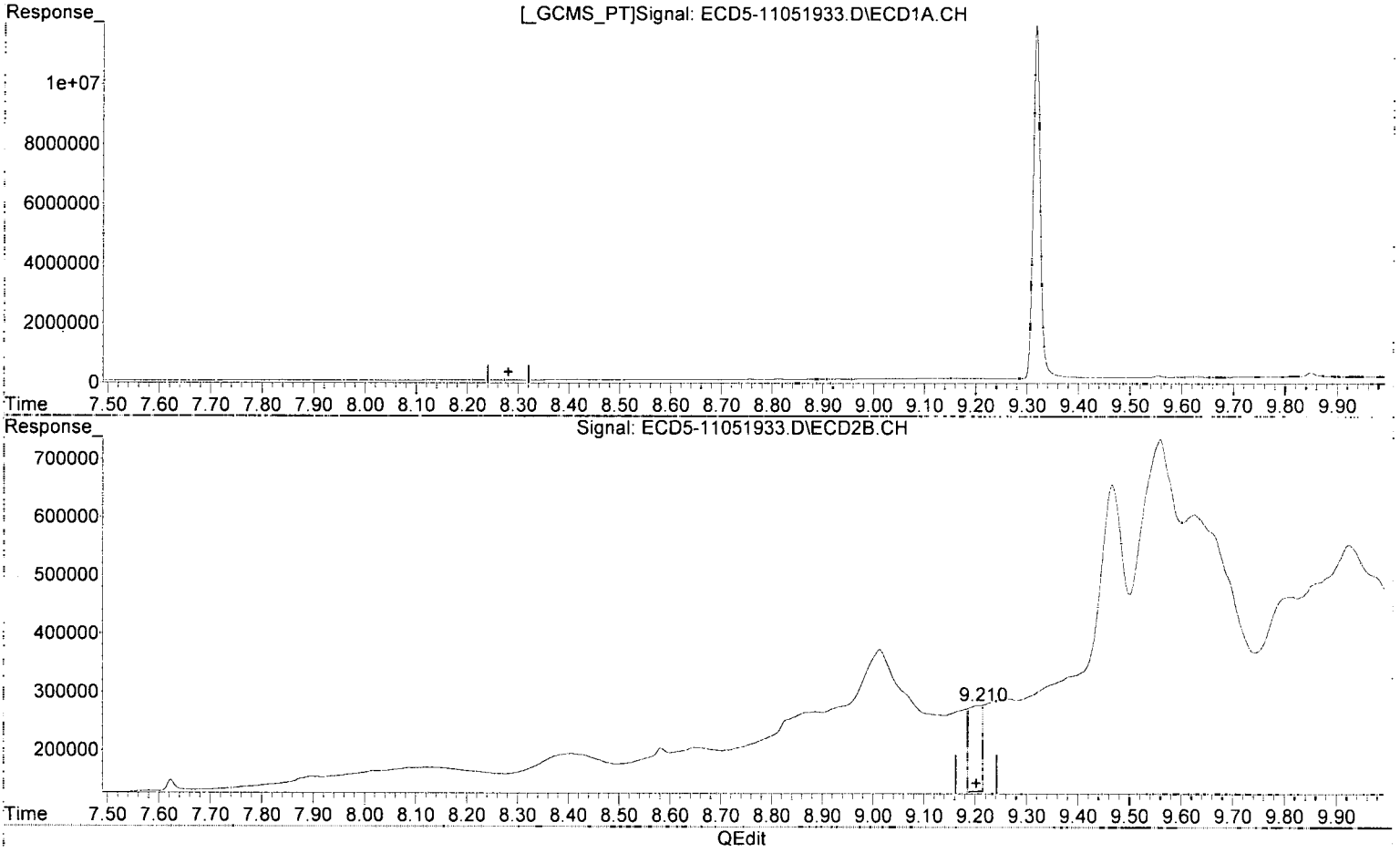
AP-01

(+) = 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

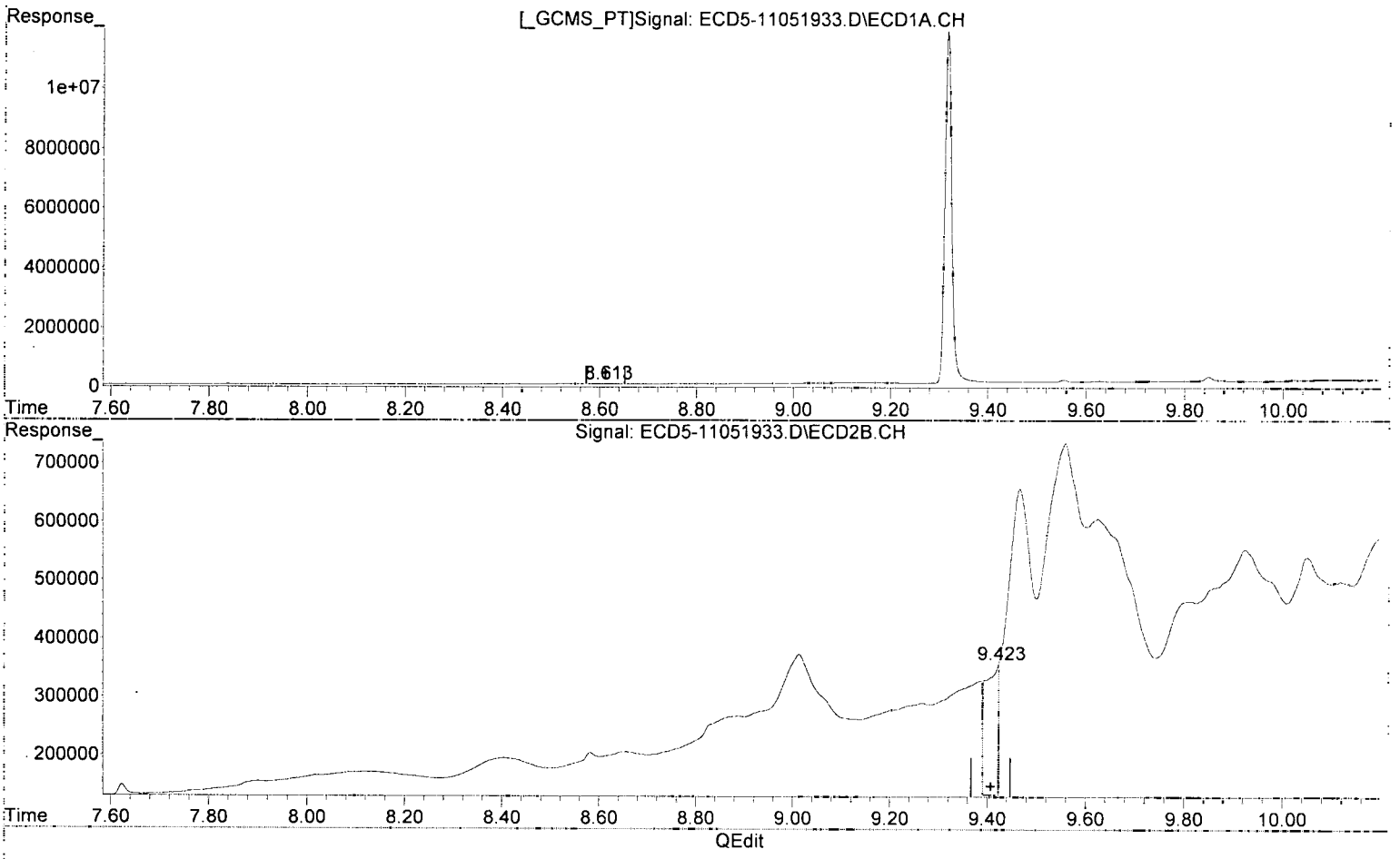
response 147791

(+) = 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

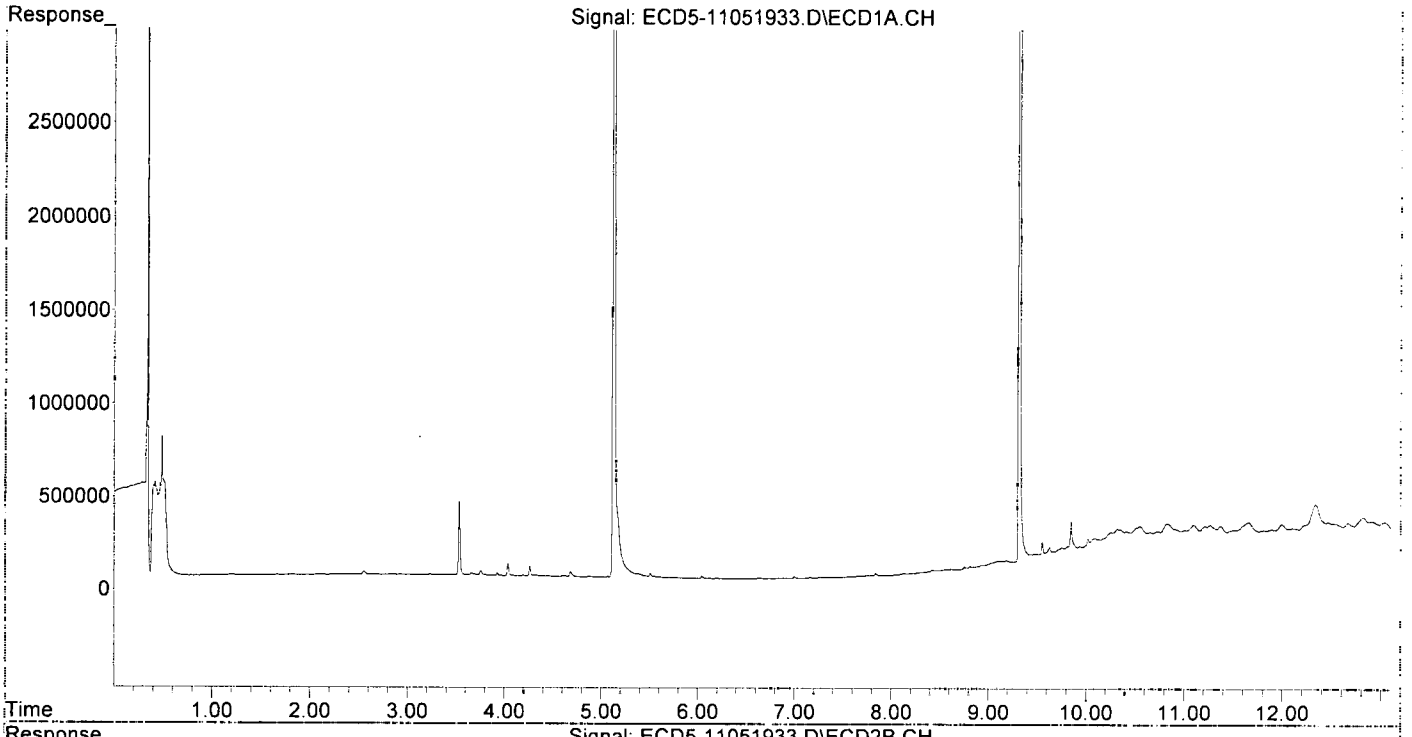
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.127	5.724	15271390	25235446	92.010	86.020	
22)	S	DCBP (S)	9.318	10.235	11806848	19188170	83.678	106.741	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
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.	

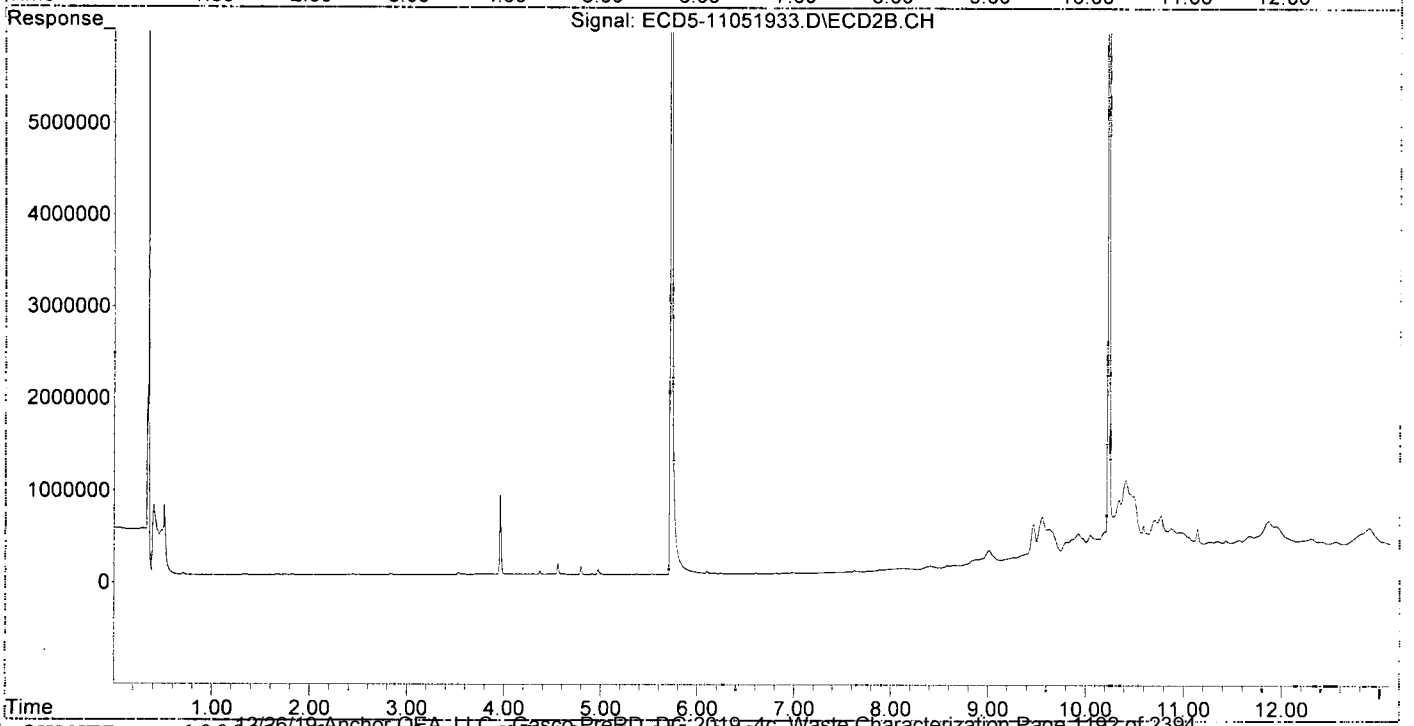
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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) DualECD5

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9H23034**	Instrument:	**DUALECD5**
Date:	**08/23/19 11:23**	Calibration:	**A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9H23034-BKD1	Water	QC	QC				A19G138
2	9H23034-BKD2	Water	QC	QC				A19G138
3	9H23034-ICB1	Water	QC	QC				A19H348
4	9H23034-CAL1	Water	QC	QC				A19E245
5	9H23034-CAL2	Water	QC	QC				A19E246
6	9H23034-CAL3	Water	QC	QC				A19E247
7	9H23034-CAL4	Water	QC	QC				A19E249
8	9H23034-CAL5	Water	QC	QC				A19E250
9	9H23034-CAL6	Water	QC	QC				A19H383
10	9H23034-CAL7	Water	QC	QC				A19H384
11	9H23034-CAL8	Water	QC	QC				A19E244
12	9H23034-IBL1	Water	QC	QC				
13	9H23034-ICV1	Water	QC	QC				A19E106
14	9H23034-CAL9	Water	QC	QC				A19E272
15	9H23034-CALA	Water	QC	QC				A19E273
16	9H23034-CALB	Water	QC	QC				A19E274
17	9H23034-CALC	Water	QC	QC				A19E275
18	9H23034-CALD	Water	QC	QC				A19E276
19	9H23034-CALE	Water	QC	QC				A19E154
20	9H23034-CALF	Water	QC	QC				A19E155
21	9H23034-CALG	Water	QC	QC				A19E271
22	9H23034-IBL2	Water	QC	QC				
23	9H23034-ICV2	Water	QC	QC				A19E043
24	9H23034-CALH	Water	QC	QC				A19F232
25	9H23034-CALI	Water	QC	QC				A19F233
26	9H23034-CALJ	Water	QC	QC				A19F234
27	9H23034-CALK	Water	QC	QC				A19F235
28	9H23034-CALL	Water	QC	QC				A19F236
29	9H23034-CALM	Water	QC	QC				A19F231
30	9H23034-IBL3	Water	QC	QC				
31	9H23034-ICV3	Water	QC	QC				A19E108
32	9H23034-CALN	Water	QC	QC				A19D122
33	9H23034-CALO	Water	QC	QC				A19D123
34	9H23034-CALP	Water	QC	QC				A19D124
35	9H23034-CALQ	Water	QC	QC				A19D125
36	9H23034-CALR	Water	QC	QC				A19D126
37	9H23034-CALS	Water	QC	QC				A19D121
38	9H23034-IBL4	Water	QC	QC				
39	9H23034-ICV4	Water	QC	QC				A19D127

Data Entered By: MJB 8/26/19

Comments: ICAL

Data Reviewed By: [illegible] 8/30/19

Calibration Status Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

A9H2608

MJB 8/26/19

#	ID	Conc	ISTD Conc	Path\File
1	1	50	0	R:\data\2019-08\9H23034\ECD5-08231936.D
2	2	100	0	R:\data\2019-08\9H23034\ECD5-08231937.D
3	3	200	0	R:\data\2019-08\9H23034\ECD5-08231938.D
4	4	500	0	R:\data\2019-08\9H23034\ECD5-08231939.D
5	5	1000	0	R:\data\2019-08\9H23034\ECD5-08231940.D
6	6	2000	0	R:\data\2019-08\9H23034\ECD5-08231941.D
7	7	-1	0	R:\data\2019-08\9H23034\ECD5-08231924.D
8	8	-1	0	R:\data\2019-08\9H23034\ECD5-08231925.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Aug 26 11:47 2019	Aug 26 11:37 2019	23 Aug 2019 21:54
2	2	Aug 26 11:47 2019	Aug 26 11:38 2019	23 Aug 2019 22:11
3	3	Aug 26 11:48 2019	Aug 26 11:39 2019	23 Aug 2019 22:28
4	4	Aug 26 11:48 2019	Aug 26 11:36 2019	23 Aug 2019 22:45
5	5	Aug 26 11:48 2019	Aug 26 11:40 2019	23 Aug 2019 23:03
6	6	Aug 26 11:48 2019	Aug 26 11:40 2019	23 Aug 2019 23:20
7	7	Aug 26 11:46 2019	Aug 26 11:26 2019	23 Aug 2019 18:27
8	8	Aug 26 11:46 2019	Aug 26 11:27 2019	23 Aug 2019 18:45

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:23 2019

Response Factor Report DUALECD5

Method Path : C:\msdchem\4\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD5-08231936.D 2 =ECD5-08231937.D 3 =ECD5-08231938.D 4 =ECD5-08231939.D 5 =ECD5-08231940.D
6 =ECD5-08231941.D 7 =ECD5-08231924.D 8 =ECD5-08231925.D

		Compound	1	2	3	4	5	6	7	8	Avg		%RSD
1)	S	TCMX (S)	1.767	1.750	1.668	1.644	1.606	1.614	1.585	1.642	1.660	E5	4.00
2)		a-BHC	2.320	2.292	2.296	2.347	2.221	2.274	2.236	2.360	2.293	E5	2.14
3)		g-BHC	2.074	2.030	2.041	2.035	1.950	1.957	1.960	2.094	2.018	E5	2.76
4)		b-BHC	1.043	0.971	0.914	0.911	0.824	0.820	0.836	0.912	0.904	E5	8.59
5)		Heptachlor	1.921	1.848	1.798	1.820	1.726	1.747	1.755	1.889	1.813	E5	3.86
6)		d-BHC	1.998	1.935	2.008	2.006	1.867	1.922	1.948	2.051	1.967	E5	3.02
7)		Aldrin	2.055	1.998	2.025	2.011	1.938	1.866	1.911	1.992	1.974	E5	3.23
8)		Heptachlor Exp...	2.005	1.960	1.847	1.865	1.738	1.774	1.732	1.813	1.842	E5	5.42
9)		trans-Chlordane	1.972	1.911	1.853	1.848	1.761	1.792	1.773	1.881	1.849	E5	3.93
10)		cis-Chlordane	2.098	1.950	1.818	1.843	1.698	1.725	1.674	1.760	1.821	E5	7.86
11)		Endosulfan I	1.852	1.787	1.723	1.709	1.645	1.597	1.609	1.693	1.702	E5	5.13
12)		4,4'-DDE	1.934	1.943	1.907	1.891	1.828	1.835	1.805	1.938	1.885	E5	2.92
13)		Dieldrin	1.977	1.979	1.944	1.955	1.833	1.877	1.832	1.961	1.920	E5	3.25
14)		Endrin	1.564	1.493	1.478	1.476	1.404	1.396	1.381	1.571	1.470	E5	4.98
15)		4,4'-DDD	1.650	1.573	1.581	1.566	1.491	1.545	1.544	1.622	1.571	E5	3.11
16)		Endosulfan II	1.581	1.496	1.419	1.448	1.349	1.368	1.354	1.474	1.436	E5	5.61
17)		4,4'-DDT	1.139	1.091	1.106	1.147	1.170	1.241	1.218	1.454	1.196	E5	9.72
18)		Endrin Aldehyde	2.413	1.641	1.367	1.375	1.248	1.245	1.236	1.331	1.482	E5	26.87
19)		Endosulfan Sul...	1.761	1.611	1.538	1.554	1.458	1.484	1.437	1.556	1.550	E5	6.64
20)		Methoxychlor	5.966	5.573	5.408	5.617	5.561	5.721	5.877	7.136	5.857	E4	9.33
21)		Endrin Ketone	1.776	1.656	1.623	1.664	1.604	1.638	1.625	1.755	1.668	E5	3.80
22)	S	DCBP (S)	1.639	1.550	1.402	1.335	1.337	1.336	1.341	1.349	1.411	E5	8.33
23)		Hexachlorobuta...	1.982	1.879	1.918	1.838	1.746	1.752	1.795	1.708	1.827	E5	5.17
24)		Hexachlorobenzene	1.947	1.810	1.708	1.712	1.674	1.782	1.767	1.704	1.763	E5	4.96
25)		Oxychlordane	1.768	1.697	1.639	1.592	1.553	1.677	1.636	1.602	1.645	E5	4.13
26)		2,4'-DDE	1.379	1.326	1.266	1.245	1.224	1.302	1.277	1.241	1.283	E5	4.01
27)		trans-Nonachlor	2.368	2.076	1.866	1.818	1.756	1.916	1.835	1.751	1.923	E5	10.78
28)		2,4'-DDD	1.202	1.165	1.122	1.104	1.098	1.184	1.159	1.096	1.141	E5	3.65
29)		2,4'-DDT	1.071	1.021	1.074	1.052	1.092	1.137	1.177	1.151	1.097	E5	4.88
30)		cis-Nonachlor	2.192	2.117	2.052	2.032	1.997	2.123	2.093	2.002	2.076	E5	3.25
31)		Mirex	1.474	1.334	1.257	1.196	1.164	1.244	1.196	1.164	1.254	E5	8.39
32)		Chlordane (1)	2.018	1.979	1.925	1.926	1.964	2.002			1.969	E4	1.96
33)		Chlordane (2)	2.573	2.520	2.453	2.435	2.508	2.549			2.506	E4	2.14
34)		Chlordane (3)	5.762	5.482	5.508	5.843	5.988	6.104			5.781	E3	4.34
35)		Chlordane - AVE									0.000		-1.00
36)		Toxaphene (1)	9.850	9.158	8.802	8.837	8.719	8.373			8.956	E2	5.64
37)		Toxaphene (2)	1.766	1.661	1.588	1.639	1.556	1.479			1.615	E3	6.08
38)		Toxaphene (3)	3.388	3.328	3.222	3.355	3.496	3.416			3.367	E3	2.72
39)		Toxaphene (4)	3.286	3.203	3.162	3.299	3.287	3.204			3.240	E3	1.78
40)		Toxaphene (5)	2.294	2.290	2.272	2.443	2.546	2.537			2.397	E3	5.33
41)		Toxaphene (6)	3.063	3.026	2.990	3.247	3.407	3.255			3.165	E3	5.17
42)		Toxaphene - AVE									0.000		-1.00

MJB 5/26/19

Method Path : C:\msdchem\4\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5

Signal #2 Calibration Files
1 =ECD5-08231936.D 2 =ECD5-08231937.D 3 =ECD5-08231938.D
4 =ECD5-08231939.D 5 =ECD5-08231940.D 6 =ECD5-08231941.D

		Compound	1	2	3	4	5	6	Avg		%RSD
44)	S	TCMX (S) #2	3.001	3.004	2.876	2.866	2.829	2.839	2.926	3.129 2.934 E5	3.54
45)		a-BHC #2	3.931	3.923	3.971	4.096	3.964	4.053	4.170	4.719 4.103 E5	6.41
46)		g-BHC #2	3.523	3.455	3.485	3.477	3.403	3.476	3.679	4.038 3.567 E5	5.79
47)		b-BHC #2	1.763	1.676	1.577	1.581	1.471	1.503	1.463	1.628 1.583 E5	6.60
48)		Heptachlor #2	3.098	2.934	3.016	3.006	2.913	2.919	3.028	3.564 3.060 E5	6.98
49)		d-BHC #2	3.491	3.346	3.435	3.614	3.299	3.462	3.518	4.049 3.527 E5	6.60
50)		Aldrin #2	3.175	3.177	3.202	3.341	3.151	3.253	3.391	3.661 3.294 E5	5.19
51)		Heptachlor Exp...	3.101	3.031	2.912	2.959	2.826	2.968	3.005	3.267 3.008 E5	4.40
52)		trans-Chlordan...	3.641	3.222	3.004	3.003	2.863	2.936	3.074	3.322 3.133 E5	8.10
53)		cis-Chlordane #2	2.994	2.898	2.870	2.860	2.774	2.800	2.904	3.199 2.912 E5	4.59
54)		Endosulfan I #2	2.789	2.702	2.654	2.724	2.629	2.742	2.721	3.052 2.752 E5	4.77
55)		4,4'-DDE #2	2.985	2.990	2.976	3.050	3.000	3.111	3.250	3.492 3.107 E5	5.82
56)		Dieldrin #2	2.967	2.919	2.925	2.899	2.934	3.087	3.100	3.502 3.042 E5	6.61
57)		Endrin #2	2.229	2.124	2.186	2.244	2.130	2.203	2.310	2.639 2.258 E5	7.32
58)		4,4'-DDD #2	2.515	2.441	2.417	2.425	2.459	2.632	2.630	2.978 2.562 E5	7.37
59)		Endosulfan II #2	2.322	2.311	2.193	2.244	2.179	2.307	2.302	2.592 2.306 E5	5.55
60)		4,4'-DDT #2	1.797	1.709	1.747	1.841	1.792	1.857	1.979	2.410 1.892 E5	11.88
61)		Endrin Aldehyd...	3.486	2.388	2.092	2.125	1.939	2.042	2.050	2.254 2.297 E5	21.77
62)		Endosulfan Sul...	2.658	2.494	2.352	2.425	2.392	2.430	2.448	2.730 2.491 E5	5.35
63)		Methoxychlor #2	0.952	0.890	0.828	0.883	0.867	0.869	0.944	1.186 0.927 E5	12.09
64)		Endrin Ketone #2	2.558	2.466	2.410	2.497	2.357	2.591	2.664	3.043 2.573 E5	8.31
65)	S	DCBP (S) #2	1.916	1.950	1.742	1.679	1.665	1.746	1.778	1.905 1.798 E5	6.18
66)		Hexachlorobuta...	3.832	3.773	3.755	3.702	3.557	3.727	3.930	3.799 3.759 E5	2.87
67)		Hexachlorobenz...	3.280	3.164	2.971	2.936	2.967	3.219	3.277	3.313 3.141 E5	5.04
68)		Oxychlordane #2	2.791	2.705	2.651	2.539	2.481	2.835	2.973	2.937 2.739 E5	6.49
69)		2,4'-DDE #2	2.192	2.059	2.059	2.018	2.000	2.201	2.216	2.225 2.121 E5	4.52
70)		trans-Nonachlo...	3.062	2.939	2.935	2.844	2.837	3.162	3.198	3.154 3.016 E5	4.84
71)		2,4'-DDD #2	1.920	1.868	1.797	1.779	1.756	1.985	2.012	1.992 1.889 E5	5.47
72)		2,4'-DDT #2	1.733	1.661	1.746	1.703	1.762	1.762	1.900	2.000 1.783 E5	6.24
73)		cis-Nonachlor #2	3.327	3.124	3.174	3.148	3.288	3.544	3.607	3.623 3.354 E5	6.23
74)		Mirex #2	2.098	1.941	1.791	1.723	1.655	1.820	1.936	1.921 1.861 E5	7.59
75)		Chlordane (1) #2	3.509	3.378	3.376	3.566	3.797	4.085		3.618 E4	7.62
76)		Chlordane (2) #2	2.945	2.906	2.942	2.962	3.149	3.314		3.036 E4	5.30
77)		Chlordane (3) #2	8.780	8.745	8.659	8.543	9.359	9.709		8.966 E3	5.14
78)		Chlordane - AV...								0.000	-1.00
79)		Toxaphene (1) #2	2.737	2.675	2.545	2.618	2.655	2.515		2.624 E3	3.16
80)		Toxaphene (2) #2	3.294	3.241	3.227	3.295	3.384	3.305		3.291 E3	1.70
81)		Toxaphene (3) #2	5.097	4.944	4.978	4.950	5.168	5.273		5.068 E3	2.65
82)		Toxaphene (4) #2	8.327	8.119	7.902	8.505	8.650	8.595		8.350 E3	3.51
83)		Toxaphene (5) #2	4.664	4.522	4.477	4.681	4.900	4.718		4.660 E3	3.24
84)		Toxaphene (6) #2	4.618	4.525	4.526	4.740	5.047	5.045		4.750 E3	5.10
85)		Toxaphene - AV...								0.000	-1.00

(#) = Out of Range

MJB 8/26/19

Compound List Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Total Cpnds : 85

MWB 8/26/19

PK#		Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1	S	TCMX (S)	5.394	1.000	A	H	R
2		a-BHC	5.934	1.000	A	H	R
3		g-BHC	6.218	1.000	A	H	R
4		b-BHC	6.296	1.000	A	H	R
5		Heptachlor	6.632	1.000	A	H	R
6		d-BHC	6.446	1.000	A	H	R
7		Aldrin	6.873	1.000	A	H	R
8		Heptachlor Expoxide	7.332	1.000	A	H	R
9		trans-Chlordane	7.428	1.000	A	H	R
10		cis-Chlordane	7.524	1.000	A	H	R
11		Endosulfan I	7.621	1.000	A	H	R
12		4,4'-DDE	7.583	1.000	A	H	R
13		Dieldrin	7.792	1.000	A	H	R
14		Endrin	7.957	1.000	A	H	R
15		4,4'-DDD	8.003	1.000	A	H	R
16		Endosulfan II	8.114	1.000	A	H	R
17		4,4'-DDT	8.202	1.000	A	H	R
18		Endrin Aldehyde	8.403	1.000	Q	H	R
19		Endosulfan Sulfate	8.705	1.000	A	H	R
20		Methoxychlor	8.540	1.000	A	H	R
21		Endrin Ketone	8.899	1.000	A	H	R
22	S	DCBP (S)	9.592	1.000	A	H	R
23		Hexachlorobutadiene	3.198	1.000	A	H	R
24		Hexachlorobenzene	5.774	1.000	A	H	R
25		Oxychlordane	7.261	1.000	A	H	R
26		2,4'-DDE	7.333	1.000	A	H	R
27		trans-Nonachlor	7.515	1.000	Q	H	R
28		2,4'-DDD	7.705	1.000	A	H	R
29		2,4'-DDT	7.887	1.000	A	H	R
30		cis-Nonachlor	7.985	1.000	A	H	R
31		Mirex	8.652	1.000	A	H	R
32		Chlordane (1)	7.427	1.000	A	H	R
33		Chlordane (2)	7.520	1.000	A	H	R
34		Chlordane (3)	8.067	1.000	A	H	R
35		Chlordane - AVE	3.447	1.000	A	H	R
36		Toxaphene (1)	7.502	1.000	A	H	R
37		Toxaphene (2)	7.794	1.000	A	H	R
38		Toxaphene (3)	8.105	1.000	A	H	R
39		Toxaphene (4)	8.346	1.000	A	H	R
40		Toxaphene (5)	8.574	1.000	A	H	R
41		Toxaphene (6)	8.640	1.000	A	H	R
42		Toxaphene - AVE	3.450	1.000	A	H	R
43		Signal #2	3.544	1.000	A	H	R
44	S	TCMX (S) #2	5.988	1.000	A	H	R
45		a-BHC #2	6.595	1.000	A	H	R
46		g-BHC #2	6.914	1.000	A	H	R
47		b-BHC #2	6.978	1.000	A	H	R
48		Heptachlor #2	7.290	1.000	A	H	R
49		d-BHC #2	7.231	1.000	A	H	R
50		Aldrin #2	7.555	1.000	A	H	R
51		Heptachlor Expoxide #2	7.992	1.000	A	H	R
52		trans-Chlordane #2	8.131	1.000	A	H	R
53		cis-Chlordane #2	8.238	1.000	A	H	R
54		Endosulfan I #2	8.289	1.000	A	H	R
55		4,4'-DDE #2	8.343	1.000	A	H	R
56		Dieldrin #2	8.489	1.000	A	H	R

57		Endrin #2	8.715	1.000	A	H	R
58		4,4'-DDD #2	8.758	1.000	A	H	R
59		Endosulfan II #2	8.863	1.000	A	H	R
60		4,4'-DDT #2	8.984	1.000	Q	H	R
61		Endrin Aldehyde #2	9.099	1.000	Q	H	R
62		Endosulfan Sulfate #2	9.289	1.000	A	H	R
63		Methoxychlor #2	9.463	1.000	Q	H	R
64		Endrin Ketone #2	9.687	1.000	A	H	R
65	S	DCBP (S) #2	10.541	1.000	A	H	R
66		Hexachlorobutadiene #2	3.688	1.000	A	H	R
67		Hexachlorobenzene #2	6.454	1.000	A	H	R
68		Oxychlordane #2	7.920	1.000	A	H	R
69		2,4'-DDE #2	8.122	1.000	A	H	R
70		trans-Nonachlor #2	8.194	1.000	A	H	R
71		2,4'-DDD #2	8.495	1.000	A	H	R
72		2,4'-DDT #2	8.718	1.000	A	H	R
73		cis-Nonachlor #2	8.758	1.000	A	H	R
74		Mirex #2	9.679	1.000	A	H	R
75		Chlordane (1) #2	8.129	1.000	A	H	R
76		Chlordane (2) #2	8.236	1.000	A	H	R
77		Chlordane (3) #2	8.896	1.000	A	H	R
78		Chlordane - AVE #2	3.428	1.000	A	H	R
79		Toxaphene (1) #2	8.466	1.000	A	H	R
80		Toxaphene (2) #2	8.812	1.000	A	H	R
81		Toxaphene (3) #2	8.848	1.000	A	H	R
82		Toxaphene (4) #2	8.915	1.000	A	H	R
83		Toxaphene (5) #2	9.091	1.000	A	H	R
84		Toxaphene (6) #2	9.470	1.000	A	H	R
85		Toxaphene - AVE #2	3.434	1.000	A	H	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:34 2019

Calibration Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD5-08231936 2 =ECD5-08231937 3 =ECD5-08231938 4 =ECD5-08231939 5 =ECD5-08

6 =ECD5-08231941 7 =ECD5-08231924 8 =ECD5-08231925

MJB 5/26/19

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	S	TCMX (S)	Avg	-----	1.6598 e5	-----	0.0400
2)		a-BHC	Avg	-----	2.2933 e5	-----	0.0214
3)		g-BHC	Avg	-----	2.0178 e5	-----	0.0276
4)		b-BHC	Avg	-----	9.0384 e4	-----	0.0859
5)		Heptachlor	Avg	-----	1.8130 e5	-----	0.0386
6)		d-BHC	Avg	-----	1.9669 e5	-----	0.0302
7)		Aldrin	Avg	-----	1.9745 e5	-----	0.0323
8)		Heptachlor Expoxide	Avg	-----	1.8418 e5	-----	0.0542
9)		trans-Chlordane	Avg	-----	1.8489 e5	-----	0.0393
10)		cis-Chlordane	Avg	-----	1.8207 e5	-----	0.0786
11)		Endosulfan I	Avg	-----	1.7018 e5	-----	0.0513
12)		4,4'-DDE	Avg	-----	1.8853 e5	-----	0.0292
13)		Dieldrin	Avg	-----	1.9198 e5	-----	0.0325
14)		Endrin	Avg	-----	1.4703 e5	-----	0.0498
15)		4,4'-DDD	Avg	-----	1.5714 e5	-----	0.0311
16)		Endosulfan II	Avg	-----	1.4361 e5	-----	0.0561
17)		4,4'-DDT	Avg	-----	1.1956 e5	-----	0.0972
18)		Endrin Aldehyde	Quad	1.1904 e5	1.1635 e5	8.0472 e1	0.9966
19)		Endosulfan Sulfate	Avg	-----	1.5498 e5	-----	0.0664
20)		Methoxychlor	Avg	-----	5.8574 e4	-----	0.0933
21)		Endrin Ketone	Avg	-----	1.6676 e5	-----	0.0380
22)	S	DCBP (S)	Avg	-----	1.4110 e5	-----	0.0833
23)		Hexachlorobutadiene	Avg	-----	1.8274 e5	-----	0.0517
24)		Hexachlorobenzene	Avg	-----	1.7629 e5	-----	0.0496
25)		Oxychlordane	Avg	-----	1.6454 e5	-----	0.0413
26)		2,4'-DDE	Avg	-----	1.2826 e5	-----	0.0401
27)		trans-Nonachlor	Quad	5.6661 e4	1.7916 e5	-2.0512	0.9987
28)		2,4'-DDD	Avg	-----	1.1413 e5	-----	0.0365
29)		2,4'-DDT	Avg	-----	1.0969 e5	-----	0.0488
30)		cis-Nonachlor	Avg	-----	2.0762 e5	-----	0.0325
31)		Mirex	Avg	-----	1.2537 e5	-----	0.0839
32)		Chlordane (1)	Avg	-----	1.9690 e4	-----	0.0196
33)		Chlordane (2)	Avg	-----	2.5064 e4	-----	0.0214
34)		Chlordane (3)	Avg	-----	5.7811 e3	-----	0.0434
35)		Chlordane - AVE	Avg	-----	-----	-----	0.0000
36)		Toxaphene (1)	Avg	-----	8.9565 e2	-----	0.0564
37)		Toxaphene (2)	Avg	-----	1.6149 e3	-----	0.0608
38)		Toxaphene (3)	Avg	-----	3.3675 e3	-----	0.0272
39)		Toxaphene (4)	Avg	-----	3.2402 e3	-----	0.0178
40)		Toxaphene (5)	Avg	-----	2.3971 e3	-----	0.0533
41)		Toxaphene (6)	Avg	-----	3.1646 e3	-----	0.0517
42)		Toxaphene - AVE	Avg	-----	-----	-----	0.0000

Signal #2

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	S	TCMX (S)	Avg	-----	2.9337 e5	-----	0.0354
2)		a-BHC	Avg	-----	4.1034 e5	-----	0.0641
3)		g-BHC	Avg	-----	3.5670 e5	-----	0.0579
4)		b-BHC	Avg	-----	1.5827 e5	-----	0.0660
5)		Heptachlor	Avg	-----	3.0598 e5	-----	0.0698
6)		d-BHC	Avg	-----	3.5267 e5	-----	0.0660
7)		Aldrin	Avg	-----	3.2939 e5	-----	0.0519

8)		Heptachlor Expoxide	Avg	-----	3.0085 e5	-----	0.0440
9)		trans-Chlordane	Avg	-----	3.1333 e5	-----	0.0810
10)		cis-Chlordane	Avg	-----	2.9125 e5	-----	0.0459
11)		Endosulfan I	Avg	-----	2.7518 e5	-----	0.0477
12)		4,4'-DDE	Avg	-----	3.1068 e5	-----	0.0582
13)		Dieldrin	Avg	-----	3.0415 e5	-----	0.0661
14)		Endrin	Avg	-----	2.2583 e5	-----	0.0732
15)		4,4'-DDD	Avg	-----	2.5621 e5	-----	0.0737
16)		Endosulfan II	Avg	-----	2.3061 e5	-----	0.0555
17)		4,4'-DDT	Quad	6.5669 e3	1.7140 e5	3.3014 e2	0.9992
18)		Endrin Aldehyde	Quad	1.5509 e5	1.8265 e5	2.1823 e2	0.9961
19)		Endosulfan Sulfate	Avg	-----	2.4909 e5	-----	0.0535
20)		Methoxychlor	Quad	1.4992 e4	8.0453 e4	1.7846 e2	0.9988
21)		Endrin Ketone	Avg	-----	2.5732 e5	-----	0.0831
22)	S	DCBP (S)	Avg	-----	1.7976 e5	-----	0.0618
23)		Hexachlorobutadiene	Avg	-----	3.7593 e5	-----	0.0287
24)		Hexachlorobenzene	Avg	-----	3.1409 e5	-----	0.0504
25)		Oxychlordane	Avg	-----	2.7390 e5	-----	0.0649
26)		2,4'-DDE	Avg	-----	2.1214 e5	-----	0.0452
27)		trans-Nonachlor	Avg	-----	3.0164 e5	-----	0.0484
28)		2,4'-DDD	Avg	-----	1.8886 e5	-----	0.0547
29)		2,4'-DDT	Avg	-----	1.7834 e5	-----	0.0624
30)		cis-Nonachlor	Avg	-----	3.3545 e5	-----	0.0623
31)		Mirex	Avg	-----	1.8607 e5	-----	0.0759
32)		Chlordane (1)	Avg	-----	3.6185 e4	-----	0.0762
33)		Chlordane (2)	Avg	-----	3.0364 e4	-----	0.0530
34)		Chlordane (3)	Avg	-----	8.9659 e3	-----	0.0514
35)		Chlordane - AVE	Avg	-----	-----	-----	0.0000
36)		Toxaphene (1)	Avg	-----	2.6243 e3	-----	0.0316
37)		Toxaphene (2)	Avg	-----	3.2910 e3	-----	0.0170
38)		Toxaphene (3)	Avg	-----	5.0683 e3	-----	0.0265
39)		Toxaphene (4)	Avg	-----	8.3498 e3	-----	0.0351
40)		Toxaphene (5)	Avg	-----	4.6604 e3	-----	0.0324
41)		Toxaphene (6)	Avg	-----	4.7502 e3	-----	0.0510
42)		Toxaphene - AVE	Avg	-----	-----	-----	0.0000

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:42 2019

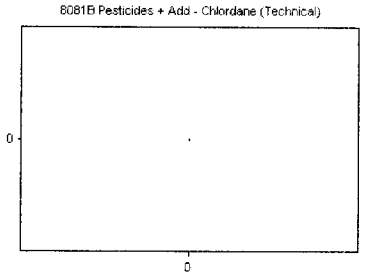
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Chlordane (Technical)

Curve Fit: **AVERAGE RF**

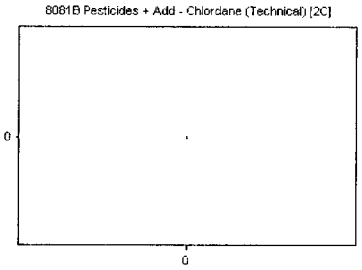


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~5365~~	~~107.300~~	~~3.45~~
~~9H23034-CALI~~	~~100~~	~~4938~~	~~49.380~~	~~3.45~~
~~9H23034-CALJ~~	~~200~~	~~4503~~	~~22.515~~	~~3.45~~
~~9H23034-CALK~~	~~500~~	~~4056~~	~~8.112~~	~~3.45~~
~~9H23034-CALL~~	~~1000~~	~~4825~~	~~4.825~~	~~3.45~~
~~9H23034-CALM~~	~~2000~~	~~4939~~	~~2.469~~	~~3.45~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Chlordane (Technical) [2C]

Curve Fit: **AVERAGE RF**

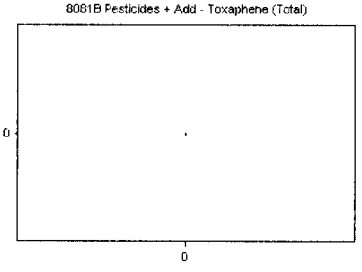


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALI~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALJ~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALK~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALL~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALM~~	~~2000~~	~~0~~	~~0.000~~	~~0.00~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Toxaphene (Total)

Curve Fit: **AVERAGE RF**

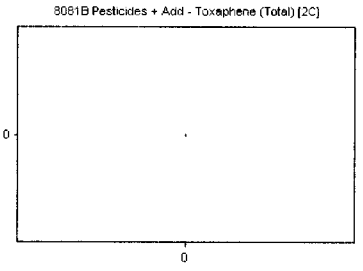


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~4023~~	~~80.460~~	~~3.45~~
~~9H23034-CALO~~	~~100~~	~~3536~~	~~35.360~~	~~3.45~~
~~9H23034-CALP~~	~~200~~	~~3919~~	~~19.595~~	~~3.45~~
~~9H23034-CALQ~~	~~500~~	~~4132~~	~~8.264~~	~~3.45~~
~~9H23034-CALR~~	~~1000~~	~~2687~~	~~2.687~~	~~3.45~~
~~9H23034-CALS~~	~~2000~~	~~4166~~	~~2.083~~	~~3.45~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Toxaphene (Total) [2C]

Curve Fit: **AVERAGE RF**

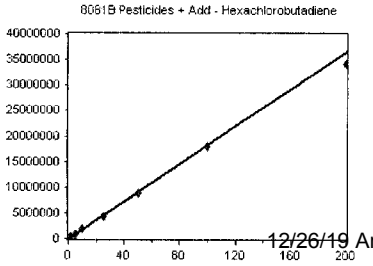


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALO~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALP~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALQ~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALR~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALS~~	~~2000~~	~~0~~	~~0.000~~	~~0.00~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	198207	198207.000	3.20
9H23034-CALA	2	375794	187897.000	3.20
9H23034-CALB	5	959211	191842.200	3.20
9H23034-CALC	10	1838187	183818.700	3.20
9H23034-CALD	25	4363988	174559.500	3.20
9H23034-CALE	50	8761747	175234.900	3.20
9H23034-CALF	100	795213E+07	179521.300	3.20
9H23034-CALG	200	416653E+07	170832.600	3.20

AVE RF **182739.200** RF RSD **5.17** AVE RT **3.20**

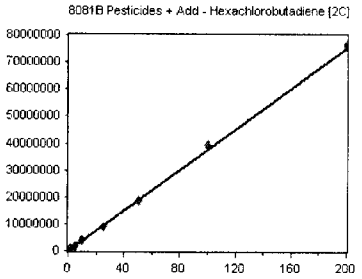
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Hexachlorobutadiene [2C]

Curve Fit: **AVERAGE RF**

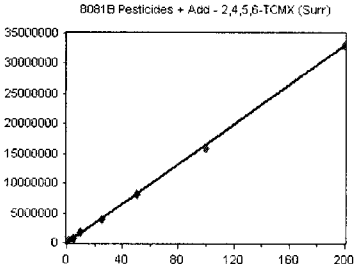


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	383198	383198.000	3.69
9H23034-CALA	2	754548	377274.000	3.69
9H23034-CALB	5	1877484	375496.800	3.69
9H23034-CALC	10	3701532	370153.200	3.69
9H23034-CALD	25	8892238	355689.500	3.69
9H23034-CALE	50	863562E+07	372712.400	3.69
9H23034-CALF	100	929888E+07	392988.800	3.69
9H23034-CALG	200	598857E+07	379942.800	3.69

AVE RF **375931.900** RF RSD **2.87** AVE RT **3.69**

2,4,5,6-TCMX (Surr)

Curve Fit: **AVERAGE RF**

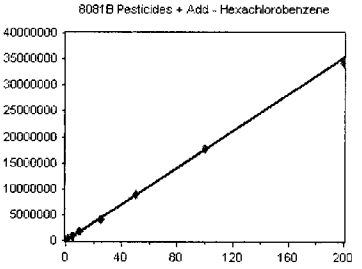


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176748	176748.000	5.40
9H23034-CAL2	2	349972	174986.000	5.40
9H23034-CAL3	5	834206	166841.200	5.40
9H23034-CAL4	10	1644447	164444.700	5.40
9H23034-CAL5	25	4015832	160633.300	5.39
9H23034-CAL6	50	8071481	161429.600	5.39
9H23034-CAL7	100	585092E+07	158509.200	5.40
9H23034-CAL8	200	284254E+07	164212.700	5.39

AVE RF **165975.600** RF RSD **4.00** AVE RT **5.40**

Hexachlorobenzene

Curve Fit: **AVERAGE RF**

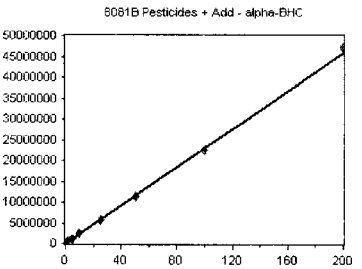


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	194679	194679.000	5.78
9H23034-CALA	2	362082	181041.000	5.78
9H23034-CALB	5	853793	170758.600	5.78
9H23034-CALC	10	1711884	171188.400	5.77
9H23034-CALD	25	4184551	167382.000	5.77
9H23034-CALE	50	8911624	178232.500	5.77
9H23034-CALF	100	767002E+07	176700.200	5.78
9H23034-CALG	200	407346E+07	170367.300	5.77

AVE RF **176293.600** RF RSD **4.96** AVE RT **5.77**

alpha-BHC

Curve Fit: **AVERAGE RF**

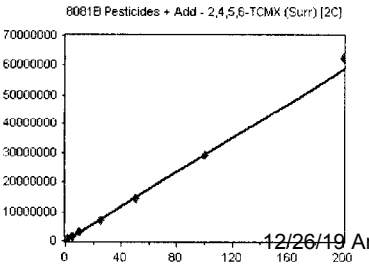


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	231994	231994.000	5.94
9H23034-CAL2	2	458365	229182.500	5.94
9H23034-CAL3	5	1147932	229586.400	5.94
9H23034-CAL4	10	2347065	234706.500	5.94
9H23034-CAL5	25	5553096	222123.800	5.94
9H23034-CAL6	50	136959E+07	227391.800	5.94
9H23034-CAL7	100	236358E+07	223635.800	5.94
9H23034-CAL8	200	720225E+07	236011.200	5.94

AVE RF **229329.000** RF RSD **2.14** AVE RT **5.94**

2,4,5,6-TCMX (Surr) [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	300053	300053.000	5.99
9H23034-CAL2	2	600766	300383.000	5.99
9H23034-CAL3	5	1437876	287575.200	5.99
9H23034-CAL4	10	2865854	286585.400	5.99
9H23034-CAL5	25	7072923	282916.900	5.99
9H23034-CAL6	50	419675E+07	283935.000	5.99
9H23034-CAL7	100	925633E+07	292563.300	5.99
9H23034-CAL8	200	258445E+07	312922.300	5.99

AVE RF **293366.800** RF RSD **3.54** AVE RT **5.99**

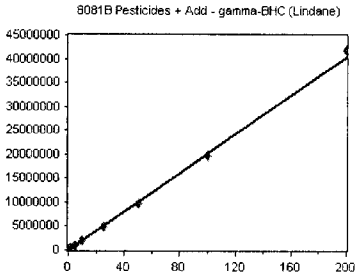
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

gamma-BHC (Lindane)

Curve Fit: **AVERAGE RF**

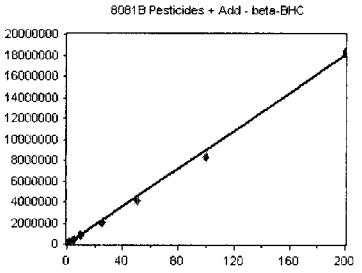


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	207427	207427.000	6.22
9H23034-CAL2	2	406027	203013.500	6.22
9H23034-CAL3	5	1020724	204144.800	6.22
9H23034-CAL4	10	2034859	203485.900	6.22
9H23034-CAL5	25	4875657	195026.300	6.22
9H23034-CAL6	50	9785999	195720.000	6.22
9H23034-CAL7	100	959509E+07	195950.900	6.22
9H23034-CAL8	200	188973E+07	209448.600	6.22

AVE RF **201777.100** RF RSD **2.76** AVE RT **6.22**

beta-BHC

Curve Fit: **AVERAGE RF**

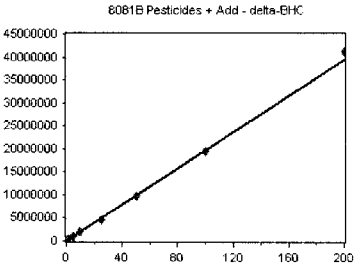


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	104326	104326.000	6.30
9H23034-CAL2	2	194168	97084.000	6.30
9H23034-CAL3	5	456954	91390.800	6.30
9H23034-CAL4	10	910875	91087.500	6.30
9H23034-CAL5	25	2060378	82415.120	6.30
9H23034-CAL6	50	4100858	82017.160	6.30
9H23034-CAL7	100	8355416	83554.160	6.30
9H23034-CAL8	200	.82387E+07	91193.500	6.29

AVE RF **90383.530** RF RSD **8.59** AVE RT **6.30**

delta-BHC

Curve Fit: **AVERAGE RF**

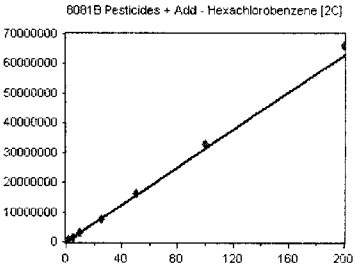


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	199840	199840.000	6.45
9H23034-CAL2	2	386980	193490.000	6.45
9H23034-CAL3	5	1004012	200802.400	6.45
9H23034-CAL4	10	2006493	200649.300	6.45
9H23034-CAL5	25	4667166	186686.600	6.45
9H23034-CAL6	50	9610742	192214.800	6.45
9H23034-CAL7	100	947558E+07	194755.800	6.45
9H23034-CAL8	200	101659E+07	205083.000	6.45

AVE RF **196690.200** RF RSD **3.02** AVE RT **6.45**

Hexachlorobenzene [2C]

Curve Fit: **AVERAGE RF**

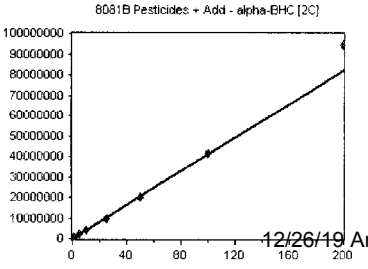


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	328025	328025.000	6.45
9H23034-CALA	2	632830	316415.000	6.45
9H23034-CALB	5	1485583	297116.600	6.45
9H23034-CALC	10	2936294	293629.400	6.45
9H23034-CALD	25	7416324	296653.000	6.45
9H23034-CALE	50	309416E+07	321883.200	6.45
9H23034-CALF	100	276671E+07	327667.100	6.46
9H23034-CALG	200	326197E+07	331309.800	6.45

AVE RF **314087.400** RF RSD **5.04** AVE RT **6.45**

alpha-BHC [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	393119	393119.000	6.60
9H23034-CAL2	2	784586	392293.000	6.60
9H23034-CAL3	5	1985438	397087.600	6.60
9H23034-CAL4	10	4095890	409589.000	6.60
9H23034-CAL5	25	9910863	396434.500	6.60
9H23034-CAL6	50	026582E+07	405316.400	6.60
9H23034-CAL7	100	169921E+07	416992.100	6.60
9H23034-CAL8	200	437675E+07	471883.800	6.60

AVE RF **410339.400** RF RSD **6.44** AVE RT **6.60**

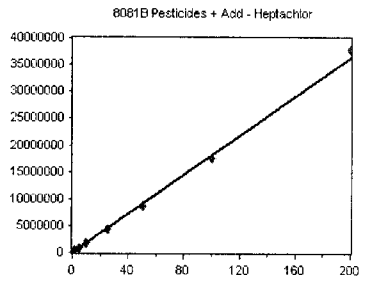
Element Calibration Review Sheet

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**

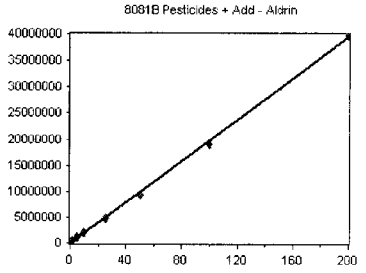


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	192066	192066.000	6.64
9H23034-CAL2	2	369615	184807.500	6.64
9H23034-CAL3	5	899091	179818.200	6.64
9H23034-CAL4	10	1819621	181962.100	6.63
9H23034-CAL5	25	4314306	172572.200	6.63
9H23034-CAL6	50	8735158	174703.200	6.63
9H23034-CAL7	100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

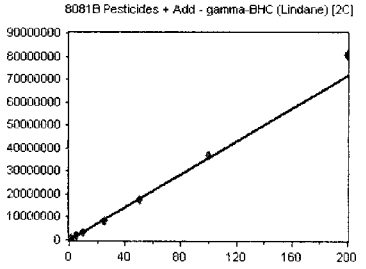


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	205523	205523.000	6.88
9H23034-CAL2	2	399550	199775.000	6.88
9H23034-CAL3	5	1012733	202546.600	6.88
9H23034-CAL4	10	2010802	201080.200	6.88
9H23034-CAL5	25	4845355	193814.200	6.87
9H23034-CAL6	50	9327672	186553.400	6.87
9H23034-CAL7	100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

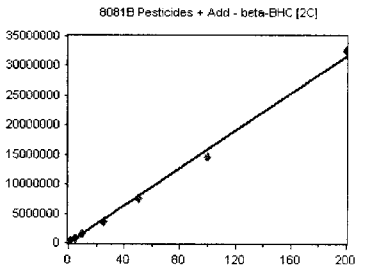


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	352286	352286.000	6.92
9H23034-CAL2	2	690922	345461.000	6.92
9H23034-CAL3	5	1742677	348535.400	6.92
9H23034-CAL4	10	3476733	347673.300	6.92
9H23034-CAL5	25	8508386	340335.400	6.91
9H23034-CAL6	50	738107E+07	347621.400	6.91
9H23034-CAL7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

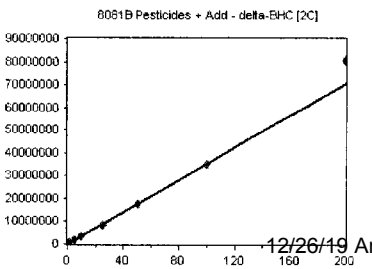


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176262	176262.000	6.98
9H23034-CAL2	2	335260	167630.000	6.98
9H23034-CAL3	5	788630	157726.000	6.98
9H23034-CAL4	10	1580847	158084.700	6.98
9H23034-CAL5	25	3677155	147086.200	6.98
9H23034-CAL6	50	7516011	150320.200	6.98
9H23034-CAL7	100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

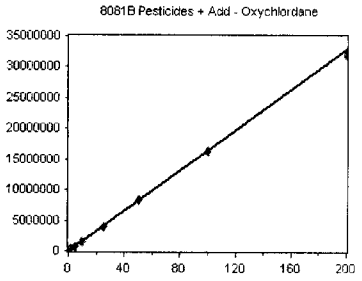
Element Calibration Review Sheet

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**

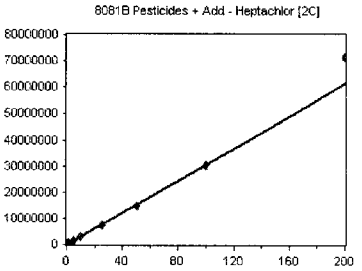


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	176844	176844.000	7.26
9H23034-CALA	2	339370	169685.000	7.26
9H23034-CALB	5	819748	163949.600	7.26
9H23034-CALC	10	1591613	159161.300	7.26
9H23034-CALD	25	3881255	155250.200	7.26
9H23034-CALE	50	8382873	167657.500	7.26
9H23034-CALF	100	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**

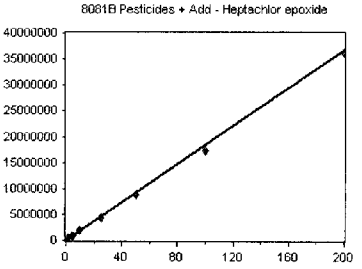


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	309811	309811.000	7.29
9H23034-CAL2	2	586765	293382.500	7.29
9H23034-CAL3	5	1508218	301643.600	7.29
9H23034-CAL4	10	3005915	300591.500	7.29
9H23034-CAL5	25	7282282	291291.300	7.29
9H23034-CAL6	50	459514E+07	291902.800	7.29
9H23034-CAL7	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**

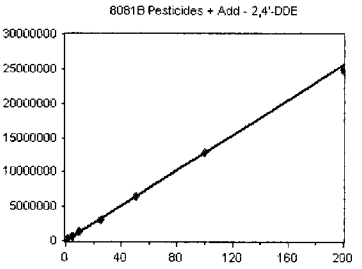


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	200503	200503.000	7.34
9H23034-CAL2	2	392052	196026.000	7.34
9H23034-CAL3	5	923620	184724.000	7.34
9H23034-CAL4	10	1865428	186542.800	7.34
9H23034-CAL5	25	4344286	173771.400	7.33
9H23034-CAL6	50	8869300	177386.000	7.33
9H23034-CAL7	100	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**

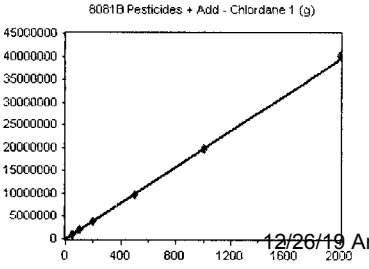


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	137947	137947.000	7.34
9H23034-CALA	2	265212	132606.000	7.33
9H23034-CALB	5	633168	126633.600	7.33
9H23034-CALC	10	1245265	124526.500	7.33
9H23034-CALD	25	3059421	122376.800	7.33
9H23034-CALE	50	6510588	130211.800	7.33
9H23034-CALF	100	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

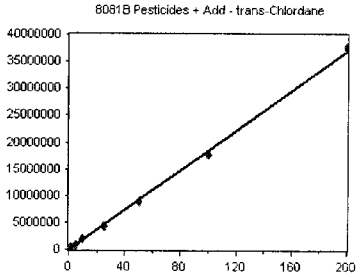
AVE RF **19589.610** RF RSD **1.96** AVE RT **7.43**

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

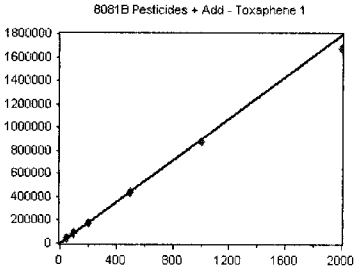


Curve Fit: **AVERAGE RF**

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

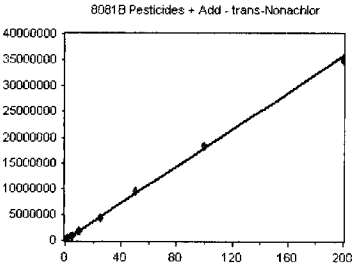


Curve Fit: **AVERAGE RF**

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

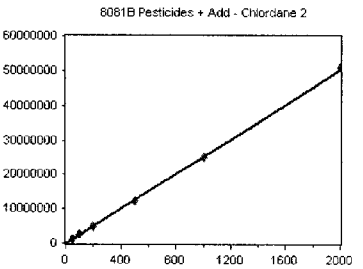


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

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

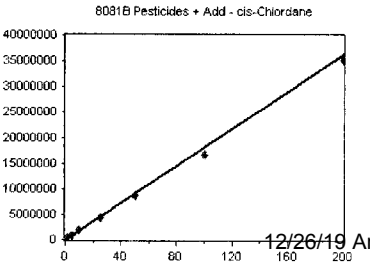


Curve Fit: **AVERAGE RF**

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**

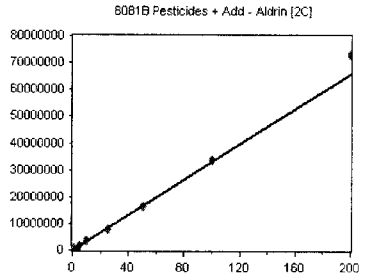
Element Calibration Review Sheet

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**

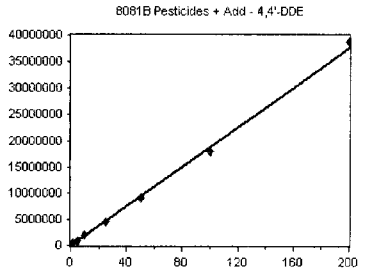


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	317466	317466.000	7.56
9H23034-CAL2	2	635458	317729.000	7.56
9H23034-CAL3	5	1600995	320199.000	7.56
9H23034-CAL4	10	3341093	334109.300	7.56
9H23034-CAL5	25	7878574	315143.000	7.56
9H23034-CAL6	50	526442E+07	325288.400	7.56
9H23034-CAL7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

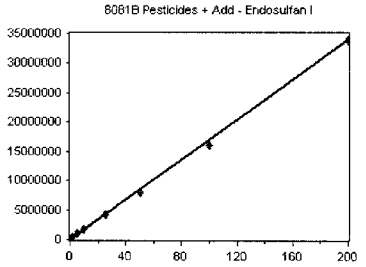


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	193435	193435.000	7.59
9H23034-CAL2	2	388618	194309.000	7.59
9H23034-CAL3	5	953351	190670.200	7.59
9H23034-CAL4	10	1890931	189093.100	7.59
9H23034-CAL5	25	4571066	182842.600	7.58
9H23034-CAL6	50	9177389	183547.800	7.58
9H23034-CAL7	100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

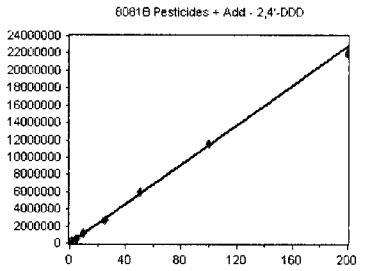


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	185217	185217.000	7.63
9H23034-CAL2	2	357368	178684.000	7.63
9H23034-CAL3	5	861509	172301.800	7.62
9H23034-CAL4	10	1709332	170933.200	7.62
9H23034-CAL5	25	4111285	164451.400	7.62
9H23034-CAL6	50	7984410	159688.200	7.62
9H23034-CAL7	100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

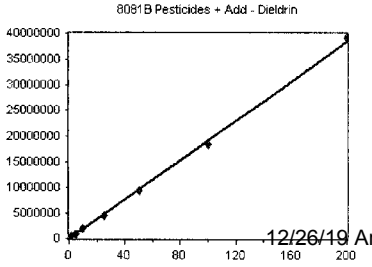


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	120240	120240.000	7.71
9H23034-CALA	2	233089	116544.500	7.71
9H23034-CALB	5	560942	112188.400	7.71
9H23034-CALC	10	1103587	110358.700	7.71
9H23034-CALD	25	2745178	109807.100	7.71
9H23034-CALE	50	5920095	118401.900	7.71
9H23034-CALF	100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

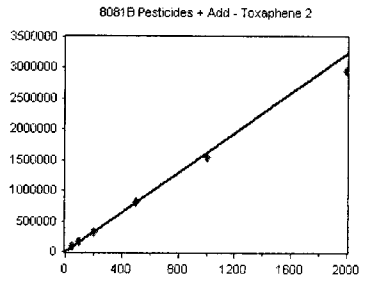
AVE RF **191979.300** RF RSD **3.25** AVE RT **7.79**

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

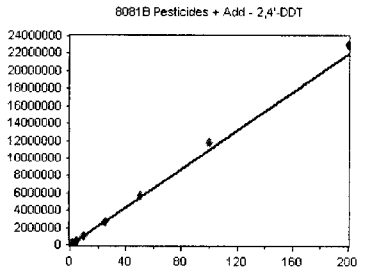


Curve Fit: **AVERAGE RF**

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

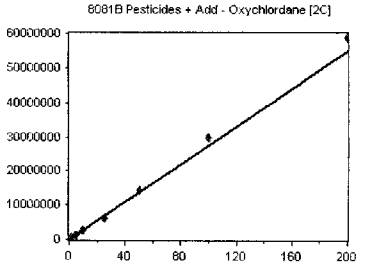


Curve Fit: **AVERAGE RF**

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]

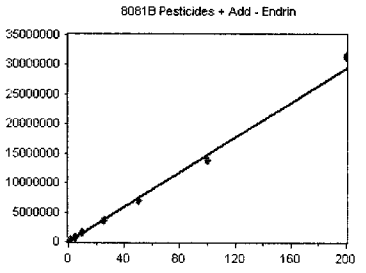


Curve Fit: **AVERAGE RF**

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

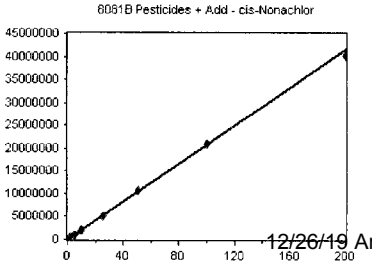


Curve Fit: **AVERAGE RF**

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**

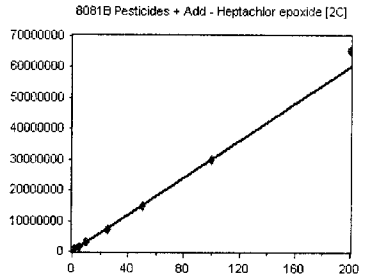
Element Calibration Review Sheet

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**

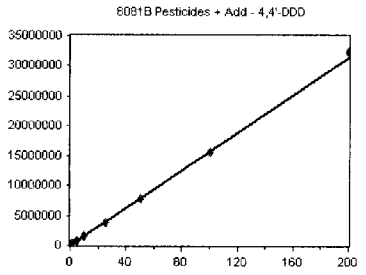


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	310098	310098.000	7.99
9H23034-CAL2	2	606240	303120.000	7.99
9H23034-CAL3	5	1455941	291188.200	7.99
9H23034-CAL4	10	2959301	295930.100	7.99
9H23034-CAL5	25	7064729	282589.200	7.99
9H23034-CAL6	50	483779E+07	296755.800	7.99
9H23034-CAL7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

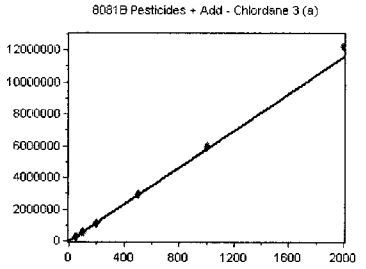


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	164956	164956.000	8.01
9H23034-CAL2	2	314622	157311.000	8.01
9H23034-CAL3	5	790498	158099.600	8.01
9H23034-CAL4	10	1565974	156597.400	8.01
9H23034-CAL5	25	3727035	149081.400	8.00
9H23034-CAL6	50	7726197	154523.900	8.00
9H23034-CAL7	100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

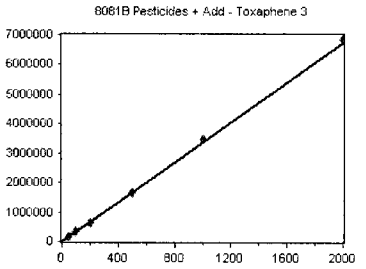


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	288087	5761.740	8.07
9H23034-CALI	100	548196	5481.960	8.07
9H23034-CALJ	200	1101677	5508.385	8.07
9H23034-CALK	500	2921278	5842.556	8.07
9H23034-CALL	1000	5987927	5987.927	8.07
9H23034-CALM	2000	220831E+07	6104.155	8.07

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

Toxaphene 3

Curve Fit: **AVERAGE RF**

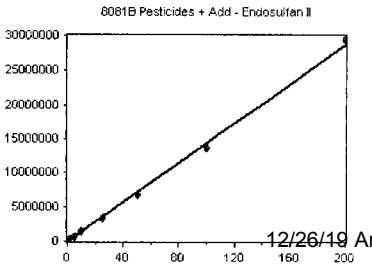


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	169381	3387.620	8.11
9H23034-CALO	100	332842	3328.420	8.11
9H23034-CALP	200	644464	3222.320	8.11
9H23034-CALQ	500	1677481	3354.962	8.11
9H23034-CALR	1000	3495877	3495.877	8.11
9H23034-CALS	2000	6831460	3415.730	8.10

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**

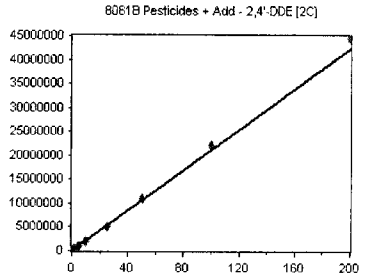
Element Calibration Review Sheet

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**

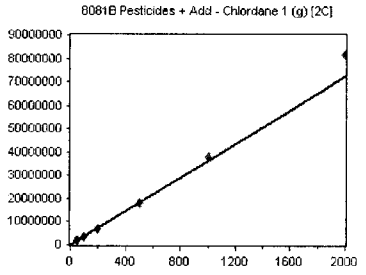


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	219164	219164.000	8.12
9H23034-CALA	2	411812	205906.000	8.12
9H23034-CALB	5	1029687	205937.400	8.12
9H23034-CALC	10	2018331	201833.100	8.12
9H23034-CALD	25	4999232	199969.300	8.12
9H23034-CALE	50	.10064E+07	220128.000	8.12
9H23034-CALF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

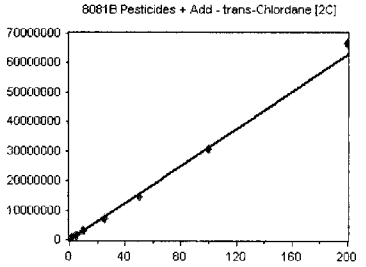


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1754707	35094.140	8.13
9H23034-CALI	100	3378388	33783.880	8.13
9H23034-CALJ	200	6751197	33755.980	8.13
9H23034-CALK	500	783043E+07	35660.860	8.13
9H23034-CALL	1000	796674E+07	37966.740	8.13
9H23034-CALM	2000	169171E+07	40845.860	8.13

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

trans-Chlordane [2C]

Curve Fit: **AVERAGE RF**

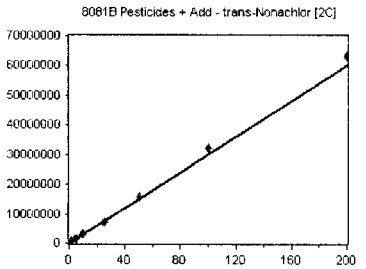


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	364142	364142.000	8.14
9H23034-CAL2	2	644454	322227.000	8.14
9H23034-CAL3	5	1502119	300423.800	8.13
9H23034-CAL4	10	3002782	300278.200	8.13
9H23034-CAL5	25	7157480	286299.200	8.13
9H23034-CAL6	50	467872E+07	293574.400	8.13
9H23034-CAL7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

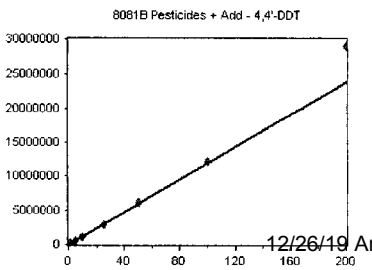


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	306202	306202.000	8.20
9H23034-CALA	2	587765	293882.500	8.19
9H23034-CALB	5	1467723	293544.600	8.19
9H23034-CALC	10	2844404	284440.400	8.19
9H23034-CALD	25	7092288	283691.500	8.19
9H23034-CALE	50	580771E+07	316154.200	8.19
9H23034-CALF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

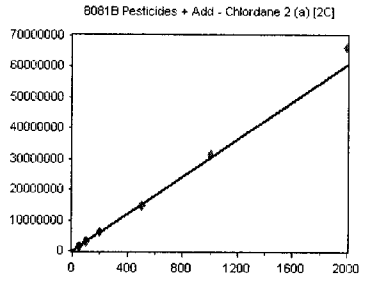
Element Calibration Review Sheet

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**

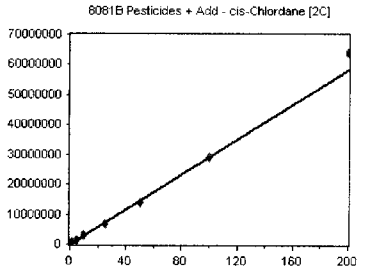


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1472400	29448.000	8.24
9H23034-CALI	100	2905941	29059.410	8.24
9H23034-CALJ	200	5883615	29418.070	8.24
9H23034-CALK	500	481227E+07	29624.540	8.24
9H23034-CALL	1000	149368E+07	31493.680	8.24
9H23034-CALM	2000	528139E+07	33140.700	8.24

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

cis-Chlordane [2C]

Curve Fit: **AVERAGE RF**

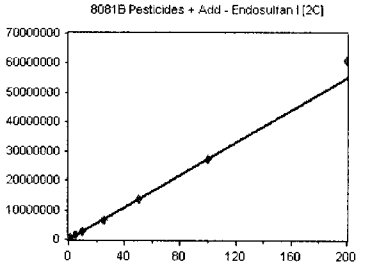


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	299422	299422.000	8.24
9H23034-CAL2	2	579667	289833.500	8.24
9H23034-CAL3	5	1434855	286971.000	8.24
9H23034-CAL4	10	2859573	285957.300	8.24
9H23034-CAL5	25	6935857	277434.300	8.24
9H23034-CAL6	50	400212E+07	280042.400	8.24
9H23034-CAL7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

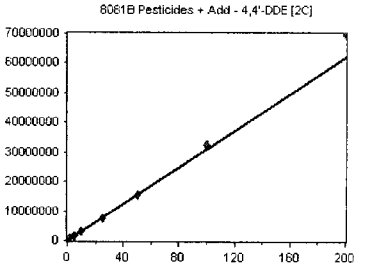


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	278874	278874.000	8.29
9H23034-CAL2	2	540442	270221.000	8.29
9H23034-CAL3	5	1327191	265438.200	8.29
9H23034-CAL4	10	2724272	272427.200	8.29
9H23034-CAL5	25	6571512	262860.500	8.29
9H23034-CAL6	50	371233E+07	274246.600	8.29
9H23034-CAL7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

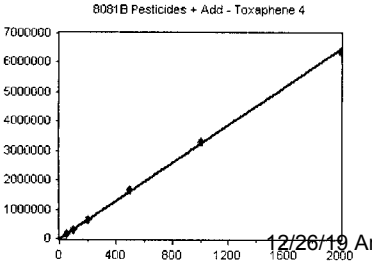


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	298463	298463.000	8.35
9H23034-CAL2	2	598066	299033.000	8.35
9H23034-CAL3	5	1487999	297599.800	8.35
9H23034-CAL4	10	3049792	304979.200	8.35
9H23034-CAL5	25	7501047	300041.900	8.34
9H23034-CAL6	50	555471E+07	311094.200	8.34
9H23034-CAL7	100	324996E+07	324996.000	8.34
9H23034-CAL8	200	984235E+07	349211.800	8.34

AVE RF **310677.400** RF RSD **5.82** AVE RT **8.34**

Toxaphene 4

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164317	3286.340	8.35
9H23034-CALO	100	320313	3203.130	8.35
9H23034-CALP	200	632351	3161.755	8.35
9H23034-CALQ	500	1649569	3299.138	8.35
9H23034-CALR	1000	3287014	3287.014	8.35
9H23034-CALS	2000	6407070	3203.535	8.35

AVE RF **3240.162** RF RSD **1.78** AVE RT **8.35**

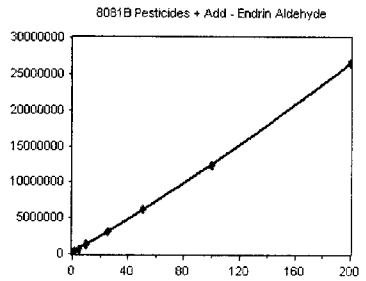
Element Calibration Review Sheet

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**

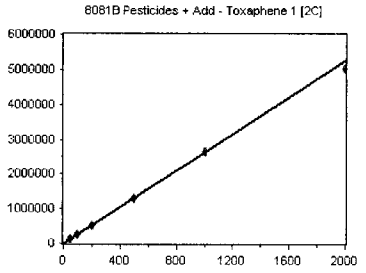


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	241285	241285.000	8.41
9H23034-CAL2	2	328182	164091.000	8.41
9H23034-CAL3	5	683393	136678.600	8.41
9H23034-CAL4	10	1375129	137512.900	8.41
9H23034-CAL5	25	3119767	124790.700	8.40
9H23034-CAL6	50	6224451	124489.000	8.40
9H23034-CAL7	100	236381E+07	123638.100	8.40
9H23034-CAL8	200	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**

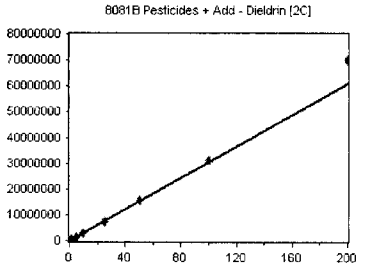


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	136848	2736.960	8.47
9H23034-CALO	100	267534	2675.340	8.47
9H23034-CALP	200	508983	2544.915	8.47
9H23034-CALQ	500	1308994	2617.988	8.47
9H23034-CALR	1000	2654886	2654.886	8.47
9H23034-CALS	2000	5030917	2515.458	8.47

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

Dieldrin [2C]

Curve Fit: **AVERAGE RF**

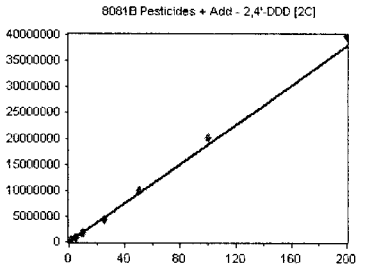


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	296684	296684.000	8.49
9H23034-CAL2	2	583812	291906.000	8.49
9H23034-CAL3	5	1462538	292507.600	8.49
9H23034-CAL4	10	2898866	289886.600	8.49
9H23034-CAL5	25	7333890	293355.600	8.49
9H23034-CAL6	50	543411E+07	308682.200	8.49
9H23034-CAL7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

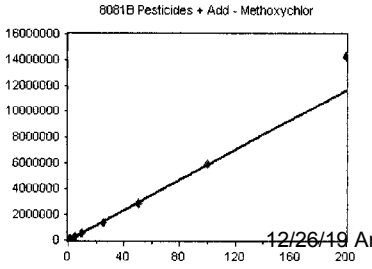


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	192040	192040.000	8.50
9H23034-CALA	2	373596	186798.000	8.50
9H23034-CALB	5	898697	179739.400	8.50
9H23034-CALC	10	1778790	177879.000	8.50
9H23034-CALD	25	4389185	175567.400	8.50
9H23034-CALE	50	9924934	198498.700	8.50
9H23034-CALF	100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

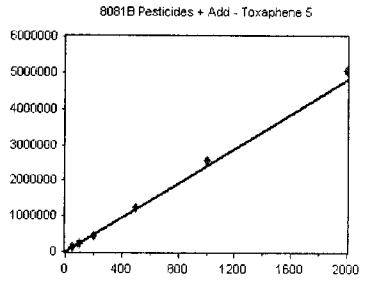
AVE RF **58574.270** RF RSD **9.55** AVE RT **8.54**

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

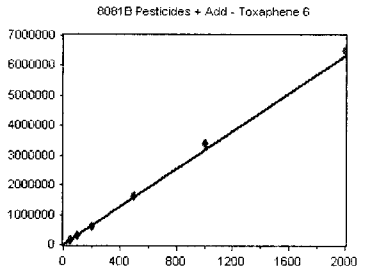


Curve Fit: **AVERAGE RF**

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

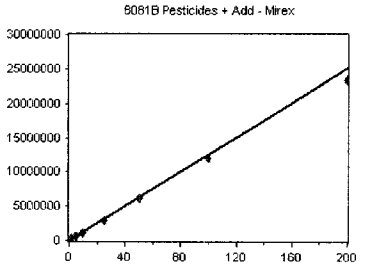


Curve Fit: **AVERAGE RF**

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

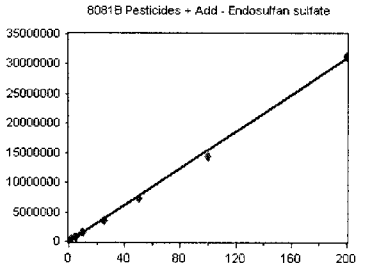


Curve Fit: **AVERAGE RF**

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

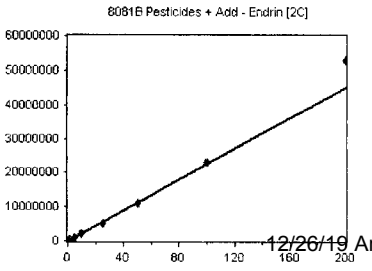


Curve Fit: **AVERAGE RF**

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**

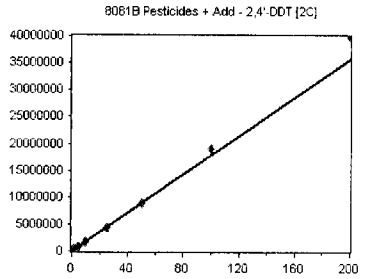
Element Calibration Review Sheet

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**

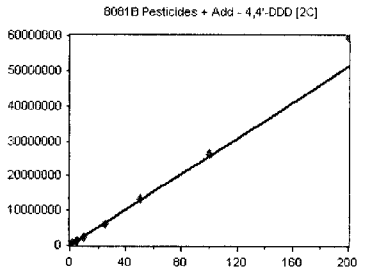


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	173338	173338.000	8.72
9H23034-CALA	2	332170	166085.000	8.72
9H23034-CALB	5	873074	174614.800	8.72
9H23034-CALC	10	1702568	170256.800	8.72
9H23034-CALD	25	4405554	176222.200	8.72
9H23034-CALE	50	8810591	176211.800	8.72
9H23034-CALF	100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

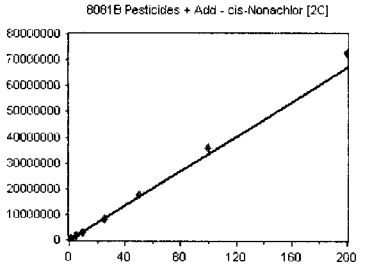


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	251549	251549.000	8.76
9H23034-CAL2	2	488120	244060.000	8.76
9H23034-CAL3	5	1208642	241728.400	8.76
9H23034-CAL4	10	2425496	242549.600	8.76
9H23034-CAL5	25	6146469	245858.800	8.76
9H23034-CAL6	50	315945E+07	263189.000	8.76
9H23034-CAL7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

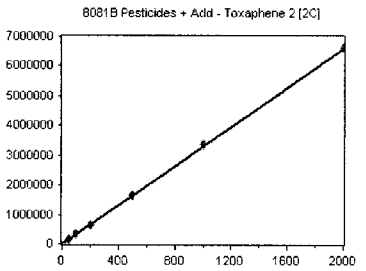


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	332745	332745.000	8.76
9H23034-CALA	2	624783	312391.500	8.76
9H23034-CALB	5	1587243	317448.600	8.76
9H23034-CALC	10	3148054	314805.400	8.76
9H23034-CALD	25	8219393	328775.700	8.76
9H23034-CALE	50	772123E+07	354424.600	8.76
9H23034-CALF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

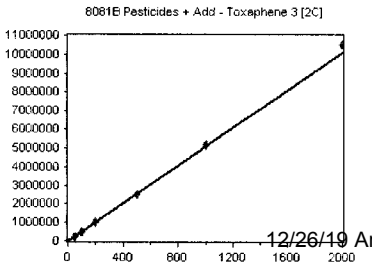


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164706	3294.120	8.81
9H23034-CALO	100	324070	3240.700	8.81
9H23034-CALP	200	645322	3226.610	8.81
9H23034-CALQ	500	1647741	3295.482	8.81
9H23034-CALR	1000	3384036	3384.036	8.81
9H23034-CALS	2000	6610397	3305.198	8.81

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**

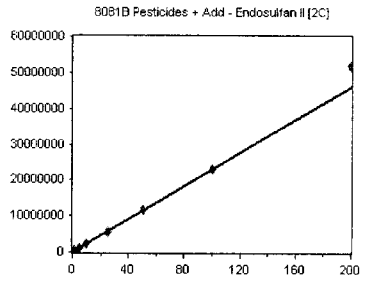
Element Calibration Review Sheet

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**

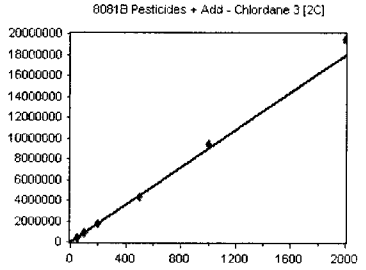


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	232156	232156.000	8.87
9H23034-CAL2	2	462256	231128.000	8.86
9H23034-CAL3	5	1096359	219271.800	8.87
9H23034-CAL4	10	2243610	224361.000	8.86
9H23034-CAL5	25	5447602	217904.100	8.86
9H23034-CAL6	50	153453E+07	230690.600	8.86
9H23034-CAL7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

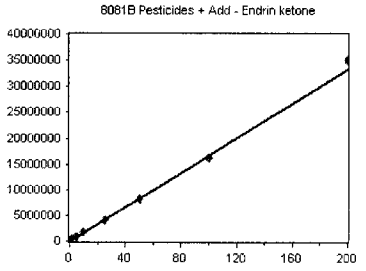


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	439020	8780.400	8.90
9H23034-CALI	100	874465	8744.650	8.90
9H23034-CALJ	200	1731727	8658.635	8.90
9H23034-CALK	500	4271709	8543.418	8.90
9H23034-CALL	1000	9358900	9358.900	8.90
9H23034-CALM	2000	941852E+07	9709.260	8.90

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

Endrin ketone

Curve Fit: **AVERAGE RF**

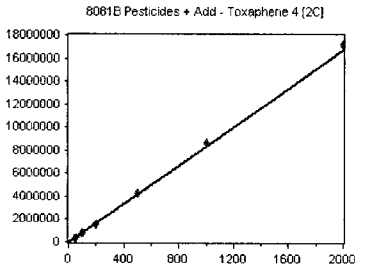


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	177552	177552.000	8.90
9H23034-CAL2	2	331269	165634.500	8.90
9H23034-CAL3	5	811384	162276.800	8.90
9H23034-CAL4	10	1664380	166438.000	8.90
9H23034-CAL5	25	4008958	160358.300	8.90
9H23034-CAL6	50	8190707	163814.100	8.90
9H23034-CAL7	100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

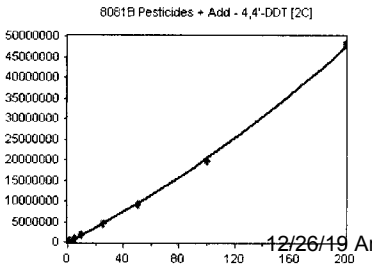


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	416348	8326.960	8.92
9H23034-CALO	100	811948	8119.480	8.92
9H23034-CALP	200	1580436	7902.180	8.91
9H23034-CALQ	500	4252640	8505.280	8.92
9H23034-CALR	1000	8650068	8650.068	8.92
9H23034-CALS	2000	719004E+07	8595.020	8.91

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**

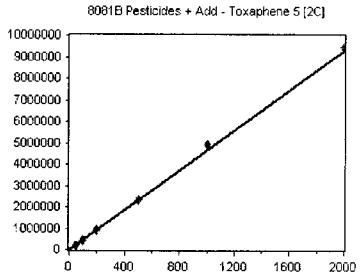
Element Calibration Review Sheet

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**

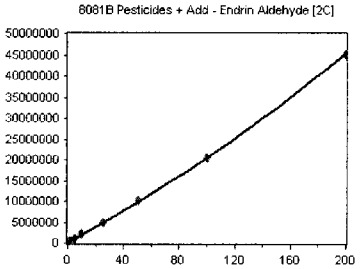


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	233185	4663.700	9.09
9H23034-CALO	100	452209	4522.090	9.09
9H23034-CALP	200	895397	4476.985	9.09
9H23034-CALQ	500	2340668	4681.336	9.09
9H23034-CALR	1000	4900430	4900.430	9.09
9H23034-CALS	2000	9435236	4717.618	9.09

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

Endrin Aldehyde [2C]

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

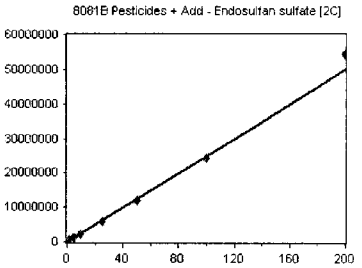


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	348624	348624.000	9.10
9H23034-CAL2	2	477694	238847.000	9.10
9H23034-CAL3	5	1045869	209173.800	9.10
9H23034-CAL4	10	2125028	212502.800	9.10
9H23034-CAL5	25	4848504	193940.200	9.10
9H23034-CAL6	50	020903E+07	204180.600	9.10
9H23034-CAL7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

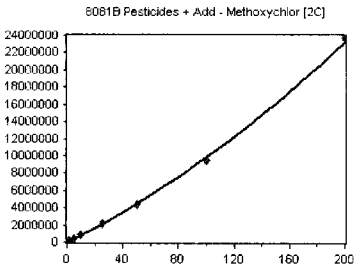


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	265797	265797.000	9.29
9H23034-CAL2	2	498767	249383.500	9.29
9H23034-CAL3	5	1175908	235181.600	9.29
9H23034-CAL4	10	2424584	242458.400	9.29
9H23034-CAL5	25	5978906	239156.200	9.29
9H23034-CAL6	50	214929E+07	242985.800	9.29
9H23034-CAL7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

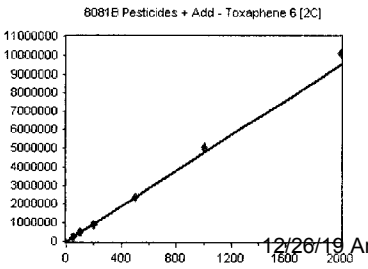


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	95155	95155.000	9.47
9H23034-CAL2	2	178074	89037.000	9.47
9H23034-CAL3	5	413802	82760.400	9.47
9H23034-CAL4	10	883069	88306.900	9.47
9H23034-CAL5	25	2166659	86666.360	9.46
9H23034-CAL6	50	4346199	86923.980	9.46
9H23034-CAL7	100	9444987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

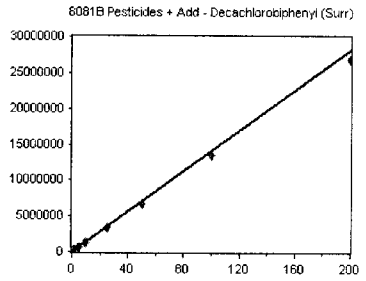
Element Calibration Review Sheet

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**

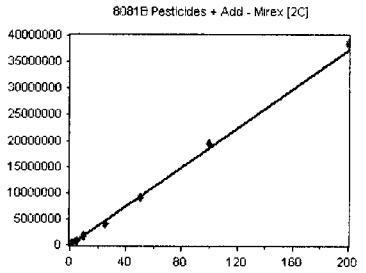


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	163865	163865.000	9.59
9H23034-CAL2	2	309904	154952.000	9.59
9H23034-CAL3	5	701050	140210.000	9.59
9H23034-CAL4	10	1335468	133546.800	9.59
9H23034-CAL5	25	3342634	133705.400	9.59
9H23034-CAL6	50	6678990	133579.800	9.59
9H23034-CAL7	100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

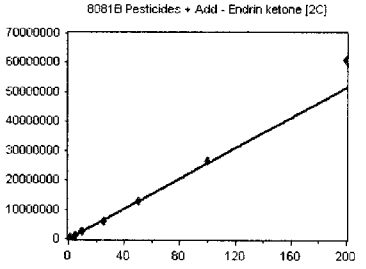


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	209783	209783.000	9.68
9H23034-CALA	2	388199	194099.500	9.68
9H23034-CALB	5	895523	179104.600	9.68
9H23034-CALC	10	1722960	172296.000	9.68
9H23034-CALD	25	4138115	165524.600	9.68
9H23034-CALE	50	9100959	182019.200	9.68
9H23034-CALF	100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

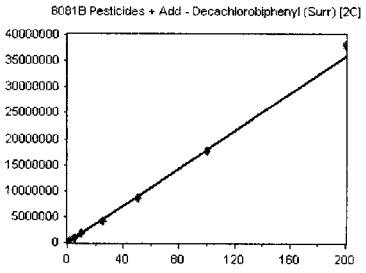


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	255763	255763.000	9.69
9H23034-CAL2	2	493110	246555.000	9.69
9H23034-CAL3	5	1205004	241000.800	9.69
9H23034-CAL4	10	2496985	249698.500	9.69
9H23034-CAL5	25	5893691	235747.600	9.69
9H23034-CAL6	50	295457E+07	259091.400	9.69
9H23034-CAL7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

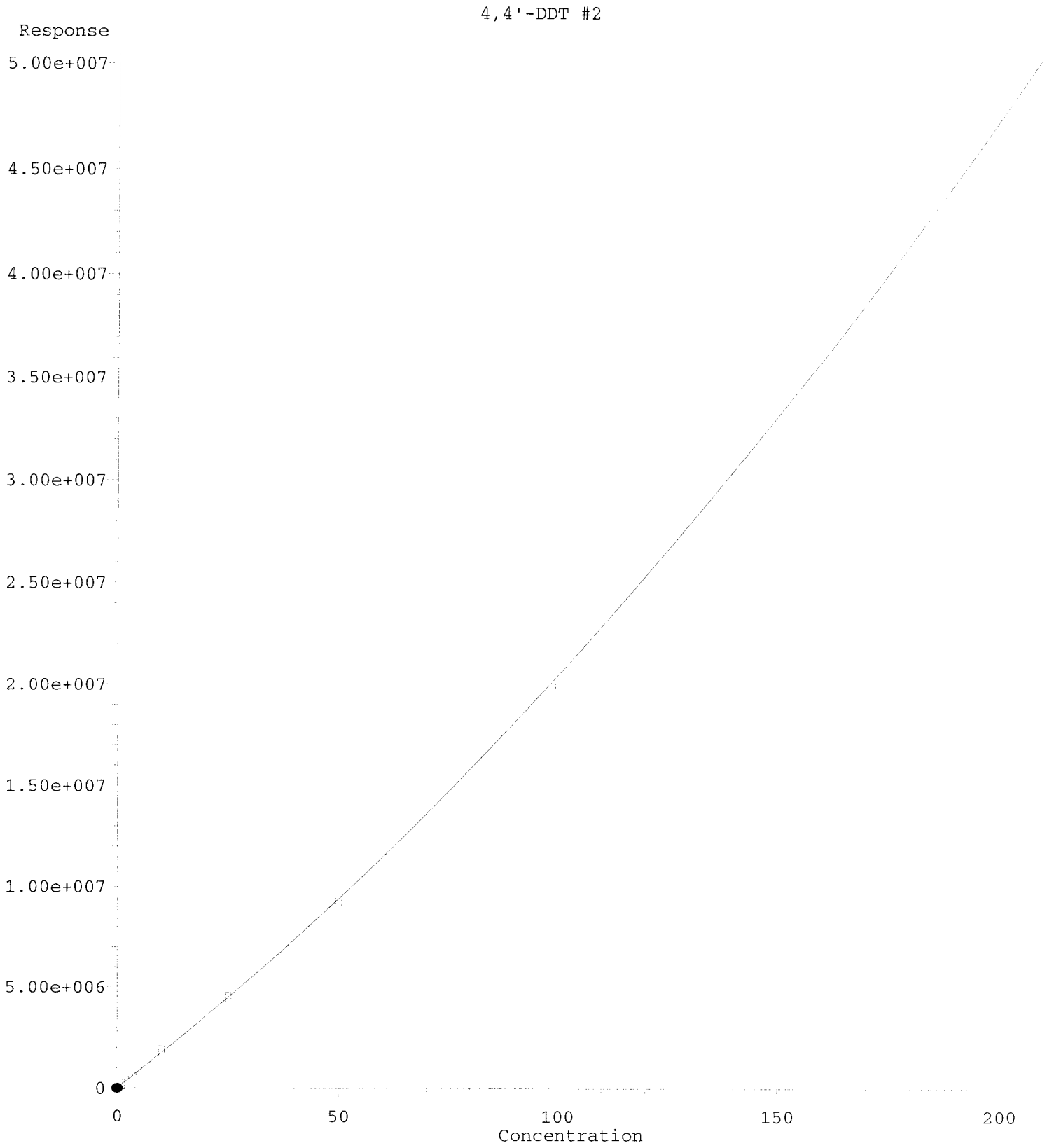
ICV RECOVERIES

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.

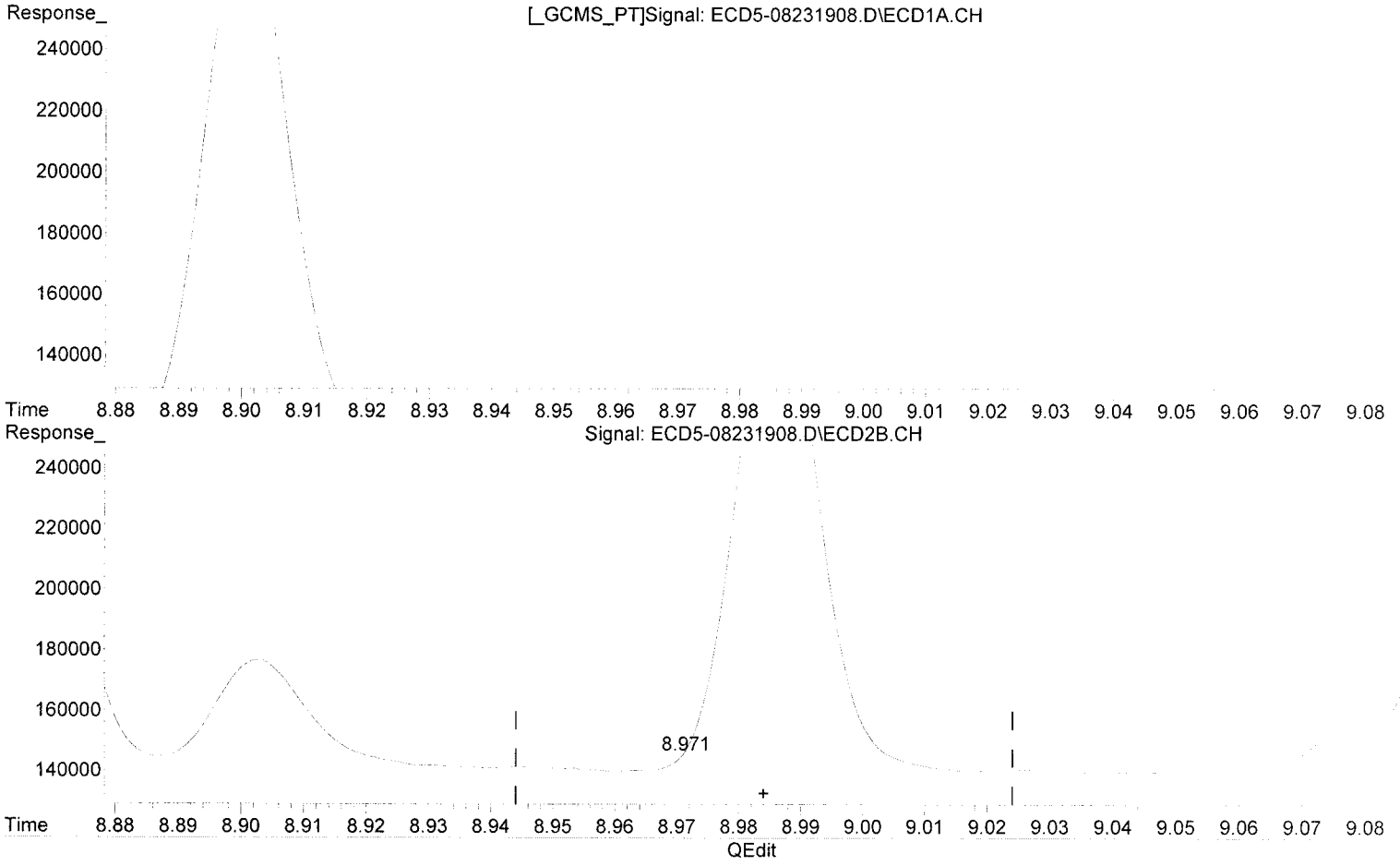


R = 3.30e+002 A*A + 1.71e+005 A + 6.57e+003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

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

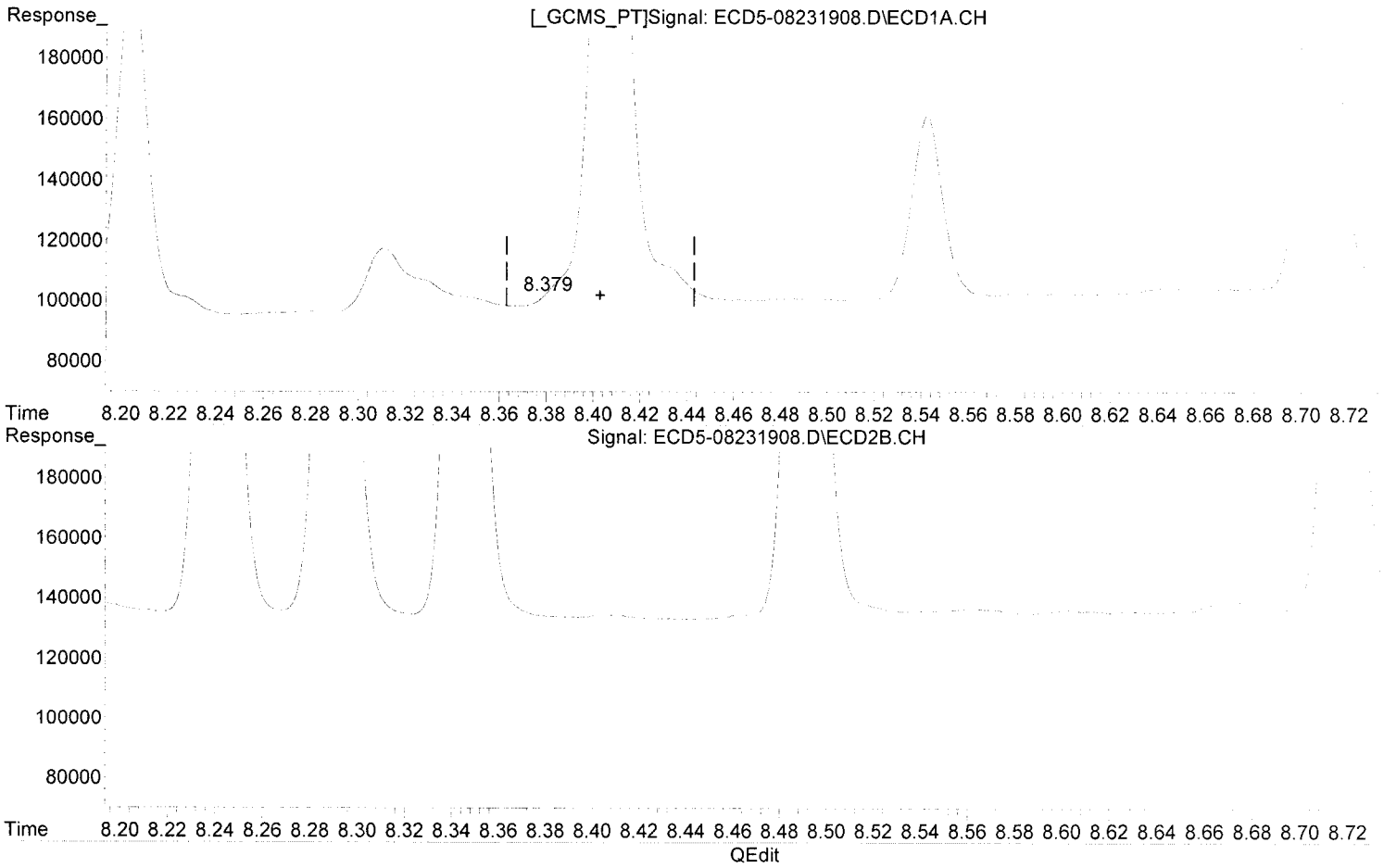
(+) = Expected Retention Time

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

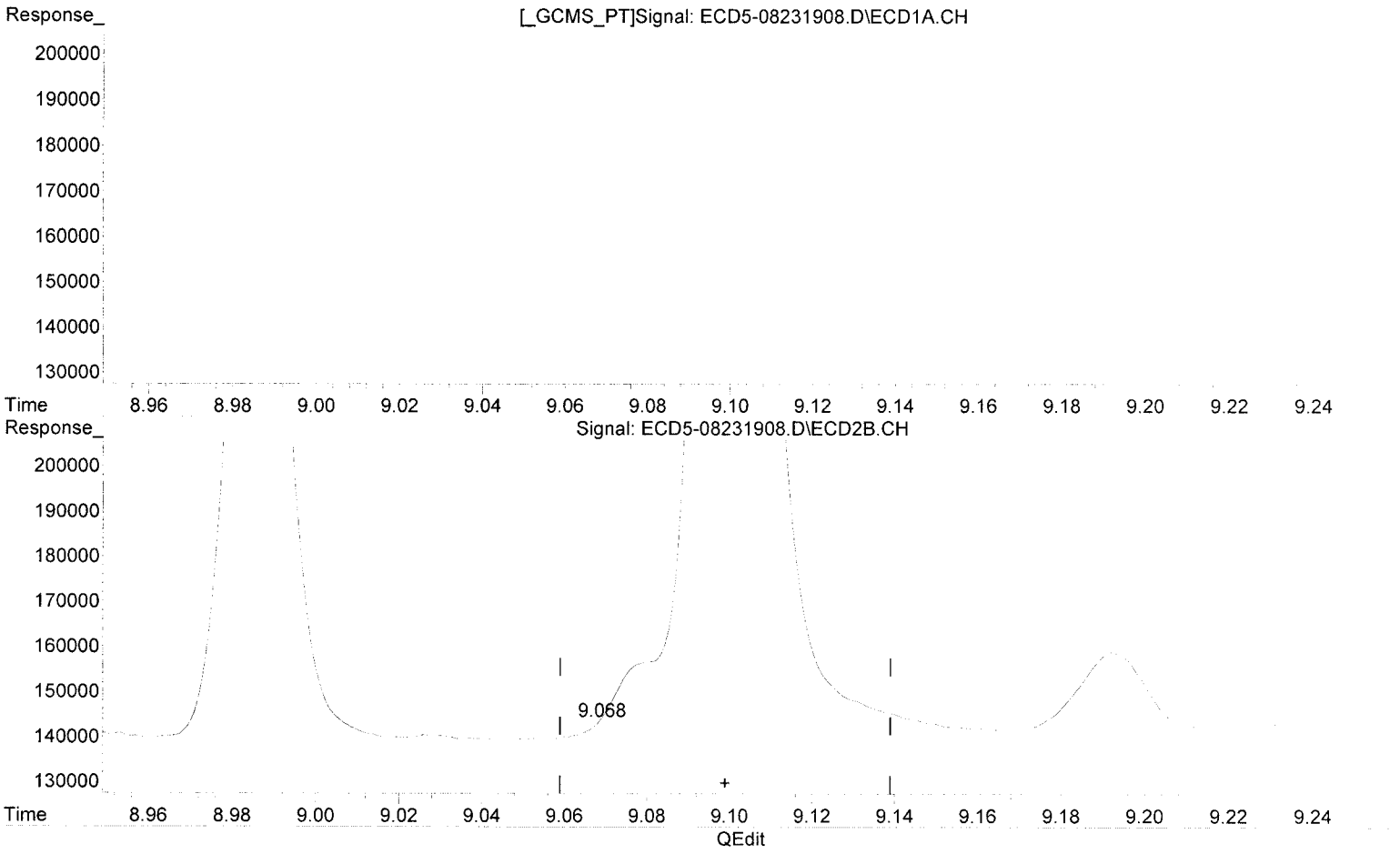
(+) = Expected Retention Time

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

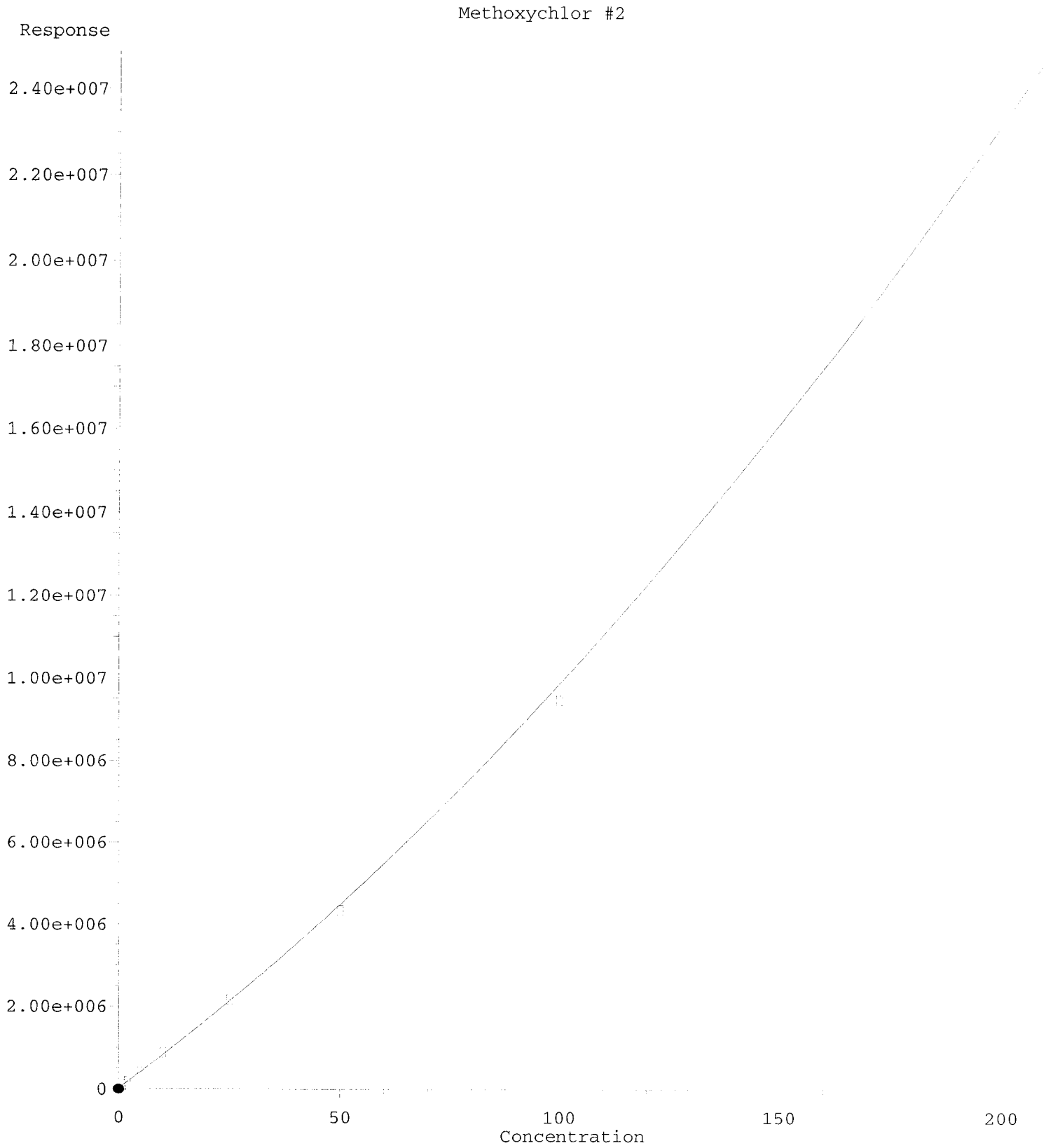
MJB 8/26/19

(18) Endrin Aldehyde #2

9.068min -0.831 ng/mL m

response 3374

(+) = Expected Retention Time

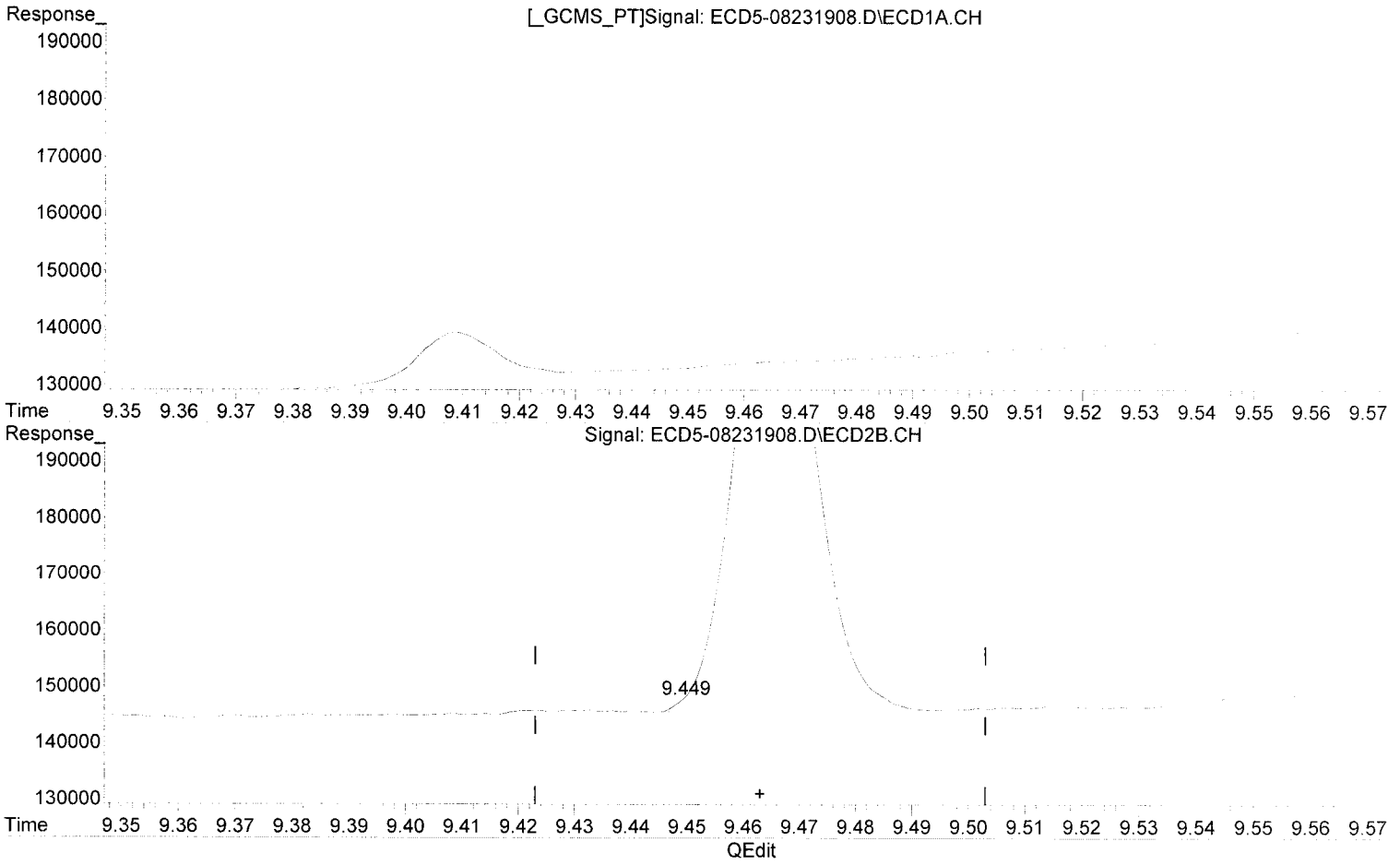


R = 1.78e+002 A*A + 8.05e+004 A + 1.50e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

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

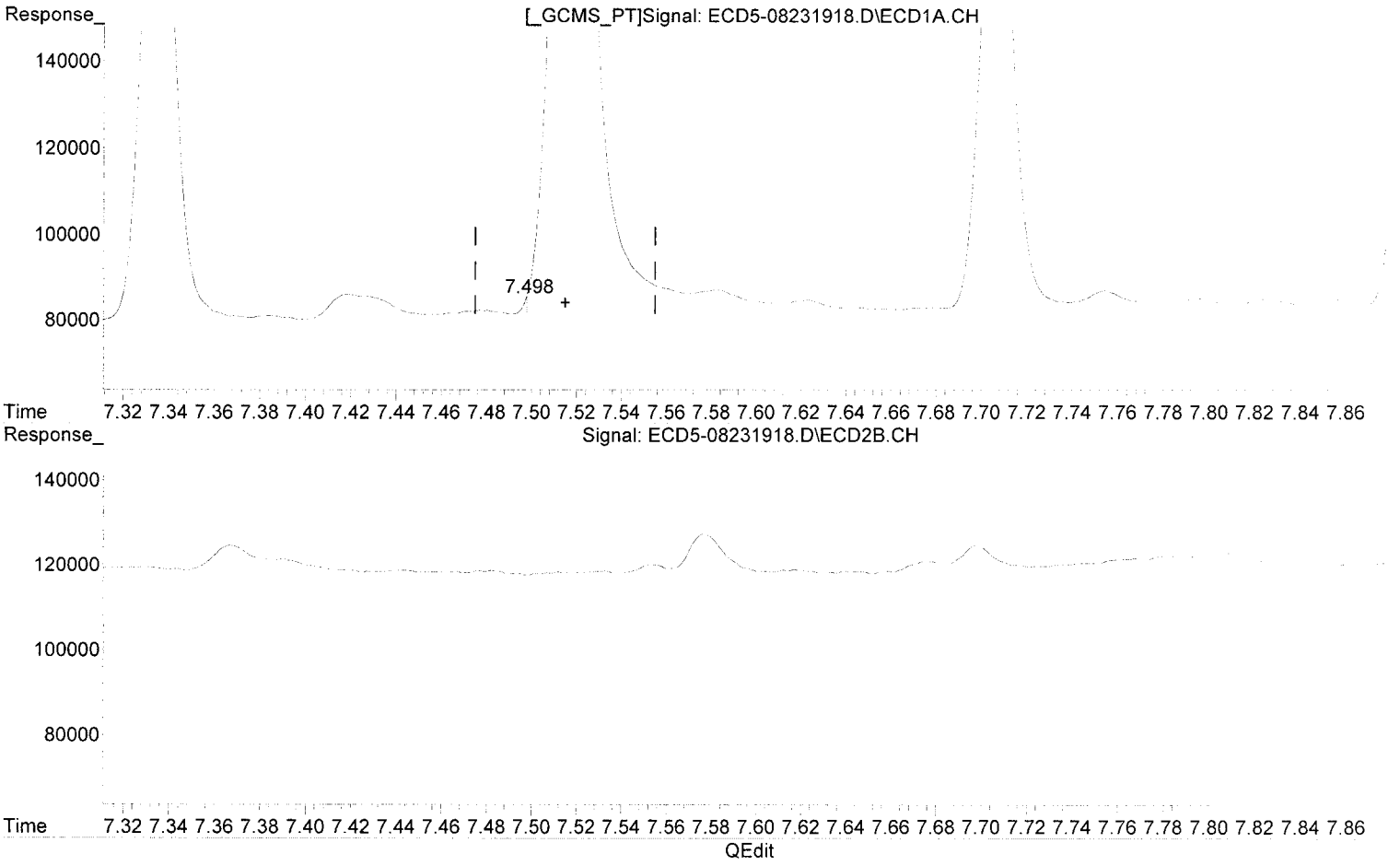
(+) = Expected Retention Time

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 8/26/19

(27) trans-Nonachlor #2

8.195min 1.015 ng/mL

response 306202

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:33
Operator : MJB
Sample : 9H23034-ICB1
Misc : A19H348
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

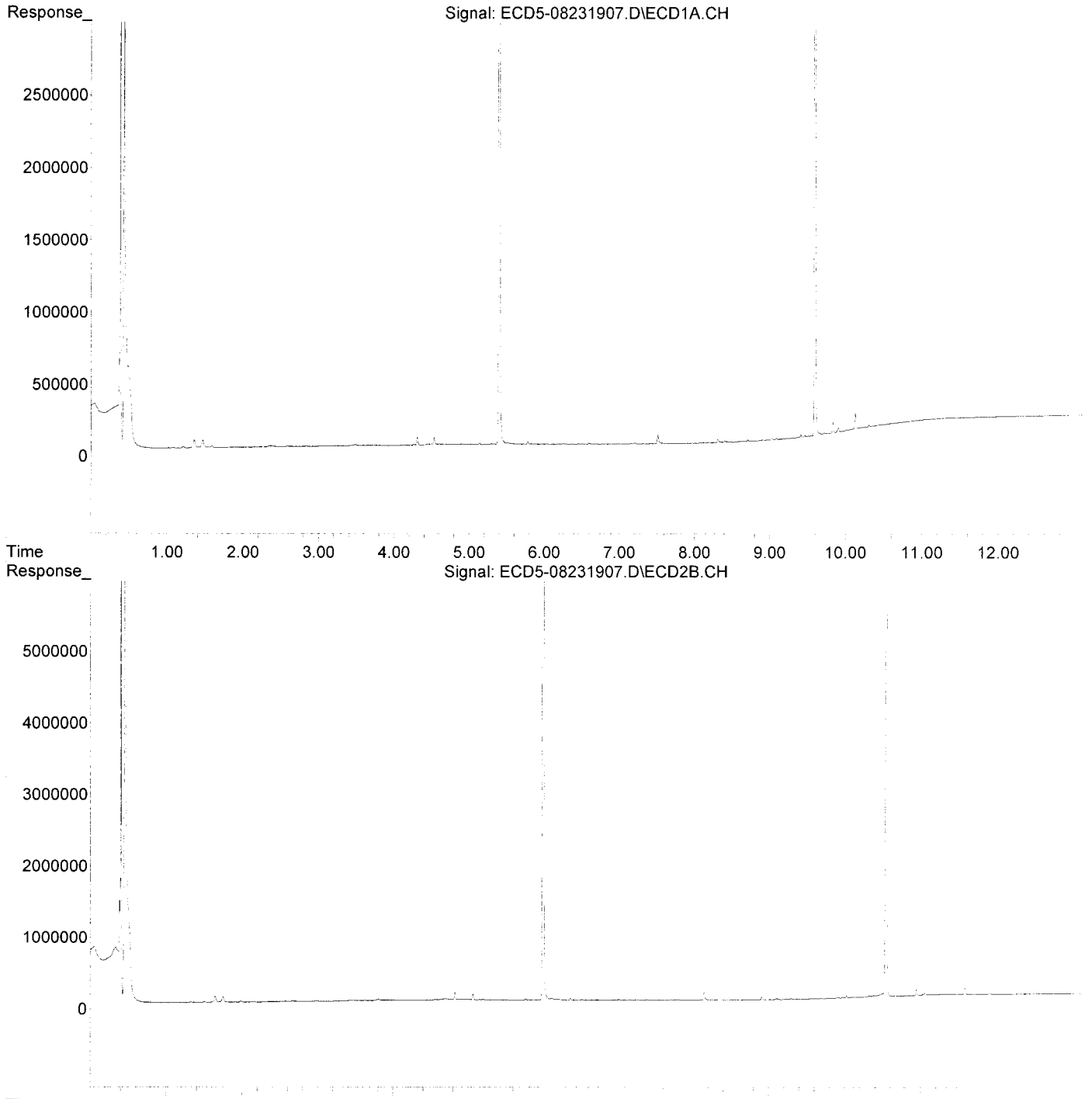
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.398	5.992	15096765	27637017	90.958	94.206	
22) S	DCBP (S)	9.594	10.543	12462090	16576085	88.322	92.211	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.253f	0.000	6973	0	0.035	N.D.	#
4)	b-BHC	0.000	7.003f	0	10802	N.D.	0.068	#
5)	Heptachlor	6.596f	0.000	8260	0	0.046	N.D.	#
6)	d-BHC	6.451	7.234	5541	7061	0.028	0.020	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	7.318	0.000	2356	0	0.013	N.D.	#
9)	trans-Chl...	0.000	8.140	0	104395	N.D.	0.333	#
10)	cis-Chlor...	7.514	0.000	58774	0	0.323	N.D.	#
11)	Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)	Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)	Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)	4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)	Endosulfa...	8.119	0.000	3735	0	0.026	N.D.	#
17)	4,4'-DDT	8.185	0.000	4049	0	0.034	N.D.	#
18)	Endrin Al...	8.408	9.102	14375	14948	BelowCal	BelowCal	
19)	Endosulfa...	8.709	9.292	12123	14809	0.078	0.059	
20)	Methoxychlor	8.542	0.000	4975	0	0.085	N.D.	#
21)	Endrin Ke...	8.903	9.690	4830	7943	0.029	0.031	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.779	0.000	21656	0	0.123	N.D.	#
25)	Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)	2,4'-DDE	7.318	8.140	2356	104395	0.018	0.492	#
27)	trans-Non...	7.514	0.000	58774	0	0.012	N.D.	#
28)	2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)	2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)	cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)	Mirex	8.652	9.690	4544	7943	0.036	0.043	
32)	Chlordane...	0.000	8.140	0	104395	N.D.	2.885	#
33)	Chlordane...	7.514	0.000	58774	0	2.345	N.D.	#
34)	Chlordane...	0.000	8.904	0	37260	N.D.	4.156	#
35)	Chlordane...	3.445	0.000	6677	0	NoCal	N.D.	
36)	Toxaphene...	7.514	0.000	58774	0	65.621	N.D.	#
37)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)	Toxaphene...	8.119	0.000	3735	0	1.109	N.D.	#
39)	Toxaphene...	8.312f	8.904	24186	37260	7.464	4.462	#
40)	Toxaphene...	8.542f	9.102	4975	14948	2.075	3.207	#
41)	Toxaphene...	8.652	0.000	4544	0	1.436	N.D.	#
42)	Toxaphene...	3.445	0.000	6677	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:33
Operator : MJB
Sample : 9H23034-ICB1
Misc : A19H348
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:09
Operator : MJB
Sample : 9H23034-IBL1
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Clean

MJB 8/26/19

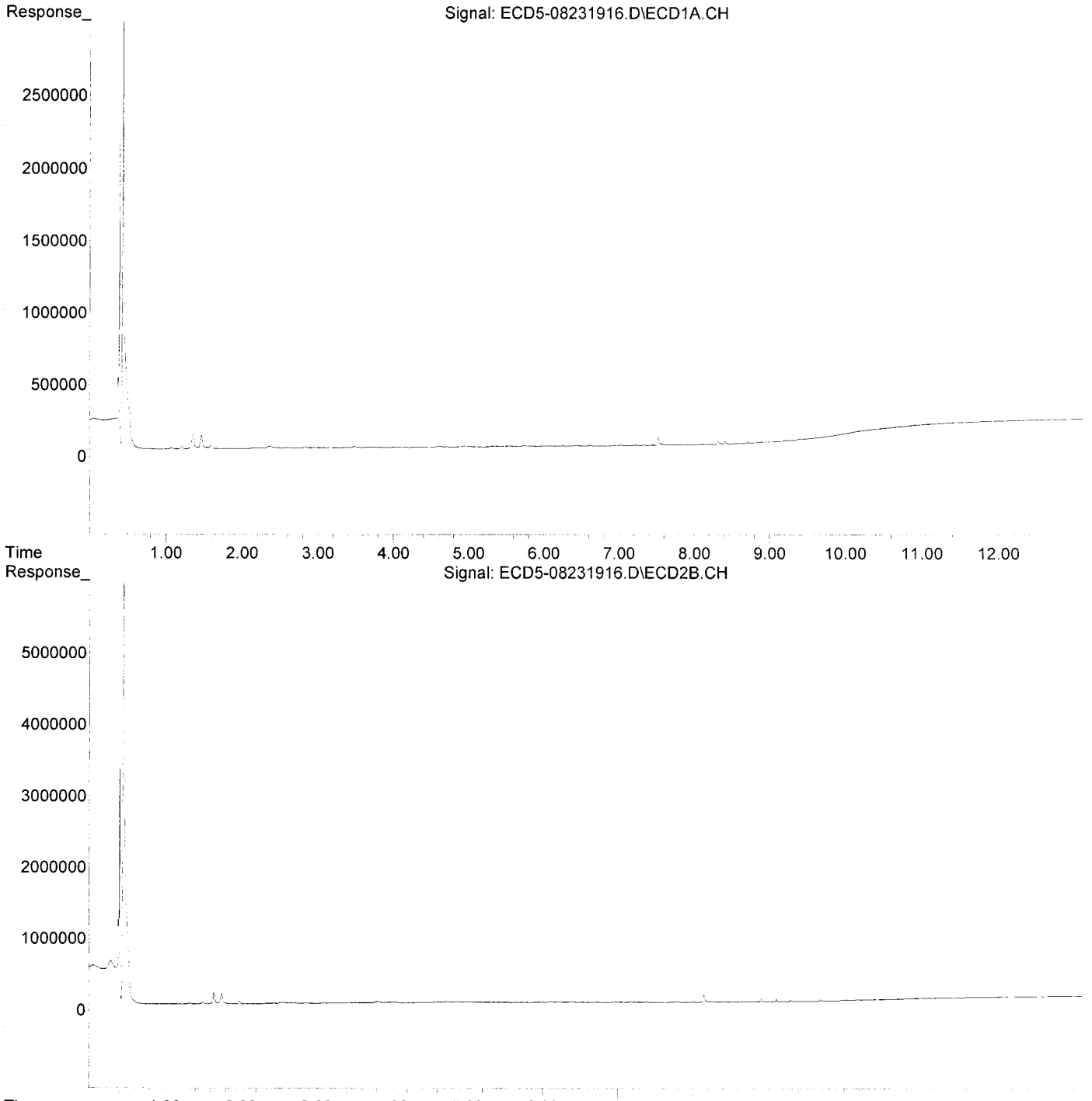
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	7755	N.D.	0.026	#
22)	S	DCBP (S)	9.595	10.540	5550	5660	0.039	0.031	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4370	0	0.022	N.D.	#
4)		b-BHC	0.000	7.003f	0	7432	N.D.	0.047	#
5)		Heptachlor	6.602f	0.000	4945	0	0.027	N.D.	#
6)		d-BHC	6.450	7.233	6336	9226	0.032	0.026	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	8.142	0	99412	N.D.	0.317	#
10)		cis-Chlor...	7.516	0.000	56525	0	0.310	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	8.007	0.000	1177	0	0.007	N.D.	#
16)		Endosulfa...	8.117	8.865	3391	6280	0.024	0.027	
17)		4,4'-DDT	8.226f	0.000	1460	0	0.012	N.D.	#
18)		Endrin Al...	8.407	9.100	21929	28697	BelowCal	BelowCal	
19)		Endosulfa...	8.707	9.291	12087	18257	0.078	0.073	
20)		Methoxychlor	8.544	0.000	4198	0	0.072	N.D.	#
21)		Endrin Ke...	8.901	9.686	4385	18734	0.026	0.073	#
23)		Hexachlor...	0.000	3.689	0	2782	N.D.	0.007	#
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	0.000	8.142	0	99412	N.D. Q ok	0.469	#
27)		trans-Non...	7.516	0.000	56525	0 ~~87346.385~~		N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	8.007f	0.000	1177	0	0.006	N.D.	#
31)		Mirex	0.000	9.686	0	18734	N.D.	0.101	#
32)		Chlordane...	0.000	8.142	0	99412	N.D.	2.747	#
33)		Chlordane...	7.516	0.000	56525	0	2.255	N.D.	#
34)		Chlordane...	8.065	8.904	2775	39801	0.480	4.439	#
35)		Chlordane...	3.447	0.000	4520	0	NoCal	N.D.	
36)		Toxaphene...	7.516	0.000	56525	0	63.111	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.117	8.865	3391	6280	1.007	1.239	
39)		Toxaphene...	8.314f	8.904	23317	39801	7.196	4.767	
40)		Toxaphene...	8.583	9.100	2463	28697	1.028	6.158	#
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.447	0.000	4520	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:09
Operator : MJB
Sample : 9H23034-IBL1
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:26
Operator : MJB
Sample : 9H23034-ICV1
Misc : A19E106, AB 50 ppb
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

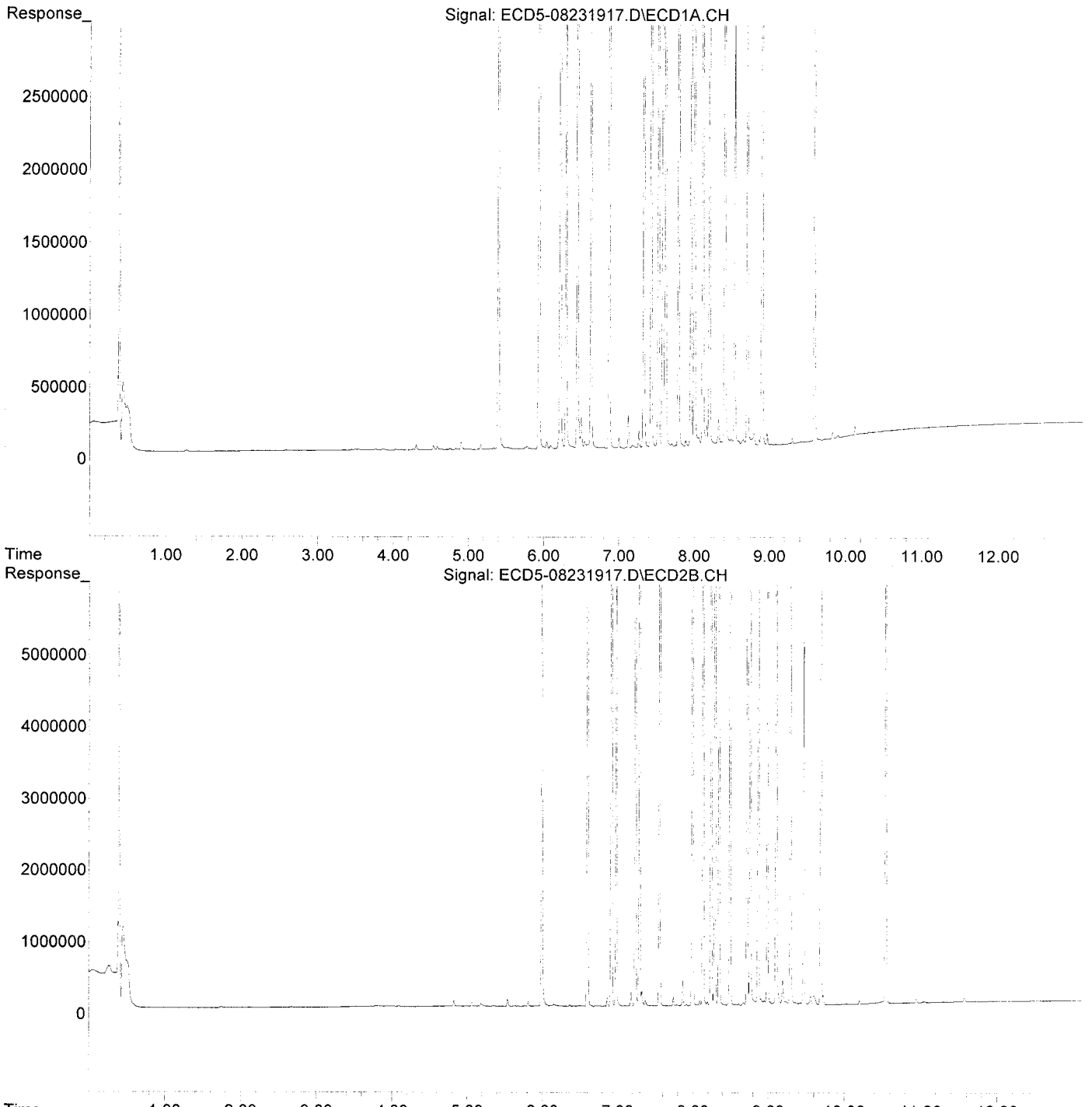
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	8209928	14467910	49.465	49.317	
22)	S	DCBP (S)	9.589	10.539	6928381	8667079	49.103	48.214	
		Target Compounds							
2)		a-BHC	5.935	6.596	11712240	21507667	51.072	52.414	
3)		g-BHC	6.218	6.913	10370774	18809716	51.397	52.732	
4)		b-BHC	6.296	6.977	4410789	7929442	48.801	50.102	
5)		Heptachlor	6.629	7.288	9286546	15998647	51.223	52.287	
6)		d-BHC	6.446	7.231	10162400	18561571	51.667	52.632	
7)		Aldrin	6.870	7.553	10415223	17743229	52.750	53.867	
8)		Heptachlo...	7.330	7.991	9218950	15454788	50.054	51.371	
9)		trans-Chl...	7.427	8.130	9449748	15882363	51.110	50.690	
10)		cis-Chlor...	7.523	8.238	8891439	15040020	48.835	51.640	
11)		Endosulfa...	7.620	8.288	8454858	14042285	49.682	51.030	
12)		4,4'-DDE	7.583	8.343	9669653	16358741	51.290	52.655	
13)		Dieldrin	7.792	8.489	9566646	15751562	49.832	51.789	
14)		Endrin	7.957	8.715	7744641	11999227	52.675	53.135	
15)		4,4'-DDD	8.003	8.758	8044313	14118585	51.192	55.105	
16)		Endosulfa...	8.114	8.862	7639079	12307624	53.193	53.371	
17)		4,4'-DDT	8.201	8.984	6427421	10243965	53.759	54.092	
18)		Endrin Al...	8.403	9.098	7471981	12138603	60.652	61.144	
19)		Endosulfa...	8.704	9.289	8022310	12945664	51.764	51.972	
20)		Methoxychlor	8.537	9.463	3243218	5107379	55.369	56.272	
21)		Endrin Ke...	8.898	9.687	8897553	13958232	53.356	54.245	
23)		Hexachlor...	0.000	3.713f	0	6424	N.D.	0.017	#
24)		Hexachlor...	5.778	6.482f	19713	11218	0.112	0.036	#
25)		Oxychlordane	7.266	7.916	116203	18640	0.706	0.068	#
26)		2,4'-DDE	7.330	8.130	9218950	15882363	71.876	74.868	
27)		trans-Non...	7.523	8.193	8891439	52587	49.340	0.174	#
28)		2,4'-DDD	7.704	8.489	22276	15751562	0.195	83.402	#
29)		2,4'-DDT	7.889	8.715	44366	11999227	0.404	67.283	#
30)		cis-Nonac...	8.003	8.758	8044313	14118585	38.746	42.089	
31)		Mirex	8.653	9.687	40409	13958232	0.322	75.015	#
32)		Chlordane...	7.427	8.130	9449748	15882363	479.936	438.926	
33)		Chlordane...	7.523	8.238	8891439	15040020	354.745	495.323	
34)		Chlordane...	0.000	8.899	0	79876	N.D.	8.909	#
35)		Chlordane...	3.446	0.000	5075	0	NoCal	N.D.	
36)		Toxaphene...	7.523f	8.489f	8891439	15751562	9927.388	6002.292	
37)		Toxaphene...	7.792	0.000	9566646	0	5923.845	N.D.	#
38)		Toxaphene...	8.114	8.862	7639079	12307624	2268.479	2428.346	
39)		Toxaphene...	8.324f	8.899	184731	79876	57.013	9.566	#
40)		Toxaphene...	8.537f	9.098	3243218	12138603	1352.952	2604.650	#
41)		Toxaphene...	8.653	9.463	40409	5107379	12.769	1075.192	#
42)		Toxaphene...	3.446	0.000	5075	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:26
Operator : MJB
Sample : 9H23034-ICV1
Misc : A19E106, AB 50 ppb
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:02
Operator : MJB
Sample : 9H23034-IBL2
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:03 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

clean
MJB 8/26/19

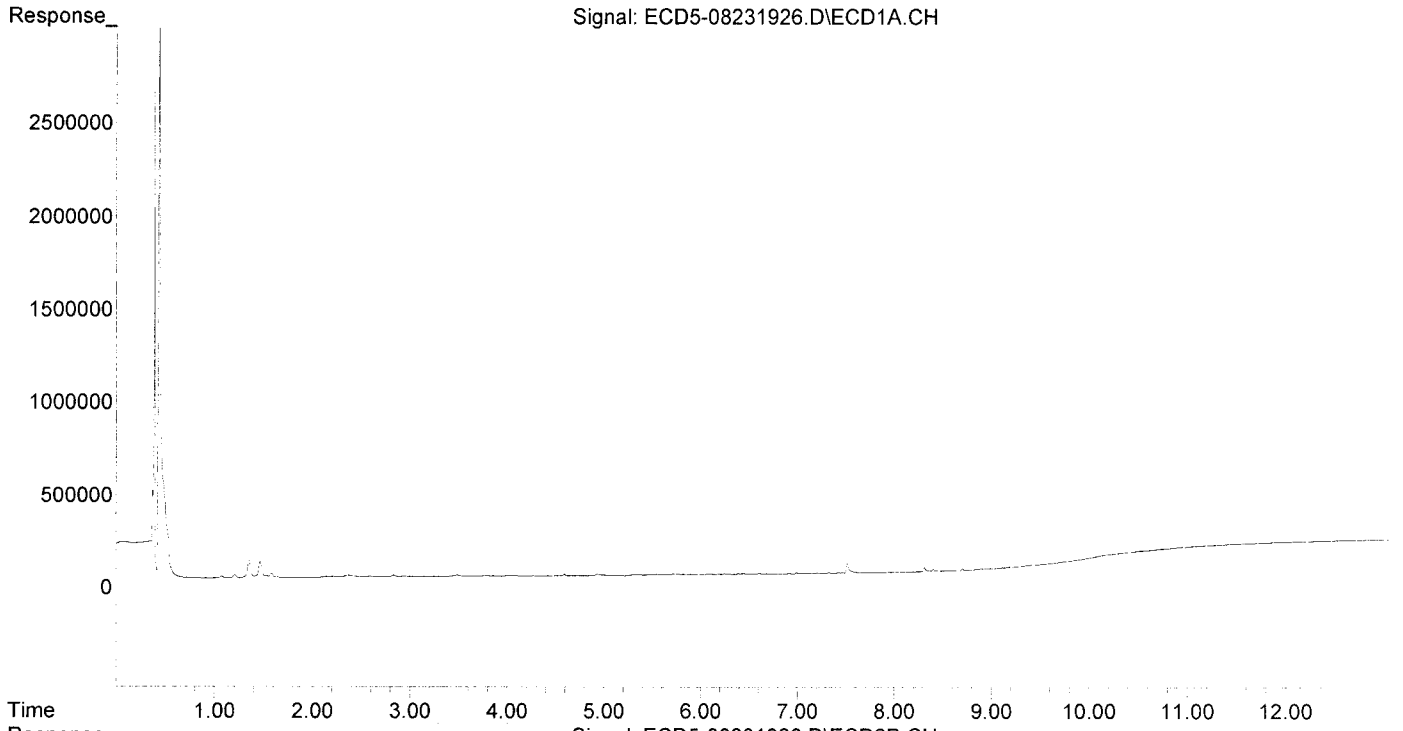
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.979	0	6612	N.D.	0.023	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.246f	0.000	5266	0	0.026	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.606f	0.000	2965	0	0.016	N.D.	#
6)		d-BHC	6.448	7.230	6262	8744	0.032	0.025	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	8.141	0	95737	N.D.	0.306	#
10)		cis-Chlor...	7.516	0.000	51171	0	0.281	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	8.115	8.861	2908	5919	0.020	0.026	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.404	9.098	11210	14199	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.288	9669	15528	0.062	0.062	
20)		Methoxychlor	8.535	0.000	2114	0	0.036	N.D.	#
21)		Endrin Ke...	8.899	9.685	4160	14028	0.025	0.055	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	0.000	8.141	0	95737	N.D. Q-pu	0.451	#
27)		trans-Non...	7.516	0.000	51171	0	~~87346.415~~	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.653	9.685	1197	14028	0.010	0.075	#
32)		Chlordane...	0.000	8.141	0	95737	N.D.	2.646	#
33)		Chlordane...	7.516	0.000	51171	0	2.042	N.D.	#
34)		Chlordane...	8.051	8.903	2776	42860	0.480	4.780	#
35)		Chlordane...	3.446	0.000	4206	0	NoCal	N.D.	
36)		Toxaphene...	7.516	0.000	51171	0	57.133	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.115	8.861	2908	5919	0.863	1.168	
39)		Toxaphene...	8.313f	8.903	23619	42860	7.290	5.133	
40)		Toxaphene...	8.535f	9.098	2114	14199	0.882	3.047	#
41)		Toxaphene...	8.653	0.000	1197	0	0.378	N.D.	#
42)		Toxaphene...	3.446	0.000	4206	0	NoCal	N.D.	

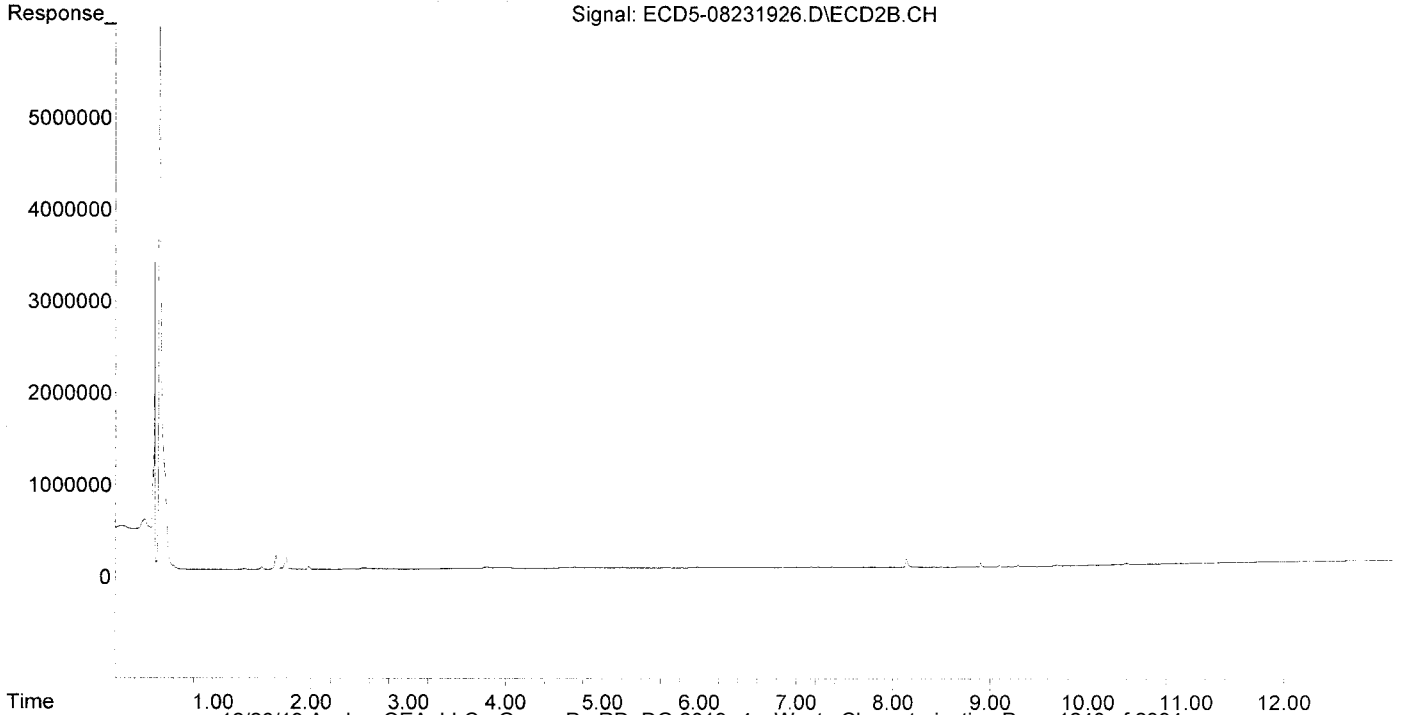
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:02
Operator : MJB
Sample : 9H23034-IBL2
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:03 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:19
Operator : MJB
Sample : 9H23034-ICV2
Misc : A19E043, 9-42 50 ppb
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

WP 8/26/19

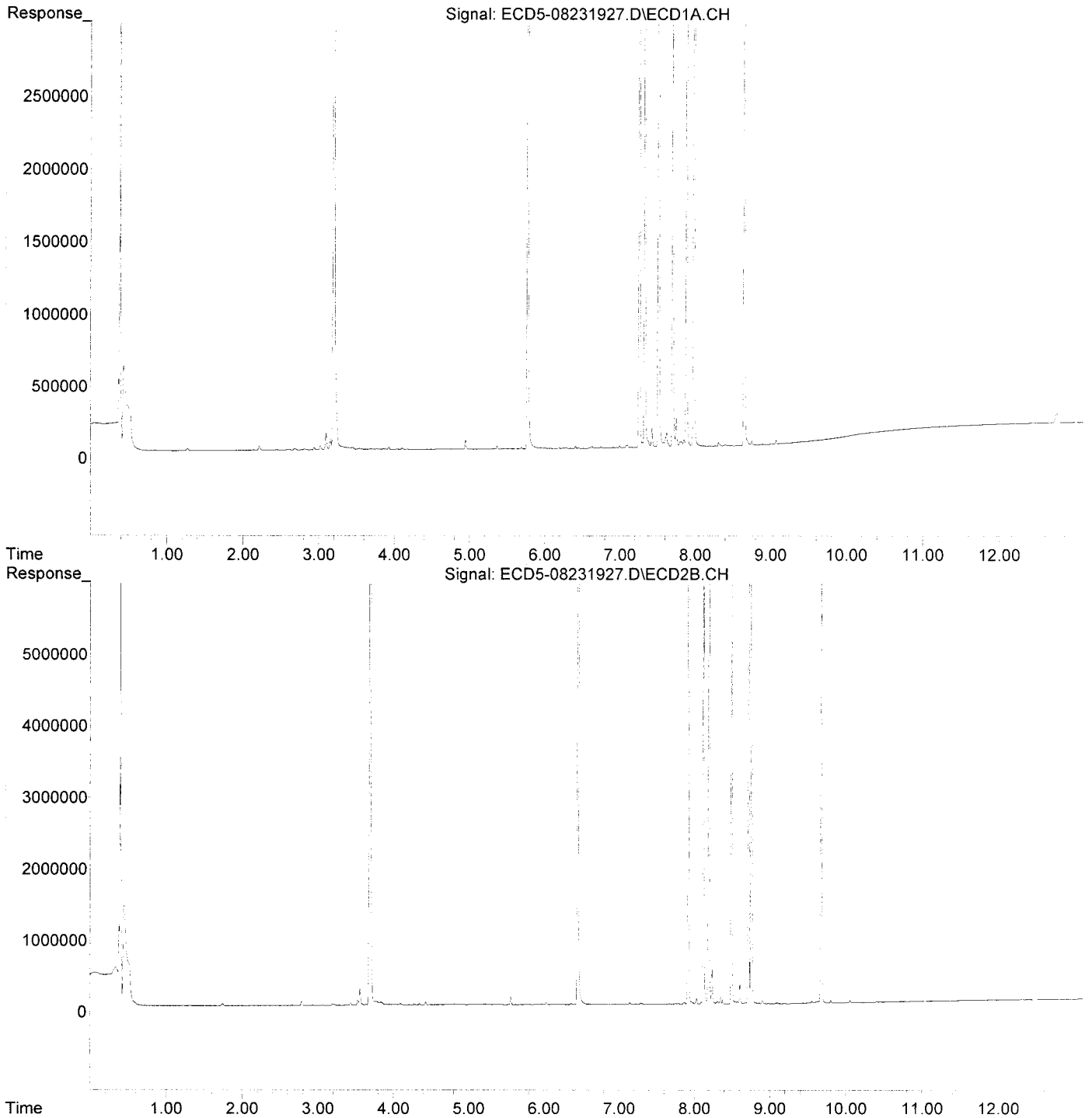
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.979	21795	7434	0.131	0.025	#
22)	S	DCBP (S)	9.593	0.000	5164	0	0.037	N.D.	#
		Target Compounds							
2)		a-BHC	5.944	0.000	7626	0	0.033	N.D.	#
3)		g-BHC	6.193f	6.950f	4309	4488	0.021	0.013	#
4)		b-BHC	6.276f	6.950f	4448	4488	0.049	0.028	#
5)		Heptachlor	6.631	7.288	13910	18612	0.077	0.061	
6)		d-BHC	6.450	7.231	4193	7280	0.021	0.021	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.333	7.969f	6044730	30442	32.820	0.101	#
9)		trans-Chl...	7.428	8.122	135885	10152421	0.735	32.402	#
10)		cis-Chlor...	7.515	8.238	9079715	499411	49.869	1.715	#
11)		Endosulfa...	7.623	8.313f	100346	33305	0.590	0.121	#
12)		4,4'-DDE	7.585	8.350	33793	99515	0.179	0.320	#
13)		Dieldrin	7.801	8.494	35090	9221128	0.183	30.318	#
14)		Endrin	7.985f	8.719	9530740	8396212	64.823	37.180	#
15)		4,4'-DDD	7.985	8.758	9530740	16410440	60.651	64.050	
16)		Endosulfa...	0.000	8.903f	0	43832	N.D.	0.190	#
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.400	9.100	6045	8867	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.288	0	6758	N.D.	0.027	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.897	9.678	3909	8640754	0.023	33.580	#
23)		Hexachlor...	3.197	3.687	8657262	18235302	47.375	48.507	
24)		Hexachlor...	5.774	6.453	8419764	15057280	47.760	47.940	
25)		Oxychlordane	7.260	7.920	8060765	13729255	48.990	50.125	
26)		2,4'-DDE	7.333	8.122	6044730	10152421	47.128	47.858	
27)		trans-Non...	7.515	8.194	9079715	15314695	50.392	50.772	
28)		2,4'-DDD	7.704	8.494	5439144	9221128	47.659	48.824	
29)		2,4'-DDT	7.888	8.719	5329154	8396212	48.585	47.080	
30)		cis-Nonac...	7.985	8.758	9530740	16410440	45.906	48.921	
31)		Mirex	8.652	9.678	5900124	8640754	47.063	46.437	
32)		Chlordane...	7.428	8.122	135885	10152421	6.901	280.573	#
33)		Chlordane...	7.515	8.238	9079715	499411	362.257	16.447	#
34)		Chlordane...	0.000	8.903	0	43832	N.D.	4.889	#
35)		Chlordane...	3.444	3.433	15163	32758	NoCal	NoCal	
36)		Toxaphene...	7.515	8.494f	9079715	9221128	10137.600	3513.804	#
37)		Toxaphene...	7.801	0.000	35090	0	21.729	N.D.	#
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	8.313f	8.903	24546	43832	7.576	5.249	
40)		Toxaphene...	0.000	9.100	0	8867	N.D.	1.903	#
41)		Toxaphene...	8.652	0.000	5900124	0	1864.424	N.D.	#
42)		Toxaphene...	3.444	3.433	15163	32758	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:19
Operator : MJB
Sample : 9H23034-ICV2
Misc : A19E043, 9-42 50 ppb
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:20
Operator : MJB
Sample : 9H23034-IBL3
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

clear MJB 8/26/19

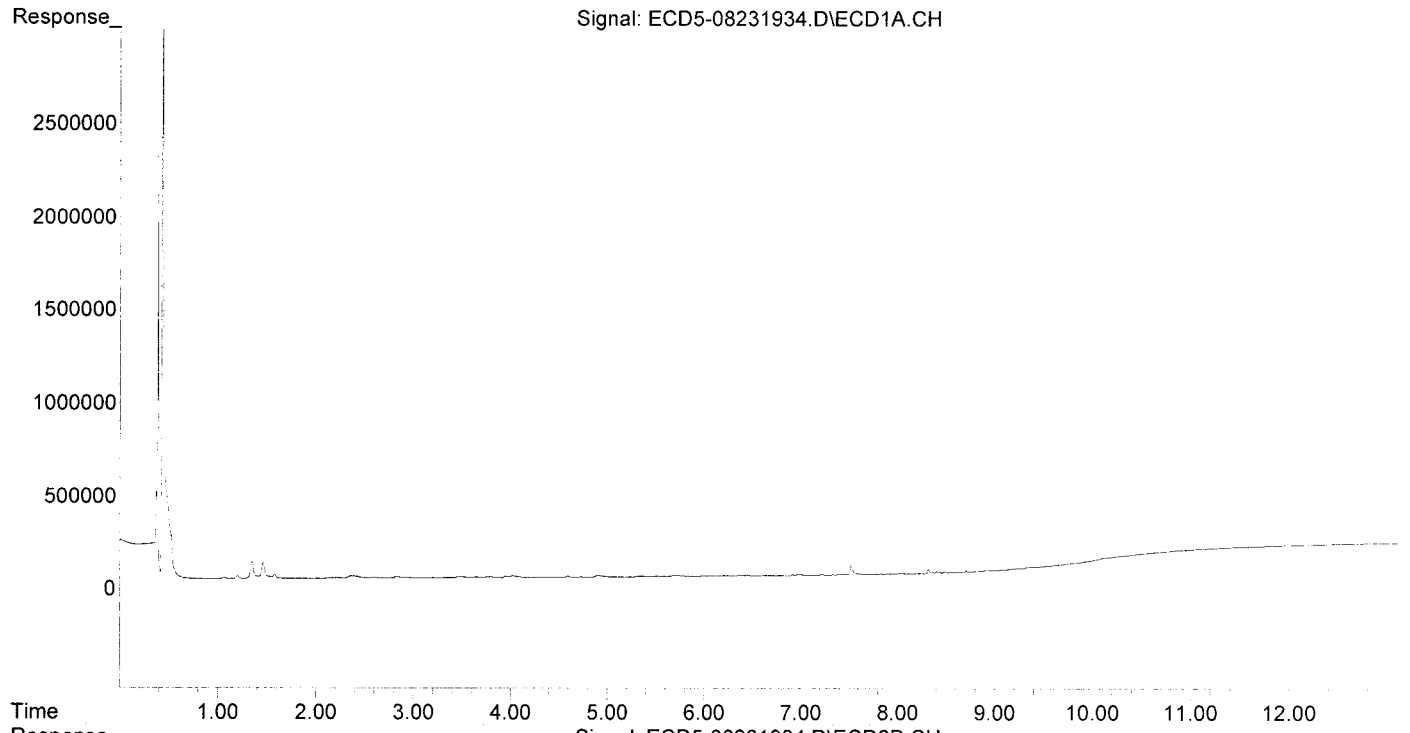
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.976	0	5923	N.D.	0.020	#
22) S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.207	0.000	3774	0	0.019	N.D.	#
4)	b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)	Heptachlor	6.609f	0.000	2731	0	0.015	N.D.	#
6)	d-BHC	6.450	7.231	5497	6832	0.028	0.019	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)	trans-Chl...	0.000	8.142	0	83130	N.D.	0.265	#
10)	cis-Chlor...	7.519	0.000	51396	0	0.282	N.D.	#
11)	Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)	Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)	Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)	4,4'-DDD	8.023f	0.000	4578	0	0.029	N.D.	#
16)	Endosulfa...	8.116	8.861	1913	3871	0.013	0.017	
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.405	9.098	8970	10610	BelowCal	BelowCal	
19)	Endosulfa...	8.706	9.288	7044	10525	0.045	0.042	
20)	Methoxychlor	8.536	0.000	1701	0	0.029	N.D.	#
21)	Endrin Ke...	8.919f	9.686	4032	9735	0.024	0.038	#
23)	Hexachlor...	0.000	3.679	0	2600	N.D.	0.007	#
24)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)	Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)	2,4'-DDE	0.000	8.142	0	83130	N.D. RDel	0.392	#
27)	trans-Non...	7.519	0.000	51396	0	~~87346.414~~	N.D.	#
28)	2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)	2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)	cis-Nonac...	8.023f	0.000	4578	0	0.022	N.D.	#
31)	Mirex	0.000	9.686	0	9735	N.D.	0.052	#
32)	Chlordane...	0.000	8.142	0	83130	N.D.	2.297	#
33)	Chlordane...	7.519	0.000	51396	0	2.051	N.D.	#
34)	Chlordane...	0.000	8.904	0	38172	N.D.	4.258	#
35)	Chlordane...	3.449	0.000	3828	0	NoCal	N.D.	
36)	Toxaphene...	7.519	0.000	51396	0	57.384	N.D.	#
37)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)	Toxaphene...	8.116	8.861	1913	3871	0.568	0.764	
39)	Toxaphene...	8.316f	8.904	21302	38172	6.574	4.572	
40)	Toxaphene...	8.536f	9.098	1701	10610	0.709	2.277	#
41)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)	Toxaphene...	3.449	0.000	3828	0	NoCal	N.D.	

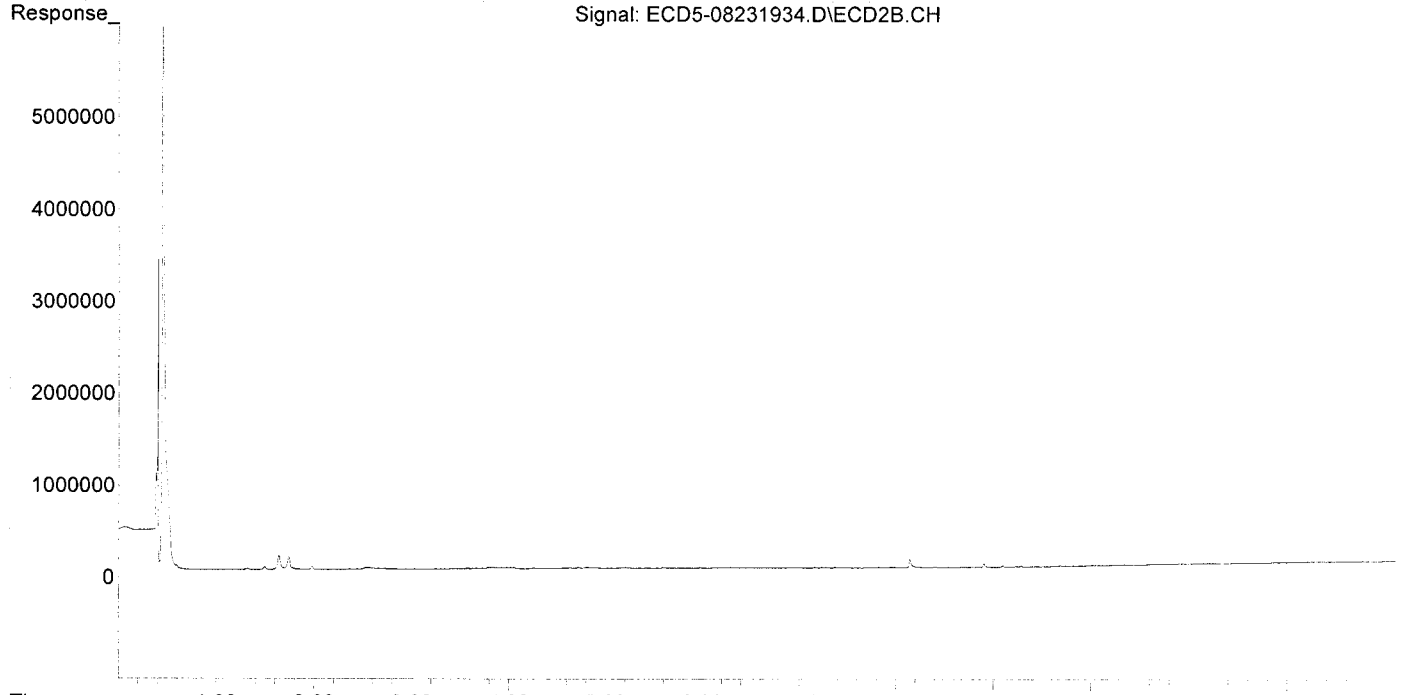
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:20
Operator : MJB
Sample : 9H23034-IBL3
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:37
Operator : MJB
Sample : 9H23034-ICV3
Misc : A19F108, CHLOR 500 ppb
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.975	0	8961	N.D.	0.031	#
22)	S	DCBP (S)	9.601	10.507f	18796	7616	0.133	0.042	#
		Target Compounds							
2)		a-BHC	5.934	6.622f	9141	348363	0.040	0.849	#
3)		g-BHC	6.194f	6.923	92353	182619	0.458	0.512	
4)		b-BHC	6.323f	7.017f	112667	560662	1.247	3.543	#
5)		Heptachlor	6.630	7.288	4625489	7814185	25.513	25.538	
6)		d-BHC	6.412f	7.222	337700	61064	1.717	0.173	#
7)		Aldrin	6.874	7.557	83911	133681	0.425	0.406	
8)		Heptachlo...	7.336	8.010	771372	473989	4.188	1.576	#
9)		trans-Chl...	7.427	8.130	10721056	19872286	57.986	63.424	
10)		cis-Chlor...	7.520	8.238	13401062	16289264	73.603	55.929	
11)		Endosulfa...	7.639	8.310f	285254	253033	1.676	0.920	#
12)		4,4'-DDE	7.578	8.333	311083	429833	1.650	1.384	
13)		Dieldrin	7.806	8.488	355046	1298858	1.849	4.270	#
14)		Endrin	7.984f	8.713	1829350	383068	12.442	1.696	#
15)		4,4'-DDD	7.984	8.759	1829350	3046940	11.641	11.892	
16)		Endosulfa...	8.118	8.873	216170	351371	1.505	1.524	
17)		4,4'-DDT	0.000	8.994	0	130946	N.D.	0.725	#
18)		Endrin Al...	8.427f	9.128f	55387	802635	BelowCal	3.530	
19)		Endosulfa...	8.708	9.290	120383	34589	0.777	0.139	#
20)		Methoxychlor	8.552	9.463	53824	27882	0.919	0.160	#
21)		Endrin Ke...	8.894	9.687	19548	156351	0.117	0.608	#
23)		Hexachlor...	3.198	3.688	5435	10087	0.030	0.027	
24)		Hexachlor...	5.768	6.431f	8591	38244	0.049	0.122	#
25)		Oxychlordane	7.253	7.933	114695	258636	0.697	0.944	
26)		2,4'-DDE	7.336	8.130	771372	19872286	6.014	93.676	#
27)		trans-Non...	7.520	8.195	13401062	14312099	74.546	47.448	
28)		2,4'-DDD	7.674f	8.488	831029	1298858	7.282	6.877	
29)		2,4'-DDT	7.913f	8.713	254540	383068	2.321	2.148	
30)		cis-Nonac...	7.984	8.759	1829350	3046940	8.811	9.083	
31)		Mirex	8.643	9.687	16477	156351	0.131	0.840	#
32)		Chlordane...	7.427	8.130	10721056	19872286	544.503	549.192	
33)		Chlordane...	7.520	8.238	13401062	16289264	534.667	536.465	
34)		Chlordane...	8.068	8.898	3177144	4850138	549.572	540.955	
35)		Chlordane...	3.448	0.000	3889	0	NoCal	N.D.	
36)		Toxaphene...	7.520	8.488f	13401062	1298858	14962.430	494.943	#
37)		Toxaphene...	7.806	8.814	355046	496679	219.851	150.919	
38)		Toxaphene...	8.118	8.851	216170	383467	64.193	75.660	
39)		Toxaphene...	8.347	8.898	132572	4850138	40.915	580.866	#
40)		Toxaphene...	8.552f	9.068f	53824	98957	22.453	21.234	
41)		Toxaphene...	8.643	9.463	16477	27882	5.207	5.870	
42)		Toxaphene...	3.448	0.000	3889	0	NoCal	N.D.	

A 542.91

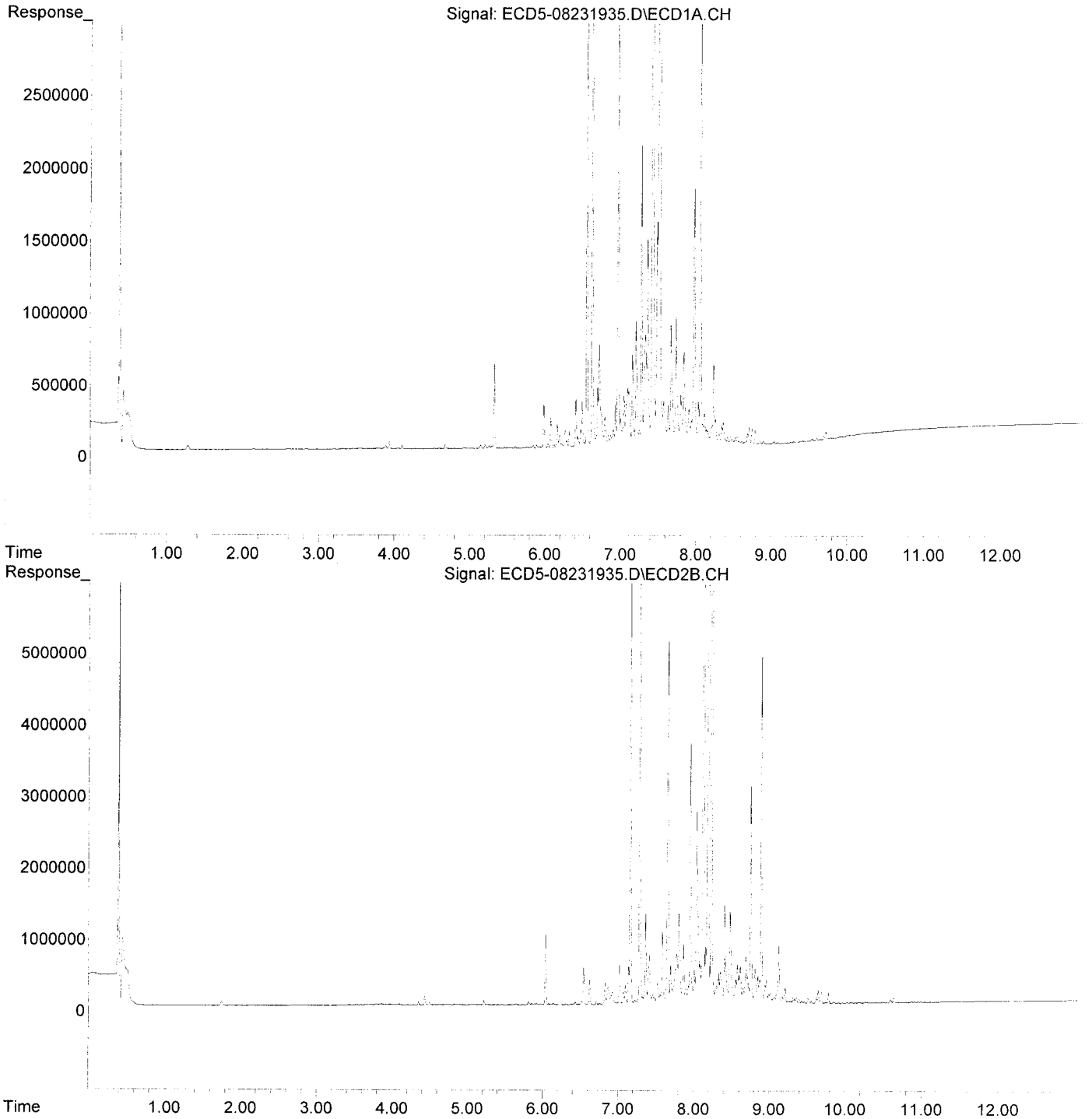
E 542.20

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:37
Operator : MJB
Sample : 9H23034-ICV3
Misc : A19F108, CHLOR 500 ppb
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231942.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:37
Operator : MJB
Sample : 9H23034-IBL4
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

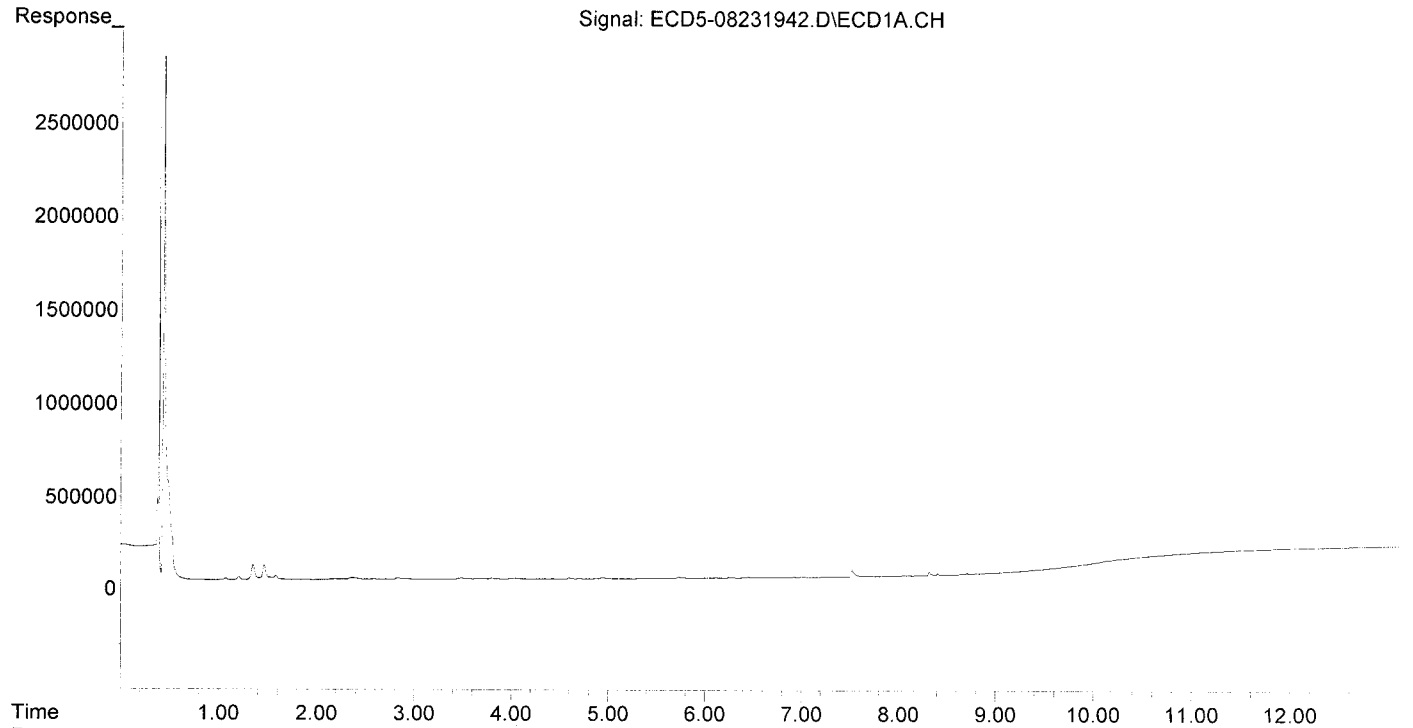
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.983	0	6142	N.D.	0.021	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.248f	0.000	4243	0	0.021	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.450	7.232	5264	7410	0.027	0.021	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	0.000	1978	0	0.011	N.D.	#
9)		trans-Chl...	7.425	8.145	1693	72982	0.009	0.233	#
10)		cis-Chlor...	7.522	0.000	38316	0	0.210	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	8.117	0.000	2505	0	0.017	N.D.	#
17)		4,4'-DDT	8.194	0.000	767	0	0.006	N.D.	#
18)		Endrin Al...	8.406	9.100	10140	13686	BelowCal	BelowCal	
19)		Endosulfa...	8.707	9.290	7273	12897	0.047	0.052	
20)		Methoxychlor	8.540	0.000	2018	0	0.034	N.D.	#
21)		Endrin Ke...	8.901	9.687	3565	7207	0.021	0.028	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.334	8.145f	1978	72982	0.015 Q2d	0.344	#
27)		trans-Non...	7.522	0.000	38316	0	~~87346.487~~	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.644	9.687	766	7207	0.006	0.039	#
32)		Chlordane...	7.425	8.145	1693	72982	0.086	2.017	#
33)		Chlordane...	7.522	0.000	38316	0	1.529	N.D.	#
34)		Chlordane...	8.049	8.906	2785	37528	0.482	4.186	#
35)		Chlordane...	3.451	0.000	3890	0	NoCal	N.D.	
36)		Toxaphene...	7.522f	0.000	38316	0	42.781	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.117	0.000	2505	0	0.744	N.D.	#
39)		Toxaphene...	8.318f	8.906	18960	37528	5.852	4.495	
40)		Toxaphene...	8.540f	9.100	2018	13686	0.842	2.937	#
41)		Toxaphene...	8.644	0.000	766	0	0.242	N.D.	#
42)		Toxaphene...	3.451	0.000	3890	0	NoCal	N.D.	

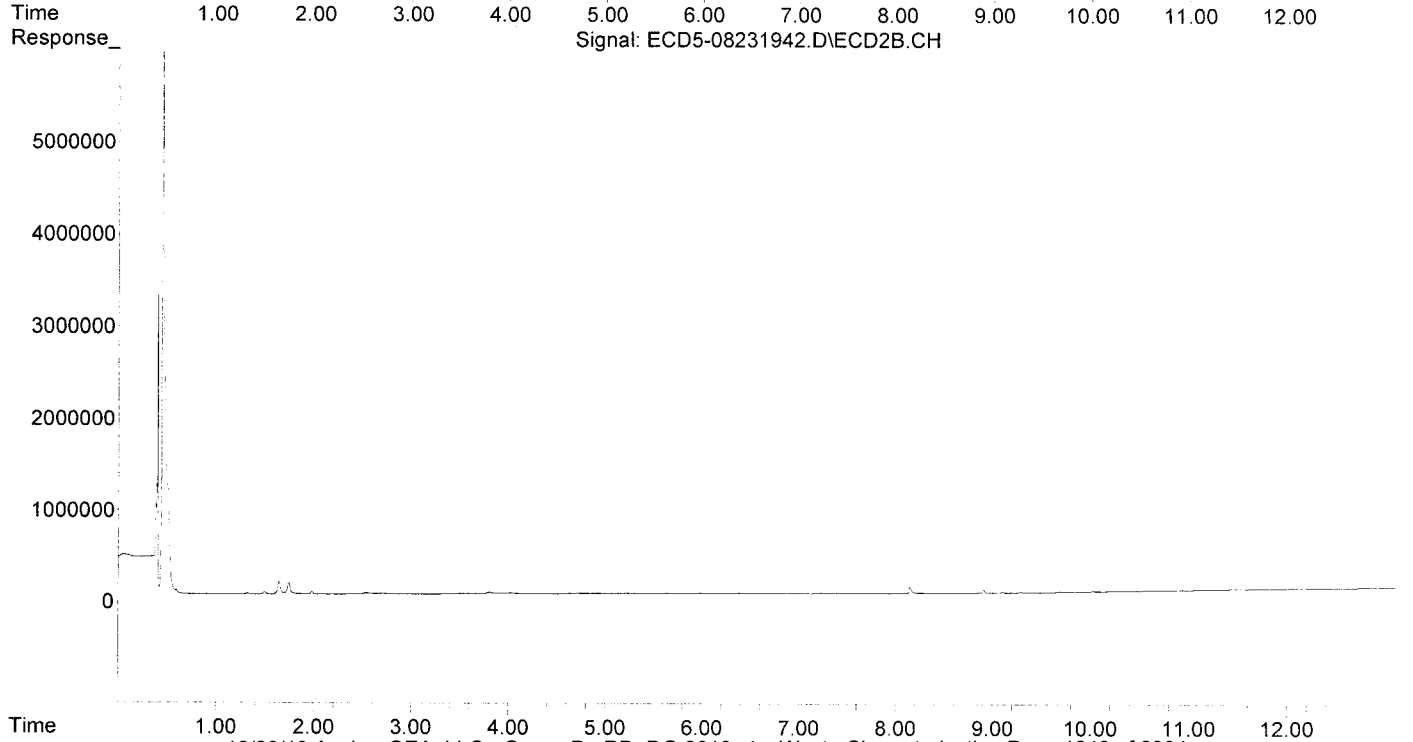
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231942.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:37
Operator : MJB
Sample : 9H23034-IBL4
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231943.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:54
Operator : MJB
Sample : 9H23034-ICV4
Misc : A19D127, TOX 500 ppb
ALS Vial : 35 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5611	N.D.	0.019	#
22)	S	DCBP (S)	9.591	10.521	22246	40017	0.158	0.223	#
		Target Compounds							
2)		a-BHC	5.949	6.596	3272	7415	0.014	0.018	
3)		g-BHC	6.247f	6.907	6246	18839	0.031	0.053	#
4)		b-BHC	6.296	6.966	11447	24200	0.127	0.153	
5)		Heptachlor	6.631	7.293	23849	45477	0.132	0.149	
6)		d-BHC	6.434	7.233	11867	47325	0.060	0.134	#
7)		Aldrin	6.871	7.582f	53004	119759	0.268	0.364	
8)		Heptachlo...	7.358f	7.984	250185	414973	1.358	1.379	
9)		trans-Chl...	7.445	8.135	315388	332556	1.706	1.061	
10)		cis-Chlor...	7.501f	8.220	426074	475646	2.340	1.633	
11)		Endosulfa...	7.629	8.295	511717	592244	3.007	2.152	
12)		4,4'-DDE	7.551f	8.359	359885	753065	1.909	2.424	
13)		Dieldrin	7.794	8.506	766286	726725	3.992	2.389	#
14)		Endrin	7.934f	8.711	607064	1341537	4.129	5.941	#
15)		4,4'-DDD	8.021	8.761	679517	912025	4.324	3.560	
16)		Endosulfa...	8.105	8.848	1638713	2447077	11.411	10.611	
17)		4,4'-DDT	8.184	8.976	1416015	960593	11.844	5.508	#
18)		Endrin Al...	8.392	9.091	1088580	2275708	8.285	11.454	
19)		Endosulfa...	8.709	9.291	549140	929201	3.543	3.730	
20)		Methoxychlor	8.543	9.470	549172	2364076	9.376	27.518	#
21)		Endrin Ke...	8.893	9.712f	380224	458705	2.280	1.783	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.813f	6.462	3660	6563	0.021	0.021	
25)		Oxychlordane	7.265	7.936	334880	406205	2.035	1.483	
26)		2,4'-DDE	7.358f	8.112	250185	466633	1.951	2.200	
27)		trans-Non...	7.501	8.205	426074	457454	2.062	1.517	
28)		2,4'-DDD	7.712	8.506	575777	726725	5.045	3.848	
29)		2,4'-DDT	7.898	8.711	911632	1341537	8.311	7.522	
30)		cis-Nonac...	7.982	8.761	1096031	912025	5.279	2.719	#
31)		Mirex	8.641	9.712f	1546722	458705	12.338	2.465	#
32)		Chlordane...	7.445	8.135	315388	332556	16.018	9.191	#
33)		Chlordane...	7.501	8.220	426074	475646	16.999	15.665	
34)		Chlordane...	8.046f	8.915	705731	4045258	122.075	451.184	#
35)		Chlordane...	3.453	0.000	2732	0	NoCal	N.D.	
36)		Toxaphene...	7.501	8.466	426074	1252556	475.717	477.299	
37)		Toxaphene...	7.794	8.813	766286	1618562	474.499	491.811	
38)		Toxaphene...	8.105	8.848	1638713	2447077	486.627	482.818	
39)		Toxaphene...	8.346	8.915	1570667	4045258	484.751	484.472	
40)		Toxaphene...	8.573	9.091	1186452	2275708	494.944	488.312	
41)		Toxaphene...	8.641	9.470	1546722	2364076	488.760	497.679	
42)		Toxaphene...	3.453	0.000	2732	0	NoCal	N.D.	

A B

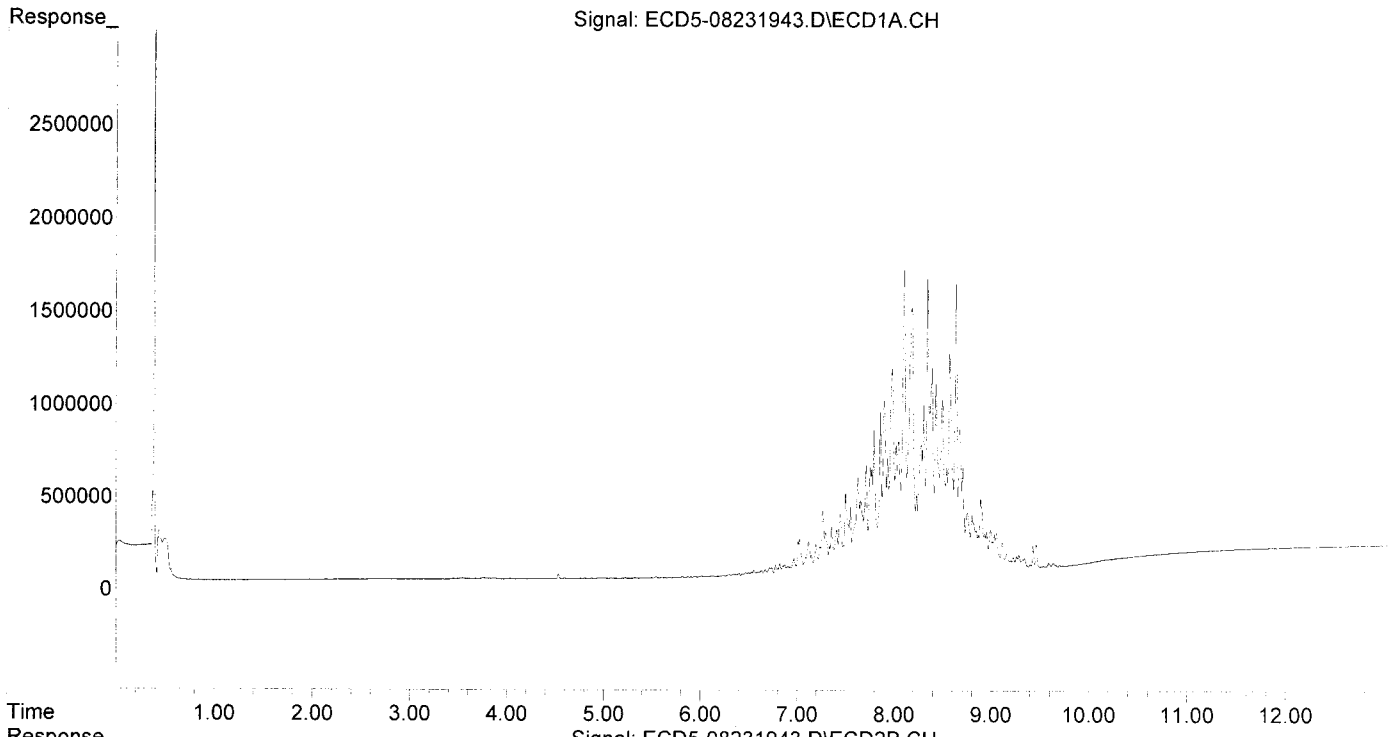
484.22 487.07

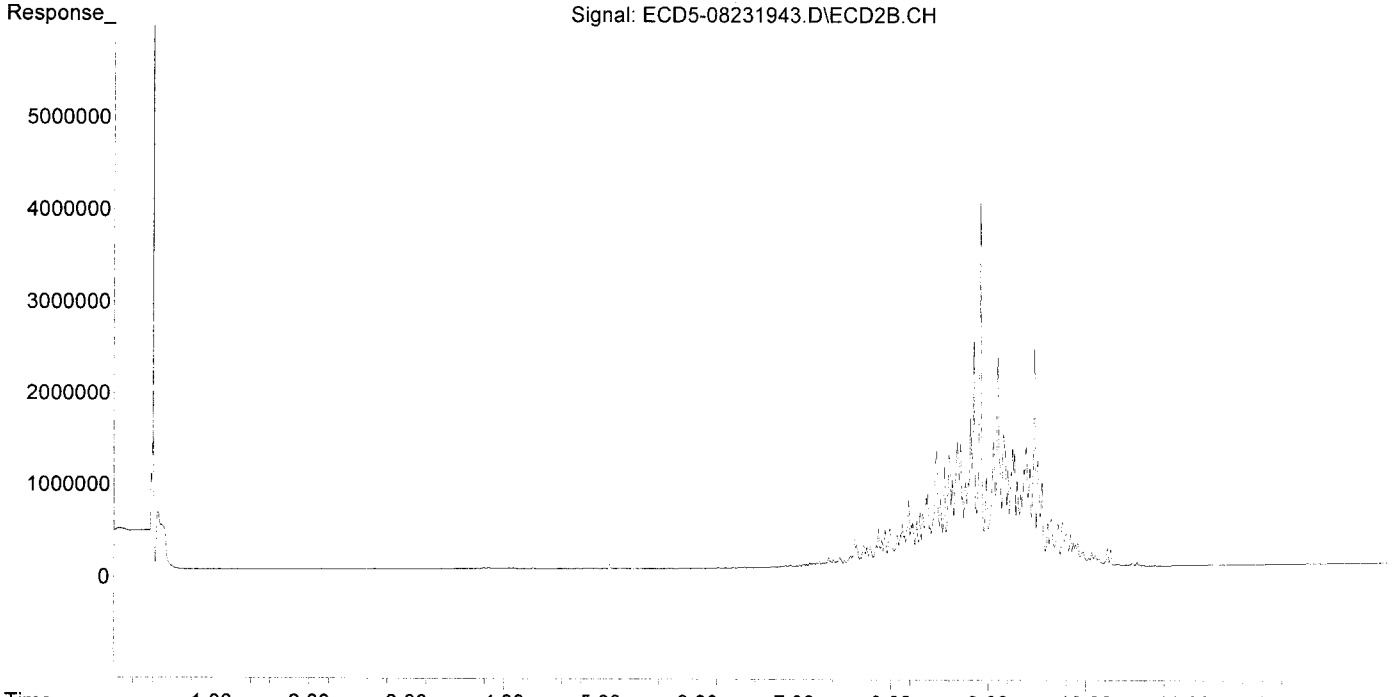
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231943.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:54
Operator : MJB
Sample : 9H23034-ICV4
Misc : A19D127, TOX 500 ppb
ALS Vial : 35 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

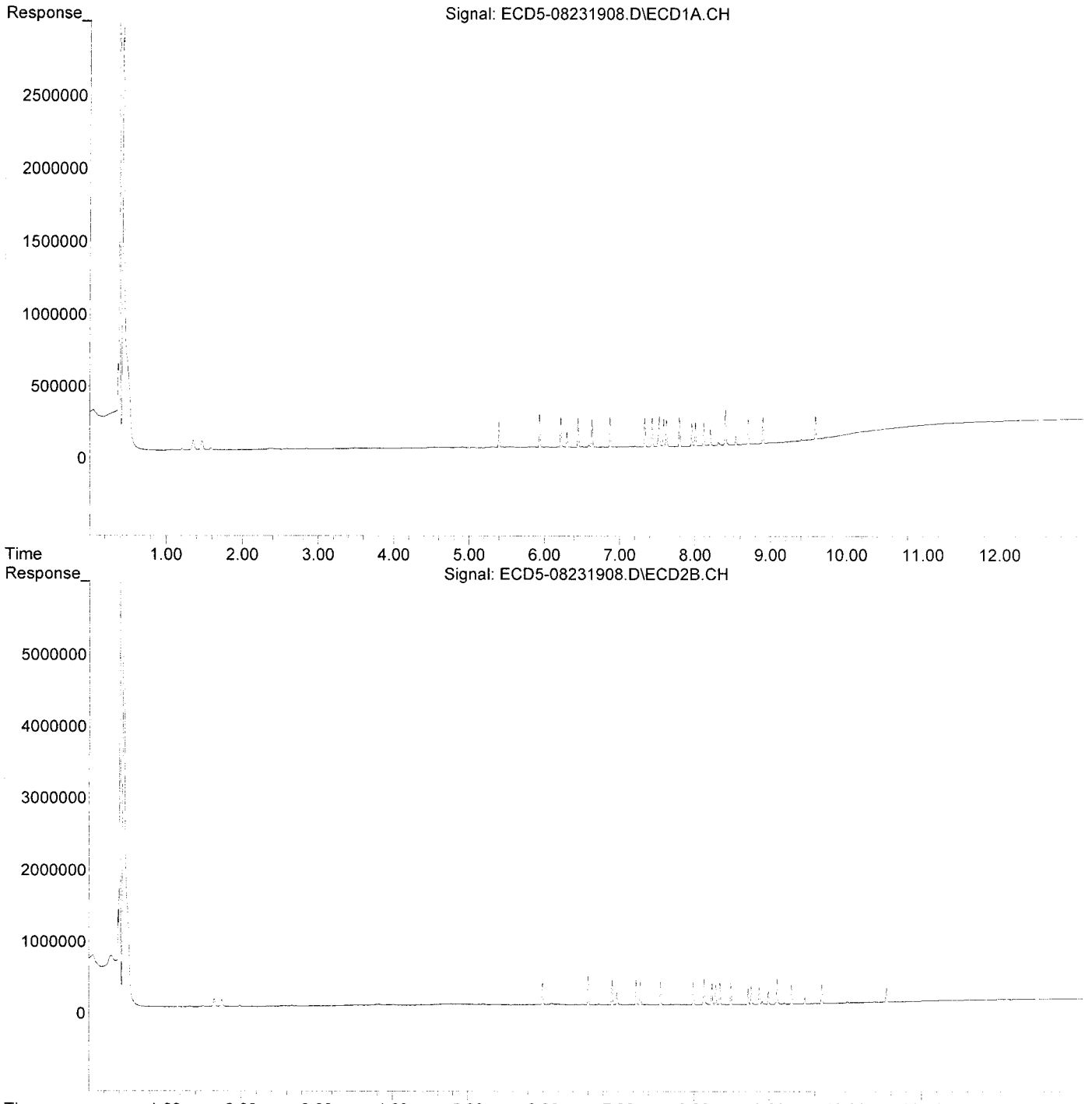
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.065	1.023	
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.161	1.066	
		Target Compounds							
2)		a-BHC	5.937	6.597	231994	393119	1.012	0.958	
3)		g-BHC	6.221	6.915	207427	352286	1.028	0.988	
4)		b-BHC	6.300	6.980	104326	176262	1.154	1.114	
5)		Heptachlor	6.635	7.292	192066	309811	1.059	1.013	
6)		d-BHC	6.450	7.234	199840	349123	1.016	0.990	
7)		Aldrin	6.875	7.557	205523	317466	1.041	0.964	
8)		Heptachlo...	7.335	7.994	200503	310098	1.089	1.031	
9)		trans-Chl...	7.433	8.135	197202	364142	1.067	1.162	
10)		cis-Chlor...	7.528	8.241	209780	299422	1.152	1.028	
11)		Endosulfa...	7.625	8.291	185217	278874	1.088	1.013	
12)		4,4'-DDE	7.586	8.346	193435	298463	1.026	0.961	
13)		Dieldrin	7.796	8.491	197721	296684	1.030	0.975	
14)		Endrin	7.961	8.718	156412	222882	1.064	0.987	
15)		4,4'-DDD	8.007	8.760	164956	251549	1.050	0.982	
16)		Endosulfa...	8.118	8.865	158139	232156	1.101	1.007	
17)		4,4'-DDT	8.205	8.986	113897	179700	0.953	1.008	
18)		Endrin Al...	8.407	9.101	241285	348624	1.050	1.058	
19)		Endosulfa...	8.708	9.292	176097	265797	1.136	1.067	
20)		Methoxychlor	8.543	9.466	59659	95155	1.019	0.994	
21)		Endrin Ke...	8.901	9.690	177552	255763	1.065	0.994	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.335	8.135	200503	364142	1.563	1.717	
27)		trans-Non...	7.528	0.000	209780	0	0.855	N.D.	#
28)		2,4'-DDD	0.000	8.491	0	296684	N.D.	1.571	#
29)		2,4'-DDT	0.000	8.718	0	222882	N.D.	1.250	#
30)		cis-Nonac...	8.007f	8.760	164956	251549	0.795	0.750	
31)		Mirex	0.000	9.690	0	255763	N.D.	1.375	#
32)		Chlordane...	7.433	8.135	197202	364142	10.016	10.063	
33)		Chlordane...	7.528	8.241	209780	299422	8.370	9.861	
34)		Chlordane...	0.000	8.903	0	37787	N.D.	4.214	#
35)		Chlordane...	3.445	0.000	4502	0	NoCal	N.D.	
36)		Toxaphene...	7.528f	8.491f	209780	296684	234.222	113.054	#
37)		Toxaphene...	7.796	0.000	197721	0	122.432	N.D.	#
38)		Toxaphene...	8.118	8.865	158139	232156	46.960	45.805	
39)		Toxaphene...	8.312f	8.903	20859	37787	6.438	4.525	
40)		Toxaphene...	8.543f	9.101	59659	348624	24.888	74.806	#
41)		Toxaphene...	0.000	9.466	0	95155	N.D.	20.032	#
42)		Toxaphene...	3.445	0.000	4502	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

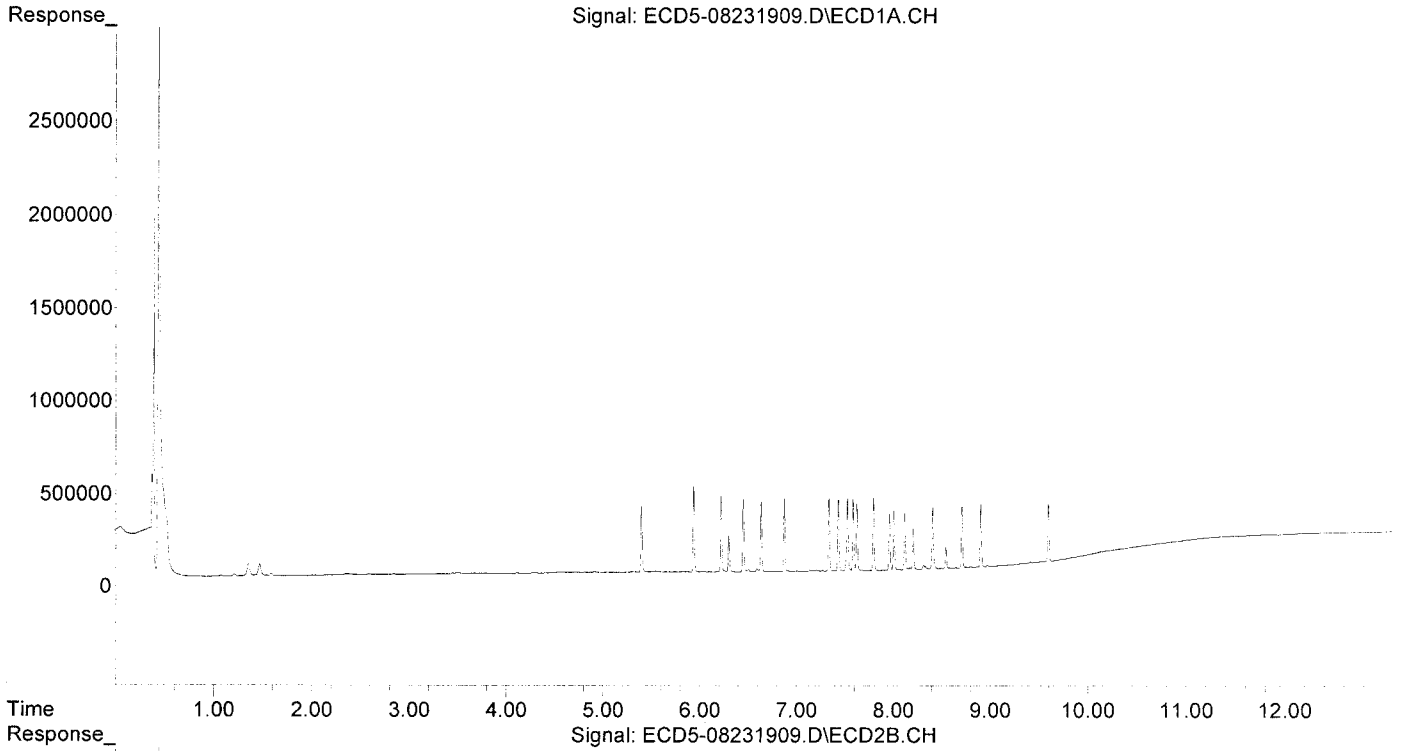
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	349972	600766	2.109	2.048	
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.196	2.170	
		Target Compounds							
2)		a-BHC	5.936	6.597	458365	784586	1.999	1.912	
3)		g-BHC	6.220	6.915	406027	690922	2.012	1.937	
4)		b-BHC	6.300	6.980	194168	335260	2.148	2.118	
5)		Heptachlor	6.635	7.291	369615	586765	2.039	1.918	
6)		d-BHC	6.450	7.233	386980	669122	1.967	1.897	
7)		Aldrin	6.875	7.556	399550	635458	2.024	1.929	
8)		Heptachlo...	7.335	7.993	392052	606240	2.129	2.015	
9)		trans-Chl...	7.432	8.135	382271	644454	2.068	2.057	
10)		cis-Chlor...	7.527	8.241	389999	579667	2.142	1.990	
11)		Endosulfa...	7.625	8.291	357368	540442	2.100	1.964	
12)		4,4'-DDE	7.586	8.345	388618	598066	2.061	1.925	
13)		Dieldrin	7.796	8.491	395728	583812	2.061	1.919	
14)		Endrin	7.960	8.718	298515	424889	2.030	1.881	
15)		4,4'-DDD	8.006	8.760	314622	488120	2.002	1.905	
16)		Endosulfa...	8.118	8.864	299106	462256	2.083	2.005	
17)		4,4'-DDT	8.204	8.986	218190	341782	1.825	1.948	
18)		Endrin Al...	8.407	9.101	328182	477694	1.795	1.763	
19)		Endosulfa...	8.707	9.291	322163	498767	2.079	2.002	
20)		Methoxychlor	8.542	9.465	111466	178074	1.903	2.018	
21)		Endrin Ke...	8.901	9.689	331269	493110	1.987	1.916	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	7.271	0.000	4709	0	0.029	N.D.	#
26)		2,4'-DDE	7.335	8.135	392052	644454	3.057	3.038	
27)		trans-Non...	7.527	0.000	389999	0	1.861	N.D.	#
28)		2,4'-DDD	0.000	8.491	0	583812	N.D.	3.091	#
29)		2,4'-DDT	0.000	8.718	0	424889	N.D.	2.382	#
30)		cis-Nonac...	8.006f	8.760	314622	488120	1.515	1.455	
31)		Mirex	8.657	9.689	1737	493110	0.014	2.650	#
32)		Chlordane...	7.432	8.135	382271	644454	19.415	17.810	
33)		Chlordane...	7.527	8.241	389999	579667	15.560	19.091	
34)		Chlordane...	8.065	8.903	2900	40429	0.502	4.509	#
35)		Chlordane...	3.445	0.000	4897	0	NoCal	N.D.	
36)		Toxaphene...	7.527f	8.491f	389999	583812	435.438	222.468	#
37)		Toxaphene...	7.796	0.000	395728	0	245.042	N.D.	#
38)		Toxaphene...	8.118	8.864	299106	462256	88.822	91.205	
39)		Toxaphene...	8.312f	8.903	21365	40429	6.594	4.842	
40)		Toxaphene...	8.582	9.101	2314	477694	0.965	102.502	#
41)		Toxaphene...	8.657	9.465	1737	178074	0.549	37.488	#
42)		Toxaphene...	3.445	0.000	4897	0	NoCal	N.D.	

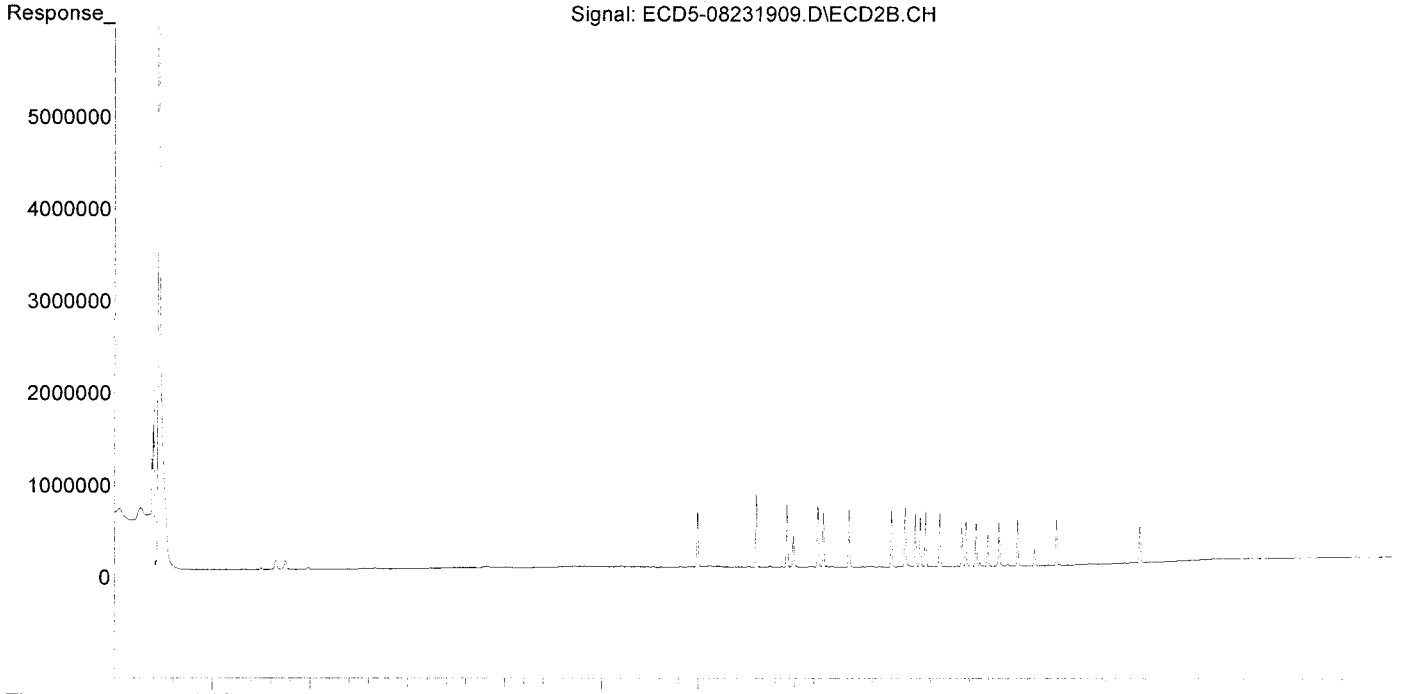
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231909.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:08
Operator : MJB
Sample : 9H23034-CAL2
Misc : A19E246, AB 2 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

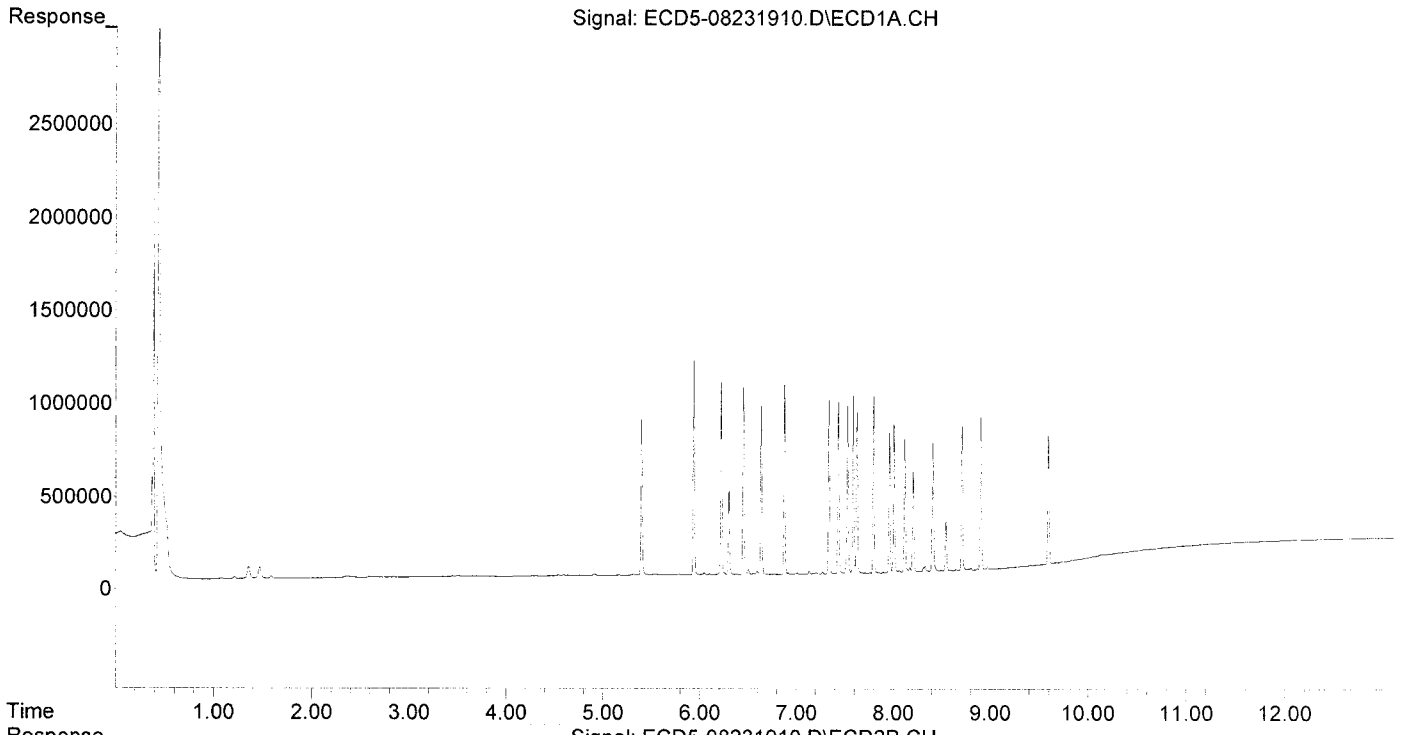
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.396	5.990	834206	1437876	5.026	4.901	
22)	S DCBP (S)	9.594	10.542	701050	870921	4.969	4.845	
	Target Compounds							
2)	a-BHC	5.937	6.597	1147932	1985438	5.006	4.839	
3)	g-BHC	6.220	6.915	1020724	1742677	5.059	4.885	
4)	b-BHC	6.300	6.980	456954	788630	5.056	4.983	
5)	Heptachlor	6.635	7.291	899091	1508218	4.959	4.929	
6)	d-BHC	6.449	7.233	1004012	1717450	5.105	4.870	
7)	Aldrin	6.875	7.556	1012733	1600995	5.129	4.860	
8)	Heptachlo...	7.335	7.994	923620	1455941	5.015	4.839	
9)	trans-Chl...	7.432	8.134	926577	1502119	5.011	4.794	
10)	cis-Chlor...	7.528	8.241	908795	1434855	4.991	4.927	
11)	Endosulfa...	7.624	8.290	861509	1327191	5.062	4.823	
12)	4,4'-DDE	7.586	8.345	953351	1487999	5.057	4.790	
13)	Dieldrin	7.796	8.491	972009	1462538	5.063	4.809	
14)	Endrin	7.960	8.718	738953	1092877	5.026	4.839	
15)	4,4'-DDD	8.007	8.759	790498	1208642	5.031	4.717	
16)	Endosulfa...	8.118	8.865	709544	1096359	4.941	4.754	
17)	4,4'-DDT	8.205	8.986	553009	873653	4.625	5.010	
18)	Endrin Al...	8.407	9.101	683393	1045869	4.834	4.849	
19)	Endosulfa...	8.708	9.291	768798	1175908	4.961	4.721	
20)	Methoxychlor	8.542	9.466	270388	413802	4.616	4.904	
21)	Endrin Ke...	8.901	9.689	811384	1205004	4.866	4.683	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.782	0.000	4389	0	0.025	N.D.	#
25)	Oxychlordane	7.271	0.000	11672	0	0.071	N.D.	#
26)	2,4'-DDE	7.335	8.134	923620	1502119	7.201	7.081	
27)	trans-Non...	7.528	0.000	908795	0	4.756	N.D.	#
28)	2,4'-DDD	0.000	8.491	0	1462538	N.D.	7.744	#
29)	2,4'-DDT	7.894	8.718	3329	1092877	0.030	6.128	#
30)	cis-Nonac...	8.007f	8.759	790498	1208642	3.808	3.603	
31)	Mirex	8.645	9.689	4292	1205004	0.034	6.476	#
32)	Chlordane...	7.432	8.134	926577	1502119	47.059	41.513	
33)	Chlordane...	7.528	8.241	908795	1434855	36.259	47.255	
34)	Chlordane...	8.063	8.903	7555	42265	1.307	4.714	#
35)	Chlordane...	3.446	0.000	4904	0	NoCal	N.D.	
36)	Toxaphene...	7.528f	8.491f	908795	1462538	1014.680	557.315	#
37)	Toxaphene...	7.796	0.000	972009	0	601.886	N.D.	#
38)	Toxaphene...	8.118	8.865	709544	1096359	210.704	216.316	
39)	Toxaphene...	8.328	8.903	27348	42265	8.440	5.062	#
40)	Toxaphene...	8.542f	9.101	270388	1045869	112.796	224.418	#
41)	Toxaphene...	8.645	9.466	4292	413802	1.356	87.113	#
42)	Toxaphene...	3.446	0.000	4904	0	NoCal	N.D.	

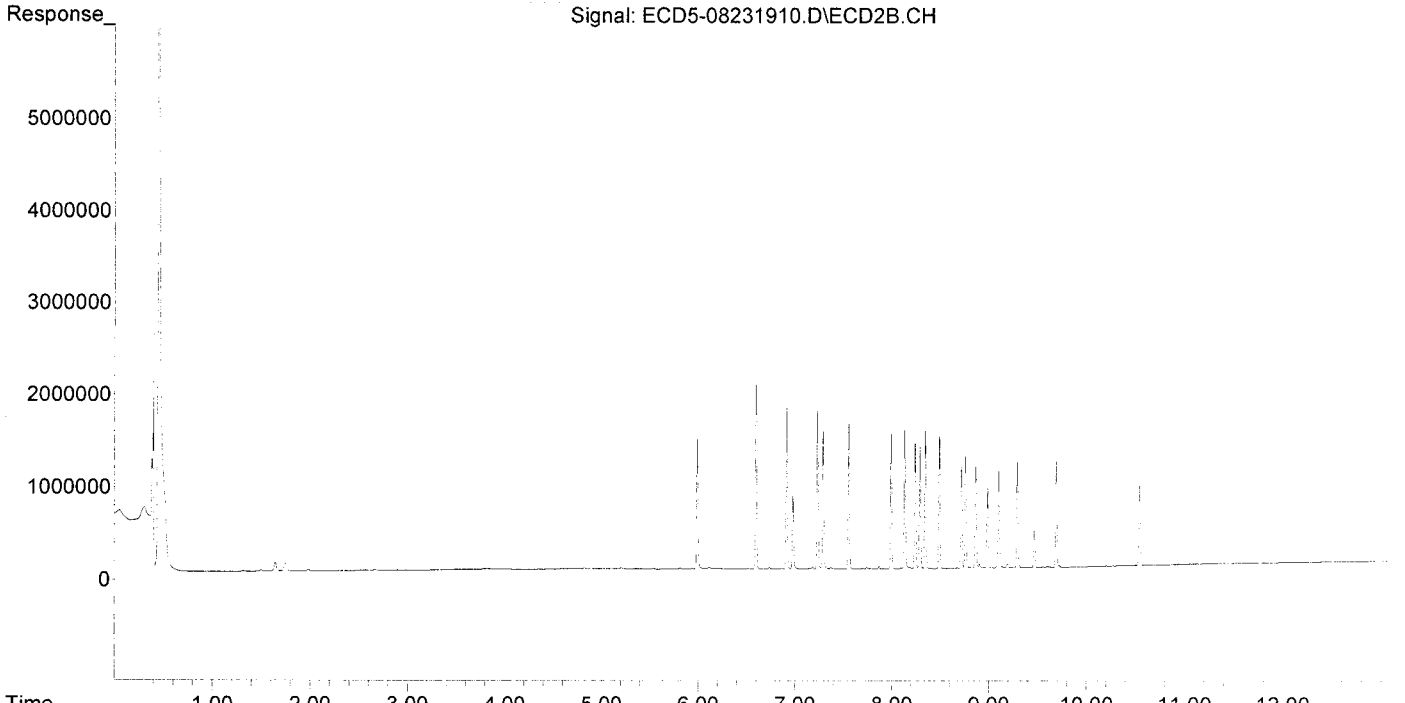
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231910.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:25
Operator : MJB
Sample : 9H23034-CAL3
Misc : A19E247, AB 5 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:25 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

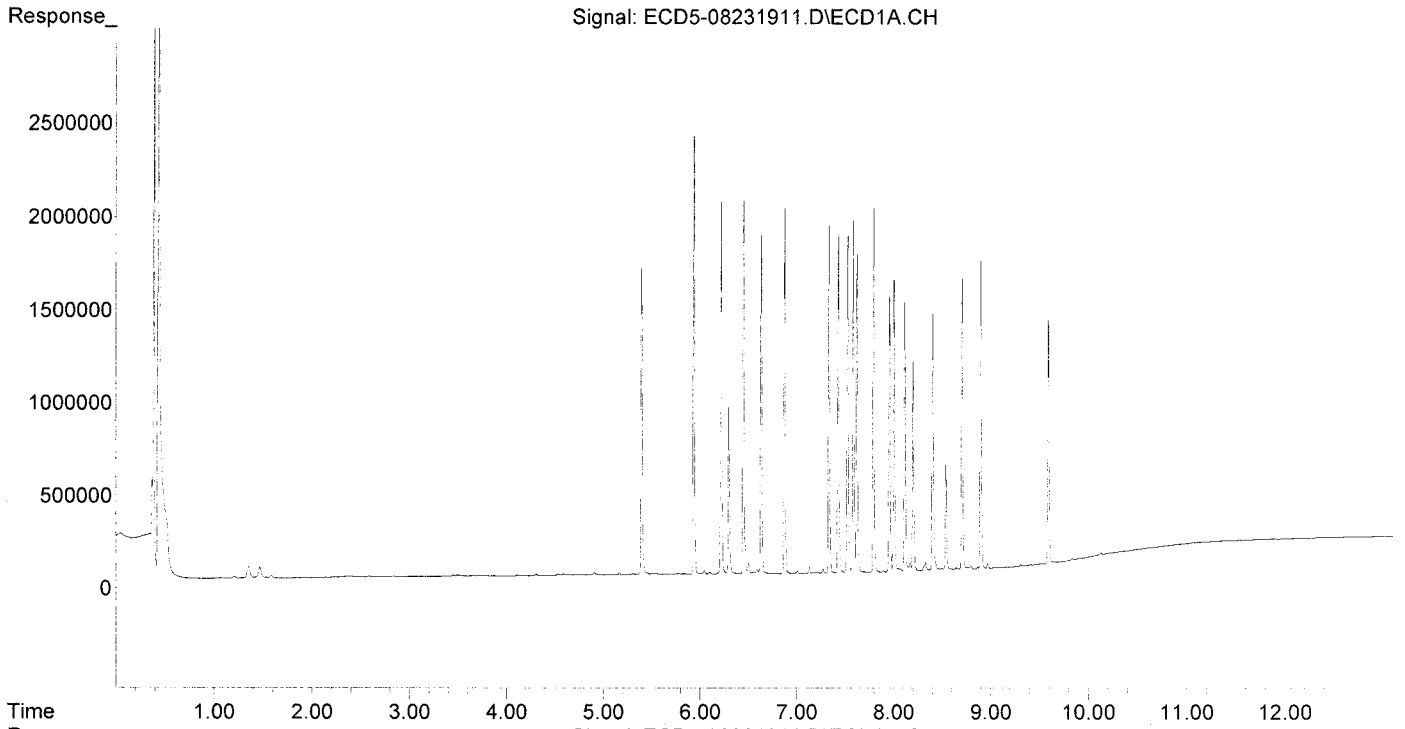
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.396	5.990	1644447	2865854	9.908	9.769	
22)	S DCBP (S)	9.593	10.541	1335468	1678728	9.465	9.339	
	Target Compounds							
2)	a-BHC	5.936	6.597	2347065	4095890	10.234	9.982	
3)	g-BHC	6.220	6.915	2034859	3476733	10.085	9.747	
4)	b-BHC	6.299	6.980	910875	1580847	10.078	9.989	
5)	Heptachlor	6.634	7.291	1819621	3005915	10.037	9.824	
6)	d-BHC	6.449	7.234	2006493	3613517	10.201	10.246	
7)	Aldrin	6.875	7.556	2010802	3341093	10.184	10.143	
8)	Heptachlo...	7.335	7.994	1865428	2959301	10.128	9.837	
9)	trans-Chl...	7.431	8.134	1847996	3002782	9.995	9.584	
10)	cis-Chlor...	7.527	8.241	1843346	2859573	10.124	9.818	
11)	Endosulfa...	7.623	8.291	1709332	2724272	10.044	9.900	
12)	4,4'-DDE	7.585	8.346	1890931	3049792	10.030	9.817	
13)	Dieldrin	7.795	8.491	1954890	2898866	10.183	9.531	
14)	Endrin	7.960	8.718	1475508	2244483	10.036	9.939	
15)	4,4'-DDD	8.006	8.760	1565974	2425496	9.965	9.467	
16)	Endosulfa...	8.117	8.864	1448080	2243610	10.083	9.729	
17)	4,4'-DDT	8.204	8.987	1146556	1841119	9.590	10.491	
18)	Endrin Al...	8.406	9.101	1375129	2125028	10.716	10.650	
19)	Endosulfa...	8.707	9.292	1553540	2424584	10.024	9.734	
20)	Methoxychlor	8.542	9.465	561706	883069	9.590	10.543	
21)	Endrin Ke...	8.900	9.689	1664380	2496985	9.981	9.704	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.781	0.000	6414	0	0.036	N.D.	#
25)	Oxychlordane	7.271	0.000	23125	0	0.141	N.D.	#
26)	2,4'-DDE	7.335	8.134	1865428	3002782	14.544	14.155	
27)	trans-Non...	7.527	0.000	1843346	0	9.974	N.D.	#
28)	2,4'-DDD	0.000	8.491	0	2898866	N.D.	15.349	#
29)	2,4'-DDT	7.893	8.718	6940	2244483	0.063	12.585	#
30)	cis-Nonac...	8.006f	8.760	1565974	2425496	7.543	7.231	
31)	Mirex	8.644	9.689	9584	2496985	0.076	13.419	#
32)	Chlordane...	7.431	8.134	1847996	3002782	93.856	82.985	
33)	Chlordane...	7.527	8.241	1843346	2859573	73.545	94.176	
34)	Chlordane...	8.062	8.903	15147	46214	2.620	5.154	#
35)	Chlordane...	3.446	0.000	4445	0	NoCal	N.D.	
36)	Toxaphene...	7.527f	8.491f	1843346	2898866	2058.116	1104.642	#
37)	Toxaphene...	7.795	0.000	1954890	0	1210.504	N.D.	#
38)	Toxaphene...	8.117	8.864	1448080	2243610	430.018	442.674	
39)	Toxaphene...	8.328	8.903	47046	46214	14.520	5.535	#
40)	Toxaphene...	8.542f	9.101	561706	2125028	234.323	455.980	#
41)	Toxaphene...	8.644	9.465	9584	883069	3.029	185.901	#
42)	Toxaphene...	3.446	0.000	4445	0	NoCal	N.D.	

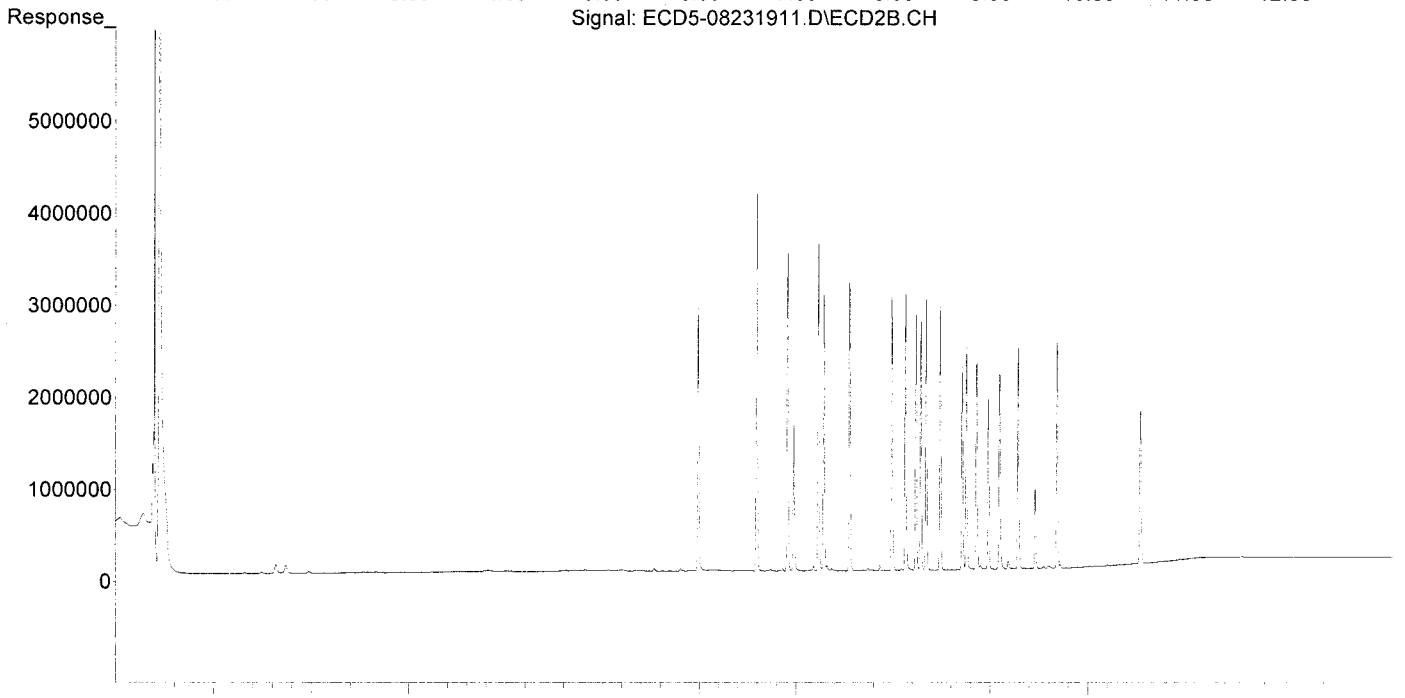
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231911.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 14:42
Operator : MJB
Sample : 9H23034-CAL4
Misc : A19E249, AB 10 ppb
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:00:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:01 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MB 8/26/19

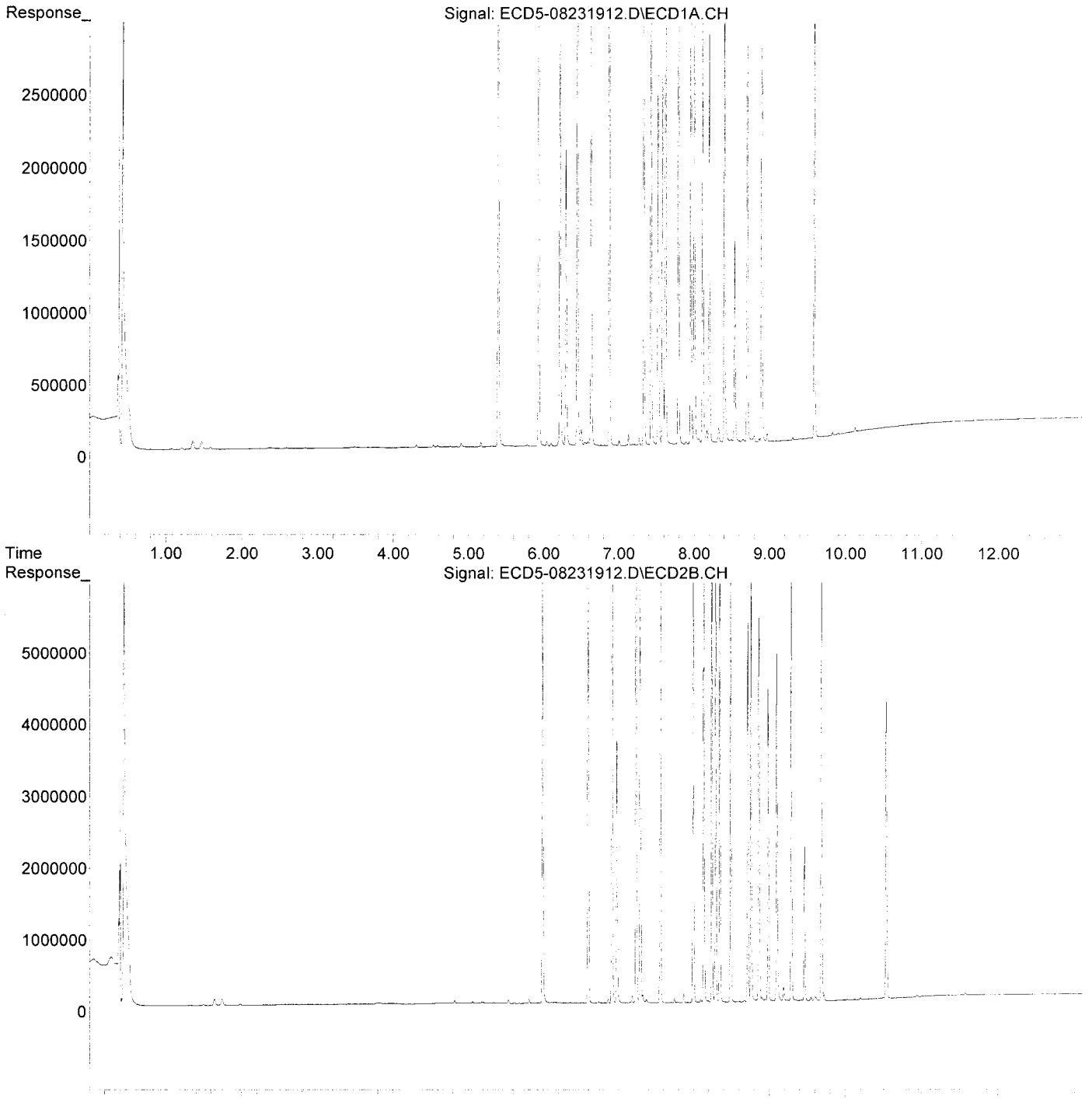
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	4015832	7072923	24.195	24.109	
22)	S	DCBP (S)	9.592	10.539	3342634	4163229	23.690	23.160	
		Target Compounds							
2)		a-BHC	5.935	6.596	5553096	9910863	24.215	24.153	
3)		g-BHC	6.218	6.913	4875657	8508386	24.164	23.853	
4)		b-BHC	6.297	6.978	2060378	3677155	22.796	23.234	
5)		Heptachlor	6.633	7.289	4314306	7282282	23.797	23.800	
6)		d-BHC	6.447	7.232	4667166	8247775	23.729	23.387	
7)		Aldrin	6.873	7.555	4845355	7878574	24.540	23.919	
8)		Heptachlo...	7.332	7.992	4344286	7064729	23.587	23.483	
9)		trans-Chl...	7.429	8.131	4401456	7157480	23.806	22.844	
10)		cis-Chlor...	7.525	8.239	4244413	6935857	23.312	23.814	
11)		Endosulfa...	7.621	8.288	4111285	6571512	24.158	23.881	
12)		4,4'-DDE	7.583	8.343	4571066	7501047	24.246	24.144	
13)		Dieldrin	7.792	8.489	4582306	7333890	23.869	24.113	
14)		Endrin	7.957	8.716	3508904	5325883	23.866	23.584	
15)		4,4'-DDD	8.004	8.758	3727035	6146469	23.718	23.990	
16)		Endosulfa...	8.115	8.862	3371864	5447602	23.479	23.623	
17)		4,4'-DDT	8.202	8.984	2924467	4480388	24.460	24.907	
18)		Endrin Al...	8.404	9.099	3119767	4848504	25.346	24.953	
19)		Endosulfa...	8.705	9.289	3645411	5978906	23.522	24.003	
20)		Methoxychlor	8.540	9.463	1390283	2166659	23.735	25.322	
21)		Endrin Ke...	8.899	9.688	4008958	5893691	24.041	22.904	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.779	0.000	7817	0	0.044	N.D.	#
25)		Oxychlordane	7.269	0.000	51278	0	0.312	N.D.	#
26)		2,4'-DDE	7.332	8.131	4344286	7157480	33.871	33.740	
27)		trans-Non...	7.525	8.192	4244413	24831	23.380	0.082	#
28)		2,4'-DDD	0.000	8.489	0	7333890	N.D.	38.832	#
29)		2,4'-DDT	7.891	8.716	15573	5325883	0.142	29.864	#
30)		cis-Nonac...	8.004	8.758	3727035	6146469	17.952	18.323	
31)		Mirex	8.651	9.688	18145	5893691	0.145	31.674	#
32)		Chlordane...	7.429	8.131	4401456	7157480	223.542	197.805	
33)		Chlordane...	7.525	8.239	4244413	6935857	169.341	228.423	
34)		Chlordane...	8.059	8.901	33094	57884	5.724	6.456	
35)		Chlordane...	3.446	0.000	4689	0	NoCal	N.D.	
36)		Toxaphene...	7.525f	8.489f	4244413	7333890	4738.933	2794.653	#
37)		Toxaphene...	7.792	0.000	4582306	0	2837.449	N.D.	#
38)		Toxaphene...	8.115	8.862	3371864	5447602	1001.299	1074.835	
39)		Toxaphene...	8.326f	8.901	104762	57884	32.332	6.932	#
40)		Toxaphene...	8.540f	9.099	1390283	4848504	579.975	1040.371	#
41)		Toxaphene...	8.651	9.463	18145	2166659	5.734	456.119	#
42)		Toxaphene...	3.446	0.000	4689	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231912.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:00
Operator : MJB
Sample : 9H23034-CAL5
Misc : A19E250, AB 25 ppb
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:01 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

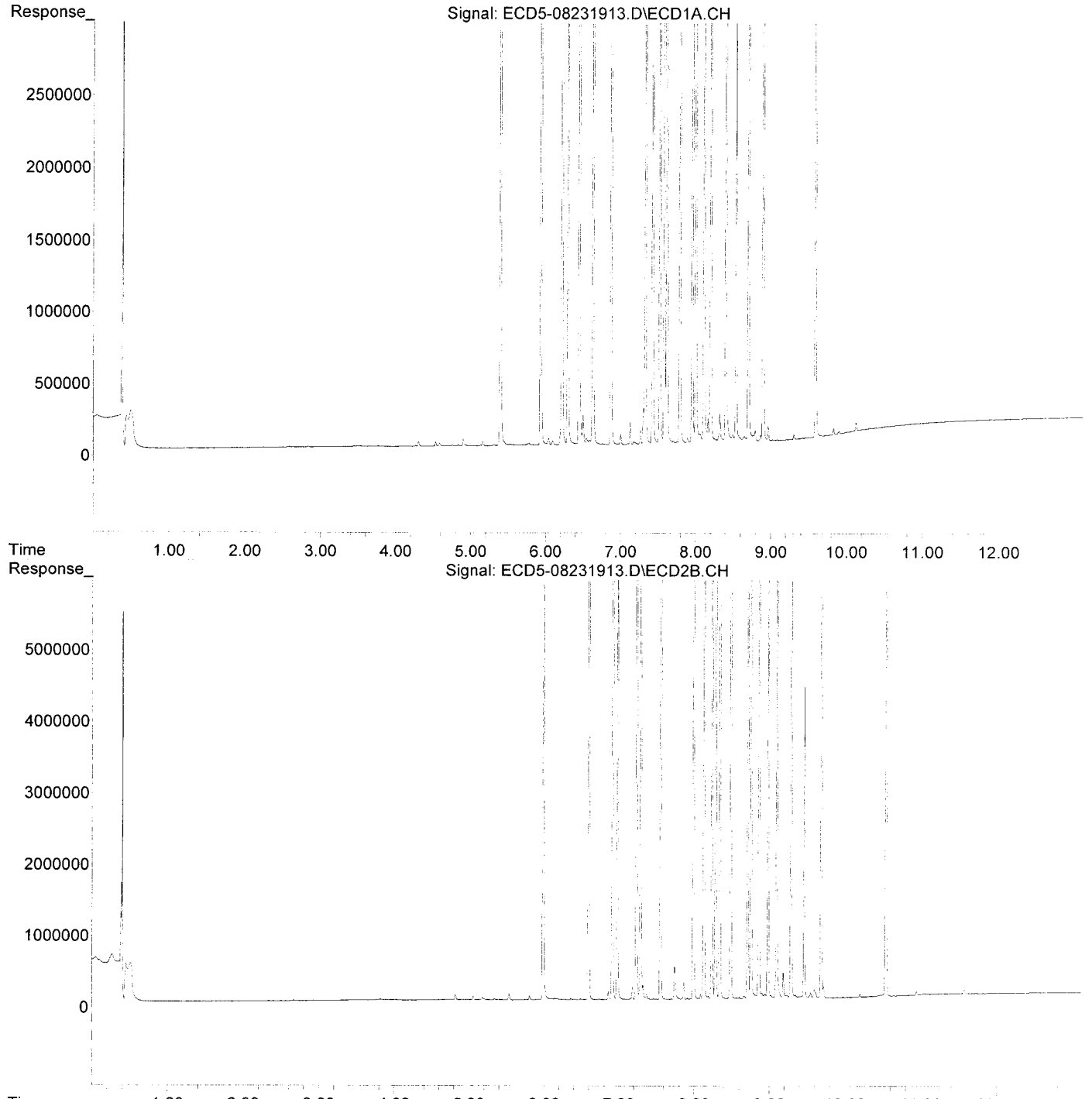
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	8071481	14196745	48.631	48.392	
22)	S	DCBP (S)	9.592	10.541	6678990	8730692	47.336	48.568	
		Target Compounds							
2)		a-BHC	5.935	6.596	11369592	20265817	49.578	49.388	
3)		g-BHC	6.218	6.914	9785999	17381069	48.499	48.727	
4)		b-BHC	6.296	6.978	4100858	7516011	45.372	47.490	
5)		Heptachlor	6.632	7.290	8735158	14595143	48.182	47.700	
6)		d-BHC	6.447	7.232	9610742	17311258	48.862	49.087	
7)		Aldrin	6.873	7.555	9327672	16264416	47.242	49.377	
8)		Heptachlo...	7.332	7.992	8869300	14837794	48.156	49.320	
9)		trans-Chl...	7.428	8.131	8959305	14678719	48.457	46.848	
10)		cis-Chlor...	7.524	8.238	8622674	14002116	47.359	48.076	
11)		Endosulfa...	7.621	8.289	7984410	13712329	46.917	49.831	
12)		4,4'-DDE	7.583	8.344	9177389	15554706	48.679	50.067	
13)		Dieldrin	7.792	8.489	9386664	15434113	48.894	50.745	
14)		Endrin	7.957	8.716	6979572	11015379	47.471	48.778	
15)		4,4'-DDD	8.004	8.758	7726197	13159451	49.167	51.361	
16)		Endosulfa...	8.114	8.863	6840920	11534525	47.635	50.018	
17)		4,4'-DDT	8.202	8.985	6205369	9285492	51.902	49.430	
18)		Endrin Al...	8.404	9.099	6224451	10209034	50.697	51.836	
19)		Endosulfa...	8.705	9.289	7420576	12149289	47.882	48.775	
20)		Methoxychlor	8.540	9.464	2860683	4346199	48.839	48.597	
21)		Endrin Ke...	8.899	9.687	8190707	12954568	49.117	50.345	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.777	6.487f	17034	6623	0.097	0.021	#
25)		Oxychlordane	7.268	7.916	93115	13858	0.566	0.051	#
26)		2,4'-DDE	7.332	8.131	8869300	14678719	69.150	69.194	
27)		trans-Non...	7.524	8.193	8622674	44541	47.838	0.148	#
28)		2,4'-DDD	7.705	8.489	15706	15434113	0.138	81.721	#
29)		2,4'-DDT	7.890	8.716	32276	11015379	0.294	61.766	#
30)		cis-Nonac...	8.004	8.758	7726197	13159451	37.214	39.229	
31)		Mirex	8.653	9.687	33100	12954568	0.264	69.621	#
32)		Chlordane...	7.428	8.131	8959305	14678719	455.027	405.662	
33)		Chlordane...	7.524	8.238	8622674	14002116	344.022	461.141	
34)		Chlordane...	8.059	8.901	56505	76664	9.774	8.551	
35)		Chlordane...	3.445	0.000	3954	0	NoCal	N.D.	
36)		Toxaphene...	7.524f	8.489f	8622674	15434113	9627.309	5881.324	
37)		Toxaphene...	7.792	8.823	9386664	45987	5812.397	13.973	#
38)		Toxaphene...	8.114	8.863	6840920	11534525	2031.460	2275.810	
39)		Toxaphene...	8.325f	8.901	190344	76664	58.746	9.182	#
40)		Toxaphene...	8.540f	9.099	2860683	10209034	1193.372	2190.611	#
41)		Toxaphene...	8.653	9.464	33100	4346199	10.460	914.950	#
42)		Toxaphene...	3.445	0.000	3954	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231913.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:17
Operator : MJB
Sample : 9H23034-CAL6
Misc : A19H383, AB 50 ppb
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

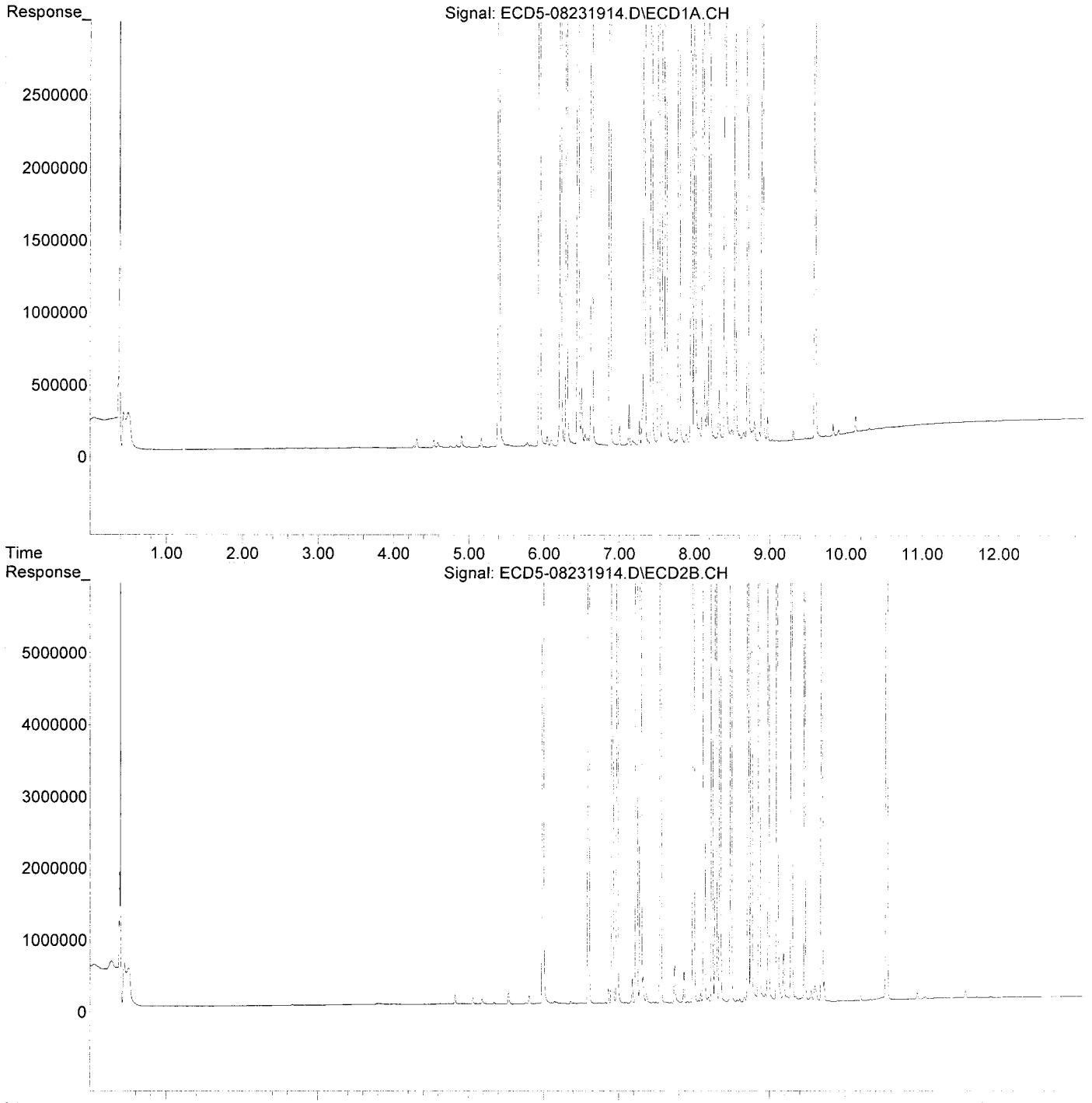
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	95.502	99.726	
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	95.007	98.931	
		Target Compounds							
2)		a-BHC	5.935	6.596	22363584	41699210	97.517	101.621	
3)		g-BHC	6.218	6.914	19595093	36788994	97.113	103.136	
4)		b-BHC	6.296	6.977	8355416	14625175	92.444	92.409	
5)		Heptachlor	6.632	7.289	17551528	30277818	96.811	98.955	
6)		d-BHC	6.446	7.232	19475580	35176633	99.016	99.745	
7)		Aldrin	6.872	7.555	19108074	33906422	96.776	102.936	
8)		Heptachlo...	7.331	7.991	17318444	30045511	94.031	99.869	
9)		trans-Chl...	7.427	8.131	17732791	30742272	95.909	98.116	
10)		cis-Chlor...	7.523	8.238	16742584	29042863	91.956	99.719	
11)		Endosulfa...	7.619	8.288	16089996	27212707	94.547	98.892	
12)		4,4'-DDE	7.582	8.344	18052552	32499603	95.754	104.609	
13)		Dieldrin	7.791	8.488	18324422	31001958	95.450	101.930	
14)		Endrin	7.957	8.715	13812708	23102413	93.947	102.301	
15)		4,4'-DDD	8.003	8.758	15437146	26297484	98.238	102.639	
16)		Endosulfa...	8.113	8.861	13543500	23016371	94.307	99.808	
17)		4,4'-DDT	8.201	8.984	12176961	19789501	101.848	97.215	
18)		Endrin Al...	8.403	9.098	12363806	20502737	98.526	99.562	
19)		Endosulfa...	8.704	9.289	14366789	24477320	92.702	98.268	
20)		Methoxychlor	8.539	9.463	5877329	9444987	100.340	96.538	
21)		Endrin Ke...	8.898	9.687	16251943	26636559	97.458	103.517	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.777	0.000	29252	0	0.166	N.D.	#
25)		Oxychlordane	7.267	7.915	165864	25145	1.008	0.092	#
26)		2,4'-DDE	7.331	8.131	17318444	30742272	135.025	144.916	
27)		trans-Non...	7.523	8.192	16742584	77338	93.233	0.256	#
28)		2,4'-DDD	7.704	8.488	32176	31001958	0.282	164.150	#
29)		2,4'-DDT	7.889	8.715	66298	23102413	0.604	129.542	#
30)		cis-Nonac...	8.003	8.758	15437146	26297484	74.355	78.395	
31)		Mirex	8.651	9.687	63592	26636559	0.507	143.151	#
32)		Chlordane...	7.427	8.131	17732791	30742272	900.616	849.596	
33)		Chlordane...	7.523	8.238	16742584	29042863	667.985	956.488	#
34)		Chlordane...	8.059	8.899	102306	115089	17.697	12.836	
35)		Chlordane...	3.447	0.000	5362	0	NoCal	N.D.	
36)		Toxaphene...	7.523f	8.488f	16742584	31001958	18693.275	11813.609	
37)		Toxaphene...	7.791	0.000	18324422	0	11346.823	N.D.	#
38)		Toxaphene...	8.113	8.861	13543500	23016371	4021.839	4541.226	
39)		Toxaphene...	8.324f	8.899	362066	115089	111.744	13.783	#
40)		Toxaphene...	8.598f	9.098	51910	20502737	21.655	4399.391	#
41)		Toxaphene...	8.651	9.463	63592	9444987	20.095	1988.334	#
42)		Toxaphene...	3.447	0.000	5362	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:34
Operator : MJB
Sample : 9H23034-CAL7
Misc : A19H382, AB 100 ppb
ALS Vial : 10 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

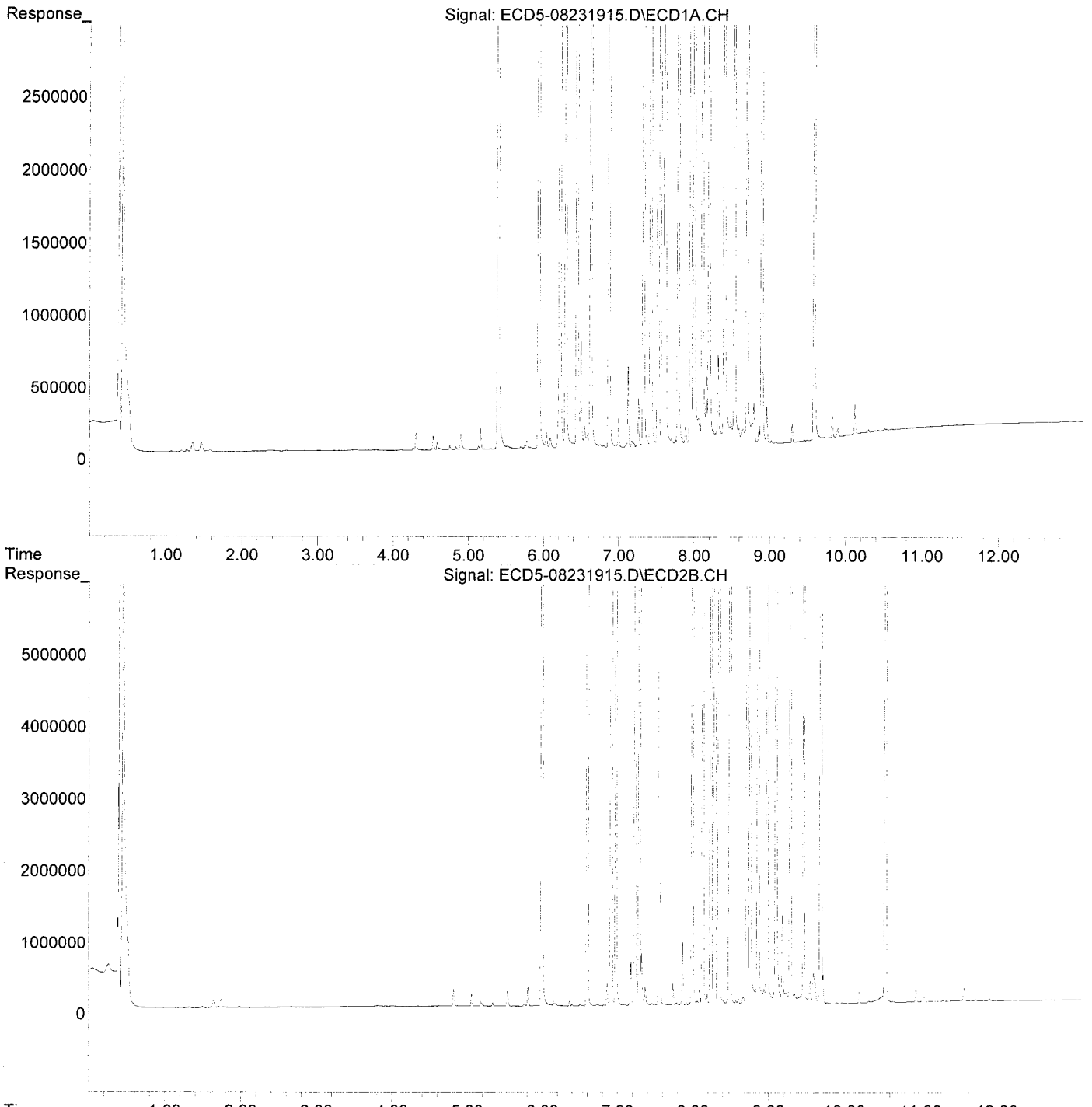
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	197.876	213.332	
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	191.180	211.933	
		Target Compounds							
2)		a-BHC	5.935	6.597	47202252	94376748	205.828	229.997	
3)		g-BHC	6.218	6.914	41889726	80765680	207.604	226.422	
4)		b-BHC	6.294	6.977	18238696	32553433	201.792	205.688	
5)		Heptachlor	6.630	7.289	37785699	71283176	208.419	232.969	
6)		d-BHC	6.445	7.232	41016592	80979751	208.534	229.622	
7)		Aldrin	6.870	7.554	39838403	73228186	201.769	222.313	
8)		Heptachlo...	7.330	7.991	36258170	65330070	196.864	217.153	
9)		trans-Chl...	7.425	8.130	37621413	66447972	203.478	212.073	
10)		cis-Chlor...	7.521	8.238	35207945	63977063	193.375	219.666	
11)		Endosulfa...	7.618	8.288	33852593	61043507	198.922	221.834	
12)		4,4'-DDE	7.581	8.344	38763081	69842351	205.607	224.807	
13)		Dieldrin	7.791	8.489	39217772	70031781	204.281	230.254	
14)		Endrin	7.955	8.715	31426311	52779585	213.745	233.717	
15)		4,4'-DDD	8.002	8.758	32436804	59560270	206.419	232.463	
16)		Endosulfa...	8.112	8.862	29471042	51834888	205.214	224.777	
17)		4,4'-DDT	8.200	8.984	29075222	48203441	243.185	202.337	
18)		Endrin Al...	8.402	9.098	26627672	45084544	200.132	198.781	
19)		Endosulfa...	8.704	9.289	31126520	54592794	200.845	219.171	
20)		Methoxychlor	8.537	9.463	14271143	23714100	243.642	203.084	
21)		Endrin Ke...	8.898	9.688	35094718	60861376	210.452	236.524	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.776	0.000	55469	0	0.315	N.D.	#
25)		Oxychlordane	7.265	7.915	336226	30124	2.043	0.110	#
26)		2,4'-DDE	7.330	8.130	36258170	66447972	282.690	313.230	
27)		trans-Non...	7.521	8.191	35207945	140624	196.641	0.466	#
28)		2,4'-DDD	7.703	8.489	57049	70031781	0.500	370.806	#
29)		2,4'-DDT	7.886	8.715	129876	52779585	1.184	295.950	#
30)		cis-Nonac...	8.002	8.758	32436804	59560270	156.235	177.554	
31)		Mirex	8.651	9.688	103310	60861376	0.824	327.083	#
32)		Chlordane...	7.425	8.130	37621413	66447972	1910.724	1836.362	
33)		Chlordane...	7.521	8.238	35207945	63977063	1404.705	2106.999	#
34)		Chlordane...	8.058	8.862f	183720	51834888	31.779	5781.350	#
35)		Chlordane...	3.445	0.000	4872	0	NoCal	N.D.	
36)		Toxaphene...	7.521	8.489f	35207945	70031781	39310.050	26686.316	
37)		Toxaphene...	7.791	0.000	39217772	0	24284.375	N.D.	#
38)		Toxaphene...	8.112	8.862	29471042	51834888	8751.637	10227.240	
39)		Toxaphene...	8.322f	8.943f	634260	207653	195.750	24.869	#
40)		Toxaphene...	8.537f	9.098	14271143	45084544	5953.399	9674.052	#
41)		Toxaphene...	8.651	9.463	103310	23714100	32.646	4992.230	#
42)		Toxaphene...	3.445	0.000	4872	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 15:52
Operator : MJB
Sample : 9H23034-CAL8
Misc : A19E244, AB 200 ppb
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:01:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

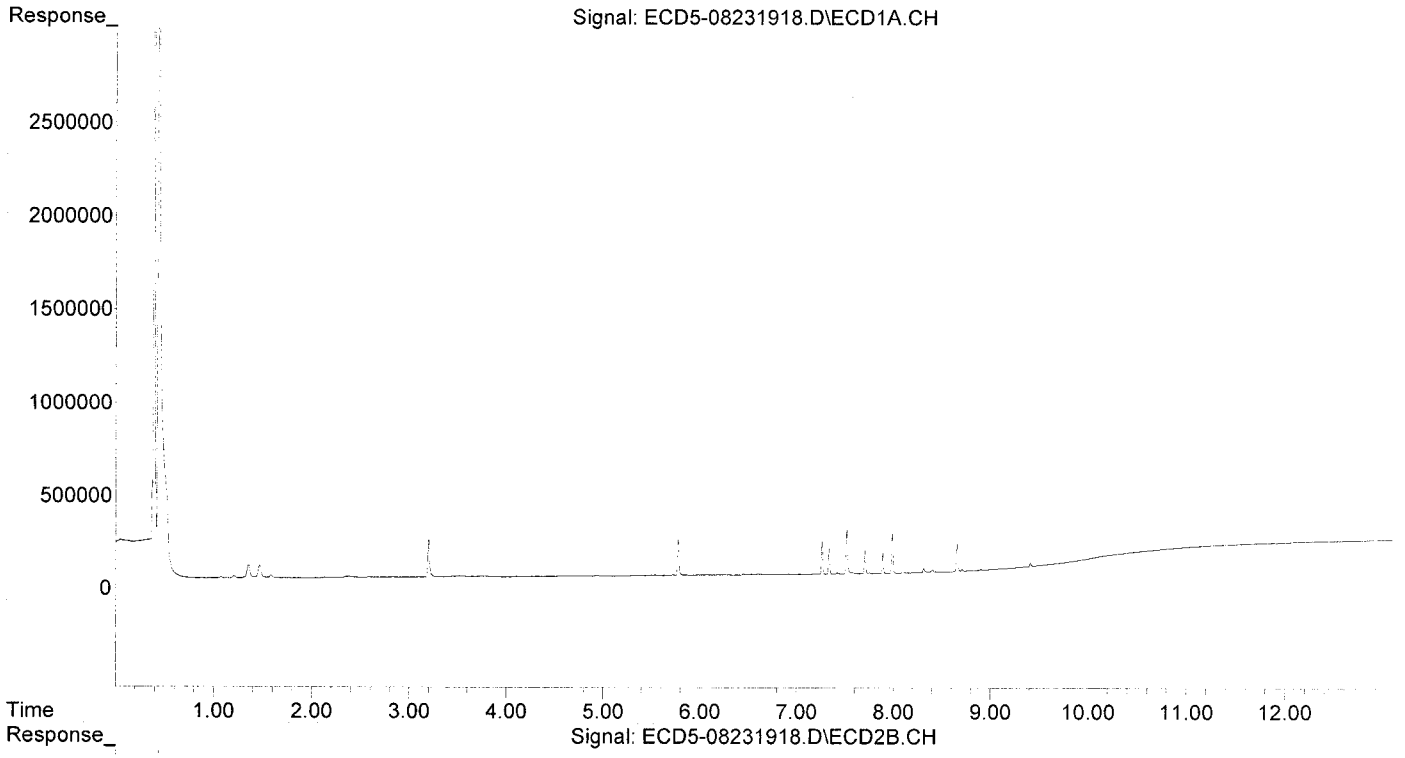
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6576	N.D.	0.022	#
22)	S	DCBP (S)	9.593	10.540	2255	5805	0.016	0.032	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4648	0	0.023	N.D.	#
4)		b-BHC	0.000	7.002f	0	7162	N.D.	0.045	#
5)		Heptachlor	6.601f	0.000	3572	0	0.020	N.D.	#
6)		d-BHC	6.449	7.232	5321	8483	0.027	0.024	
7)		Aldrin	0.000	7.577f	0	8990	N.D.	0.027	#
8)		Heptachlo...	7.335	0.000	137947	0	0.749	N.D.	#
9)		trans-Chl...	7.420	8.123	5532	219164	0.030	0.699	#
10)		cis-Chlor...	7.518	0.000	236836	0	1.301	N.D.	#
11)		Endosulfa...	7.582f	0.000	5522	0	0.032	N.D.	#
12)		4,4'-DDE	7.582	0.000	5522	0	0.029	N.D.	#
13)		Dieldrin	7.755f	8.495	4087	192040	0.021	0.631	#
14)		Endrin	7.987f	8.719	219220	173338	1.491	0.768	#
15)		4,4'-DDD	7.987	8.759	219220	332745	1.395	1.299	
16)		Endosulfa...	8.116	8.903f	2586	40443	0.018	0.175	#
17)		4,4'-DDT	8.202	0.000	1027	0	0.009	N.D.	#
18)		Endrin Al...	8.404	9.099	13122	17799	BelowCal	BelowCal	
19)		Endosulfa...	8.706	9.290	8041	12118	0.052	0.049	
20)		Methoxychlor	8.548	0.000	665	0	0.011	N.D.	#
21)		Endrin Ke...	8.900	9.680	3962	209783	0.024	0.815	#
23)		Hexachlor...	3.198	3.687	198207	383198	1.085	1.019	
24)		Hexachlor...	5.775	6.453	194679	328025	1.104	1.044	
25)		Oxychlordane	7.263	7.922	176844	279143	1.075	1.019	
26)		2,4'-DDE	7.335	8.123	137947	219164	1.076	1.033	
27)		trans-Non...	7.518	8.195	236836	306202	1.006	1.015	
28)		2,4'-DDD	7.707	8.495	120240	192040	1.054	1.017	
29)		2,4'-DDT	7.890	8.719	107110	173338	0.977	0.972	
30)		cis-Nonac...	7.987	8.759	219220	332745	1.056	0.992	
31)		Mirex	8.655	9.680	147356	209783	1.175	1.127	
32)		Chlordane...	7.420	8.123	5532	219164	0.281	6.057	#
33)		Chlordane...	7.518	0.000	236836	0	9.449	N.D.	#
34)		Chlordane...	0.000	8.903	0	40443	N.D.	4.511	#
35)		Chlordane...	3.444	0.000	4642	0	NoCal	N.D.	
36)		Toxaphene...	7.518	8.495f	236836	192040	264.430	73.179	#
37)		Toxaphene...	7.755f	0.000	4087	0	2.531	N.D.	#
38)		Toxaphene...	8.116	0.000	2586	0	0.768	N.D.	#
39)		Toxaphene...	8.312f	8.903	22217	40443	6.857	4.844	
40)		Toxaphene...	8.548f	9.099	665	17799	0.277	3.819	#
41)		Toxaphene...	8.655	0.000	147356	0	46.564	N.D.	#
42)		Toxaphene...	3.444	0.000	4642	0	NoCal	N.D.	

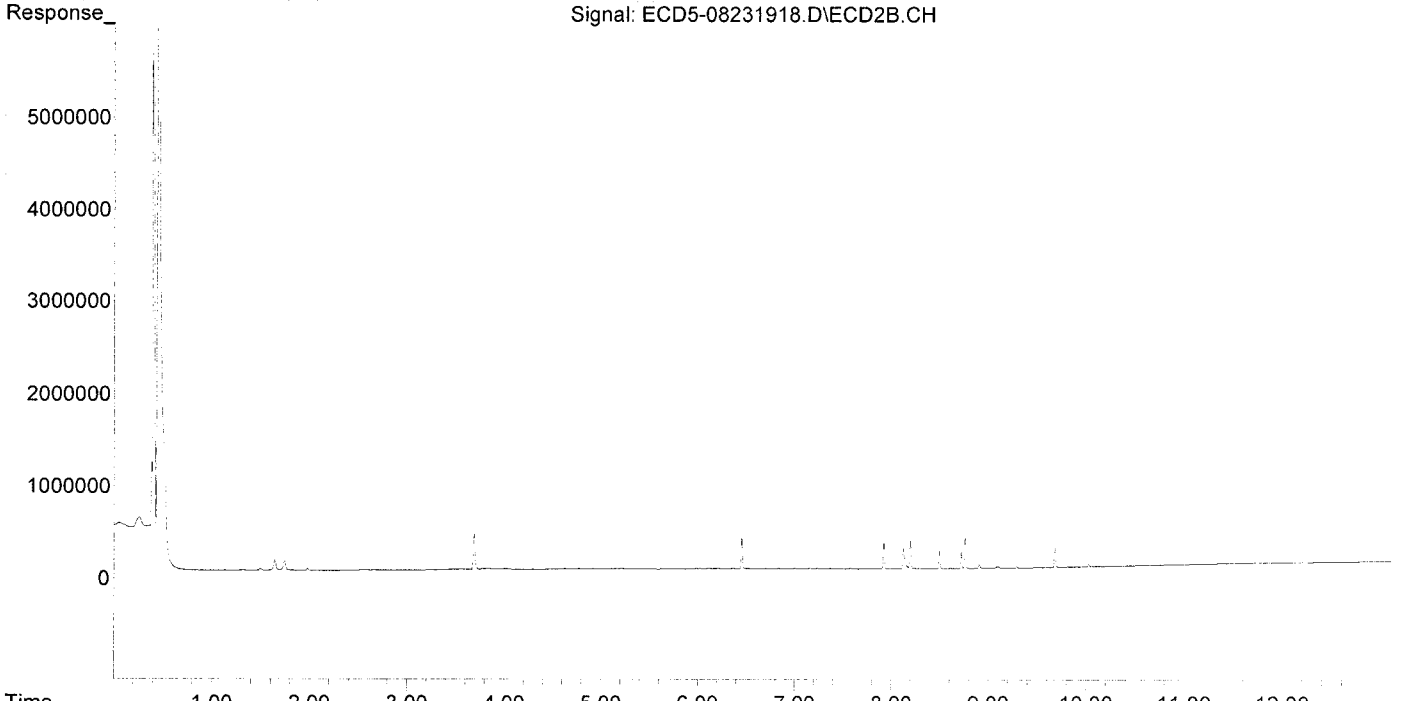
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:01
Operator : MJB
Sample : 9H23034-CALA
Misc : A19E273, 9-42 2 ppb
ALS Vial : 14 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:30 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

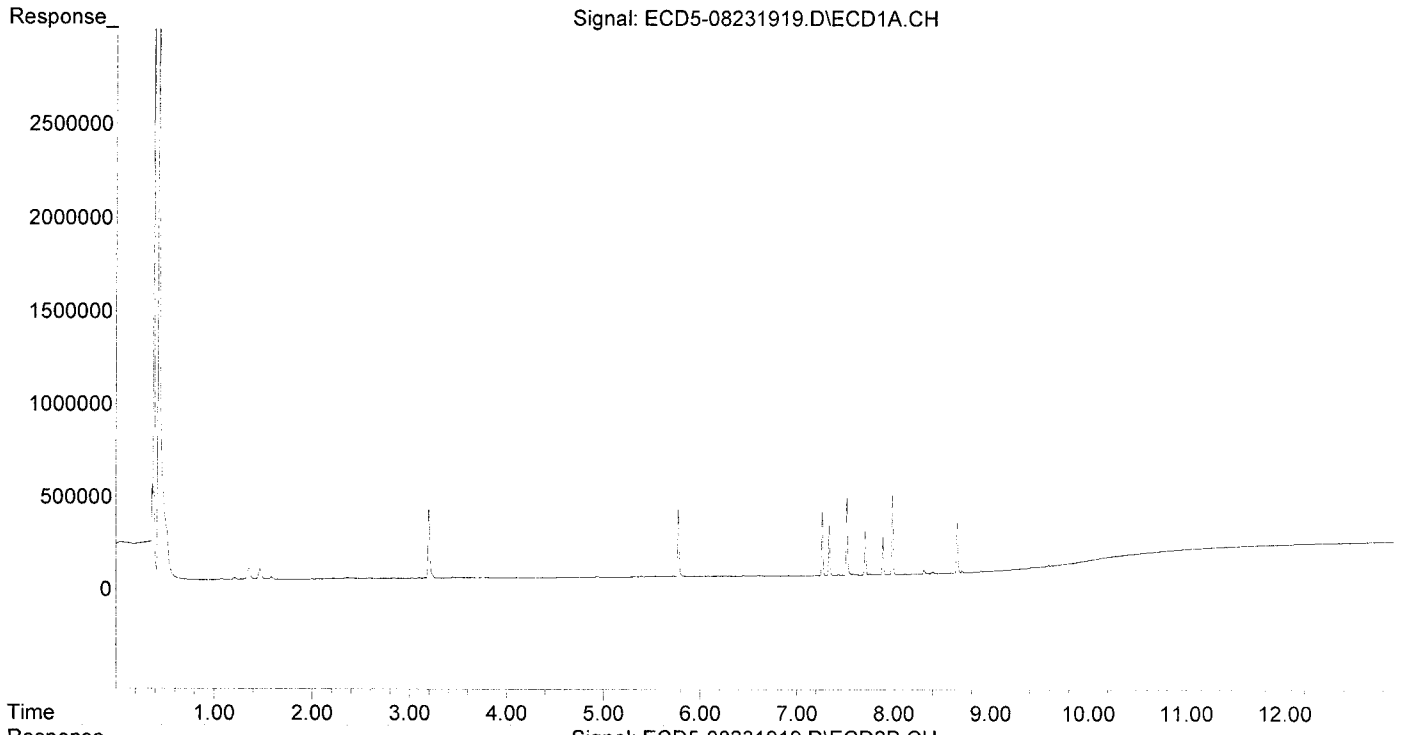
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.394	5.986	6323	13044	0.038	0.044	
22) S	DCBP (S)	9.592	10.539	6116	7474	0.043	0.042	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	3811	0	0.019	N.D.	#
4)	b-BHC	0.000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

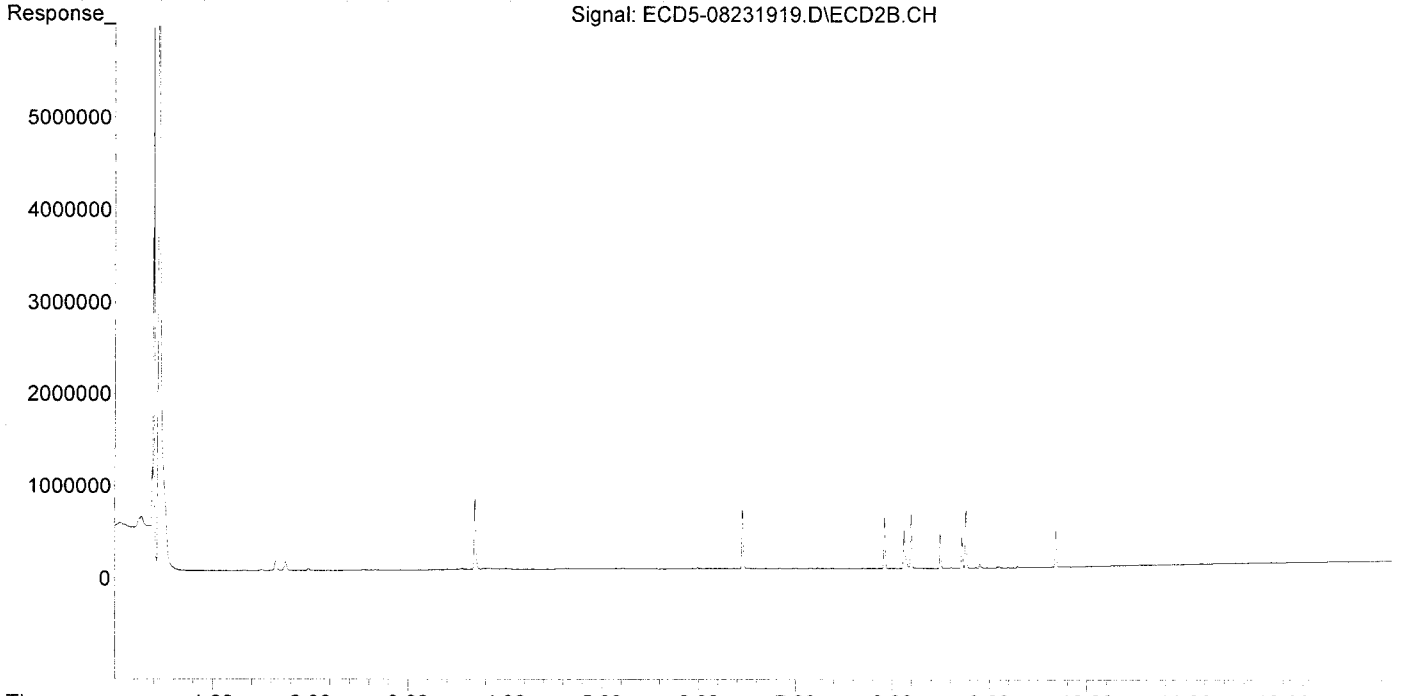
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

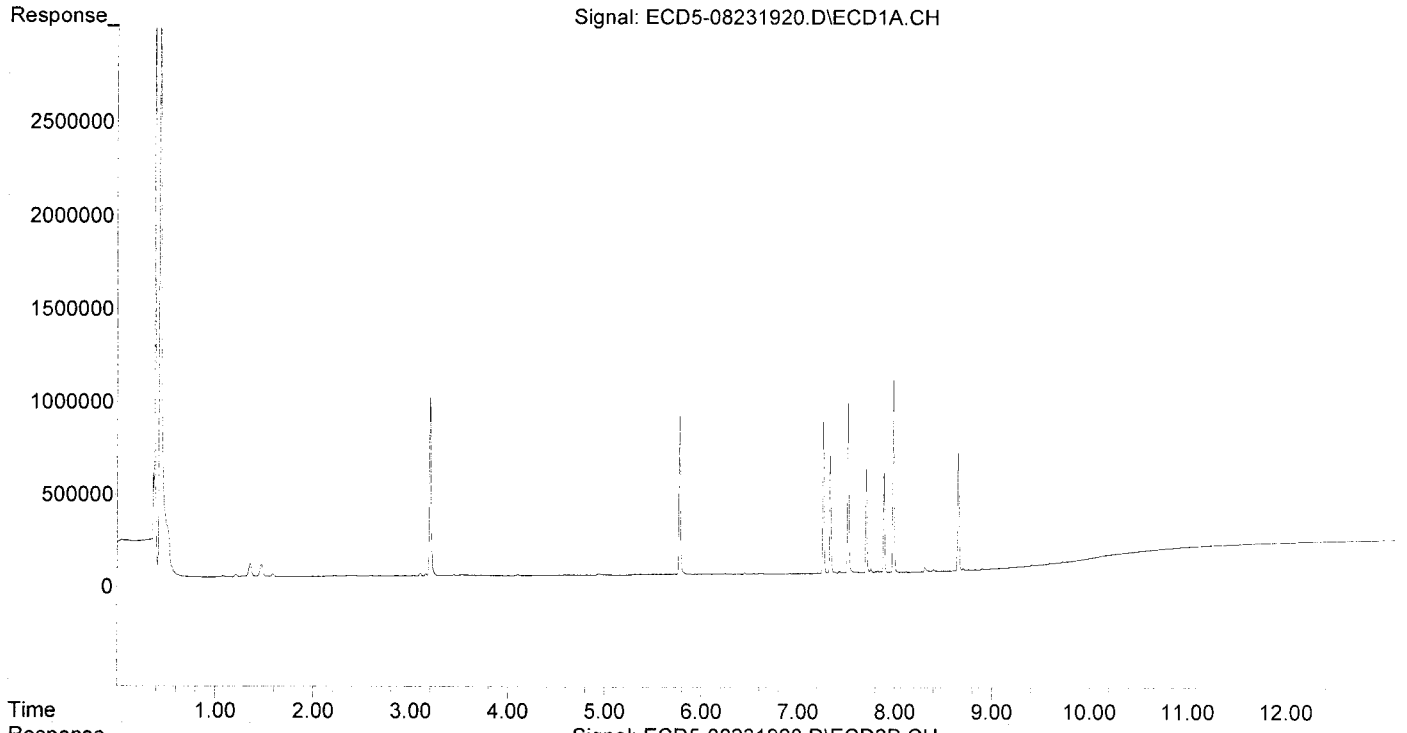
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.982	4403	6341	0.027	0.022	
22)	S	DCBP (S)	9.592	10.539	7940	5412	0.056	0.030	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.247f	0.000	5412	0	0.027	N.D.	#
4)		b-BHC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

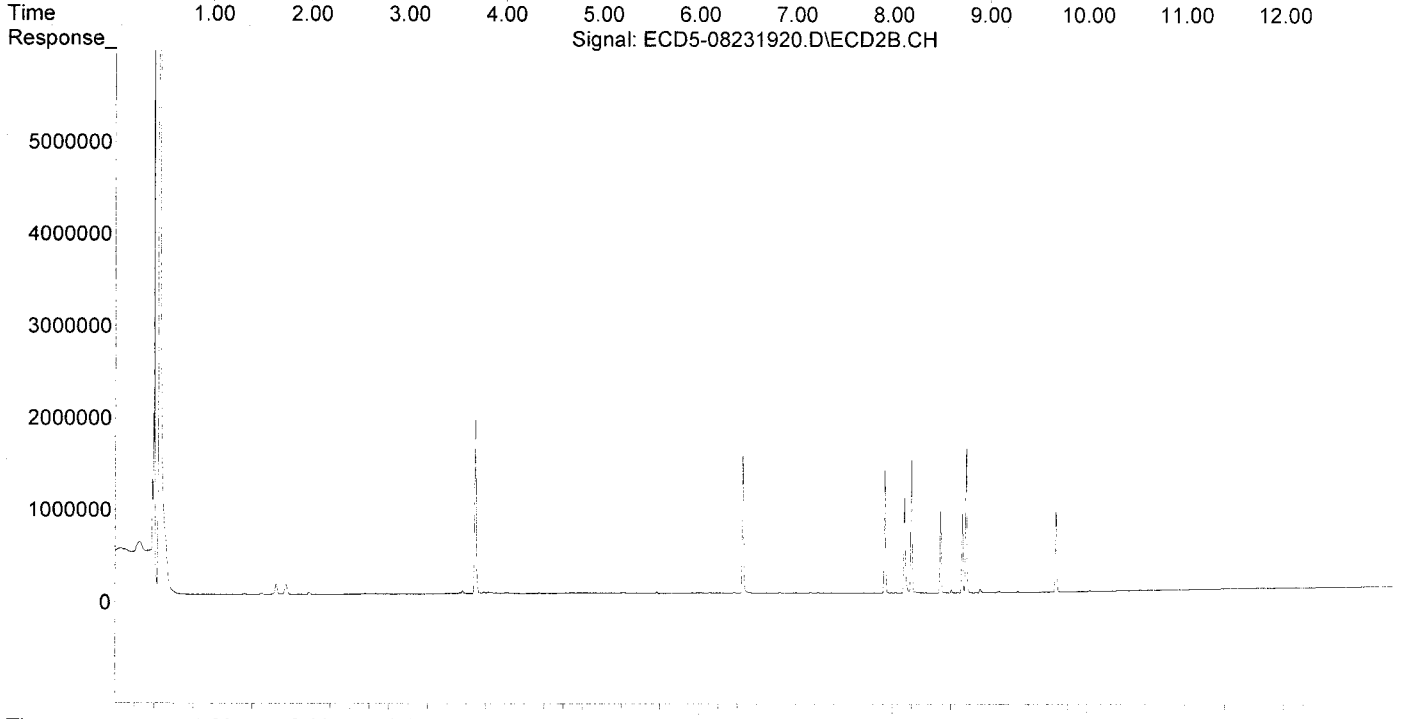
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

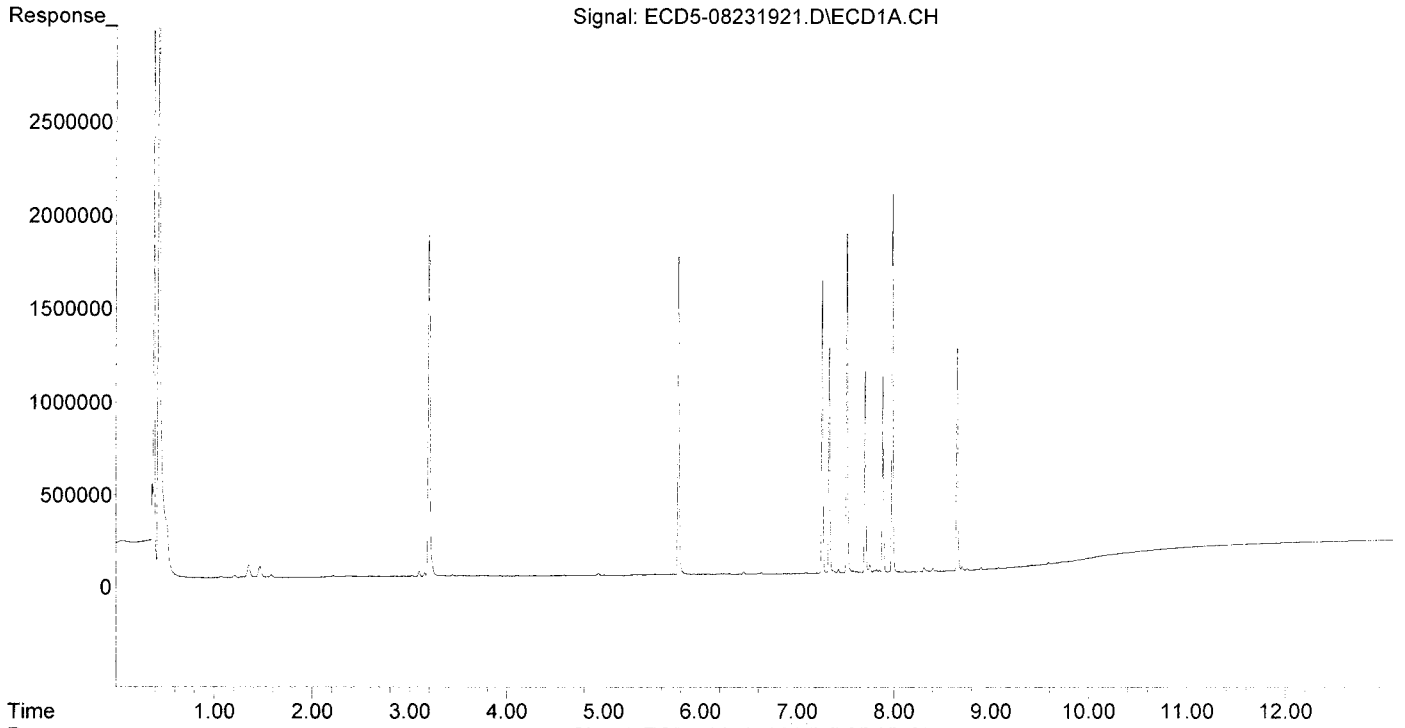
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.983	5244	8048	0.032	0.027	
22)	S	DCBP (S)	9.591	10.539	8426	10511	0.060	0.058	
		Target Compounds							
2)		a-BHC	5.934	6.594	5268	9085	0.023	0.022	
3)		g-BHC	6.219	6.912	5161	7308	0.026	0.020	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

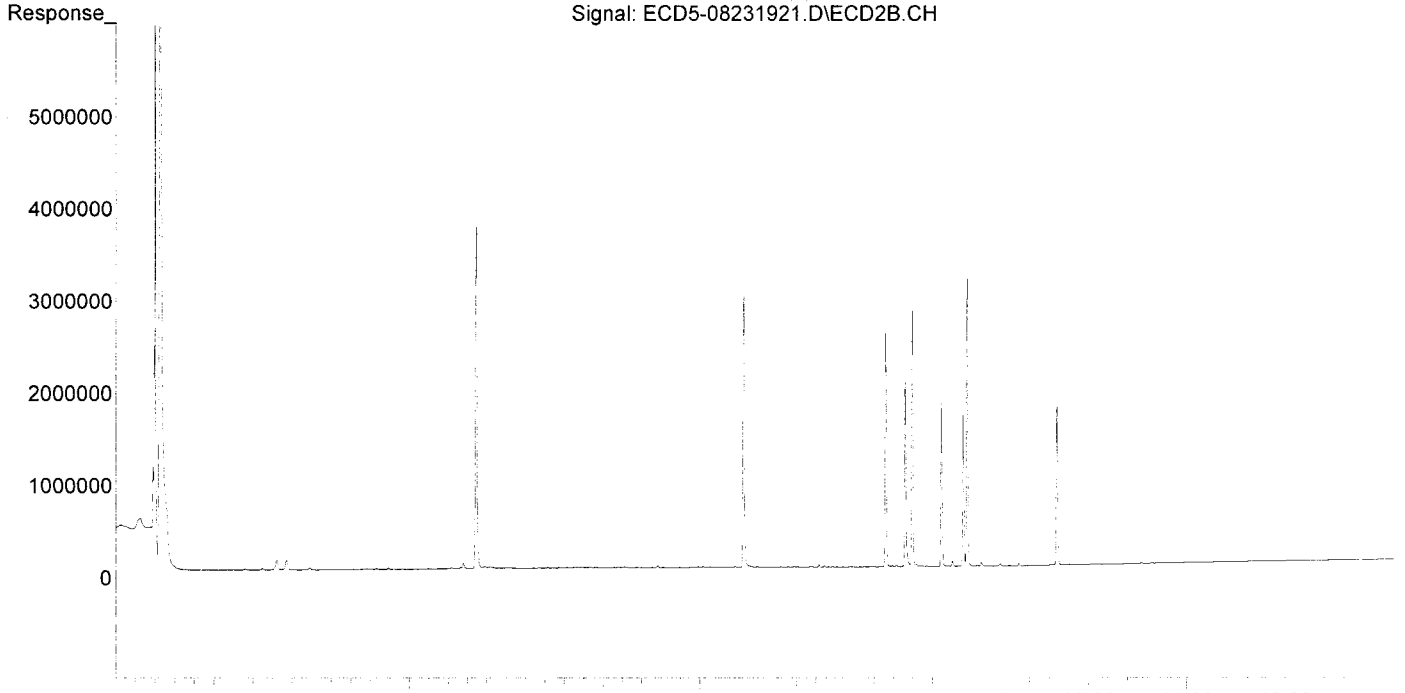
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

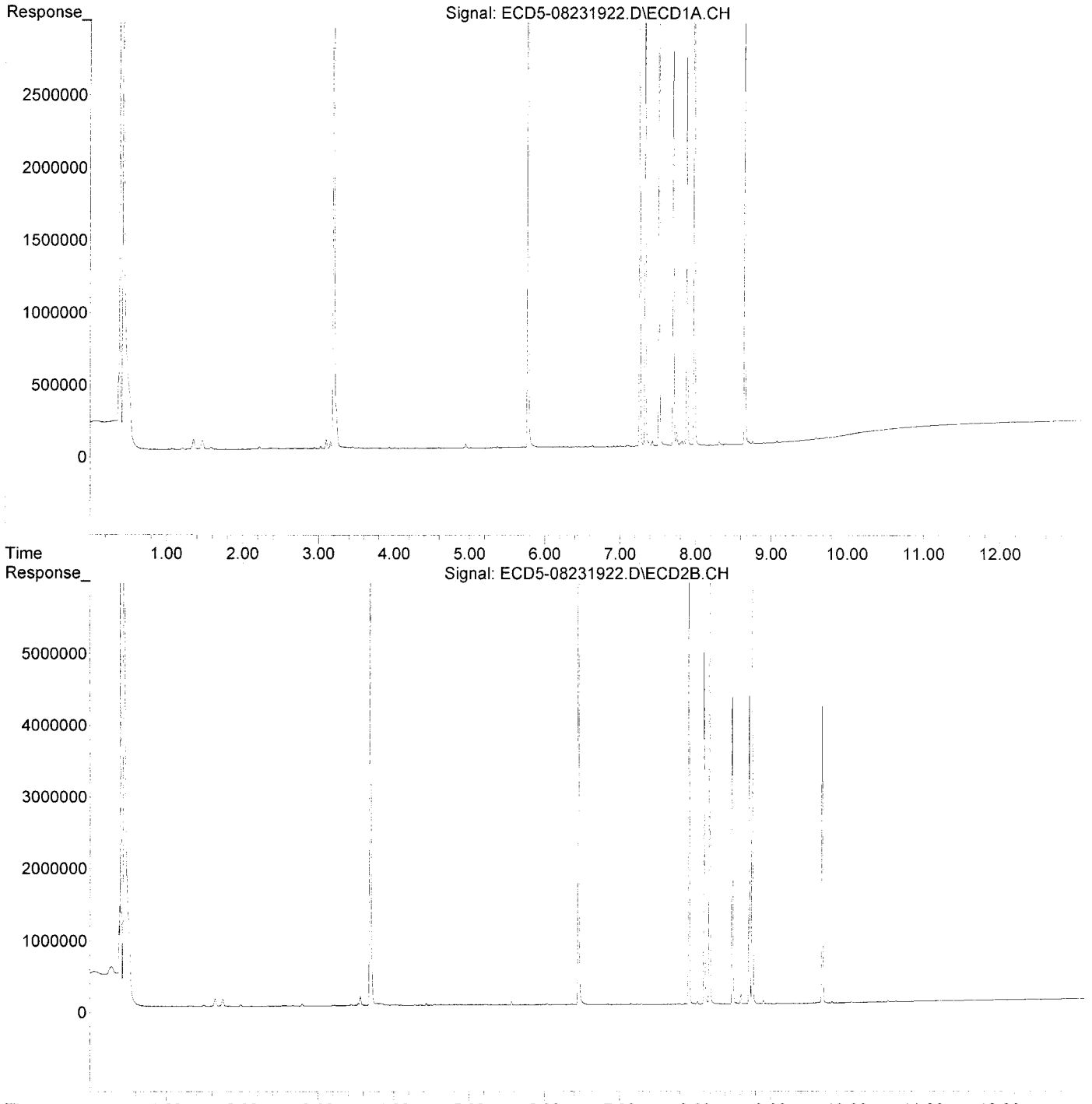
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	10828	6833	0.065	0.023	#
22) S	DCBP (S)	9.592	10.539	20297	20262	0.144	0.113	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	5786	0	0.029	N.D.	#
4)	b-BHC	0.000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

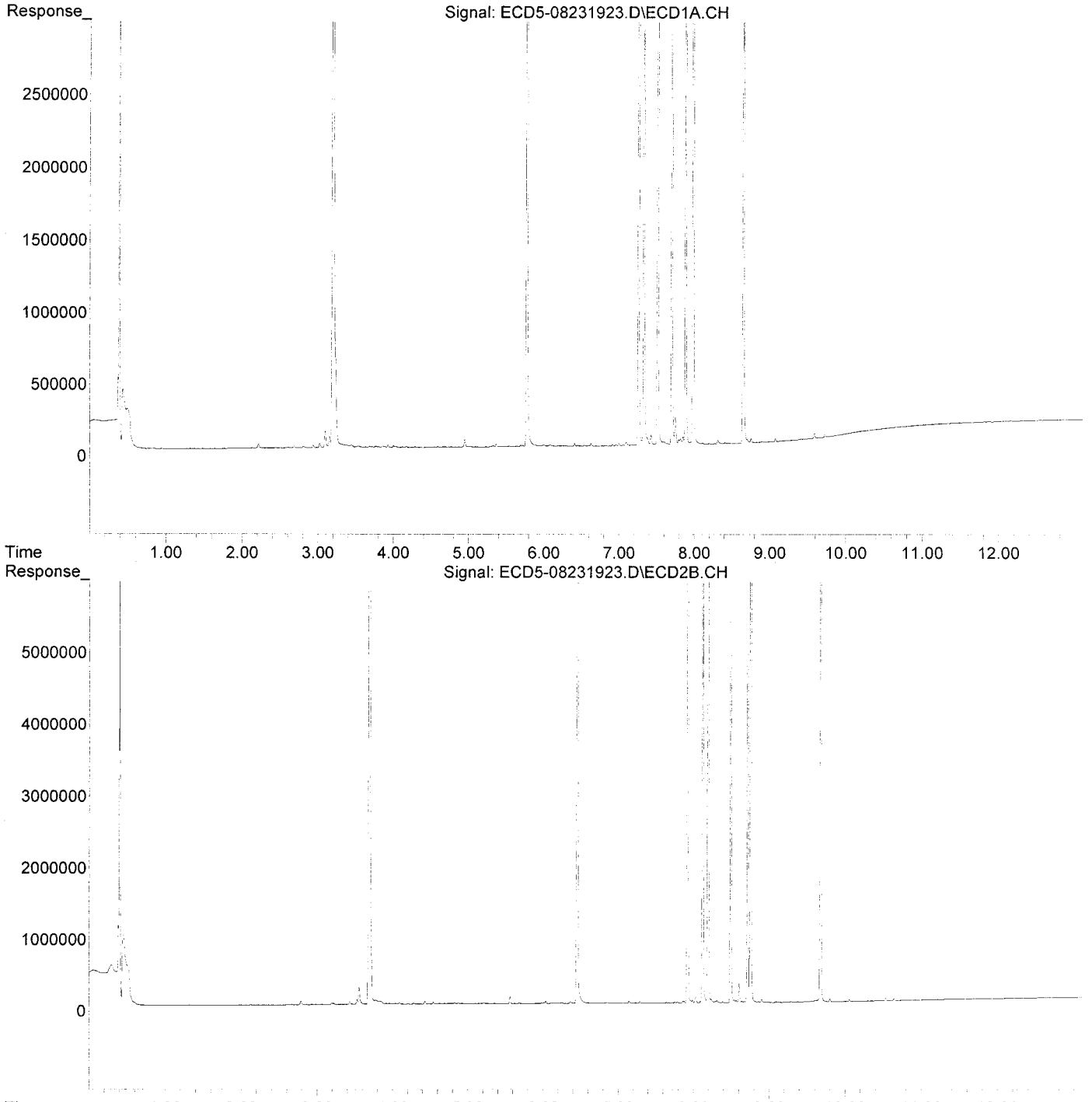
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	19019	8441	0.115	0.029	#
22) S	DCBP (S)	9.591	10.538	35203	39503	0.249	0.220	
	Target Compounds							
2)	a-BHC	5.949	0.000	5252	0	0.023	N.D.	#
3)	g-BHC	6.196f	6.951f	4084	3735	0.020	0.010	#
4)	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

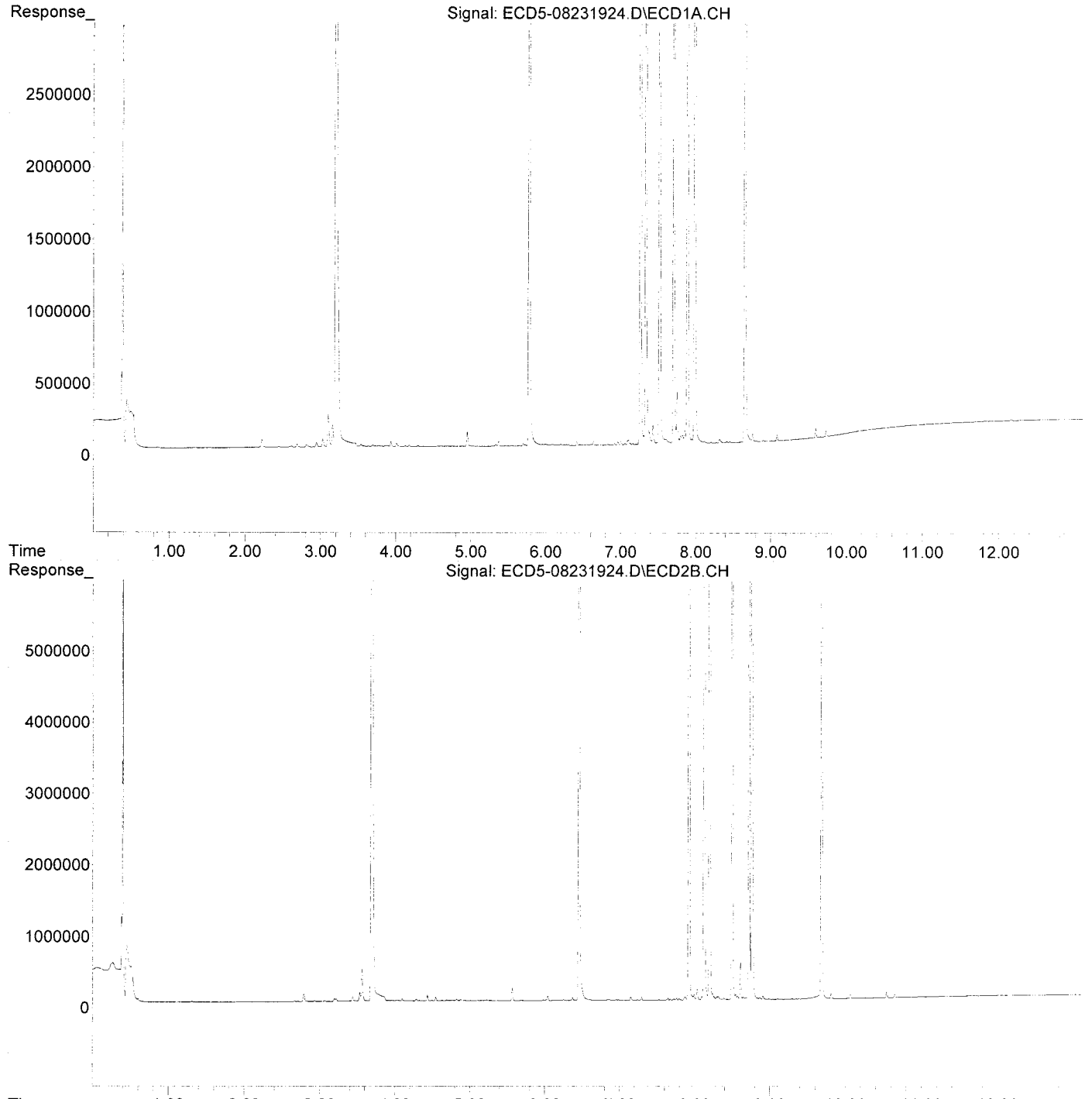
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.981	33988	9402	0.205	0.032	#
22)	S	DCBP (S)	9.592	10.540	62236	73549	0.441	0.409	
		Target Compounds							
2)		a-BHC	5.950	0.000	8055	0	0.035	N.D.	#
3)		g-BHC	6.198	6.952f	8435	9250	0.042	0.026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

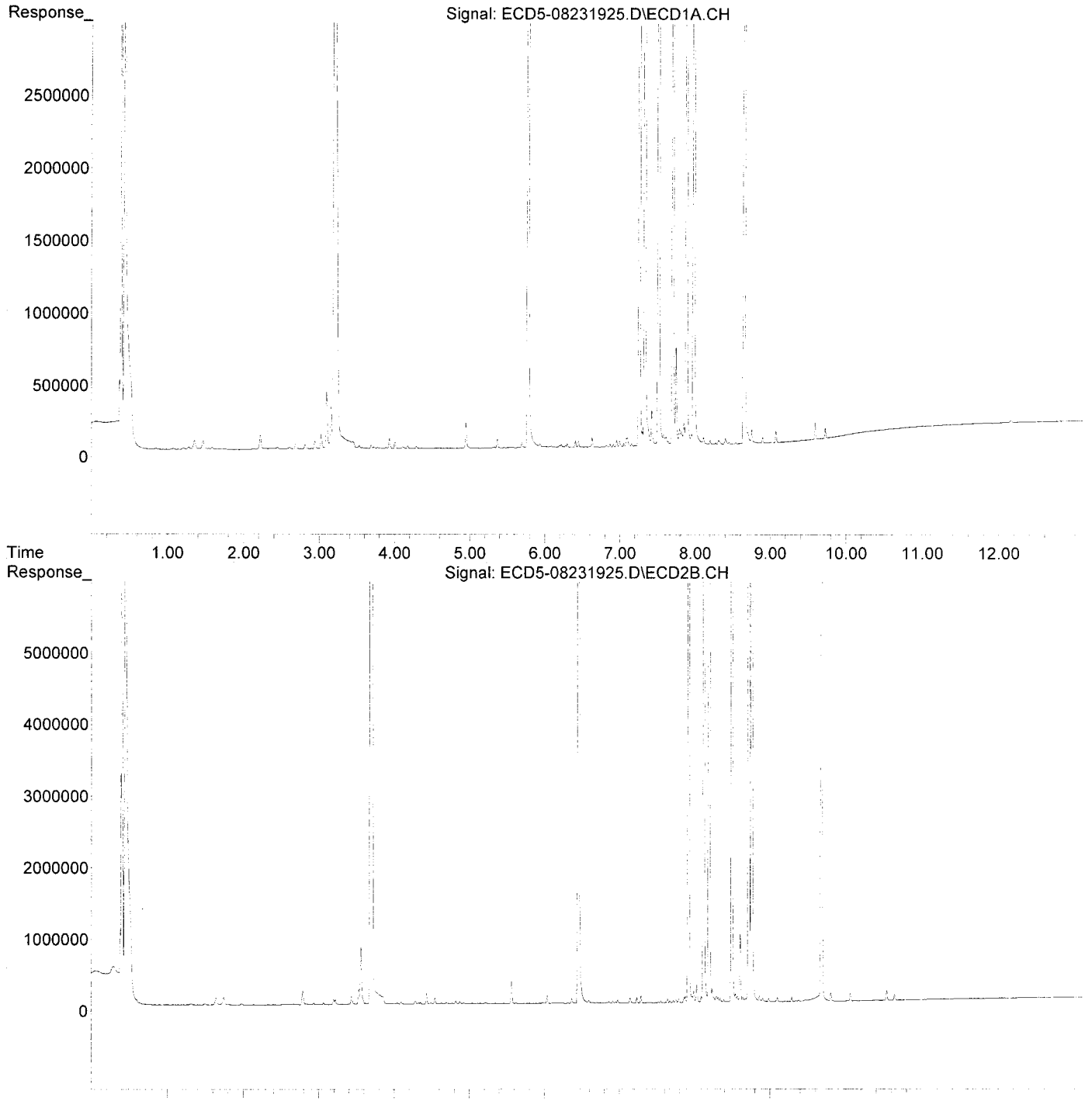
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.980	60549	10992	0.365	0.037	#
22)	S	DCBP (S)	9.590	10.538	118766	140925	0.842	0.784	
		Target Compounds							
2)		a-BHC	5.933	6.593	27118	40902	0.118	0.100	
3)		g-BHC	6.218	6.912	21255	30993	0.105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

MB 4/26/19

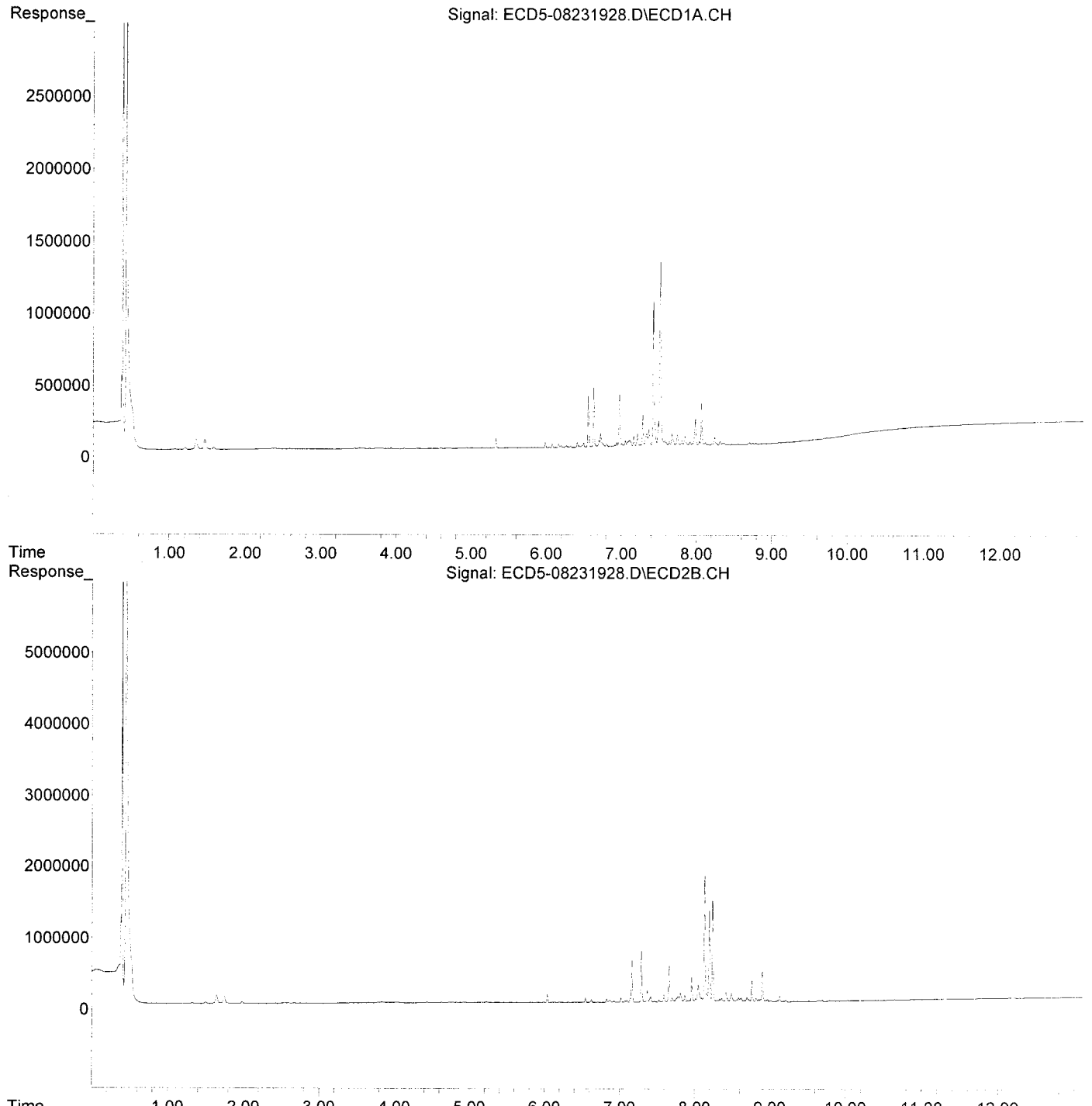
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.606	0.000	5901	0	0.042	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	41997	N.D.	0.102	#
3)		g-BHC	6.194f	6.924	13212	19652	0.065	0.055	
4)		b-BHC	6.323f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

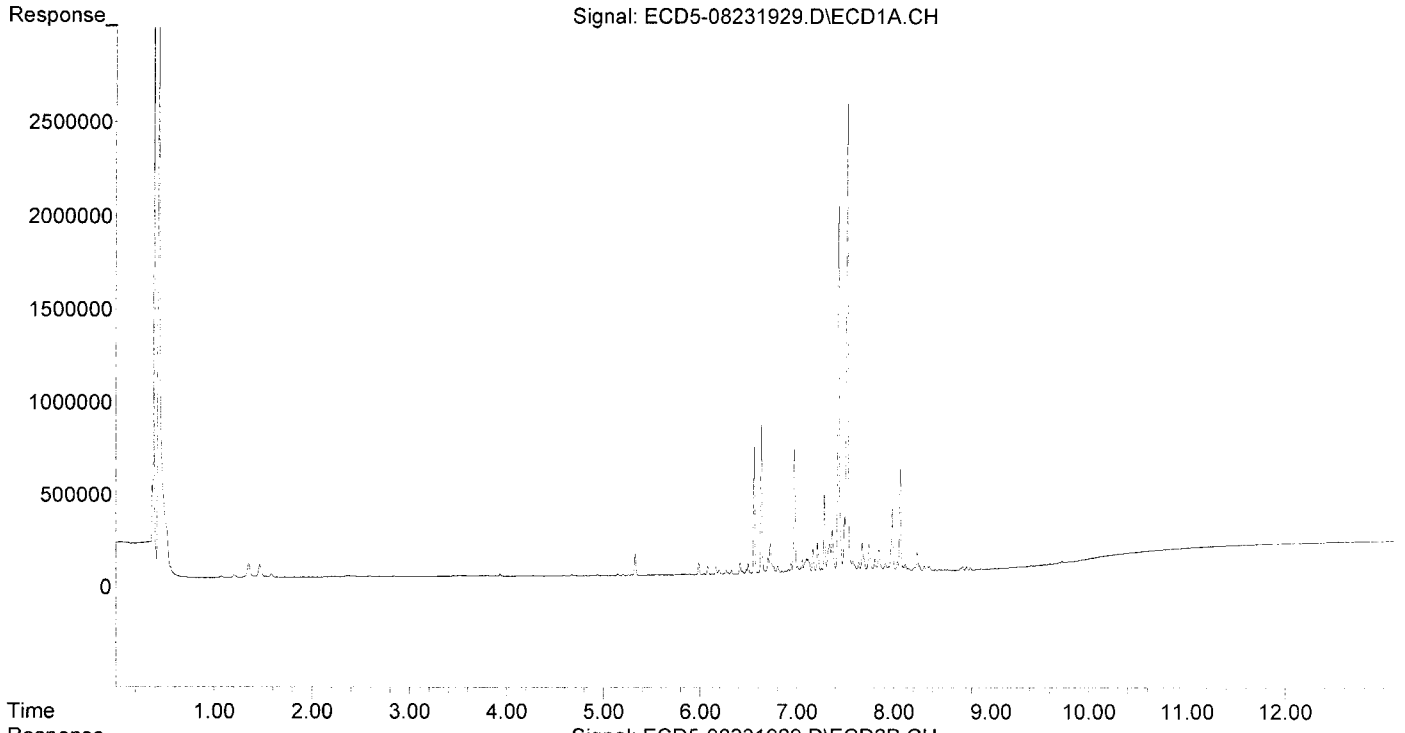
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5943	N.D.	0.020	#
22)	S	DCBP (S)	9.606	0.000	7472	0	0.053	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	77932	N.D.	0.190	#
3)		g-BHC	6.194f	6.923	23514	36662	0.117	0.103	
4)		b-BHC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

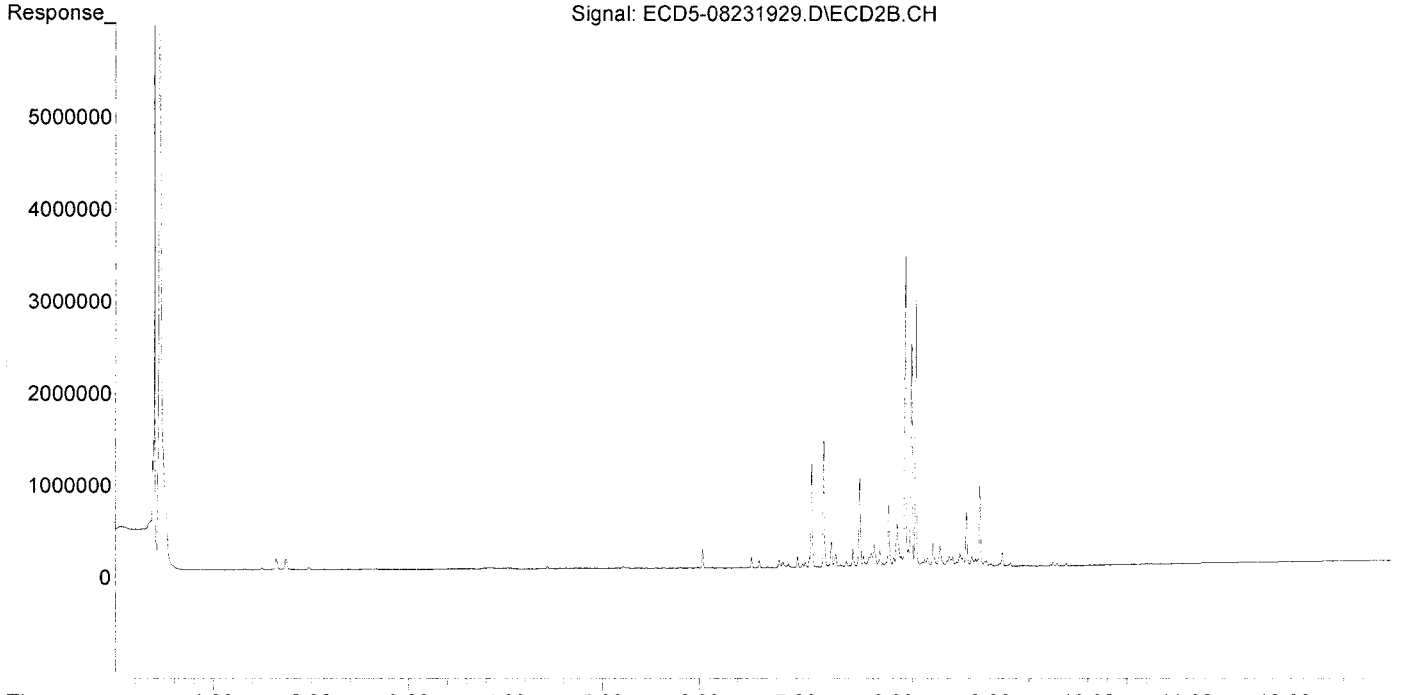
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

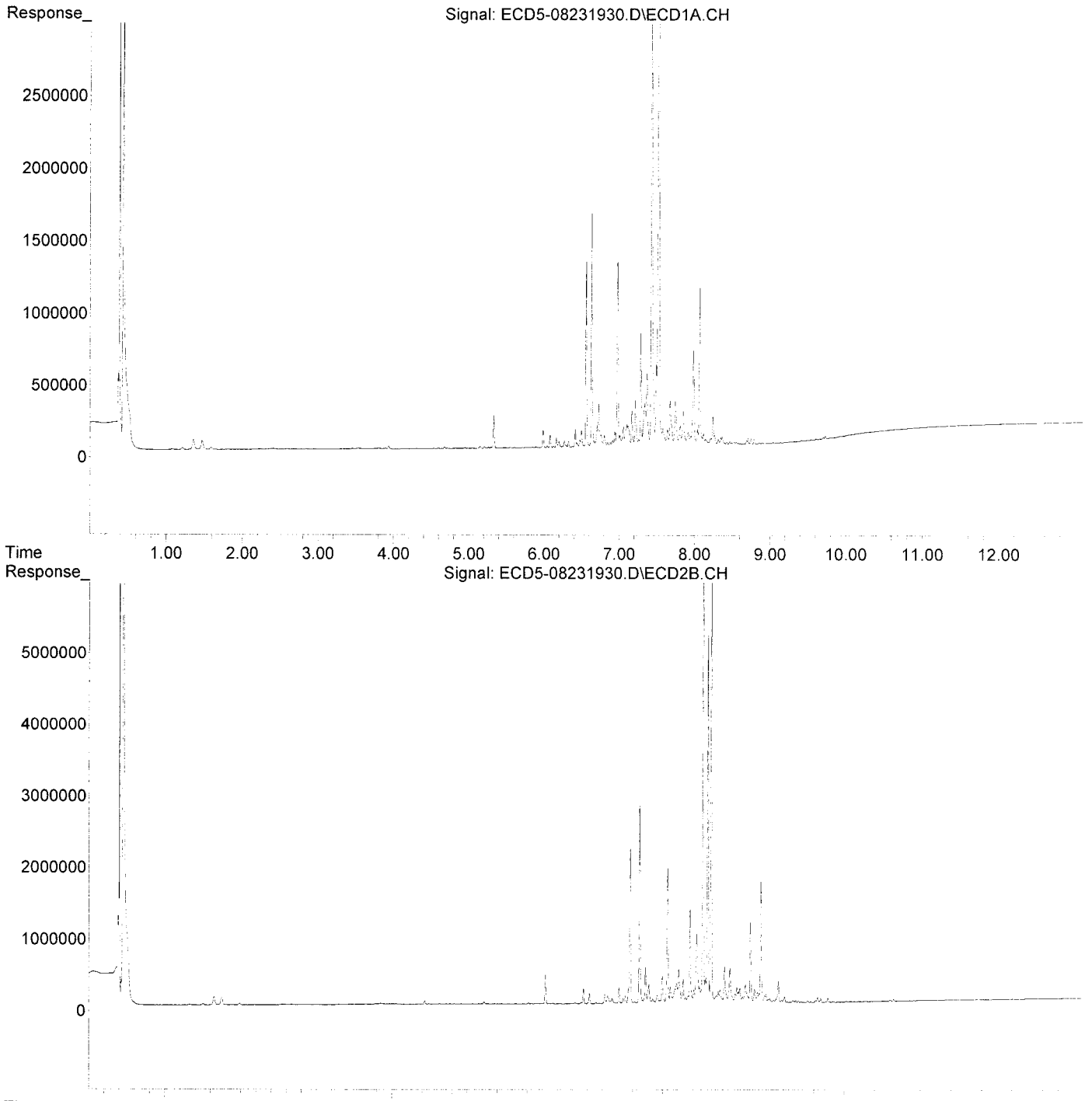
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.605	0.000	9631	0	0.068	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.623f	0	141009	N.D.	0.344	#
3)		g-BHC	6.197f	6.925	44236	70355	0.219	0.197	
4)		b-BHC	6.269f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

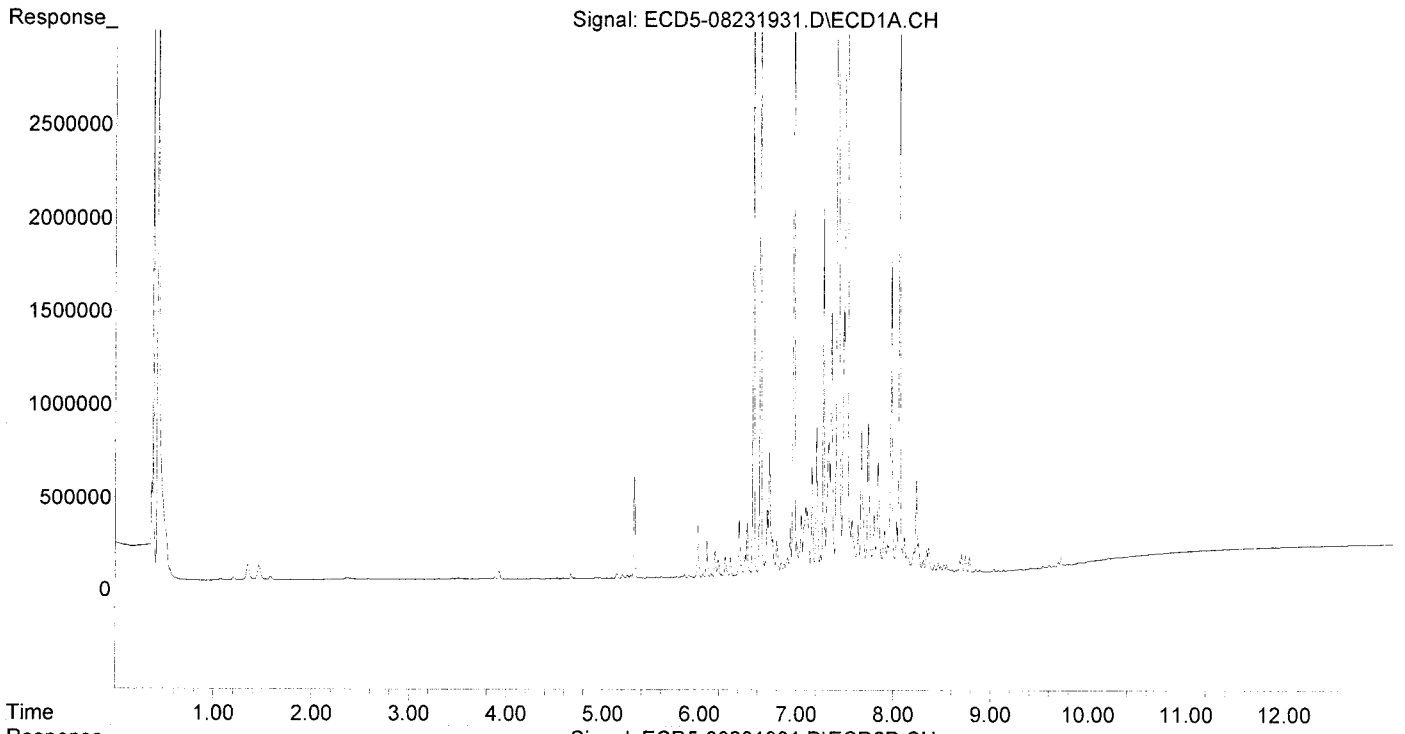
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.982	0	9372	N.D.	0.032	#
22)	S	DCBP (S)	9.605	10.512f	13871	6664	0.098	0.037	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	314411	N.D.	0.766	#
3)		g-BHC	6.194f	6.923	92958	161395	0.461	0.452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

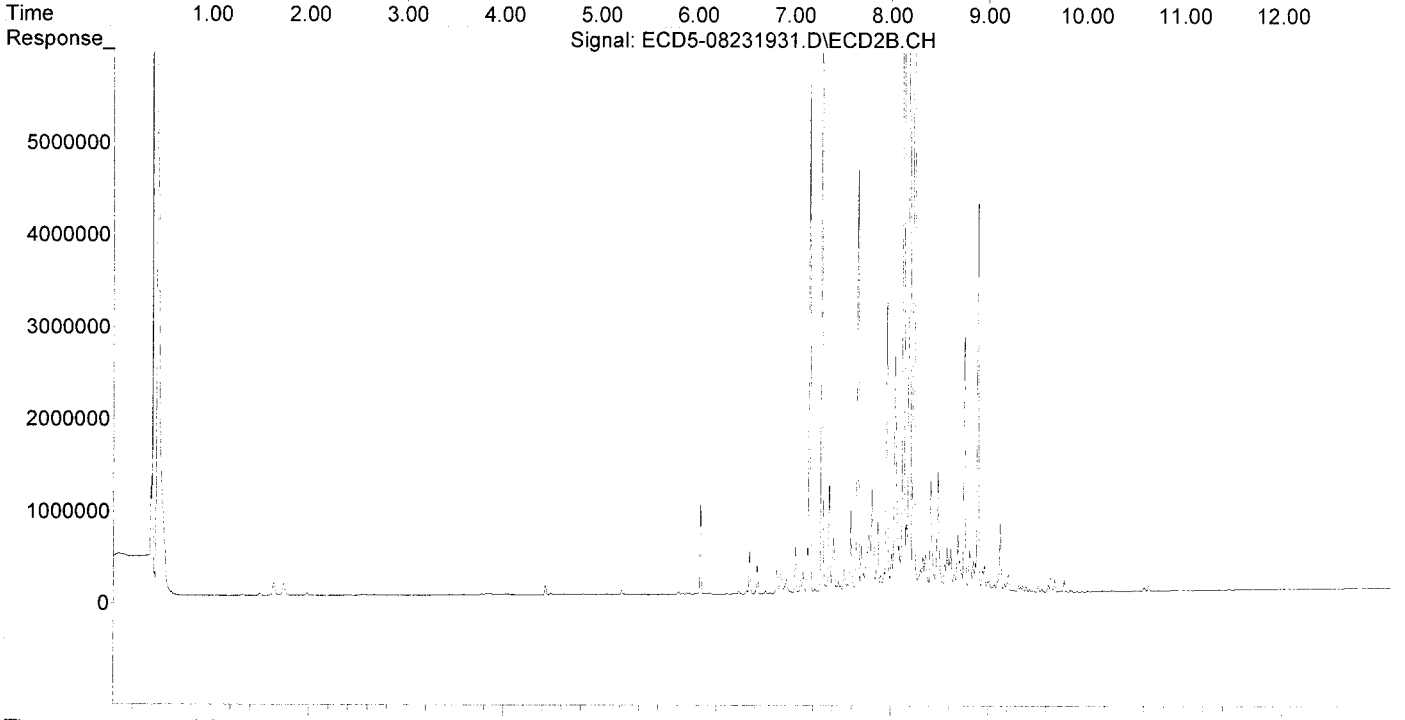
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

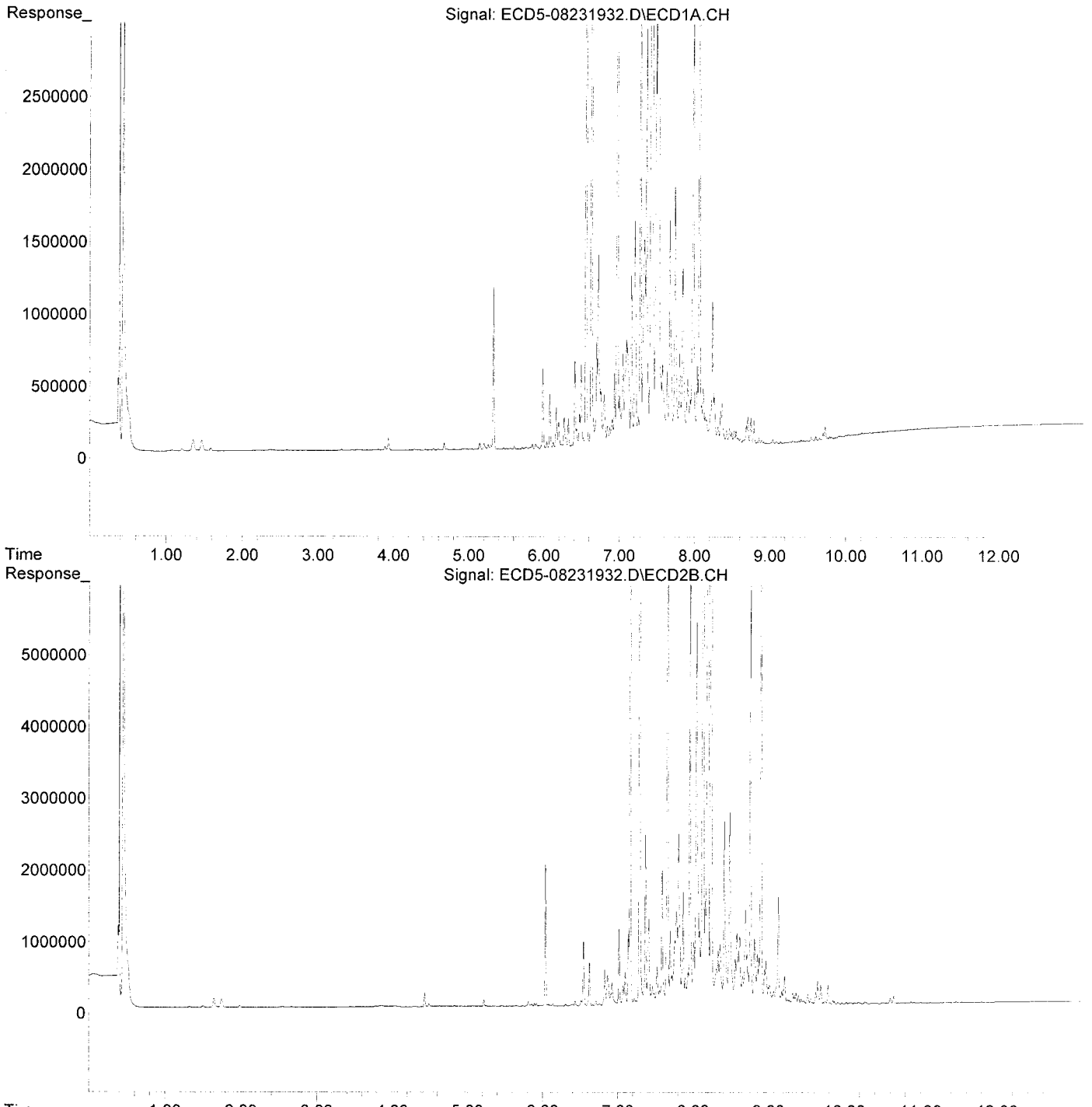
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.980	6433	11040	0.039	0.038	
22)	S	DCBP (S)	9.604	10.553	33011	8716	0.234	0.048	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	610263	N.D.	1.487	#
3)		g-BHC	6.194f	6.923	179715	319626	0.891	0.896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

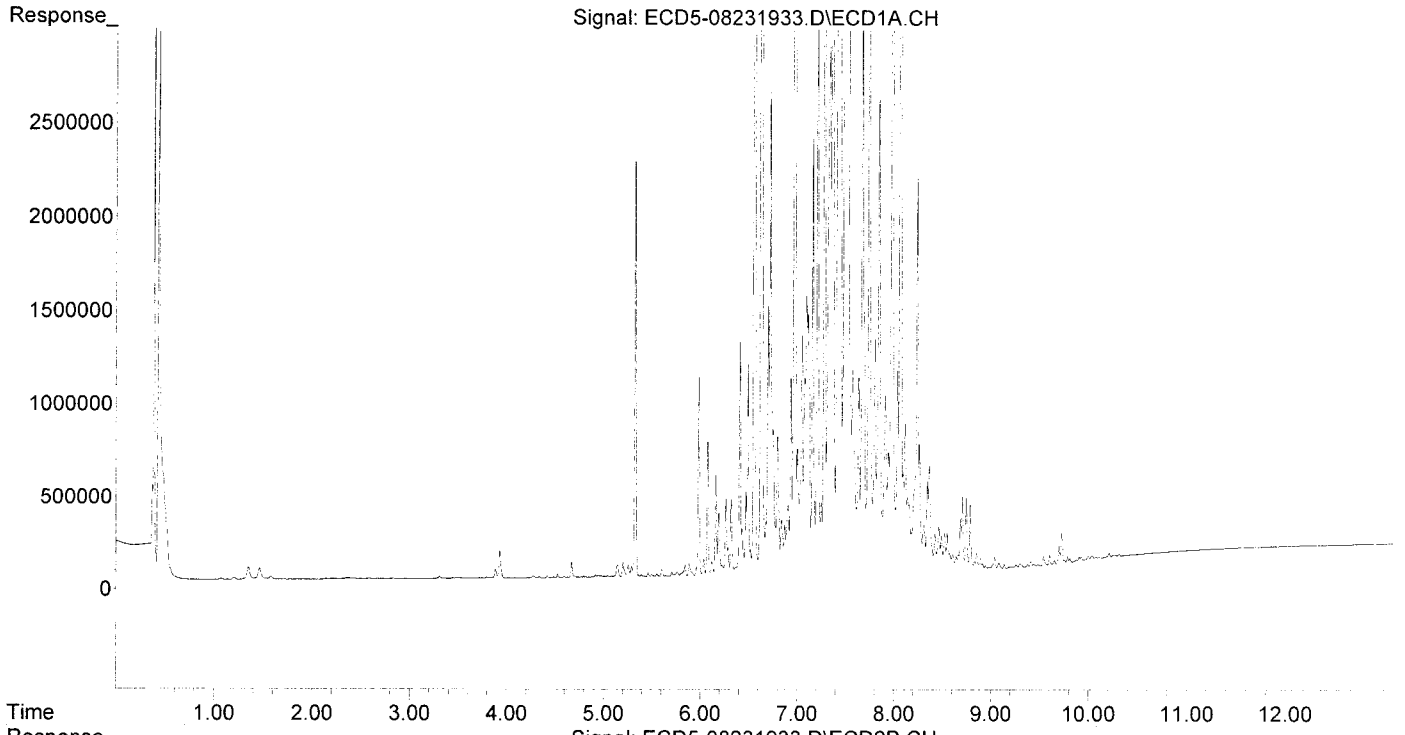
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.971	11655	15748	0.070	0.054	
22)	S	DCBP (S)	9.604	10.552	57777	17575	0.409	0.098	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	1174704	N.D.	2.863	#
3)		g-BHC	6.193f	6.922	334417	594314	1.657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

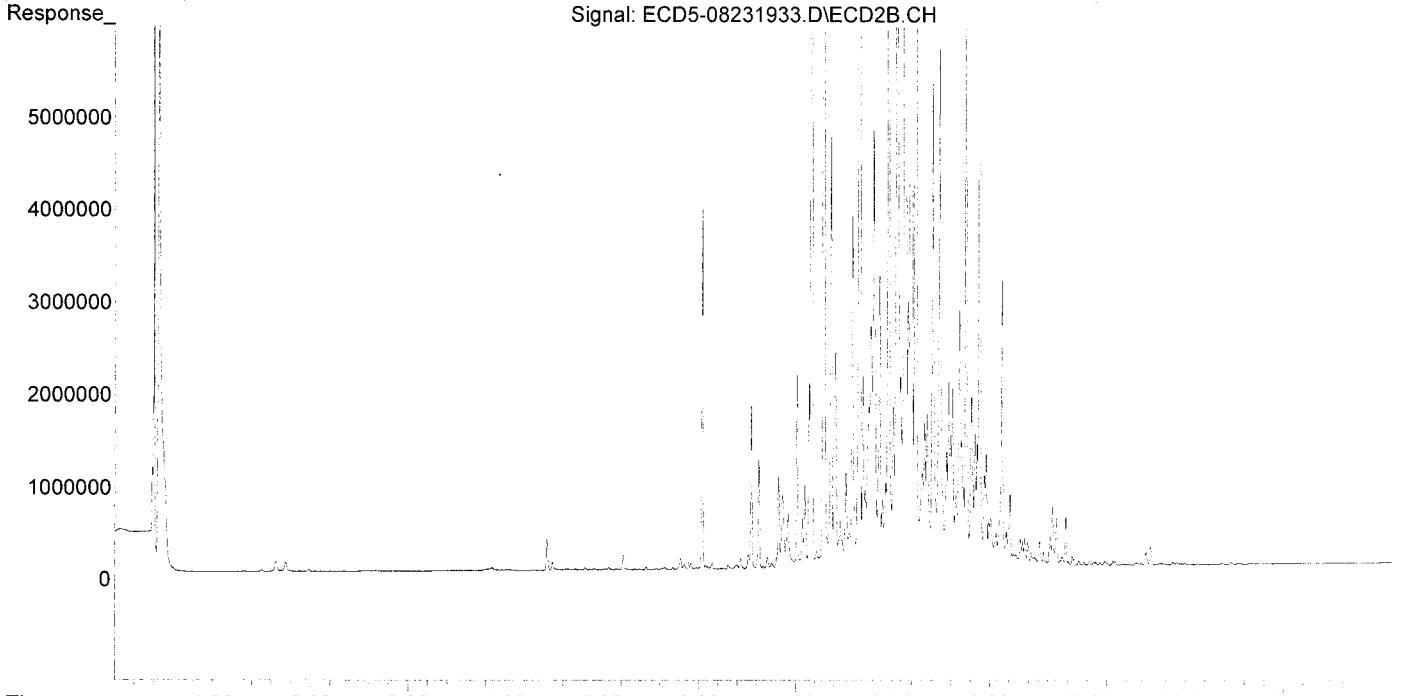
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

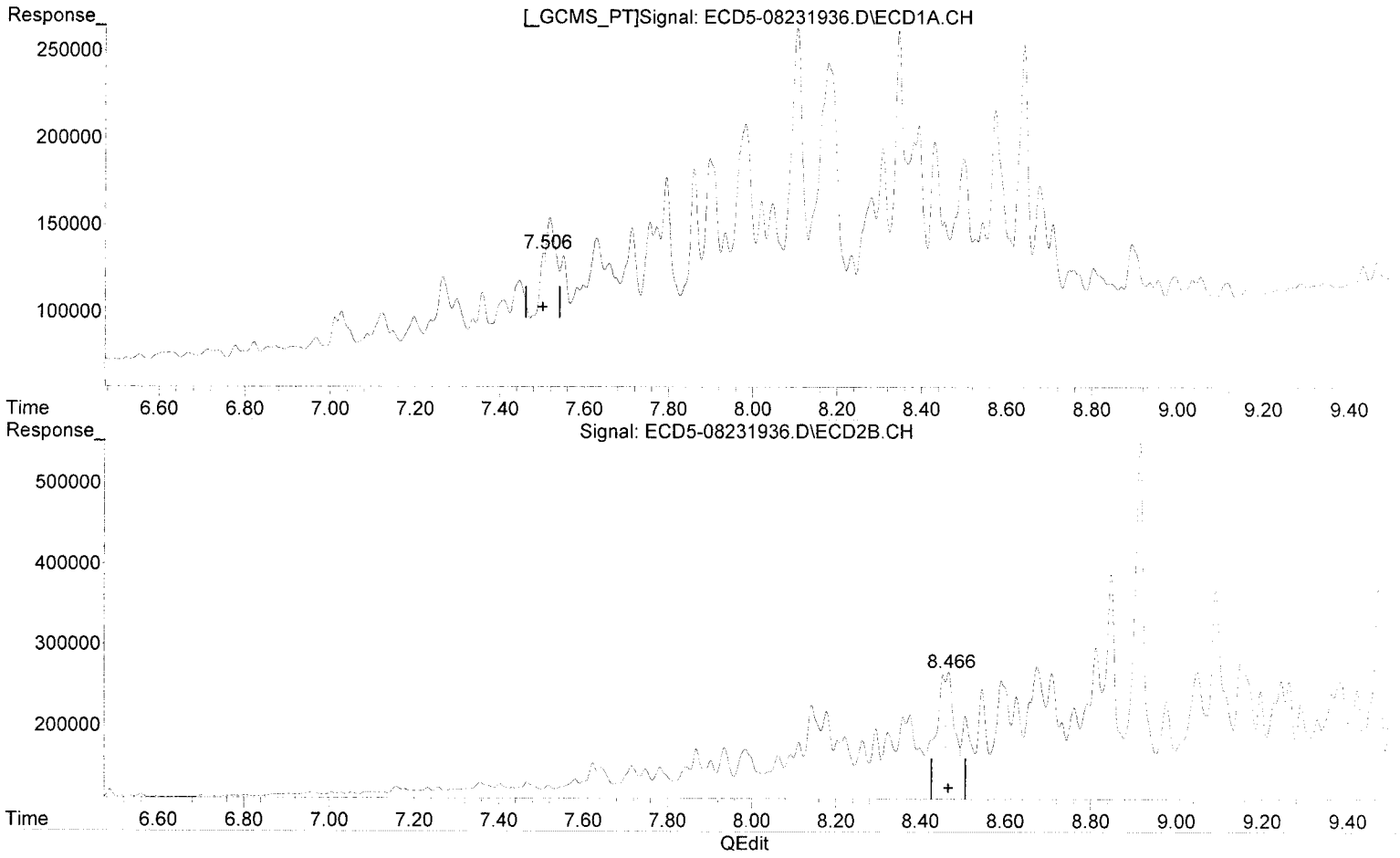
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	6201	N.D.	0.021	#
22) S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.249f	0.000	4430	0	0.022	N.D.	#
4)	b-BHC	6.297	0.000	3017	0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

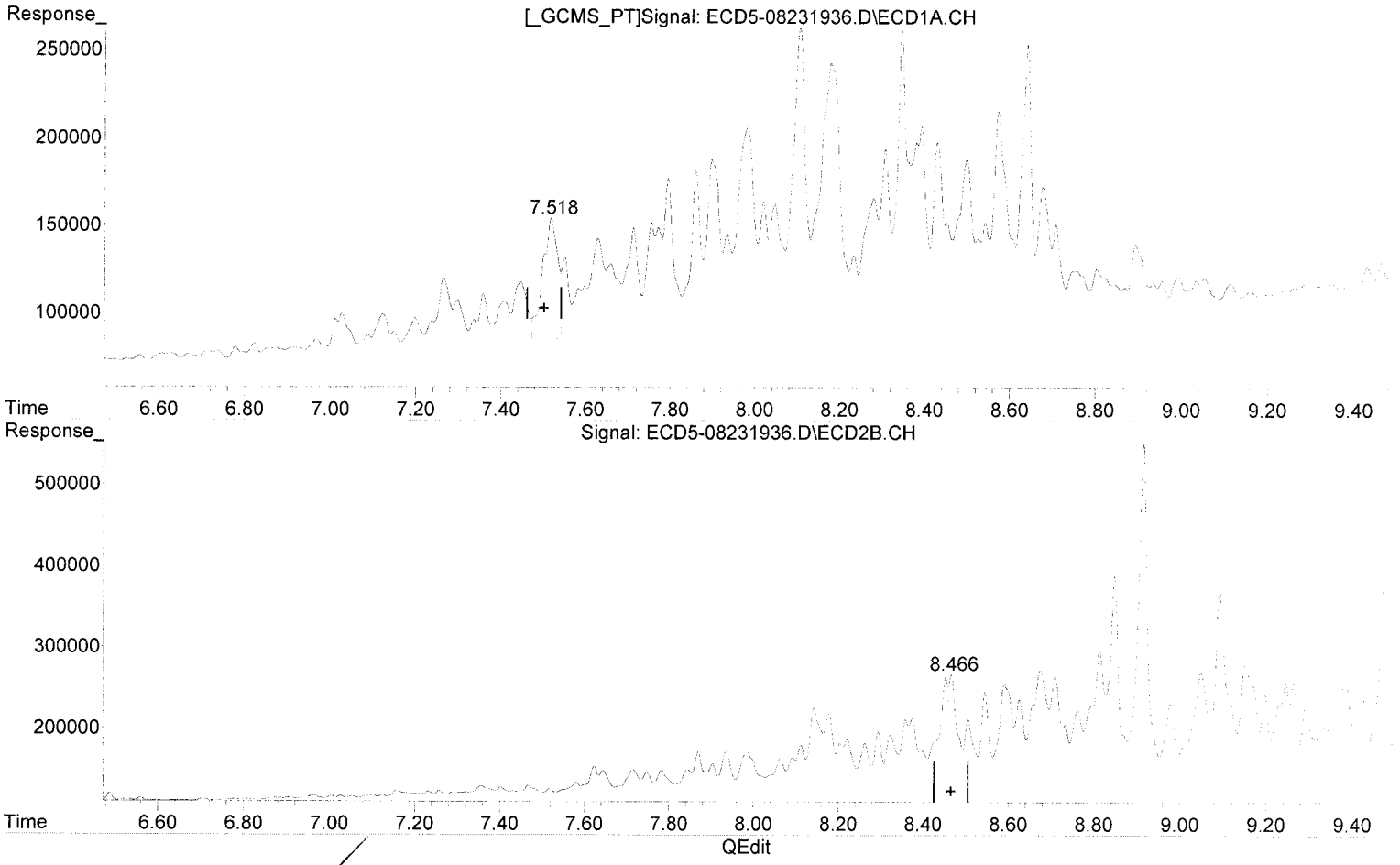
response 136848

(+) = 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

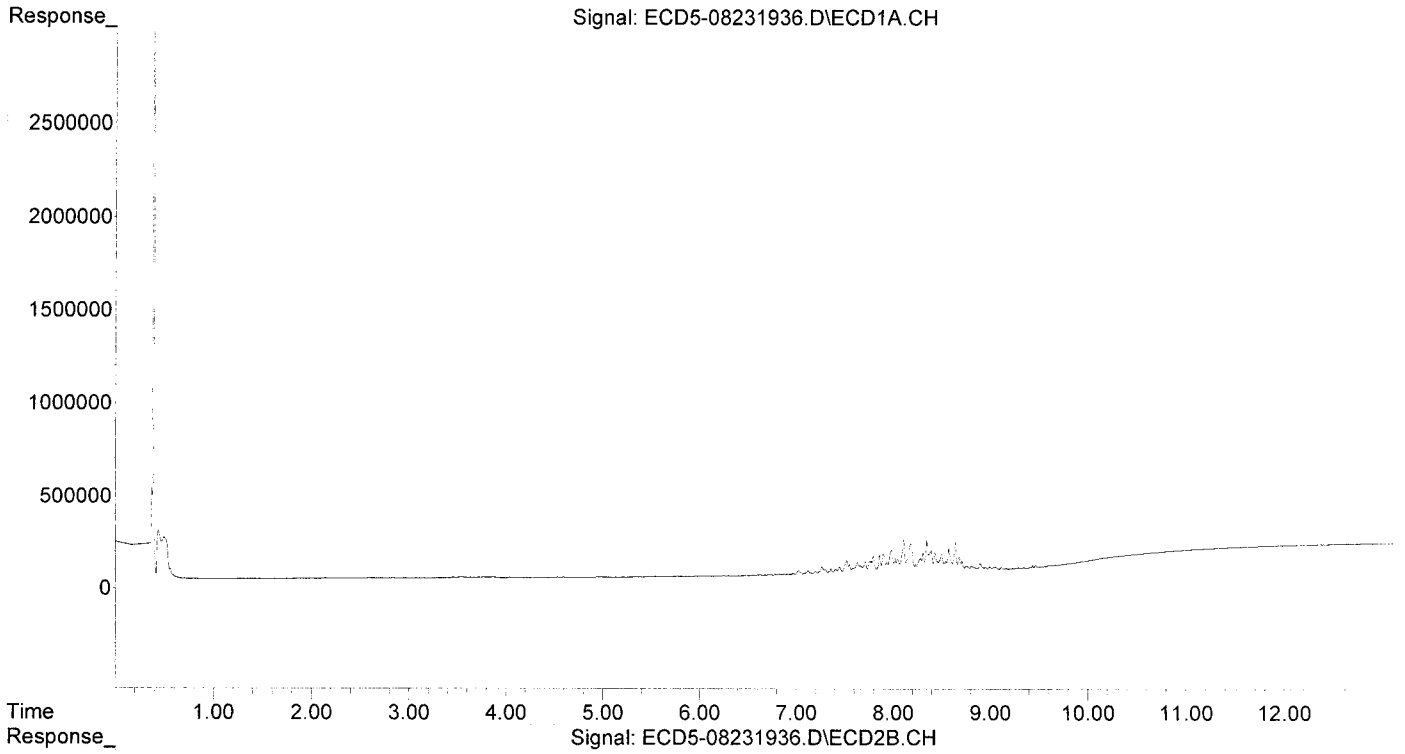
response 136848

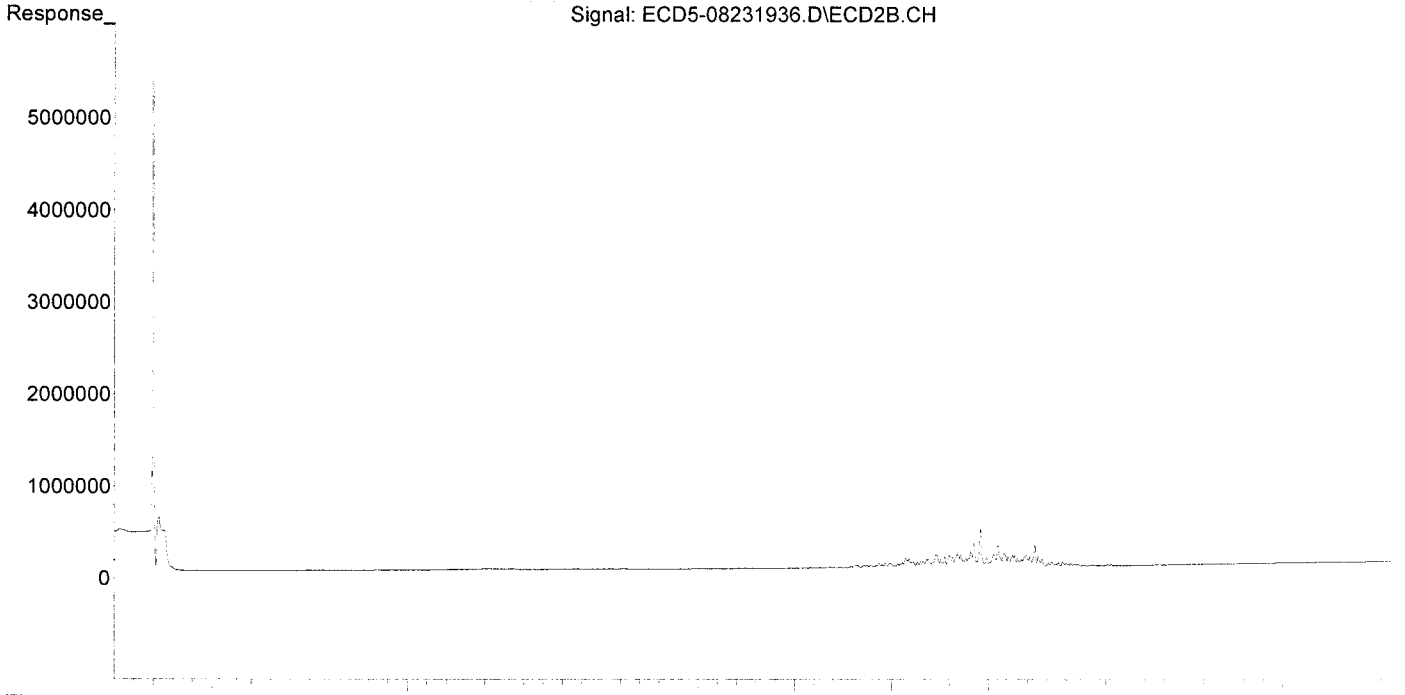
(+) = Expected Retention Time

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

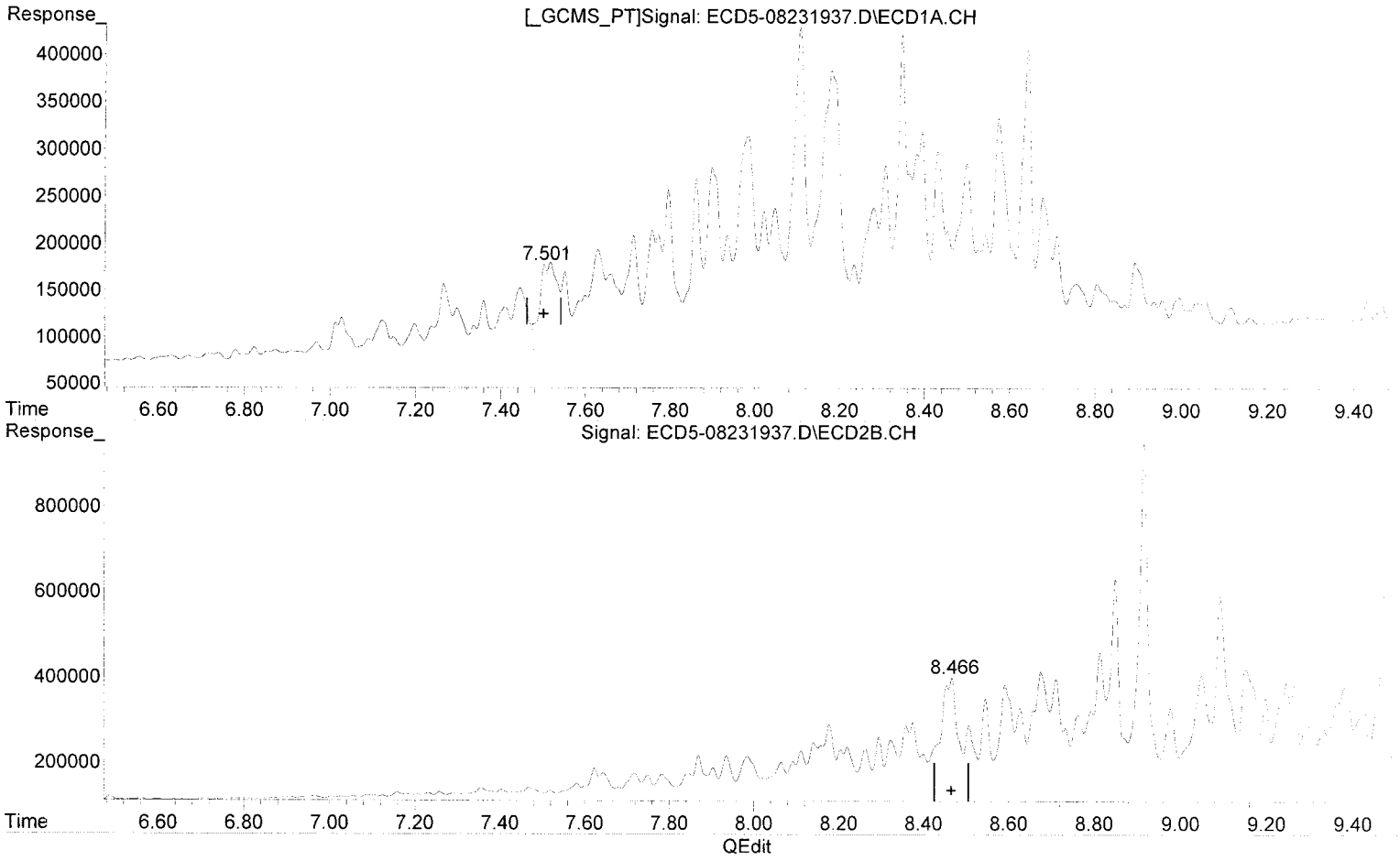
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.985	0	6562	N.D.	0.022	#
22)	S	DCBP (S)	9.592	0.000	4802	0	0.034	N.D.	#
		Target Compounds							
2)		a-BHC	5.952	0.000	2451	0	0.011	N.D.	#
3)		g-BHC	6.250f	0.000	4208	0	0.021	N.D.	#
4)		b-BHC	6.297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

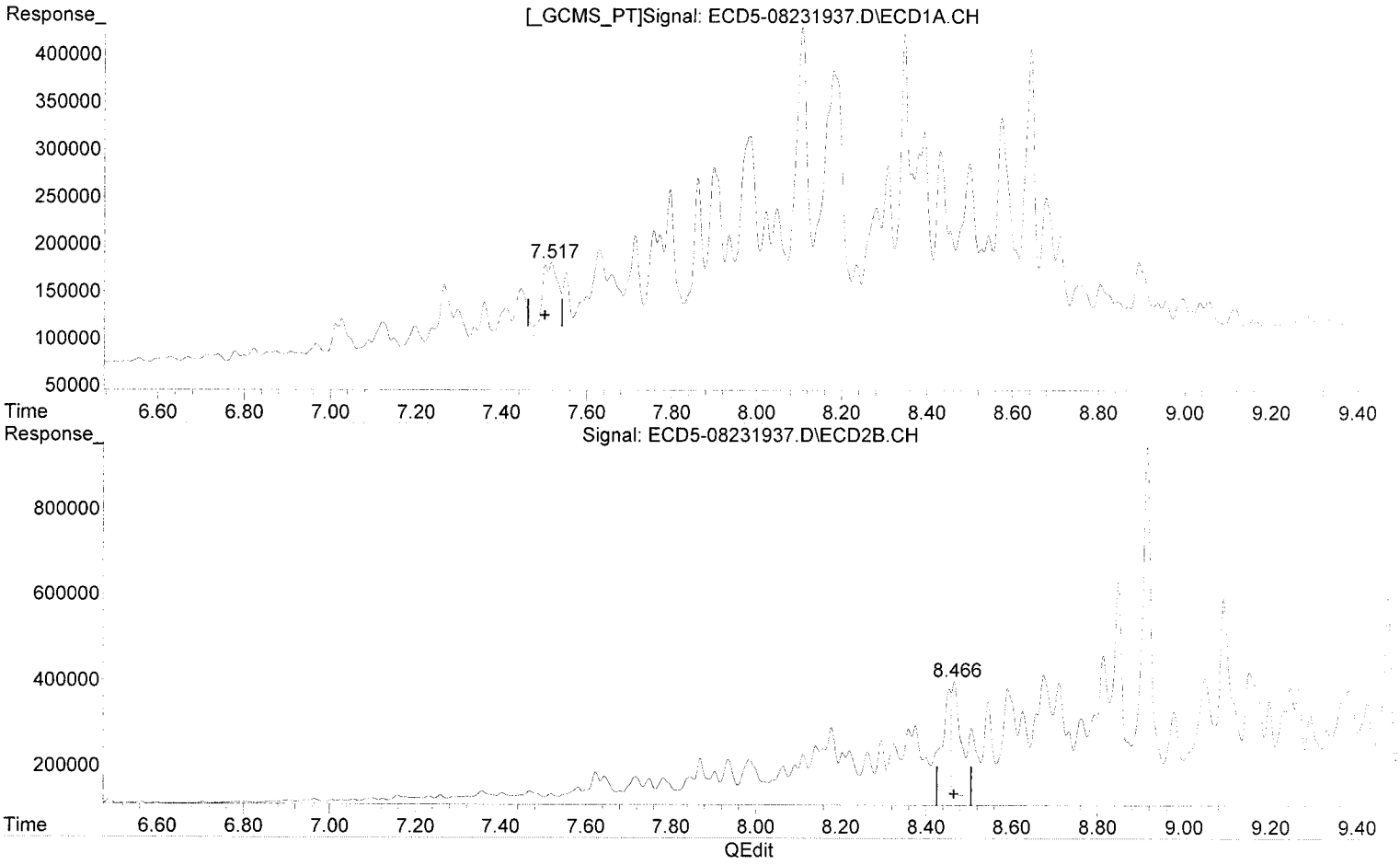
MJB 6/26/19 MJB 6/26/19

(+) = 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

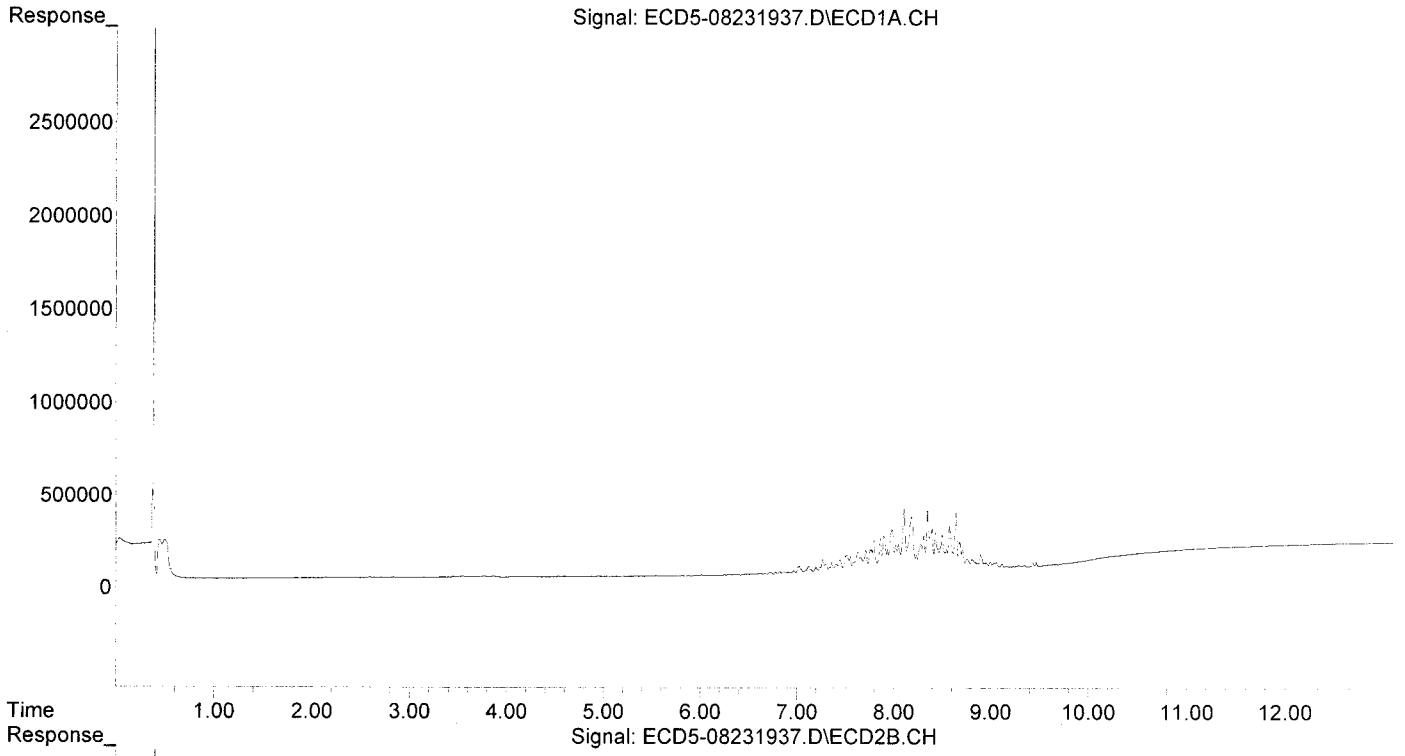
response 267534

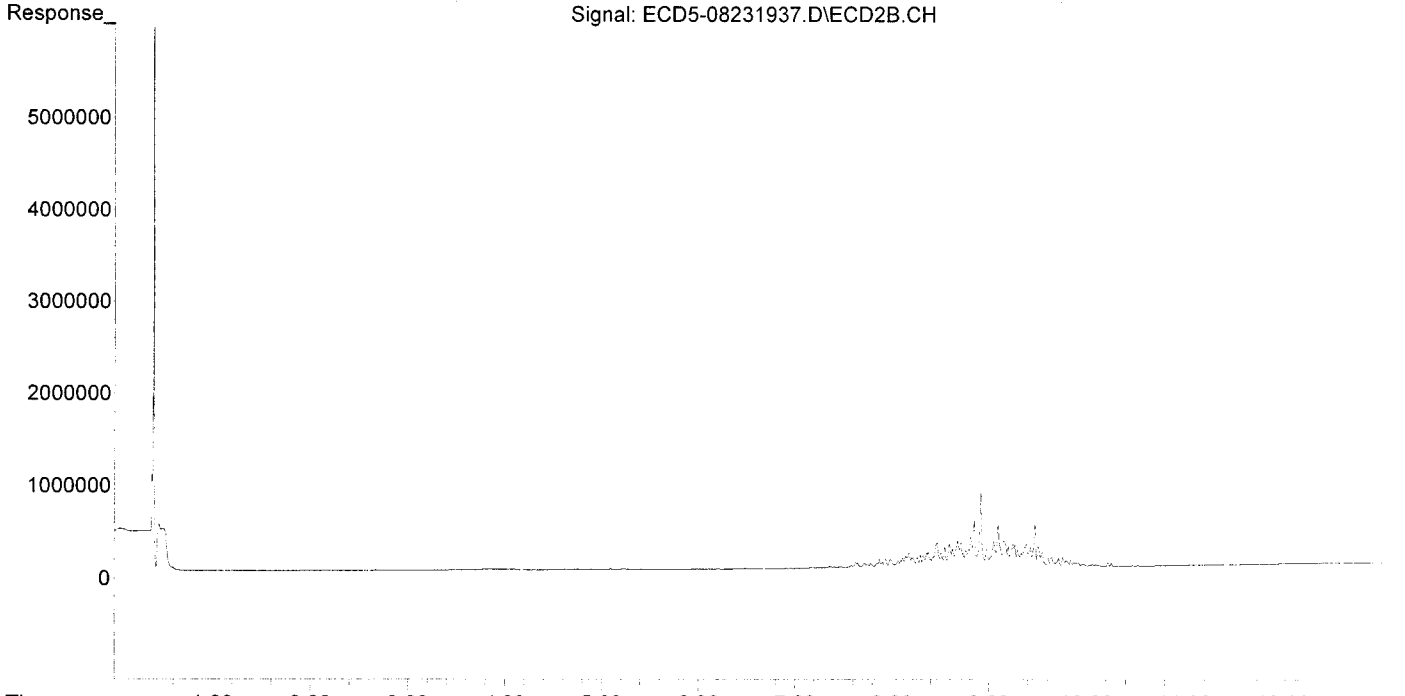
(+) = Expected Retention Time

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

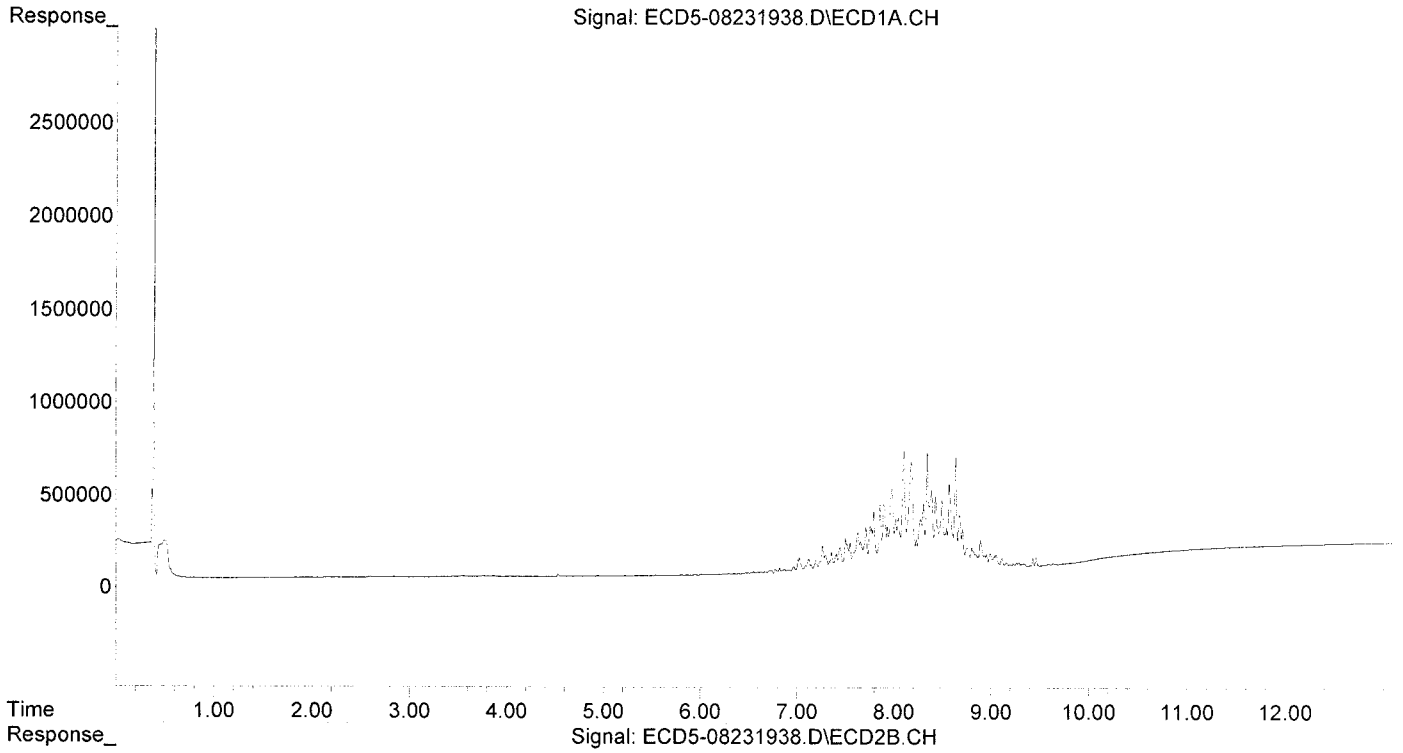
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6031	N.D.	0.021	#
22)	S	DCBP (S)	9.591	10.521	8317	11024	0.059	0.061	
		Target Compounds							
2)		a-BHC	5.950	0.000	2445	0	0.011	N.D.	#
3)		g-BHC	6.249f	6.906	4762	8484	0.024	0.024	
4)		b-BHC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

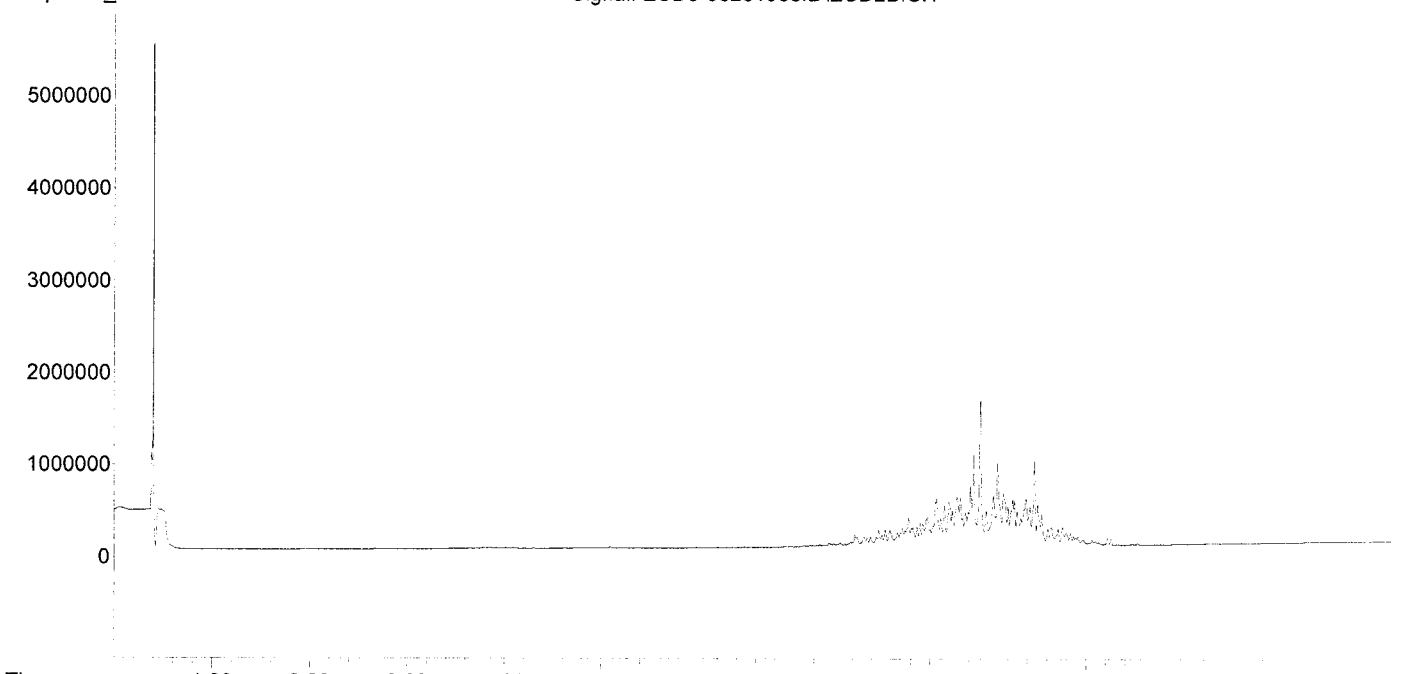
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

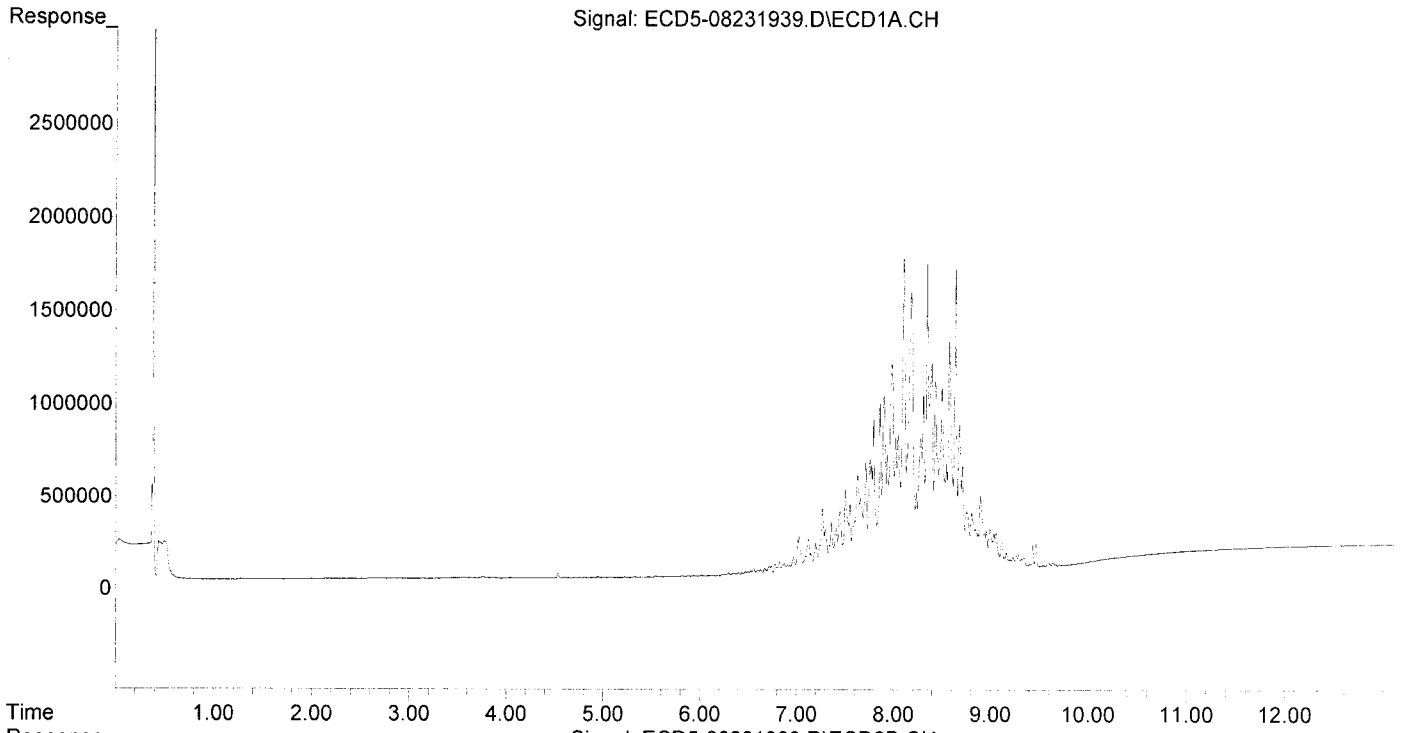
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	5601	N.D.	0.019	#
22) S	DCBP (S)	9.591	10.521	21035	39647	0.149	0.221	#
	Target Compounds							
2)	a-BHC	5.938	6.598	3646	8422	0.016	0.021	
3)	g-BHC	6.246f	6.908	6276	21315	0.031	0.060	#
4)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

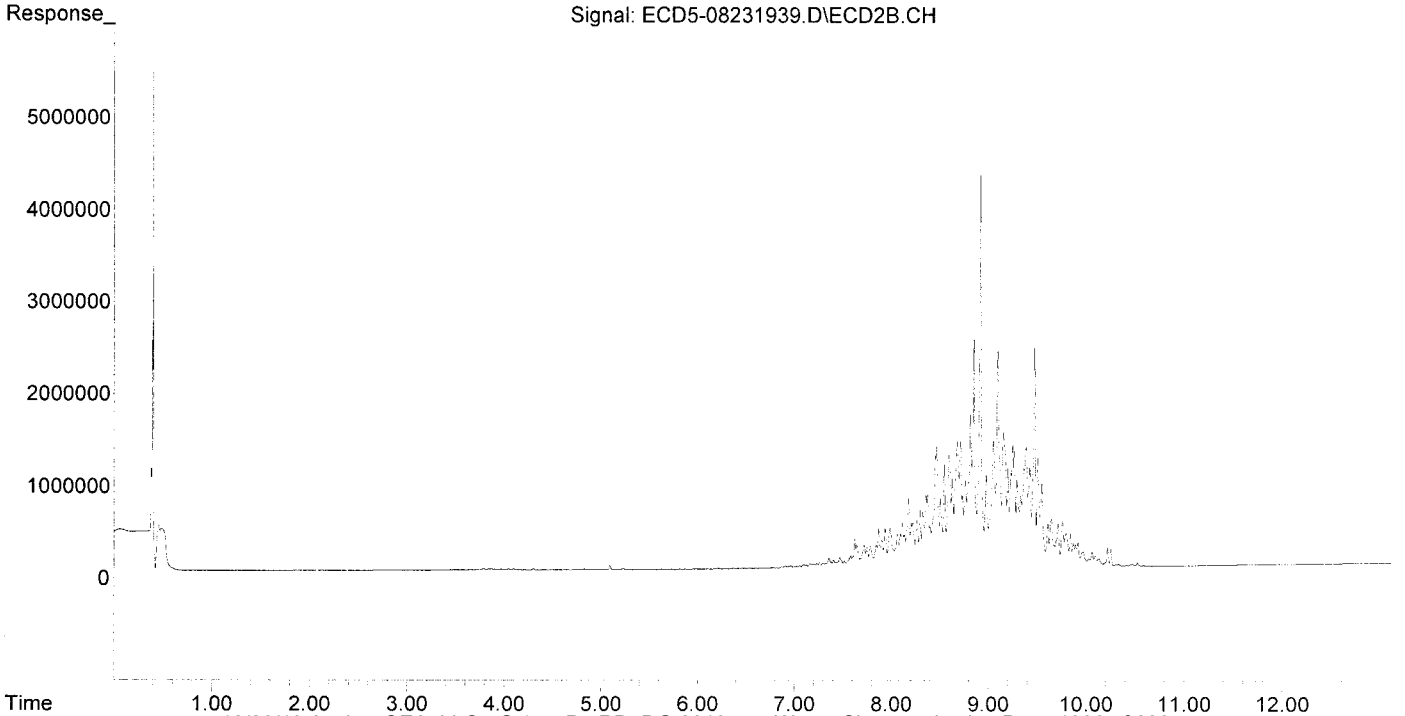
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

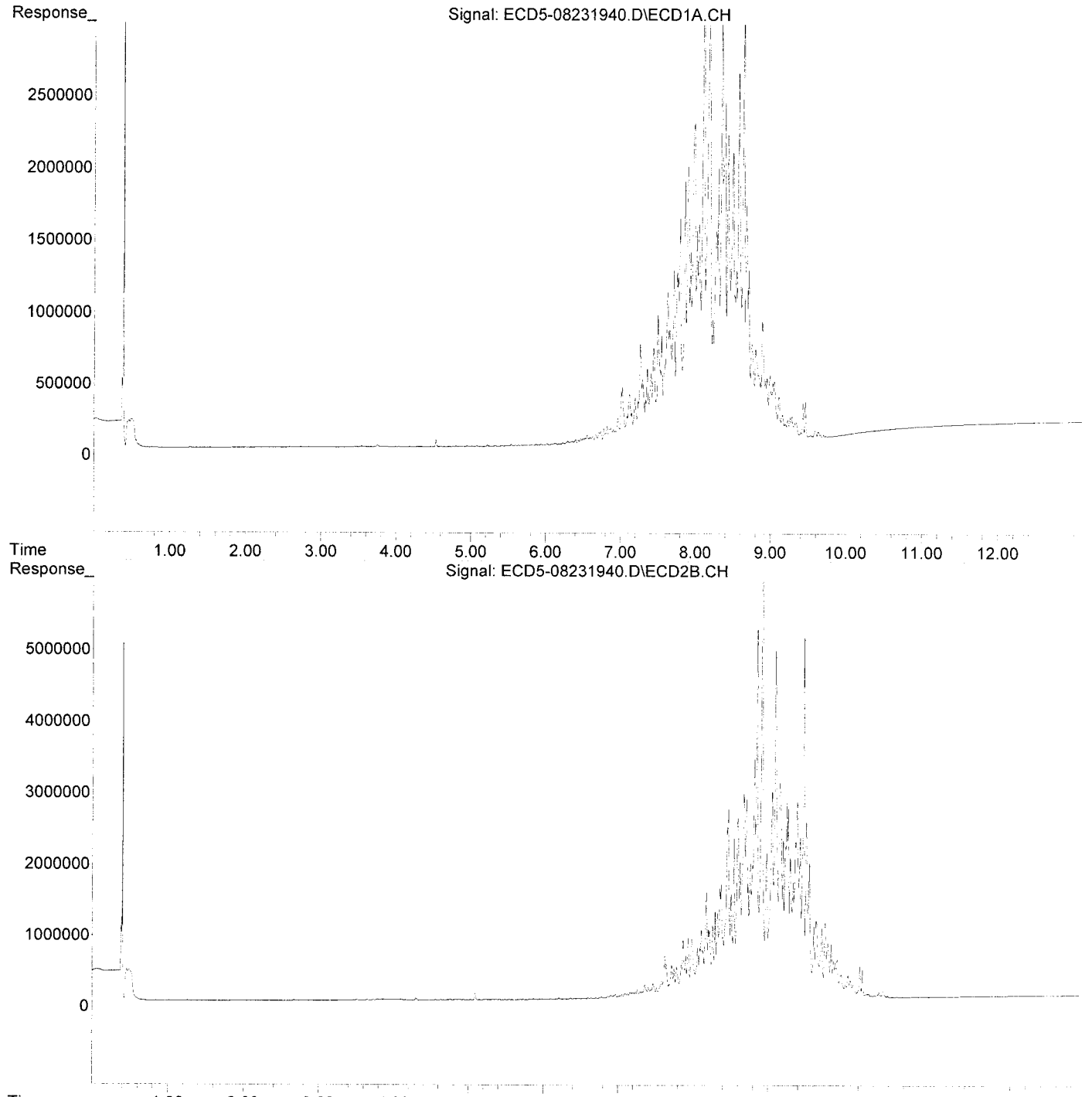
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.415f	5.982	2381	5264	0.014	0.018	
22)	S	DCBP (S)	9.591	10.522	47060	86882	0.334	0.483	#
		Target Compounds							
2)		a-BHC	5.937	6.597	7133	14957	0.031	0.036	
3)		g-BHC	6.231	6.907	12268	49388	0.061	0.138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

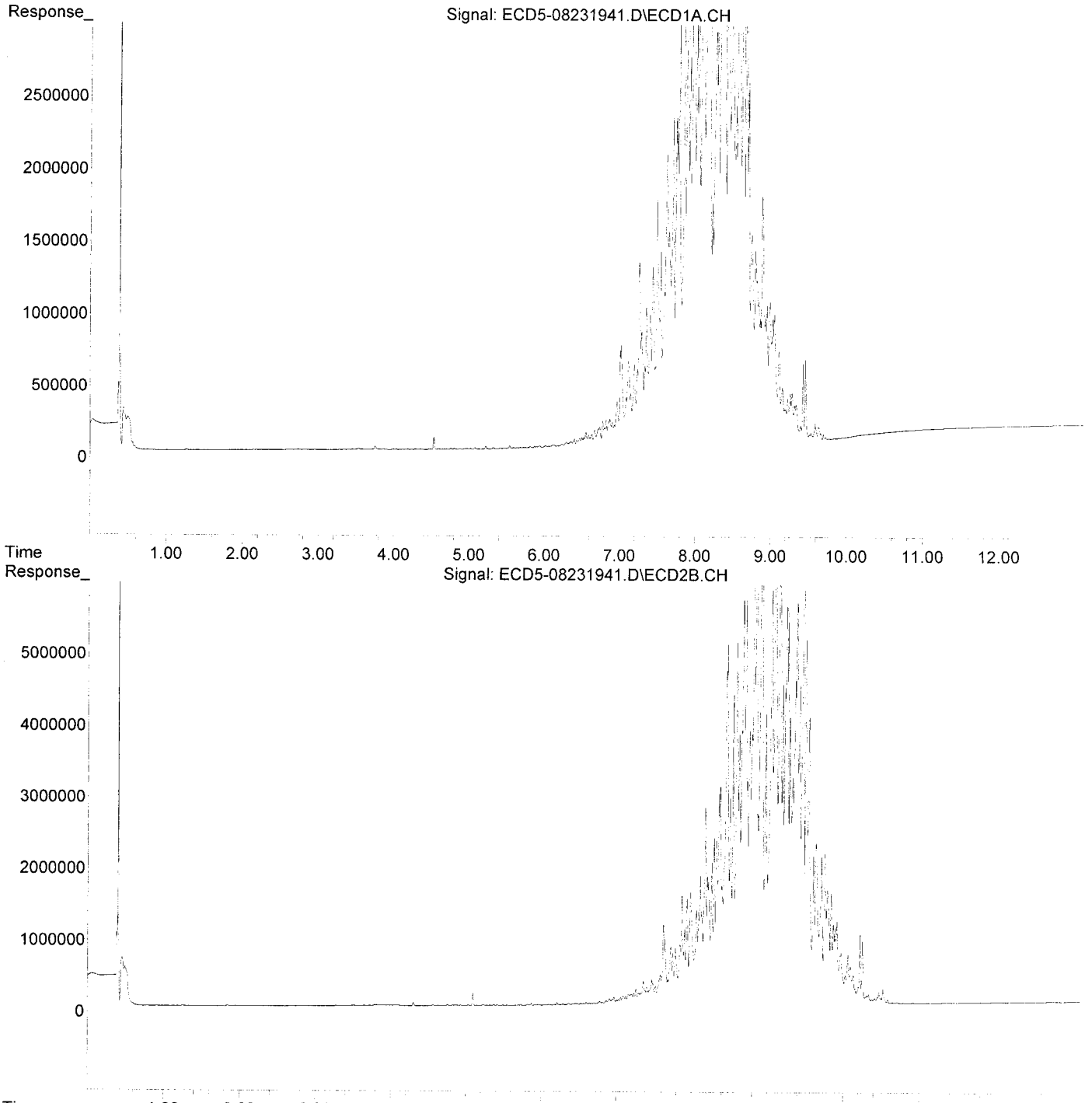
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.416f	5.979	3411	9459	0.021	0.032	#
22)	S	DCBP (S)	9.591	10.521	106938	194794	0.758	1.084	#
		Target Compounds							
2)		a-BHC	5.935	6.596	13246	39719	0.058	0.097	#
3)		g-BHC	6.231	6.908	20790	85564	0.103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

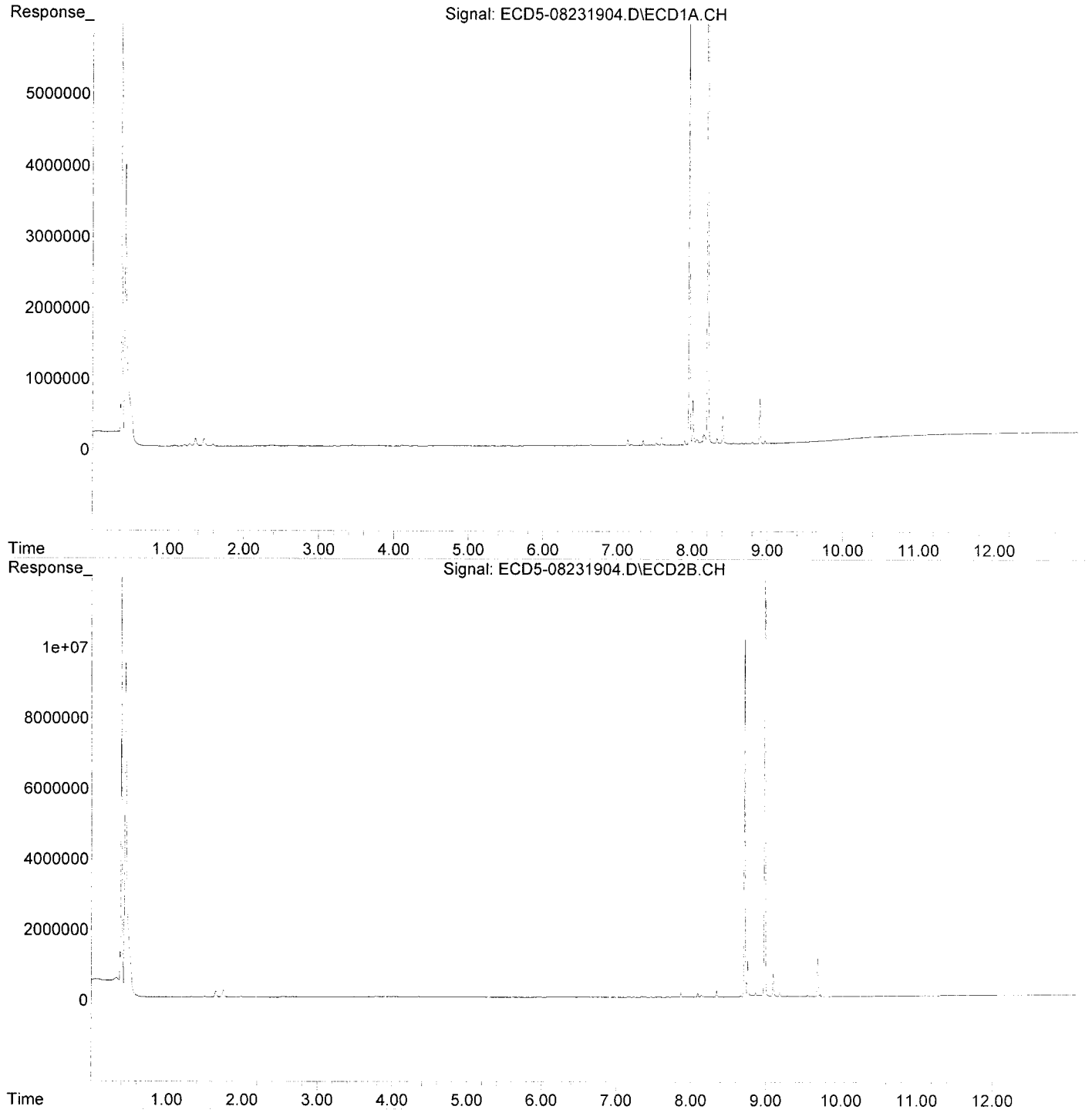
(f)=RT Delta > 1/2 Window (m)=manual int.

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

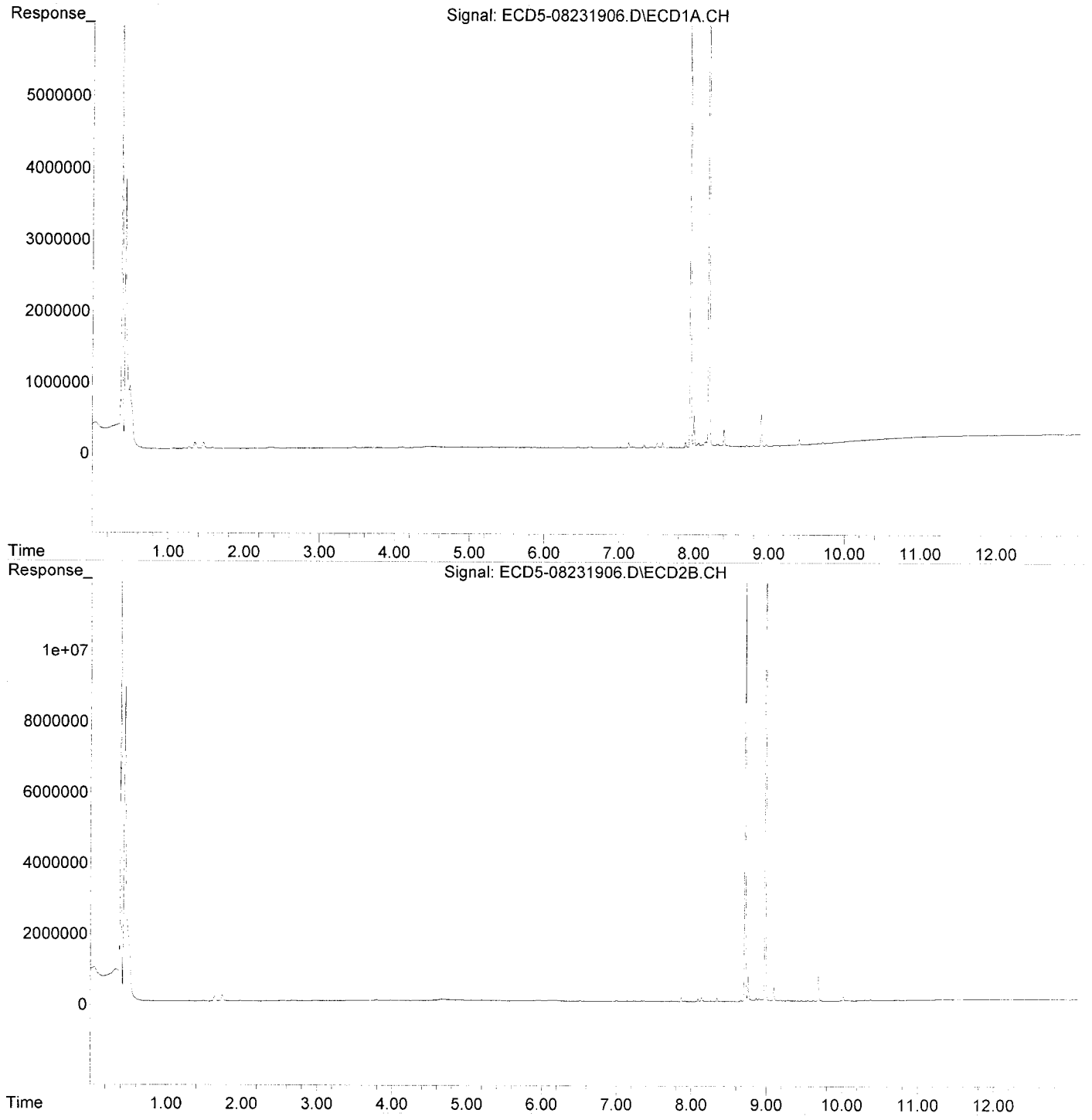
(f)=RT Delta > 1/2 Window (m)=manual int.

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

MJF 8/26/19

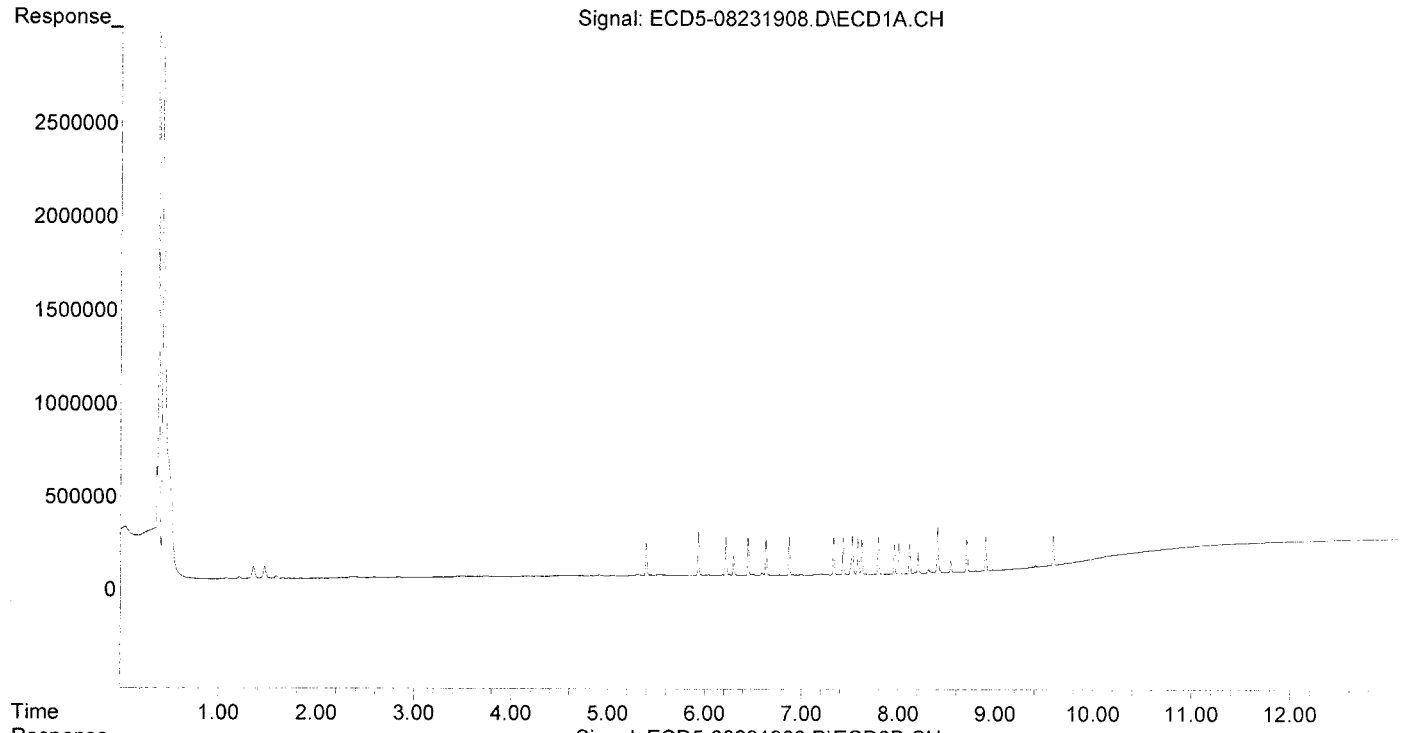
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.633	1.607
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.202	1.206
		Target Compounds						
2)		a-BHC	5.937	6.597	231994	393119	1.665	1.296
3)		g-BHC	6.221	6.915	207427	352286	1.380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

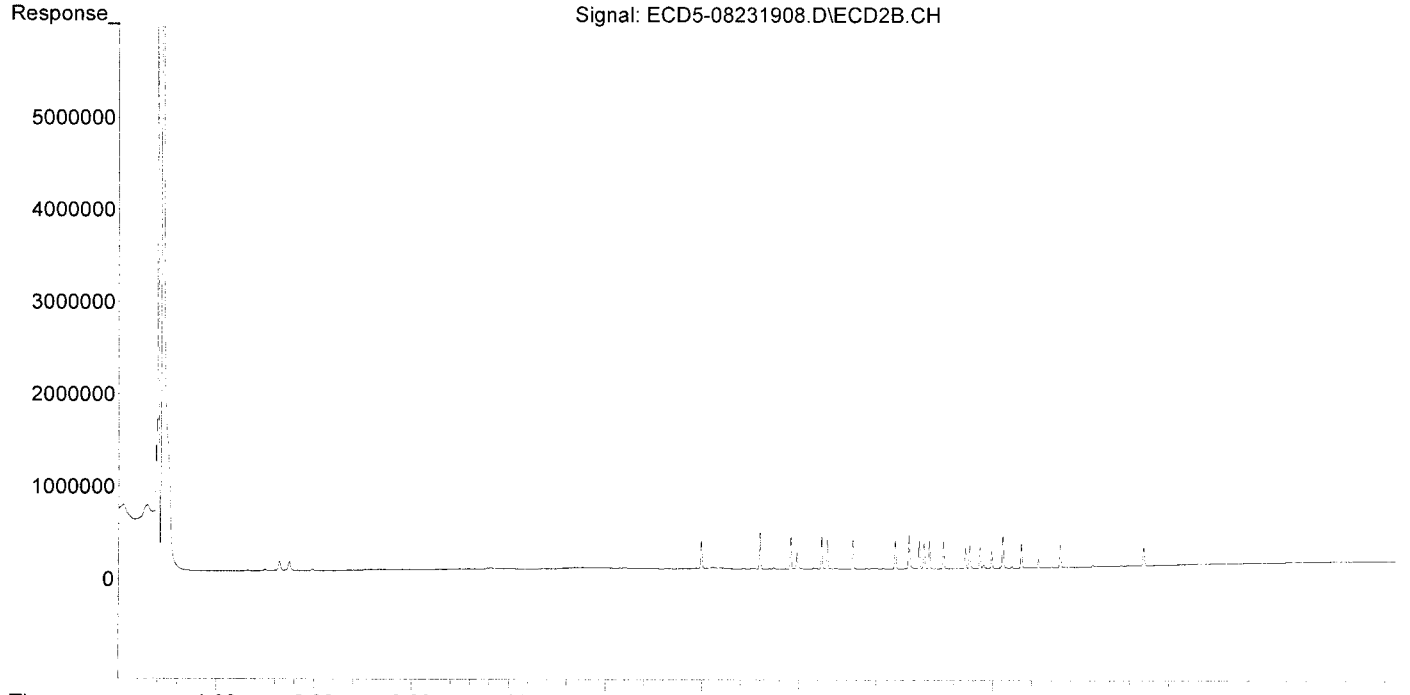
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

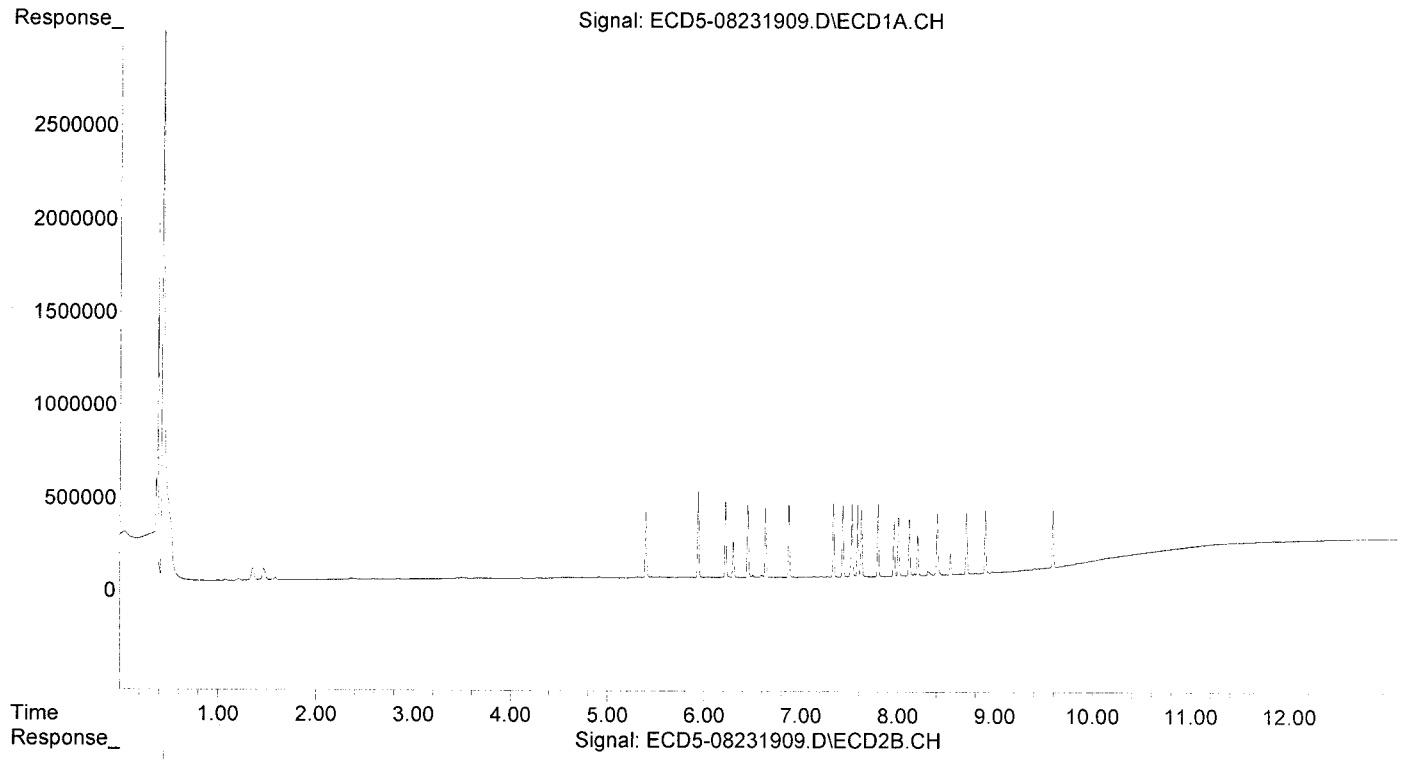
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	349972	600766	3.233	3.230
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.547	2.456
		Target Compounds						
2)		a-BHC	5.936	6.597	458365	784586	3.177	2.540
3)		g-BHC	6.220	6.915	406027	690922	2.702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

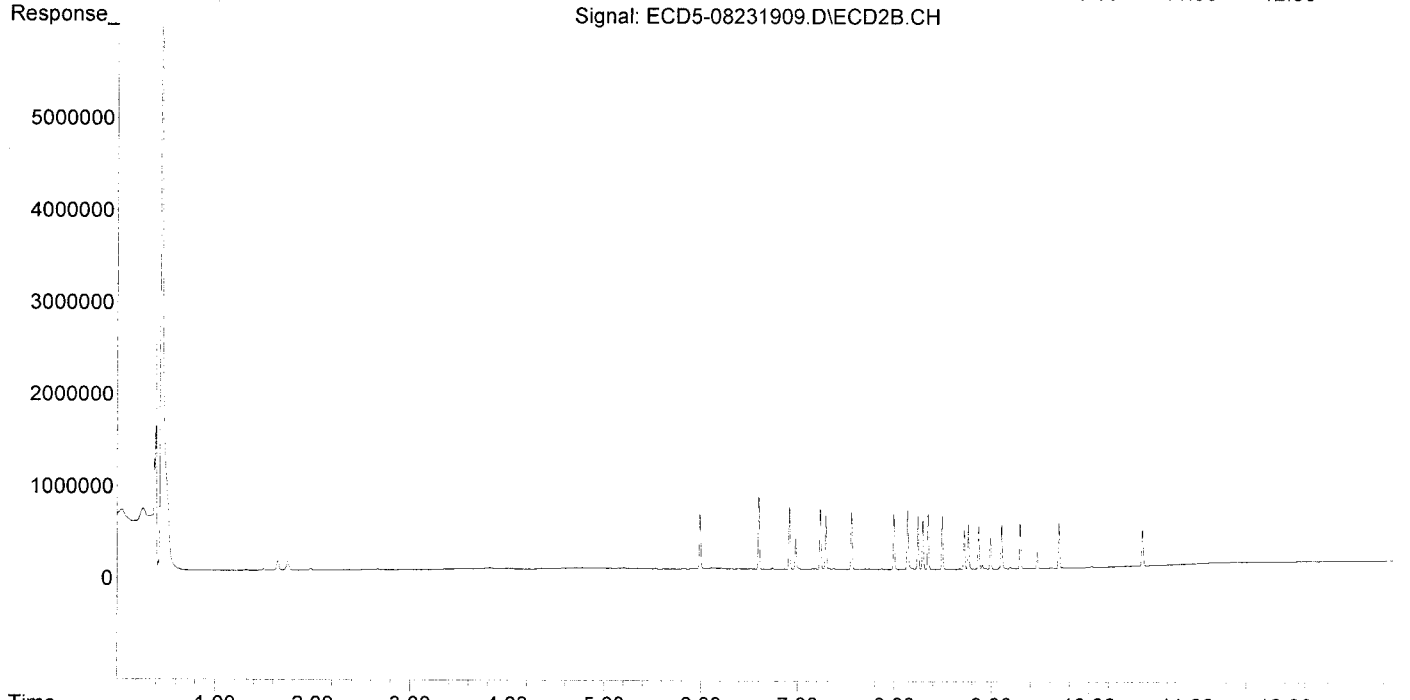
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

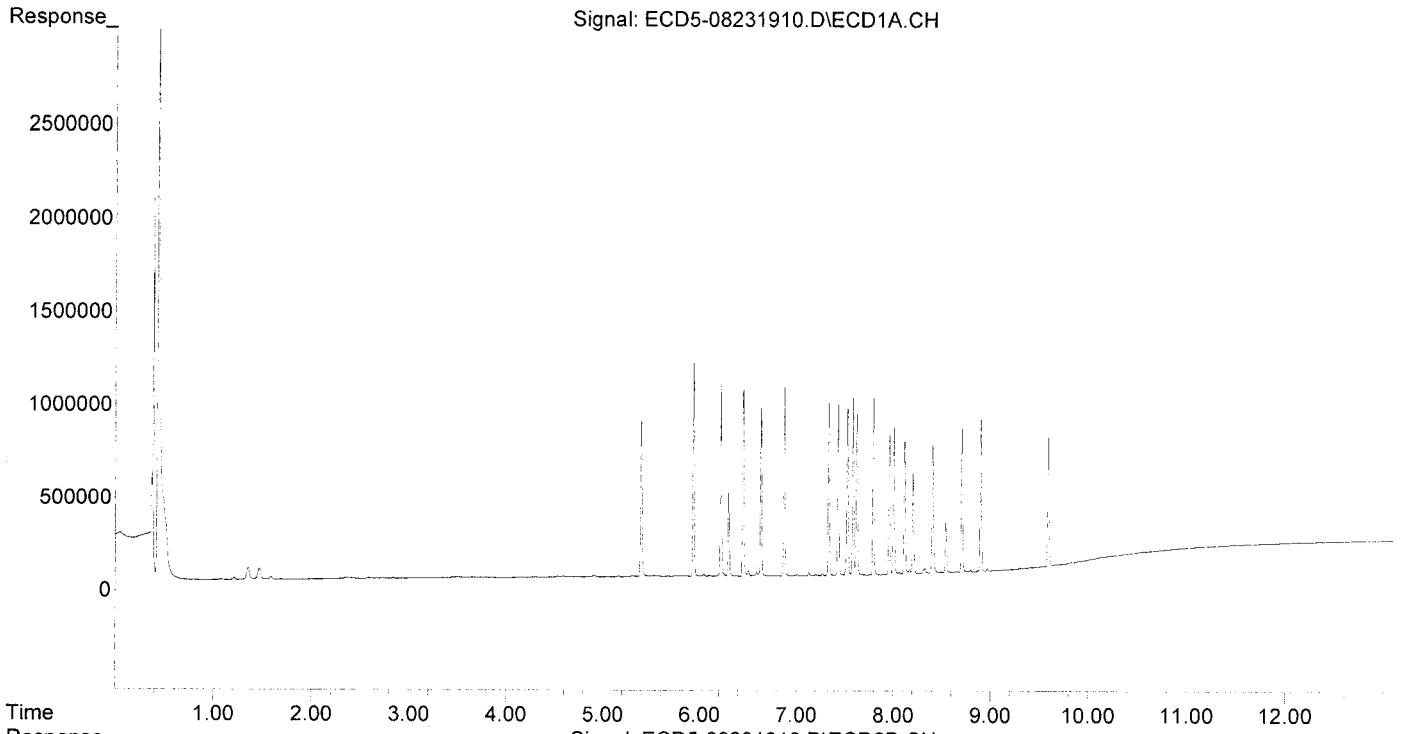
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	834206	1437876	7.707	7.700
22)	S	DCBP (S)	9.594	10.542	701050	870921	6.146	5.485
		Target Compounds						
2)		a-BHC	5.937	6.597	1147932	1985438	7.742	6.328
3)		g-BHC	6.220	6.915	1020724	1742677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

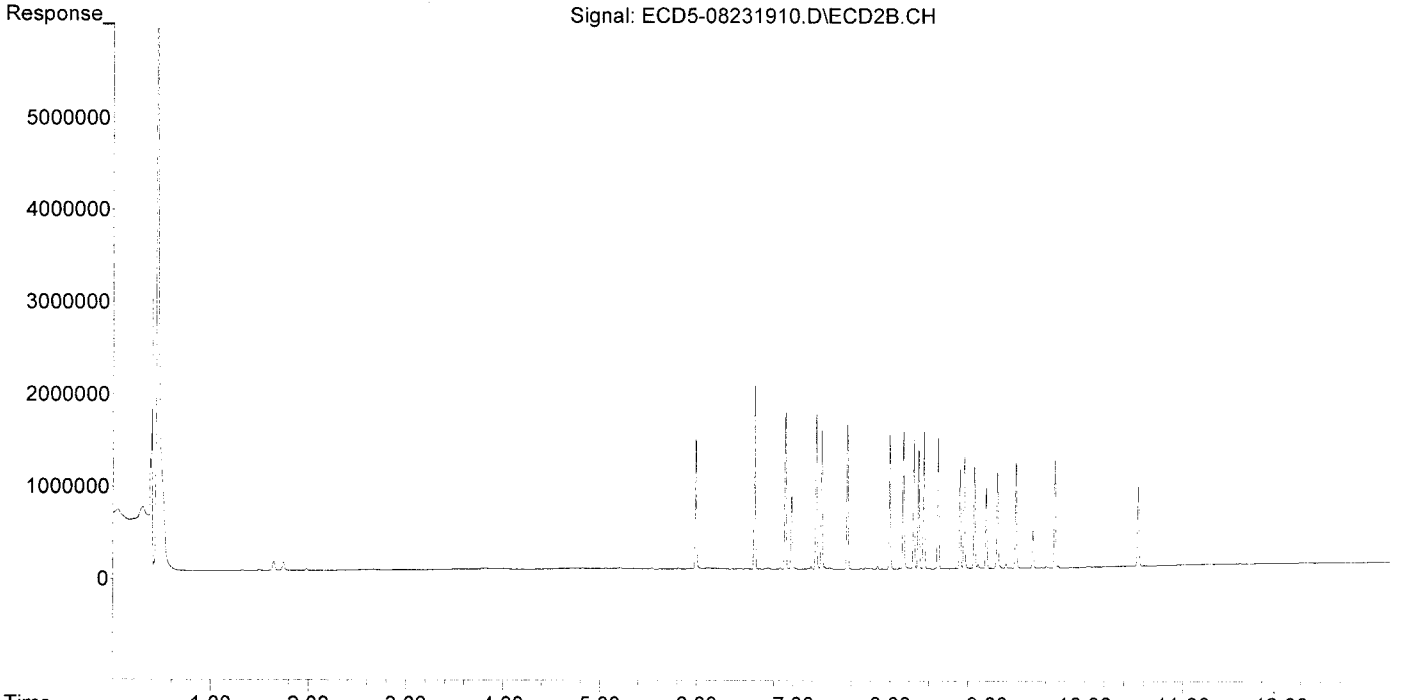
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

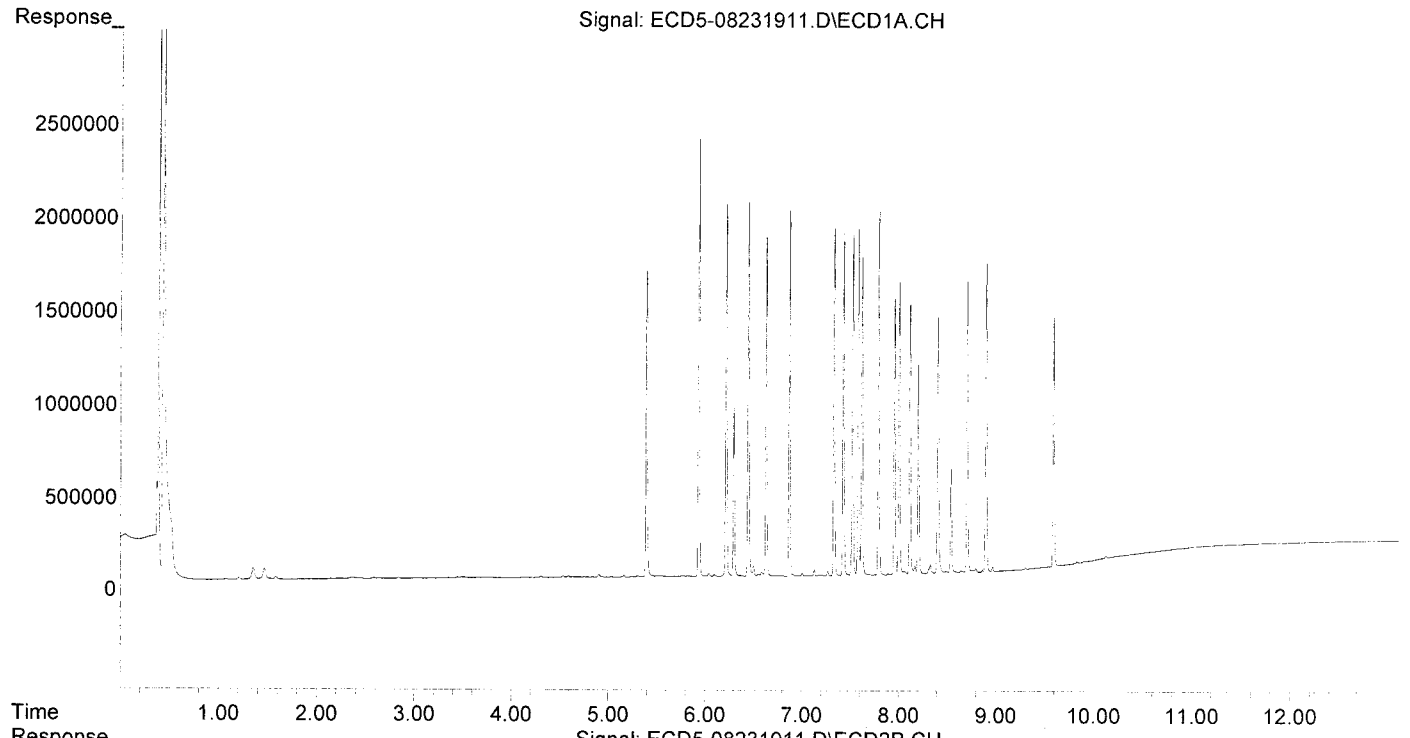
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	1644447	2865854	15.193	15.177
22)	S	DCBP (S)	9.593	10.541	1335468	1678728	11.976	10.572
		Target Compounds						
2)		a-BHC	5.936	6.597	2347065	4095890	15.530	12.883
3)		g-BHC	6.220	6.915	2034859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

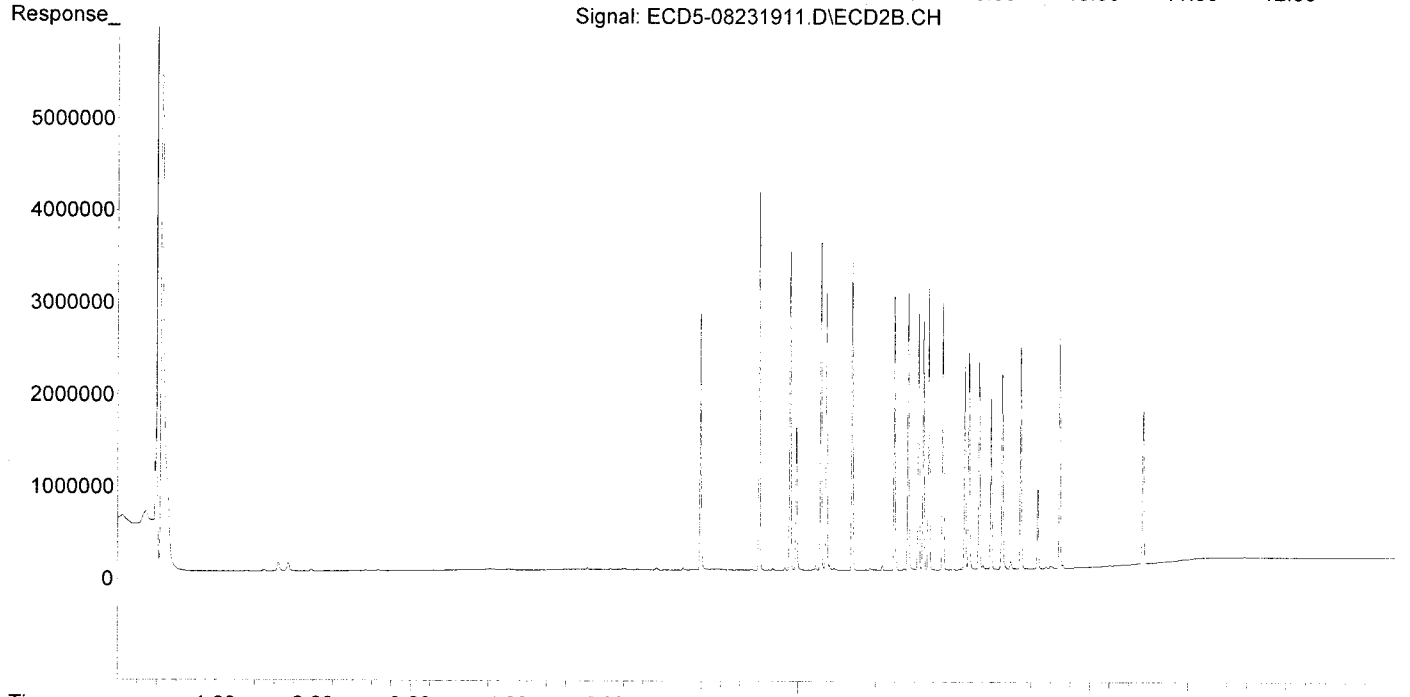
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

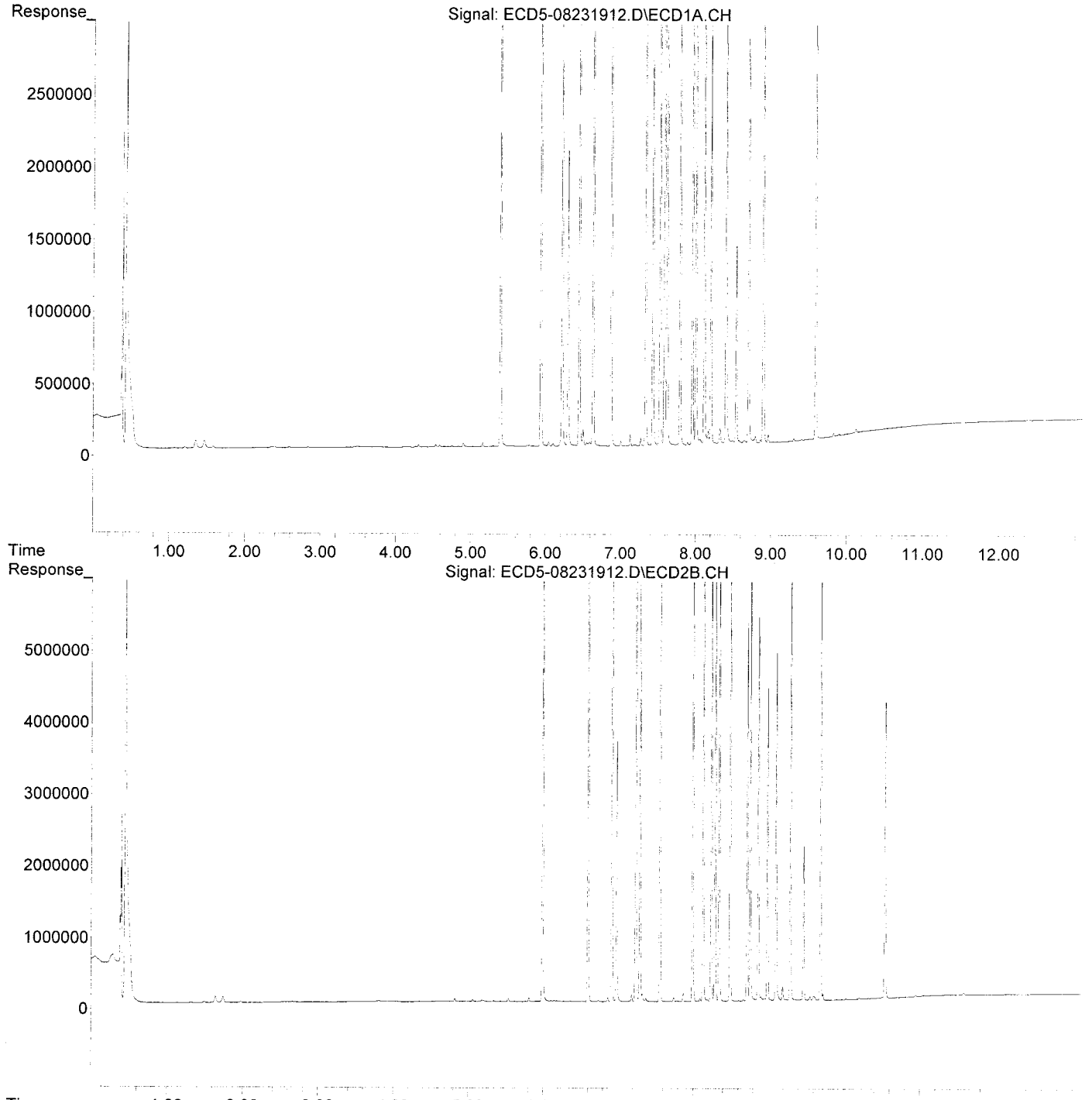
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1)	S TCMX (S)	5.394	5.989	4015832	7072923	37.101	36.221
22)	S DCBP (S)	9.592	10.539	3342634	4163229	30.365	26.219
	Target Compounds						
2)	a-BHC	5.935	6.596	5553096	9910863	35.515	30.324
3)	g-BHC	6.218	6.913	4875657	8508386	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

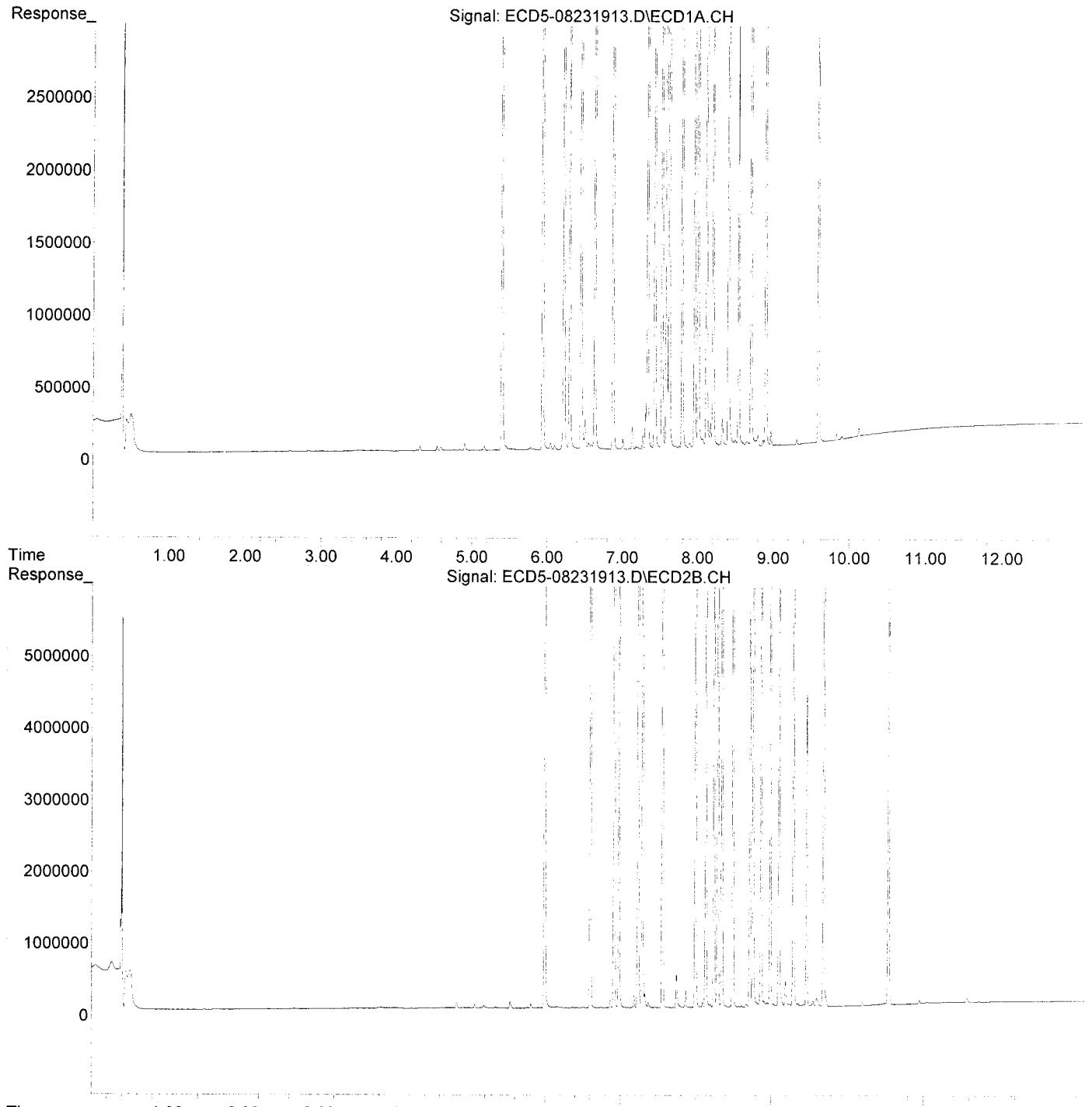
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.989	8071481	14196745	74.571	69.077
22) S	DCBP (S)	9.592	10.541	6678990	8730692	60.740	54.984
	Target Compounds						
2)	a-BHC	5.935	6.596	11369592	20265817	69.154	59.445
3)	g-BHC	6.218	6.914	9785999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

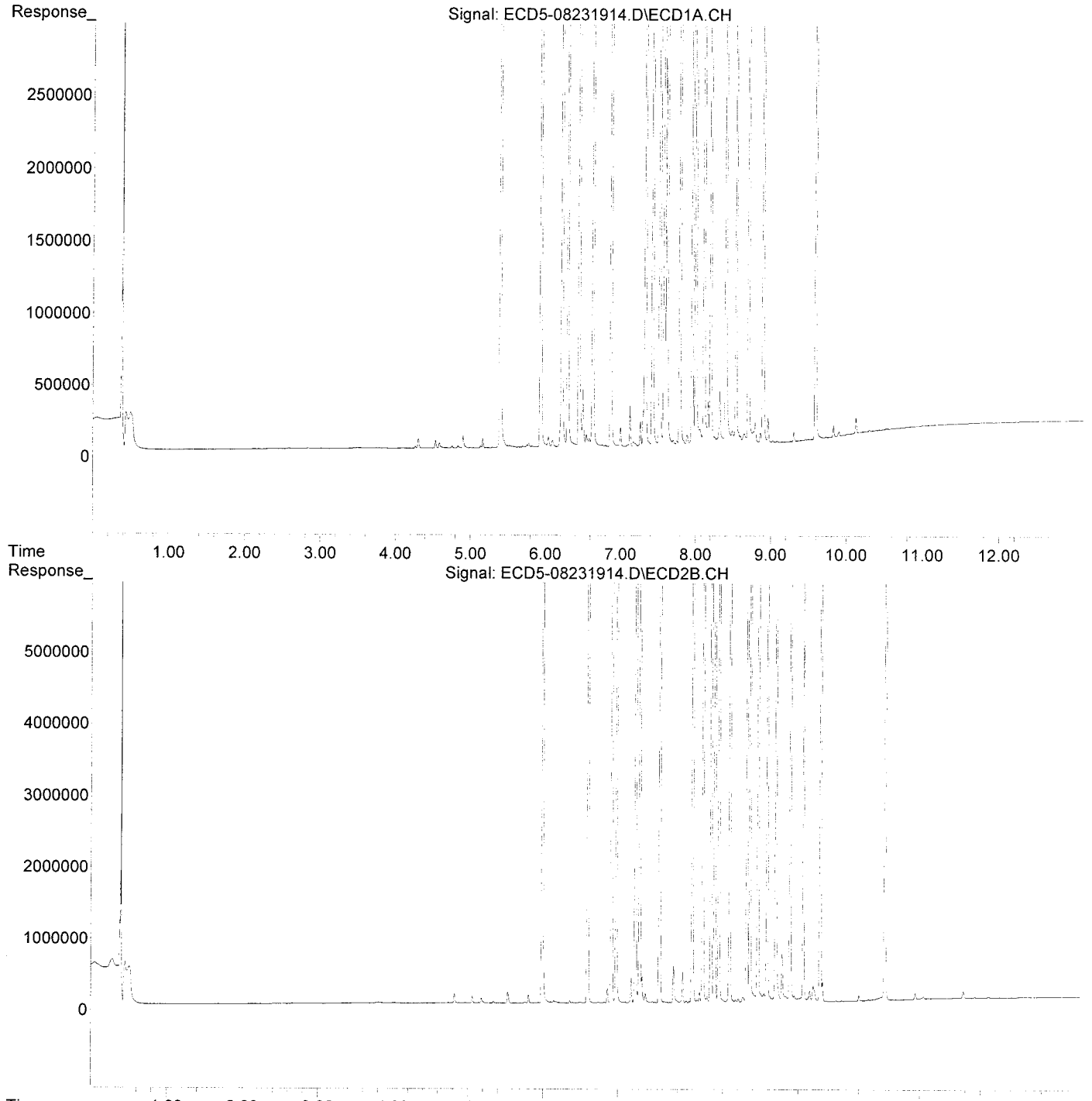
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	146.444	130.224
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	121.277	111.999
		Target Compounds						
2)		a-BHC	5.935	6.596	22363584	41699210	125.842	113.668
3)		g-BHC	6.218	6.914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

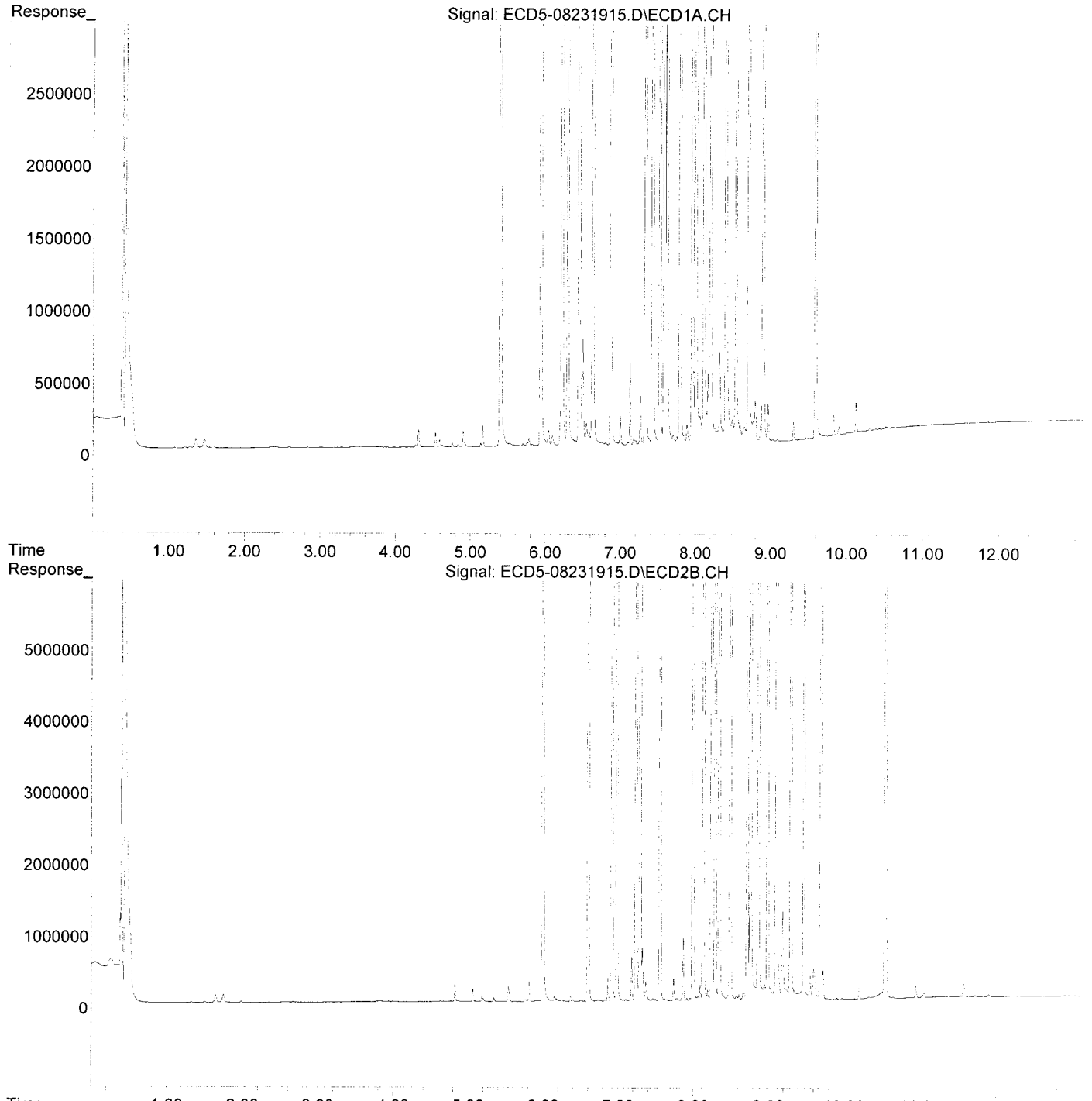
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	303.426	241.228
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	240.687	239.929
		Target Compounds						
2)		a-BHC	5.935	6.597	47202252	94376748	232.879	224.790
3)		g-BHC	6.218	6.914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

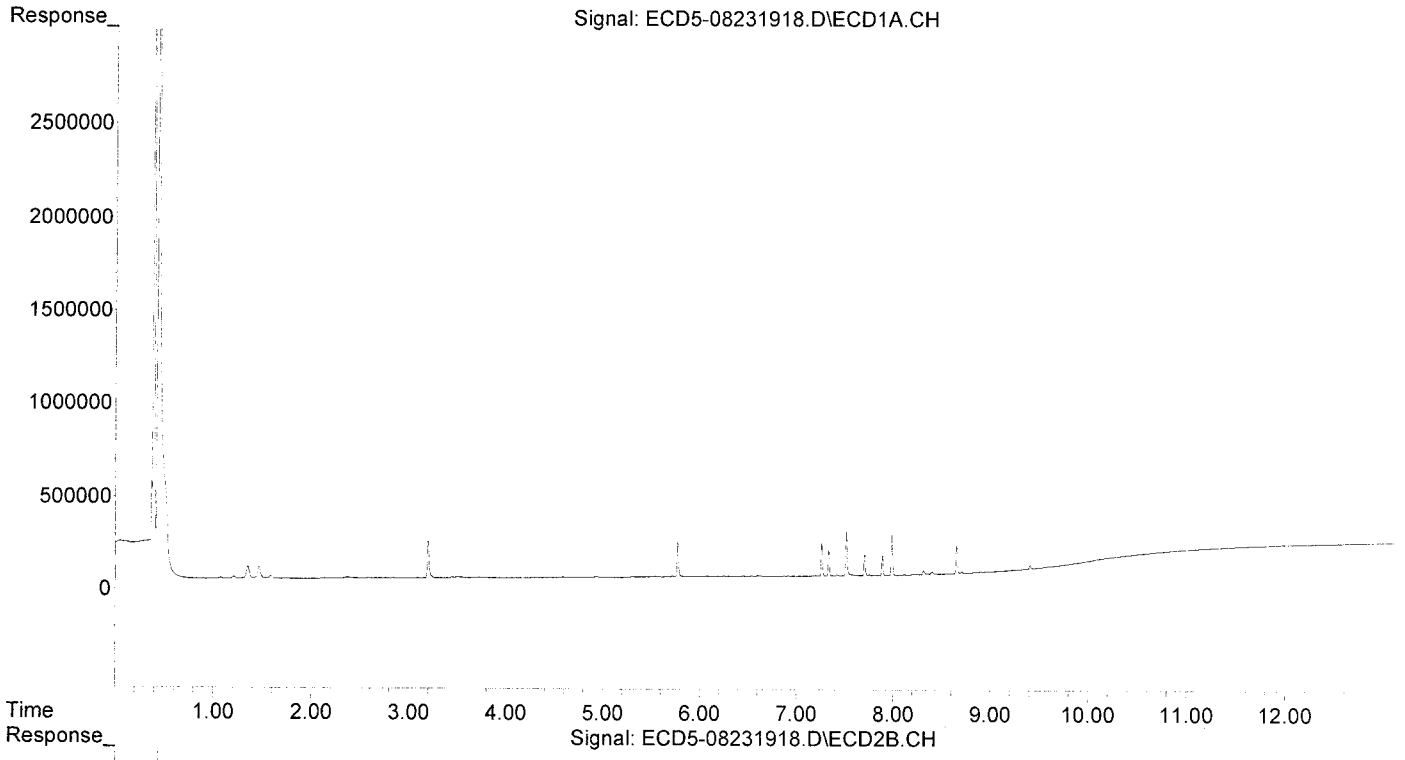
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

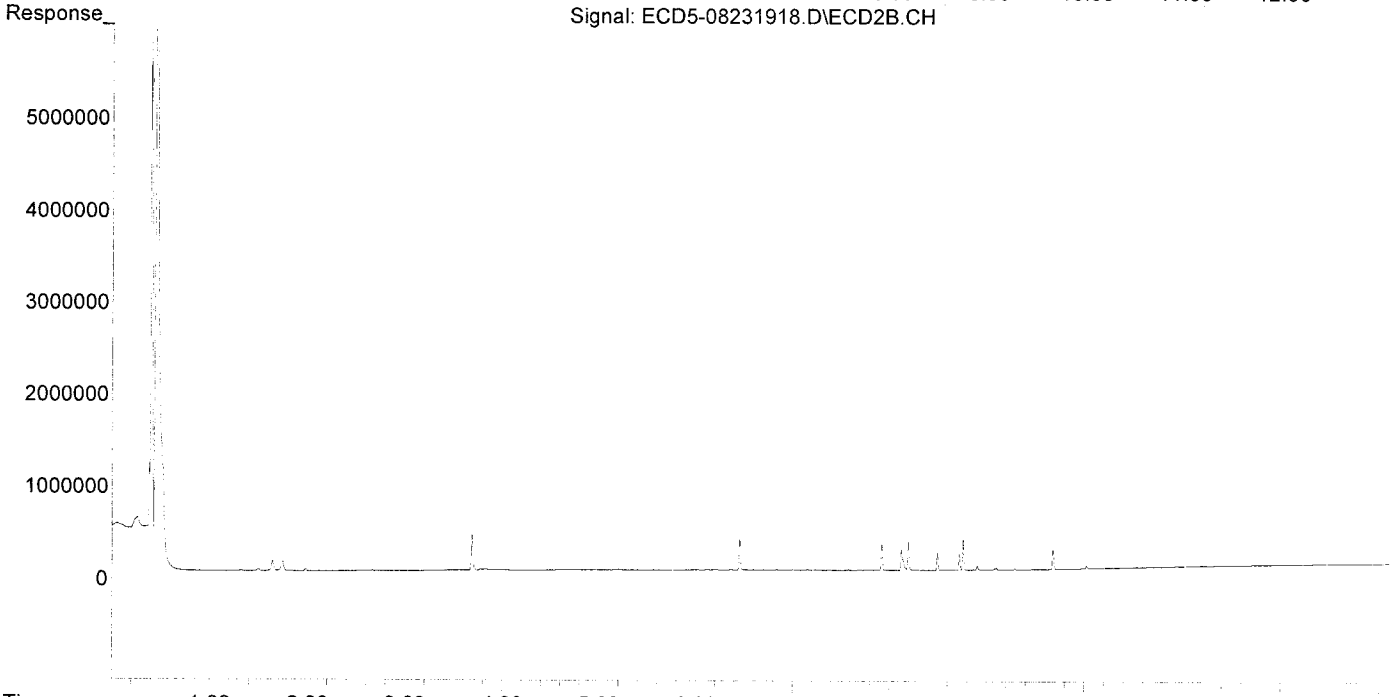
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

MJB 8/26/19

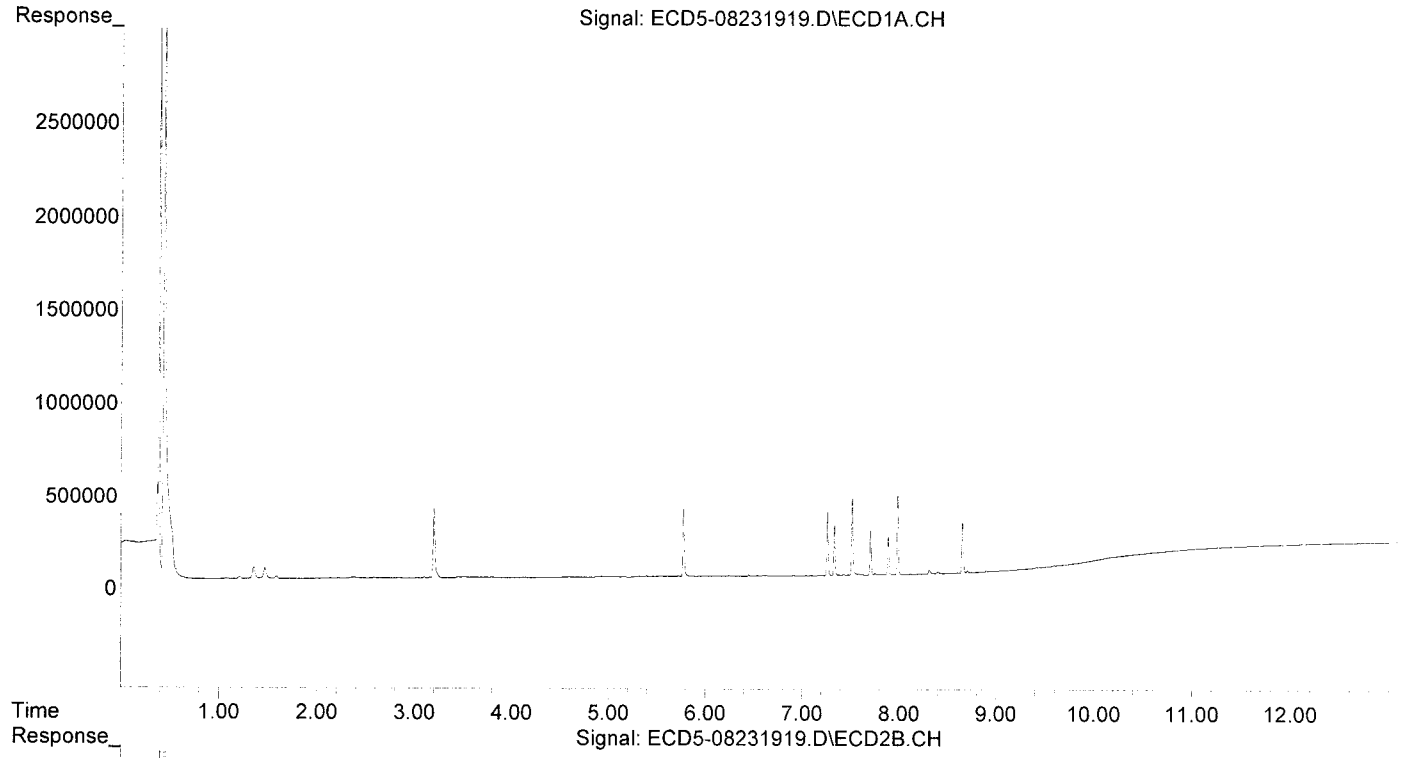
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

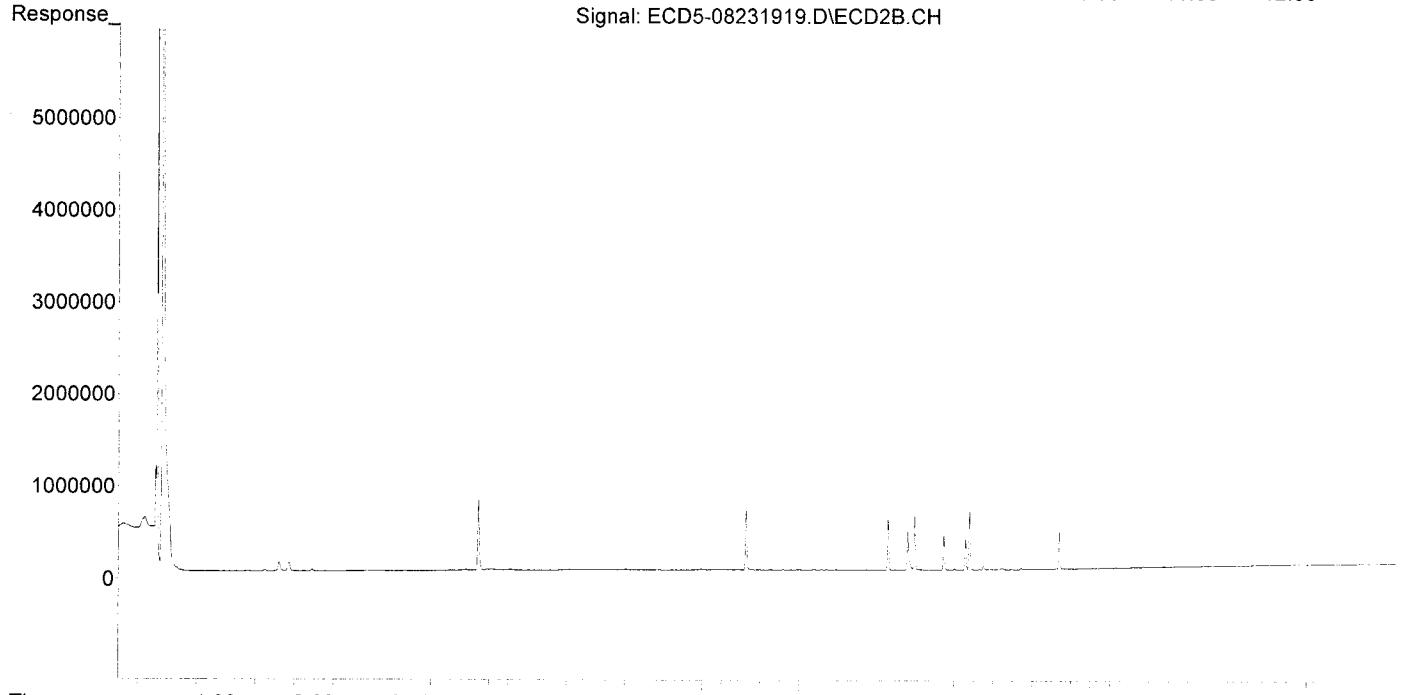
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

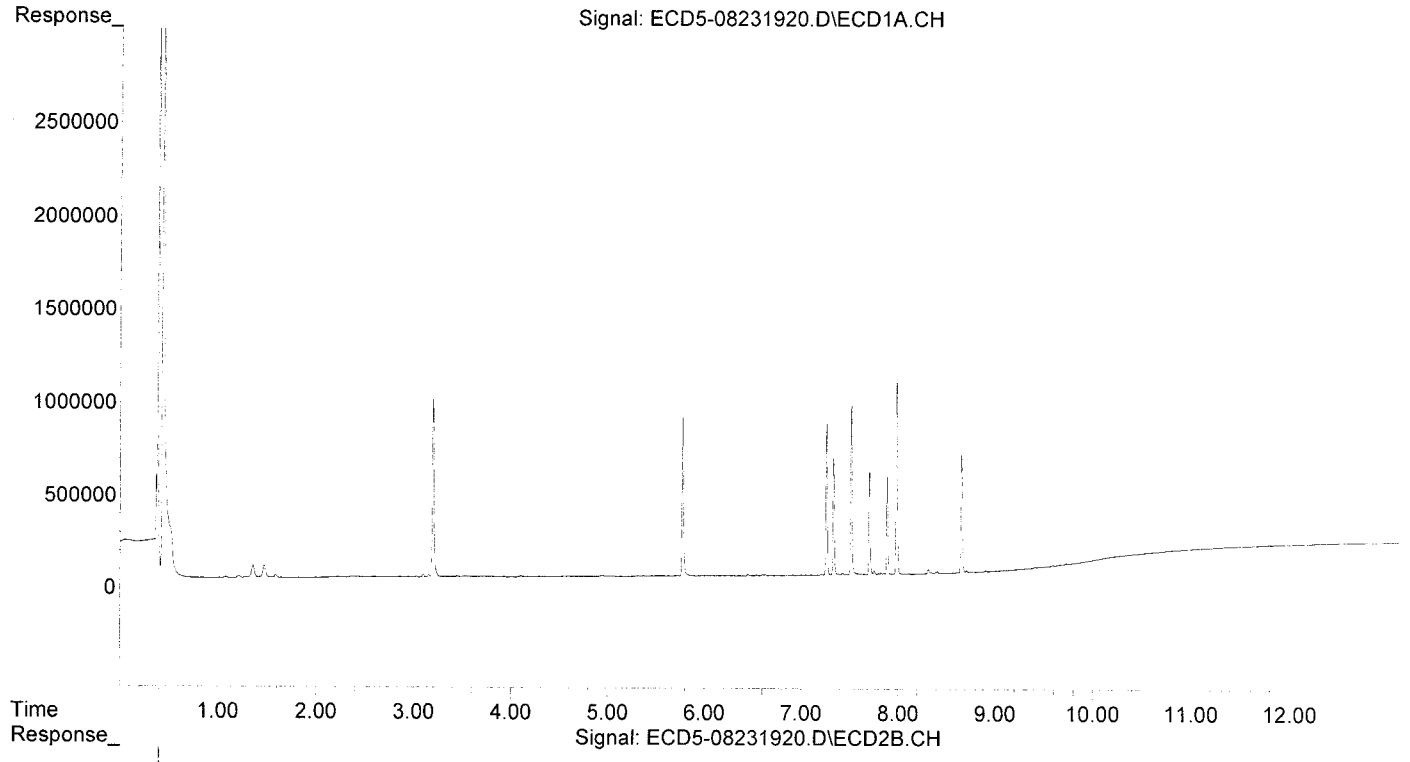
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

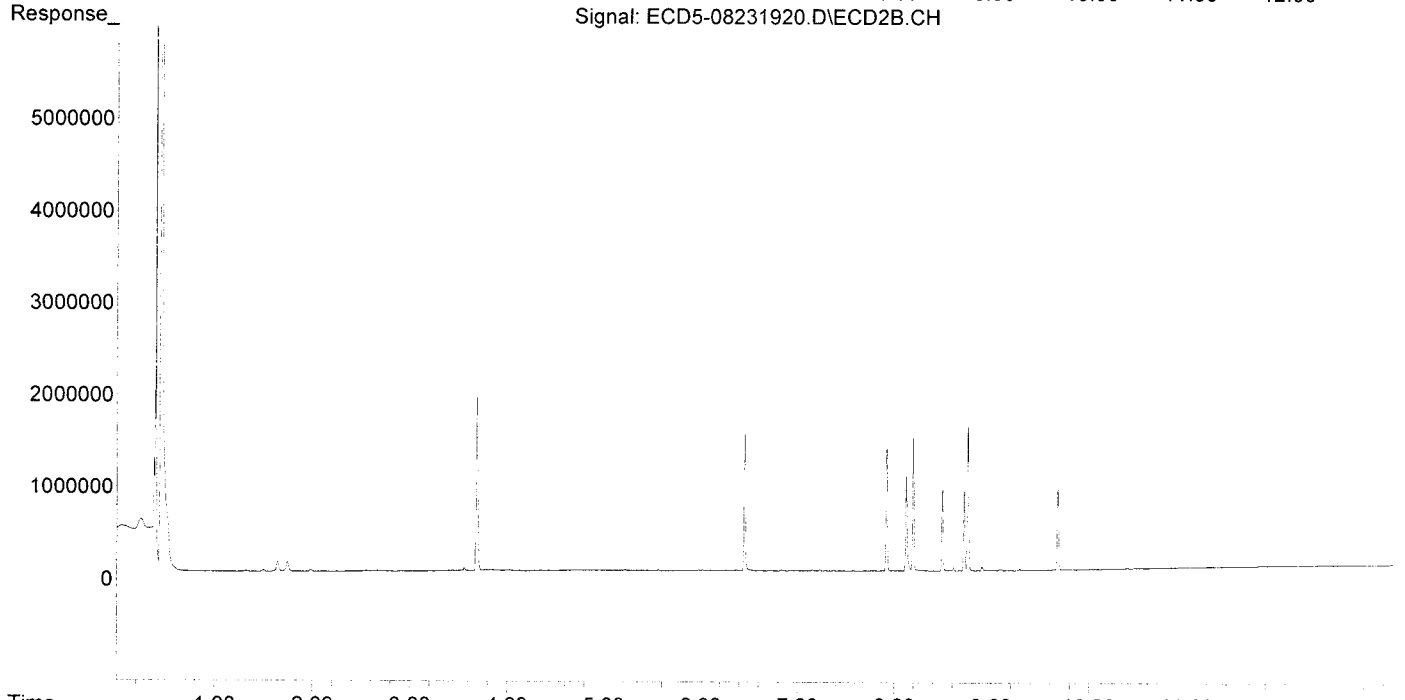
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

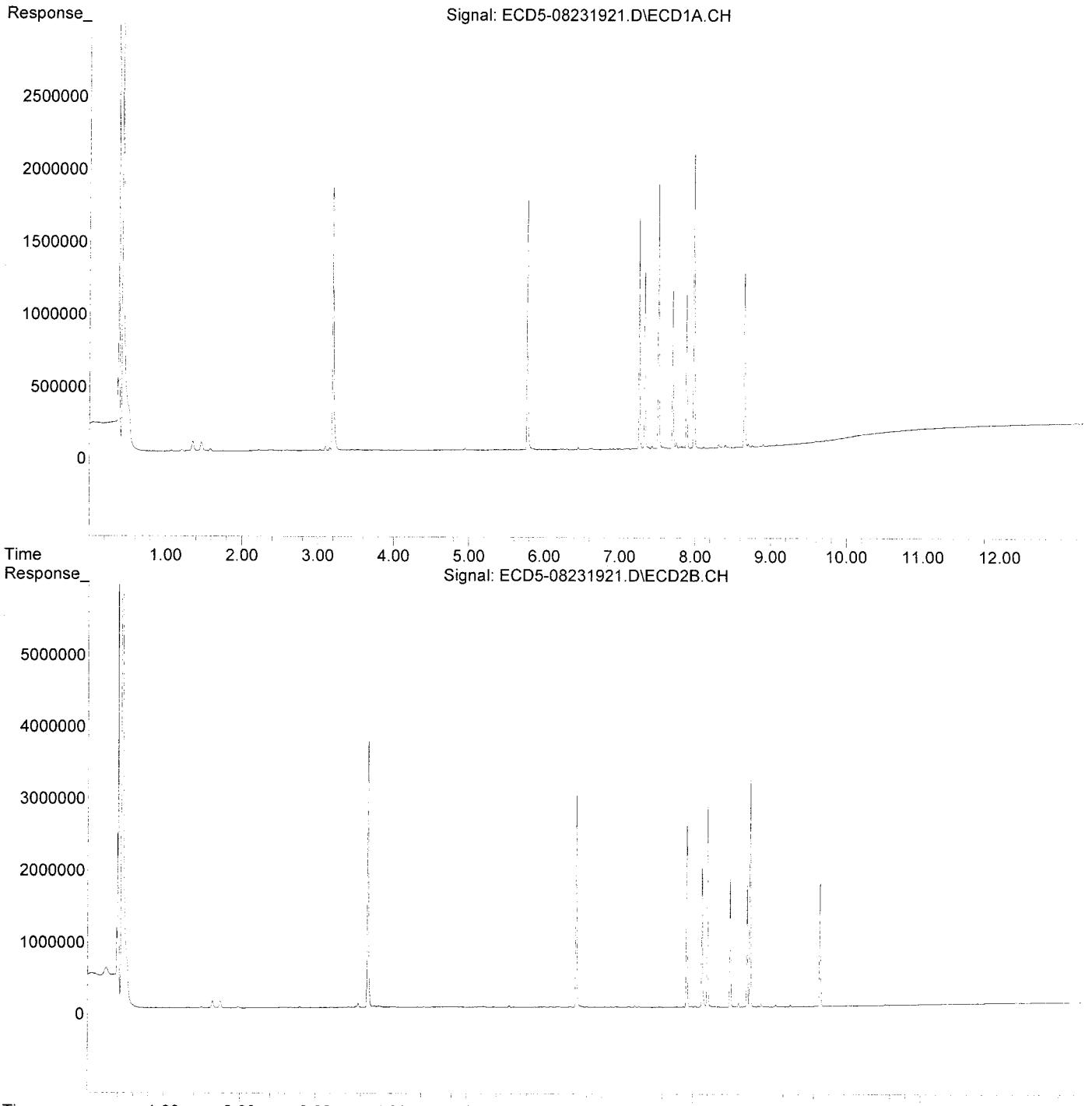
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

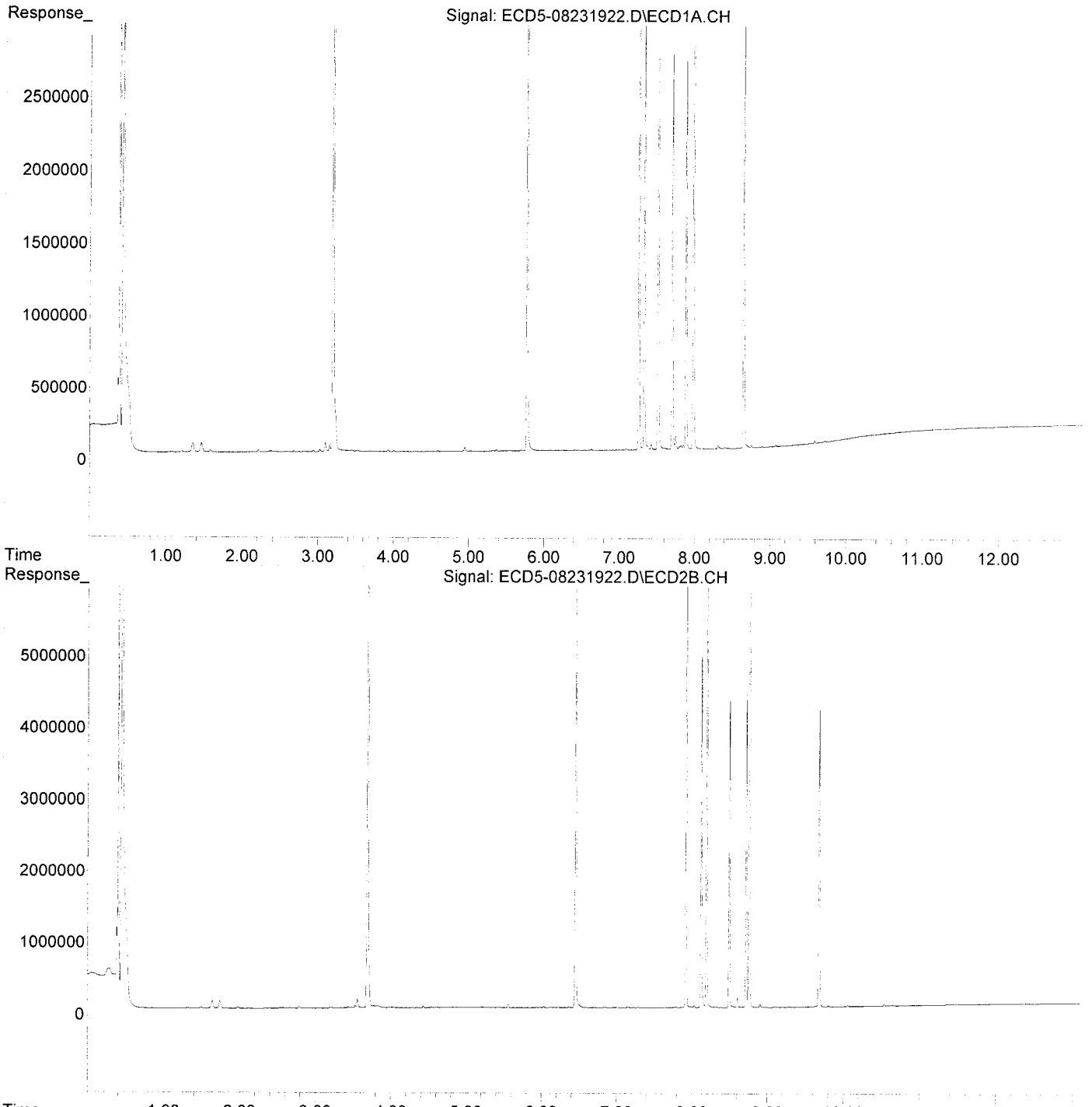
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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	4363988	8892238	29.278	28.282
24)	Hexachlor...	5.774	6.453	4184551	7416324	34.066	33.080
25)	Oxychlordane	7.261	7.920	3881255	6202791	29.926	29.471
26)	2,4'-DDE	7.333	8.122	3059421	4999232	32.558	32.042
27)	trans-Non...	7.516	8.194	4391046	7092288	30.631	30.877
28)	2,4'-DDD	7.705	8.495	2745178	4389185	32.844	32.200
29)	2,4'-DDT	7.888	8.719	2728794	4405554	33.278	32.676
30)	cis-Nonac...	7.986	8.759	4993110	8219393	31.032	32.361
31)	Mirex	8.654	9.679	2910818	4138115	29.738	28.753
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:22:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

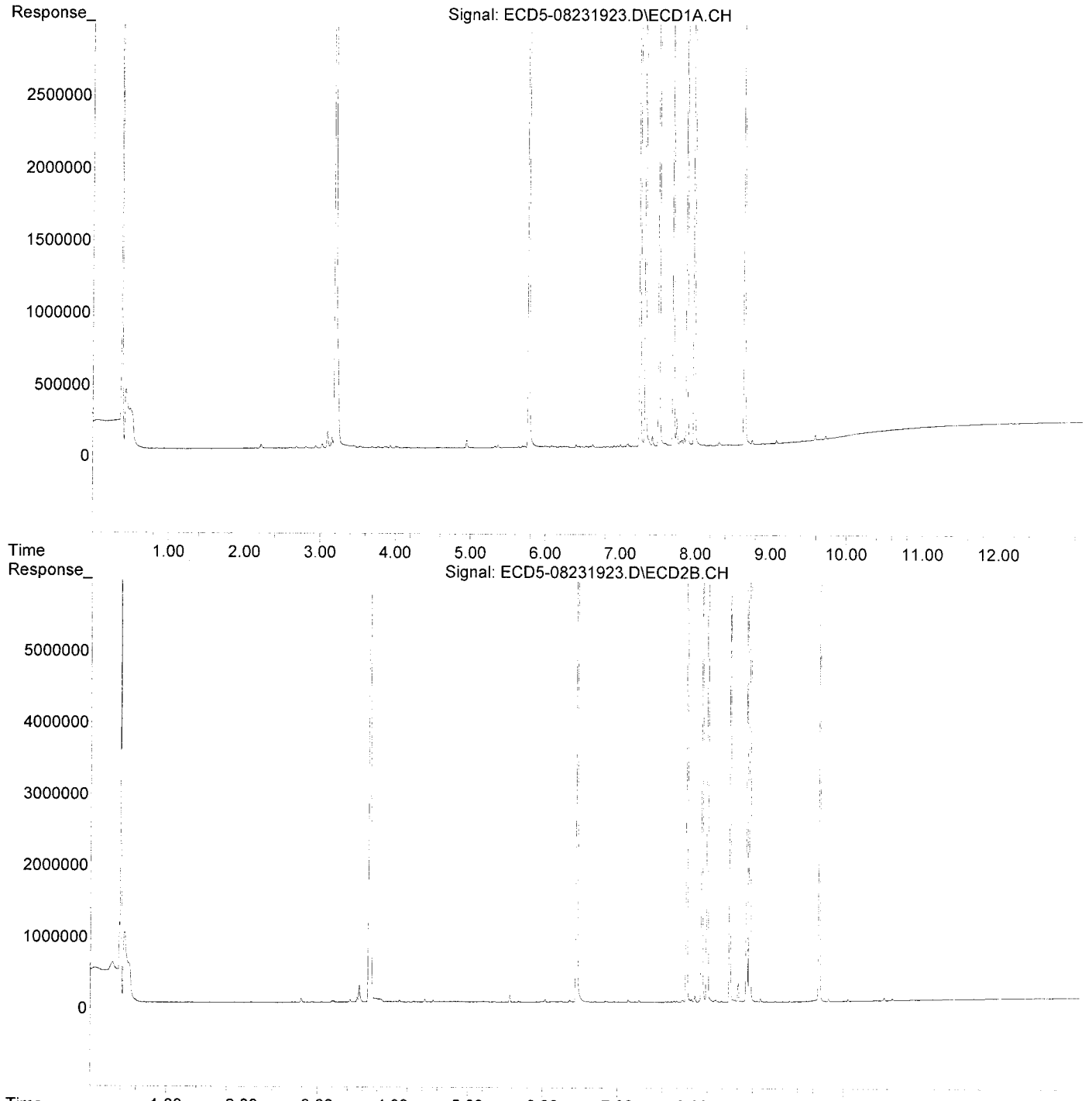
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	3.198	3.688	8761747	18635615	58.783	59.271
24)		Hexachlor...	5.774	6.454	8911624	16094159	72.549	71.786
25)		Oxychlordane	7.261	7.920	8382873	14172543	64.636	67.337
26)		2,4'-DDE	7.333	8.122	6510588	11006400	69.284	70.544
27)		trans-Non...	7.516	8.194	9581794	15807712	66.841	68.821
28)		2,4'-DDD	7.705	8.495	5920095	9924934	70.829	72.811
29)		2,4'-DDT	7.888	8.718	5687323	8810591	66.398	62.033
30)		cis-Nonac...	7.985	8.758	10616019	17721229	65.978	69.771
31)		Mirex	8.652	9.679	6218341	9100959	62.528	63.235
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:22:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:26:27 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/27/19

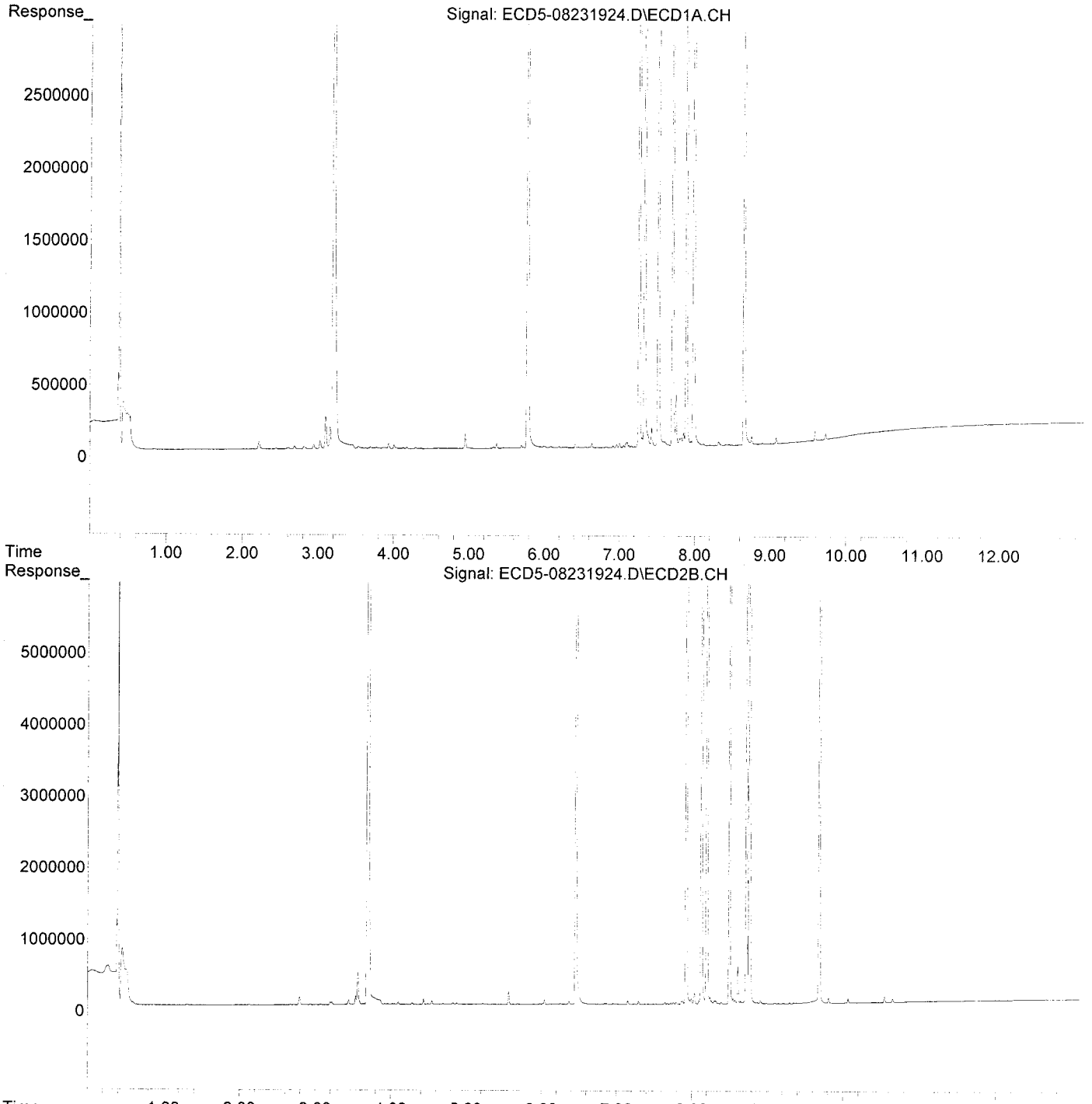
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	3.199	3.690	17952134	39298885	120.443	124.991
24)		Hexachlor...	5.776	6.455	17670025	32766708	143.851	146.152
25)		Oxychlordane	7.261	7.922	16359215	29732149	126.137	141.263
26)		2,4'-DDE	7.334	8.123	12769067	22164400	135.886	142.059
27)		trans-Non...	7.516	8.195	18351251	31975271	128.015	139.210
28)		2,4'-DDD	7.705	8.496	11587554	20118925	138.635	147.597
29)		2,4'-DDT	7.888	8.721	11771354	18998968	127.689	121.350
30)		cis-Nonac...	7.986	8.760	20932641	36072644	130.096	142.024
31)		Mirex	8.653	9.680	11960753	19363200	122.194	134.540
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:26:27 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:27:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

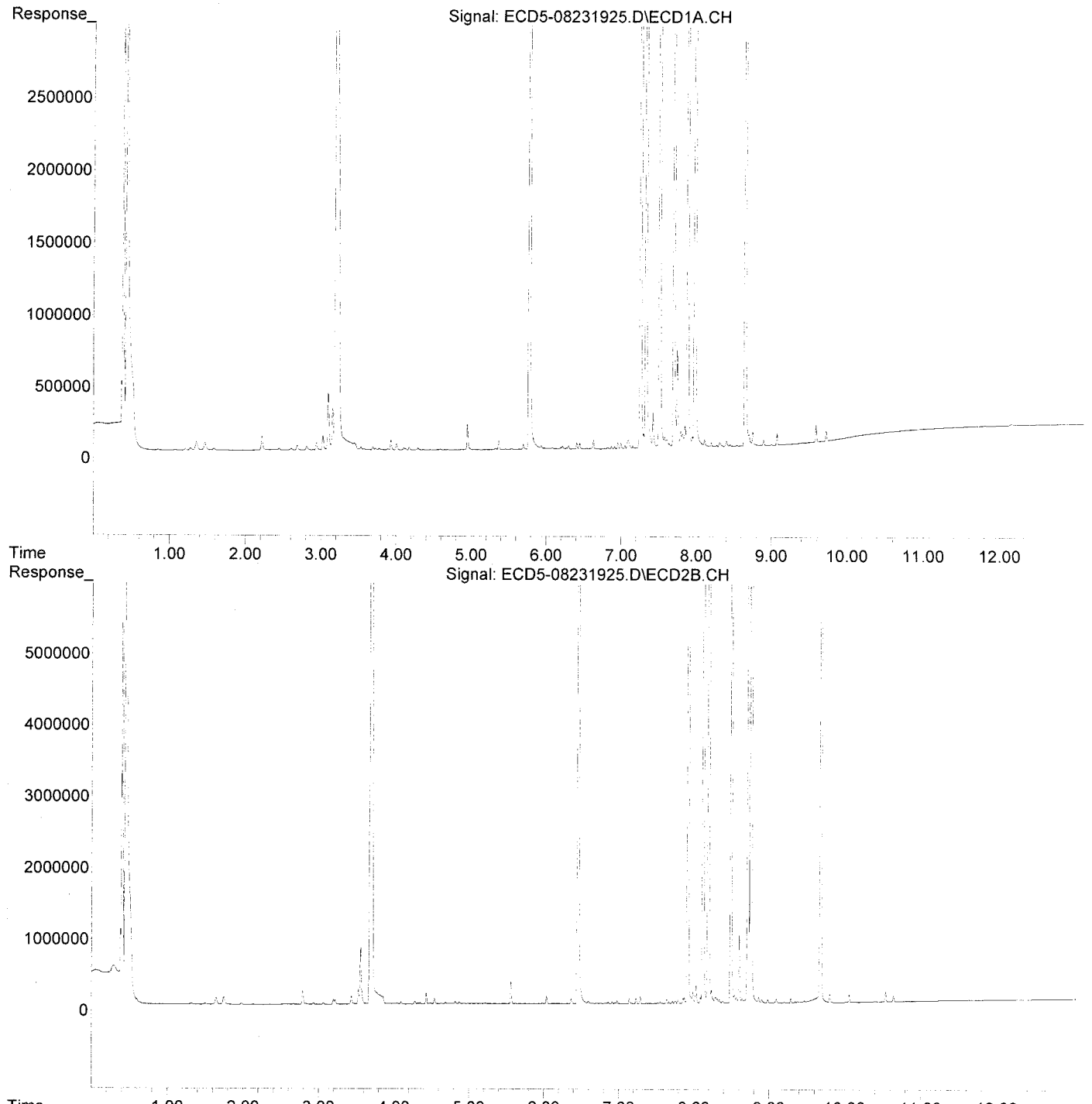
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	3.199	3.689	34166533	75988565	229.227	241.683
24)		Hexachlor...	5.774	6.454	34073459	66261966	277.392	295.553
25)		Oxychlordane	7.258	7.920	32032634	58736982	246.986	279.071
26)		2,4'-DDE	7.331	8.122	24819199	44504592	264.121	285.245
27)		trans-Non...	7.514	8.194	35027918	63083636	244.348	274.645
28)		2,4'-DDD	7.703	8.494	21916962	39839303	262.217	292.269
29)		2,4'-DDT	7.887	8.719	23024956	39999231	224.761	221.024
30)		cis-Nonac...	7.984	8.759	40046185	72455823	248.887	285.271
31)		Mirex	8.652	9.679	23284997	38425530	237.885	266.989
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:27:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:31:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MP 12/26/19

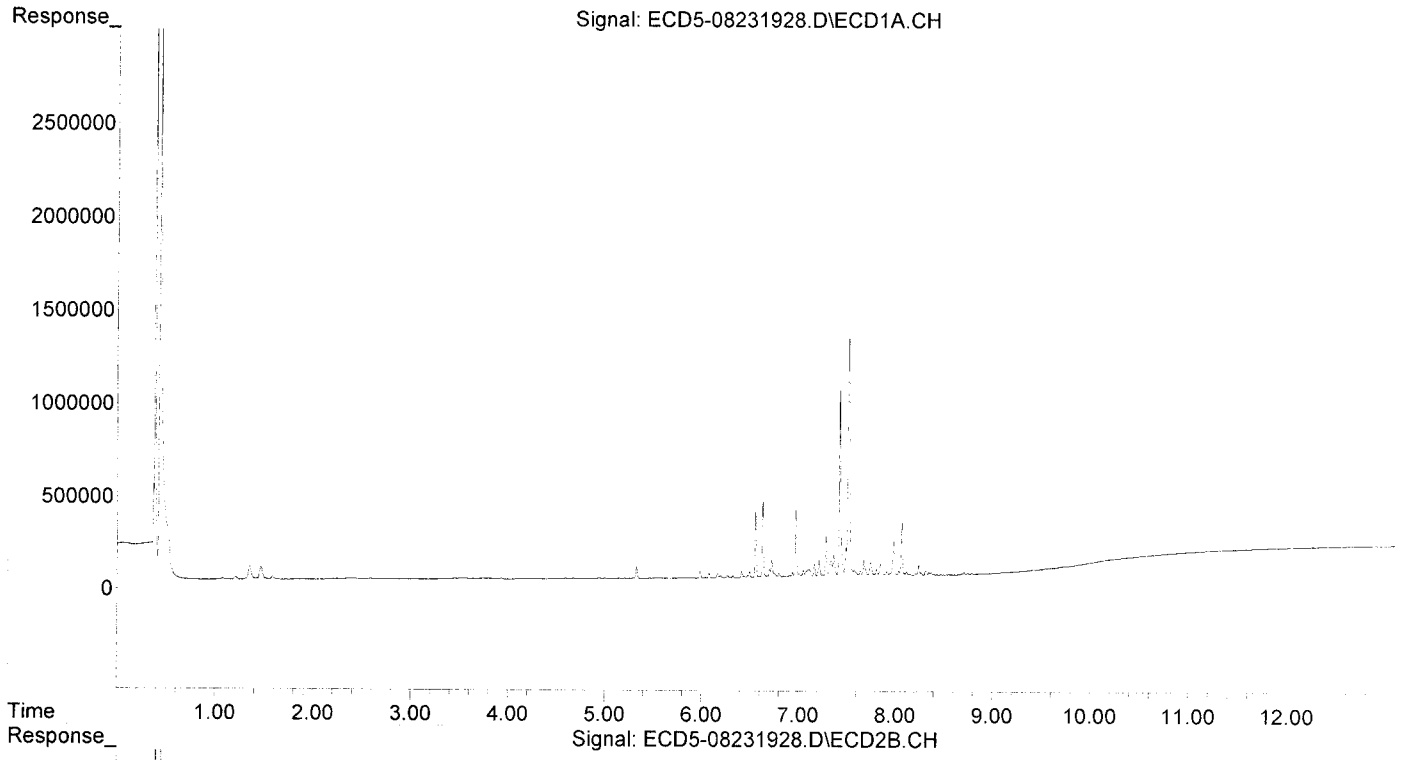
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.429	8.131	1009143	1754707	65.443	66.784
33)	Chlordane...	7.521	8.237	1286655	1472400	62.192	67.669
34)	Chlordane...	8.068	8.897	288087	439020	60.282	67.059
35)	Chlordane...	3.446	0.000	5365	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

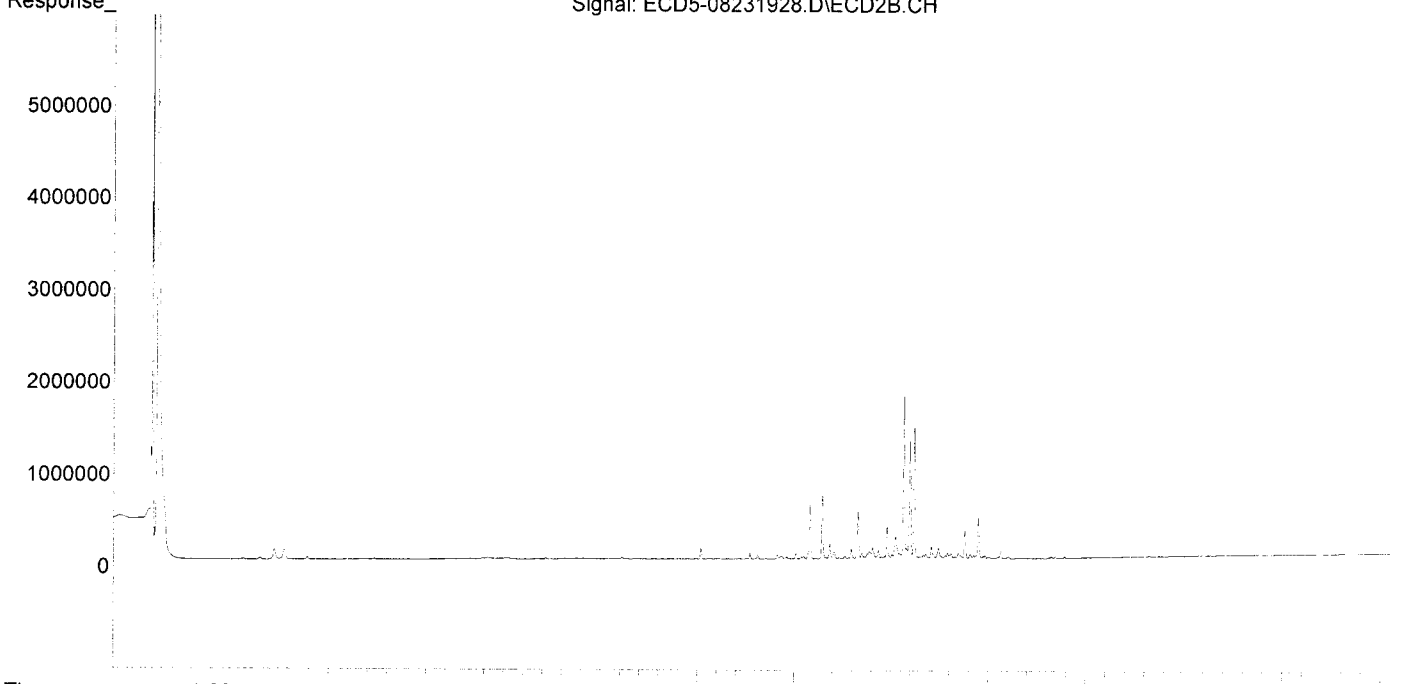
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:31:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:32:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

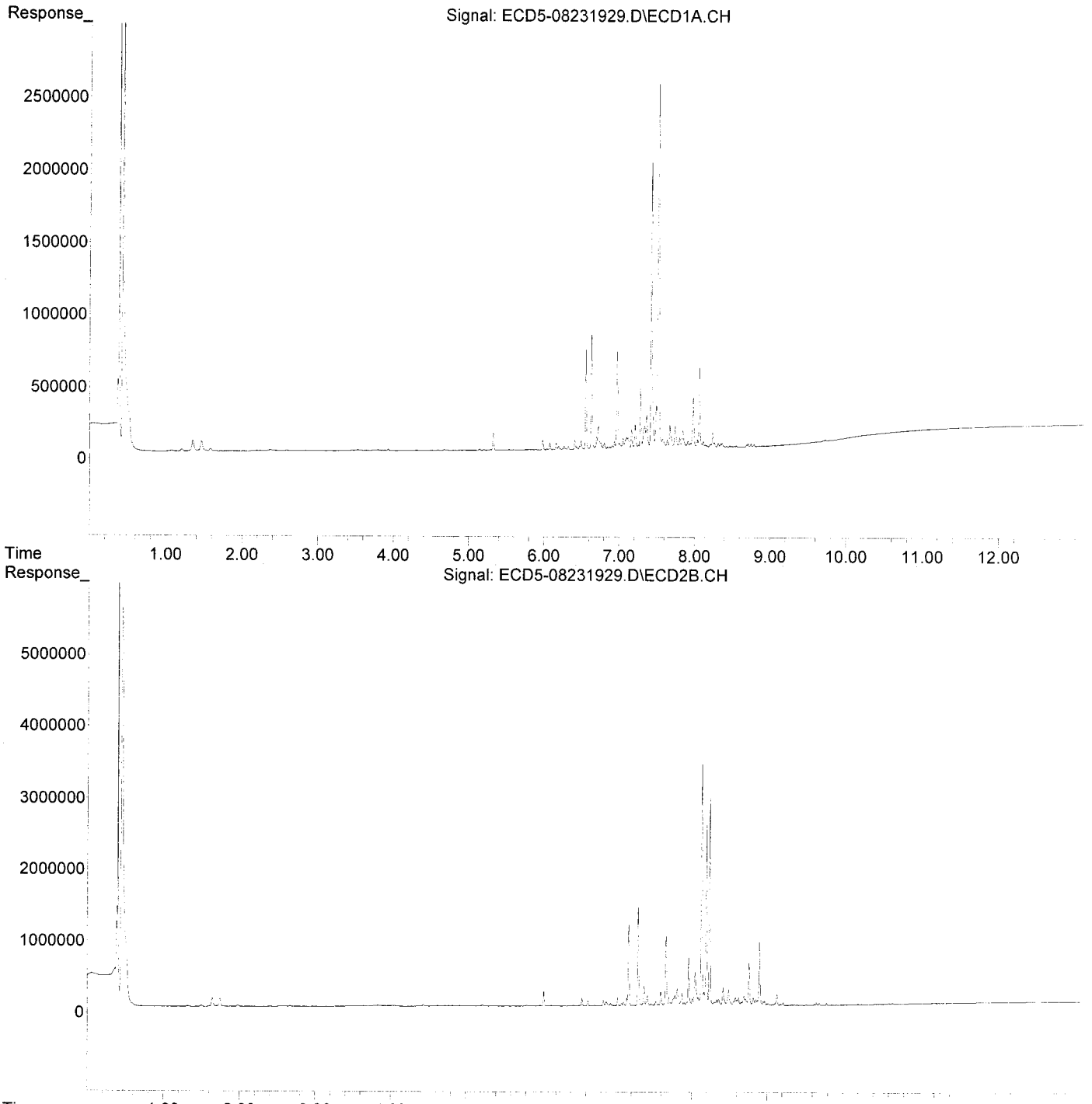
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	7.429	8.130	1978897	3378388	128.331	127.866
33)		Chlordane...	7.521	8.238	2519520	2905941	121.784	133.934
34)		Chlordane...	8.068	8.898	548196	874465	114.710	133.920
35)		Chlordane...	3.446	0.000	4938	0	NoCal	N.D.
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:32:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

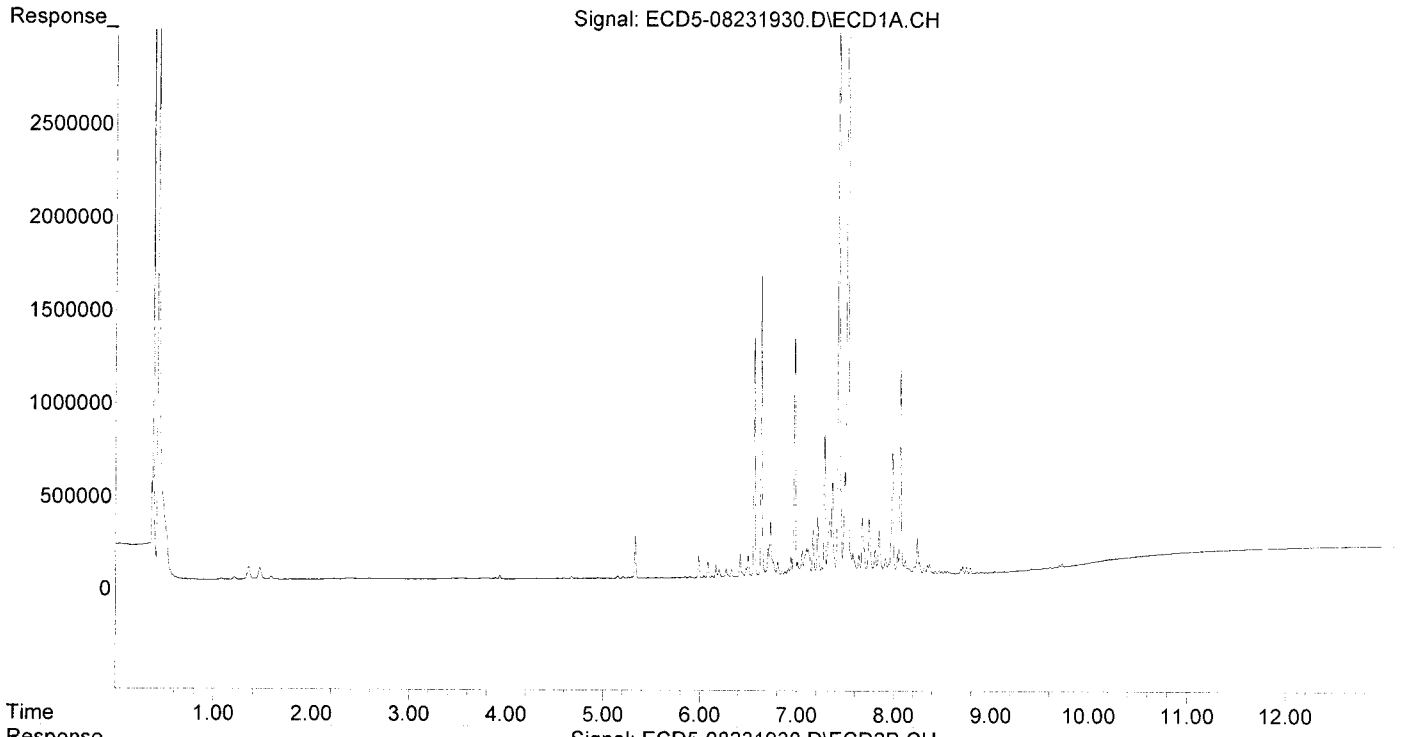
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.429	8.131	3849299	6751197	249.627	251.318
33)	Chlordane...	7.522	8.239	4906320	5883615	237.153	267.927
34)	Chlordane...	8.069	8.898	1101677	1731727	230.526	261.800
35)	Chlordane...	3.448	0.000	4503	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

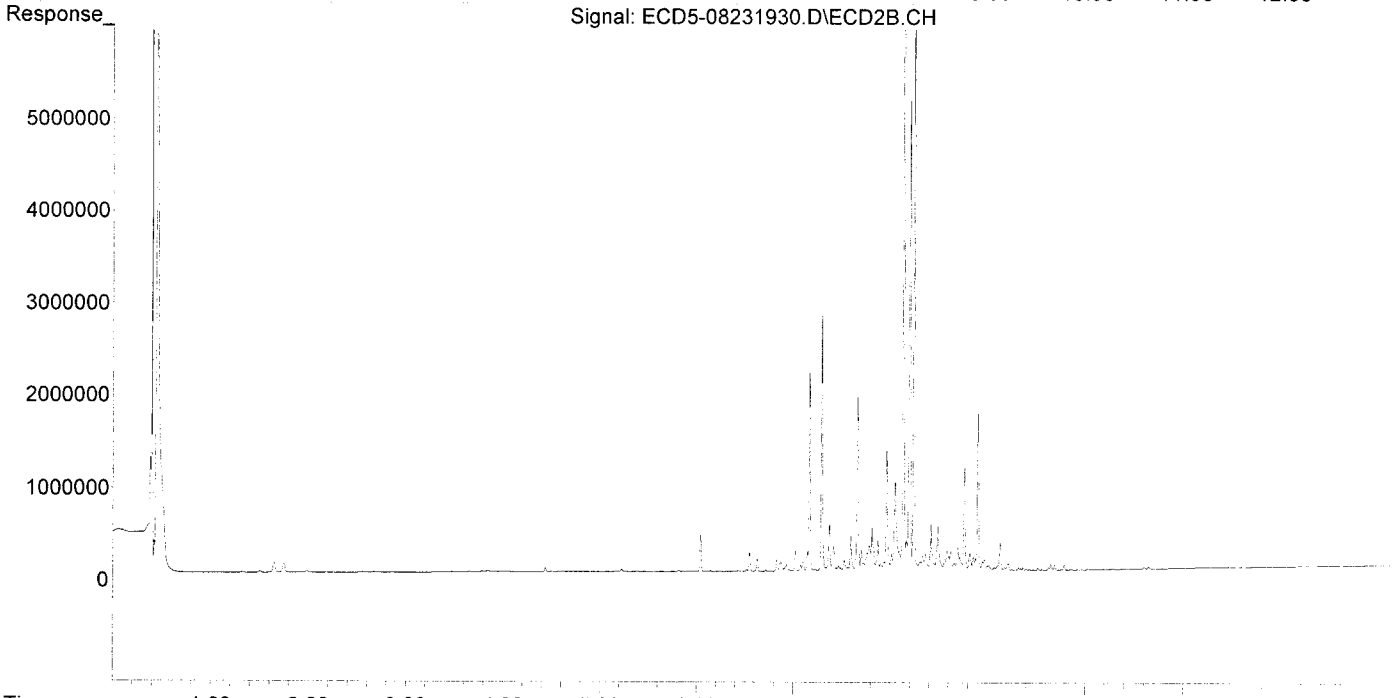
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:28:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

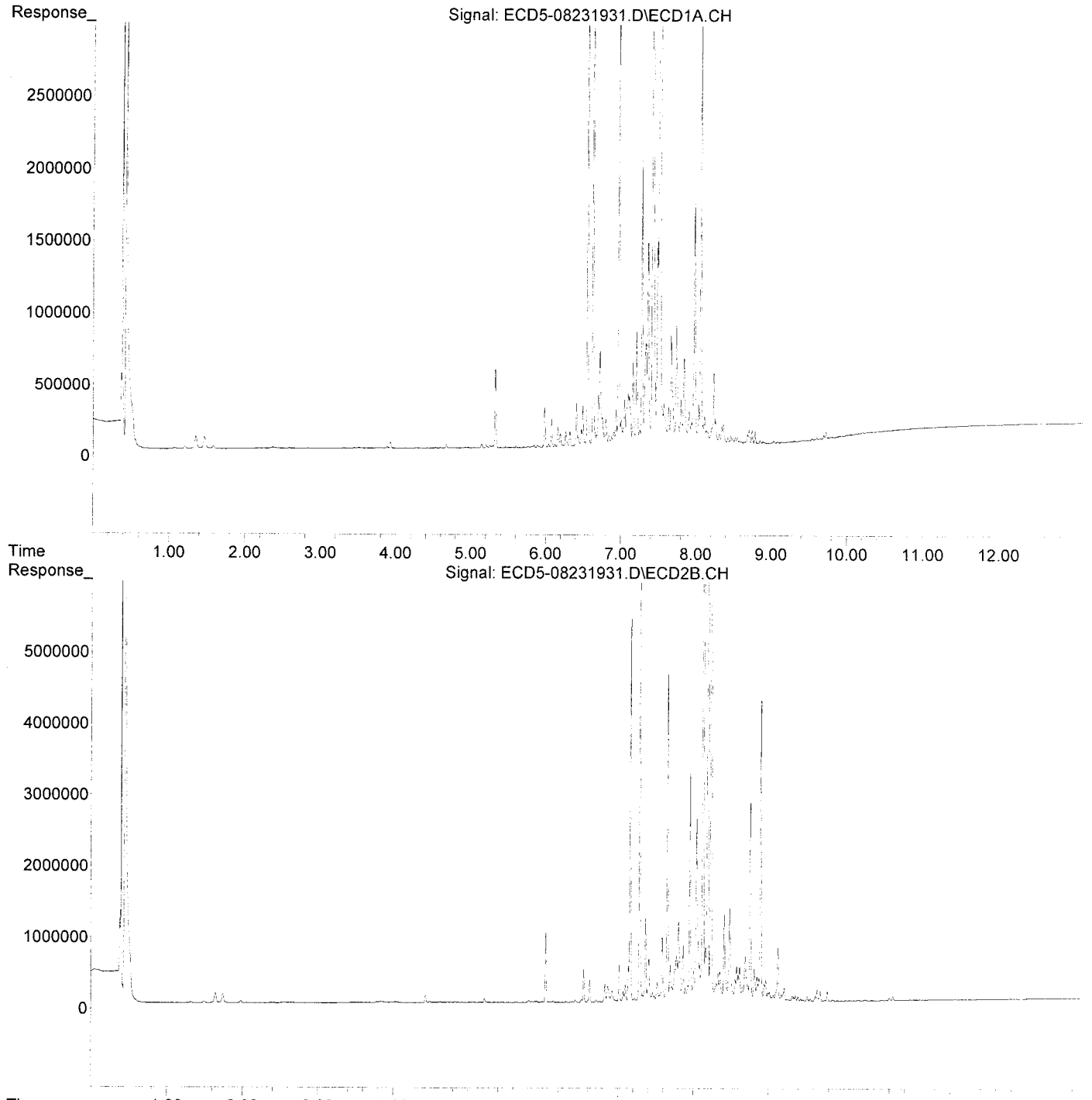
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.427	8.129	9628671	17830433	624.419	629.093
33)	Chlordane...	7.520	8.237	12176524	14812273	588.567	644.287
34)	Chlordane...	8.067	8.896	2921278	4271709	611.277	615.748
35)	Chlordane...	3.447	0.000	4056	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:28:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

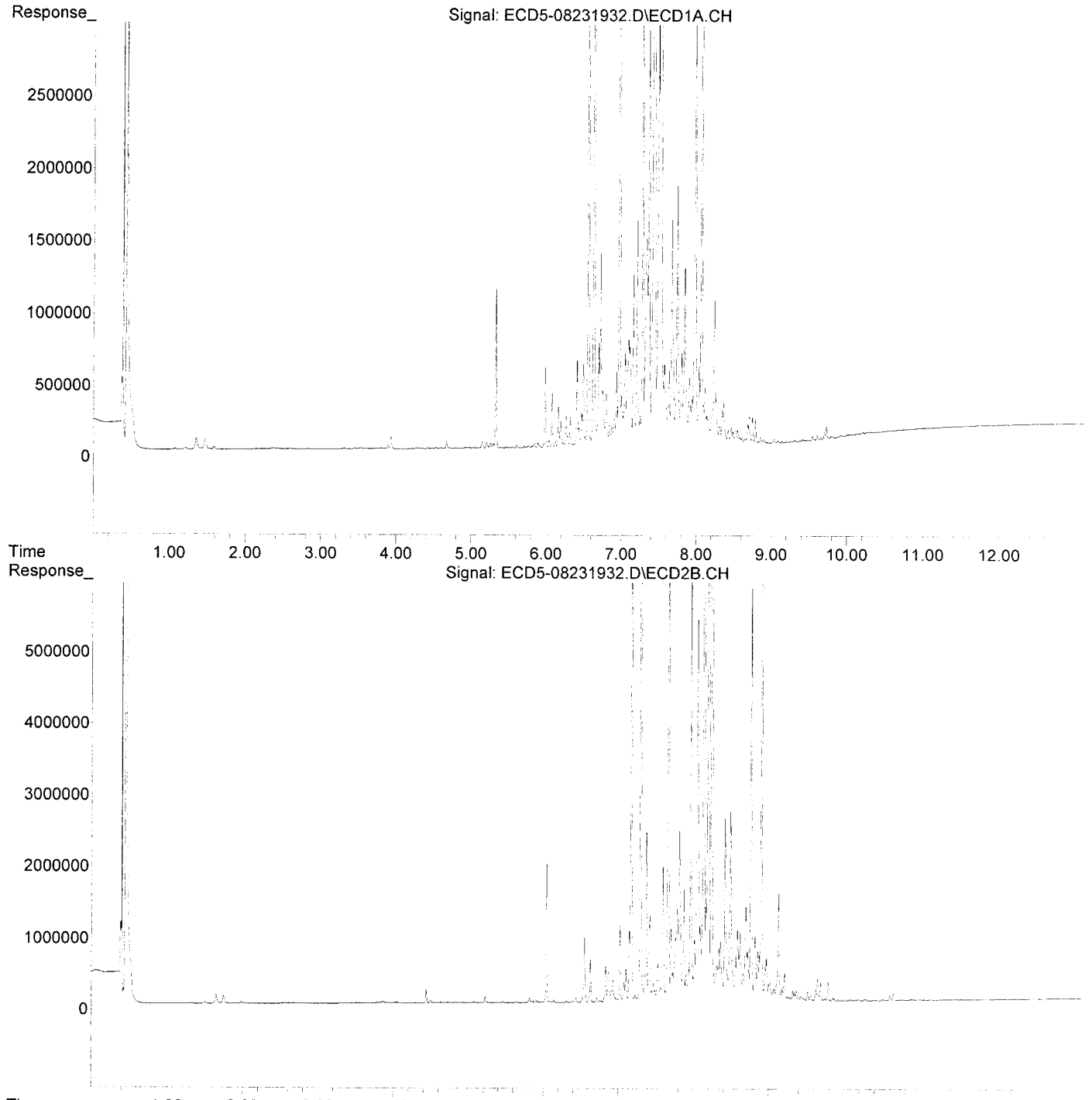
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)		Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)		Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)		2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)		trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)		2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)		2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)		cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)		Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)		Chlordane...	7.426	8.130	19643766	37966746	1273.898	1234.450
33)		Chlordane...	7.519	8.237	25083239	31493677	1212.428	1269.749
34)		Chlordane...	8.067	8.897	5987927	9358900	1252.974	1240.988
35)		Chlordane...	3.447	0.000	4825	0	NoCal	N.D.
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231933.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:02
Operator : MJB
Sample : 9H23034-CALM
Misc : A19F231, CHLOR 2000 ppb
ALS Vial : 27 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:34:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

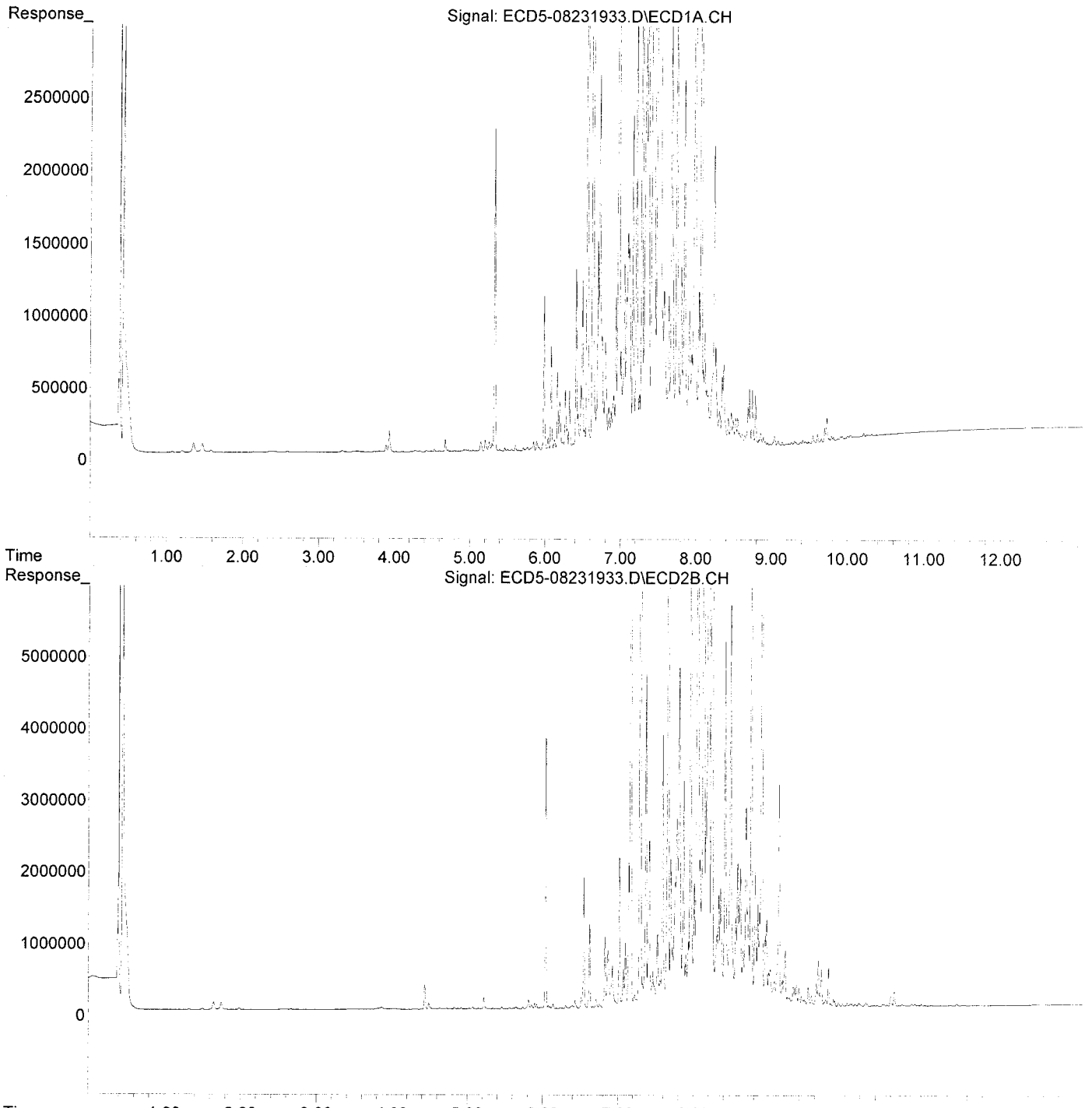
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

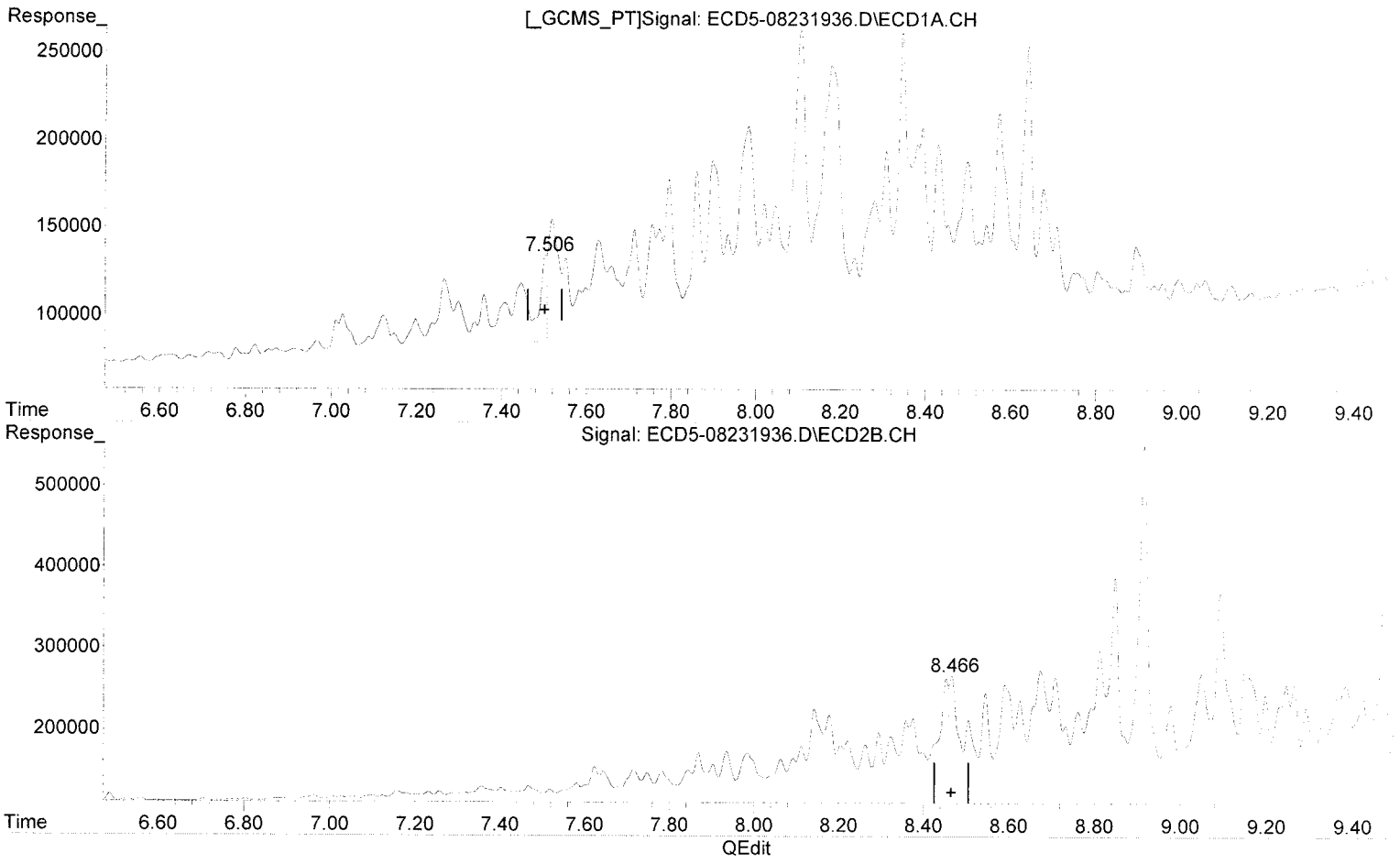
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

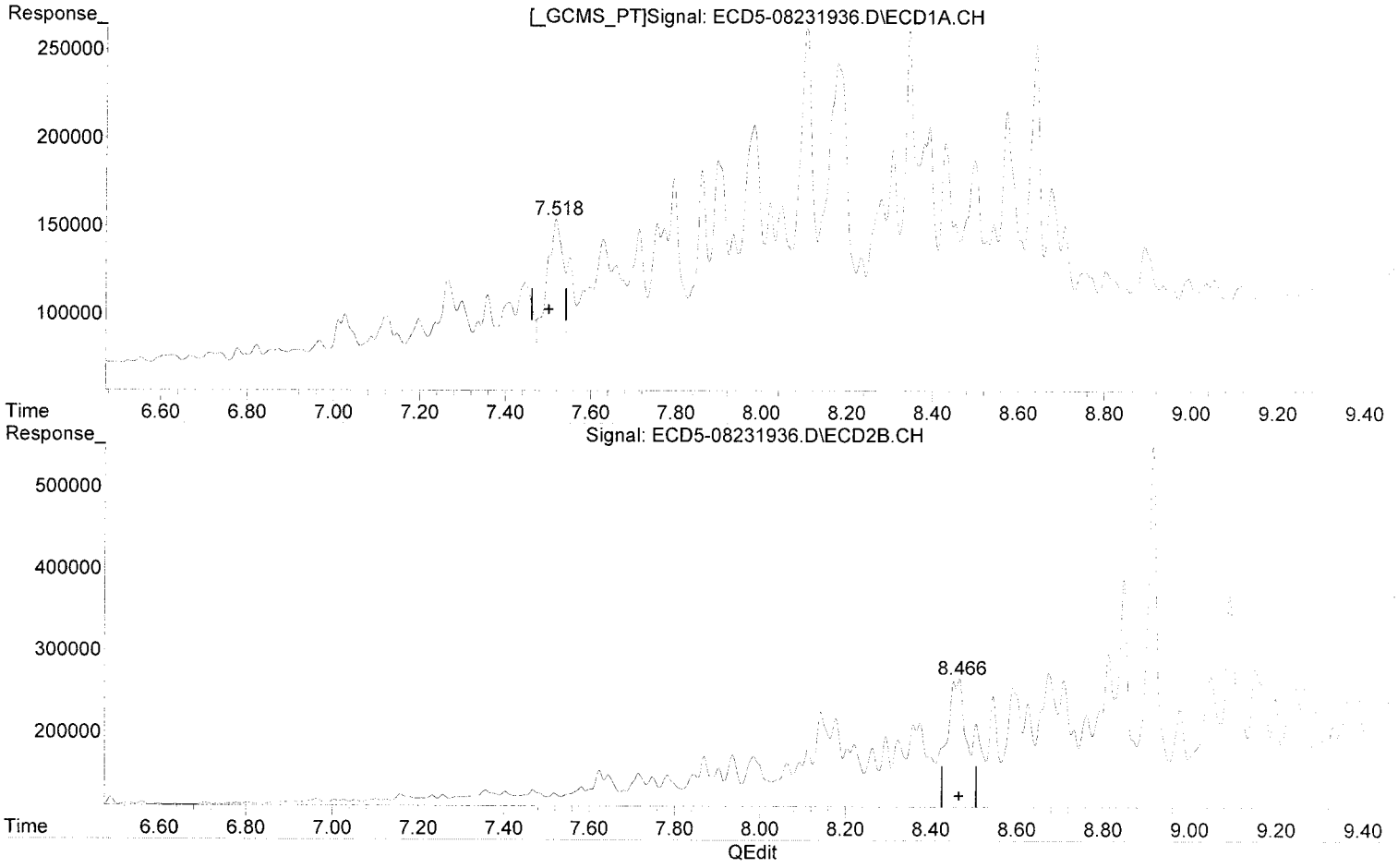
response 136848

(+) = 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

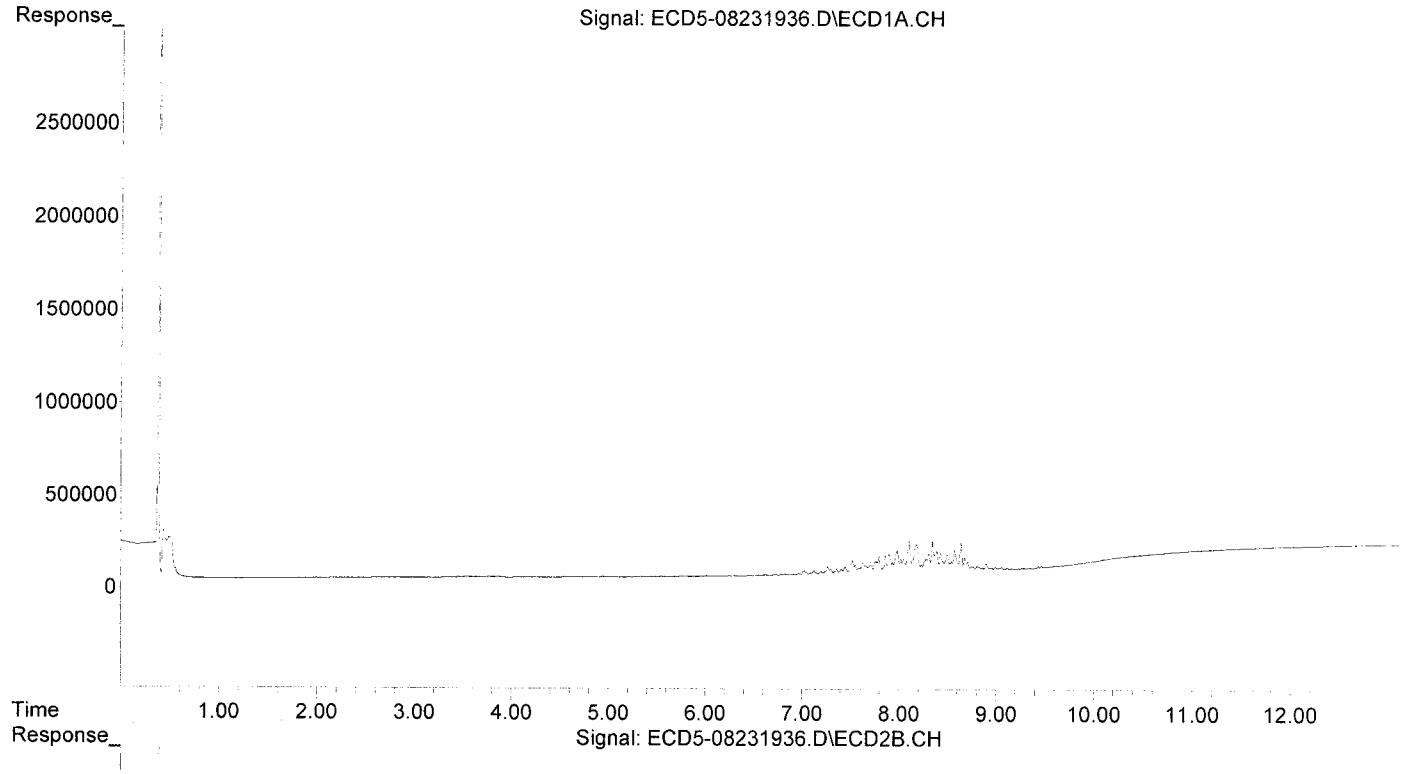
response 136848

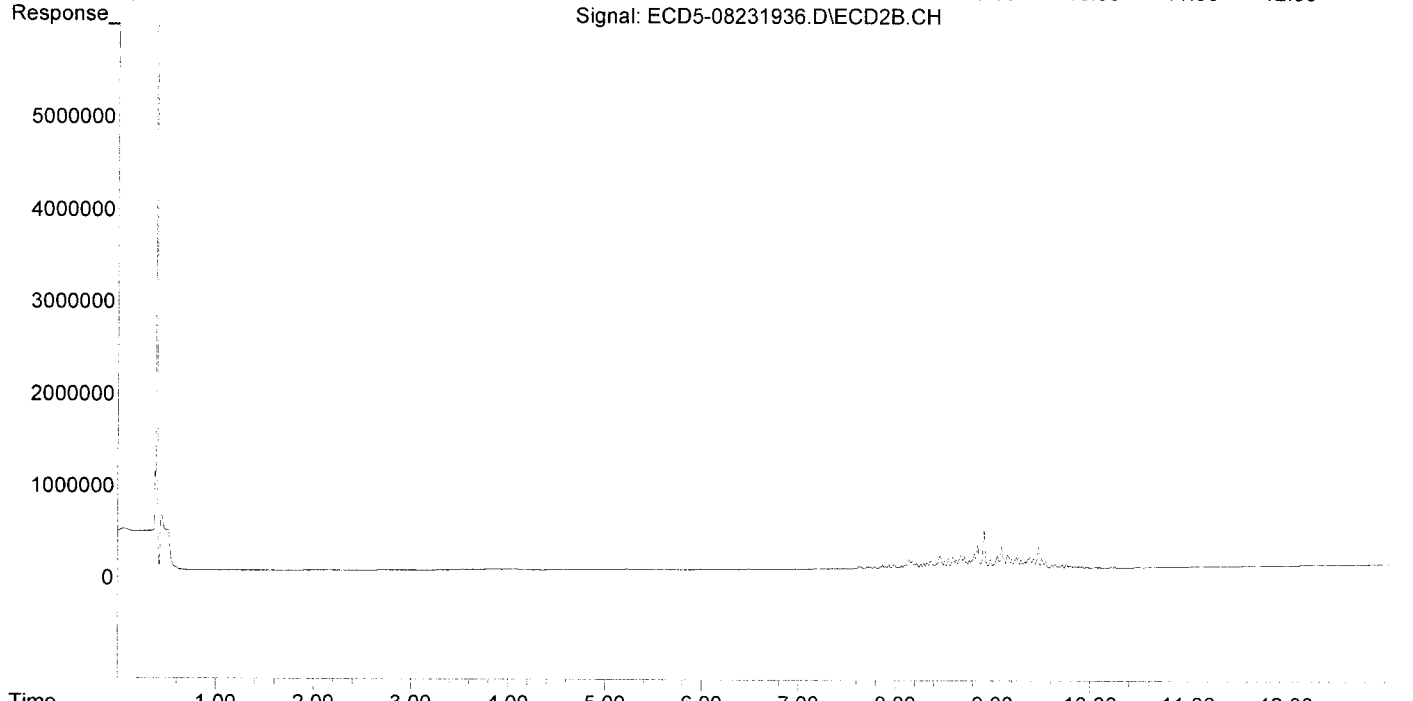
(+) = Expected Retention Time

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

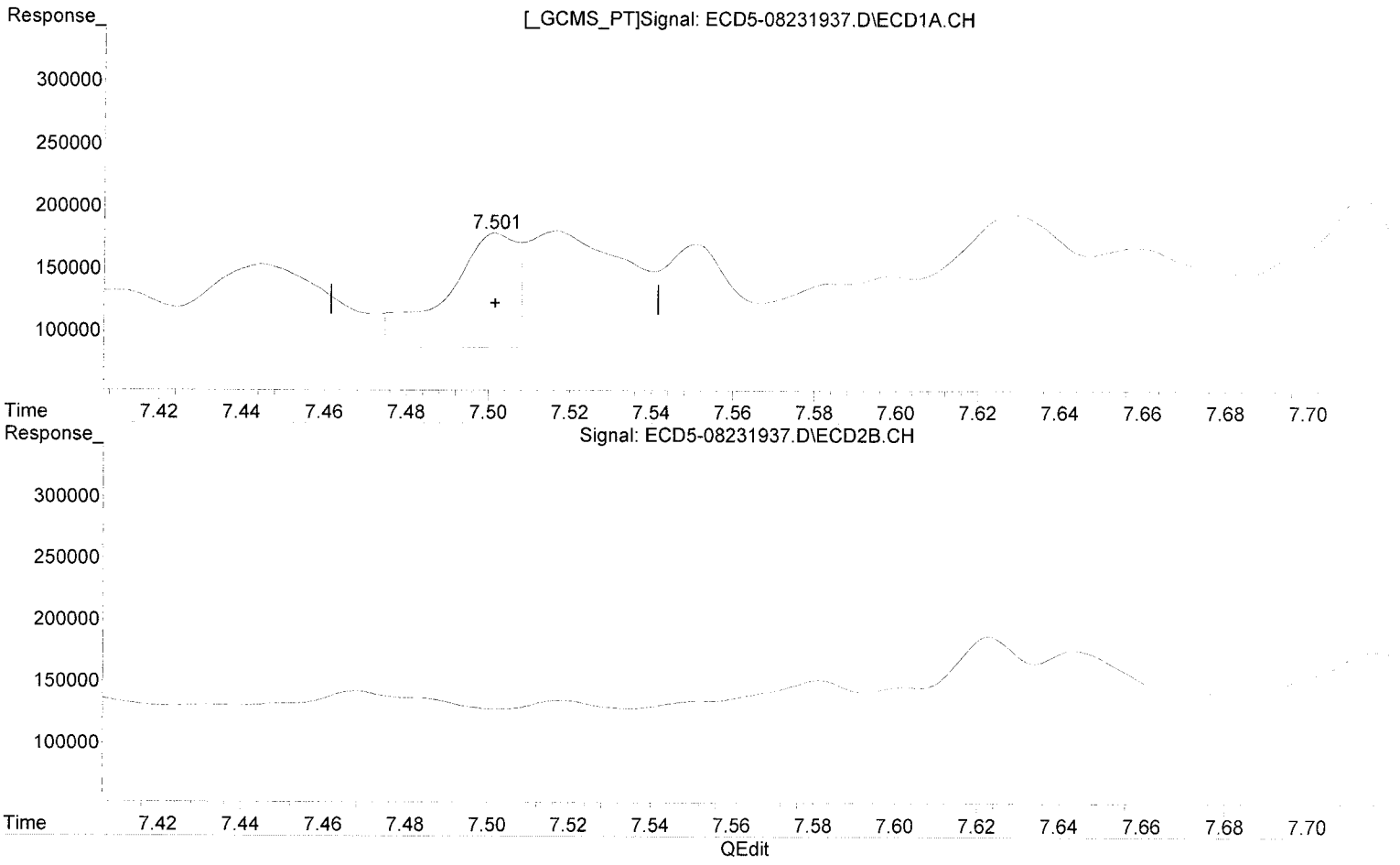
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

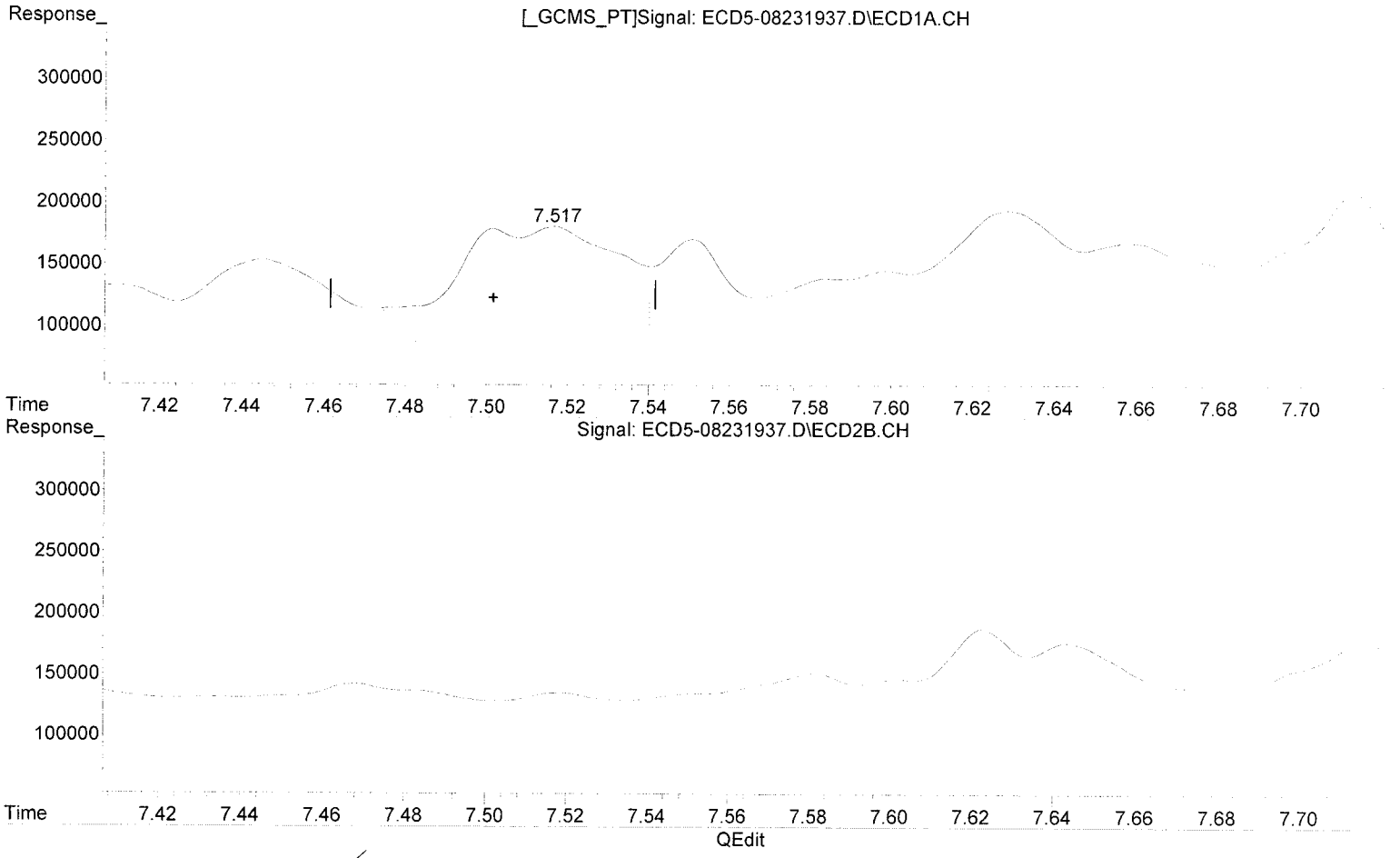
response 267534

(+) = 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

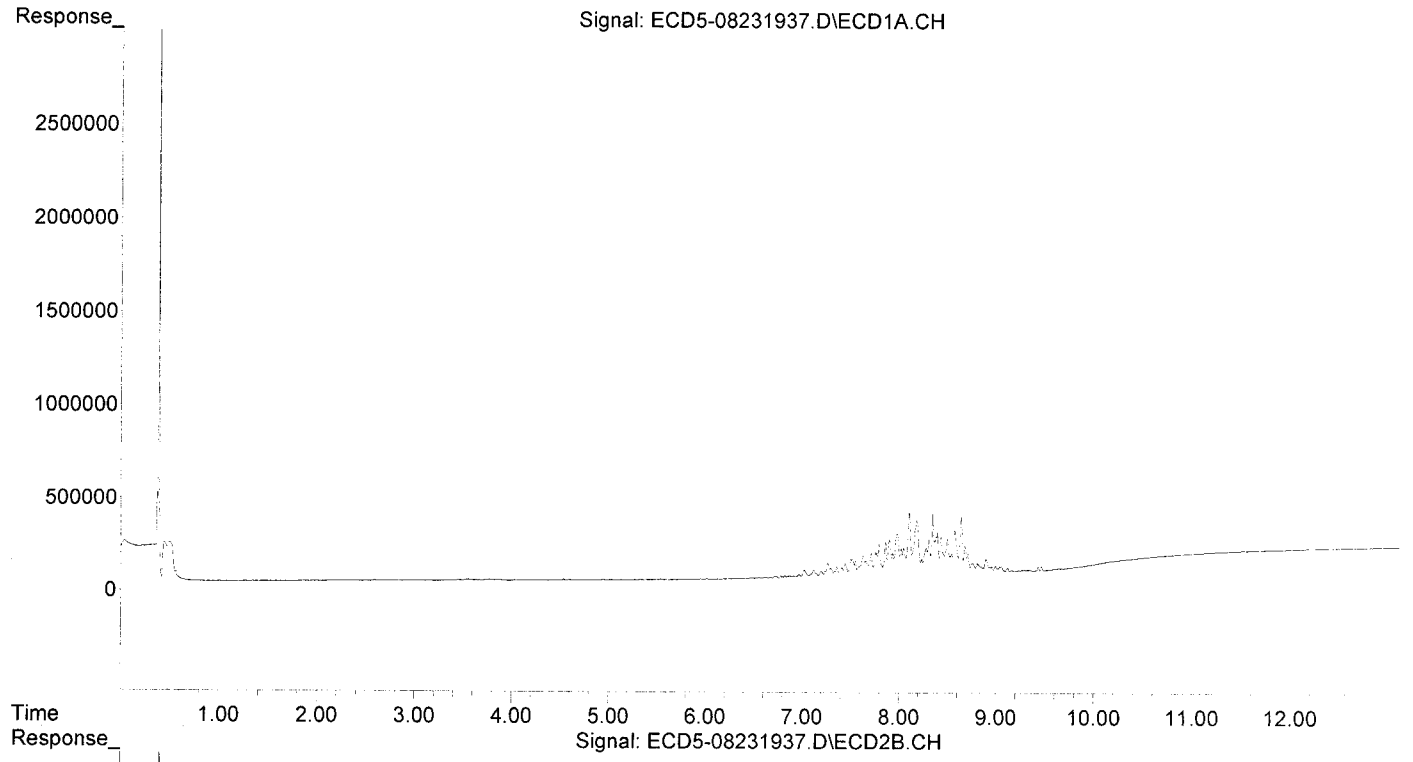
response 267534

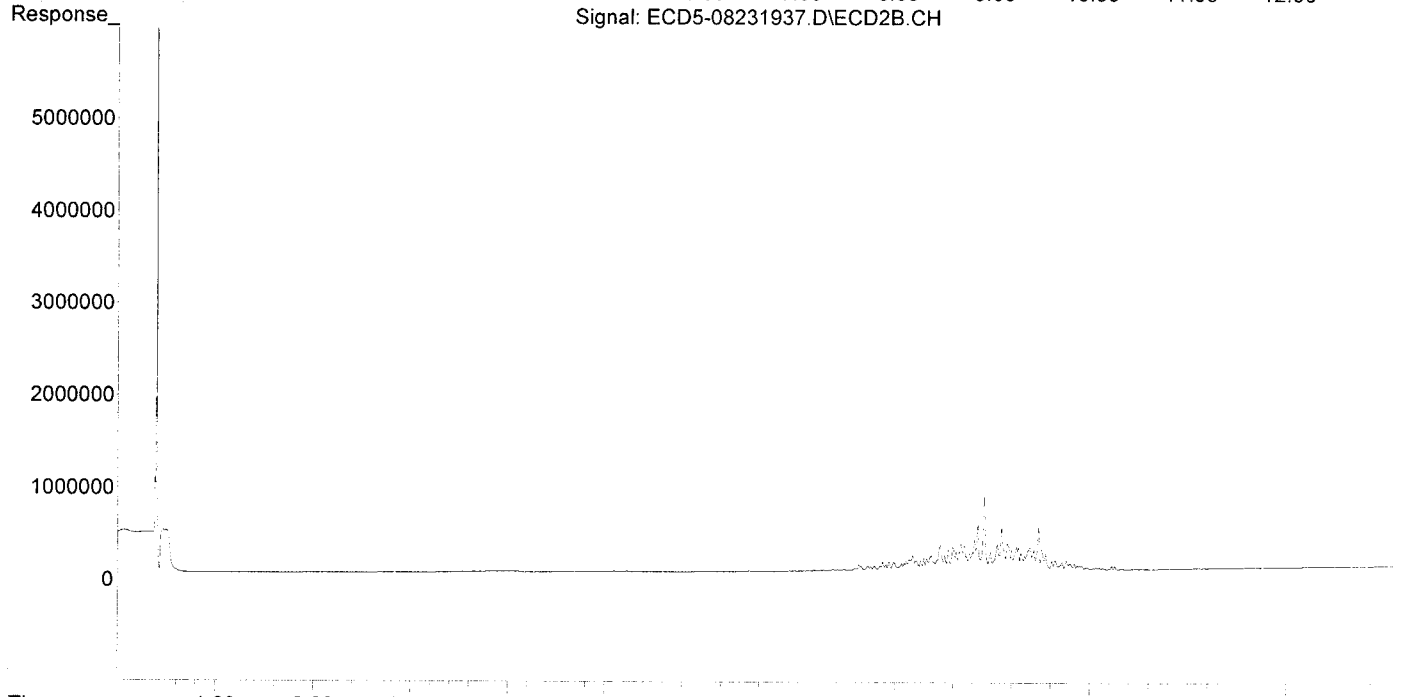
(+) = Expected Retention Time

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

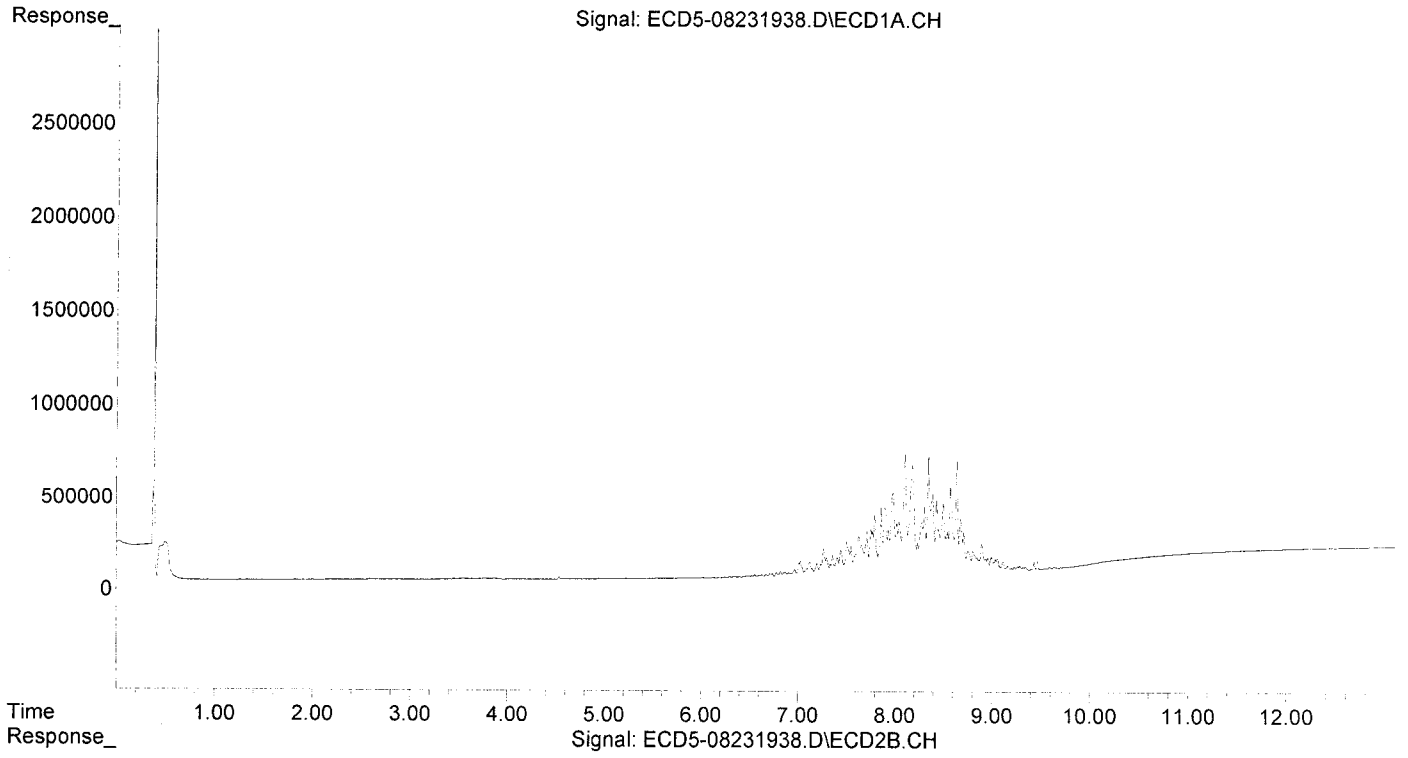
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

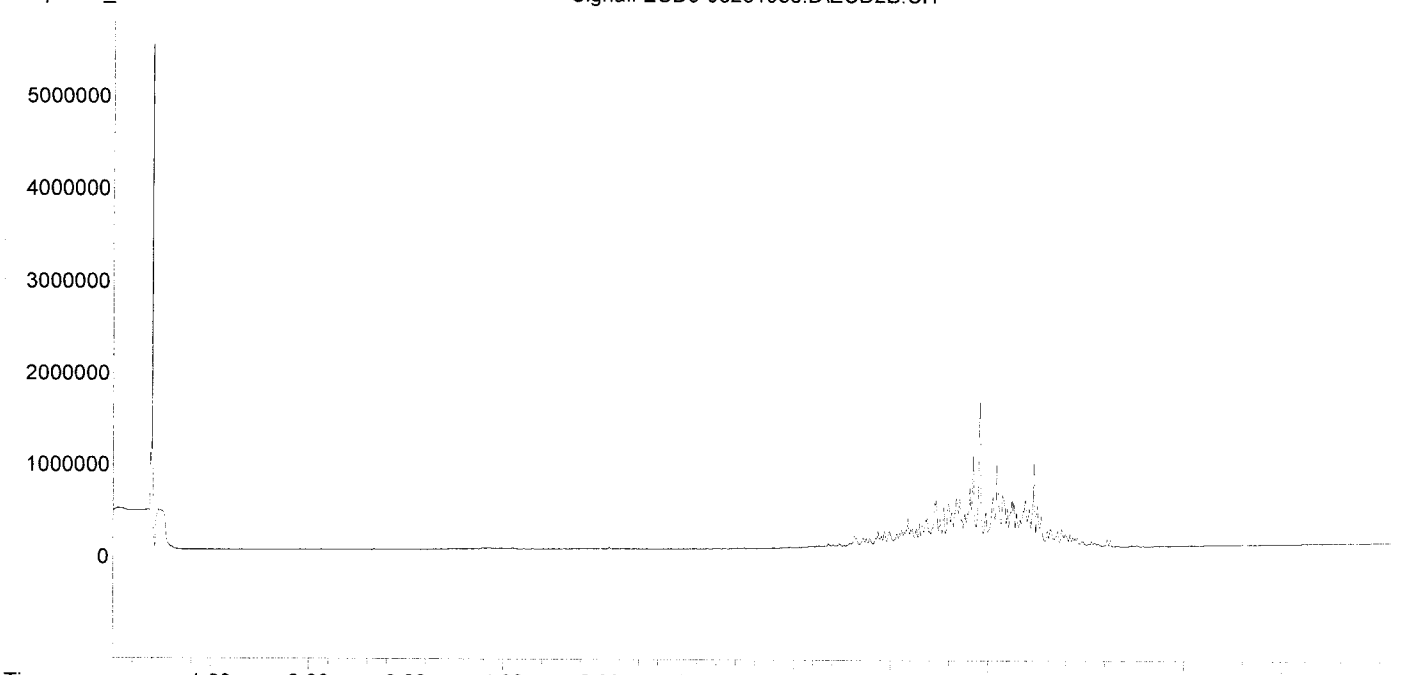
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

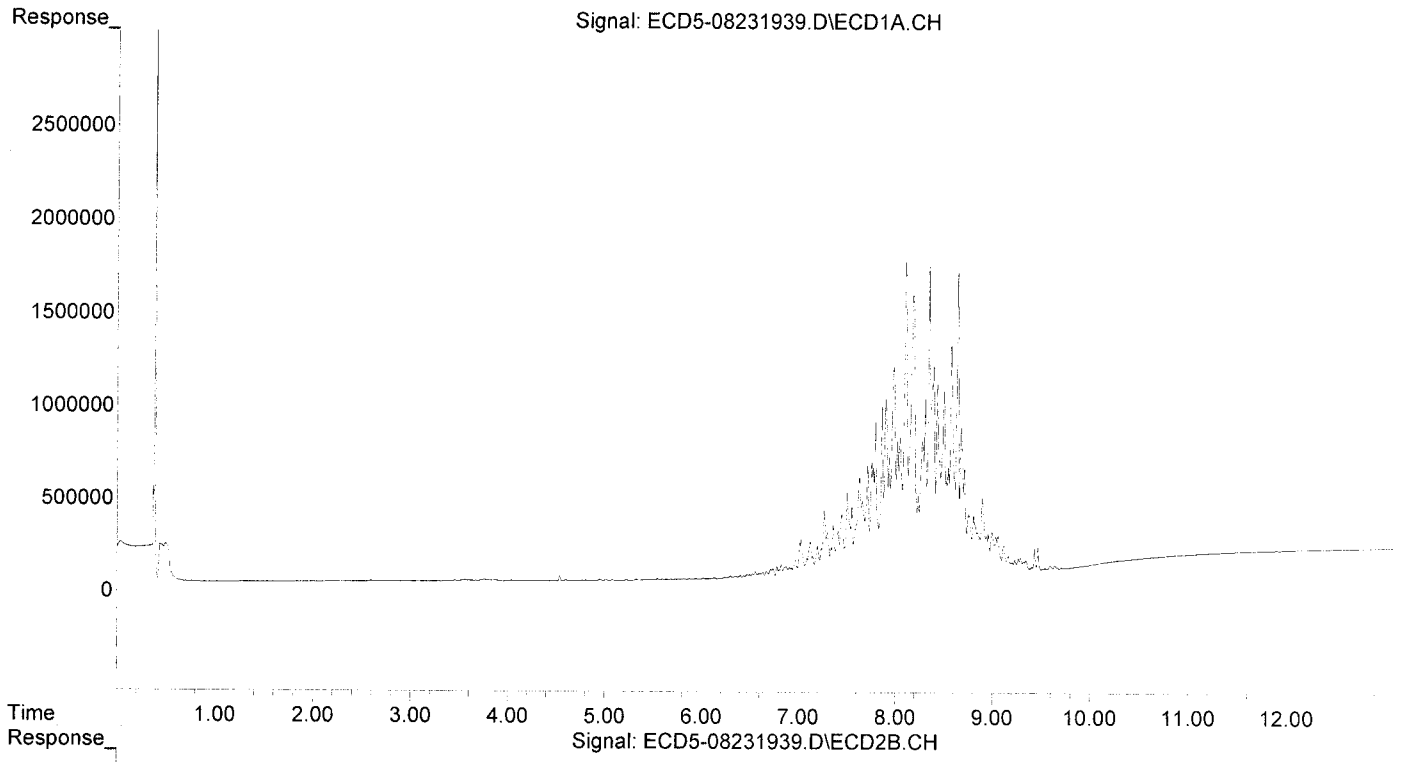
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

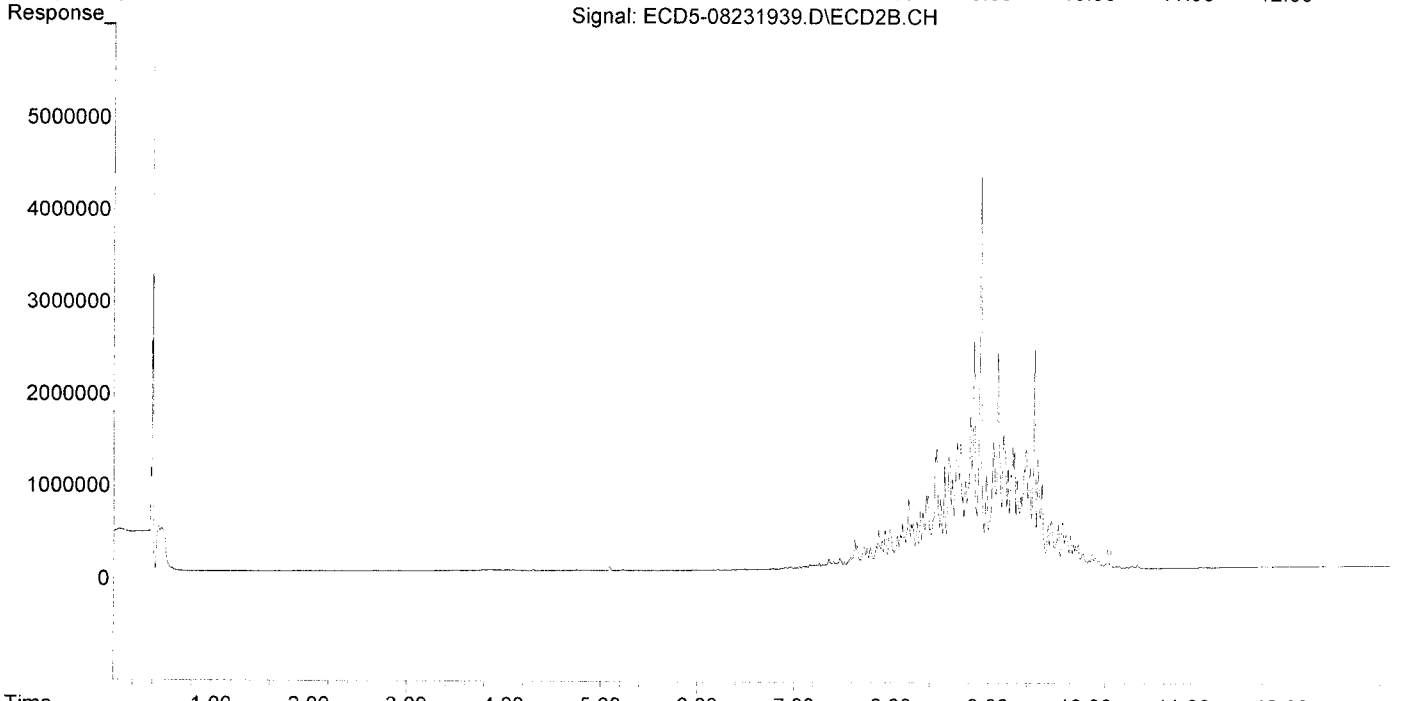
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

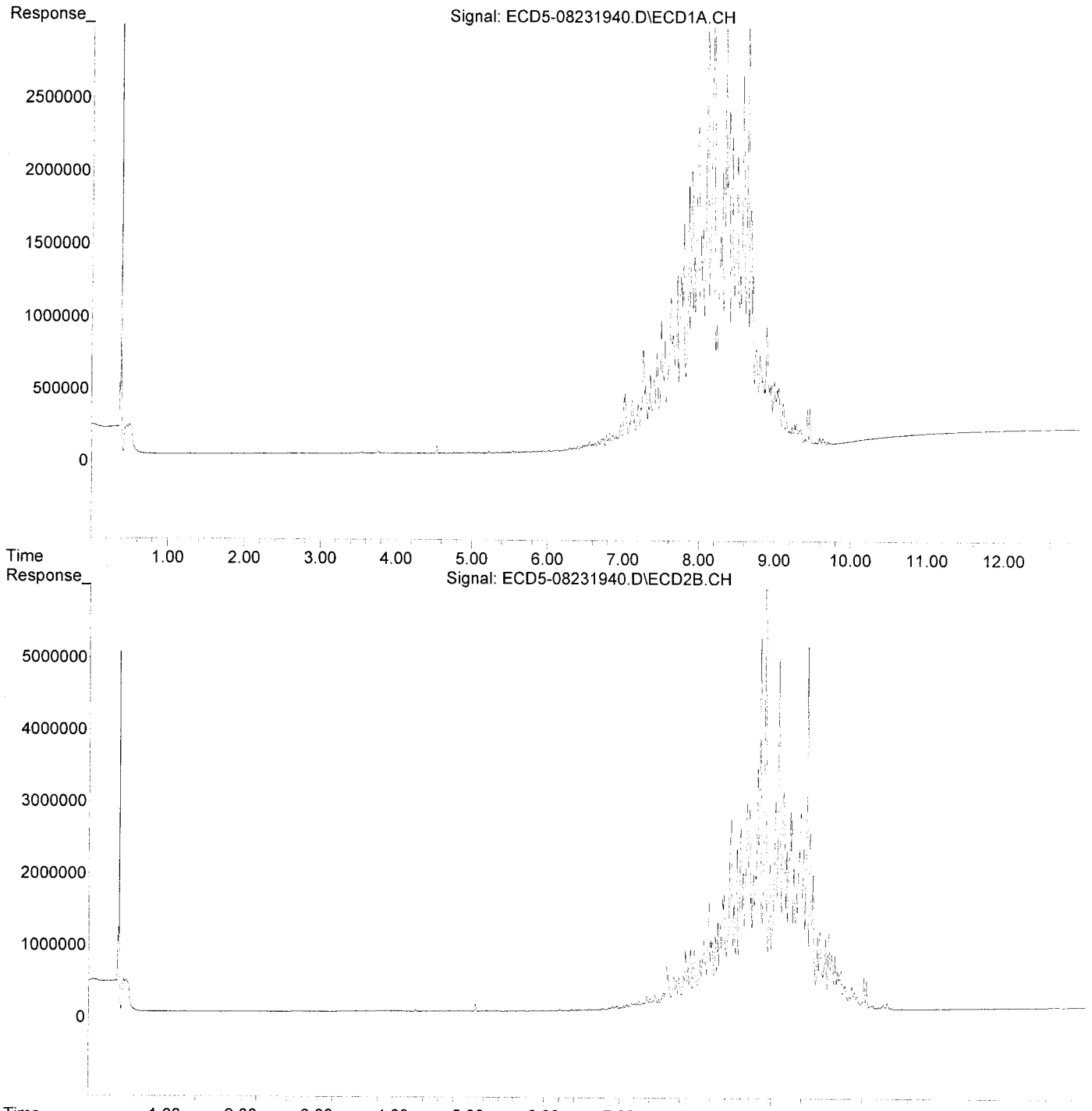
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

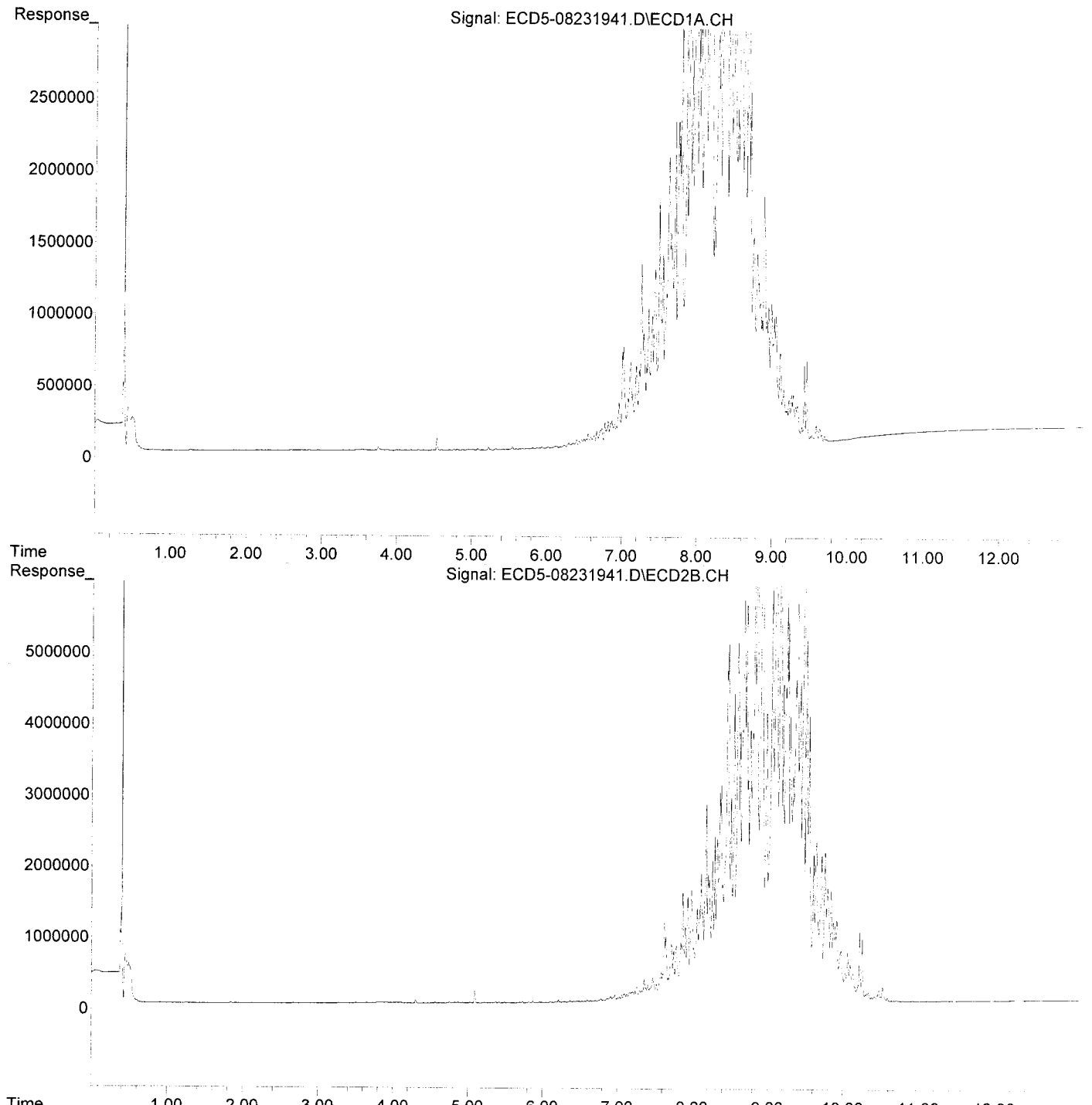
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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 9110534
Sequence 9K07024 (A9J0954-01,02)

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110534 (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
	9110534-BLK1		QC	11/06/19 13:00	200	5				100					
	9110534-BSD1		QC	11/06/19 13:00	200	5	A19E266		100	100					
	9110534-BS1		QC	11/06/19 13:00	200	5	A19E266		100	100					
	A9J0954-01	A	1311/8081B TCLP Pest Reg List	11/06/19 13:00	200	5				100	PDI-019SC-C-00 -3.2-191025				
	A9J0954-02	A	1311/8081B TCLP Pest Reg List	11/06/19 13:00	200	5				100	PDI-095SC-C-00 -8.8-191025				

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 #: 9110534 (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
	9110534-BLK1		QC	11/06/19 13:00	200	5				100				5	
	9110534-BSD1		QC	11/06/19 13:00	200	5	A19E266		100	100		*		6	
	9110534-BS1		QC	11/06/19 13:00	200	5	A19E266		100	100		*		6	
	A9J0954-01	A	1311/8081B TCLP Pest Reg List	11/06/19 13:00	200	5				100	PDI-019SC-C-00 -3.2-191025			5	
	A9J0954-02	A	1311/8081B TCLP Pest Reg List	11/06/19 13:00	200	5				100	PDI-095SC-C-00 -8.8-191025			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	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

* = No BLK fluid added

Witness: cas 11/06/19

Bottle Check: N/A 11/6/19

2mL exchanged into 2mL Hexane 11/6/19

Prepared By: 11/6/19 Date

Reviewed By: cas 11/06/19 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

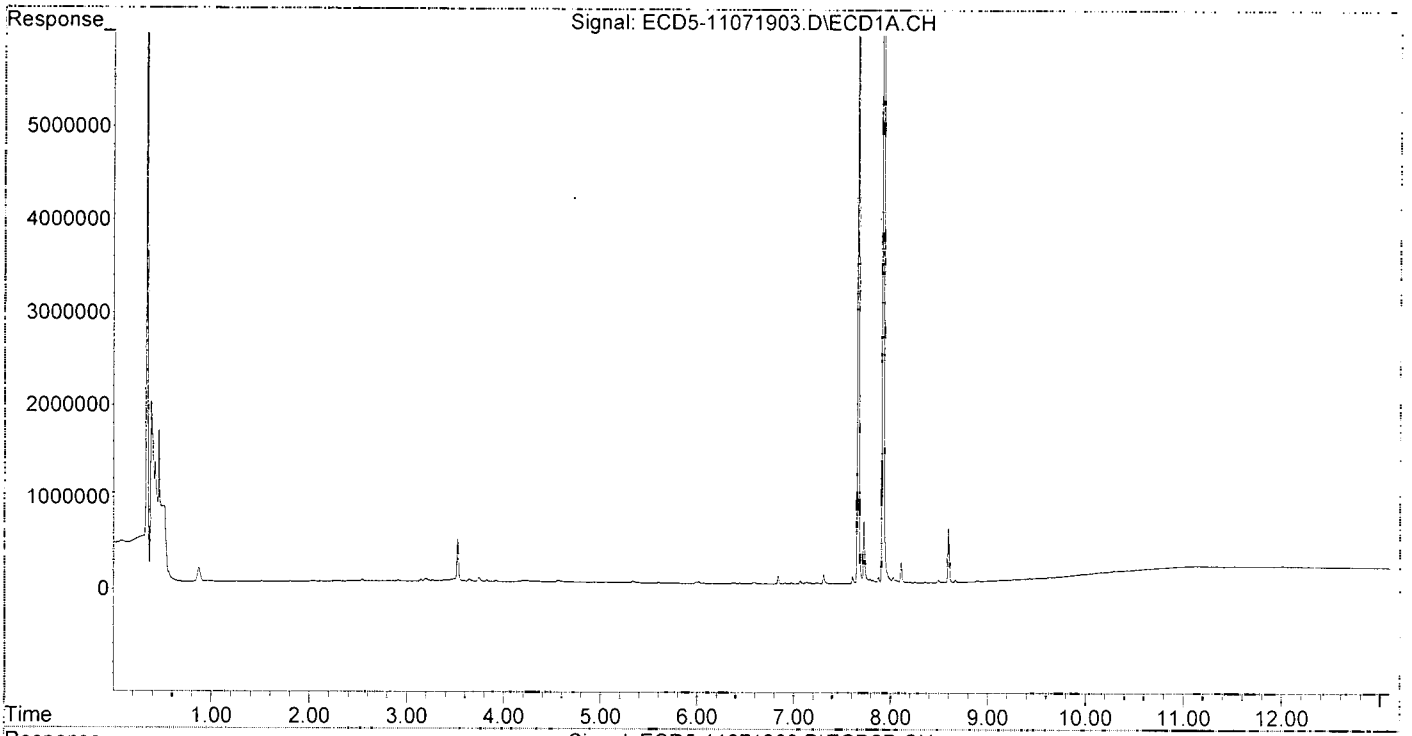
(f)=RT Delta > 1/2 Window (m)=manual int.

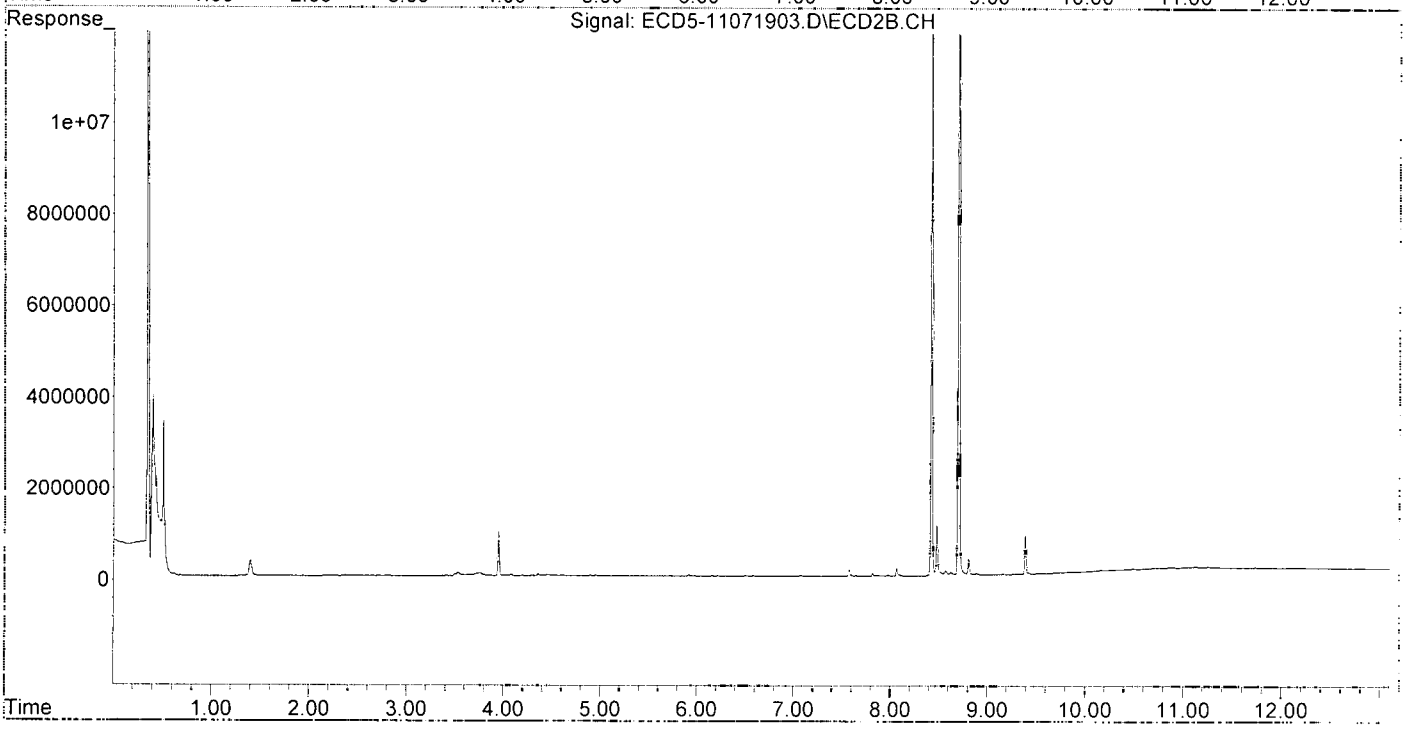
AWB 11.7.19

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

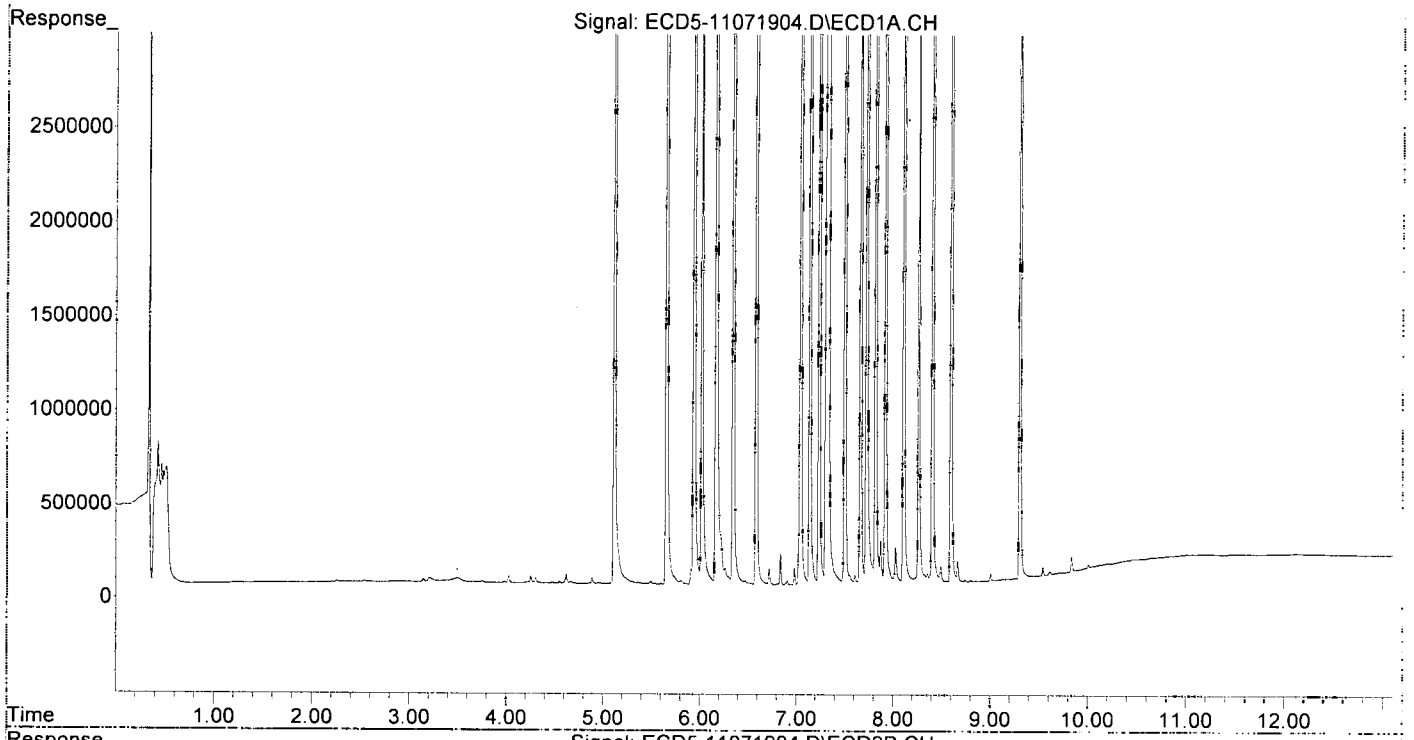
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.117	5.714	8496451	13477059	51.191	45.939	
22)	S	DCBP (S)	9.306	10.221	6928116	10099532	49.101	56.182	
		Target Compounds							
2)		a-BHC	5.656	6.322	11957846	21143263	52.143	51.526	
3)		g-BHC	5.941	6.640	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.	

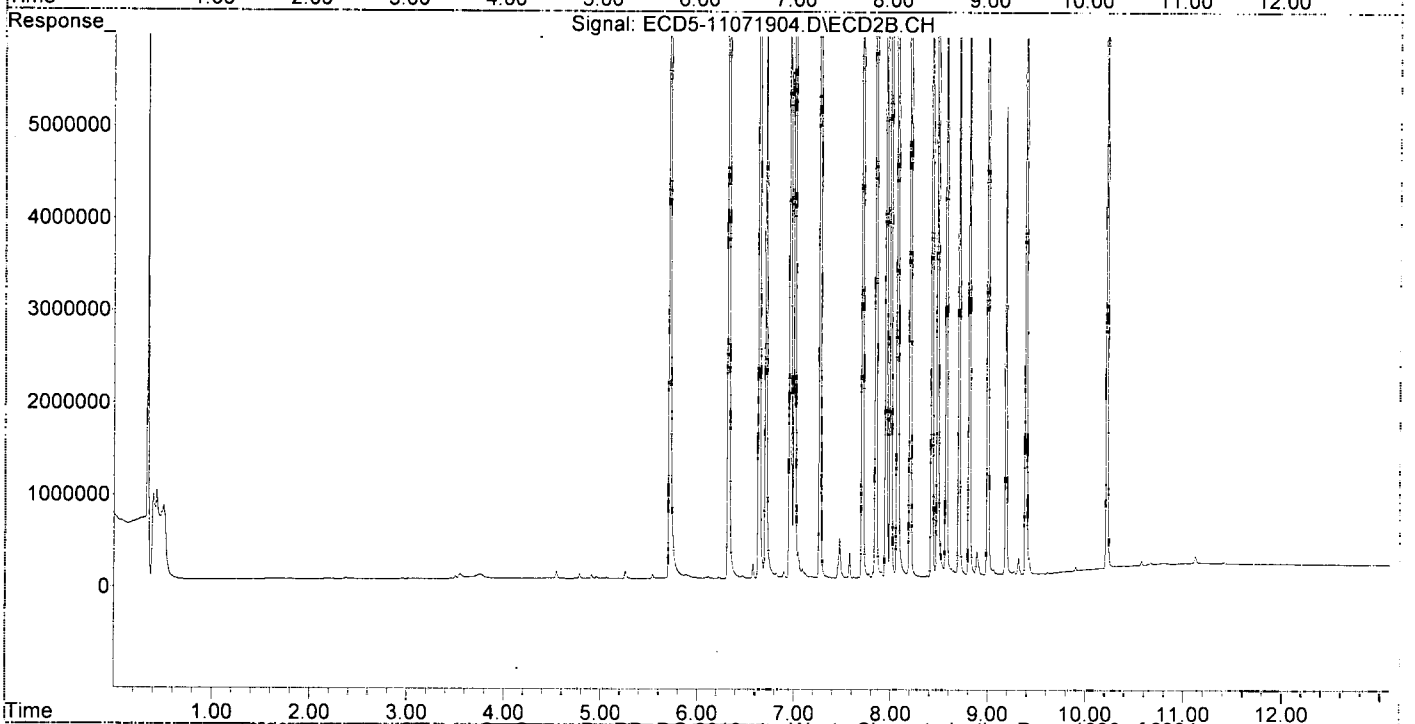
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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.	

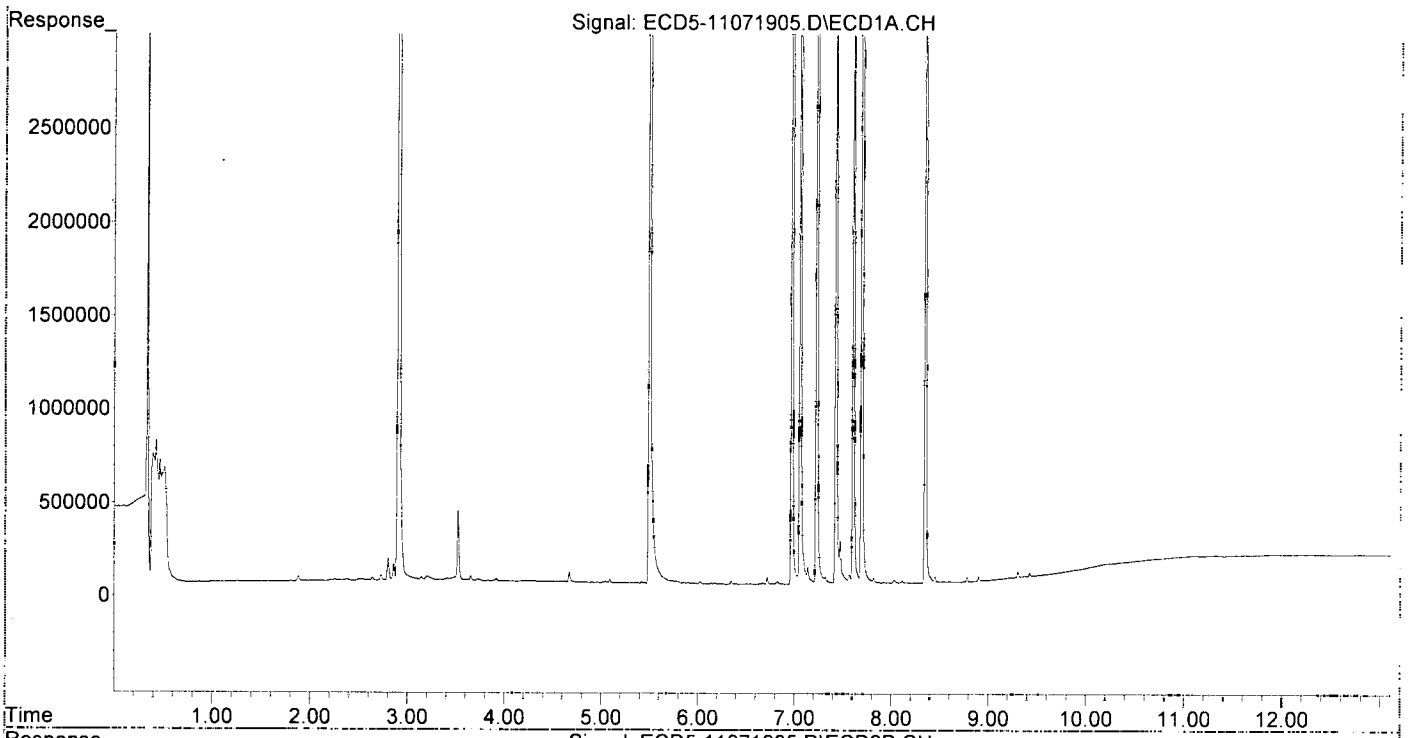
MJB 11/7/19

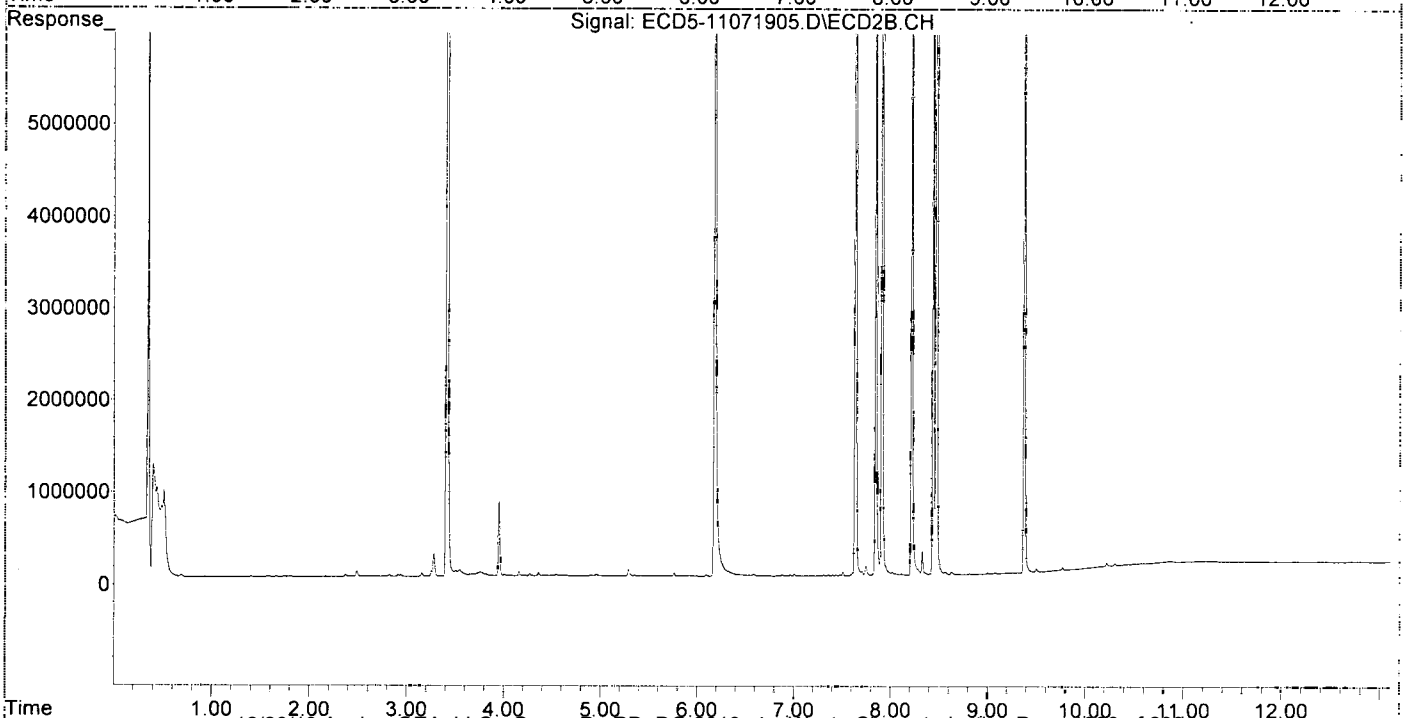
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

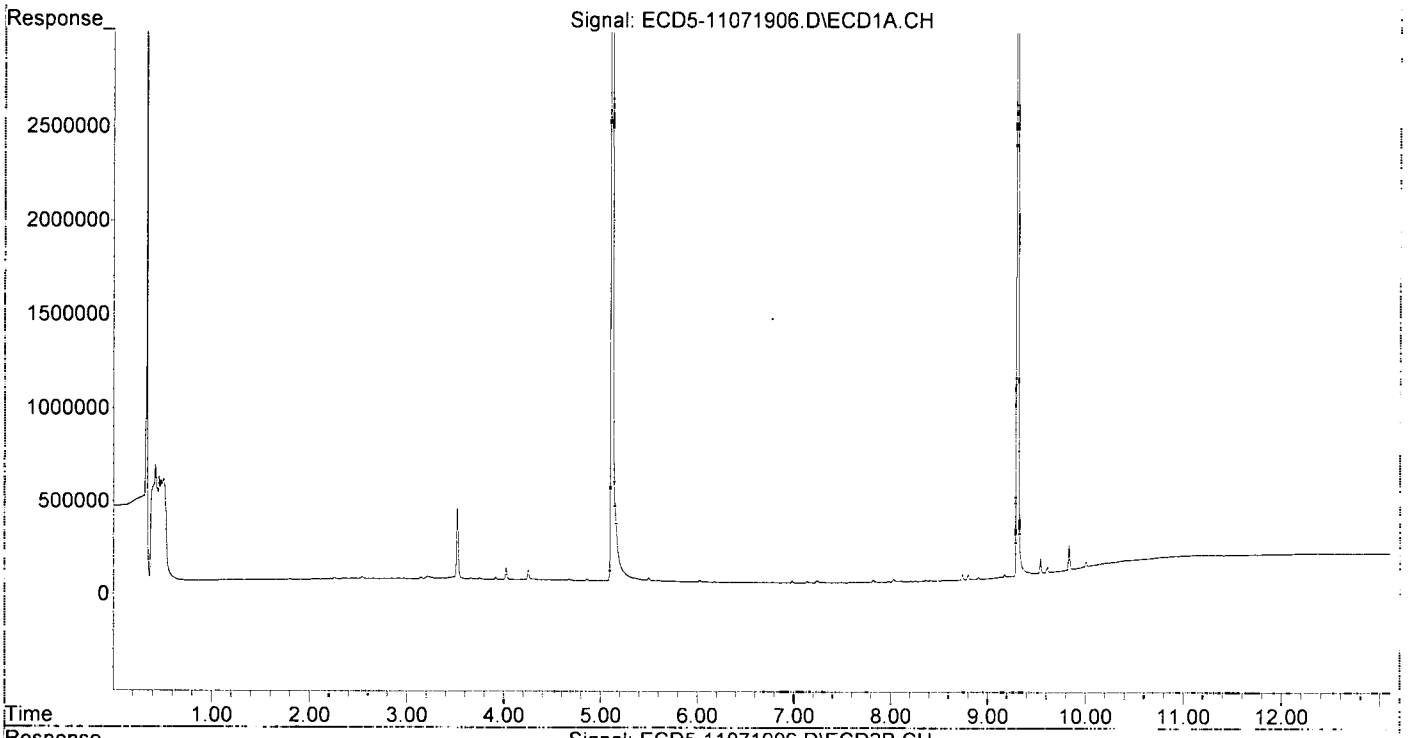
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.115	5.712	15187227	24505499	91.503	83.532
22) S	DCBP (S)	9.305	10.220	12731047	19166314	90.228	106.620
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.
3)	g-BHC	0.000	0.000	0	0	N.D.	N.D.
4)	b-BHC	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.

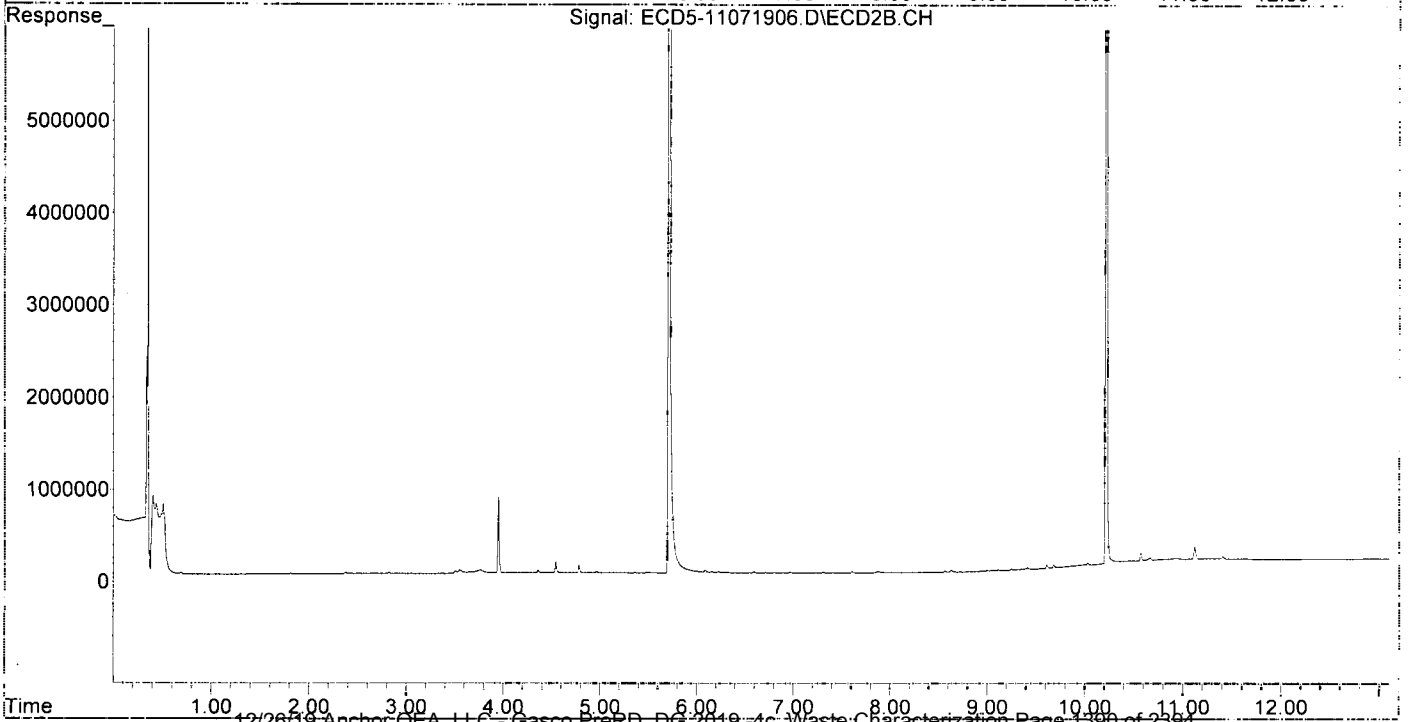
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

WB W7119

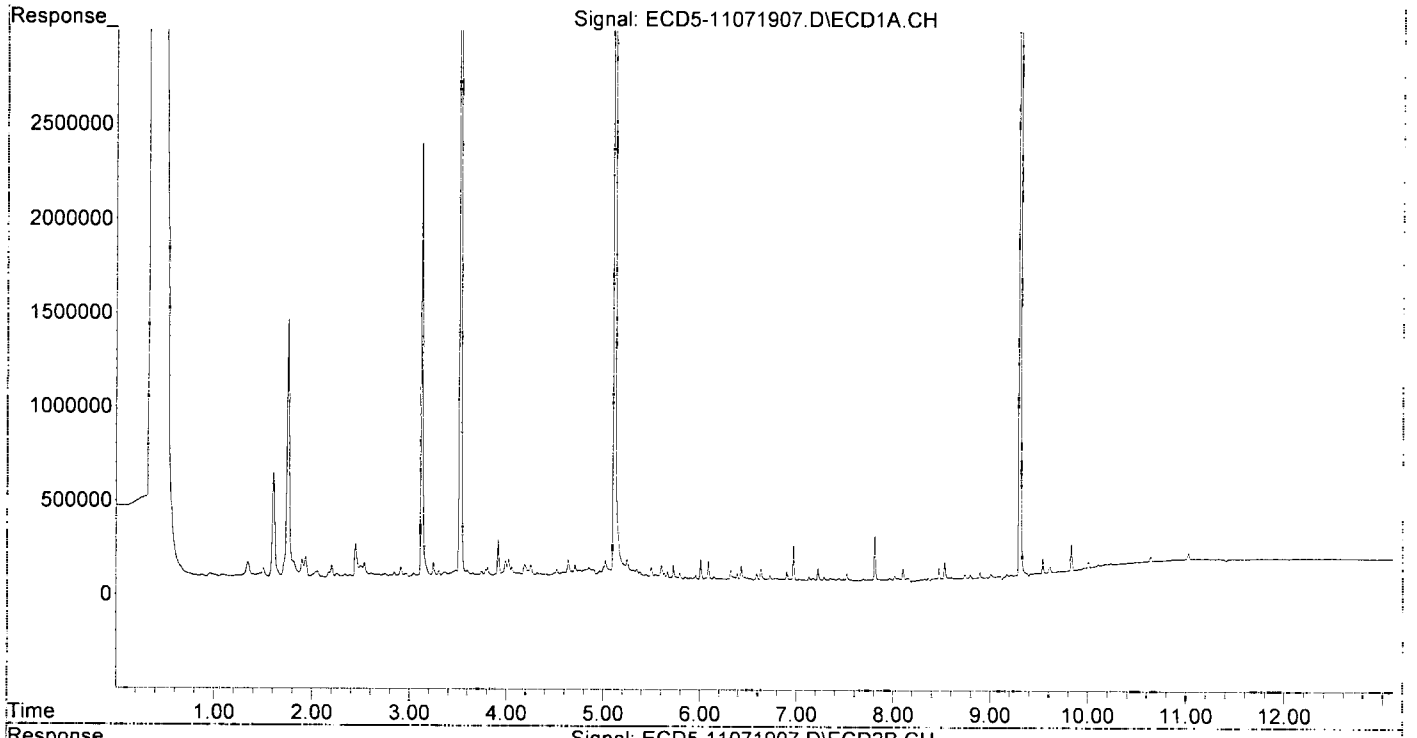
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	14176201	24579734	85.411	83.785	
22)	S	DCBP (S)	9.303	10.218	12406953	18449765	87.931	102.634	
		Target Compounds							
2)		a-BHC	5.664	6.331	43343	36162	0.189	0.088	#
3)		g-BHC	5.958	0.000	24080	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	

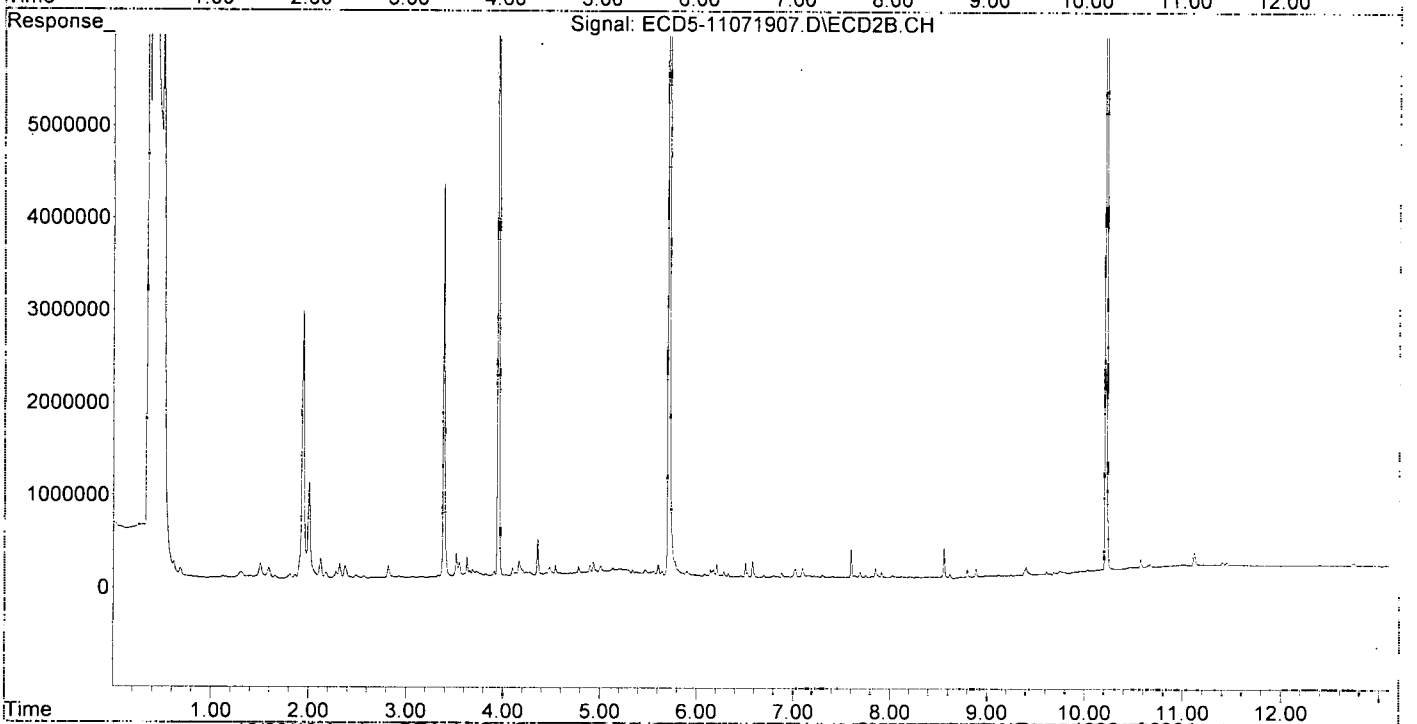
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

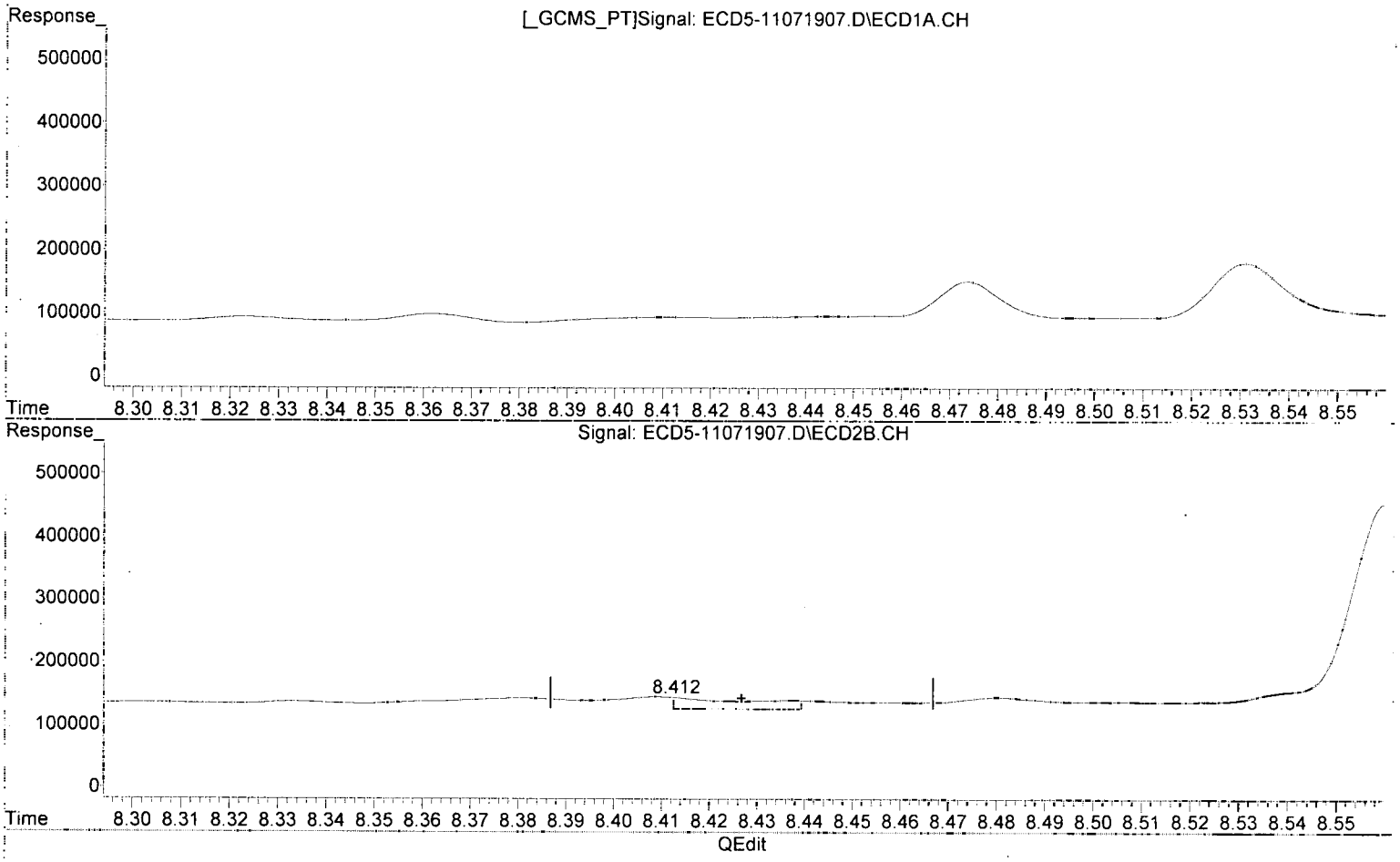




Quantitation Report (Qedit)

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

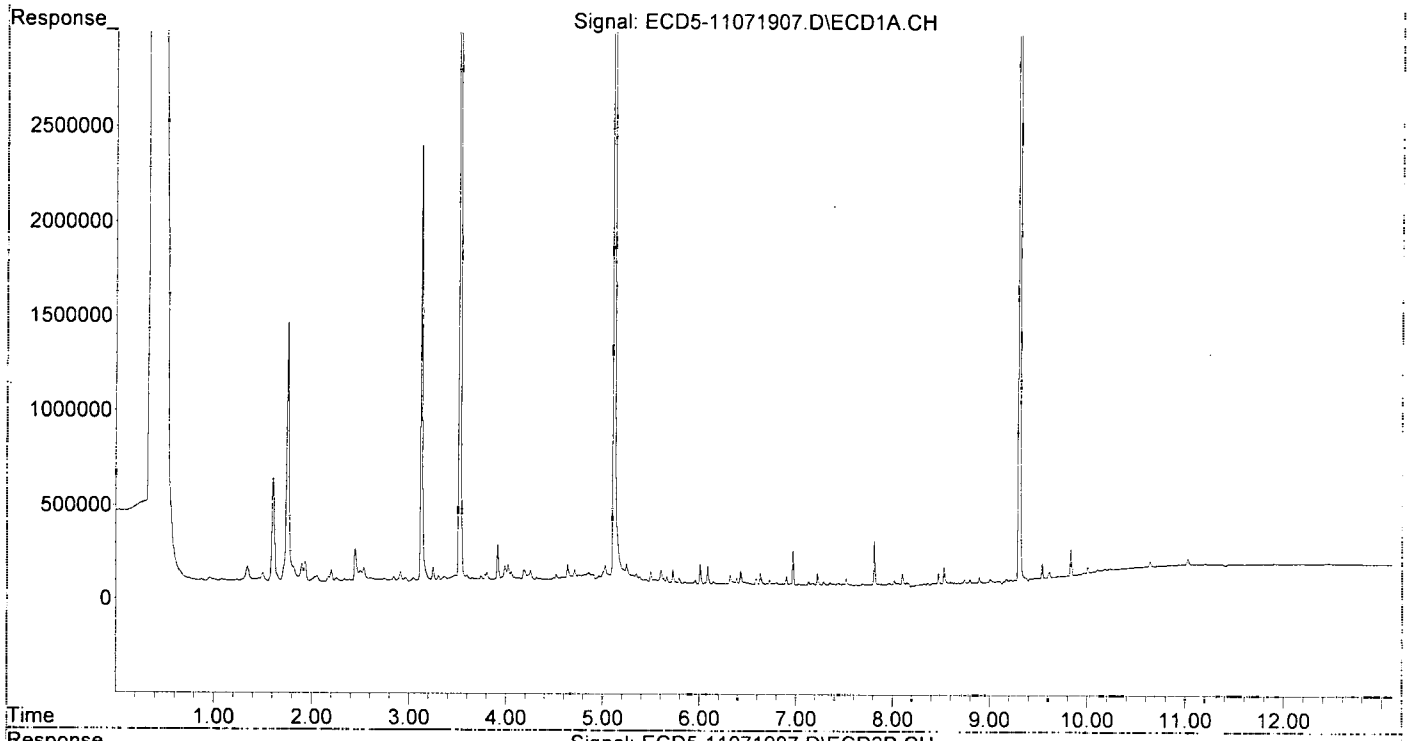
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	14176201	24579734	85.411	83.785	
22)	S	DCBP (S)	9.303	10.218	12406953	18449765	87.931	102.634	
		Target Compounds							
2)		a-BHC	5.664	6.331	43343	36162	0.189	0.088	#
3)		g-BHC	5.958	0.000	24080	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	

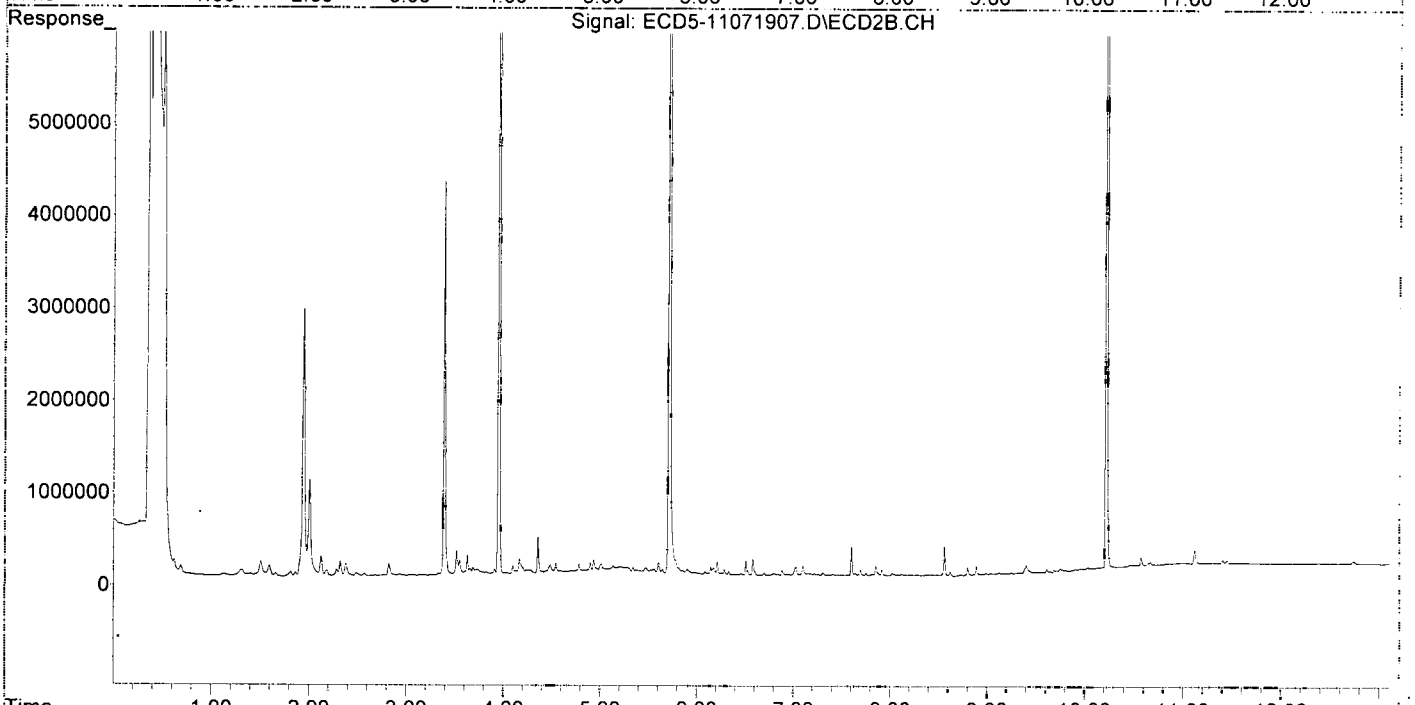
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

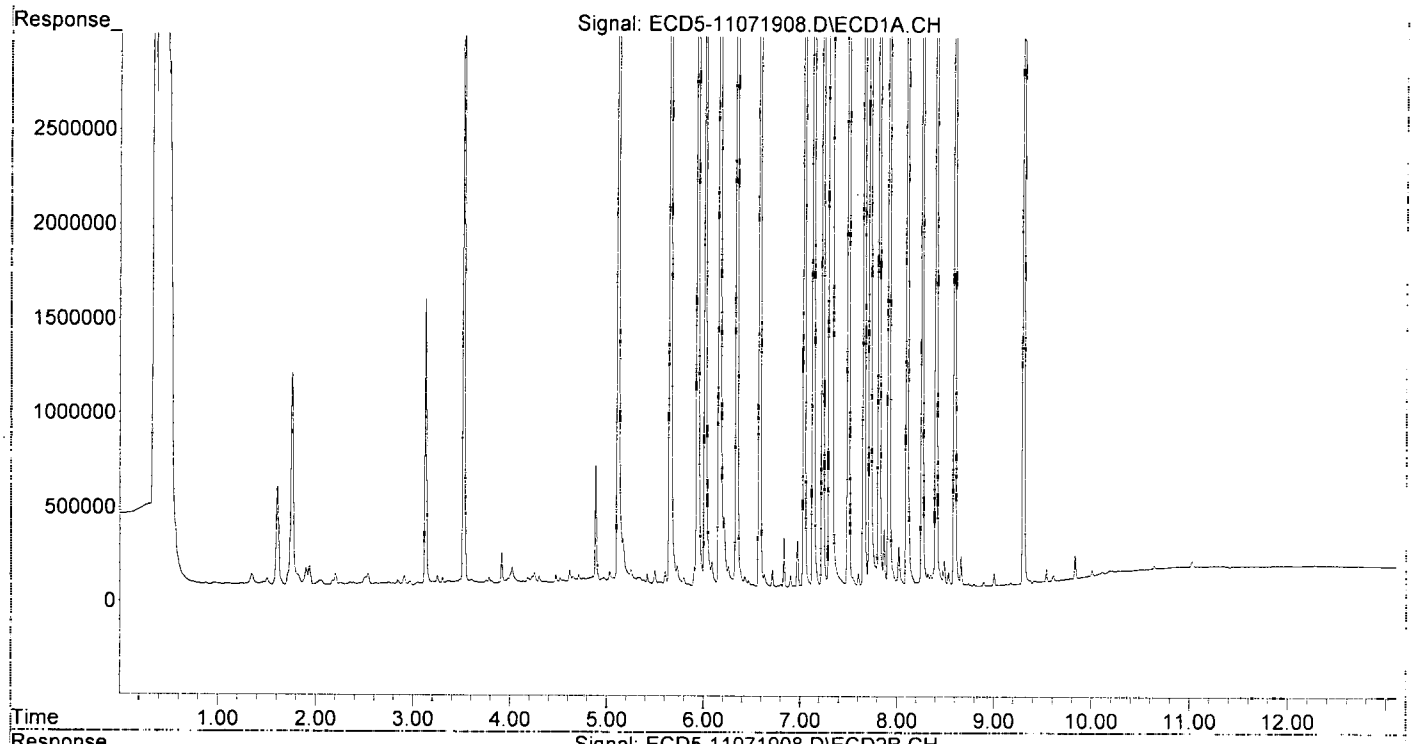
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.712	12756850	20860660	76.860	71.108	
22)	S	DCBP (S)	9.303	10.219	10713561	15987501	75.930	88.937	
		Target Compounds							
2)		a-BHC	5.654	6.320	21663907	41451210	94.466	101.017	
3)		g-BHC	5.936	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	

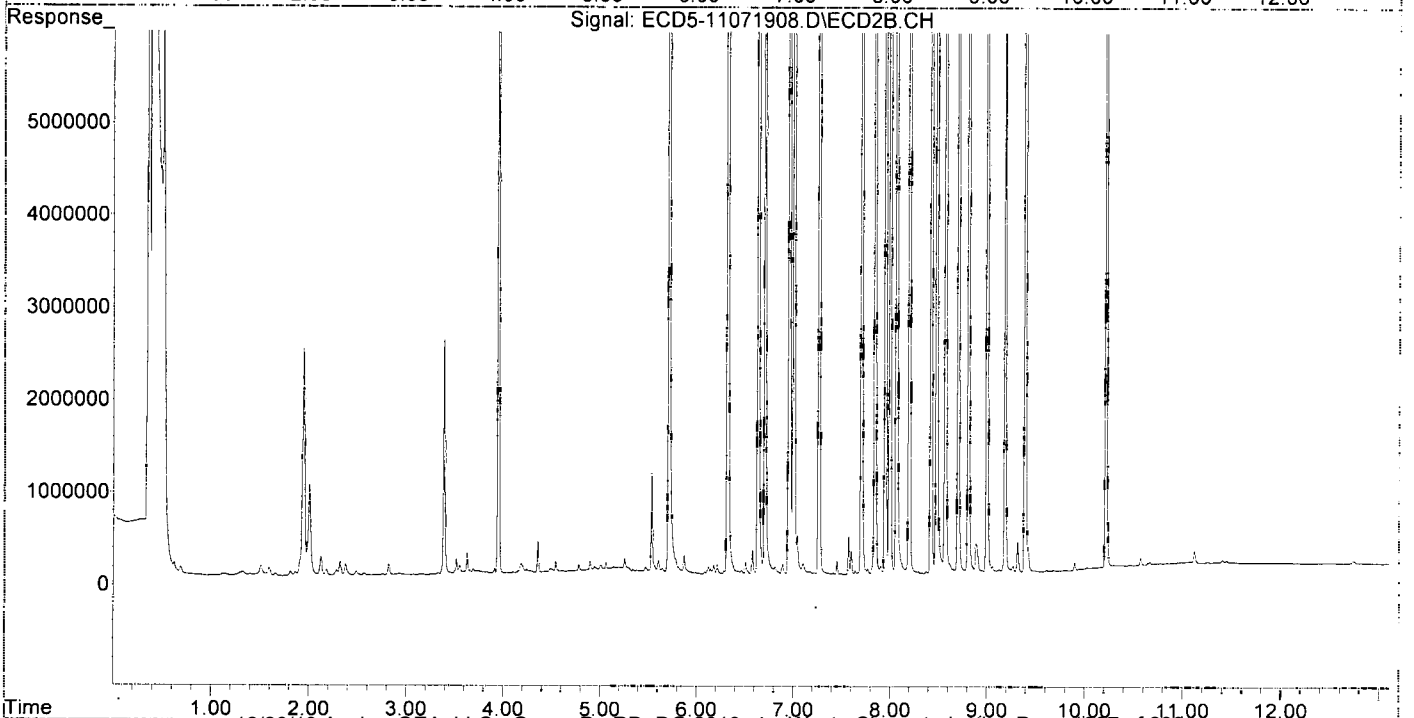
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

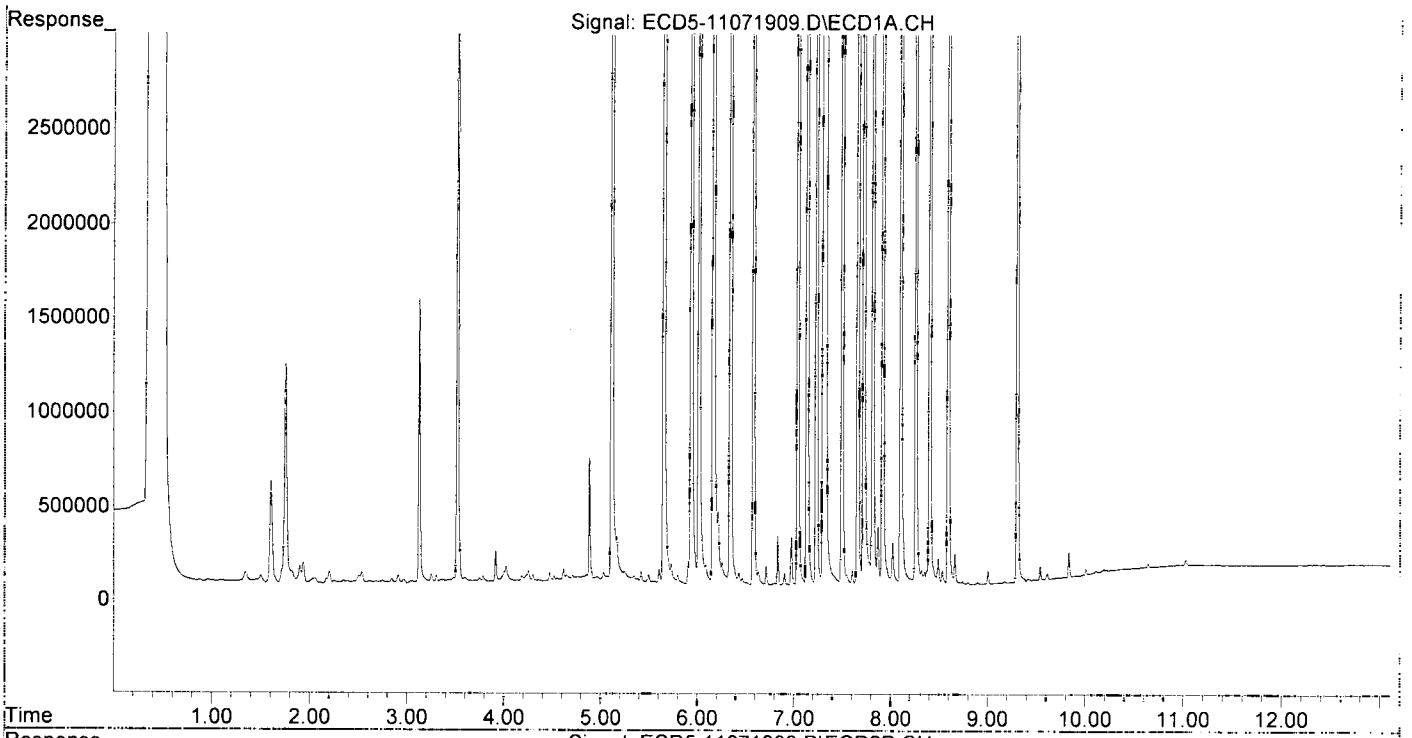
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	13011321	22014044	78.393	75.039	
22)	S	DCBP (S)	9.303	10.219	11523801	17131862	81.672	95.302	
		Target Compounds							
2)		a-BHC	5.653	6.319	22972081	43316434	100.171	105.562	
3)		g-BHC	5.936	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	

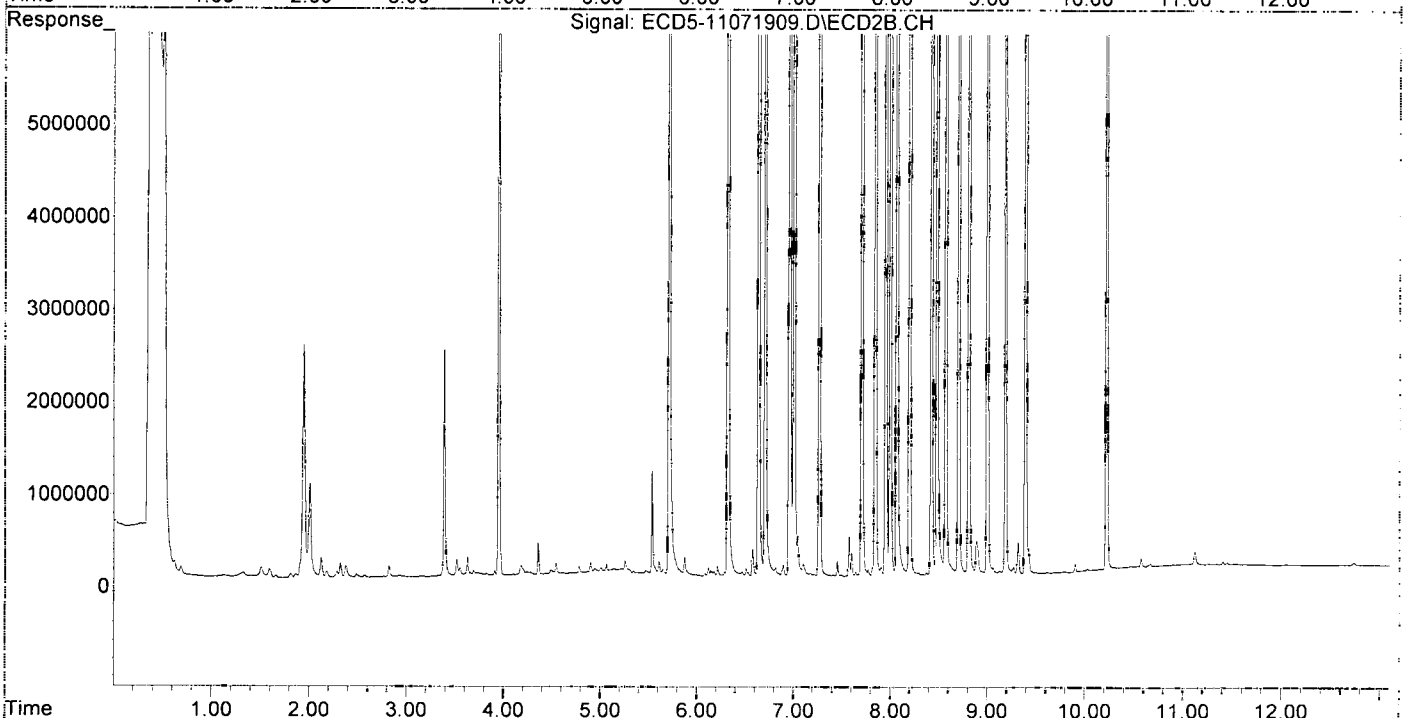
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 (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

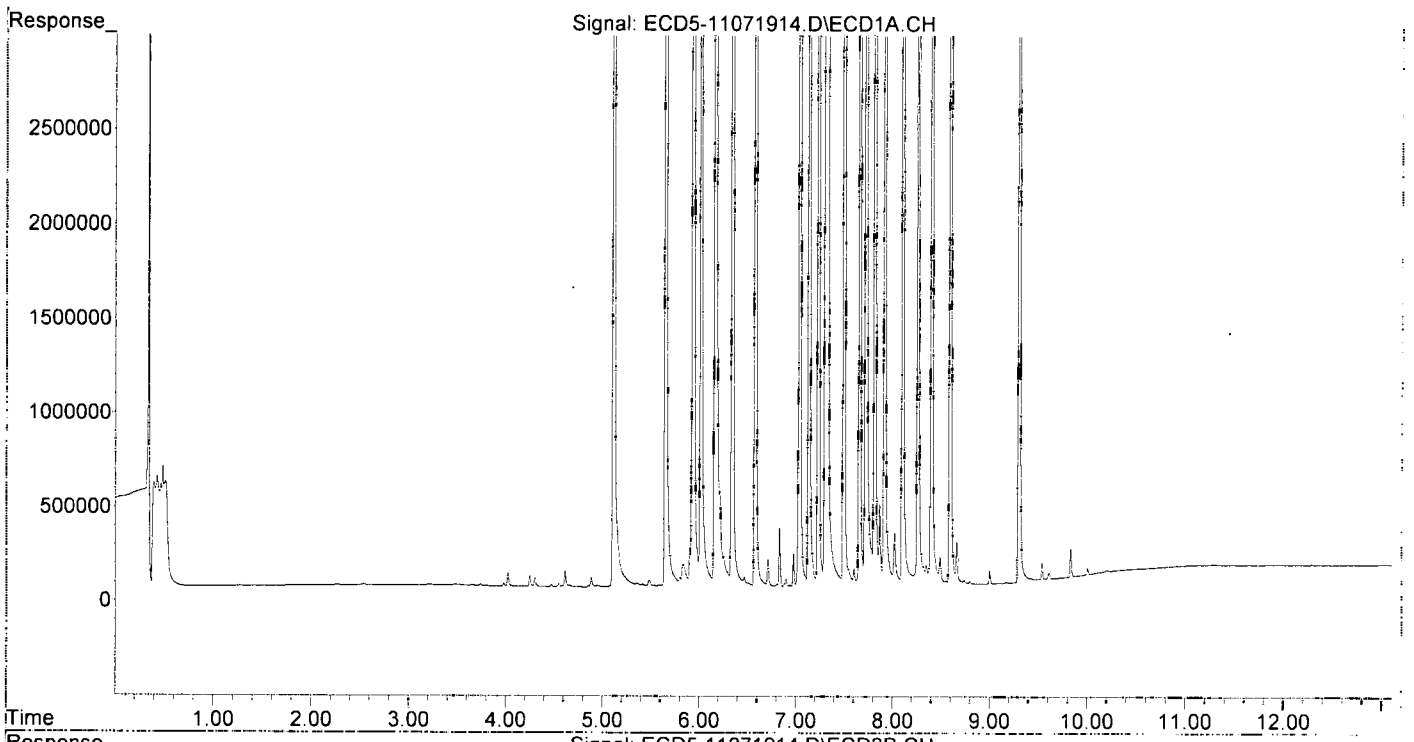
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	17217692	27882494	103.736	95.043	
22)	S	DCBP (S)	9.305	10.219	14047599	21069680	99.559	117.208	
		Target Compounds							
2)		a-BHC	5.652	6.319	24072218	45384204	104.968	110.602	
3)		g-BHC	5.936	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.	

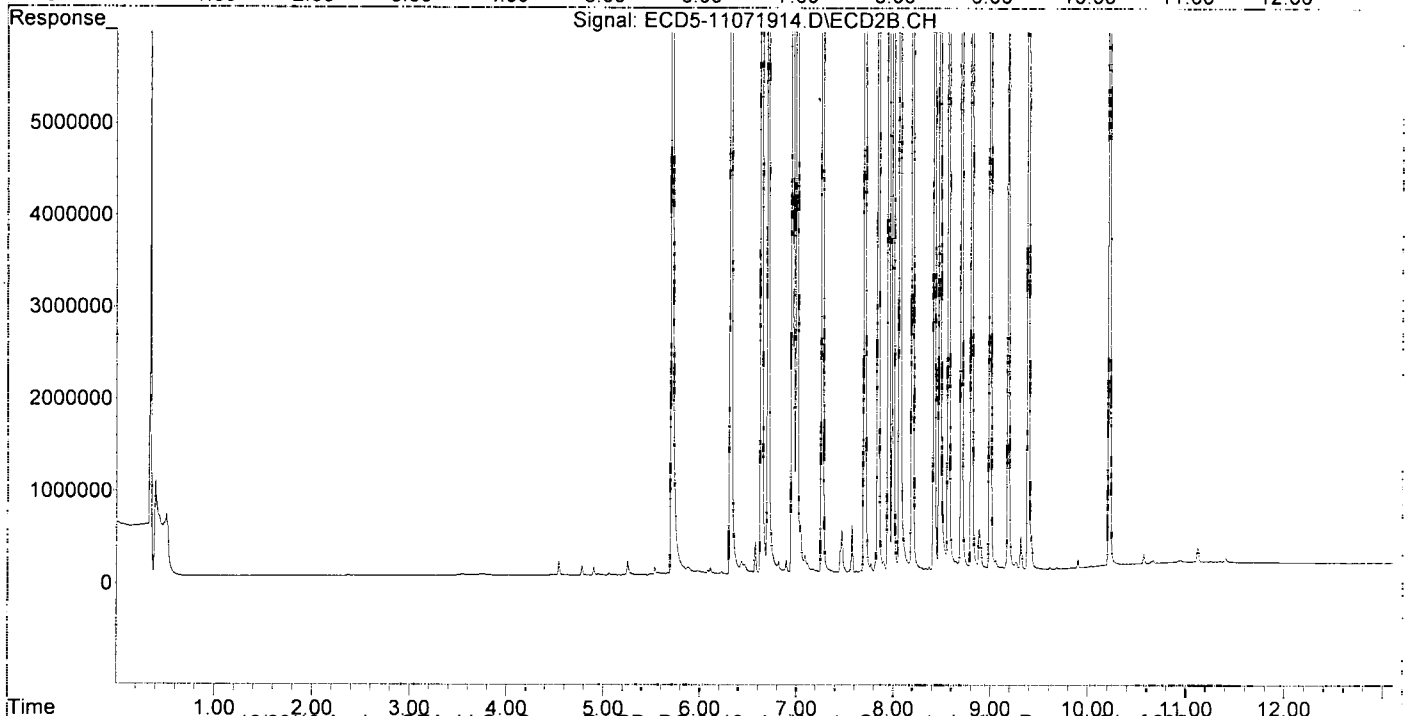
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

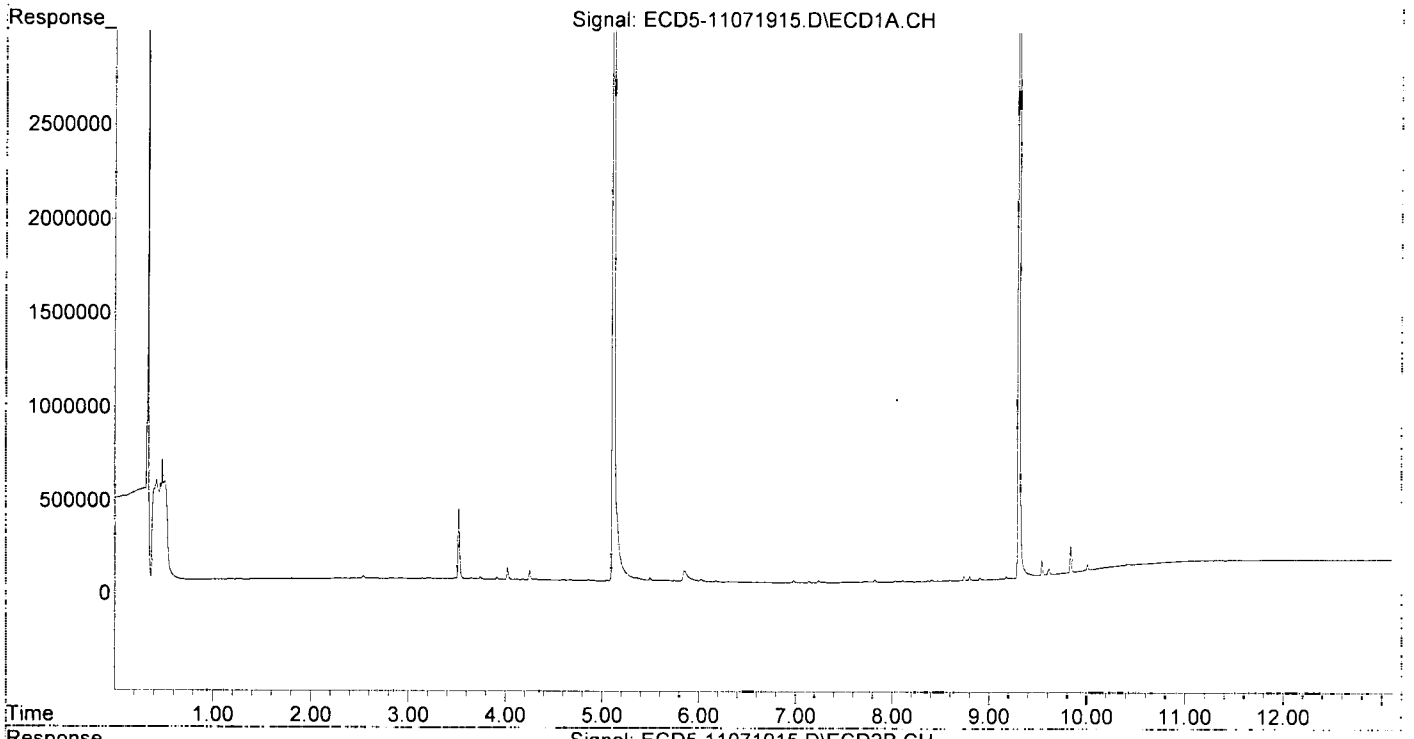
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.115	5.711	14969549	24838729	90.191	84.668	
22)	S DCBP (S)	9.305	10.220	12468363	18654113	88.366	103.771	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)	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.	

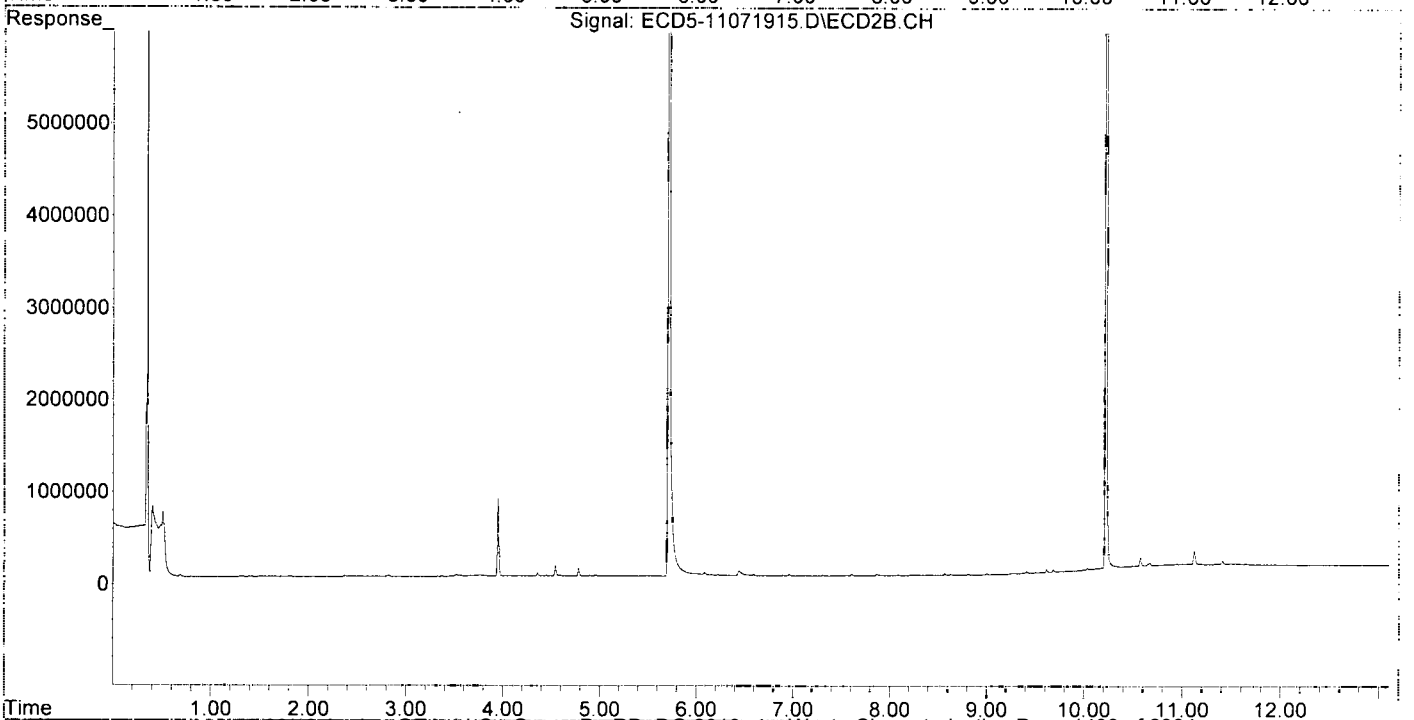
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

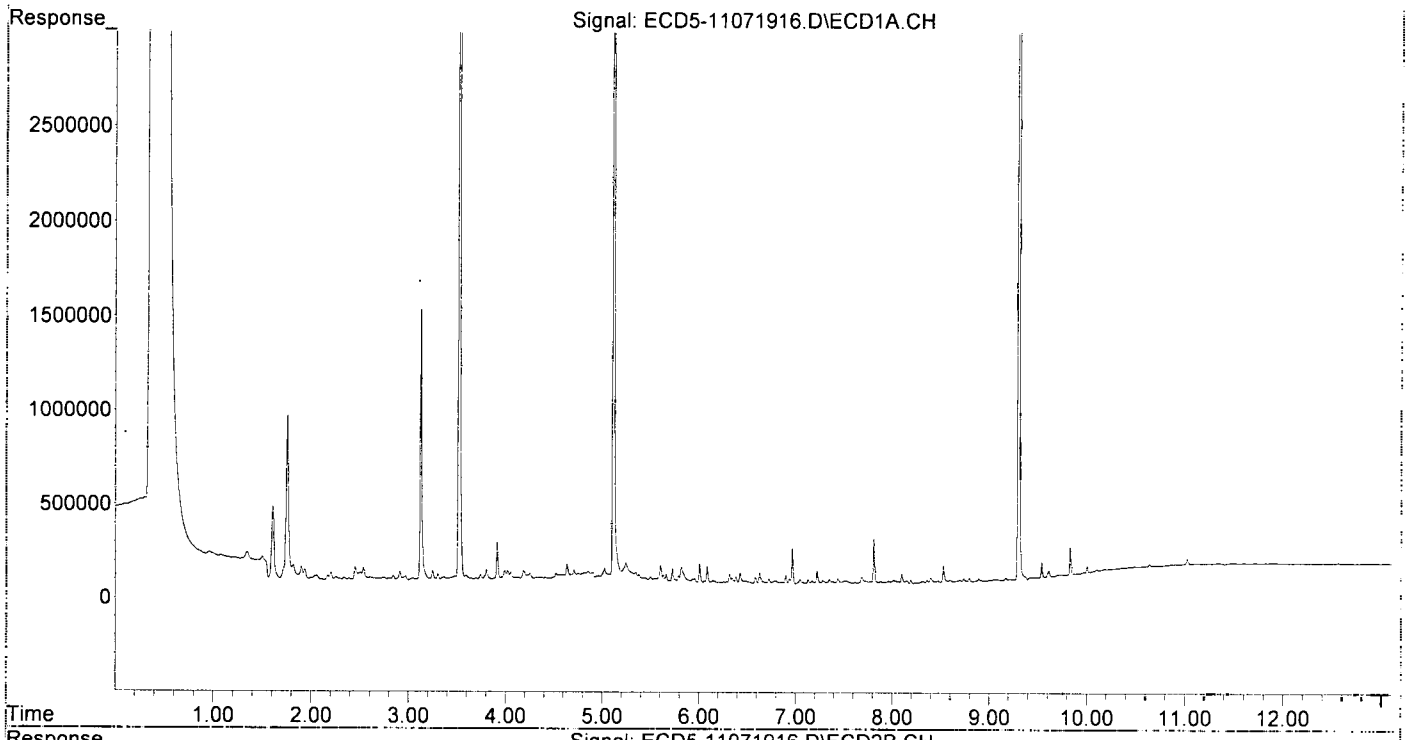
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	6651148	10848736	40.073	36.980	
22)	S	DCBP (S)	9.302	10.218	13053757	18769993	92.515	104.415	
		Target Compounds							
2)		a-BHC	5.663	6.329	43104	30580	0.188	0.075	#
3)		g-BHC	5.937	0.000	21625	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	

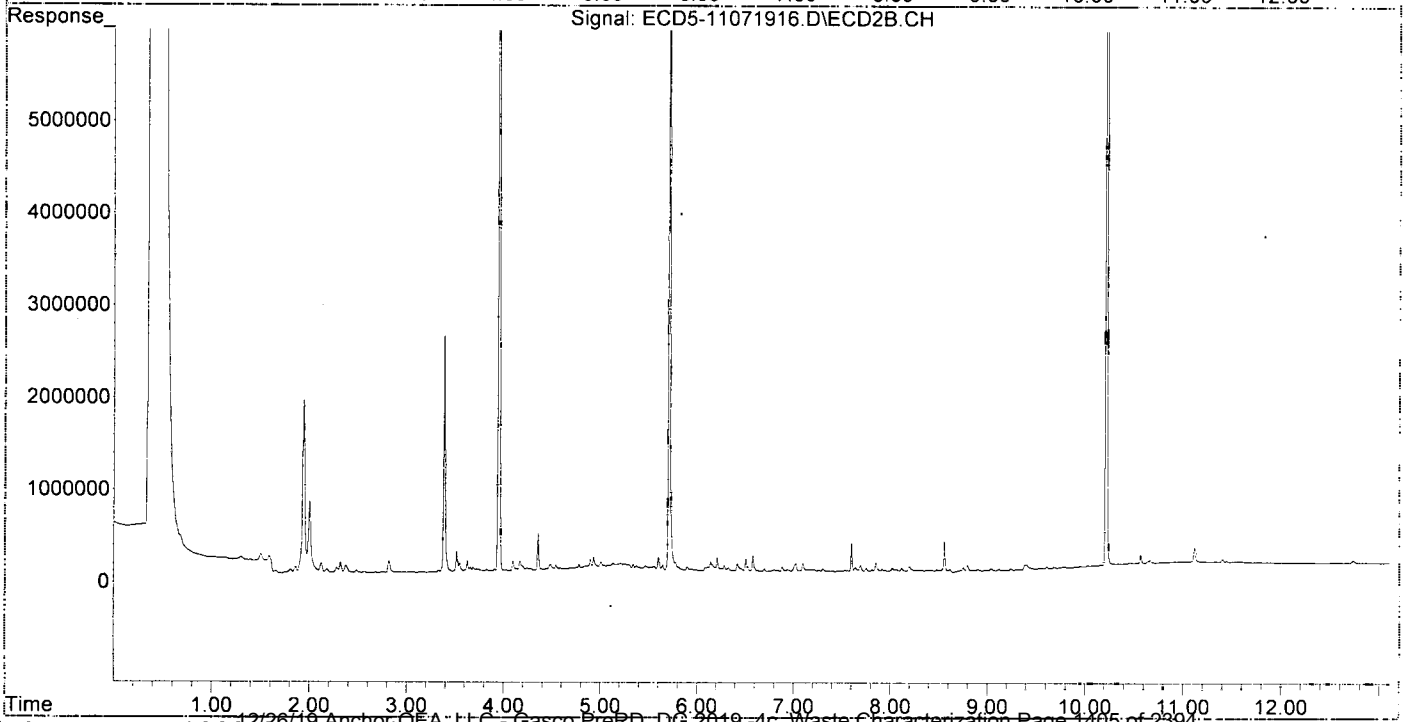
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

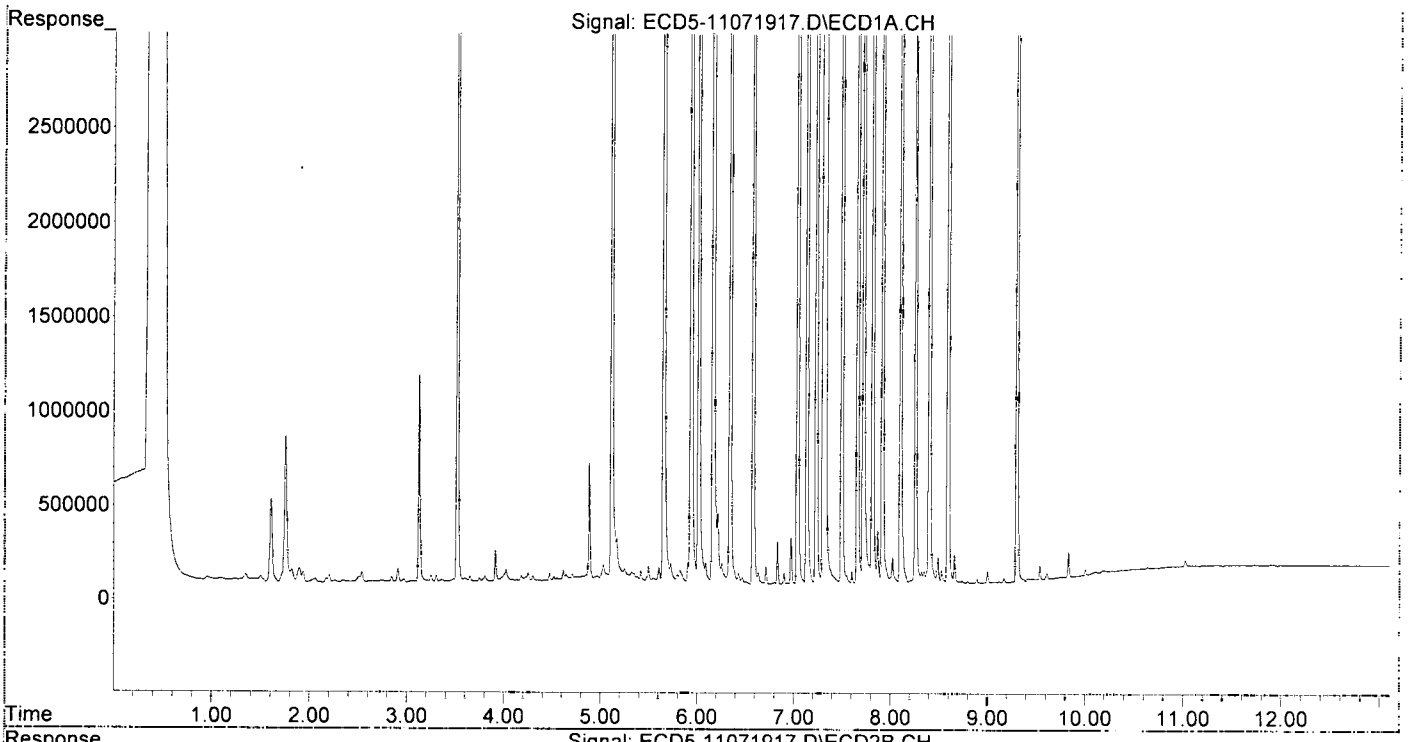
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.711	11543735	18521053	69.551	63.133	
22)	S	DCBP (S)	9.303	10.218	11751339	17062849	83.285	94.919	
		Target Compounds							
2)		a-BHC	5.652	6.319	22394582	41942687	97.653	102.215	
3)		g-BHC	5.935	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	

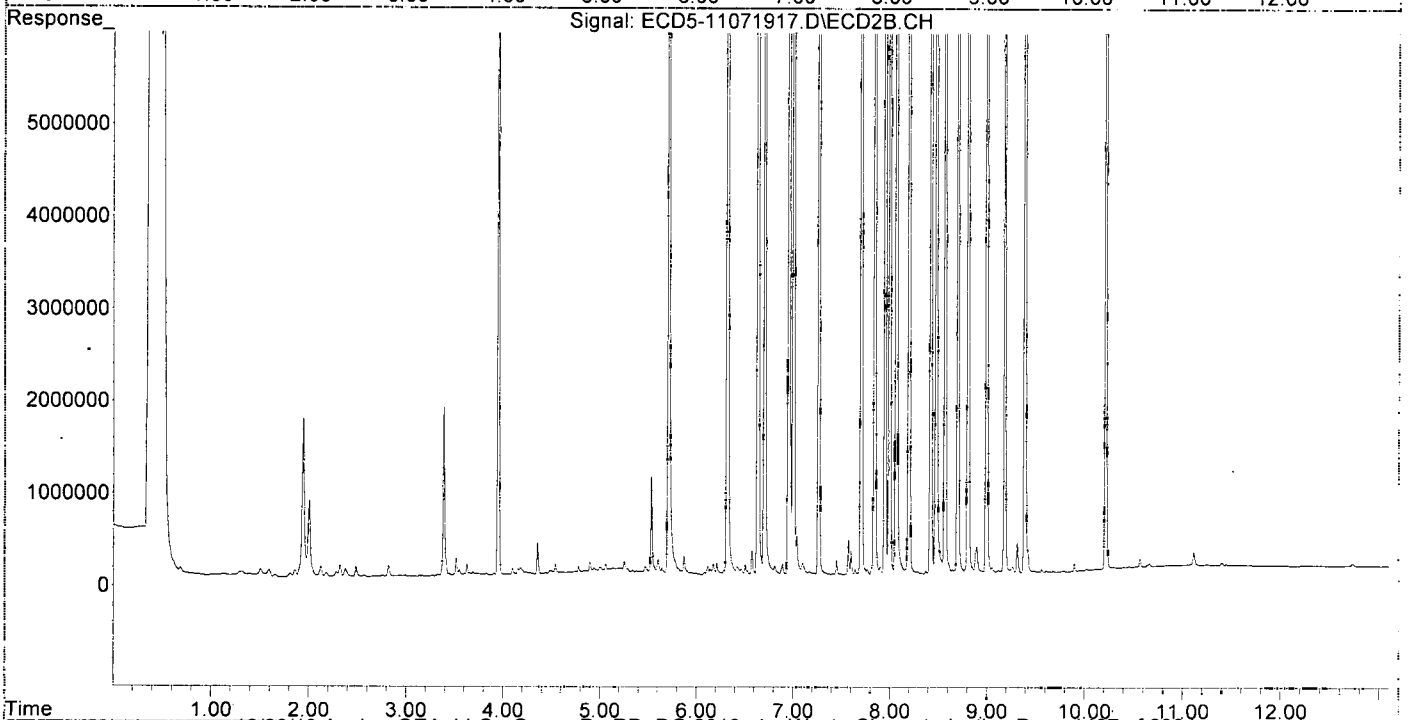
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

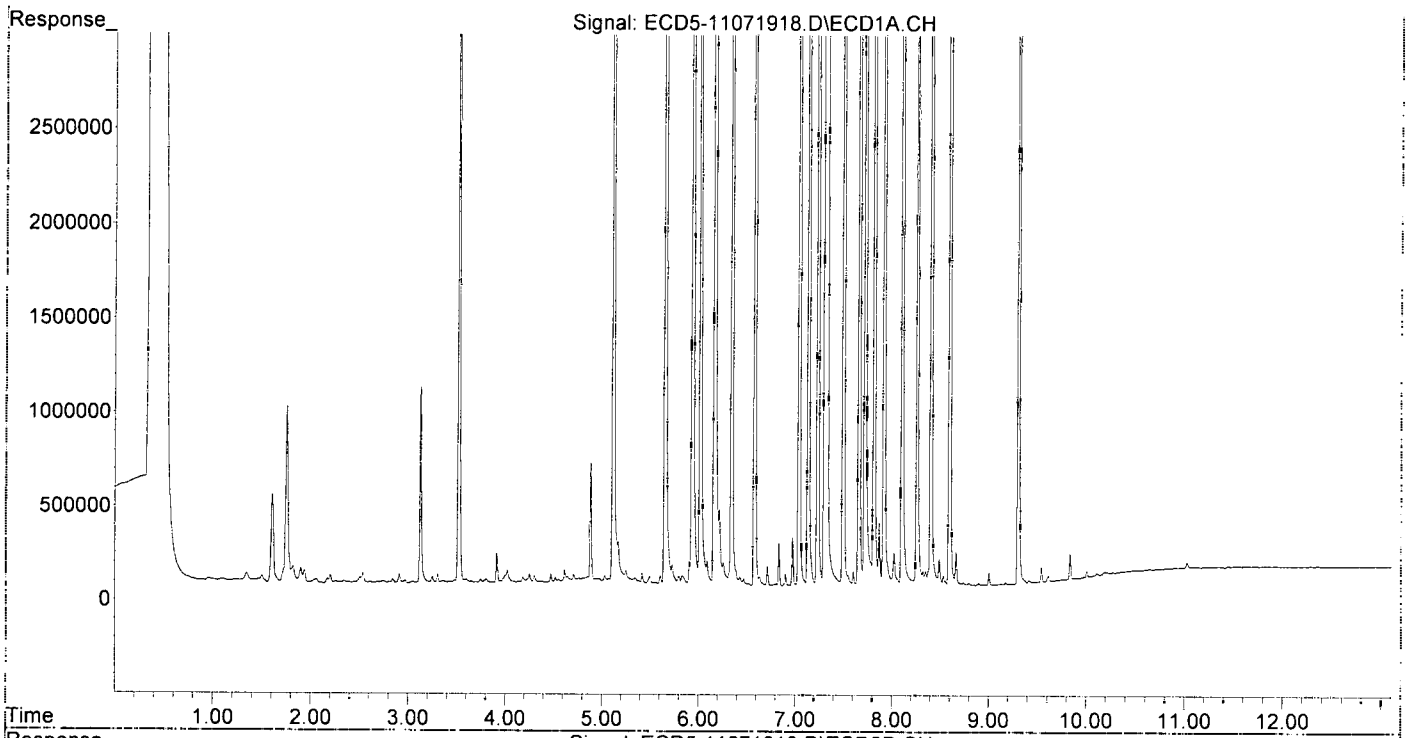
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.116	5.712	11196280	18328083	67.457	62.475	
22)	S	DCBP (S)	9.305	10.220	11117039	16440227	78.789	91.455	
		Target Compounds							
2)		a-BHC	5.654	6.320	22756884	42661513	99.232	103.966	
3)		g-BHC	5.937	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	

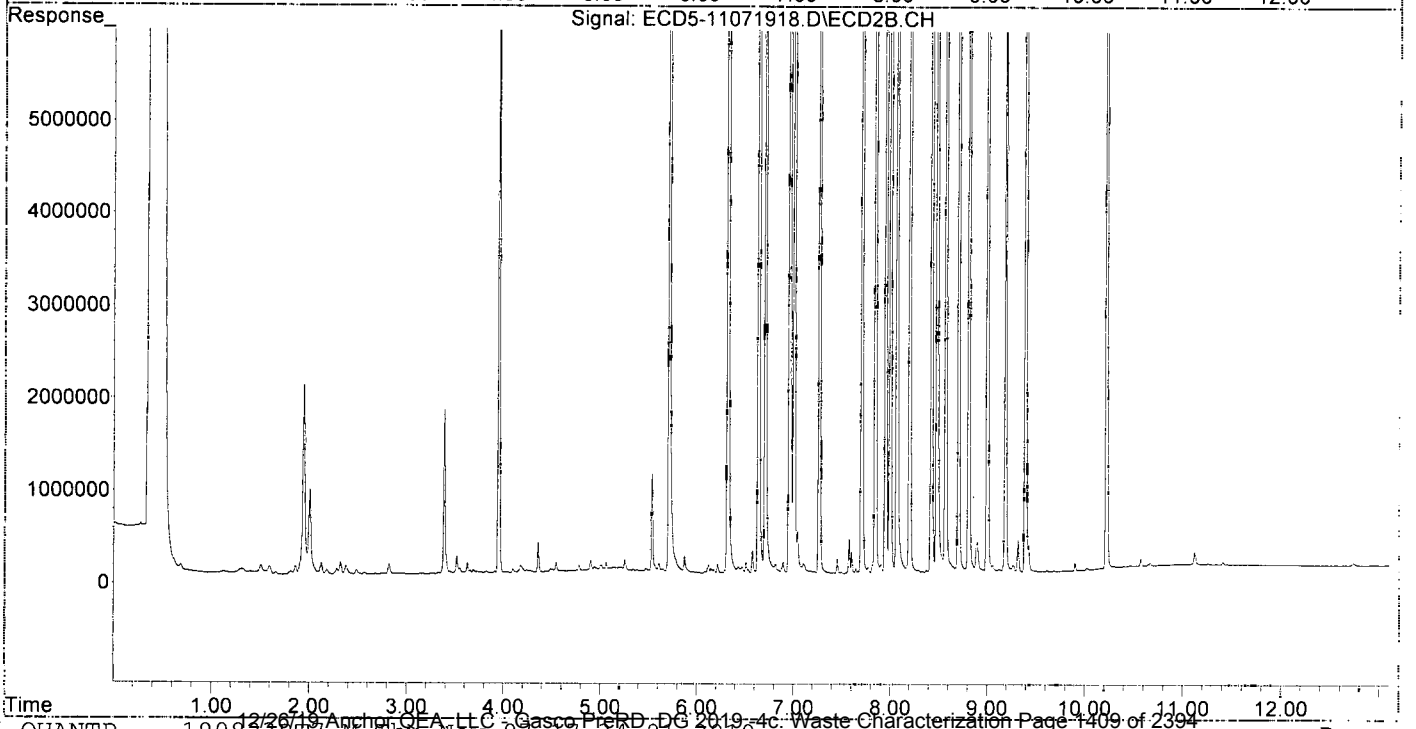
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 : ECD5-11071919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:33
Operator : MJB
Sample : A9J0954-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:40:28 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

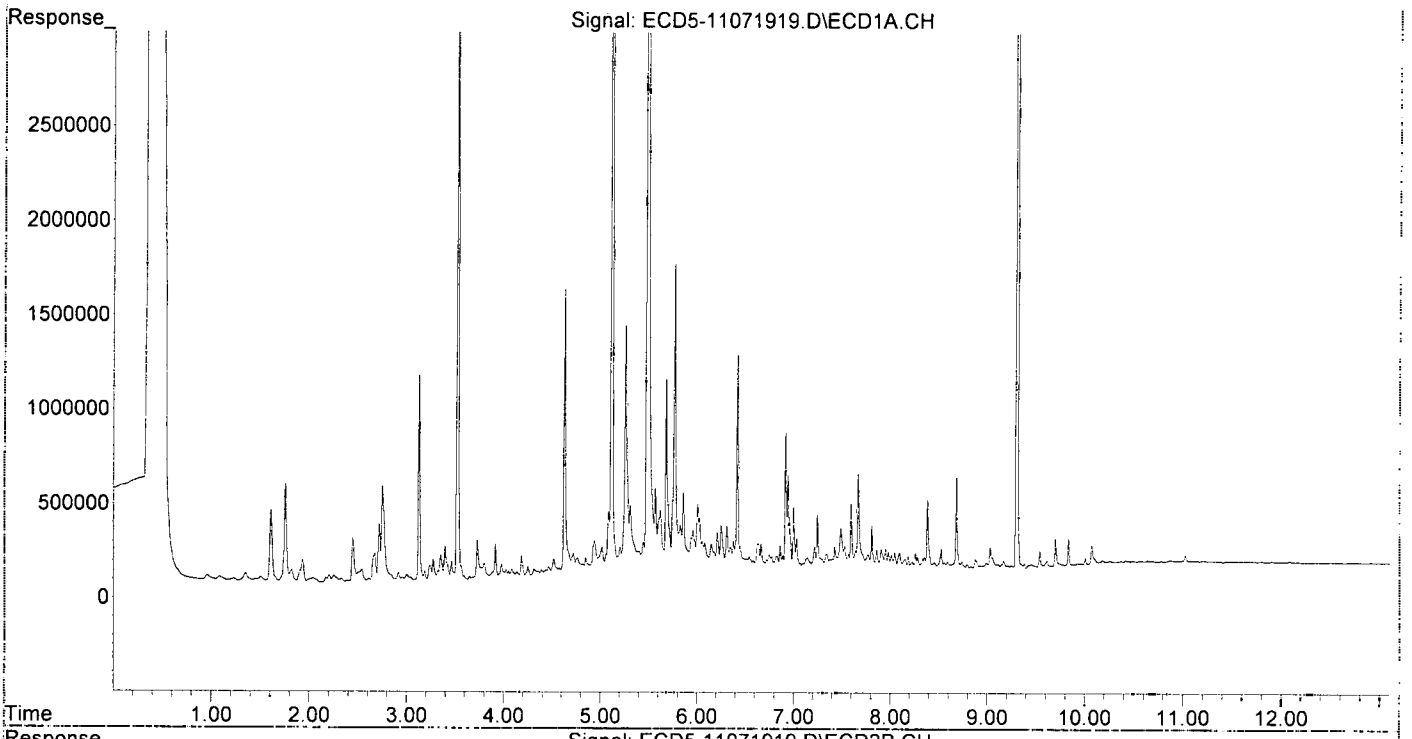
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	10681293	18539944	64.355	63.197	
22)	S	DCBP (S)	9.304	10.219	13227696	19560785	93.748	108.814	
		Target Compounds							
2)		a-BHC	5.680f	6.306	1023564	179854	4.463	0.438	#
3)		g-BHC	5.939	6.644	201701	212689	1.000m	0.596	#
4)		b-BHC	6.008	6.694	376425	156159	4.165	0.987	#
5)		Heptachlor	6.346	7.007	146431	163875	0.808	0.536	
6)		d-BHC	6.149	6.961	165167	175103	0.840	0.497	#
7)		Aldrin	6.582	7.269	72307	218930	0.366	0.665	#
8)		Heptachlo...	7.032	7.692	185050	151002	1.005	0.502	#
9)		trans-Chl...	7.143	7.851	82937	158311	0.449	0.505	
10)		cis-Chlor...	7.248	7.929f	305125	227362	1.676	0.781	#
11)		Endosulfa...	7.347	8.008	97814	247375	0.575	0.899	#
12)		4,4'-DDE	0.000	8.072	0	495805	N.D.	1.596	#
13)		Dieldrin	7.491	8.182f	232421	890630	1.211	2.928	#
14)		Endrin	7.670	8.408	517466	113798	3.520	0.504m	#
15)		4,4'-DDD	0.000	8.471	0	134408	N.D.	0.525	#
16)		Endosulfa...	7.811	8.560	241473	360082	1.681	1.561	
17)		4,4'-DDT	7.908	8.723	118891	217760	0.994	1.229	
18)		Endrin Al...	8.095	8.799	97889	203308	BelowCal	0.264	
19)		Endosulfa...	8.385f	9.006	376680	99012	2.431	0.397	#
20)		Methoxychlor	8.260	9.196	93112	70047	1.590	0.683m	#
21)		Endrin Ke...	8.590	9.402	42555	127904	0.255	0.497	#
23)		Hexachlor...	2.913	3.388f	45905	1924735	0.251	5.120	#
24)		Hexachlor...	5.480	6.180	6413269	591501	36.378	1.883	#
25)		Oxychlordane	7.001f	7.626	354887	933055	2.157	3.407	#
26)		2,4'-DDE	7.032f	7.851	185050	158311	1.443	0.746	#
27)		trans-Non...	7.217	7.929	139257	227362	0.461	0.754	#
28)		2,4'-DDD	7.426	8.225	136124	181207	1.193	0.959	
29)		2,4'-DDT	7.597	8.453	364643	102646	3.324	0.576	#
30)		cis-Nonac...	7.670f	8.471	517466	134408	2.492	0.401	#
31)		Mirex	8.354	9.402f	70608	127904	0.563	0.687	
32)		Chlordane...	7.248	7.929	305125	227362	15.497	6.283	#
33)		Chlordane...	7.347	8.043	97814	406430	3.903	13.385	#
34)		Chlordane...	7.861	8.723	112815	217760	19.514	24.288	
35)		Chlordane...	3.350	3.318	133843	64574	NoCal	NoCal	
36)		Toxaphene...	7.426f	8.377	136124	726395	151.984	276.800	#
37)		Toxaphene...	7.670f	8.723	517466	217760	320.424	66.168	#
38)		Toxaphene...	8.010	8.752	85545	131850	25.403	26.015	
39)		Toxaphene...	8.260	8.799	93112	203308	28.737	24.349	
40)		Toxaphene...	8.457	9.006	42187	99012	17.599	21.245	
41)		Toxaphene...	8.526	9.345f	116511	71515	36.817	15.055	#
42)		Toxaphene...	3.350	3.318f	133843	64574	NoCal	NoCal	

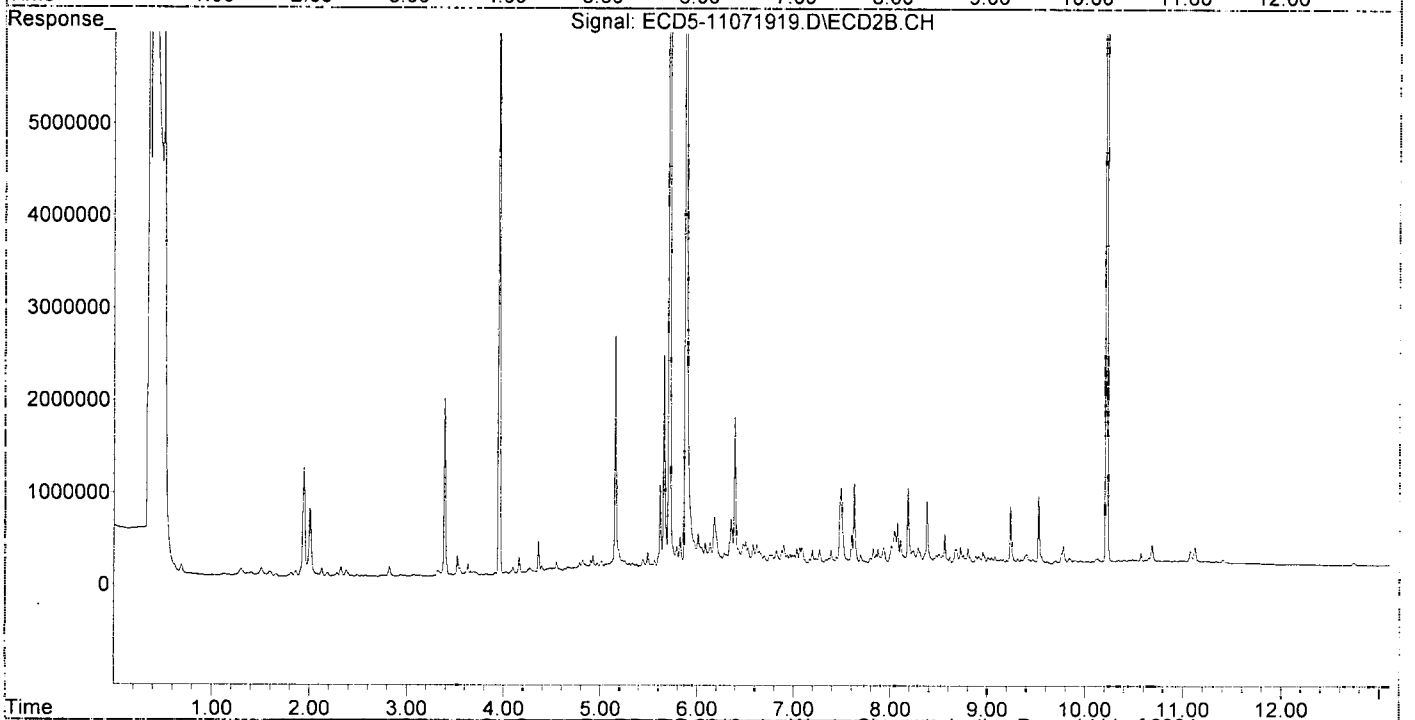
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:33
Operator : MJB
Sample : A9J0954-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:40:28 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

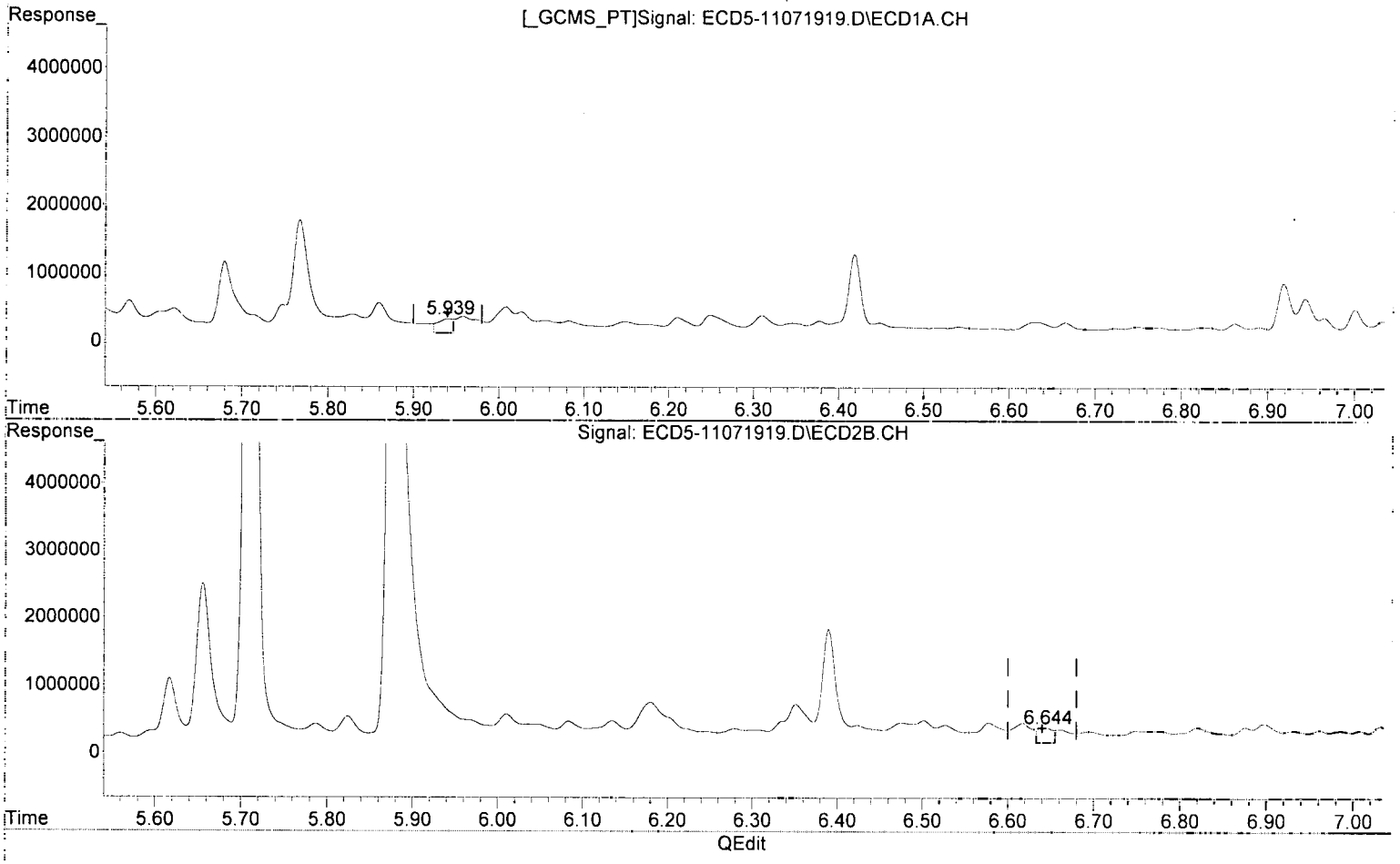




Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:33
Operator : MJB
Sample : A9J0954-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:34:05 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



(3) g-BHC

5.939min 1.000 ng/mL (m)

response 201701

MJB 11/7/19

(3) g-BHC #2

6.644min 0.596 ng/mL

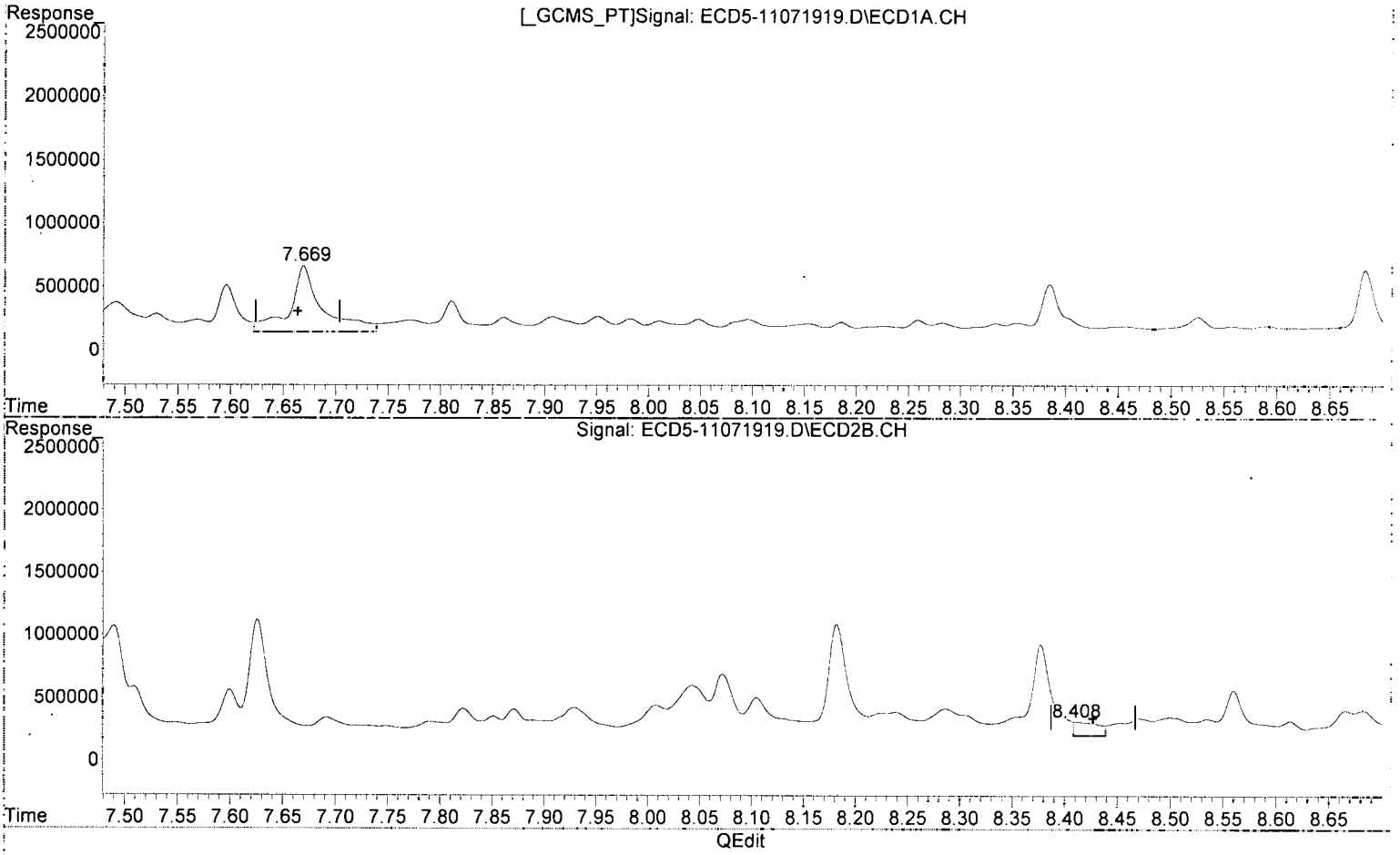
response 212689

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:33
Operator : MJB
Sample : A9J0954-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:34:05 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



(14) Endrin

7.670min 3.520 ng/mL

response 517466

MJB 11/7/19

(14) Endrin #2

8.408min 0.504 ng/mL (m)

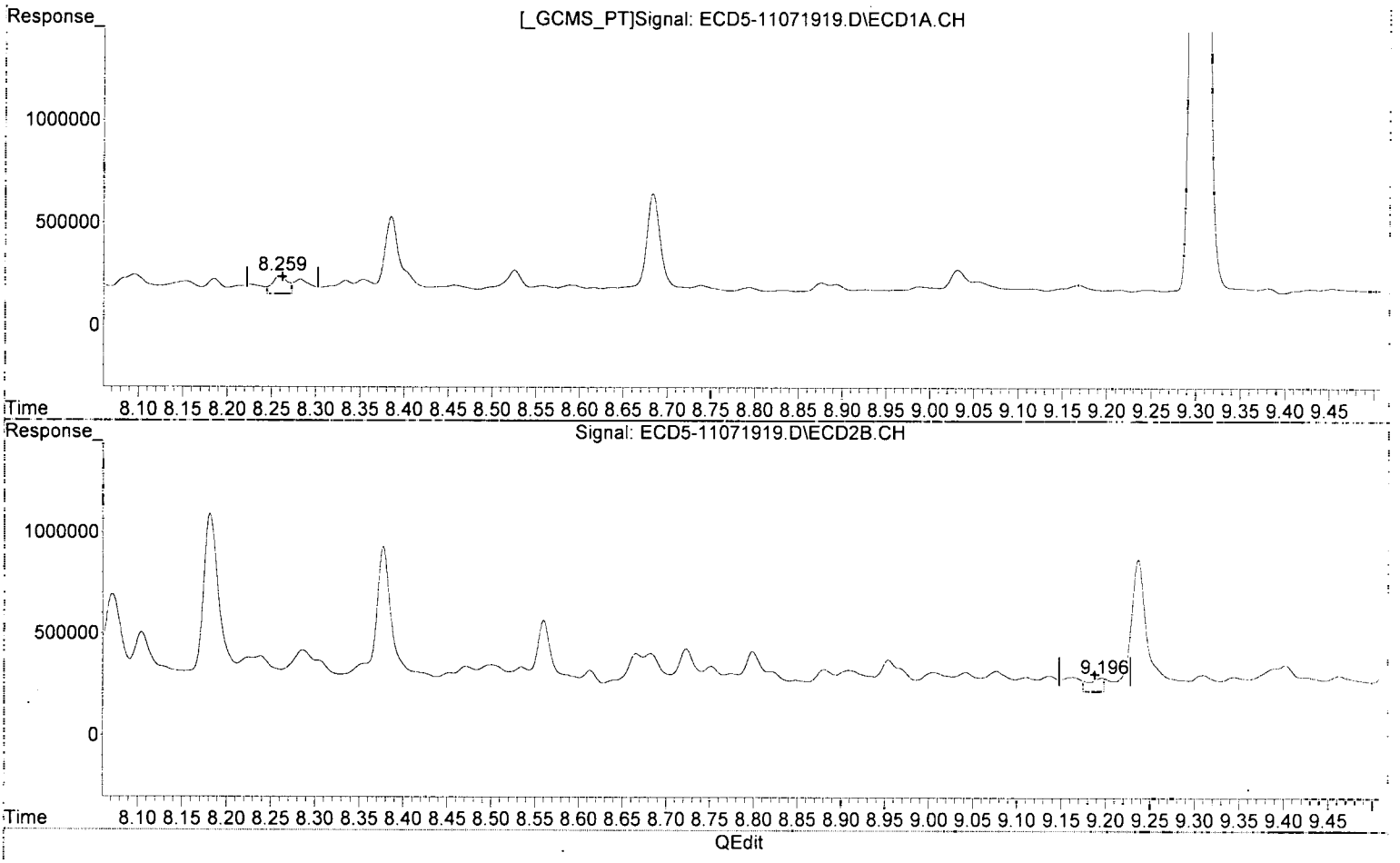
response 113798

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:33
Operator : MJB
Sample : A9J0954-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:34:05 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



(20) Methoxychlor

8.260min 1.590 ng/mL

response 93112

WP 11/7/19

(20) Methoxychlor #2

9.196min 0.683 ng/mL (m)

response 70047

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:33
Operator : MJB
Sample : A9J0954-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:34:05 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

ME
MJB 11/7/19

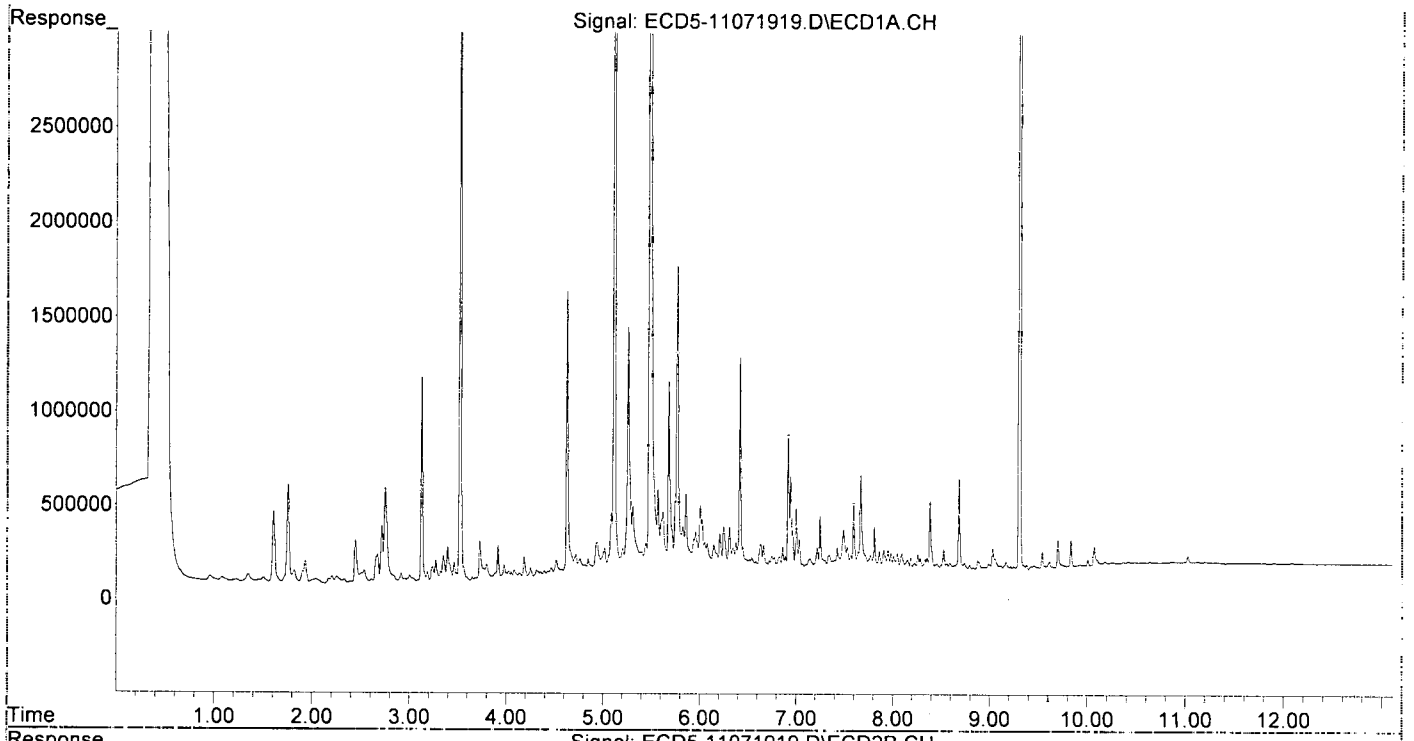
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	10681293	18539944	64.355	63.197	
22)	S	DCBP (S)	9.304	10.219	13227696	19560785	93.748	108.814	
		Target Compounds							
2)		a-BHC	5.680f	6.306	1023564	179854	4.463	0.438	#
3)		g-BHC	5.958	6.644	236687	212689	1.173	0.596	#
4)		b-BHC	6.008	6.694	376425	156159	4.165	0.987	#
5)		Heptachlor	6.346	7.007	146431	163875	0.808	0.536	
6)		d-BHC	6.149	6.961	165167	175103	0.840	0.497	#
7)		Aldrin	6.582	7.269	72307	218930	0.366	0.665	#
8)		Heptachlo...	7.032	7.692	185050	151002	1.005	0.502	#
9)		trans-Chl...	7.143	7.851	82937	158311	0.449	0.505	
10)		cis-Chlor...	7.248	7.929f	305125	227362	1.676	0.781	#
11)		Endosulfa...	7.347	8.008	97814	247375	0.575	0.899	#
12)		4,4'-DDE	0.000	8.072	0	495805	N.D.	1.596	#
13)		Dieldrin	7.491	8.182f	232421	890630	1.211	2.928	#
14)		Endrin	7.670	8.453f	517466	102646	3.520	0.455	#
15)		4,4'-DDD	0.000	8.471	0	134408	N.D.	0.525	#
16)		Endosulfa...	7.811	8.560	241473	360082	1.681	1.561	
17)		4,4'-DDT	7.908	8.723	118891	217760	0.994	1.229	
18)		Endrin Al...	8.095	8.799	97889	203308	BelowCal	0.264	
19)		Endosulfa...	8.385f	9.006	376680	99012	2.431	0.397	#
20)		Methoxychlor	8.260	9.196	93112	69227	1.590	0.673	#
21)		Endrin Ke...	8.590	9.402	42555	127904	0.255	0.497	#
23)		Hexachlor...	2.913	3.388f	45905	1924735	0.251	5.120	#
24)		Hexachlor...	5.480	6.180	6413269	591501	36.378	1.883	#
25)		Oxychlordane	7.001f	7.626	354887	933055	2.157	3.407	#
26)		2,4'-DDE	7.032f	7.851	185050	158311	1.443	0.746	#
27)		trans-Non...	7.217	7.929	139257	227362	0.461	0.754	#
28)		2,4'-DDD	7.426	8.225	136124	181207	1.193	0.959	
29)		2,4'-DDT	7.597	8.453	364643	102646	3.324	0.576	#
30)		cis-Nonac...	7.670f	8.471	517466	134408	2.492	0.401	#
31)		Mirex	8.354	9.402f	70608	127904	0.563	0.687	
32)		Chlordane...	7.248	7.929	305125	227362	15.497	6.283	#
33)		Chlordane...	7.347	8.043	97814	406430	3.903	13.385	#
34)		Chlordane...	7.861	8.723	112815	217760	19.514	24.288	
35)		Chlordane...	3.350	3.318	133843	64574	NoCal	NoCal	
36)		Toxaphene...	7.426f	8.377	136124	726395	151.984	276.800	#
37)		Toxaphene...	7.670f	8.723	517466	217760	320.424	66.168	#
38)		Toxaphene...	8.010	8.752	85545	131850	25.403	26.015	
39)		Toxaphene...	8.260	8.799	93112	203308	28.737	24.349	
40)		Toxaphene...	8.457	9.006	42187	99012	17.599	21.245	
41)		Toxaphene...	8.526	9.345f	116511	71515	36.817	15.055	#
42)		Toxaphene...	3.350	3.318f	133843	64574	NoCal	NoCal	

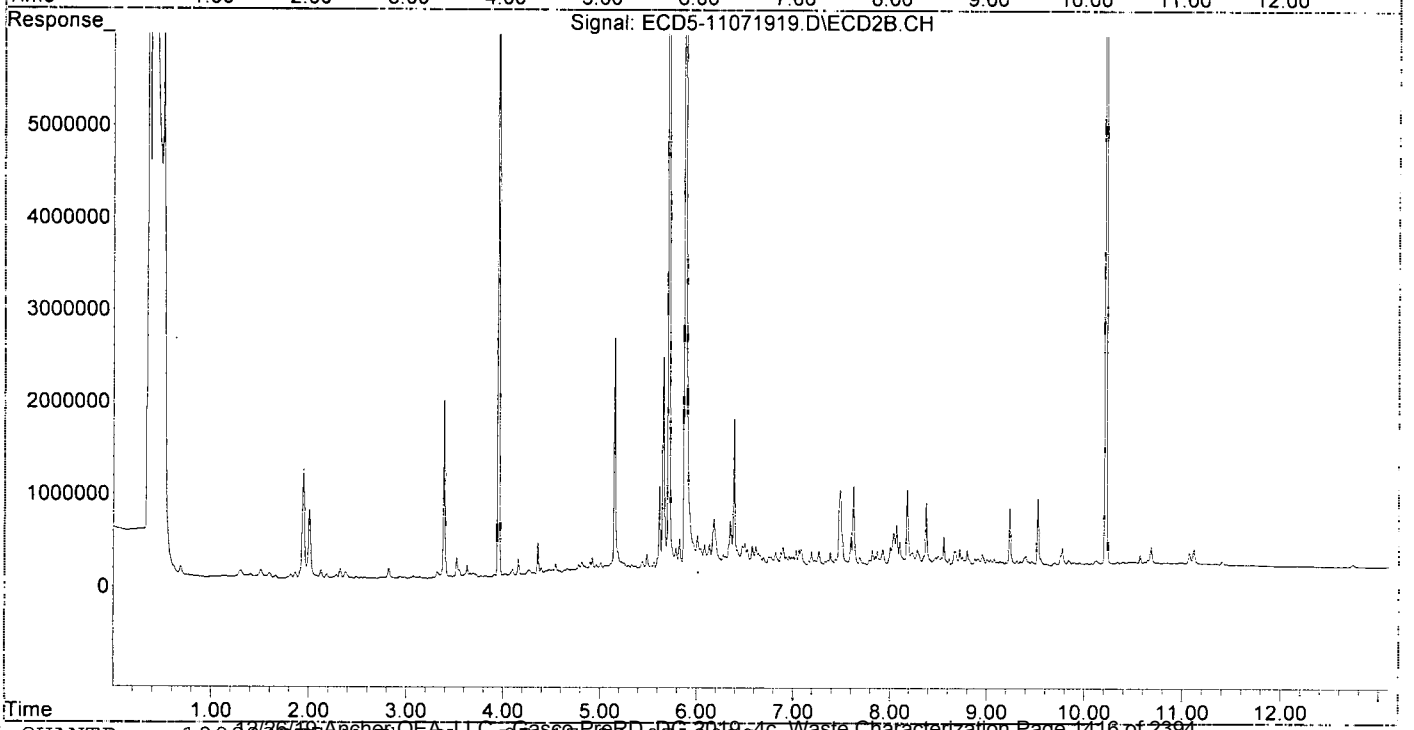
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:33
Operator : MJB
Sample : A9J0954-01
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:34:05 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 (QT Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:50
Operator : MJB
Sample : A9J0954-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:43:05 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

M/B 11/7/19

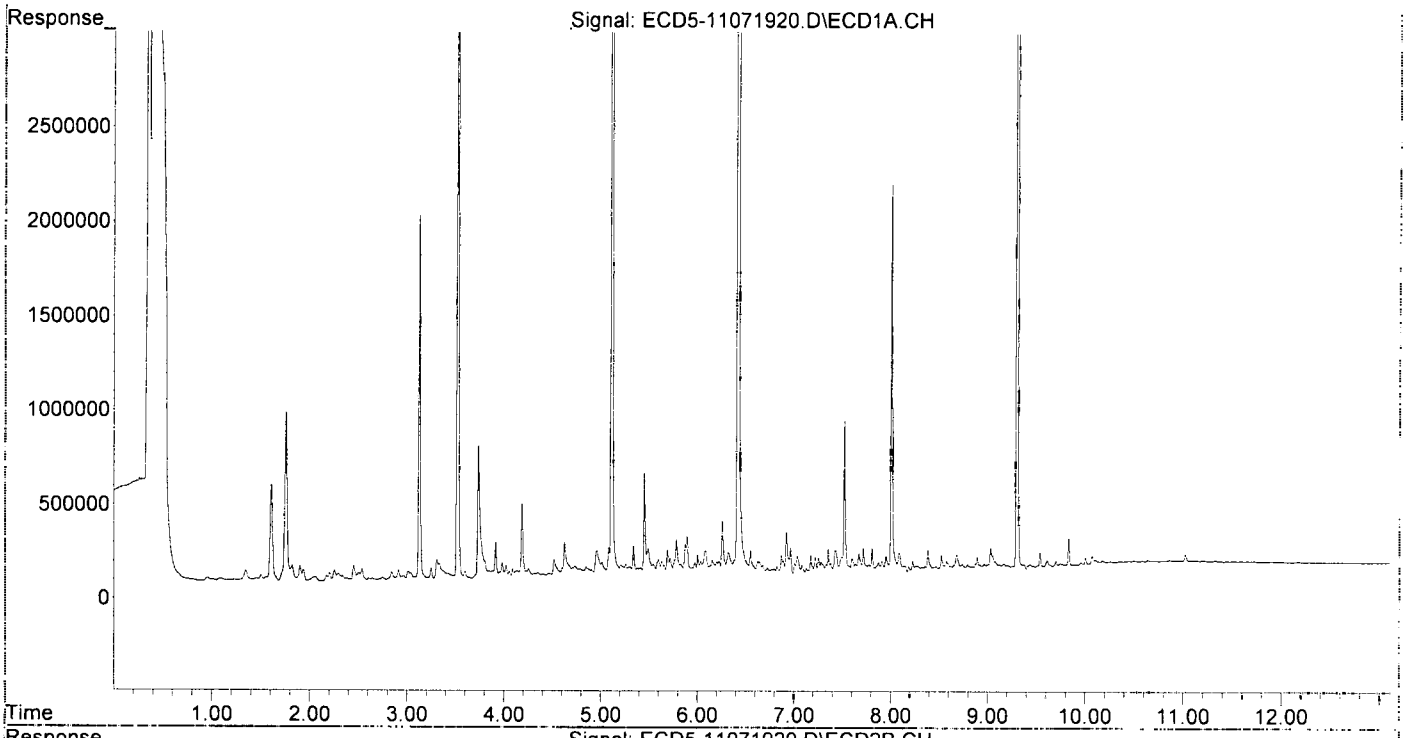
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.113	5.709	11596977	21075644	69.872	71.841	
22)	S	DCBP (S)	9.302	10.218	13110007	19849809	92.914	110.422	
		Target Compounds							
2)		a-BHC	5.657	6.321	55995	43254	0.244	0.105	#
3)		g-BHC	5.956	6.649	37977	91670	0.188m	0.257	
4)		b-BHC	6.035	6.697	69531	76071	0.769	0.481	
5)		Heptachlor	6.323f	7.026	116925	139206	0.645	0.455	
6)		d-BHC	6.157	6.986f	78305	100462	0.398	0.285	
7)		Aldrin	6.551f	7.271	124024	174482	0.628	0.530	
8)		Heptachlo...	7.035	7.689	89547	322054	0.486	1.070	#
9)		trans-Chl...	7.128	7.836	24730	373548	0.134	1.192	#
10)		cis-Chlor...	7.221	7.932f	83708	181304	0.460	0.623	
11)		Endosulfa...	7.357f	8.011	127274	156222	0.748	0.568	
12)		4,4'-DDE	7.283f	8.074	58000	347475	0.308	1.118	#
13)		Dieldrin	7.524f	8.212	790125	155638	4.116	0.512	#
14)		Endrin	7.675	0.000	99221	0	0.675	N.D.	#
15)		4,4'-DDD	7.719	8.477	125885	208579	0.801	0.814	
16)		Endosulfa...	7.810	8.559	125462	184148	0.874	0.799	
17)		4,4'-DDT	7.911	8.723	55938	94990	0.468	0.515	
18)		Endrin Al...	8.088	8.797	96612	92435	BelowCal	BelowCal	
19)		Endosulfa...	8.386f	9.030f	111023	75844	0.716	0.304	#
20)		Methoxychlor	8.277	9.173	30017	27173	0.512	0.151m	#
21)		Endrin Ke...	8.575f	9.402	50396	113131	0.302	0.440	#
23)		Hexachlor...	2.910	3.386f	52955	3426196	0.290	9.114	#
24)		Hexachlor...	5.490	6.193	143279	197606	0.813	0.629	
25)		Oxychlordane	6.966	7.630	133813	594463	0.813	2.170	#
26)		2,4'-DDE	7.035f	7.836	89547	373548	0.698	1.761	#
27)		trans-Non...	7.221	7.914	83708	159011	0.151	0.527	#
28)		2,4'-DDD	7.430	8.212	118455	155638	1.038	0.824	
29)		2,4'-DDT	7.603	8.477f	72771	208579	0.663	1.170	#
30)		cis-Nonac...	7.675f	8.477	99221	208579	0.478	0.622	
31)		Mirex	8.356	9.402f	24985	113131	0.199	0.608	#
32)		Chlordane...	7.221	7.932	83708	181304	4.251	5.011	
33)		Chlordane...	7.357f	8.057	127274	239531	5.078	7.889	#
34)		Chlordane...	7.874	8.723	49727	94990	8.602	10.595	
35)		Chlordane...	3.331f	3.335	83598	195739	NoCal	NoCal	
36)		Toxaphene...	7.381	8.379	49003	157158	54.713	59.887	
37)		Toxaphene...	7.675	8.723	99221	94990	61.440	28.863	#
38)		Toxaphene...	8.010	8.756	2042866	130425	606.644	25.733	#
39)		Toxaphene...	8.229	8.797	53338	92435	16.461	11.070	
40)		Toxaphene...	8.471	8.969f	22262	30761	9.287	6.601	
41)		Toxaphene...	8.526	9.339f	82164	59600	25.963	12.547	#
42)		Toxaphene...	3.331f	3.335	83598	195739	NoCal	NoCal	

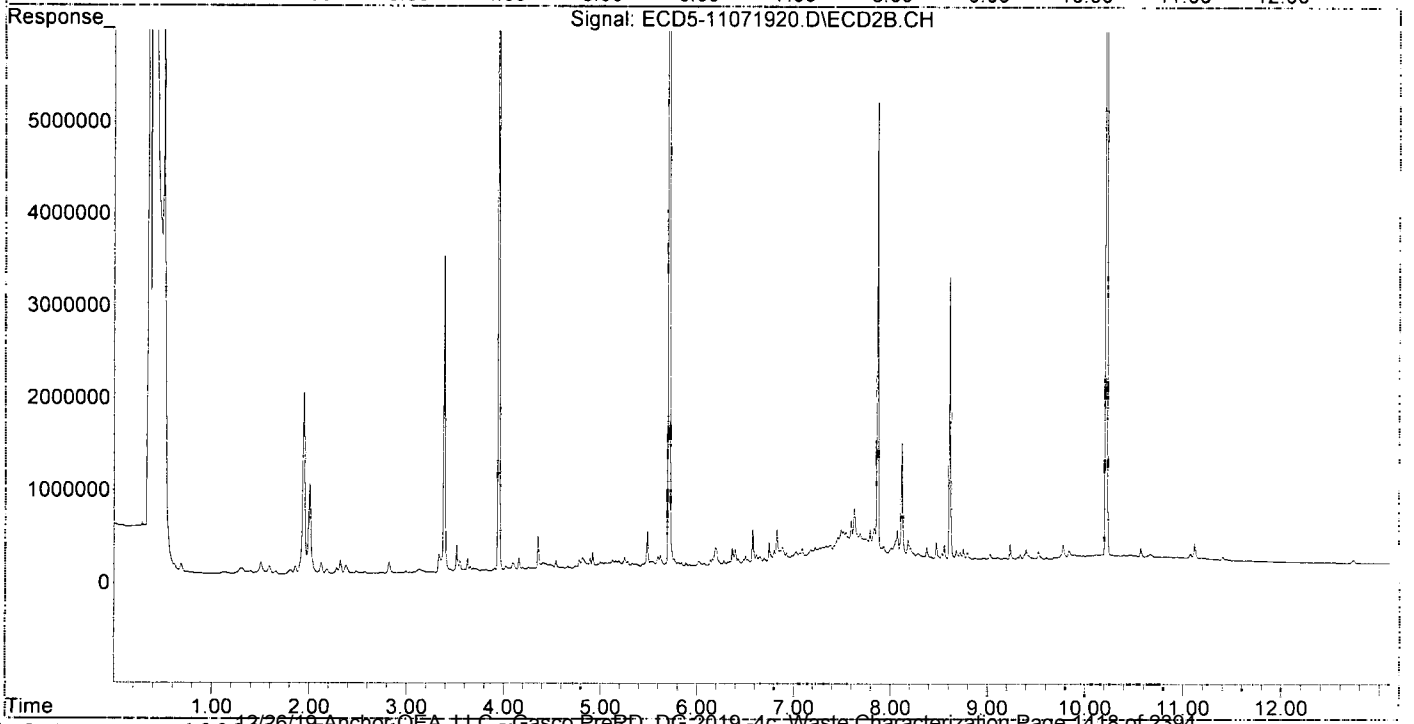
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:50
Operator : MJB
Sample : A9J0954-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:43:05 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

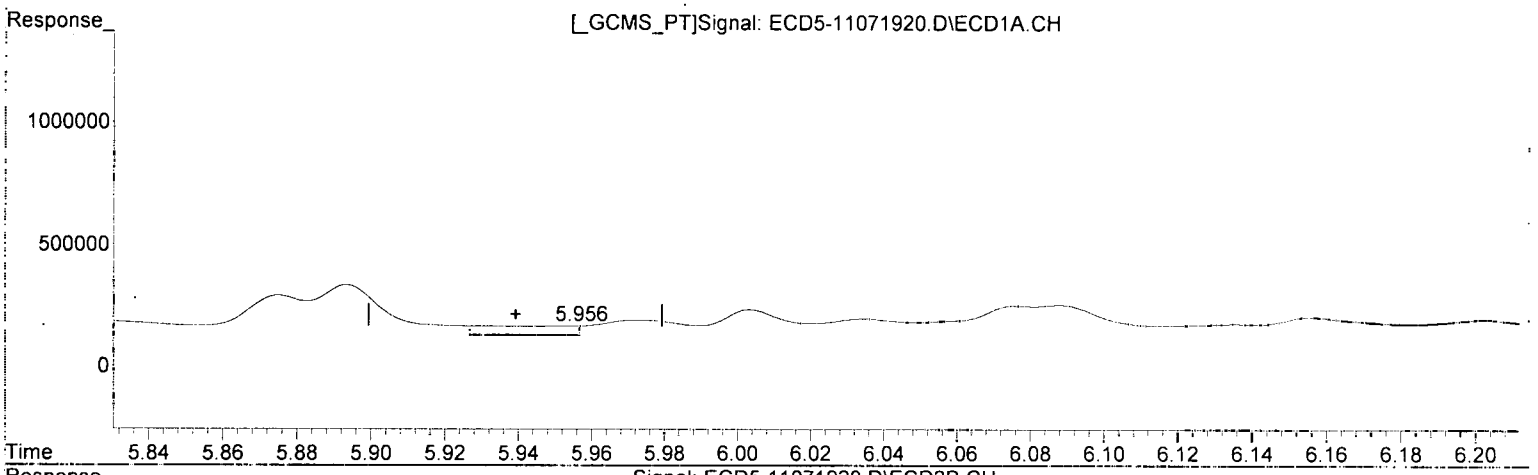


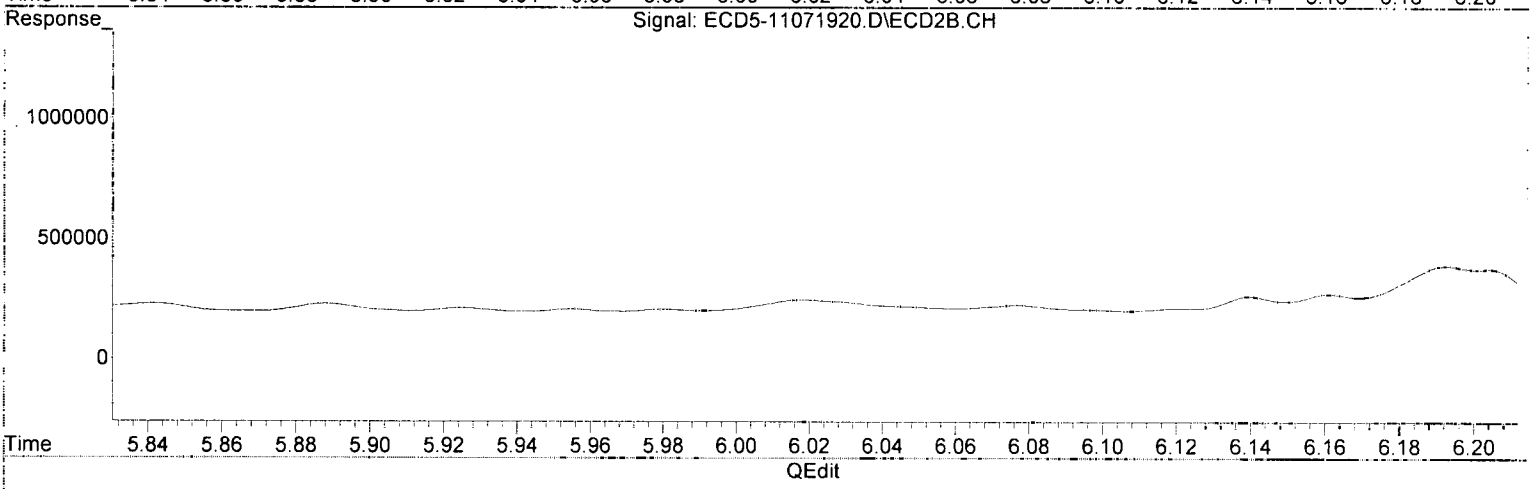


Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:50
Operator : MJB
Sample : A9J0954-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:34:11 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





(3) g-BHC

5.956min 0.188 ng/mL (m)

response 37977

MJB 11/7/19

(3) g-BHC #2

6.649min 0.257 ng/mL

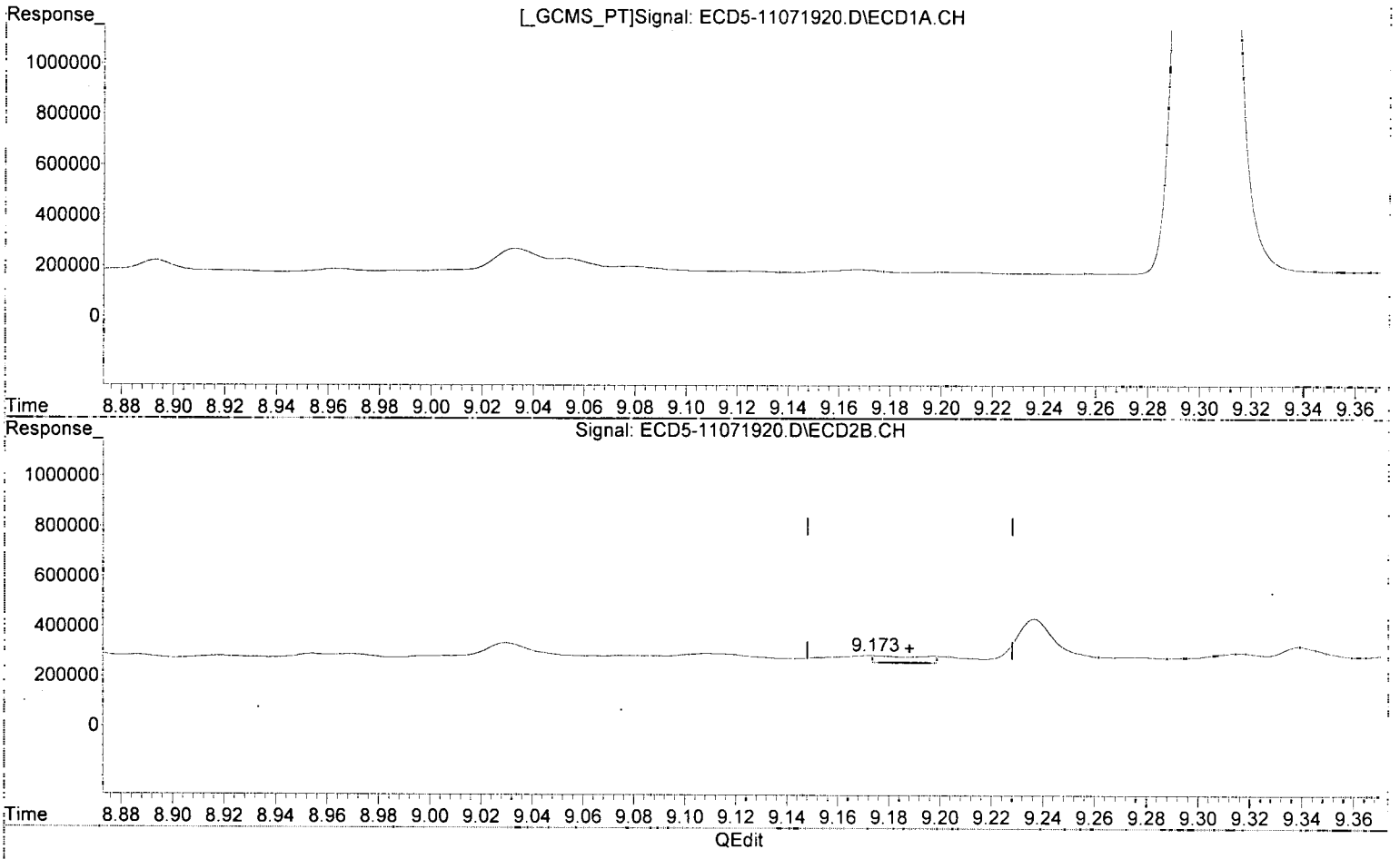
response 91670

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:50
Operator : MJB
Sample : A9J0954-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:34:11 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

8.277min 0.512 ng/mL

response 30017

MJB 11/7/19

(20) Methoxychlor #2

9.173min 0.151 ng/mL (m)

response 27173

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:50
Operator : MJB
Sample : A9J0954-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:34:11 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

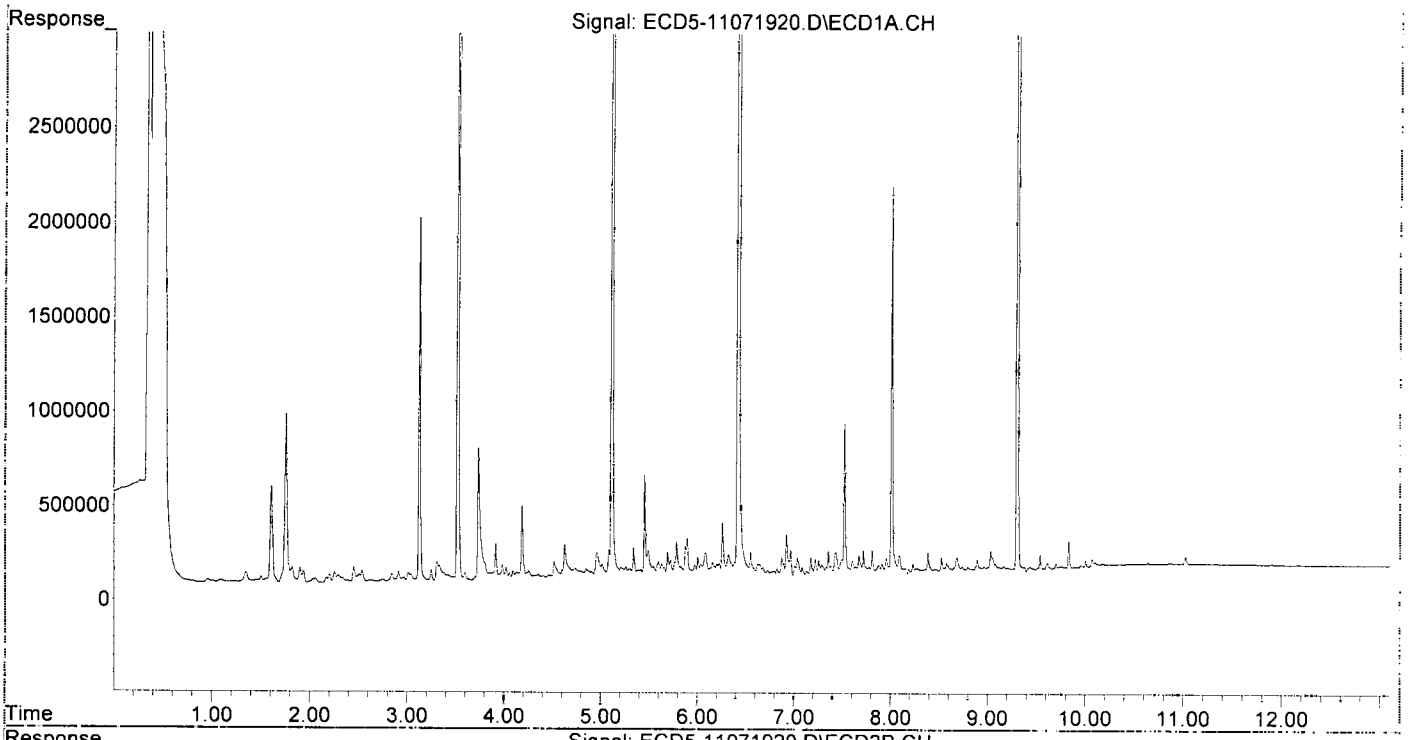
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.113	5.709	11596977	21075644	69.872	71.841	
22)	S	DCBP (S)	9.302	10.218	13110007	19849809	92.914	110.422	
		Target Compounds							
2)		a-BHC	5.657	6.321	55995	43254	0.244	0.105	#
3)		g-BHC	5.973f	6.649	63255	91670	0.313	0.257	
4)		b-BHC	6.035	6.697	69531	76071	0.769	0.481	
5)		Heptachlor	6.323f	7.026	116925	139206	0.645	0.455	
6)		d-BHC	6.157	6.986f	78305	100462	0.398	0.285	
7)		Aldrin	6.551f	7.271	124024	174482	0.628	0.530	
8)		Heptachlo...	7.035	7.689	89547	322054	0.486	1.070	#
9)		trans-Chl...	7.128	7.836	24730	373548	0.134	1.192	#
10)		cis-Chlor...	7.221	7.932f	83708	181304	0.460	0.623	
11)		Endosulfa...	7.357f	8.011	127274	156222	0.748	0.568	
12)		4,4'-DDE	7.283f	8.074	58000	347475	0.308	1.118	#
13)		Dieldrin	7.524f	8.212	790125	155638	4.116	0.512	#
14)		Endrin	7.675	0.000	99221	0	0.675	N.D.	#
15)		4,4'-DDD	7.719	8.477	125885	208579	0.801	0.814	
16)		Endosulfa...	7.810	8.559	125462	184148	0.874	0.799	
17)		4,4'-DDT	7.911	8.723	55938	94990	0.468	0.515	
18)		Endrin Al...	8.088	8.797	96612	92435	BelowCal	BelowCal	
19)		Endosulfa...	8.386f	9.030f	111023	75844	0.716	0.304	#
20)		Methoxychlor	8.277	9.198	30017	22788	0.512	0.097	#
21)		Endrin Ke...	8.575f	9.402	50396	113131	0.302	0.440	#
23)		Hexachlor...	2.910	3.386f	52955	3426196	0.290	9.114	#
24)		Hexachlor...	5.490	6.193	143279	197606	0.813	0.629	
25)		Oxychlordane	6.966	7.630	133813	594463	0.813	2.170	#
26)		2,4'-DDE	7.035f	7.836	89547	373548	0.698	1.761	#
27)		trans-Non...	7.221	7.914	83708	159011	0.151	0.527	#
28)		2,4'-DDD	7.430	8.212	118455	155638	1.038	0.824	
29)		2,4'-DDT	7.603	8.477f	72771	208579	0.663	1.170	#
30)		cis-Nonac...	7.675f	8.477	99221	208579	0.478	0.622	
31)		Mirex	8.356	9.402f	24985	113131	0.199	0.608	#
32)		Chlordane...	7.221	7.932	83708	181304	4.251	5.011	
33)		Chlordane...	7.357f	8.057	127274	239531	5.078	7.889	#
34)		Chlordane...	7.874	8.723	49727	94990	8.602	10.595	
35)		Chlordane...	3.331f	3.335	83598	195739	NoCal	NoCal	
36)		Toxaphene...	7.381	8.379	49003	157158	54.713	59.887	
37)		Toxaphene...	7.675	8.723	99221	94990	61.440	28.863	#
38)		Toxaphene...	8.010	8.756	2042866	130425	606.644	25.733	#
39)		Toxaphene...	8.229	8.797	53338	92435	16.461	11.070	
40)		Toxaphene...	8.471	8.969f	22262	30761	9.287	6.601	
41)		Toxaphene...	8.526	9.339f	82164	59600	25.963	12.547	#
42)		Toxaphene...	3.331f	3.335	83598	195739	NoCal	NoCal	

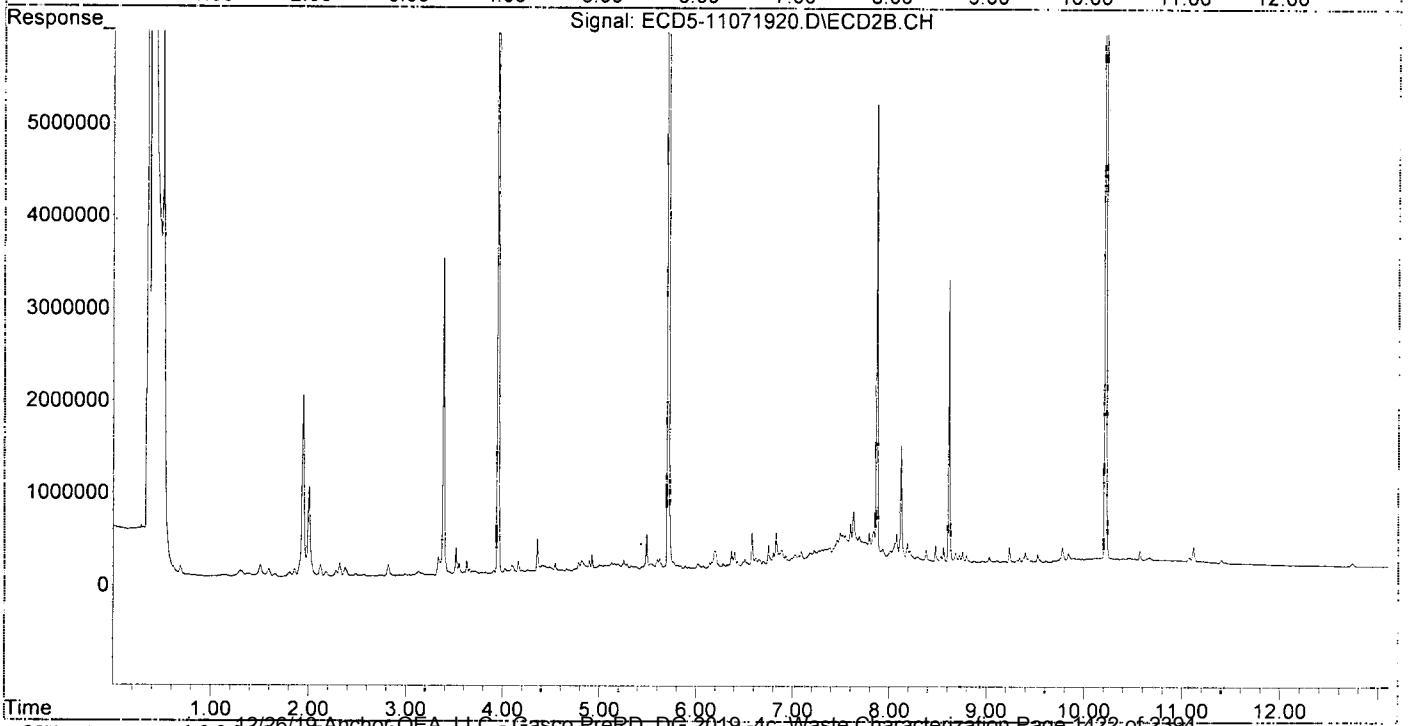
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-11\9K07024\
Data File : ECD5-11071920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 07 Nov 2019 16:50
Operator : MJB
Sample : A9J0954-02
Misc : 1x, 1311/8081B TCLP Pest Reg List
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 07 17:34:11 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

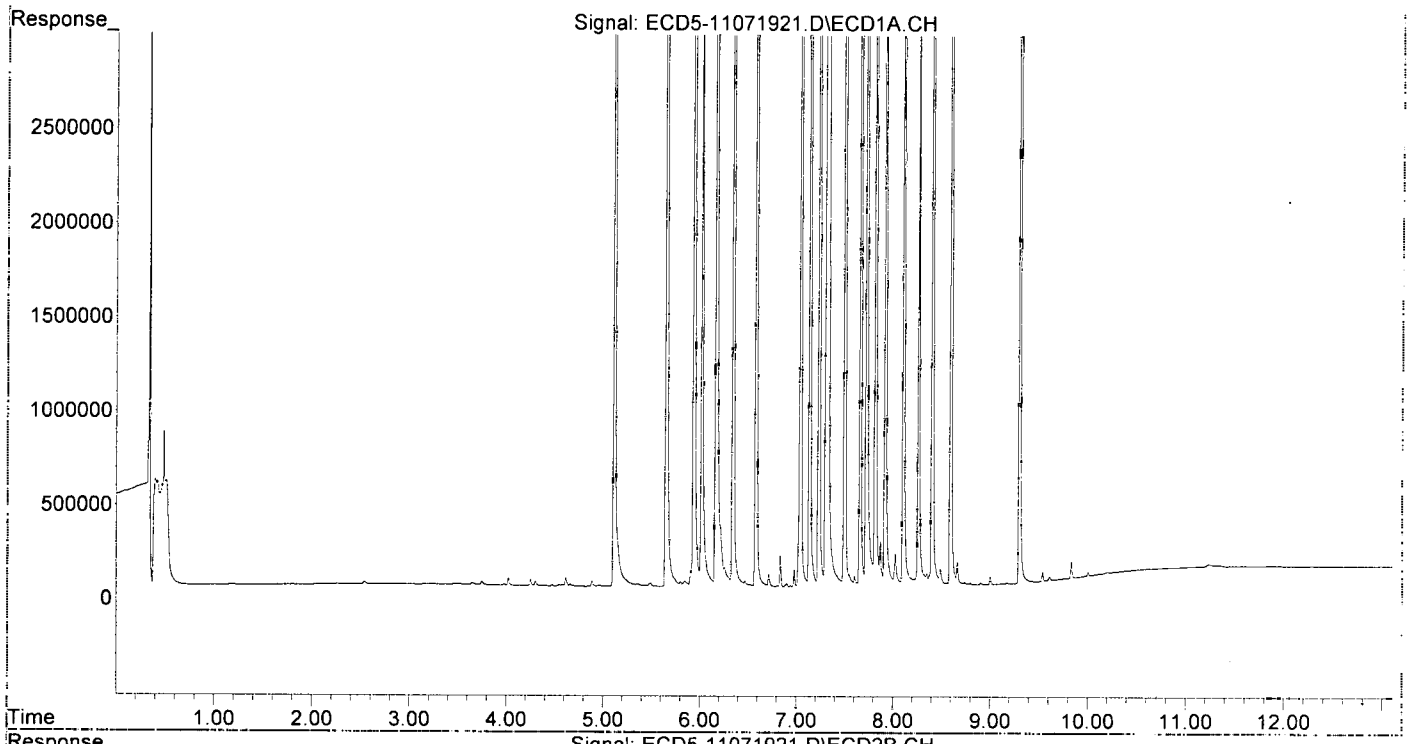
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	8822125	13596030	53.153	46.345	
22)	S	DCBP (S)	9.304	10.219	7017114	10362230	49.732	57.644	
		Target Compounds							
2)		a-BHC	5.654	6.320	12155561	21585416	53.005	52.604	
3)		g-BHC	5.938	6.637	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.	

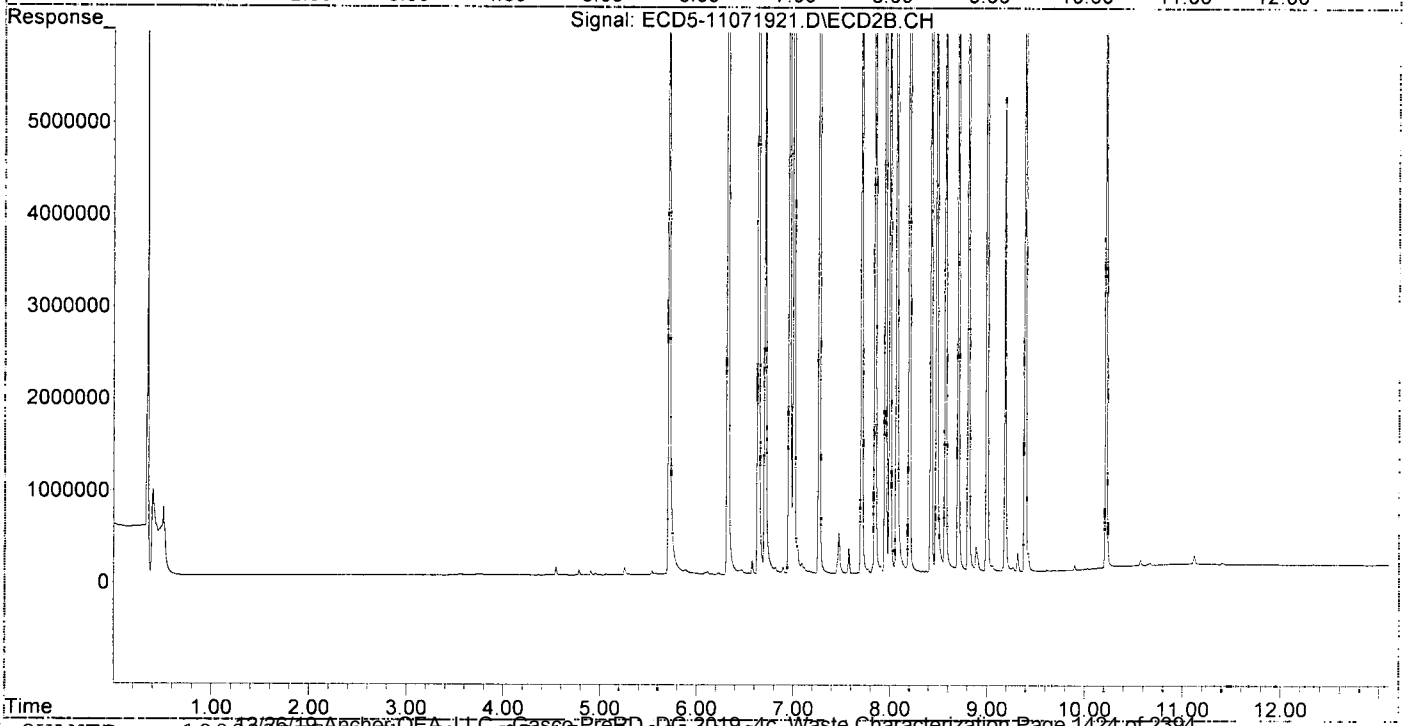
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

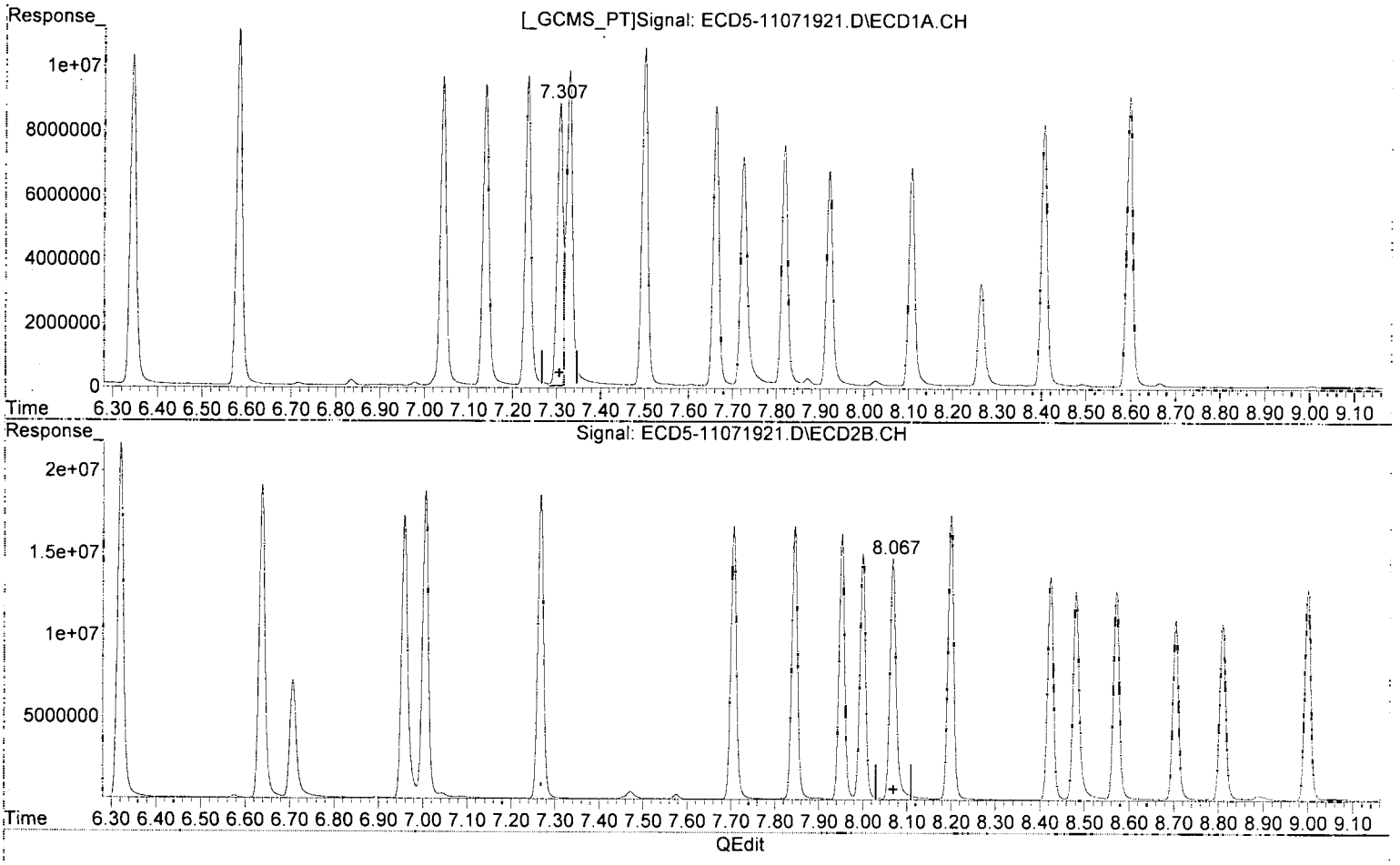




Quantitation Report (Qedit)

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

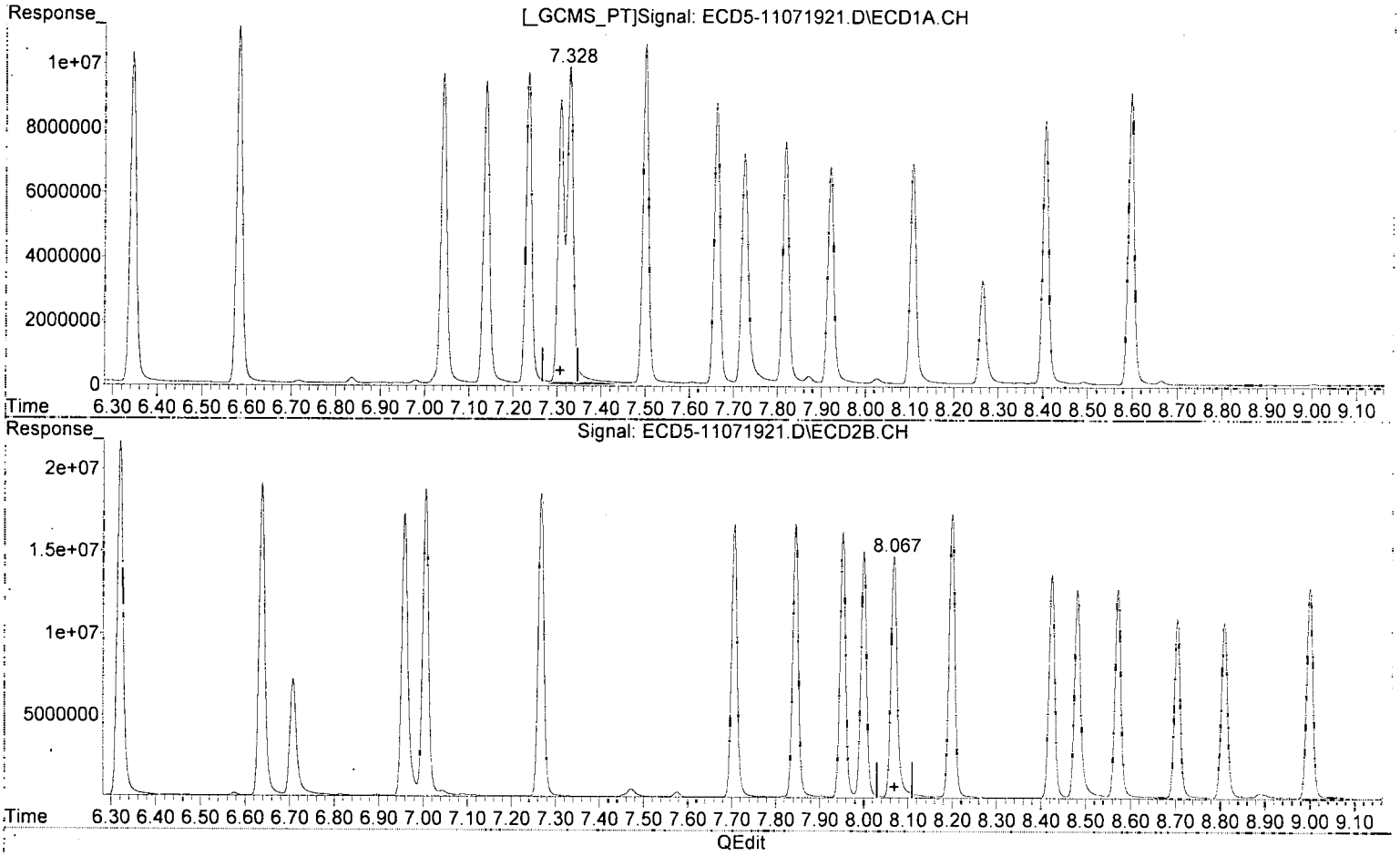
response 14659380

(+) = 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

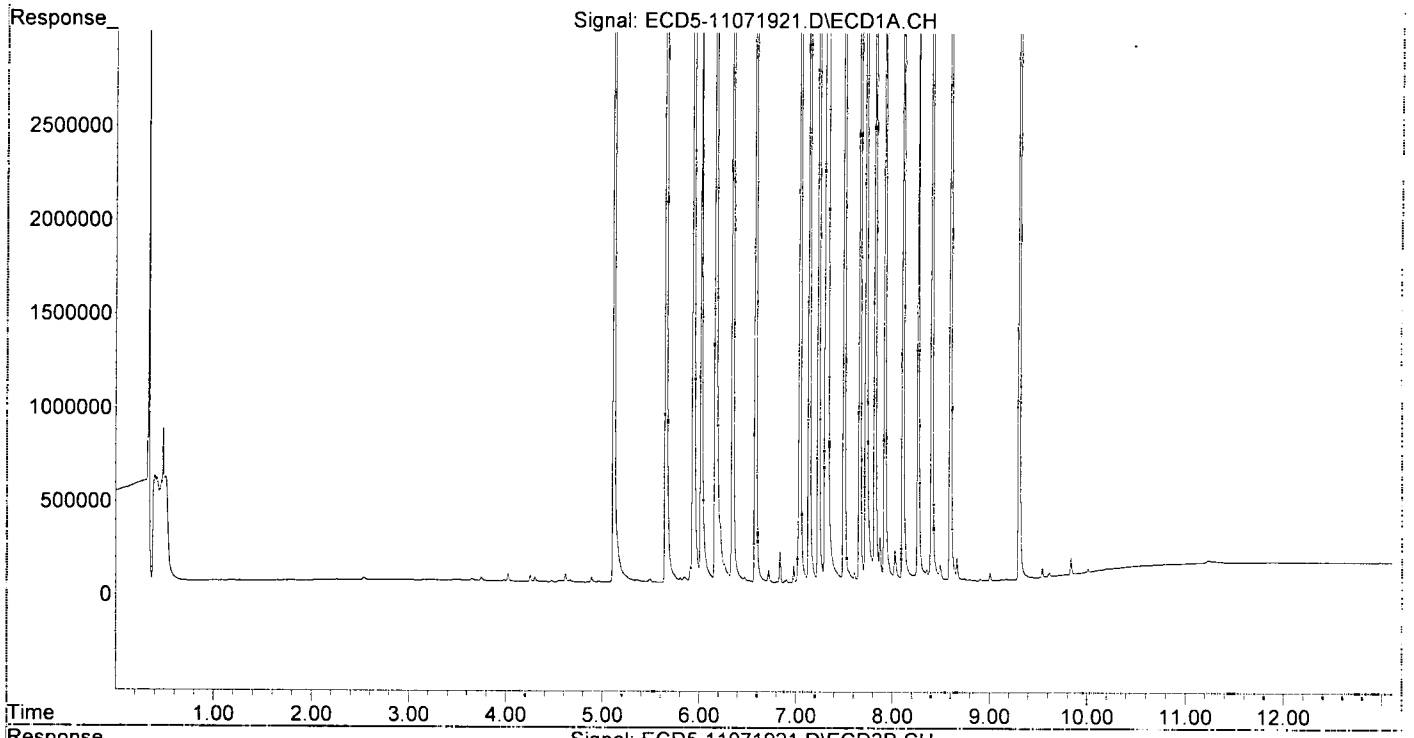
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	8822125	13596030	53.153	46.345	
22)	S	DCBP (S)	9.304	10.219	7017114	10362230	49.732	57.644	
		Target Compounds							
2)		a-BHC	5.654	6.320	12155561	21585416	53.005	52.604	
3)		g-BHC	5.938	6.637	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.	

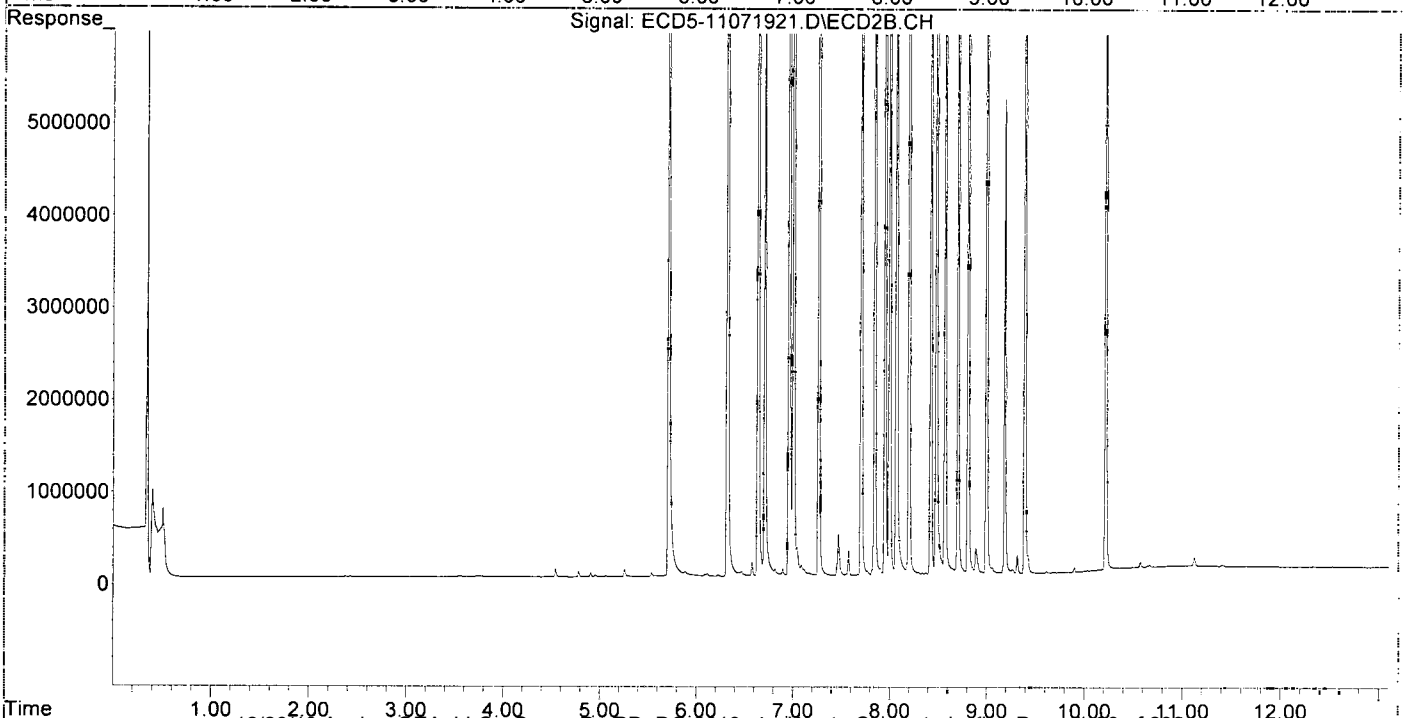
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

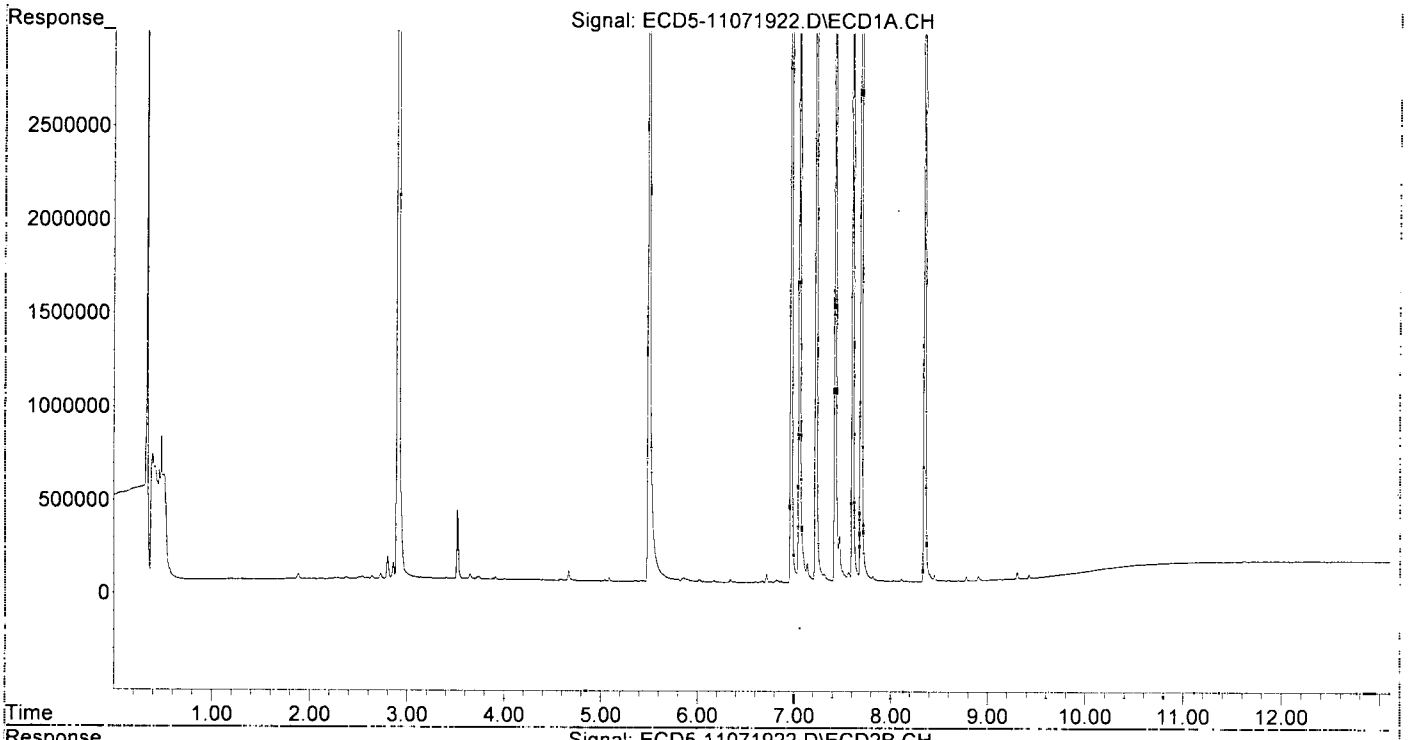
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.088f	0.000	17266	0	0.104	N.D.	#
22)	S	DCBP (S)	9.305	10.220	34189	55836	0.242	0.311	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.021	6.710	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.	

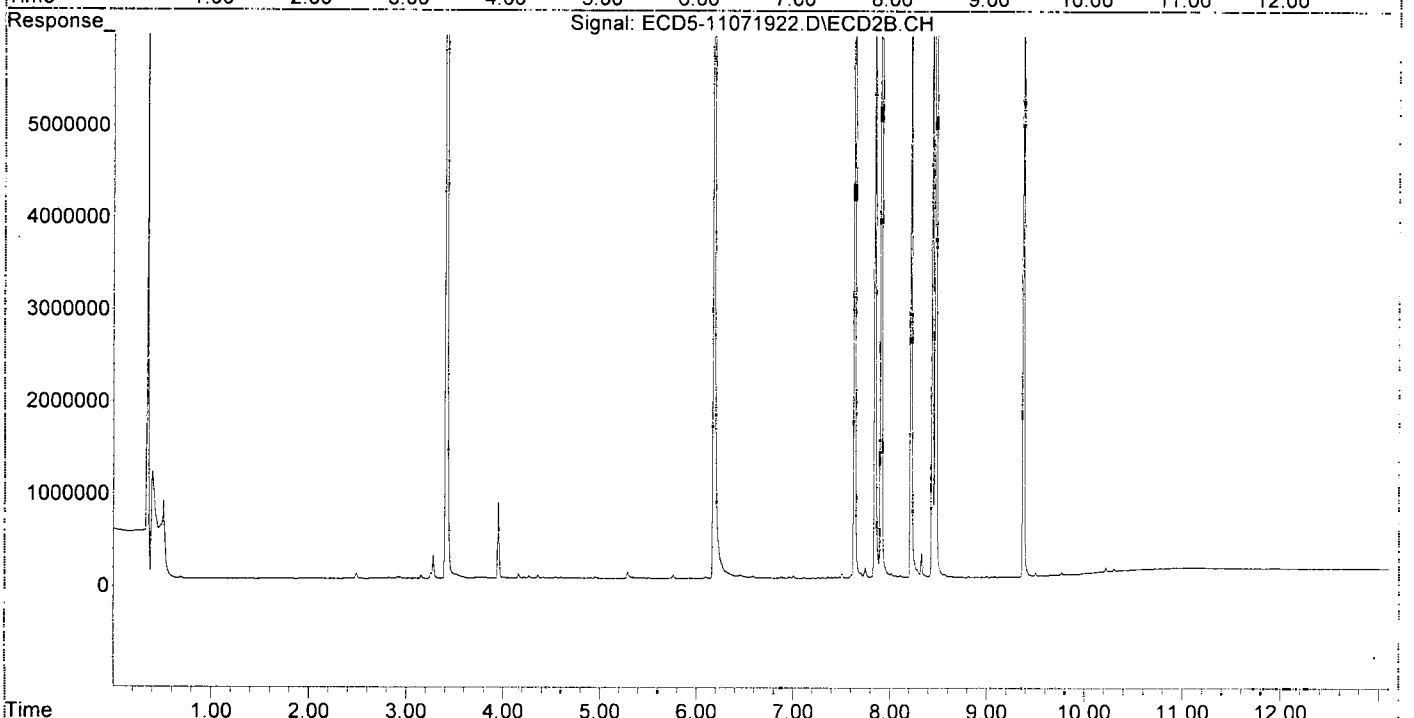
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

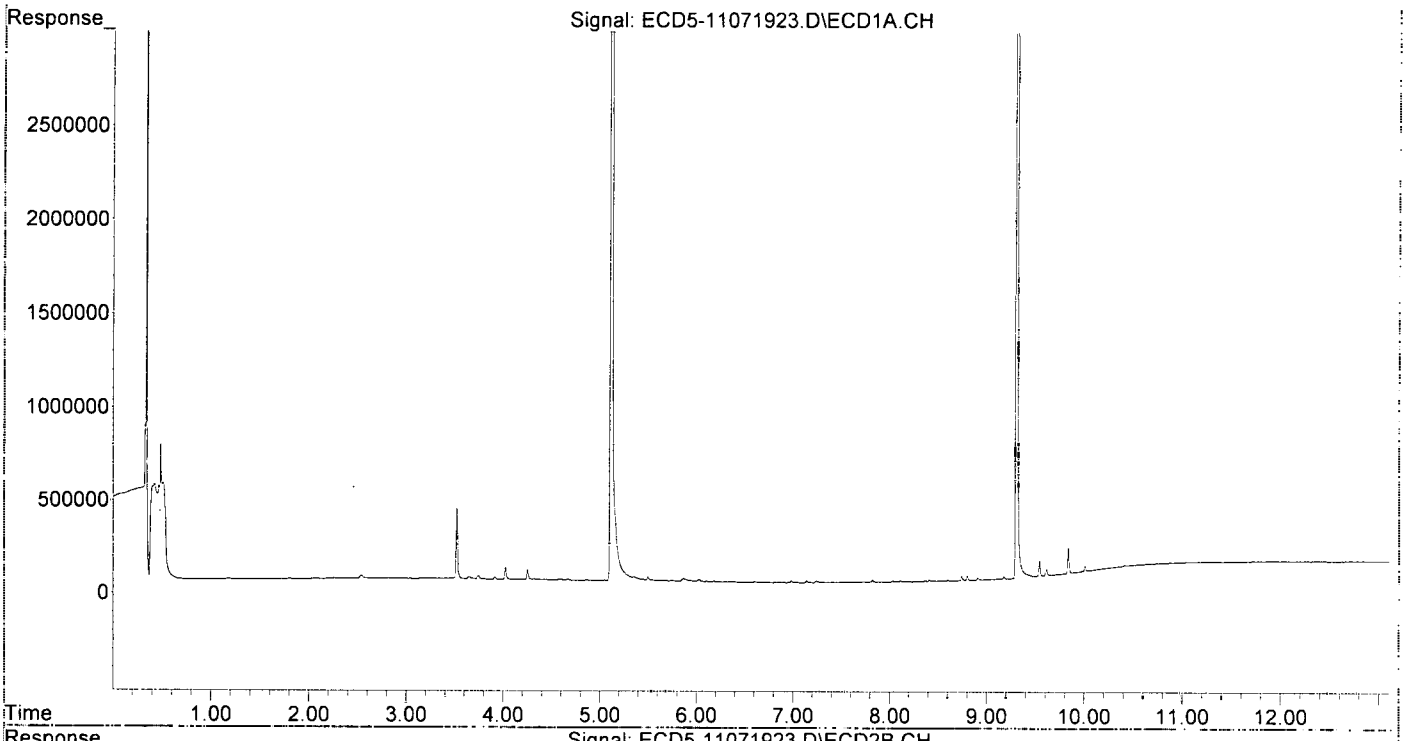
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	15194402	24885013	91.546	84.826	
22)	S	DCBP (S)	9.305	10.219	12404251	18940744	87.912	105.365	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
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.	

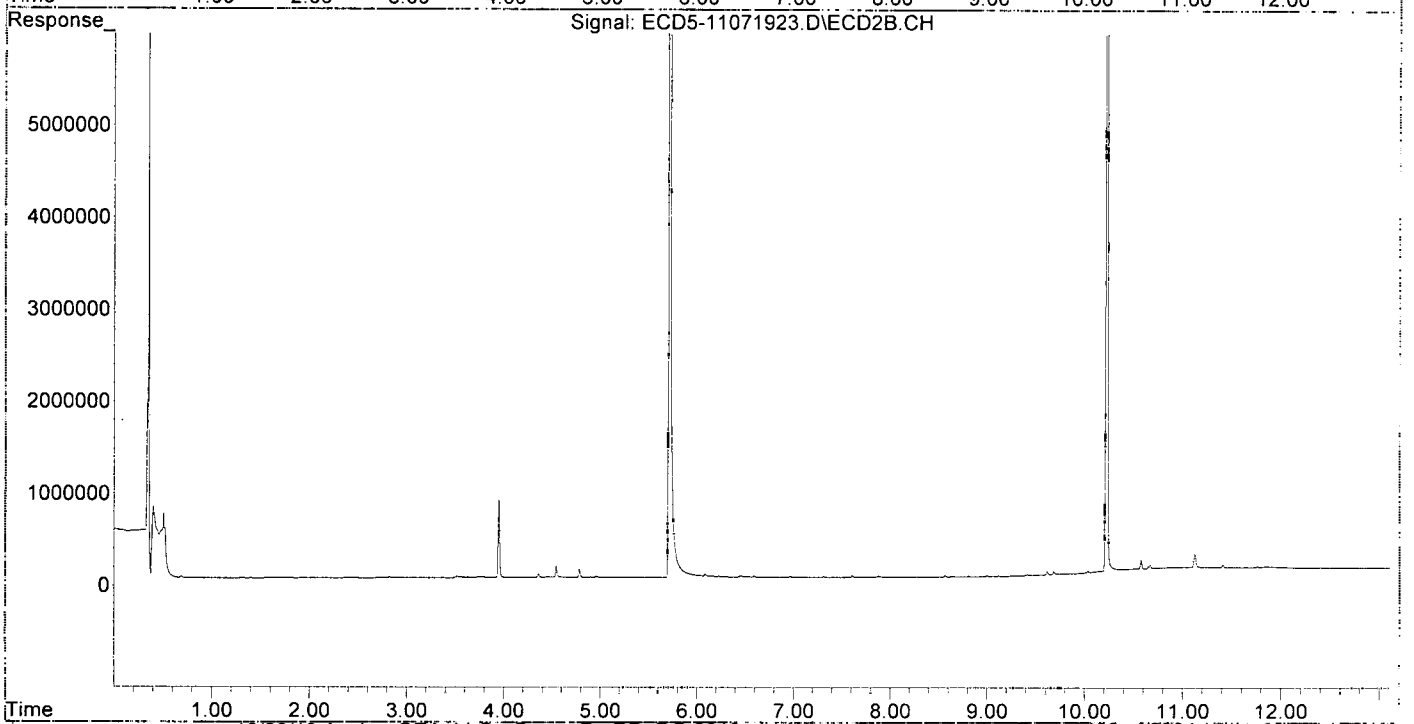
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

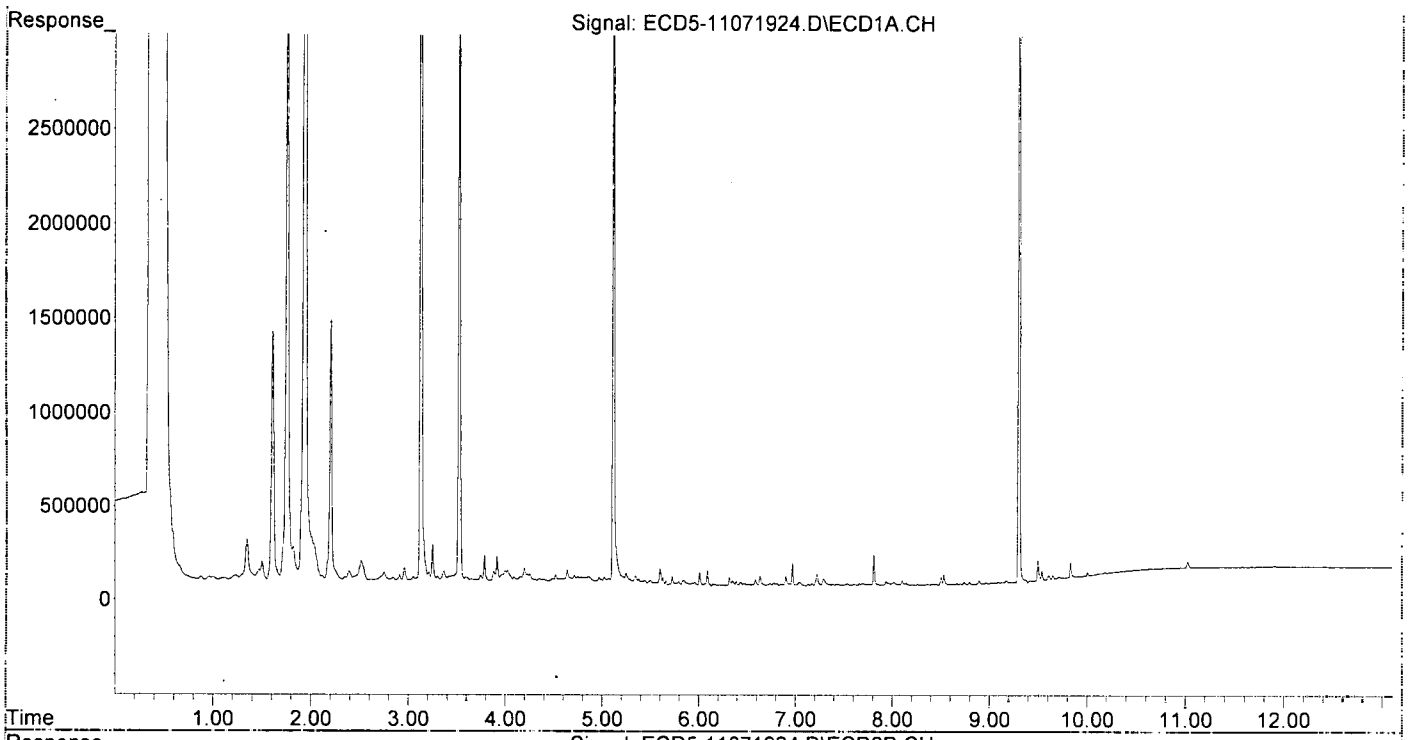
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.712	5226991	8099431	31.493	27.609	
22)	S	DCBP (S)	9.302	10.217	6451759	9204531	45.725	51.204	
		Target Compounds							
2)		a-BHC	5.661	6.331	21795	31649	0.095	0.077	
3)		g-BHC	5.957	6.643	19594	7009	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	

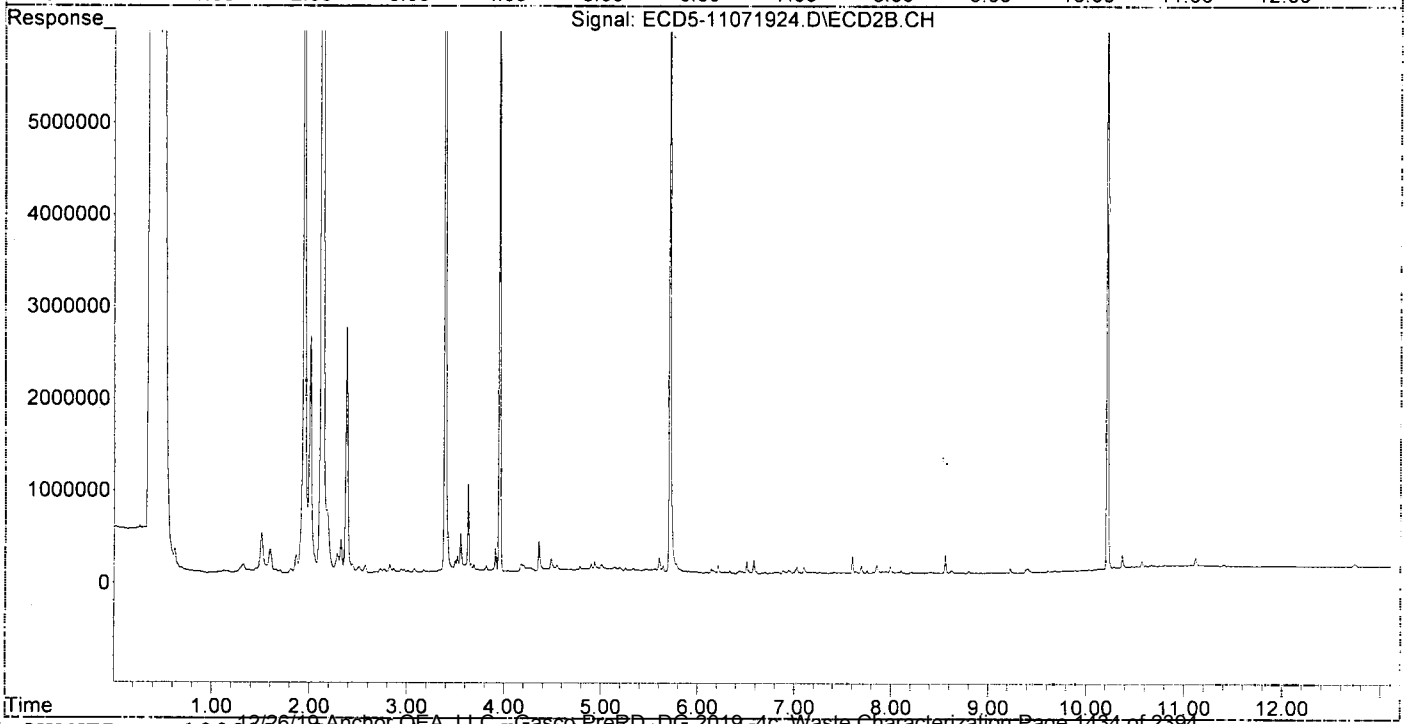
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

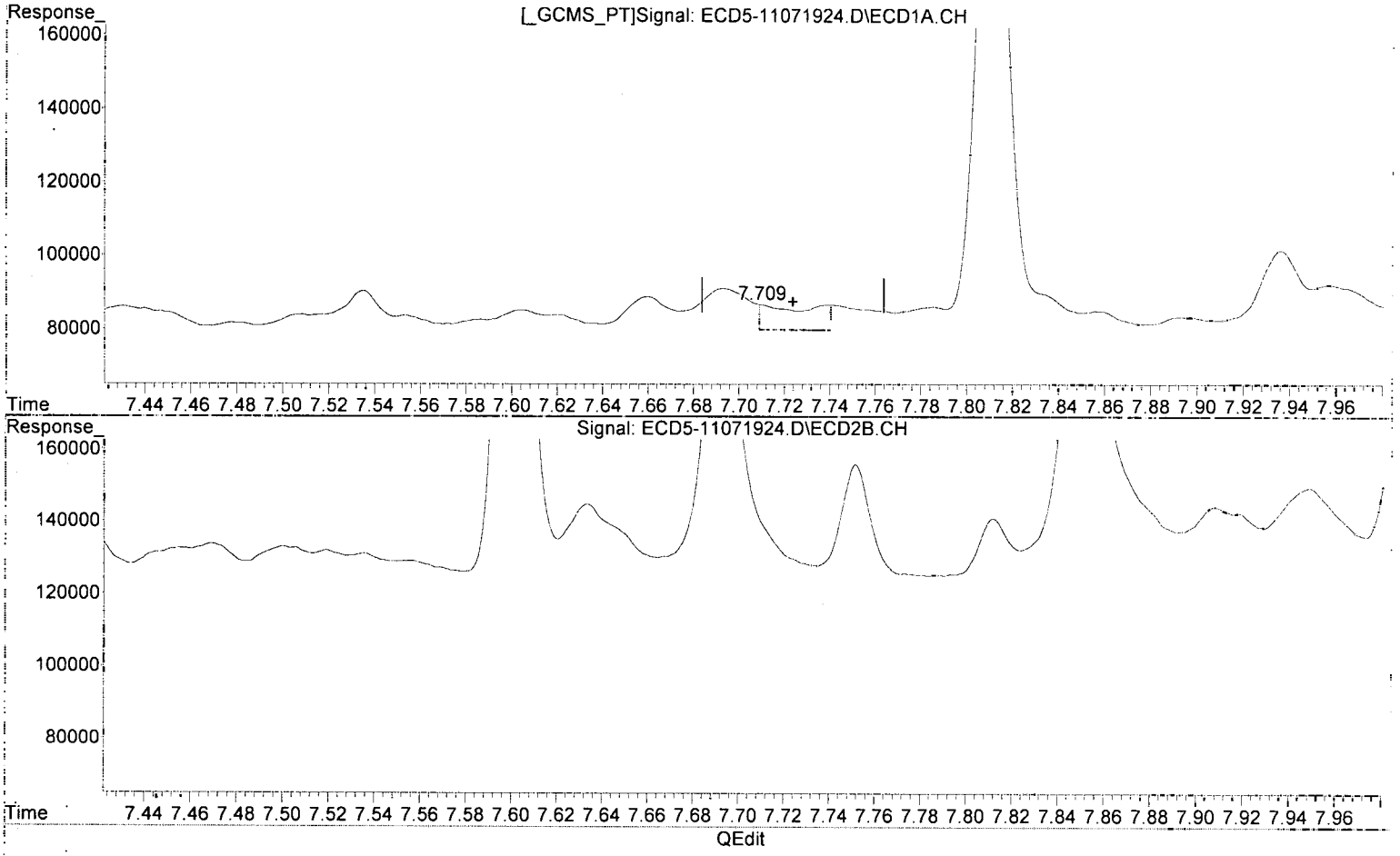




Quantitation Report (Qedit)

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

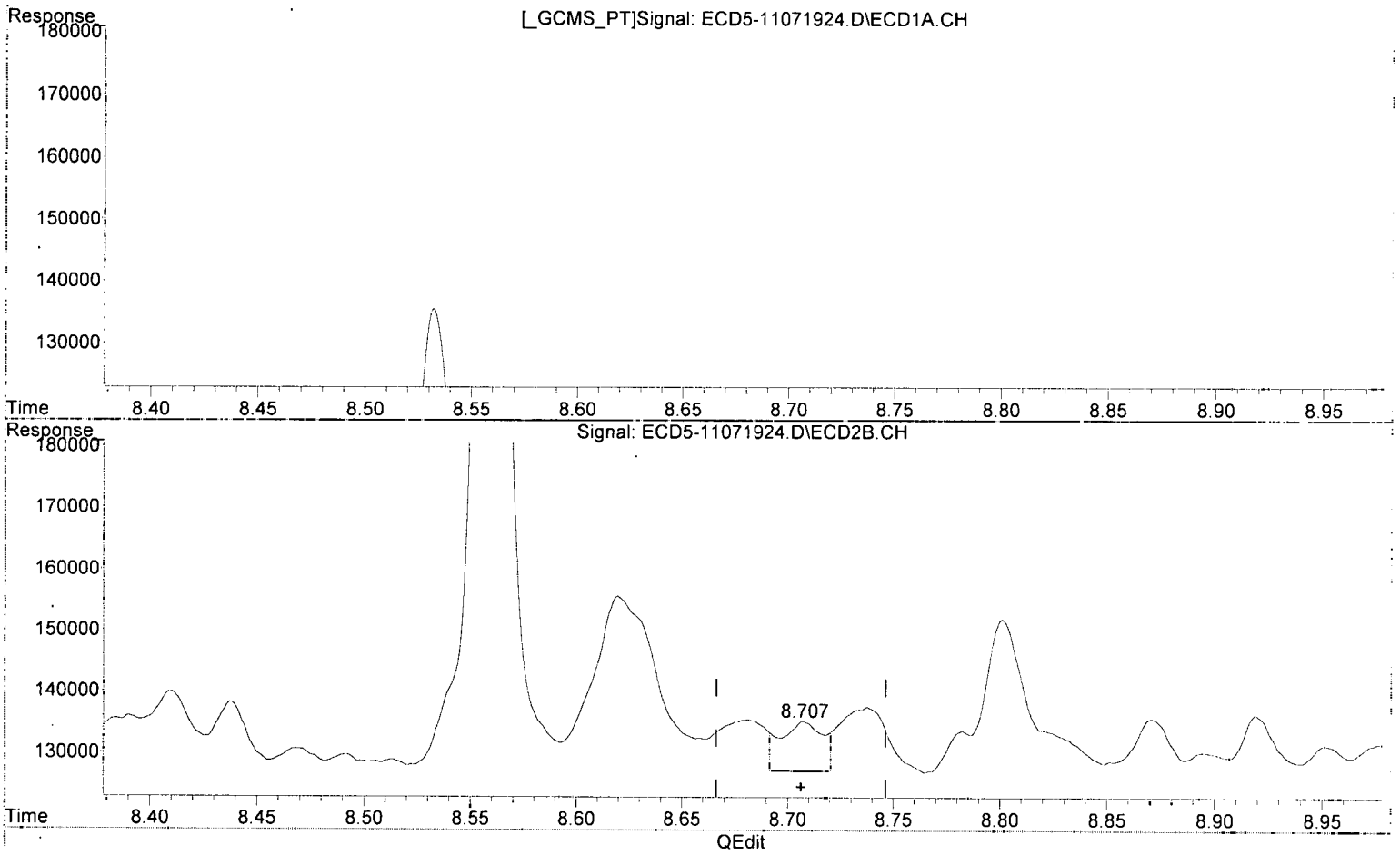
response 0

(+) = 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

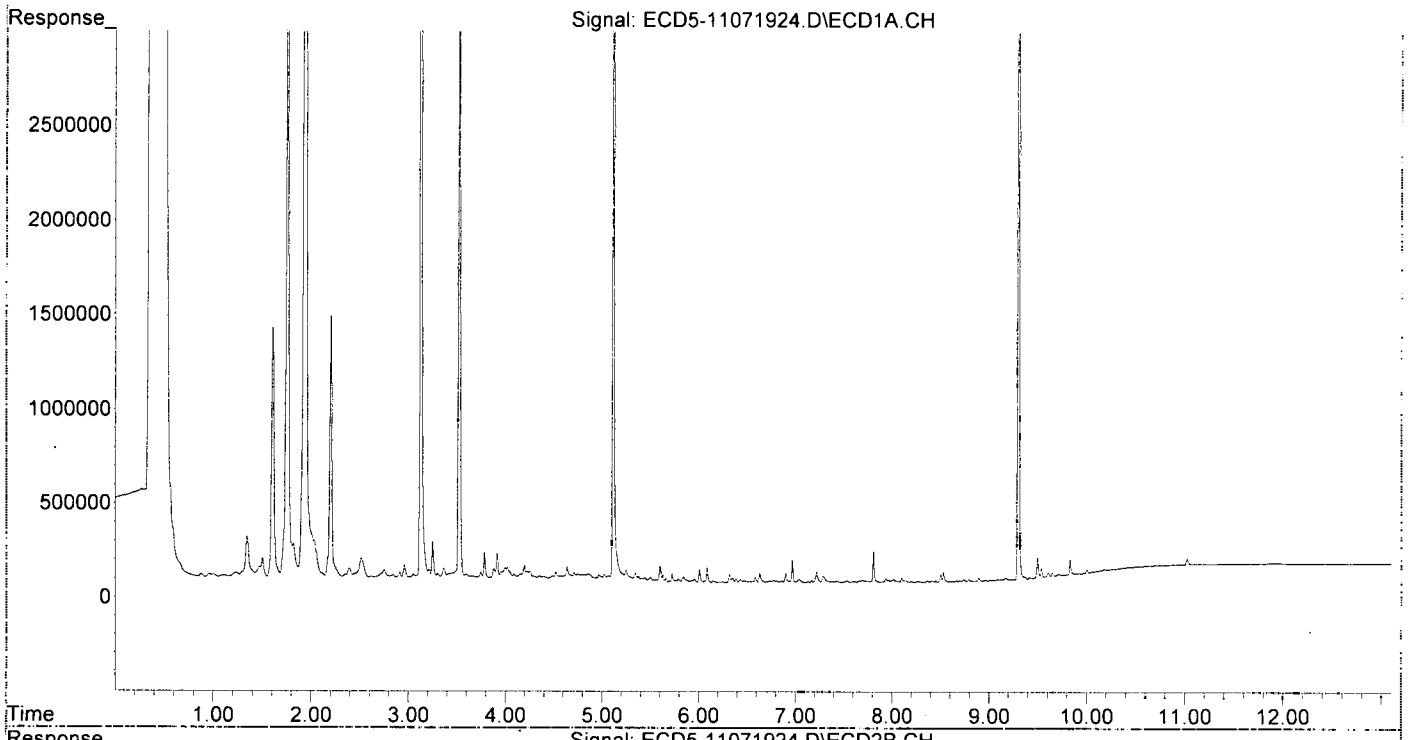
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.712	5226991	8099431	31.493	27.609	
22)	S	DCBP (S)	9.302	10.217	6451759	9204531	45.725	51.204	
		Target Compounds							
2)		a-BHC	5.661	6.331	21795	31649	0.095	0.077	
3)		g-BHC	5.957	6.643	19594	7009	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	

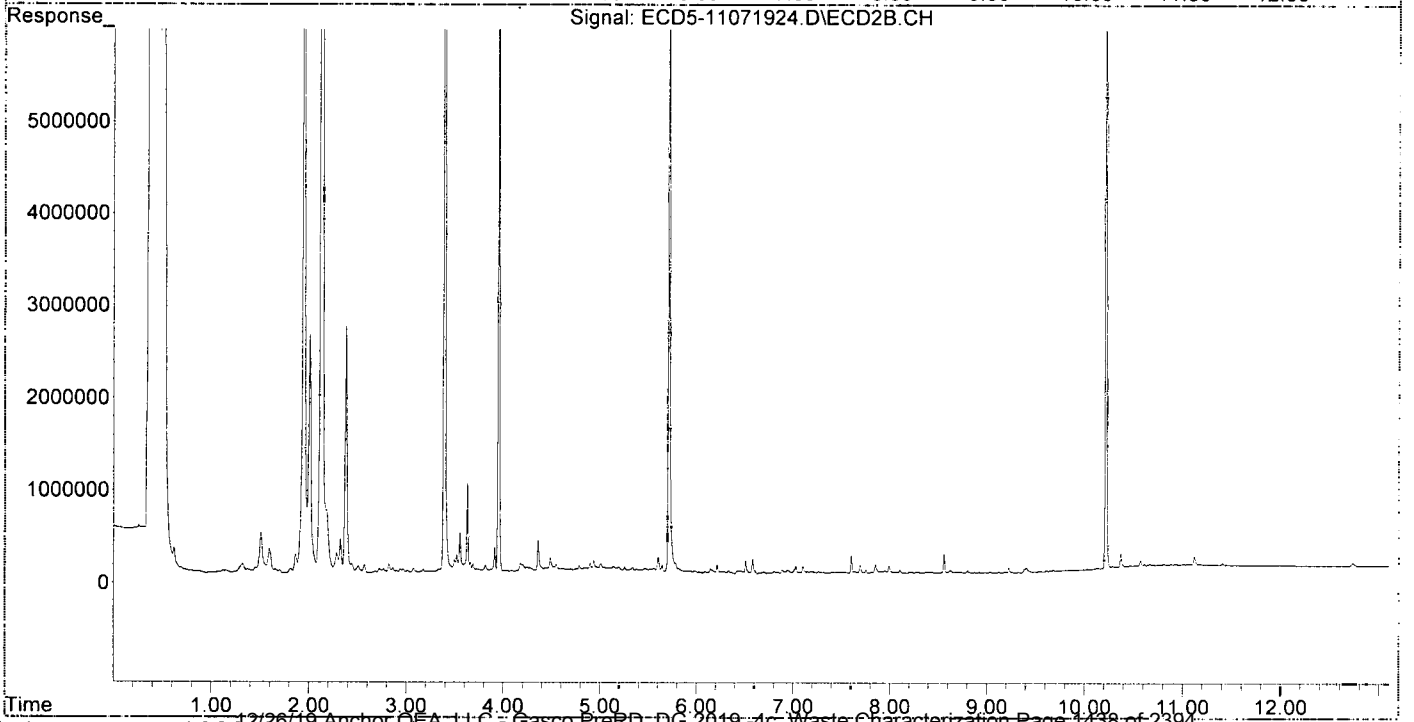
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

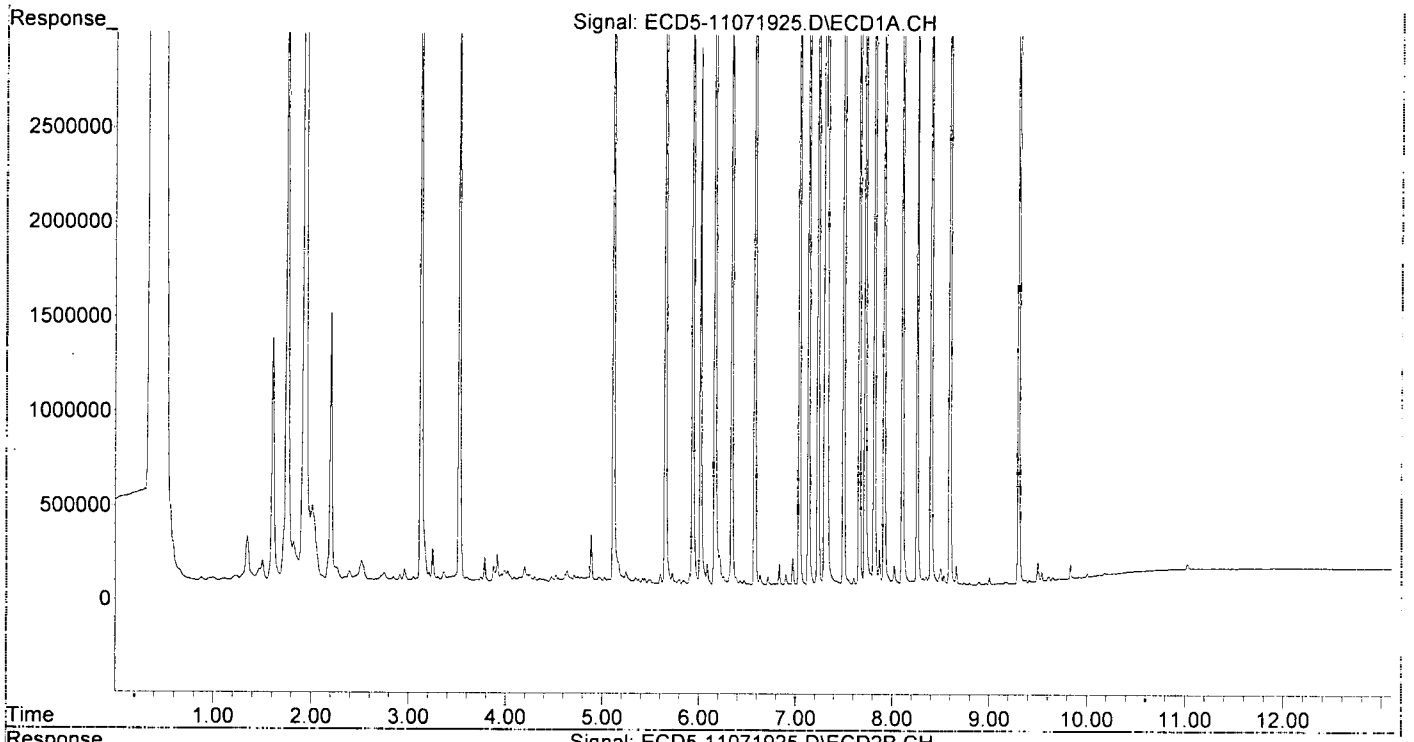
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	5516853	8821200	33.239	30.069	
22)	S	DCBP (S)	9.303	10.218	6609142	9082344	46.841	50.524	
		Target Compounds							
2)		a-BHC	5.653	6.319	7950227	14026412	34.667	34.182	
3)		g-BHC	5.936	6.636	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	

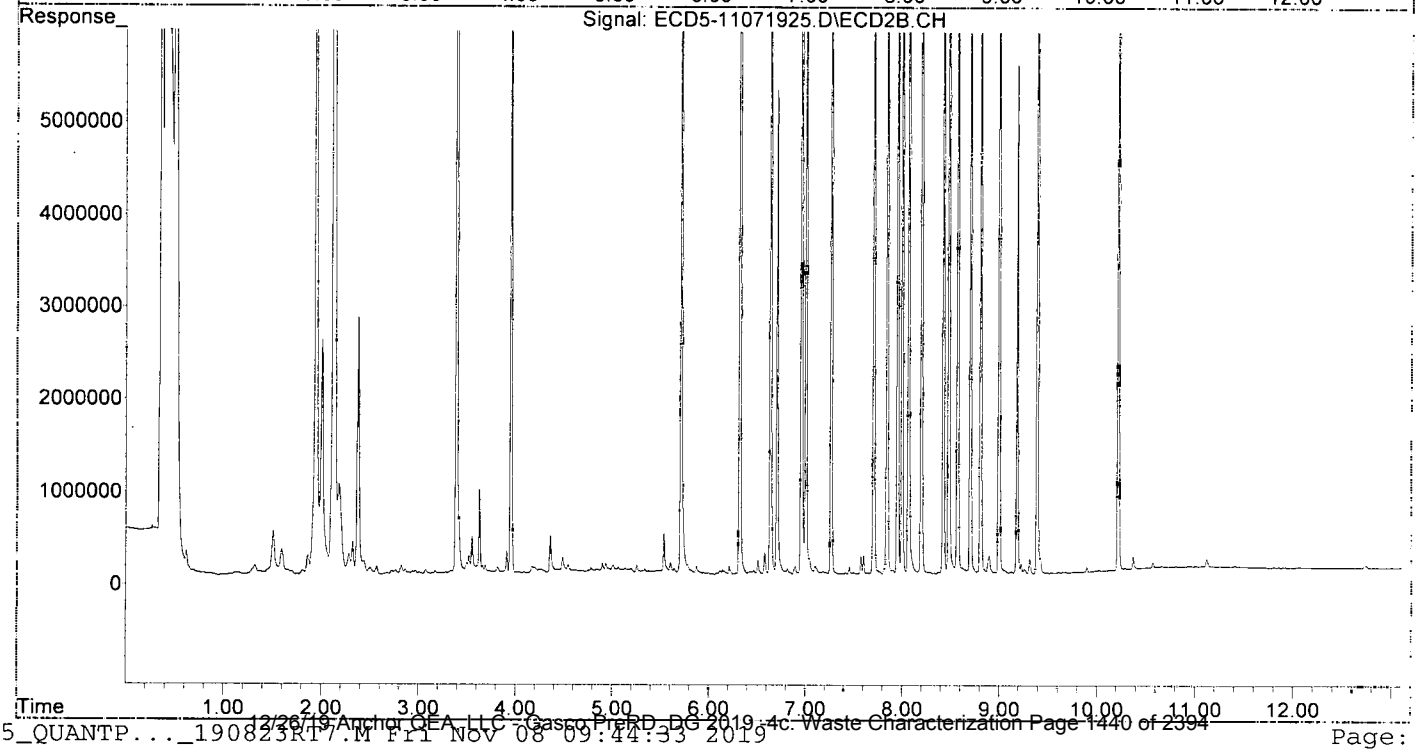
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

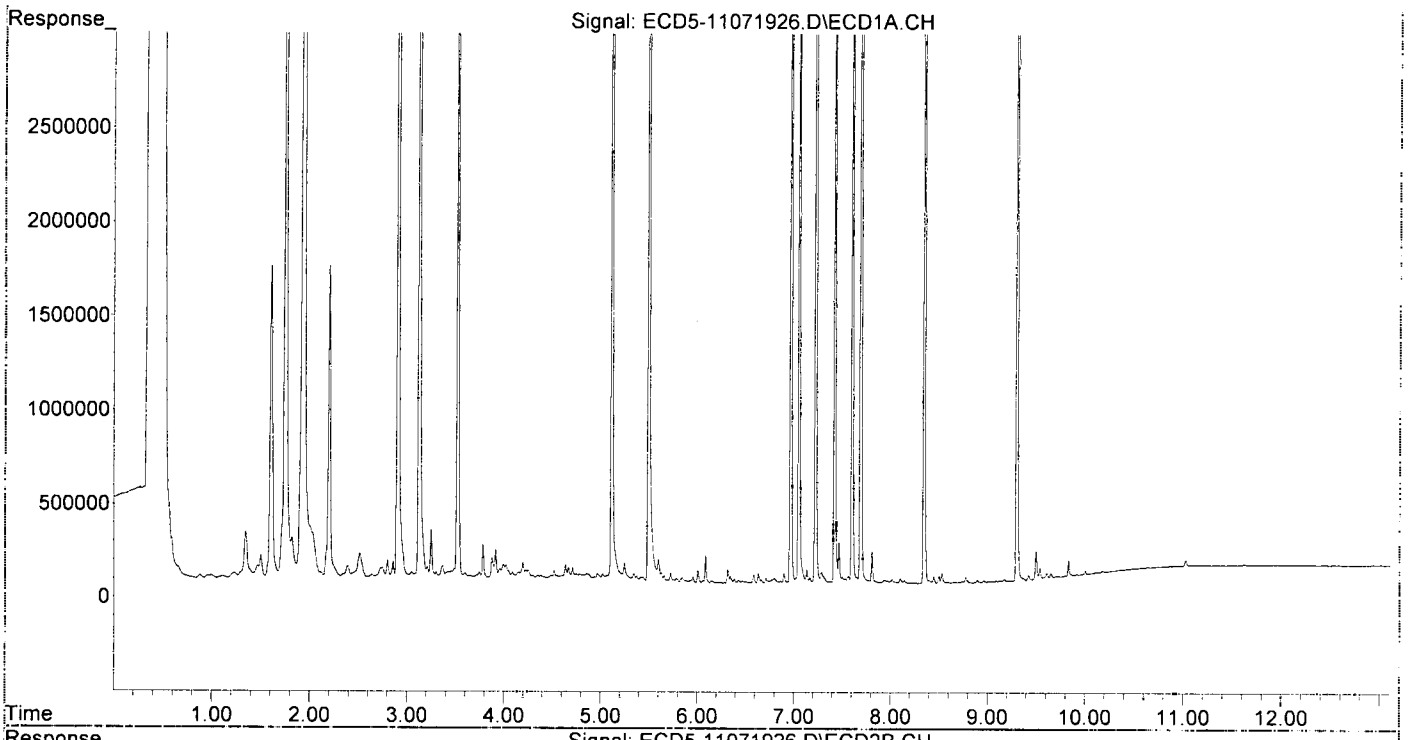
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.115	5.711	6892116	11023407	41.525	37.576	
22)	S	DCBP (S)	9.302	10.218	6940789	9554179	49.191	53.149	
		Target Compounds							
2)		a-BHC	5.659	6.329	34492	72065	0.150	0.176	
3)		g-BHC	5.957	6.641	31325	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	

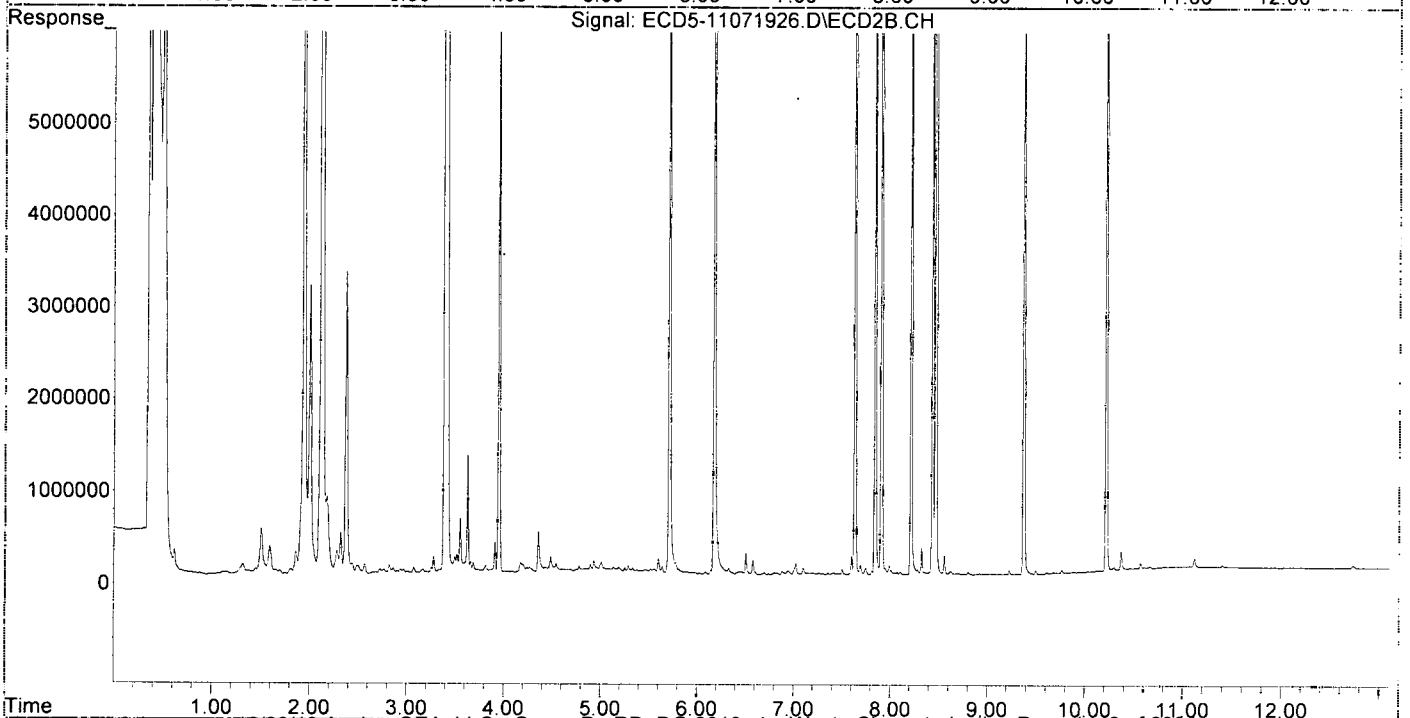
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

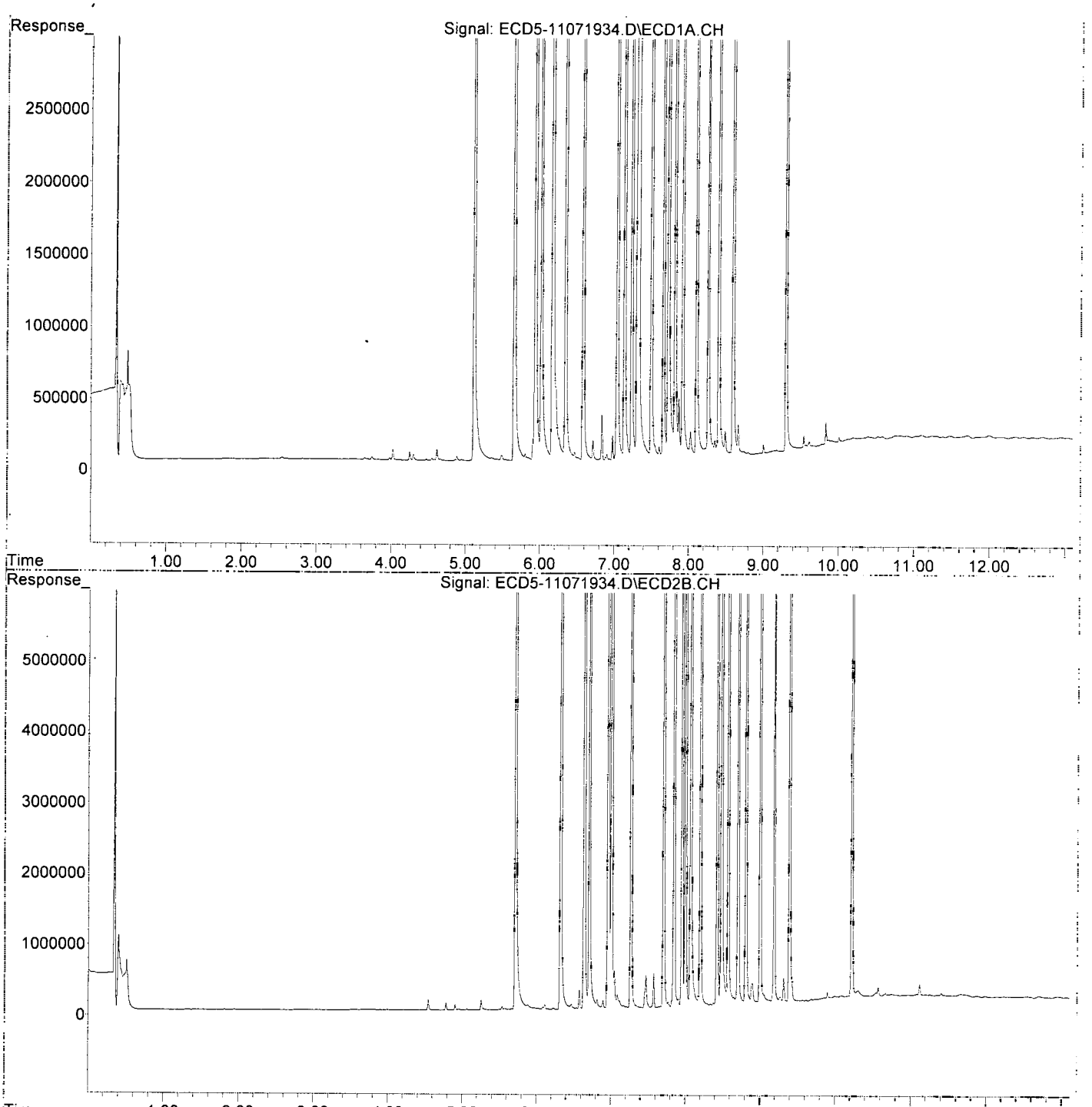
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	17364668	28470851	104.622	~~97.049~~	
22)	S	DCBP (S)	9.304	10.218	13870229	21862841	98.302	121.620	Q-M
		Target Compounds							
2)		a-BHC	5.652	6.318	24717447	45957098	107.782	111.998	
3)		g-BHC	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

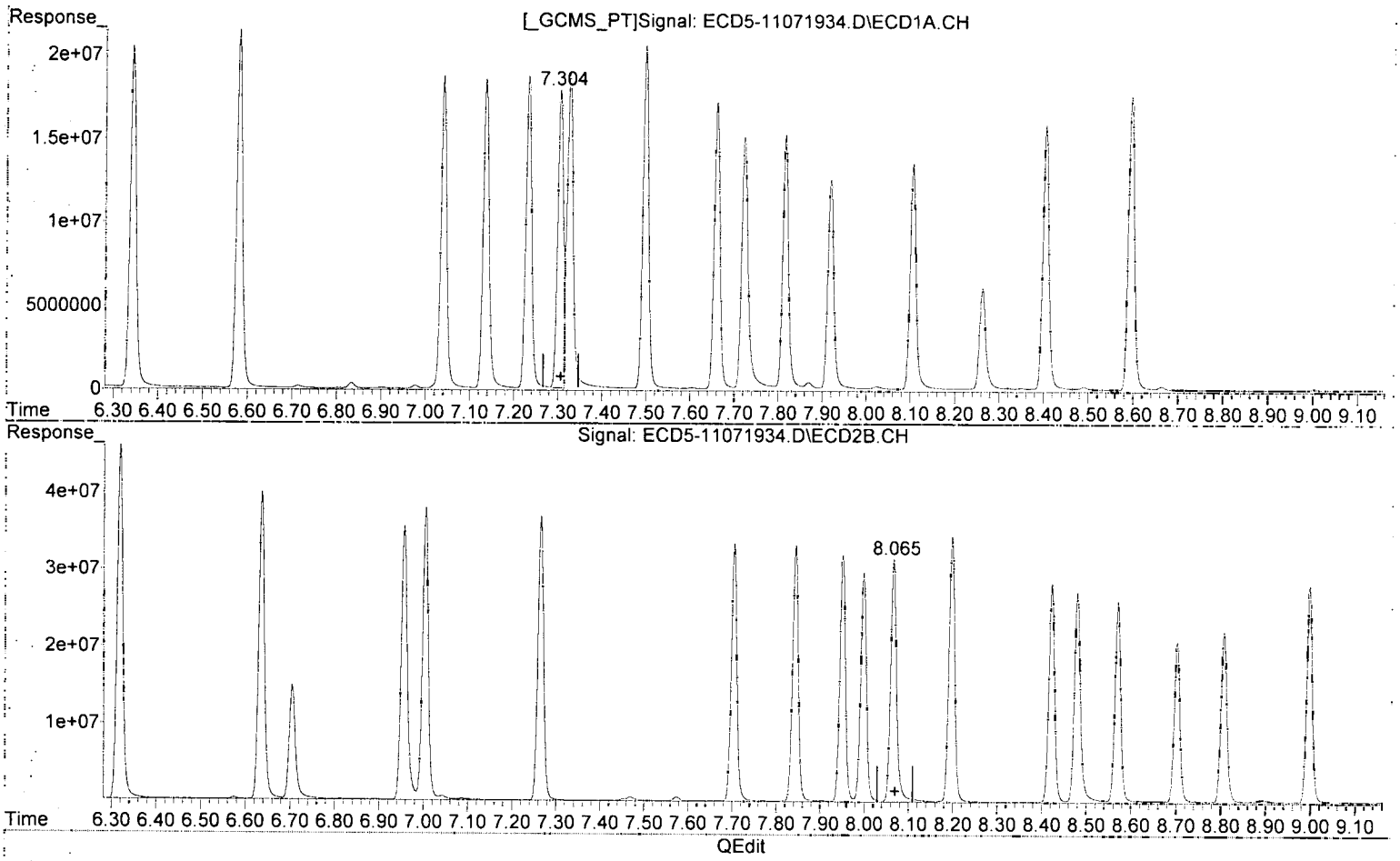
Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Nov 08 10:35:16 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT7.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale 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

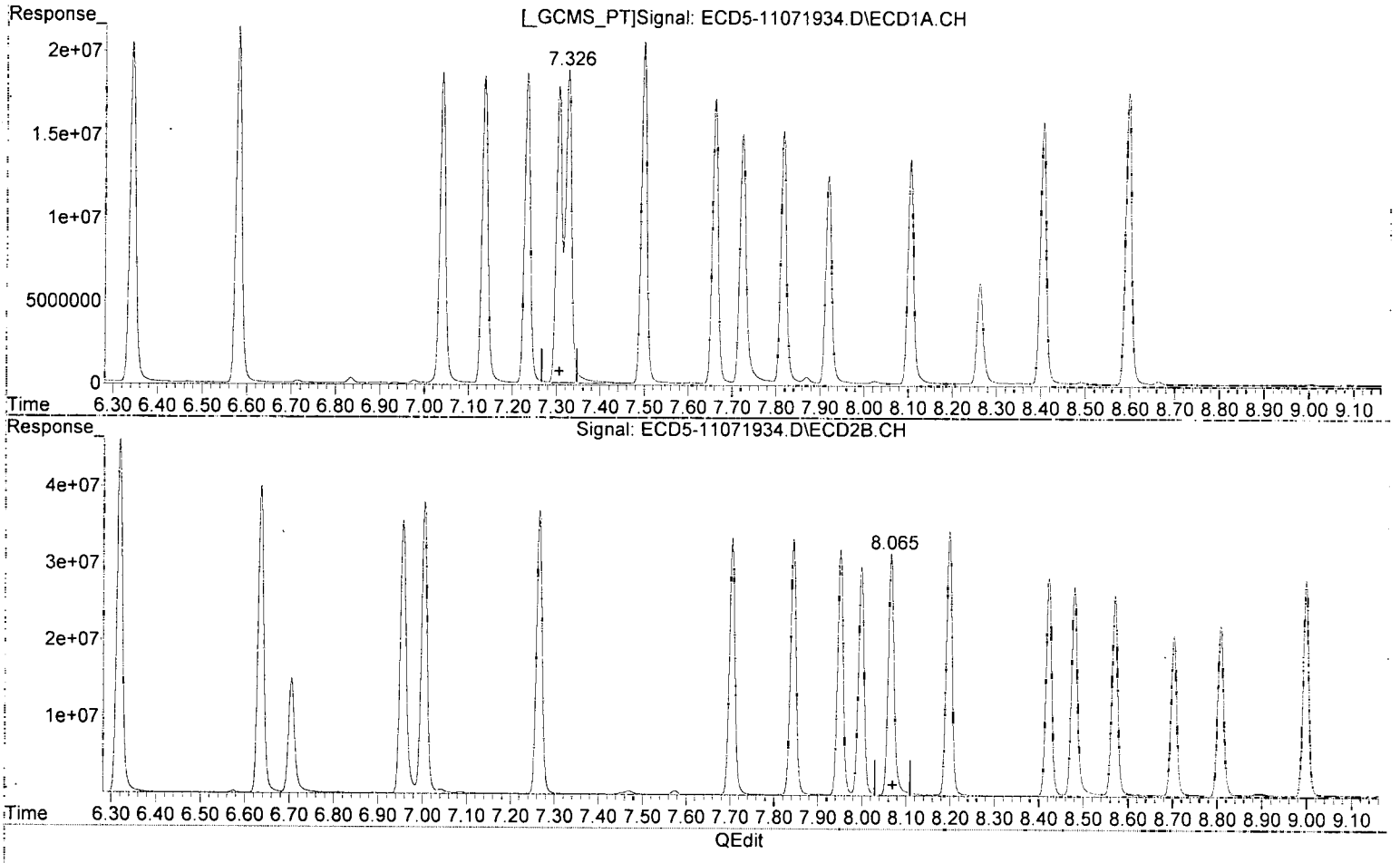
response 31518891

(+) = 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

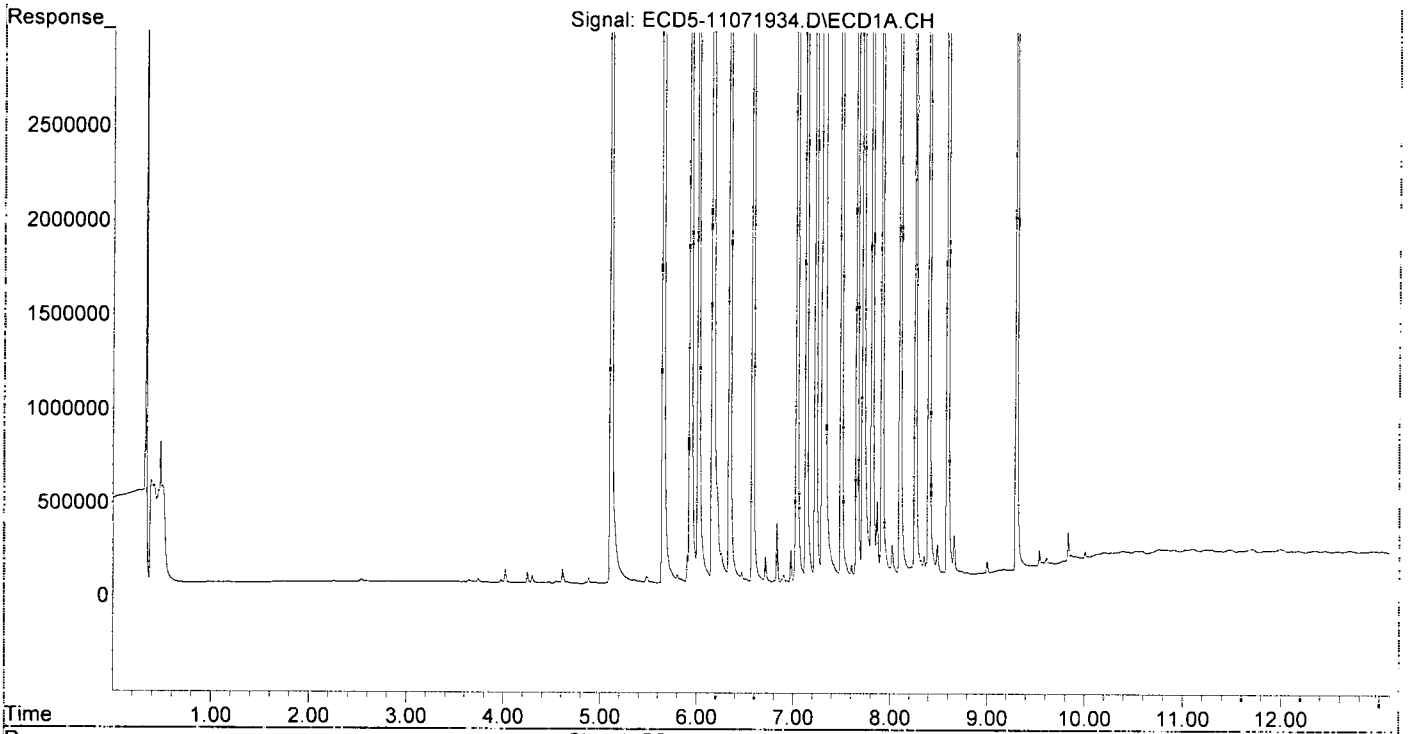
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	17364668	28470851	104.622	97.049	
22)	S	DCBP (S)	9.304	10.218	13870229	21862841	98.302	121.620	
		Target Compounds							
2)		a-BHC	5.652	6.318	24717447	45957098	107.782	111.998	
3)		g-BHC	5.936	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.	

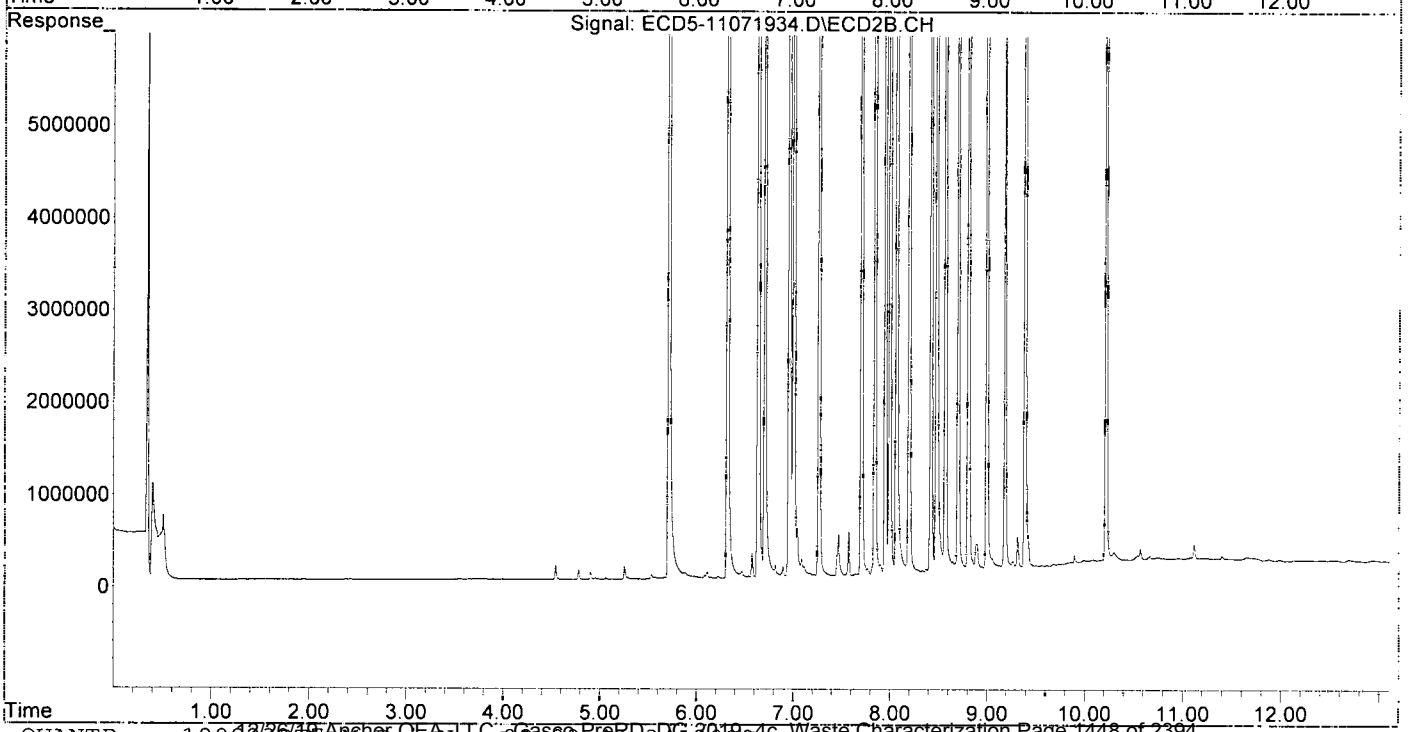
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

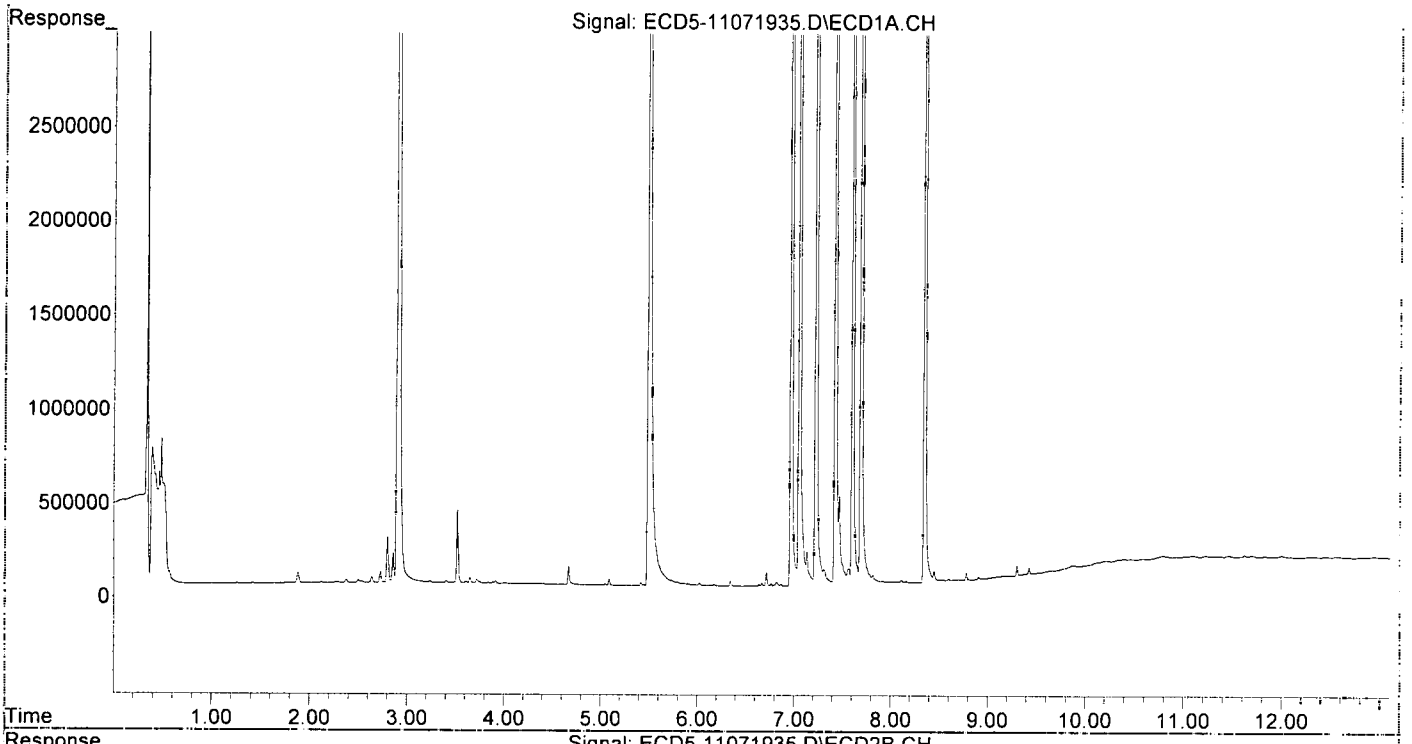
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.088f	0.000	32900	0	0.198	N.D.	#
22)	S	DCBP (S)	9.305	10.216	62683	130316	0.444	0.725	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.023	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.	

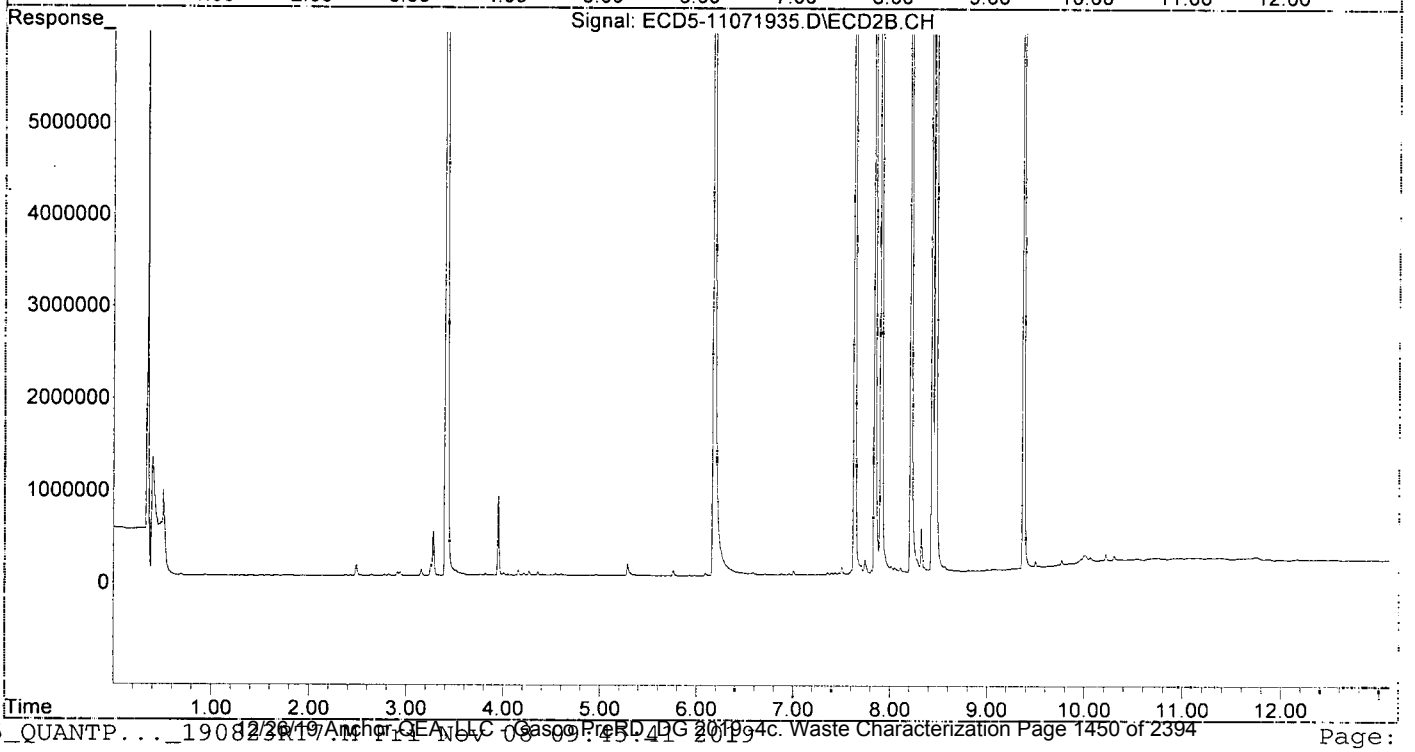
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

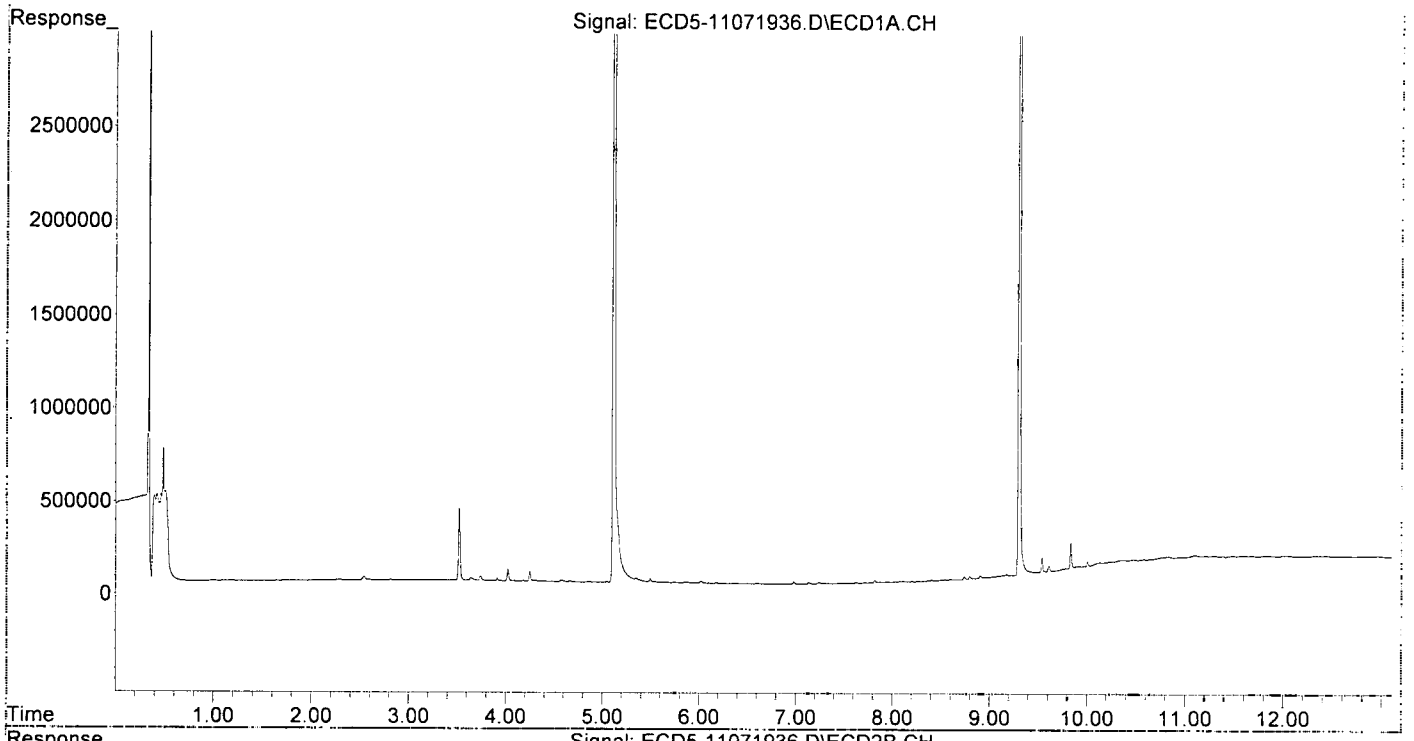
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.114	5.710	15065159	25356659	90.767	86.433	
22)	S	DCBP (S)	9.305	10.218	12519240	19064573	88.727	106.054	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
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.	

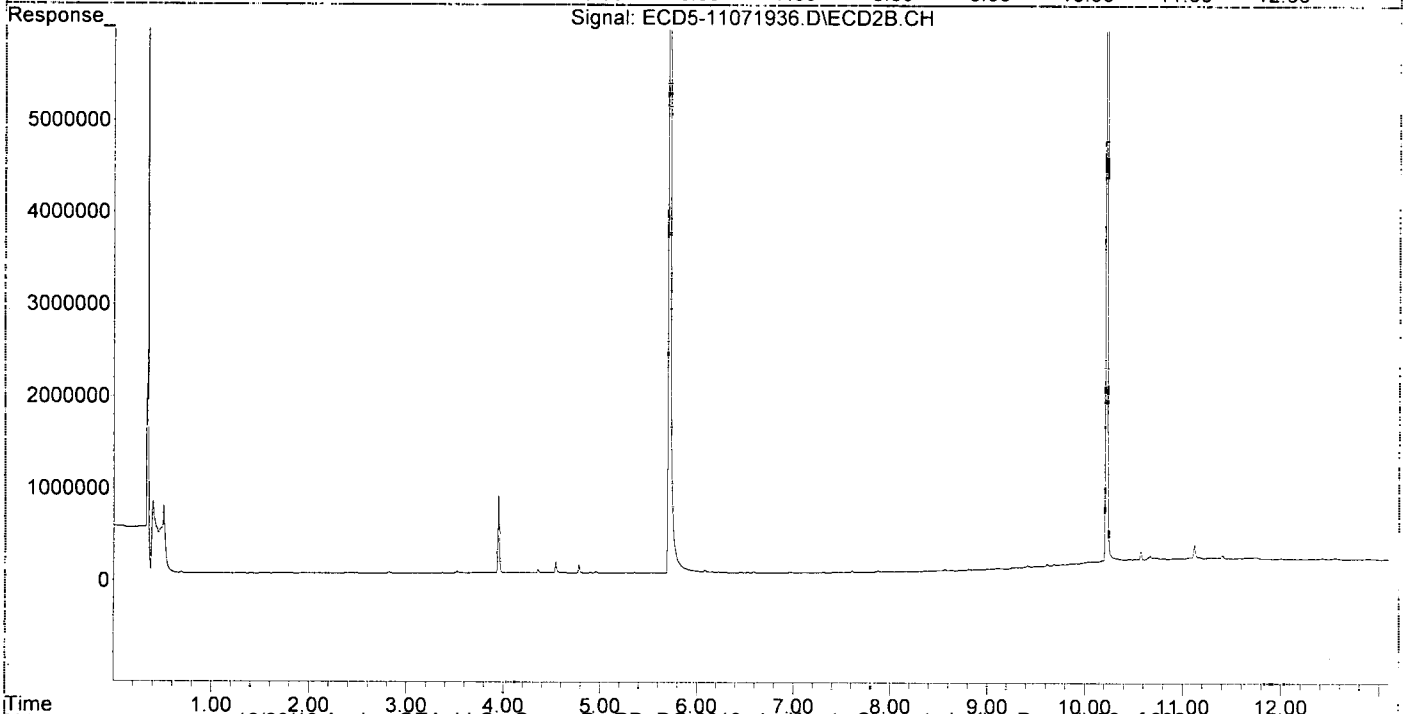
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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) DualECD5

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9H23034**	Instrument:	**DUALECD5**
Date:	**08/23/19 11:23**	Calibration:	**A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9H23034-BKD1	Water	QC	QC				A19G138
2	9H23034-BKD2	Water	QC	QC				A19G138
3	9H23034-ICB1	Water	QC	QC				A19H348
4	9H23034-CAL1	Water	QC	QC				A19E245
5	9H23034-CAL2	Water	QC	QC				A19E246
6	9H23034-CAL3	Water	QC	QC				A19E247
7	9H23034-CAL4	Water	QC	QC				A19E249
8	9H23034-CAL5	Water	QC	QC				A19E250
9	9H23034-CAL6	Water	QC	QC				A19H383
10	9H23034-CAL7	Water	QC	QC				A19H384
11	9H23034-CAL8	Water	QC	QC				A19E244
12	9H23034-IBL1	Water	QC	QC				
13	9H23034-ICV1	Water	QC	QC				A19E106
14	9H23034-CAL9	Water	QC	QC				A19E272
15	9H23034-CALA	Water	QC	QC				A19E273
16	9H23034-CALB	Water	QC	QC				A19E274
17	9H23034-CALC	Water	QC	QC				A19E275
18	9H23034-CALD	Water	QC	QC				A19E276
19	9H23034-CALE	Water	QC	QC				A19E154
20	9H23034-CALF	Water	QC	QC				A19E155
21	9H23034-CALG	Water	QC	QC				A19E271
22	9H23034-IBL2	Water	QC	QC				
23	9H23034-ICV2	Water	QC	QC				A19E043
24	9H23034-CALH	Water	QC	QC				A19F232
25	9H23034-CALI	Water	QC	QC				A19F233
26	9H23034-CALJ	Water	QC	QC				A19F234
27	9H23034-CALK	Water	QC	QC				A19F235
28	9H23034-CALL	Water	QC	QC				A19F236
29	9H23034-CALM	Water	QC	QC				A19F231
30	9H23034-IBL3	Water	QC	QC				
31	9H23034-ICV3	Water	QC	QC				A19E108
32	9H23034-CALN	Water	QC	QC				A19D122
33	9H23034-CALO	Water	QC	QC				A19D123
34	9H23034-CALP	Water	QC	QC				A19D124
35	9H23034-CALQ	Water	QC	QC				A19D125
36	9H23034-CALR	Water	QC	QC				A19D126
37	9H23034-CALS	Water	QC	QC				A19D121
38	9H23034-IBL4	Water	QC	QC				
39	9H23034-ICV4	Water	QC	QC				A19D127

Data Entered By: MJB 8/26/19

Comments: ICAL

Data Reviewed By: [illegible] 8/30/19

Calibration Status Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

A9H2608

MJB 8/26/19

#	ID	Conc	ISTD Conc	Path\File
1	1	50	0	R:\data\2019-08\9H23034\ECD5-08231936.D
2	2	100	0	R:\data\2019-08\9H23034\ECD5-08231937.D
3	3	200	0	R:\data\2019-08\9H23034\ECD5-08231938.D
4	4	500	0	R:\data\2019-08\9H23034\ECD5-08231939.D
5	5	1000	0	R:\data\2019-08\9H23034\ECD5-08231940.D
6	6	2000	0	R:\data\2019-08\9H23034\ECD5-08231941.D
7	7	-1	0	R:\data\2019-08\9H23034\ECD5-08231924.D
8	8	-1	0	R:\data\2019-08\9H23034\ECD5-08231925.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Aug 26 11:47 2019	Aug 26 11:37 2019	23 Aug 2019 21:54
2	2	Aug 26 11:47 2019	Aug 26 11:38 2019	23 Aug 2019 22:11
3	3	Aug 26 11:48 2019	Aug 26 11:39 2019	23 Aug 2019 22:28
4	4	Aug 26 11:48 2019	Aug 26 11:36 2019	23 Aug 2019 22:45
5	5	Aug 26 11:48 2019	Aug 26 11:40 2019	23 Aug 2019 23:03
6	6	Aug 26 11:48 2019	Aug 26 11:40 2019	23 Aug 2019 23:20
7	7	Aug 26 11:46 2019	Aug 26 11:26 2019	23 Aug 2019 18:27
8	8	Aug 26 11:46 2019	Aug 26 11:27 2019	23 Aug 2019 18:45

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:23 2019

Response Factor Report DUALECD5

Method Path : C:\msdchem\4\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD5-08231936.D 2 =ECD5-08231937.D 3 =ECD5-08231938.D 4 =ECD5-08231939.D 5 =ECD5-08231940.D
6 =ECD5-08231941.D 7 =ECD5-08231924.D 8 =ECD5-08231925.D

		Compound	1	2	3	4	5	6	7	8	Avg		%RSD
1)	S	TCMX (S)	1.767	1.750	1.668	1.644	1.606	1.614	1.585	1.642	1.660	E5	4.00
2)		a-BHC	2.320	2.292	2.296	2.347	2.221	2.274	2.236	2.360	2.293	E5	2.14
3)		g-BHC	2.074	2.030	2.041	2.035	1.950	1.957	1.960	2.094	2.018	E5	2.76
4)		b-BHC	1.043	0.971	0.914	0.911	0.824	0.820	0.836	0.912	0.904	E5	8.59
5)		Heptachlor	1.921	1.848	1.798	1.820	1.726	1.747	1.755	1.889	1.813	E5	3.86
6)		d-BHC	1.998	1.935	2.008	2.006	1.867	1.922	1.948	2.051	1.967	E5	3.02
7)		Aldrin	2.055	1.998	2.025	2.011	1.938	1.866	1.911	1.992	1.974	E5	3.23
8)		Heptachlor Exp...	2.005	1.960	1.847	1.865	1.738	1.774	1.732	1.813	1.842	E5	5.42
9)		trans-Chlordane	1.972	1.911	1.853	1.848	1.761	1.792	1.773	1.881	1.849	E5	3.93
10)		cis-Chlordane	2.098	1.950	1.818	1.843	1.698	1.725	1.674	1.760	1.821	E5	7.86
11)		Endosulfan I	1.852	1.787	1.723	1.709	1.645	1.597	1.609	1.693	1.702	E5	5.13
12)		4,4'-DDE	1.934	1.943	1.907	1.891	1.828	1.835	1.805	1.938	1.885	E5	2.92
13)		Dieldrin	1.977	1.979	1.944	1.955	1.833	1.877	1.832	1.961	1.920	E5	3.25
14)		Endrin	1.564	1.493	1.478	1.476	1.404	1.396	1.381	1.571	1.470	E5	4.98
15)		4,4'-DDD	1.650	1.573	1.581	1.566	1.491	1.545	1.544	1.622	1.571	E5	3.11
16)		Endosulfan II	1.581	1.496	1.419	1.448	1.349	1.368	1.354	1.474	1.436	E5	5.61
17)		4,4'-DDT	1.139	1.091	1.106	1.147	1.170	1.241	1.218	1.454	1.196	E5	9.72
18)		Endrin Aldehyde	2.413	1.641	1.367	1.375	1.248	1.245	1.236	1.331	1.482	E5	26.87
19)		Endosulfan Sul...	1.761	1.611	1.538	1.554	1.458	1.484	1.437	1.556	1.550	E5	6.64
20)		Methoxychlor	5.966	5.573	5.408	5.617	5.561	5.721	5.877	7.136	5.857	E4	9.33
21)		Endrin Ketone	1.776	1.656	1.623	1.664	1.604	1.638	1.625	1.755	1.668	E5	3.80
22)	S	DCBP (S)	1.639	1.550	1.402	1.335	1.337	1.336	1.341	1.349	1.411	E5	8.33
23)		Hexachlorobuta...	1.982	1.879	1.918	1.838	1.746	1.752	1.795	1.708	1.827	E5	5.17
24)		Hexachlorobenzene	1.947	1.810	1.708	1.712	1.674	1.782	1.767	1.704	1.763	E5	4.96
25)		Oxychlordane	1.768	1.697	1.639	1.592	1.553	1.677	1.636	1.602	1.645	E5	4.13
26)		2,4'-DDE	1.379	1.326	1.266	1.245	1.224	1.302	1.277	1.241	1.283	E5	4.01
27)		trans-Nonachlor	2.368	2.076	1.866	1.818	1.756	1.916	1.835	1.751	1.923	E5	10.78
28)		2,4'-DDD	1.202	1.165	1.122	1.104	1.098	1.184	1.159	1.096	1.141	E5	3.65
29)		2,4'-DDT	1.071	1.021	1.074	1.052	1.092	1.137	1.177	1.151	1.097	E5	4.88
30)		cis-Nonachlor	2.192	2.117	2.052	2.032	1.997	2.123	2.093	2.002	2.076	E5	3.25
31)		Mirex	1.474	1.334	1.257	1.196	1.164	1.244	1.196	1.164	1.254	E5	8.39
32)		Chlordane (1)	2.018	1.979	1.925	1.926	1.964	2.002			1.969	E4	1.96
33)		Chlordane (2)	2.573	2.520	2.453	2.435	2.508	2.549			2.506	E4	2.14
34)		Chlordane (3)	5.762	5.482	5.508	5.843	5.988	6.104			5.781	E3	4.34
35)		Chlordane - AVE									0.000		-1.00
36)		Toxaphene (1)	9.850	9.158	8.802	8.837	8.719	8.373			8.956	E2	5.64
37)		Toxaphene (2)	1.766	1.661	1.588	1.639	1.556	1.479			1.615	E3	6.08
38)		Toxaphene (3)	3.388	3.328	3.222	3.355	3.496	3.416			3.367	E3	2.72
39)		Toxaphene (4)	3.286	3.203	3.162	3.299	3.287	3.204			3.240	E3	1.78
40)		Toxaphene (5)	2.294	2.290	2.272	2.443	2.546	2.537			2.397	E3	5.33
41)		Toxaphene (6)	3.063	3.026	2.990	3.247	3.407	3.255			3.165	E3	5.17
42)		Toxaphene - AVE									0.000		-1.00

MJB 5/26/19

Method Path : C:\msdchem\4\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5

Signal #2 Calibration Files
1 =ECD5-08231936.D 2 =ECD5-08231937.D 3 =ECD5-08231938.D
4 =ECD5-08231939.D 5 =ECD5-08231940.D 6 =ECD5-08231941.D

		Compound	1	2	3	4	5	6	Avg		%RSD
44)	S	TCMX (S) #2	3.001	3.004	2.876	2.866	2.829	2.839	2.926	3.129 2.934 E5	3.54
45)		a-BHC #2	3.931	3.923	3.971	4.096	3.964	4.053	4.170	4.719 4.103 E5	6.41
46)		g-BHC #2	3.523	3.455	3.485	3.477	3.403	3.476	3.679	4.038 3.567 E5	5.79
47)		b-BHC #2	1.763	1.676	1.577	1.581	1.471	1.503	1.463	1.628 1.583 E5	6.60
48)		Heptachlor #2	3.098	2.934	3.016	3.006	2.913	2.919	3.028	3.564 3.060 E5	6.98
49)		d-BHC #2	3.491	3.346	3.435	3.614	3.299	3.462	3.518	4.049 3.527 E5	6.60
50)		Aldrin #2	3.175	3.177	3.202	3.341	3.151	3.253	3.391	3.661 3.294 E5	5.19
51)		Heptachlor Exp...	3.101	3.031	2.912	2.959	2.826	2.968	3.005	3.267 3.008 E5	4.40
52)		trans-Chlordan...	3.641	3.222	3.004	3.003	2.863	2.936	3.074	3.322 3.133 E5	8.10
53)		cis-Chlordane #2	2.994	2.898	2.870	2.860	2.774	2.800	2.904	3.199 2.912 E5	4.59
54)		Endosulfan I #2	2.789	2.702	2.654	2.724	2.629	2.742	2.721	3.052 2.752 E5	4.77
55)		4,4'-DDE #2	2.985	2.990	2.976	3.050	3.000	3.111	3.250	3.492 3.107 E5	5.82
56)		Dieldrin #2	2.967	2.919	2.925	2.899	2.934	3.087	3.100	3.502 3.042 E5	6.61
57)		Endrin #2	2.229	2.124	2.186	2.244	2.130	2.203	2.310	2.639 2.258 E5	7.32
58)		4,4'-DDD #2	2.515	2.441	2.417	2.425	2.459	2.632	2.630	2.978 2.562 E5	7.37
59)		Endosulfan II #2	2.322	2.311	2.193	2.244	2.179	2.307	2.302	2.592 2.306 E5	5.55
60)		4,4'-DDT #2	1.797	1.709	1.747	1.841	1.792	1.857	1.979	2.410 1.892 E5	11.88
61)		Endrin Aldehyd...	3.486	2.388	2.092	2.125	1.939	2.042	2.050	2.254 2.297 E5	21.77
62)		Endosulfan Sul...	2.658	2.494	2.352	2.425	2.392	2.430	2.448	2.730 2.491 E5	5.35
63)		Methoxychlor #2	0.952	0.890	0.828	0.883	0.867	0.869	0.944	1.186 0.927 E5	12.09
64)		Endrin Ketone #2	2.558	2.466	2.410	2.497	2.357	2.591	2.664	3.043 2.573 E5	8.31
65)	S	DCBP (S) #2	1.916	1.950	1.742	1.679	1.665	1.746	1.778	1.905 1.798 E5	6.18
66)		Hexachlorobuta...	3.832	3.773	3.755	3.702	3.557	3.727	3.930	3.799 3.759 E5	2.87
67)		Hexachlorobenz...	3.280	3.164	2.971	2.936	2.967	3.219	3.277	3.313 3.141 E5	5.04
68)		Oxychlordane #2	2.791	2.705	2.651	2.539	2.481	2.835	2.973	2.937 2.739 E5	6.49
69)		2,4'-DDE #2	2.192	2.059	2.059	2.018	2.000	2.201	2.216	2.225 2.121 E5	4.52
70)		trans-Nonachlo...	3.062	2.939	2.935	2.844	2.837	3.162	3.198	3.154 3.016 E5	4.84
71)		2,4'-DDD #2	1.920	1.868	1.797	1.779	1.756	1.985	2.012	1.992 1.889 E5	5.47
72)		2,4'-DDT #2	1.733	1.661	1.746	1.703	1.762	1.762	1.900	2.000 1.783 E5	6.24
73)		cis-Nonachlor #2	3.327	3.124	3.174	3.148	3.288	3.544	3.607	3.623 3.354 E5	6.23
74)		Mirex #2	2.098	1.941	1.791	1.723	1.655	1.820	1.936	1.921 1.861 E5	7.59
75)		Chlordane (1) #2	3.509	3.378	3.376	3.566	3.797	4.085		3.618 E4	7.62
76)		Chlordane (2) #2	2.945	2.906	2.942	2.962	3.149	3.314		3.036 E4	5.30
77)		Chlordane (3) #2	8.780	8.745	8.659	8.543	9.359	9.709		8.966 E3	5.14
78)		Chlordane - AV...								0.000	-1.00
79)		Toxaphene (1) #2	2.737	2.675	2.545	2.618	2.655	2.515		2.624 E3	3.16
80)		Toxaphene (2) #2	3.294	3.241	3.227	3.295	3.384	3.305		3.291 E3	1.70
81)		Toxaphene (3) #2	5.097	4.944	4.978	4.950	5.168	5.273		5.068 E3	2.65
82)		Toxaphene (4) #2	8.327	8.119	7.902	8.505	8.650	8.595		8.350 E3	3.51
83)		Toxaphene (5) #2	4.664	4.522	4.477	4.681	4.900	4.718		4.660 E3	3.24
84)		Toxaphene (6) #2	4.618	4.525	4.526	4.740	5.047	5.045		4.750 E3	5.10
85)		Toxaphene - AV...								0.000	-1.00

(#) = Out of Range

MJB 8/26/19

Compound List Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Total Cpnds : 85

MWB 8/26/19

PK#		Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1	S	TCMX (S)	5.394	1.000	A	H	R
2		a-BHC	5.934	1.000	A	H	R
3		g-BHC	6.218	1.000	A	H	R
4		b-BHC	6.296	1.000	A	H	R
5		Heptachlor	6.632	1.000	A	H	R
6		d-BHC	6.446	1.000	A	H	R
7		Aldrin	6.873	1.000	A	H	R
8		Heptachlor Expoxide	7.332	1.000	A	H	R
9		trans-Chlordane	7.428	1.000	A	H	R
10		cis-Chlordane	7.524	1.000	A	H	R
11		Endosulfan I	7.621	1.000	A	H	R
12		4,4'-DDE	7.583	1.000	A	H	R
13		Dieldrin	7.792	1.000	A	H	R
14		Endrin	7.957	1.000	A	H	R
15		4,4'-DDD	8.003	1.000	A	H	R
16		Endosulfan II	8.114	1.000	A	H	R
17		4,4'-DDT	8.202	1.000	A	H	R
18		Endrin Aldehyde	8.403	1.000	Q	H	R
19		Endosulfan Sulfate	8.705	1.000	A	H	R
20		Methoxychlor	8.540	1.000	A	H	R
21		Endrin Ketone	8.899	1.000	A	H	R
22	S	DCBP (S)	9.592	1.000	A	H	R
23		Hexachlorobutadiene	3.198	1.000	A	H	R
24		Hexachlorobenzene	5.774	1.000	A	H	R
25		Oxychlordane	7.261	1.000	A	H	R
26		2,4'-DDE	7.333	1.000	A	H	R
27		trans-Nonachlor	7.515	1.000	Q	H	R
28		2,4'-DDD	7.705	1.000	A	H	R
29		2,4'-DDT	7.887	1.000	A	H	R
30		cis-Nonachlor	7.985	1.000	A	H	R
31		Mirex	8.652	1.000	A	H	R
32		Chlordane (1)	7.427	1.000	A	H	R
33		Chlordane (2)	7.520	1.000	A	H	R
34		Chlordane (3)	8.067	1.000	A	H	R
35		Chlordane - AVE	3.447	1.000	A	H	R
36		Toxaphene (1)	7.502	1.000	A	H	R
37		Toxaphene (2)	7.794	1.000	A	H	R
38		Toxaphene (3)	8.105	1.000	A	H	R
39		Toxaphene (4)	8.346	1.000	A	H	R
40		Toxaphene (5)	8.574	1.000	A	H	R
41		Toxaphene (6)	8.640	1.000	A	H	R
42		Toxaphene - AVE	3.450	1.000	A	H	R
43		Signal #2	3.544	1.000	A	H	R
44	S	TCMX (S) #2	5.988	1.000	A	H	R
45		a-BHC #2	6.595	1.000	A	H	R
46		g-BHC #2	6.914	1.000	A	H	R
47		b-BHC #2	6.978	1.000	A	H	R
48		Heptachlor #2	7.290	1.000	A	H	R
49		d-BHC #2	7.231	1.000	A	H	R
50		Aldrin #2	7.555	1.000	A	H	R
51		Heptachlor Expoxide #2	7.992	1.000	A	H	R
52		trans-Chlordane #2	8.131	1.000	A	H	R
53		cis-Chlordane #2	8.238	1.000	A	H	R
54		Endosulfan I #2	8.289	1.000	A	H	R
55		4,4'-DDE #2	8.343	1.000	A	H	R
56		Dieldrin #2	8.489	1.000	A	H	R

57		Endrin #2	8.715	1.000	A	H	R
58		4,4'-DDD #2	8.758	1.000	A	H	R
59		Endosulfan II #2	8.863	1.000	A	H	R
60		4,4'-DDT #2	8.984	1.000	Q	H	R
61		Endrin Aldehyde #2	9.099	1.000	Q	H	R
62		Endosulfan Sulfate #2	9.289	1.000	A	H	R
63		Methoxychlor #2	9.463	1.000	Q	H	R
64		Endrin Ketone #2	9.687	1.000	A	H	R
65	S	DCBP (S) #2	10.541	1.000	A	H	R
66		Hexachlorobutadiene #2	3.688	1.000	A	H	R
67		Hexachlorobenzene #2	6.454	1.000	A	H	R
68		Oxychlordane #2	7.920	1.000	A	H	R
69		2,4'-DDE #2	8.122	1.000	A	H	R
70		trans-Nonachlor #2	8.194	1.000	A	H	R
71		2,4'-DDD #2	8.495	1.000	A	H	R
72		2,4'-DDT #2	8.718	1.000	A	H	R
73		cis-Nonachlor #2	8.758	1.000	A	H	R
74		Mirex #2	9.679	1.000	A	H	R
75		Chlordane (1) #2	8.129	1.000	A	H	R
76		Chlordane (2) #2	8.236	1.000	A	H	R
77		Chlordane (3) #2	8.896	1.000	A	H	R
78		Chlordane - AVE #2	3.428	1.000	A	H	R
79		Toxaphene (1) #2	8.466	1.000	A	H	R
80		Toxaphene (2) #2	8.812	1.000	A	H	R
81		Toxaphene (3) #2	8.848	1.000	A	H	R
82		Toxaphene (4) #2	8.915	1.000	A	H	R
83		Toxaphene (5) #2	9.091	1.000	A	H	R
84		Toxaphene (6) #2	9.470	1.000	A	H	R
85		Toxaphene - AVE #2	3.434	1.000	A	H	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:34 2019

Calibration Report DUALECD5

Method Path : R:\methods\
Method File : ECD5_QUANTPEST_190823.M
Title : Instrument: DualECD5
Last Update : Mon Aug 26 11:48:23 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD5-08231936 2 =ECD5-08231937 3 =ECD5-08231938 4 =ECD5-08231939 5 =ECD5-08

6 =ECD5-08231941 7 =ECD5-08231924 8 =ECD5-08231925

MJB 5/26/19

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	S	TCMX (S)	Avg	-----	1.6598 e5	-----	0.0400
2)		a-BHC	Avg	-----	2.2933 e5	-----	0.0214
3)		g-BHC	Avg	-----	2.0178 e5	-----	0.0276
4)		b-BHC	Avg	-----	9.0384 e4	-----	0.0859
5)		Heptachlor	Avg	-----	1.8130 e5	-----	0.0386
6)		d-BHC	Avg	-----	1.9669 e5	-----	0.0302
7)		Aldrin	Avg	-----	1.9745 e5	-----	0.0323
8)		Heptachlor Expoxide	Avg	-----	1.8418 e5	-----	0.0542
9)		trans-Chlordane	Avg	-----	1.8489 e5	-----	0.0393
10)		cis-Chlordane	Avg	-----	1.8207 e5	-----	0.0786
11)		Endosulfan I	Avg	-----	1.7018 e5	-----	0.0513
12)		4,4'-DDE	Avg	-----	1.8853 e5	-----	0.0292
13)		Dieldrin	Avg	-----	1.9198 e5	-----	0.0325
14)		Endrin	Avg	-----	1.4703 e5	-----	0.0498
15)		4,4'-DDD	Avg	-----	1.5714 e5	-----	0.0311
16)		Endosulfan II	Avg	-----	1.4361 e5	-----	0.0561
17)		4,4'-DDT	Avg	-----	1.1956 e5	-----	0.0972
18)		Endrin Aldehyde	Quad	1.1904 e5	1.1635 e5	8.0472 e1	0.9966
19)		Endosulfan Sulfate	Avg	-----	1.5498 e5	-----	0.0664
20)		Methoxychlor	Avg	-----	5.8574 e4	-----	0.0933
21)		Endrin Ketone	Avg	-----	1.6676 e5	-----	0.0380
22)	S	DCBP (S)	Avg	-----	1.4110 e5	-----	0.0833
23)		Hexachlorobutadiene	Avg	-----	1.8274 e5	-----	0.0517
24)		Hexachlorobenzene	Avg	-----	1.7629 e5	-----	0.0496
25)		Oxychlordane	Avg	-----	1.6454 e5	-----	0.0413
26)		2,4'-DDE	Avg	-----	1.2826 e5	-----	0.0401
27)		trans-Nonachlor	Quad	5.6661 e4	1.7916 e5	-2.0512	0.9987
28)		2,4'-DDD	Avg	-----	1.1413 e5	-----	0.0365
29)		2,4'-DDT	Avg	-----	1.0969 e5	-----	0.0488
30)		cis-Nonachlor	Avg	-----	2.0762 e5	-----	0.0325
31)		Mirex	Avg	-----	1.2537 e5	-----	0.0839
32)		Chlordane (1)	Avg	-----	1.9690 e4	-----	0.0196
33)		Chlordane (2)	Avg	-----	2.5064 e4	-----	0.0214
34)		Chlordane (3)	Avg	-----	5.7811 e3	-----	0.0434
35)		Chlordane - AVE	Avg	-----	-----	-----	0.0000
36)		Toxaphene (1)	Avg	-----	8.9565 e2	-----	0.0564
37)		Toxaphene (2)	Avg	-----	1.6149 e3	-----	0.0608
38)		Toxaphene (3)	Avg	-----	3.3675 e3	-----	0.0272
39)		Toxaphene (4)	Avg	-----	3.2402 e3	-----	0.0178
40)		Toxaphene (5)	Avg	-----	2.3971 e3	-----	0.0533
41)		Toxaphene (6)	Avg	-----	3.1646 e3	-----	0.0517
42)		Toxaphene - AVE	Avg	-----	-----	-----	0.0000

Signal #2

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	S	TCMX (S)	Avg	-----	2.9337 e5	-----	0.0354
2)		a-BHC	Avg	-----	4.1034 e5	-----	0.0641
3)		g-BHC	Avg	-----	3.5670 e5	-----	0.0579
4)		b-BHC	Avg	-----	1.5827 e5	-----	0.0660
5)		Heptachlor	Avg	-----	3.0598 e5	-----	0.0698
6)		d-BHC	Avg	-----	3.5267 e5	-----	0.0660
7)		Aldrin	Avg	-----	3.2939 e5	-----	0.0519

8)		Heptachlor Expoxide	Avg	-----	3.0085 e5	-----	0.0440
9)		trans-Chlordane	Avg	-----	3.1333 e5	-----	0.0810
10)		cis-Chlordane	Avg	-----	2.9125 e5	-----	0.0459
11)		Endosulfan I	Avg	-----	2.7518 e5	-----	0.0477
12)		4,4'-DDE	Avg	-----	3.1068 e5	-----	0.0582
13)		Dieldrin	Avg	-----	3.0415 e5	-----	0.0661
14)		Endrin	Avg	-----	2.2583 e5	-----	0.0732
15)		4,4'-DDD	Avg	-----	2.5621 e5	-----	0.0737
16)		Endosulfan II	Avg	-----	2.3061 e5	-----	0.0555
17)		4,4'-DDT	Quad	6.5669 e3	1.7140 e5	3.3014 e2	0.9992
18)		Endrin Aldehyde	Quad	1.5509 e5	1.8265 e5	2.1823 e2	0.9961
19)		Endosulfan Sulfate	Avg	-----	2.4909 e5	-----	0.0535
20)		Methoxychlor	Quad	1.4992 e4	8.0453 e4	1.7846 e2	0.9988
21)		Endrin Ketone	Avg	-----	2.5732 e5	-----	0.0831
22)	S	DCBP (S)	Avg	-----	1.7976 e5	-----	0.0618
23)		Hexachlorobutadiene	Avg	-----	3.7593 e5	-----	0.0287
24)		Hexachlorobenzene	Avg	-----	3.1409 e5	-----	0.0504
25)		Oxychlordane	Avg	-----	2.7390 e5	-----	0.0649
26)		2,4'-DDE	Avg	-----	2.1214 e5	-----	0.0452
27)		trans-Nonachlor	Avg	-----	3.0164 e5	-----	0.0484
28)		2,4'-DDD	Avg	-----	1.8886 e5	-----	0.0547
29)		2,4'-DDT	Avg	-----	1.7834 e5	-----	0.0624
30)		cis-Nonachlor	Avg	-----	3.3545 e5	-----	0.0623
31)		Mirex	Avg	-----	1.8607 e5	-----	0.0759
32)		Chlordane (1)	Avg	-----	3.6185 e4	-----	0.0762
33)		Chlordane (2)	Avg	-----	3.0364 e4	-----	0.0530
34)		Chlordane (3)	Avg	-----	8.9659 e3	-----	0.0514
35)		Chlordane - AVE	Avg	-----	-----	-----	0.0000
36)		Toxaphene (1)	Avg	-----	2.6243 e3	-----	0.0316
37)		Toxaphene (2)	Avg	-----	3.2910 e3	-----	0.0170
38)		Toxaphene (3)	Avg	-----	5.0683 e3	-----	0.0265
39)		Toxaphene (4)	Avg	-----	8.3498 e3	-----	0.0351
40)		Toxaphene (5)	Avg	-----	4.6604 e3	-----	0.0324
41)		Toxaphene (6)	Avg	-----	4.7502 e3	-----	0.0510
42)		Toxaphene - AVE	Avg	-----	-----	-----	0.0000

ECD5_QUANTPEST_190823.M Mon Aug 26 16:04:42 2019

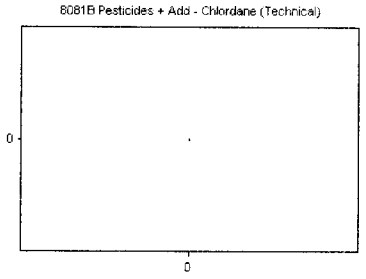
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Chlordane (Technical)

Curve Fit: **AVERAGE RF**

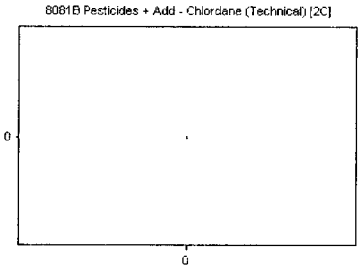


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~5365~~	~~107.300~~	~~3.45~~
~~9H23034-CALI~~	~~100~~	~~4938~~	~~49.380~~	~~3.45~~
~~9H23034-CALJ~~	~~200~~	~~4503~~	~~22.515~~	~~3.45~~
~~9H23034-CALK~~	~~500~~	~~4056~~	~~8.112~~	~~3.45~~
~~9H23034-CALL~~	~~1000~~	~~4825~~	~~4.825~~	~~3.45~~
~~9H23034-CALM~~	~~2000~~	~~4939~~	~~2.469~~	~~3.45~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Chlordane (Technical) [2C]

Curve Fit: **AVERAGE RF**

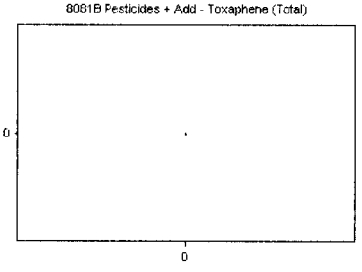


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALI~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALJ~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALK~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALL~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALM~~	~~2000~~	~~0~~	~~0.000~~	~~0.00~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Toxaphene (Total)

Curve Fit: **AVERAGE RF**

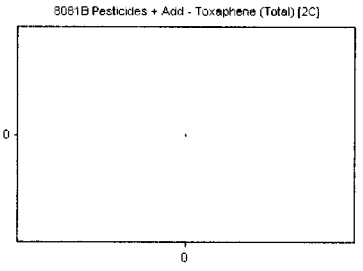


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~4023~~	~~80.460~~	~~3.45~~
~~9H23034-CALO~~	~~100~~	~~3536~~	~~35.360~~	~~3.45~~
~~9H23034-CALP~~	~~200~~	~~3919~~	~~19.595~~	~~3.45~~
~~9H23034-CALQ~~	~~500~~	~~4132~~	~~8.264~~	~~3.45~~
~~9H23034-CALR~~	~~1000~~	~~2687~~	~~2.687~~	~~3.45~~
~~9H23034-CALS~~	~~2000~~	~~4166~~	~~2.083~~	~~3.45~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Toxaphene (Total) [2C]

Curve Fit: **AVERAGE RF**

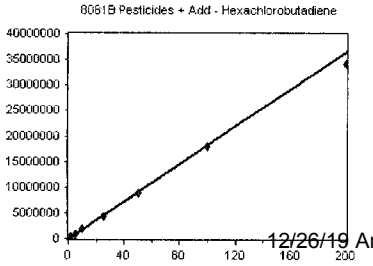


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALO~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALP~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALQ~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALR~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALS~~	~~2000~~	~~0~~	~~0.000~~	~~0.00~~

AVE RF **0.000** RF RSD **0.00** AVE RT **0.00**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	198207	198207.000	3.20
9H23034-CALA	2	375794	187897.000	3.20
9H23034-CALB	5	959211	191842.200	3.20
9H23034-CALC	10	1838187	183818.700	3.20
9H23034-CALD	25	4363988	174559.500	3.20
9H23034-CALE	50	8761747	175234.900	3.20
9H23034-CALF	100	795213E+07	179521.300	3.20
9H23034-CALG	200	416653E+07	170832.600	3.20

AVE RF **182739.200** RF RSD **5.17** AVE RT **3.20**

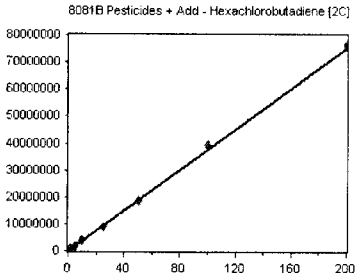
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Hexachlorobutadiene [2C]

Curve Fit: **AVERAGE RF**

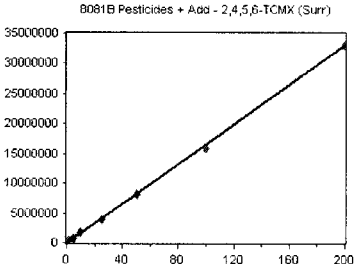


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	383198	383198.000	3.69
9H23034-CALA	2	754548	377274.000	3.69
9H23034-CALB	5	1877484	375496.800	3.69
9H23034-CALC	10	3701532	370153.200	3.69
9H23034-CALD	25	8892238	355689.500	3.69
9H23034-CALE	50	863562E+07	372712.400	3.69
9H23034-CALF	100	929888E+07	392988.800	3.69
9H23034-CALG	200	598857E+07	379942.800	3.69

AVE RF **375931.900** RF RSD **2.87** AVE RT **3.69**

2,4,5,6-TCMX (Surr)

Curve Fit: **AVERAGE RF**

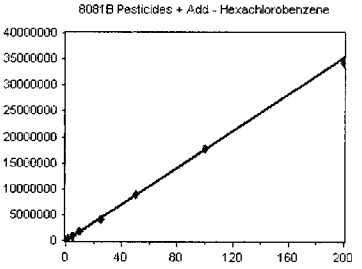


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176748	176748.000	5.40
9H23034-CAL2	2	349972	174986.000	5.40
9H23034-CAL3	5	834206	166841.200	5.40
9H23034-CAL4	10	1644447	164444.700	5.40
9H23034-CAL5	25	4015832	160633.300	5.39
9H23034-CAL6	50	8071481	161429.600	5.39
9H23034-CAL7	100	585092E+07	158509.200	5.40
9H23034-CAL8	200	284254E+07	164212.700	5.39

AVE RF **165975.600** RF RSD **4.00** AVE RT **5.40**

Hexachlorobenzene

Curve Fit: **AVERAGE RF**

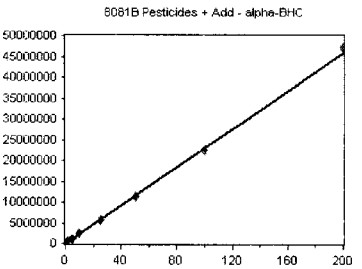


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	194679	194679.000	5.78
9H23034-CALA	2	362082	181041.000	5.78
9H23034-CALB	5	853793	170758.600	5.78
9H23034-CALC	10	1711884	171188.400	5.77
9H23034-CALD	25	4184551	167382.000	5.77
9H23034-CALE	50	8911624	178232.500	5.77
9H23034-CALF	100	767002E+07	176700.200	5.78
9H23034-CALG	200	407346E+07	170367.300	5.77

AVE RF **176293.600** RF RSD **4.96** AVE RT **5.77**

alpha-BHC

Curve Fit: **AVERAGE RF**

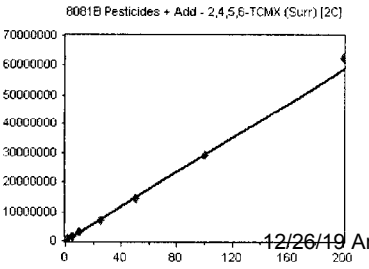


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	231994	231994.000	5.94
9H23034-CAL2	2	458365	229182.500	5.94
9H23034-CAL3	5	1147932	229586.400	5.94
9H23034-CAL4	10	2347065	234706.500	5.94
9H23034-CAL5	25	5553096	222123.800	5.94
9H23034-CAL6	50	136959E+07	227391.800	5.94
9H23034-CAL7	100	236358E+07	223635.800	5.94
9H23034-CAL8	200	720225E+07	236011.200	5.94

AVE RF **229329.000** RF RSD **2.14** AVE RT **5.94**

2,4,5,6-TCMX (Surr) [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	300053	300053.000	5.99
9H23034-CAL2	2	600766	300383.000	5.99
9H23034-CAL3	5	1437876	287575.200	5.99
9H23034-CAL4	10	2865854	286585.400	5.99
9H23034-CAL5	25	7072923	282916.900	5.99
9H23034-CAL6	50	419675E+07	283935.000	5.99
9H23034-CAL7	100	925633E+07	292563.300	5.99
9H23034-CAL8	200	258445E+07	312922.300	5.99

AVE RF **293366.800** RF RSD **3.54** AVE RT **5.99**

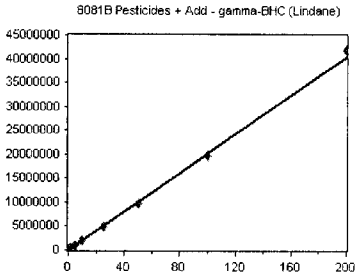
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

gamma-BHC (Lindane)

Curve Fit: **AVERAGE RF**

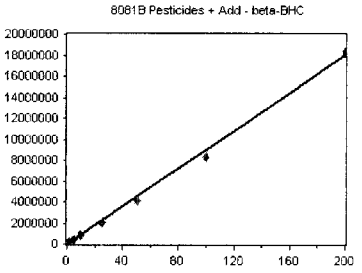


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	207427	207427.000	6.22
9H23034-CAL2	2	406027	203013.500	6.22
9H23034-CAL3	5	1020724	204144.800	6.22
9H23034-CAL4	10	2034859	203485.900	6.22
9H23034-CAL5	25	4875657	195026.300	6.22
9H23034-CAL6	50	9785999	195720.000	6.22
9H23034-CAL7	100	959509E+07	195950.900	6.22
9H23034-CAL8	200	188973E+07	209448.600	6.22

AVE RF **201777.100** RF RSD **2.76** AVE RT **6.22**

beta-BHC

Curve Fit: **AVERAGE RF**

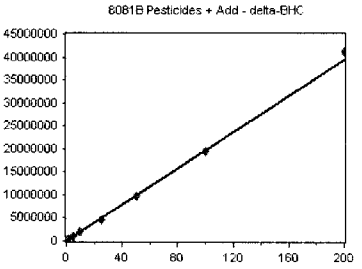


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	104326	104326.000	6.30
9H23034-CAL2	2	194168	97084.000	6.30
9H23034-CAL3	5	456954	91390.800	6.30
9H23034-CAL4	10	910875	91087.500	6.30
9H23034-CAL5	25	2060378	82415.120	6.30
9H23034-CAL6	50	4100858	82017.160	6.30
9H23034-CAL7	100	8355416	83554.160	6.30
9H23034-CAL8	200	.82387E+07	91193.500	6.29

AVE RF **90383.530** RF RSD **8.59** AVE RT **6.30**

delta-BHC

Curve Fit: **AVERAGE RF**

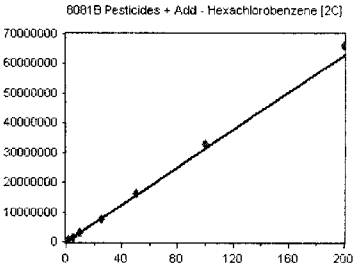


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	199840	199840.000	6.45
9H23034-CAL2	2	386980	193490.000	6.45
9H23034-CAL3	5	1004012	200802.400	6.45
9H23034-CAL4	10	2006493	200649.300	6.45
9H23034-CAL5	25	4667166	186686.600	6.45
9H23034-CAL6	50	9610742	192214.800	6.45
9H23034-CAL7	100	947558E+07	194755.800	6.45
9H23034-CAL8	200	101659E+07	205083.000	6.45

AVE RF **196690.200** RF RSD **3.02** AVE RT **6.45**

Hexachlorobenzene [2C]

Curve Fit: **AVERAGE RF**

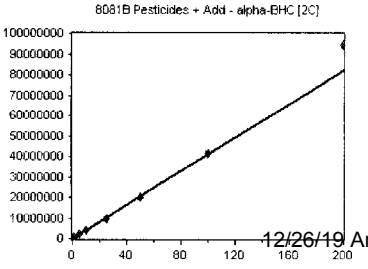


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	328025	328025.000	6.45
9H23034-CALA	2	632830	316415.000	6.45
9H23034-CALB	5	1485583	297116.600	6.45
9H23034-CALC	10	2936294	293629.400	6.45
9H23034-CALD	25	7416324	296653.000	6.45
9H23034-CALE	50	309416E+07	321883.200	6.45
9H23034-CALF	100	276671E+07	327667.100	6.46
9H23034-CALG	200	326197E+07	331309.800	6.45

AVE RF **314087.400** RF RSD **5.04** AVE RT **6.45**

alpha-BHC [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	393119	393119.000	6.60
9H23034-CAL2	2	784586	392293.000	6.60
9H23034-CAL3	5	1985438	397087.600	6.60
9H23034-CAL4	10	4095890	409589.000	6.60
9H23034-CAL5	25	9910863	396434.500	6.60
9H23034-CAL6	50	026582E+07	405316.400	6.60
9H23034-CAL7	100	169921E+07	416992.100	6.60
9H23034-CAL8	200	437675E+07	471883.800	6.60

AVE RF **410339.400** RF RSD **6.44** AVE RT **6.60**

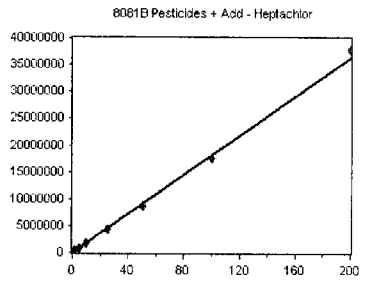
Element Calibration Review Sheet

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**

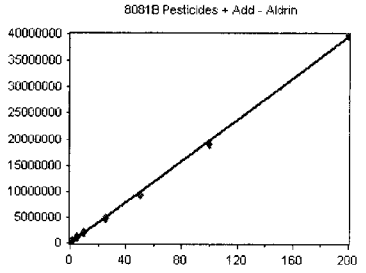


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	192066	192066.000	6.64
9H23034-CAL2	2	369615	184807.500	6.64
9H23034-CAL3	5	899091	179818.200	6.64
9H23034-CAL4	10	1819621	181962.100	6.63
9H23034-CAL5	25	4314306	172572.200	6.63
9H23034-CAL6	50	8735158	174703.200	6.63
9H23034-CAL7	100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

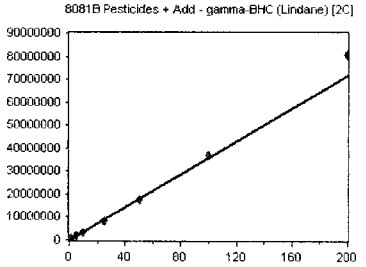


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	205523	205523.000	6.88
9H23034-CAL2	2	399550	199775.000	6.88
9H23034-CAL3	5	1012733	202546.600	6.88
9H23034-CAL4	10	2010802	201080.200	6.88
9H23034-CAL5	25	4845355	193814.200	6.87
9H23034-CAL6	50	9327672	186553.400	6.87
9H23034-CAL7	100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

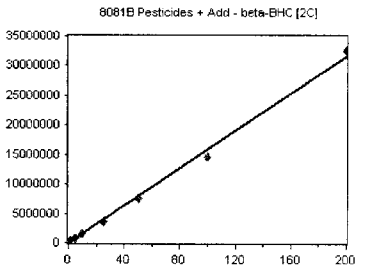


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	352286	352286.000	6.92
9H23034-CAL2	2	690922	345461.000	6.92
9H23034-CAL3	5	1742677	348535.400	6.92
9H23034-CAL4	10	3476733	347673.300	6.92
9H23034-CAL5	25	8508386	340335.400	6.91
9H23034-CAL6	50	738107E+07	347621.400	6.91
9H23034-CAL7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

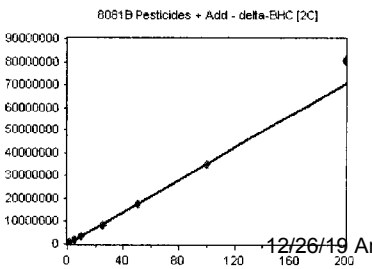


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176262	176262.000	6.98
9H23034-CAL2	2	335260	167630.000	6.98
9H23034-CAL3	5	788630	157726.000	6.98
9H23034-CAL4	10	1580847	158084.700	6.98
9H23034-CAL5	25	3677155	147086.200	6.98
9H23034-CAL6	50	7516011	150320.200	6.98
9H23034-CAL7	100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

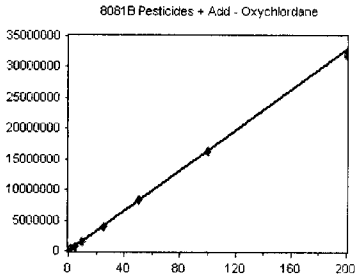
Element Calibration Review Sheet

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**

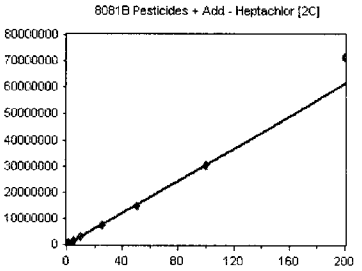


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	176844	176844.000	7.26
9H23034-CALA	2	339370	169685.000	7.26
9H23034-CALB	5	819748	163949.600	7.26
9H23034-CALC	10	1591613	159161.300	7.26
9H23034-CALD	25	3881255	155250.200	7.26
9H23034-CALE	50	8382873	167657.500	7.26
9H23034-CALF	100	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**

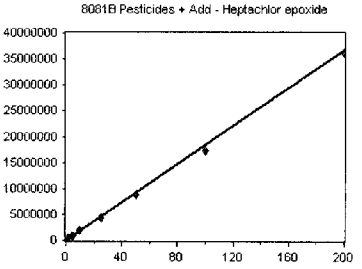


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	309811	309811.000	7.29
9H23034-CAL2	2	586765	293382.500	7.29
9H23034-CAL3	5	1508218	301643.600	7.29
9H23034-CAL4	10	3005915	300591.500	7.29
9H23034-CAL5	25	7282282	291291.300	7.29
9H23034-CAL6	50	459514E+07	291902.800	7.29
9H23034-CAL7	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**

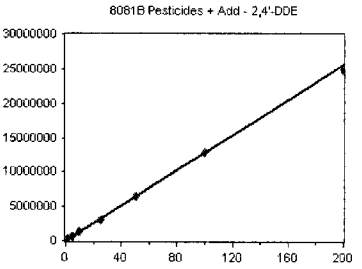


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	200503	200503.000	7.34
9H23034-CAL2	2	392052	196026.000	7.34
9H23034-CAL3	5	923620	184724.000	7.34
9H23034-CAL4	10	1865428	186542.800	7.34
9H23034-CAL5	25	4344286	173771.400	7.33
9H23034-CAL6	50	8869300	177386.000	7.33
9H23034-CAL7	100	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**

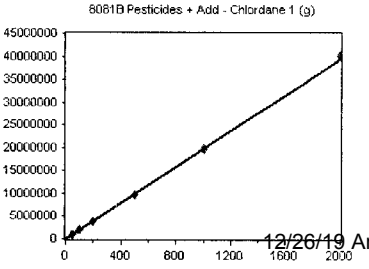


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	137947	137947.000	7.34
9H23034-CALA	2	265212	132606.000	7.33
9H23034-CALB	5	633168	126633.600	7.33
9H23034-CALC	10	1245265	124526.500	7.33
9H23034-CALD	25	3059421	122376.800	7.33
9H23034-CALE	50	6510588	130211.800	7.33
9H23034-CALF	100	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

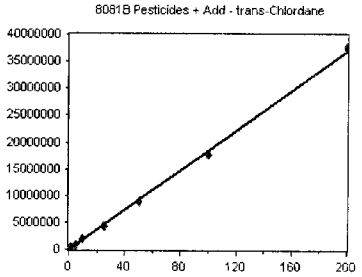
AVE RF **19589.610** RF RSD **1.96** AVE RT **7.43**

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

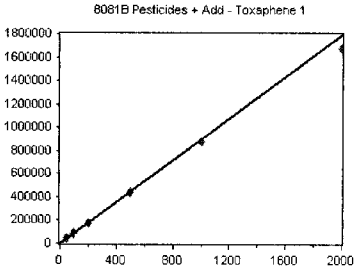


Curve Fit: **AVERAGE RF**

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

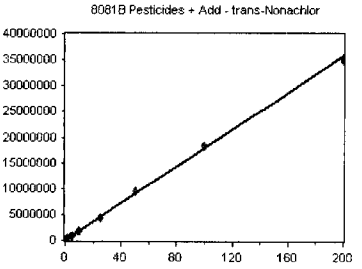


Curve Fit: **AVERAGE RF**

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

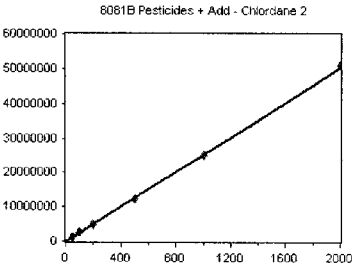


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

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

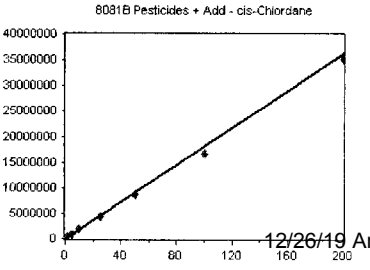


Curve Fit: **AVERAGE RF**

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**

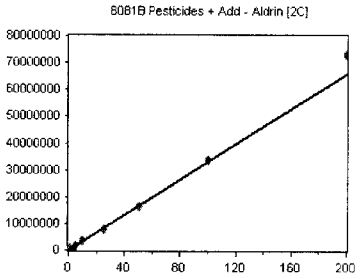
Element Calibration Review Sheet

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**

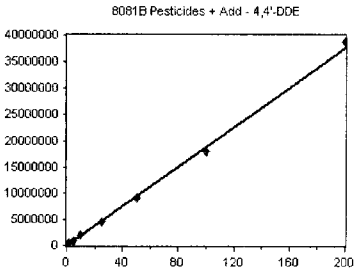


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	317466	317466.000	7.56
9H23034-CAL2	2	635458	317729.000	7.56
9H23034-CAL3	5	1600995	320199.000	7.56
9H23034-CAL4	10	3341093	334109.300	7.56
9H23034-CAL5	25	7878574	315143.000	7.56
9H23034-CAL6	50	526442E+07	325288.400	7.56
9H23034-CAL7	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**

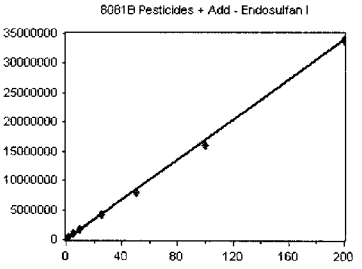


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	193435	193435.000	7.59
9H23034-CAL2	2	388618	194309.000	7.59
9H23034-CAL3	5	953351	190670.200	7.59
9H23034-CAL4	10	1890931	189093.100	7.59
9H23034-CAL5	25	4571066	182842.600	7.58
9H23034-CAL6	50	9177389	183547.800	7.58
9H23034-CAL7	100	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**

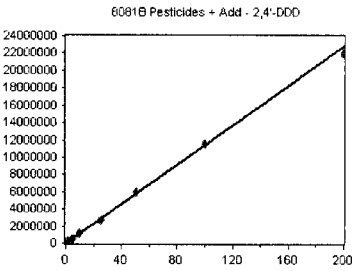


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	185217	185217.000	7.63
9H23034-CAL2	2	357368	178684.000	7.63
9H23034-CAL3	5	861509	172301.800	7.62
9H23034-CAL4	10	1709332	170933.200	7.62
9H23034-CAL5	25	4111285	164451.400	7.62
9H23034-CAL6	50	7984410	159688.200	7.62
9H23034-CAL7	100	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**

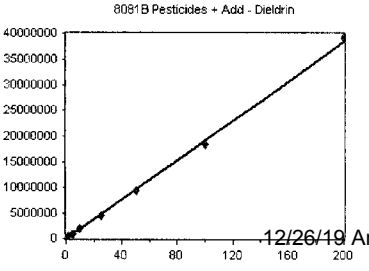


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	120240	120240.000	7.71
9H23034-CALA	2	233089	116544.500	7.71
9H23034-CALB	5	560942	112188.400	7.71
9H23034-CALC	10	1103587	110358.700	7.71
9H23034-CALD	25	2745178	109807.100	7.71
9H23034-CALE	50	5920095	118401.900	7.71
9H23034-CALF	100	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

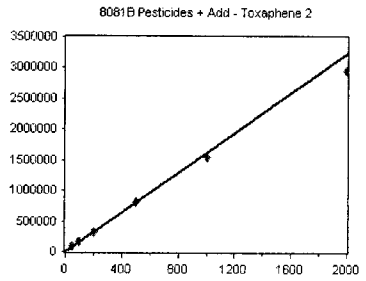
AVE RF **191979.300** RF RSD **3.25** AVE RT **7.79**

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

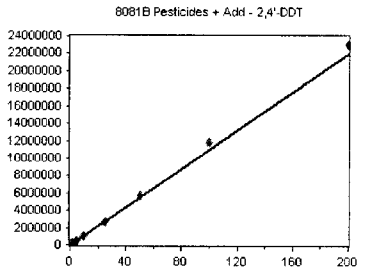


Curve Fit: **AVERAGE RF**

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

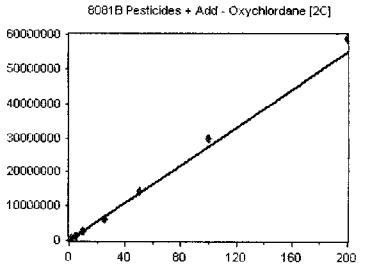


Curve Fit: **AVERAGE RF**

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]

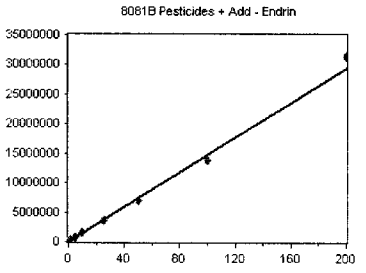


Curve Fit: **AVERAGE RF**

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

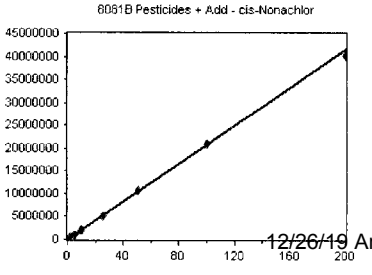


Curve Fit: **AVERAGE RF**

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**

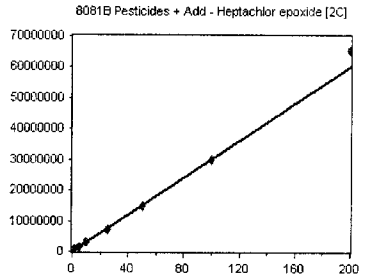
Element Calibration Review Sheet

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**

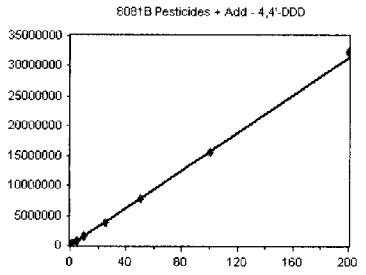


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	310098	310098.000	7.99
9H23034-CAL2	2	606240	303120.000	7.99
9H23034-CAL3	5	1455941	291188.200	7.99
9H23034-CAL4	10	2959301	295930.100	7.99
9H23034-CAL5	25	7064729	282589.200	7.99
9H23034-CAL6	50	483779E+07	296755.800	7.99
9H23034-CAL7	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**

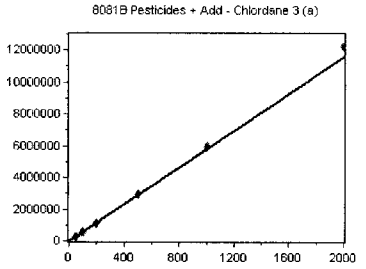


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	164956	164956.000	8.01
9H23034-CAL2	2	314622	157311.000	8.01
9H23034-CAL3	5	790498	158099.600	8.01
9H23034-CAL4	10	1565974	156597.400	8.01
9H23034-CAL5	25	3727035	149081.400	8.00
9H23034-CAL6	50	7726197	154523.900	8.00
9H23034-CAL7	100	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**

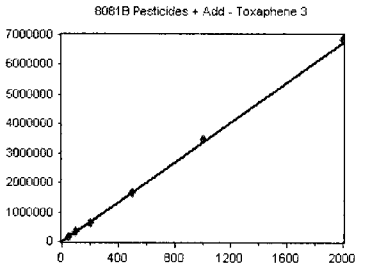


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	288087	5761.740	8.07
9H23034-CALI	100	548196	5481.960	8.07
9H23034-CALJ	200	1101677	5508.385	8.07
9H23034-CALK	500	2921278	5842.556	8.07
9H23034-CALL	1000	5987927	5987.927	8.07
9H23034-CALM	2000	220831E+07	6104.155	8.07

AVE RF **5781.121** RF RSD **4.34** AVE RT **8.07**

Toxaphene 3

Curve Fit: **AVERAGE RF**

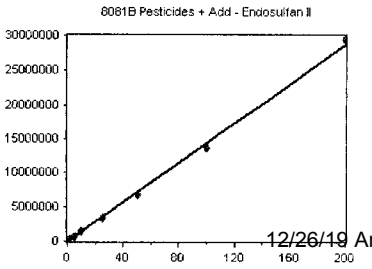


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	169381	3387.620	8.11
9H23034-CALO	100	332842	3328.420	8.11
9H23034-CALP	200	644464	3222.320	8.11
9H23034-CALQ	500	1677481	3354.962	8.11
9H23034-CALR	1000	3495877	3495.877	8.11
9H23034-CALS	2000	6831460	3415.730	8.10

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**

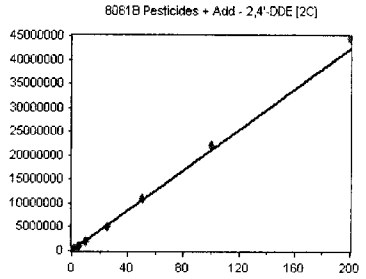
Element Calibration Review Sheet

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**

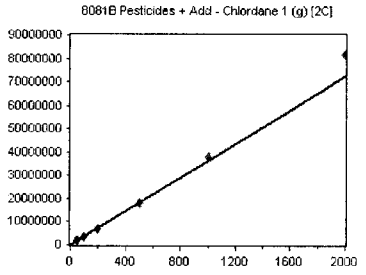


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	219164	219164.000	8.12
9H23034-CALA	2	411812	205906.000	8.12
9H23034-CALB	5	1029687	205937.400	8.12
9H23034-CALC	10	2018331	201833.100	8.12
9H23034-CALD	25	4999232	199969.300	8.12
9H23034-CALE	50	.10064E+07	220128.000	8.12
9H23034-CALF	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**

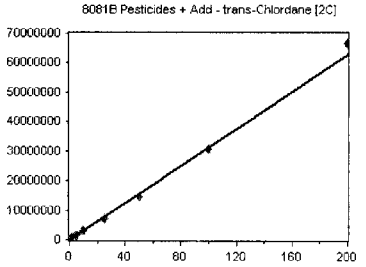


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1754707	35094.140	8.13
9H23034-CALI	100	3378388	33783.880	8.13
9H23034-CALJ	200	6751197	33755.980	8.13
9H23034-CALK	500	783043E+07	35660.860	8.13
9H23034-CALL	1000	796674E+07	37966.740	8.13
9H23034-CALM	2000	169171E+07	40845.860	8.13

AVE RF **36184.580** RF RSD **7.62** AVE RT **8.13**

trans-Chlordane [2C]

Curve Fit: **AVERAGE RF**

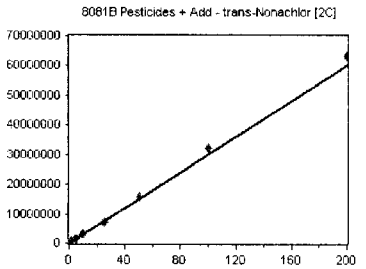


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	364142	364142.000	8.14
9H23034-CAL2	2	644454	322227.000	8.14
9H23034-CAL3	5	1502119	300423.800	8.13
9H23034-CAL4	10	3002782	300278.200	8.13
9H23034-CAL5	25	7157480	286299.200	8.13
9H23034-CAL6	50	467872E+07	293574.400	8.13
9H23034-CAL7	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**

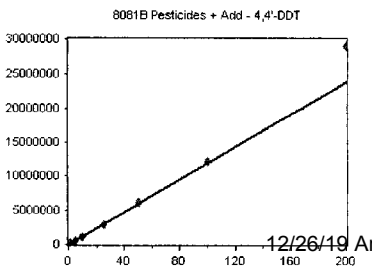


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	306202	306202.000	8.20
9H23034-CALA	2	587765	293882.500	8.19
9H23034-CALB	5	1467723	293544.600	8.19
9H23034-CALC	10	2844404	284440.400	8.19
9H23034-CALD	25	7092288	283691.500	8.19
9H23034-CALE	50	580771E+07	316154.200	8.19
9H23034-CALF	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**

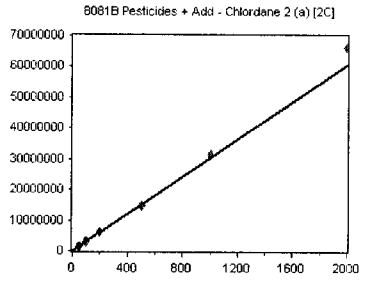
Element Calibration Review Sheet

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**

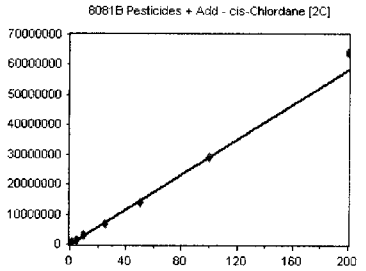


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1472400	29448.000	8.24
9H23034-CALI	100	2905941	29059.410	8.24
9H23034-CALJ	200	5883615	29418.070	8.24
9H23034-CALK	500	481227E+07	29624.540	8.24
9H23034-CALL	1000	149368E+07	31493.680	8.24
9H23034-CALM	2000	528139E+07	33140.700	8.24

AVE RF **30364.070** RF RSD **5.30** AVE RT **8.24**

cis-Chlordane [2C]

Curve Fit: **AVERAGE RF**

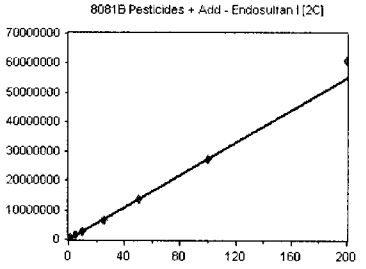


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	299422	299422.000	8.24
9H23034-CAL2	2	579667	289833.500	8.24
9H23034-CAL3	5	1434855	286971.000	8.24
9H23034-CAL4	10	2859573	285957.300	8.24
9H23034-CAL5	25	6935857	277434.300	8.24
9H23034-CAL6	50	400212E+07	280042.400	8.24
9H23034-CAL7	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**

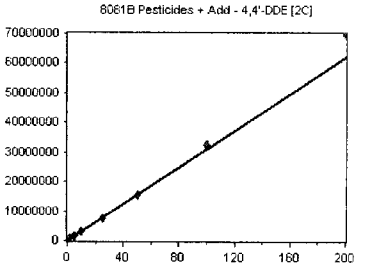


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	278874	278874.000	8.29
9H23034-CAL2	2	540442	270221.000	8.29
9H23034-CAL3	5	1327191	265438.200	8.29
9H23034-CAL4	10	2724272	272427.200	8.29
9H23034-CAL5	25	6571512	262860.500	8.29
9H23034-CAL6	50	371233E+07	274246.600	8.29
9H23034-CAL7	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**

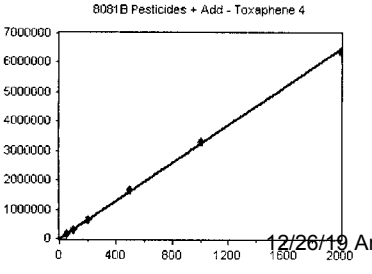


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	298463	298463.000	8.35
9H23034-CAL2	2	598066	299033.000	8.35
9H23034-CAL3	5	1487999	297599.800	8.35
9H23034-CAL4	10	3049792	304979.200	8.35
9H23034-CAL5	25	7501047	300041.900	8.34
9H23034-CAL6	50	555471E+07	311094.200	8.34
9H23034-CAL7	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**

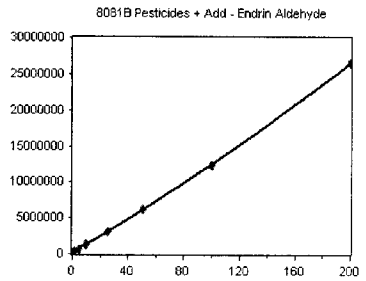
Element Calibration Review Sheet

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**

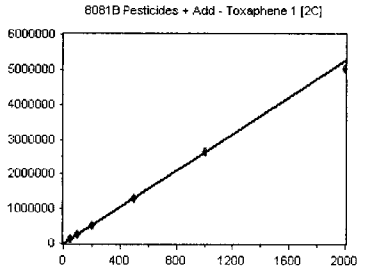


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	241285	241285.000	8.41
9H23034-CAL2	2	328182	164091.000	8.41
9H23034-CAL3	5	683393	136678.600	8.41
9H23034-CAL4	10	1375129	137512.900	8.41
9H23034-CAL5	25	3119767	124790.700	8.40
9H23034-CAL6	50	6224451	124489.000	8.40
9H23034-CAL7	100	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**

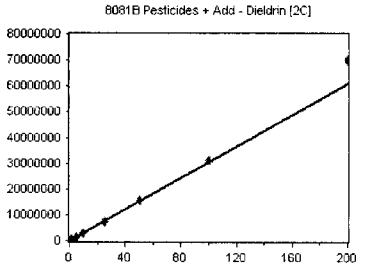


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	136848	2736.960	8.47
9H23034-CALO	100	267534	2675.340	8.47
9H23034-CALP	200	508983	2544.915	8.47
9H23034-CALQ	500	1308994	2617.988	8.47
9H23034-CALR	1000	2654886	2654.886	8.47
9H23034-CALS	2000	5030917	2515.458	8.47

AVE RF **2624.258** RF RSD **3.16** AVE RT **8.47**

Dieldrin [2C]

Curve Fit: **AVERAGE RF**

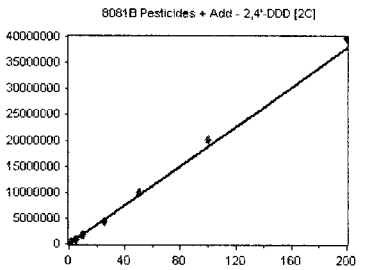


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	296684	296684.000	8.49
9H23034-CAL2	2	583812	291906.000	8.49
9H23034-CAL3	5	1462538	292507.600	8.49
9H23034-CAL4	10	2898866	289886.600	8.49
9H23034-CAL5	25	7333890	293355.600	8.49
9H23034-CAL6	50	543411E+07	308682.200	8.49
9H23034-CAL7	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**

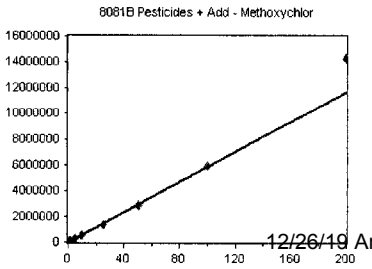


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	192040	192040.000	8.50
9H23034-CALA	2	373596	186798.000	8.50
9H23034-CALB	5	898697	179739.400	8.50
9H23034-CALC	10	1778790	177879.000	8.50
9H23034-CALD	25	4389185	175567.400	8.50
9H23034-CALE	50	9924934	198498.700	8.50
9H23034-CALF	100	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

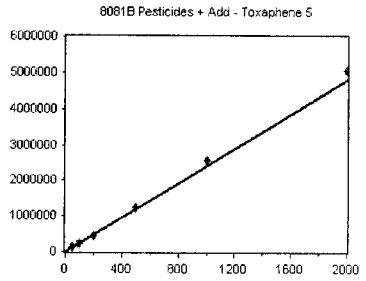
AVE RF **58574.270** RF RSD **9.55** AVE RT **8.54**

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

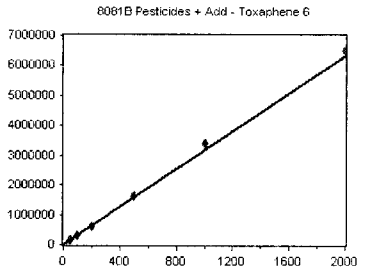


Curve Fit: **AVERAGE RF**

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

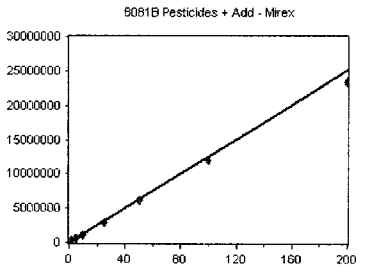


Curve Fit: **AVERAGE RF**

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

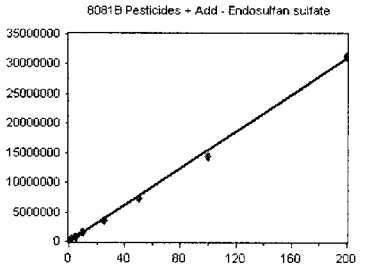


Curve Fit: **AVERAGE RF**

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

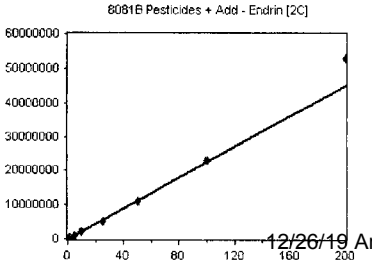


Curve Fit: **AVERAGE RF**

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**

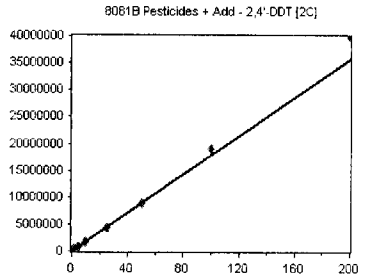
Element Calibration Review Sheet

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**

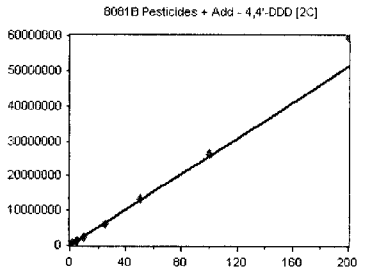


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	173338	173338.000	8.72
9H23034-CALA	2	332170	166085.000	8.72
9H23034-CALB	5	873074	174614.800	8.72
9H23034-CALC	10	1702568	170256.800	8.72
9H23034-CALD	25	4405554	176222.200	8.72
9H23034-CALE	50	8810591	176211.800	8.72
9H23034-CALF	100	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**

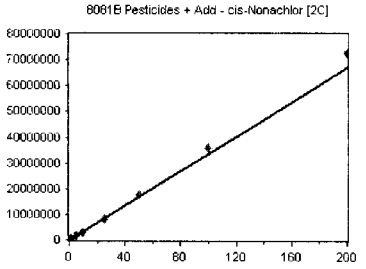


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	251549	251549.000	8.76
9H23034-CAL2	2	488120	244060.000	8.76
9H23034-CAL3	5	1208642	241728.400	8.76
9H23034-CAL4	10	2425496	242549.600	8.76
9H23034-CAL5	25	6146469	245858.800	8.76
9H23034-CAL6	50	315945E+07	263189.000	8.76
9H23034-CAL7	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**

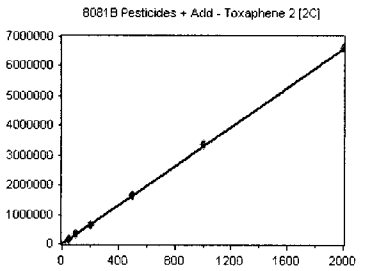


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	332745	332745.000	8.76
9H23034-CALA	2	624783	312391.500	8.76
9H23034-CALB	5	1587243	317448.600	8.76
9H23034-CALC	10	3148054	314805.400	8.76
9H23034-CALD	25	8219393	328775.700	8.76
9H23034-CALE	50	772123E+07	354424.600	8.76
9H23034-CALF	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**

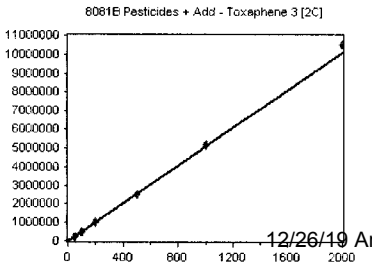


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164706	3294.120	8.81
9H23034-CALO	100	324070	3240.700	8.81
9H23034-CALP	200	645322	3226.610	8.81
9H23034-CALQ	500	1647741	3295.482	8.81
9H23034-CALR	1000	3384036	3384.036	8.81
9H23034-CALS	2000	6610397	3305.198	8.81

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**

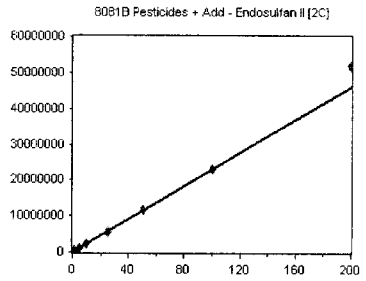
Element Calibration Review Sheet

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**

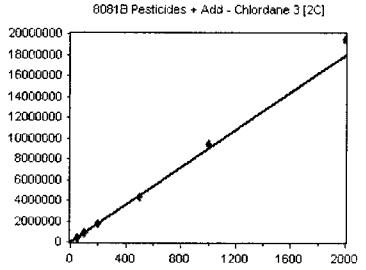


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	232156	232156.000	8.87
9H23034-CAL2	2	462256	231128.000	8.86
9H23034-CAL3	5	1096359	219271.800	8.87
9H23034-CAL4	10	2243610	224361.000	8.86
9H23034-CAL5	25	5447602	217904.100	8.86
9H23034-CAL6	50	153453E+07	230690.600	8.86
9H23034-CAL7	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**

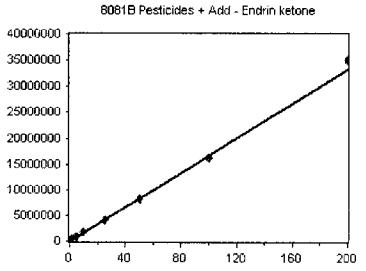


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	439020	8780.400	8.90
9H23034-CALI	100	874465	8744.650	8.90
9H23034-CALJ	200	1731727	8658.635	8.90
9H23034-CALK	500	4271709	8543.418	8.90
9H23034-CALL	1000	9358900	9358.900	8.90
9H23034-CALM	2000	941852E+07	9709.260	8.90

AVE RF **8965.877** RF RSD **5.14** AVE RT **8.90**

Endrin ketone

Curve Fit: **AVERAGE RF**

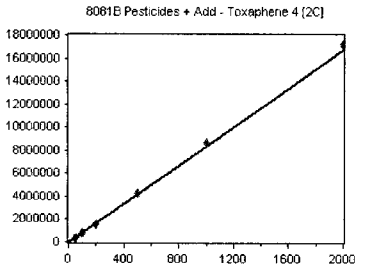


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	177552	177552.000	8.90
9H23034-CAL2	2	331269	165634.500	8.90
9H23034-CAL3	5	811384	162276.800	8.90
9H23034-CAL4	10	1664380	166438.000	8.90
9H23034-CAL5	25	4008958	160358.300	8.90
9H23034-CAL6	50	8190707	163814.100	8.90
9H23034-CAL7	100	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**

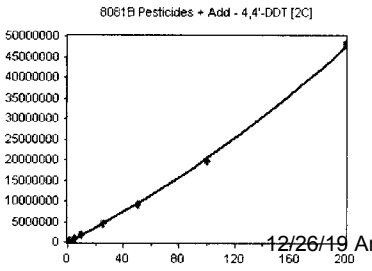


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	416348	8326.960	8.92
9H23034-CALO	100	811948	8119.480	8.92
9H23034-CALP	200	1580436	7902.180	8.91
9H23034-CALQ	500	4252640	8505.280	8.92
9H23034-CALR	1000	8650068	8650.068	8.92
9H23034-CALS	2000	719004E+07	8595.020	8.91

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**

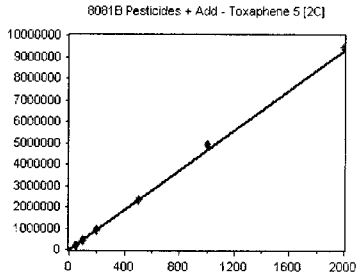
Element Calibration Review Sheet

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**

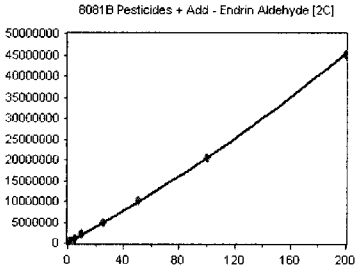


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	233185	4663.700	9.09
9H23034-CALO	100	452209	4522.090	9.09
9H23034-CALP	200	895397	4476.985	9.09
9H23034-CALQ	500	2340668	4681.336	9.09
9H23034-CALR	1000	4900430	4900.430	9.09
9H23034-CALS	2000	9435236	4717.618	9.09

AVE RF **4660.360** RF RSD **3.24** AVE RT **9.09**

Endrin Aldehyde [2C]

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

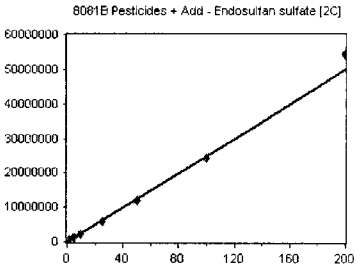


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	348624	348624.000	9.10
9H23034-CAL2	2	477694	238847.000	9.10
9H23034-CAL3	5	1045869	209173.800	9.10
9H23034-CAL4	10	2125028	212502.800	9.10
9H23034-CAL5	25	4848504	193940.200	9.10
9H23034-CAL6	50	020903E+07	204180.600	9.10
9H23034-CAL7	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**

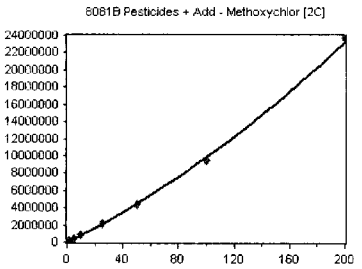


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	265797	265797.000	9.29
9H23034-CAL2	2	498767	249383.500	9.29
9H23034-CAL3	5	1175908	235181.600	9.29
9H23034-CAL4	10	2424584	242458.400	9.29
9H23034-CAL5	25	5978906	239156.200	9.29
9H23034-CAL6	50	214929E+07	242985.800	9.29
9H23034-CAL7	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**

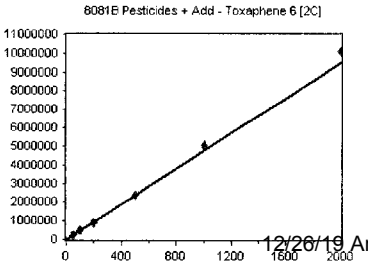


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	95155	95155.000	9.47
9H23034-CAL2	2	178074	89037.000	9.47
9H23034-CAL3	5	413802	82760.400	9.47
9H23034-CAL4	10	883069	88306.900	9.47
9H23034-CAL5	25	2166659	86666.360	9.46
9H23034-CAL6	50	4346199	86923.980	9.46
9H23034-CAL7	100	9444987	94449.870	9.46
9H23034-CAL8	200	:.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**

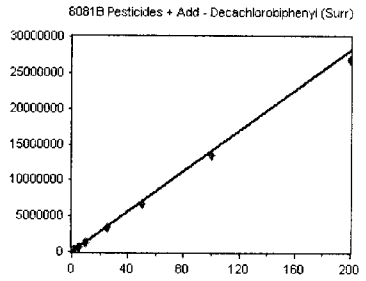
Element Calibration Review Sheet

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**

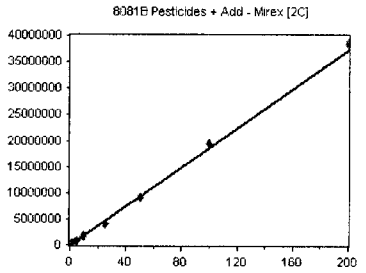


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	163865	163865.000	9.59
9H23034-CAL2	2	309904	154952.000	9.59
9H23034-CAL3	5	701050	140210.000	9.59
9H23034-CAL4	10	1335468	133546.800	9.59
9H23034-CAL5	25	3342634	133705.400	9.59
9H23034-CAL6	50	6678990	133579.800	9.59
9H23034-CAL7	100	.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**

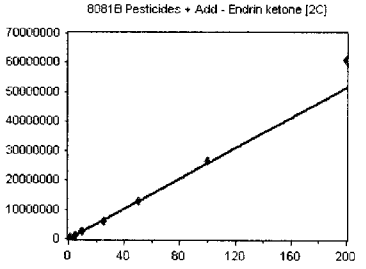


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	209783	209783.000	9.68
9H23034-CALA	2	388199	194099.500	9.68
9H23034-CALB	5	895523	179104.600	9.68
9H23034-CALC	10	1722960	172296.000	9.68
9H23034-CALD	25	4138115	165524.600	9.68
9H23034-CALE	50	9100959	182019.200	9.68
9H23034-CALF	100	.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**

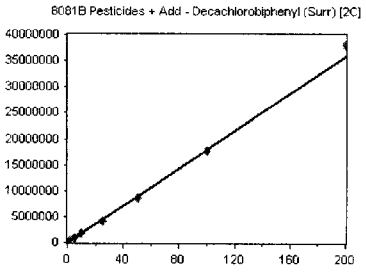


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	255763	255763.000	9.69
9H23034-CAL2	2	493110	246555.000	9.69
9H23034-CAL3	5	1205004	241000.800	9.69
9H23034-CAL4	10	2496985	249698.500	9.69
9H23034-CAL5	25	5893691	235747.600	9.69
9H23034-CAL6	50	295457E+07	259091.400	9.69
9H23034-CAL7	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).

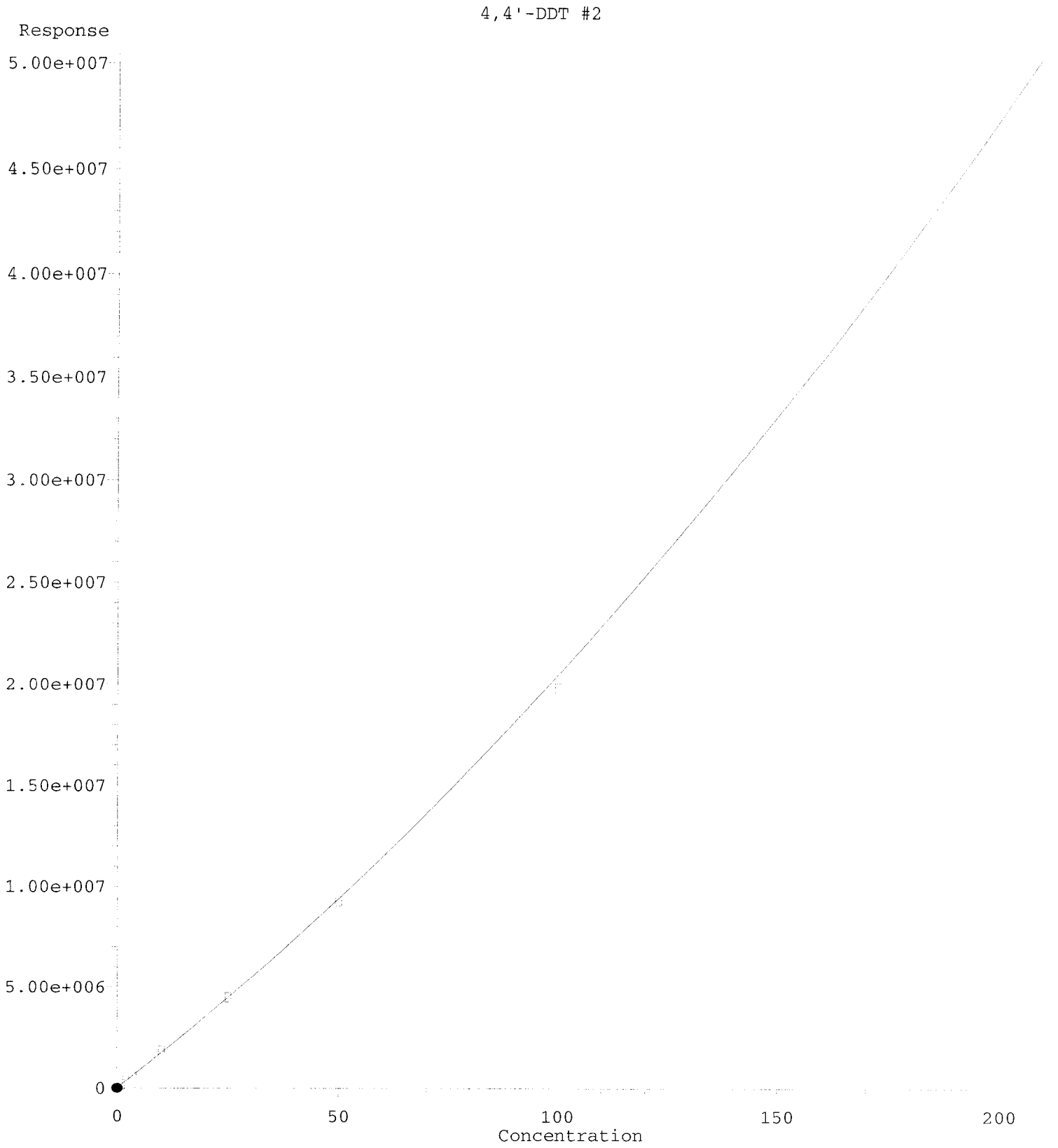
ICV RECOVERIES

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.

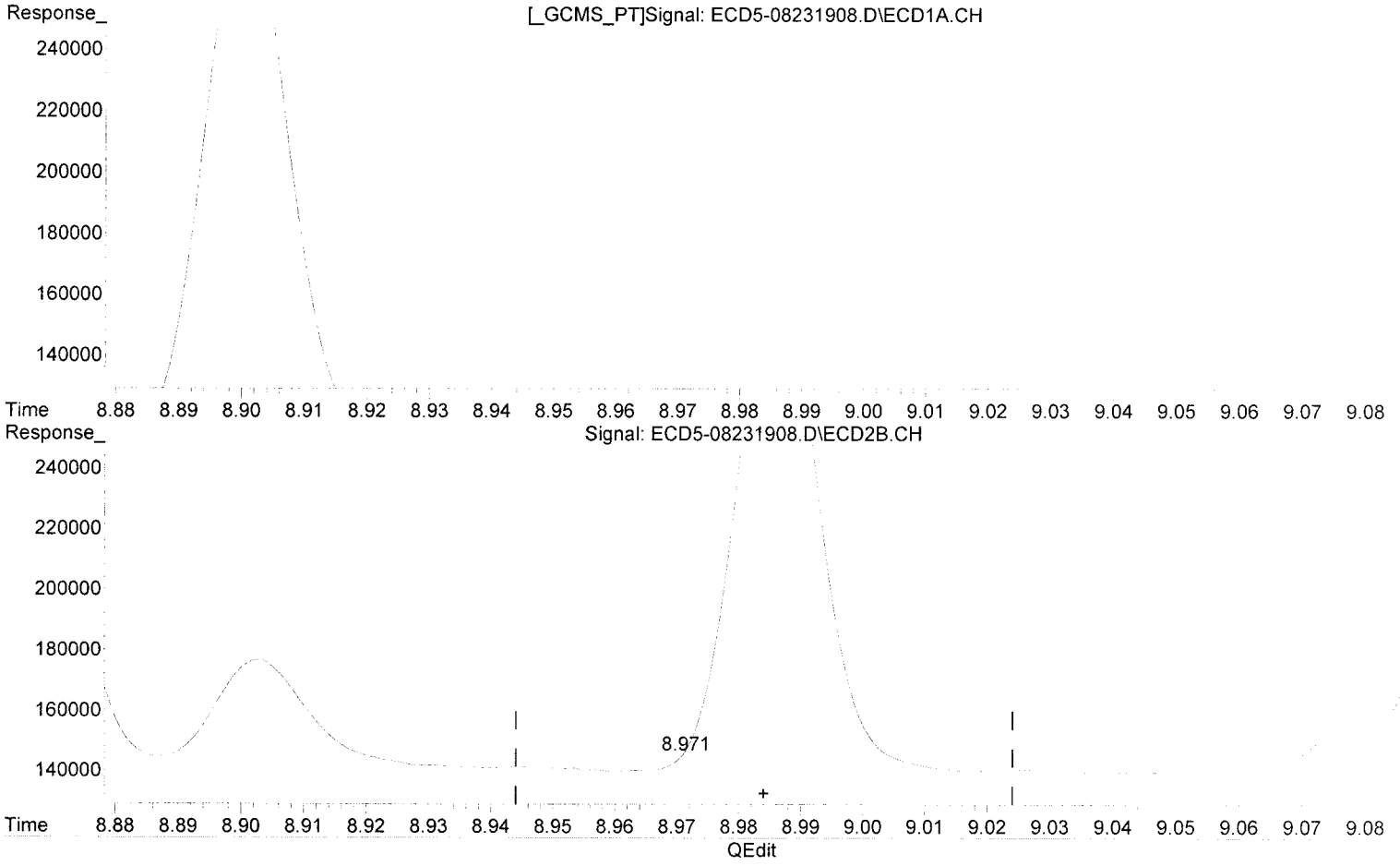


R = 3.30e+002 A*A + 1.71e+005 A + 6.57e+003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

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

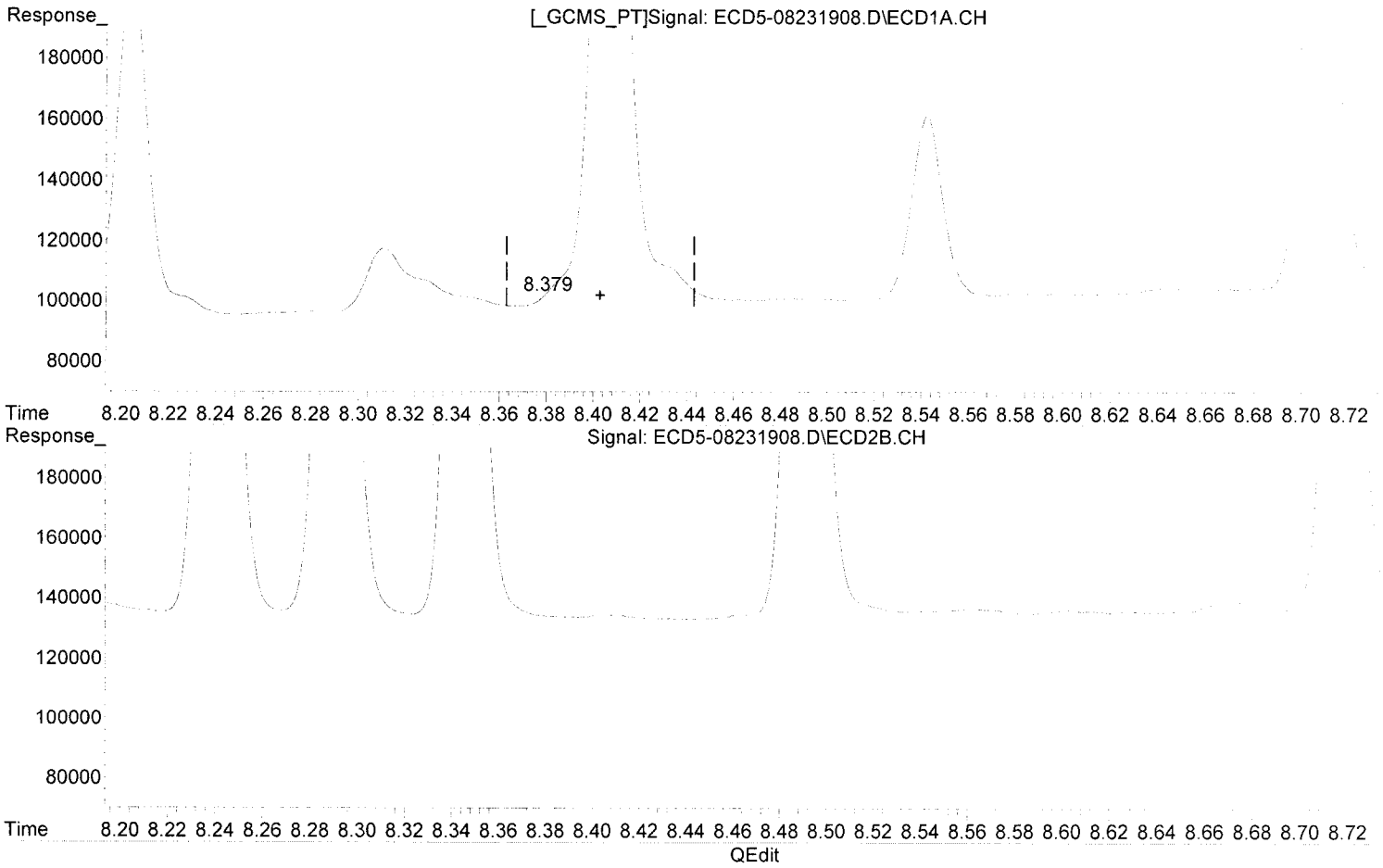
(+) = Expected Retention Time

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

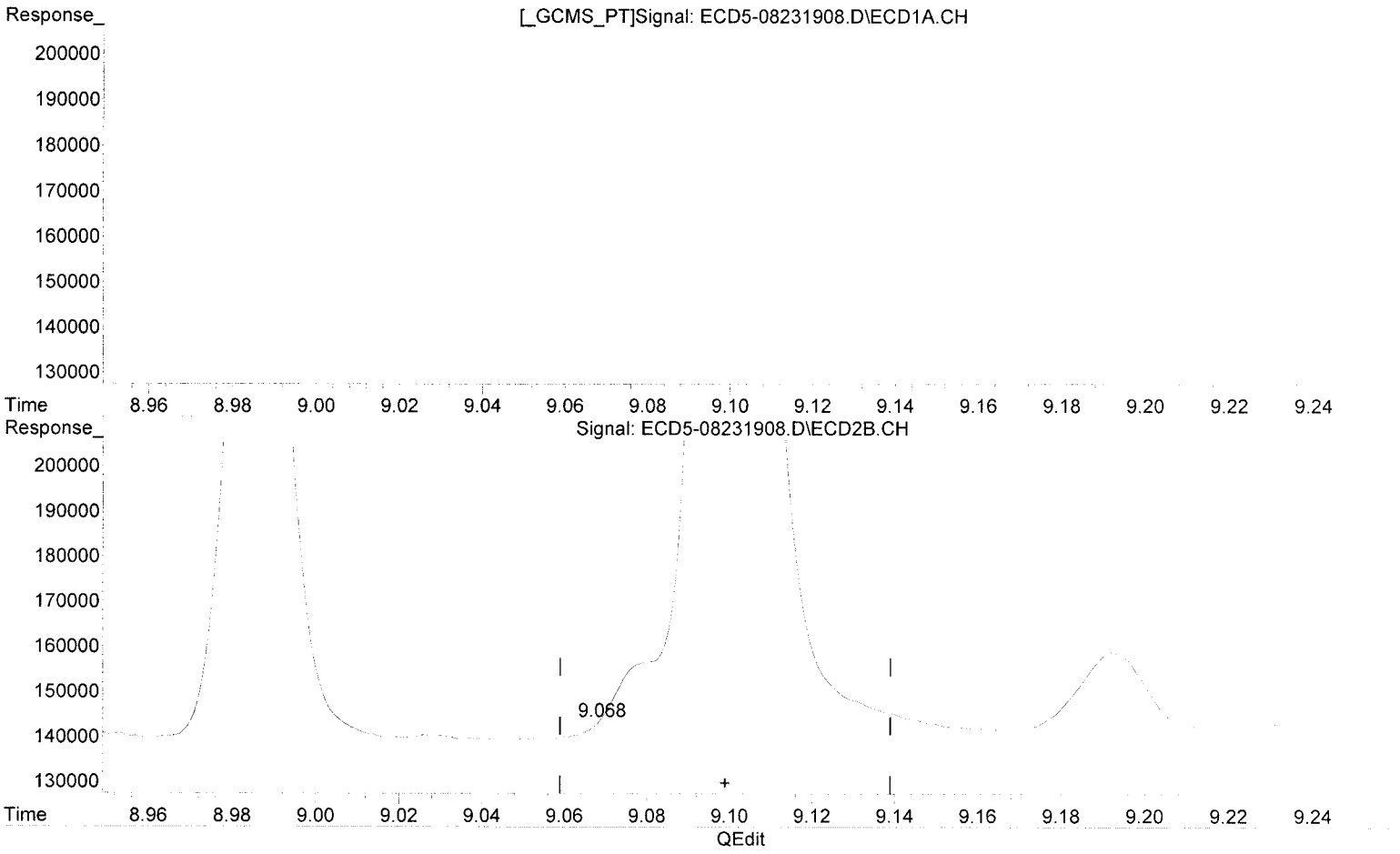
(+) = Expected Retention Time

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

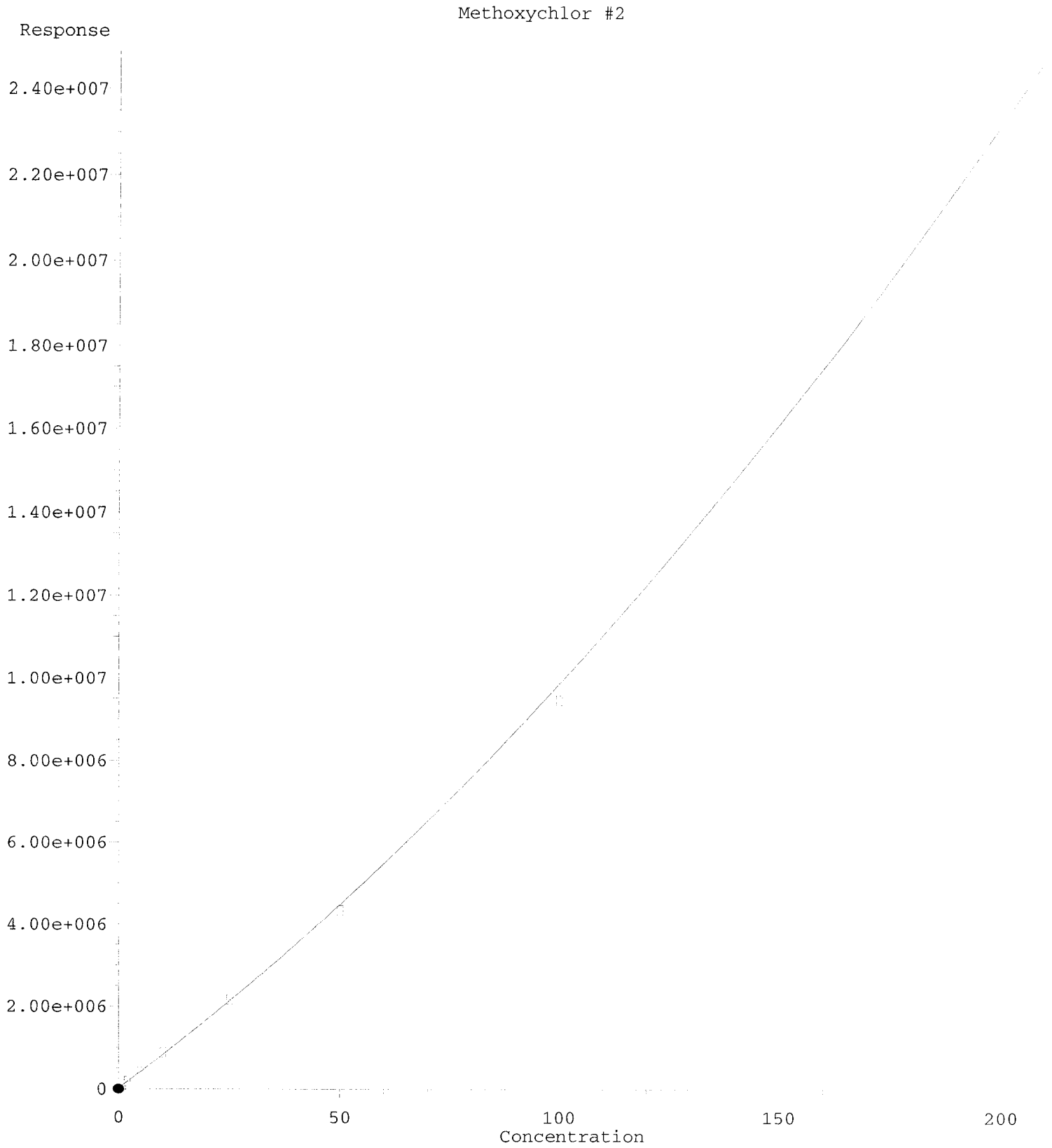
MJB 8/26/19

(18) Endrin Aldehyde #2

9.068min -0.831 ng/mL m

response 3374

(+) = Expected Retention Time

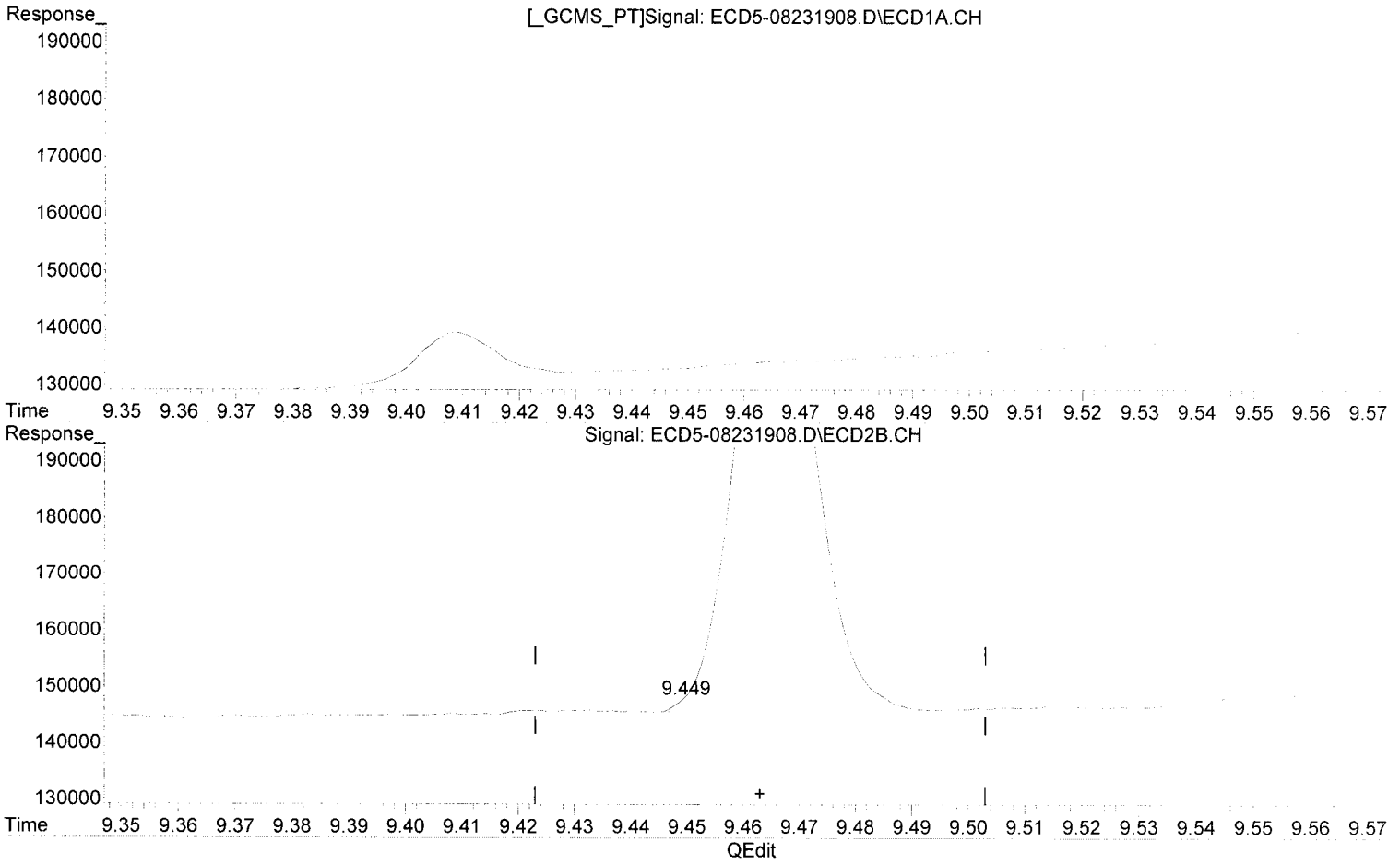


R = 1.78e+002 A*A + 8.05e+004 A + 1.50e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

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

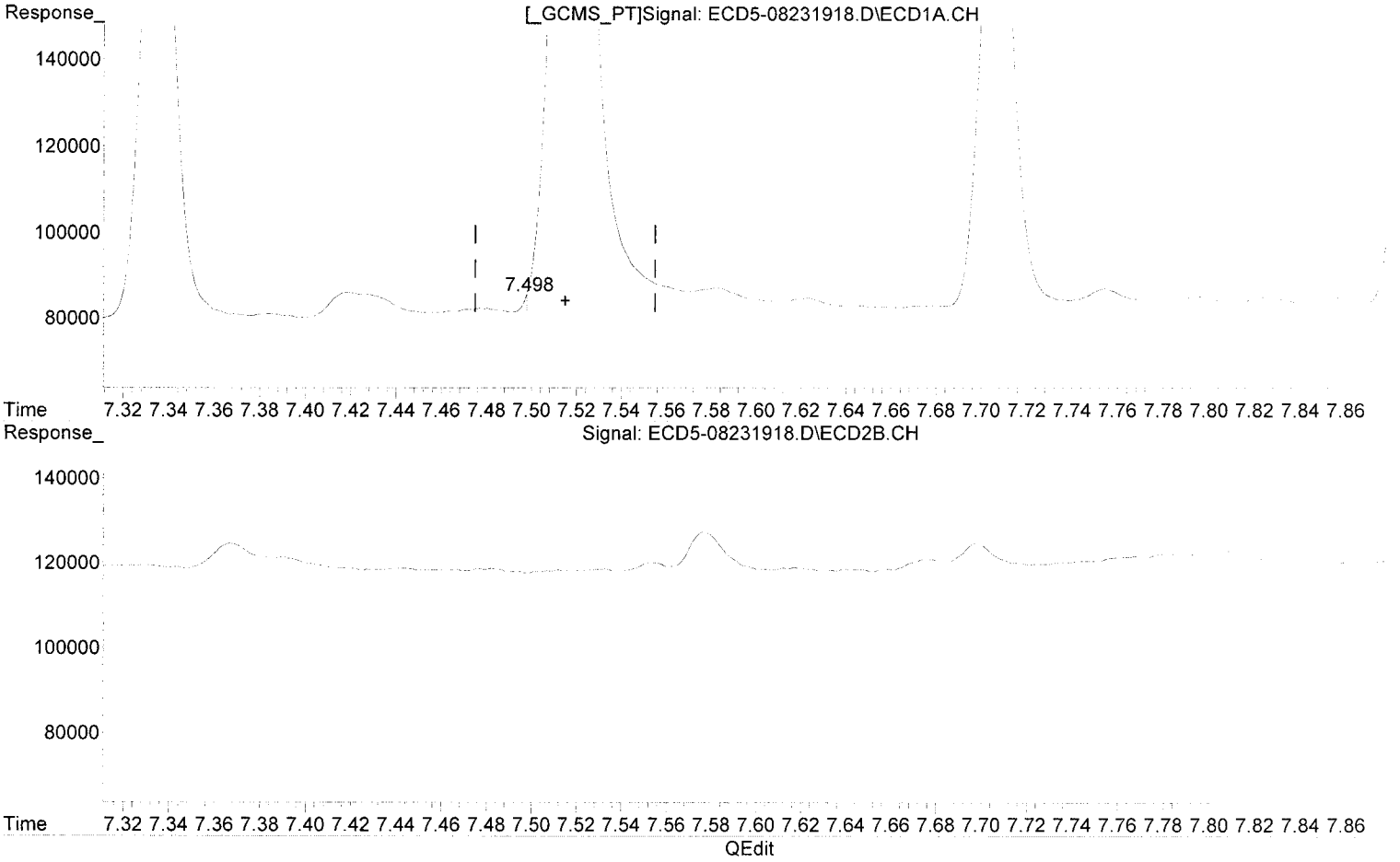
(+) = Expected Retention Time

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

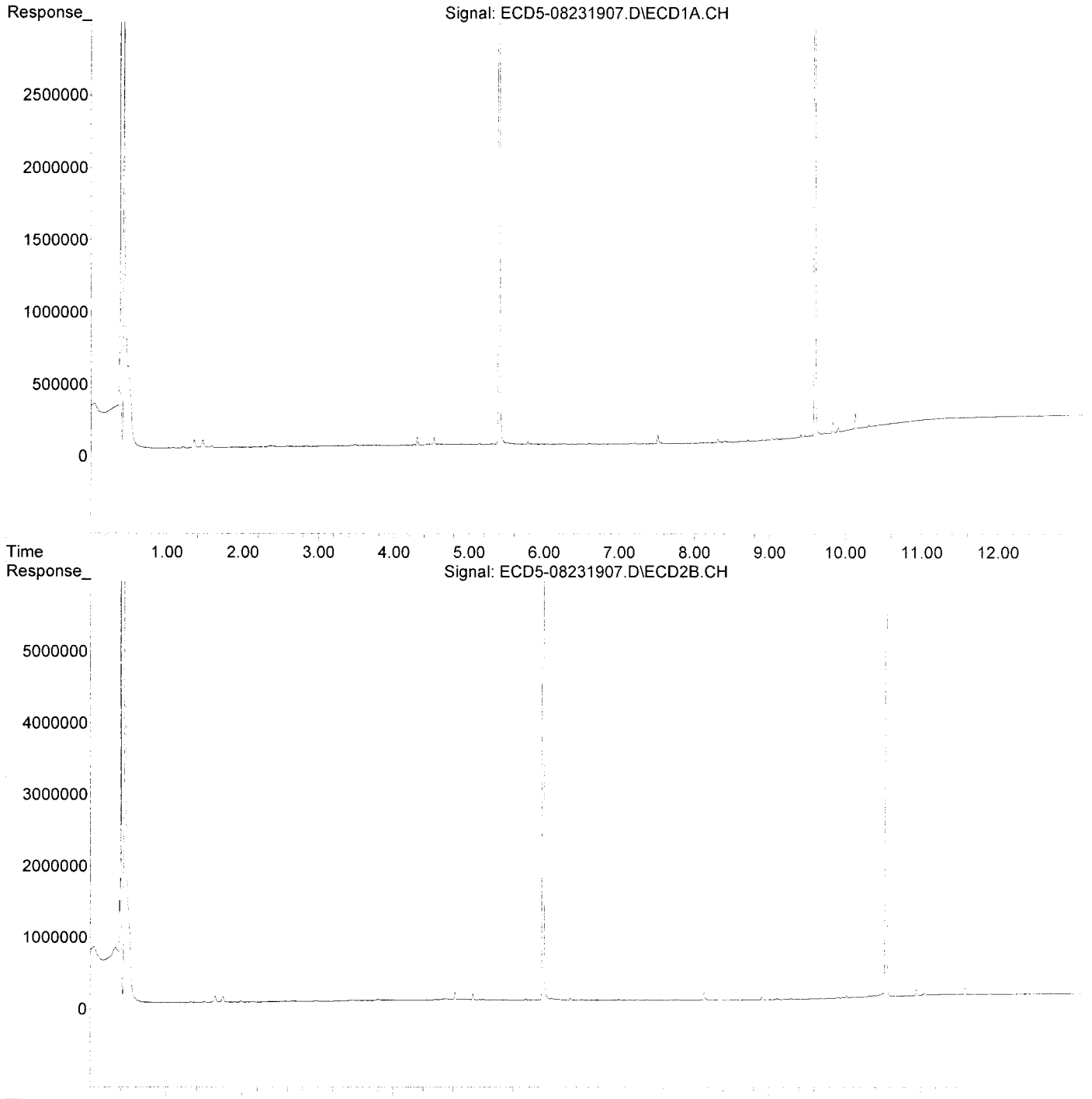
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.398	5.992	15096765	27637017	90.958	94.206	
22) S	DCBP (S)	9.594	10.543	12462090	16576085	88.322	92.211	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.253f	0.000	6973	0	0.035	N.D.	#
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

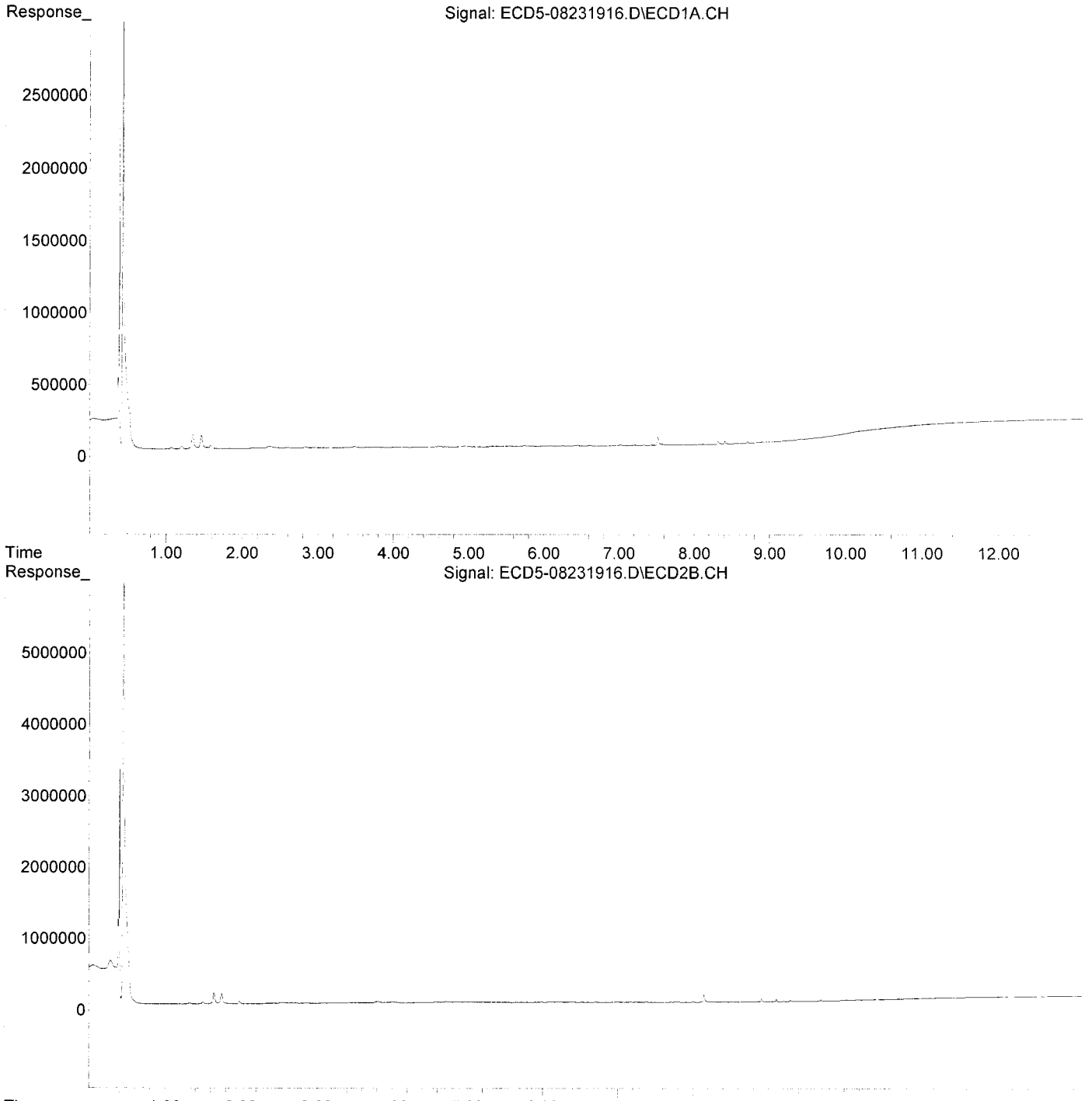
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	7755	N.D.	0.026	#
22)	S	DCBP (S)	9.595	10.540	5550	5660	0.039	0.031	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4370	0	0.022	N.D.	#
4)		b-BHC	0.000	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

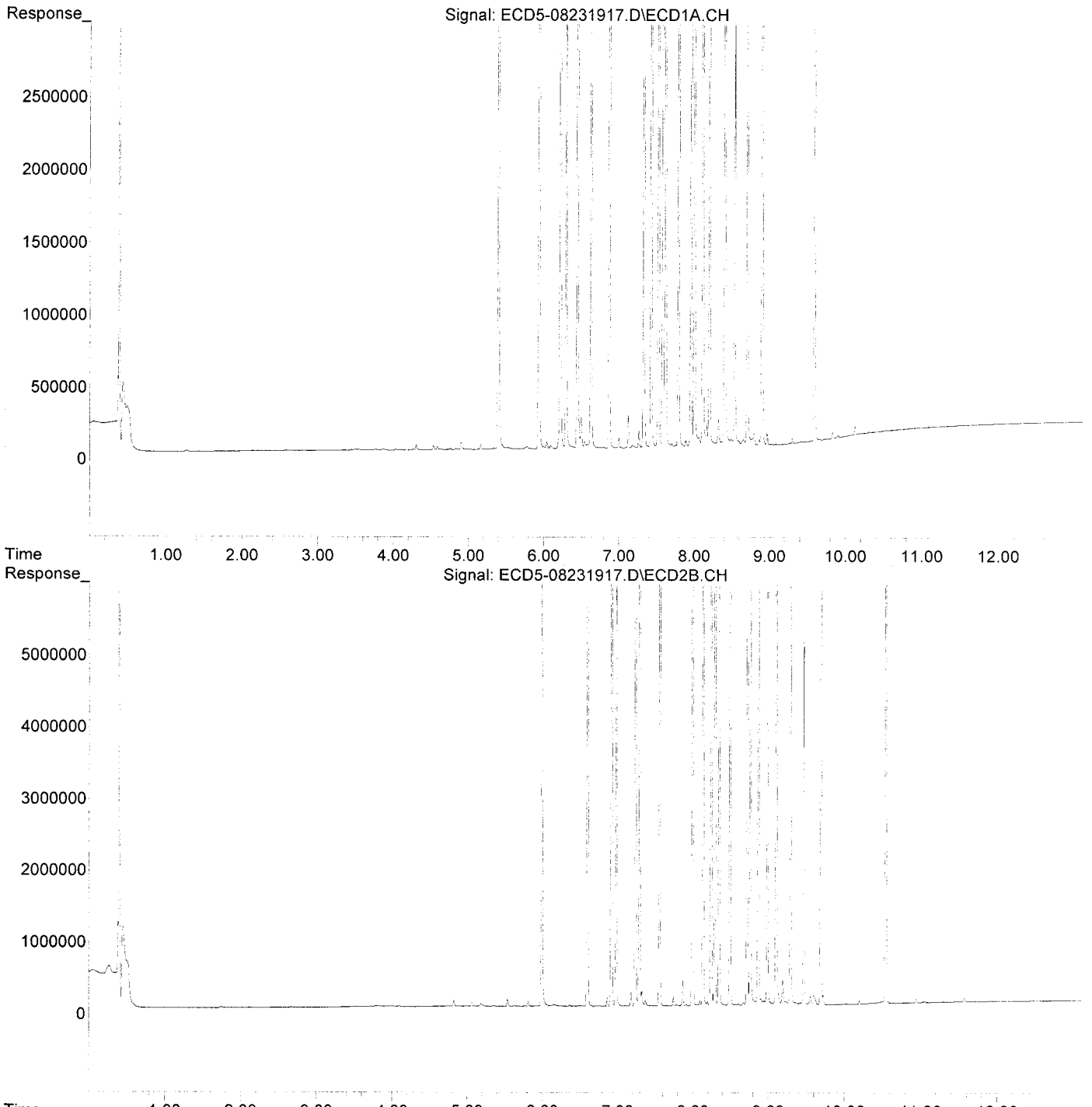
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.395	5.989	8209928	14467910	49.465	49.317	
22)	S DCBP (S)	9.589	10.539	6928381	8667079	49.103	48.214	
	Target Compounds							
2)	a-BHC	5.935	6.596	11712240	21507667	51.072	52.414	
3)	g-BHC	6.218	6.913	10370774	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

clean
MJB 8/26/19

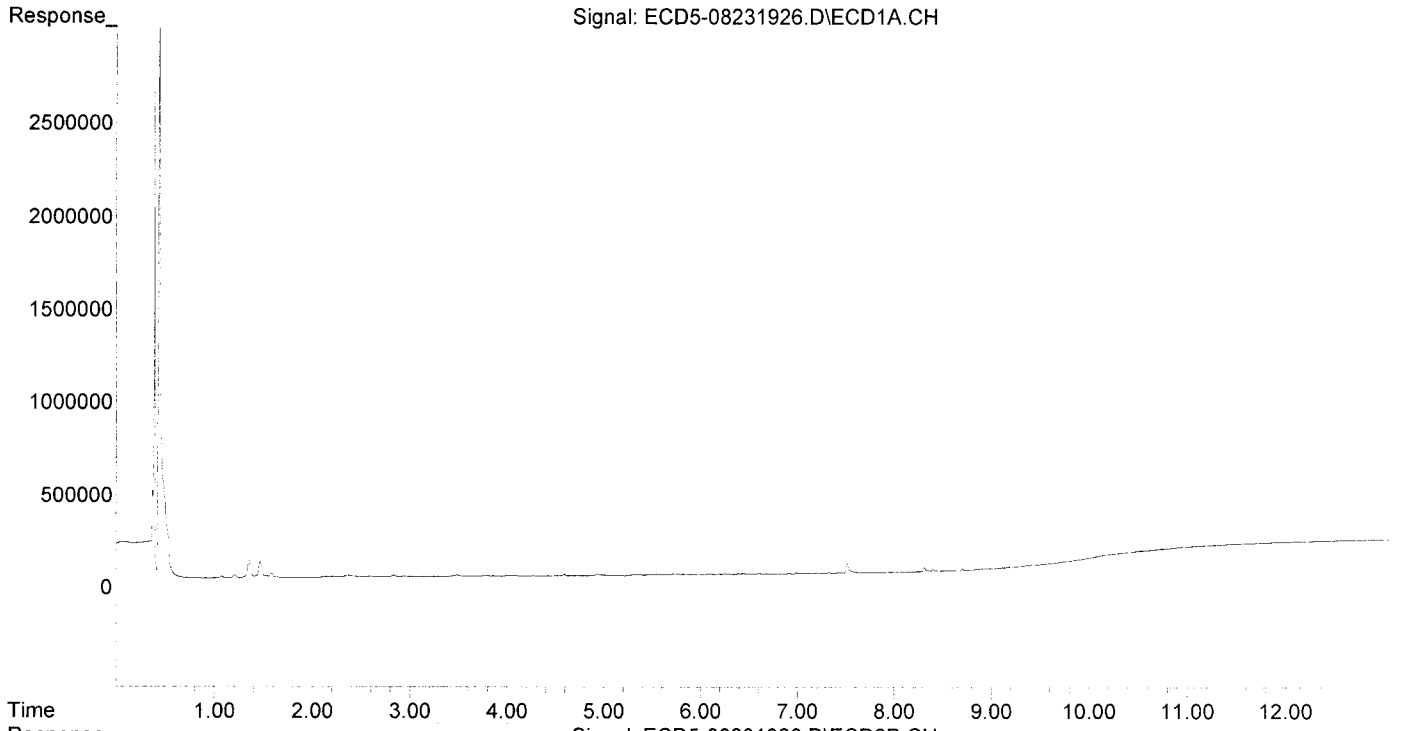
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.979	0	6612	N.D.	0.023	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.246f	0.000	5266	0	0.026	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.606f	0.000	2965	0	0.016	N.D.	#
6)		d-BHC	6.448	7.230	6262	8744	0.032	0.025	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	8.141	0	95737	N.D.	0.306	#
10)		cis-Chlor...	7.516	0.000	51171	0	0.281	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	8.115	8.861	2908	5919	0.020	0.026	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.404	9.098	11210	14199	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.288	9669	15528	0.062	0.062	
20)		Methoxychlor	8.535	0.000	2114	0	0.036	N.D.	#
21)		Endrin Ke...	8.899	9.685	4160	14028	0.025	0.055	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	0.000	8.141	0	95737	N.D. Q-pu	0.451	#
27)		trans-Non...	7.516	0.000	51171	0	~~87346.415~~	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.653	9.685	1197	14028	0.010	0.075	#
32)		Chlordane...	0.000	8.141	0	95737	N.D.	2.646	#
33)		Chlordane...	7.516	0.000	51171	0	2.042	N.D.	#
34)		Chlordane...	8.051	8.903	2776	42860	0.480	4.780	#
35)		Chlordane...	3.446	0.000	4206	0	NoCal	N.D.	
36)		Toxaphene...	7.516	0.000	51171	0	57.133	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.115	8.861	2908	5919	0.863	1.168	
39)		Toxaphene...	8.313f	8.903	23619	42860	7.290	5.133	
40)		Toxaphene...	8.535f	9.098	2114	14199	0.882	3.047	#
41)		Toxaphene...	8.653	0.000	1197	0	0.378	N.D.	#
42)		Toxaphene...	3.446	0.000	4206	0	NoCal	N.D.	

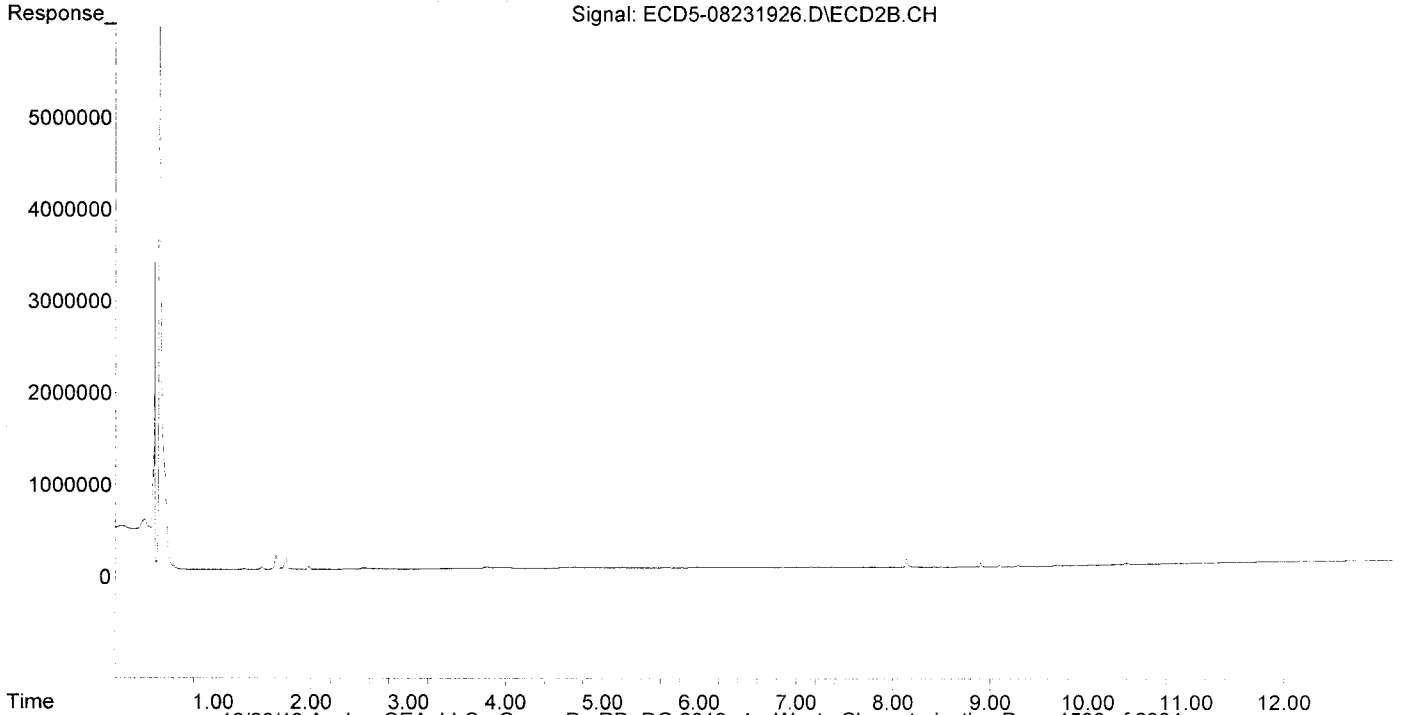
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:02
Operator : MJB
Sample : 9H23034-IBL2
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:03 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:19
Operator : MJB
Sample : 9H23034-ICV2
Misc : A19E043, 9-42 50 ppb
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

WP 8/26/19

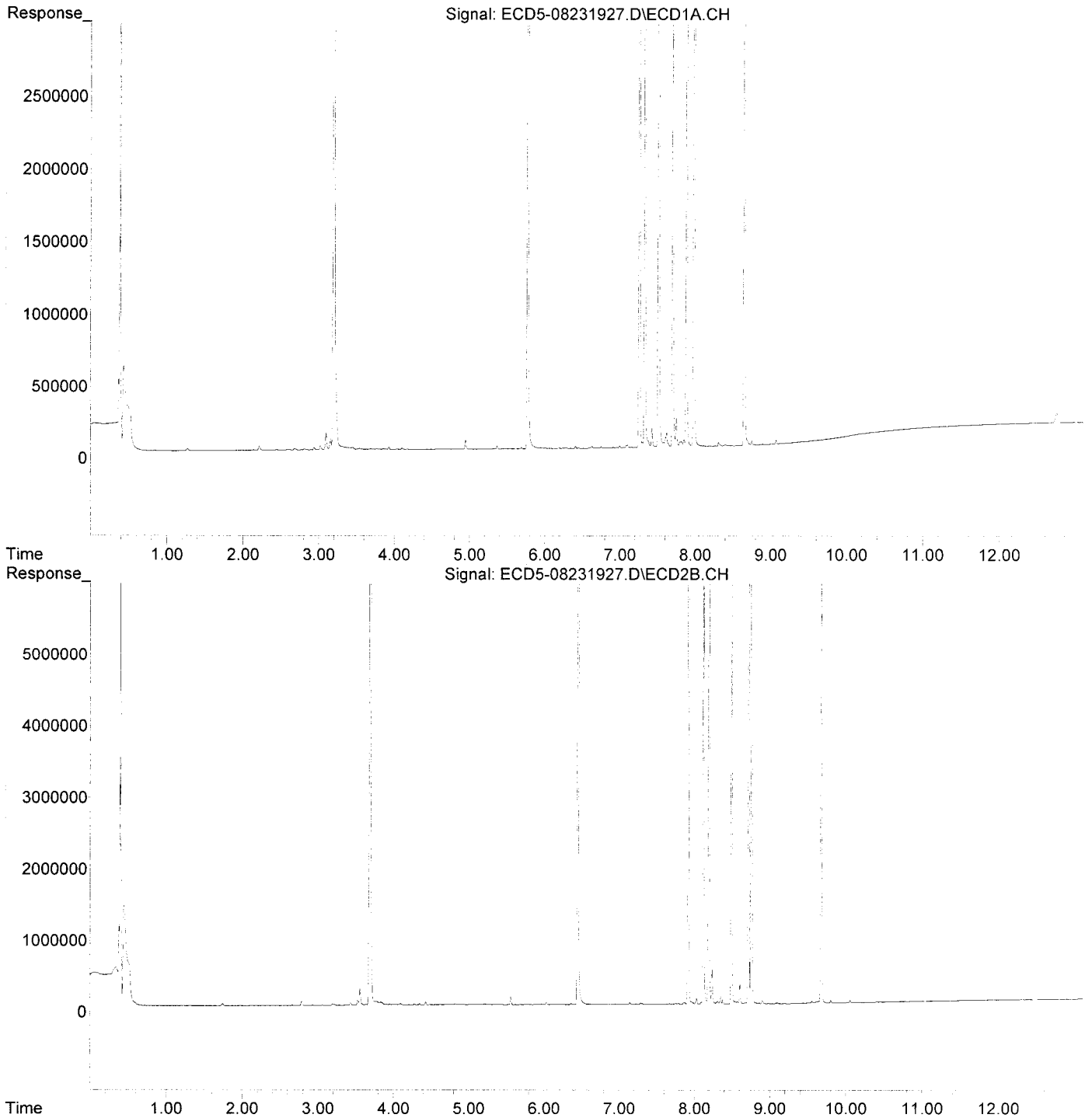
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.979	21795	7434	0.131	0.025	#
22)	S	DCBP (S)	9.593	0.000	5164	0	0.037	N.D.	#
		Target Compounds							
2)		a-BHC	5.944	0.000	7626	0	0.033	N.D.	#
3)		g-BHC	6.193f	6.950f	4309	4488	0.021	0.013	#
4)		b-BHC	6.276f	6.950f	4448	4488	0.049	0.028	#
5)		Heptachlor	6.631	7.288	13910	18612	0.077	0.061	
6)		d-BHC	6.450	7.231	4193	7280	0.021	0.021	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.333	7.969f	6044730	30442	32.820	0.101	#
9)		trans-Chl...	7.428	8.122	135885	10152421	0.735	32.402	#
10)		cis-Chlor...	7.515	8.238	9079715	499411	49.869	1.715	#
11)		Endosulfa...	7.623	8.313f	100346	33305	0.590	0.121	#
12)		4,4'-DDE	7.585	8.350	33793	99515	0.179	0.320	#
13)		Dieldrin	7.801	8.494	35090	9221128	0.183	30.318	#
14)		Endrin	7.985f	8.719	9530740	8396212	64.823	37.180	#
15)		4,4'-DDD	7.985	8.758	9530740	16410440	60.651	64.050	
16)		Endosulfa...	0.000	8.903f	0	43832	N.D.	0.190	#
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.400	9.100	6045	8867	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.288	0	6758	N.D.	0.027	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.897	9.678	3909	8640754	0.023	33.580	#
23)		Hexachlor...	3.197	3.687	8657262	18235302	47.375	48.507	
24)		Hexachlor...	5.774	6.453	8419764	15057280	47.760	47.940	
25)		Oxychlordane	7.260	7.920	8060765	13729255	48.990	50.125	
26)		2,4'-DDE	7.333	8.122	6044730	10152421	47.128	47.858	
27)		trans-Non...	7.515	8.194	9079715	15314695	50.392	50.772	
28)		2,4'-DDD	7.704	8.494	5439144	9221128	47.659	48.824	
29)		2,4'-DDT	7.888	8.719	5329154	8396212	48.585	47.080	
30)		cis-Nonac...	7.985	8.758	9530740	16410440	45.906	48.921	
31)		Mirex	8.652	9.678	5900124	8640754	47.063	46.437	
32)		Chlordane...	7.428	8.122	135885	10152421	6.901	280.573	#
33)		Chlordane...	7.515	8.238	9079715	499411	362.257	16.447	#
34)		Chlordane...	0.000	8.903	0	43832	N.D.	4.889	#
35)		Chlordane...	3.444	3.433	15163	32758	NoCal	NoCal	
36)		Toxaphene...	7.515	8.494f	9079715	9221128	10137.600	3513.804	#
37)		Toxaphene...	7.801	0.000	35090	0	21.729	N.D.	#
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	8.313f	8.903	24546	43832	7.576	5.249	
40)		Toxaphene...	0.000	9.100	0	8867	N.D.	1.903	#
41)		Toxaphene...	8.652	0.000	5900124	0	1864.424	N.D.	#
42)		Toxaphene...	3.444	3.433	15163	32758	NoCal	NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:19
Operator : MJB
Sample : 9H23034-ICV2
Misc : A19E043, 9-42 50 ppb
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:20
Operator : MJB
Sample : 9H23034-IBL3
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

clear MJB 8/26/19

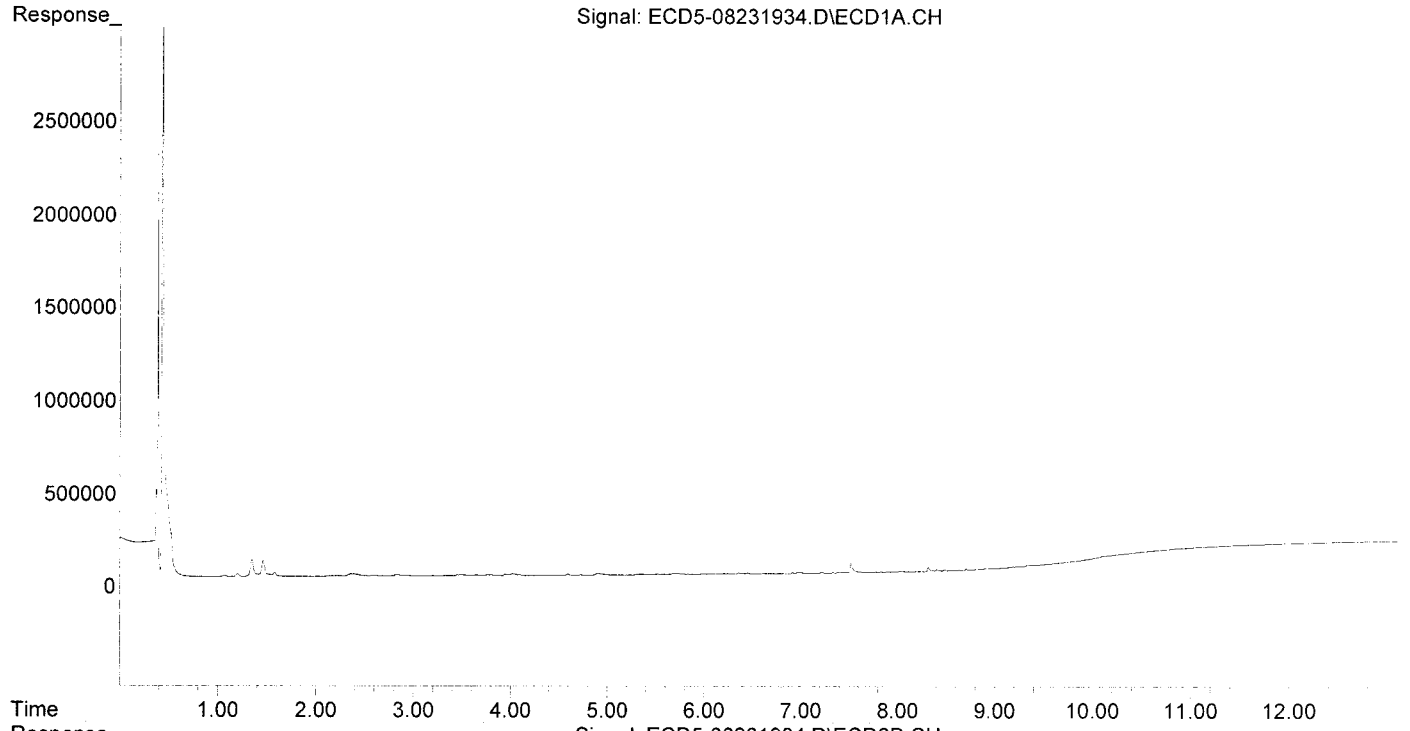
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.976	0	5923	N.D.	0.020	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.207	0.000	3774	0	0.019	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.609f	0.000	2731	0	0.015	N.D.	#
6)		d-BHC	6.450	7.231	5497	6832	0.028	0.019	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	8.142	0	83130	N.D.	0.265	#
10)		cis-Chlor...	7.519	0.000	51396	0	0.282	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	8.023f	0.000	4578	0	0.029	N.D.	#
16)		Endosulfa...	8.116	8.861	1913	3871	0.013	0.017	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.405	9.098	8970	10610	BelowCal	BelowCal	
19)		Endosulfa...	8.706	9.288	7044	10525	0.045	0.042	
20)		Methoxychlor	8.536	0.000	1701	0	0.029	N.D.	#
21)		Endrin Ke...	8.919f	9.686	4032	9735	0.024	0.038	#
23)		Hexachlor...	0.000	3.679	0	2600	N.D.	0.007	#
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	0.000	8.142	0	83130	N.D. RDel	0.392	#
27)		trans-Non...	7.519	0.000	51396	0	~~87346.414~~	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	8.023f	0.000	4578	0	0.022	N.D.	#
31)		Mirex	0.000	9.686	0	9735	N.D.	0.052	#
32)		Chlordane...	0.000	8.142	0	83130	N.D.	2.297	#
33)		Chlordane...	7.519	0.000	51396	0	2.051	N.D.	#
34)		Chlordane...	0.000	8.904	0	38172	N.D.	4.258	#
35)		Chlordane...	3.449	0.000	3828	0	NoCal	N.D.	
36)		Toxaphene...	7.519	0.000	51396	0	57.384	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.116	8.861	1913	3871	0.568	0.764	
39)		Toxaphene...	8.316f	8.904	21302	38172	6.574	4.572	
40)		Toxaphene...	8.536f	9.098	1701	10610	0.709	2.277	#
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.449	0.000	3828	0	NoCal	N.D.	

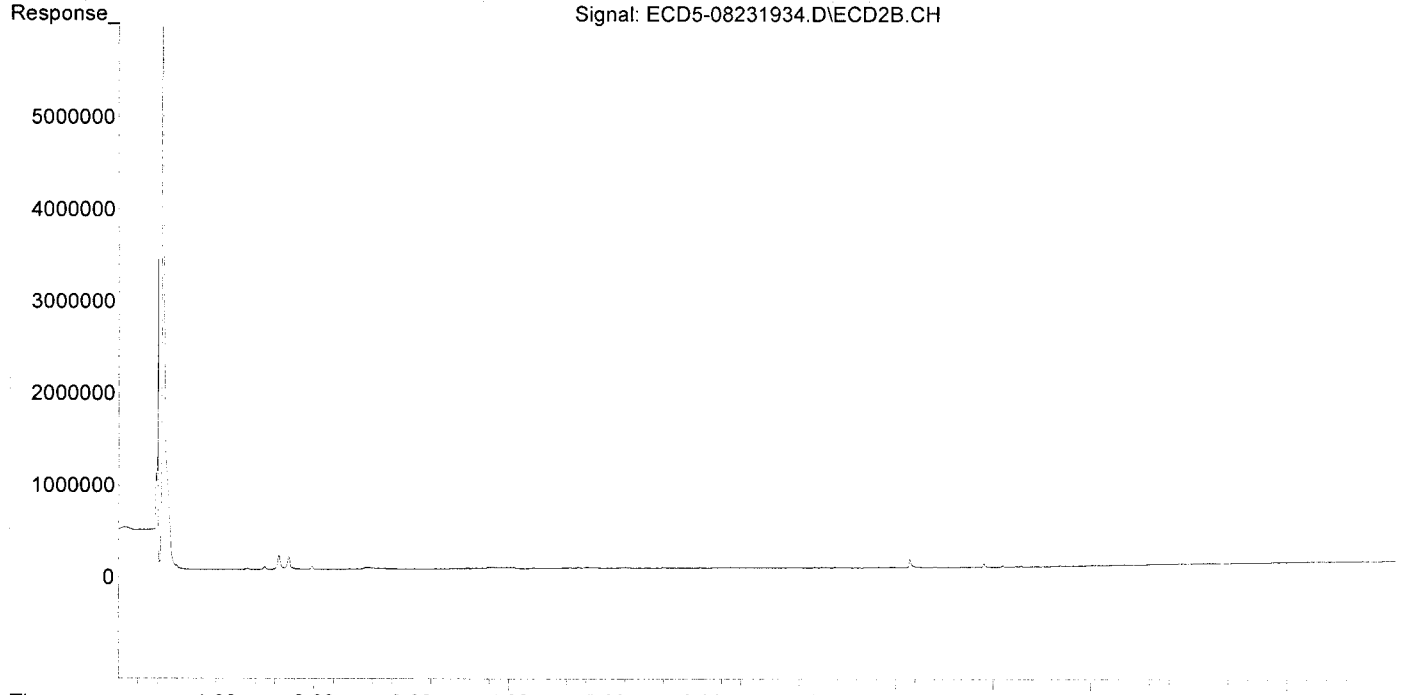
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:20
Operator : MJB
Sample : 9H23034-IBL3
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:37
Operator : MJB
Sample : 9H23034-ICV3
Misc : A19F108, CHLOR 500 ppb
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.975	0	8961	N.D.	0.031	#
22)	S	DCBP (S)	9.601	10.507f	18796	7616	0.133	0.042	#
		Target Compounds							
2)		a-BHC	5.934	6.622f	9141	348363	0.040	0.849	#
3)		g-BHC	6.194f	6.923	92353	182619	0.458	0.512	
4)		b-BHC	6.323f	7.017f	112667	560662	1.247	3.543	#
5)		Heptachlor	6.630	7.288	4625489	7814185	25.513	25.538	
6)		d-BHC	6.412f	7.222	337700	61064	1.717	0.173	#
7)		Aldrin	6.874	7.557	83911	133681	0.425	0.406	
8)		Heptachlo...	7.336	8.010	771372	473989	4.188	1.576	#
9)		trans-Chl...	7.427	8.130	10721056	19872286	57.986	63.424	
10)		cis-Chlor...	7.520	8.238	13401062	16289264	73.603	55.929	
11)		Endosulfa...	7.639	8.310f	285254	253033	1.676	0.920	#
12)		4,4'-DDE	7.578	8.333	311083	429833	1.650	1.384	
13)		Dieldrin	7.806	8.488	355046	1298858	1.849	4.270	#
14)		Endrin	7.984f	8.713	1829350	383068	12.442	1.696	#
15)		4,4'-DDD	7.984	8.759	1829350	3046940	11.641	11.892	
16)		Endosulfa...	8.118	8.873	216170	351371	1.505	1.524	
17)		4,4'-DDT	0.000	8.994	0	130946	N.D.	0.725	#
18)		Endrin Al...	8.427f	9.128f	55387	802635	BelowCal	3.530	
19)		Endosulfa...	8.708	9.290	120383	34589	0.777	0.139	#
20)		Methoxychlor	8.552	9.463	53824	27882	0.919	0.160	#
21)		Endrin Ke...	8.894	9.687	19548	156351	0.117	0.608	#
23)		Hexachlor...	3.198	3.688	5435	10087	0.030	0.027	
24)		Hexachlor...	5.768	6.431f	8591	38244	0.049	0.122	#
25)		Oxychlordane	7.253	7.933	114695	258636	0.697	0.944	
26)		2,4'-DDE	7.336	8.130	771372	19872286	6.014	93.676	#
27)		trans-Non...	7.520	8.195	13401062	14312099	74.546	47.448	
28)		2,4'-DDD	7.674f	8.488	831029	1298858	7.282	6.877	
29)		2,4'-DDT	7.913f	8.713	254540	383068	2.321	2.148	
30)		cis-Nonac...	7.984	8.759	1829350	3046940	8.811	9.083	
31)		Mirex	8.643	9.687	16477	156351	0.131	0.840	#
32)		Chlordane...	7.427	8.130	10721056	19872286	544.503	549.192	
33)		Chlordane...	7.520	8.238	13401062	16289264	534.667	536.465	
34)		Chlordane...	8.068	8.898	3177144	4850138	549.572	540.955	
35)		Chlordane...	3.448	0.000	3889	0	NoCal	N.D.	
36)		Toxaphene...	7.520	8.488f	13401062	1298858	14962.430	494.943	#
37)		Toxaphene...	7.806	8.814	355046	496679	219.851	150.919	
38)		Toxaphene...	8.118	8.851	216170	383467	64.193	75.660	
39)		Toxaphene...	8.347	8.898	132572	4850138	40.915	580.866	#
40)		Toxaphene...	8.552f	9.068f	53824	98957	22.453	21.234	
41)		Toxaphene...	8.643	9.463	16477	27882	5.207	5.870	
42)		Toxaphene...	3.448	0.000	3889	0	NoCal	N.D.	

A 542.91

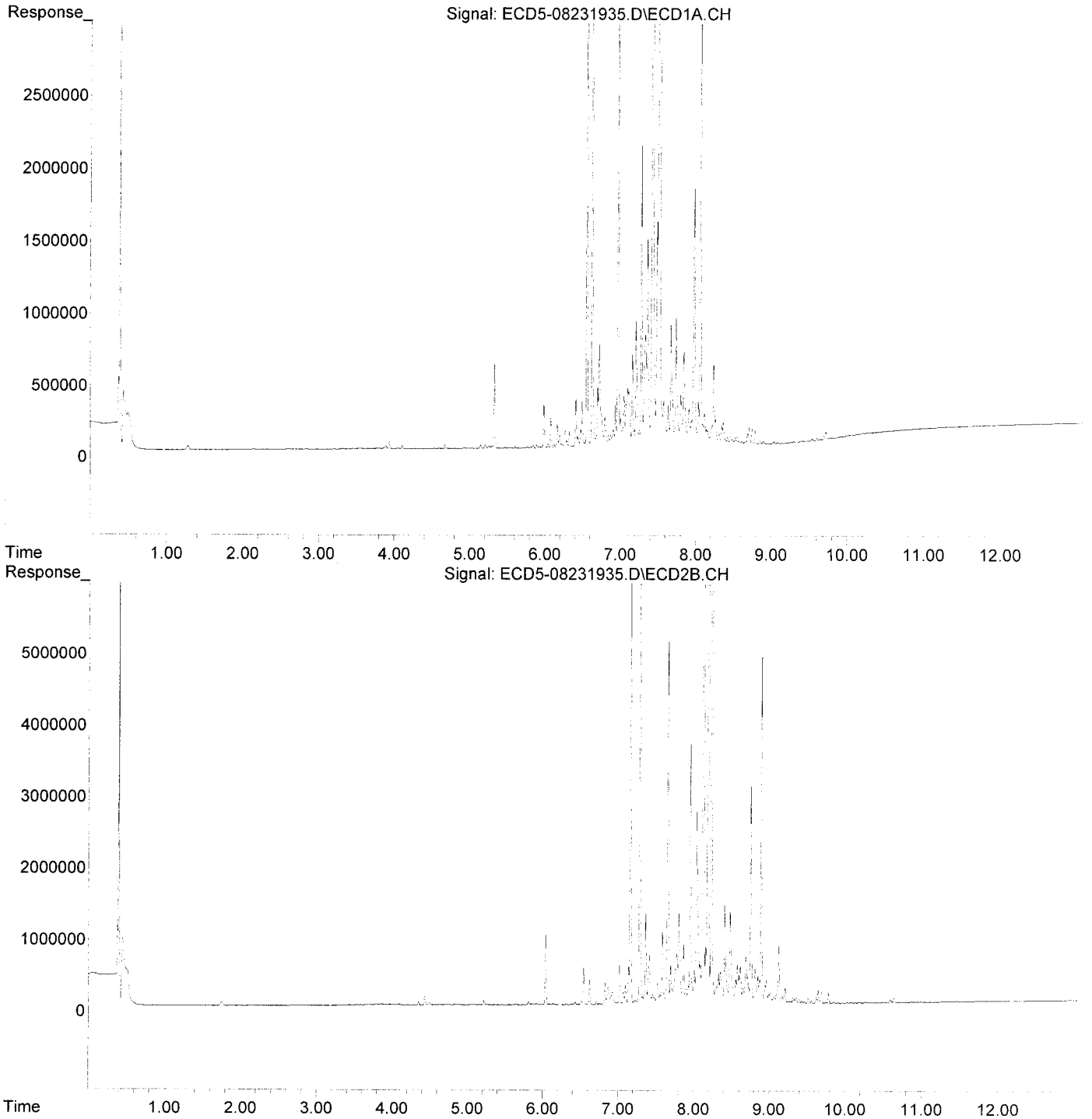
E 542.20

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:37
Operator : MJB
Sample : 9H23034-ICV3
Misc : A19F108, CHLOR 500 ppb
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231942.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:37
Operator : MJB
Sample : 9H23034-IBL4
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

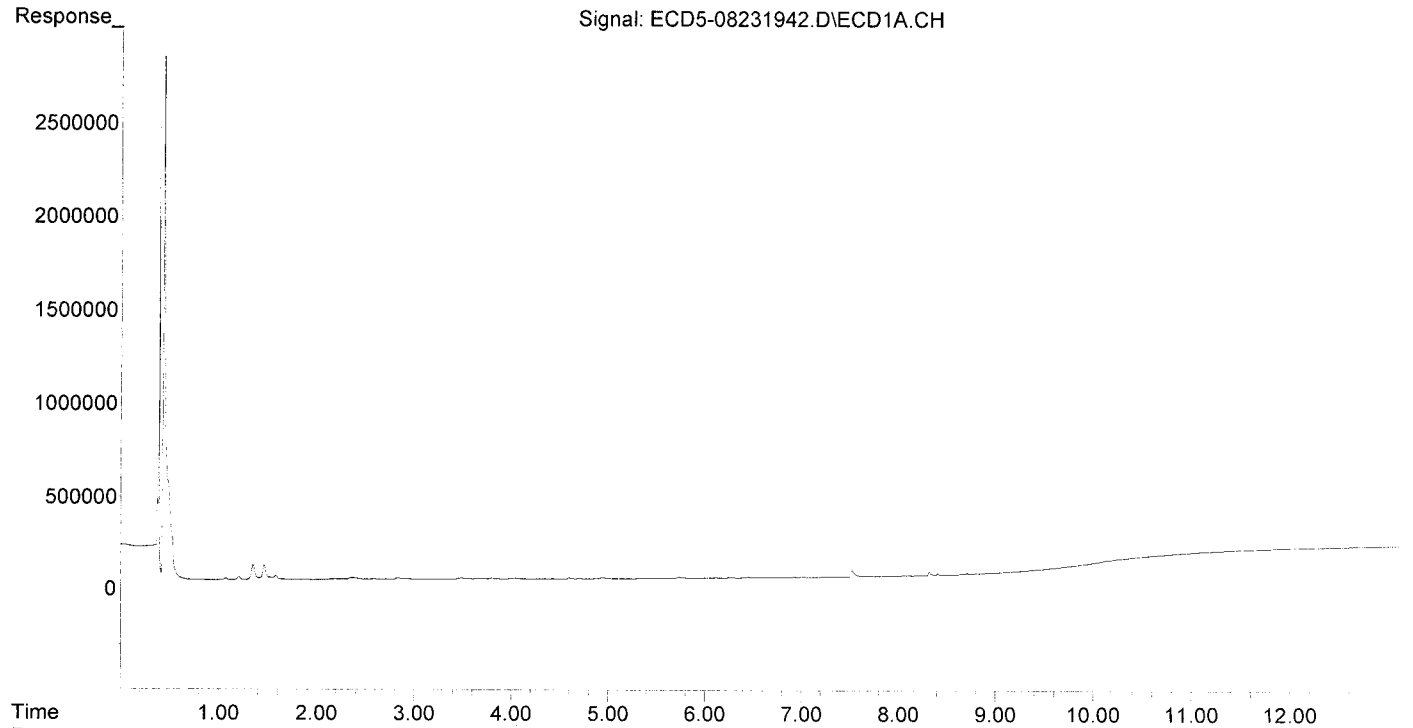
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.983	0	6142	N.D.	0.021	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.248f	0.000	4243	0	0.021	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.450	7.232	5264	7410	0.027	0.021	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	0.000	1978	0	0.011	N.D.	#
9)		trans-Chl...	7.425	8.145	1693	72982	0.009	0.233	#
10)		cis-Chlor...	7.522	0.000	38316	0	0.210	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	8.117	0.000	2505	0	0.017	N.D.	#
17)		4,4'-DDT	8.194	0.000	767	0	0.006	N.D.	#
18)		Endrin Al...	8.406	9.100	10140	13686	BelowCal	BelowCal	
19)		Endosulfa...	8.707	9.290	7273	12897	0.047	0.052	
20)		Methoxychlor	8.540	0.000	2018	0	0.034	N.D.	#
21)		Endrin Ke...	8.901	9.687	3565	7207	0.021	0.028	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.334	8.145f	1978	72982	0.015 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.	

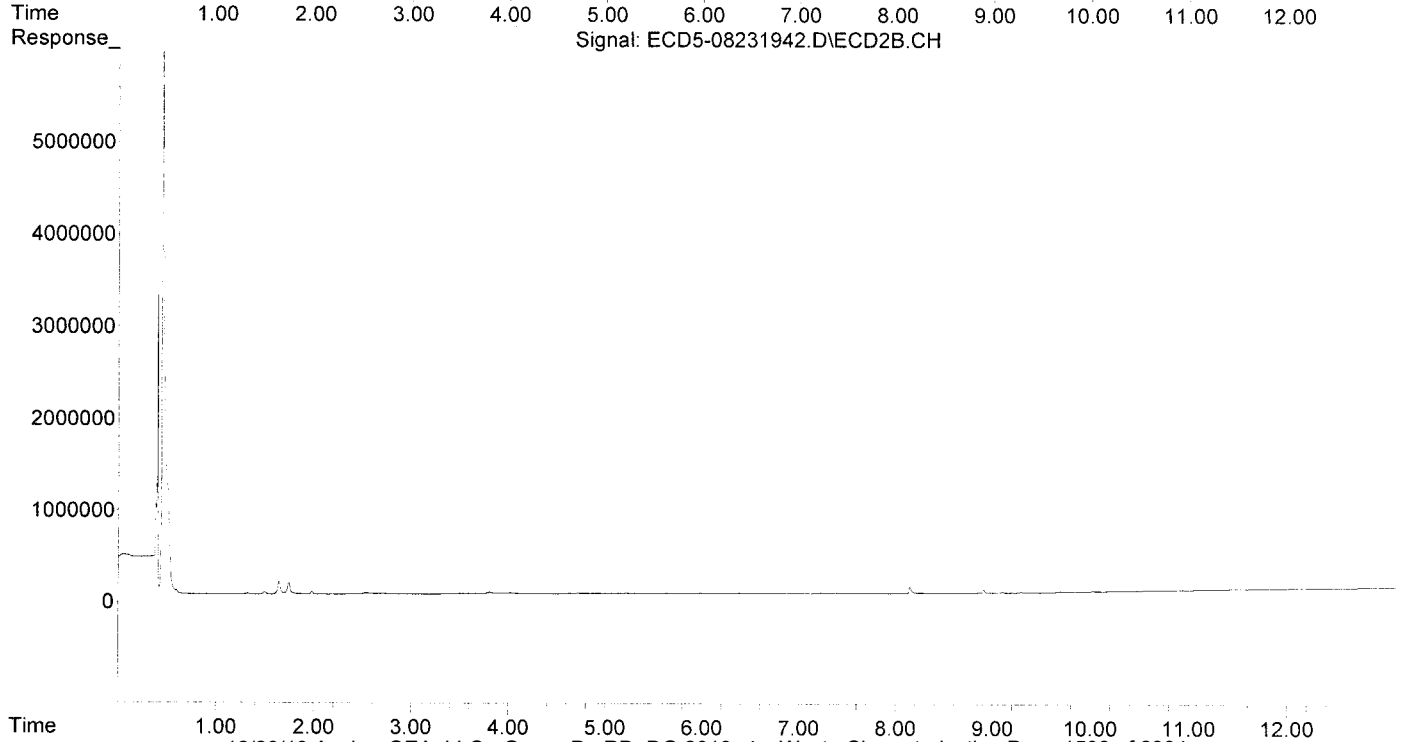
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

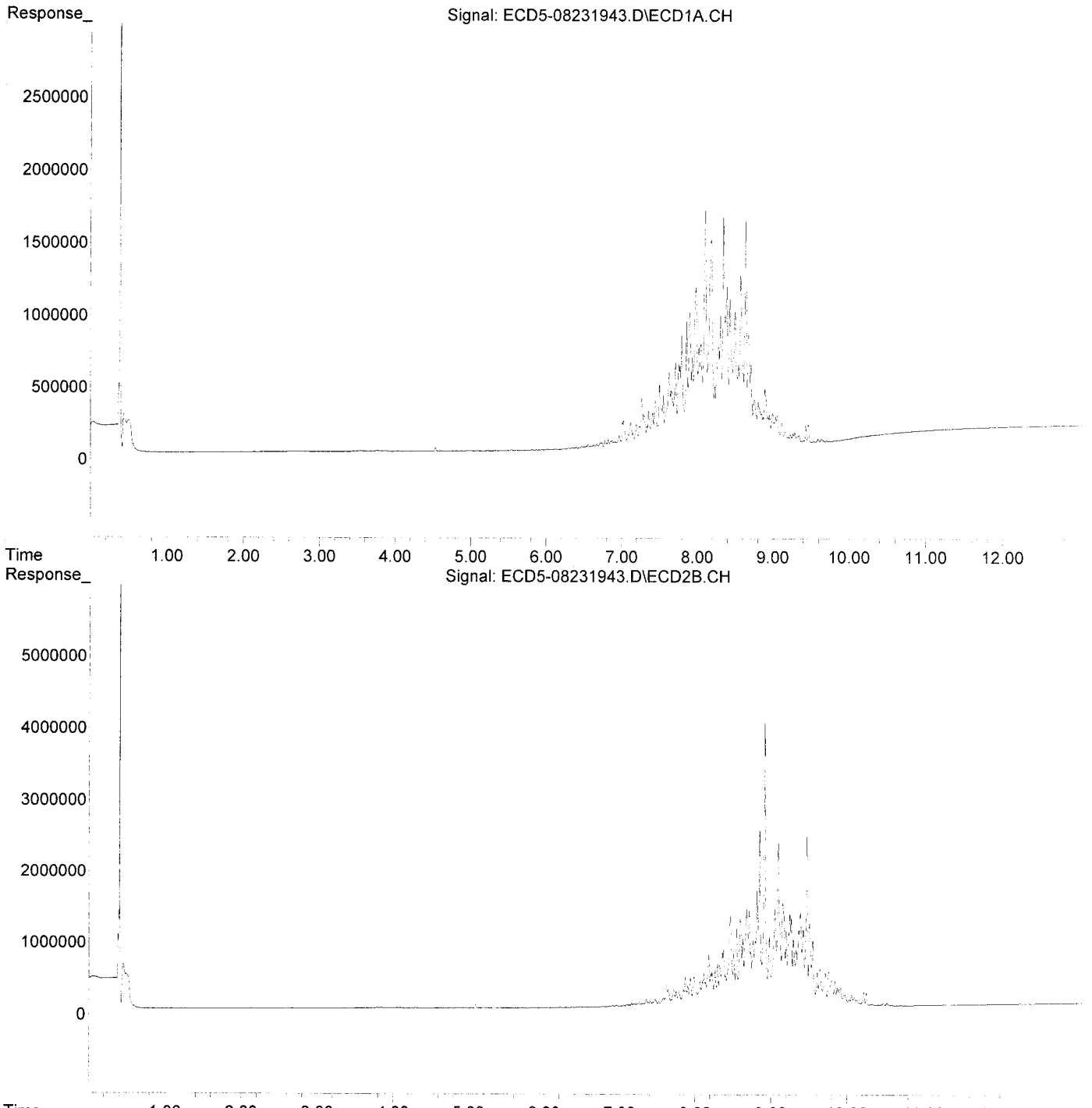
484.22 487.07

(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

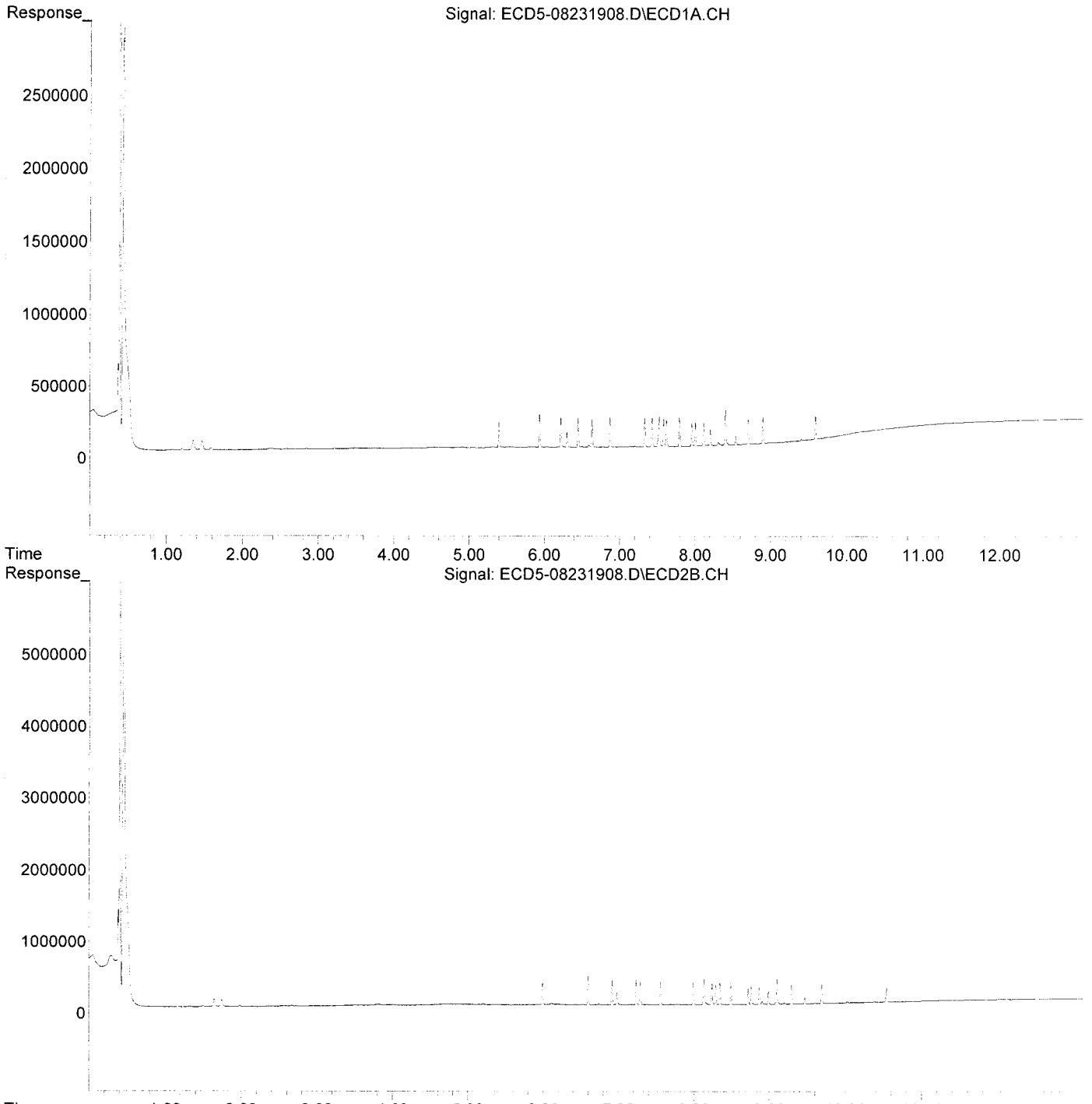
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.065	1.023	
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.161	1.066	
		Target Compounds							
2)		a-BHC	5.937	6.597	231994	393119	1.012	0.958	
3)		g-BHC	6.221	6.915	207427	352286	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

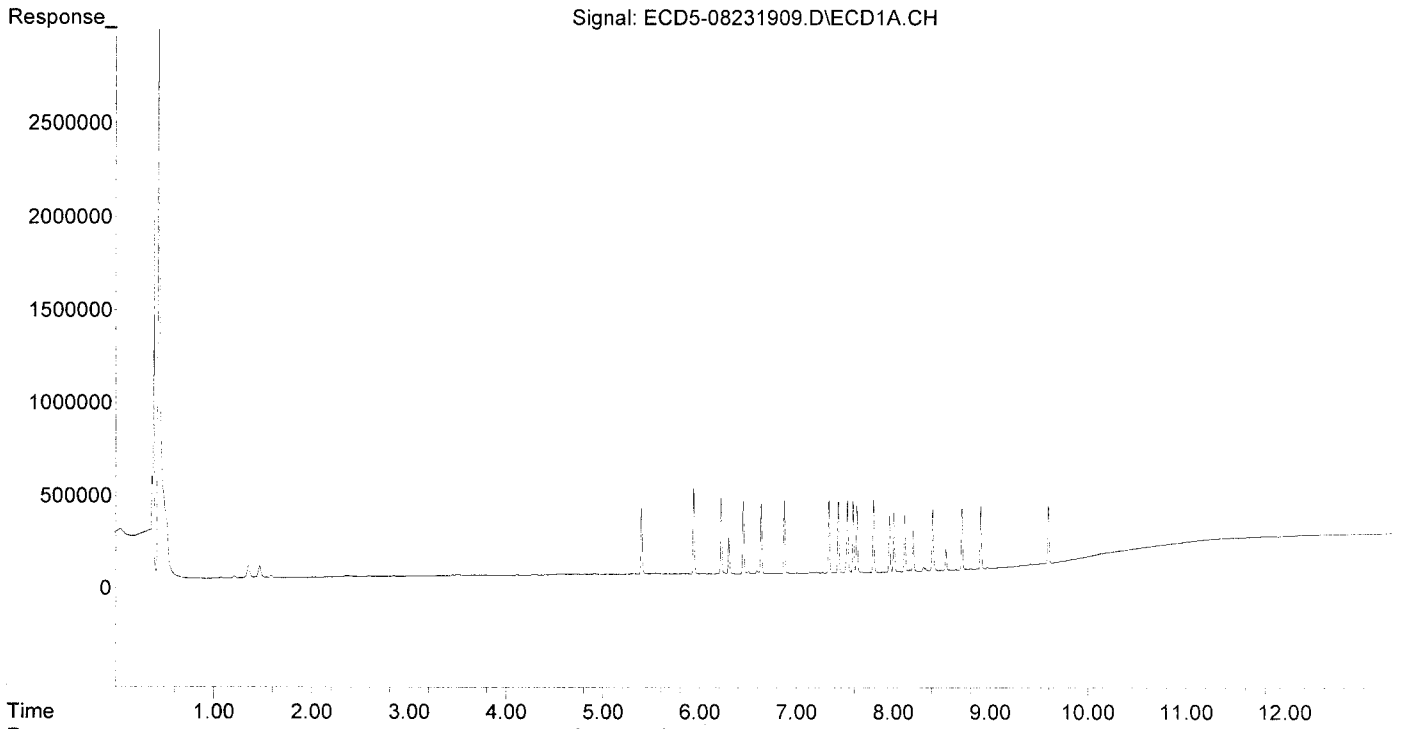
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	349972	600766	2.109	2.048	
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.196	2.170	
		Target Compounds							
2)		a-BHC	5.936	6.597	458365	784586	1.999	1.912	
3)		g-BHC	6.220	6.915	406027	690922	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.	

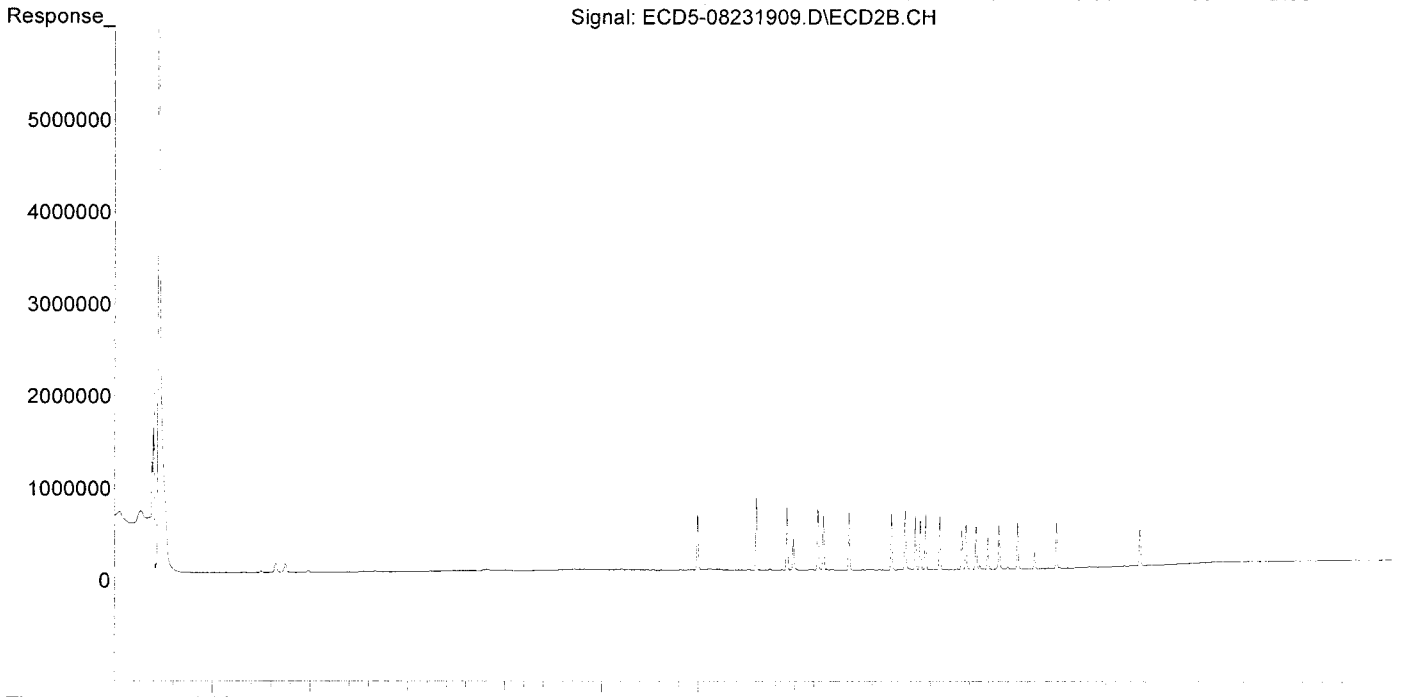
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

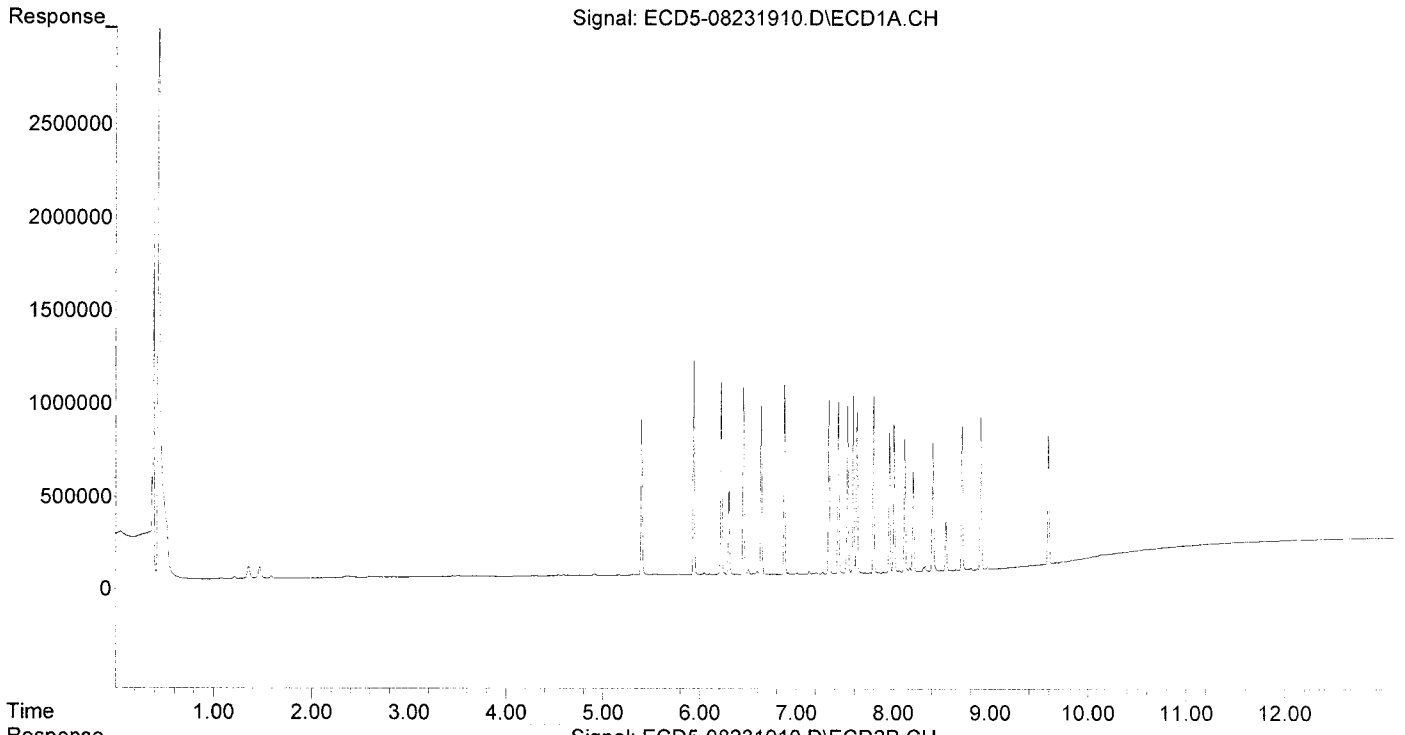
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.396	5.990	834206	1437876	5.026	4.901	
22)	S DCBP (S)	9.594	10.542	701050	870921	4.969	4.845	
	Target Compounds							
2)	a-BHC	5.937	6.597	1147932	1985438	5.006	4.839	
3)	g-BHC	6.220	6.915	1020724	1742677	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.	

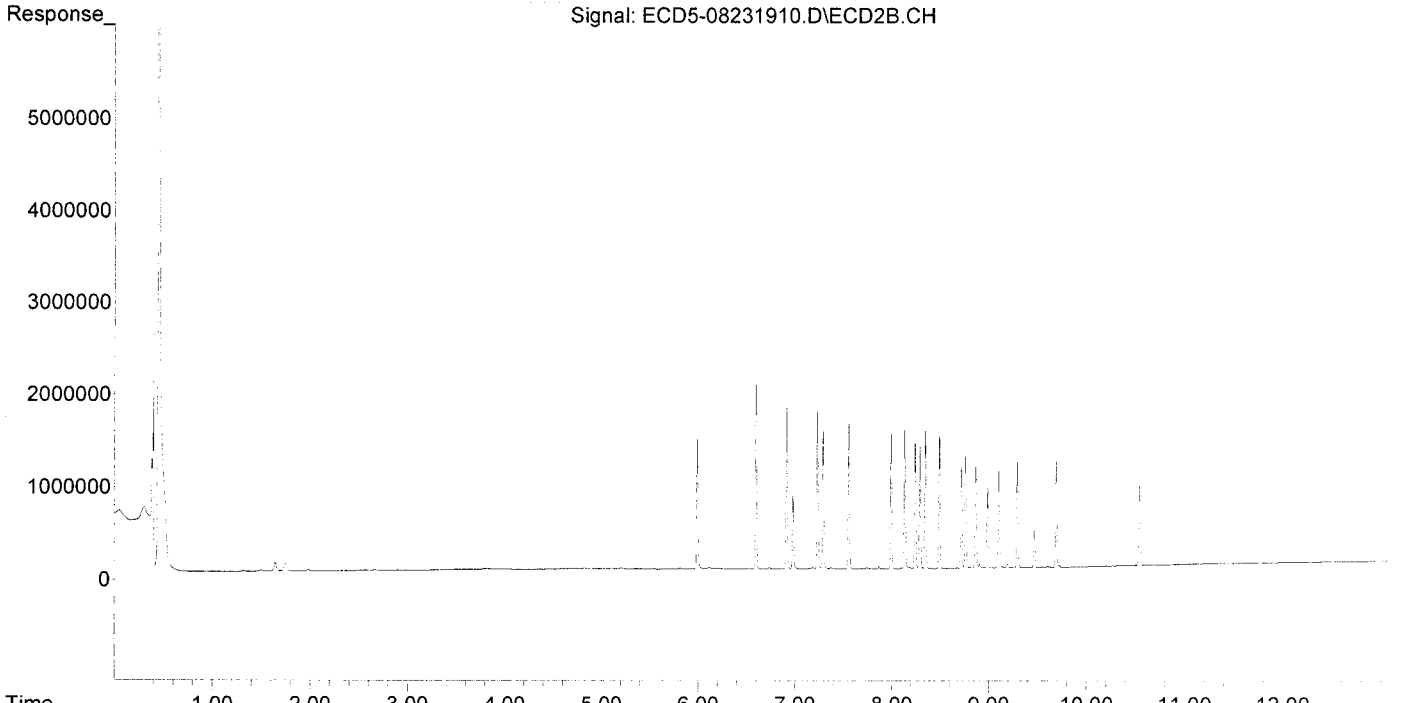
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

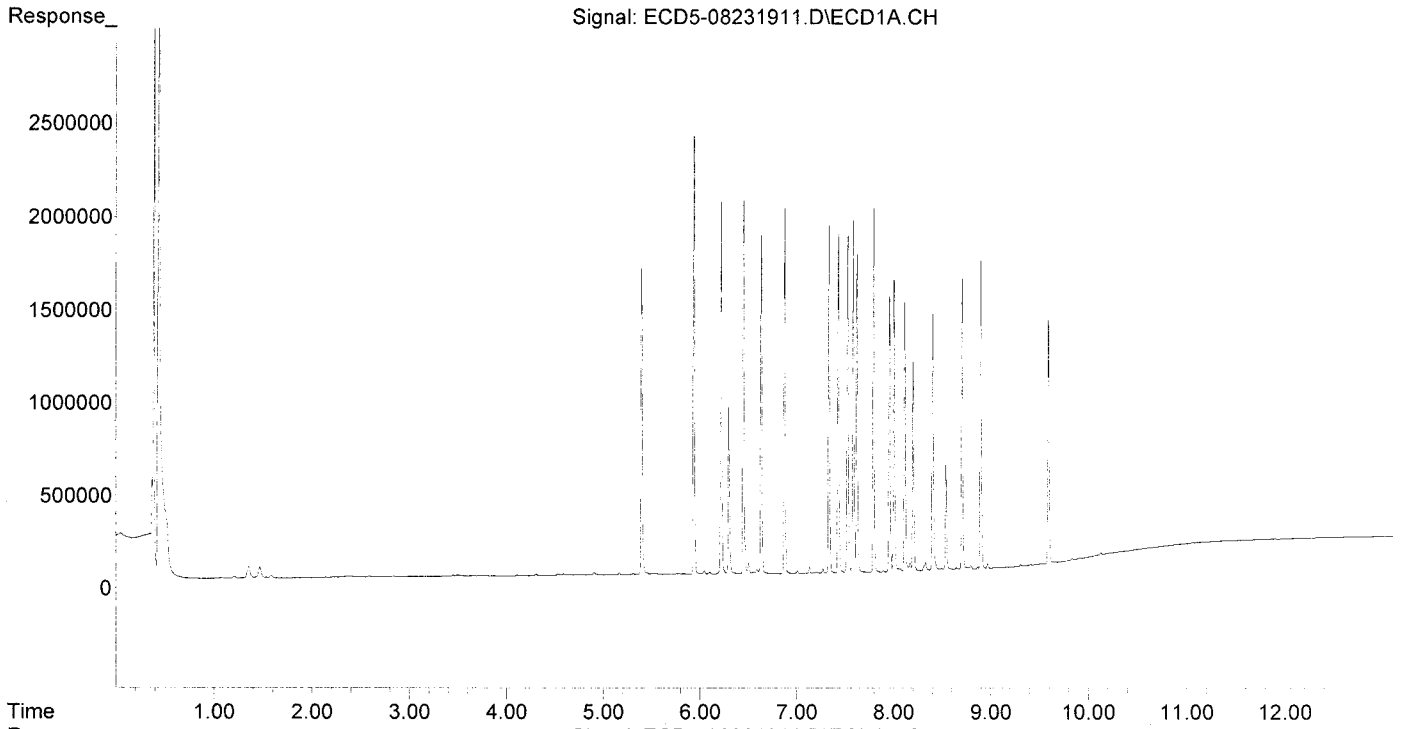
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.396	5.990	1644447	2865854	9.908	9.769	
22) S	DCBP (S)	9.593	10.541	1335468	1678728	9.465	9.339	
	Target Compounds							
2)	a-BHC	5.936	6.597	2347065	4095890	10.234	9.982	
3)	g-BHC	6.220	6.915	2034859	3476733	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.	

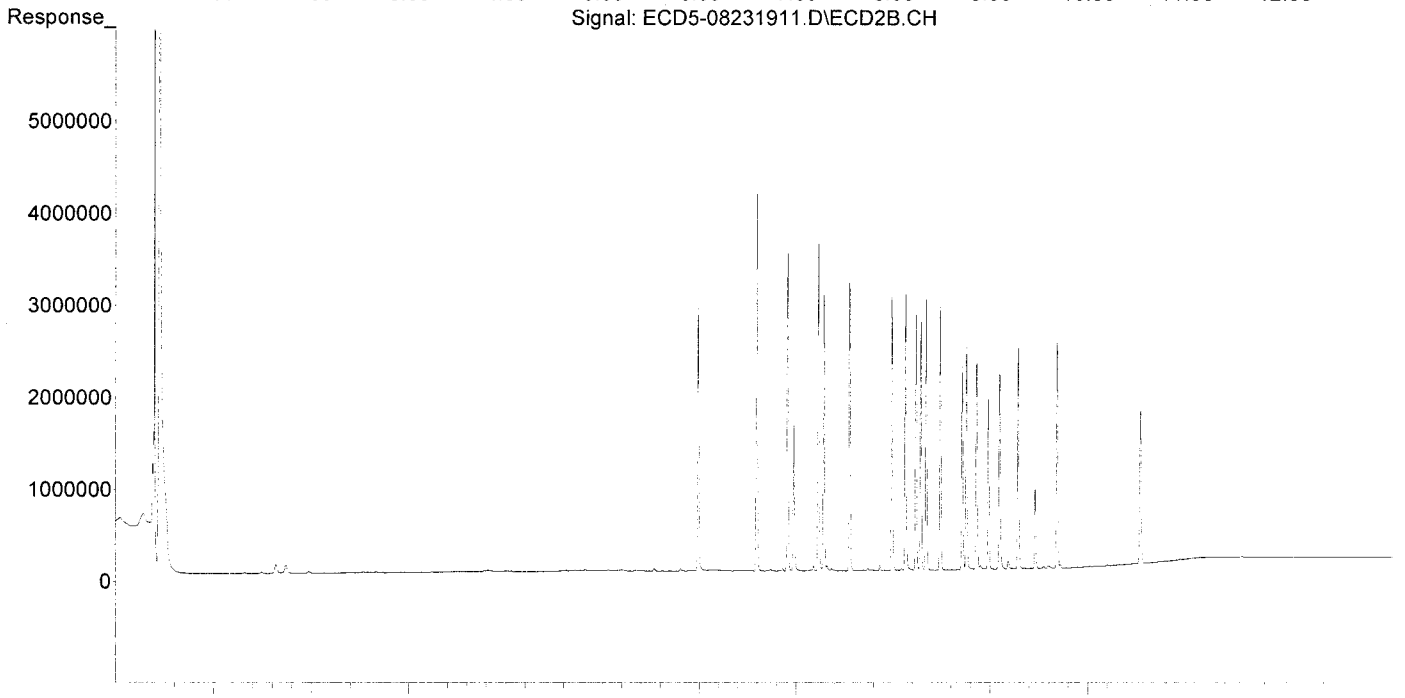
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

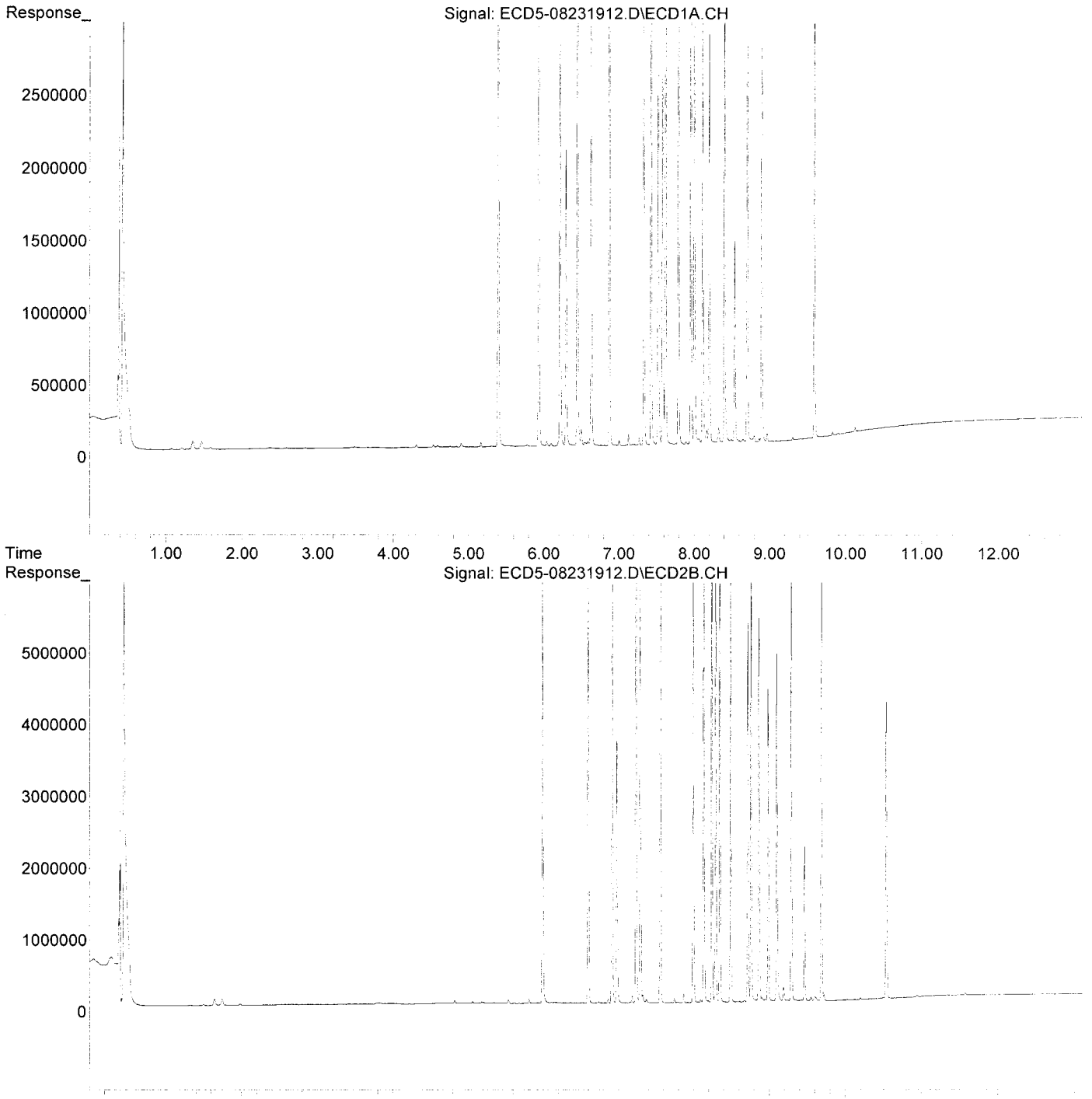
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	4015832	7072923	24.195	24.109	
22)	S	DCBP (S)	9.592	10.539	3342634	4163229	23.690	23.160	
		Target Compounds							
2)		a-BHC	5.935	6.596	5553096	9910863	24.215	24.153	
3)		g-BHC	6.218	6.913	4875657	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

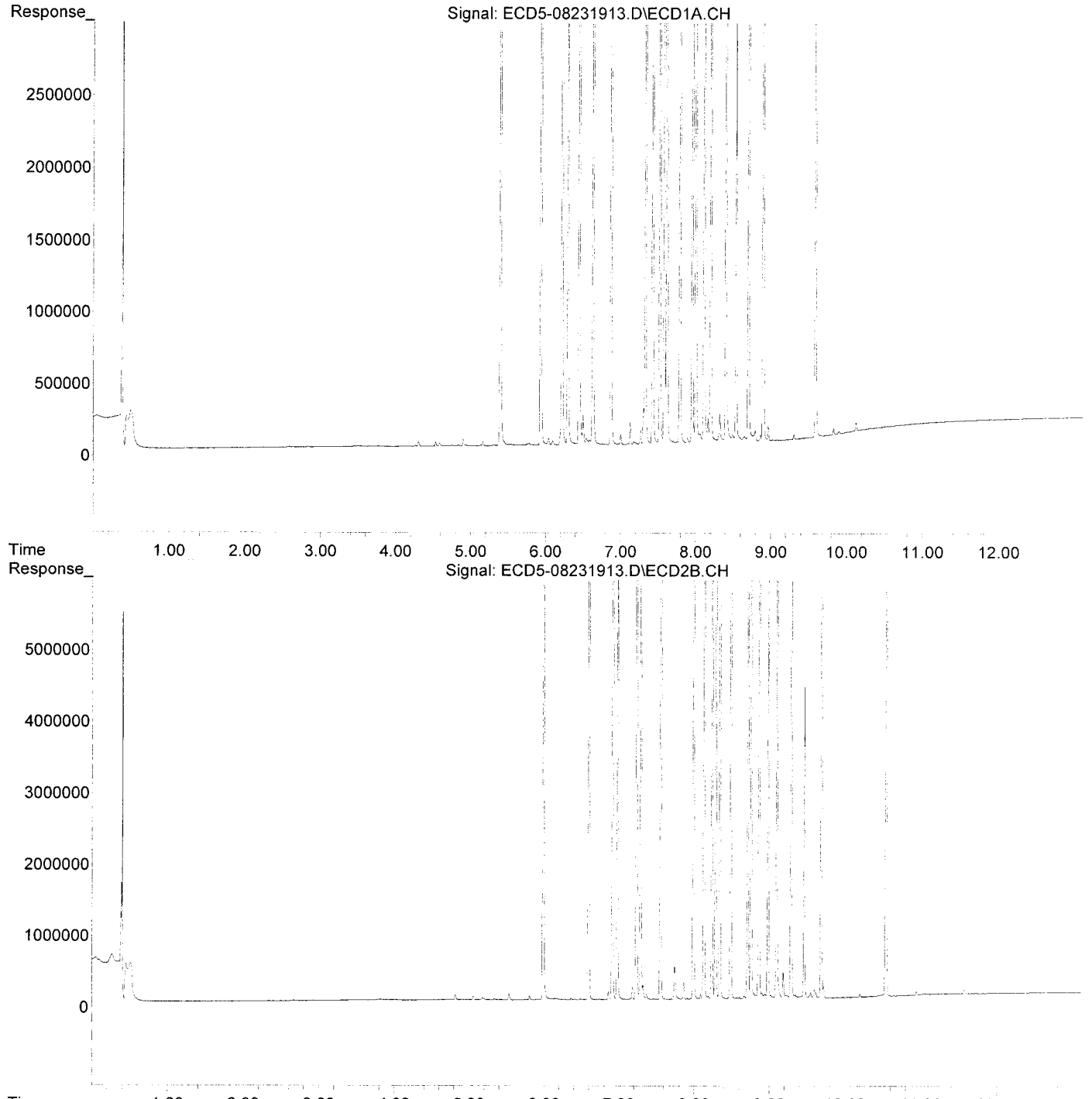
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	8071481	14196745	48.631	48.392	
22)	S	DCBP (S)	9.592	10.541	6678990	8730692	47.336	48.568	
		Target Compounds							
2)		a-BHC	5.935	6.596	11369592	20265817	49.578	49.388	
3)		g-BHC	6.218	6.914	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

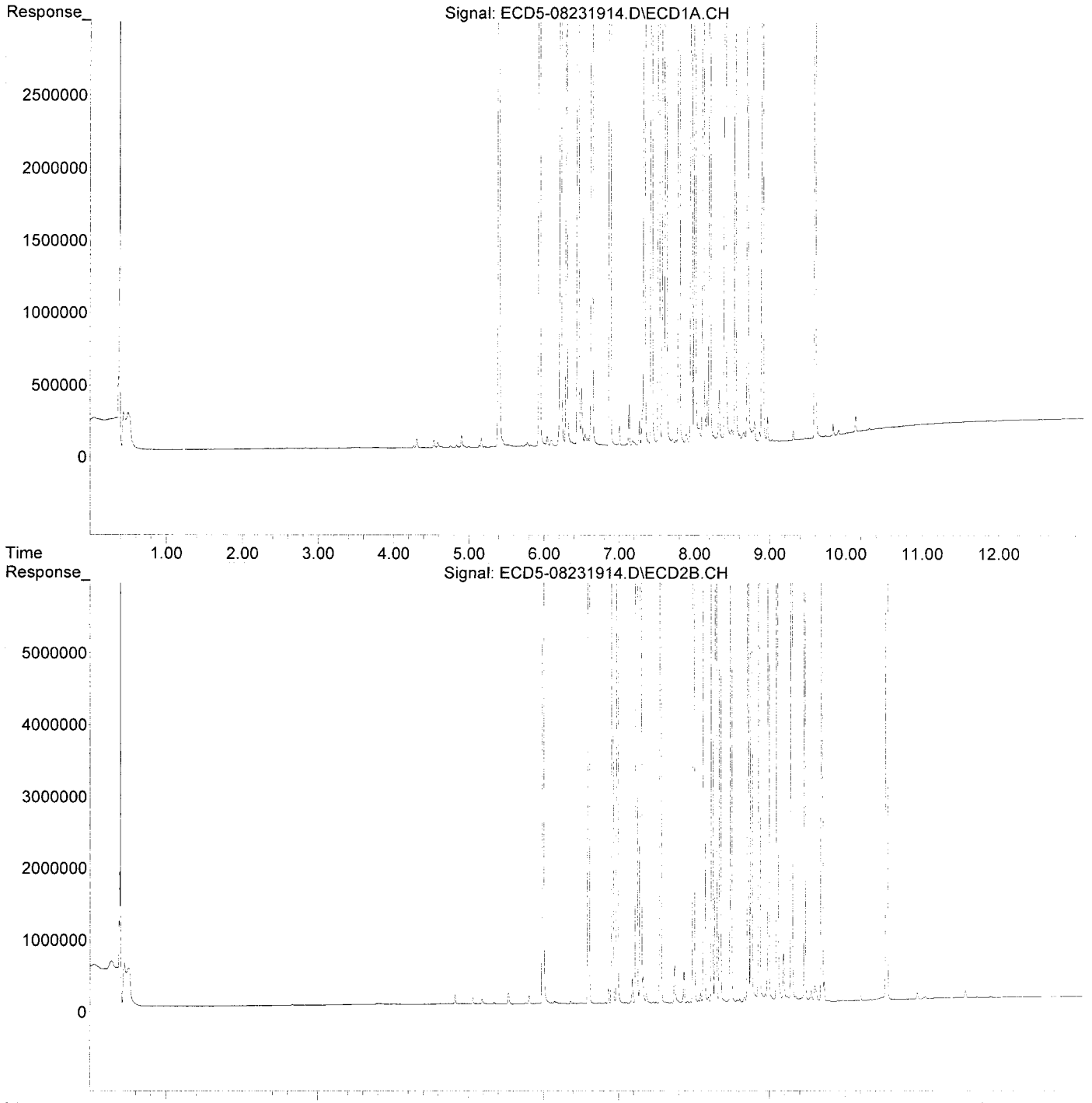
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	95.502	99.726	
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	95.007	98.931	
		Target Compounds							
2)		a-BHC	5.935	6.596	22363584	41699210	97.517	101.621	
3)		g-BHC	6.218	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

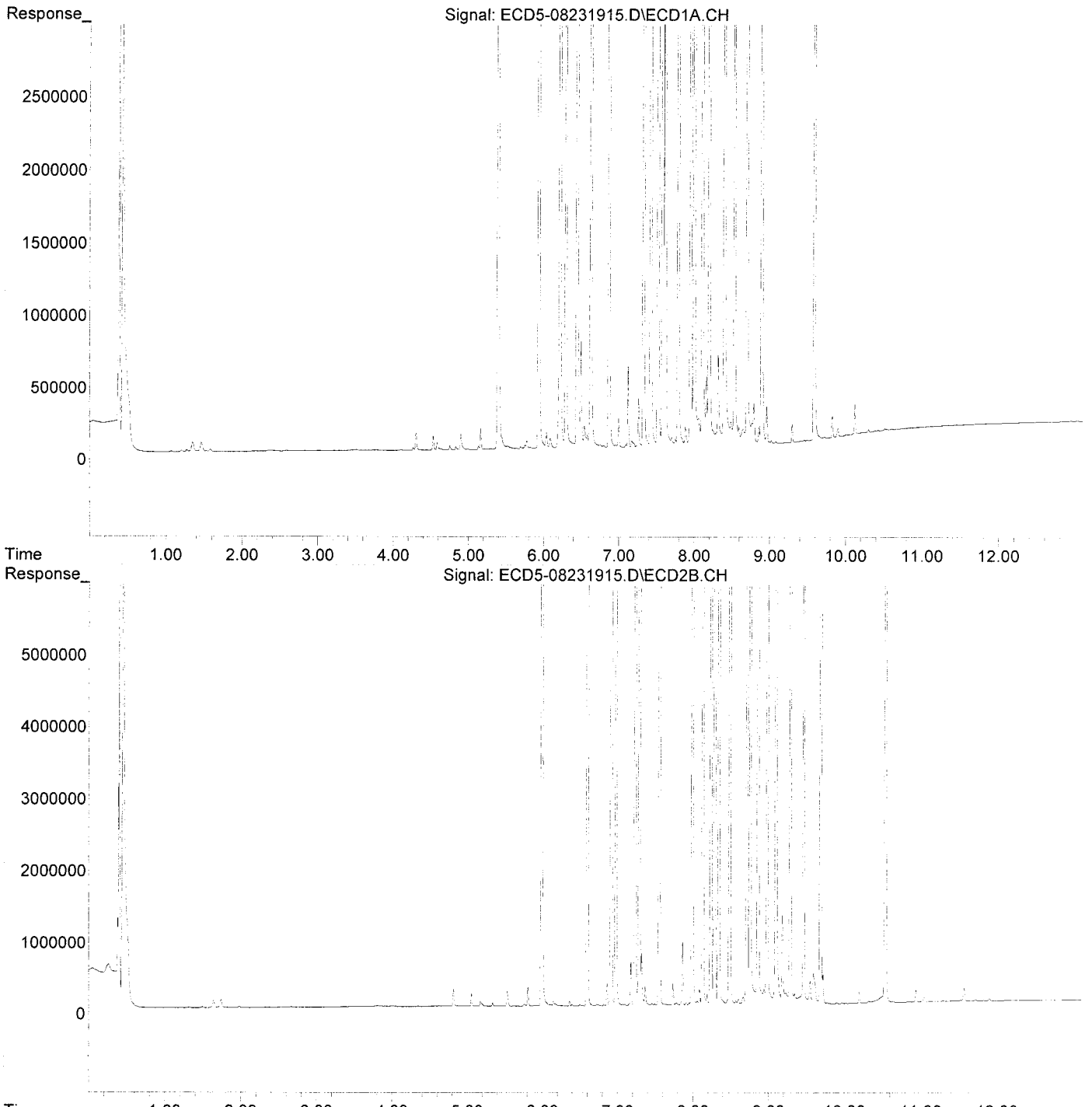
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	197.876	213.332	
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	191.180	211.933	
		Target Compounds							
2)		a-BHC	5.935	6.597	47202252	94376748	205.828	229.997	
3)		g-BHC	6.218	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

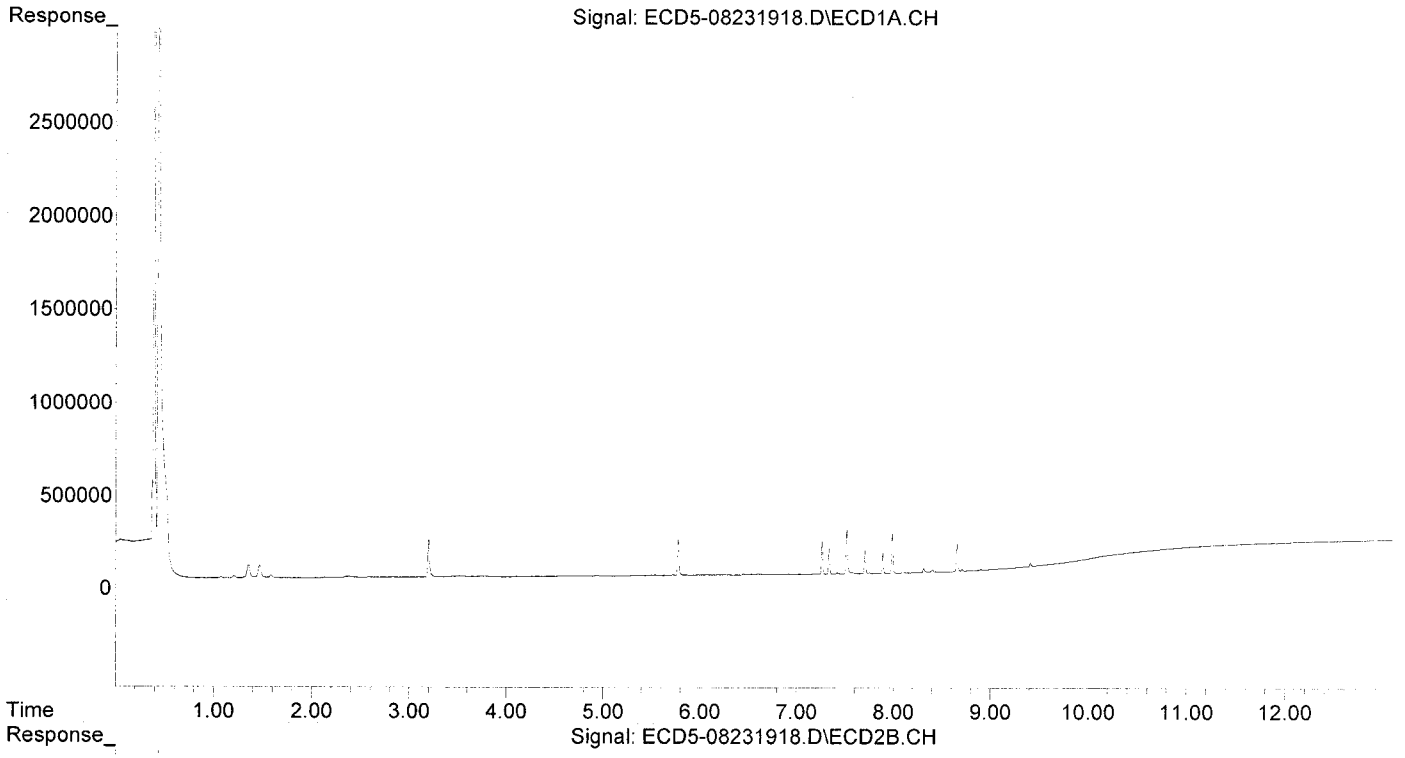
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6576	N.D.	0.022	#
22)	S	DCBP (S)	9.593	10.540	2255	5805	0.016	0.032	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4648	0	0.023	N.D.	#
4)		b-BHC	0.000	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.	

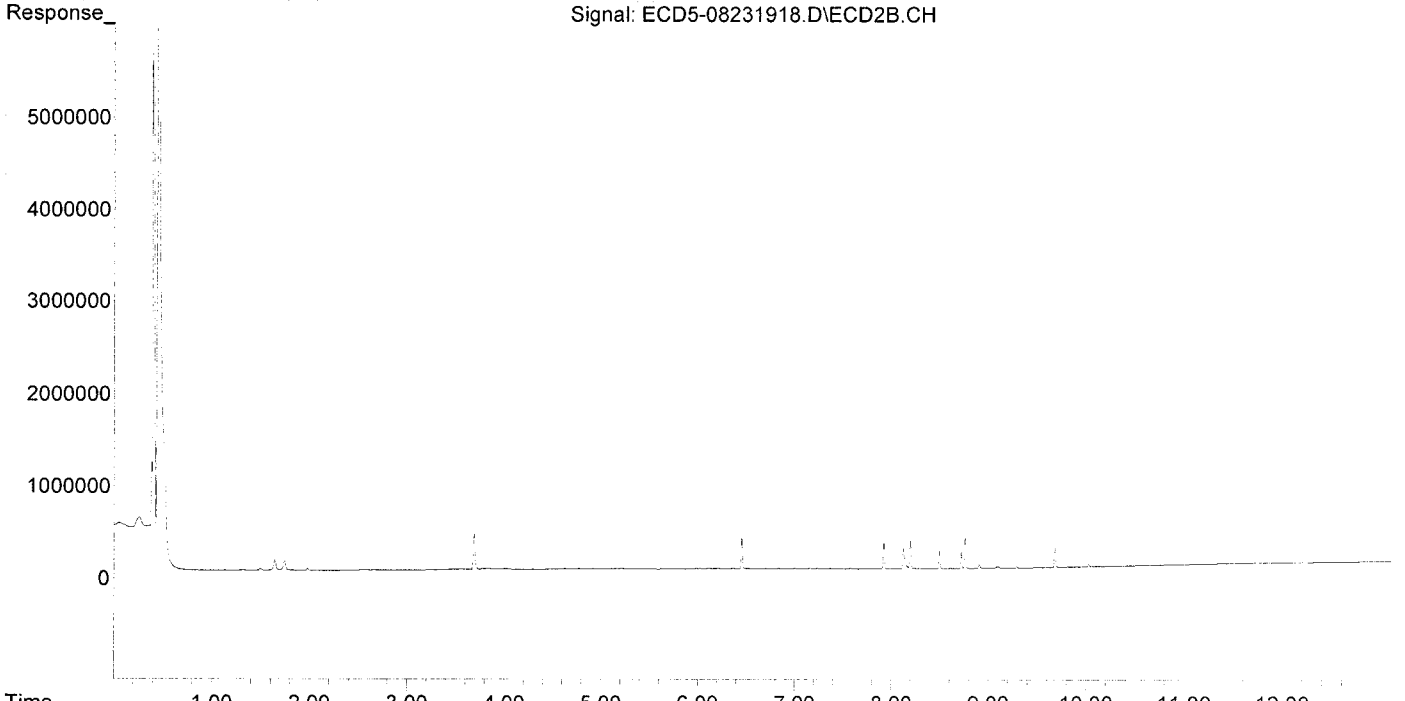
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

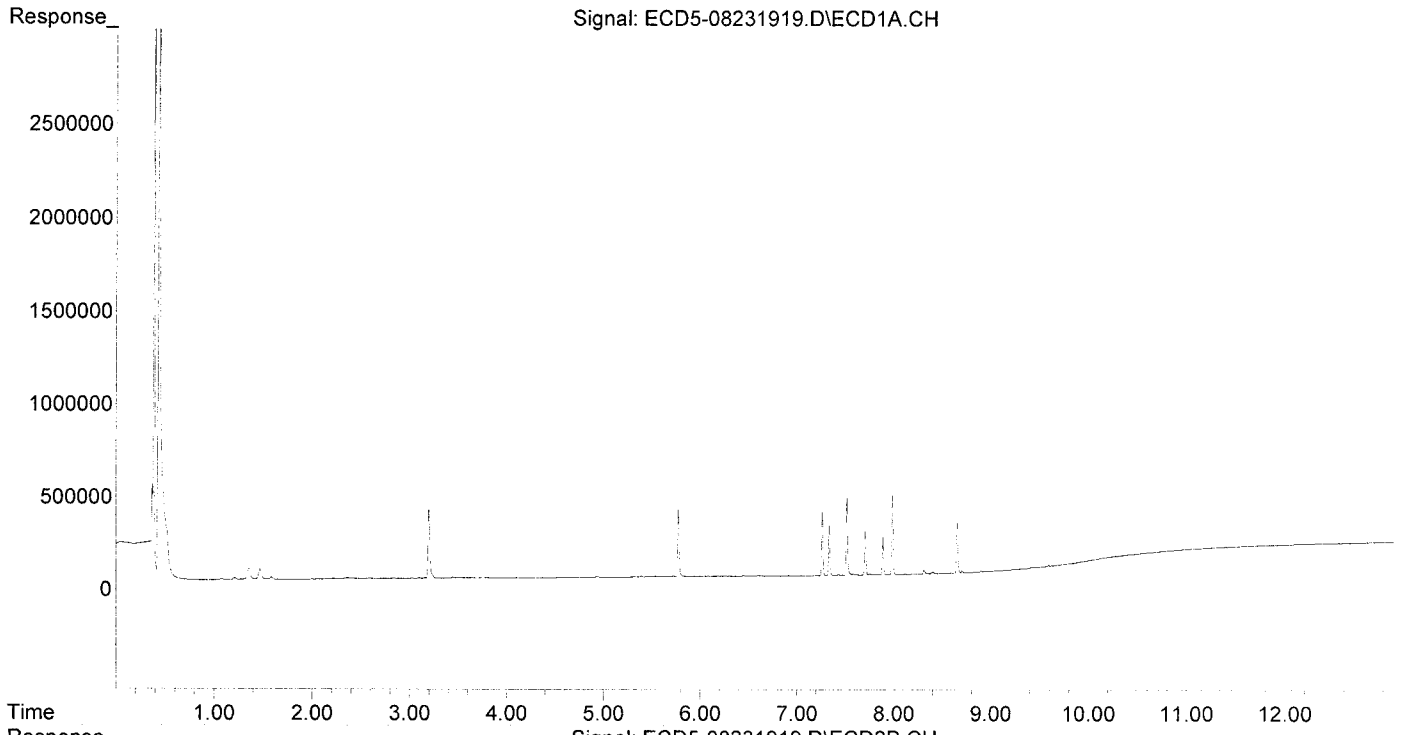
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.394	5.986	6323	13044	0.038	0.044	
22) S	DCBP (S)	9.592	10.539	6116	7474	0.043	0.042	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	3811	0	0.019	N.D.	#
4)	b-BHC	0.000	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.	

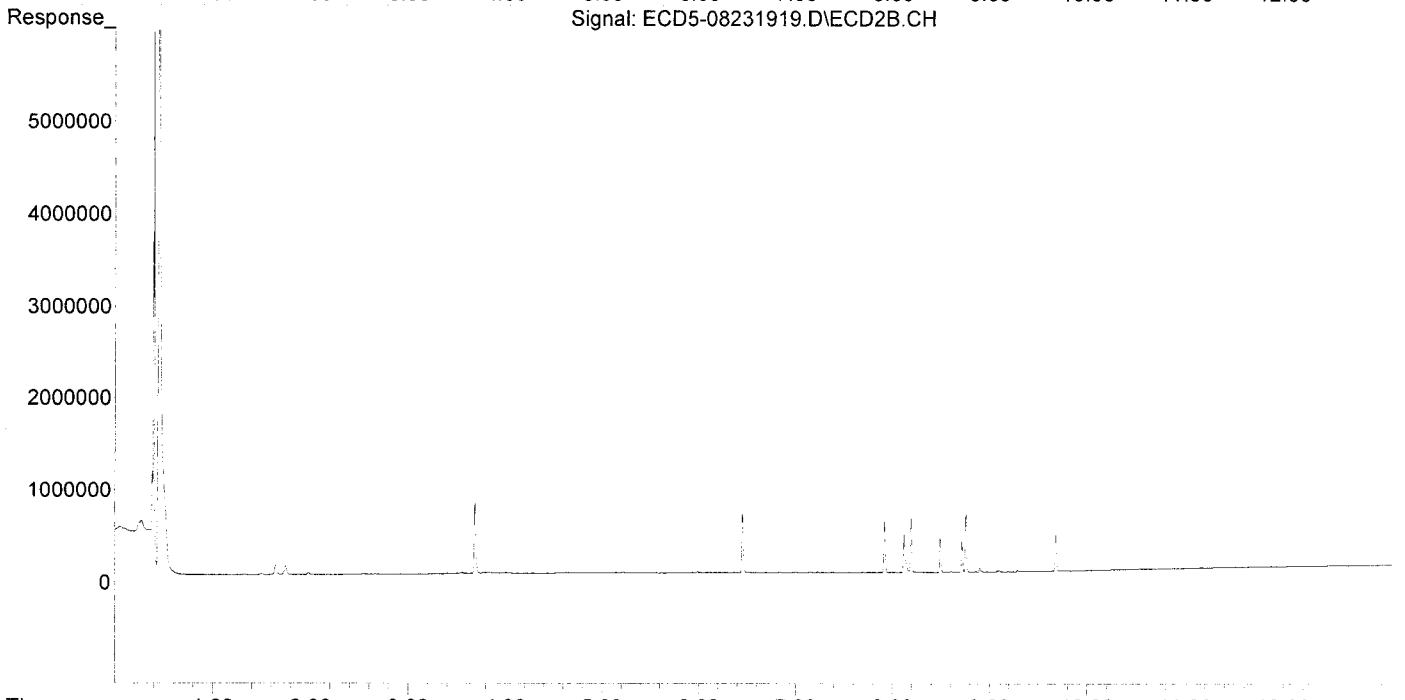
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

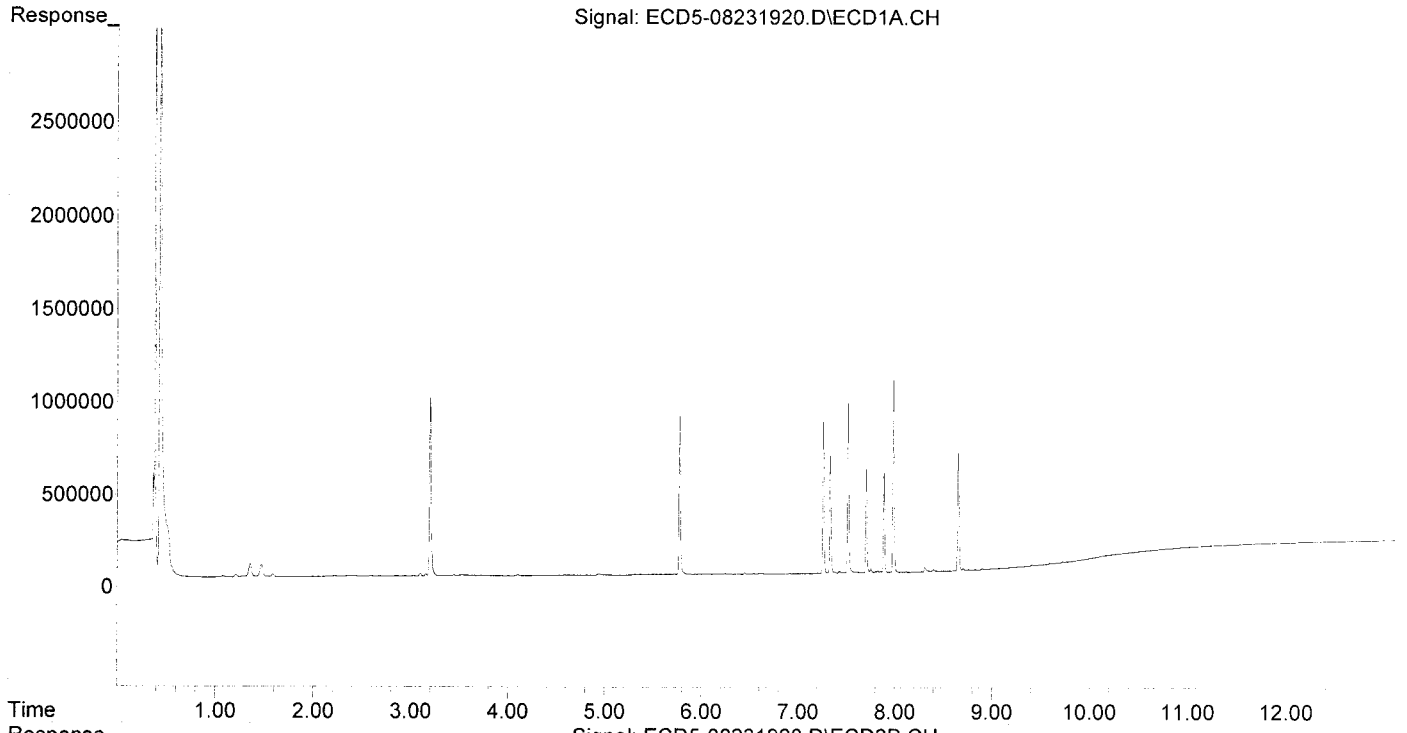
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.982	4403	6341	0.027	0.022	
22)	S	DCBP (S)	9.592	10.539	7940	5412	0.056	0.030	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.247f	0.000	5412	0	0.027	N.D.	#
4)		b-BHC	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	

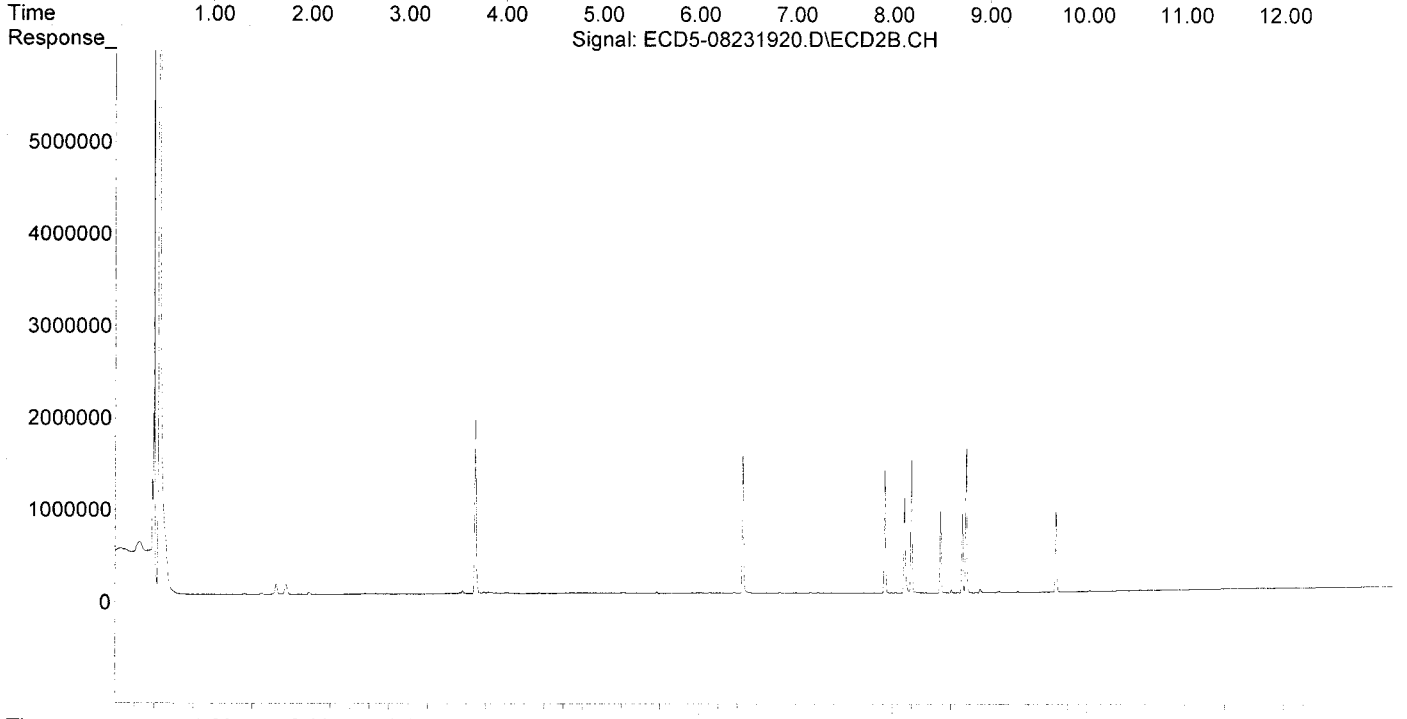
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

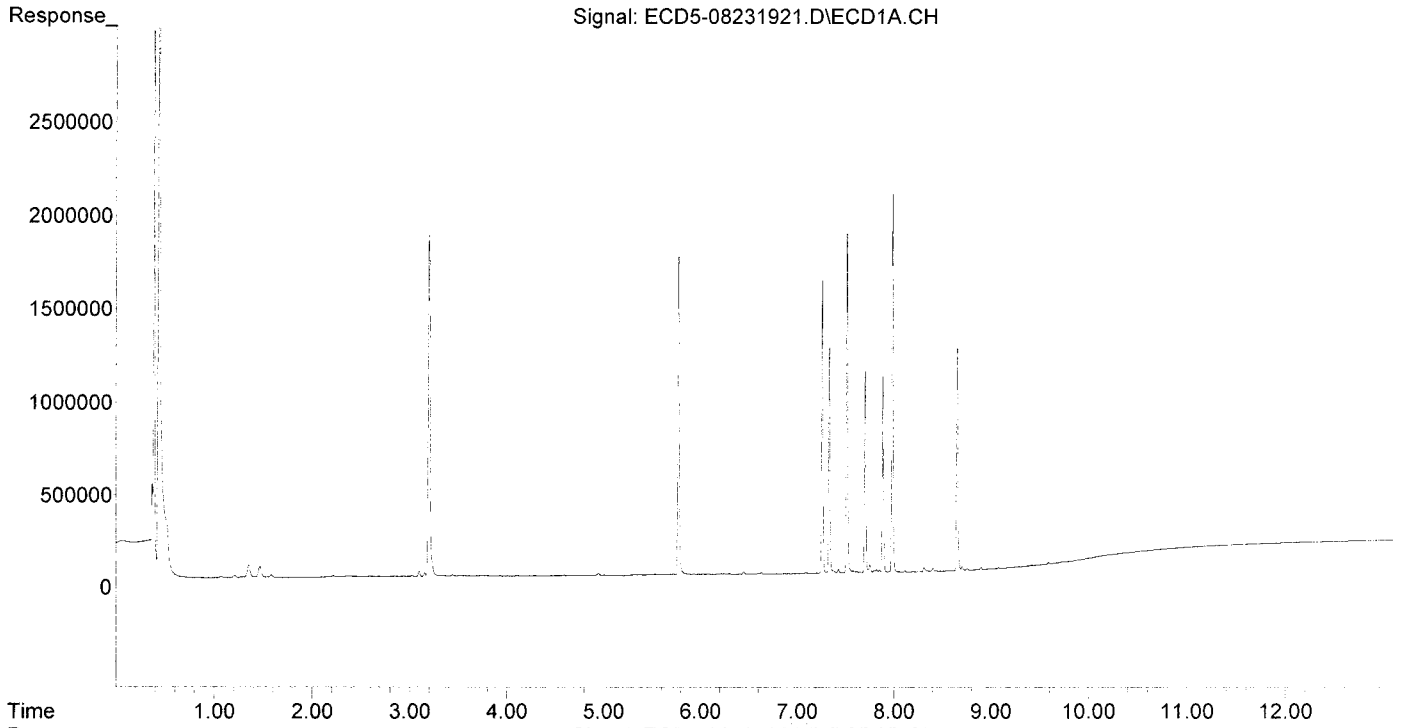
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.983	5244	8048	0.032	0.027	
22)	S	DCBP (S)	9.591	10.539	8426	10511	0.060	0.058	
		Target Compounds							
2)		a-BHC	5.934	6.594	5268	9085	0.023	0.022	
3)		g-BHC	6.219	6.912	5161	7308	0.026	0.020	
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	

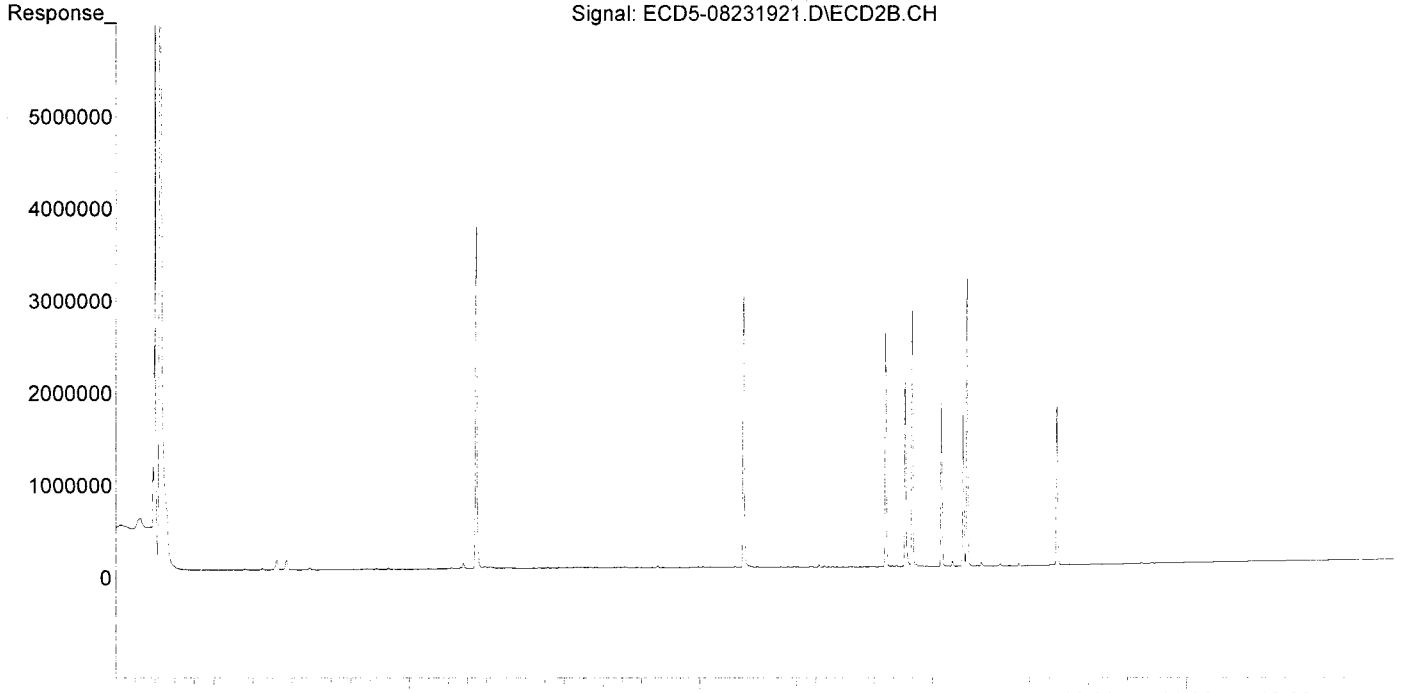
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

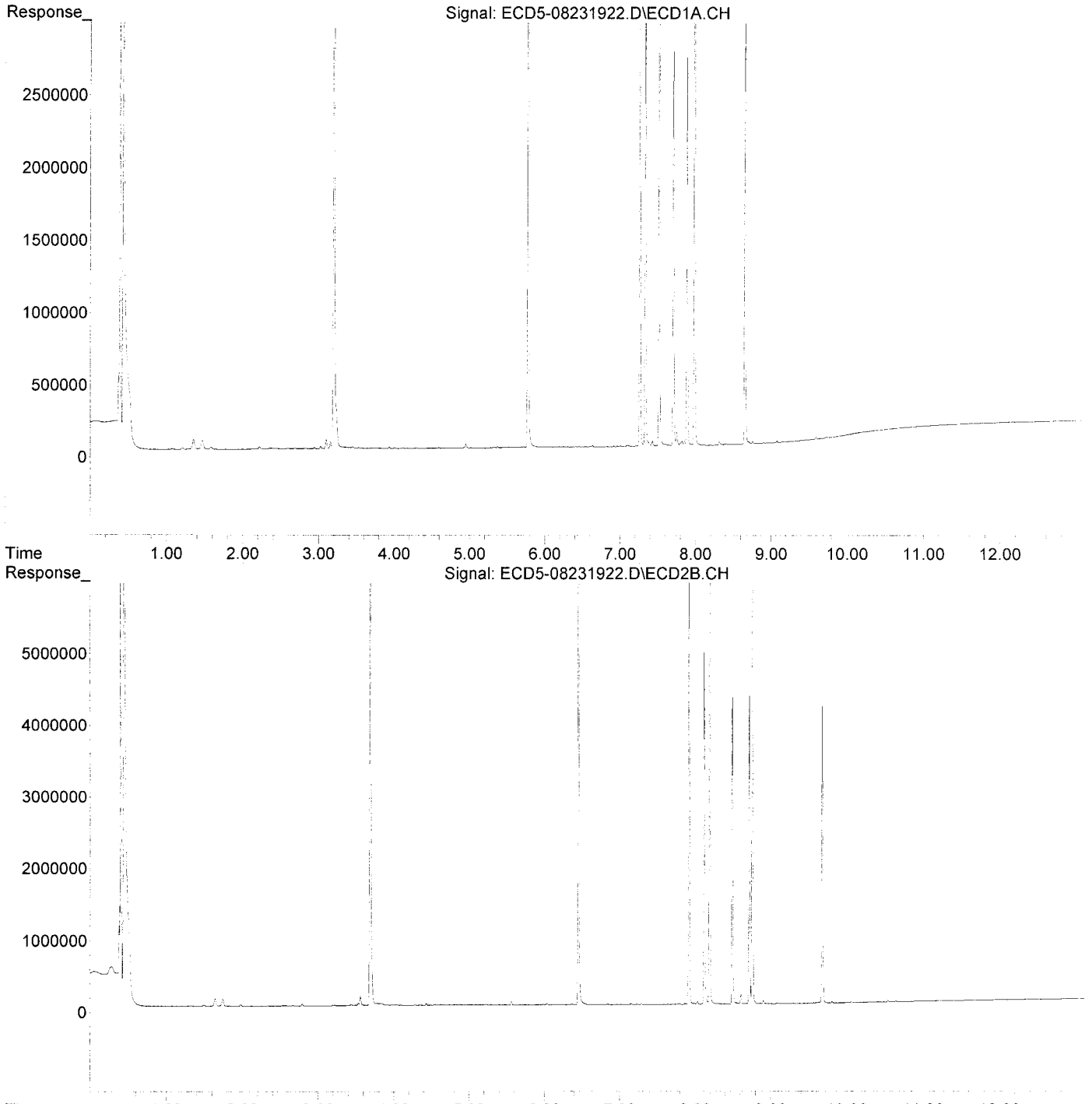
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	10828	6833	0.065	0.023	#
22) S	DCBP (S)	9.592	10.539	20297	20262	0.144	0.113	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	5786	0	0.029	N.D.	#
4)	b-BHC	0.000	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

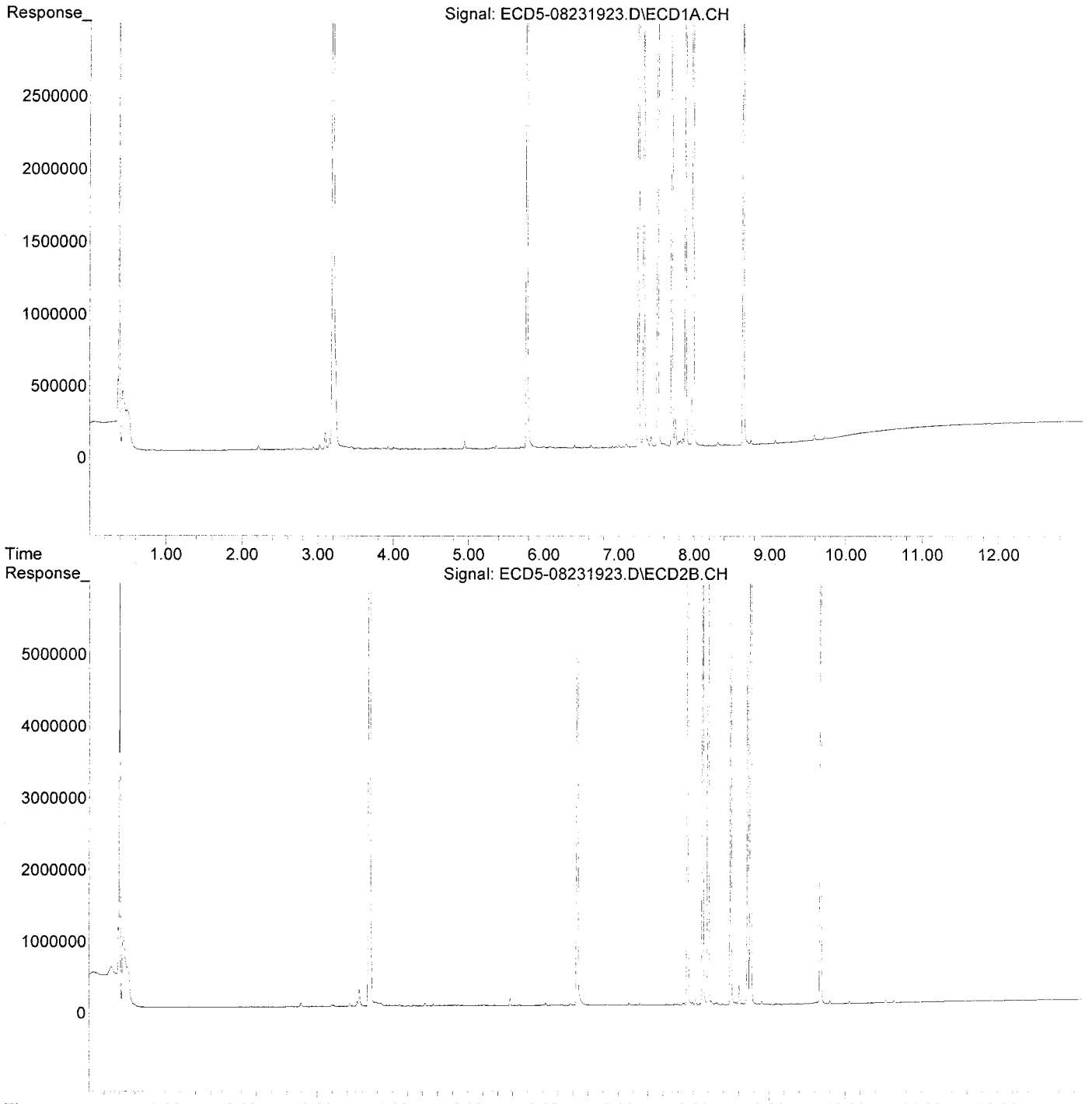
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	19019	8441	0.115	0.029	#
22) S	DCBP (S)	9.591	10.538	35203	39503	0.249	0.220	
	Target Compounds							
2)	a-BHC	5.949	0.000	5252	0	0.023	N.D.	#
3)	g-BHC	6.196f	6.951f	4084	3735	0.020	0.010	#
4)	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

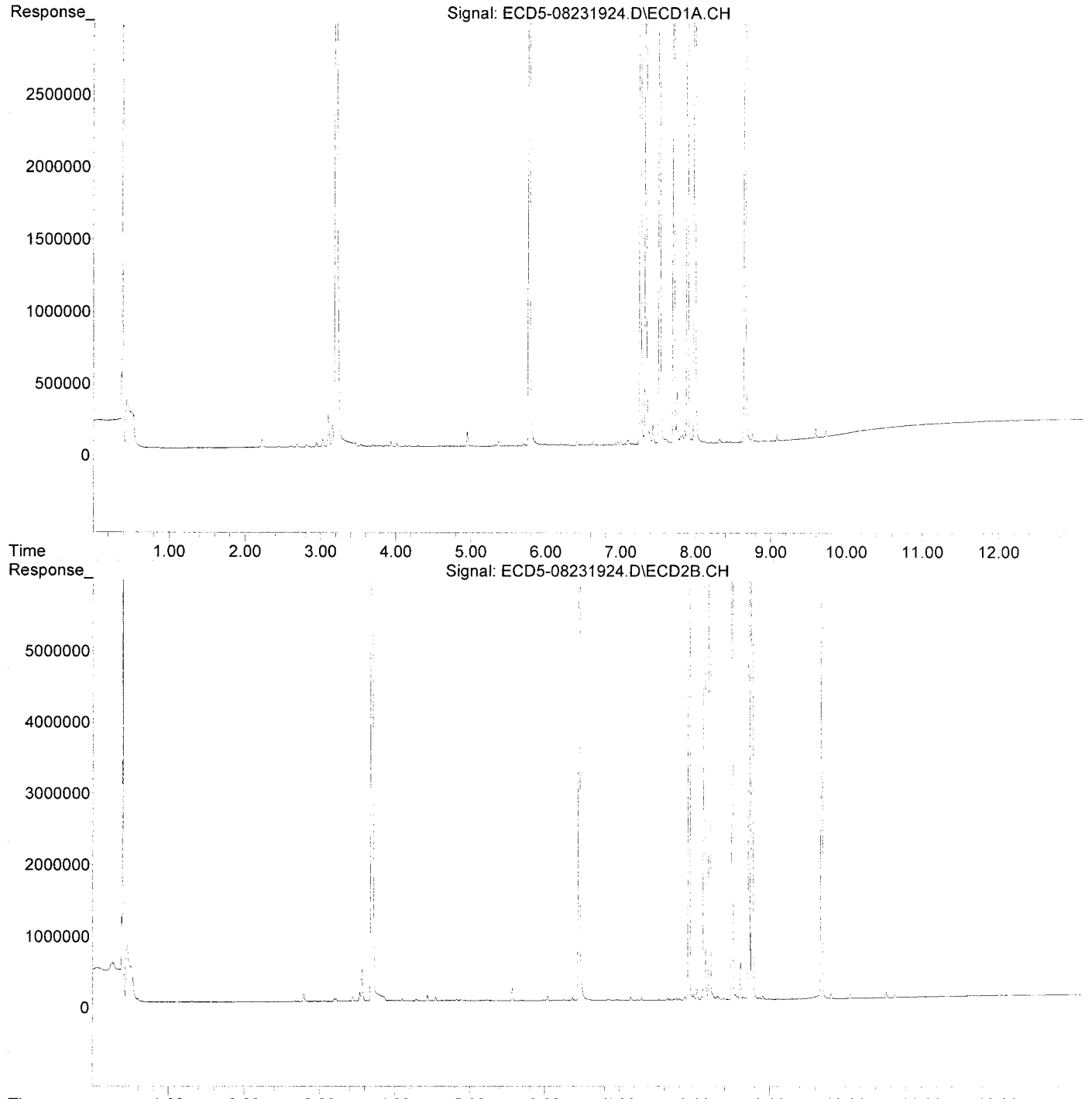
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.981	33988	9402	0.205	0.032	#
22)	S	DCBP (S)	9.592	10.540	62236	73549	0.441	0.409	
		Target Compounds							
2)		a-BHC	5.950	0.000	8055	0	0.035	N.D.	#
3)		g-BHC	6.198	6.952f	8435	9250	0.042	0.026	
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 8/26/19

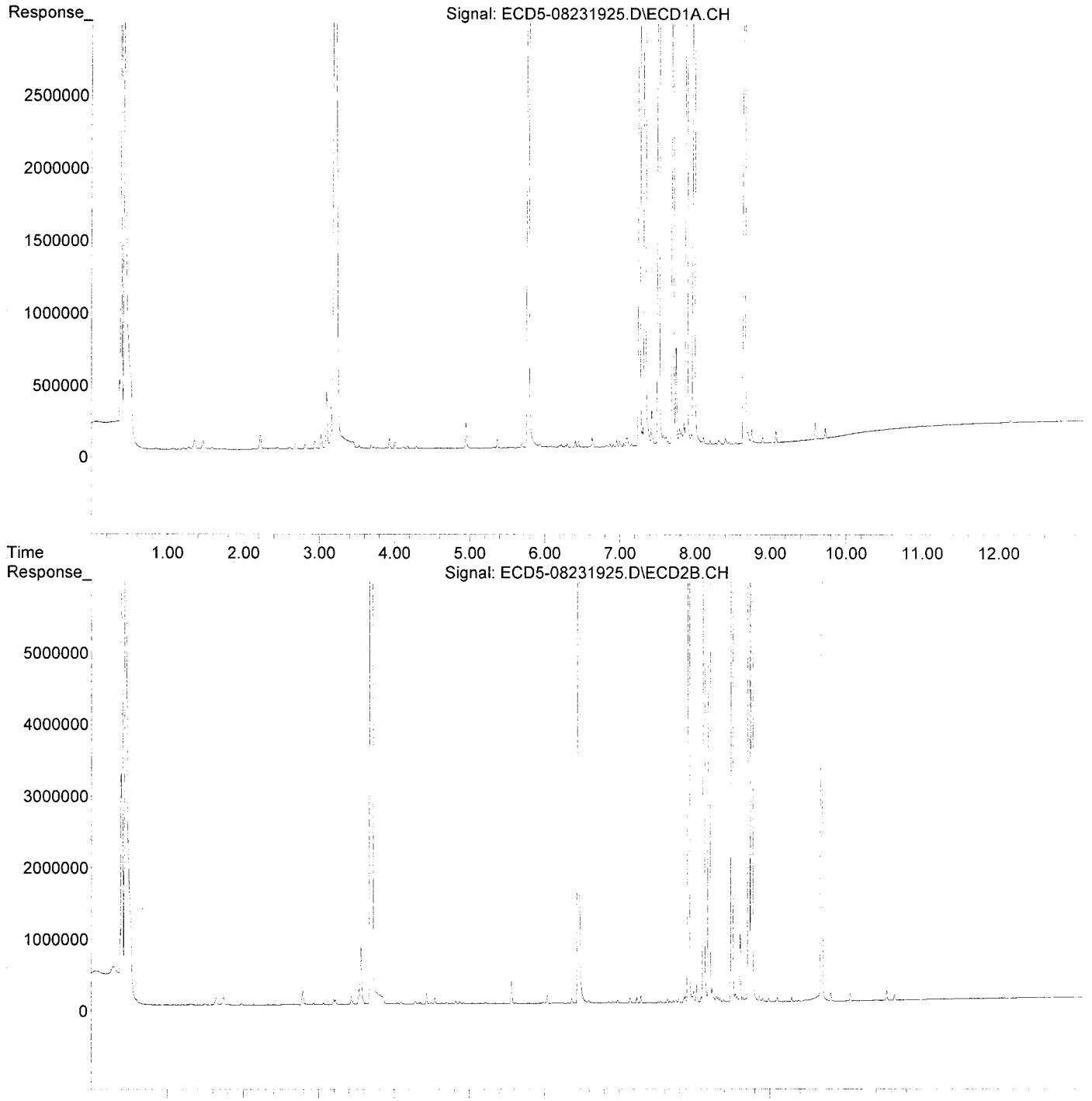
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.980	60549	10992	0.365	0.037	#
22)	S	DCBP (S)	9.590	10.538	118766	140925	0.842	0.784	
		Target Compounds							
2)		a-BHC	5.933	6.593	27118	40902	0.118	0.100	
3)		g-BHC	6.218	6.912	21255	30993	0.105	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

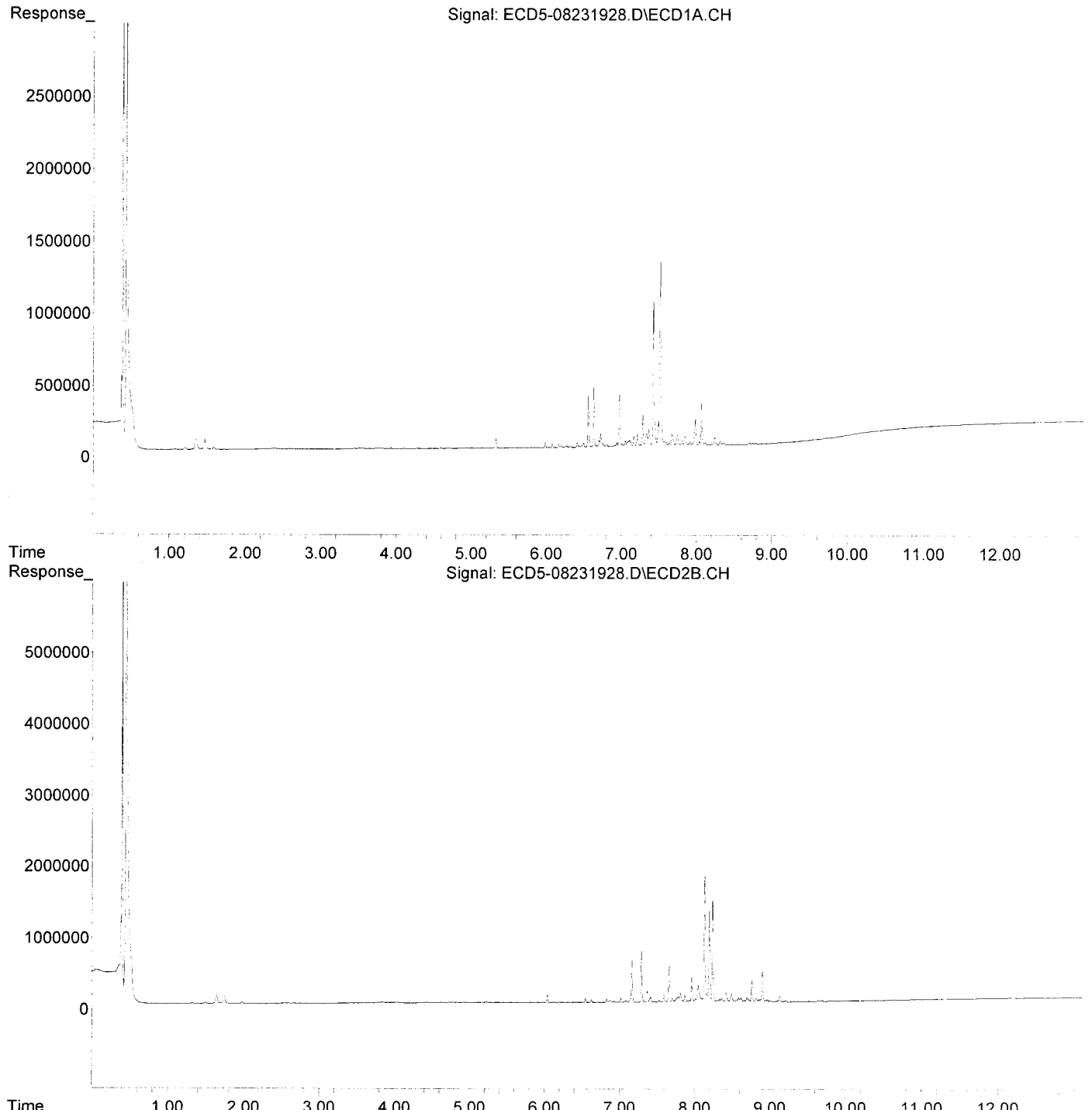
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.606	0.000	5901	0	0.042	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	41997	N.D.	0.102	#
3)		g-BHC	6.194f	6.924	13212	19652	0.065	0.055	
4)		b-BHC	6.323f	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

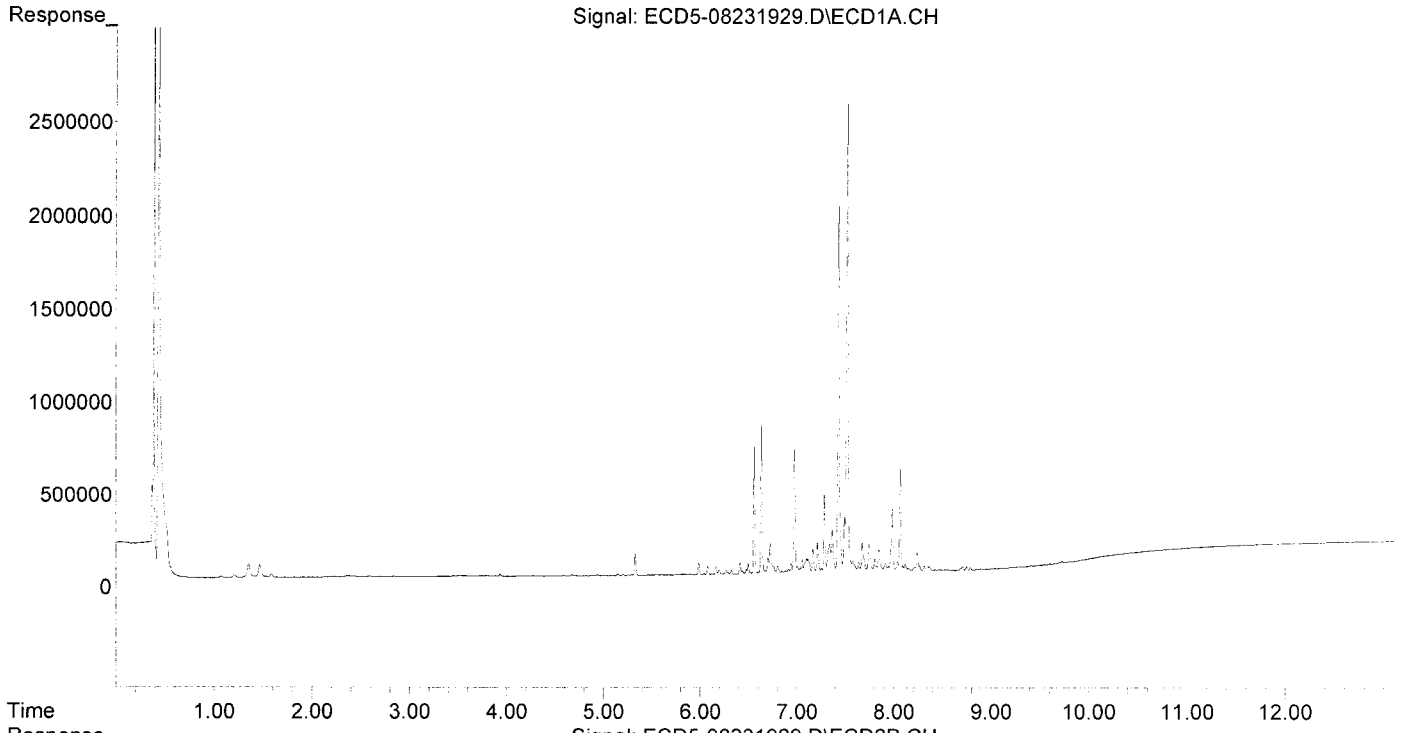
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5943	N.D.	0.020	#
22)	S	DCBP (S)	9.606	0.000	7472	0	0.053	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	77932	N.D.	0.190	#
3)		g-BHC	6.194f	6.923	23514	36662	0.117	0.103	
4)		b-BHC	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.	

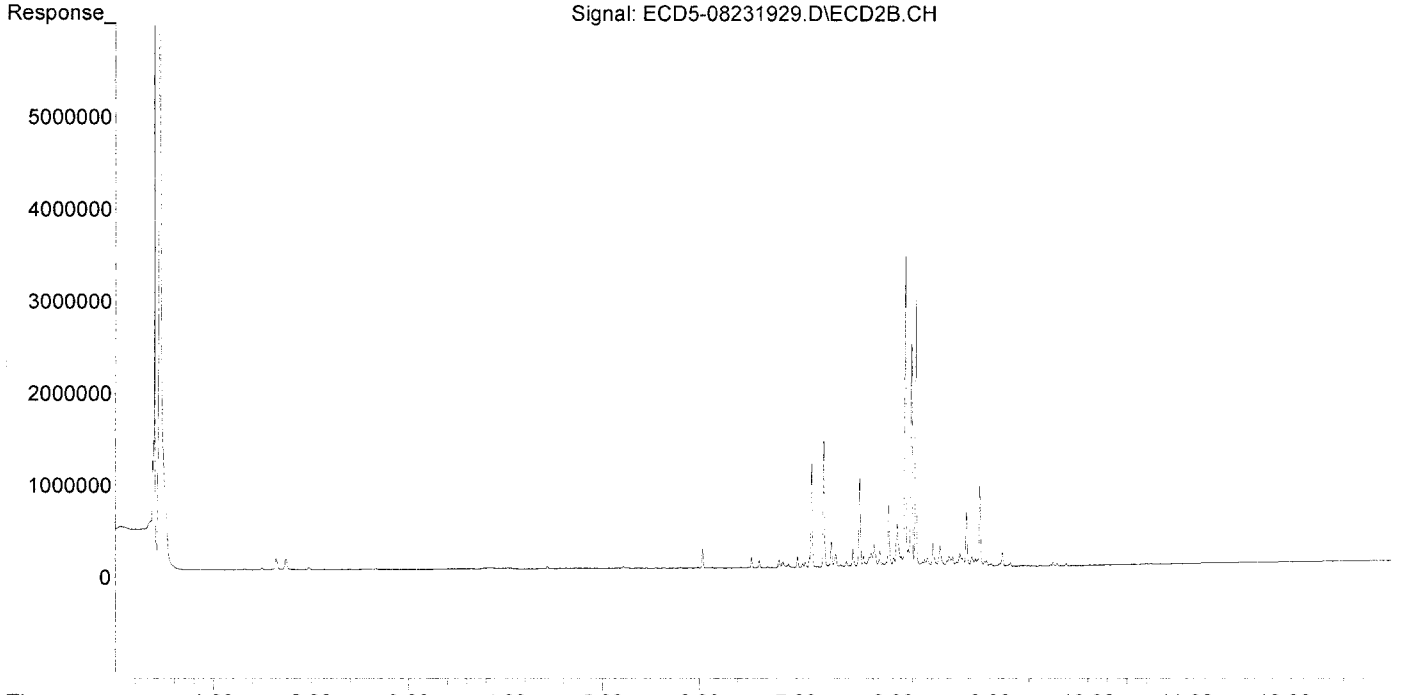
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

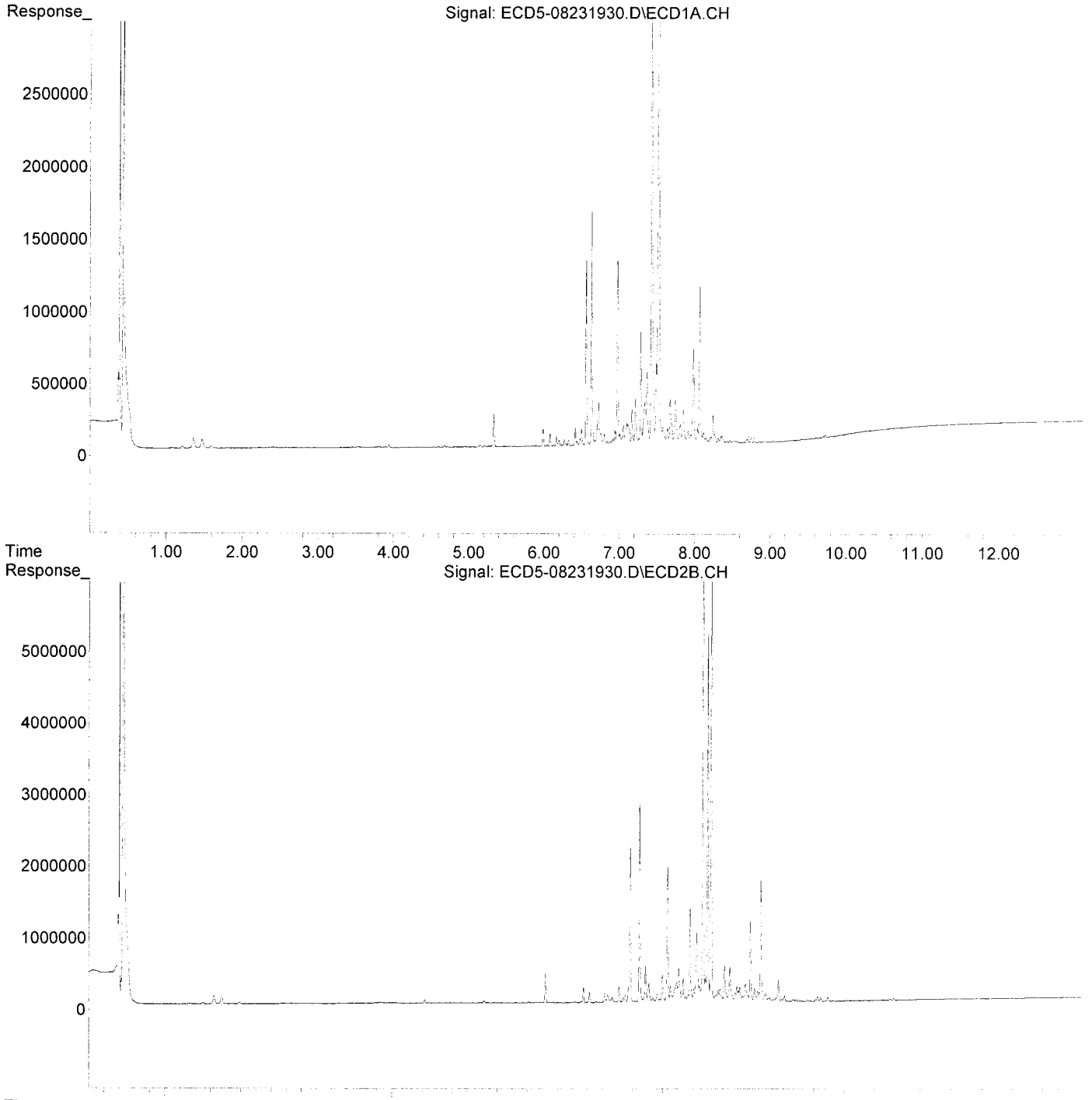
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.605	0.000	9631	0	0.068	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.623f	0	141009	N.D.	0.344	#
3)		g-BHC	6.197f	6.925	44236	70355	0.219	0.197	
4)		b-BHC	6.269f	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

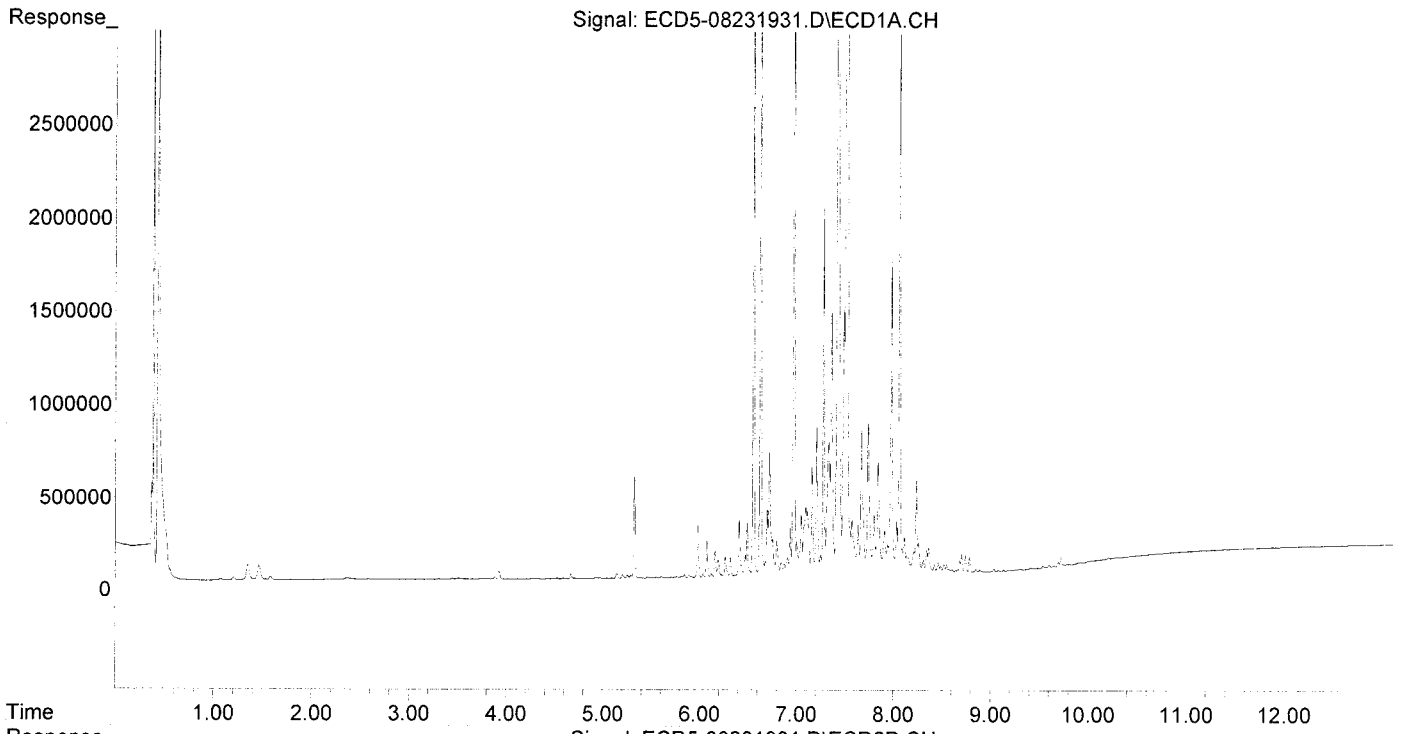
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.982	0	9372	N.D.	0.032	#
22)	S	DCBP (S)	9.605	10.512f	13871	6664	0.098	0.037	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	314411	N.D.	0.766	#
3)		g-BHC	6.194f	6.923	92958	161395	0.461	0.452	
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.	

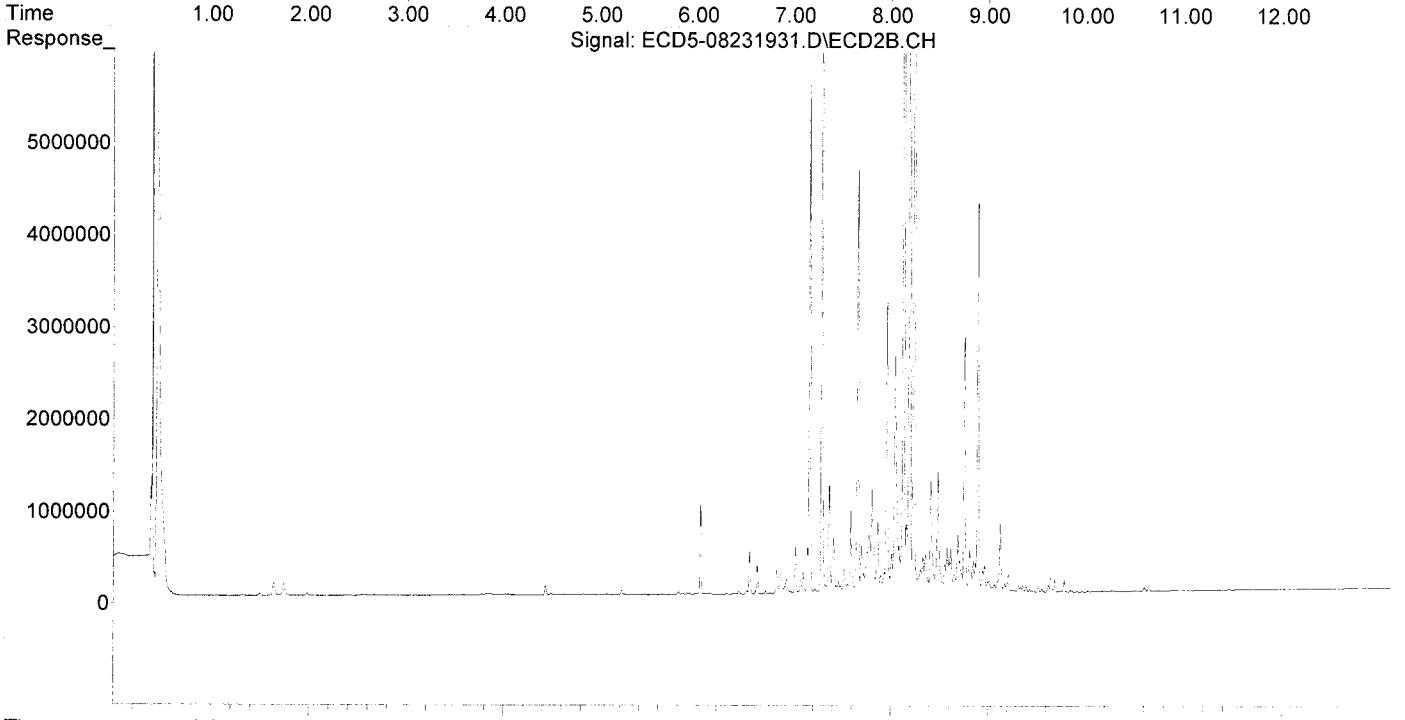
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

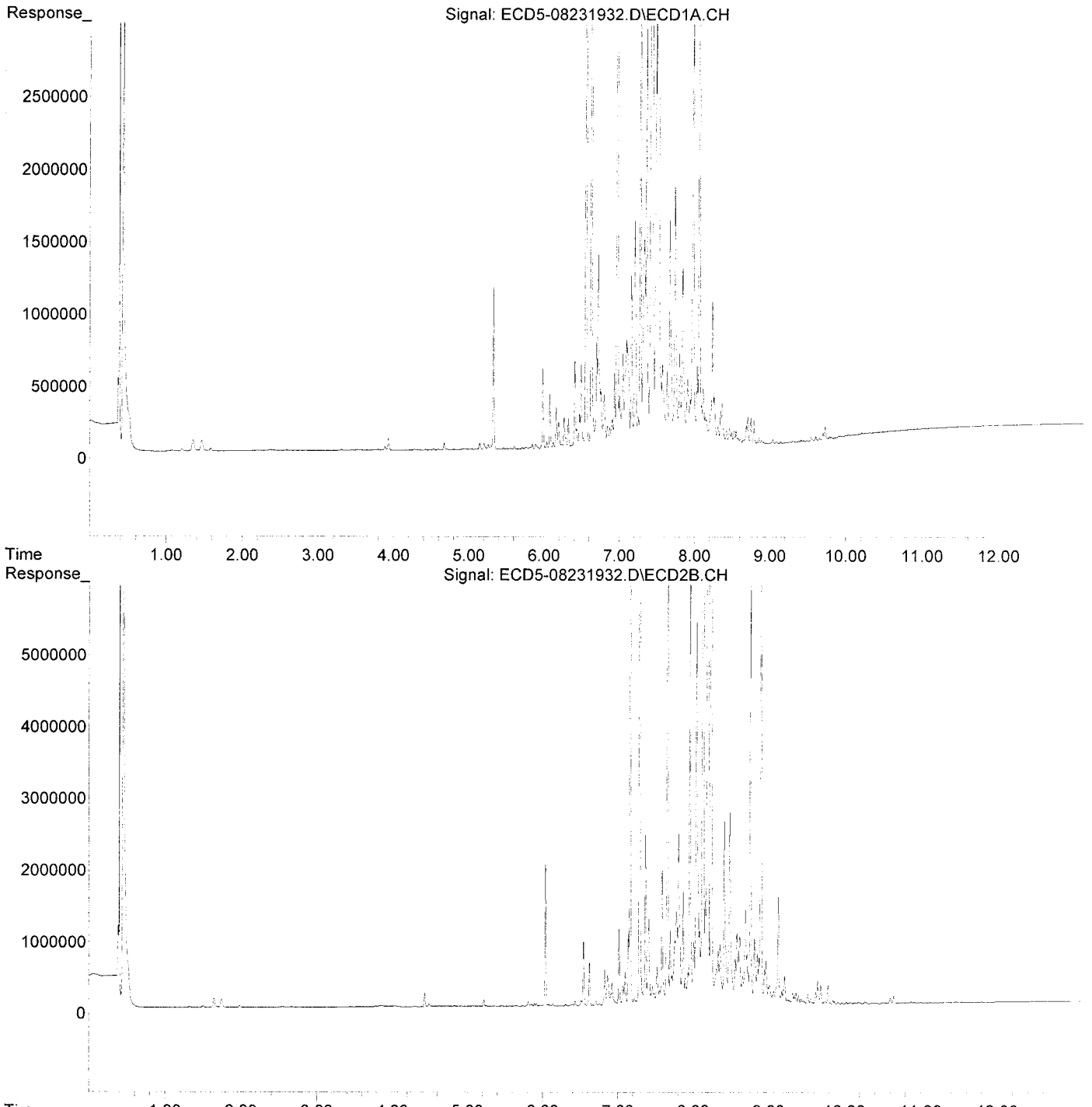
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.980	6433	11040	0.039	0.038	
22)	S	DCBP (S)	9.604	10.553	33011	8716	0.234	0.048	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	610263	N.D.	1.487	#
3)		g-BHC	6.194f	6.923	179715	319626	0.891	0.896	
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

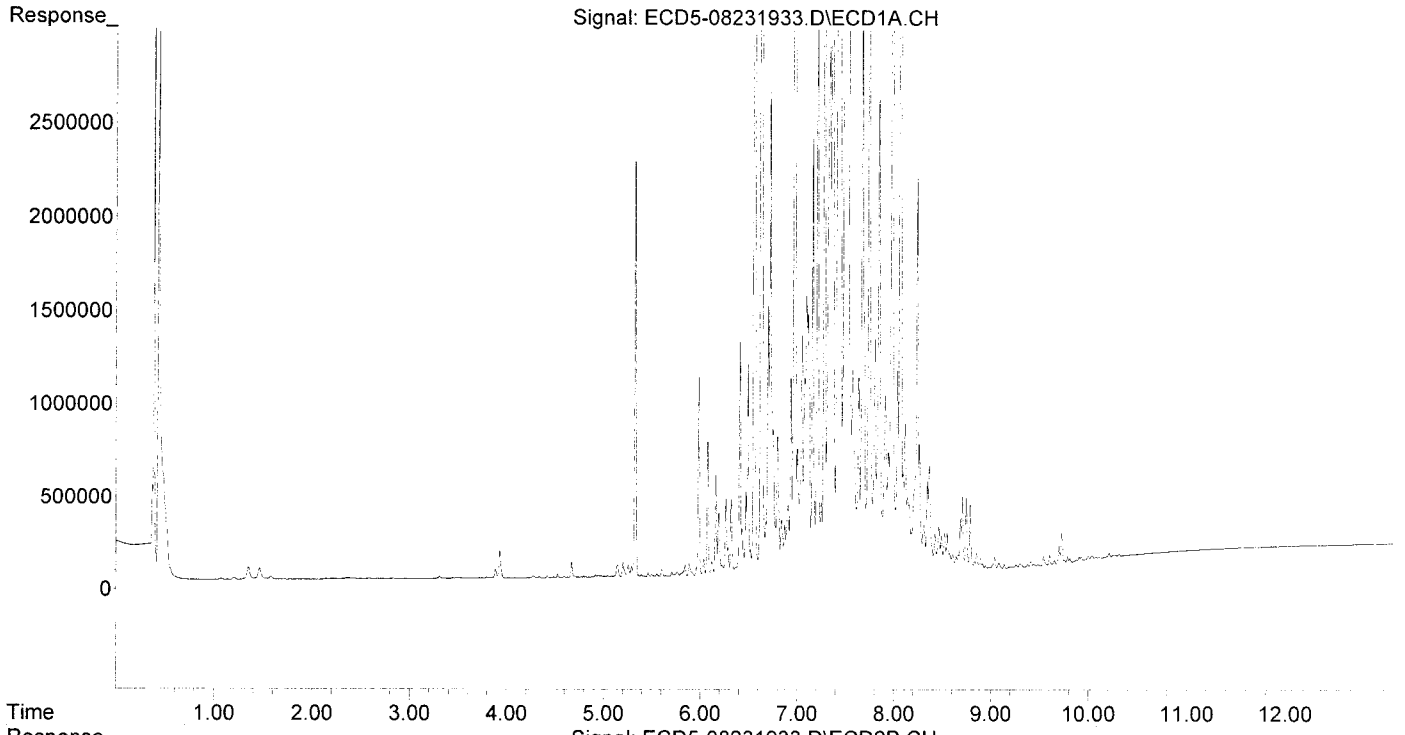
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.971	11655	15748	0.070	0.054	
22)	S	DCBP (S)	9.604	10.552	57777	17575	0.409	0.098	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	1174704	N.D.	2.863	#
3)		g-BHC	6.193f	6.922	334417	594314	1.657	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.	

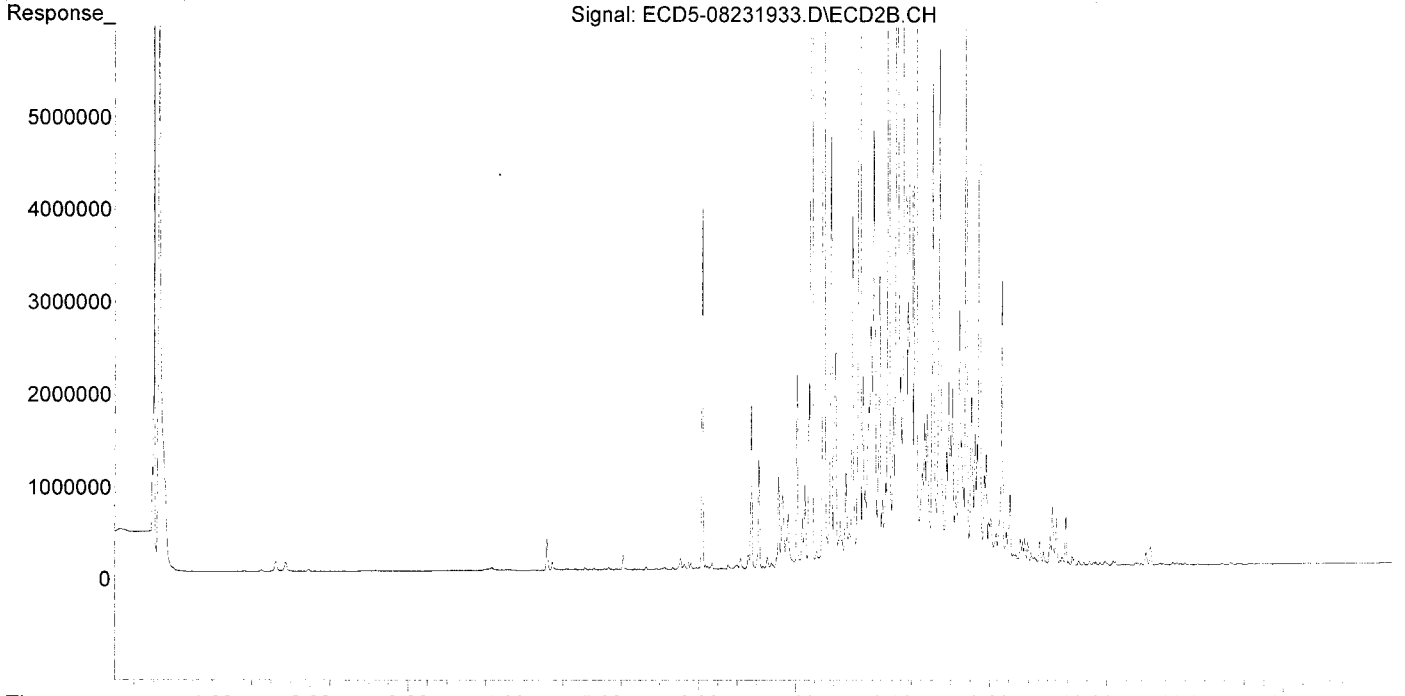
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

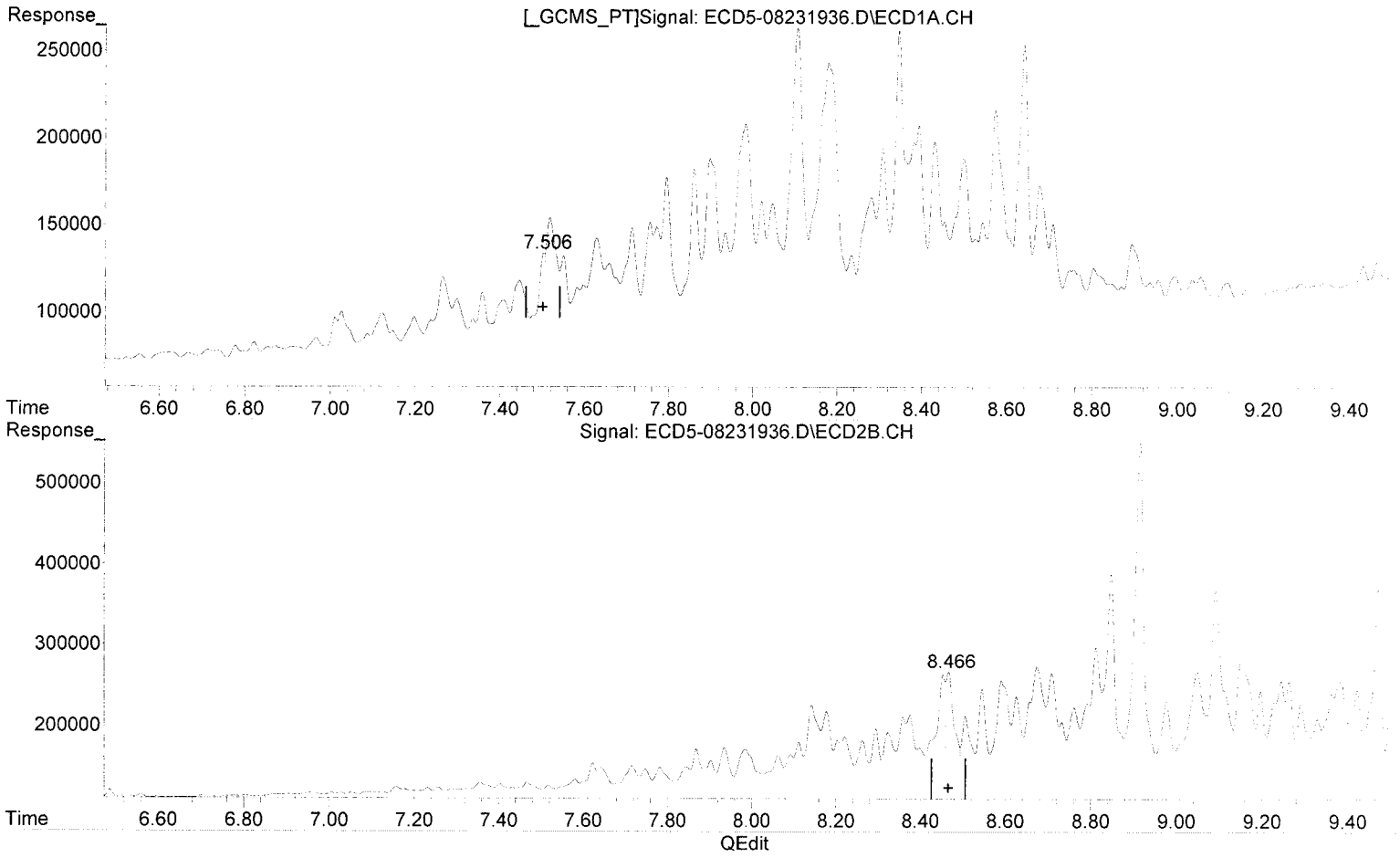
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6201	N.D.	0.021	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4430	0	0.022	N.D.	#
4)		b-BHC	6.297	0.000	3017	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

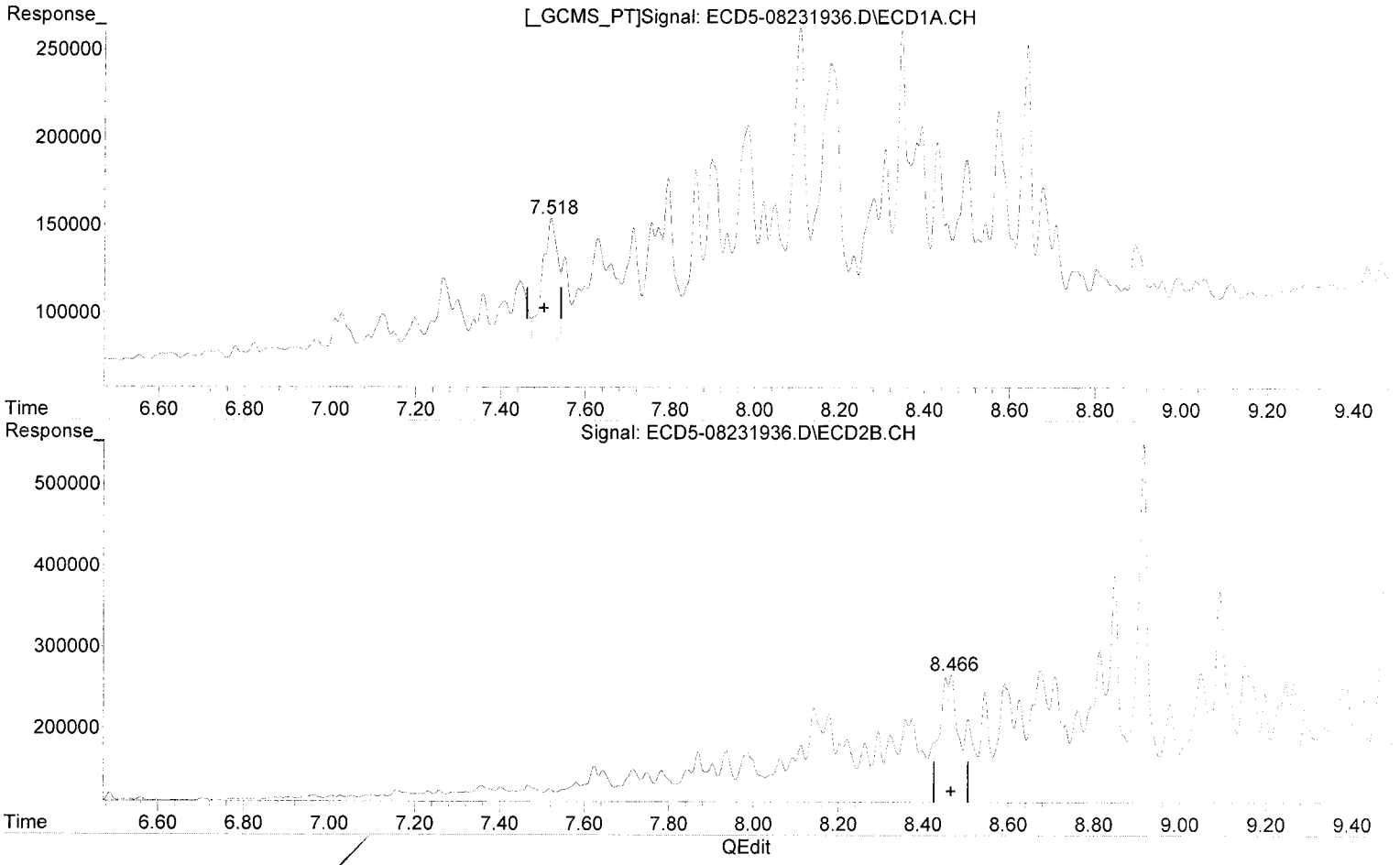
response 136848

(+) = 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

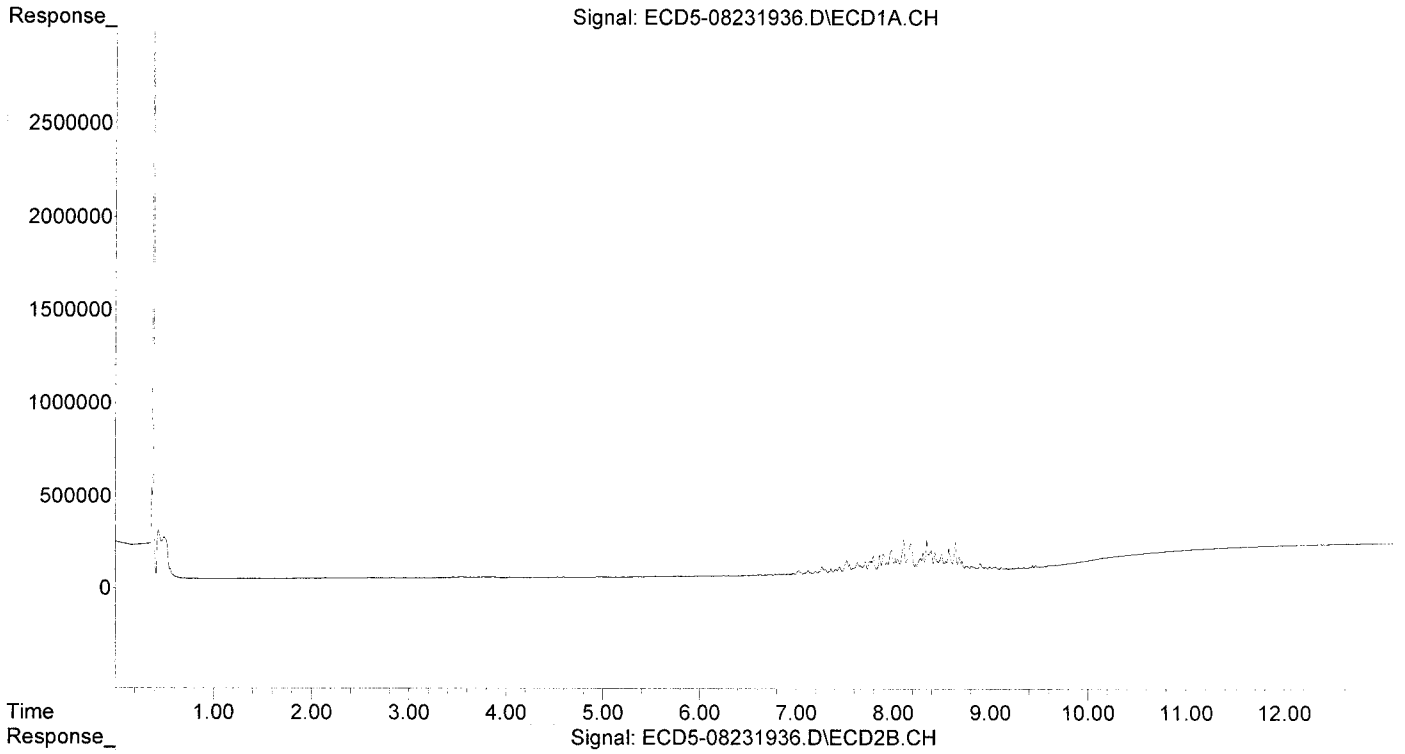
response 136848

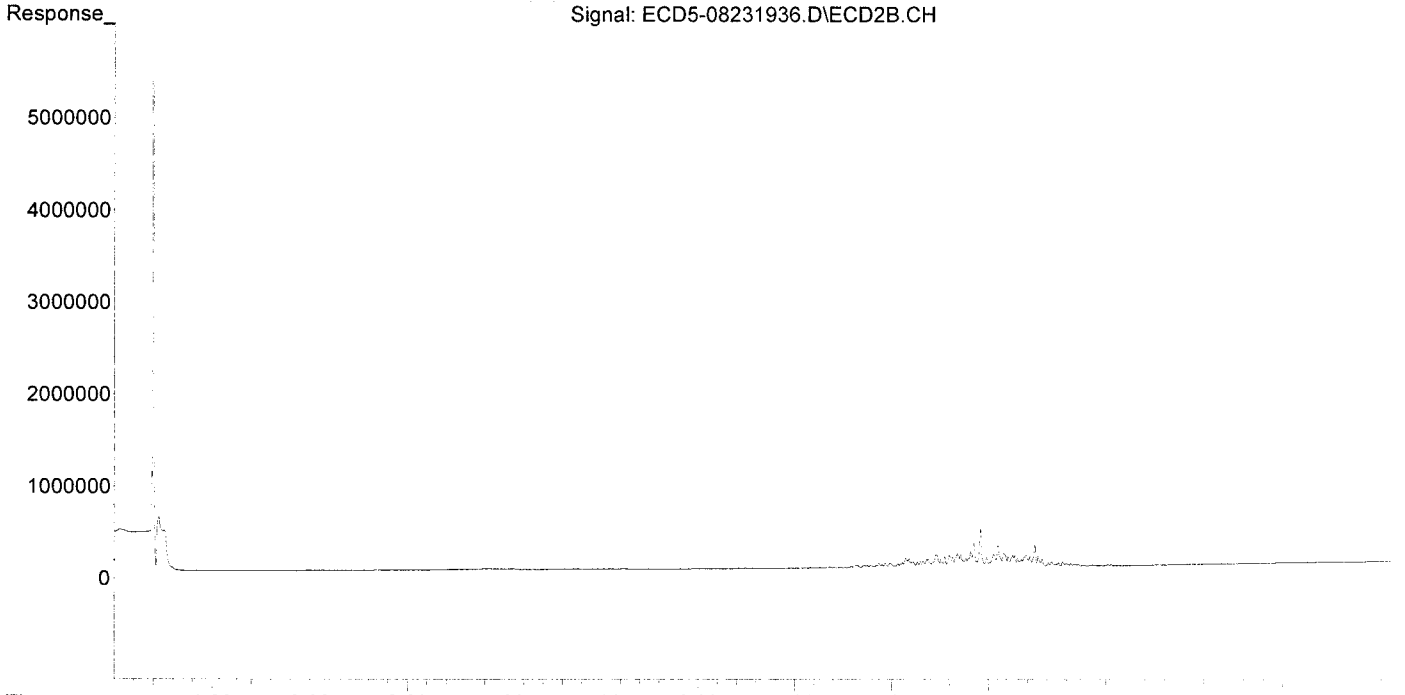
(+) = Expected Retention Time

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

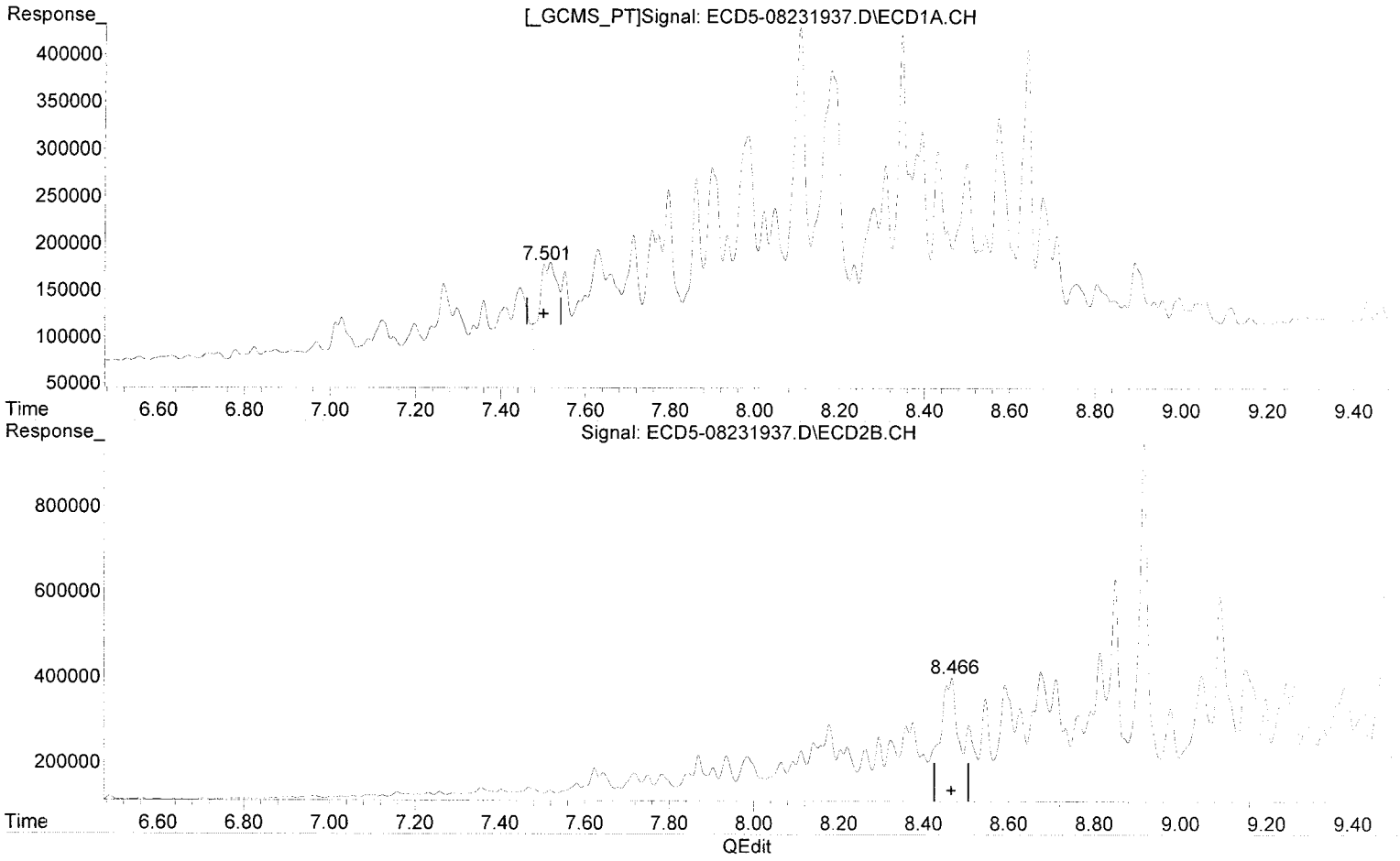
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.985	0	6562	N.D.	0.022	#
22)	S	DCBP (S)	9.592	0.000	4802	0	0.034	N.D.	#
		Target Compounds							
2)		a-BHC	5.952	0.000	2451	0	0.011	N.D.	#
3)		g-BHC	6.250f	0.000	4208	0	0.021	N.D.	#
4)		b-BHC	6.297	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

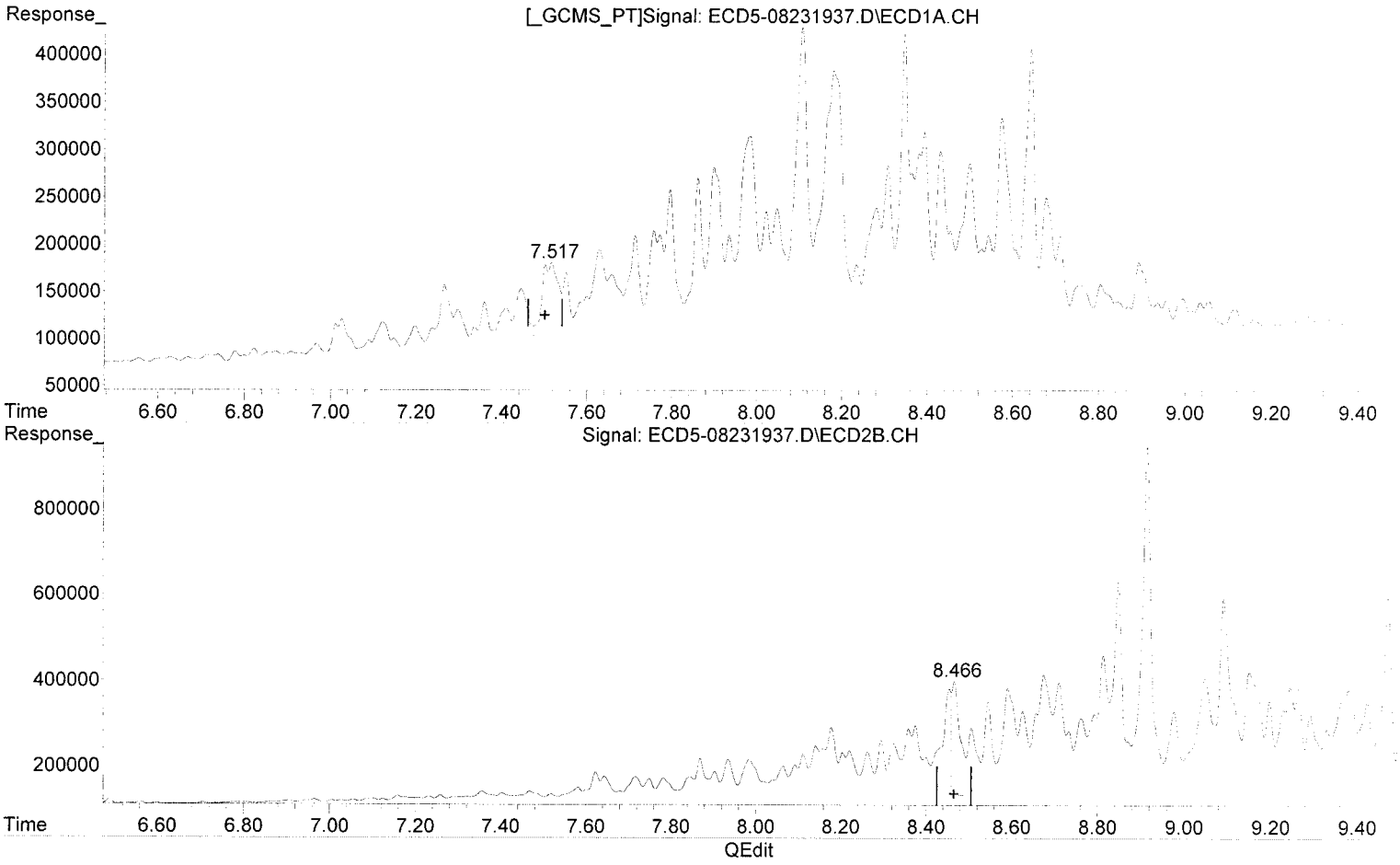
MD 6/26/19 MJB 6/26/19

(+) = 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

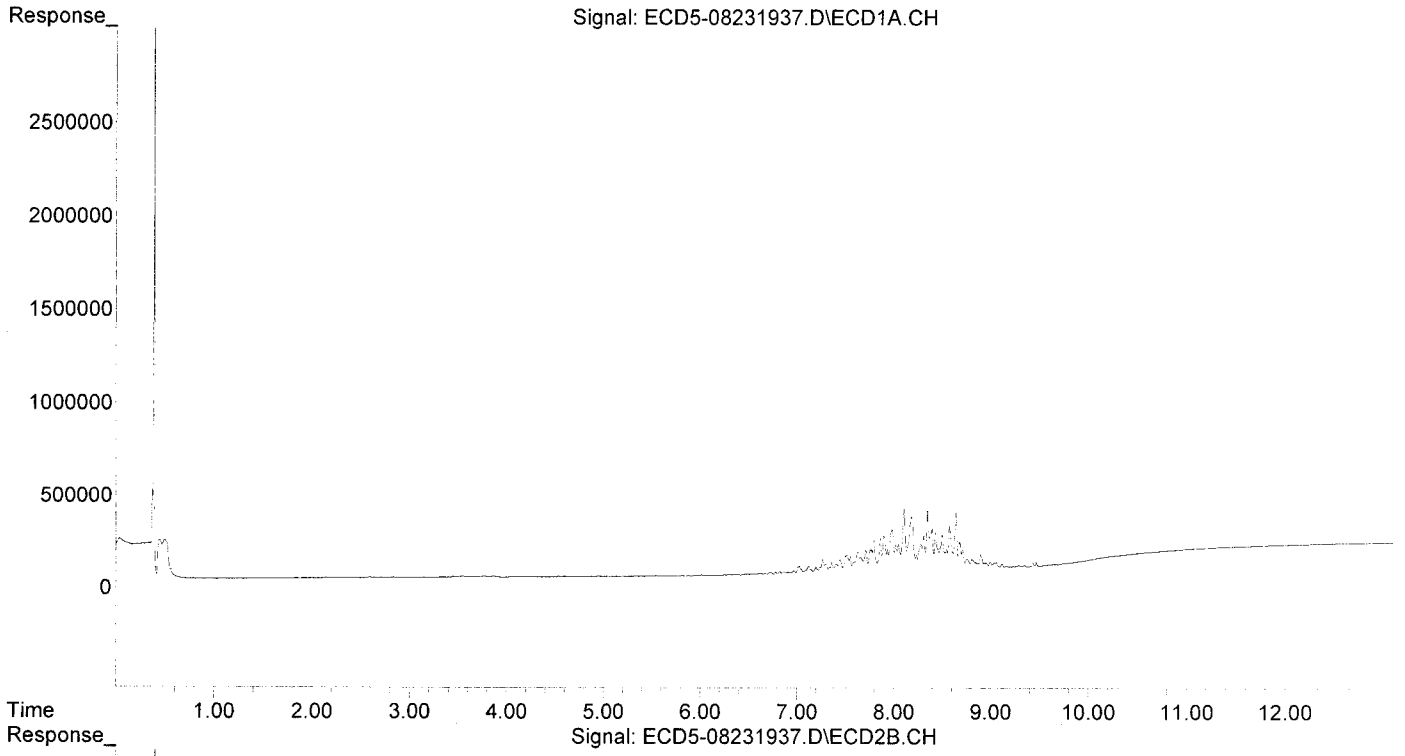
response 267534

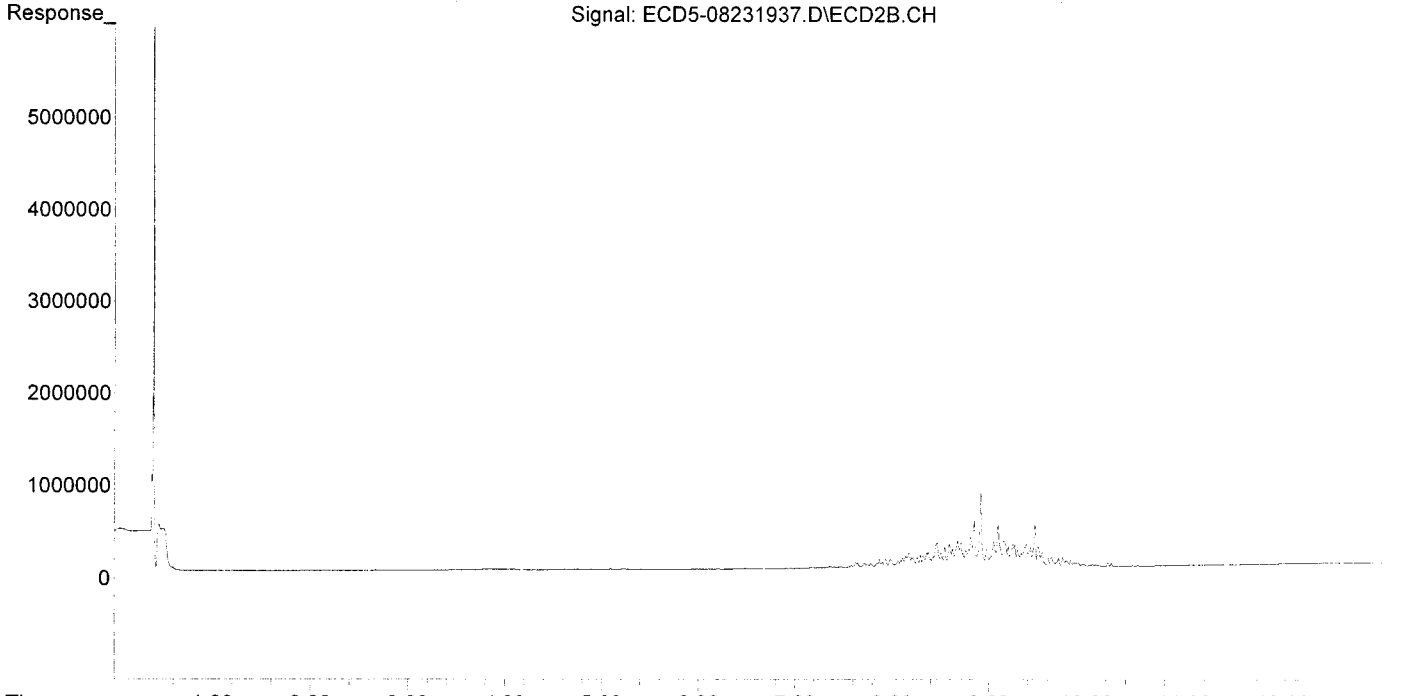
(+) = Expected Retention Time

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

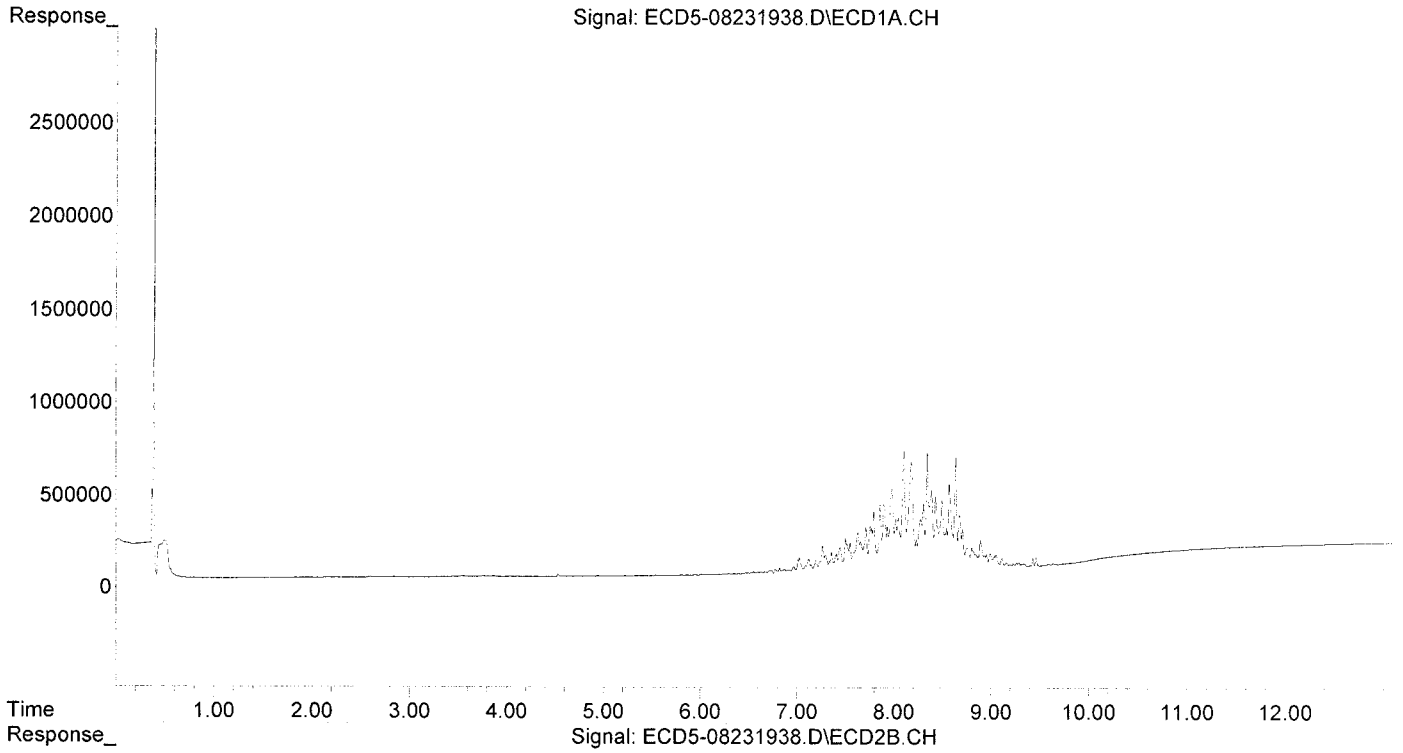
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6031	N.D.	0.021	#
22)	S	DCBP (S)	9.591	10.521	8317	11024	0.059	0.061	
		Target Compounds							
2)		a-BHC	5.950	0.000	2445	0	0.011	N.D.	#
3)		g-BHC	6.249f	6.906	4762	8484	0.024	0.024	
4)		b-BHC	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.	

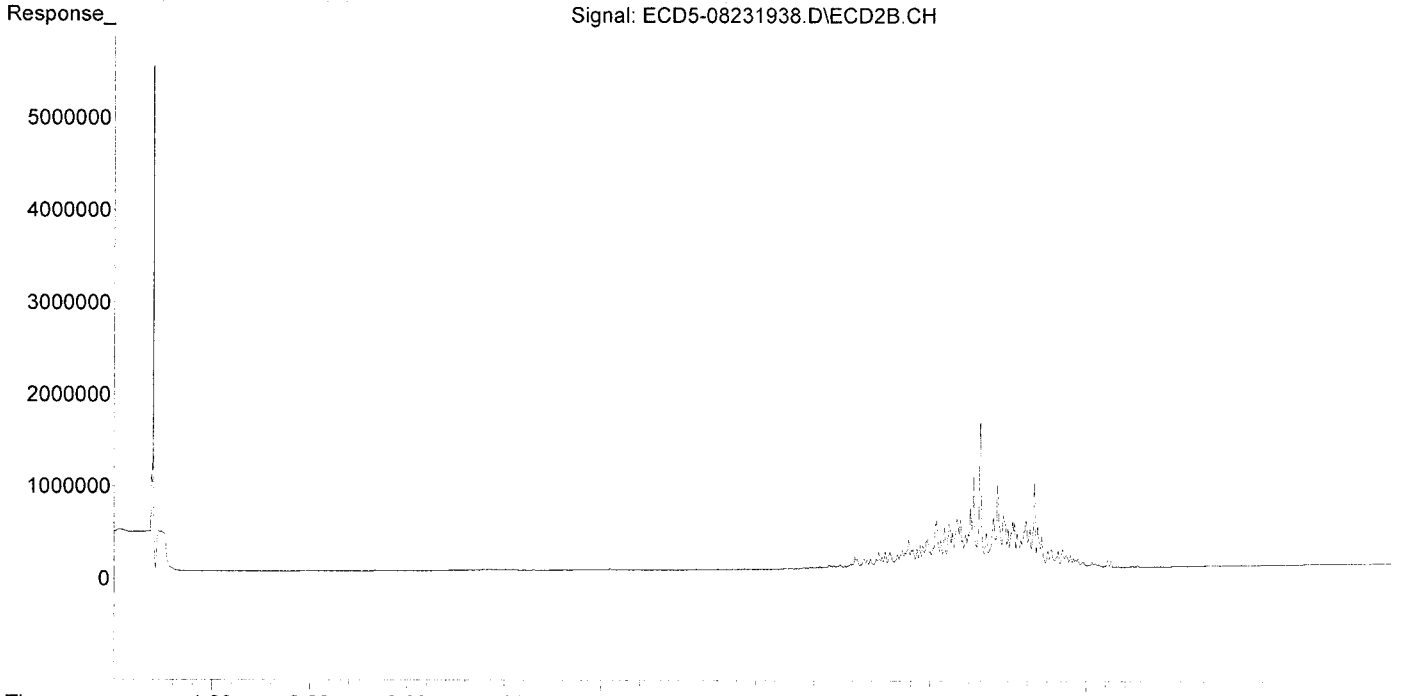
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

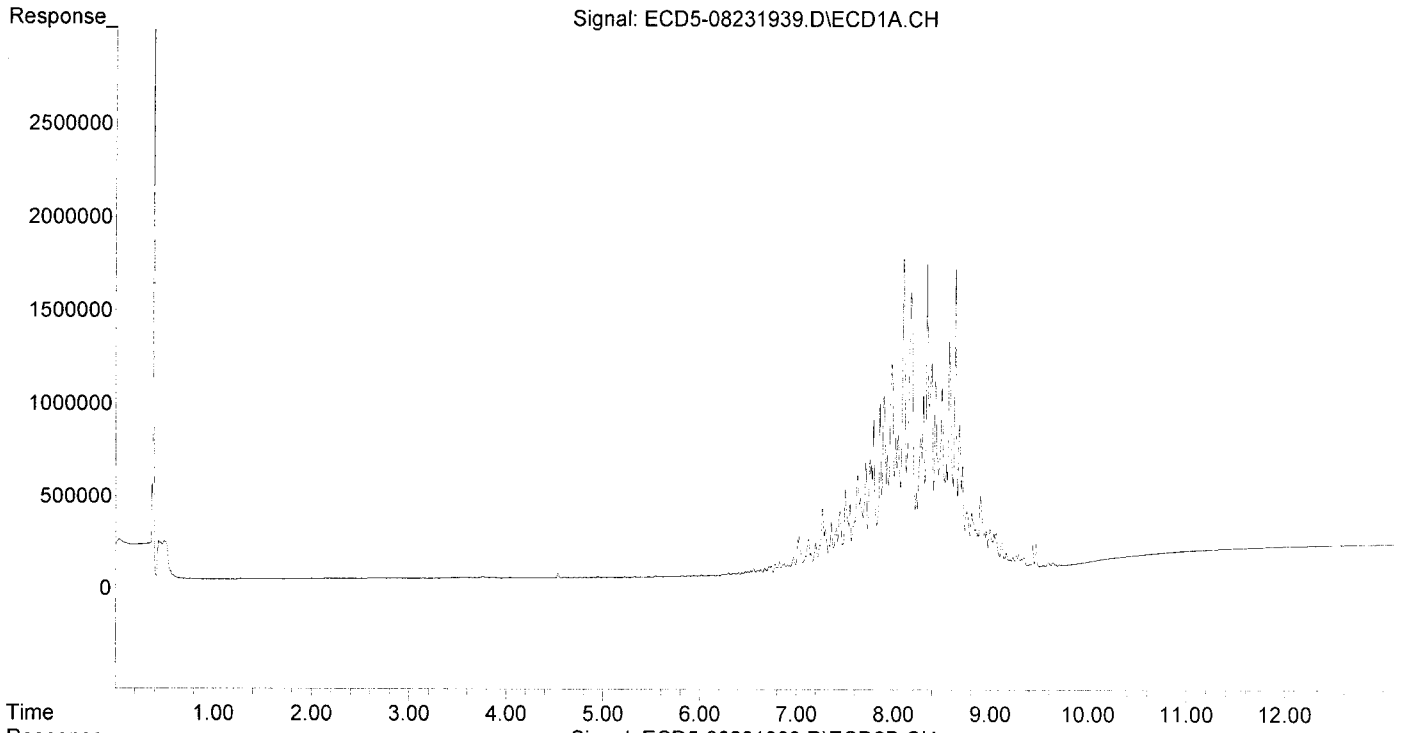
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	5601	N.D.	0.019	#
22)	S	DCBP (S)	9.591	10.521	21035	39647	0.149	0.221	#
		Target Compounds							
2)		a-BHC	5.938	6.598	3646	8422	0.016	0.021	
3)		g-BHC	6.246f	6.908	6276	21315	0.031	0.060	#
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.	

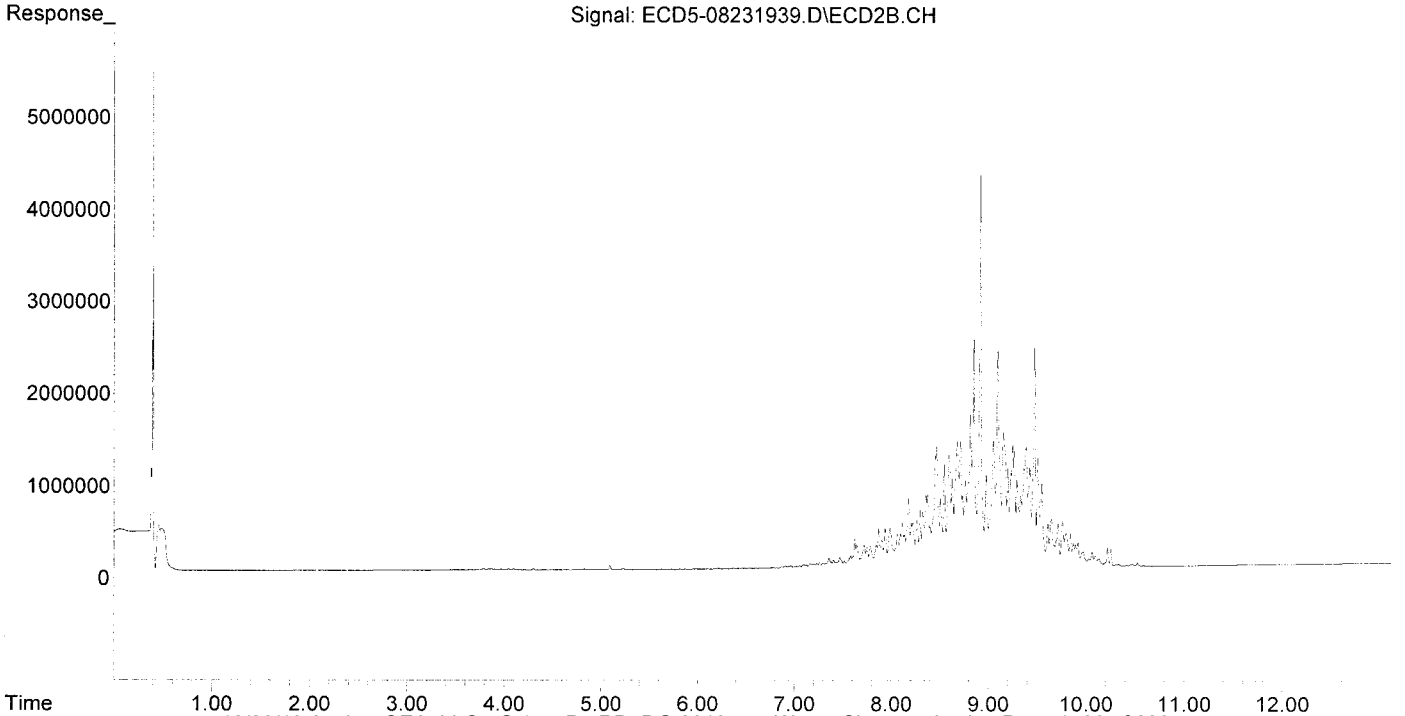
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

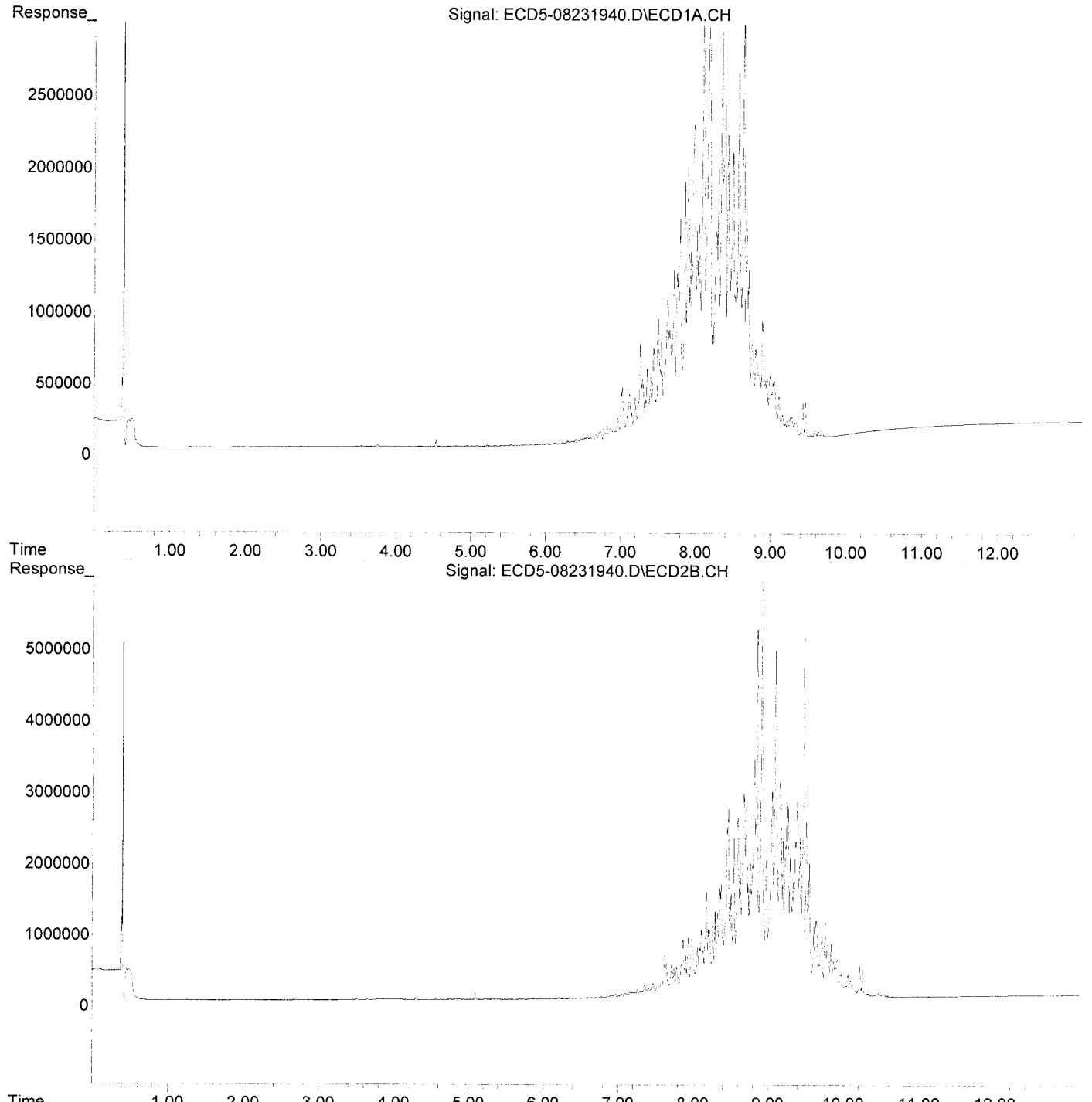
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.415f	5.982	2381	5264	0.014	0.018	
22)	S DCBP (S)	9.591	10.522	47060	86882	0.334	0.483	#
	Target Compounds							
2)	a-BHC	5.937	6.597	7133	14957	0.031	0.036	
3)	g-BHC	6.231	6.907	12268	49388	0.061	0.138	#
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

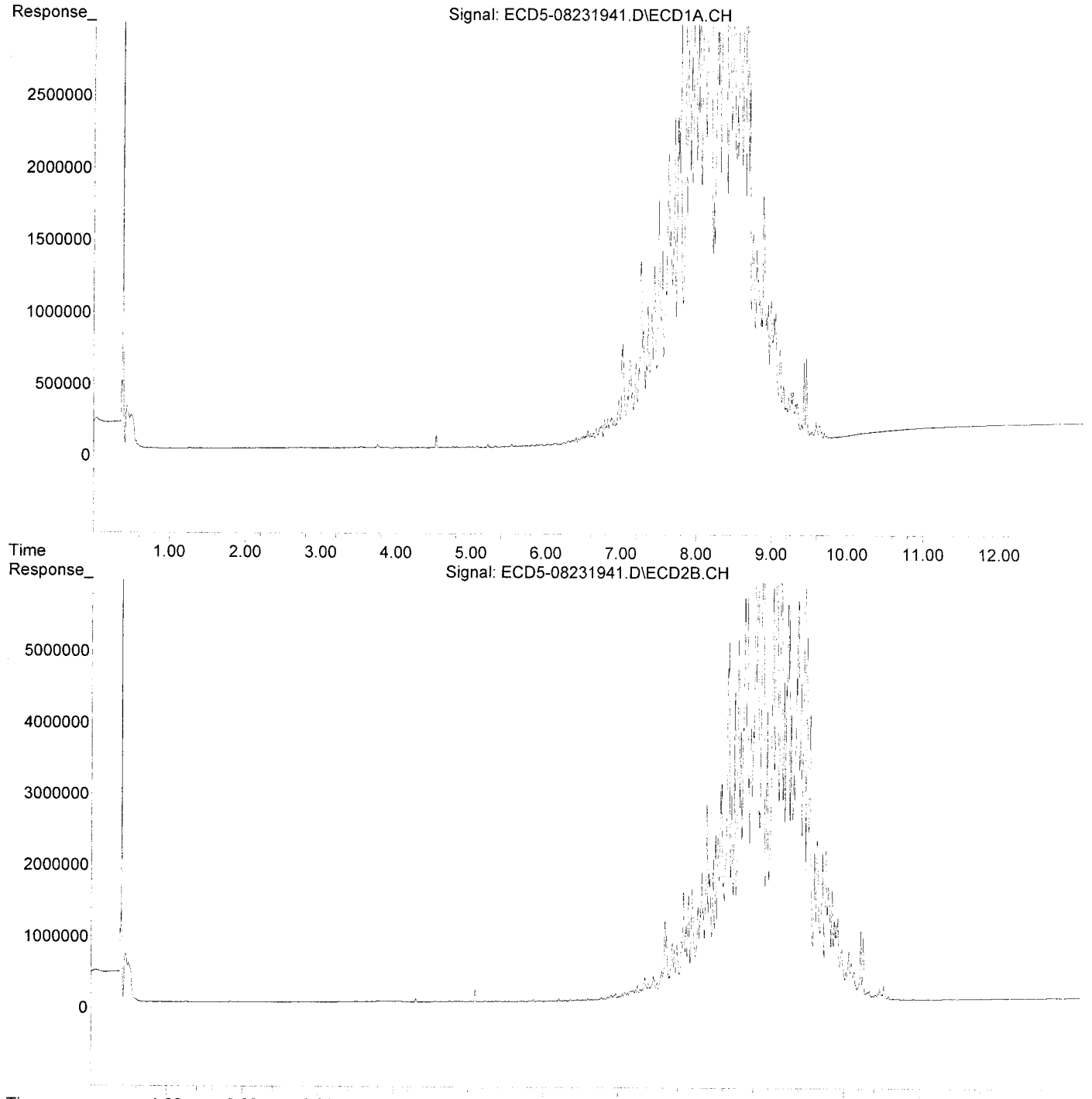
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.416f	5.979	3411	9459	0.021	0.032	#
22)	S	DCBP (S)	9.591	10.521	106938	194794	0.758	1.084	#
		Target Compounds							
2)		a-BHC	5.935	6.596	13246	39719	0.058	0.097	#
3)		g-BHC	6.231	6.908	20790	85564	0.103	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.

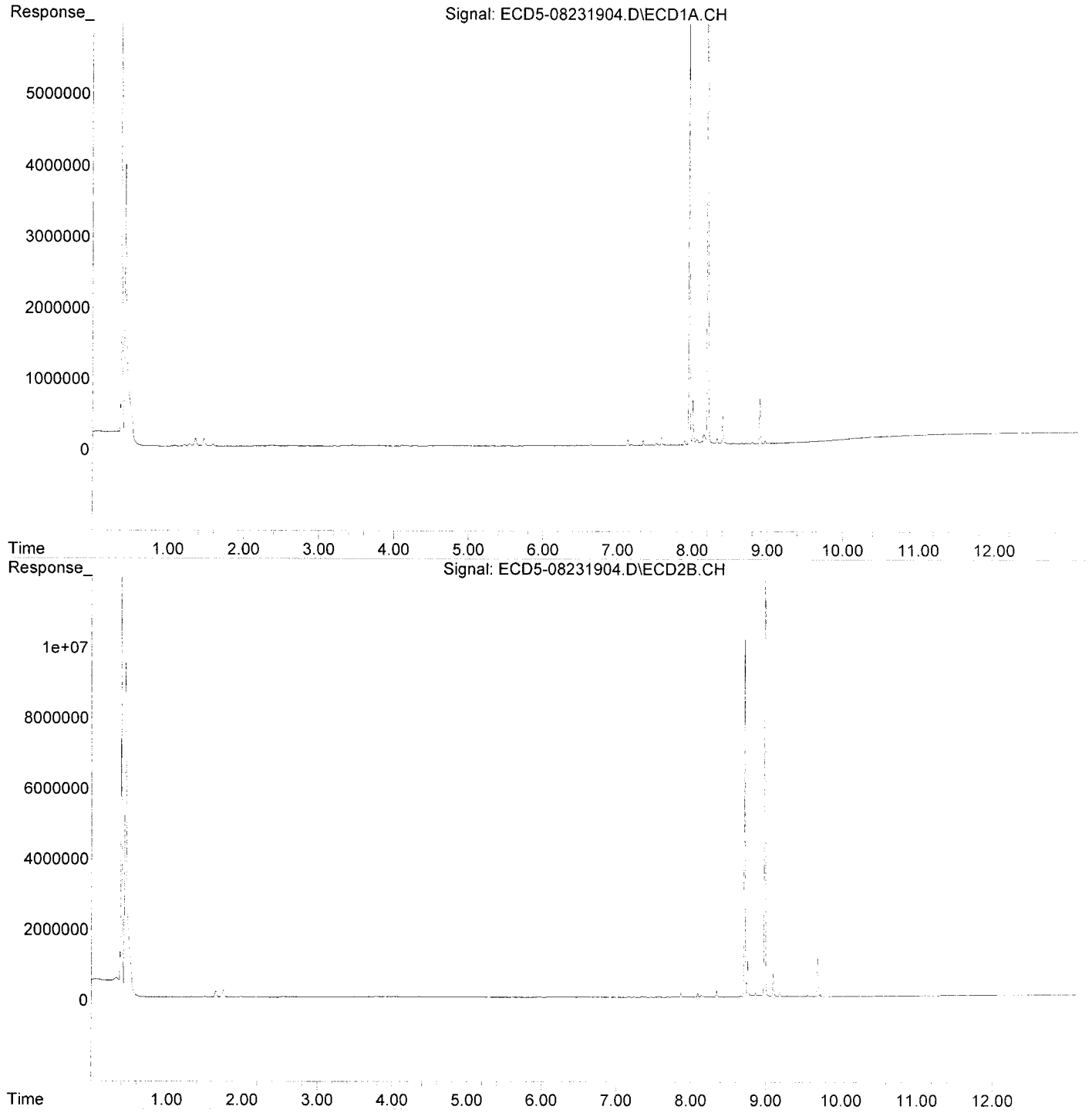
Breakdown passing, but ~~the~~ High. maintenance performed
MJB 8/26/19

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

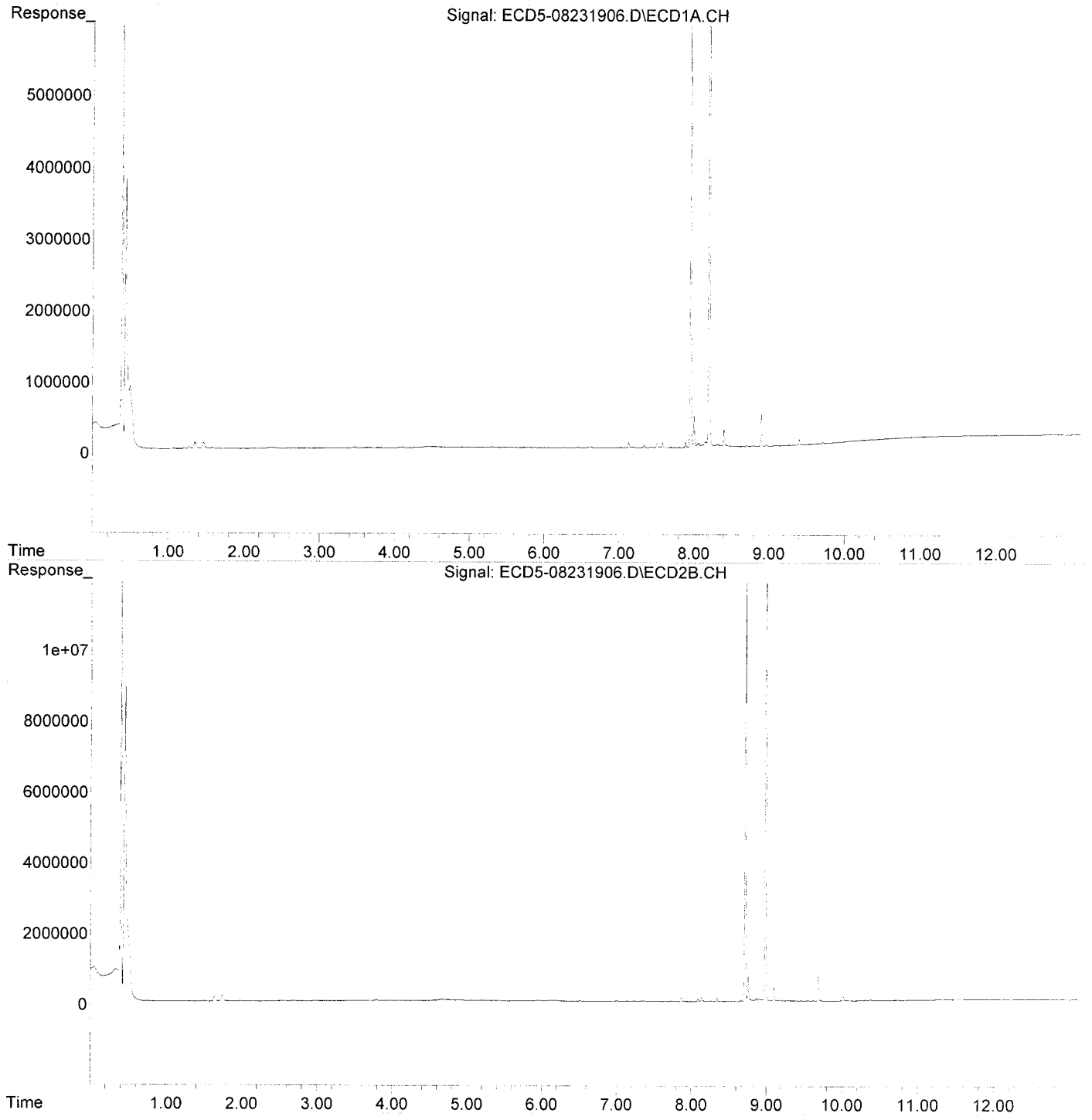
(f)=RT Delta > 1/2 Window (m)=manual int.

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

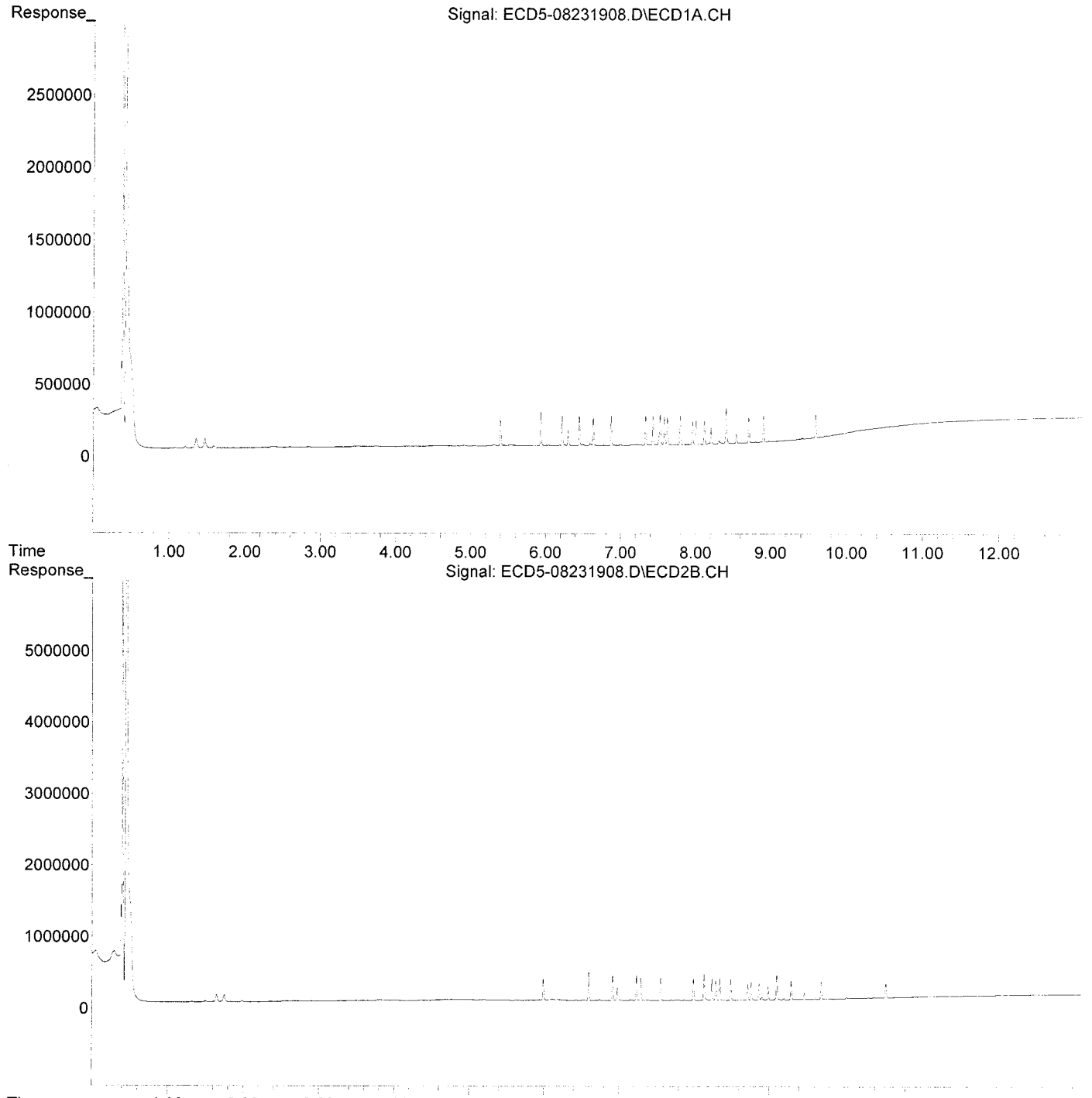
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.633	1.607
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.202	1.206
		Target Compounds						
2)		a-BHC	5.937	6.597	231994	393119	1.665	1.296
3)		g-BHC	6.221	6.915	207427	352286	1.380	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

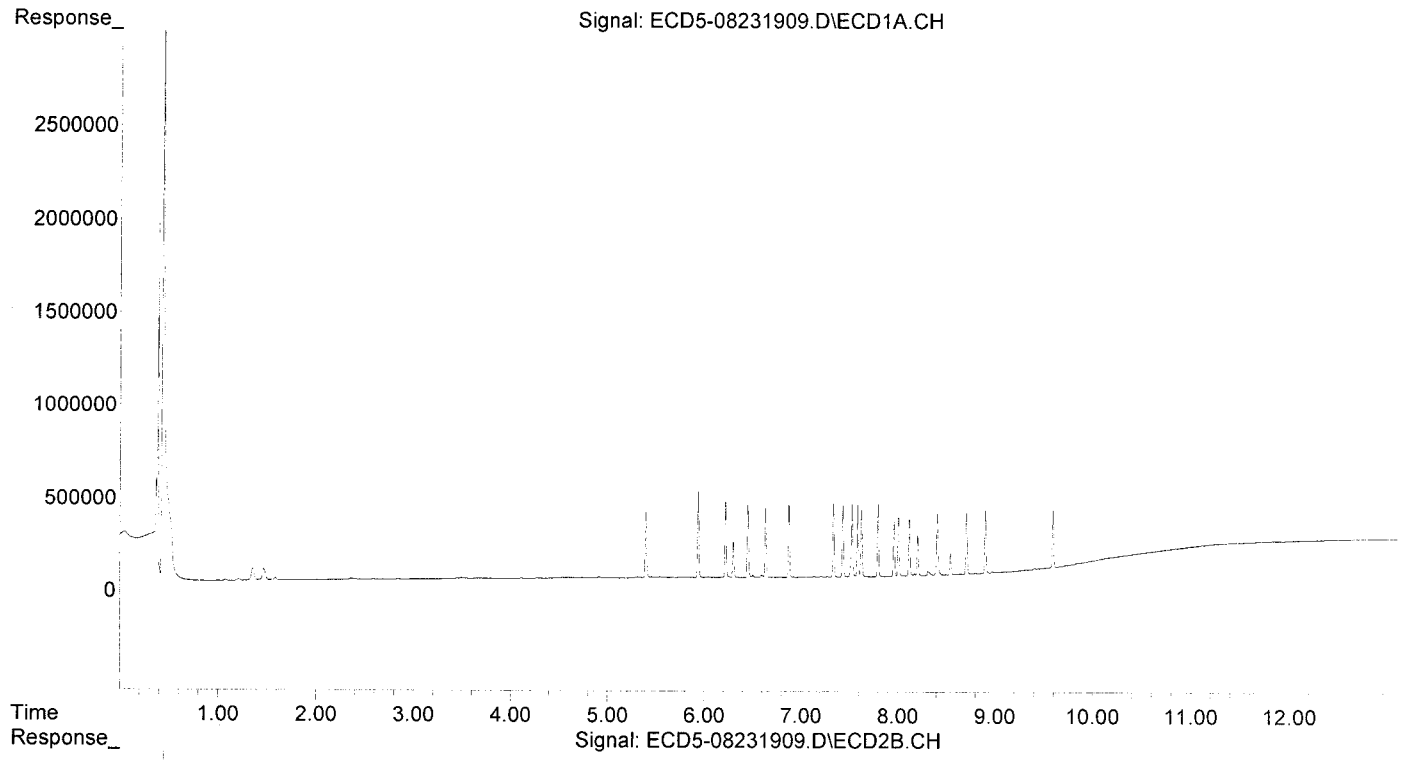
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	349972	600766	3.233	3.230
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.547	2.456
		Target Compounds						
2)		a-BHC	5.936	6.597	458365	784586	3.177	2.540
3)		g-BHC	6.220	6.915	406027	690922	2.702	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

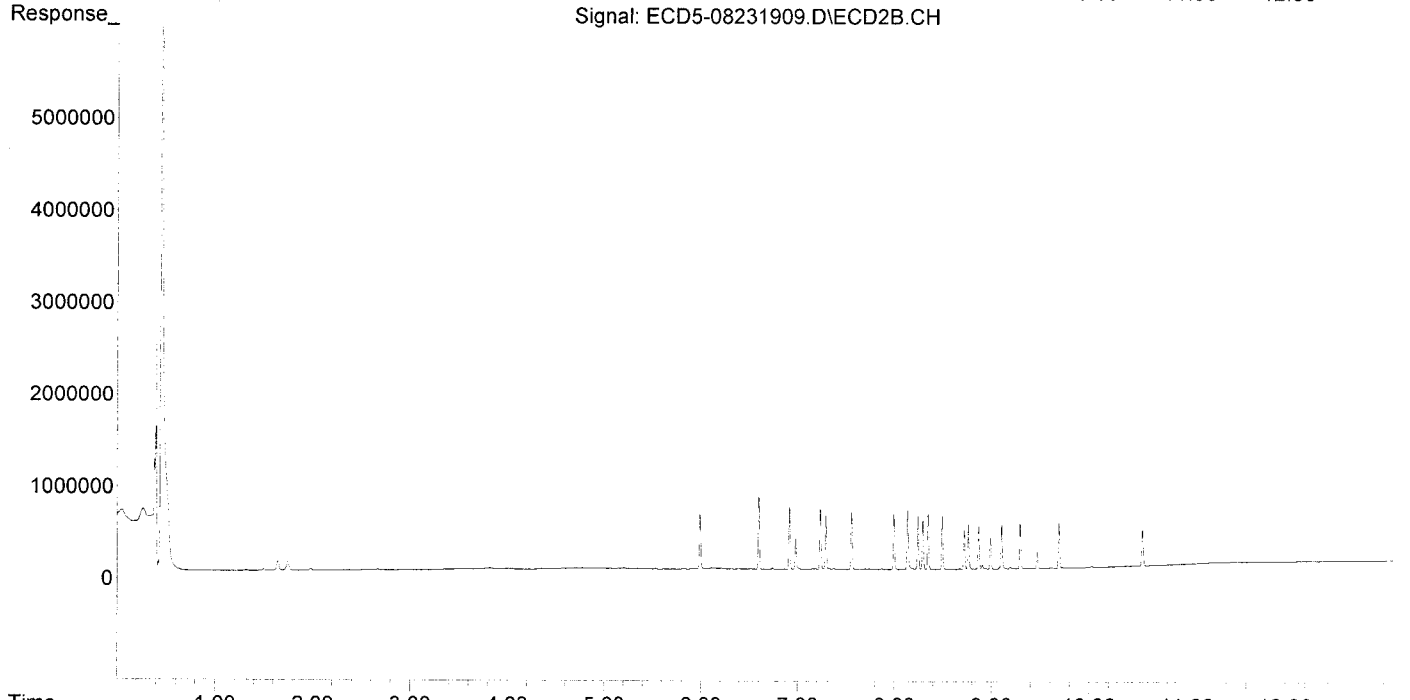
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

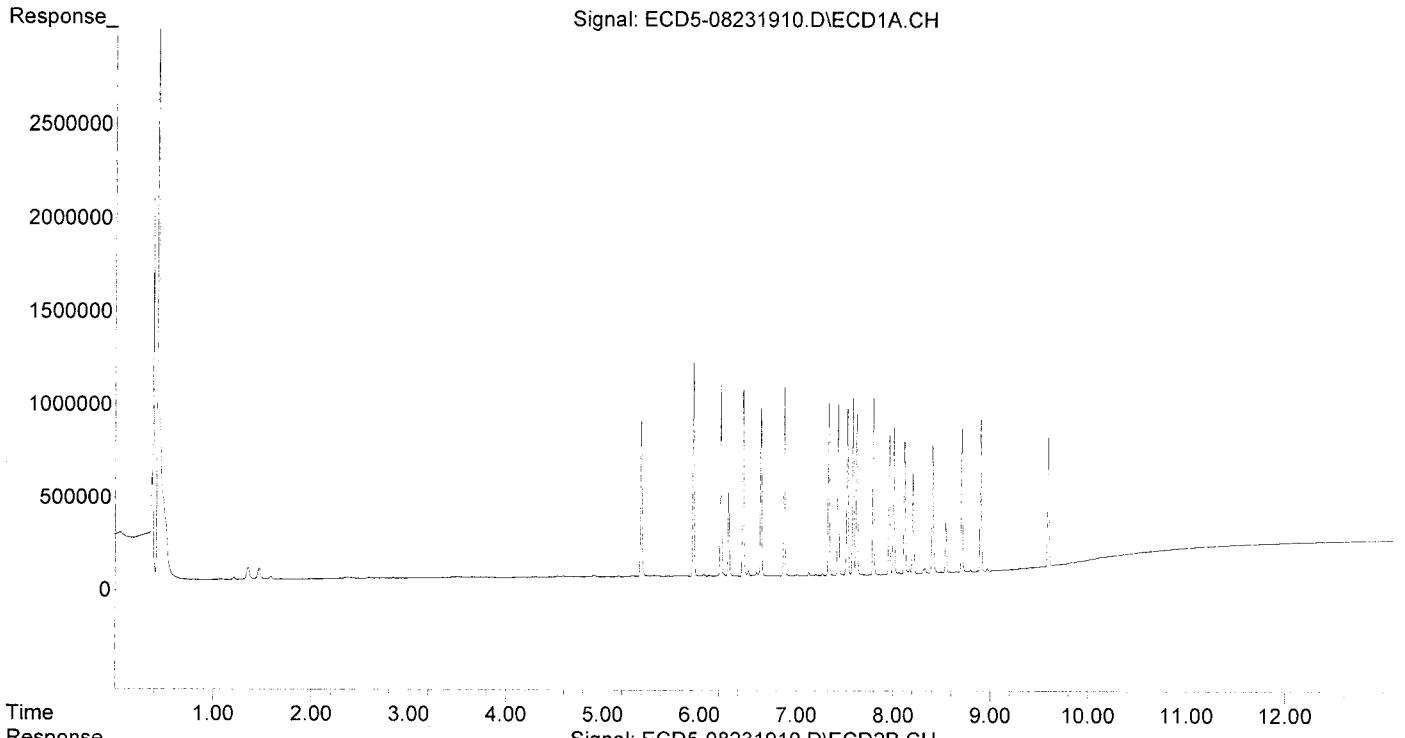
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	834206	1437876	7.707	7.700
22)	S	DCBP (S)	9.594	10.542	701050	870921	6.146	5.485
		Target Compounds						
2)		a-BHC	5.937	6.597	1147932	1985438	7.742	6.328
3)		g-BHC	6.220	6.915	1020724	1742677	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

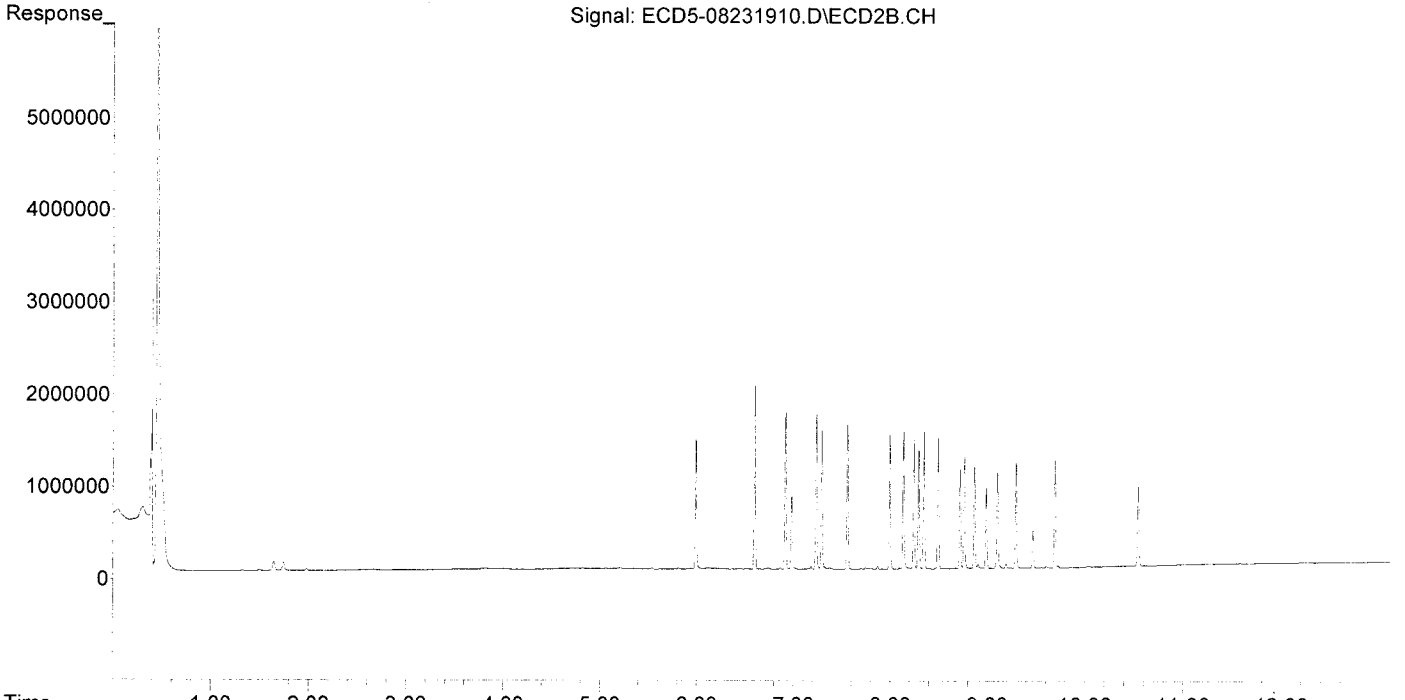
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

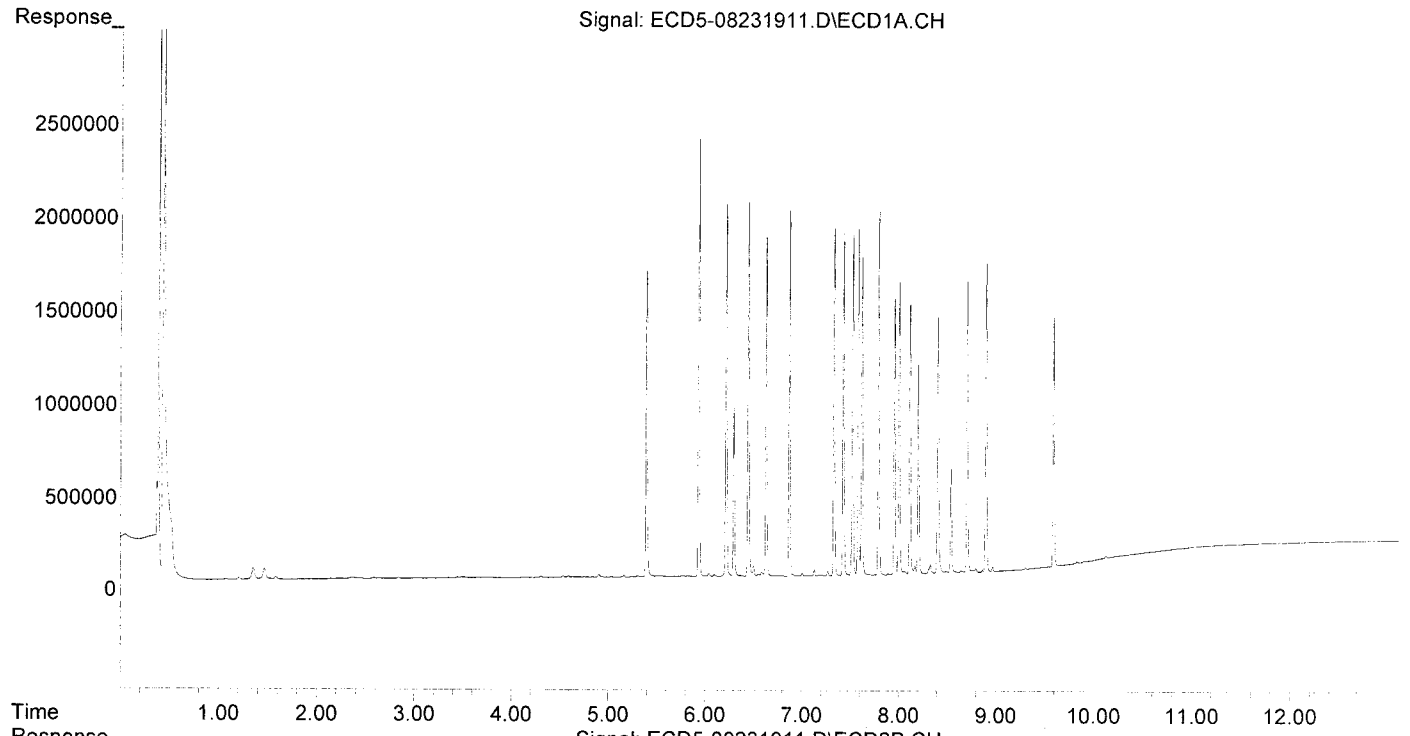
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	1644447	2865854	15.193	15.177
22)	S	DCBP (S)	9.593	10.541	1335468	1678728	11.976	10.572
		Target Compounds						
2)		a-BHC	5.936	6.597	2347065	4095890	15.530	12.883
3)		g-BHC	6.220	6.915	2034859	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

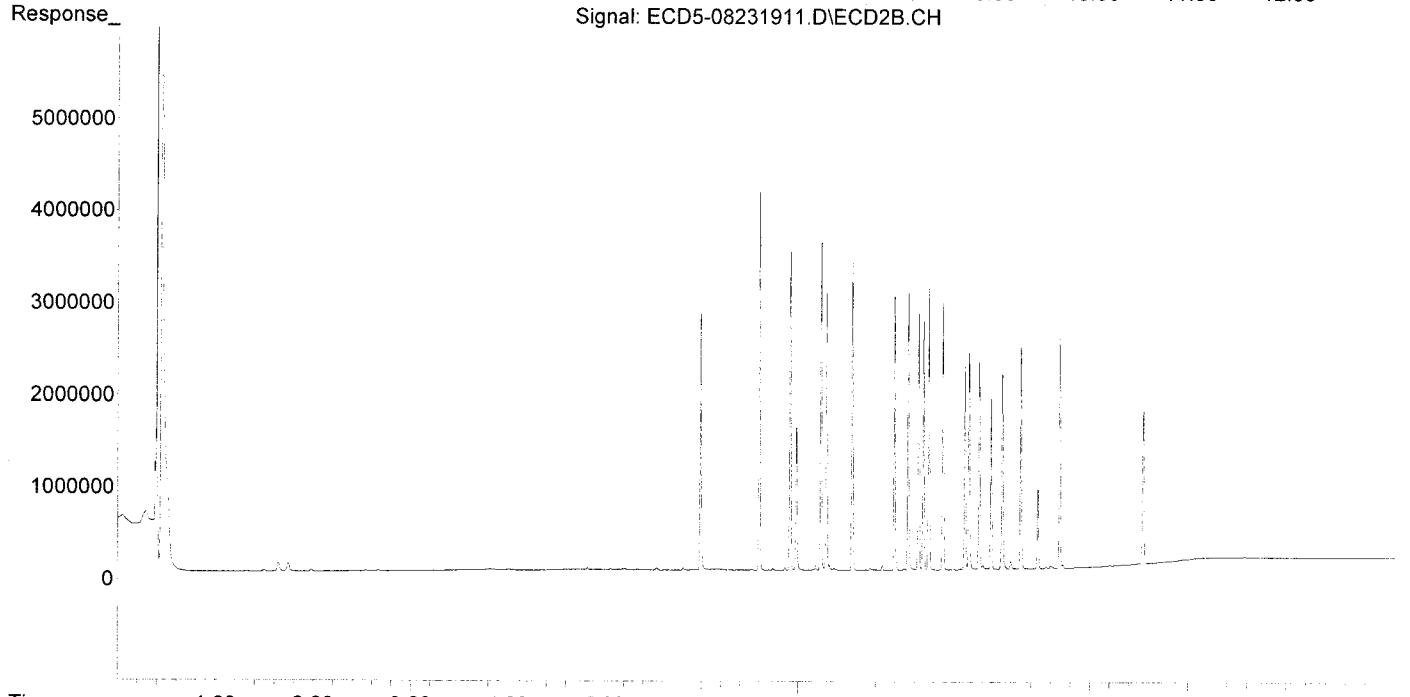
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

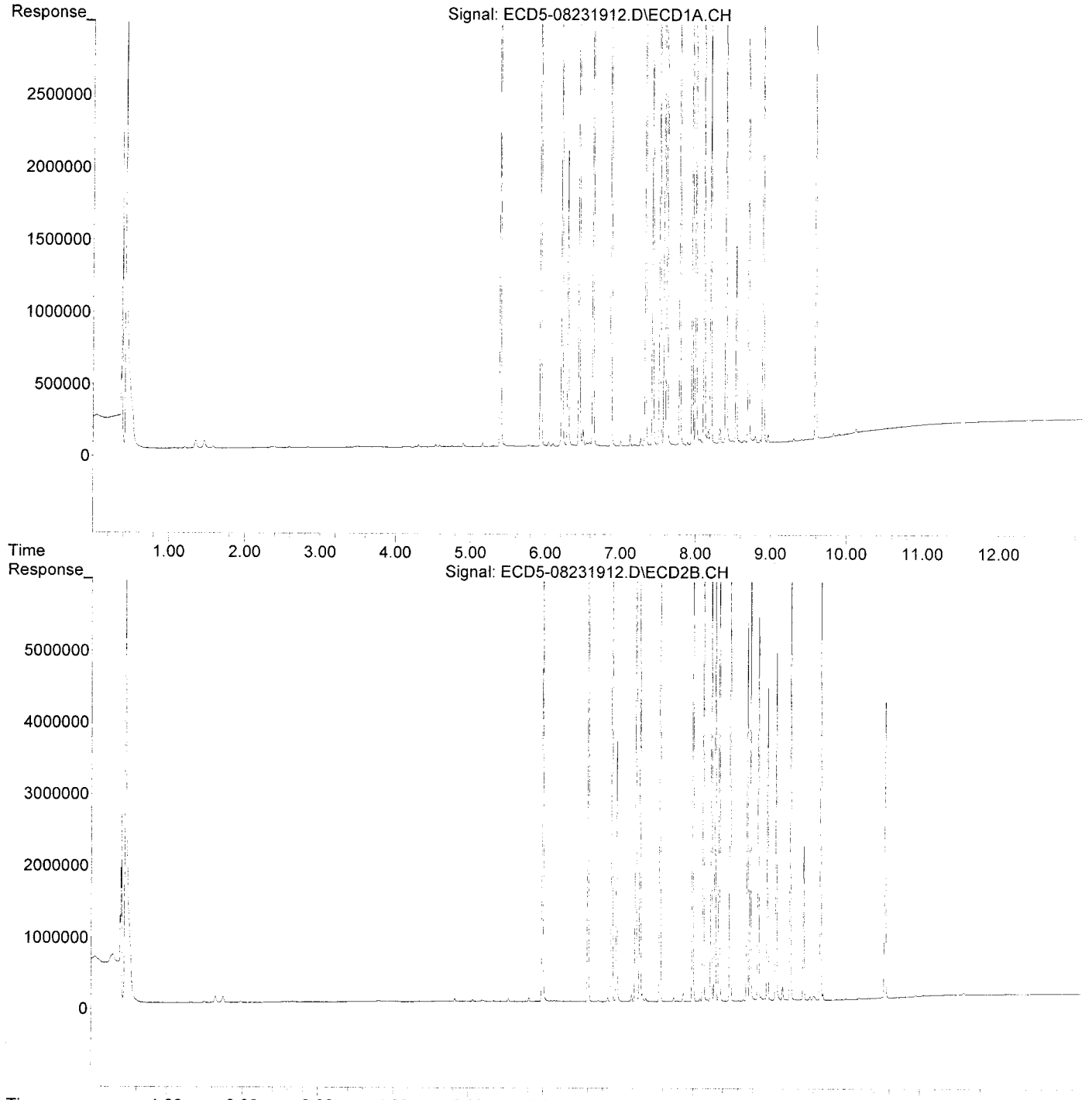
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.394	5.989	4015832	7072923	37.101	36.221
22)	S	DCBP (S)	9.592	10.539	3342634	4163229	30.365	26.219
		Target Compounds						
2)		a-BHC	5.935	6.596	5553096	9910863	35.515	30.324
3)		g-BHC	6.218	6.913	4875657	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

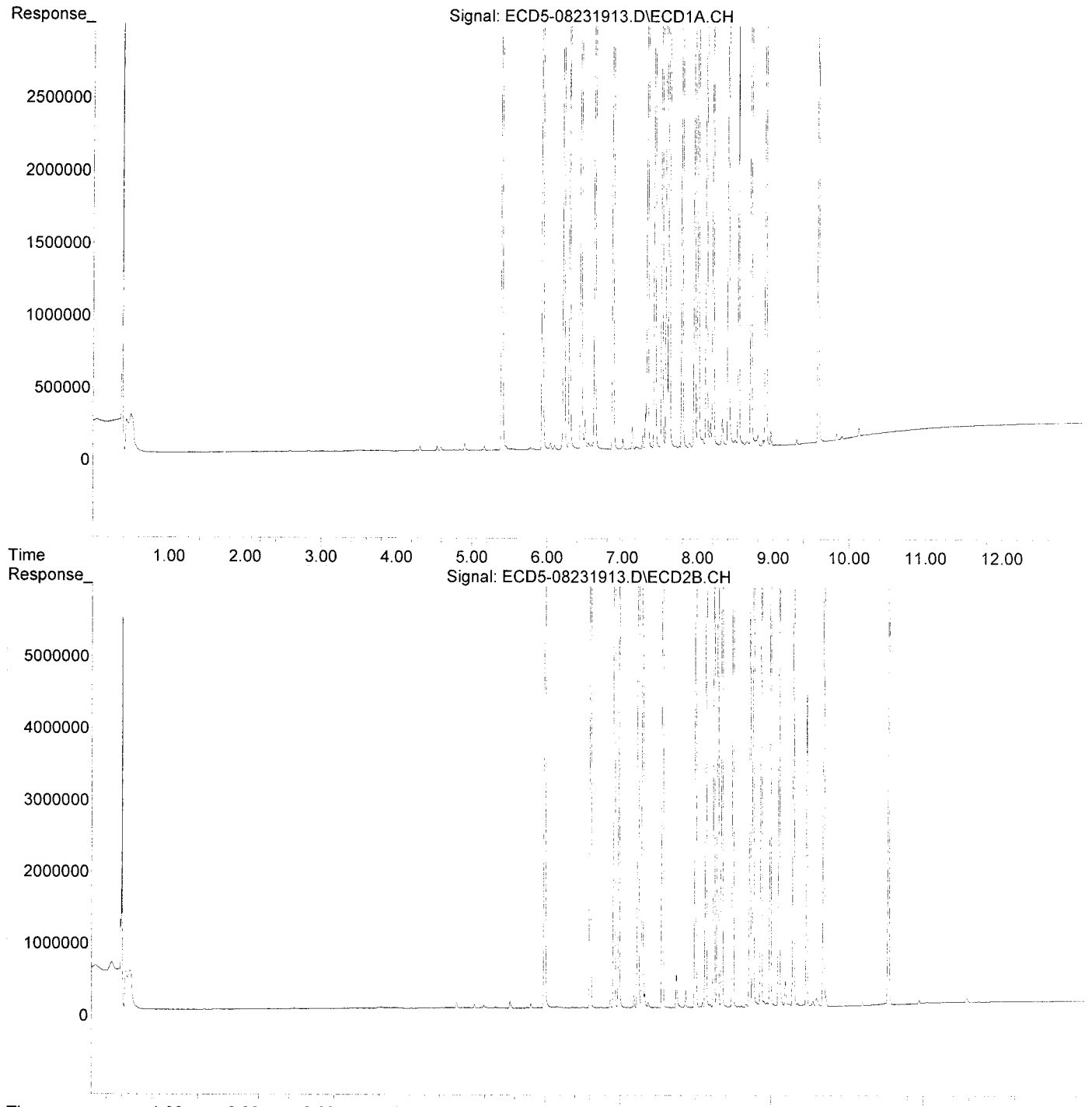
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.989	8071481	14196745	74.571	69.077
22) S	DCBP (S)	9.592	10.541	6678990	8730692	60.740	54.984
	Target Compounds						
2)	a-BHC	5.935	6.596	11369592	20265817	69.154	59.445
3)	g-BHC	6.218	6.914	9785999	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

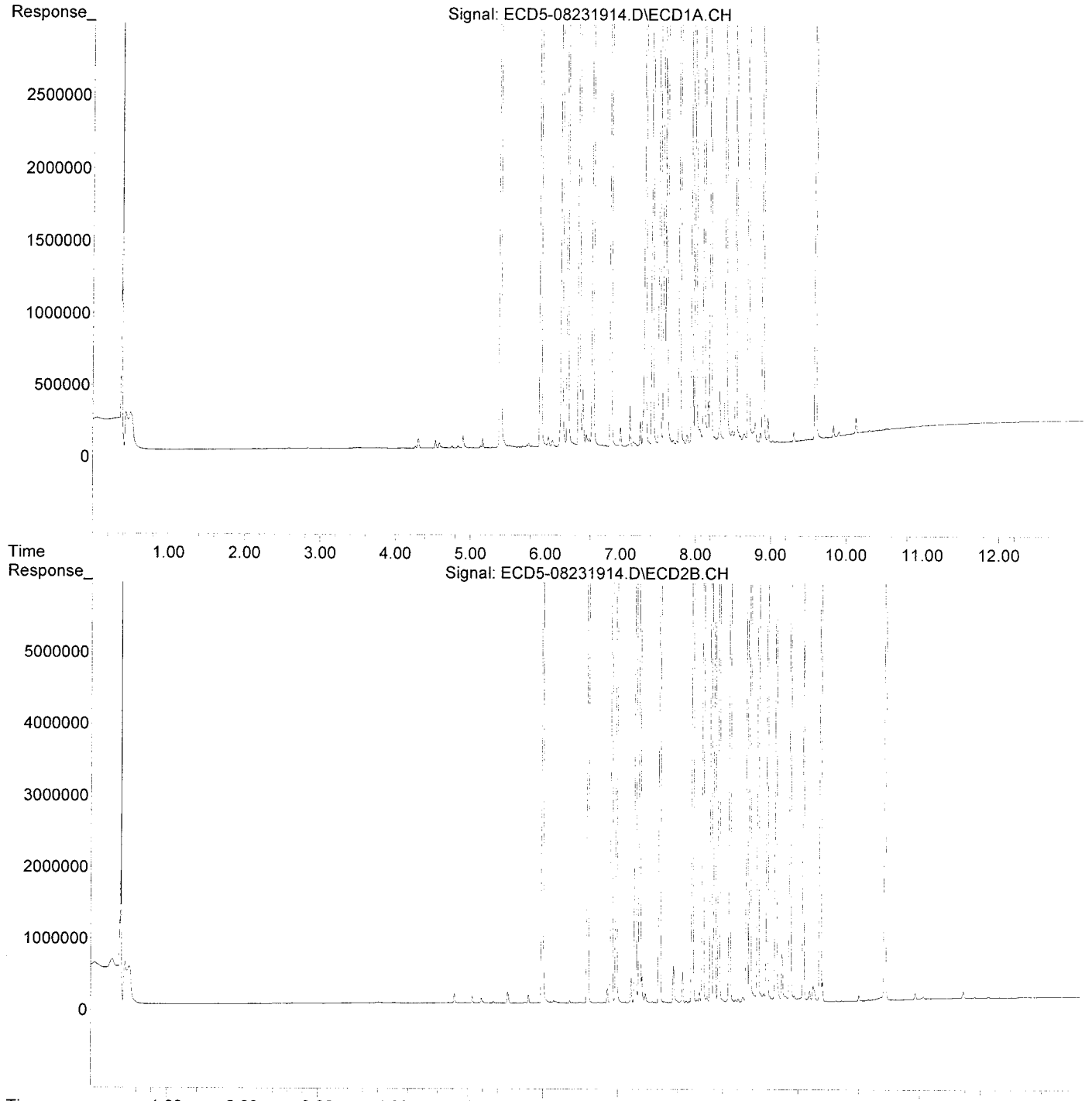
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	146.444	130.224
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	121.277	111.999
		Target Compounds						
2)		a-BHC	5.935	6.596	22363584	41699210	125.842	113.668
3)		g-BHC	6.218	6.914	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	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

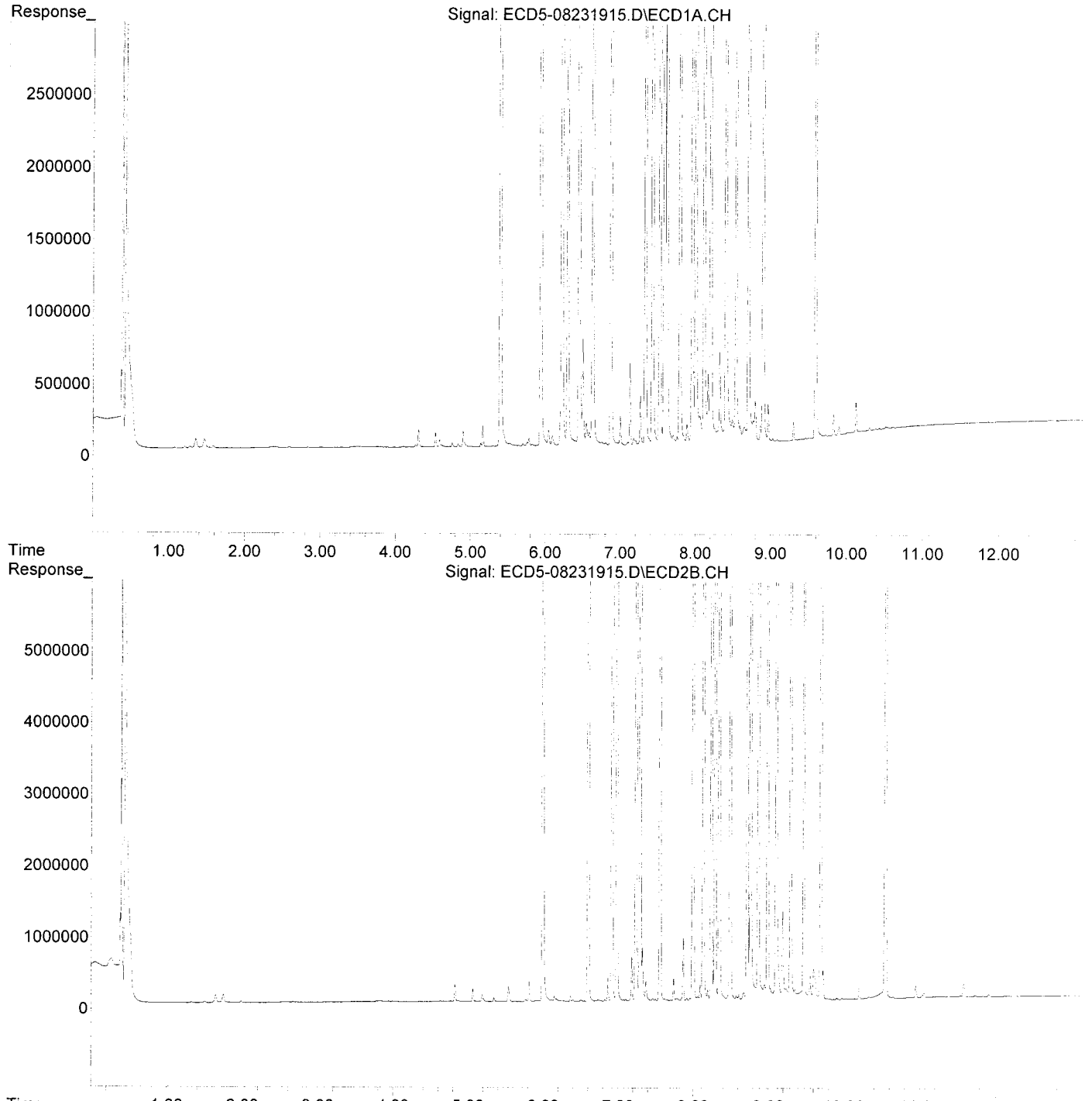
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	303.426	241.228
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	240.687	239.929
		Target Compounds						
2)		a-BHC	5.935	6.597	47202252	94376748	232.879	224.790
3)		g-BHC	6.218	6.914	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

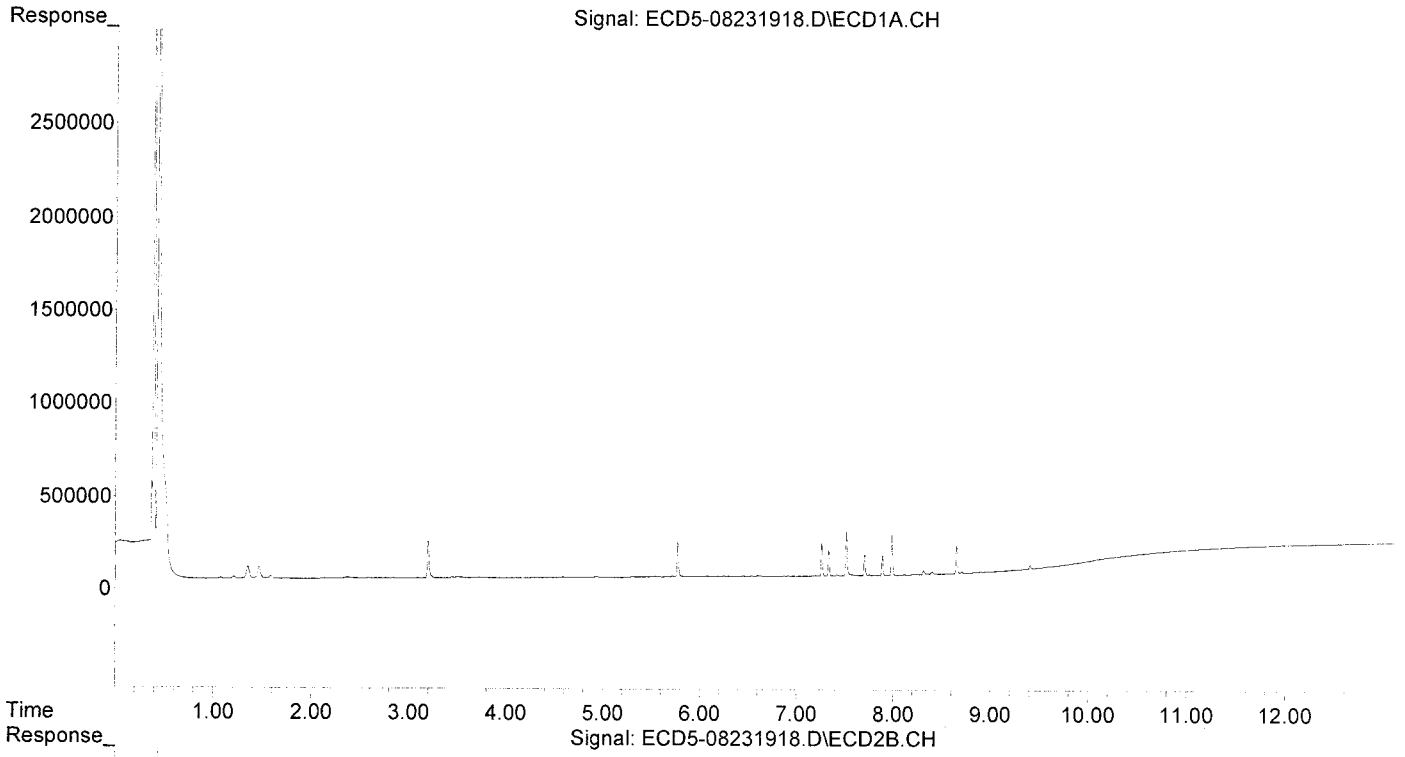
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

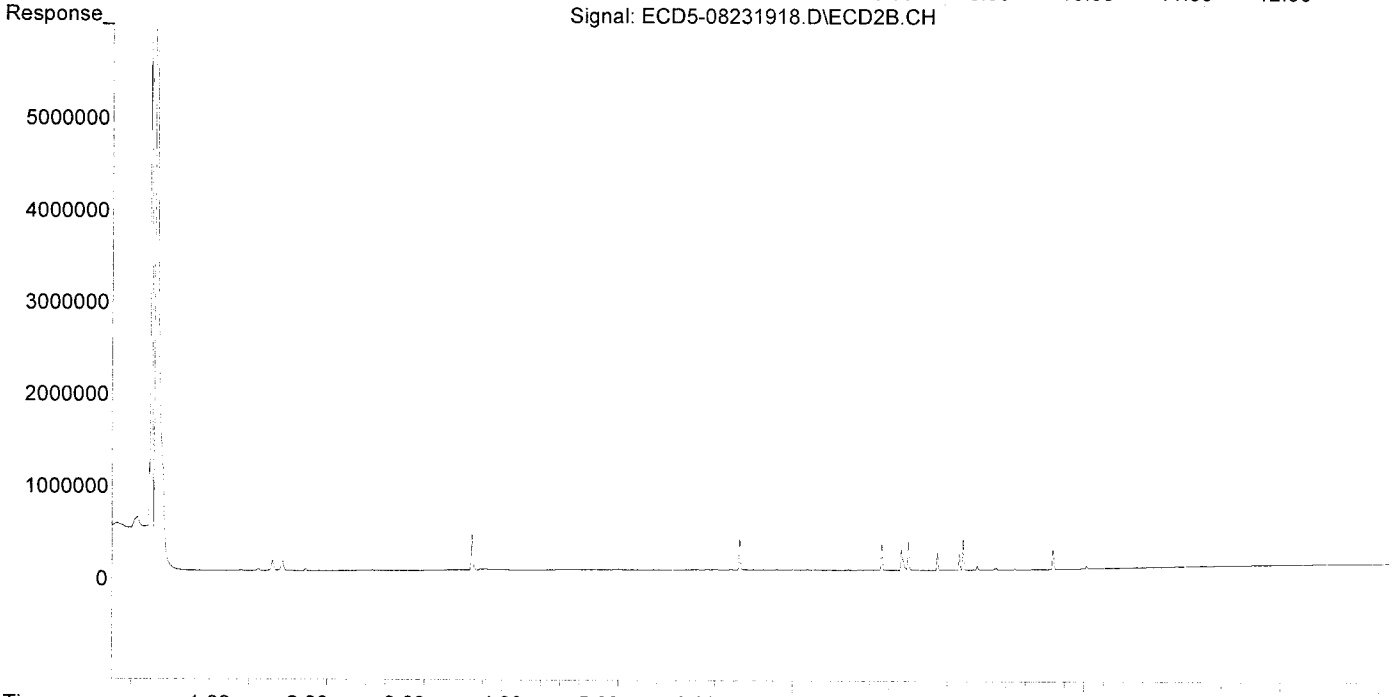
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

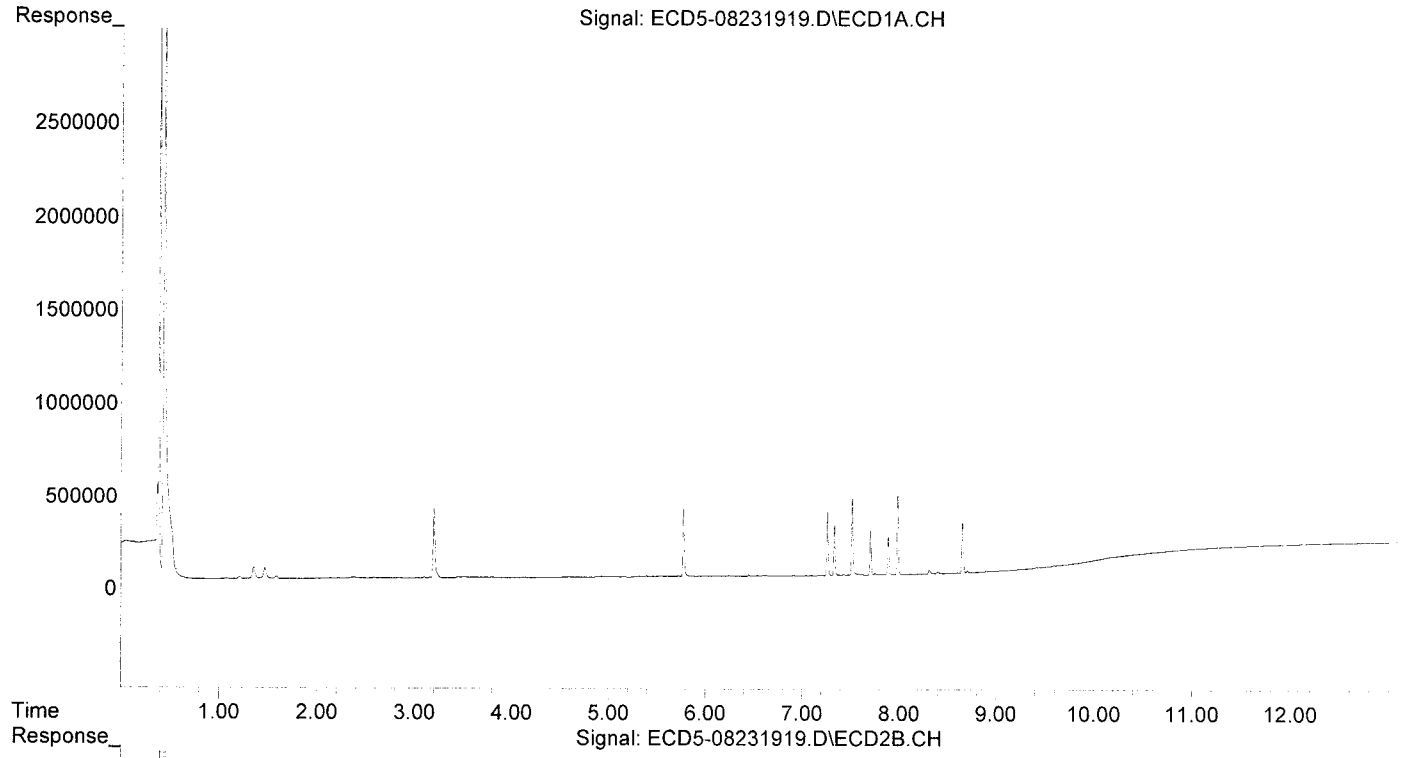
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

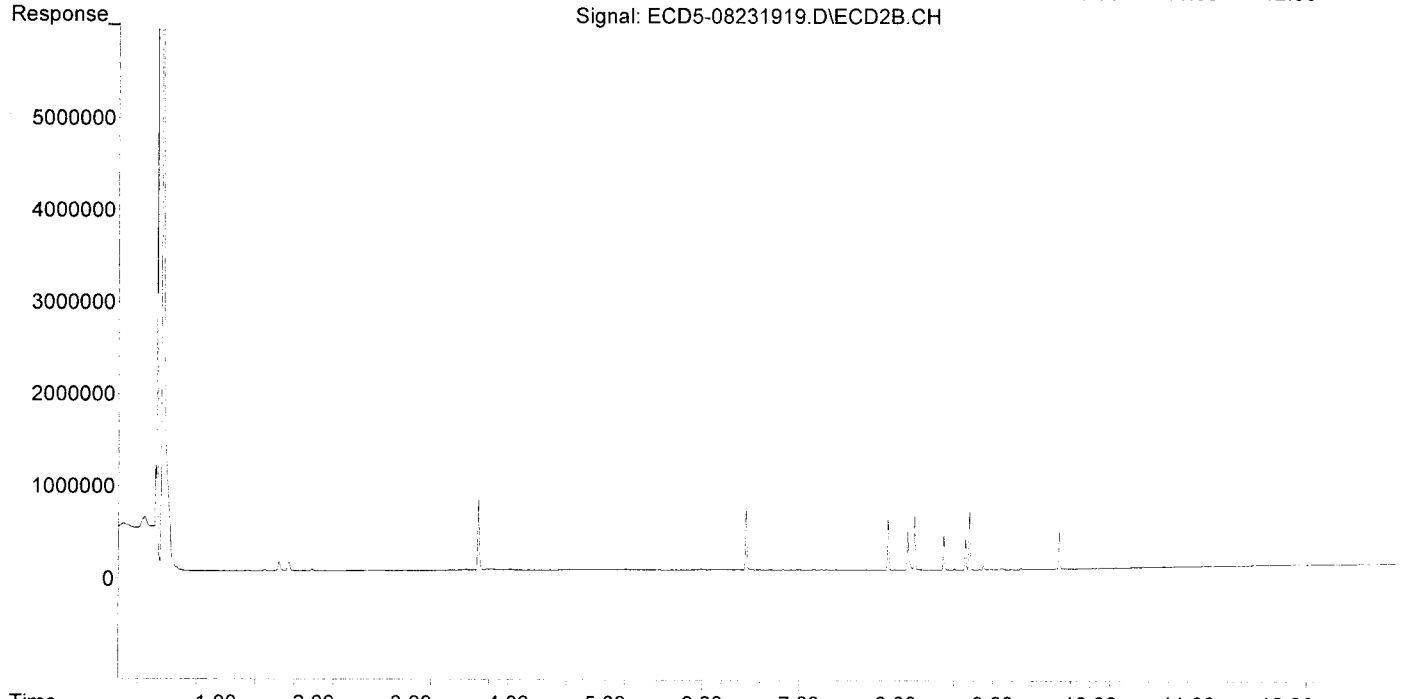
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

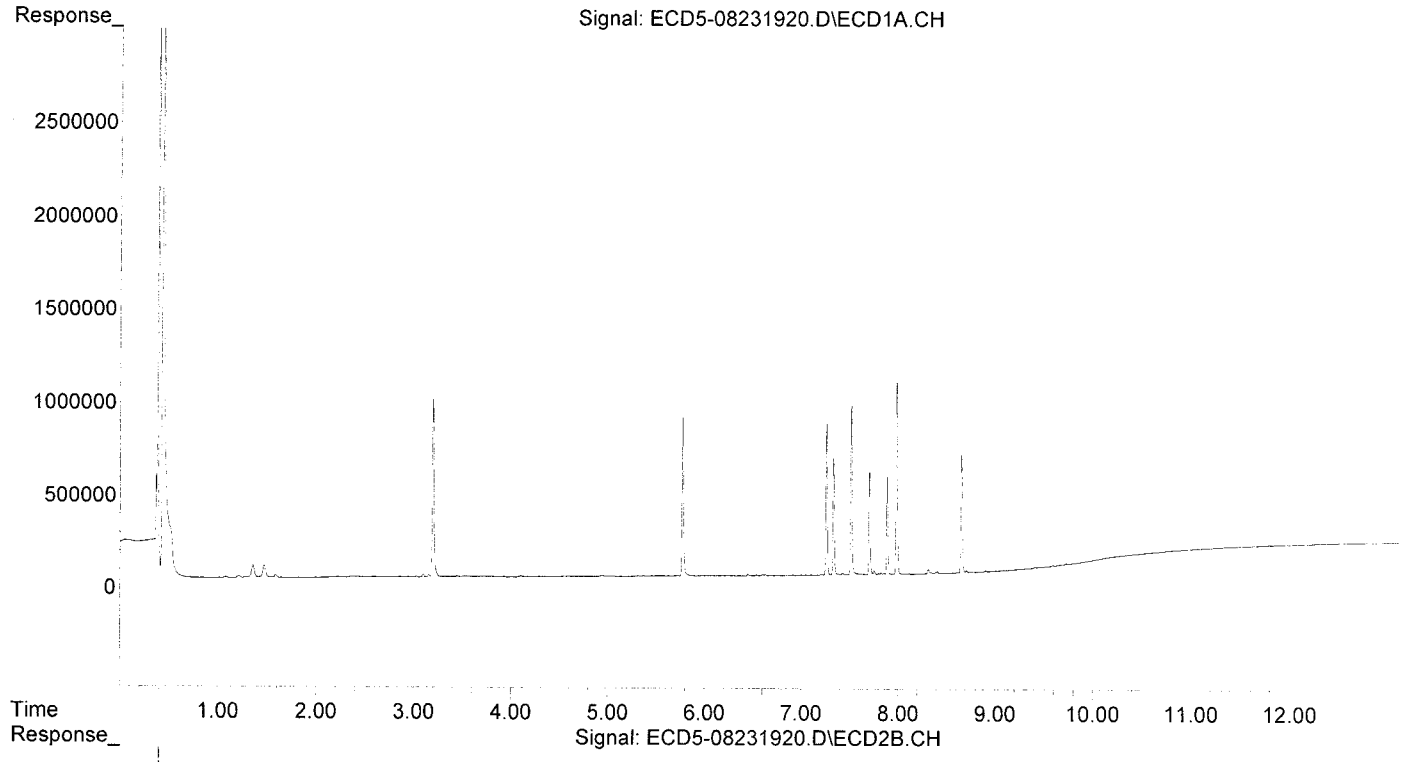
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

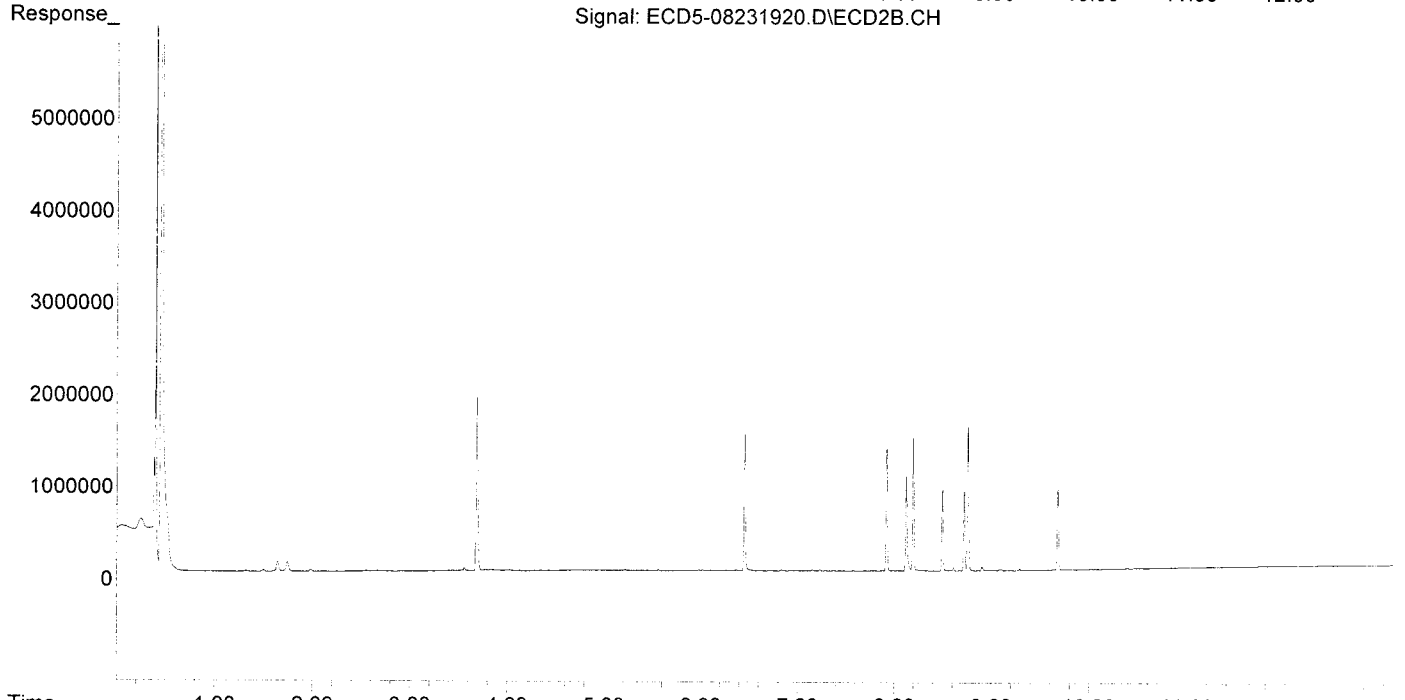
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

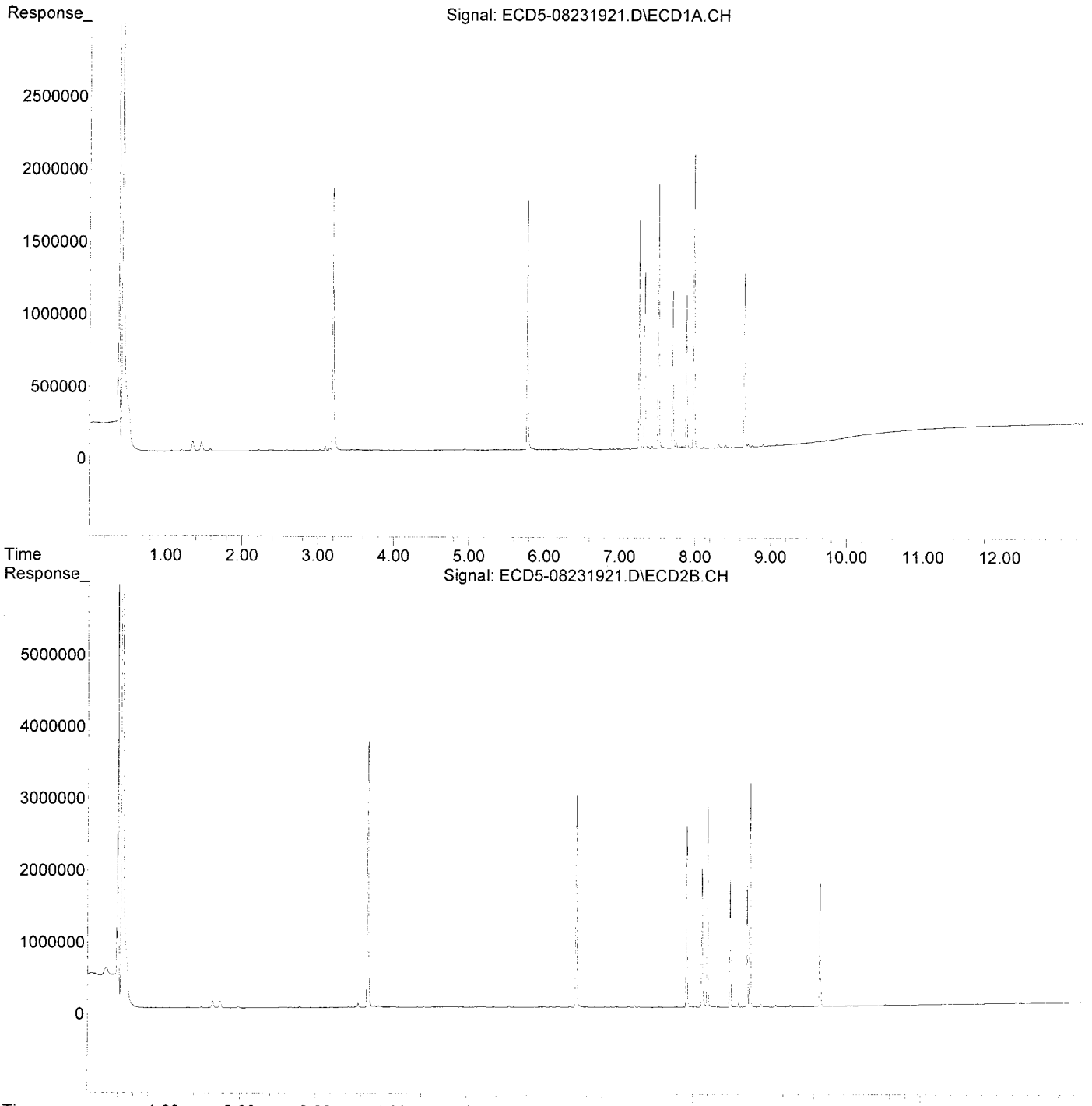
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

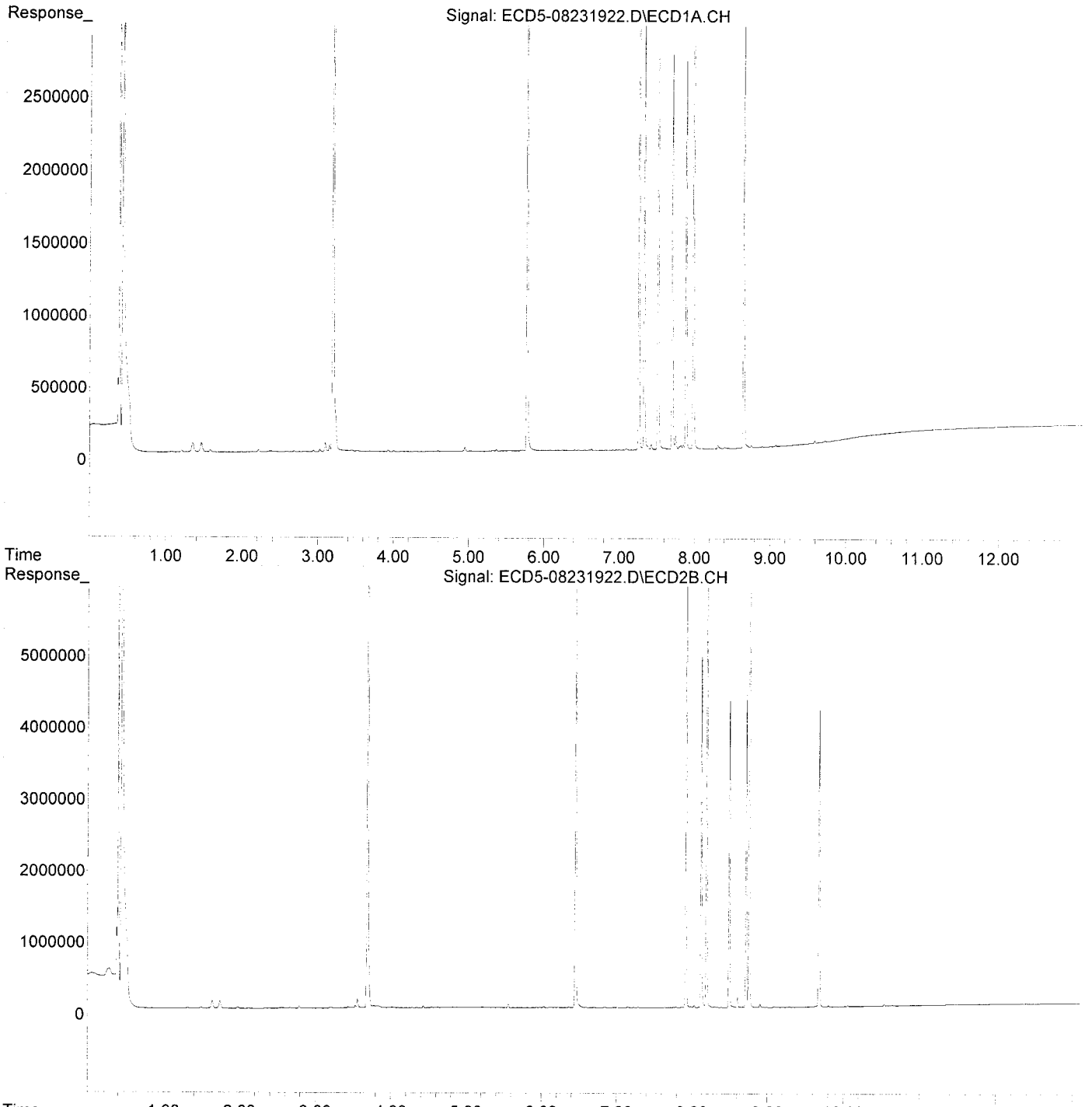
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

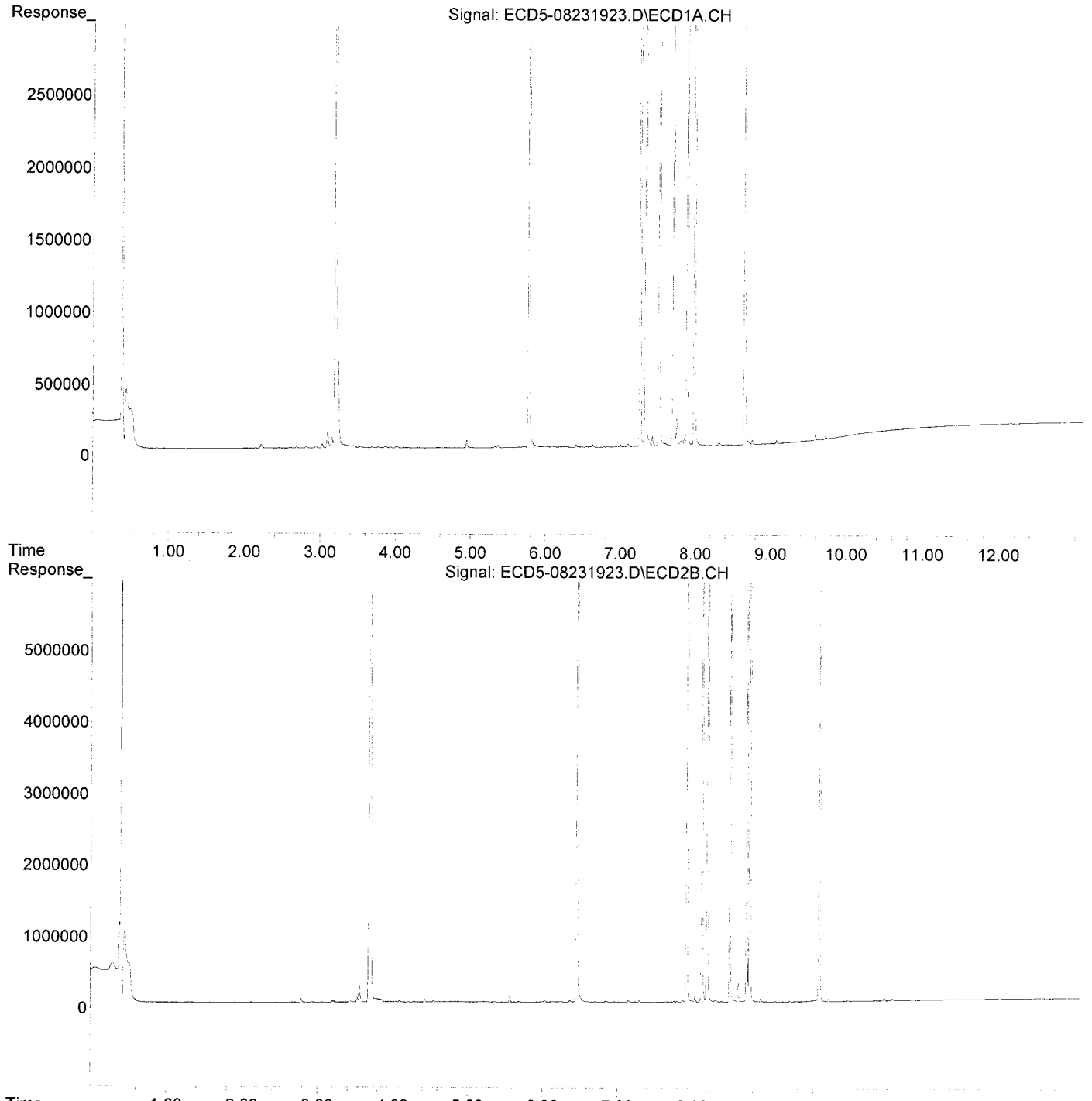
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

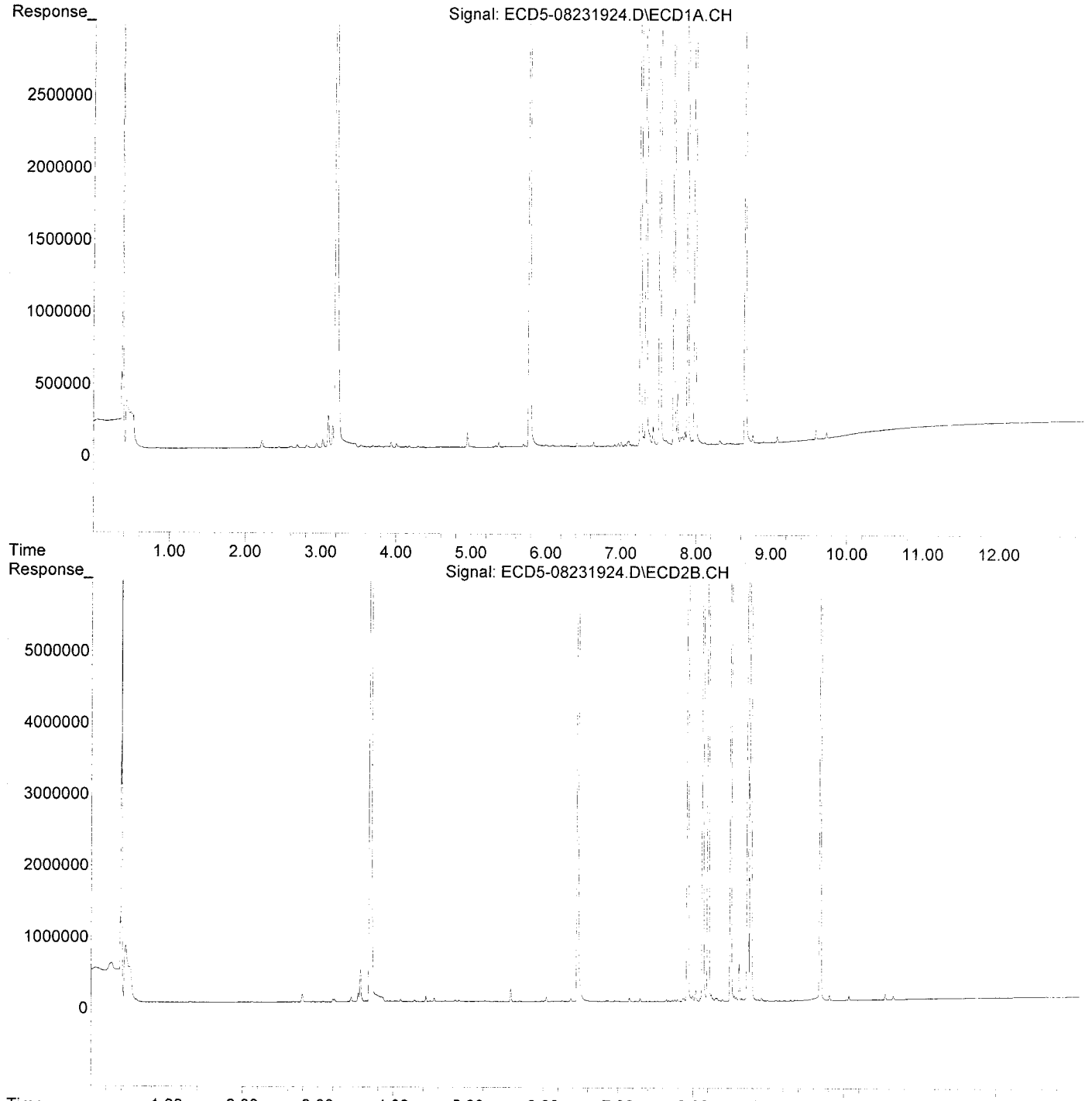
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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

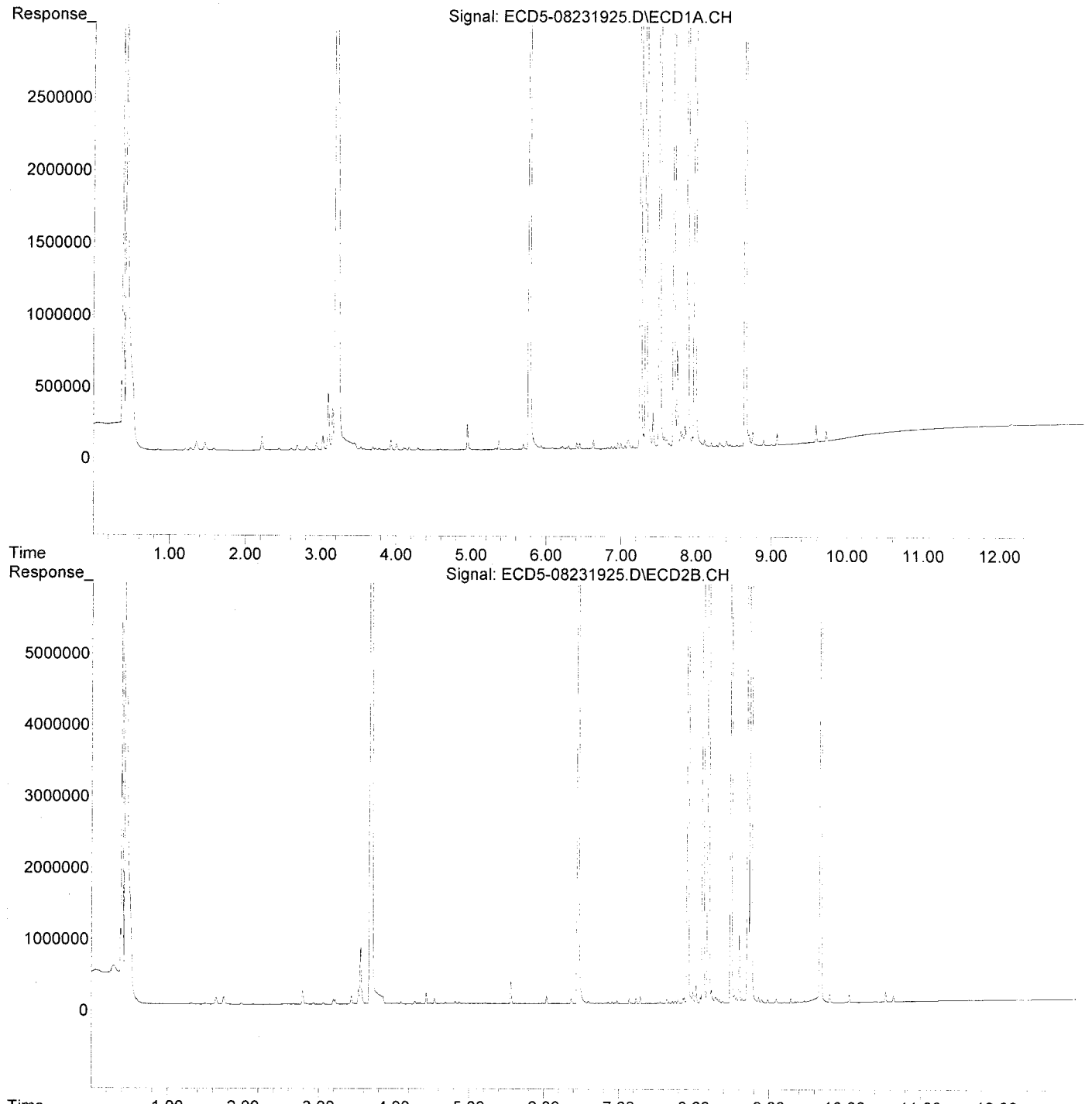
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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

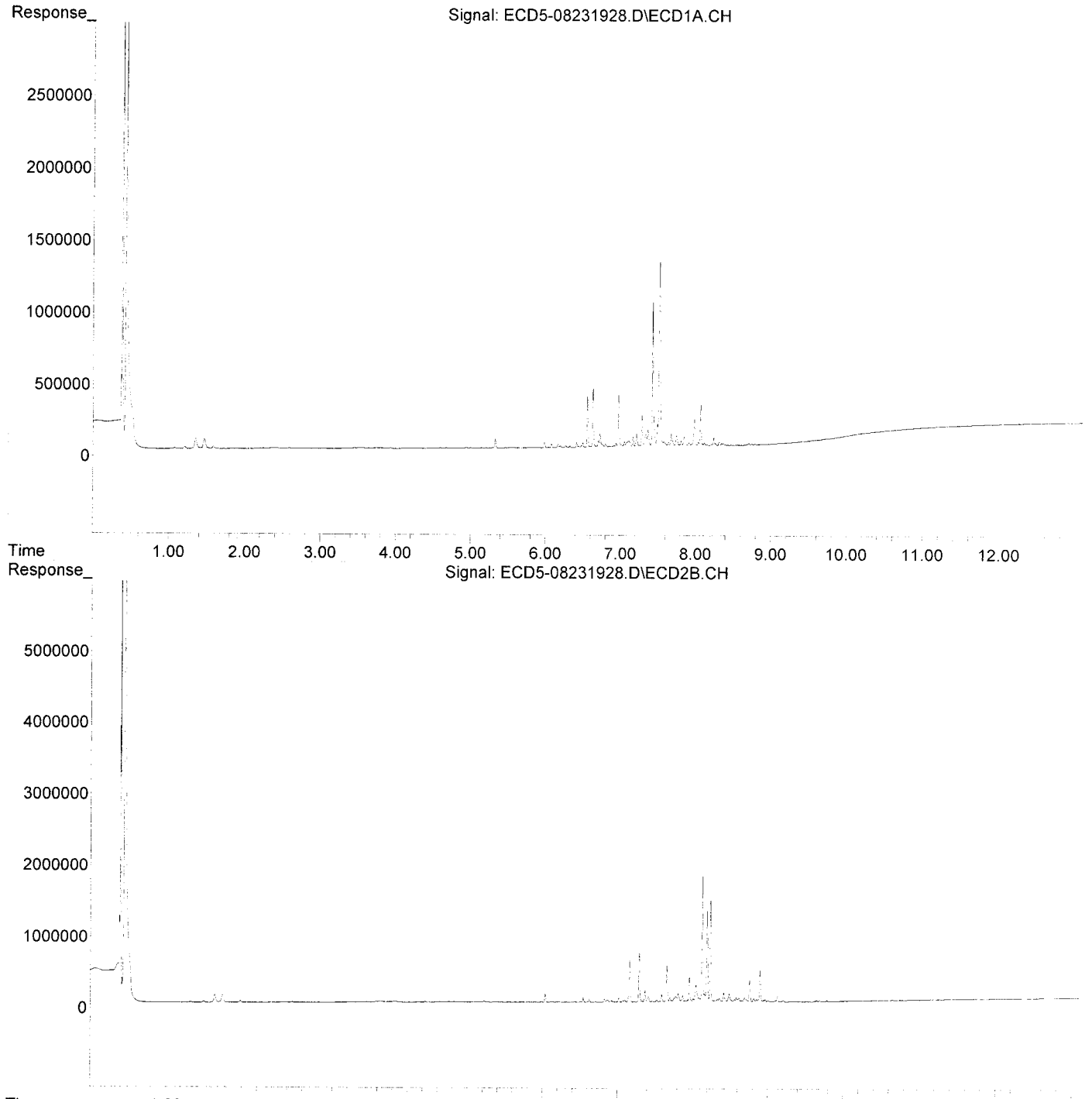
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

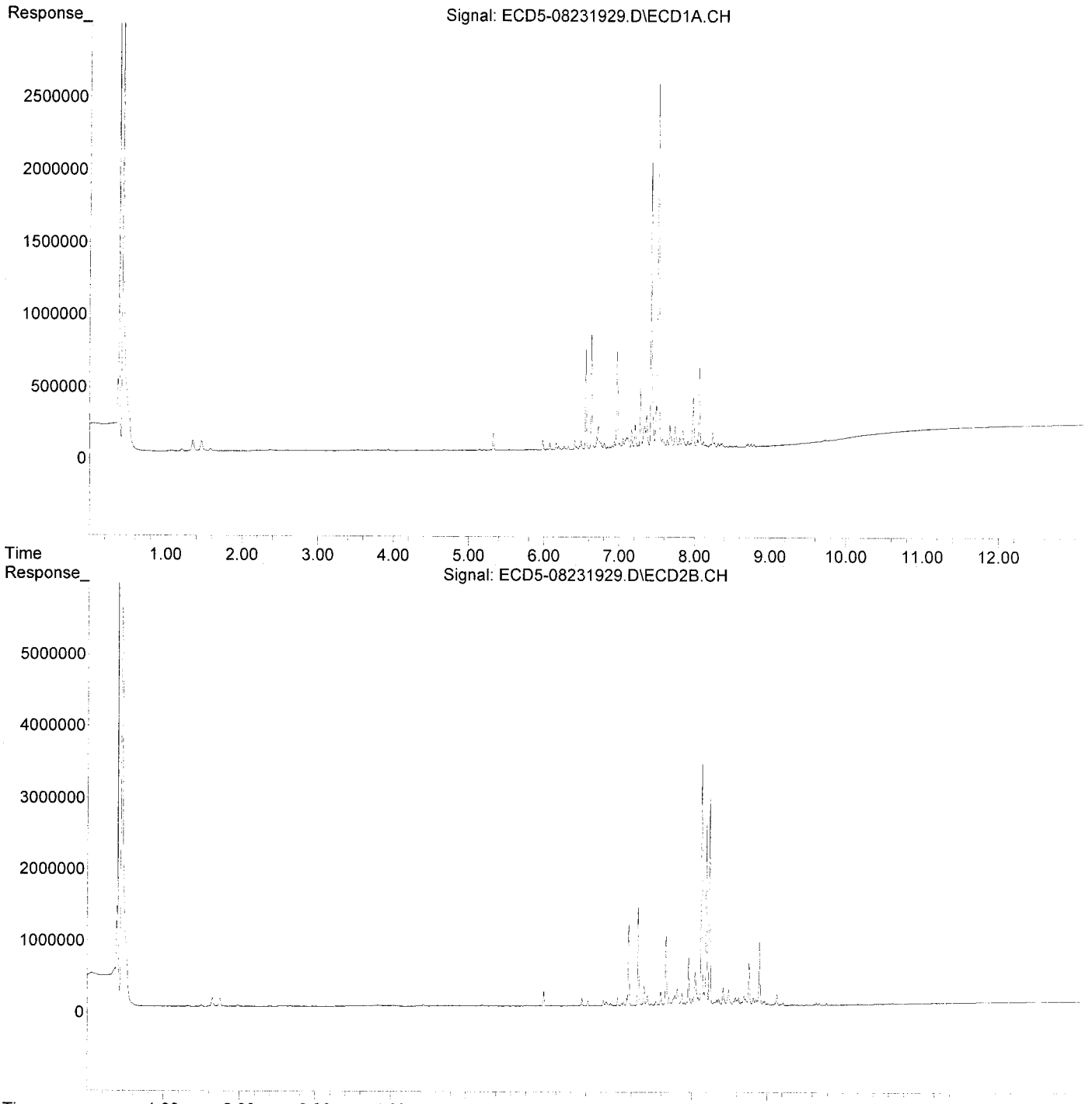
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

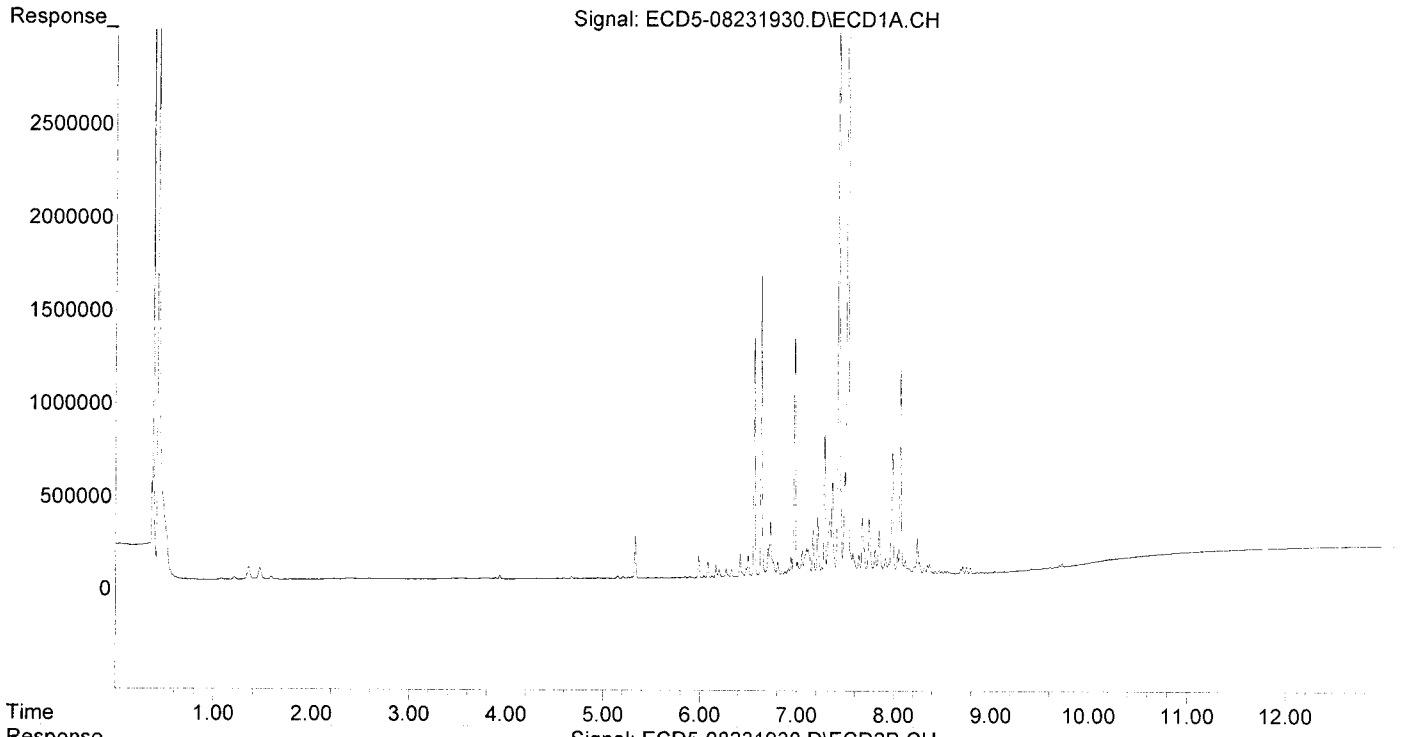
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

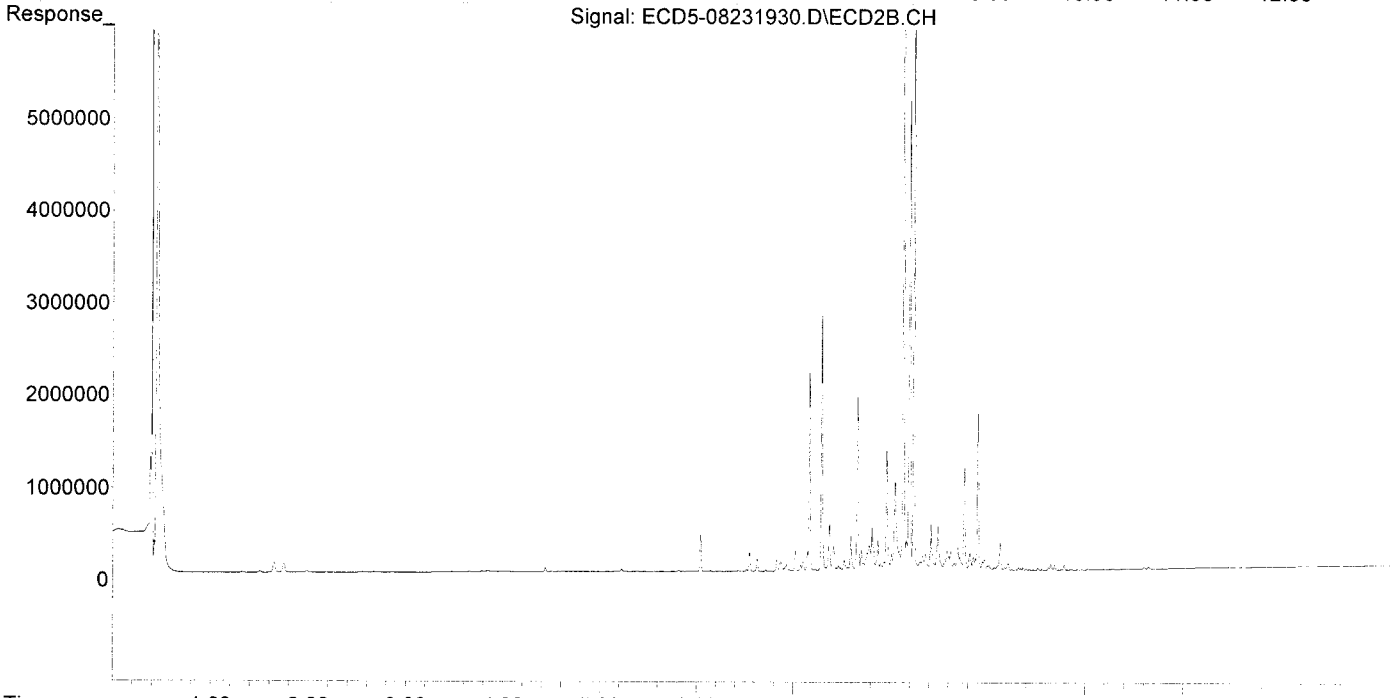
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

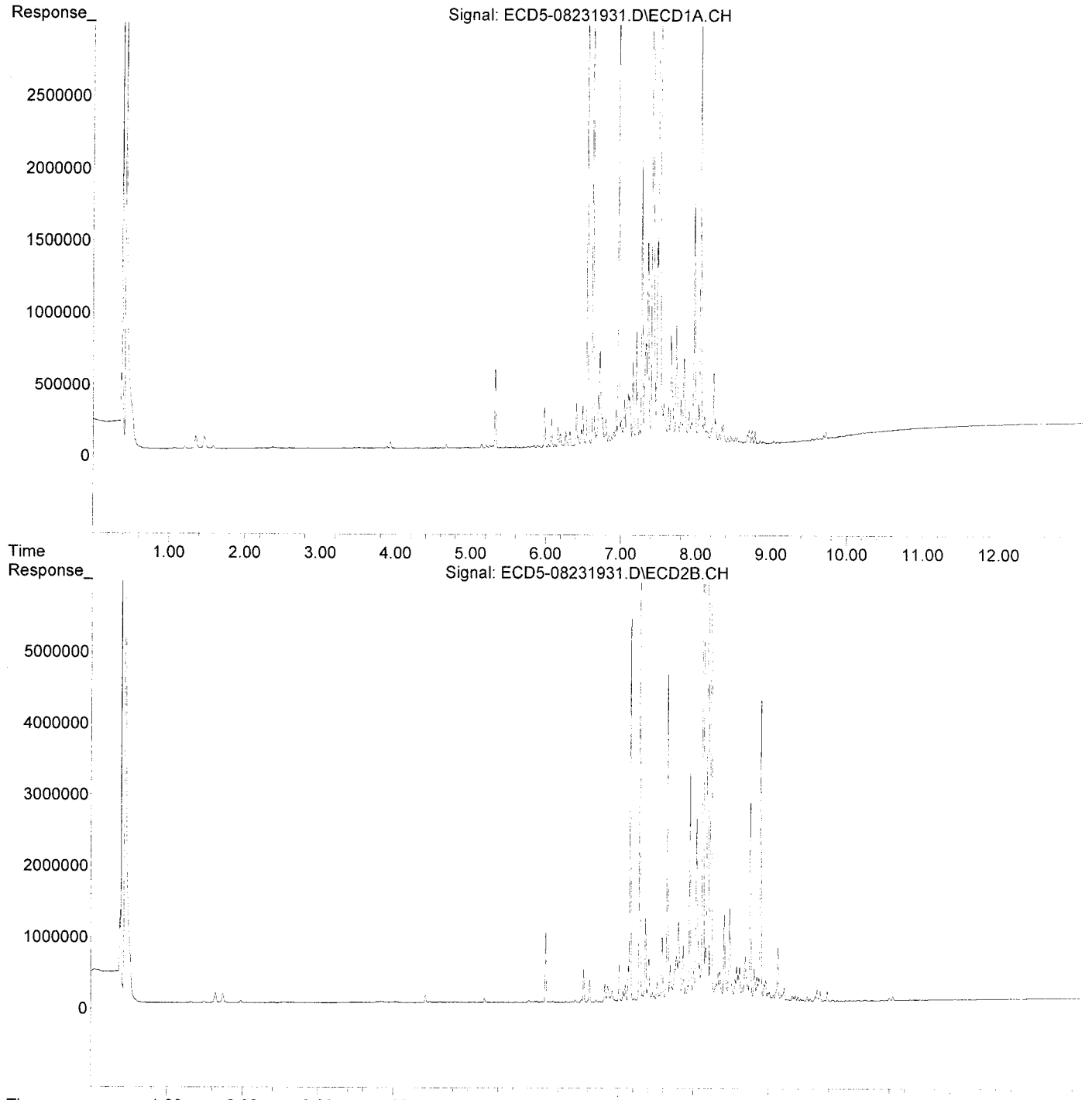
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

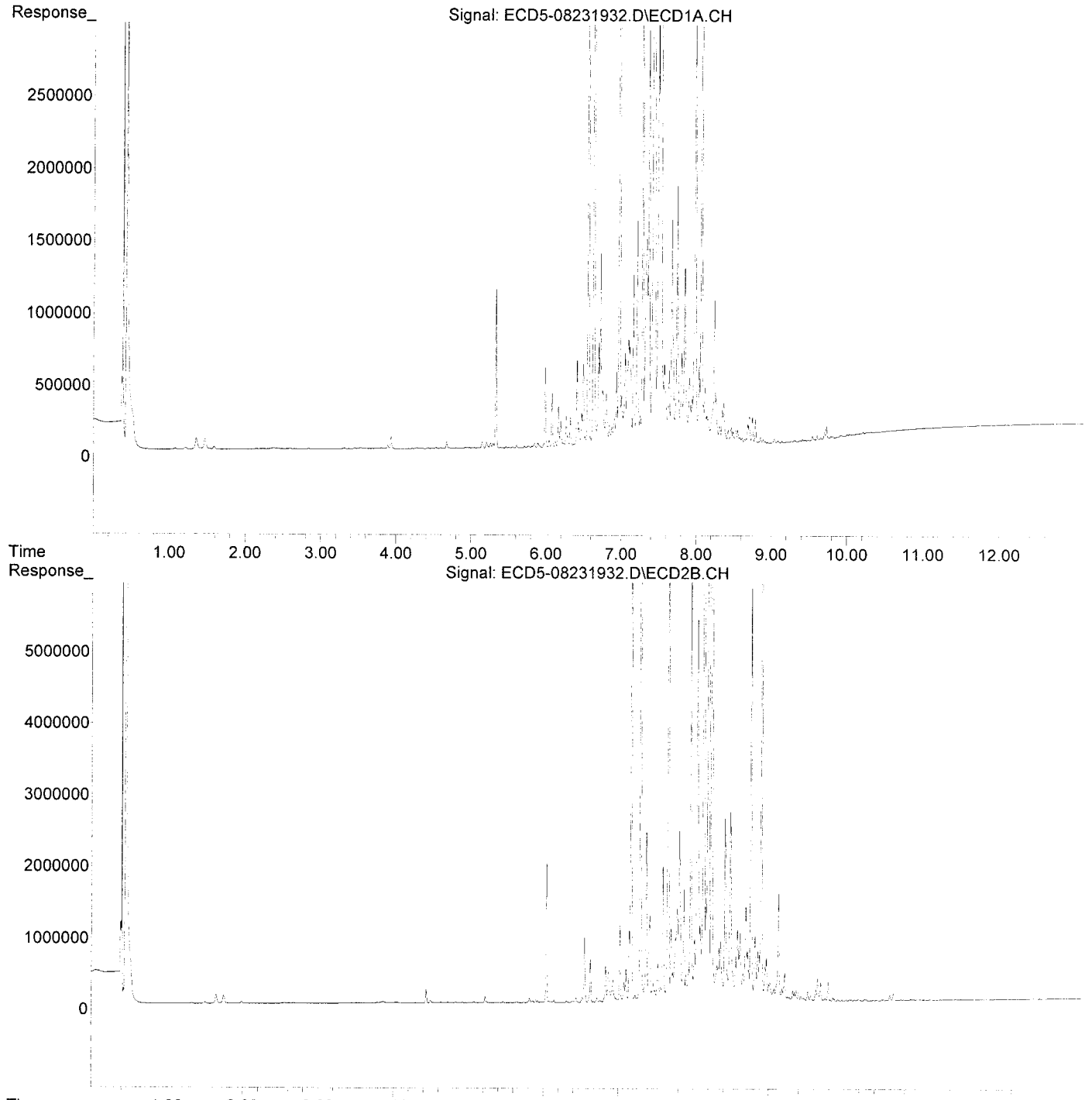
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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

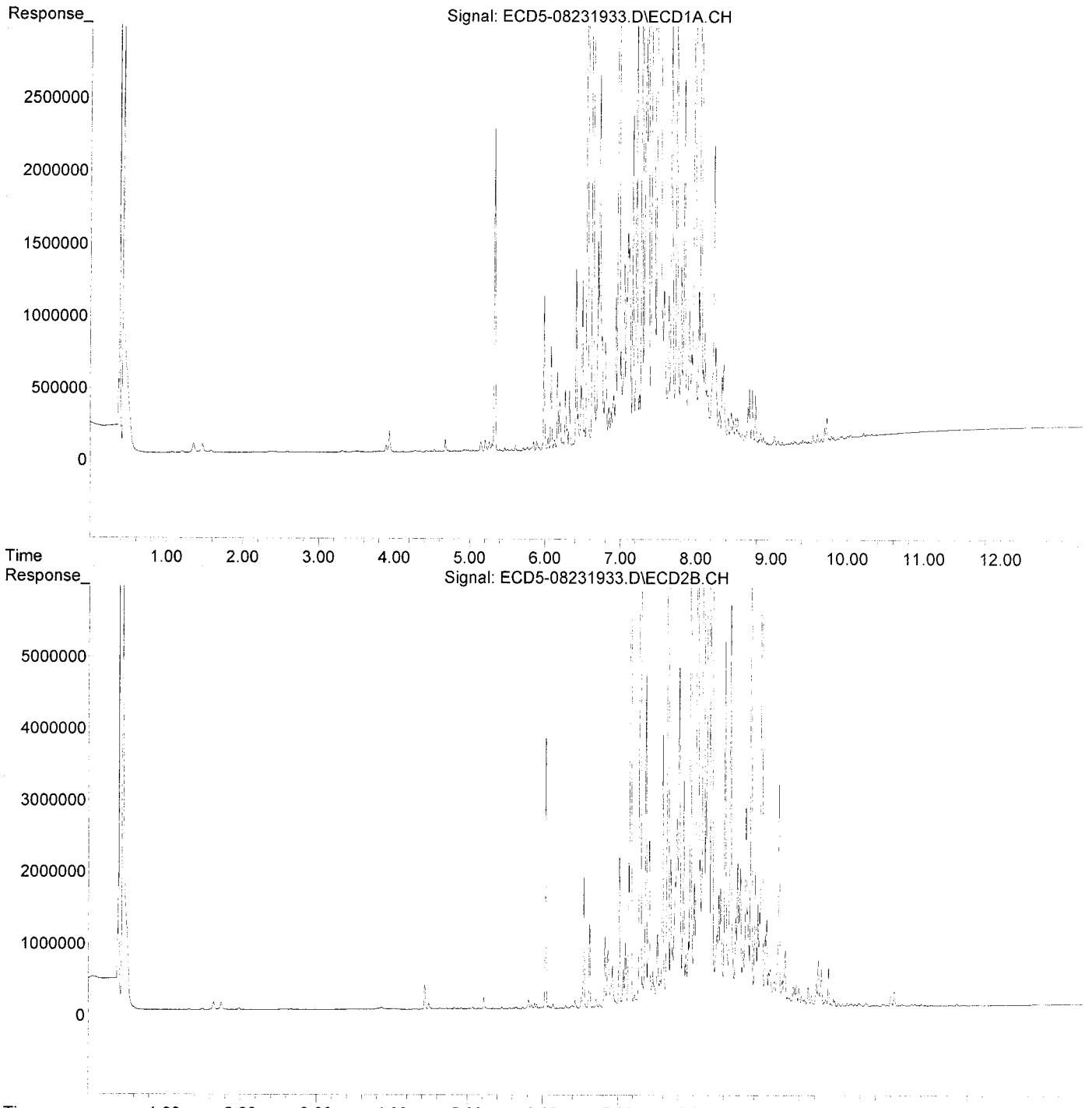
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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

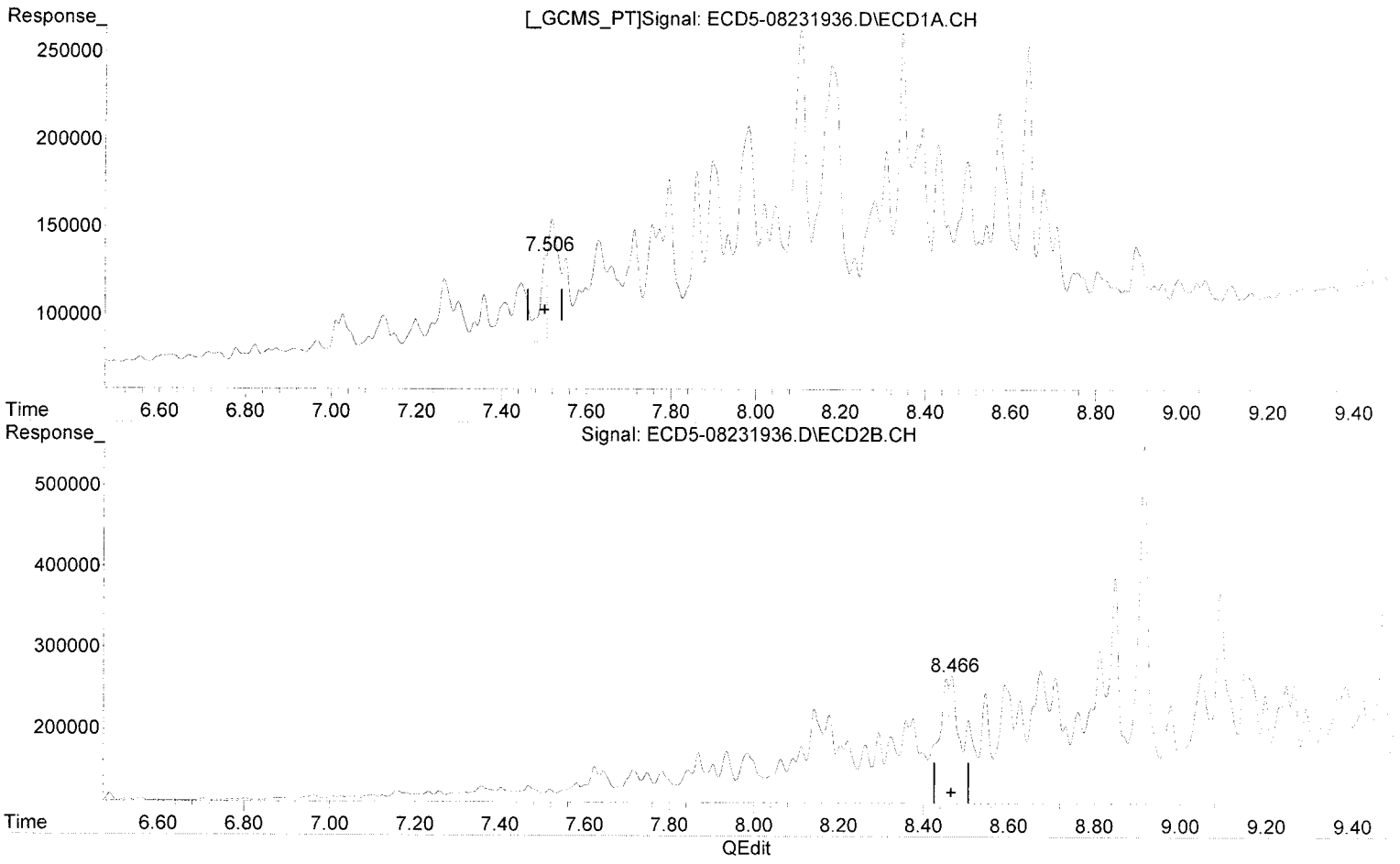
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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

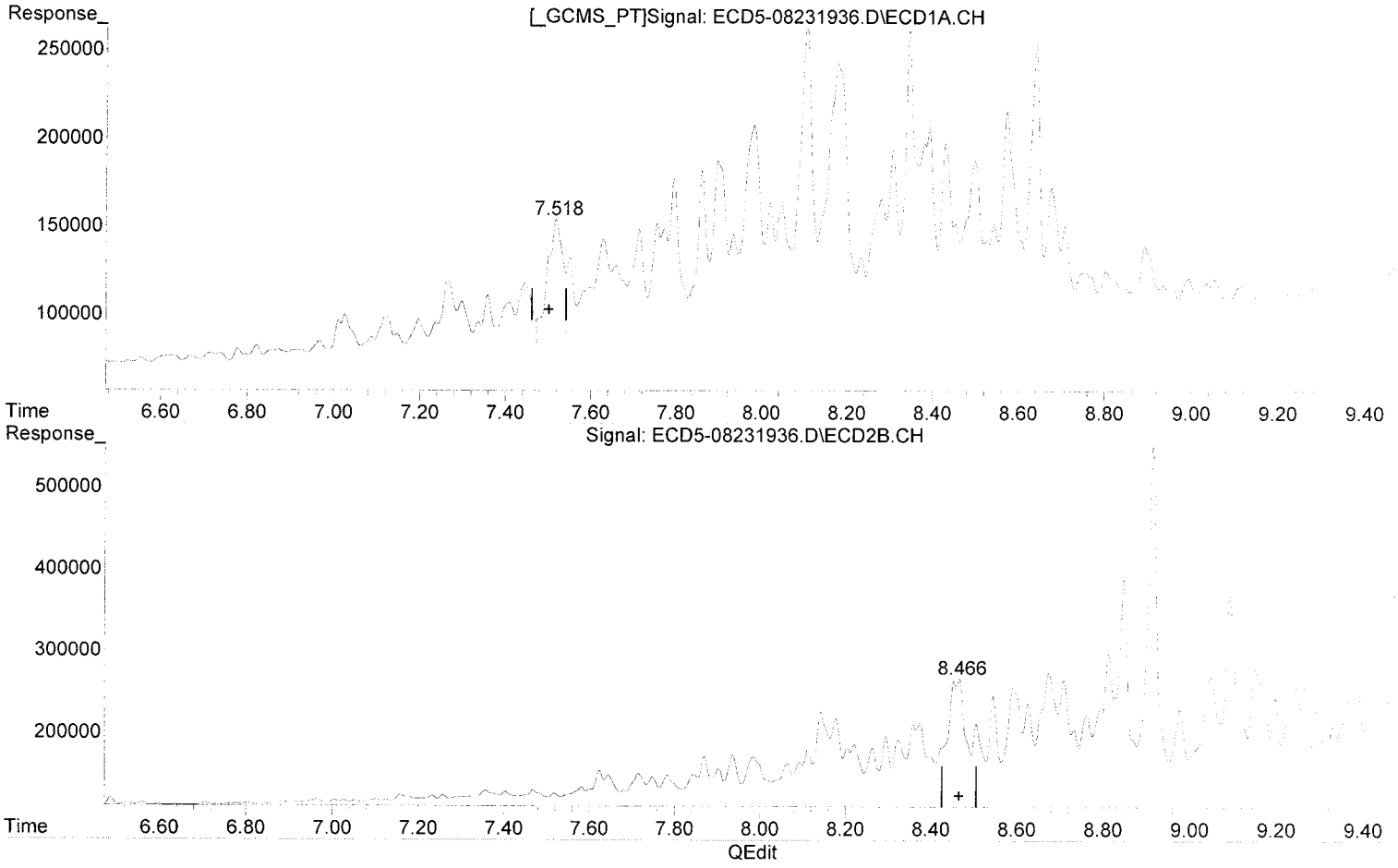
response 136848

(+) = 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

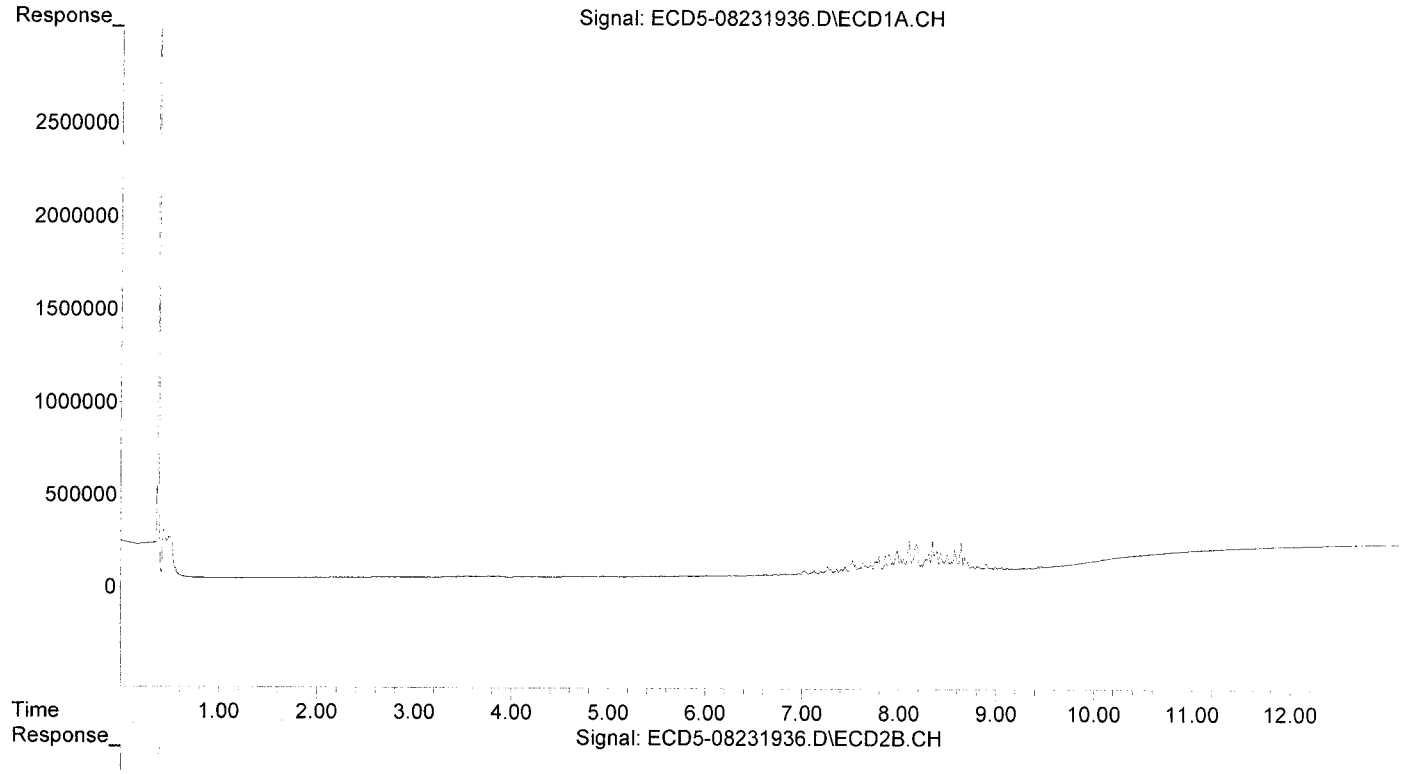
response 136848

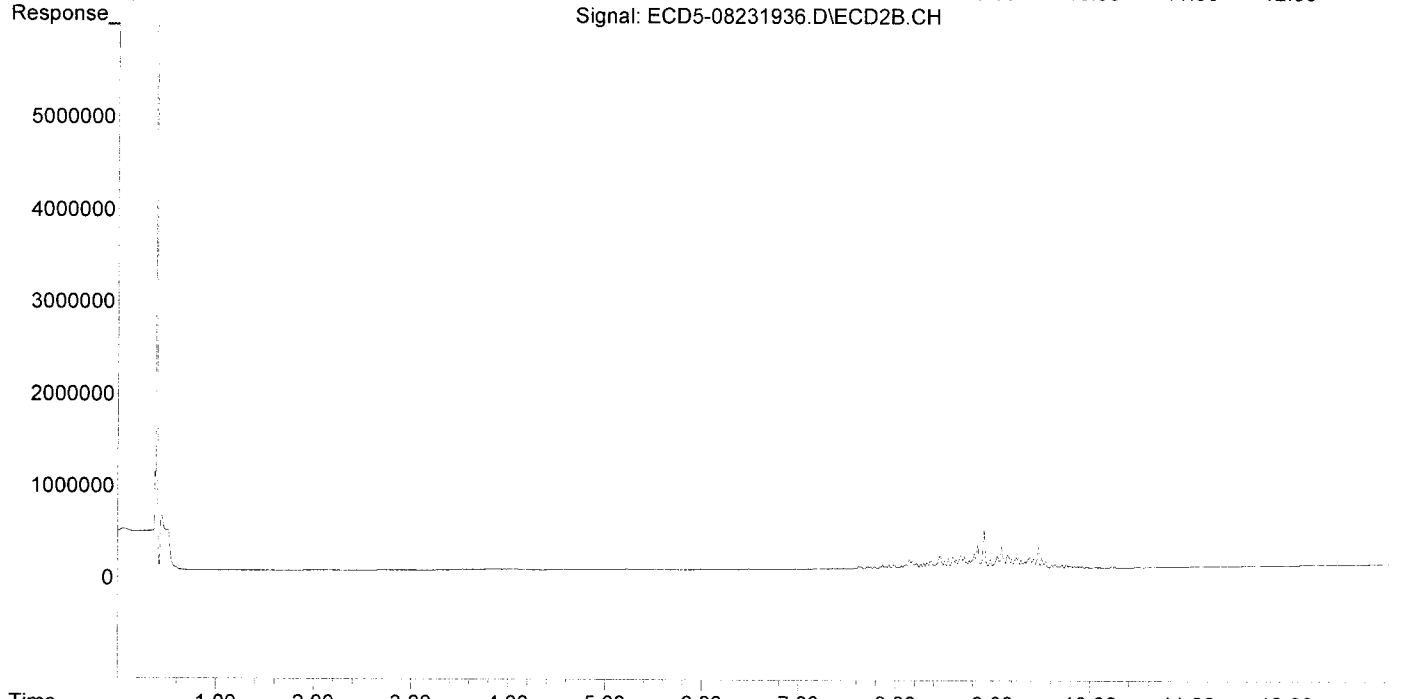
(+) = Expected Retention Time

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

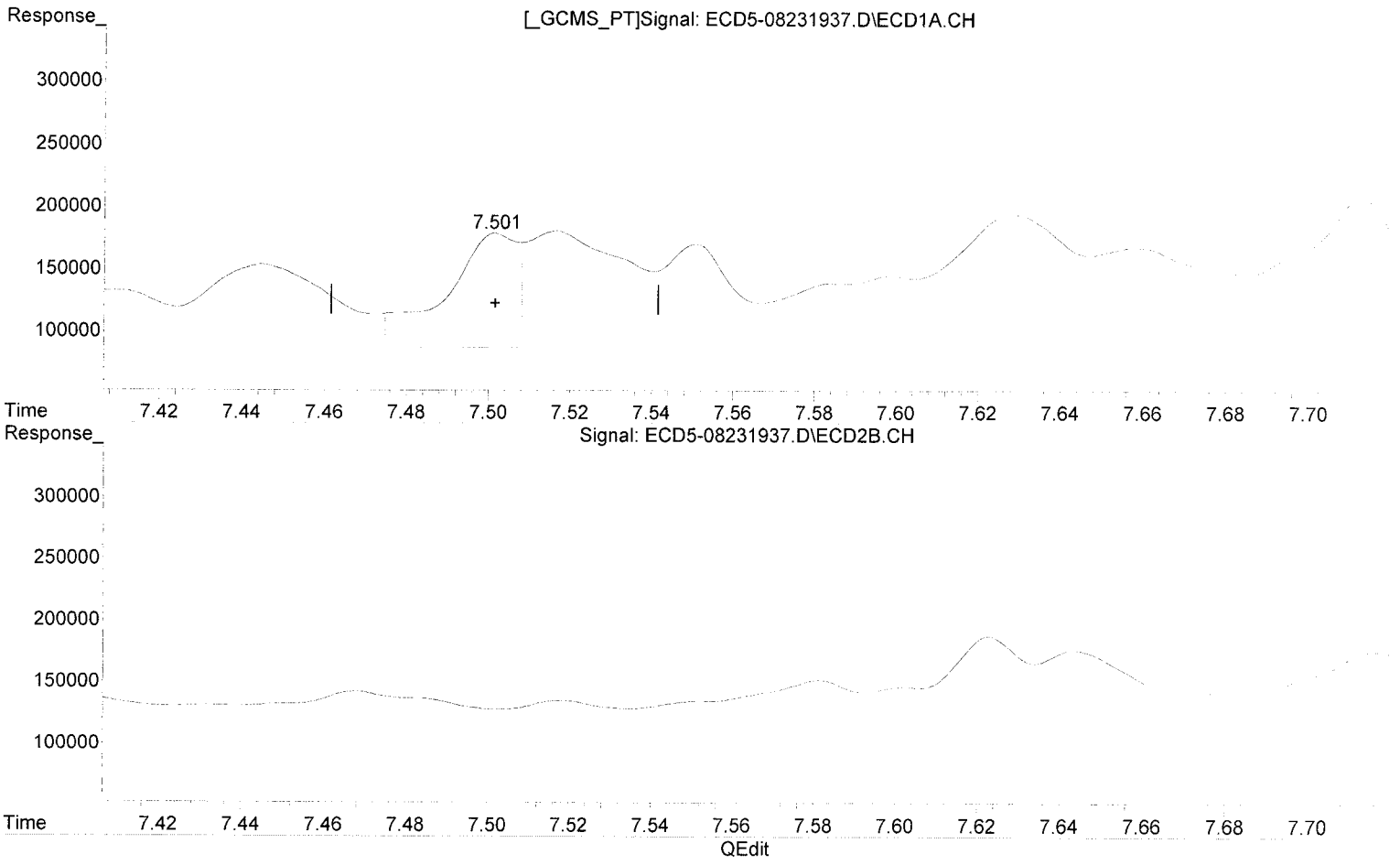
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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

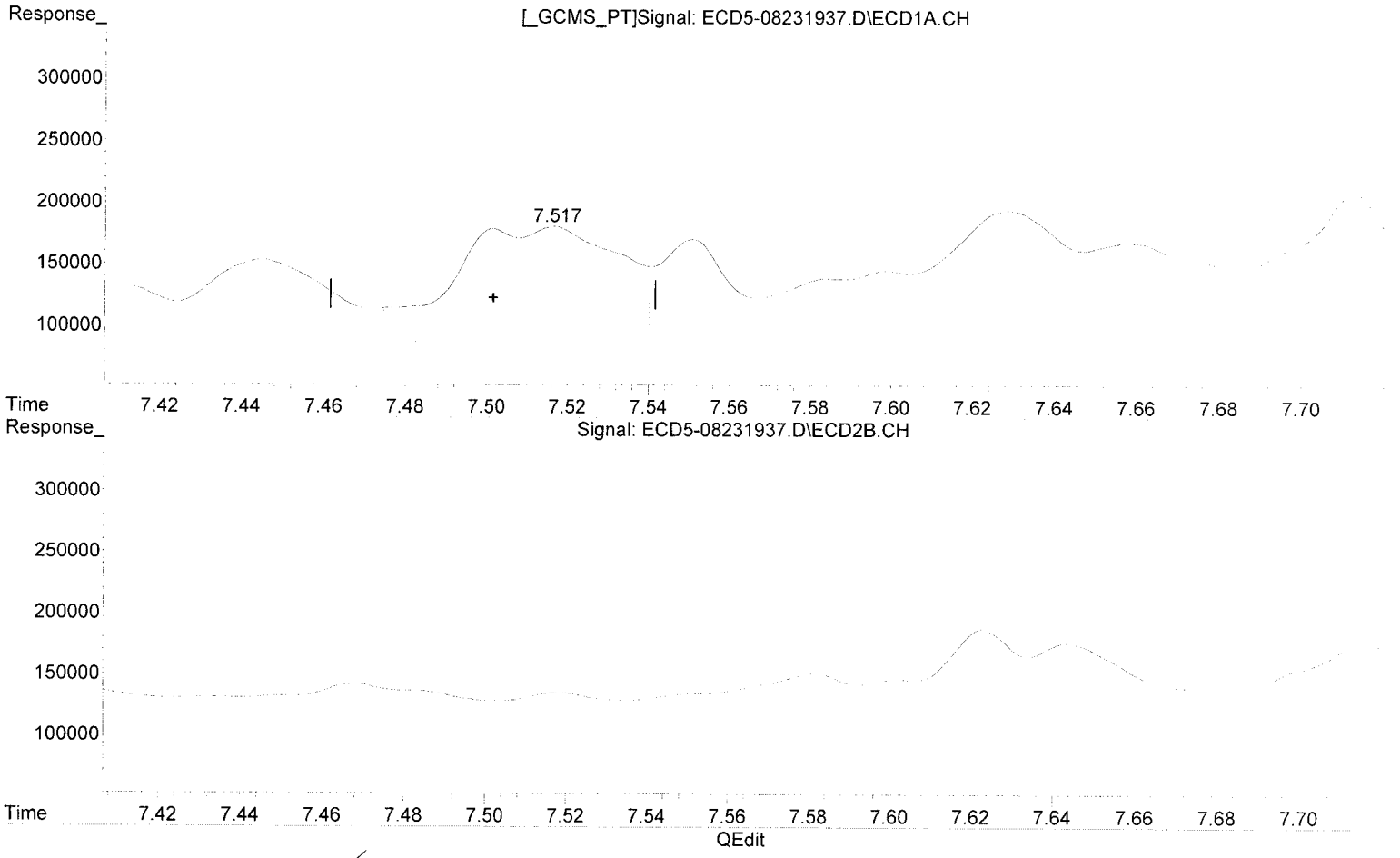
response 267534

(+) = 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

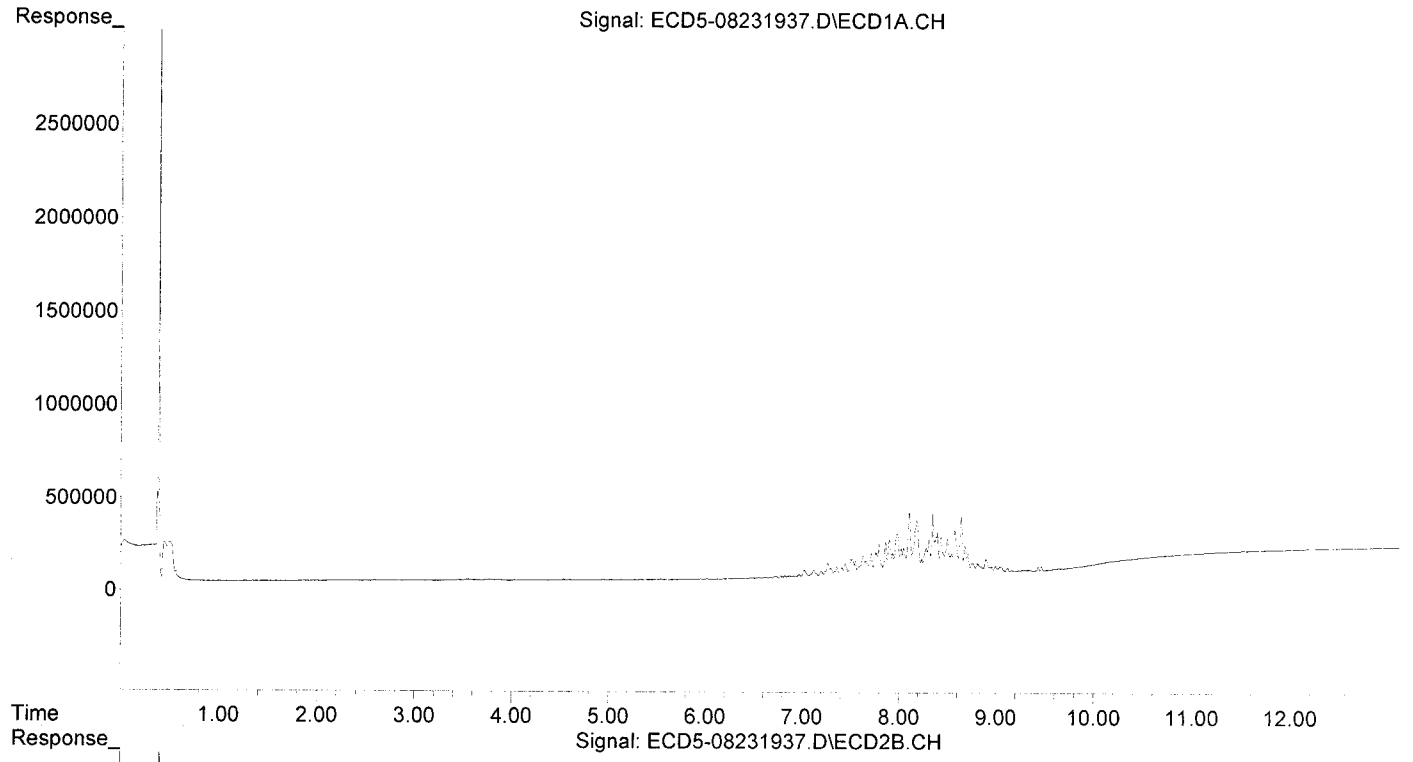
response 267534

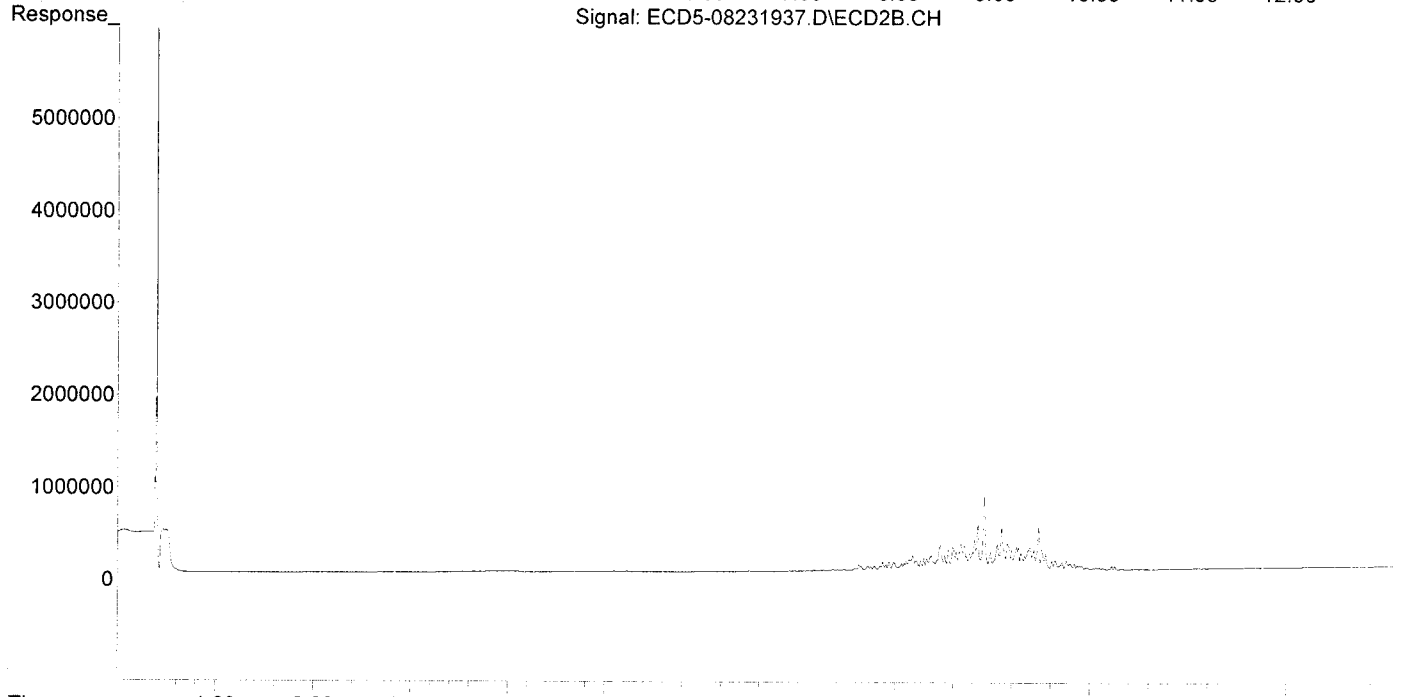
(+) = Expected Retention Time

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

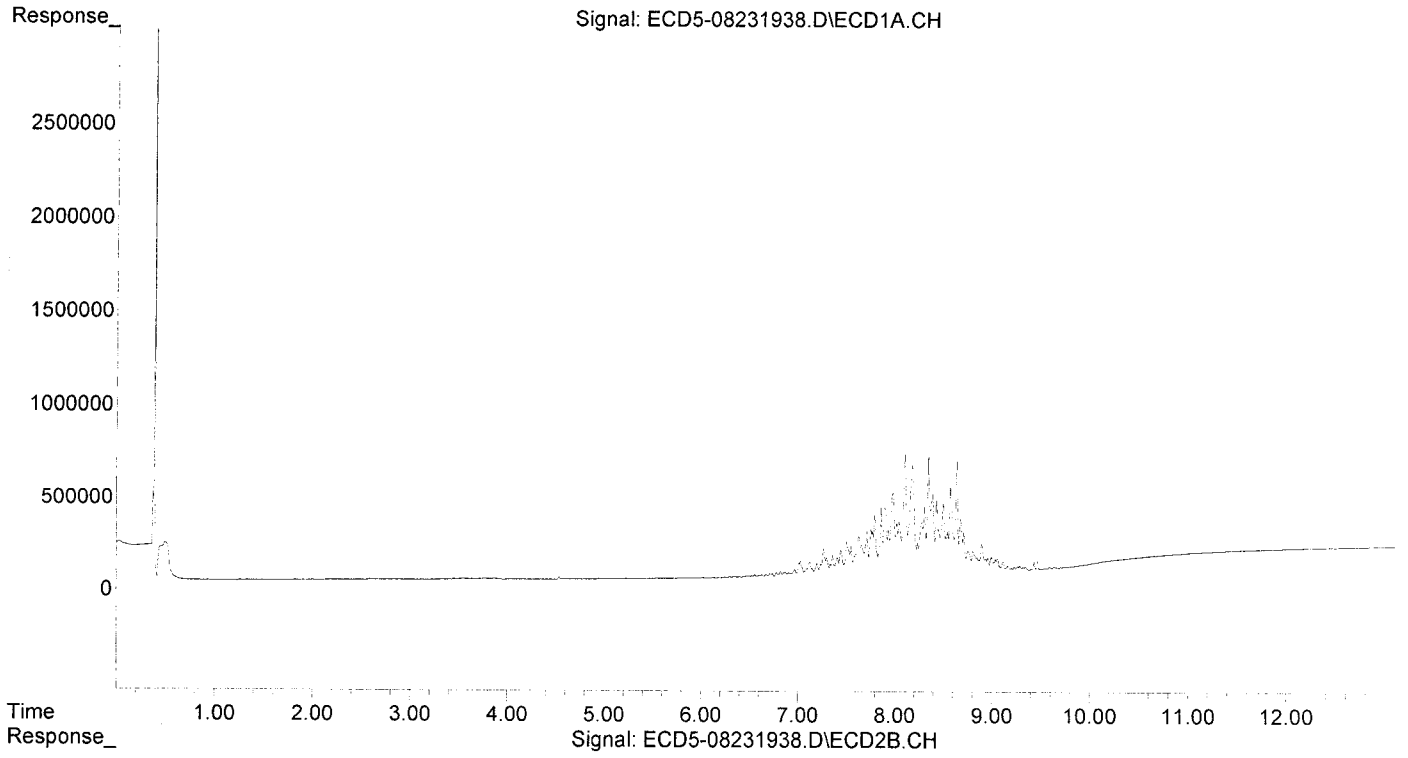
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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.

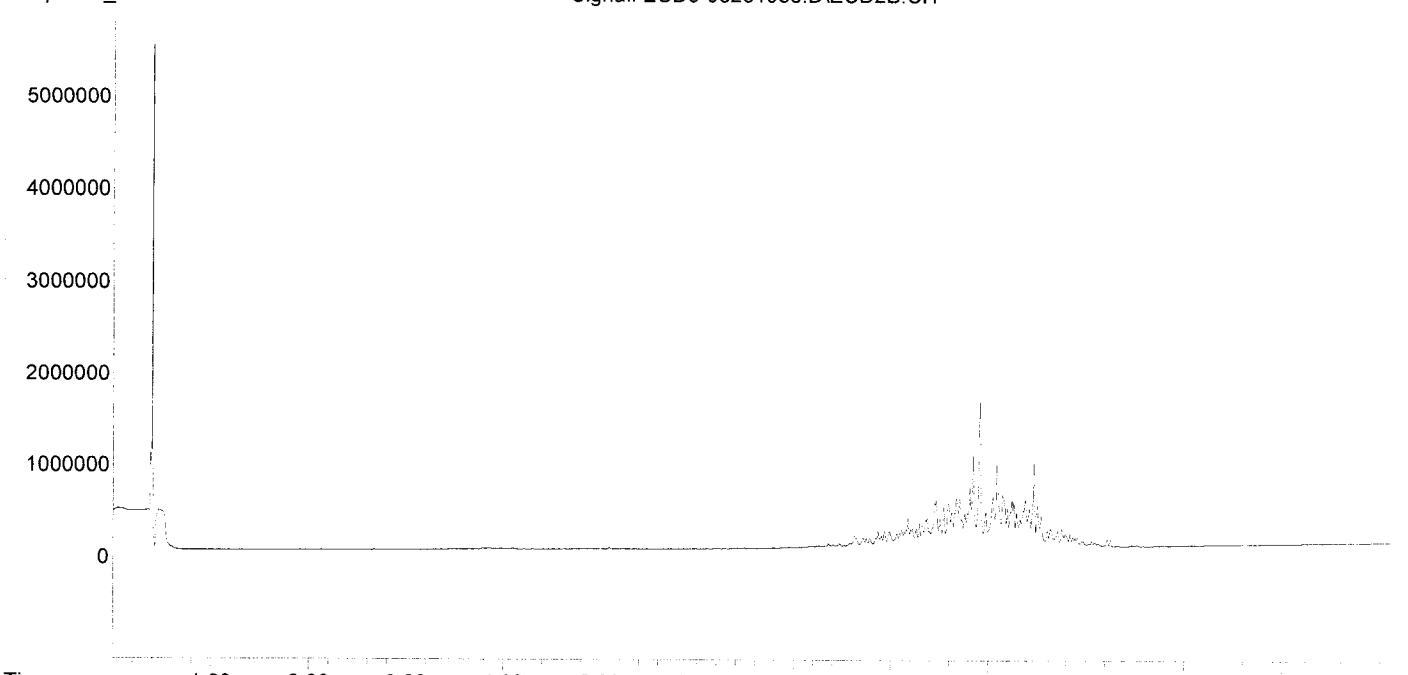
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

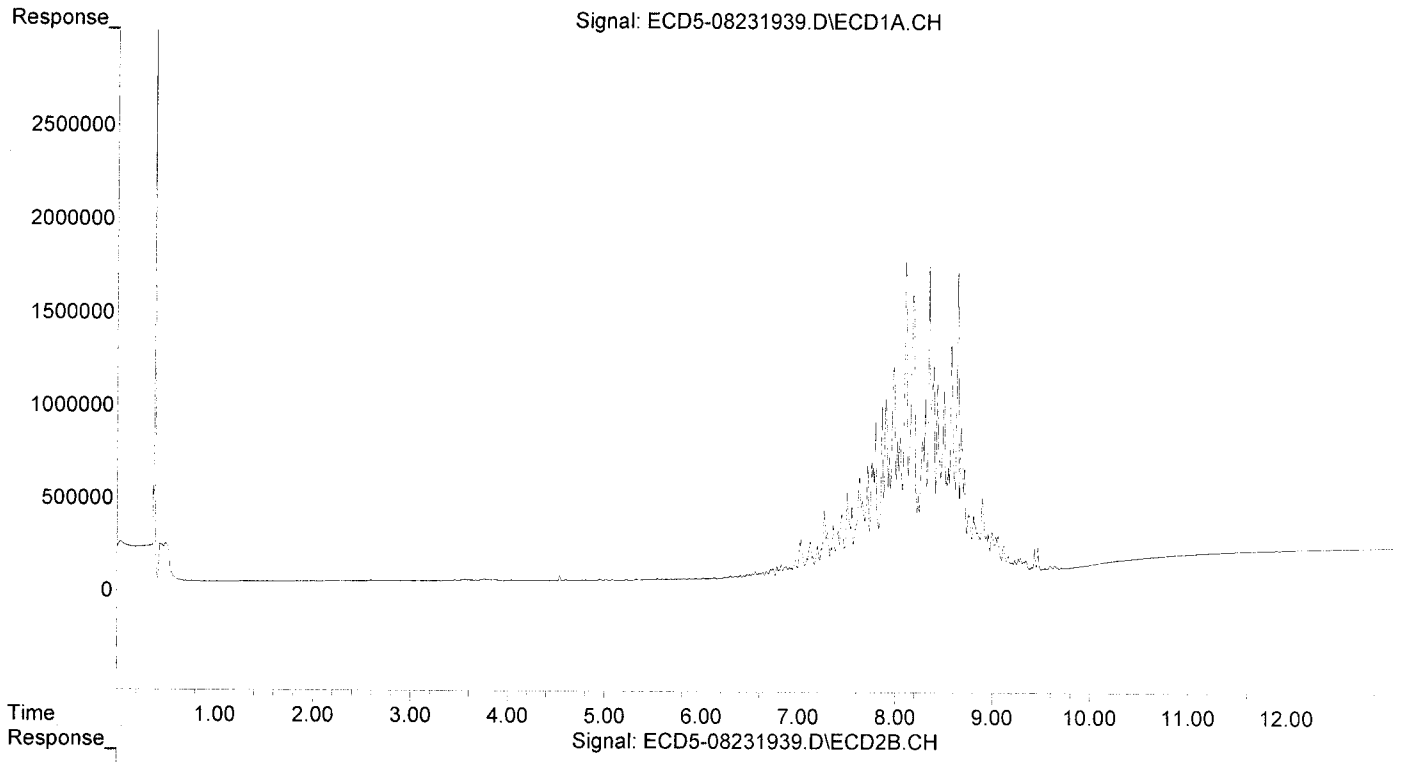
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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.

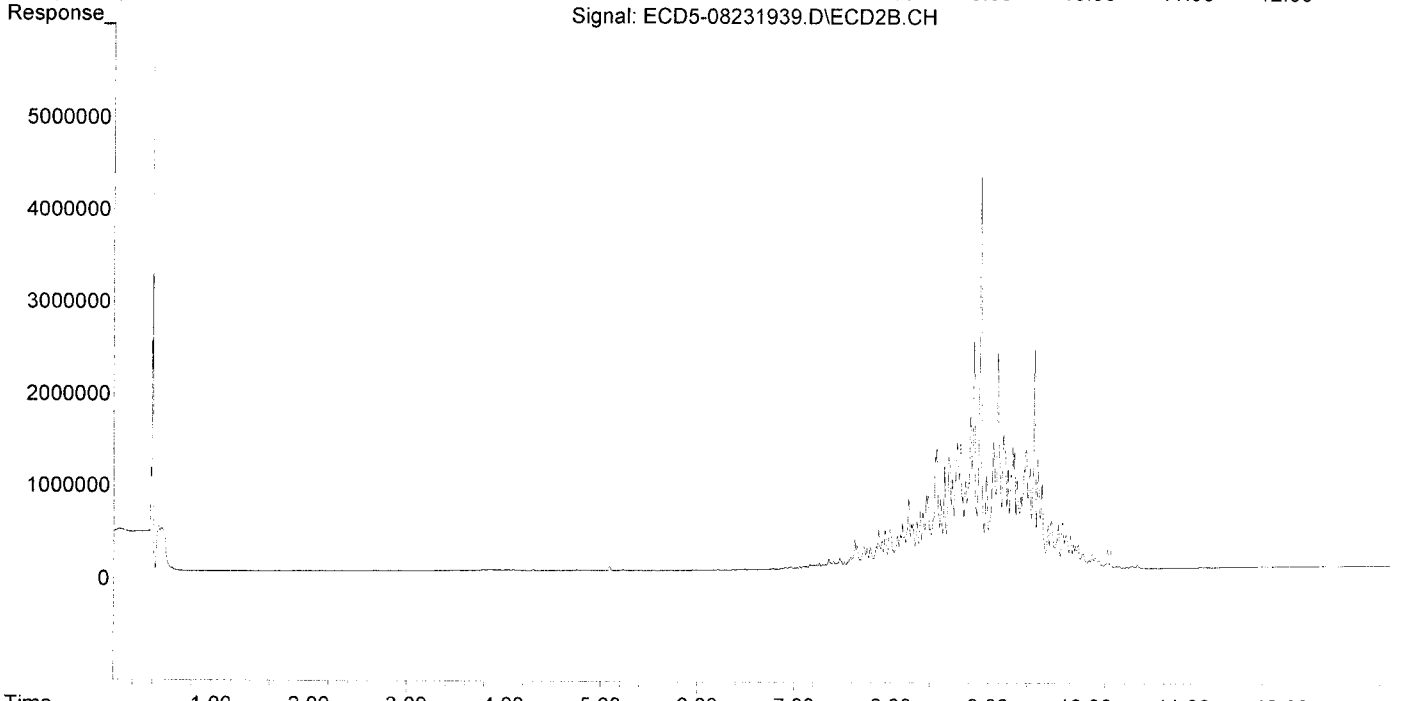
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

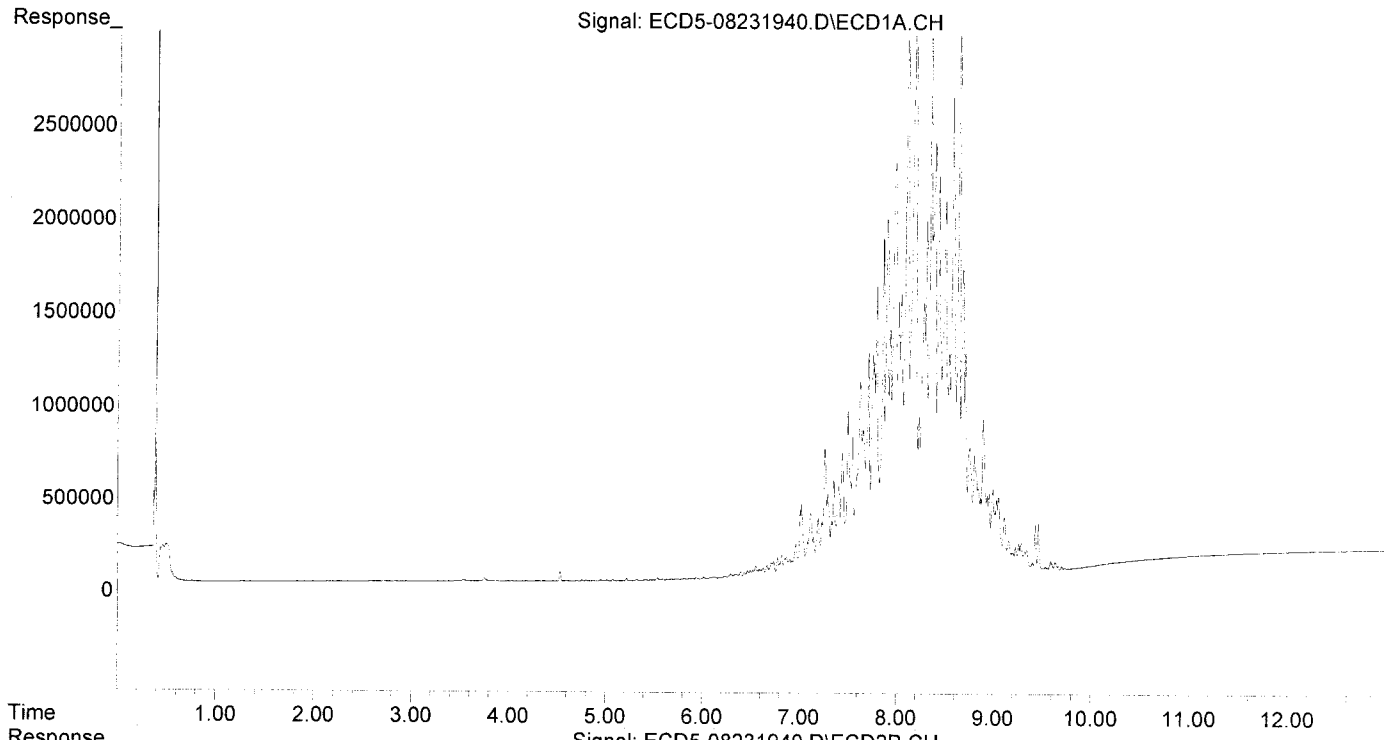
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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.

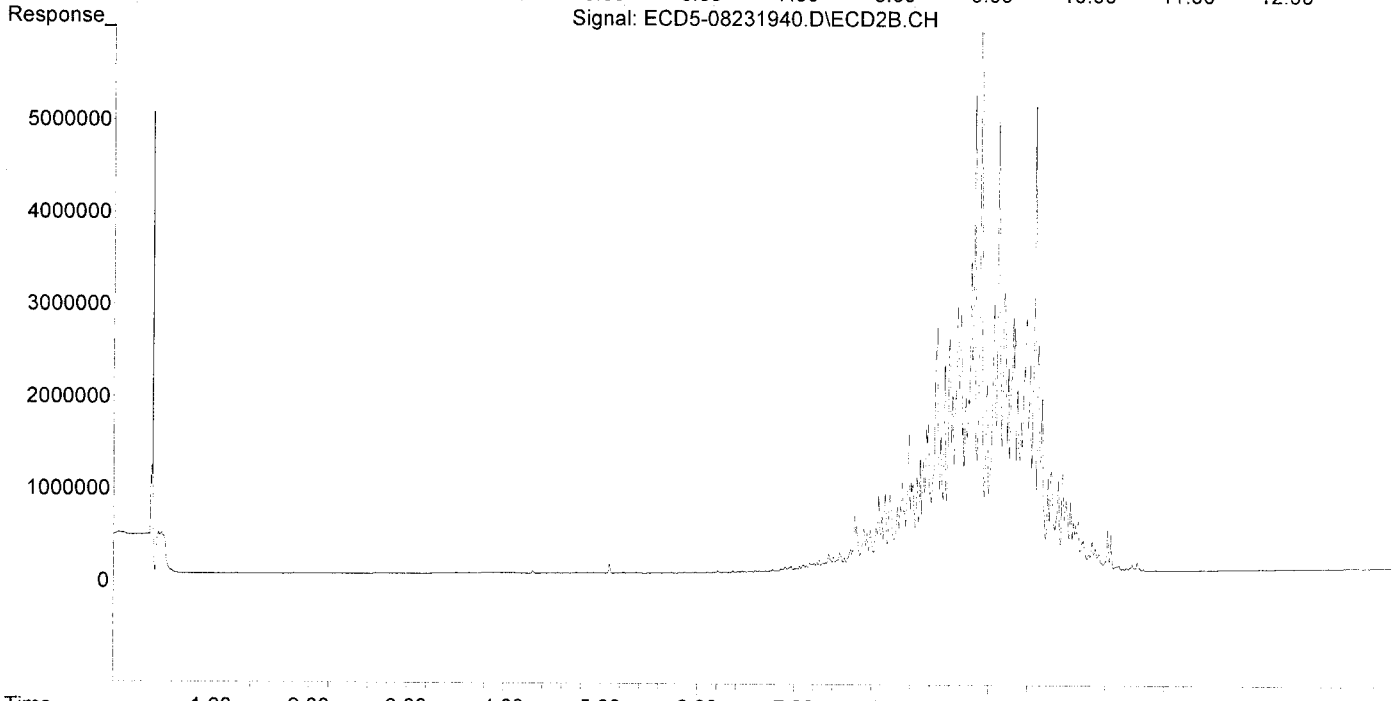
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

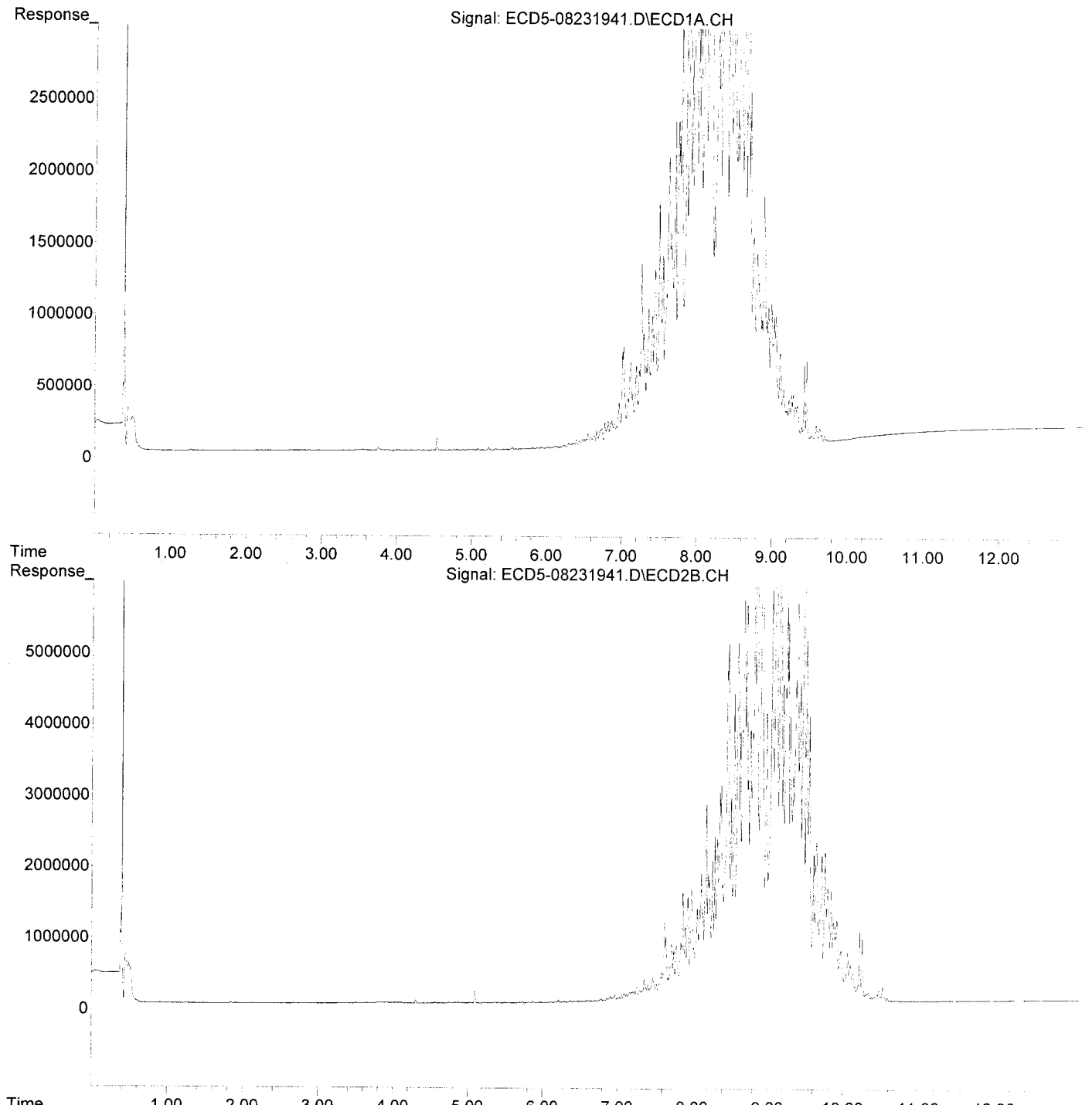
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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

Semivolatile Organic Compounds by EPA 8270D
Benchsheet & Analysis Sequence Data

Batch 9110357
Sequence 9K01021 (A9J0954-01,02RE1)

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

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~~ 6/15/20	~~LVI PAH Spike @2000ng/ml~~ PAH/Phenol

Surrogate(s)

Std ID	Exp. Date	Description
~~A19H13~~ A19J260	~~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

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:

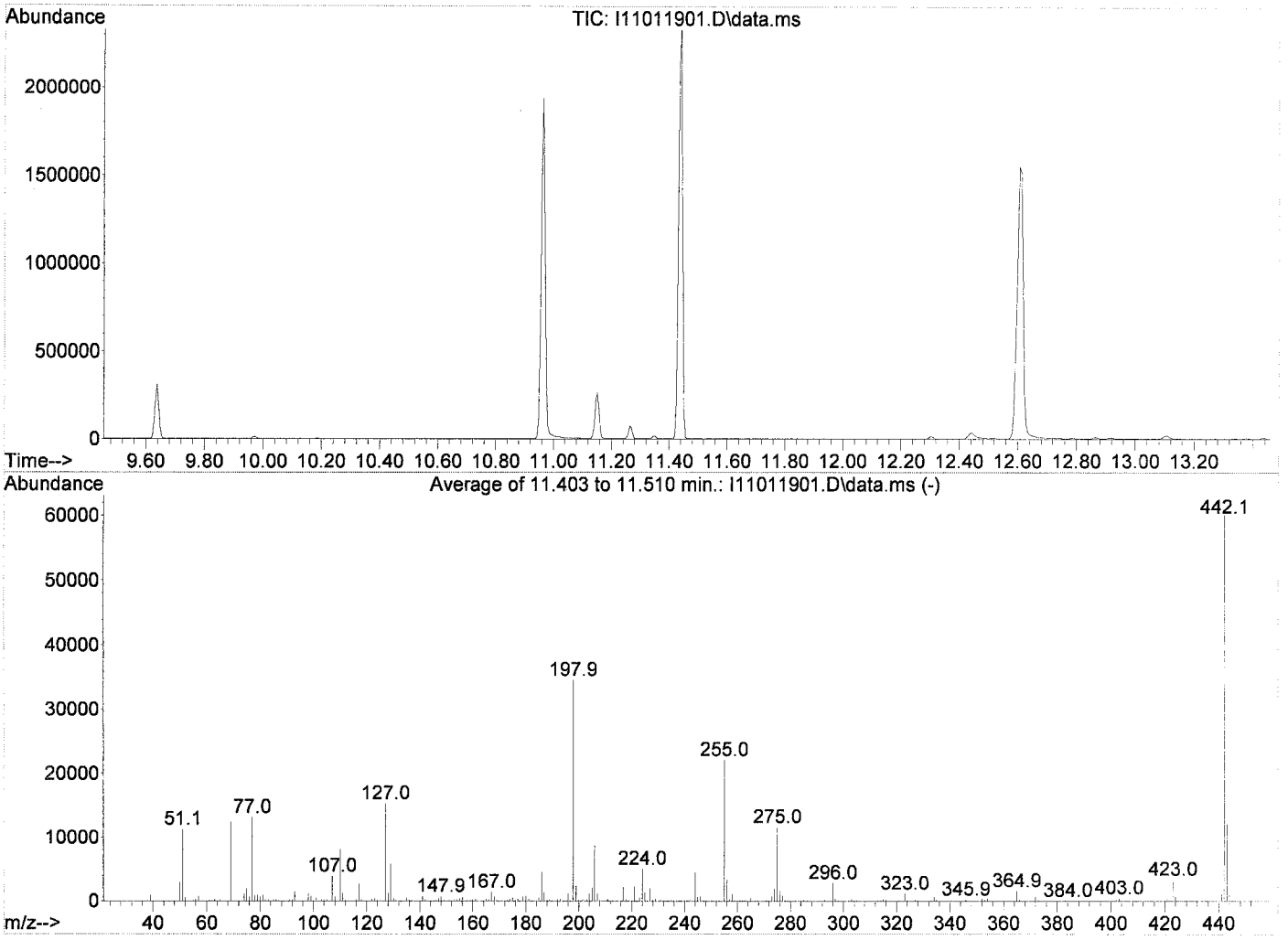
DFTPP

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

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

AMS 11/4 119



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

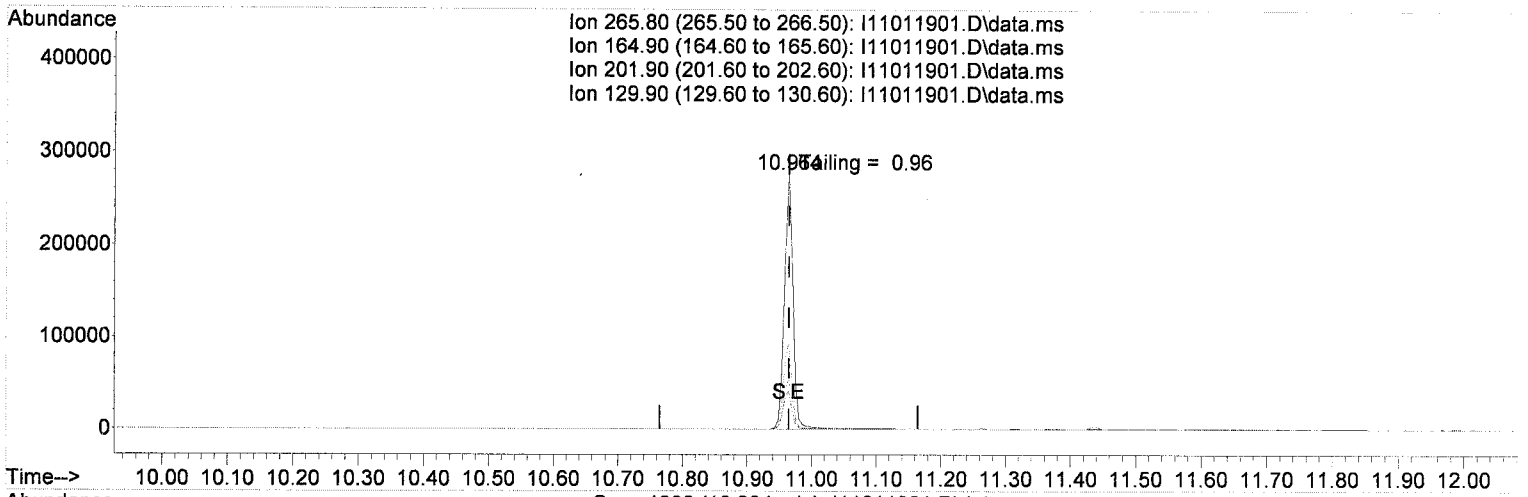
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	7.862	136	128793	2.00	ug/mL	0.00
2) Acenaphthene-d10	9.638	162	64970	2.00	ug/mL	0.00
4) Phenanthrene-d10	11.151	188	98721	2.00	ug/mL	0.00
10) Chrysene-d12	14.853	240	74372	2.00	ug/mL	0.00
11) Perylene-d12	16.987	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

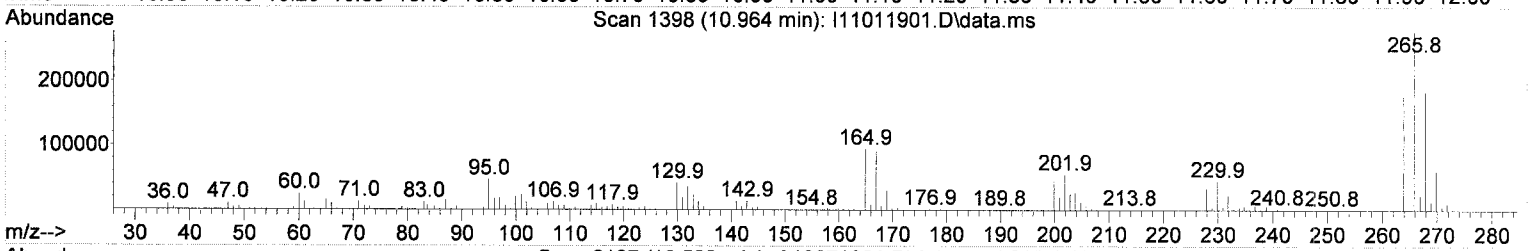
(#) = qualifier out of range (m) = manual integration (+) = signals summed

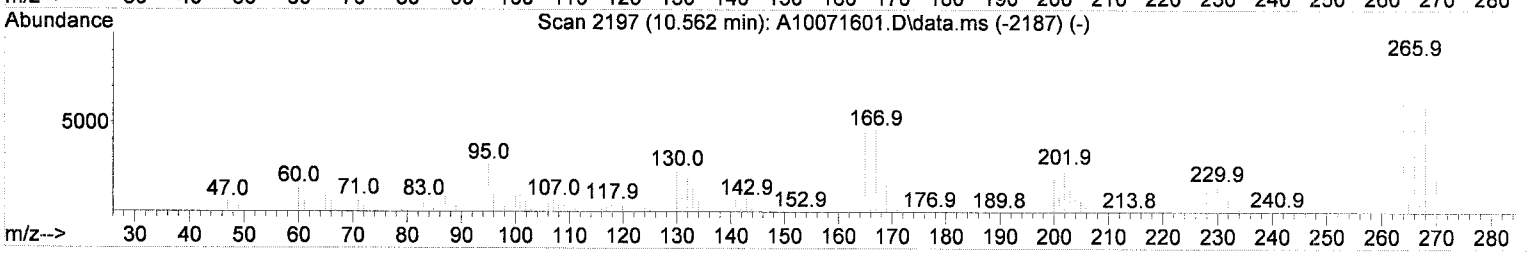
Quantitation Report (Qedit)

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

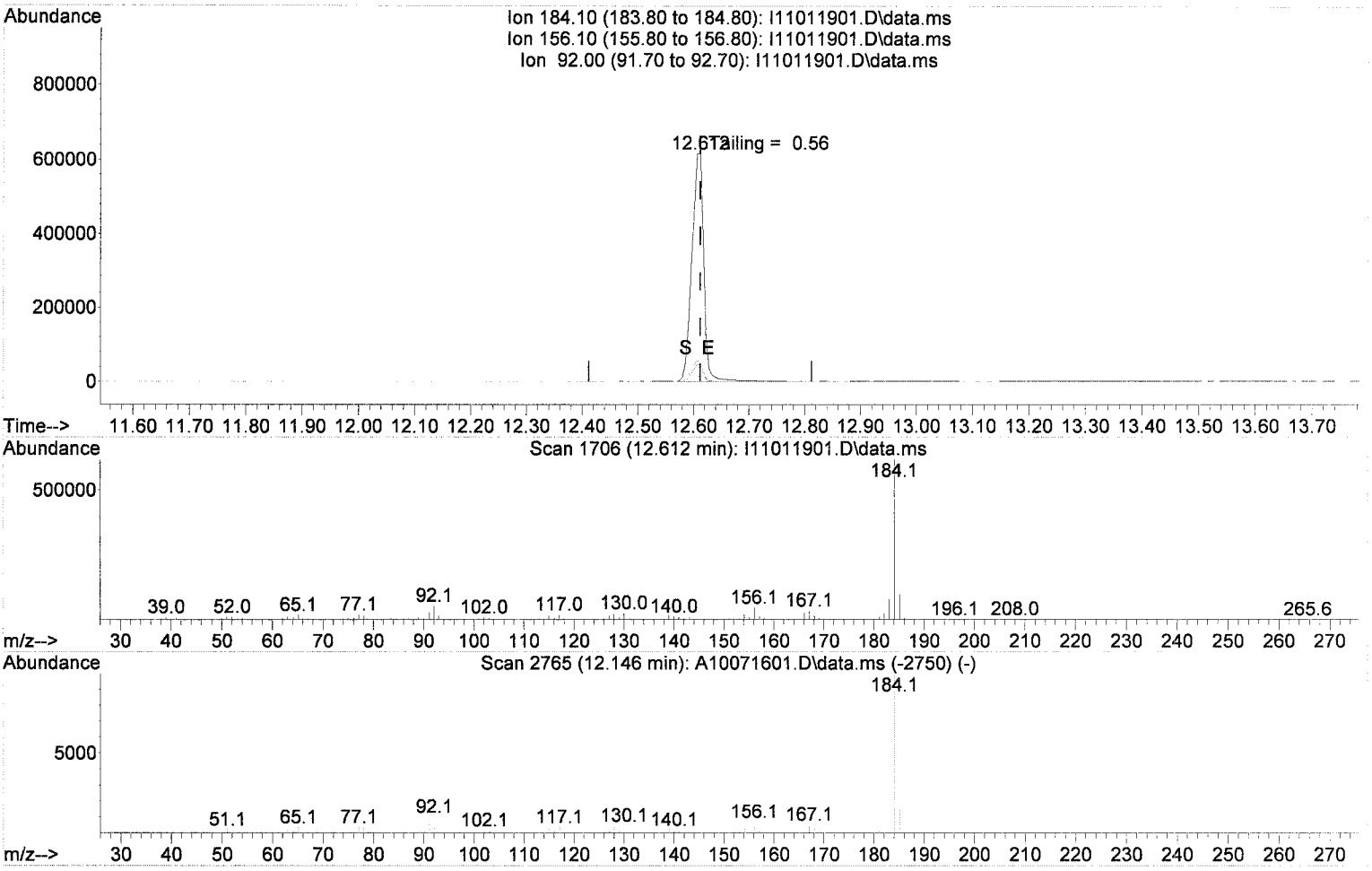
response 261454

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)

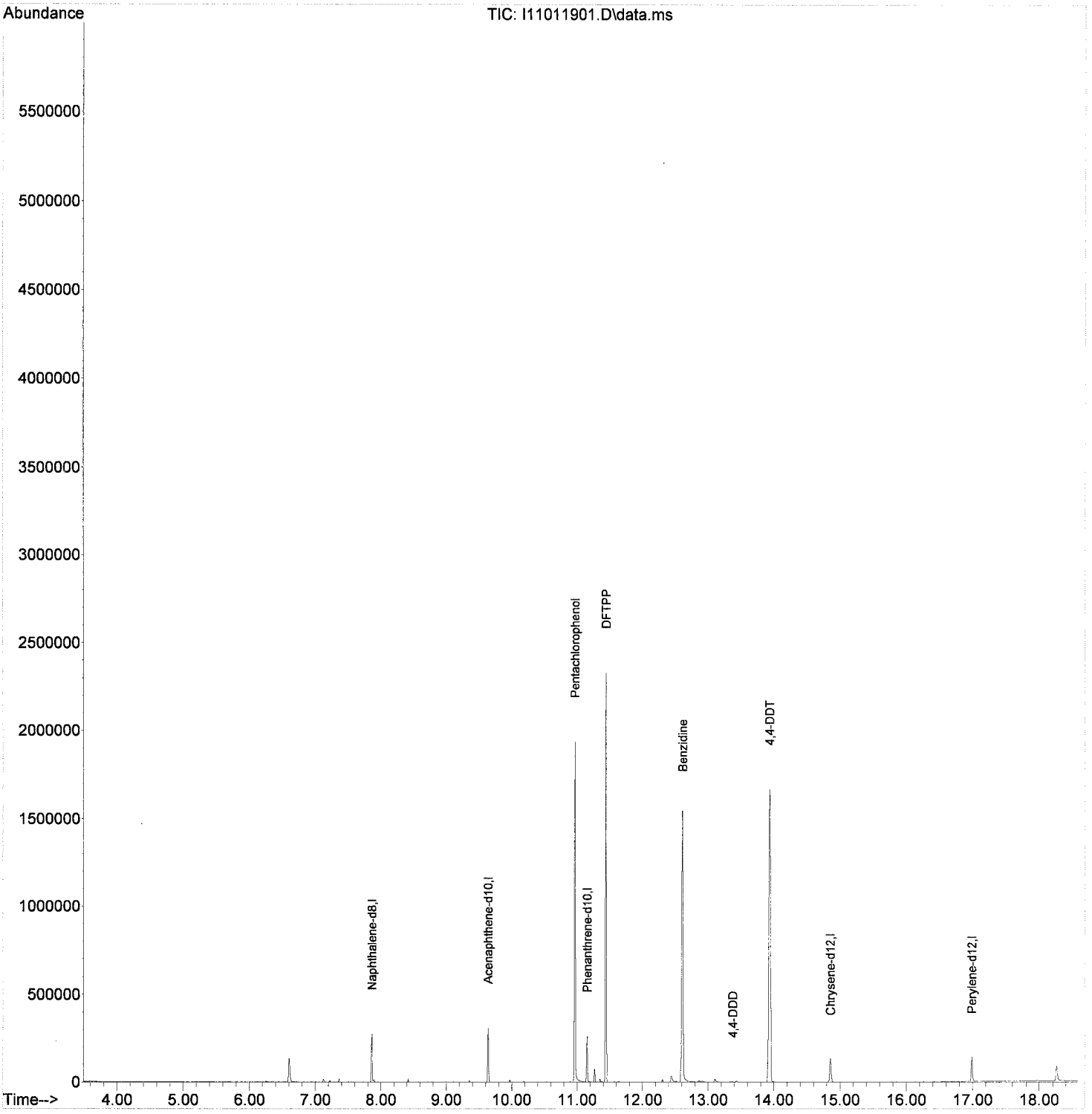
From:
9K01021-TUN1
SV-GCMS9

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

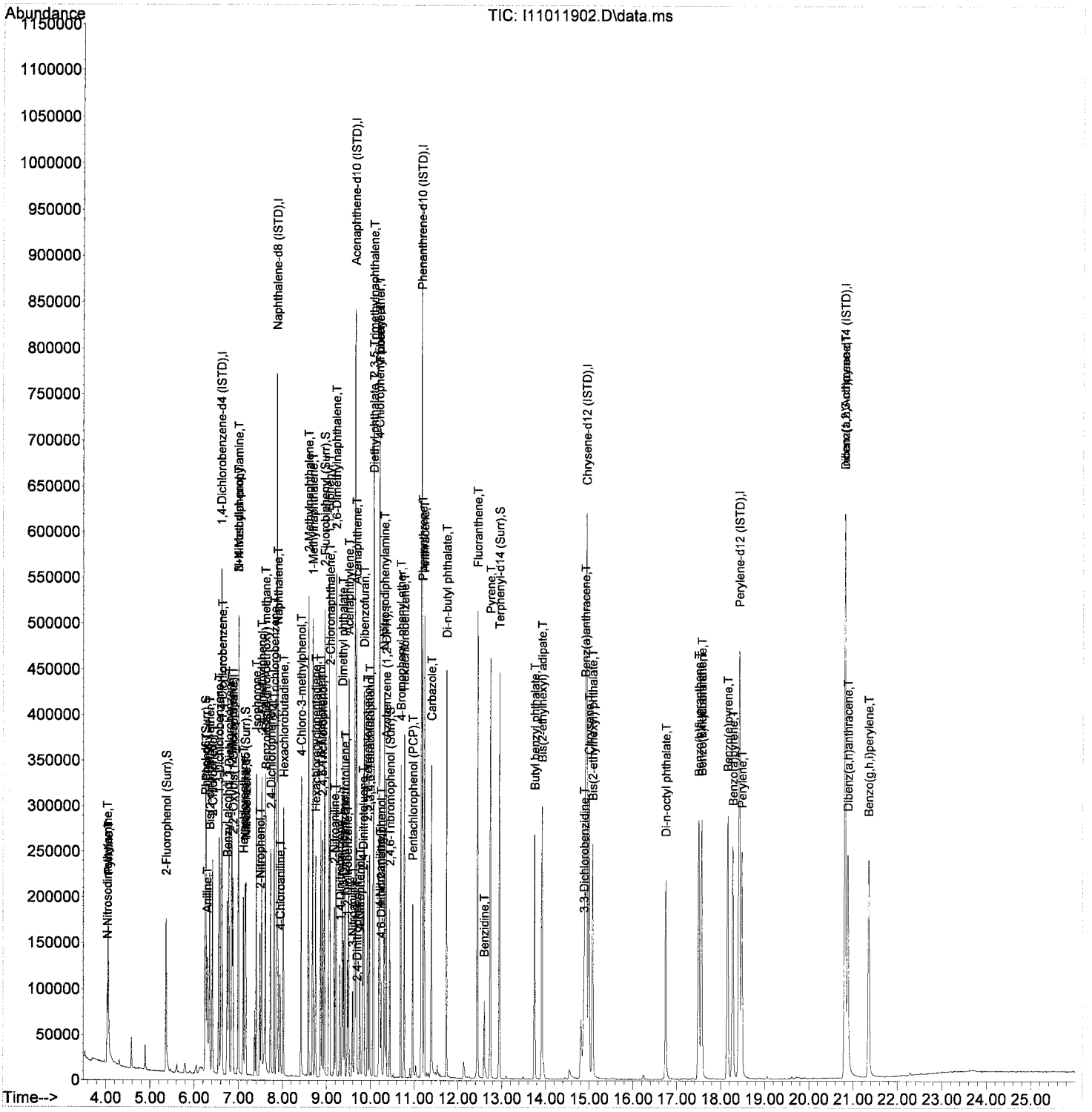
Quant Time: Nov 04 08:56:26 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

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

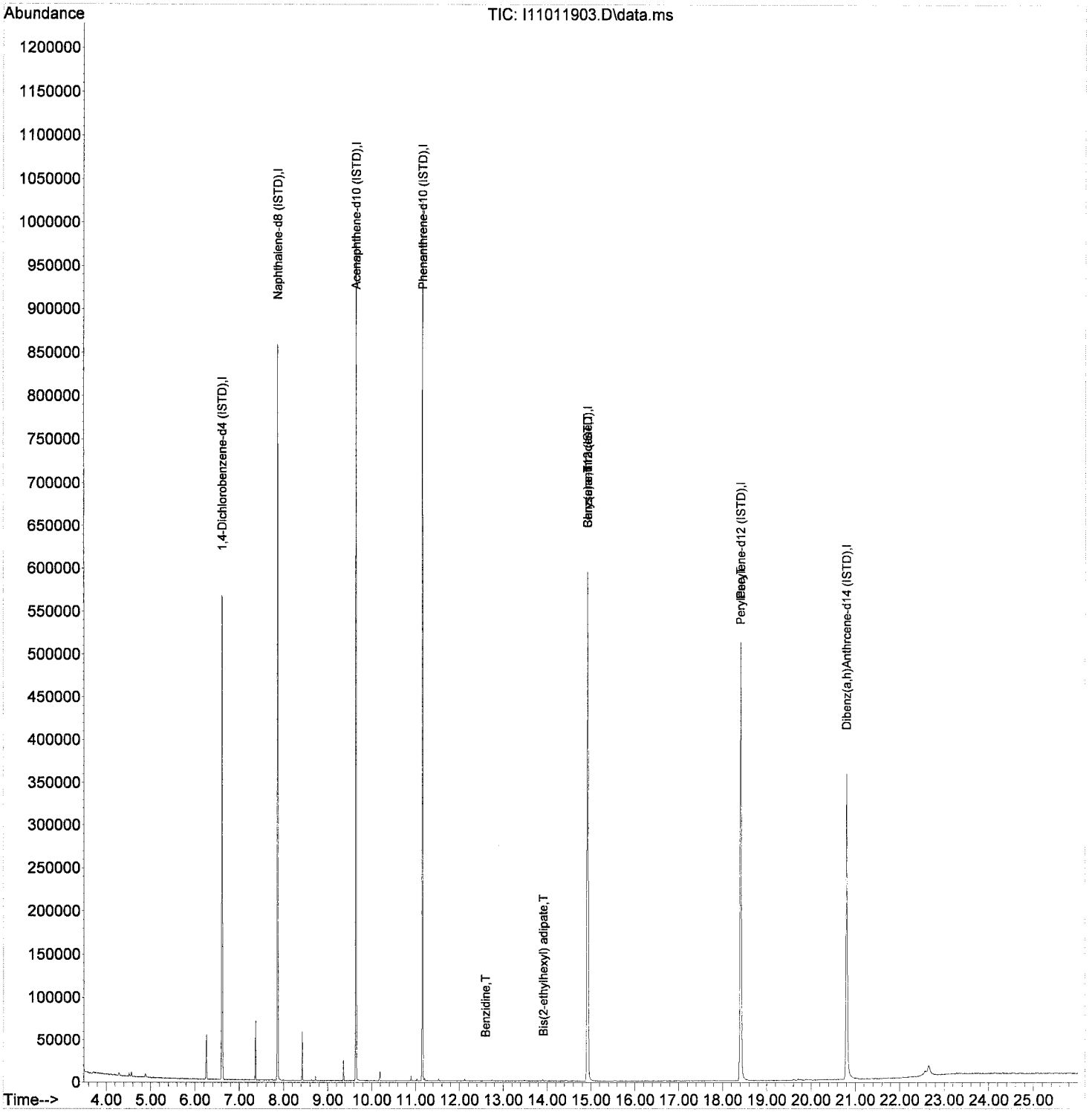
Quant Time: Nov 04 08:56:44 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

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

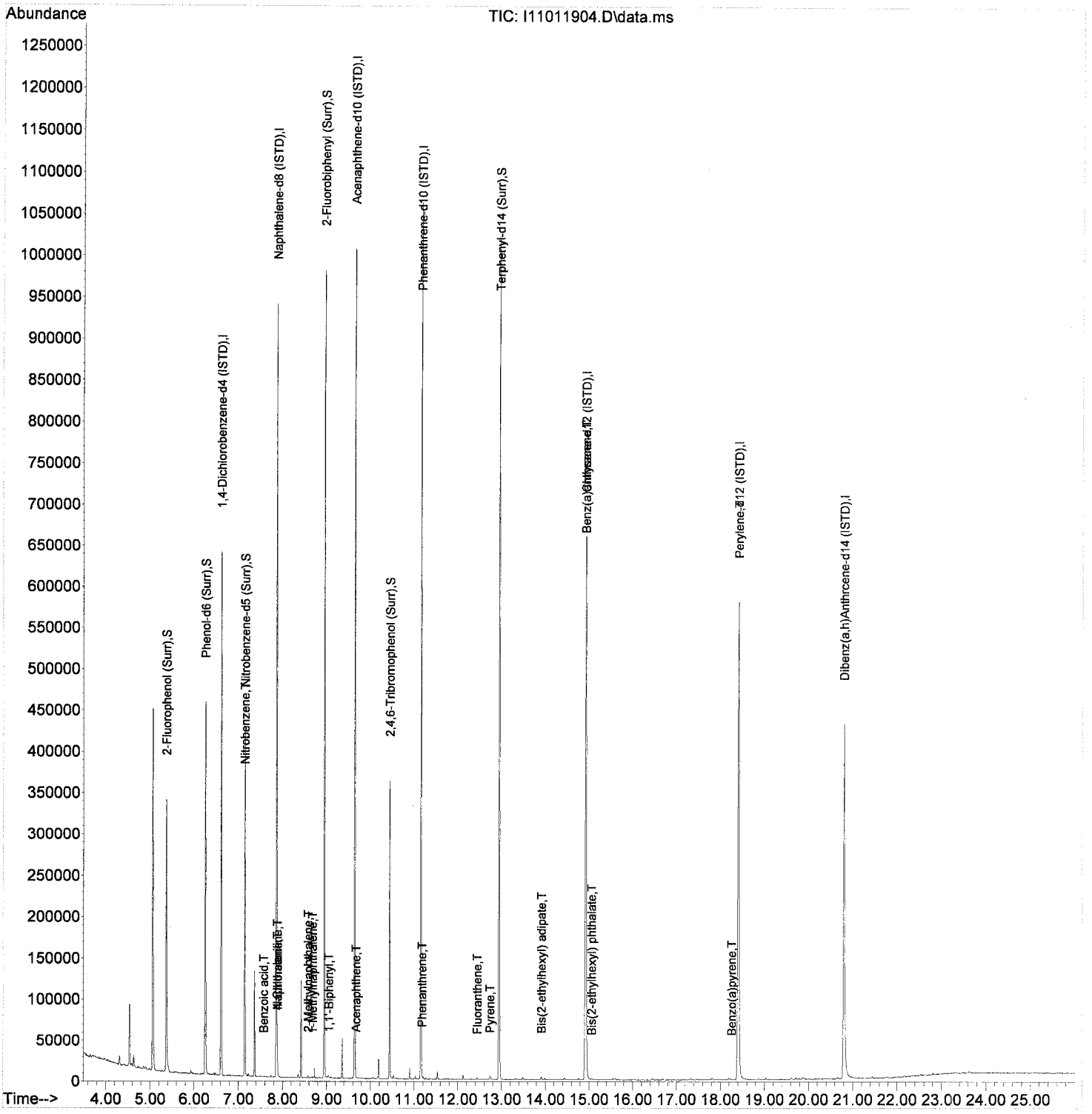
Quant Time: Nov 04 08:56:47 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	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

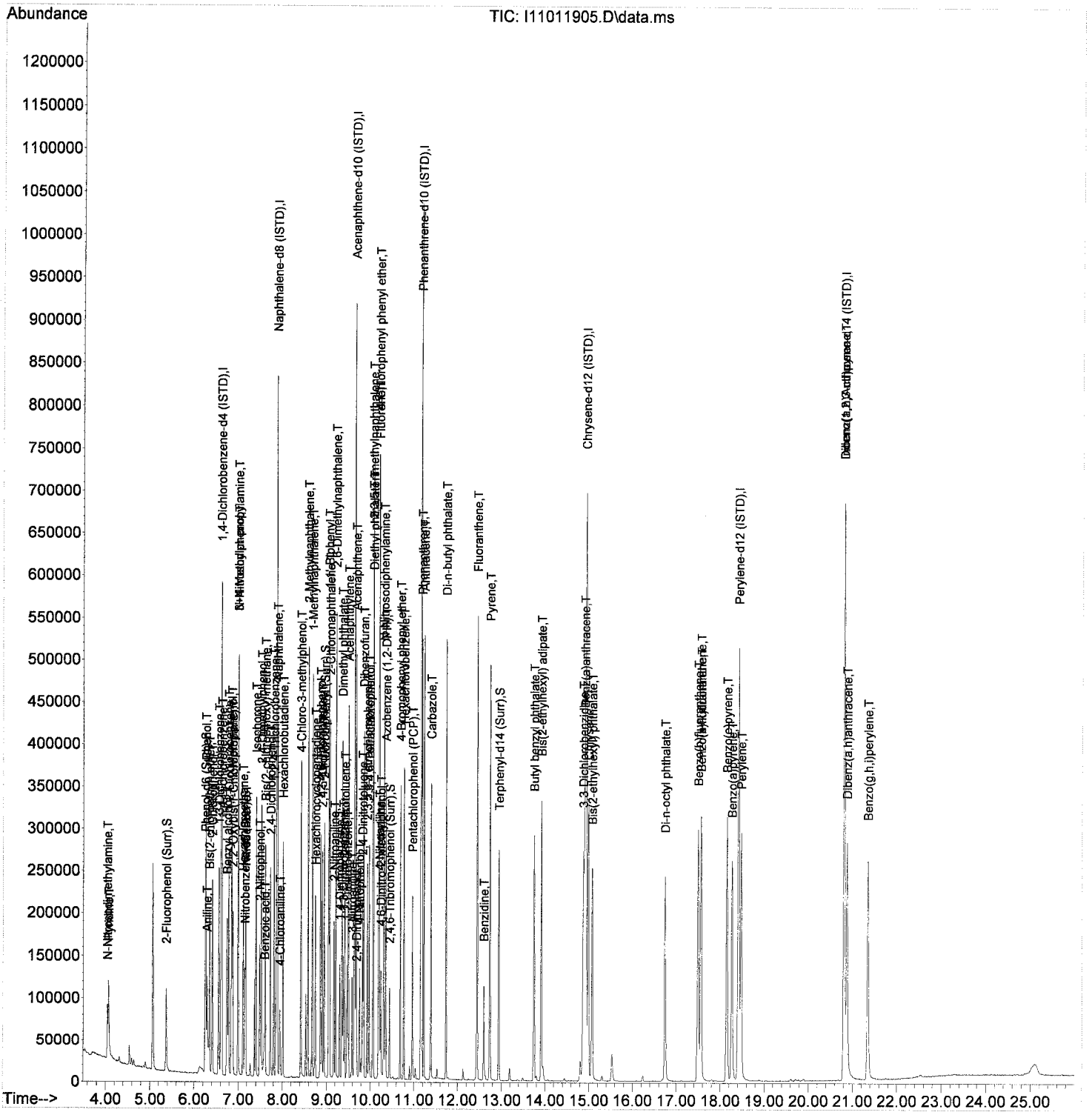
Quant Time: Nov 04 08:56:51 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

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



Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011911.D
Acq On : 1 Nov 2019 3:16 pm
Operator : JK /AMS /DTH
Sample : A9J0954-01@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

R04

AMS 11/4/19

Quant Time: Nov 04 08:57:13 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	119426	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	456517	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	216921	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.151	188	396285	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.927	240	423860	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.420	264	431333	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.816	292	391325	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)	6.252	99	116	1.09	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.140	82	216	2.78	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	543	3.41	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	12.932	244	626	3.04	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	230	2.80	ng/ml#	1
22) Isophorone	7.397	82	153	N.D.		
23) 2-Nitrophenol	7.482	139	55	50.46	ng/ml#	1
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	7.611	93	219	N.D.		
26) Benzoic acid	7.584	105	812	779.72	ng/ml#	29
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.889	128	600929	2562.69	ng/ml	98
30) 4-Chloroaniline	7.889	127	83256	1029.23	ng/ml#	24
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.397	107	61	26.60	ng/ml#	1
33) 2-Methylnaphthalene	8.579	142	237224	1406.58	ng/ml	99
34) 1-Methylnaphthalene	8.680	142	142125	885.16	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	77400	440.94	ng/ml	99
41) 2-Chloronaphthalene	9.055	162	423	3.26	ng/ml#	1
42) 2-Nitroaniline	9.146	138	264	67.05	ng/ml#	1
43) 2,6-Dimethylnaphthalene	9.215	156	65468	493.49	ng/ml	99

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011911.D
Acq On : 1 Nov 2019 3:16 pm
Operator : JK /AMS /DTH
Sample : A9J0954-01@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

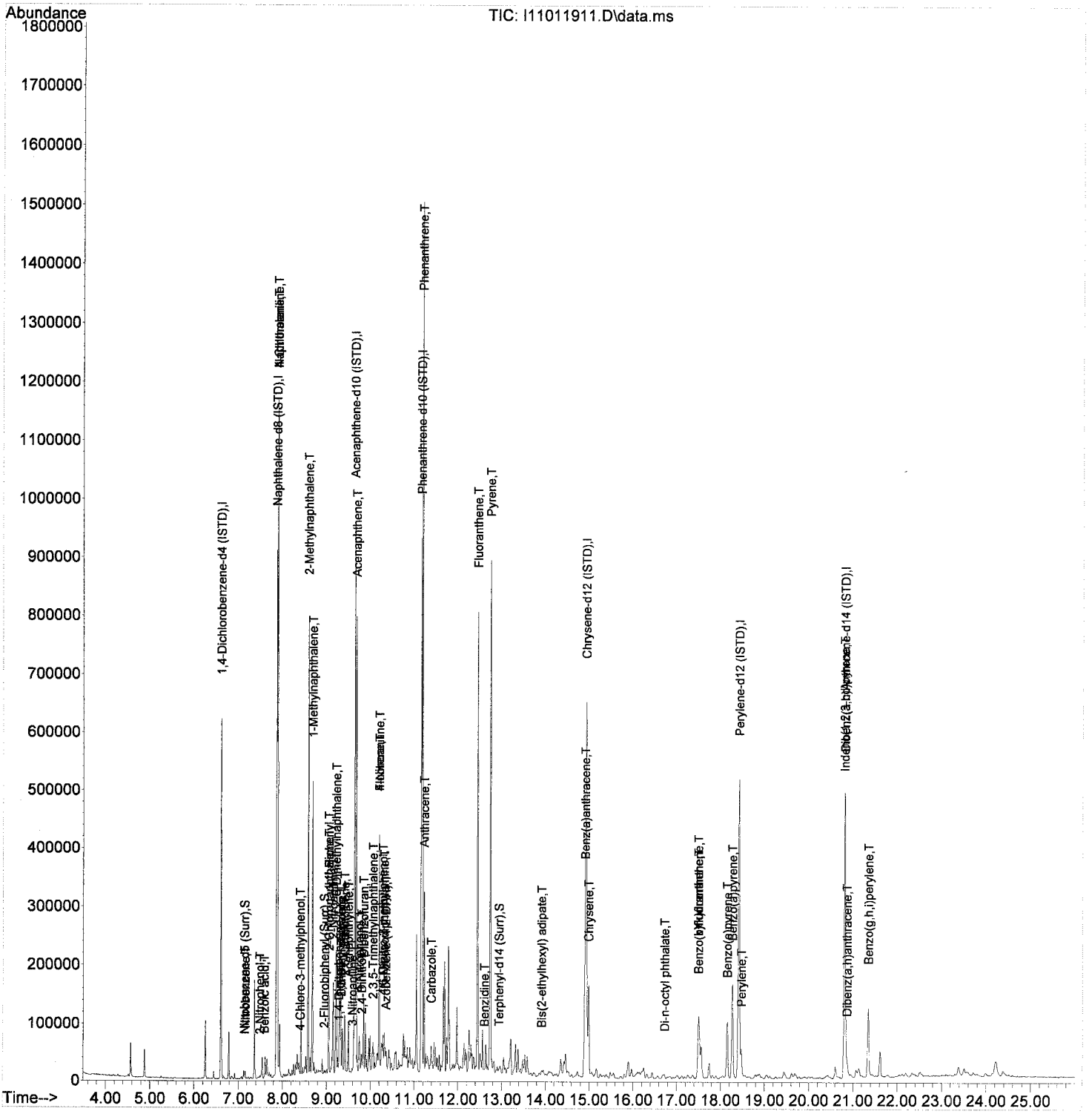
Quant Time: Nov 04 08:57:13 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.274	168	131	138.33	ng/ml#	55
45)	Dimethyl phthalate	9.327	163	536	3.39	ng/ml#	9
46)	1,3-Dinitrobenzene	9.327	168	1051	171.80	ng/ml#	8
47)	2,6-Dinitrotoluene	9.413	165	96	34.84	ng/ml#	1
48)	1,2-Dinitrobenzene	0.000		0	N.D.		
49)	Acenaphthylene	9.493	152	14767	67.99	ng/ml	89
50)	3-Nitroaniline	9.590	138	79	37.55	ng/ml#	38
51)	Acenaphthene	9.675	153	220865	1617.14	ng/ml	100
52)	2,4-Dinitrophenol	0.000		0	N.D.		
53)	4-Nitrophenol	9.745	139	1367	130.41	ng/ml#	62
54)	2,4-Dinitrotoluene	9.798	165	1036	91.99	ng/ml#	55
55)	Dibenzofuran	9.846	168	21177	113.24	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	10.066	149	189	N.D.		
59)	2,3,5-Trimethylnaphtha...	10.055	170	19145	154.59	ng/ml	99
60)	Fluorene	10.194	166	111580	741.72	ng/ml	98
61)	4-Chlorophenyl phenyl ...	0.000		0	N.D.		
62)	4-Nitroaniline	10.194	138	1203	46.93	ng/ml#	35
63)	4,6-Dinitro-2-methylph...	10.280	198	84	154.11	ng/ml#	1
65)	N-Nitrosodiphenylamine	10.312	169	4473	35.96	ng/ml#	41
66)	Azobenzene (1,2-DPH)	10.349	77	797	4.90	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	620649	3002.67	ng/ml	98
72)	Anthracene	11.226	178	123991	608.21	ng/ml	99
73)	Carbazole	11.387	167	15980	88.19	ng/ml	93
74)	Di-n-butyl phthalate	11.734	149	201	N.D.		
75)	Fluoranthene	12.446	202	397775	1632.62	ng/ml	97
76)	Benzidine	12.601	184	295	112.36	ng/ml	68
77)	Pyrene	12.735	202	490628	2064.90	ng/ml	99
80)	Butyl benzyl phthalate	0.000		0	N.D.		
81)	Bis(2-ethylhexyl) adipate	13.911	129	1263	11.82	ng/ml	82
82)	3,3-Dichlorobenzidine	14.901	252	253	Below Cal	#	1
83)	Benz(a)anthracene	14.906	228	113233	461.34	ng/ml	72
84)	Chrysene	14.986	228	119405	537.90	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	15.072	149	74	N.D.		
87)	Di-n-octyl phthalate	16.725	149	58	58.19	ng/ml#	1
88)	Benzo(b)fluoranthene	17.495	252	128569	533.79	ng/ml	98
89)	Benzo(k)fluoranthene	17.495	252	155810	695.76	ng/ml	97
90)	Benzo(b+k)fluoranthene	17.495	252	179316	753.54	ng/ml	97
91)	Benzo(e)pyrene	18.147	252	82132	351.15	ng/ml	99
92)	Benzo(a)pyrene	18.270	252	134499	595.04	ng/ml	97
93)	Perylene	18.474	252	32997	168.59	ng/ml	98
95)	Indeno(1,2,3-cd)pyrene	20.806	276	86310	373.42	ng/ml	92
96)	Dibenz(a,h)anthracene	20.864	278	8789	43.49	ng/ml	93
97)	Benzo(g,h,i)perylene	21.346	276	103290	468.76	ng/ml	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011911.D
Acq On : 1 Nov 2019 3:16 pm
Operator : JK /AMS /DTH
Sample : A9J0954-01@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:13 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 : I11011912.D
Acq On : 1 Nov 2019 3:51 pm
Operator : JK /AMS /DTH
Sample : A9J0954-02@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:17 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

RPA AMS 11/4/19 11/4/19 AMS 11/4/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.605	152	117209	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	461946	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	239244	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.151	188	430954	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.928	240	465325	2000.00 ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.420	264	457499	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.811	292	397503	2000.00 ng/ml	-0.01
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.364	112	59	0.68 ng/ml	0.00
5) Phenol-d6 (Surr)	6.252	99	163	1.56 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.151	82	185	2.43 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	542	3.08 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00 ng/ml	
79) Terphenyl-d14 (Surr)	12.938	244	648	2.87 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	6.995	107	246	3.13 ng/ml	68
18) Hexachloroethane	0.000		0	N.D.	
20) Nitrobenzene	0.000		0	N.D.	
22) Isophorone	0.000		0	N.D.	
23) 2-Nitrophenol	0.000		0	N.D.	
24) 2,4-Dimethylphenol	0.000		0	N.D.	
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.	
26) Benzoic acid	0.000		0	N.D.	
27) 2,4-Dichlorophenol	0.000		0	N.D.	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.	
29) Naphthalene	7.883	128	6116	25.78 ng/ml	96
30) 4-Chloroaniline	7.883	127	780	22.43 ng/ml#	21
31) Hexachlorobutadiene	0.000		0	N.D.	
32) 4-Chloro-3-methylphenol	0.000		0	N.D.	
33) 2-Methylnaphthalene	8.579	142	6754	39.58 ng/ml	99
34) 1-Methylnaphthalene	8.680	142	4681	28.81 ng/ml	97
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	812	4.19 ng/ml	97
41) 2-Chloronaphthalene	9.124	162	219	N.D.	
42) 2-Nitroaniline	0.000		0	N.D.	
43) 2,6-Dimethylnaphthalene	9.215	156	3201	21.88 ng/ml	96

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011912.D
Acq On : 1 Nov 2019 3:51 pm
Operator : JK /AMS /DTH
Sample : A9J0954-02@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

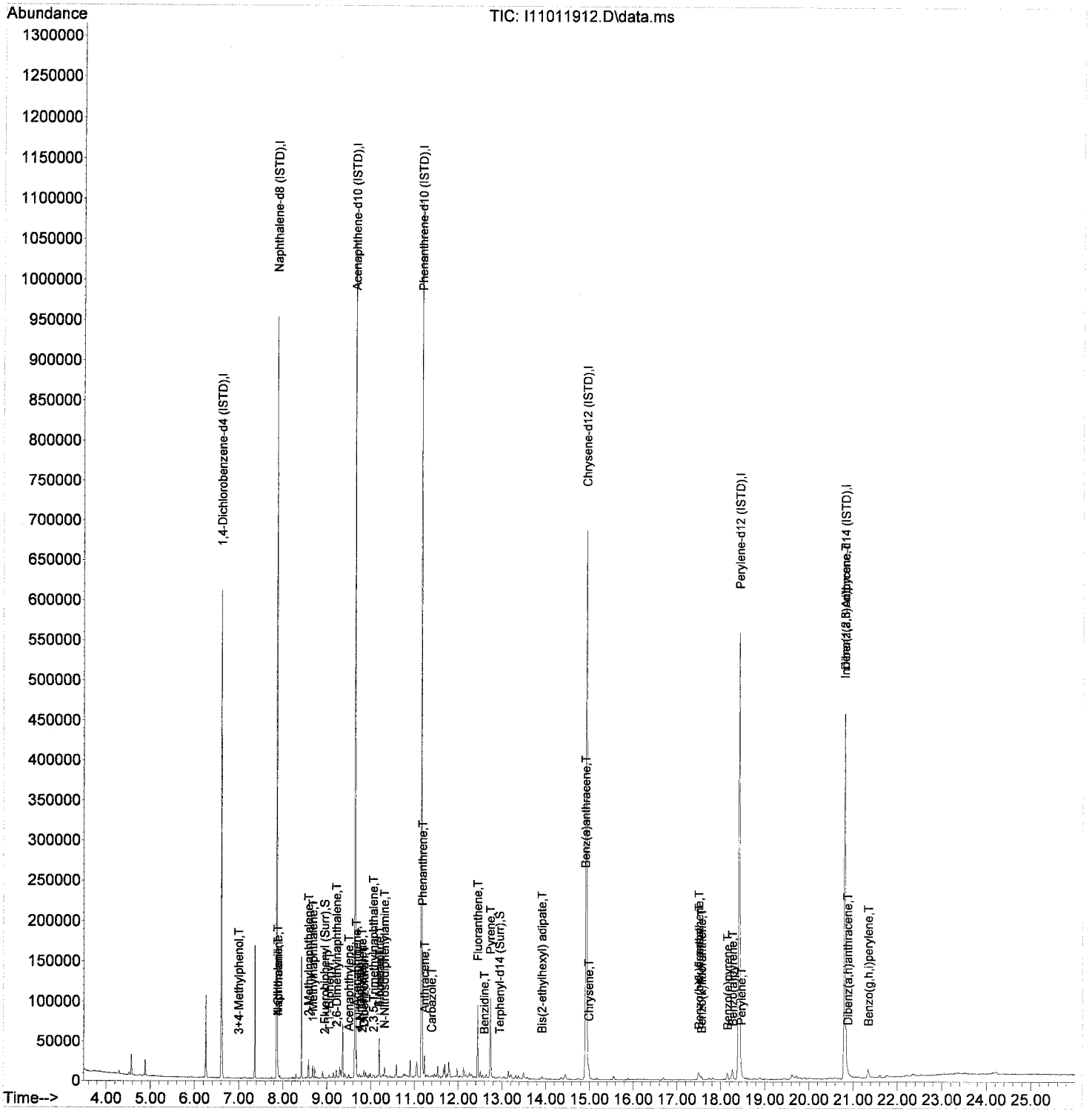
Quant Time: Nov 04 08:57:17 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

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	9.493	152	775	3.24 ng/ml	82
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.670	153	7794	51.74 ng/ml	96
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	9.739	139	142	76.09 ng/ml#	44
54) 2,4-Dinitrotoluene	9.798	165	225	71.84 ng/ml#	20
55) Dibenzofuran	9.841	168	1446	7.01 ng/ml#	75
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	10.055	170	1338	9.80 ng/ml	88
60) Fluorene	10.194	166	6390	38.51 ng/ml	91
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	10.194	138	72	2.55 ng/ml#	23
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	10.306	169	1180	8.72 ng/ml	92
66) Azobenzene (1,2-DPH)	10.354	77	90	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	58798	261.58 ng/ml	100
72) Anthracene	11.226	178	10050	45.33 ng/ml	98
73) Carbazole	11.387	167	754	3.83 ng/ml	83
74) Di-n-butyl phthalate	11.729	149	74	N.D.	
75) Fluoranthene	12.440	202	43807	165.34 ng/ml	97
76) Benzidine	12.590	184	64	109.81 ng/ml	68
77) Pyrene	12.729	202	53932	208.72 ng/ml	99
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.911	129	846	7.21 ng/ml	86
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.906	228	11556	42.89 ng/ml	82
84) Chrysene	14.981	228	11919	48.91 ng/ml	95
85) Bis(2-ethylhexyl) phth...	0.000		0	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	17.500	252	10543	41.27 ng/ml	95
89) Benzo(k)fluoranthene	17.559	252	3244	13.66 ng/ml	91
90) Benzo(b+k)fluoranthene	17.500	252	15064	59.68 ng/ml	94
91) Benzo(e)pyrene	18.147	252	7232	29.15 ng/ml	96
92) Benzo(a)pyrene	18.265	252	11559	55.88 ng/ml	97
93) Perylene	18.463	252	2932	14.12 ng/ml	95
95) Indeno(1,2,3-cd)pyrene	20.806	276	8226	35.04 ng/ml	79
96) Dibenz(a,h)anthracene	20.875	278	899	4.38 ng/ml	97
97) Benzo(g,h,i)perylene	21.341	276	9061	40.48 ng/ml	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011912.D
Acq On : 1 Nov 2019 3:51 pm
Operator : JK /AMS /DTH
Sample : A9J0954-02@1000
Misc : 1000x, 8270D LL FULL LIST CUSTOM
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:17 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 : I11011916.D
Acq On : 1 Nov 2019 6:12 pm
Operator : JK /AMS /DTH
Sample : 9110374-BLK1
Misc : 1x, 8270D PCP LL (SCAN)
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/4/19

Quant Time: Nov 04 08:57:31 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	117548	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	444425	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	230777	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.152	188	428133	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.928	240	473373	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.415	264	452340	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.806	292	408613	2000.00	ng/ml	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.364	112	149938	1732.27	ng/ml	0.00
5) Phenol-d6 (Surr)	6.247	99	125377	1197.02	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	306243	4006.03	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	575035	3391.25	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.440	330	138286	4959.95	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.943	244	860871	3748.09	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.968	74	68	N.D.		
3) Pyridine	4.134	79	1167	10.81	ng/ml#	49
6) Phenol	6.258	94	578	5.21	ng/ml#	1
7) Aniline	6.332	93	336	2.91	ng/ml#	51
8) Bis(2-chloroethyl) ether	6.332	93	336	3.37	ng/ml#	29
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	6.744	108	54	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.846	107	56	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.878	45	97	N.D.		
16) N-Nitrosodi-n-propylamine	7.006	70	65	N.D.		
17) 3+4-Methylphenol	6.996	107	105	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.145	77	1152	14.23	ng/ml#	28
22) Isophorone	7.397	82	151	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	7.563	122	1980	31.55	ng/ml#	5
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	7.616	105	264	765.79	ng/ml#	54
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	7.798	180	52	N.D.		
29) Naphthalene	7.884	128	1724	7.55	ng/ml	95
30) 4-Chloroaniline	7.884	127	219	15.76	ng/ml#	1
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.424	107	111	27.33	ng/ml#	1
33) 2-Methylnaphthalene	8.579	142	540	3.29	ng/ml	92
34) 1-Methylnaphthalene	8.681	142	378	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	9.050	154	1303	6.98	ng/ml	98
41) 2-Chloronaphthalene	9.071	162	61	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	9.210	156	206	N.D.		

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011916.D
Acq On : 1 Nov 2019 6:12 pm
Operator : JK /AMS /DTH
Sample : 9110374-BLK1
Misc : 1x, 8270D PCP LL (SCAN)
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

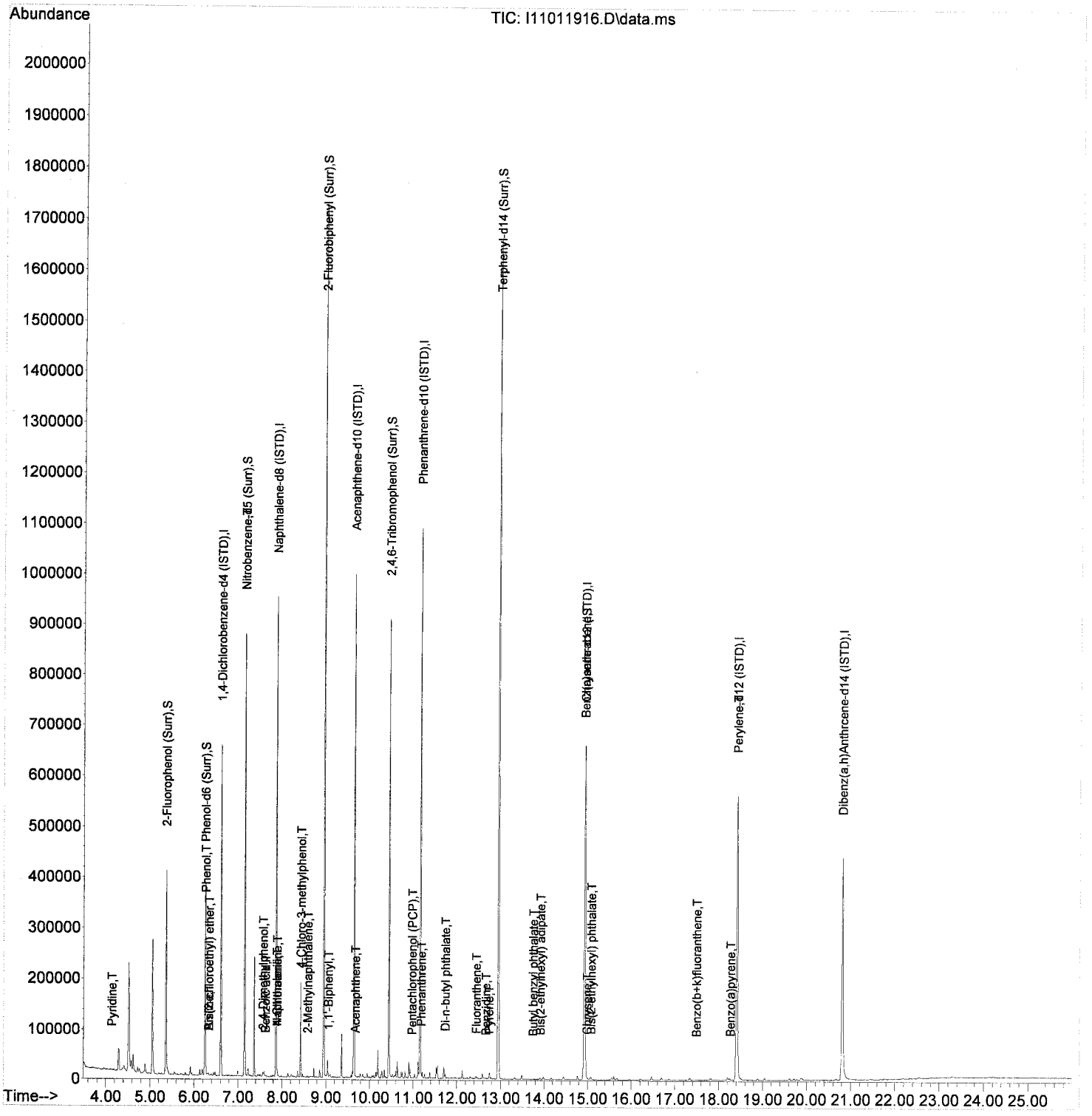
Quant Time: Nov 04 08:57:31 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	9.344	163	208	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	373	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.670	153	447	3.08 ng/ml	95
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	311	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	10.066	149	396	N.D.	
59) 2,3,5-Trimethylnaphtha...	10.050	170	112	N.D.	
60) Fluorene	10.194	166	376	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)	10.360	77	315	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.964	266	172	52.03 ng/ml#	42
71) Phenanthrene	11.173	178	2403	10.76 ng/ml	93
72) Anthracene	11.221	178	276	N.D.	
73) Carbazole	11.382	167	130	N.D.	
74) Di-n-butyl phthalate	11.729	149	3509	13.14 ng/ml	99
75) Fluoranthene	12.441	202	1603	6.09 ng/ml	98
76) Benzidine	12.660	184	192	111.09 ng/ml	76
77) Pyrene	12.729	202	1646	6.41 ng/ml	96
80) Butyl benzyl phthalate	13.740	149	211	27.08 ng/ml#	50
81) Bis(2-ethylhexyl) adipate	13.911	129	946	7.93 ng/ml	92
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.922	228	1803	6.58 ng/ml	79
84) Chrysene	14.981	228	780	3.15 ng/ml	81
85) Bis(2-ethylhexyl) phth...	15.072	149	2587	14.87 ng/ml	93
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	17.490	252	582	N.D.	
89) Benzo(k)fluoranthene	17.554	252	258	N.D.	
90) Benzo(b+k)fluoranthene	17.490	252	840	3.37 ng/ml	77
91) Benzo(e)pyrene	18.142	252	444	N.D.	
92) Benzo(a)pyrene	18.265	252	309	9.85 ng/ml	59
93) Perylene	18.415	252	1694	8.25 ng/ml	73
95) Indeno(1,2,3-cd)pyrene	20.801	276	529	N.D.	
96) Dibenz(a,h)anthracene	20.881	278	59	N.D.	
97) Benzo(g,h,i)perylene	21.330	276	382	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011916.D
Acq On : 1 Nov 2019 6:12 pm
Operator : JK /AMS /DTH
Sample : 9110374-BLK1
Misc : 1x, 8270D PCP LL (SCAN)
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:31 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 : I11011917.D
Acq On : 1 Nov 2019 6:48 pm
Operator : JK /AMS /DTH
Sample : 9110374-BS1@4
Misc : 4x, 8270D PCP LL (SCAN)
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

AMS 11/4/19

Quant Time: Nov 04 08:57:34 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	121842	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	453925	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.643	162	233673	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.152	188	442134	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.933	240	464335	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.420	264	448114	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.817	292	411403	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	44127	491.84	ng/ml	0.00
5) Phenol-d6 (Surr)	6.247	99	38118	351.10	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	80756	1019.16	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	166727	971.08	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.440	330	33875	1258.52	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.938	244	244558	1085.49	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.016	74	16101	223.74	ng/ml	95
3) Pyridine	4.139	79	252	N.D.		
6) Phenol	6.258	94	35081	305.08	ng/ml	95
7) Aniline	6.284	93	538	4.49	ng/ml#	1
8) Bis(2-chloroethyl) ether	6.343	93	69234	668.96	ng/ml	95
9) 2-Chlorophenol	6.402	128	64472	734.00	ng/ml	96
10) 1,3-Dichlorobenzene	6.552	146	30852	316.56	ng/ml	96
11) 1,4-Dichlorobenzene	6.621	146	30844	332.28	ng/ml	99
12) Benzyl alcohol	6.734	108	23197	458.71	ng/ml	97
13) 1,2-Dichlorobenzene	6.771	146	31652	349.88	ng/ml	97
14) 2-Methylphenol	6.841	107	47463	708.80	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.867	45	75752	528.88	ng/ml	88
16) N-Nitrosodi-n-propylamine	6.996	70	50784	720.02	ng/ml	92
17) 3+4-Methylphenol	6.990	107	53086	649.50	ng/ml	98
18) Hexachloroethane	7.108	201	8377	280.87	ng/ml	92
20) Nitrobenzene	7.161	77	64156	764.66	ng/ml	95
22) Isophorone	7.397	82	129681	722.49	ng/ml	98
23) 2-Nitrophenol	7.482	139	33351	846.54	ng/ml	94
24) 2,4-Dimethylphenol	7.514	122	49821	777.20	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.605	93	78573	790.76	ng/ml	99
26) Benzoic acid	7.584	105	15881	1166.46	ng/ml	97
27) 2,4-Dichlorophenol	7.718	162	52659	897.17	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.809	180	30683	401.05	ng/ml	98
29) Naphthalene	7.883	128	119435	512.24	ng/ml	99
30) 4-Chloroaniline	7.937	127	3299	53.56	ng/ml	93
31) Hexachlorobutadiene	8.012	225	12564	297.70	ng/ml	97
32) 4-Chloro-3-methylphenol	8.413	107	52305	752.86	ng/ml	97
33) 2-Methylnaphthalene	8.579	142	88029	524.94	ng/ml	98
34) 1-Methylnaphthalene	8.680	142	84793	531.11	ng/ml	97
36) Hexachlorocyclopentadiene	8.750	237	11446	280.69	ng/ml	98
37) 2,4,6-Trichlorophenol	8.862	196	41564	913.84	ng/ml	98
38) 2,4,5-Trichlorophenol	8.900	198	39200	891.33	ng/ml	98
39) 1,1'-Biphenyl	9.050	154	116974	618.62	ng/ml	99
41) 2-Chloronaphthalene	9.071	162	81438	582.80	ng/ml	97
42) 2-Nitroaniline	9.173	138	37930	896.80	ng/ml	86
43) 2,6-Dimethylnaphthalene	9.210	156	76325	534.09	ng/ml	99

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011917.D
Acq On : 1 Nov 2019 6:48 pm
Operator : JK /AMS /DTH
Sample : 9110374-BS1@4
Misc : 4x, 8270D PCP LL (SCAN)
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:34 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

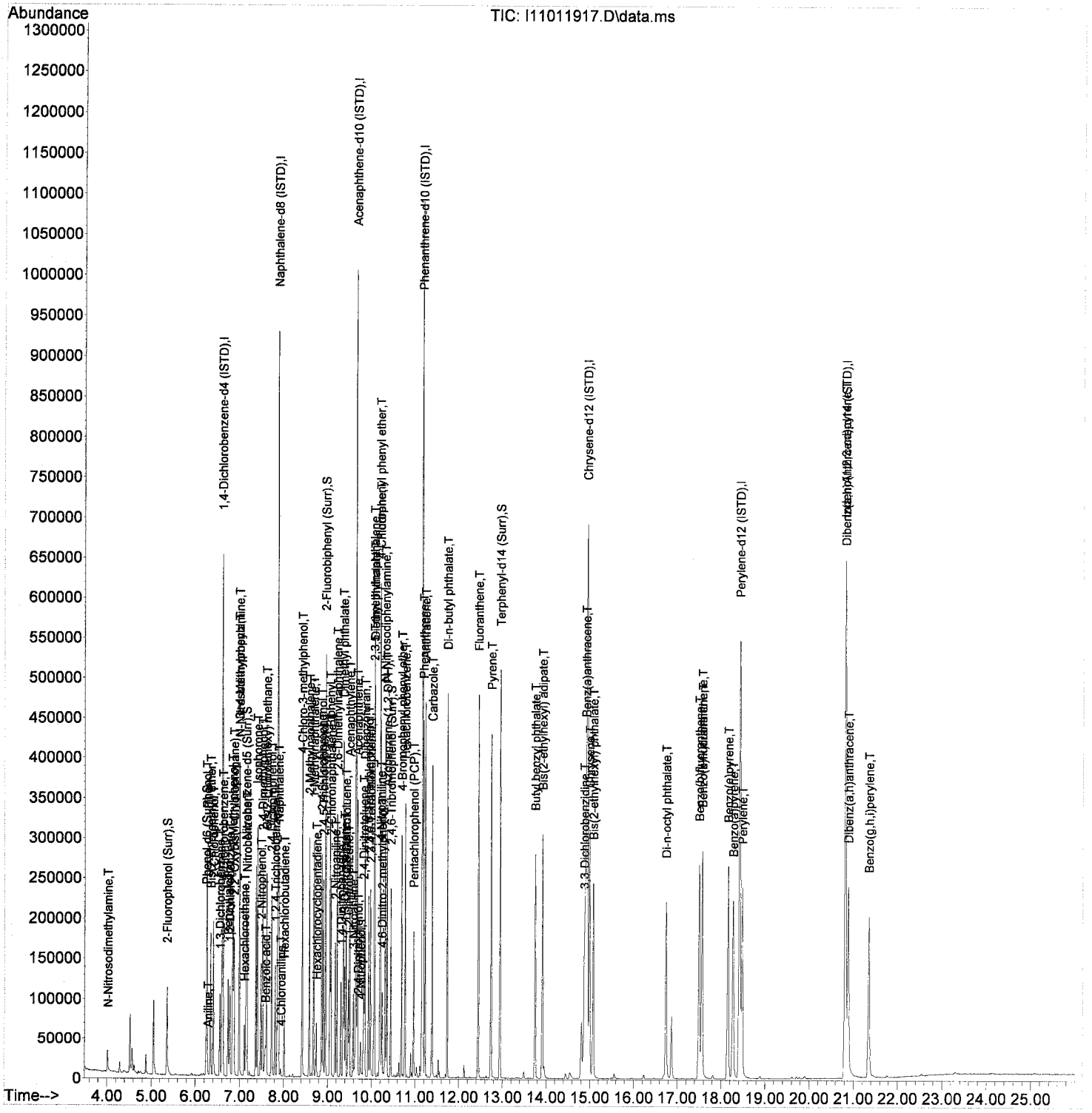
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.301	168	16677	1092.09	ng/ml#	75
45)	Dimethyl phthalate	9.354	163	144928	849.95	ng/ml	99
46)	1,3-Dinitrobenzene	9.381	168	20100	963.83	ng/ml	89
47)	2,6-Dinitrotoluene	9.413	165	30838	888.29	ng/ml	82
48)	1,2-Dinitrobenzene	9.467	168	14150	863.42	ng/ml	82
49)	Acenaphthylene	9.493	152	159324	680.92	ng/ml	99
50)	3-Nitroaniline	9.584	138	17721	540.35	ng/ml	95
51)	Acenaphthene	9.675	153	93896	638.21	ng/ml	99
52)	2,4-Dinitrophenol	9.691	184	8381	1275.61	ng/ml	77
53)	4-Nitrophenol	9.750	139	8761	420.83	ng/ml	88
54)	2,4-Dinitrotoluene	9.820	165	39482	946.86	ng/ml	90
55)	Dibenzofuran	9.846	168	144153	715.59	ng/ml	94
56)	2,3,5,6-Tetrachlorophenol	9.927	232	33921	960.28	ng/ml	93
57)	2,3,4,6-Tetrachlorophenol	9.975	232	34795	922.42	ng/ml	90
58)	Diethyl phthalate	10.066	149	133885	828.52	ng/ml	98
59)	2,3,5-Trimethylnaphtha...	10.055	170	89490	670.81	ng/ml	97
60)	Fluorene	10.194	166	118655	732.21	ng/ml	99
61)	4-Chlorophenyl phenyl ...	10.189	204	59120	736.45	ng/ml	95
62)	4-Nitroaniline	10.205	138	27765	1005.41	ng/ml	94
63)	4,6-Dinitro-2-methylph...	10.237	198	17439	1243.16	ng/ml	89
65)	N-Nitrosodiphenylamine	10.306	169	114718	826.63	ng/ml	99
66)	Azobenzene (1,2-DPH)	10.349	77	114229	629.39	ng/ml	92
68)	4-Bromophenyl phenyl e...	10.686	248	42357	816.88	ng/ml	97
69)	Hexachlorobenzene	10.766	284	54534	889.61	ng/ml	94
70)	Pentachlorophenol (PCP)	10.959	266	26070	935.17	ng/ml	98
71)	Phenanthrene	11.178	178	188261	816.35	ng/ml	99
72)	Anthracene	11.226	178	189755	834.28	ng/ml	100
73)	Carbazole	11.387	167	183273	906.53	ng/ml	98
74)	Di-n-butyl phthalate	11.729	149	232276	841.99	ng/ml	99
75)	Fluoranthene	12.441	202	245687	903.83	ng/ml	98
76)	Benzidine	0.000		0	N.D.		
77)	Pyrene	12.735	202	249558	941.40	ng/ml	98
80)	Butyl benzyl phthalate	13.740	149	99556	761.47	ng/ml	92
81)	Bis(2-ethylhexyl) adipate	13.911	129	86904	742.30	ng/ml	99
82)	3,3-Dichlorobenzidine	14.869	252	90250	2117.62	ng/ml	98
83)	Benz(a)anthracene	14.906	228	237891	884.74	ng/ml	99
84)	Chrysene	14.986	228	207170	851.92	ng/ml	98
85)	Bis(2-ethylhexyl) phth...	15.072	149	121625	712.72	ng/ml	98
87)	Di-n-octyl phthalate	16.741	149	213133	761.59	ng/ml	97
88)	Benzo(b)fluoranthene	17.495	252	235513	941.19	ng/ml	98
89)	Benzo(k)fluoranthene	17.565	252	227661	978.53	ng/ml	97
90)	Benzo(b+k)fluoranthene	17.565	252	475265	1922.42	ng/ml	97
91)	Benzo(e)pyrene	18.153	252	216843	892.37	ng/ml	99
92)	Benzo(a)pyrene	18.271	252	189011	803.23	ng/ml	97
93)	Perylene	18.479	252	185175	910.67	ng/ml	99
95)	Indeno(1,2,3-cd)pyrene	20.811	276	186424	767.19	ng/ml	93
96)	Dibenz(a,h)anthracene	20.881	278	180449	849.36	ng/ml	97
97)	Benzo(g,h,i)perylene	21.346	276	180655	779.85	ng/ml	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011917.D
Acq On : 1 Nov 2019 6:48 pm
Operator : JK /AMS /DTH
Sample : 9110374-BS1@4
Misc : 4x, 8270D PCP LL (SCAN)
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:34 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 : I11011918.D
Acq On : 1 Nov 2019 7:23 pm
Operator : JK /AMS /DTH
Sample : 9110374-BSD1@4
Misc : 4x, 8270D PCP LL (SCAN)
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Q-19

AMS 11/4/19

Quant Time: Nov 04 08:57:37 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	120681	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	454314	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.643	162	235287	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.151	188	447122	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.933	240	462883	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.420	264	451963	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.816	292	416168	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.359	112	34930	393.08	ng/ml	0.00
5) Phenol-d6 (Surr)	6.247	99	29657	275.79	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	76564	975.55	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	151415	875.85	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.440	330	33608	1235.52	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.938	244	240111	1069.10	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.027	74	12517	175.61	ng/ml	92
3) Pyridine	0.000		0	N.D.		
6) Phenol	6.257	94	26556	233.17	ng/ml	99
7) Aniline	6.295	93	608	5.13	ng/ml	70
8) Bis(2-chloroethyl) ether	6.343	93	62651	611.17	ng/ml	94
9) 2-Chlorophenol	6.402	128	56372	647.96	ng/ml	97
10) 1,3-Dichlorobenzene	6.552	146	19523	202.25	ng/ml	99
11) 1,4-Dichlorobenzene	6.621	146	19341	210.36	ng/ml	99
12) Benzyl alcohol	6.733	108	19267	384.66	ng/ml	97
13) 1,2-Dichlorobenzene	6.776	146	20842	232.61	ng/ml	93
14) 2-Methylphenol	6.840	107	38785	584.78	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.867	45	60775	428.40	ng/ml	88
16) N-Nitrosodi-n-propylamine	6.995	70	46769	669.48	ng/ml	91
17) 3+4-Methylphenol	6.990	107	45275	559.27	ng/ml	95
18) Hexachloroethane	7.108	201	4964	168.04	ng/ml	97
20) Nitrobenzene	7.161	77	57921	696.99	ng/ml	97
22) Isophorone	7.397	82	123495	687.44	ng/ml	96
23) 2-Nitrophenol	7.482	139	30989	789.82	ng/ml	90
24) 2,4-Dimethylphenol	7.514	122	40909	637.62	ng/ml	99
25) Bis(2-chloroethoxy) me...	7.605	93	74306	747.17	ng/ml	99
26) Benzoic acid	7.578	105	10547	1030.21	ng/ml	96
27) 2,4-Dichlorophenol	7.718	162	48669	829.78	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.803	180	18684	244.01	ng/ml	97
29) Naphthalene	7.883	128	81560	349.50	ng/ml	100
30) 4-Chloroaniline	7.937	127	2767	47.00	ng/ml	91
31) Hexachlorobutadiene	8.012	225	7595	179.81	ng/ml	97
32) 4-Chloro-3-methylphenol	8.413	107	48970	705.94	ng/ml	98
33) 2-Methylnaphthalene	8.579	142	57266	341.20	ng/ml	98
34) 1-Methylnaphthalene	8.680	142	56289	352.27	ng/ml	98
36) Hexachlorocyclopentadiene	8.750	237	5771	140.55	ng/ml	90
37) 2,4,6-Trichlorophenol	8.862	196	38594	845.10	ng/ml	97
38) 2,4,5-Trichlorophenol	8.900	198	38520	870.40	ng/ml	97
39) 1,1'-Biphenyl	9.049	154	79821	419.24	ng/ml	99
41) 2-Chloronaphthalene	9.071	162	55570	394.95	ng/ml	96
42) 2-Nitroaniline	9.167	138	38134	895.55	ng/ml	90
43) 2,6-Dimethylnaphthalene	9.210	156	47752	331.85	ng/ml	100

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011918.D
Acq On : 1 Nov 2019 7:23 pm
Operator : JK /AMS /DTH
Sample : 9110374-BSD1@4
Misc : 4x, 8270D PCP LL (SCAN)
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

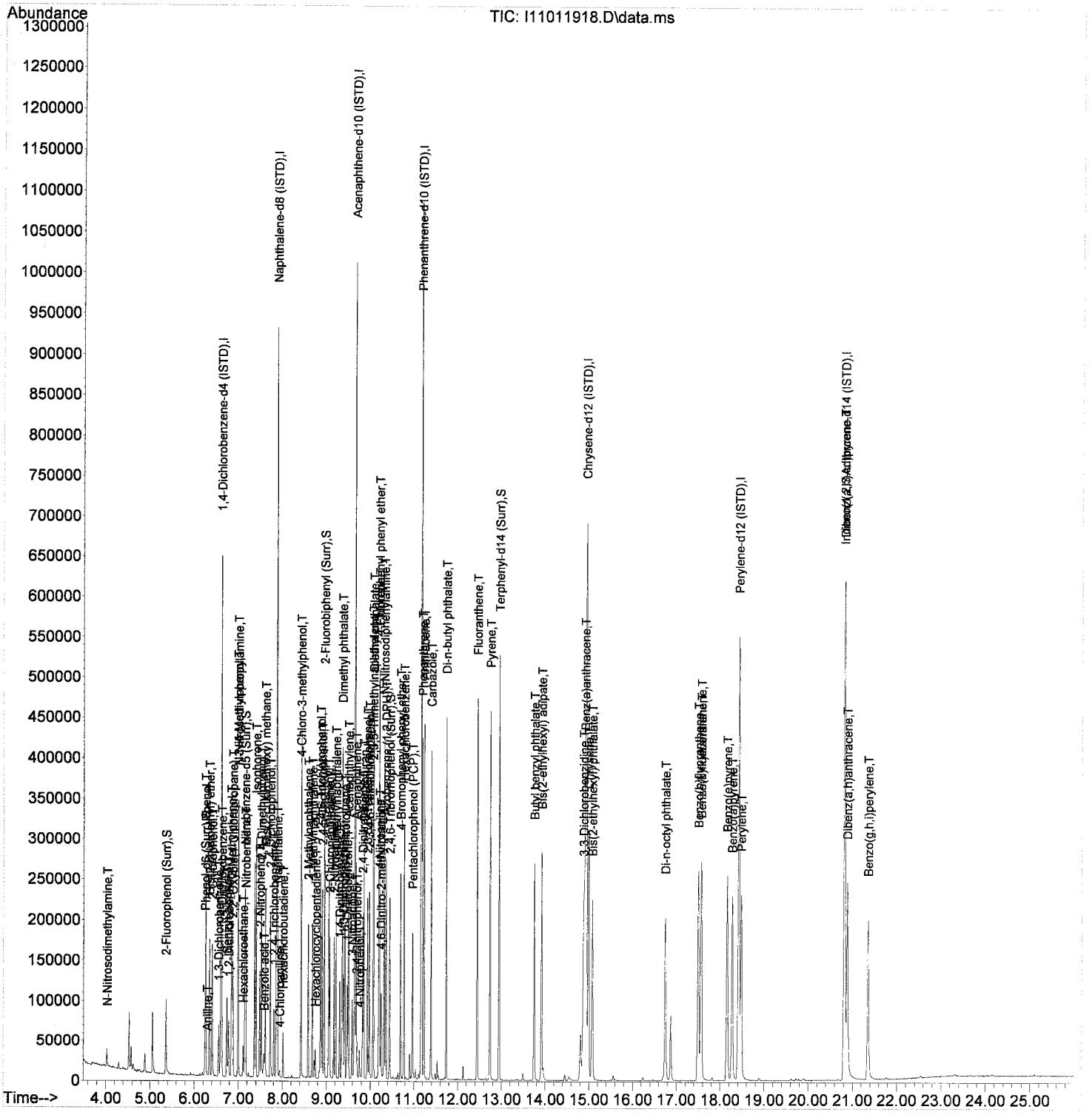
Quant Time: Nov 04 08:57:37 2019
Quant Method : C:\msdchem\1\methods\SV9_101619R1.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Thu Oct 31 15:02:51 2019
Response via : Initial Calibration
InstName : SV-GCMS9

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.295	168	17422	1126.17	ng/ml	83
45)	Dimethyl phthalate	9.354	163	143627	836.54	ng/ml	99
46)	1,3-Dinitrobenzene	9.381	168	20413	970.98	ng/ml	87
47)	2,6-Dinitrotoluene	9.413	165	30452	871.81	ng/ml	82
48)	1,2-Dinitrobenzene	9.467	168	14034	851.33	ng/ml#	76
49)	Acenaphthylene	9.493	152	124159	527.00	ng/ml	100
50)	3-Nitroaniline	9.584	138	18122	548.87	ng/ml	90
51)	Acenaphthene	9.670	153	70553	476.26	ng/ml	99
52)	2,4-Dinitrophenol	9.686	184	8388	1270.30	ng/ml	92
53)	4-Nitrophenol	9.750	139	6990	349.32	ng/ml	92
54)	2,4-Dinitrotoluene	9.820	165	39661	944.81	ng/ml	85
55)	Dibenzofuran	9.846	168	114626	565.11	ng/ml	93
56)	2,3,5,6-Tetrachlorophenol	9.927	232	32814	924.48	ng/ml	97
57)	2,3,4,6-Tetrachlorophenol	9.969	232	34334	904.49	ng/ml	96
58)	Diethyl phthalate	10.066	149	132383	813.60	ng/ml	98
59)	2,3,5-Trimethylnaphtha...	10.055	170	64151	477.57	ng/ml	98
60)	Fluorene	10.194	166	101511	622.12	ng/ml	98
61)	4-Chlorophenyl phenyl ...	10.189	204	44732	553.40	ng/ml	96
62)	4-Nitroaniline	10.205	138	25987	934.57	ng/ml	96
63)	4,6-Dinitro-2-methylph...	10.237	198	17361	1231.74	ng/ml	90
65)	N-Nitrosodiphenylamine	10.306	169	111056	791.31	ng/ml	99
66)	Azobenzene (1,2-DPH)	10.349	77	103216	562.37	ng/ml	91
68)	4-Bromophenyl phenyl e...	10.686	248	35751	681.79	ng/ml	96
69)	Hexachlorobenzene	10.766	284	51080	823.97	ng/ml	93
70)	Pentachlorophenol (PCP)	10.959	266	25710	913.70	ng/ml	98
71)	Phenanthrene	11.178	178	175812	753.86	ng/ml	100
72)	Anthracene	11.226	178	180665	785.46	ng/ml	99
73)	Carbazole	11.387	167	177465	868.01	ng/ml	98
74)	Di-n-butyl phthalate	11.729	149	230806	827.33	ng/ml	99
75)	Fluoranthene	12.440	202	240256	873.99	ng/ml	98
76)	Benzidine	0.000		0	N.D.		
77)	Pyrene	12.735	202	245694	916.48	ng/ml	99
80)	Butyl benzyl phthalate	13.745	149	98029	752.56	ng/ml	90
81)	Bis(2-ethylhexyl) adipate	13.917	129	83820	718.20	ng/ml	99
82)	3,3-Dichlorobenzidine	14.874	252	99080	2372.78	ng/ml	97
83)	Benz(a)anthracene	14.906	228	235330	877.96	ng/ml	99
84)	Chrysene	14.986	228	205739	848.68	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	15.072	149	118478	696.45	ng/ml	99
87)	Di-n-octyl phthalate	16.746	149	202437	720.67	ng/ml	96
88)	Benzo(b)fluoranthene	17.500	252	230514	913.36	ng/ml	98
89)	Benzo(k)fluoranthene	17.564	252	224753	957.81	ng/ml	98
90)	Benzo(b+k)fluoranthene	17.564	252	467366	1874.37	ng/ml	98
91)	Benzo(e)pyrene	18.153	252	218116	889.97	ng/ml	98
92)	Benzo(a)pyrene	18.270	252	187052	788.20	ng/ml	96
93)	Perylene	18.474	252	182795	891.31	ng/ml	100
95)	Indeno(1,2,3-cd)pyrene	20.811	276	183844	747.91	ng/ml	95
96)	Dibenz(a,h)anthracene	20.881	278	178277	829.53	ng/ml	99
97)	Benzo(g,h,i)perylene	21.351	276	175075	747.11	ng/ml	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011918.D
Acq On : 1 Nov 2019 7:23 pm
Operator : JK /AMS /DTH
Sample : 9110374-BSD1@4
Misc : 4x, 8270D PCP LL (SCAN)
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:37 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 : I11011920.D
Acq On : 1 Nov 2019 8:34 pm
Operator : JK /AMS /DTH
Sample : A9J0954-02RE1@40
Misc : 40x, 8270D LL FULL LIST CUSTOM
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Reg AMS 11/4/19

AMS 11/4/19

Quant Time: Nov 04 08:57:45 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	122763	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.862	136	460143	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.638	162	221247	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.157	188	392762	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.938	240	418002	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.431	264	435368	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.827	292	392590	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.354	112	2882	31.88	ng/ml	-0.01
5) Phenol-d6 (Surr)	6.247	99	3953	36.14	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.145	82	3689	46.21	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.948	172	8892	54.70	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.440	330	1223	73.92	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.938	244	10503	51.79	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	6.252	94	453	3.91	ng/ml#	40
7) Aniline	6.284	93	677	5.61	ng/ml	67
8) Bis(2-chloroethyl) ether	6.284	93	677	6.49	ng/ml#	30
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	6.846	107	126	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	6.985	70	183	2.58	ng/ml	59
17) 3+4-Methylphenol	6.990	107	5959	72.36	ng/ml	89
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.167	77	195	N.D.		
22) Isophorone	7.391	82	747	4.11	ng/ml#	1
23) 2-Nitrophenol	7.488	139	140	52.47	ng/ml#	1
24) 2,4-Dimethylphenol	7.525	122	127	N.D.		
25) Bis(2-chloroethoxy) me...	7.616	93	221	N.D.		
26) Benzoic acid	7.584	105	475	770.94	ng/ml#	46
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.883	128	86262	364.97	ng/ml	99
30) 4-Chloroaniline	7.985	127	158	14.93	ng/ml#	57
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.408	107	172	28.11	ng/ml#	1
33) 2-Methylnaphthalene	8.579	142	112171	659.86	ng/ml	99
34) 1-Methylnaphthalene	8.680	142	74231	458.67	ng/ml	98
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	8.862	196	195	31.49	ng/ml#	11
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	9.049	154	12203	68.16	ng/ml	94
41) 2-Chloronaphthalene	9.055	162	330	N.D.		
42) 2-Nitroaniline	9.189	138	79	62.58	ng/ml#	3
43) 2,6-Dimethylnaphthalene	9.215	156	52571	388.53	ng/ml	98

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011920.D
Acq On : 1 Nov 2019 8:34 pm
Operator : JK /AMS /DTH
Sample : A9J0954-02RE1@40
Misc : 40x, 8270D LL FULL LIST CUSTOM
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:45 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

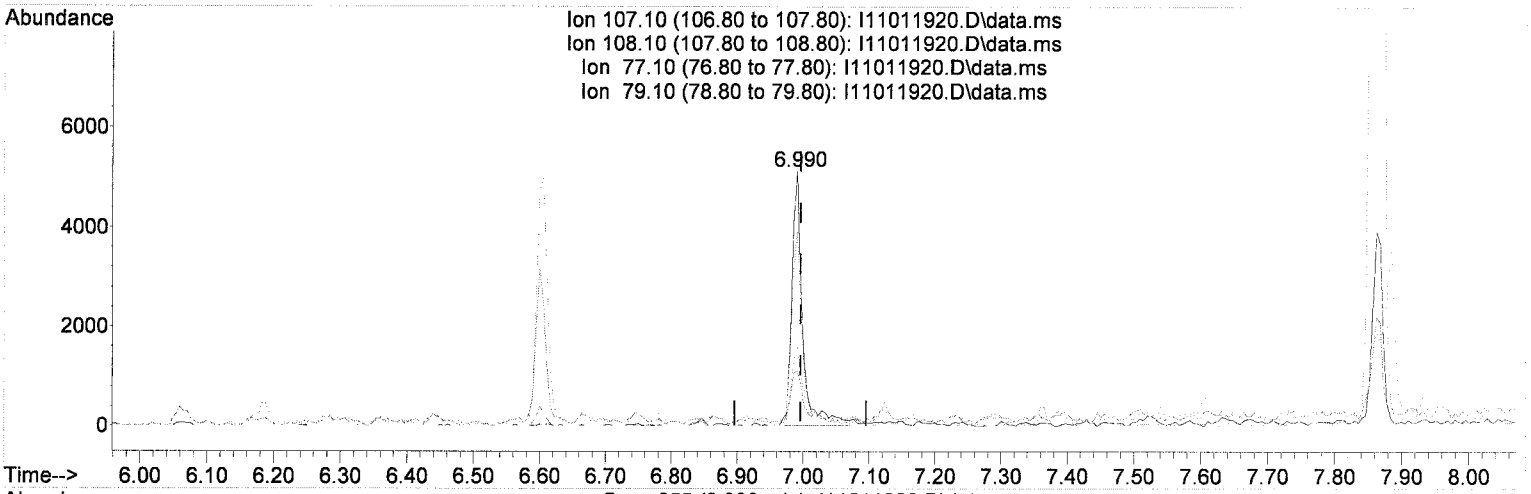
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
44)	1,4-Dinitrobenzene	9.274	168	275	147.45 ng/ml#	61	
45)	Dimethyl phthalate	9.354	163	109	N.D.		
46)	1,3-Dinitrobenzene	9.392	168	118	129.33 ng/ml#	1	
47)	2,6-Dinitrotoluene	9.451	165	69	33.99 ng/ml	89	
48)	1,2-Dinitrobenzene	9.488	168	117	64.73 ng/ml#	1	
49)	Acenaphthylene	9.493	152	11319	51.09 ng/ml	81	
50)	3-Nitroaniline	9.595	138	73	37.34 ng/ml#	69	
51)	Acenaphthene	9.670	153	115890	831.94 ng/ml	99	
52)	2,4-Dinitrophenol	9.659	184	91	172.74 ng/ml#	1	
53)	4-Nitrophenol	9.739	139	1883	151.33 ng/ml#	55	
54)	2,4-Dinitrotoluene	9.798	165	1407	100.31 ng/ml#	55	MDL=MRL
55)	Dibenzofuran	9.846	168	19052	99.89 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	22390	177.26 ng/ml	96	
60)	Fluorene	10.194	166	94221	614.08 ng/ml	98	
61)	4-Chlorophenyl phenyl ...	10.135	204	140	N.D.		
62)	4-Nitroaniline	10.194	138	1149	43.94 ng/ml#	44	
63)	4,6-Dinitro-2-methylph...	10.226	198	80	153.70 ng/ml#	1	
65)	N-Nitrosodiphenylamine	10.312	169	17523	142.14 ng/ml	89	
66)	Azobenzene (1,2-DPH)	10.360	77	448	2.78 ng/ml#	1	
68)	4-Bromophenyl phenyl e...	10.692	248	91	N.D.		
69)	Hexachlorobenzene	0.000		0	N.D.		
70)	Pentachlorophenol (PCP)	10.964	266	211	54.13 ng/ml	89	
71)	Phenanthrene	11.184	178	702601	3429.64 ng/ml	97	
72)	Anthracene	11.226	178	150802	746.37 ng/ml	98	
73)	Carbazole	11.387	167	11284	62.83 ng/ml	96	
74)	Di-n-butyl phthalate	11.735	149	448	N.D.		
75)	Fluoranthene	12.451	202	551117	2282.29 ng/ml	97	
76)	Benzidine	12.622	184	165	110.97 ng/ml#	1	
77)	Pyrene	12.740	202	665589	2826.39 ng/ml	99	
80)	Butyl benzyl phthalate	13.751	149	141	26.70 ng/ml#	60	
81)	Bis(2-ethylhexyl) adipate	13.922	129	668	6.34 ng/ml	43	
82)	3,3-Dichlorobenzidine	14.896	252	177	Below Cal #	1	
83)	Benz(a)anthracene	14.912	228	165362	683.17 ng/ml	66	
84)	Chrysene	14.992	228	180092	822.65 ng/ml	99	
85)	Bis(2-ethylhexyl) phth...	15.088	149	395	2.57 ng/ml	80	
87)	Di-n-octyl phthalate	16.746	149	83	58.27 ng/ml#	1	
88)	Benzo(b)fluoranthene	17.511	252	188273	774.43 ng/ml	96	
89)	Benzo(k)fluoranthene	17.570	252	57445	254.14 ng/ml	95	
90)	Benzo(b+k)fluoranthene	17.511	252	283124	1178.75 ng/ml	96	
91)	Benzo(e)pyrene	18.158	252	121783	515.85 ng/ml	99	
92)	Benzo(a)pyrene	18.281	252	198029	865.96 ng/ml	99	
93)	Perylene	18.484	252	50486	255.55 ng/ml	99	
95)	Indeno(1,2,3-cd)pyrene	20.822	276	128829	555.58 ng/ml	90	
96)	Dibenz(a,h)anthracene	20.881	278	15001	73.99 ng/ml	97	
97)	Benzo(g,h,i)perylene	21.362	276	158349	716.32 ng/ml	93	

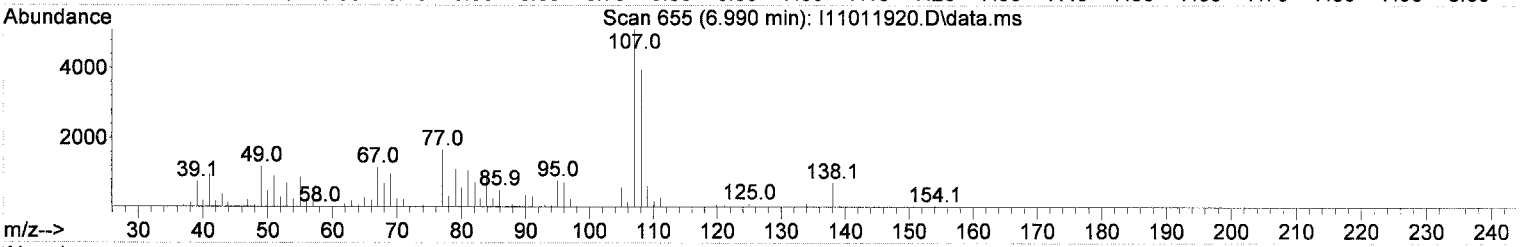
(#) = qualifier out of range (m) = manual integration (+) = signals summed

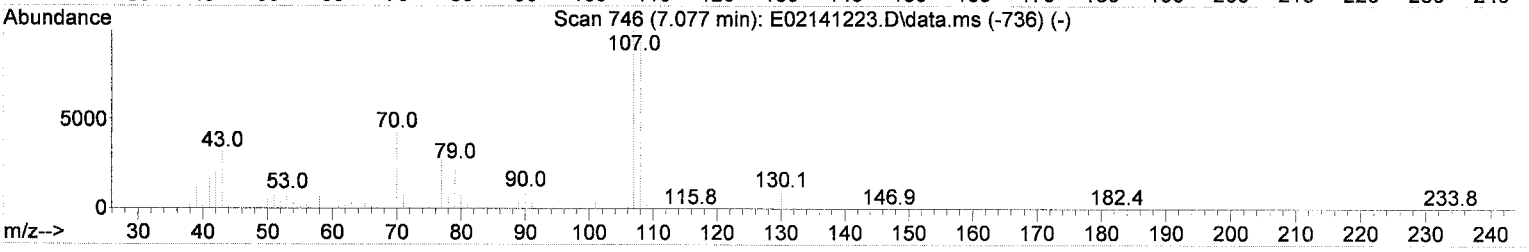
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011920.D
Acq On : 1 Nov 2019 8:34 pm
Operator : JK /AMS /DTH
Sample : A9J0954-02RE1@40
Misc : 40x, 8270D LL FULL LIST CUSTOM
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:45 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







TIC: I11011920.D\data.ms

(17) 3+4-Methylphenol (T)

6.990min (-0.005) 72.36 ng/ml

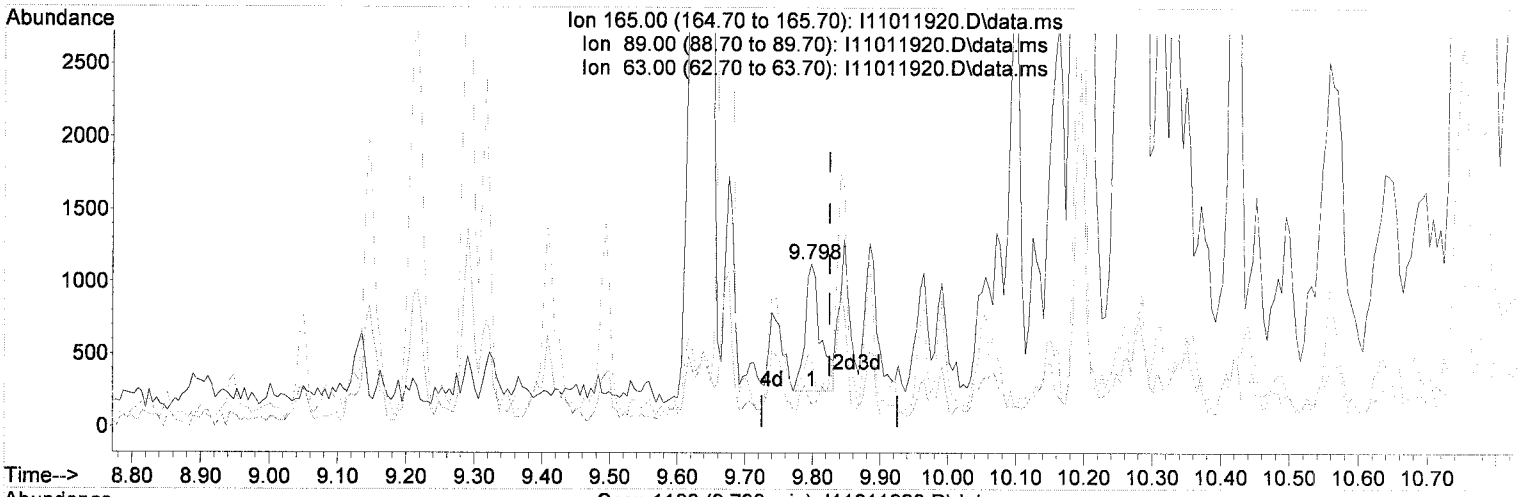
response 5959

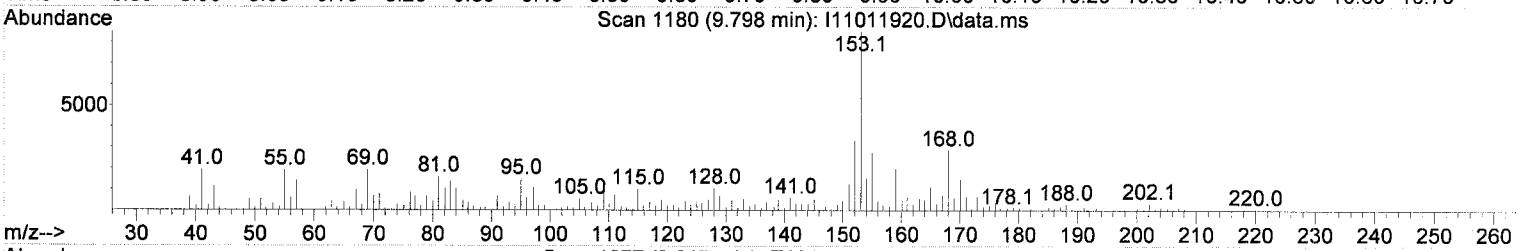
Ion	Exp%	Act%
107.10	100.00	100.00
108.10	90.30	77.42
77.10	32.40	32.39
79.10	28.80	21.80

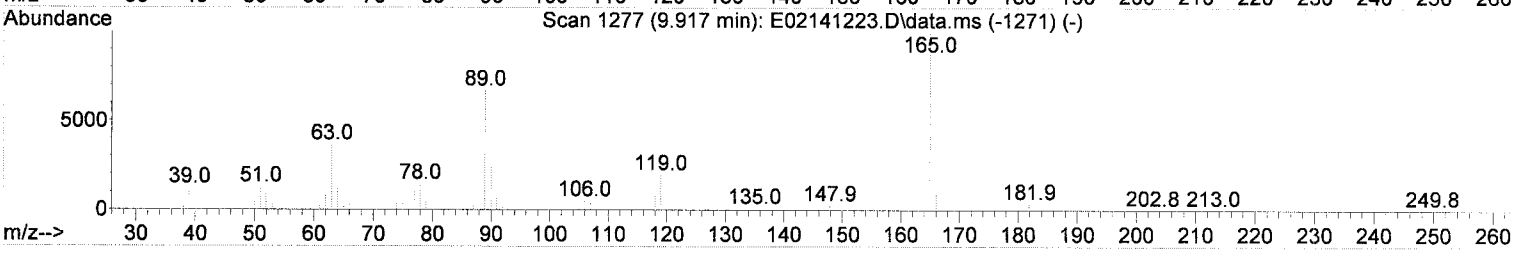
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011920.D
Acq On : 1 Nov 2019 8:34 pm
Operator : JK /AMS /DTH
Sample : A9J0954-02RE1@40
Misc : 40x, 8270D LL FULL LIST CUSTOM
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:45 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







TIC: I11011920.D\data.ms

(54) 2,4-Dinitrotoluene (T)

9.798min (-0.027) 100.31 ng/ml

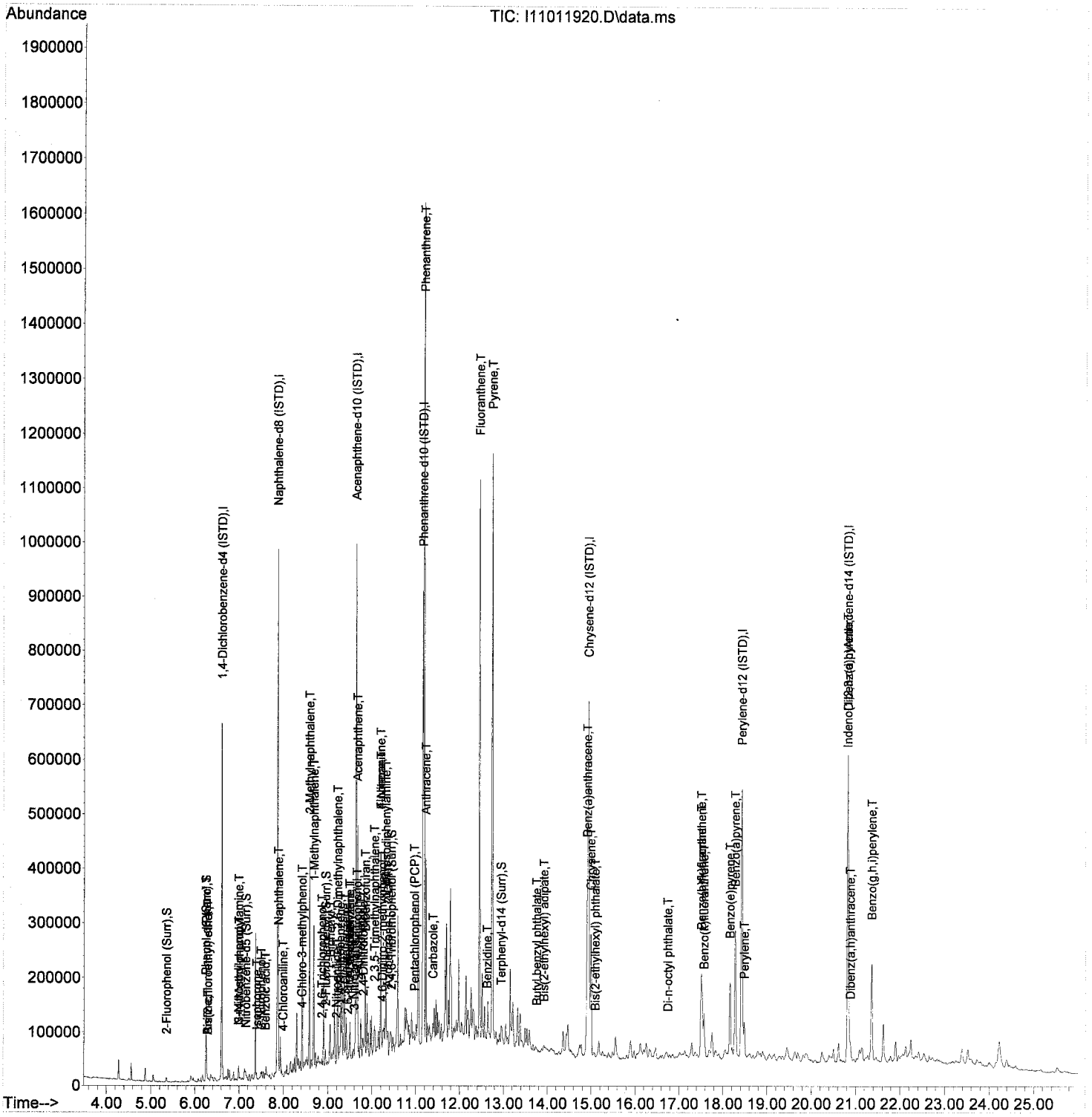
response 1407

Ion	Exp%	Act%
165.00	100.00	100.00
89.00	72.30	14.08#
63.00	45.90	42.34
0.00	0.00	0.00

MDL-MRL

Data Path : C:\msdchem\1\data\2019-11\9K01021\
Data File : I11011920.D
Acq On : 1 Nov 2019 8:34 pm
Operator : JK /AMS /DTH
Sample : A9J0954-02RE1@40
Misc : 40x, 8270D LL FULL LIST CUSTOM
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:SV9_AQUISITION.M

Quant Time: Nov 04 08:57:45 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:	**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

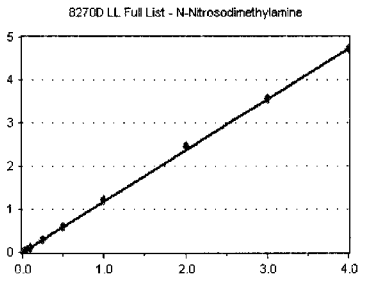
Element Calibration Review Sheet

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**

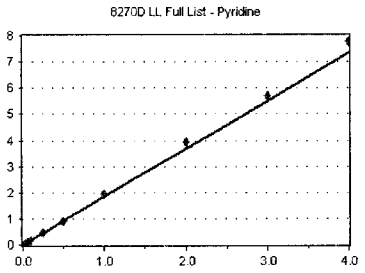


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1227	1.106	4.13
9J16053-CAL2	50	3526	1.227	4.08
9J16053-CAL3	100	6638	1.169	4.09
9J16053-CAL4	200	13447	1.119	4.06
9J16053-CAL5	500	32984	1.196	4.09
9J16053-CAL6	1000	63705	1.172	4.08
9J16053-CAL7	2000	130513	1.226	4.06
9J16053-CAL8	4000	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**

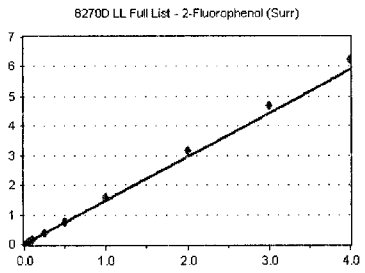


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~855~~	~~0.771~~	~~4.19~~
9J16053-CAL2	50	4710	1.639	4.12
9J16053-CAL3	100	9792	1.725	4.12
9J16053-CAL4	200	20595	1.714	4.09
9J16053-CAL5	500	50729	1.839	4.11
9J16053-CAL6	1000	100642	1.852	4.09
9J16053-CAL7	2000	206511	1.940	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**

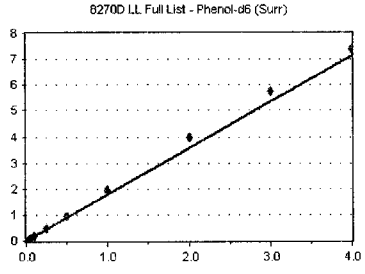


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1500	1.352	5.42
9J16053-CAL2	50	3881	1.350	5.41
9J16053-CAL3	100	7618	1.342	5.41
9J16053-CAL4	200	16598	1.381	5.40
9J16053-CAL5	500	41291	1.497	5.41
9J16053-CAL6	1000	81539	1.500	5.41
9J16053-CAL7	2000	168171	1.579	5.40
9J16053-CAL8	4000	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**

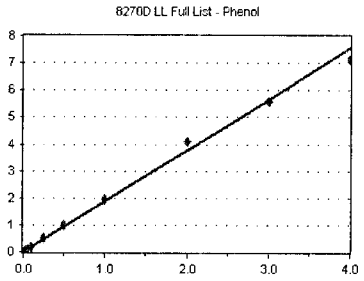
Element Calibration Review Sheet

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**

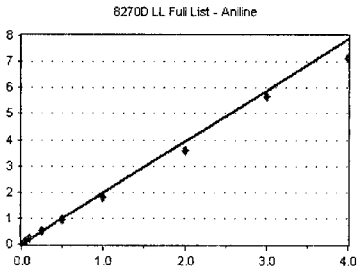


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2030	1.830	6.31
9J16053-CAL2	50	5478	1.906	6.31
9J16053-CAL3	100	10339	1.821	6.31
9J16053-CAL4	200	20713	1.724	6.30
9J16053-CAL5	500	55173	2.001	6.31
9J16053-CAL6	1000	105930	1.949	6.31
9J16053-CAL7	2000	208278	1.956	6.31
9J16053-CAL8	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**

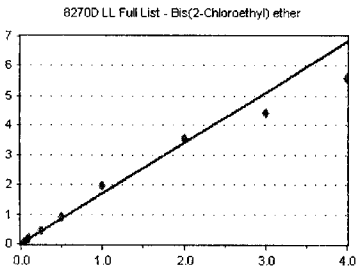


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1021~~	~~0.921~~	~~6.35~~
9J16053-CAL2	50	5932	2.064	6.34
9J16053-CAL3	100	12340	2.173	6.34
9J16053-CAL4	200	25093	2.088	6.34
9J16053-CAL5	500	59550	2.159	6.34
9J16053-CAL6	1000	104698	1.927	6.34
9J16053-CAL7	2000	193255	1.815	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**

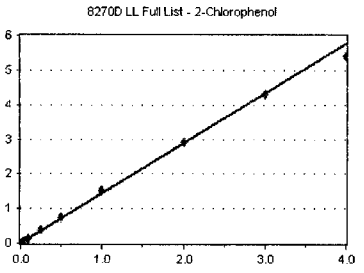


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1698	1.531	6.40
9J16053-CAL2	50	4855	1.689	6.40
9J16053-CAL3	100	10234	1.803	6.40
9J16053-CAL4	200	20574	1.712	6.39
9J16053-CAL5	500	50835	1.843	6.40
9J16053-CAL6	1000	97200	1.789	6.40
9J16053-CAL7	2000	209890	1.971	6.40
9J16053-CAL8	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**

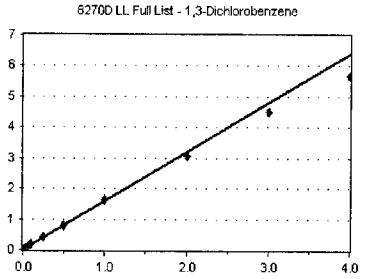
Element Calibration Review Sheet

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**

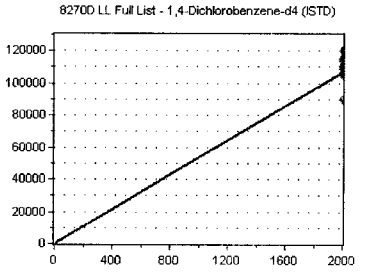


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1762	1.589	6.61
9J16053-CAL2	50	4787	1.666	6.61
9J16053-CAL3	100	9504	1.674	6.61
9J16053-CAL4	200	20472	1.704	6.61
9J16053-CAL5	500	46500	1.686	6.61
9J16053-CAL6	1000	87984	1.619	6.61
9J16053-CAL7	2000	171908	1.615	6.61
9J16053-CAL8	4000	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**

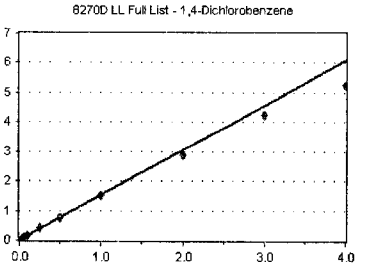


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	110906	55.453	6.66
9J16053-CAL2	2000	114962	57.481	6.66
9J16053-CAL3	2000	113552	56.776	6.66
9J16053-CAL4	2000	120155	60.078	6.66
9J16053-CAL5	2000	110317	55.159	6.66
9J16053-CAL6	2000	108692	54.346	6.66
9J16053-CAL7	2000	106472	53.236	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**

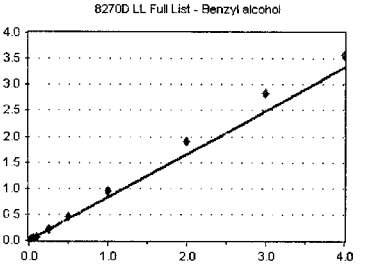


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1753	1.581	6.68
9J16053-CAL2	50	4602	1.601	6.68
9J16053-CAL3	100	9126	1.607	6.68
9J16053-CAL4	200	19398	1.614	6.68
9J16053-CAL5	500	44891	1.628	6.68
9J16053-CAL6	1000	83649	1.539	6.68
9J16053-CAL7	2000	161488	1.517	6.68
9J16053-CAL8	4000	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**

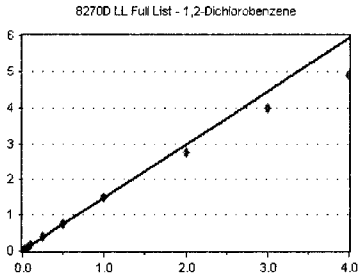
Element Calibration Review Sheet

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**

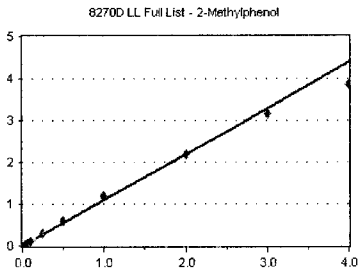


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1751	1.579	6.84
9J16053-CAL2	50	4537	1.579	6.83
9J16053-CAL3	100	8939	1.574	6.83
9J16053-CAL4	200	19037	1.584	6.82
9J16053-CAL5	500	44501	1.614	6.83
9J16053-CAL6	1000	82317	1.515	6.83
9J16053-CAL7	2000	158155	1.485	6.83
9J16053-CAL8	4000	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**

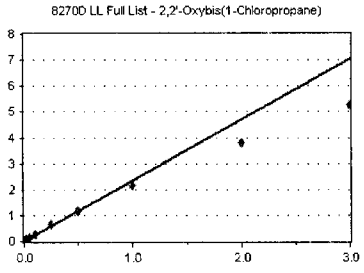


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1222	1.102	6.89
9J16053-CAL2	50	2790	0.971	6.89
9J16053-CAL3	100	6433	1.133	6.89
9J16053-CAL4	200	13130	1.093	6.89
9J16053-CAL5	500	33736	1.223	6.89
9J16053-CAL6	1000	64002	1.178	6.89
9J16053-CAL7	2000	125482	1.179	6.89
9J16053-CAL8	4000	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**

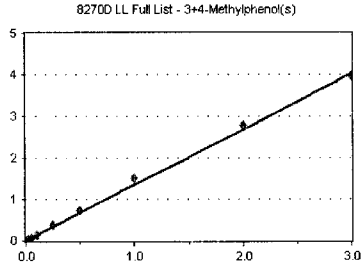


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2838	2.559	6.92
9J16053-CAL2	50	7664	2.667	6.92
9J16053-CAL3	100	14918	2.628	6.92
9J16053-CAL4	200	30514	2.540	6.92
9J16053-CAL5	500	70737	2.565	6.92
9J16053-CAL6	1000	128835	2.371	6.92
9J16053-CAL7	2000	232038	2.179	6.92
9J16053-CAL8	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**

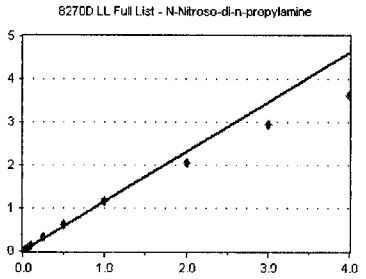
Element Calibration Review Sheet

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**

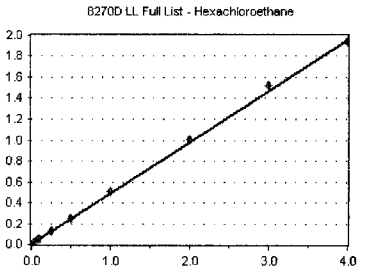


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1362	1.228	7.05
9J16053-CAL2	50	3574	1.244	7.05
9J16053-CAL3	100	7214	1.271	7.05
9J16053-CAL4	200	14701	1.224	7.04
9J16053-CAL5	500	36526	1.324	7.05
9J16053-CAL6	1000	66569	1.225	7.05
9J16053-CAL7	2000	122433	1.150	7.05
9J16053-CAL8	4000	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**

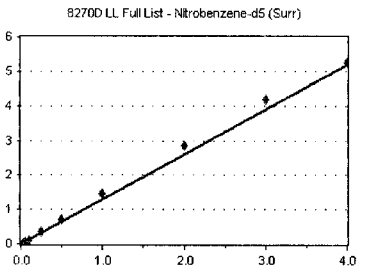


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	507	0.457	7.17
9J16053-CAL2	50	1316	0.458	7.16
9J16053-CAL3	100	2749	0.484	7.17
9J16053-CAL4	200	5953	0.495	7.16
9J16053-CAL5	500	13814	0.501	7.17
9J16053-CAL6	1000	26988	0.497	7.17
9J16053-CAL7	2000	54131	0.508	7.16
9J16053-CAL8	4000	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**

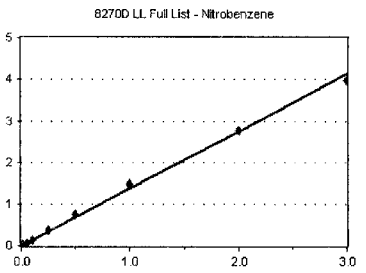


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1331	1.200	7.20
9J16053-CAL2	50	3185	1.108	7.20
9J16053-CAL3	100	6659	1.173	7.20
9J16053-CAL4	200	13464	1.121	7.20
9J16053-CAL5	500	38734	1.404	7.20
9J16053-CAL6	1000	76069	1.400	7.20
9J16053-CAL7	2000	154925	1.455	7.20
9J16053-CAL8	4000	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**

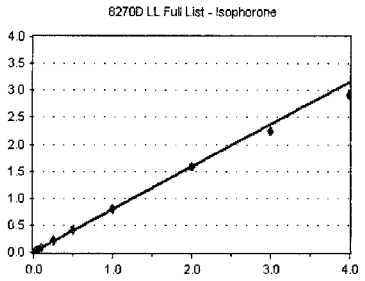
Element Calibration Review Sheet

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**

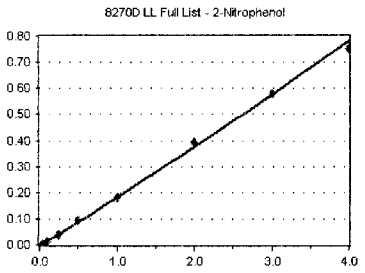


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3161	0.711	7.46
9J16053-CAL2	50	8579	0.770	7.45
9J16053-CAL3	100	18112	0.807	7.45
9J16053-CAL4	200	38056	0.850	7.45
9J16053-CAL5	500	94466	0.861	7.45
9J16053-CAL6	1000	172965	0.832	7.46
9J16053-CAL7	2000	326670	0.811	7.46
9J16053-CAL8	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**

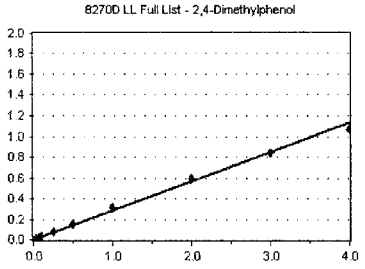


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~369~~	~~8.306~~	~~7.54~~
~~9J16053-CAL2~~	~~50~~	~~925~~	~~8.297~~	~~7.54~~
9J16053-CAL3	100	2310	0.103	7.54
9J16053-CAL4	200	5298	0.118	7.54
9J16053-CAL5	500	17473	0.159	7.54
9J16053-CAL6	1000	38840	0.187	7.54
9J16053-CAL7	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**

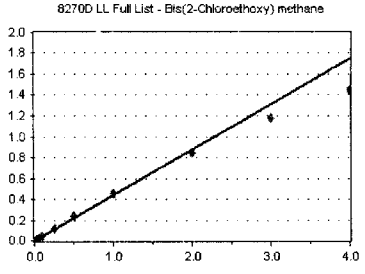


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1082	0.244	7.57
9J16053-CAL2	50	2761	0.248	7.57
9J16053-CAL3	100	6096	0.272	7.57
9J16053-CAL4	200	13189	0.294	7.57
9J16053-CAL5	500	32732	0.298	7.57
9J16053-CAL6	1000	64041	0.308	7.57
9J16053-CAL7	2000	126582	0.314	7.57
9J16053-CAL8	4000	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**

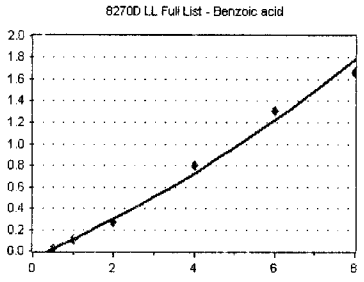
Element Calibration Review Sheet

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**

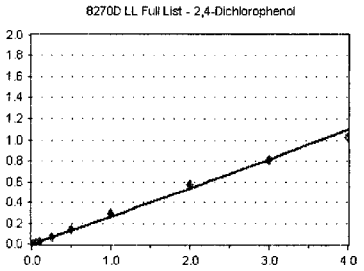


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~40~~	~~64~~	~~7.203~~	~~7.57~~
~~9J16053-CAL2~~	~~100~~	~~134~~	~~6.010~~	~~7.66~~
~~9J16053-CAL3~~	~~200~~	~~519~~	~~1.156~~	~~7.61~~
~~9J16053-CAL4~~	~~400~~	~~1889~~	~~2.109~~	~~7.61~~
9J16053-CAL5	1000	9988	4.553	7.63
9J16053-CAL6	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**

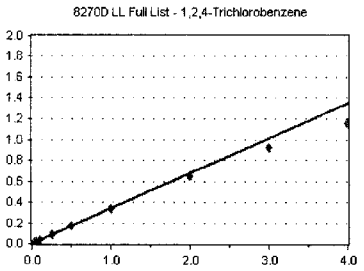


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	574	0.129	7.77
9J16053-CAL2	50	1890	0.170	7.77
9J16053-CAL3	100	4404	0.196	7.77
9J16053-CAL4	200	10420	0.233	7.77
9J16053-CAL5	500	28760	0.262	7.77
9J16053-CAL6	1000	57918	0.279	7.77
9J16053-CAL7	2000	119237	0.296	7.78
9J16053-CAL8	4000	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**

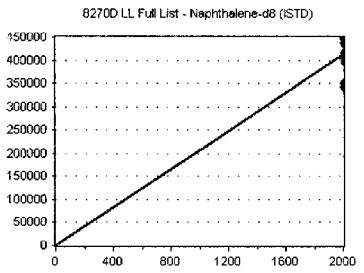


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1518	0.342	7.86
9J16053-CAL2	50	3937	0.353	7.86
9J16053-CAL3	100	7993	0.356	7.86
9J16053-CAL4	200	16256	0.363	7.86
9J16053-CAL5	500	38996	0.356	7.86
9J16053-CAL6	1000	71920	0.346	7.86
9J16053-CAL7	2000	136516	0.339	7.86
9J16053-CAL8	4000	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**

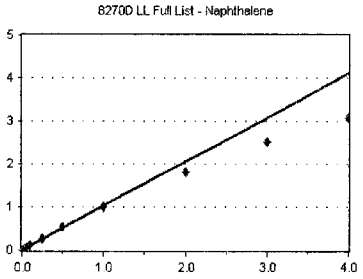
Element Calibration Review Sheet

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**

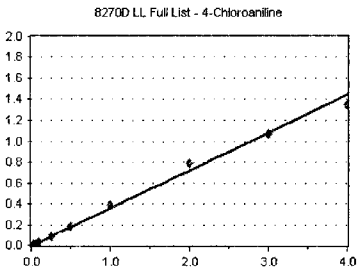


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	5043	1.135	7.94
9J16053-CAL2	50	12520	1.123	7.94
9J16053-CAL3	100	25776	1.148	7.94
9J16053-CAL4	200	50856	1.135	7.94
9J16053-CAL5	500	123871	1.129	7.94
9J16053-CAL6	1000	222697	1.071	7.94
9J16053-CAL7	2000	407227	1.010	7.94
9J16053-CAL8	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**

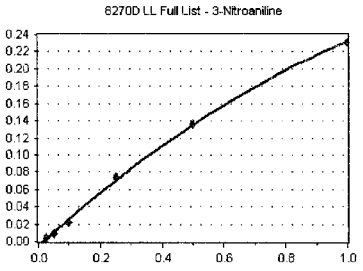


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	610	0.137	7.99
9J16053-CAL2	50	2877	0.258	7.99
9J16053-CAL3	100	6058	0.270	7.99
9J16053-CAL4	200	14311	0.320	7.99
9J16053-CAL5	500	38672	0.353	7.99
9J16053-CAL6	1000	74988	0.361	7.99
9J16053-CAL7	2000	158495	0.393	7.99
9J16053-CAL8	4000	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**

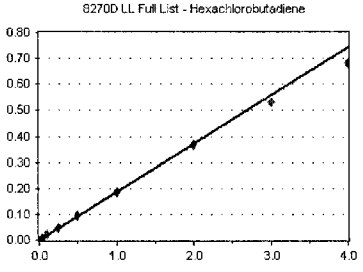


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~203~~	~~8.879~~	~~9.64~~
9J16053-CAL2	50	817	0.142	9.64
9J16053-CAL3	100	2092	0.180	9.64
9J16053-CAL4	200	5115	0.223	9.64
9J16053-CAL5	500	16475	0.294	9.64
9J16053-CAL6	1000	28849	0.274	9.64
9J16053-CAL7	2000	47185	0.231	0.00
~~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**

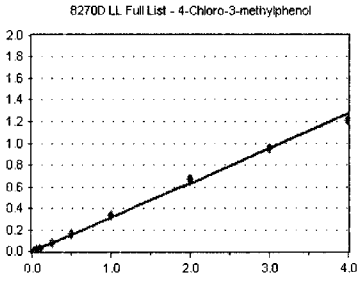
Element Calibration Review Sheet

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**

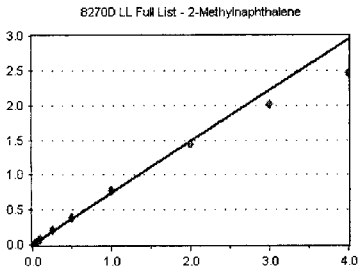


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~522~~	~~0.117~~	~~8.47~~
9J16053-CAL2	50	1947	0.175	8.47
9J16053-CAL3	100	4647	0.207	8.47
9J16053-CAL4	200	10782	0.241	8.47
9J16053-CAL5	500	33546	0.306	8.47
9J16053-CAL6	1000	66824	0.321	8.47
9J16053-CAL7	2000	134732	0.334	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**

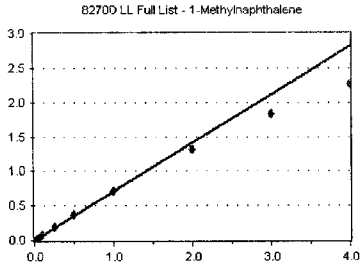


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3026	0.681	8.64
9J16053-CAL2	50	8077	0.724	8.64
9J16053-CAL3	100	17540	0.782	8.64
9J16053-CAL4	200	36226	0.809	8.64
9J16053-CAL5	500	90190	0.822	8.64
9J16053-CAL6	1000	164653	0.792	8.64
9J16053-CAL7	2000	312402	0.775	8.64
9J16053-CAL8	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**

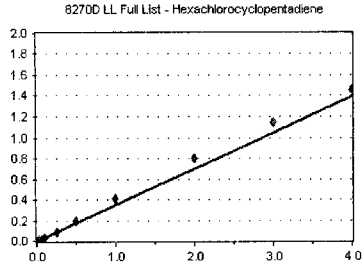


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3010	0.678	8.74
9J16053-CAL2	50	8217	0.737	8.74
9J16053-CAL3	100	17357	0.773	8.74
9J16053-CAL4	200	34216	0.764	8.74
9J16053-CAL5	500	85675	0.781	8.74
9J16053-CAL6	1000	154845	0.745	8.74
9J16053-CAL7	2000	289054	0.717	8.74
9J16053-CAL8	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**

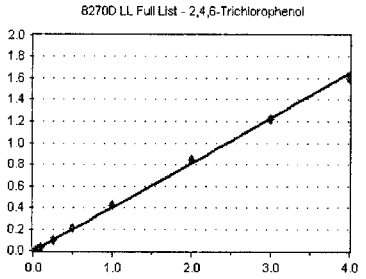
Element Calibration Review Sheet

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**

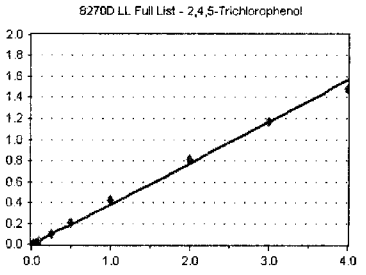


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~357~~	~~0.156~~	~~8.92~~
9J16053-CAL2	50	1180	0.205	8.92
9J16053-CAL3	100	3024	0.260	8.92
9J16053-CAL4	200	7170	0.313	8.92
9J16053-CAL5	500	21567	0.385	8.92
9J16053-CAL6	1000	42283	0.401	8.92
9J16053-CAL7	2000	86005	0.421	8.92
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**

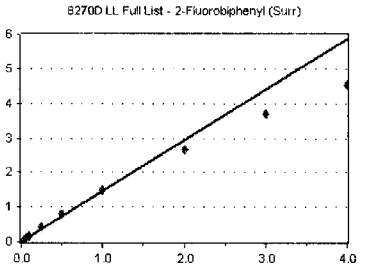


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~333~~	~~0.146~~	~~8.96~~
9J16053-CAL2	50	1507	0.262	8.95
9J16053-CAL3	100	2923	0.252	8.95
9J16053-CAL4	200	6873	0.300	8.95
9J16053-CAL5	500	21096	0.377	8.95
9J16053-CAL6	1000	42231	0.401	8.95
9J16053-CAL7	2000	85045	0.416	8.95
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**

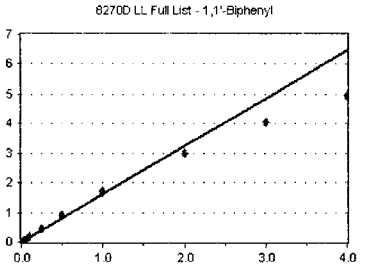


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3186	1.394	9.01
9J16053-CAL2	50	8607	1.494	9.01
9J16053-CAL3	100	19336	1.665	9.00
9J16053-CAL4	200	37977	1.659	9.00
9J16053-CAL5	500	94649	1.690	9.01
9J16053-CAL6	1000	167583	1.590	9.01
9J16053-CAL7	2000	307320	1.504	9.01
9J16053-CAL8	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**

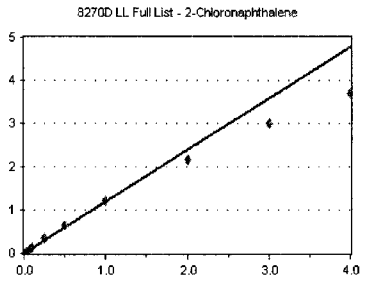
Element Calibration Review Sheet

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**

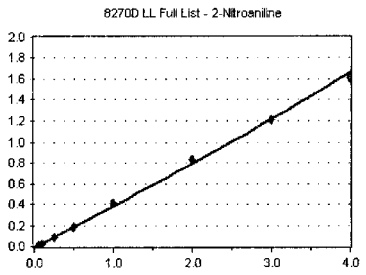


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2408	1.053	9.13
9J16053-CAL2	50	7301	1.267	9.13
9J16053-CAL3	100	15573	1.341	9.13
9J16053-CAL4	200	31240	1.365	9.13
9J16053-CAL5	500	77553	1.385	9.13
9J16053-CAL6	1000	138289	1.312	9.13
9J16053-CAL7	2000	250807	1.227	9.14
9J16053-CAL8	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**

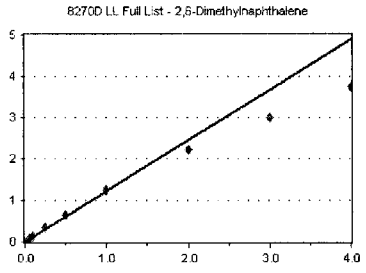


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~265~~	~~0.116~~	~~9.23~~
~~9J16053-CAL2~~	~~50~~	~~803~~	~~0.139~~	~~9.23~~
9J16053-CAL3	100	2029	0.175	9.23
9J16053-CAL4	200	5088	0.222	9.23
9J16053-CAL5	500	18180	0.325	9.23
9J16053-CAL6	1000	39518	0.375	9.23
9J16053-CAL7	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**

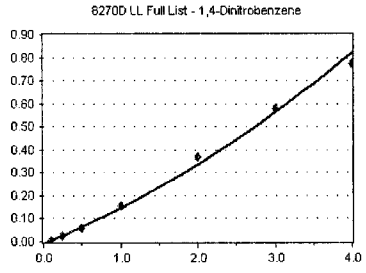


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2691	1.177	9.27
9J16053-CAL2	50	7521	1.306	9.27
9J16053-CAL3	100	15902	1.370	9.27
9J16053-CAL4	200	31242	1.365	9.27
9J16053-CAL5	500	77752	1.389	9.27
9J16053-CAL6	1000	139567	1.324	9.27
9J16053-CAL7	2000	255391	1.250	9.27
9J16053-CAL8	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**

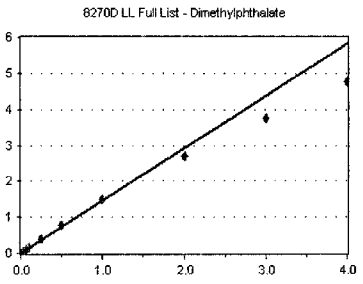
Element Calibration Review Sheet

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**

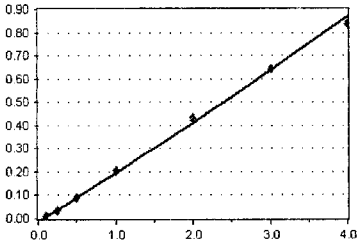


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3253	1.423	9.40
9J16053-CAL2	50	8884	1.542	9.41
9J16053-CAL3	100	18685	1.609	9.41
9J16053-CAL4	200	36622	1.600	9.41
9J16053-CAL5	500	89795	1.604	9.41
9J16053-CAL6	1000	161978	1.536	9.41
9J16053-CAL7	2000	303831	1.487	9.41
9J16053-CAL8	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**

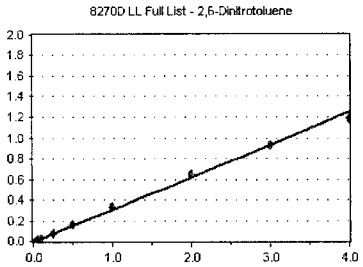


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~52~~	~~2.274~~	~~0.00~~
~~9J16053-CAL2~~	~~50~~	~~351~~	~~6.093~~	~~9.43~~
~~9J16053-CAL3~~	~~100~~	~~771~~	~~6.641~~	~~9.43~~
9J16053-CAL4	200	1889	8.254	9.44
9J16053-CAL5	500	7846	0.140	9.43
9J16053-CAL6	1000	18022	0.171	9.43
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**

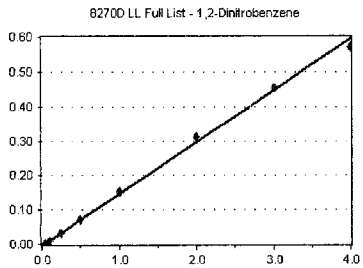


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~213~~	~~9.316~~	~~9.47~~
9J16053-CAL2	50	792	0.137	9.47
9J16053-CAL3	100	1977	0.170	9.47
9J16053-CAL4	200	5062	0.221	9.47
9J16053-CAL5	500	16561	0.296	9.47
9J16053-CAL6	1000	33104	0.314	9.47
9J16053-CAL7	2000	67679	0.331	9.47
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**

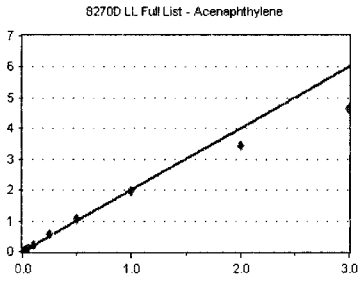
Element Calibration Review Sheet

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**

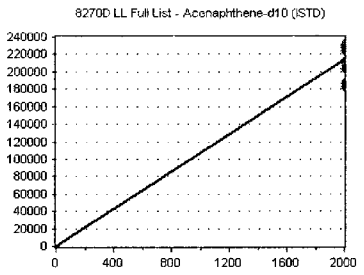


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4331	1.894	9.55
9J16053-CAL2	50	12047	2.091	9.55
9J16053-CAL3	100	25781	2.220	9.55
9J16053-CAL4	200	50685	2.215	9.55
9J16053-CAL5	500	125650	2.244	9.55
9J16053-CAL6	1000	223232	2.117	9.55
9J16053-CAL7	2000	401818	1.967	9.56
9J16053-CAL8	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**

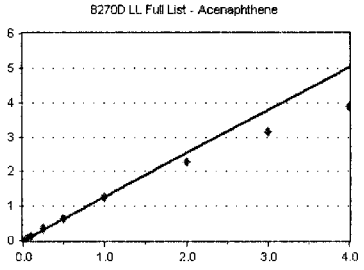


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	228631	114.315	9.70
9J16053-CAL2	2000	230418	115.209	9.70
9J16053-CAL3	2000	232211	116.105	9.70
9J16053-CAL4	2000	228870	114.435	9.70
9J16053-CAL5	2000	223981	111.990	9.70
9J16053-CAL6	2000	210848	105.424	9.70
9J16053-CAL7	2000	204324	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**

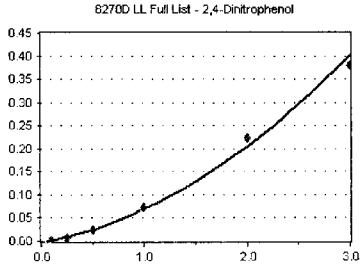


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3082	1.348	9.73
9J16053-CAL2	50	7881	1.368	9.73
9J16053-CAL3	100	16496	1.421	9.73
9J16053-CAL4	200	31461	1.375	9.73
9J16053-CAL5	500	76410	1.365	9.73
9J16053-CAL6	1000	137686	1.306	9.73
9J16053-CAL7	2000	257901	1.262	9.73
9J16053-CAL8	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**

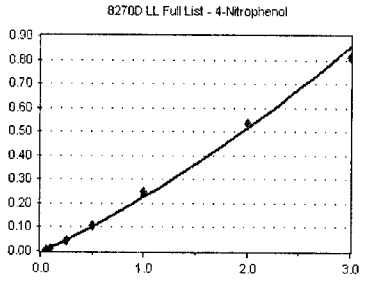
Element Calibration Review Sheet

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**

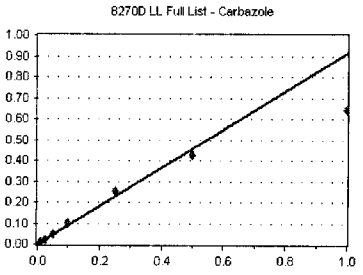


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~149~~	~~6.517~~	~~9.80~~
~~9J16053-CAL2~~	~~50~~	~~379~~	~~6.579~~	~~9.80~~
9J16053-CAL3	100	907	7.812	9.80
9J16053-CAL4	200	2397	0.105	9.80
9J16053-CAL5	500	9787	0.175	9.80
9J16053-CAL6	1000	22603	0.214	9.80
9J16053-CAL7	2000	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**

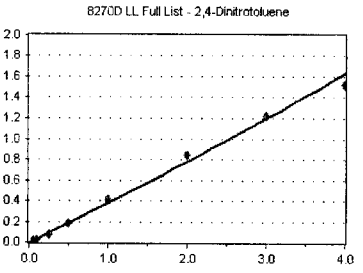


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3762	0.896	11.45
9J16053-CAL2	50	10074	0.970	11.45
9J16053-CAL3	100	21180	1.005	11.45
9J16053-CAL4	200	41597	1.024	11.45
9J16053-CAL5	500	104447	1.007	11.45
9J16053-CAL6	1000	168399	0.854	11.45
9J16053-CAL7	2000	254192	0.644	0.00
~~9J16053-CAL8~~	~~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**

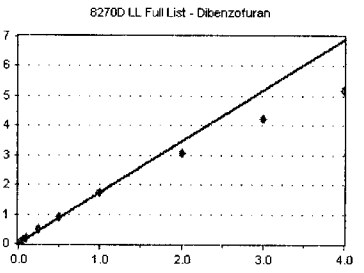


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~307~~	~~0.134~~	~~9.87~~
~~9J16053-CAL2~~	~~50~~	~~711~~	~~0.123~~	~~9.88~~
9J16053-CAL3	100	1827	0.157	9.88
9J16053-CAL4	200	4451	0.194	9.88
9J16053-CAL5	500	17286	0.309	9.88
9J16053-CAL6	1000	38193	0.362	9.88
9J16053-CAL7	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**

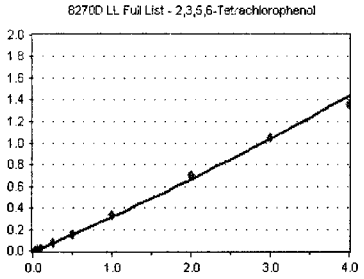
Element Calibration Review Sheet

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**

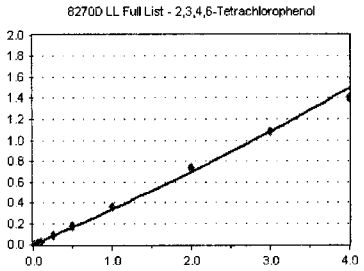


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~254~~	~~0.111~~	~~9.99~~
9J16053-CAL2	50	786	0.136	9.99
9J16053-CAL3	100	2308	0.199	9.99
9J16053-CAL4	200	5028	0.220	9.99
9J16053-CAL5	500	16246	0.290	9.99
9J16053-CAL6	1000	32998	0.313	9.99
9J16053-CAL7	2000	69287	0.339	9.99
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**

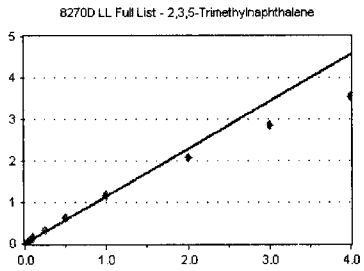


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	405	0.177	10.03
9J16053-CAL2	50	1166	0.202	10.03
9J16053-CAL3	100	3124	0.269	10.03
9J16053-CAL4	200	6167	0.269	10.03
9J16053-CAL5	500	19007	0.339	10.03
9J16053-CAL6	1000	37050	0.351	10.03
9J16053-CAL7	2000	73600	0.360	10.03
9J16053-CAL8	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**

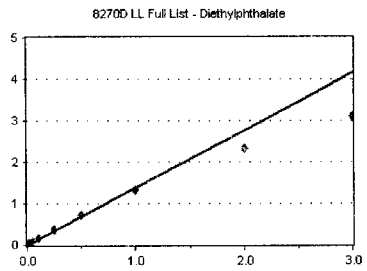


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2603	1.139	10.11
9J16053-CAL2	50	6964	1.209	10.11
9J16053-CAL3	100	14732	1.269	10.11
9J16053-CAL4	200	28442	1.243	10.11
9J16053-CAL5	500	72192	1.289	10.11
9J16053-CAL6	1000	129295	1.226	10.12
9J16053-CAL7	2000	238990	1.170	10.12
9J16053-CAL8	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**

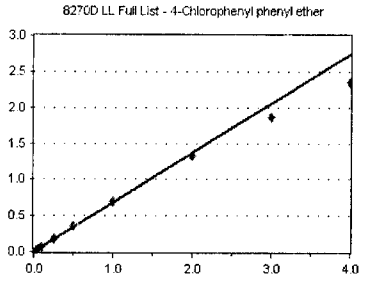
Element Calibration Review Sheet

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**

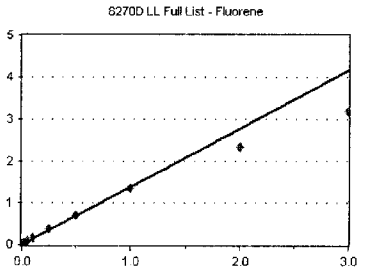


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1518	0.664	10.25
9J16053-CAL2	50	4054	0.704	10.25
9J16053-CAL3	100	8661	0.746	10.25
9J16053-CAL4	200	16535	0.722	10.25
9J16053-CAL5	500	41485	0.741	10.25
9J16053-CAL6	1000	75441	0.716	10.25
9J16053-CAL7	2000	144104	0.705	10.25
9J16053-CAL8	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**

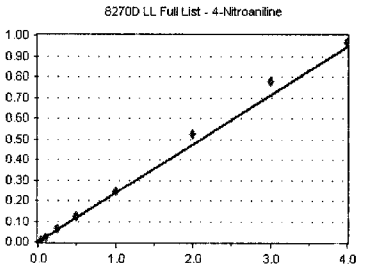


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3175	1.389	10.25
9J16053-CAL2	50	8492	1.474	10.25
9J16053-CAL3	100	18324	1.578	10.25
9J16053-CAL4	200	34530	1.509	10.25
9J16053-CAL5	500	85310	1.524	10.25
9J16053-CAL6	1000	150523	1.428	10.26
9J16053-CAL7	2000	274932	1.346	10.26
9J16053-CAL8	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**

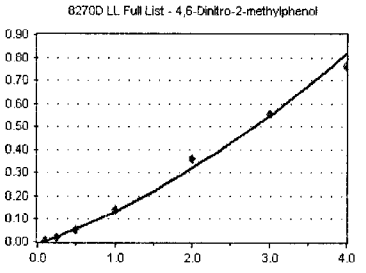


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~246~~	~~0.108~~	~~10.26~~
~~9J16053-CAL2~~	~~50~~	~~819~~	~~0.142~~	~~10.26~~
9J16053-CAL3	100	2067	0.178	10.26
9J16053-CAL4	200	4513	0.197	10.26
9J16053-CAL5	500	14782	0.264	10.26
9J16053-CAL6	1000	25826	0.245	10.26
9J16053-CAL7	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**

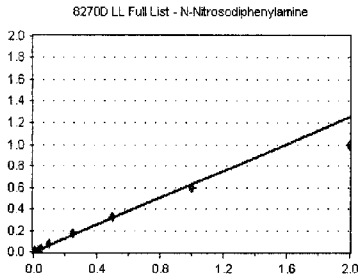
Element Calibration Review Sheet

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**

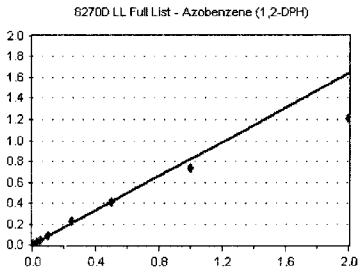


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2298	0.548	10.37
9J16053-CAL2	50	6622	0.638	10.37
9J16053-CAL3	100	14732	0.699	10.37
9J16053-CAL4	200	28901	0.711	10.37
9J16053-CAL5	500	72014	0.694	10.37
9J16053-CAL6	1000	126925	0.644	10.37
9J16053-CAL7	2000	232578	0.590	10.37
9J16053-CAL8	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**

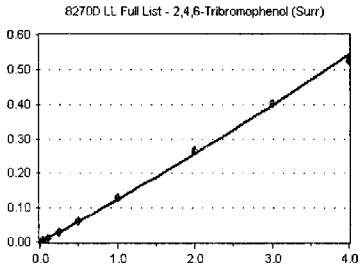


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3383	0.806	10.41
9J16053-CAL2	50	9368	0.902	10.41
9J16053-CAL3	100	18843	0.894	10.41
9J16053-CAL4	200	37095	0.913	10.41
9J16053-CAL5	500	92532	0.892	10.41
9J16053-CAL6	1000	160071	0.812	10.41
9J16053-CAL7	2000	291944	0.740	10.41
9J16053-CAL8	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**

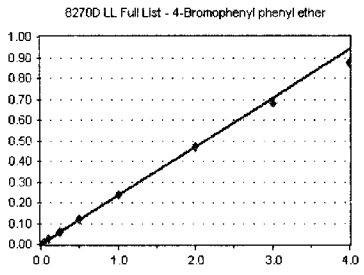


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~334~~	~~7.959~~	~~10.50~~
9J16053-CAL2	50	730	7.031	10.50
9J16053-CAL3	100	1877	8.906	10.50
9J16053-CAL4	200	4109	0.101	10.50
9J16053-CAL5	500	12089	0.117	10.50
9J16053-CAL6	1000	24117	0.122	10.50
9J16053-CAL7	2000	50890	0.129	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**

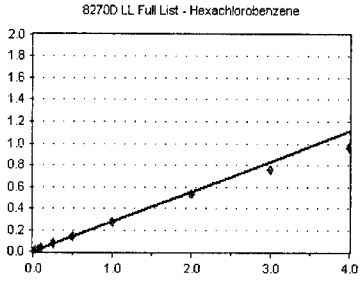
Element Calibration Review Sheet

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**

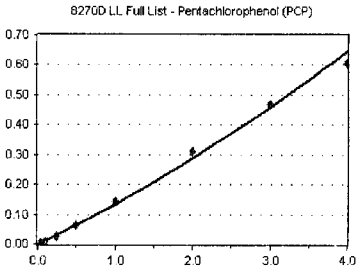


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	1216	0.290	10.83
9J16053-CAL2	50	2891	0.278	10.83
9J16053-CAL3	100	6222	0.295	10.83
9J16053-CAL4	200	12268	0.302	10.83
9J16053-CAL5	500	30369	0.293	10.83
9J16053-CAL6	1000	55109	0.280	10.83
9J16053-CAL7	2000	108673	0.275	10.83
9J16053-CAL8	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**

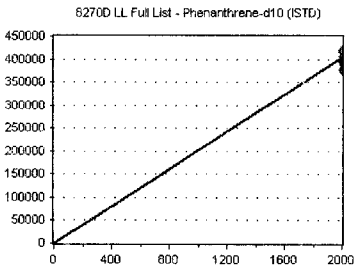


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~898~~	~~0.214~~	~~11.02~~
~~9J16053-CAL2~~	~~50~~	~~808~~	~~7.783~~	~~11.02~~
9J16053-CAL3	100	1663	7.891	11.02
9J16053-CAL4	200	3400	8.370	11.02
9J16053-CAL5	500	11494	0.111	11.02
9J16053-CAL6	1000	24901	0.126	11.02
9J16053-CAL7	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**

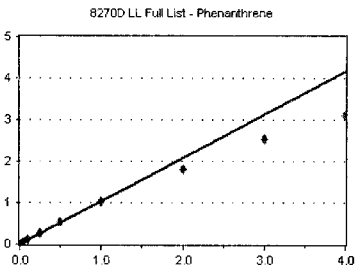


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	419652	209.826	11.22
9J16053-CAL2	2000	415279	207.640	11.21
9J16053-CAL3	2000	421494	210.747	11.21
9J16053-CAL4	2000	406200	203.100	11.21
9J16053-CAL5	2000	414839	207.420	11.22
9J16053-CAL6	2000	394261	197.130	11.22
9J16053-CAL7	2000	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**

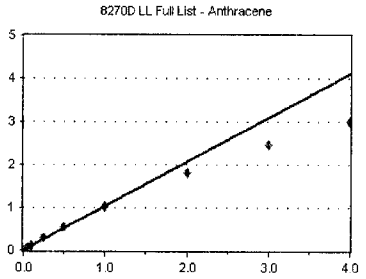
Element Calibration Review Sheet

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**

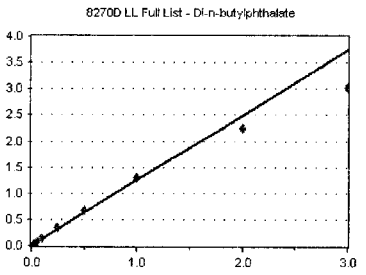


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4322	1.030	11.29
9J16053-CAL2	50	11800	1.137	11.29
9J16053-CAL3	100	24793	1.176	11.29
9J16053-CAL4	200	47420	1.167	11.29
9J16053-CAL5	500	120664	1.163	11.29
9J16053-CAL6	1000	215829	1.095	11.29
9J16053-CAL7	2000	409728	1.039	11.29
9J16053-CAL8	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**

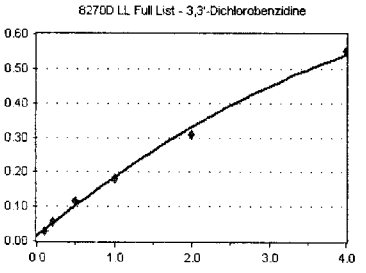


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~4261~~	~~1.015~~	~~11.79~~
9J16053-CAL2	50	12651	1.219	11.79
9J16053-CAL3	100	26455	1.255	11.79
9J16053-CAL4	200	54476	1.341	11.79
9J16053-CAL5	500	143903	1.388	11.79
9J16053-CAL6	1000	267688	1.358	11.79
9J16053-CAL7	2000	509487	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**

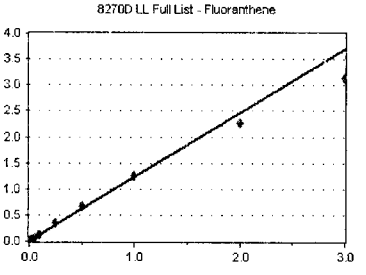


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~40~~	~~1592~~	~~0.184~~	~~0.00~~
~~9J16053-CAL2~~	~~100~~	~~5122~~	~~0.244~~	~~0.00~~
9J16053-CAL3	200	12358	0.284	0.00
9J16053-CAL4	400	23382	0.281	14.99
9J16053-CAL5	1000	50303	0.237	14.99
9J16053-CAL6	2000	72934	0.180	14.99
9J16053-CAL7	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**

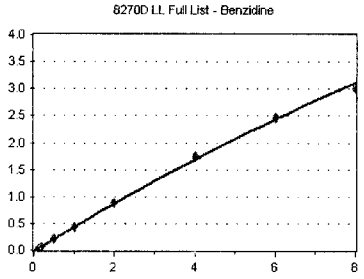
Element Calibration Review Sheet

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**

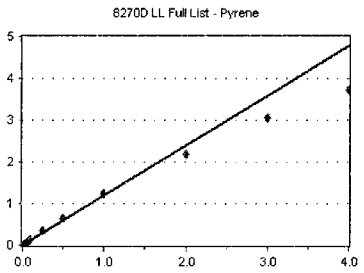


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~40~~	~~3612~~	~~0.430~~	~~12.67~~
~~9J16053-CAL2~~	~~100~~	~~3389~~	~~0.163~~	~~12.67~~
9J16053-CAL3	200	10054	0.239	12.67
9J16053-CAL4	400	22390	0.276	12.67
9J16053-CAL5	1000	90422	0.436	12.67
9J16053-CAL6	2000	169900	0.431	12.68
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**

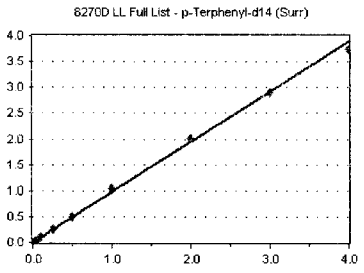


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4626	1.102	12.81
9J16053-CAL2	50	12834	1.236	12.81
9J16053-CAL3	100	27657	1.312	12.81
9J16053-CAL4	200	55550	1.368	12.81
9J16053-CAL5	500	142947	1.378	12.82
9J16053-CAL6	1000	259464	1.316	12.82
9J16053-CAL7	2000	487359	1.236	12.82
9J16053-CAL8	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**

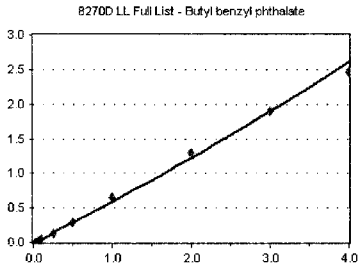


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3719	0.862	13.02
9J16053-CAL2	50	9501	0.904	13.02
9J16053-CAL3	100	20875	0.960	13.02
9J16053-CAL4	200	41737	1.002	13.02
9J16053-CAL5	500	110622	1.041	13.02
9J16053-CAL6	1000	202564	1.001	13.02
9J16053-CAL7	2000	390228	1.029	13.02
9J16053-CAL8	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**

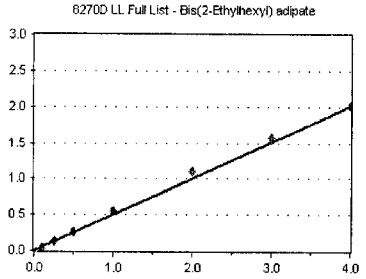
Element Calibration Review Sheet

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**

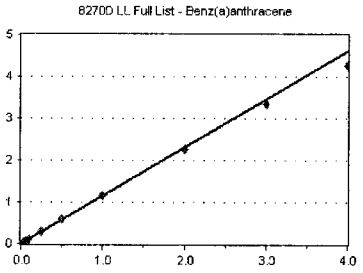


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1272~~	~~0.295~~	~~14.03~~
~~9J16053-CAL2~~	~~50~~	~~3024~~	~~0.288~~	~~14.02~~
~~9J16053-CAL3~~	~~100~~	~~7171~~	~~0.330~~	~~14.02~~
9J16053-CAL4	200	16213	0.389	14.02
9J16053-CAL5	500	52124	0.491	14.02
9J16053-CAL6	1000	104759	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**

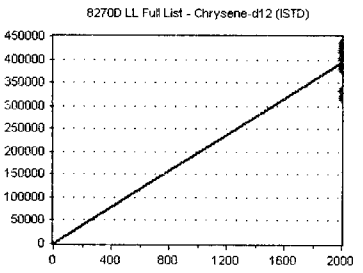


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	5352	1.240	15.02
9J16053-CAL2	50	11999	1.142	15.02
9J16053-CAL3	100	25078	1.153	15.02
9J16053-CAL4	200	48775	1.171	15.02
9J16053-CAL5	500	128384	1.208	15.02
9J16053-CAL6	1000	235737	1.164	15.03
9J16053-CAL7	2000	445654	1.175	15.03
9J16053-CAL8	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**

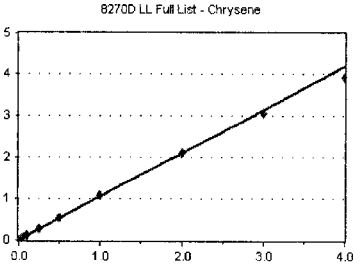


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	431513	215.757	15.05
9J16053-CAL2	2000	420433	210.217	15.05
9J16053-CAL3	2000	434926	217.463	15.05
9J16053-CAL4	2000	416387	208.193	15.05
9J16053-CAL5	2000	424974	212.487	15.05
9J16053-CAL6	2000	404897	202.448	15.05
9J16053-CAL7	2000	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**

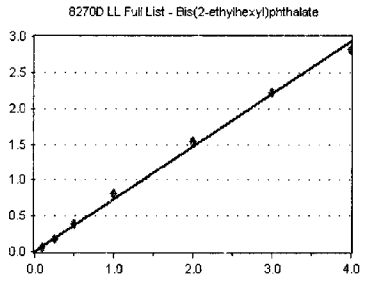
Element Calibration Review Sheet

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**

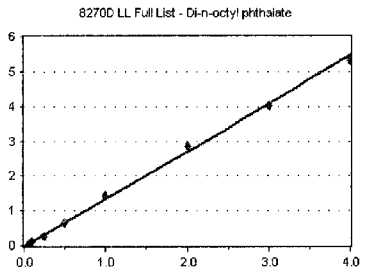


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1364~~	~~0.316~~	~~15.19~~
~~9J16053-CAL2~~	~~50~~	~~3999~~	~~0.380~~	~~15.20~~
~~9J16053-CAL3~~	~~100~~	~~10525~~	~~0.484~~	~~15.20~~
9J16053-CAL4	200	25222	0.606	15.20
9J16053-CAL5	500	78522	0.739	15.20
9J16053-CAL6	1000	155751	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**

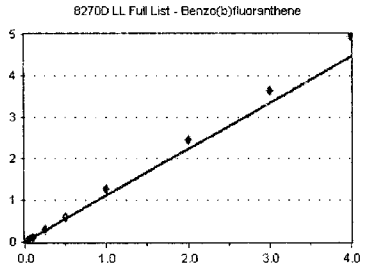


Standard	Concentration	Response	Response Factor	RT
~~9J16053-CAL1~~	~~20~~	~~1789~~	~~0.415~~	~~16.87~~
~~9J16053-CAL2~~	~~50~~	~~4878~~	~~0.461~~	~~16.87~~
9J16053-CAL3	100	13641	0.631	16.87
9J16053-CAL4	200	35211	0.851	16.87
9J16053-CAL5	500	120881	1.102	16.87
9J16053-CAL6	1000	261927	1.278	16.87
9J16053-CAL7	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**

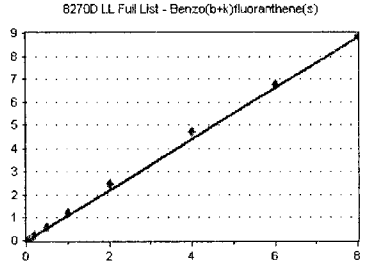


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3489	0.809	17.62
9J16053-CAL2	50	9380	0.887	17.62
9J16053-CAL3	100	21892	1.013	17.62
9J16053-CAL4	200	47123	1.139	17.62
9J16053-CAL5	500	128872	1.175	17.62
9J16053-CAL6	1000	246144	1.201	17.63
9J16053-CAL7	2000	501132	1.258	17.63
9J16053-CAL8	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**

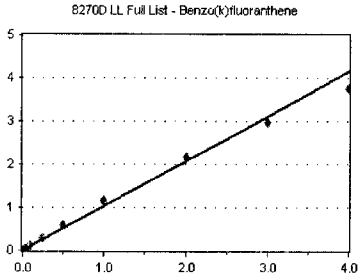
Element Calibration Review Sheet

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**

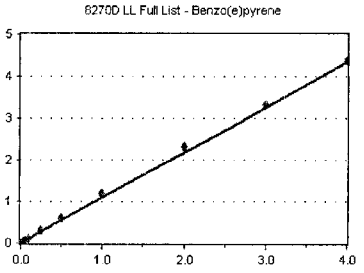


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3429	0.795	17.69
9J16053-CAL2	50	9507	0.899	17.68
9J16053-CAL3	100	22282	1.031	17.69
9J16053-CAL4	200	46458	1.123	17.69
9J16053-CAL5	500	130011	1.186	17.69
9J16053-CAL6	1000	241628	1.179	17.70
9J16053-CAL7	2000	460821	1.157	17.71
9J16053-CAL8	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**

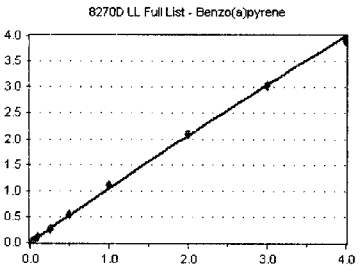


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3566	0.826	18.27
9J16053-CAL2	50	10258	0.970	18.27
9J16053-CAL3	100	22306	1.032	18.27
9J16053-CAL4	200	46317	1.120	18.28
9J16053-CAL5	500	127706	1.165	18.28
9J16053-CAL6	1000	240269	1.172	18.29
9J16053-CAL7	2000	475633	1.194	18.30
9J16053-CAL8	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**

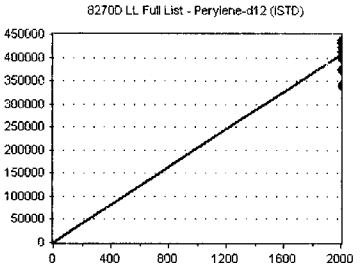


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	2850	0.661	18.39
9J16053-CAL2	50	8352	0.790	18.39
9J16053-CAL3	100	19477	0.901	18.39
9J16053-CAL4	200	42344	1.024	18.39
9J16053-CAL5	500	117701	1.073	18.40
9J16053-CAL6	1000	223821	1.092	18.40
9J16053-CAL7	2000	440842	1.106	18.42
9J16053-CAL8	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**

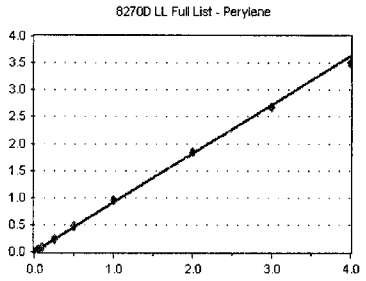
Element Calibration Review Sheet

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**

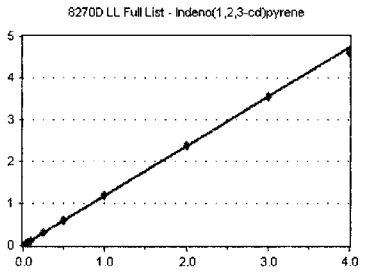


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	3674	0.852	18.60
9J16053-CAL2	50	9122	0.863	18.60
9J16053-CAL3	100	19207	0.889	18.60
9J16053-CAL4	200	38182	0.923	18.60
9J16053-CAL5	500	104561	0.954	18.61
9J16053-CAL6	1000	194782	0.950	18.61
9J16053-CAL7	2000	380066	0.954	18.62
9J16053-CAL8	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**

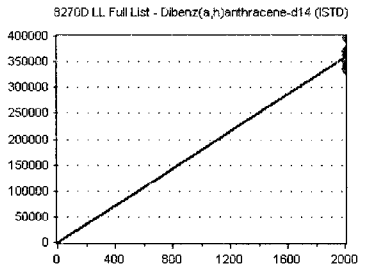


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	20	4048	1.156	20.93
9J16053-CAL2	50	9841	1.176	20.93
9J16053-CAL3	100	20486	1.170	20.93
9J16053-CAL4	200	40566	1.201	20.94
9J16053-CAL5	500	114261	1.227	20.95
9J16053-CAL6	1000	213608	1.175	20.95
9J16053-CAL7	2000	439827	1.183	20.96
9J16053-CAL8	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**

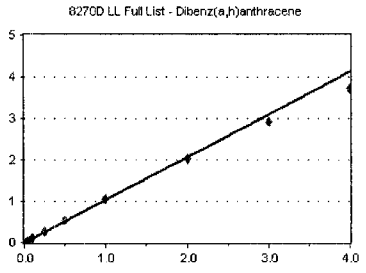


Standard	Concentration	Response	Response Factor	RT
9J16053-CAL1	2000	350266	175.133	20.95
9J16053-CAL2	2000	334828	167.414	20.95
9J16053-CAL3	2000	350177	175.088	20.95
9J16053-CAL4	2000	337729	168.865	20.95
9J16053-CAL5	2000	372459	186.230	20.95
9J16053-CAL6	2000	363670	181.835	20.95
9J16053-CAL7	2000	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**

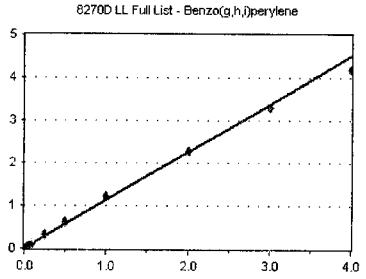
Element Calibration Review Sheet

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

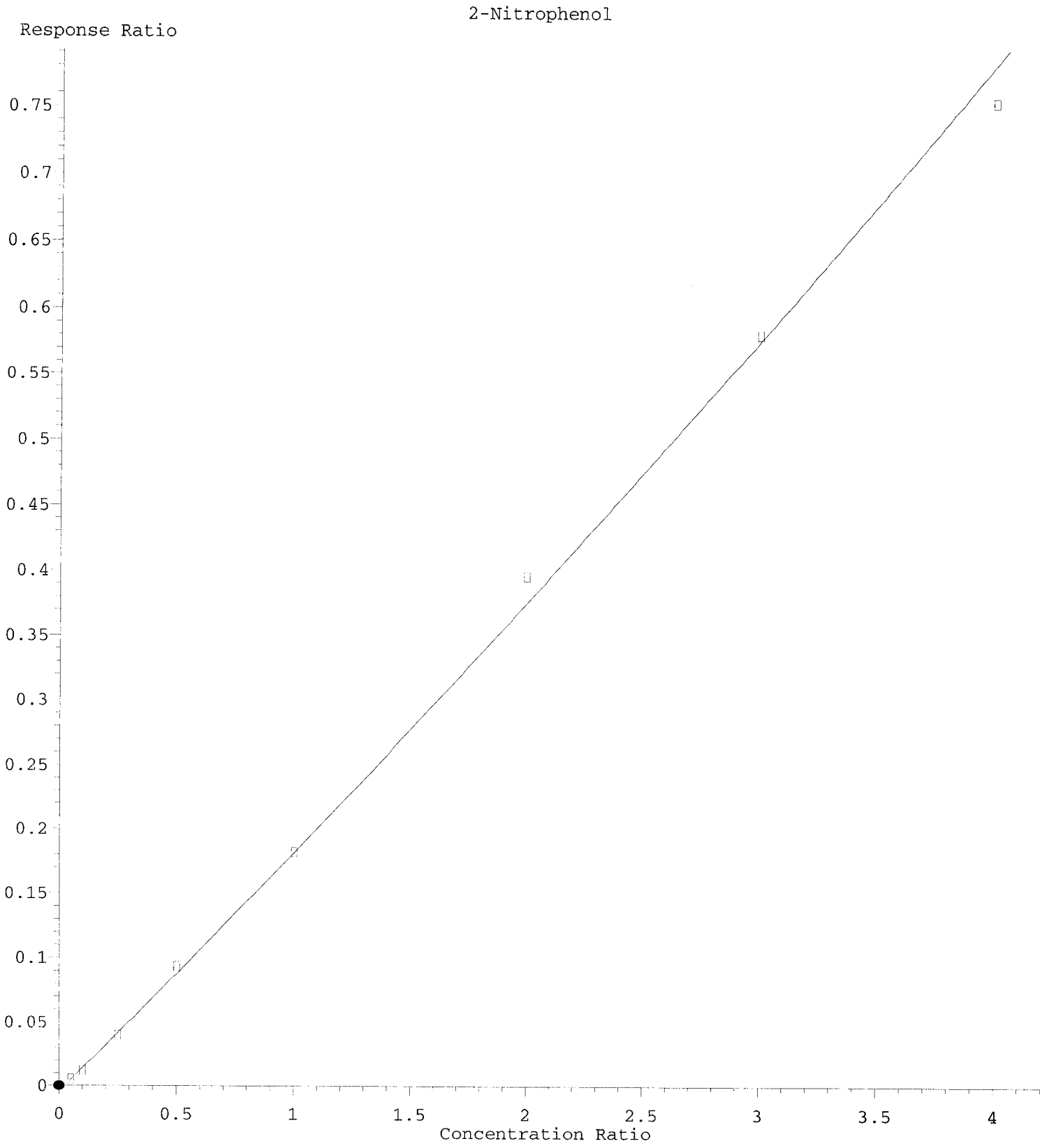
Method Path : T:\methods\
Method File : SV9_101619.M
Title : EPA 8270D: Semivolatile Organics

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

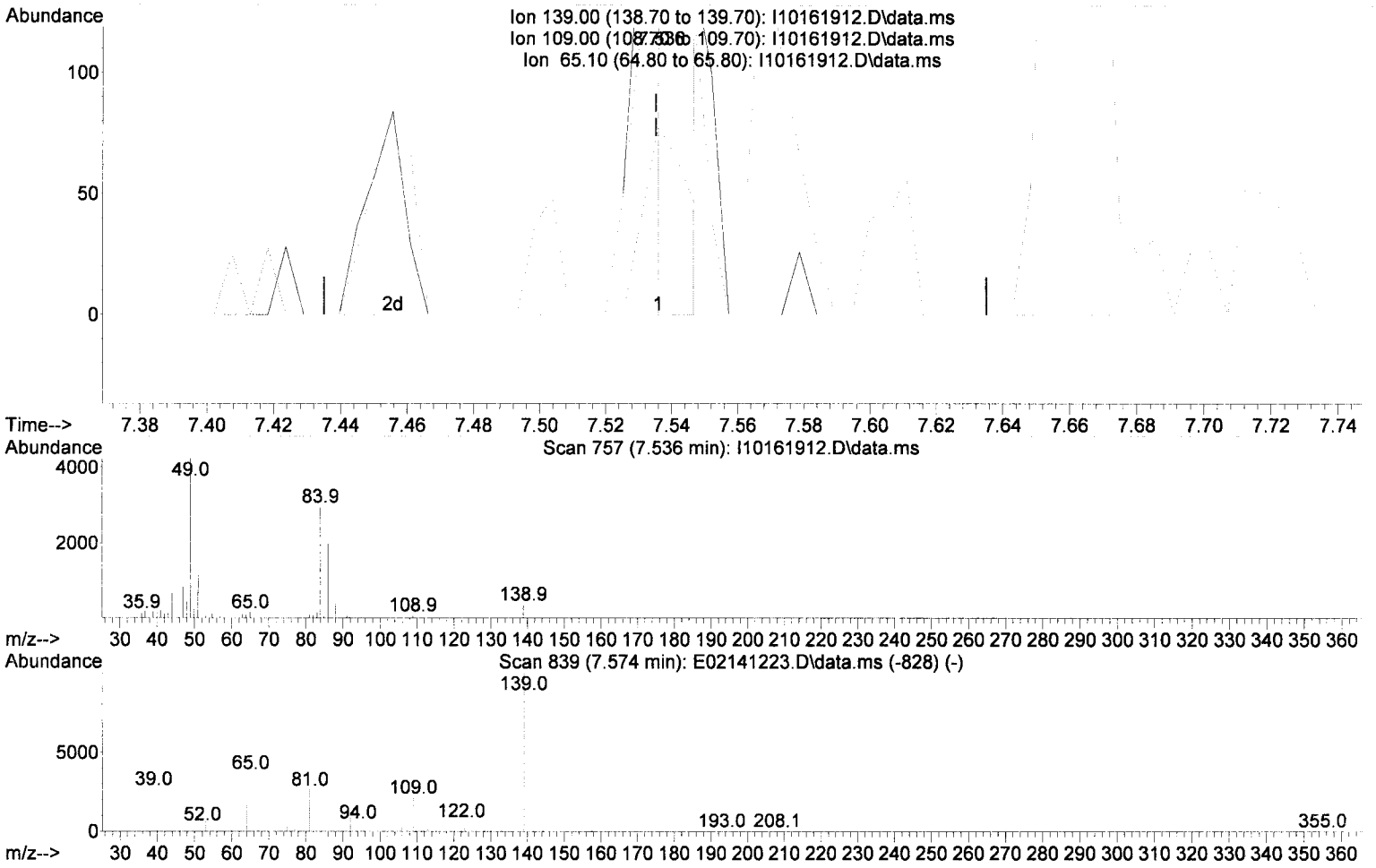


R = 3.47e-003 A*A + 1.83e-001 A - 4.49e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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



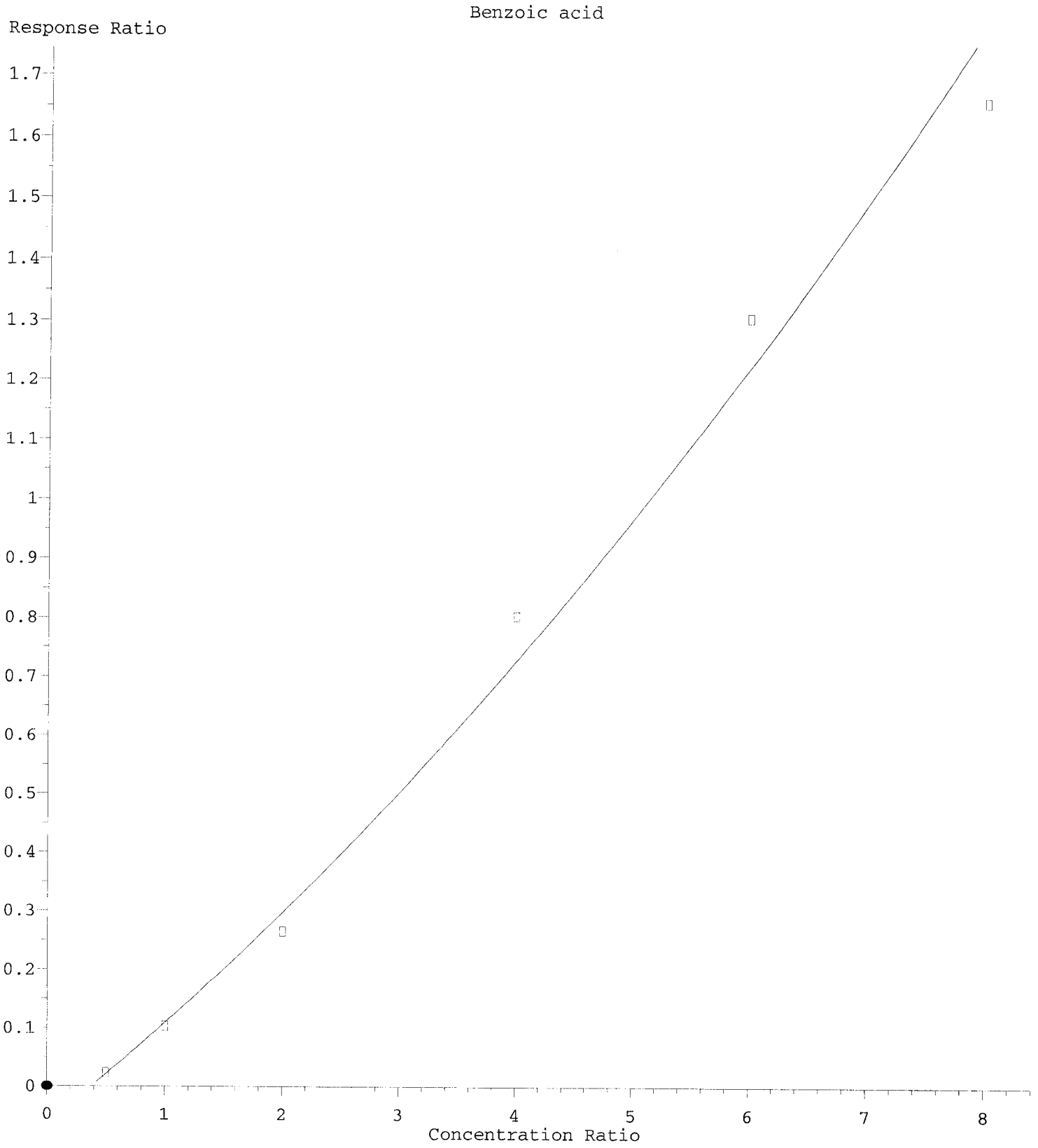
TIC: I10161912.D\data.ms

(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

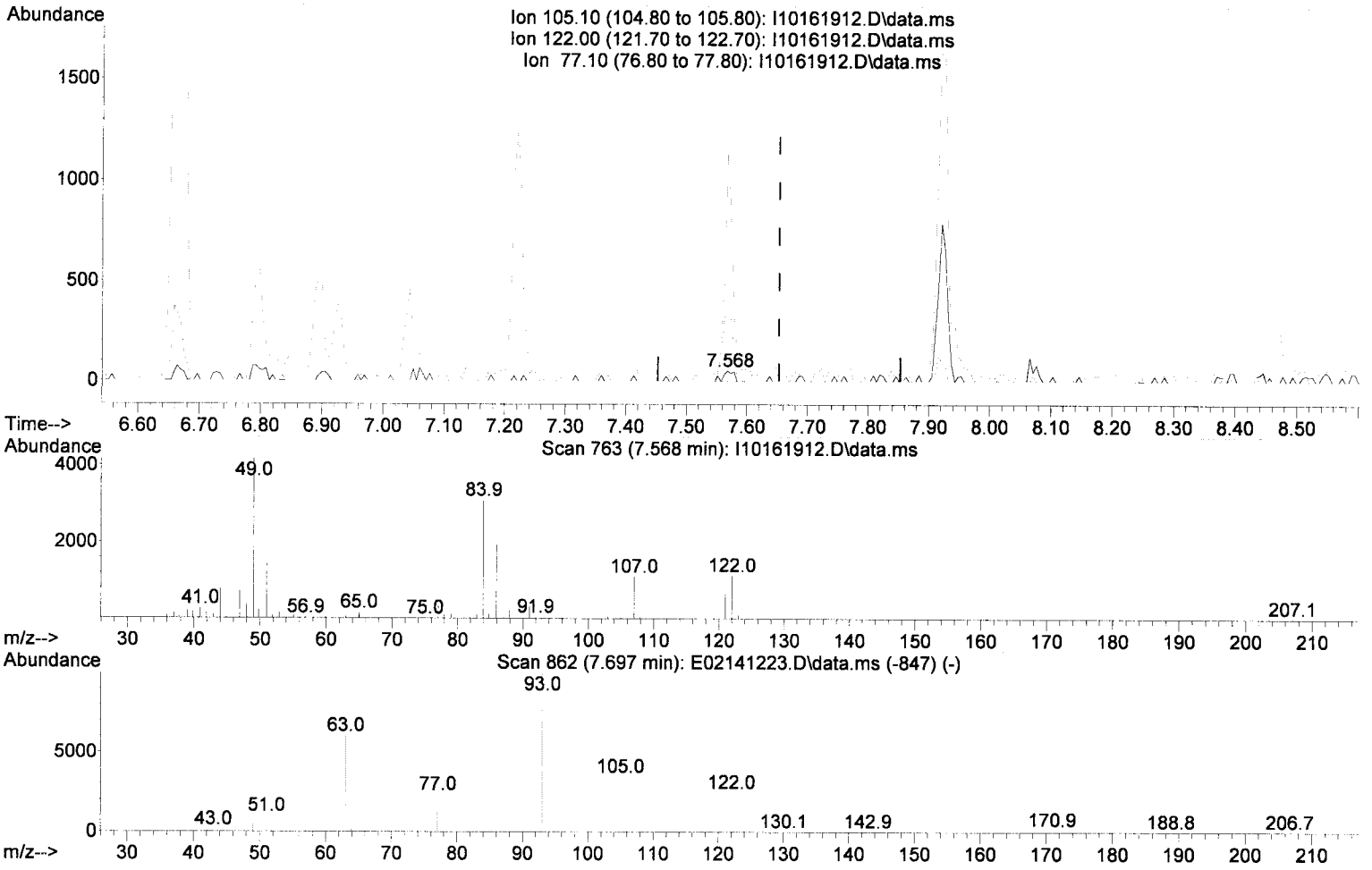


R = 8.44e-003 A*A + 1.64e-001 A - 6.33e-002
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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



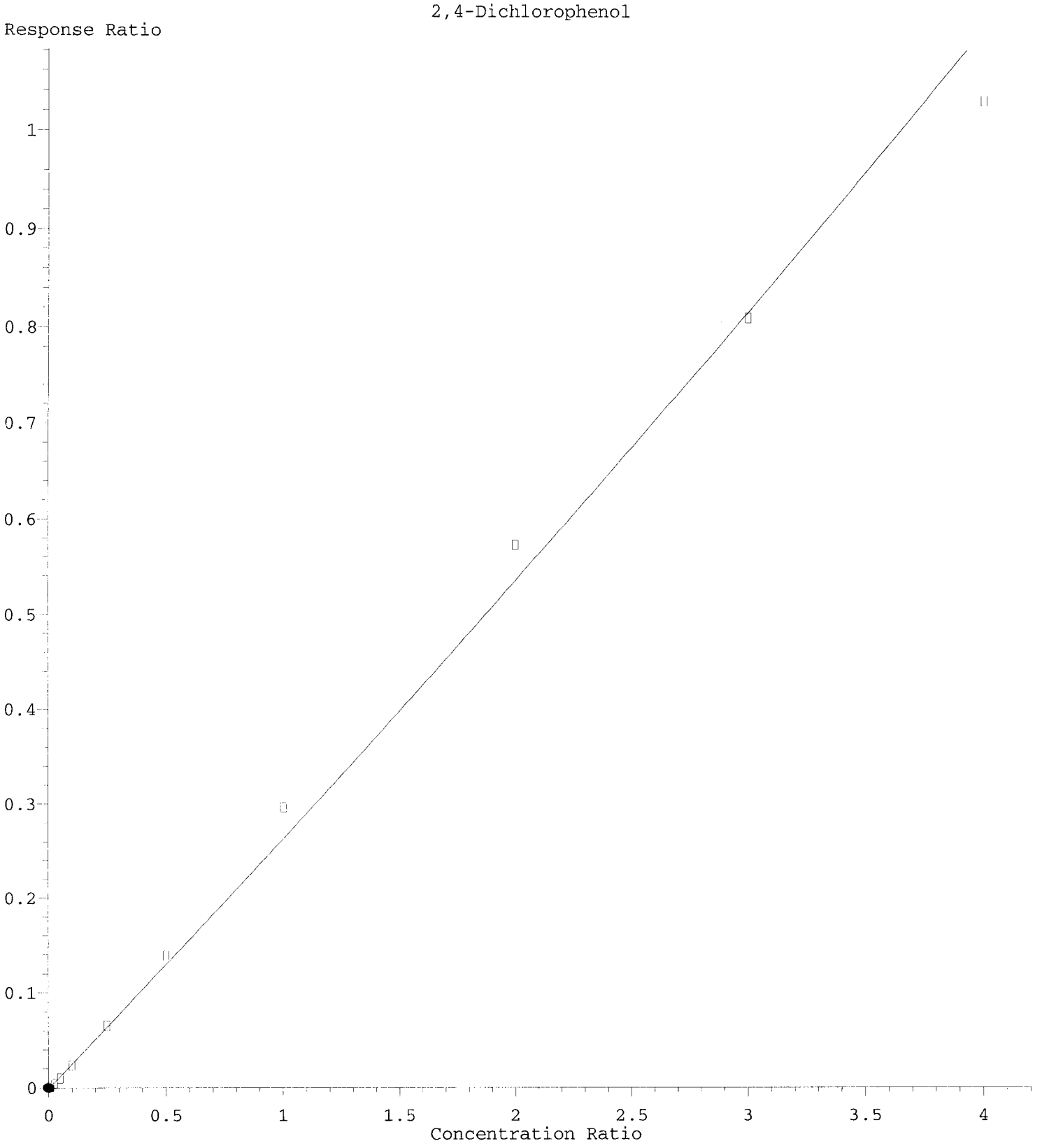
TIC: I10161912.D\data.ms

(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

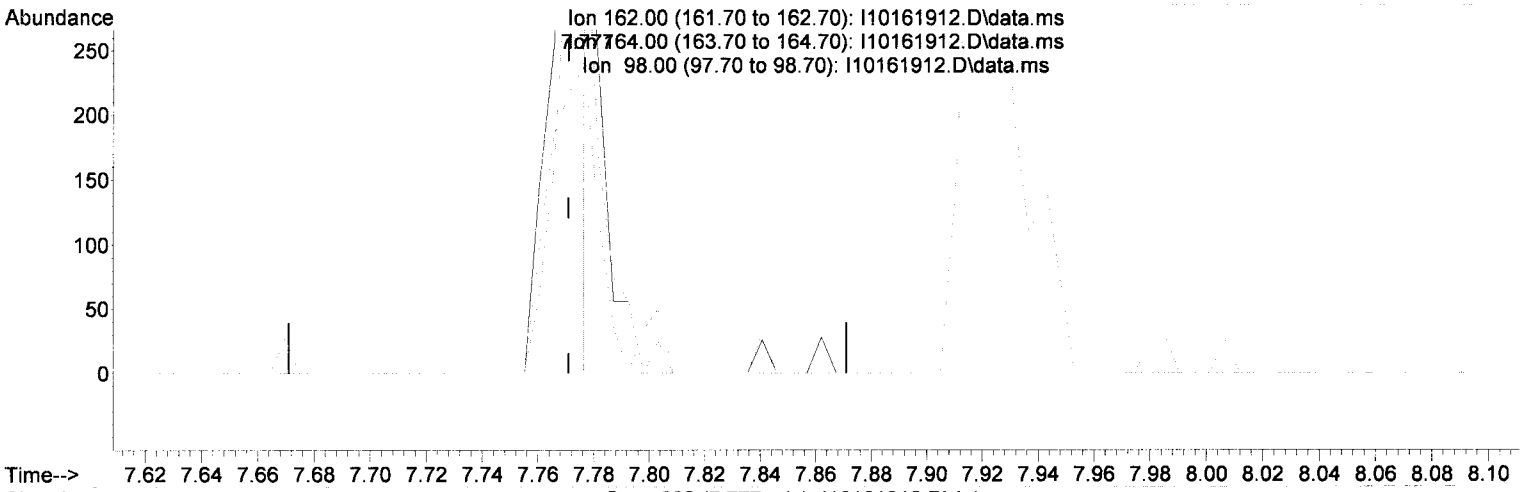


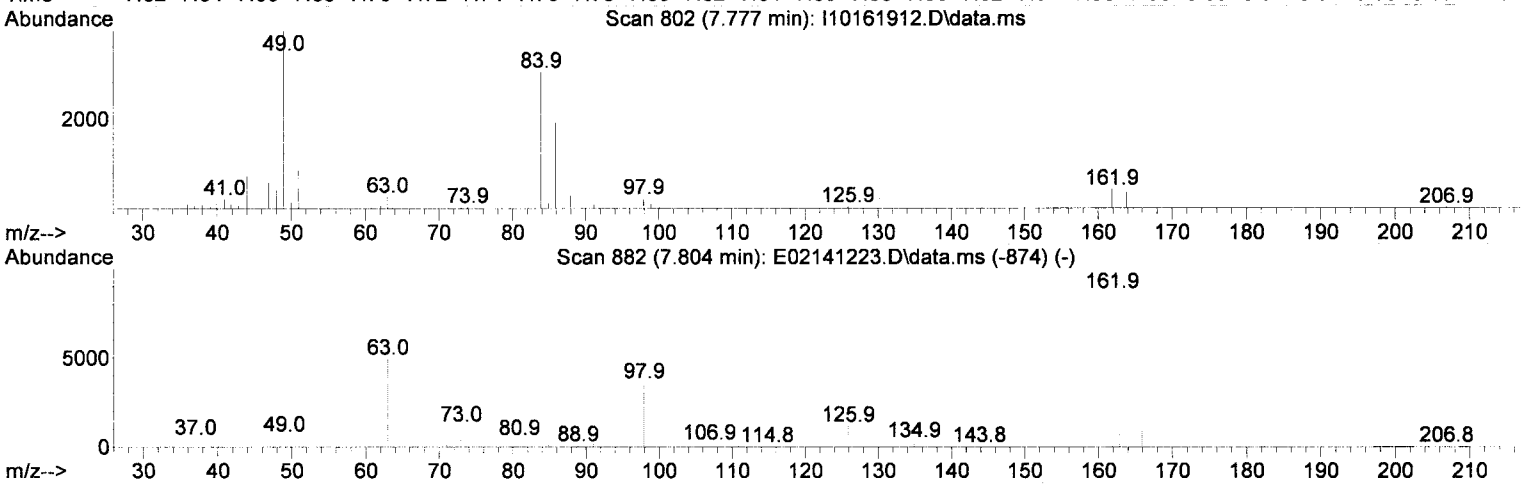
R = 3.95e-003 A*A + 2.60e-001 A - 1.50e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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





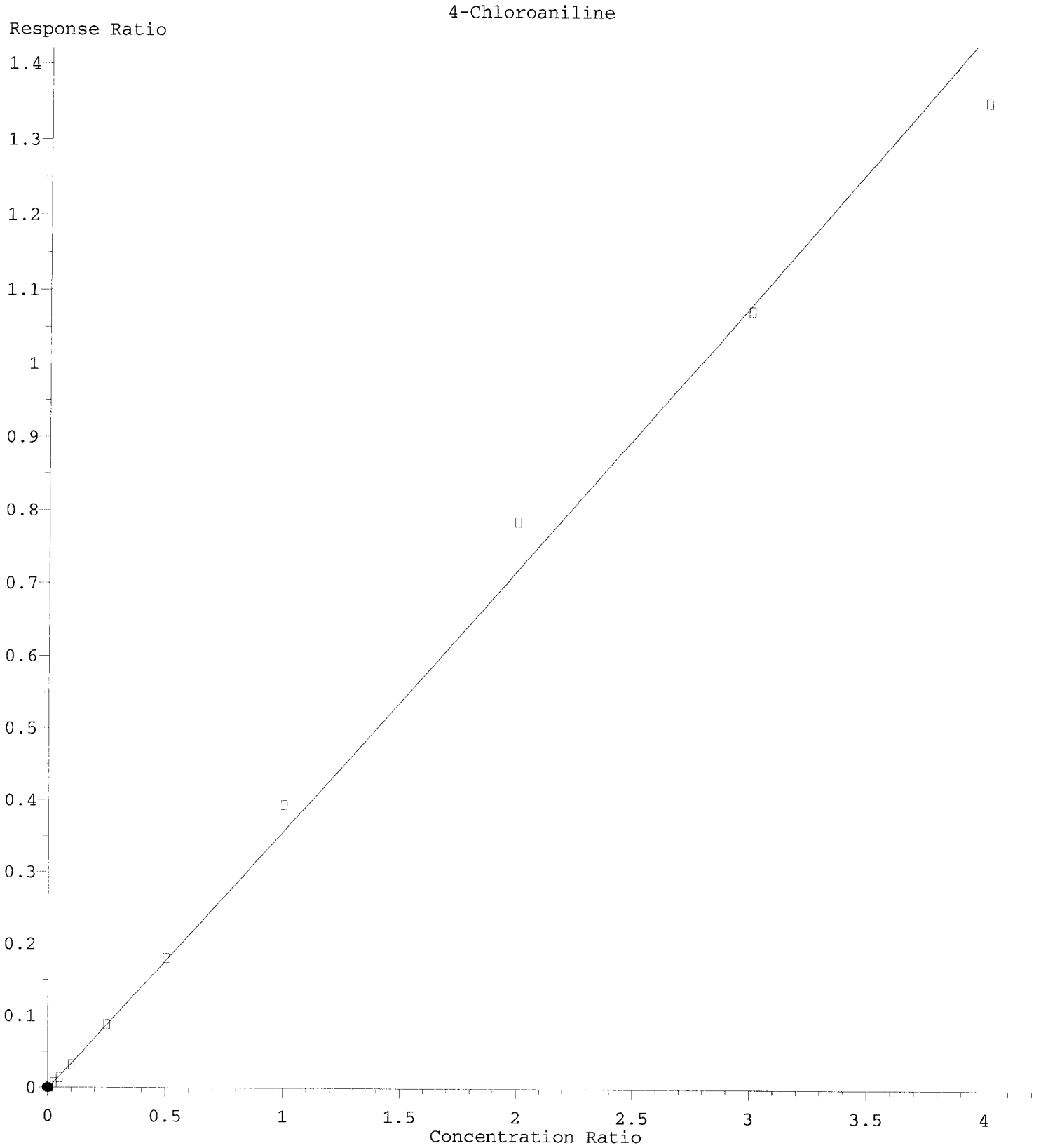
TIC: I10161912.D\data.ms

(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

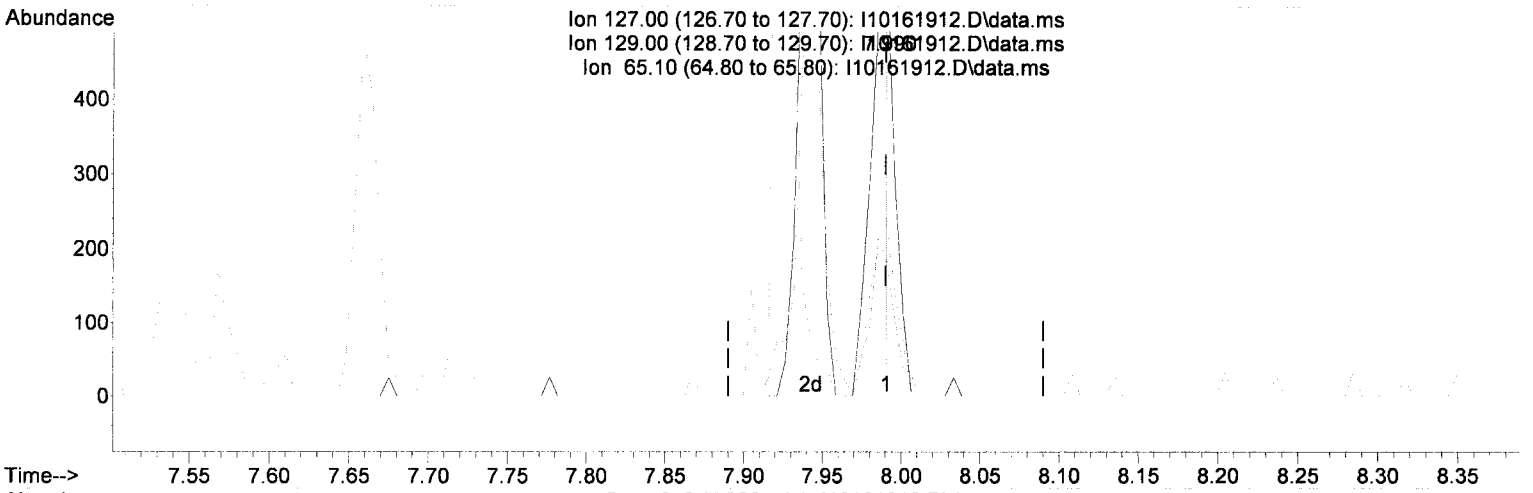


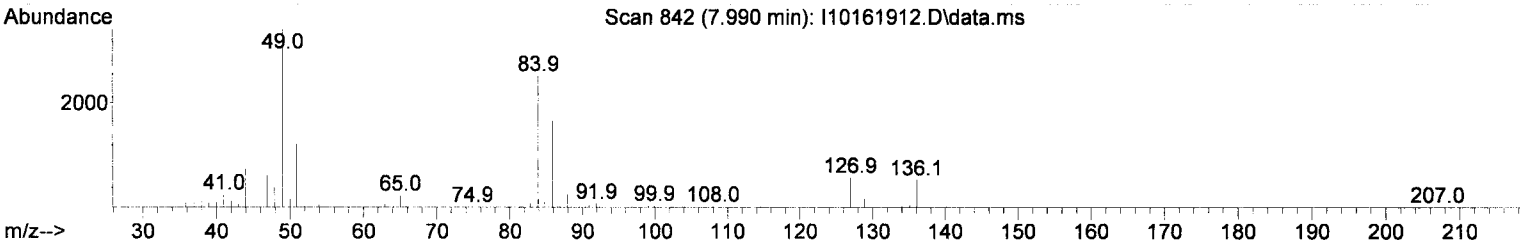
R = 9.86e-004 A*A + 3.58e-001 A - 2.33e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

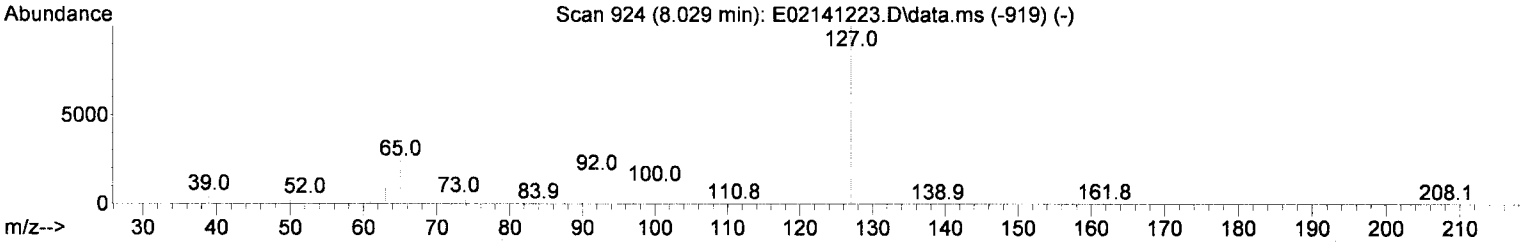
Quantitation Report (Qedit)

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







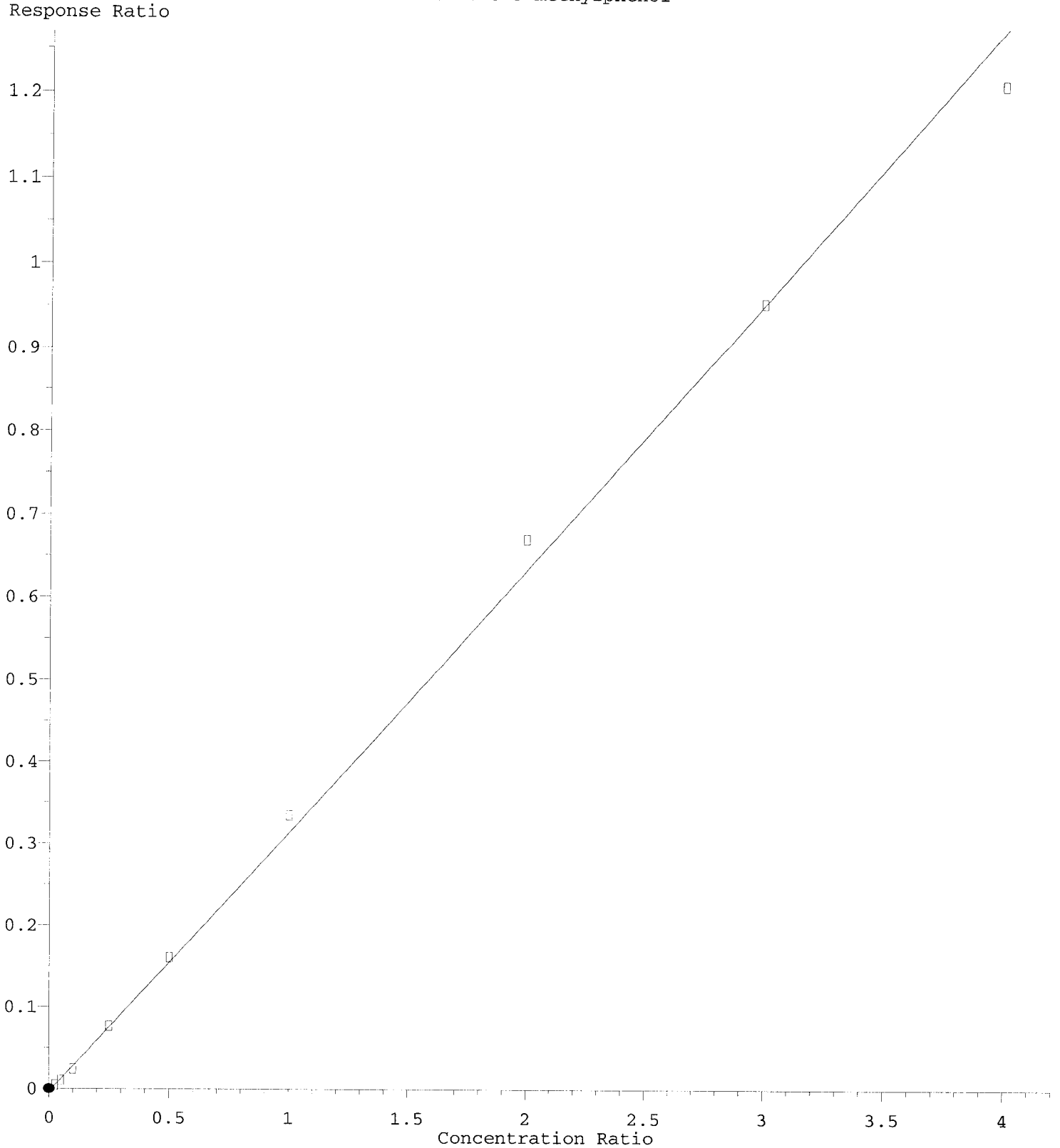
TIC: I10161912.D\data.ms

(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

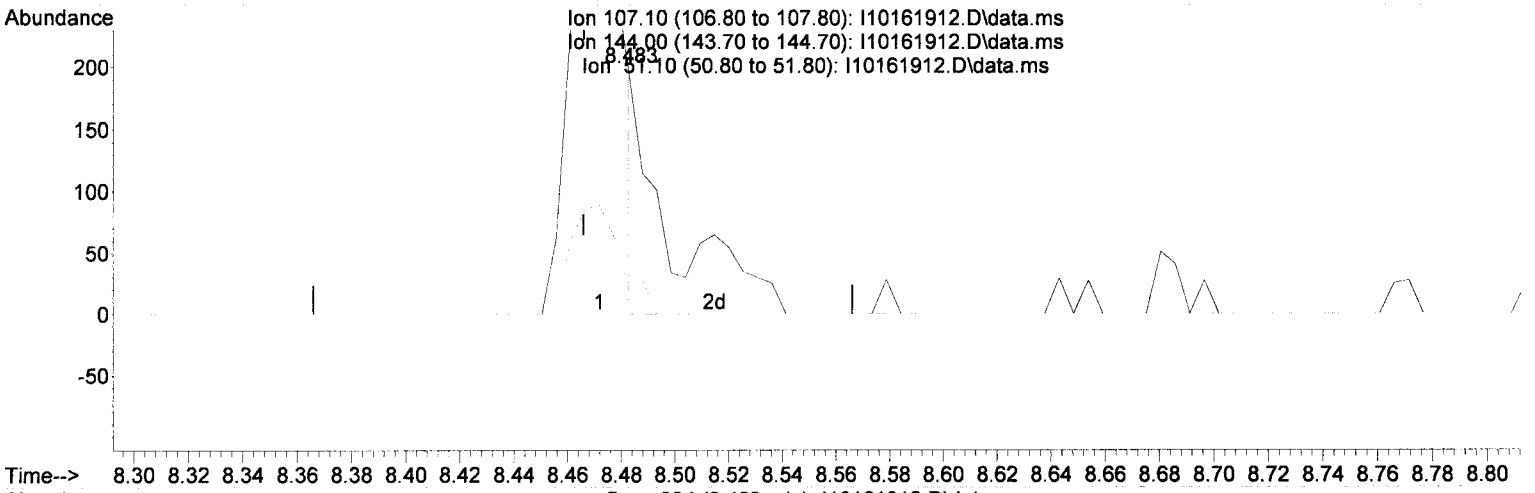


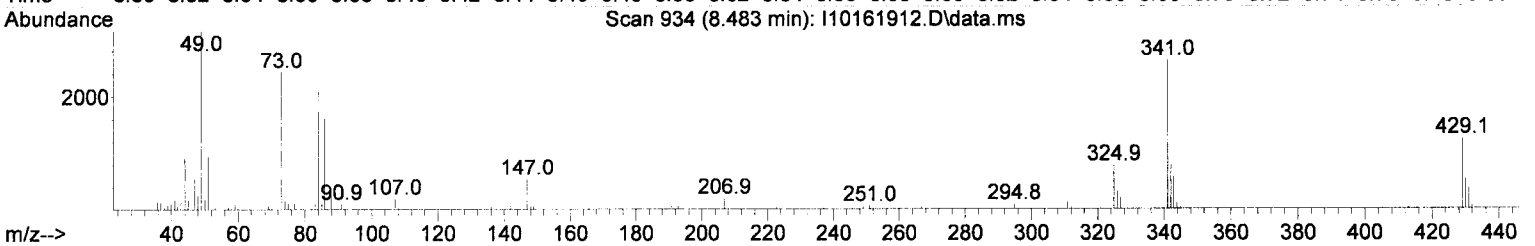
R = 6.09e-004 A*A + 3.17e-001 A - 4.08e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

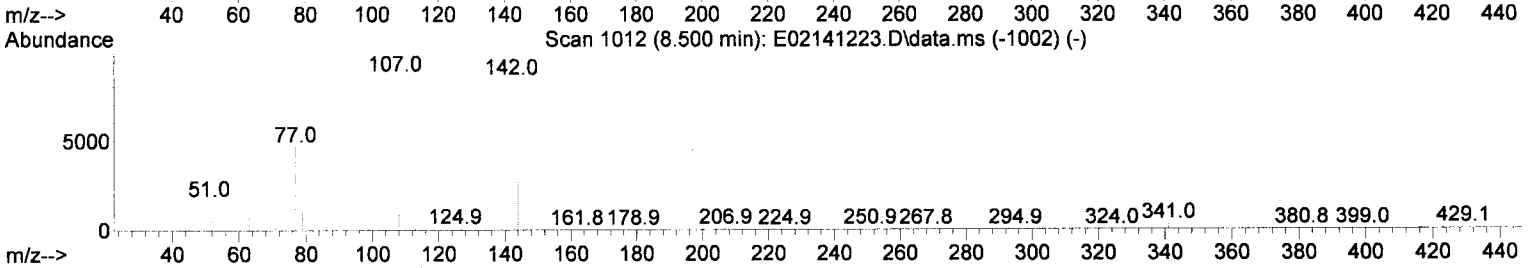
Quantitation Report (Qedit)

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







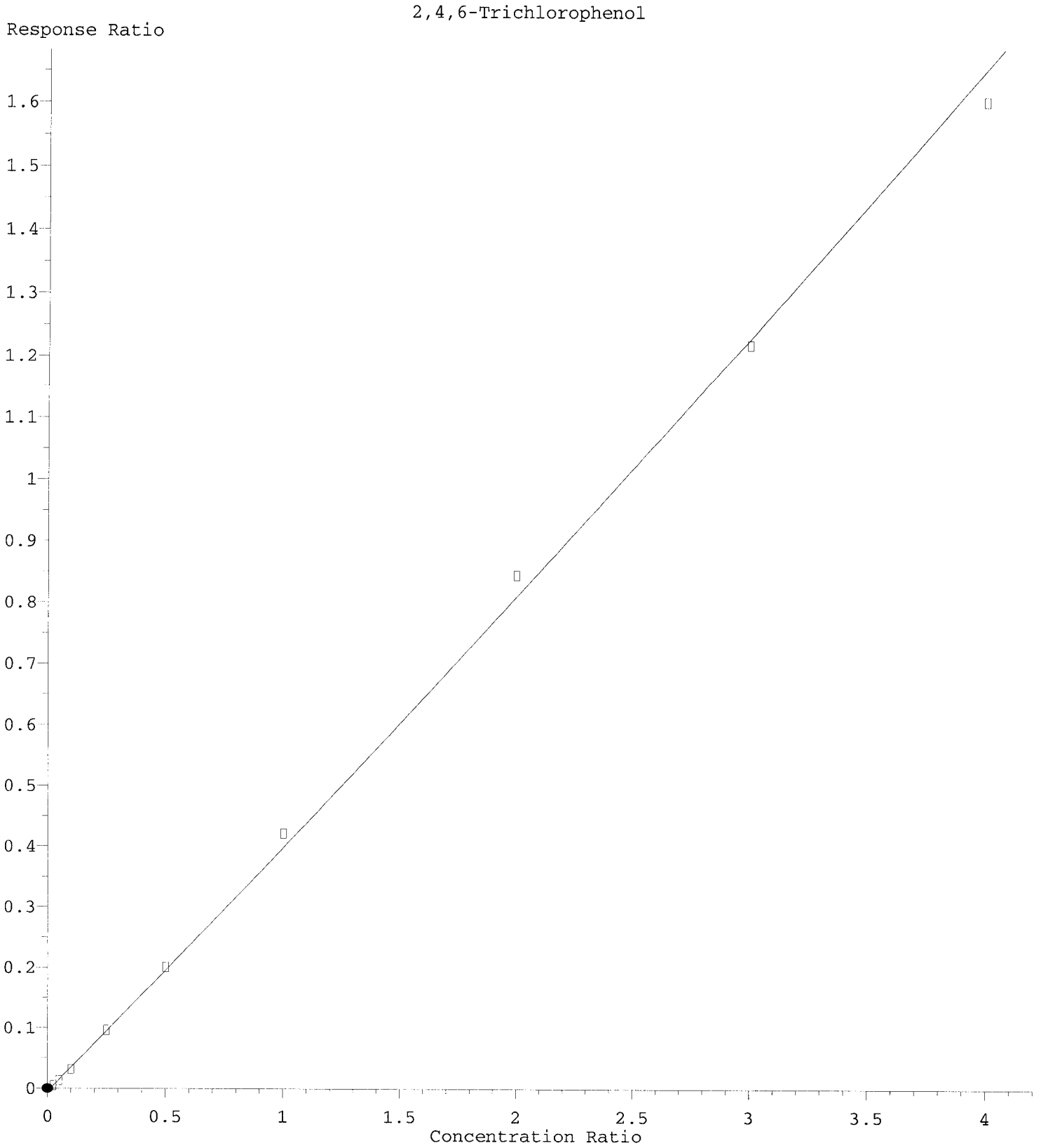
TIC: I10161912.D\data.ms

(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

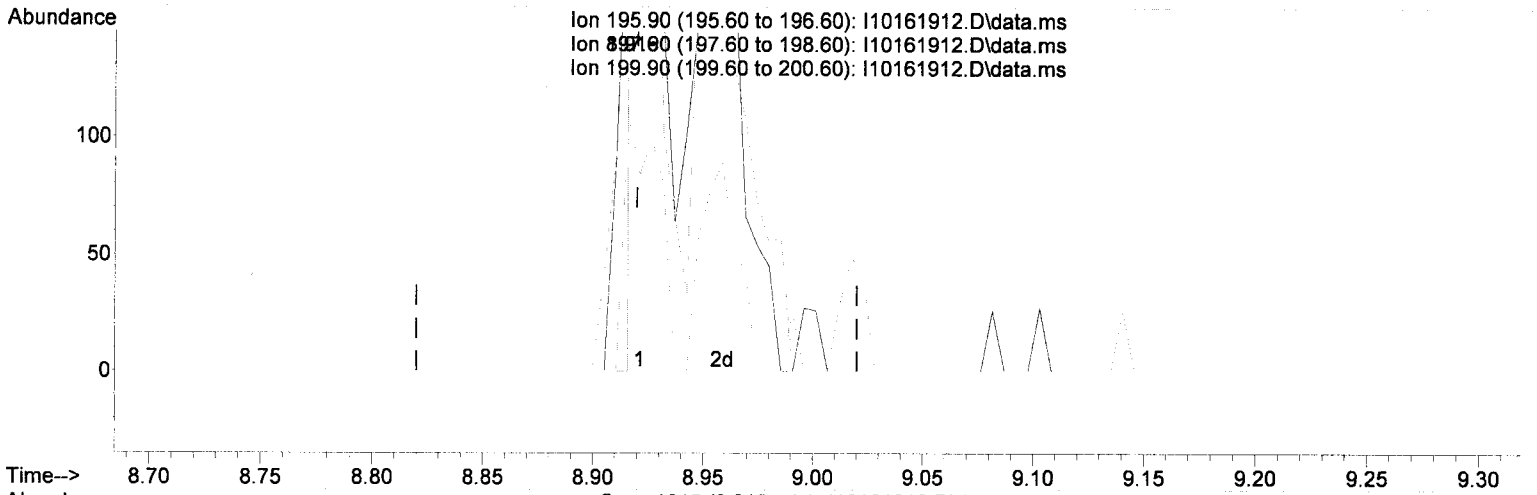


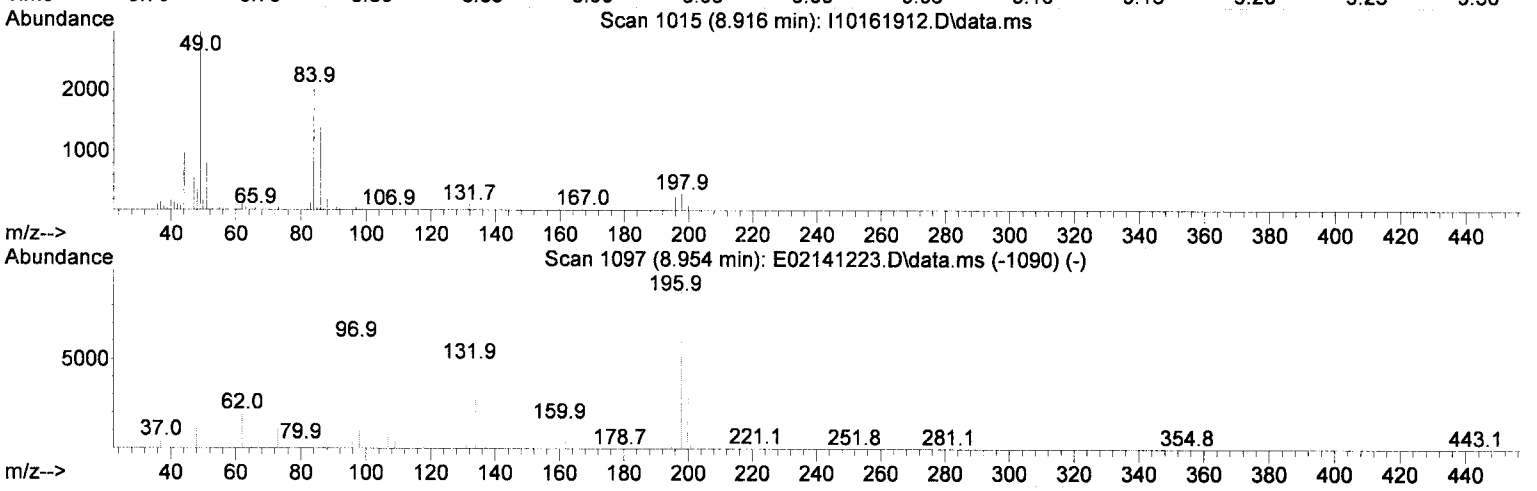
R = 3.81e-003 A*A + 3.99e-001 A - 5.41e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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





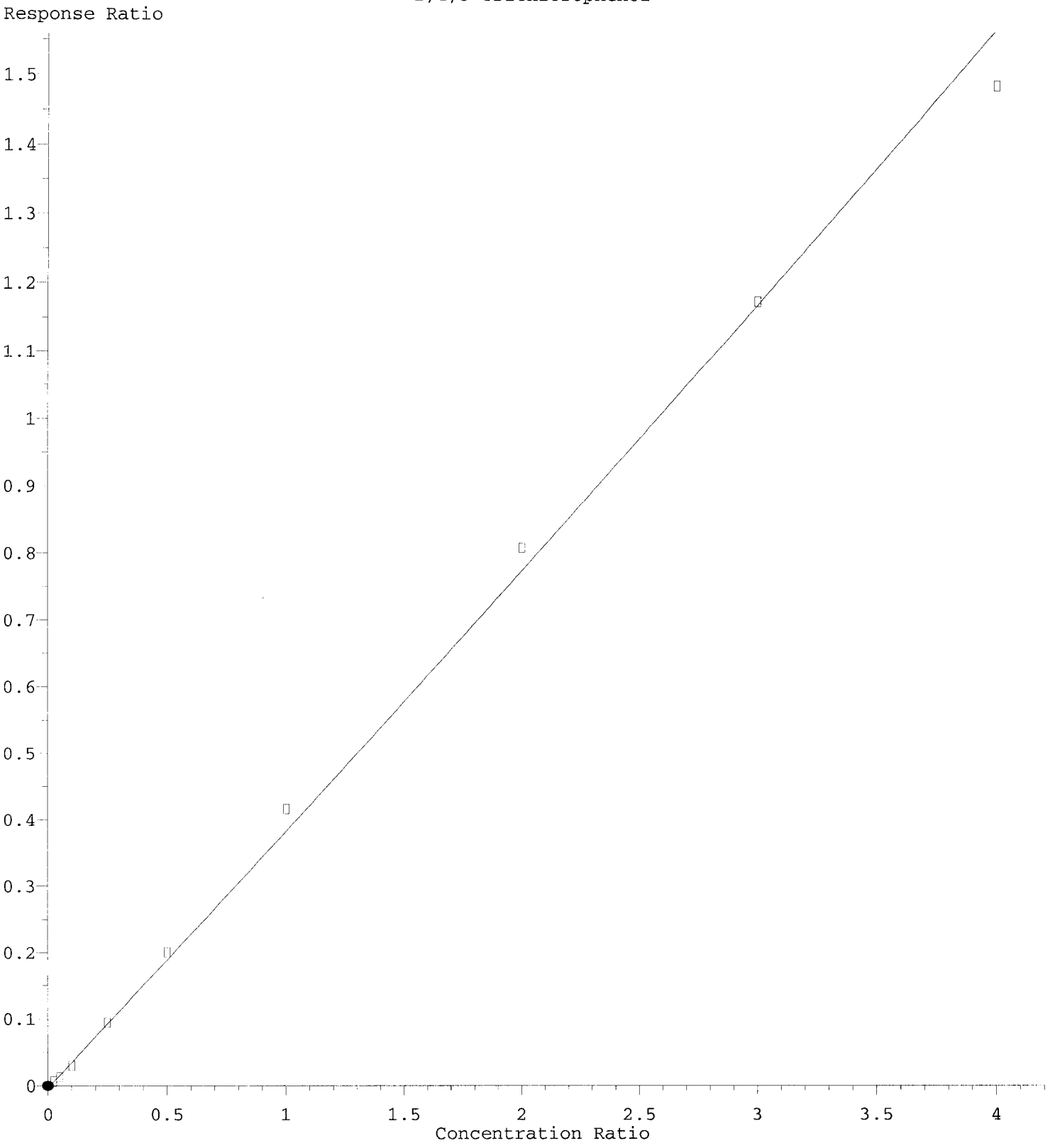
TIC: I10161912.D\data.ms

(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

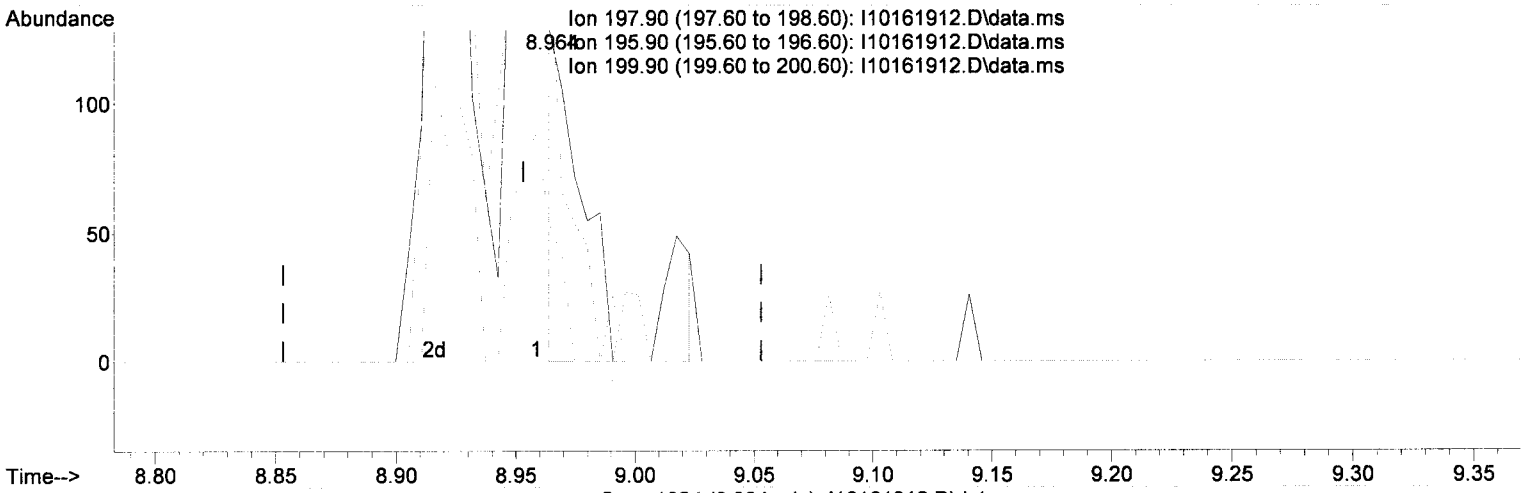


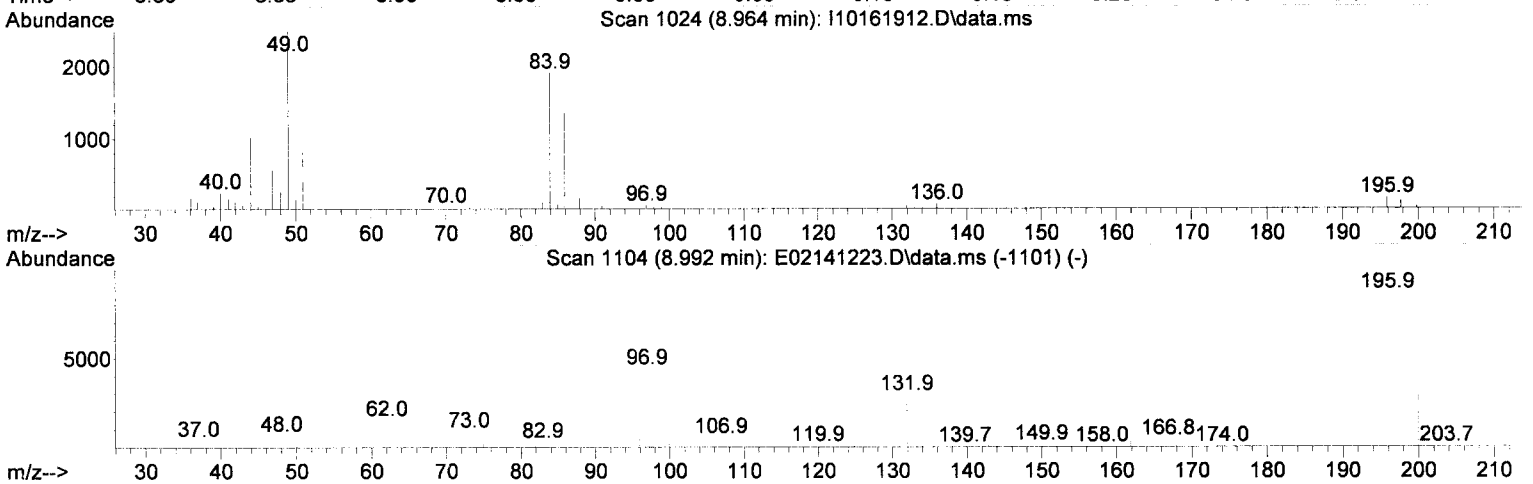
R = 1.98e-003 A*A + 3.84e-001 A - 3.95e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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





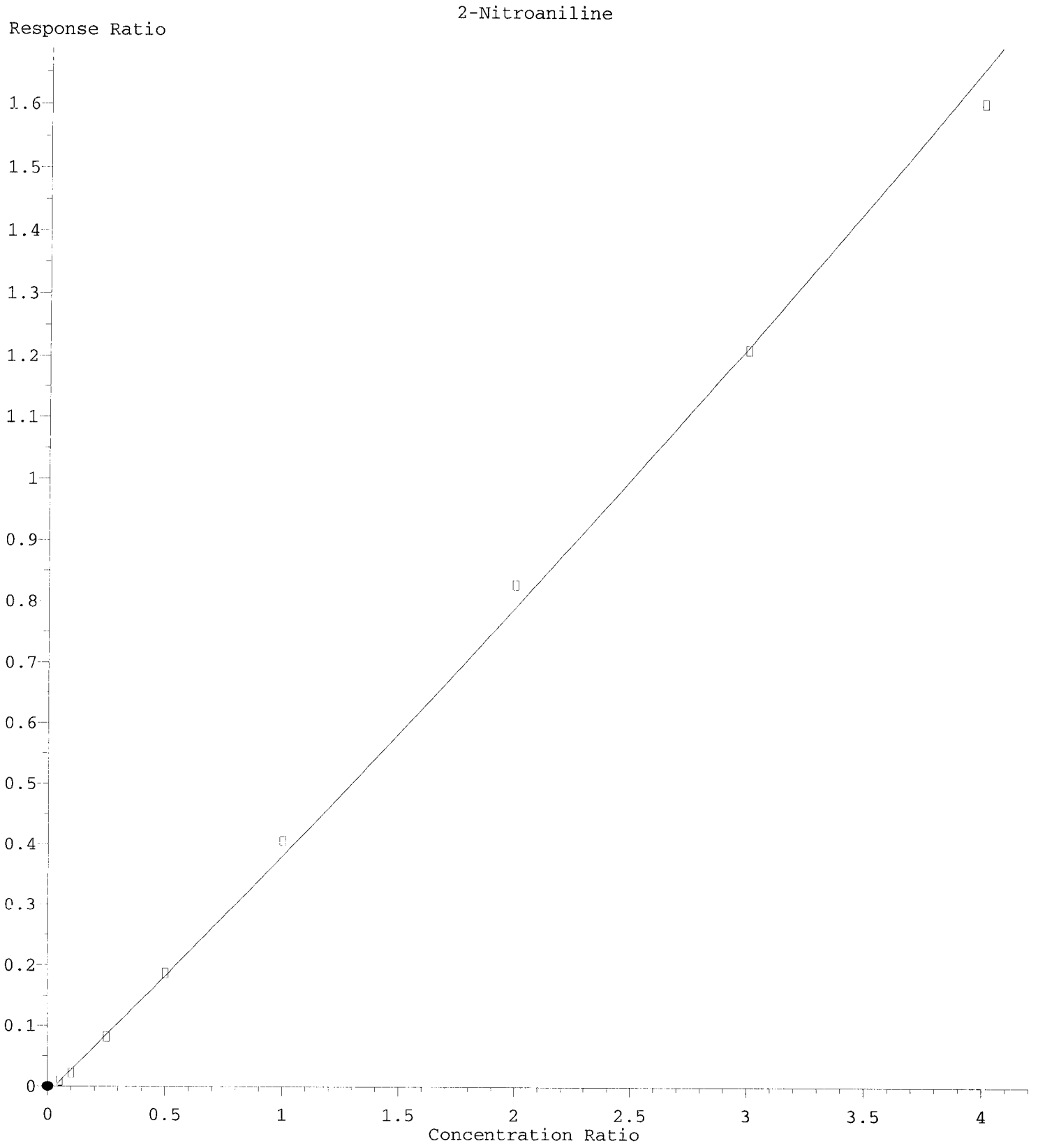
TIC: I10161912.D\data.ms

(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

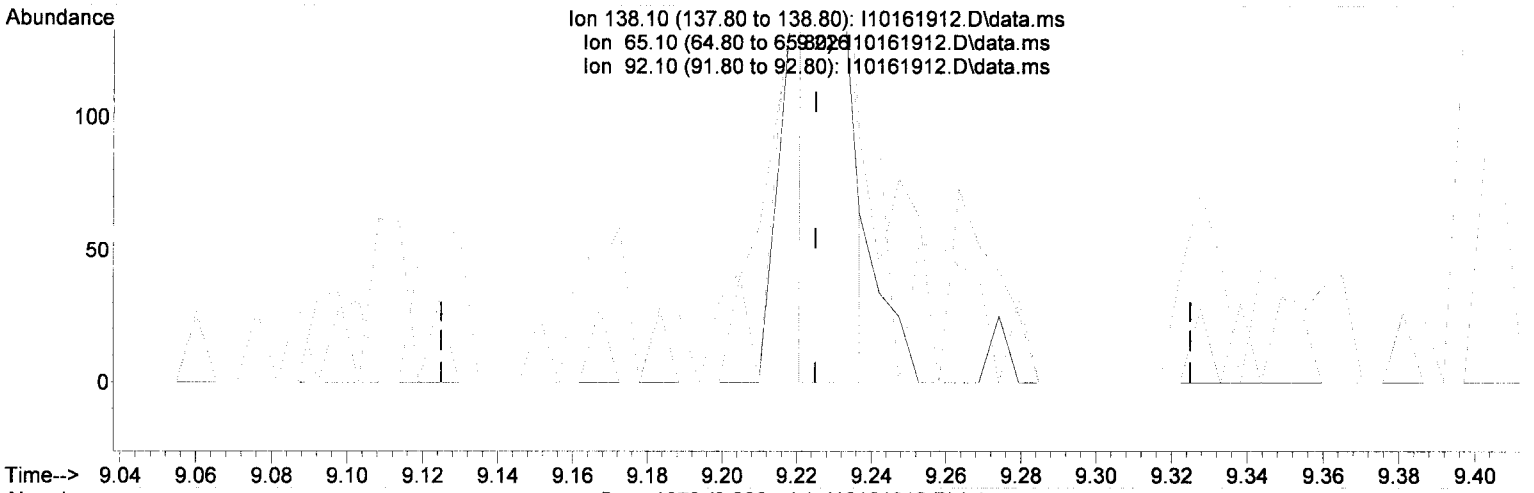


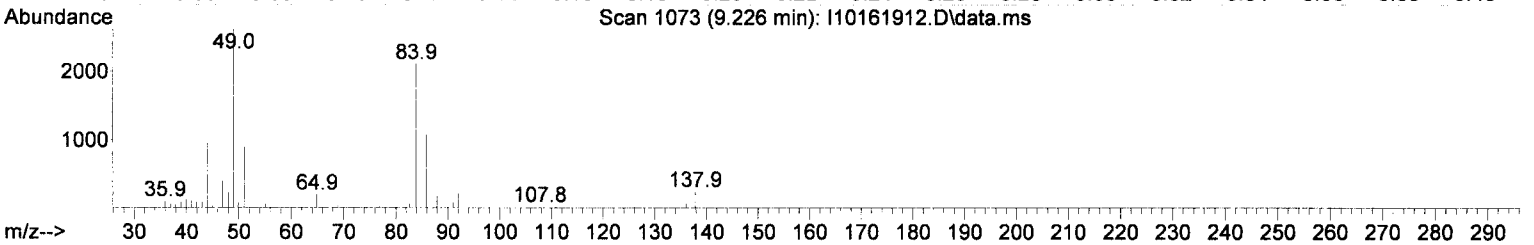
R = 8.44e-003 A*A + 3.84e-001 A - 1.17e-002
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

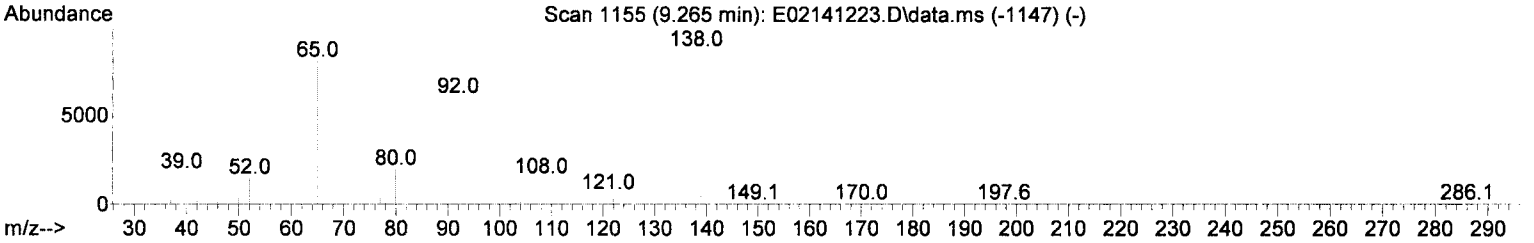
Quantitation Report (Qedit)

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







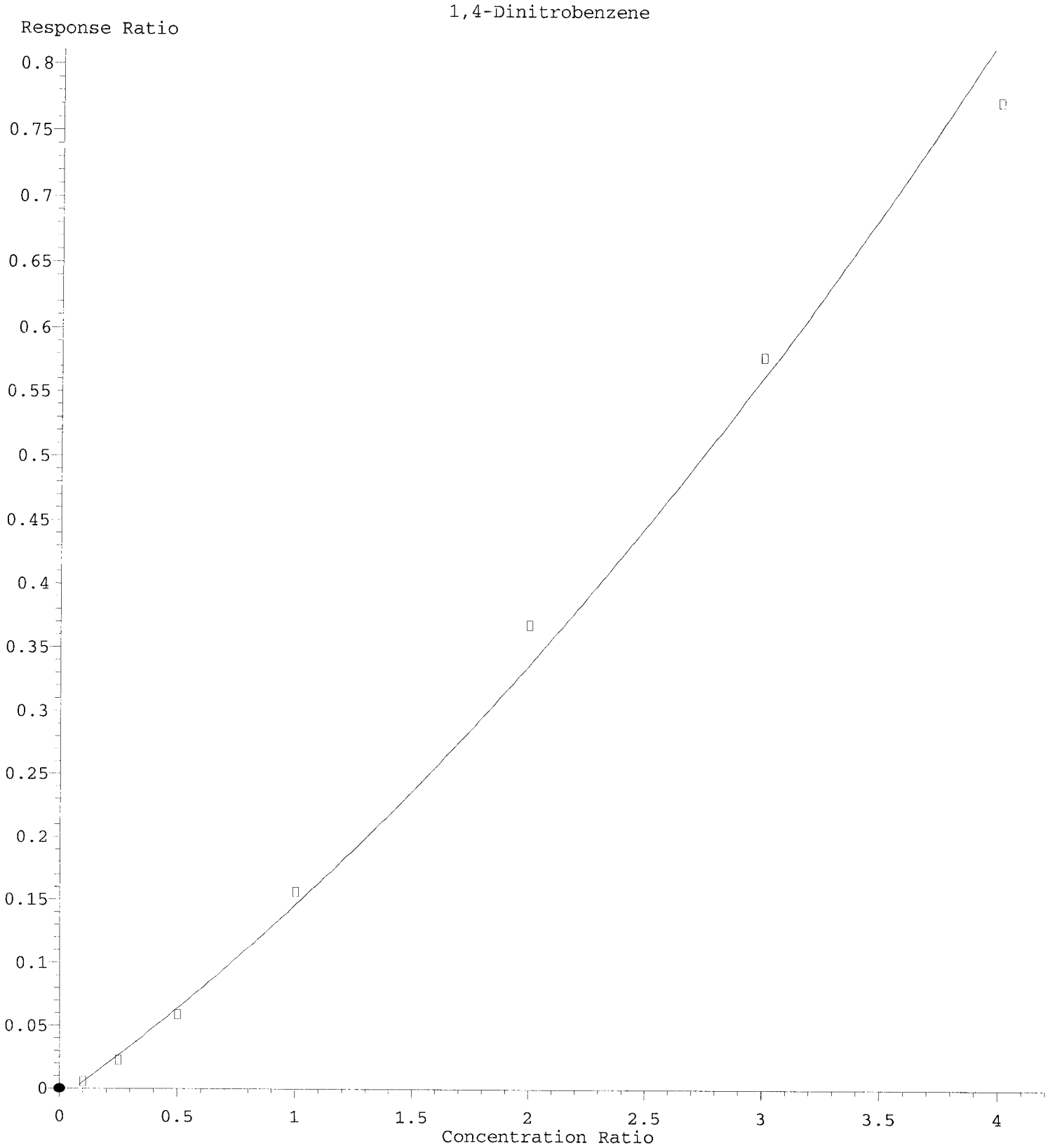
TIC: I10161912.D\data.ms

(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

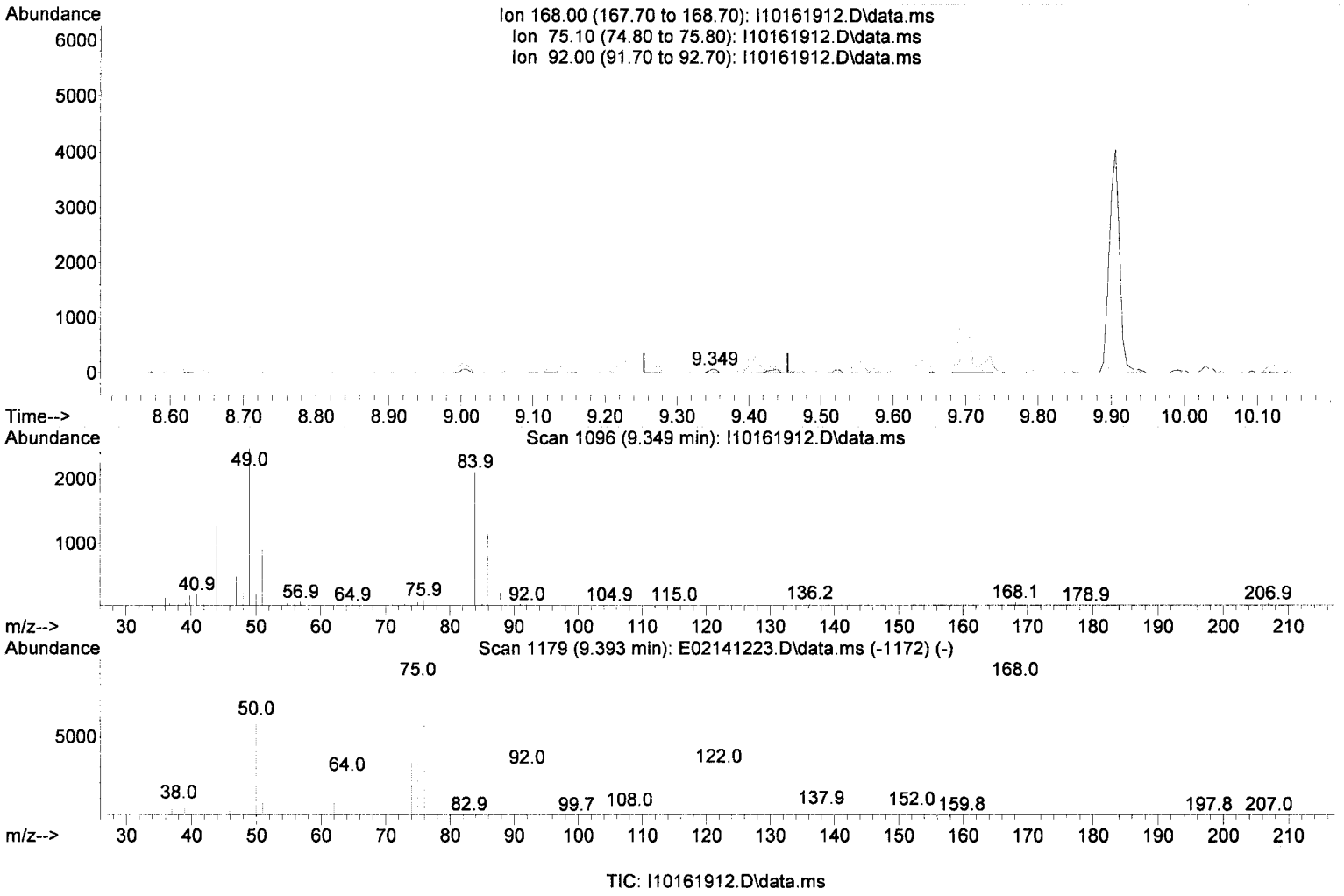


R = 1.76e-002 A*A + 1.38e-001 A - 8.99e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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



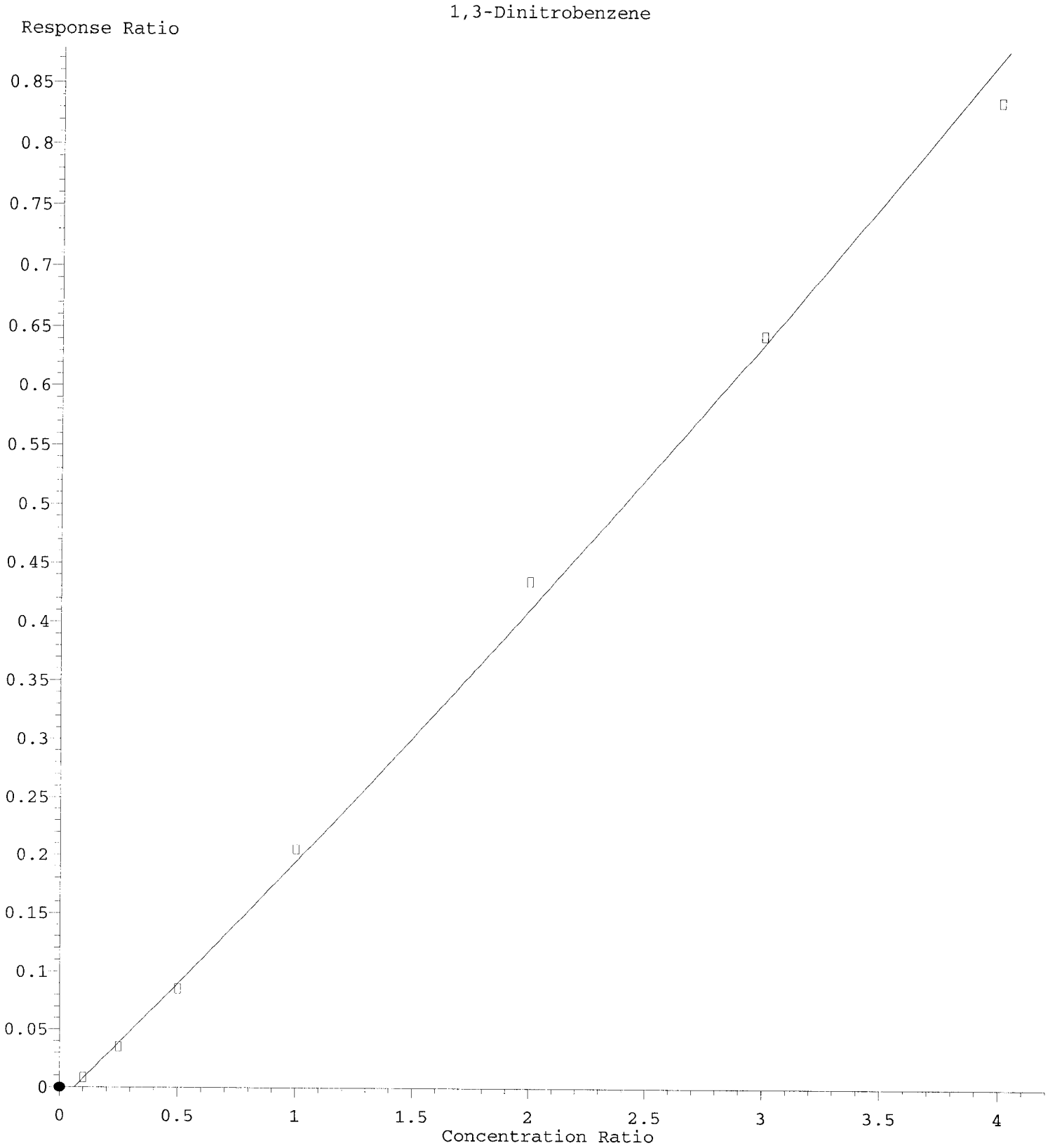
TIC: I10161912.D\data.ms

(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

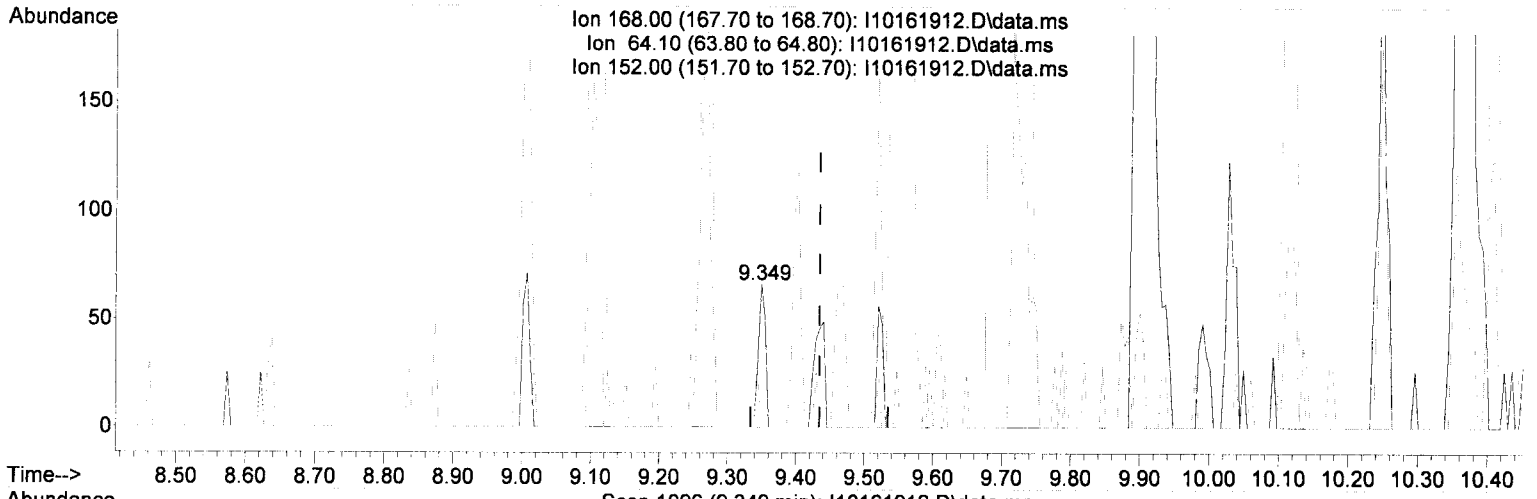


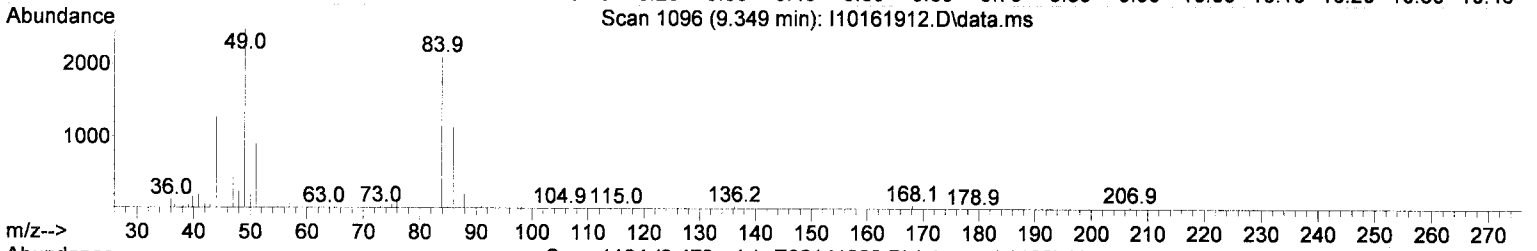
R = 4.65e-003 A*A + 2.02e-001 A - 1.26e-002
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

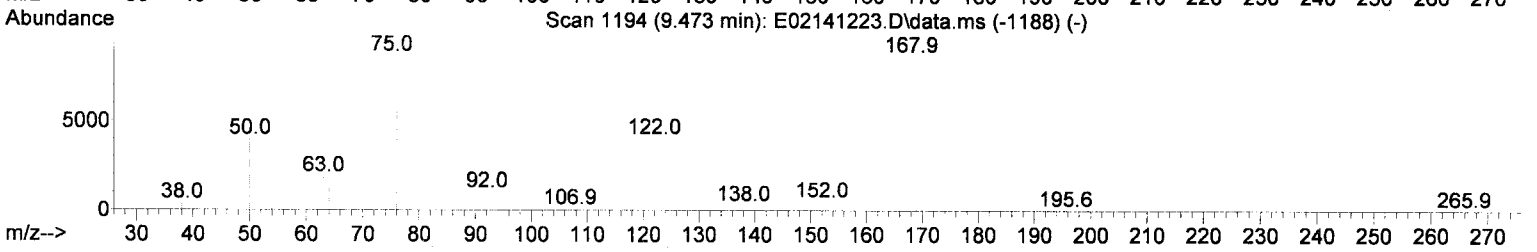
Quantitation Report (Qedit)

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







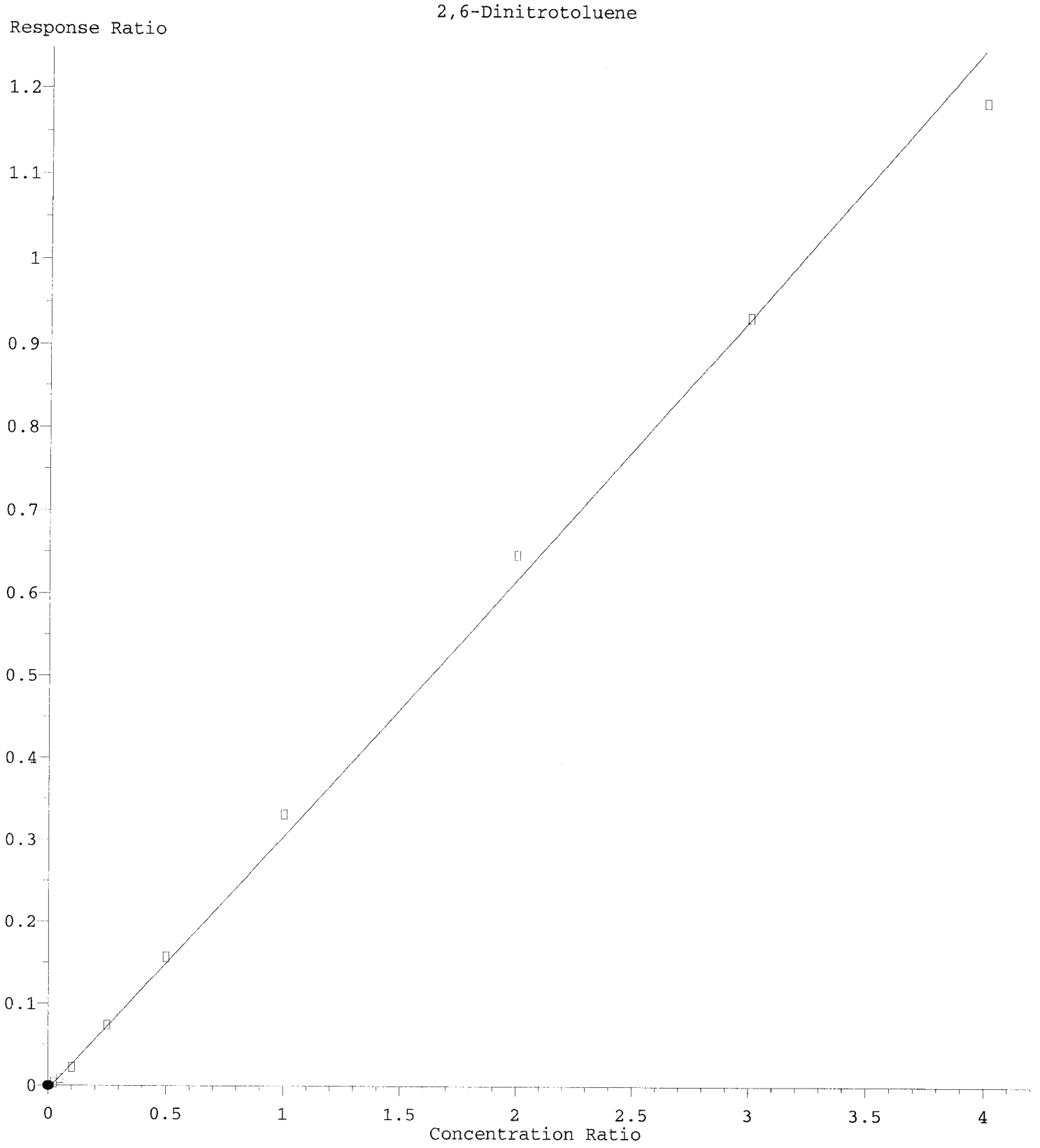
TIC: I10161912.D\data.ms

(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

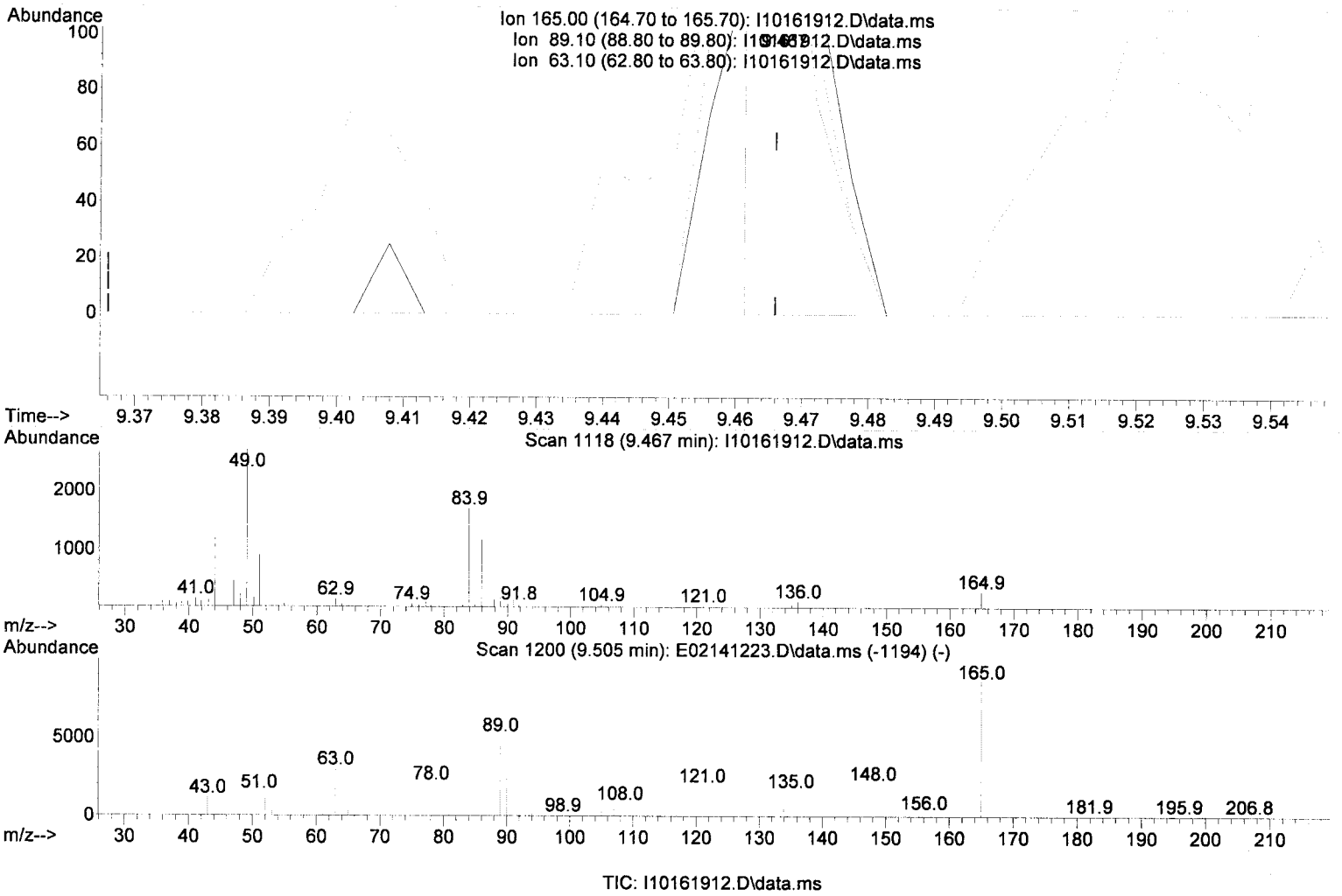


R = 1.53e-003 A*A + 3.08e-001 A - 4.92e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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



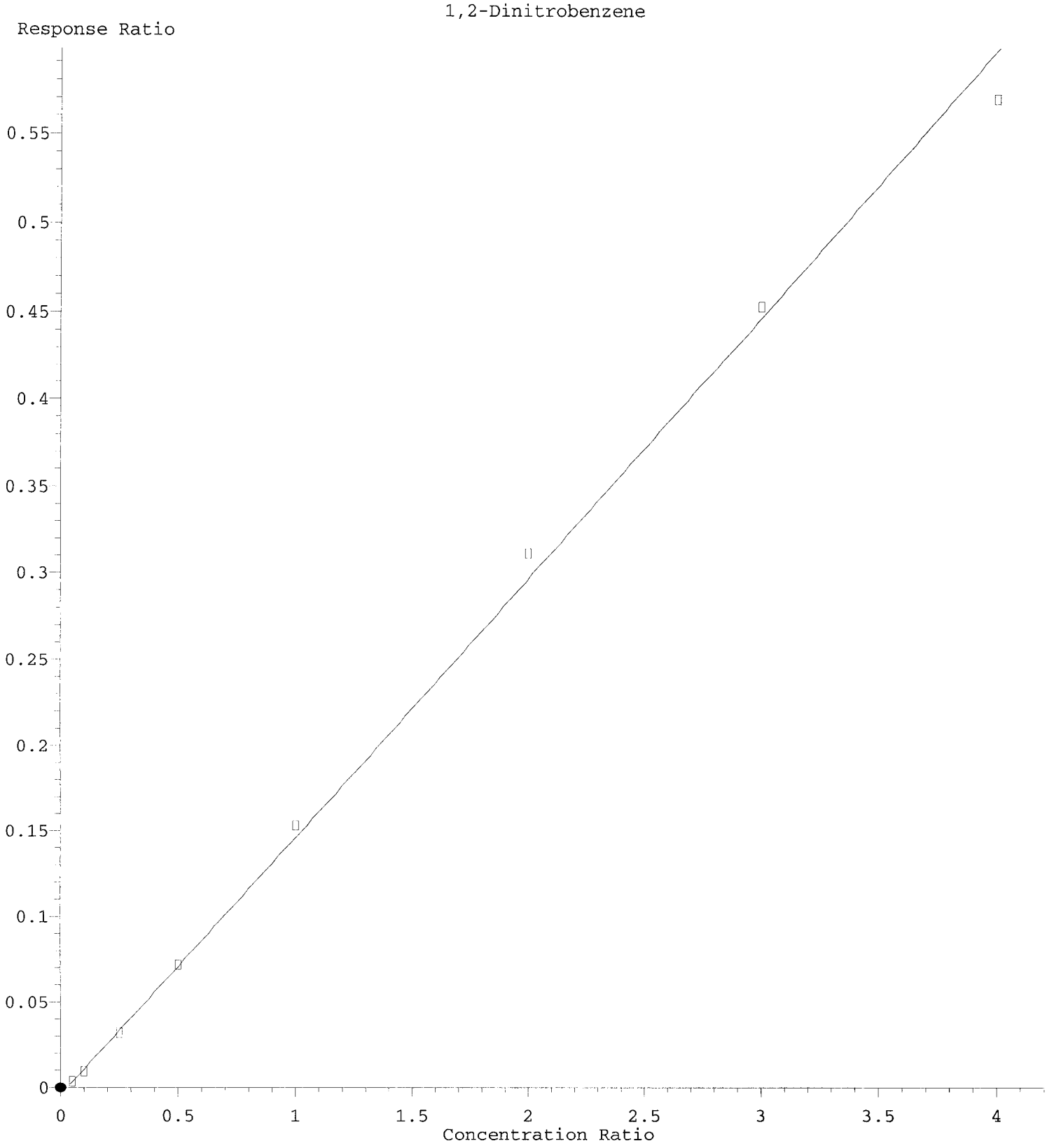
TIC: I10161912.D\data.ms

(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

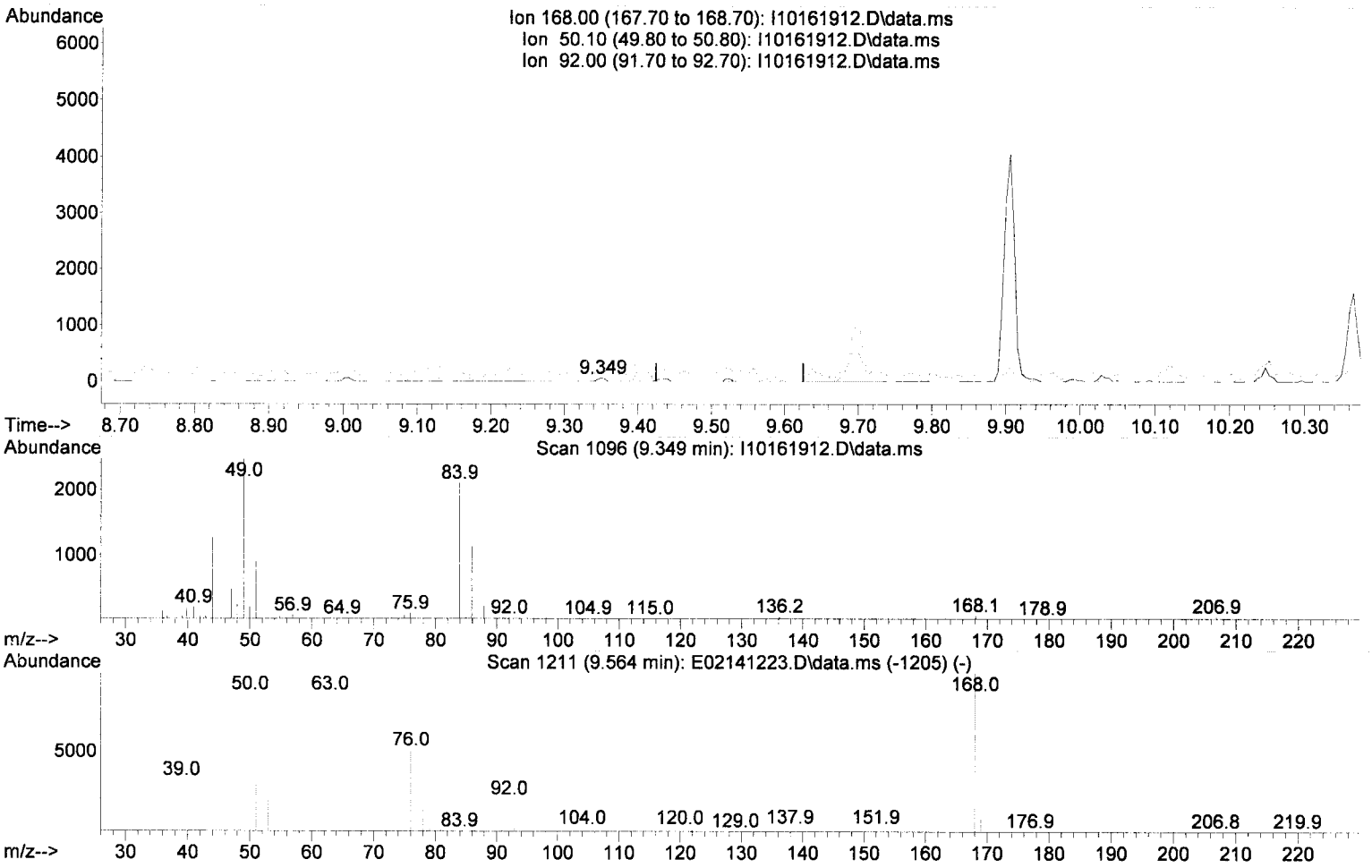


R = -3.71e-005 A*A + 1.50e-001 A - 4.34e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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



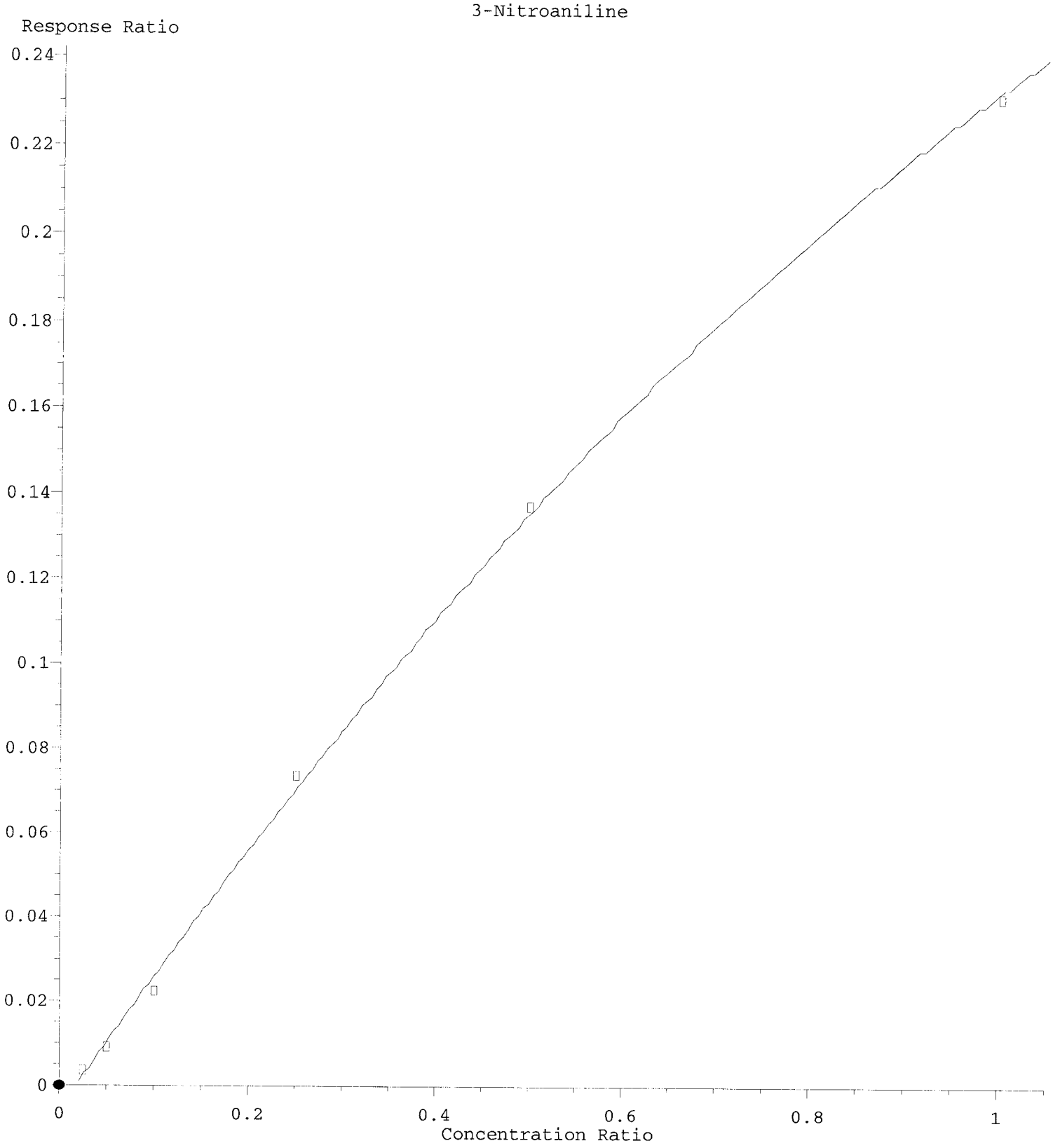
TIC: I10161912.D\data.ms

(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

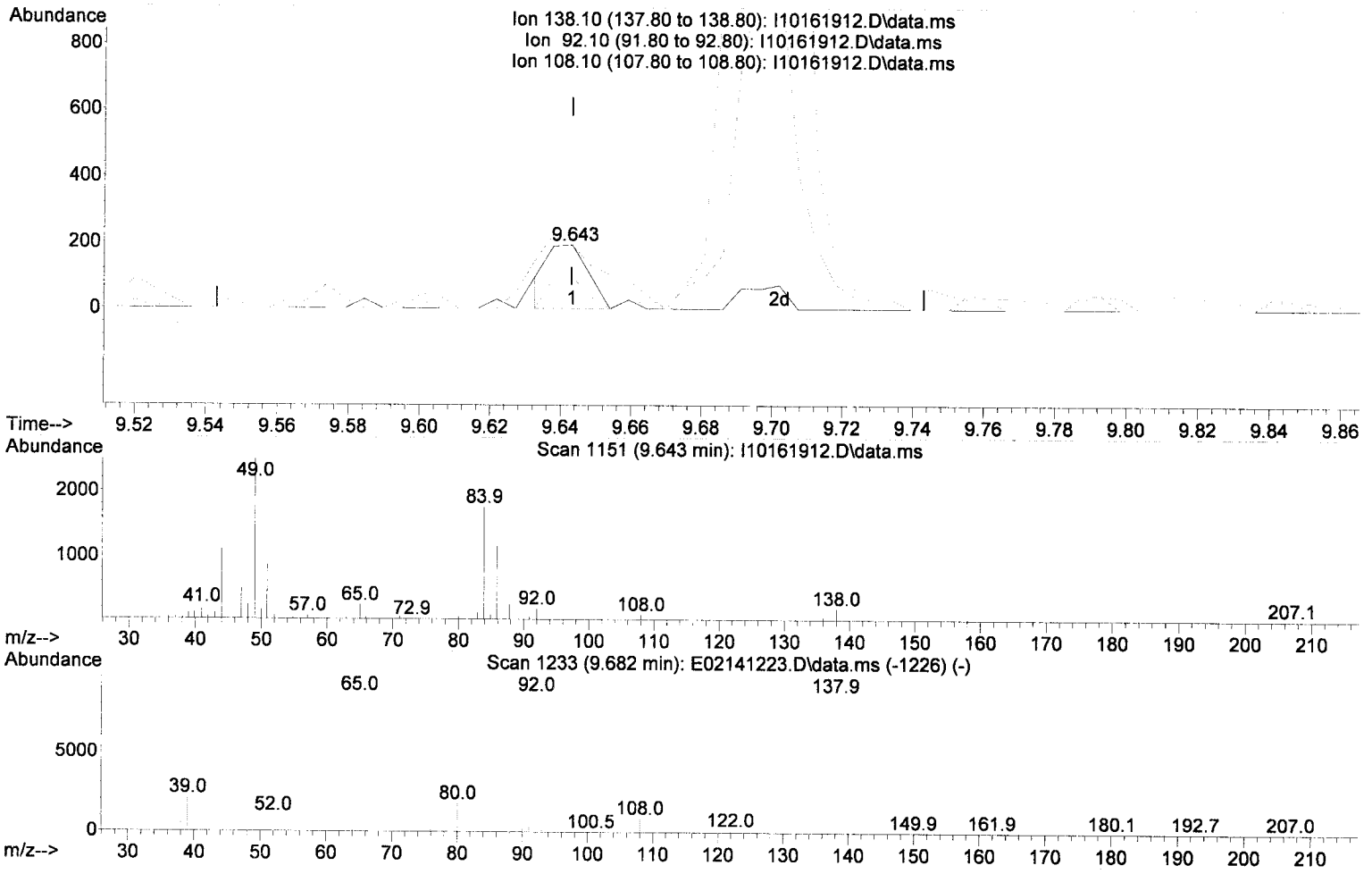


R = -8.76e-002 A*A + 3.26e-001 A - 5.72e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w/(1/a)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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



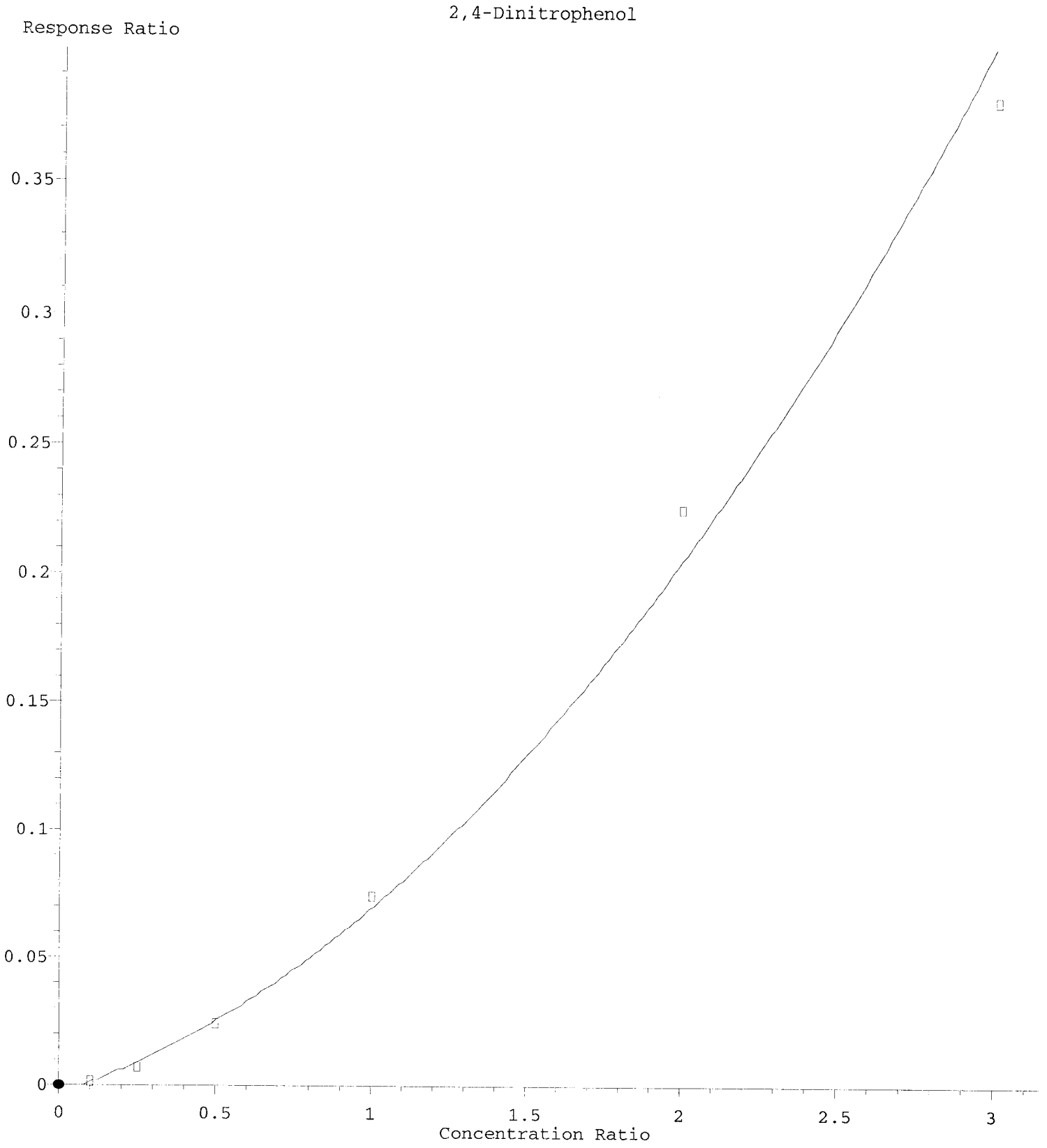
TIC: I10161912.D\data.ms

(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

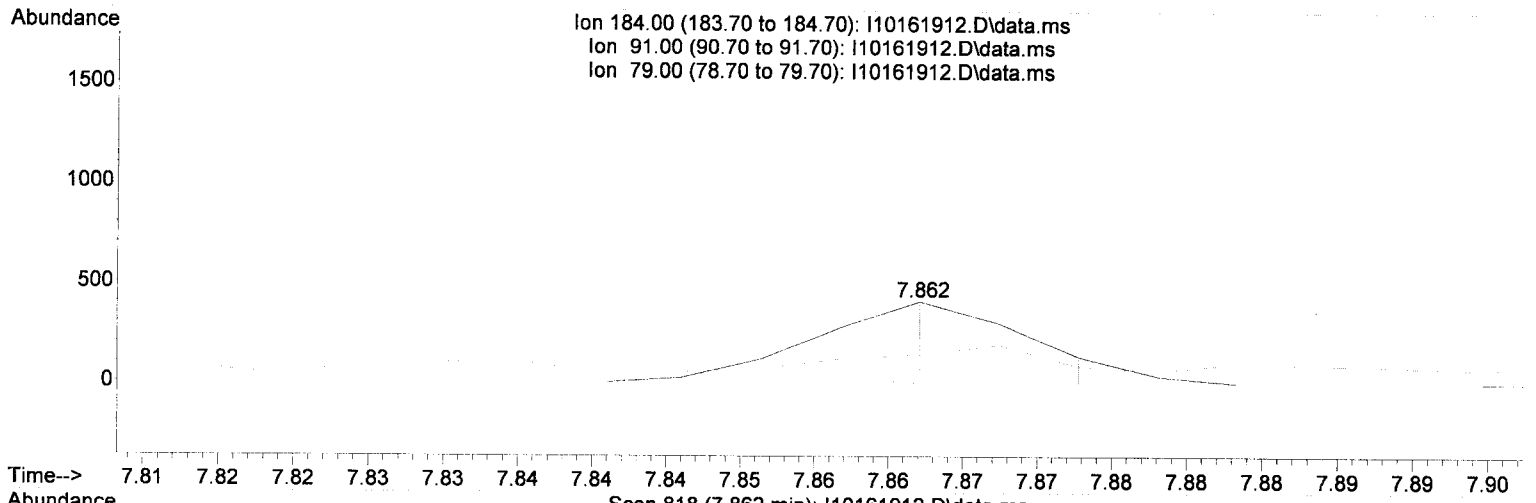


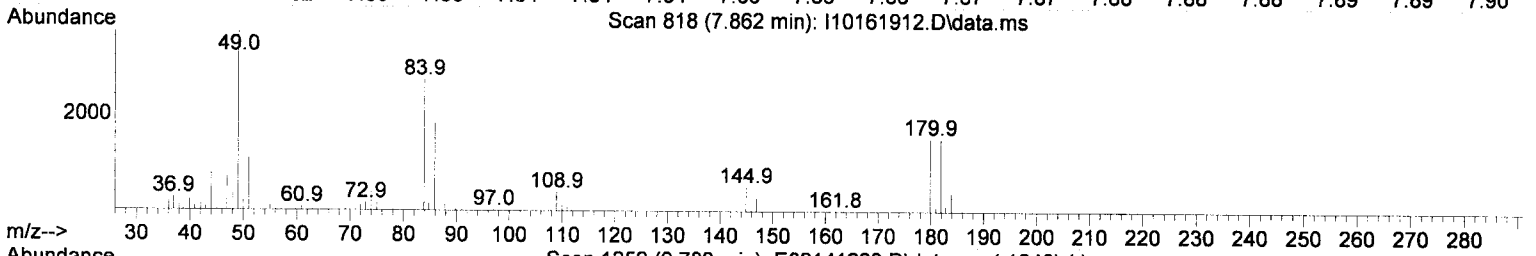
R = 3.12e-002 A*A + 4.17e-002 A - 3.42e-003
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

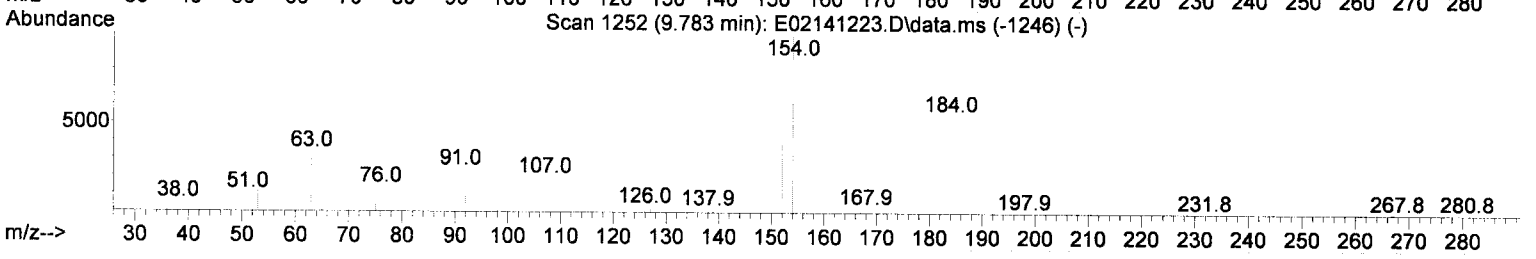
Quantitation Report (Qedit)

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







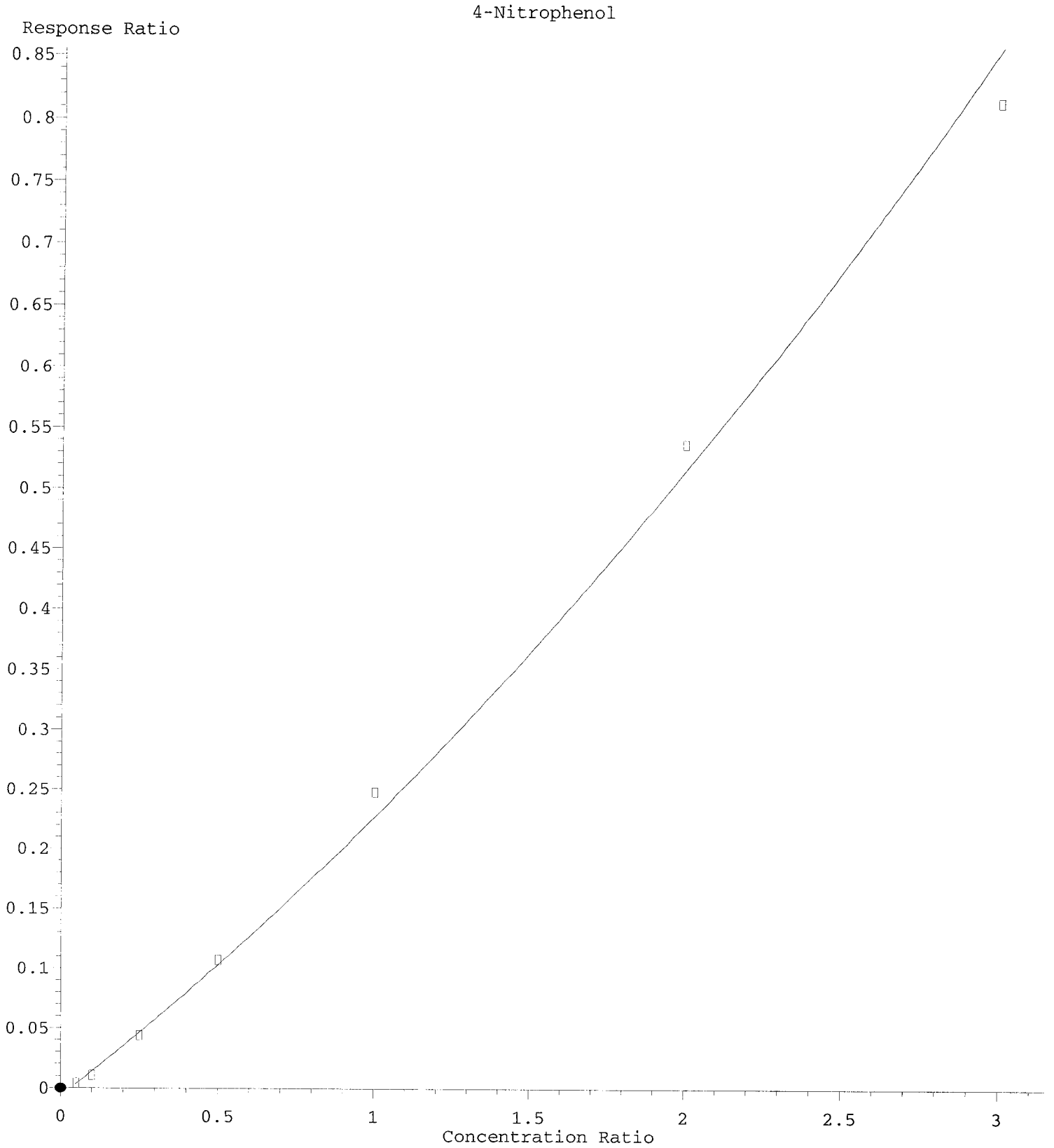
TIC: I10161912.D\data.ms

(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

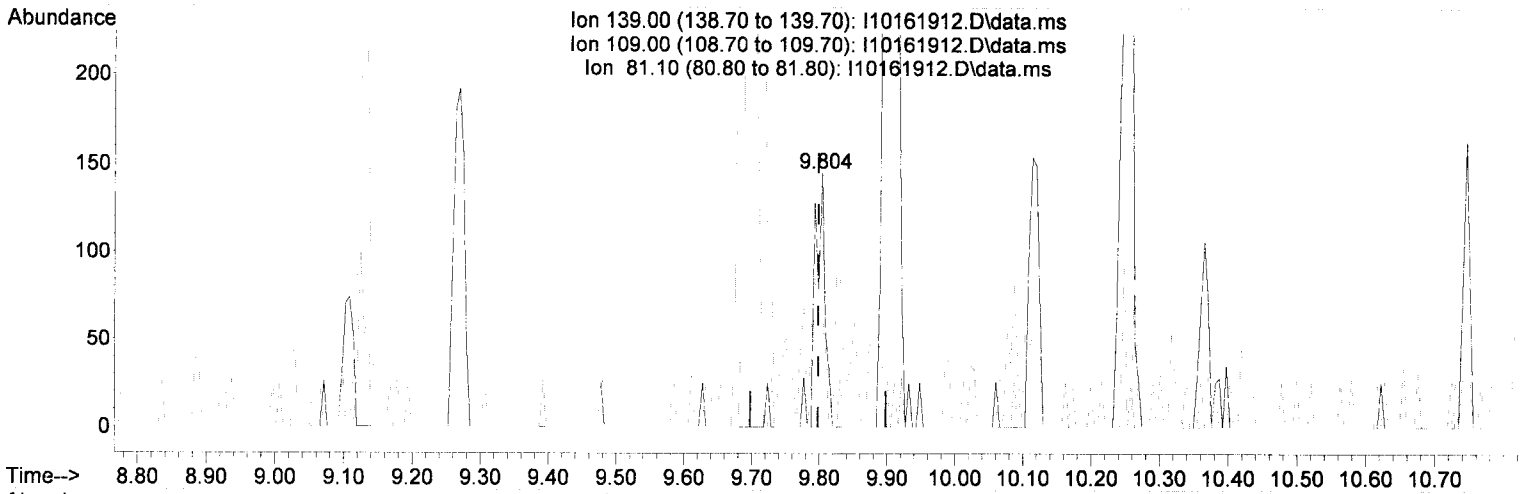


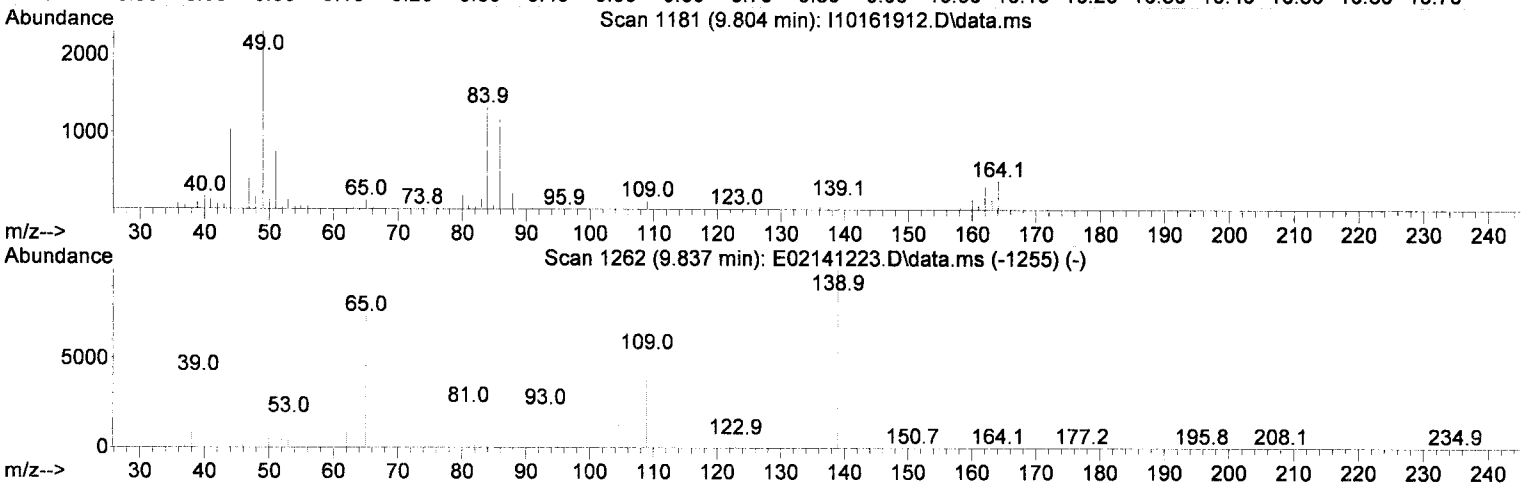
R = 2.68e-002 A*A + 2.07e-001 A - 7.34e-003
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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





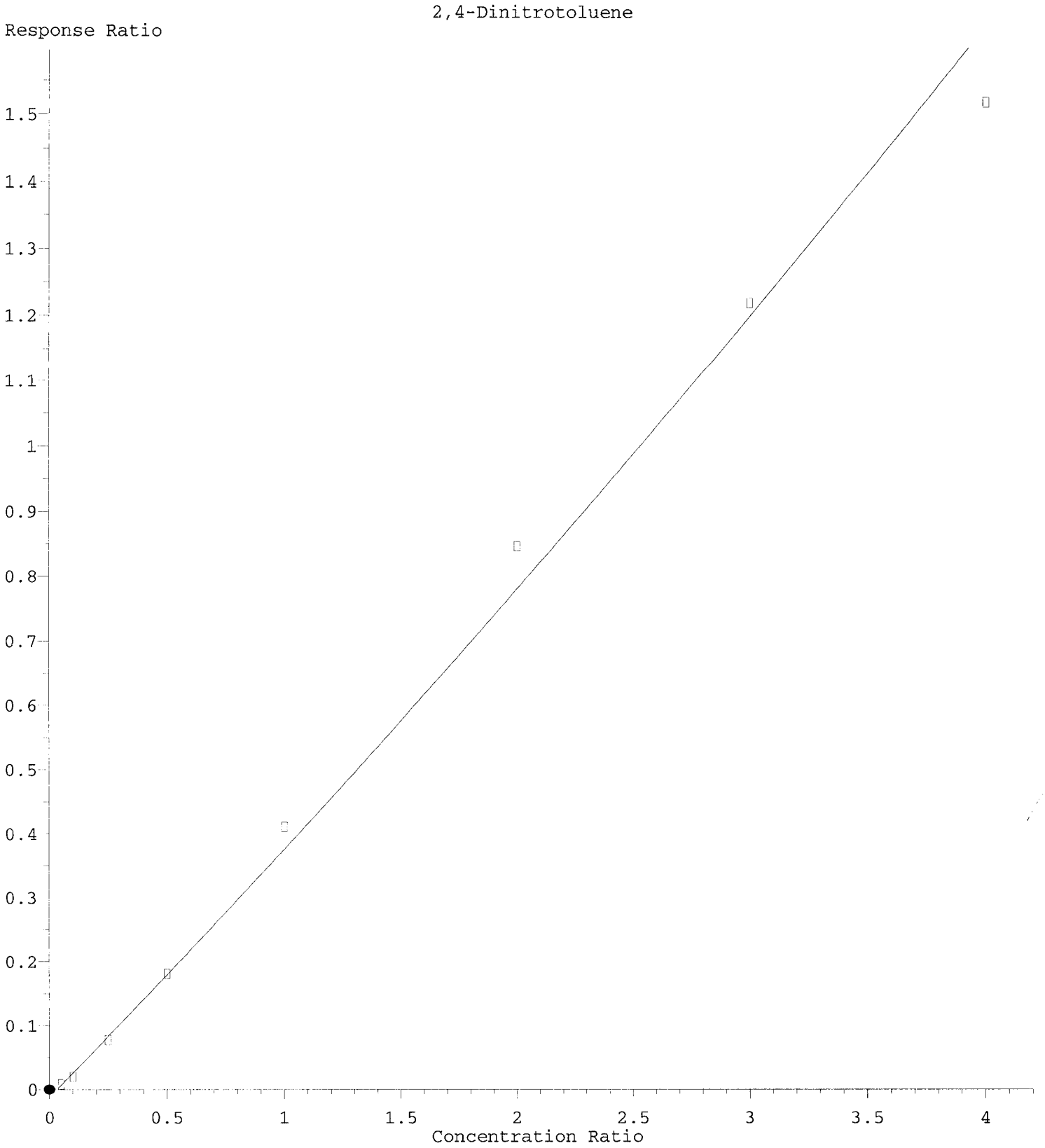
TIC: I10161912.D\data.ms

(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

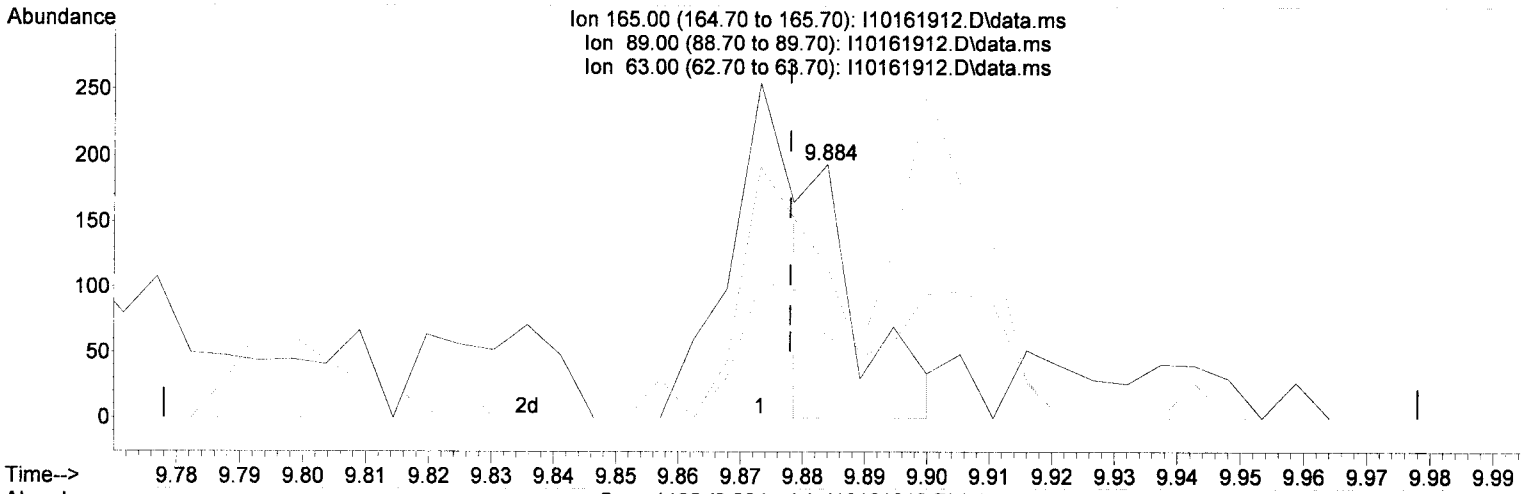


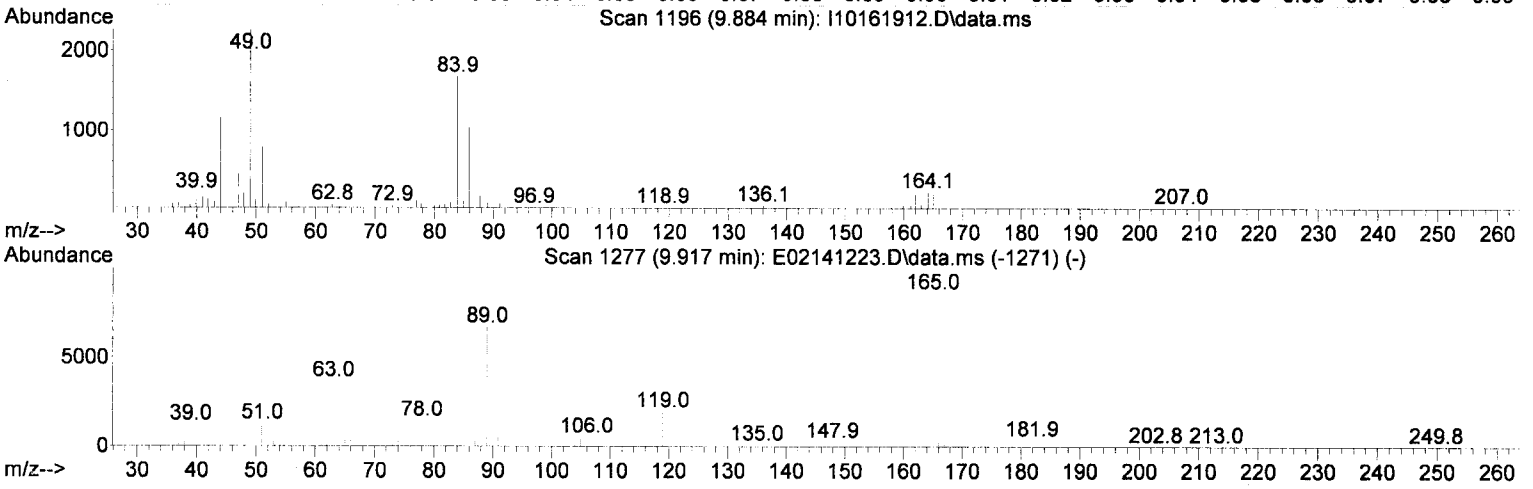
R = 7.80e-003 A*A + 3.80e-001 A - 1.27e-002
Coef of Det (r^2) = 0.990 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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





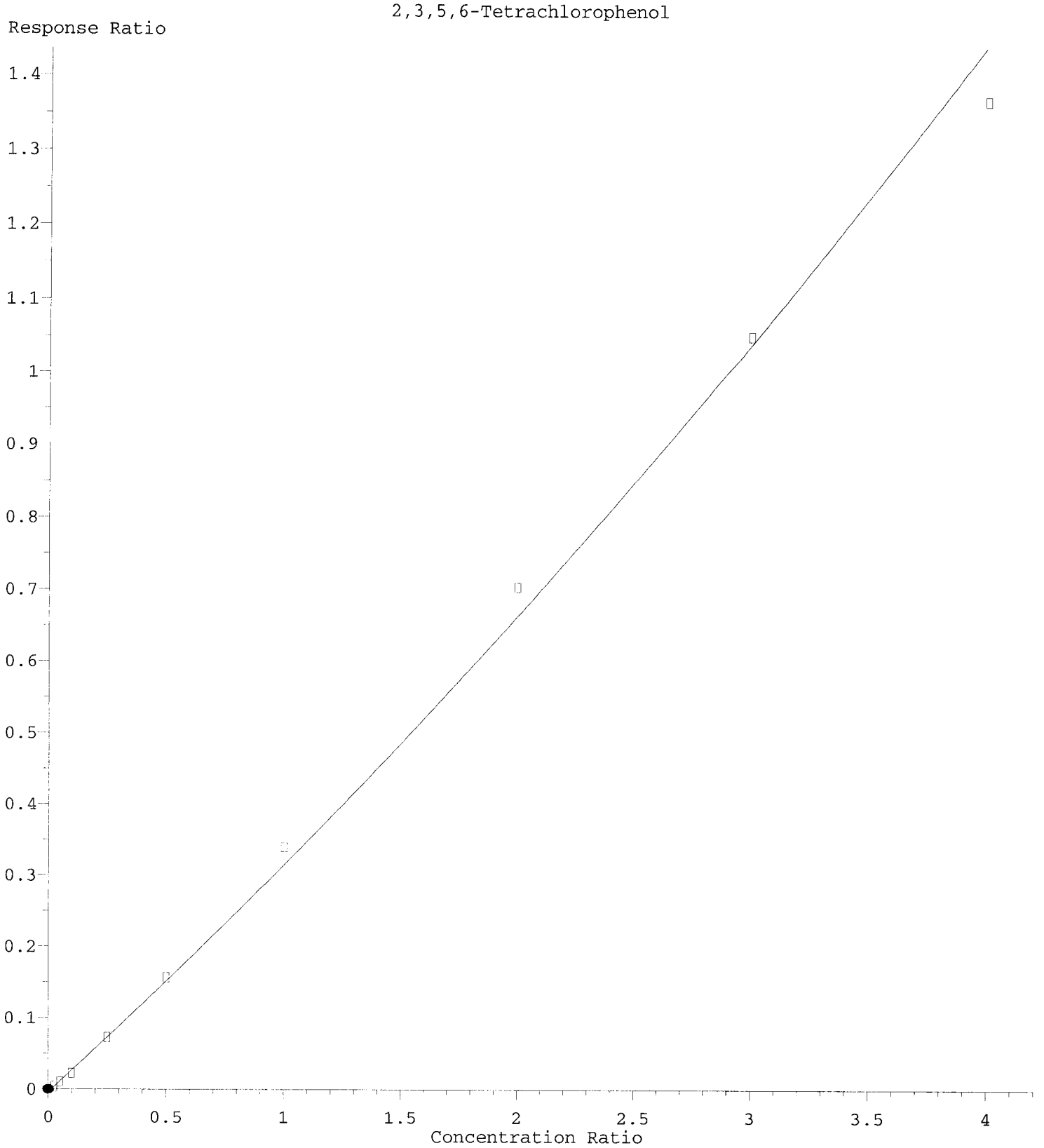
TIC: I10161912.D\data.ms

(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

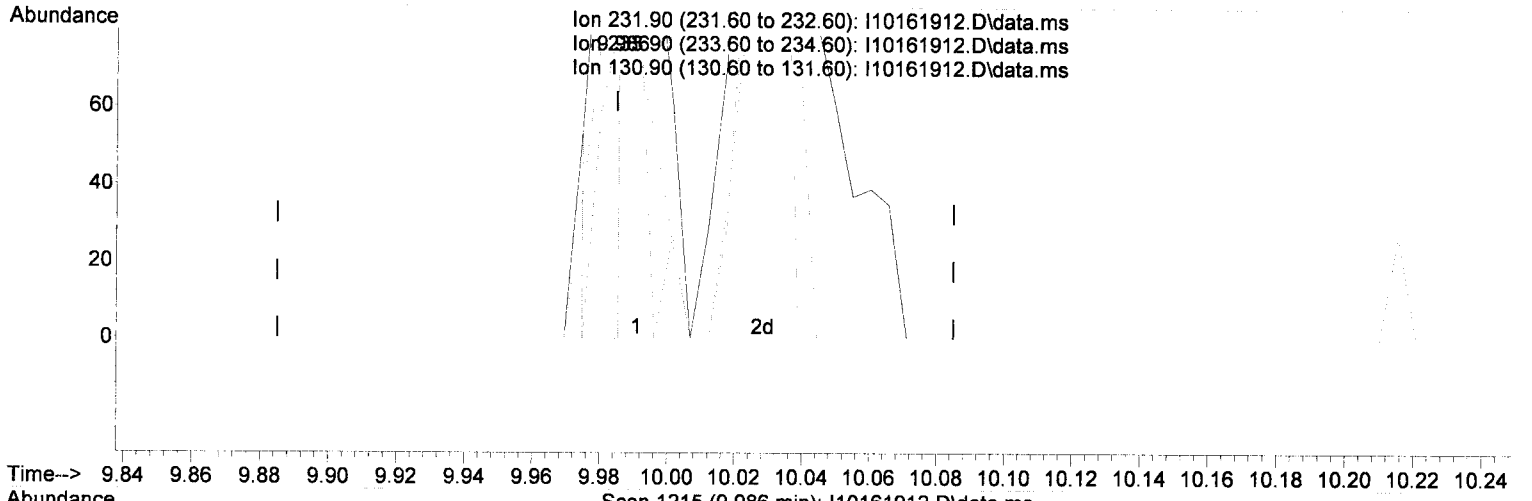


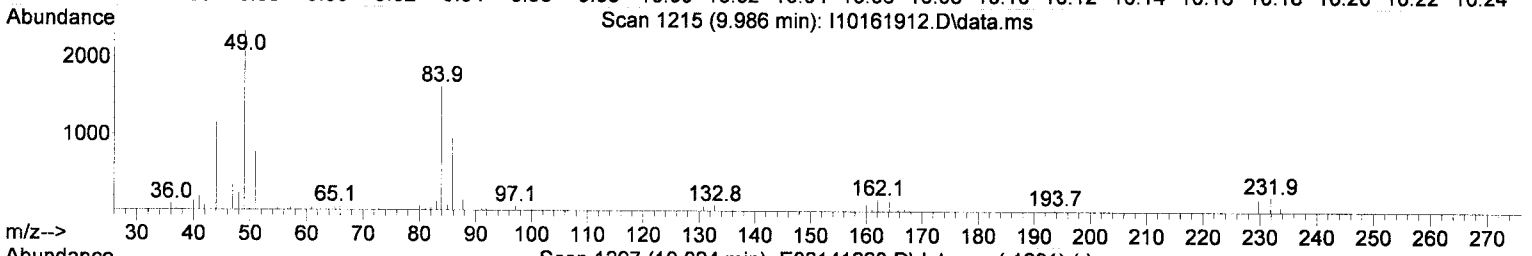
R = 1.42e-002 A*A + 3.05e-001 A - 4.63e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

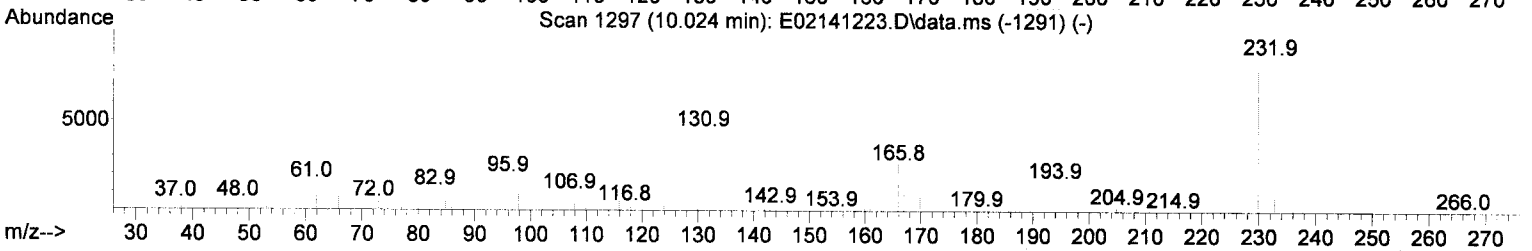
Quantitation Report (Qedit)

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







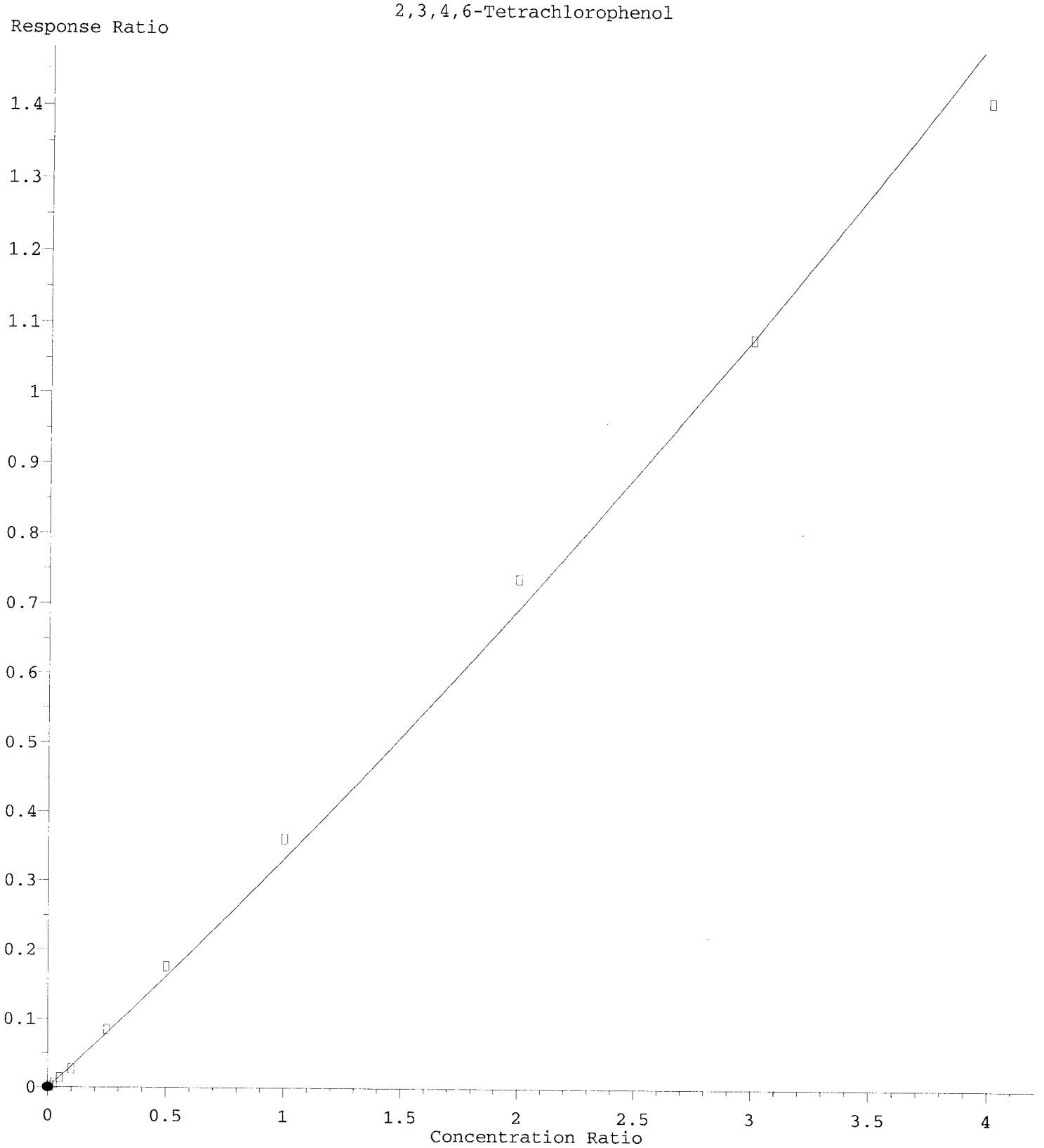
TIC: I10161912.D\data.ms

(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

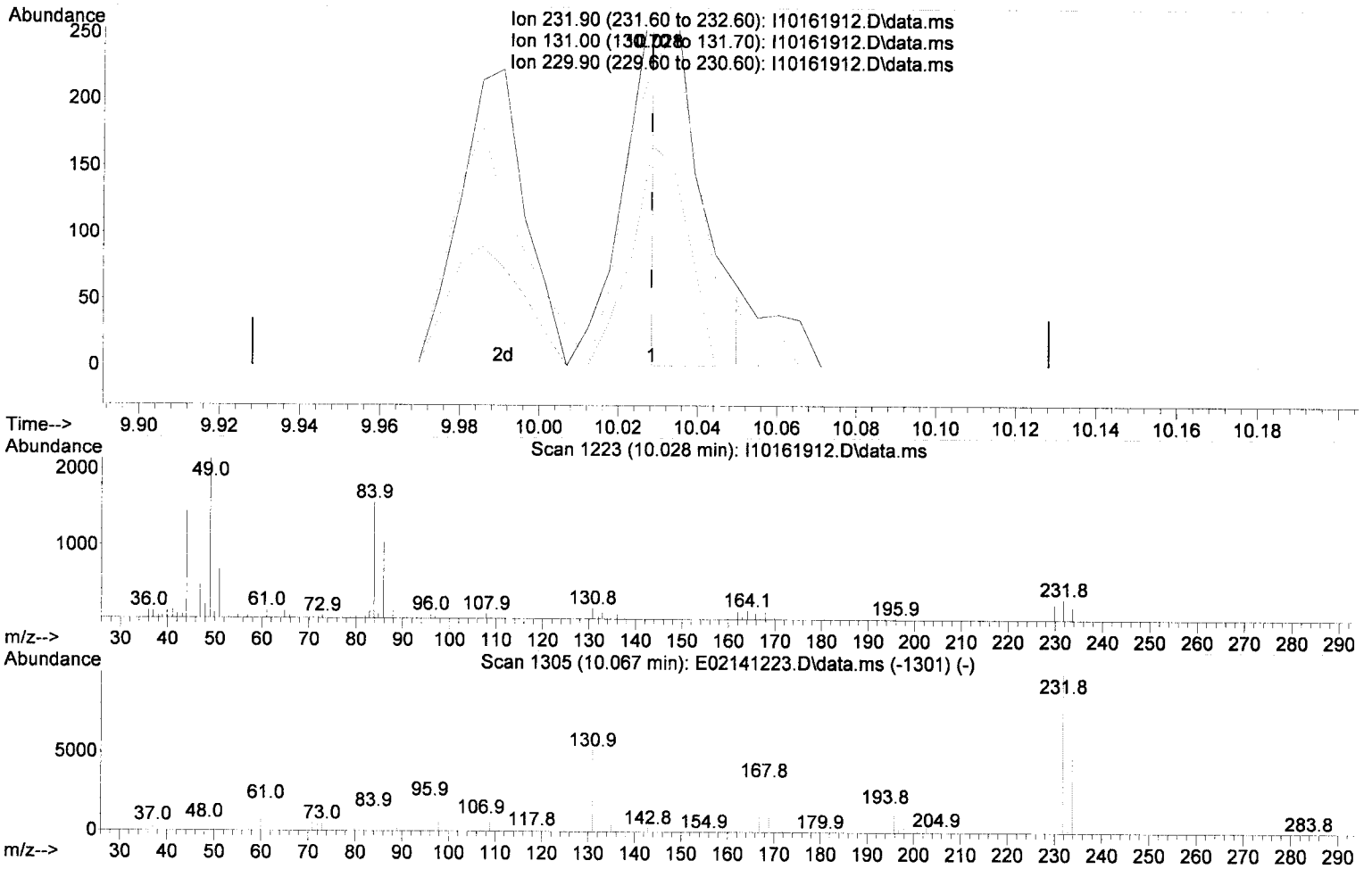


R = 1.33e-002 A*A + 3.20e-001 A - 1.69e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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



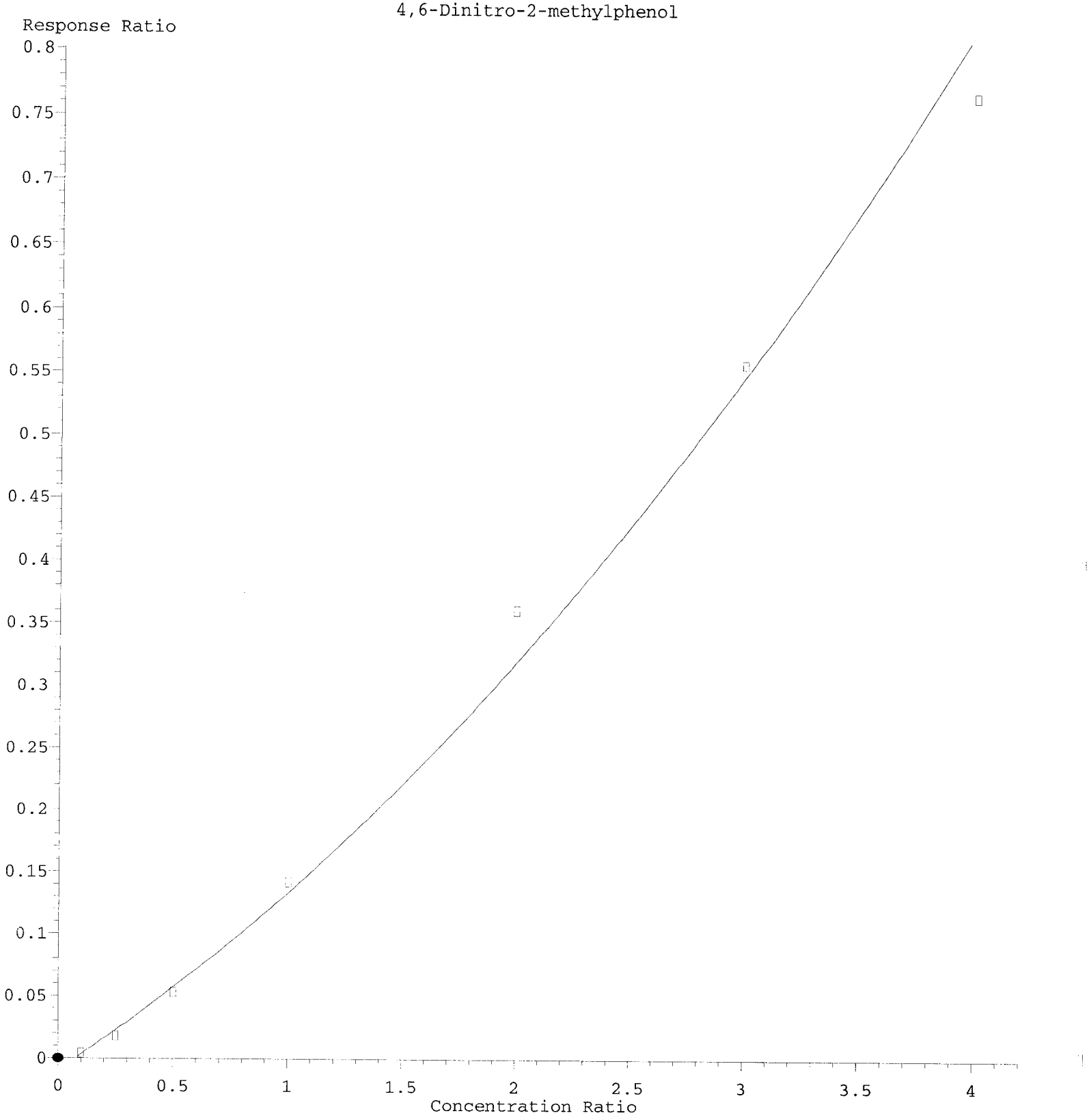
TIC: I10161912.D\data.ms

(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

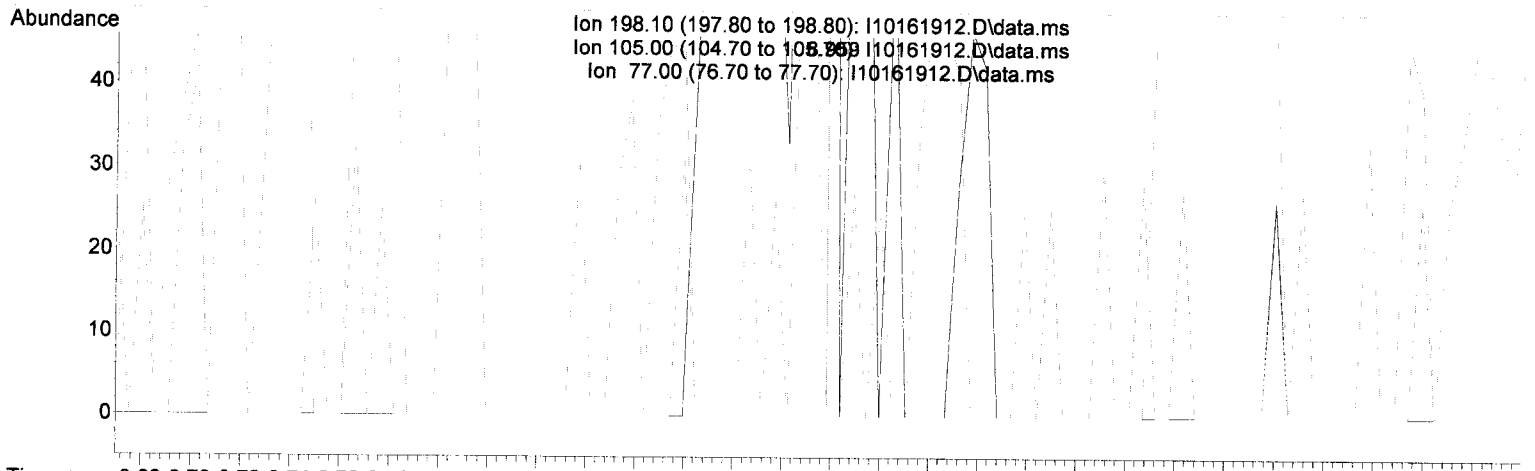


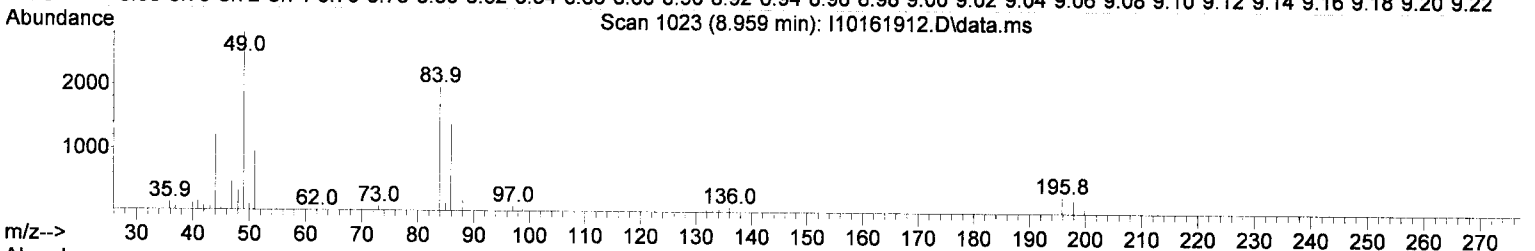
R = 2.12e-002 A*A + 1.22e-001 A - 9.10e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

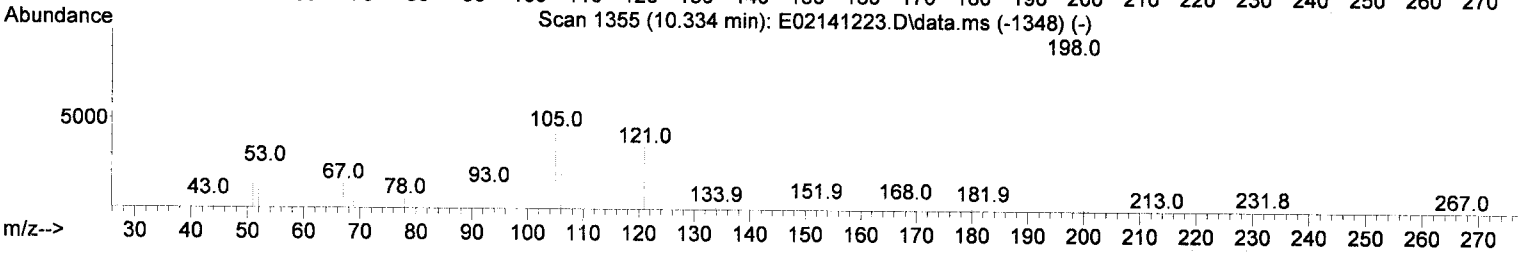
Quantitation Report (Qedit)

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







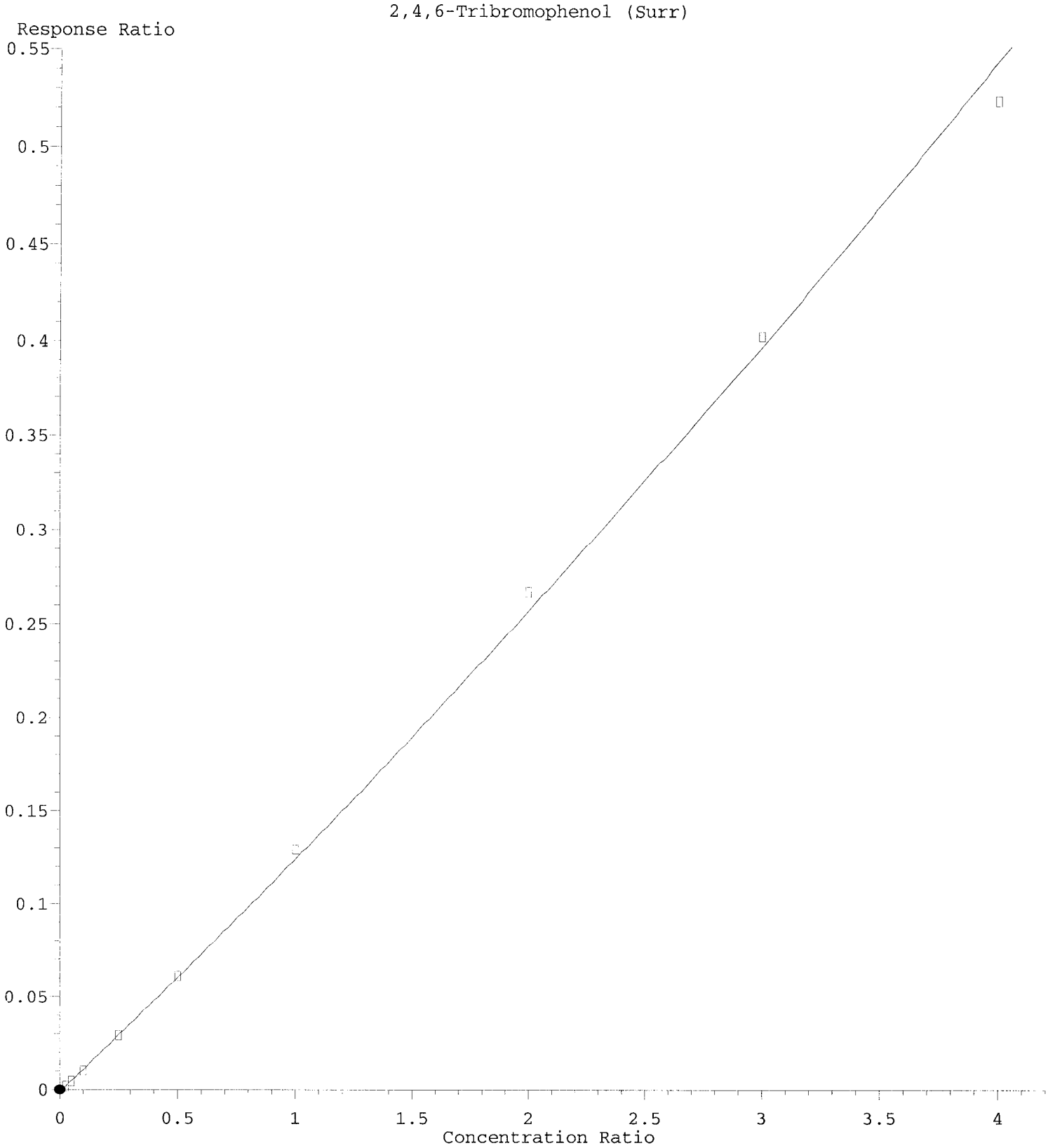
TIC: I10161912.D\data.ms

(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

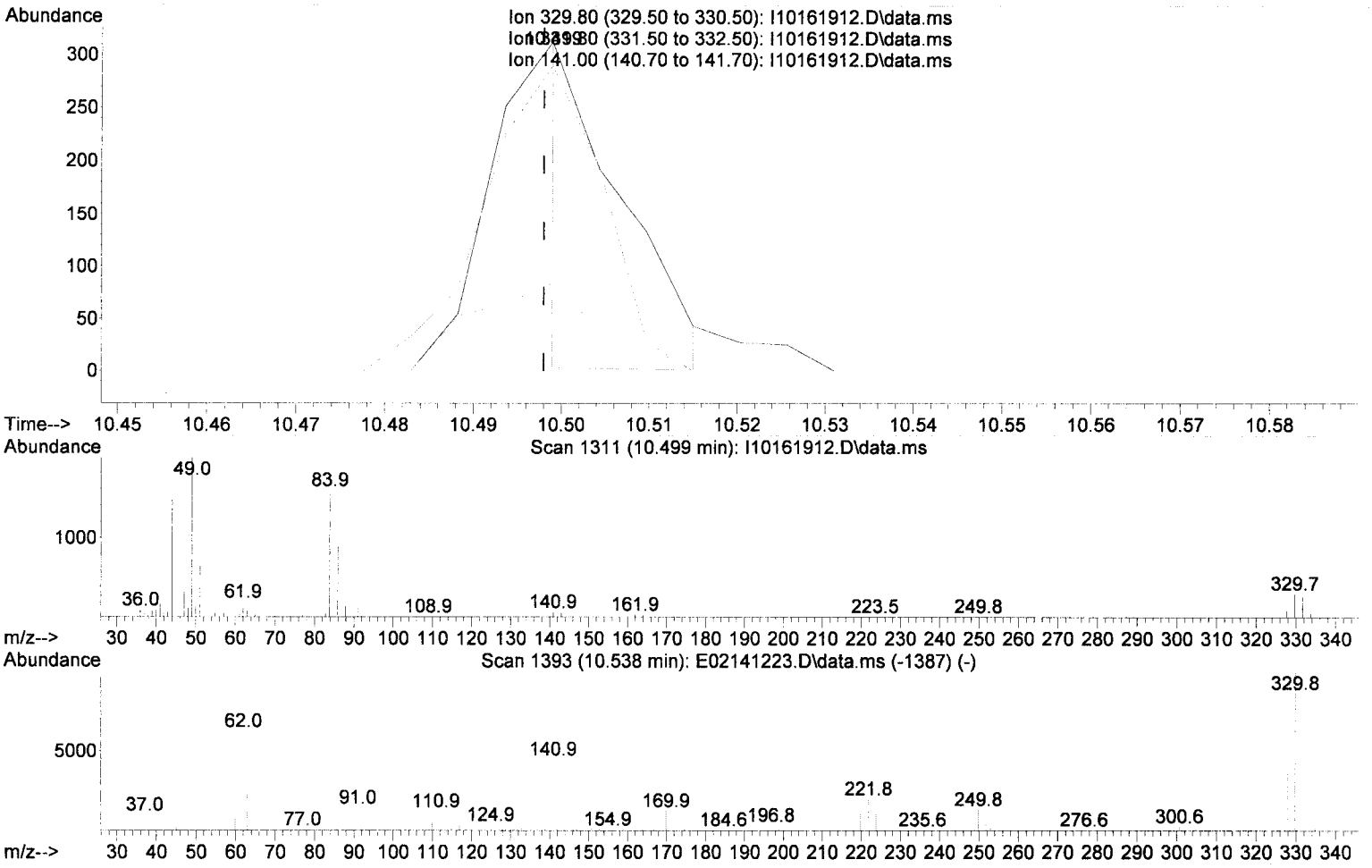


R = 3.70e-003 A*A + 1.22e-001 A - 1.39e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_I01619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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



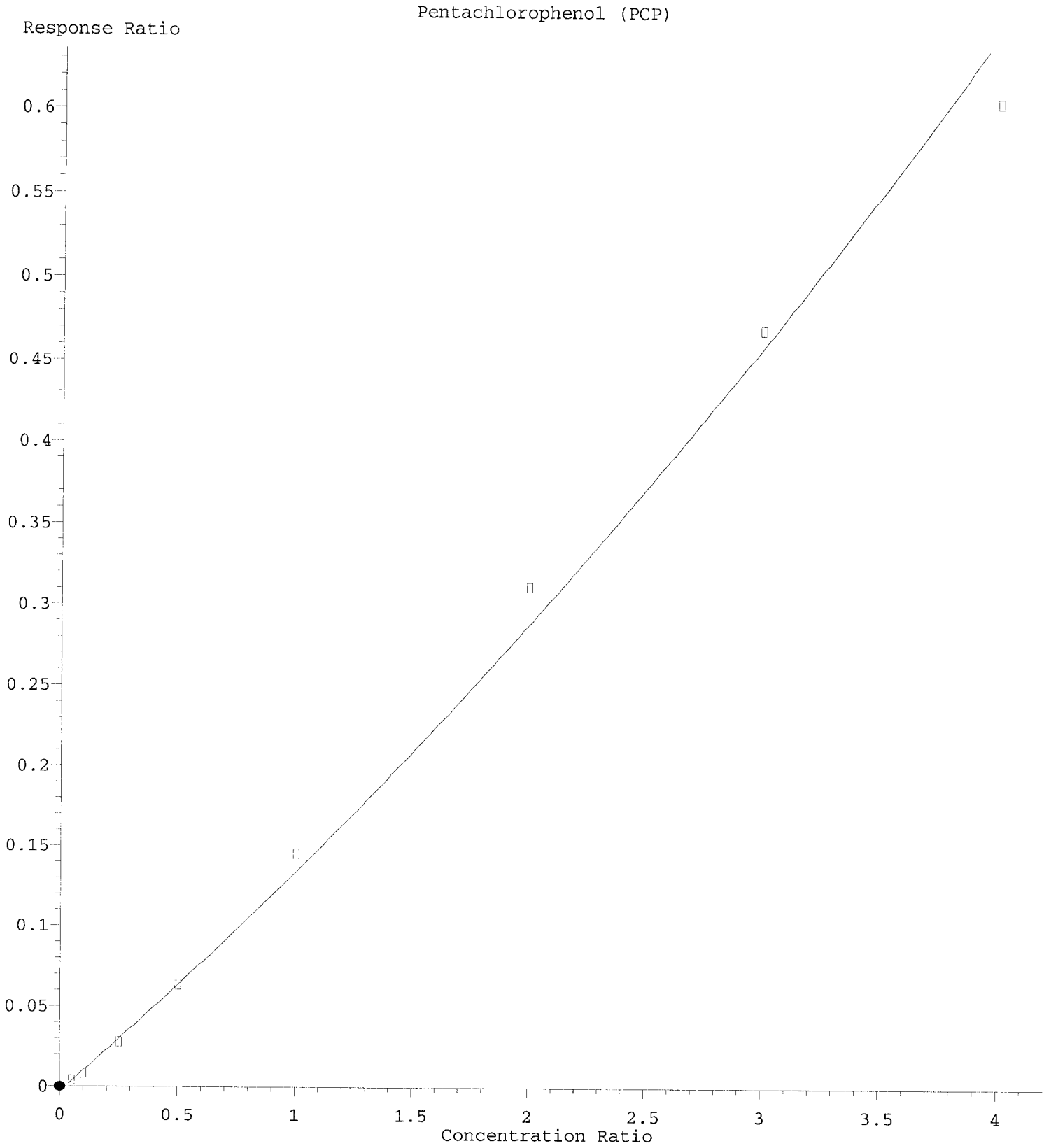
TIC: I10161912.D\data.ms

(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

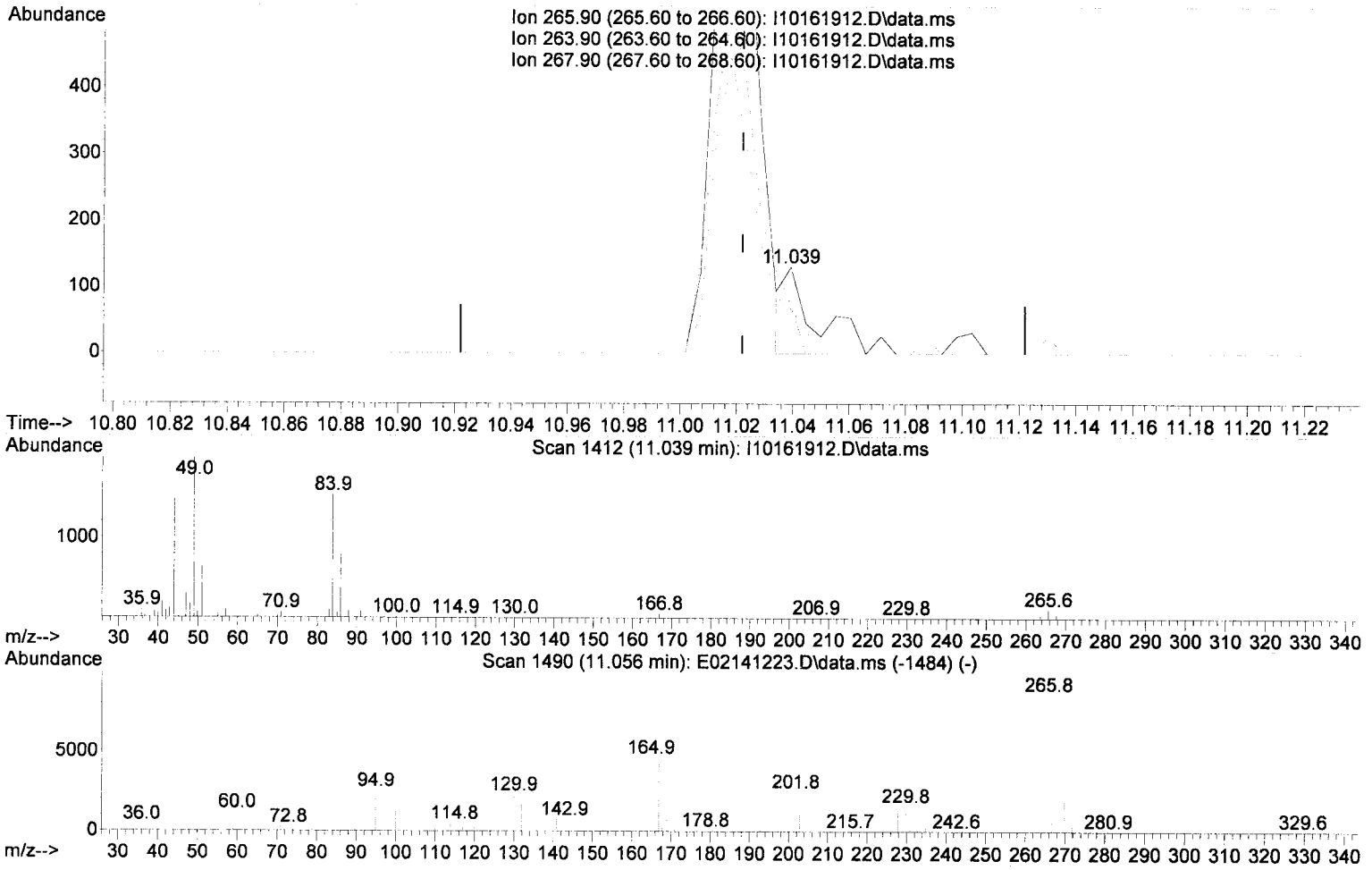


R = 8.44e-003 A*A + 1.28e-001 A - 2.95e-003
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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



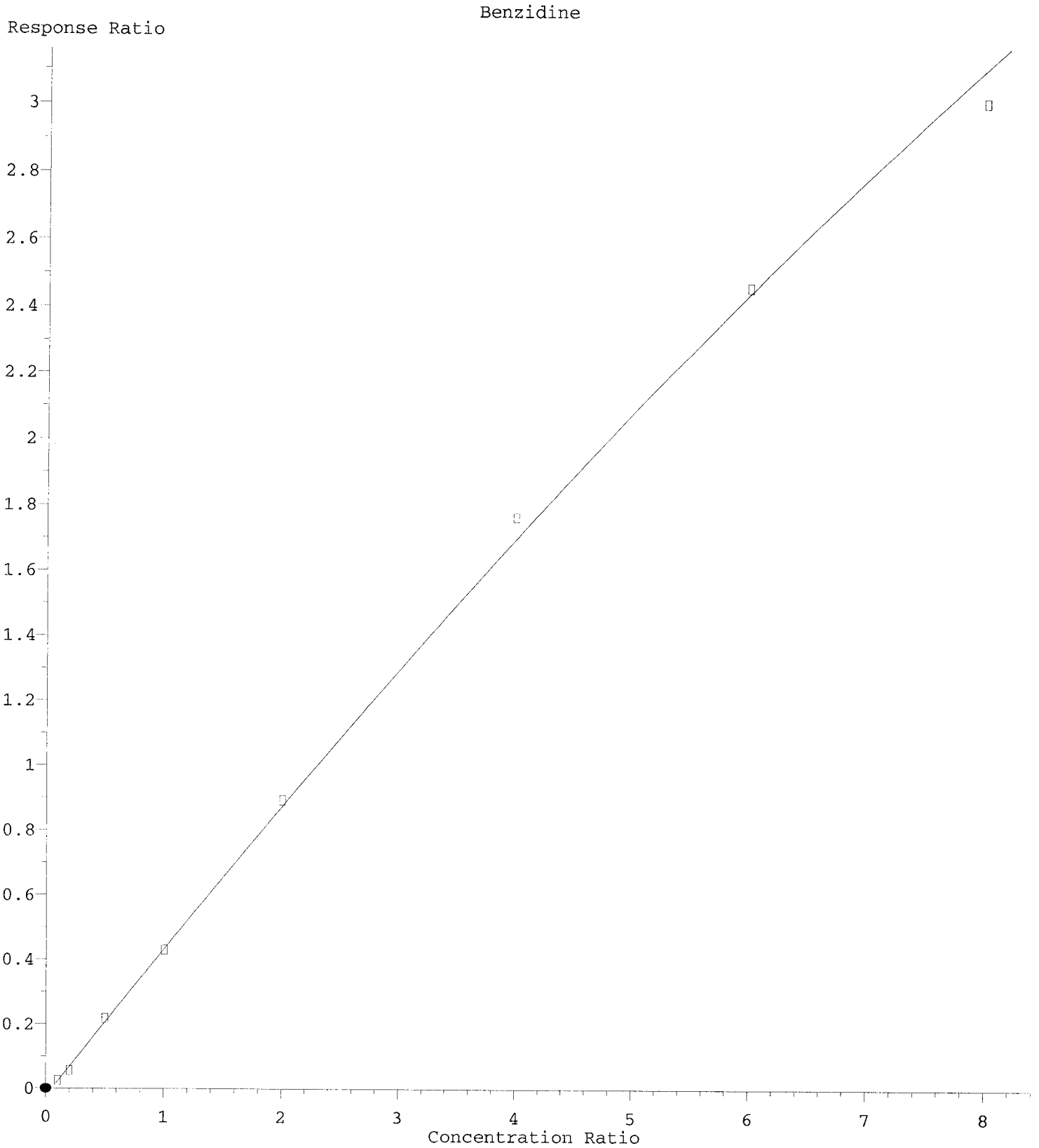
TIC: I10161912.D\data.ms

(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

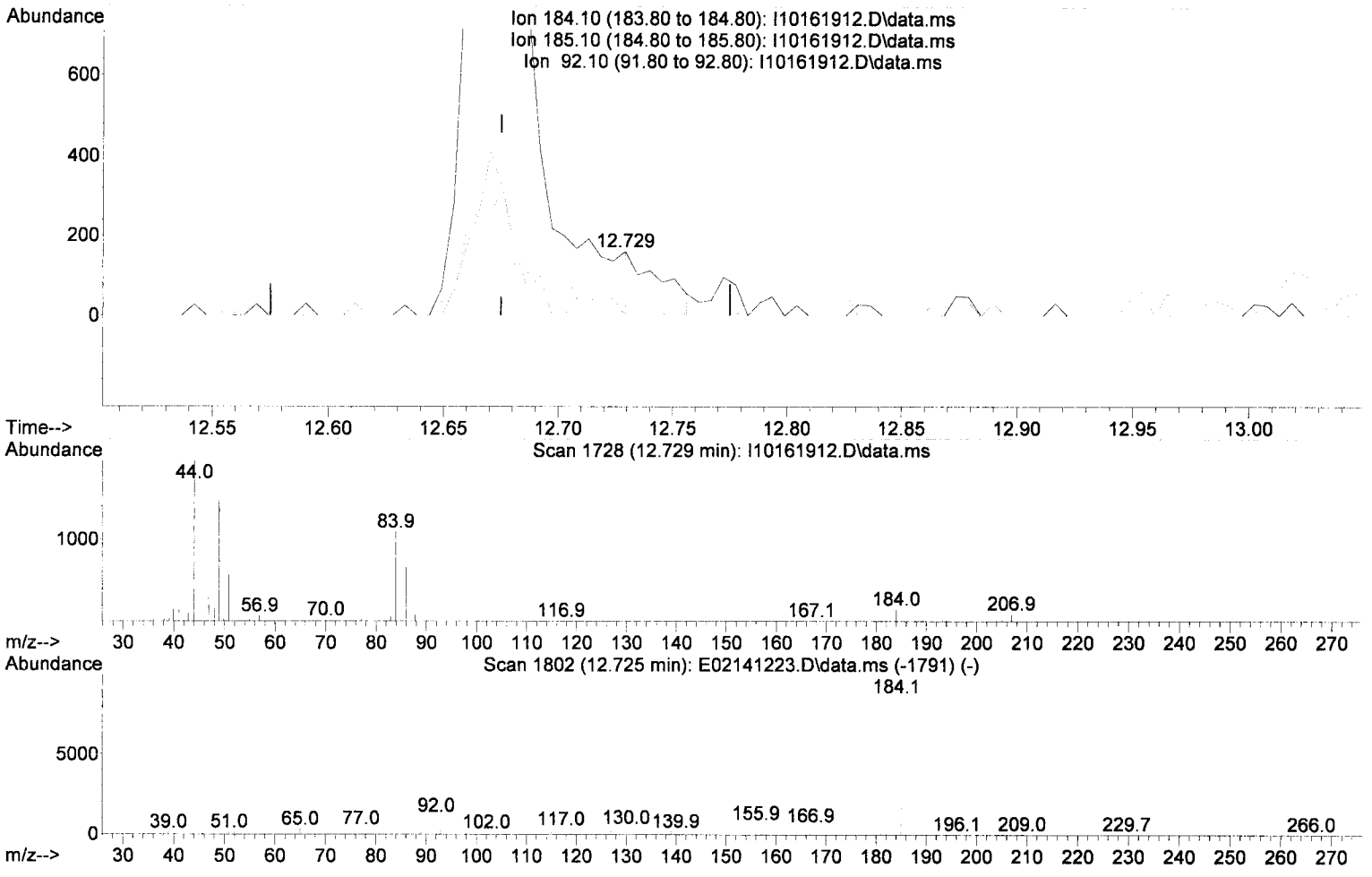


R = -9.61e-003 A*A + 4.69e-001 A - 2.55e-002
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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



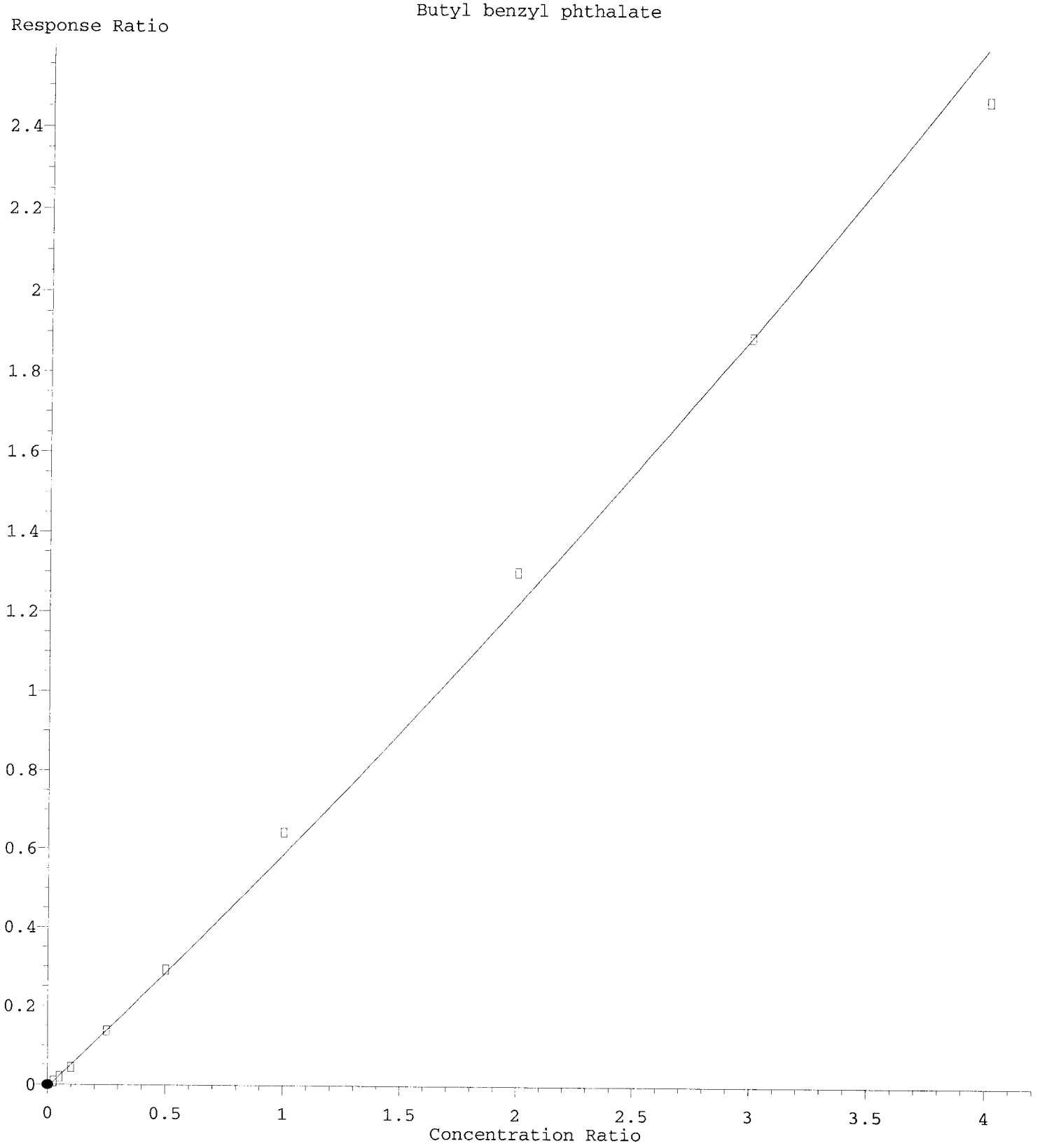
TIC: I10161912.D\data.ms

(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

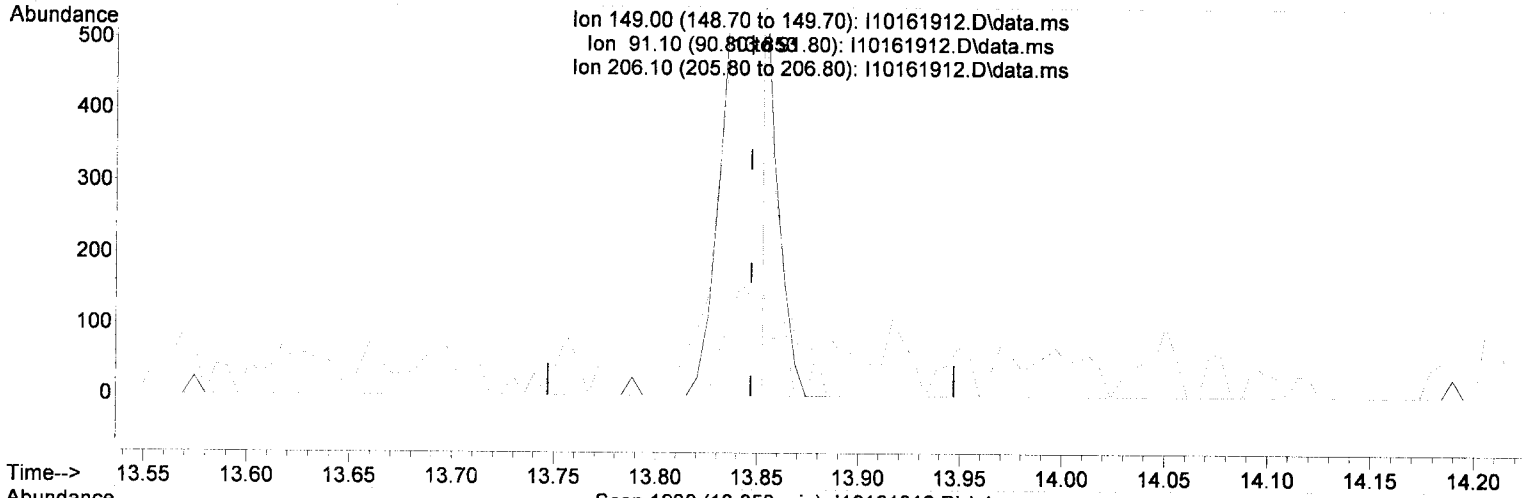


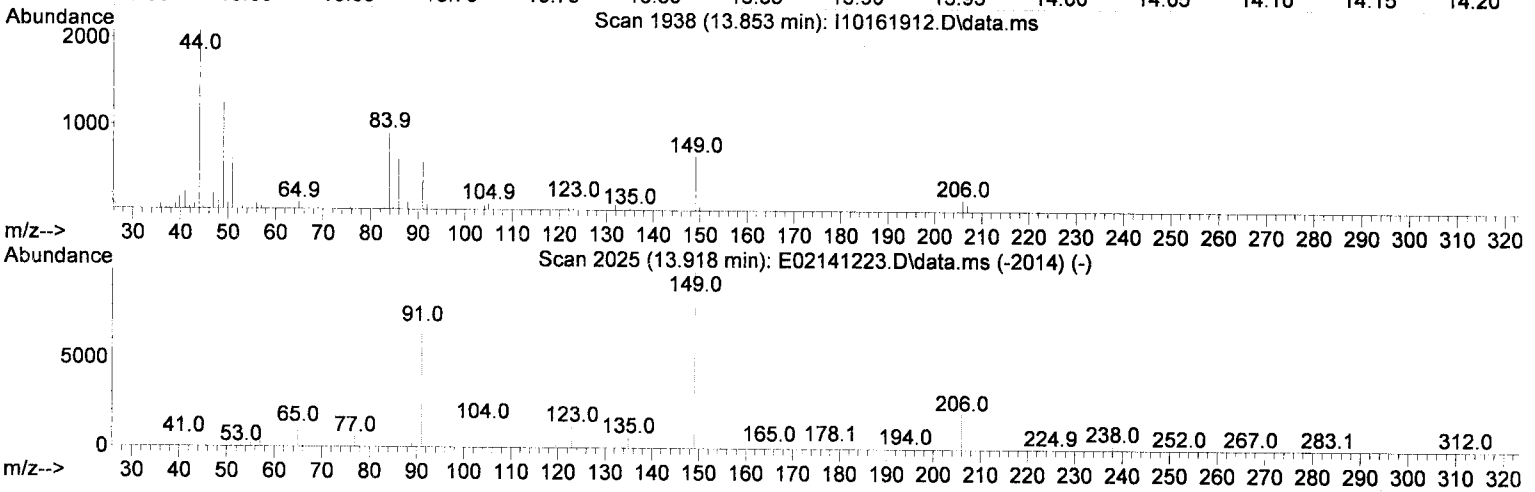
R = 1.95e-002 A*A + 5.75e-001 A - 7.34e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w/(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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





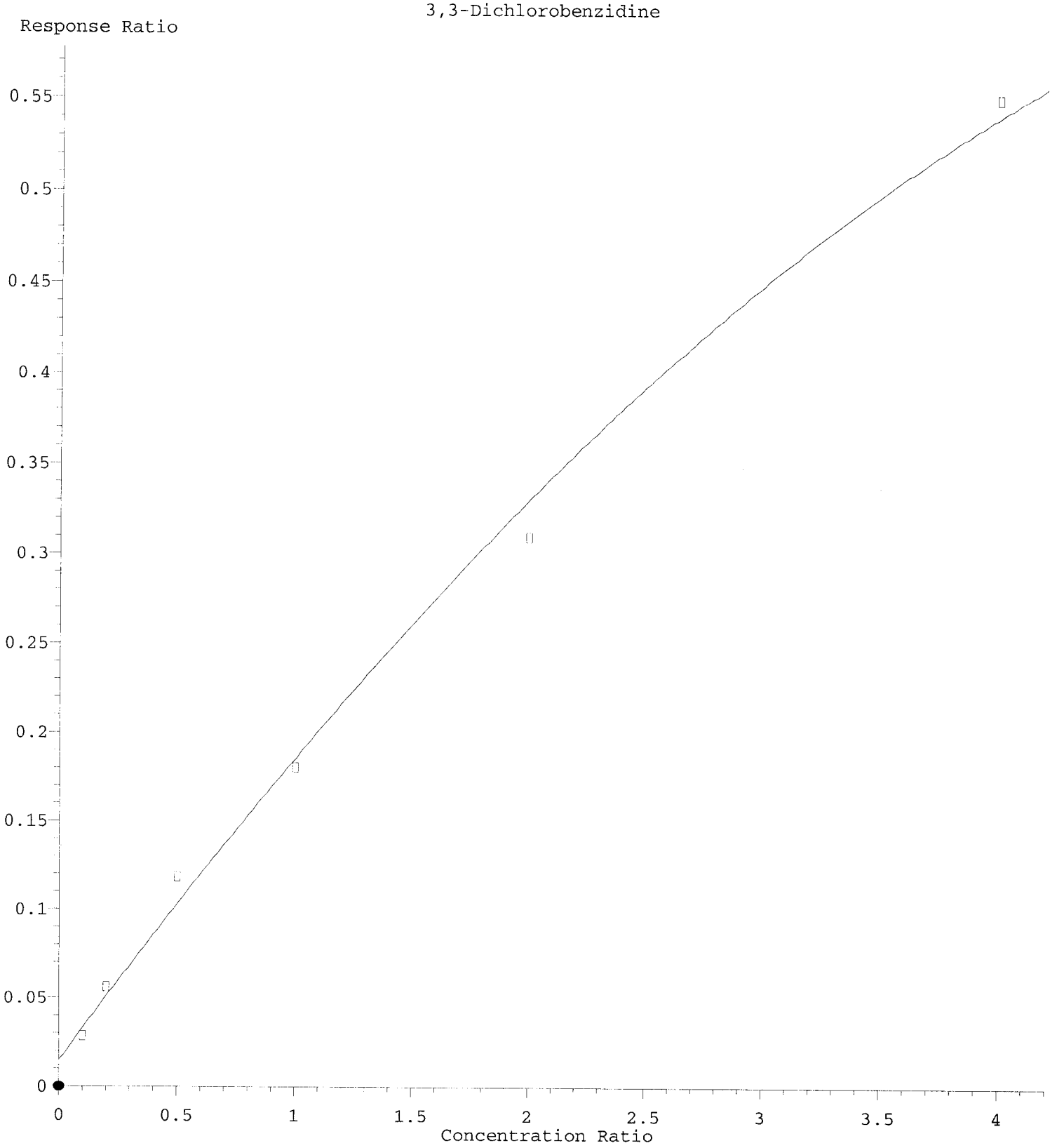
TIC: I10161912.D\data.ms

(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

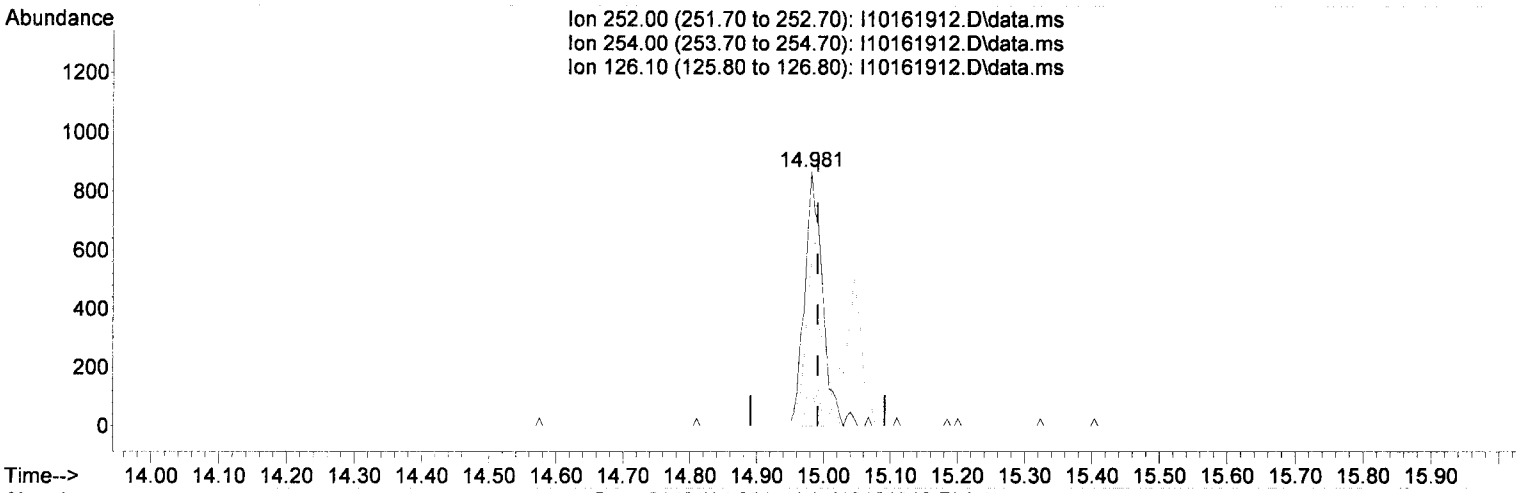


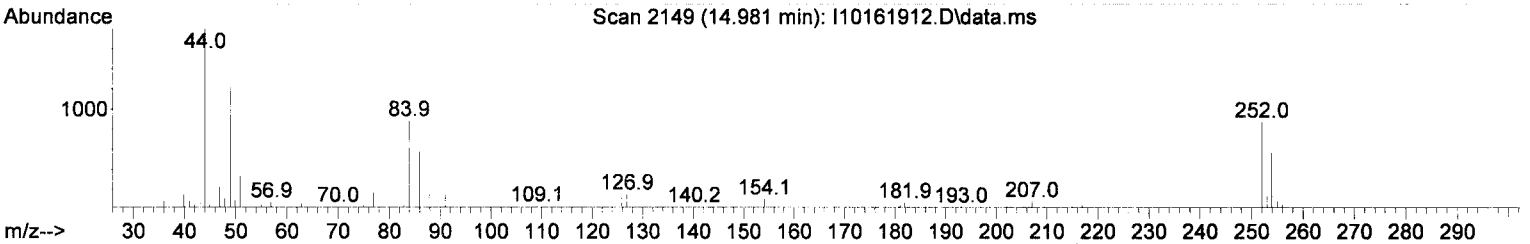
R = -1.30e-002 A*A + 1.84e-001 A + 1.46e-002
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

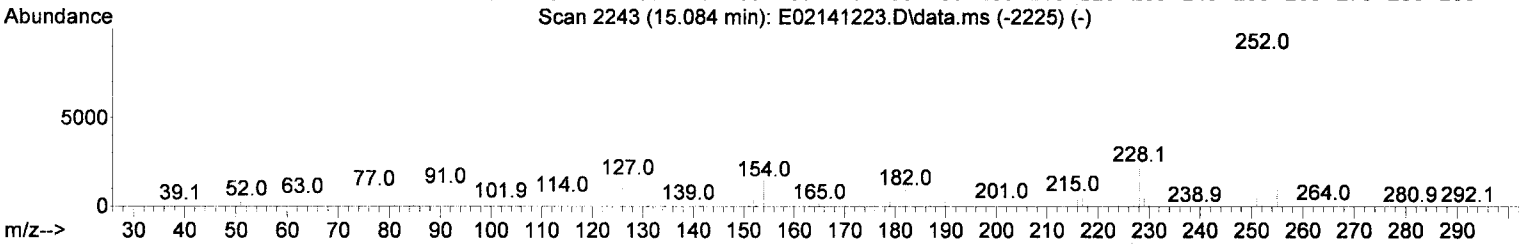
Quantitation Report (Qedit)

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







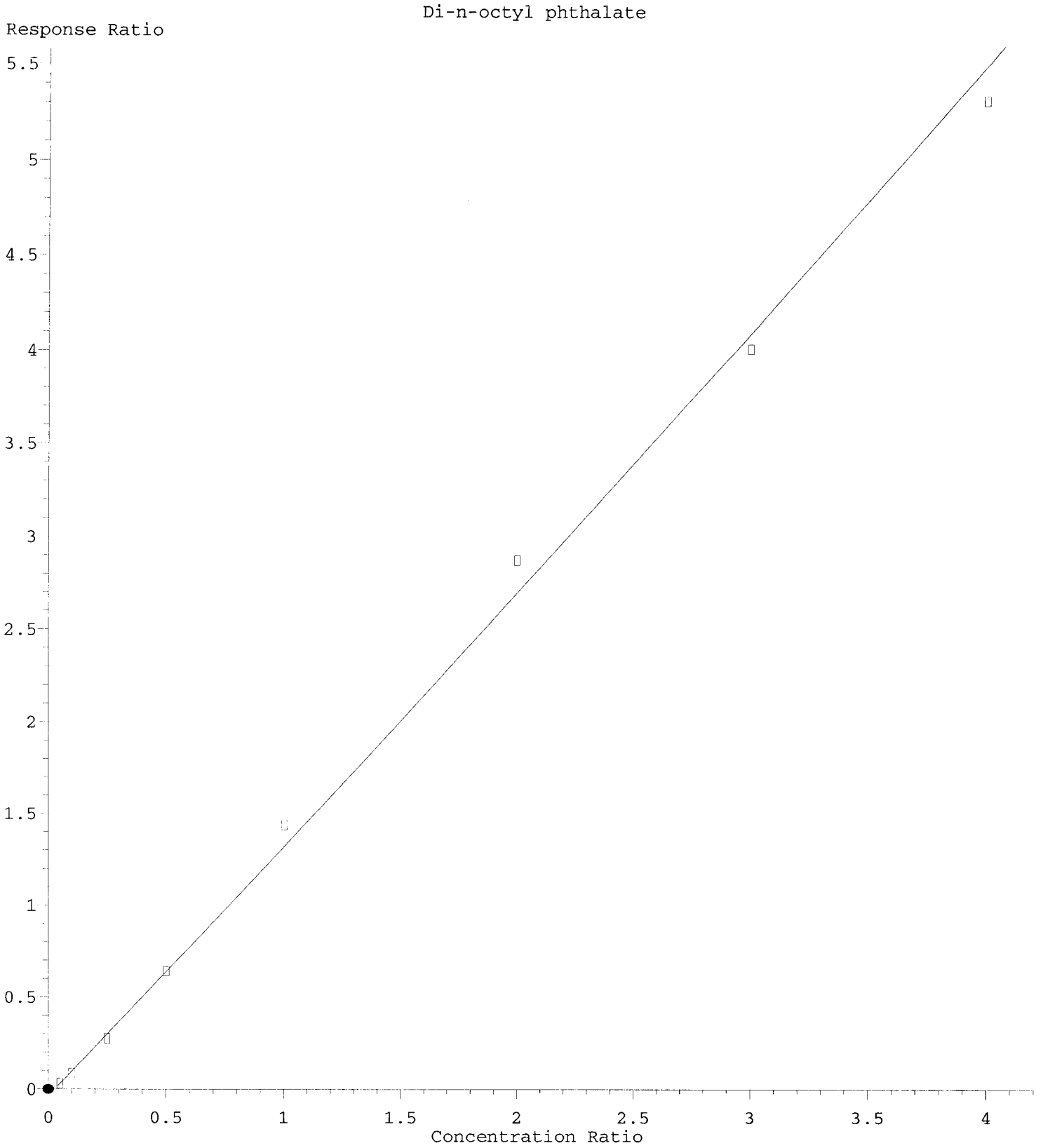
TIC: I10161912.D\data.ms

(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

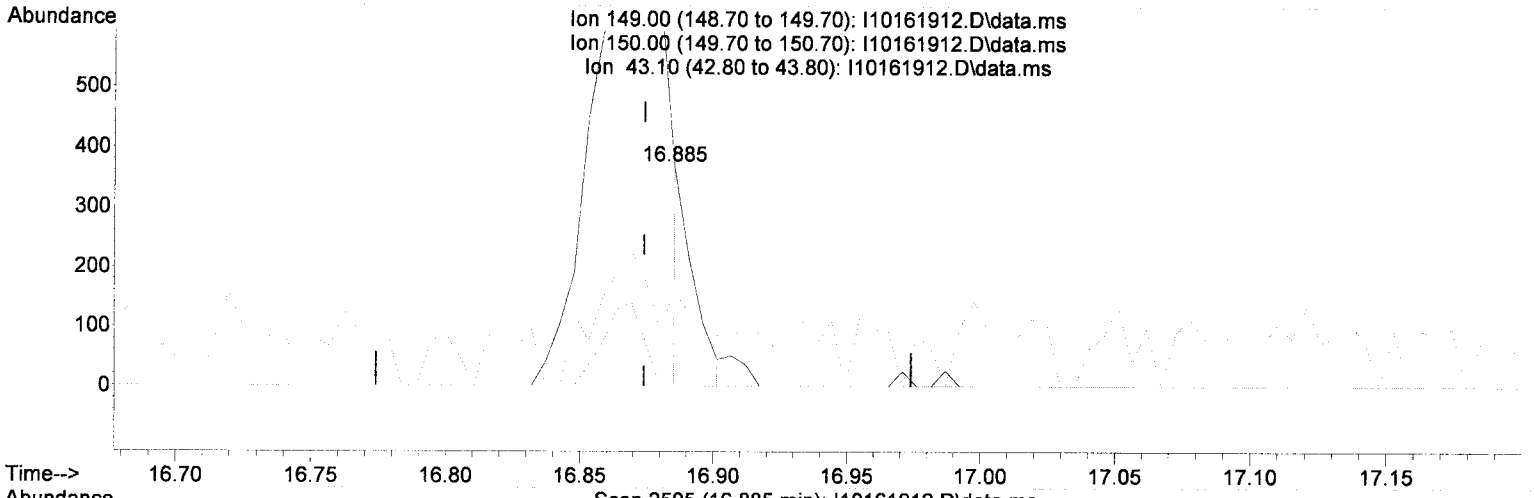


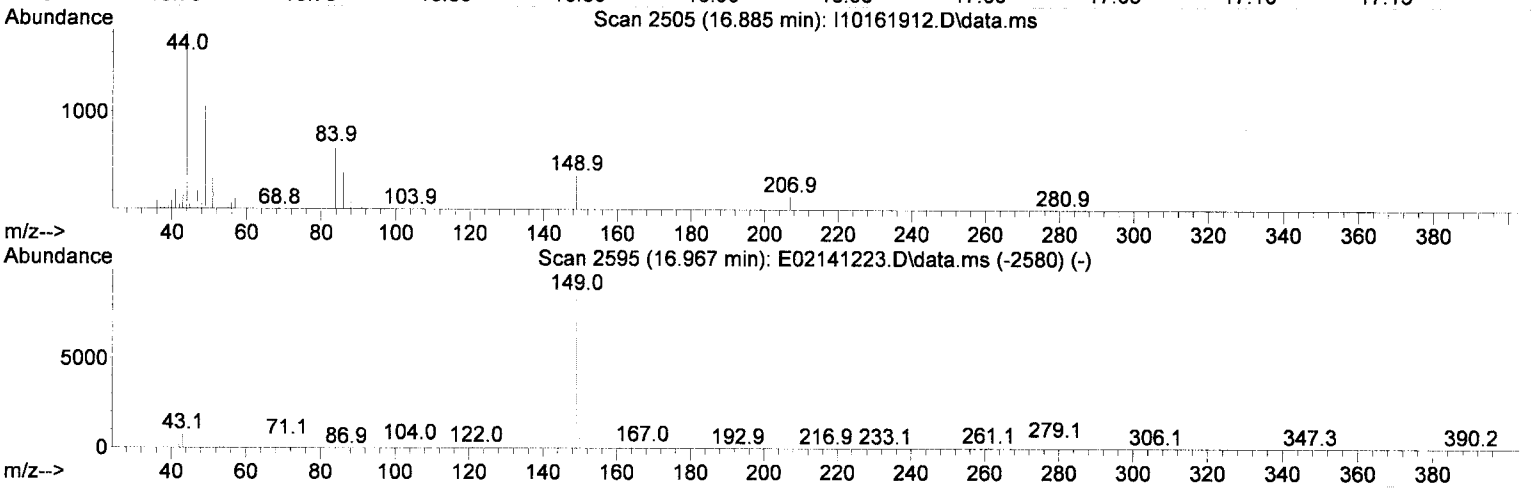
R = 8.70e-003 A*A + 1.35e+000 A - 3.91e-002
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_101619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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





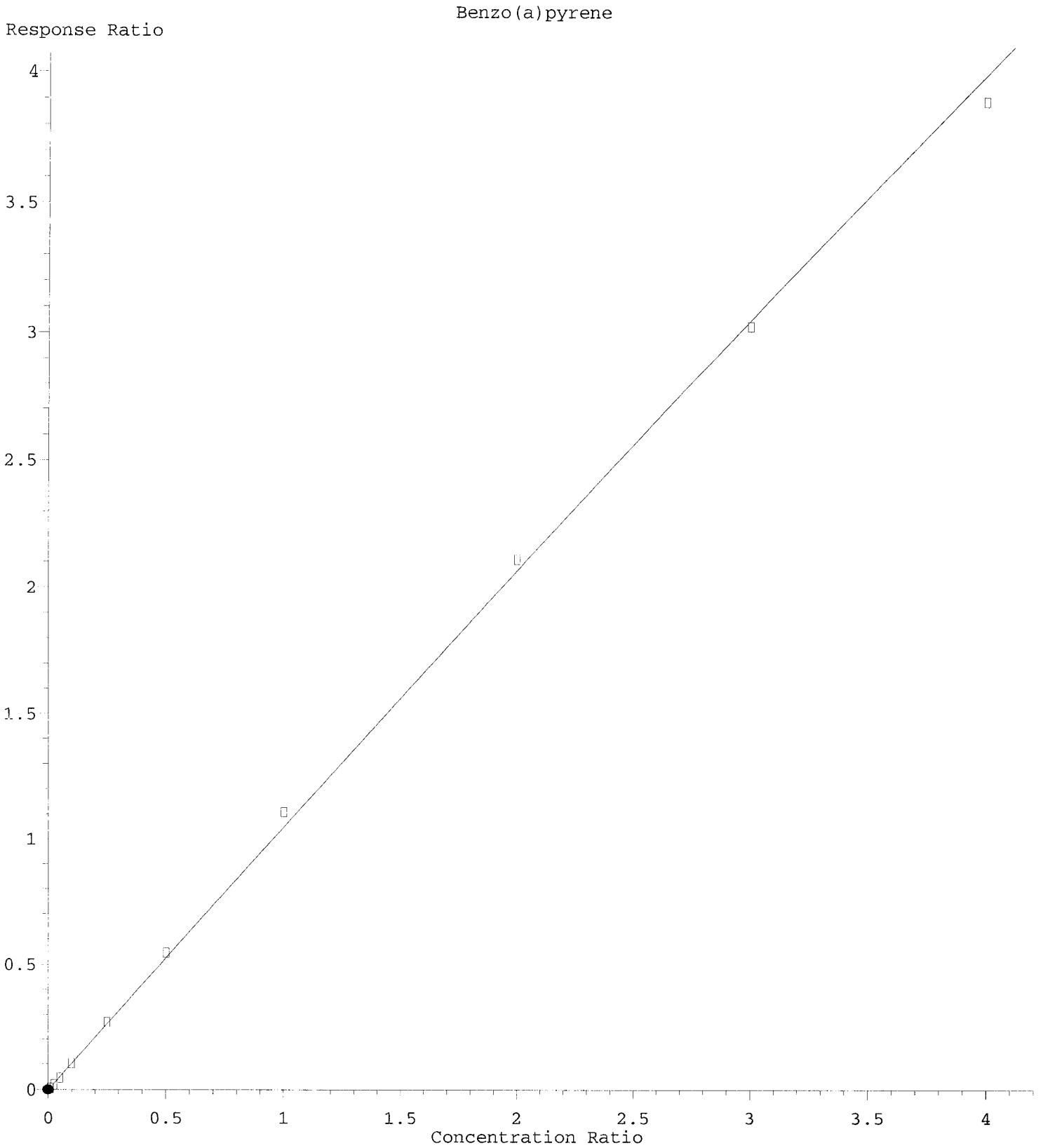
TIC: I10161912.D\data.ms

(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

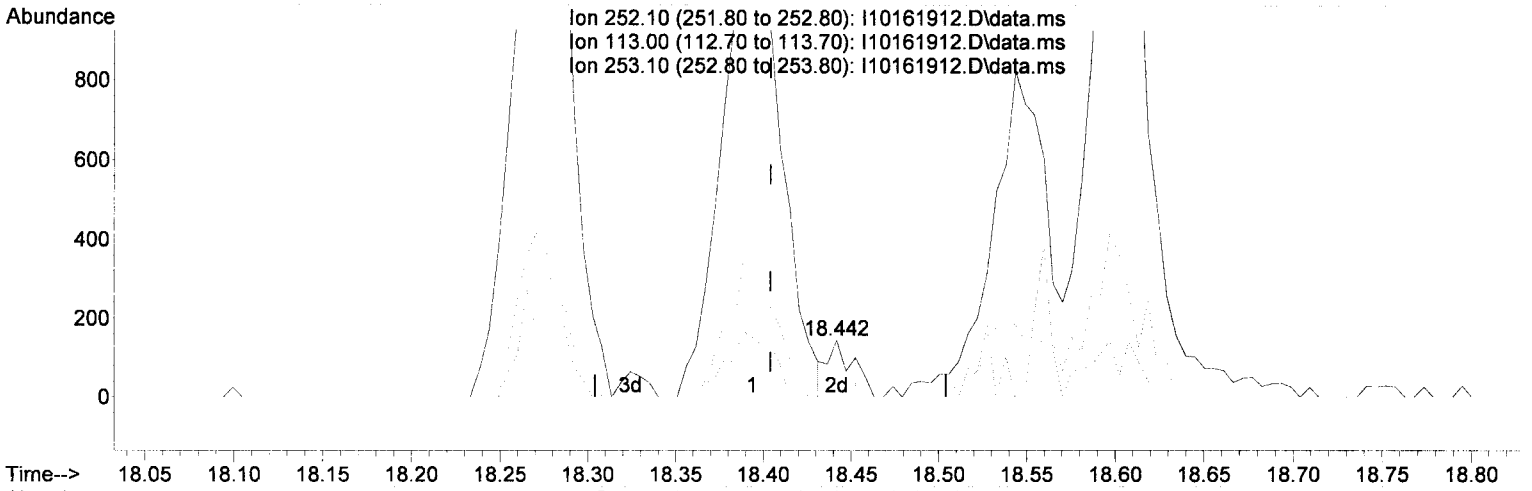


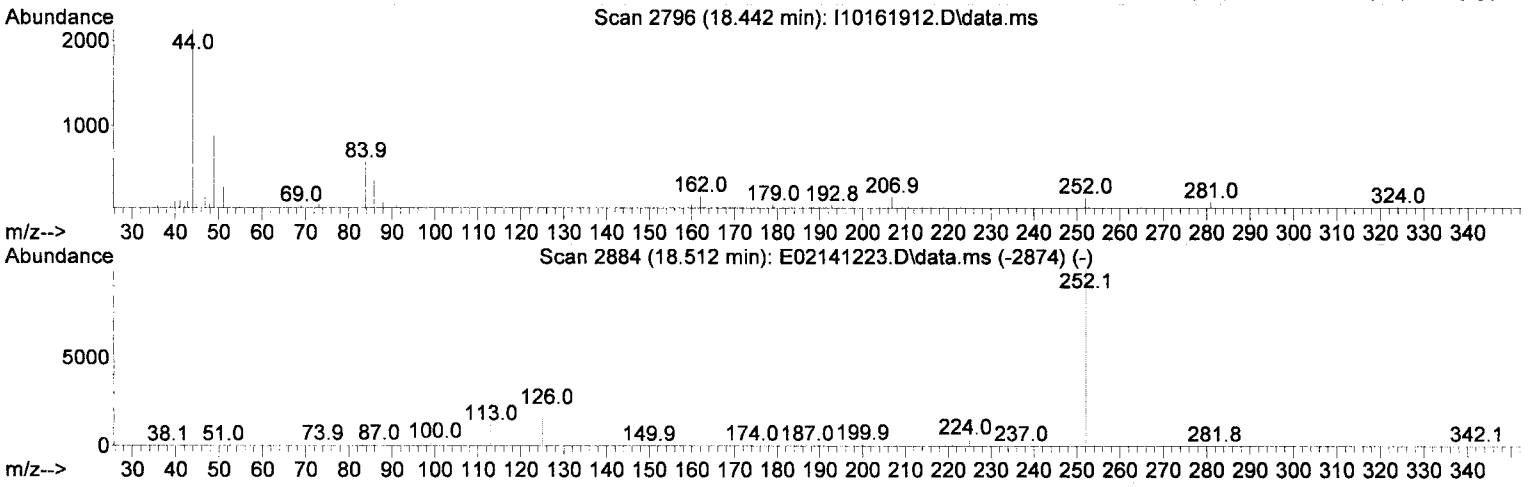
R = -1.74e-002 A*A + 1.07e+000 A - 4.58e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: T:\methods\SV9_I01619.M
Calibration Table Last Updated: Thu Oct 17 12:32:32 2019

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

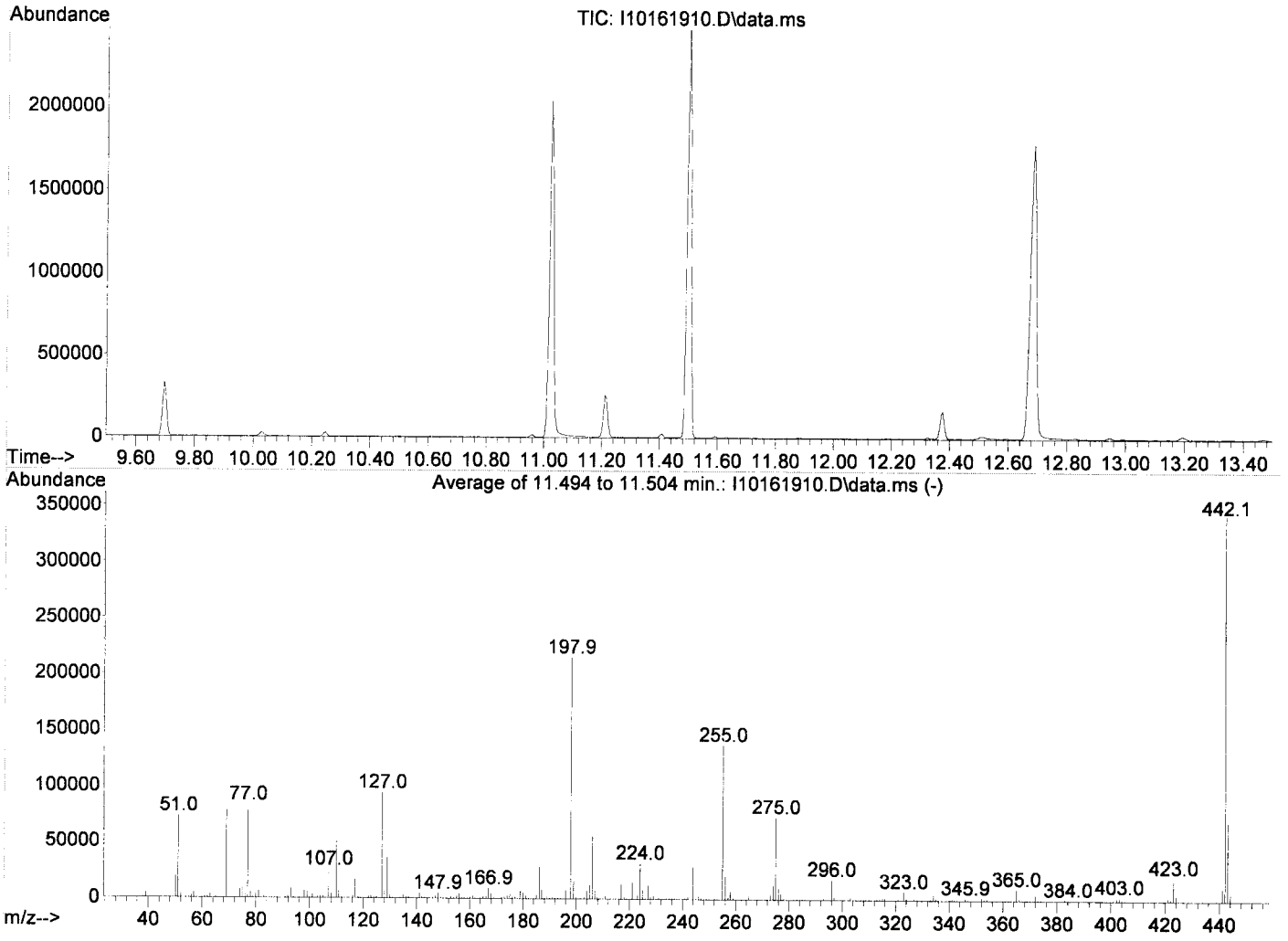
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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



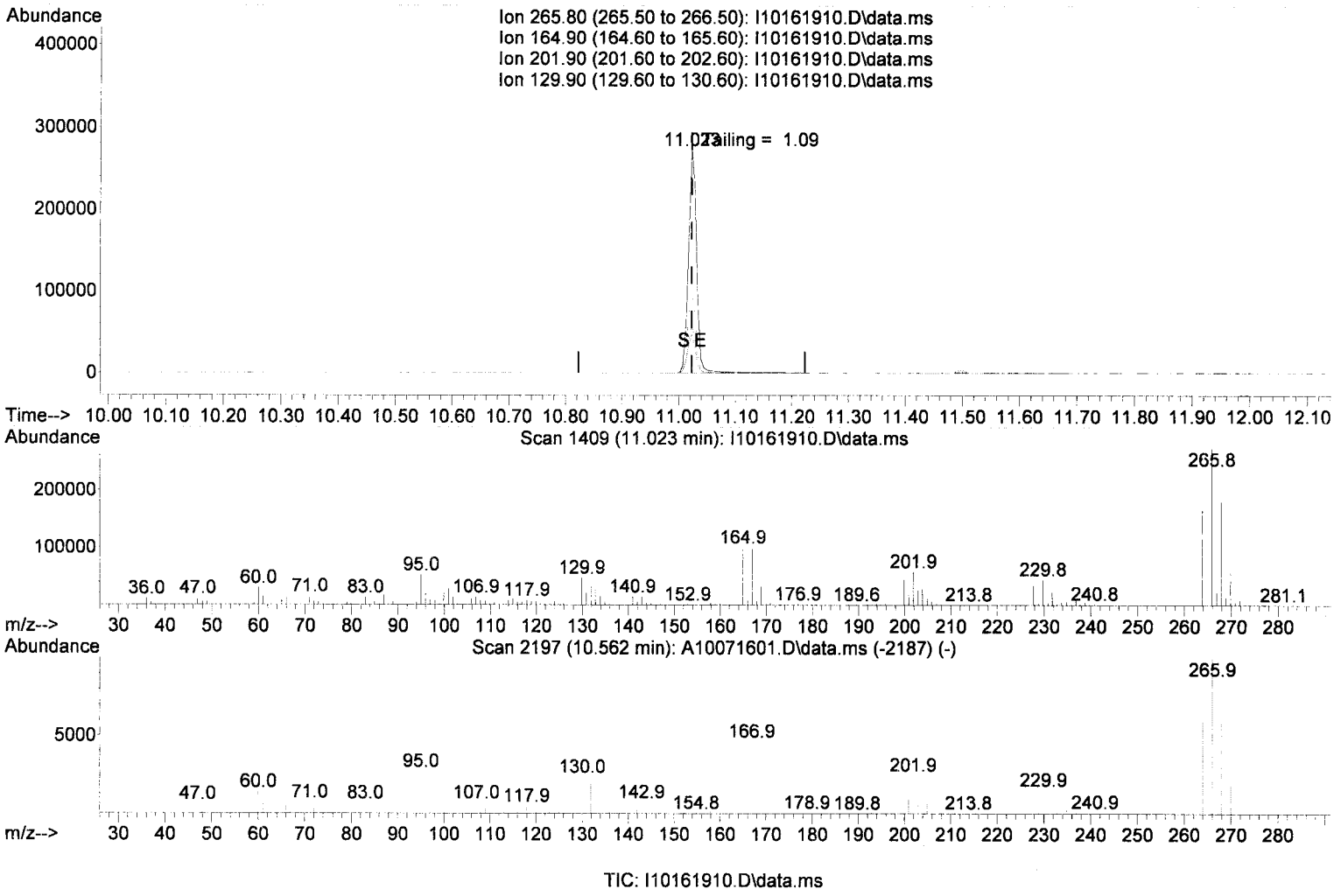
AutoFind: Scans 1497, 1498, 1499; Background Corrected with Scan 1490

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

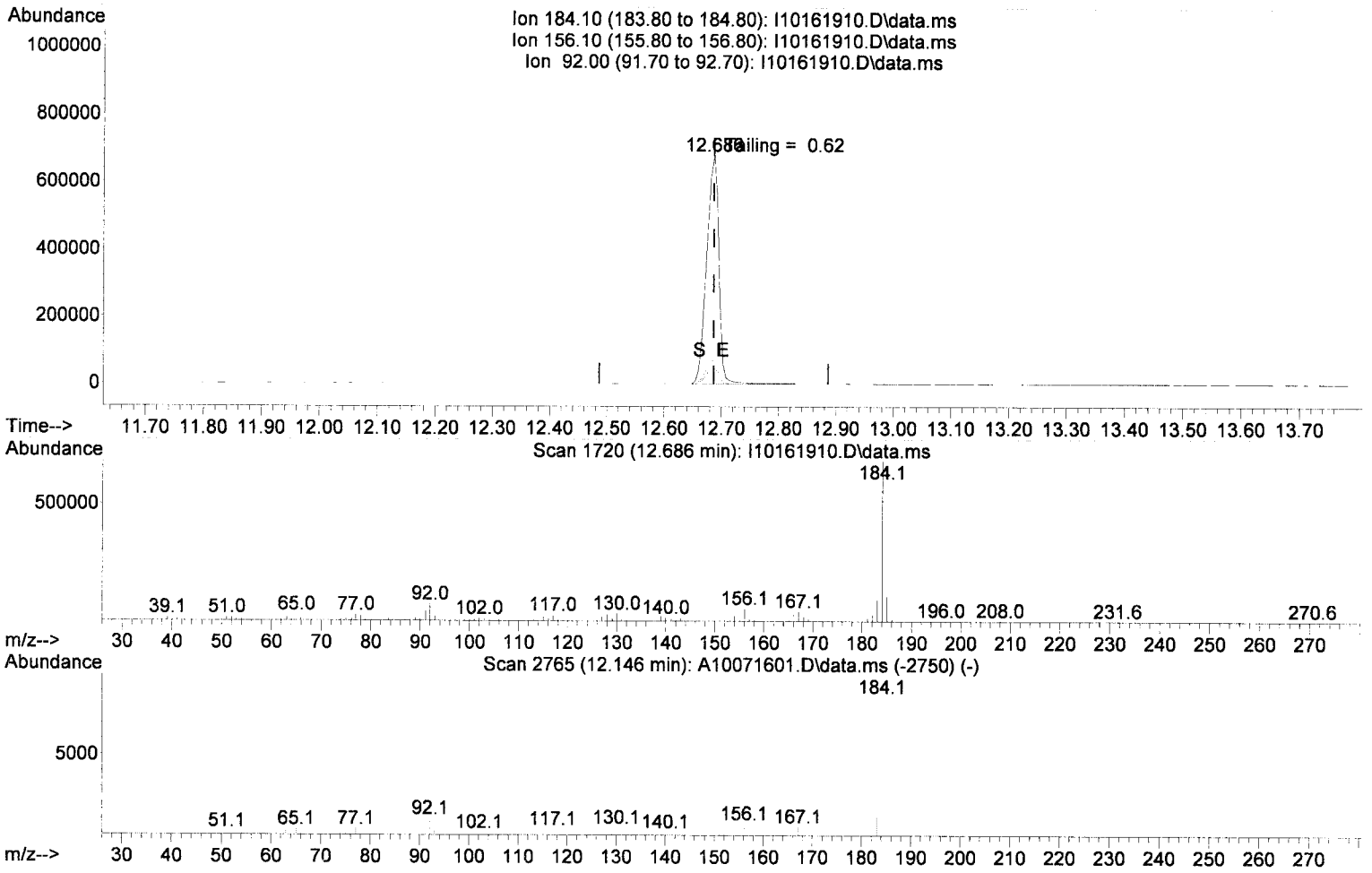
Ion	Exp%	Act%
265.80	100.00	100.00
164.90	47.40	36.72
201.90	26.10	21.28
129.90	22.80	17.33

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**

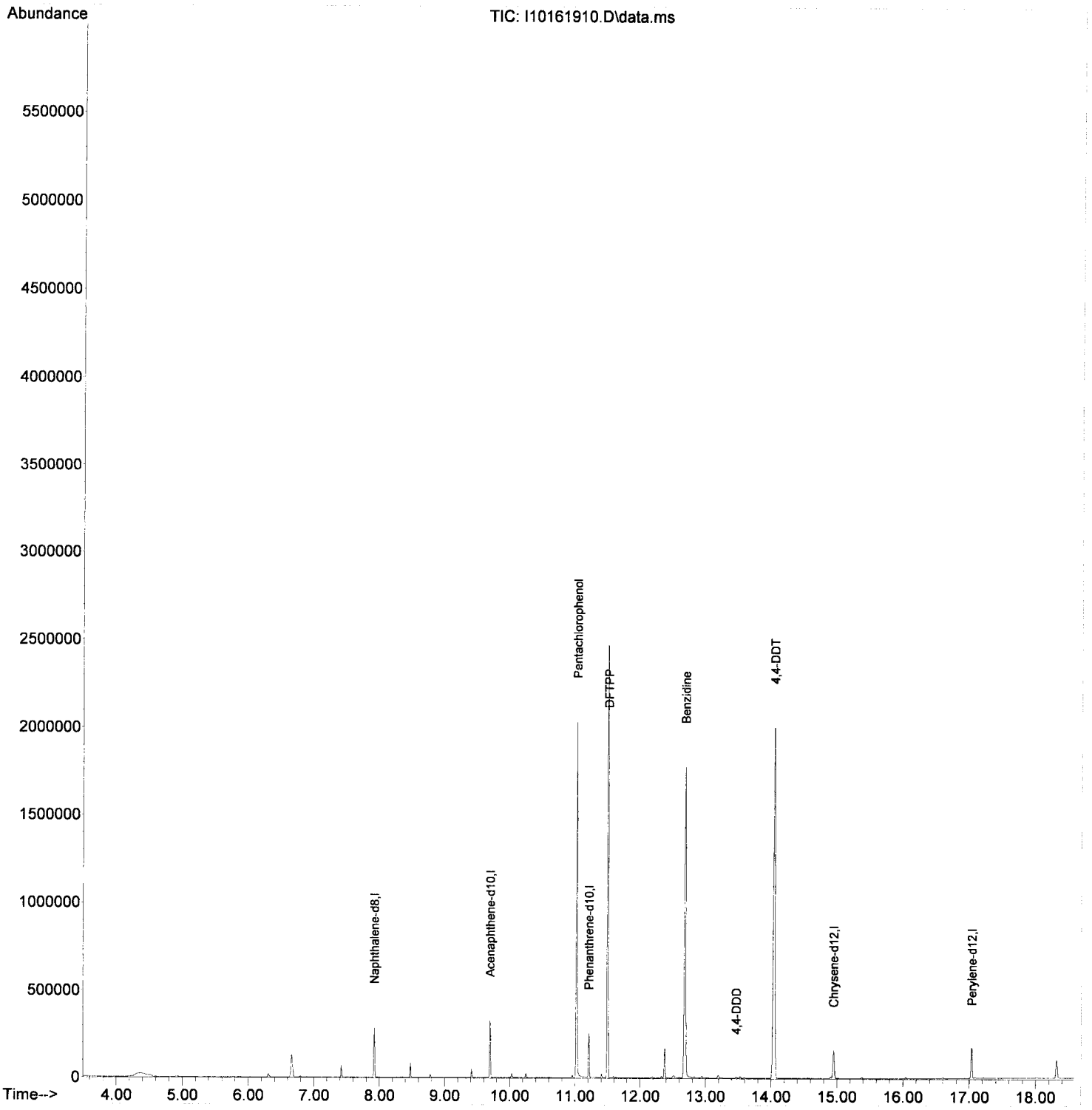
10/17/19

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

JK 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

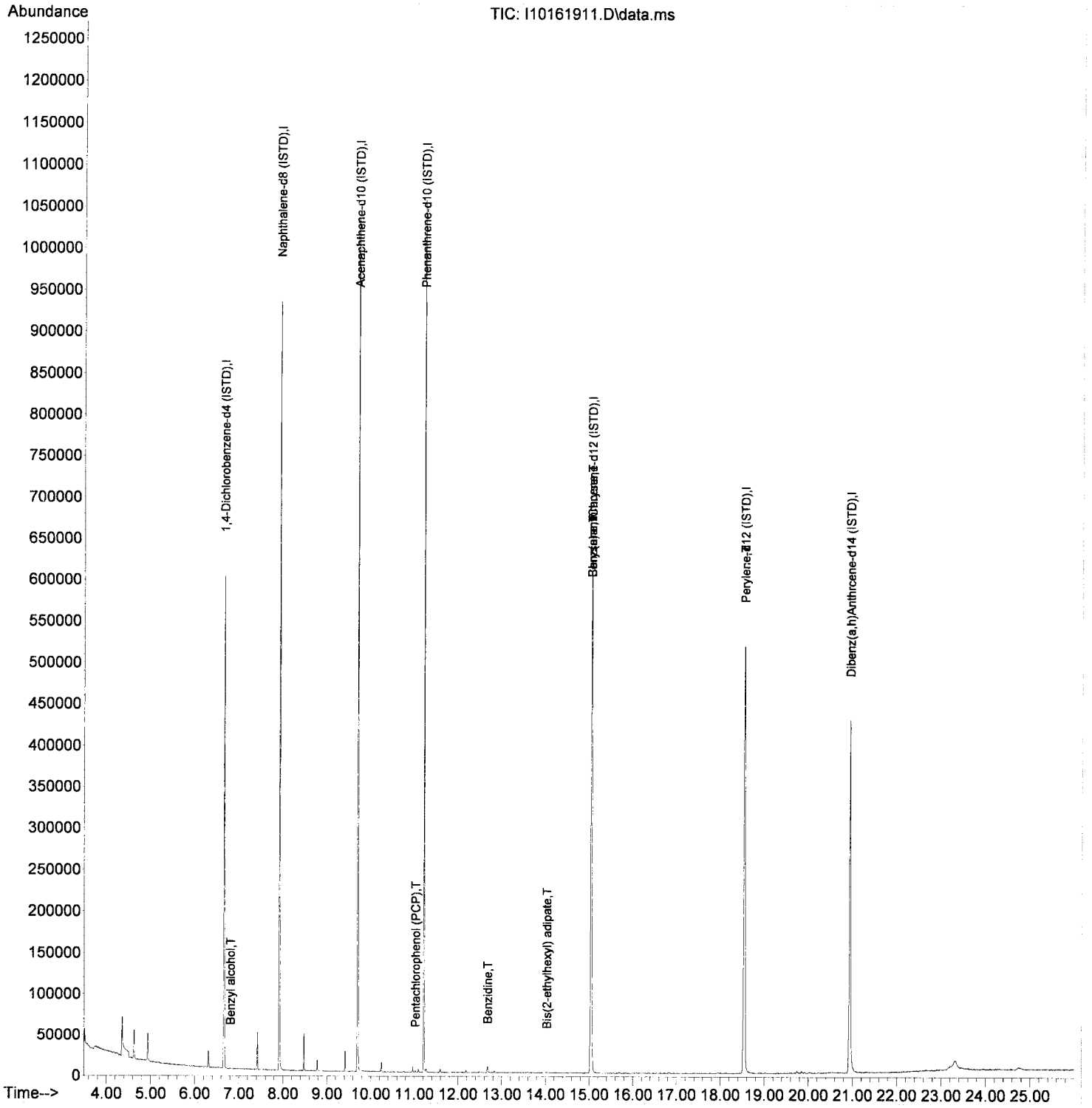
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
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

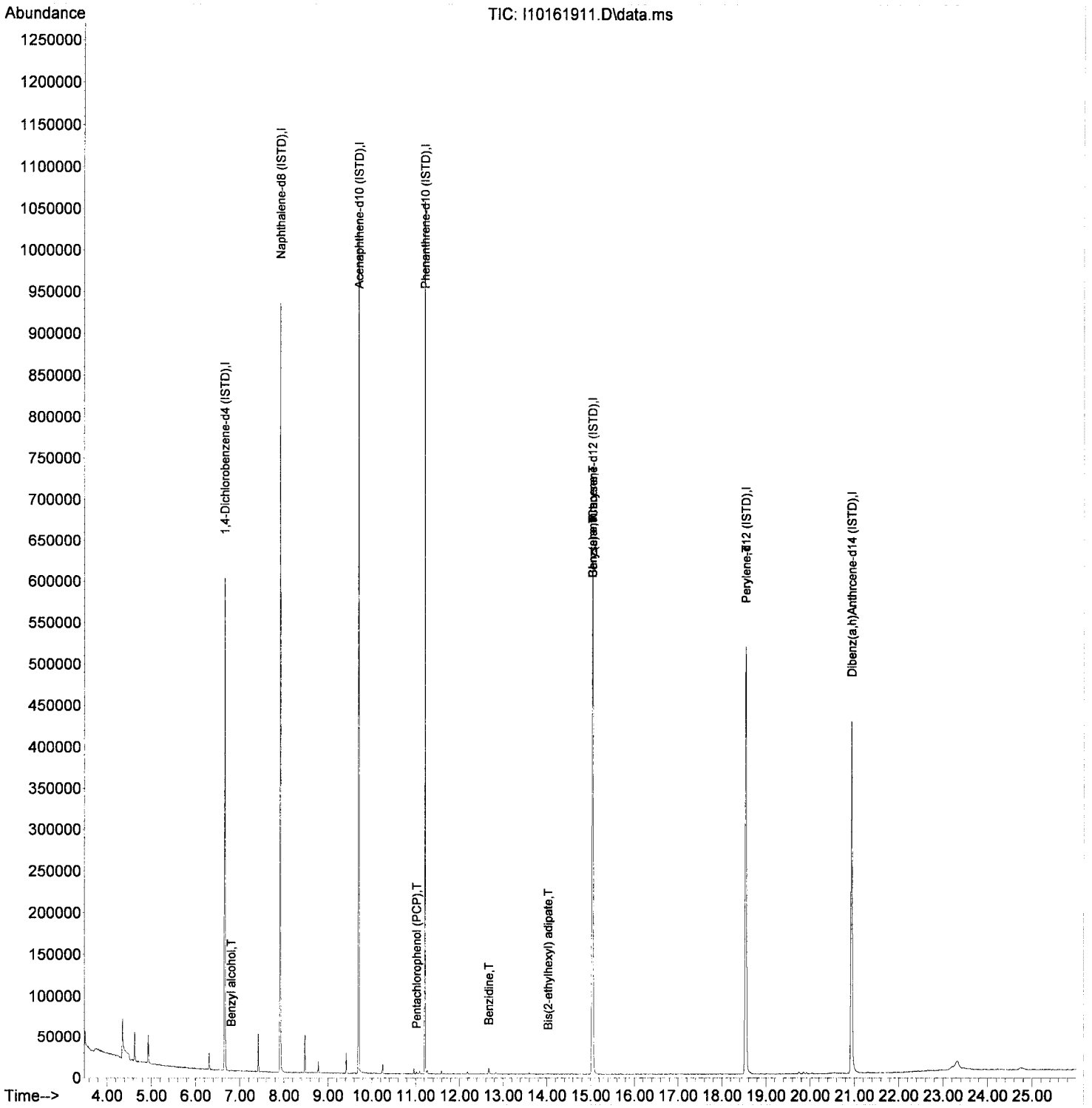
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	0.000		0	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
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

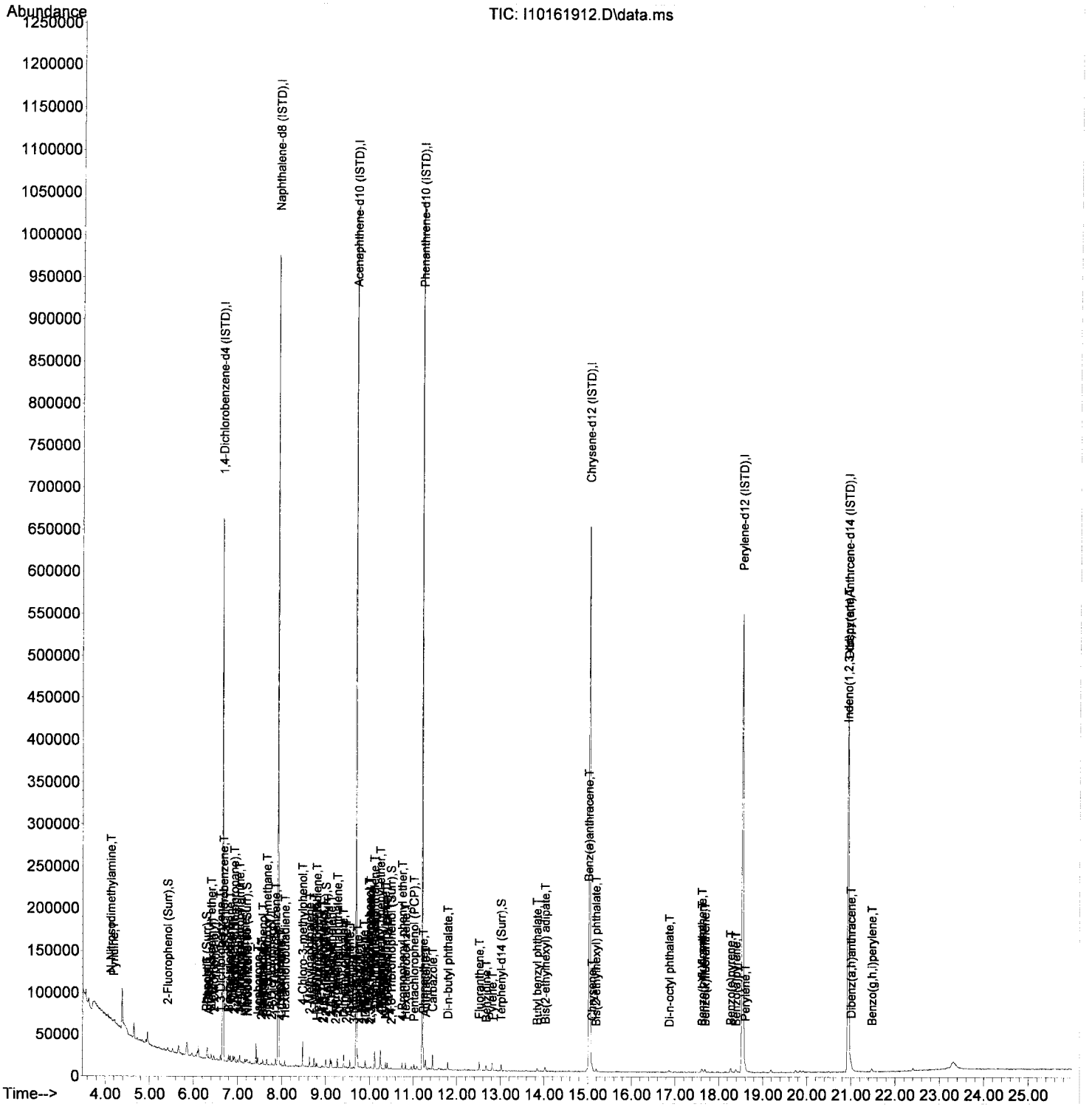
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	0.000		0	N.D.		
45)	Dimethyl phthalate	9.402	163	3253	19.56	ng/ml	97
46)	1,3-Dinitrobenzene	9.440	168	52	N.D.		
47)	2,6-Dinitrotoluene	9.467	165	213	5.54	ng/ml	84
48)	1,2-Dinitrobenzene	0.000		0	N.D.		
49)	Acenaphthylene	9.552	152	4331	19.41	ng/ml	97
50)	3-Nitroaniline	9.643	138	203	27.50	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

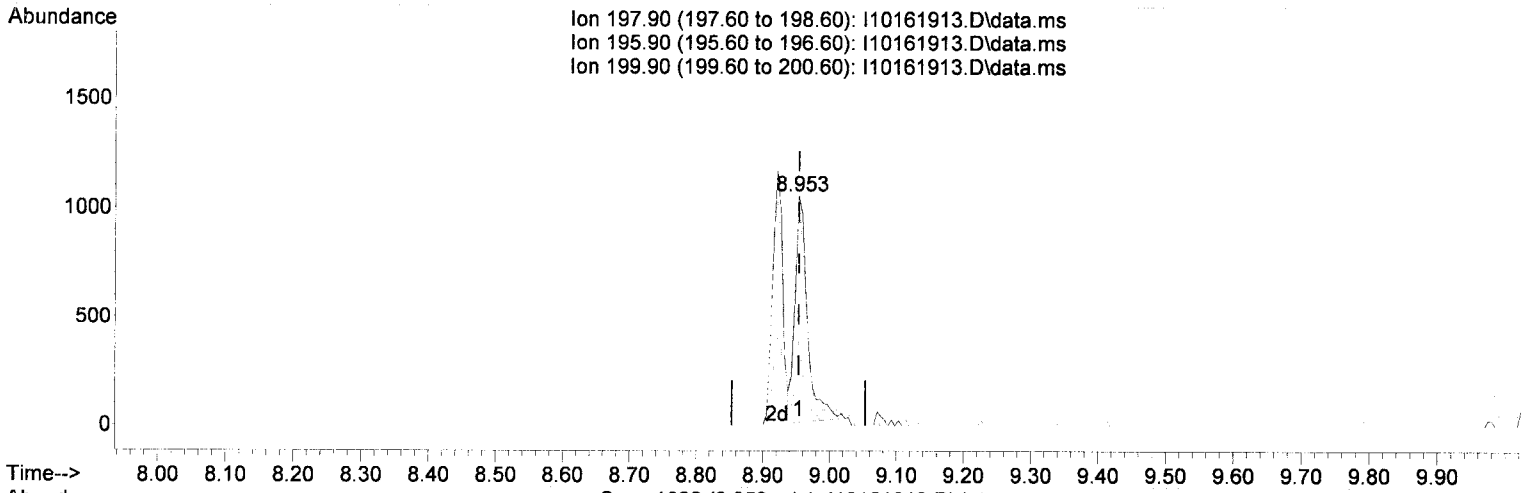
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.349	168	260	73.59	ng/ml	80
45) Dimethyl phthalate	9.408	163	8884	53.00	ng/ml	97
46) 1,3-Dinitrobenzene	9.434	168	351	12.68	ng/ml	55
47) 2,6-Dinitrotoluene	9.467	165	792	20.42	ng/ml	90
48) 1,2-Dinitrobenzene	9.520	168	309	16.43	ng/ml	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	49.37	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

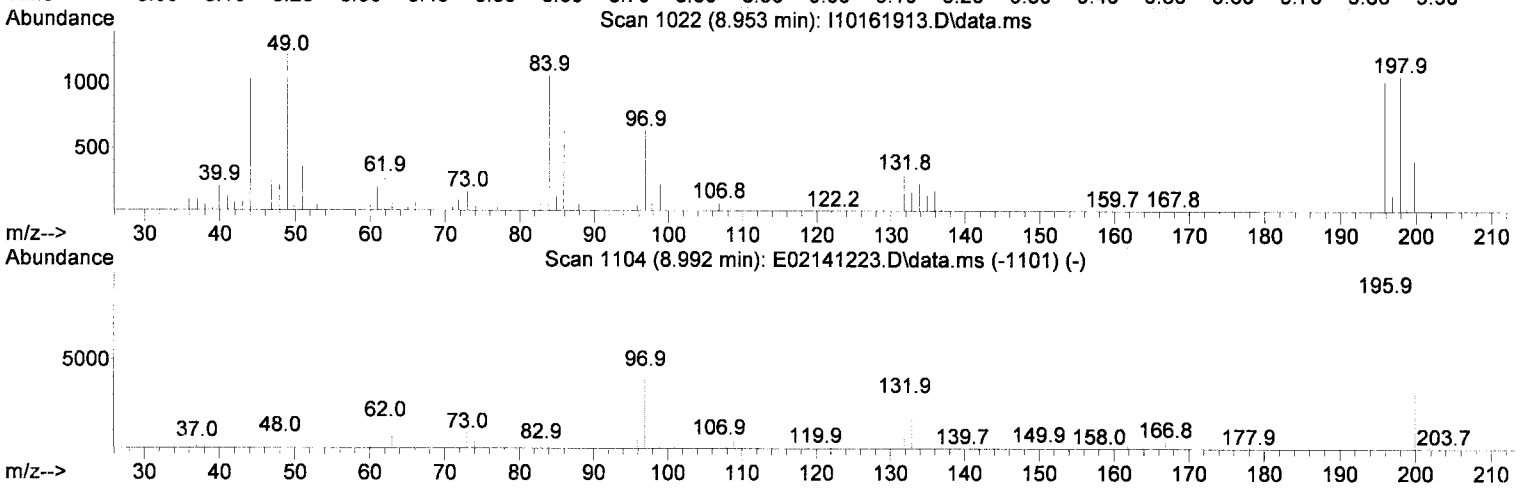
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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

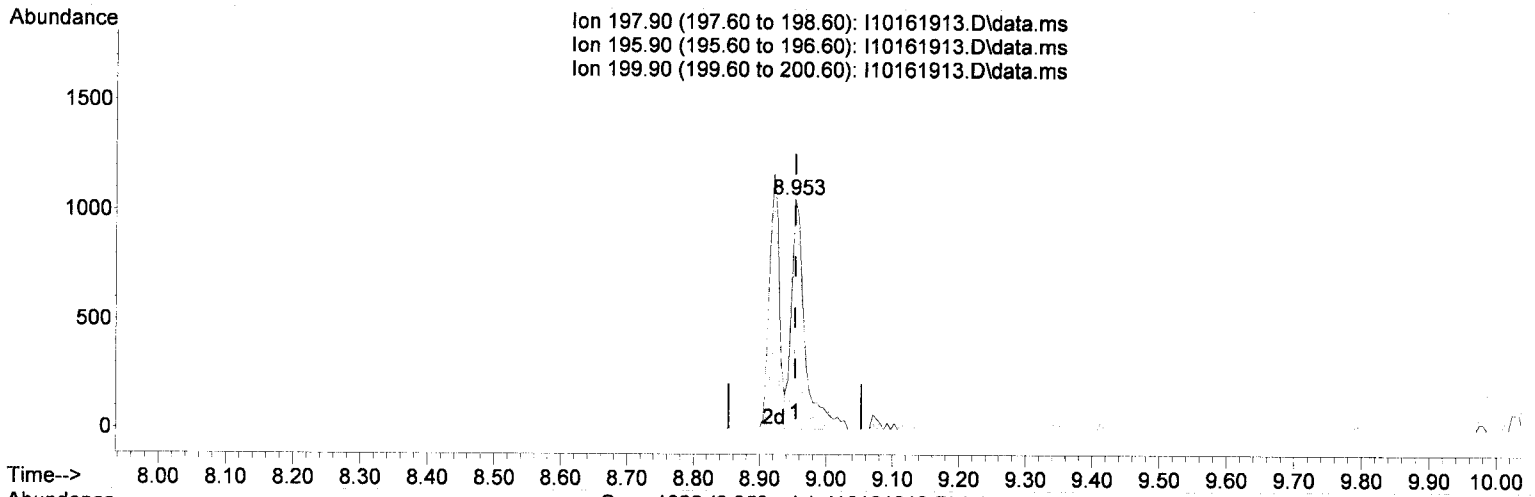
response 1380

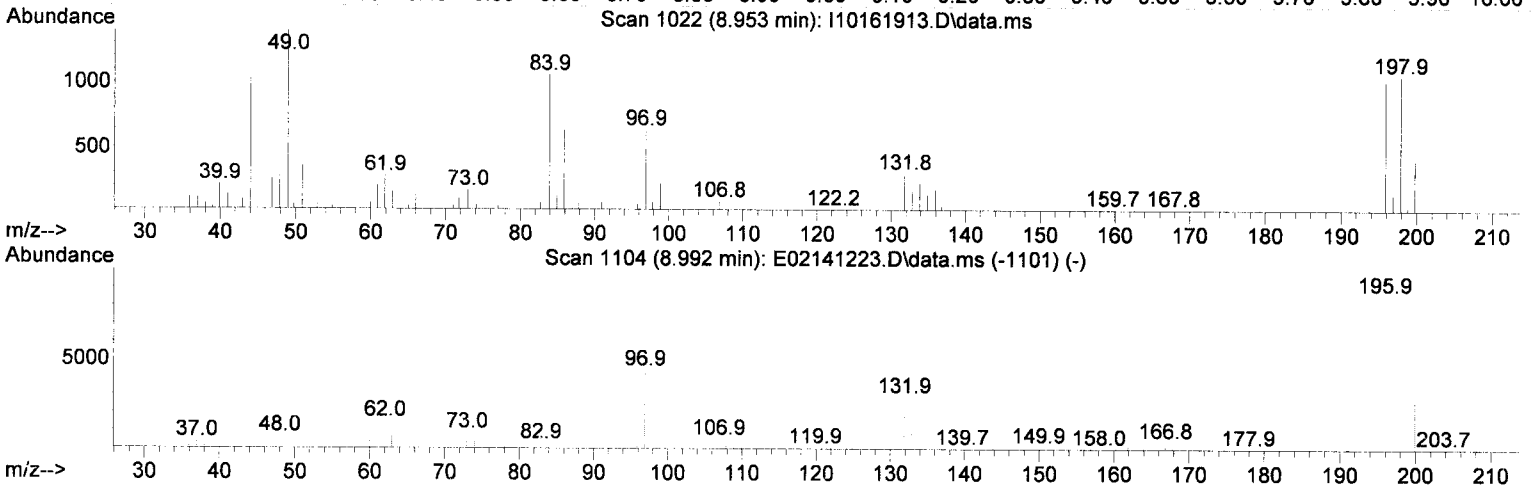
Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.70	96.21
199.90	30.90	38.67
0.00	0.00	0.00

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

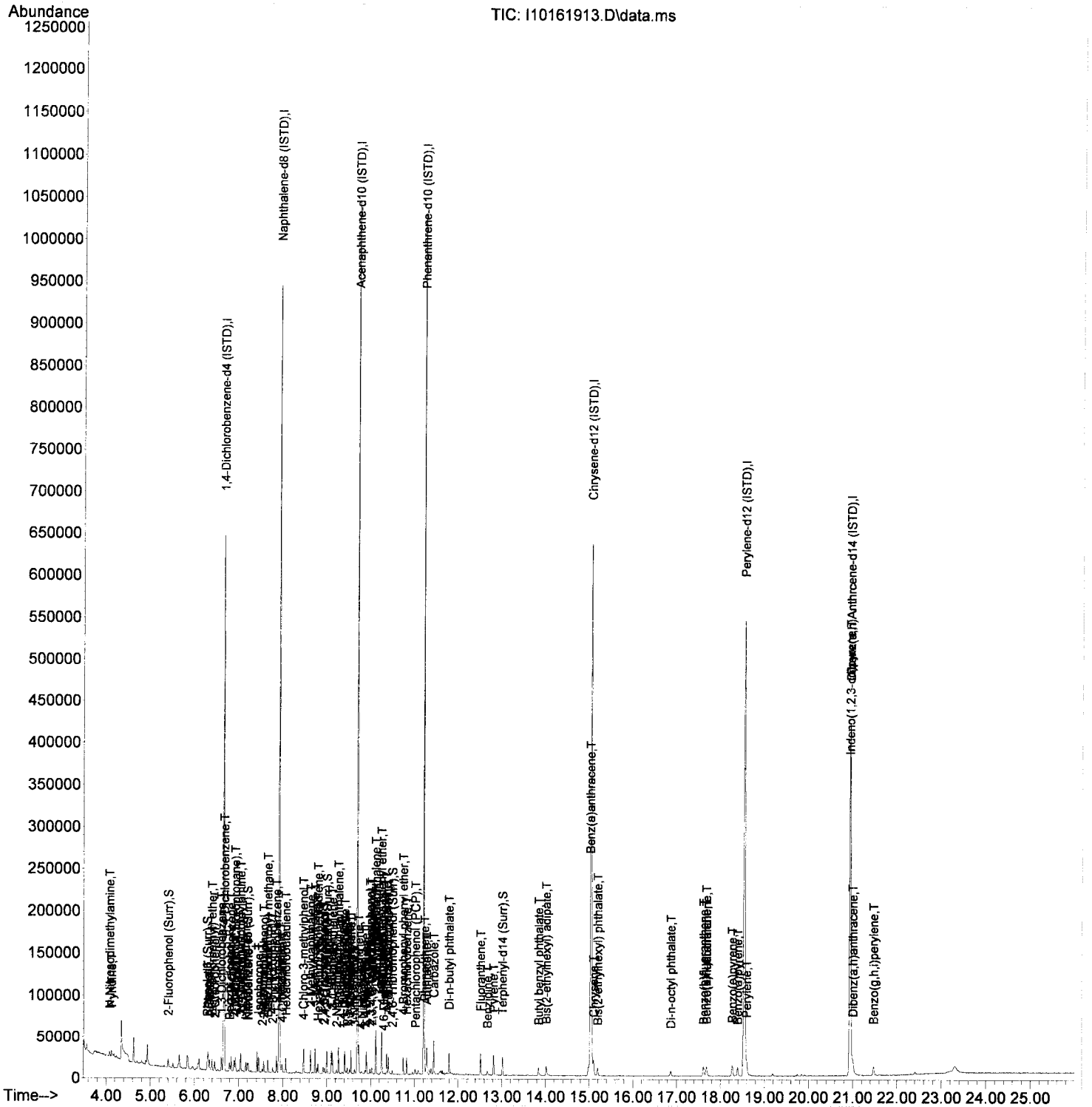
Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.70	96.21
199.90	30.90	38.67
0.00	0.00	0.00

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

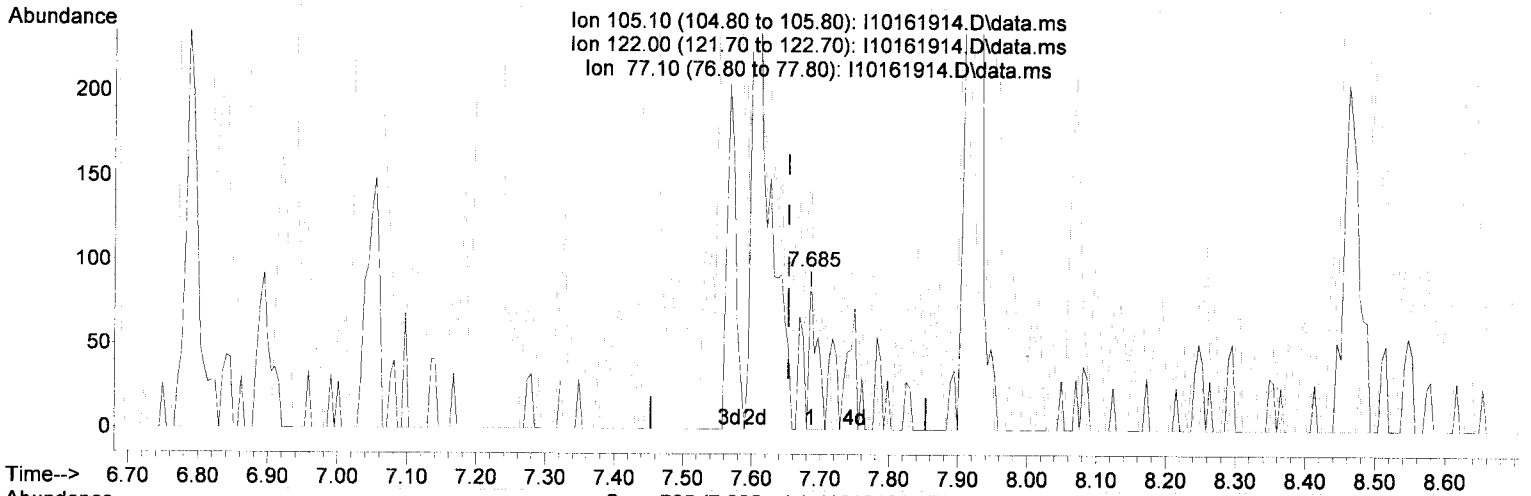
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	548	84.88	ng/ml	94
45) Dimethyl phthalate	9.408	163	18685	110.60	ng/ml	98
46) 1,3-Dinitrobenzene	9.434	168	771	27.65	ng/ml	74
47) 2,6-Dinitrotoluene	9.467	165	1977	50.59	ng/ml	94
48) 1,2-Dinitrobenzene	9.520	168	825	43.54	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

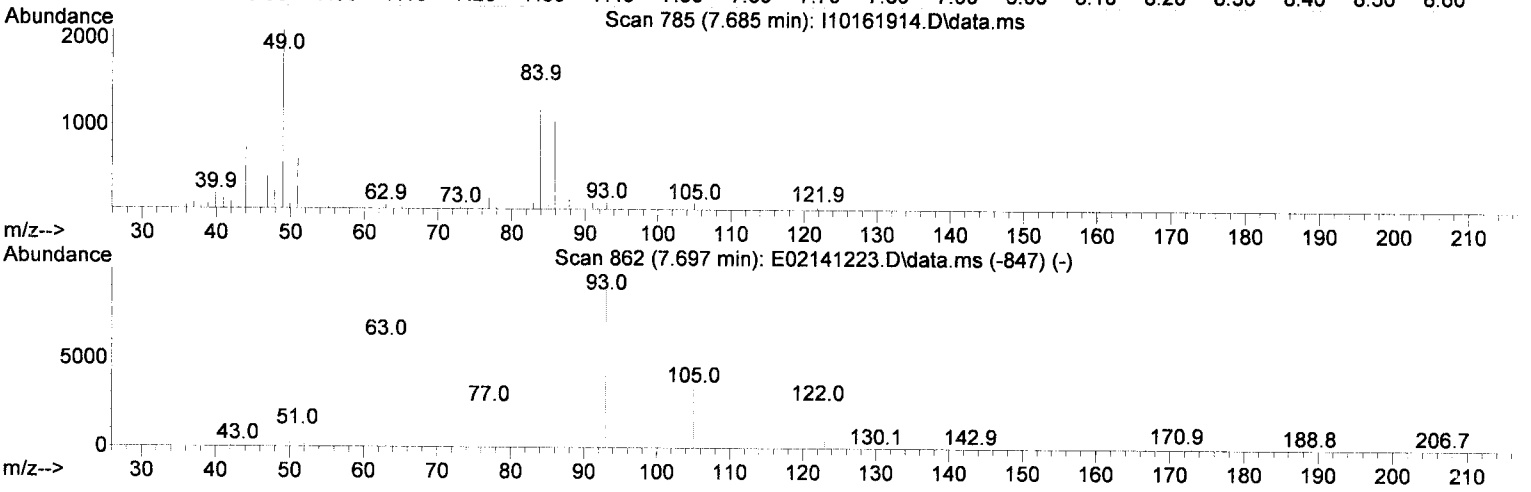
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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

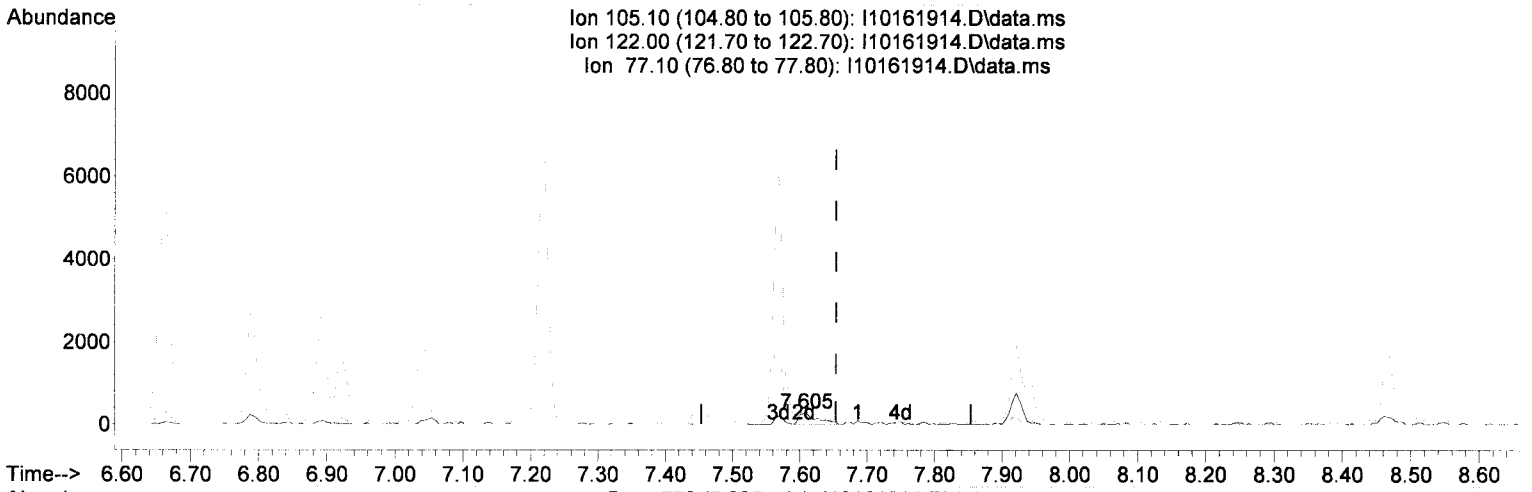
response 73

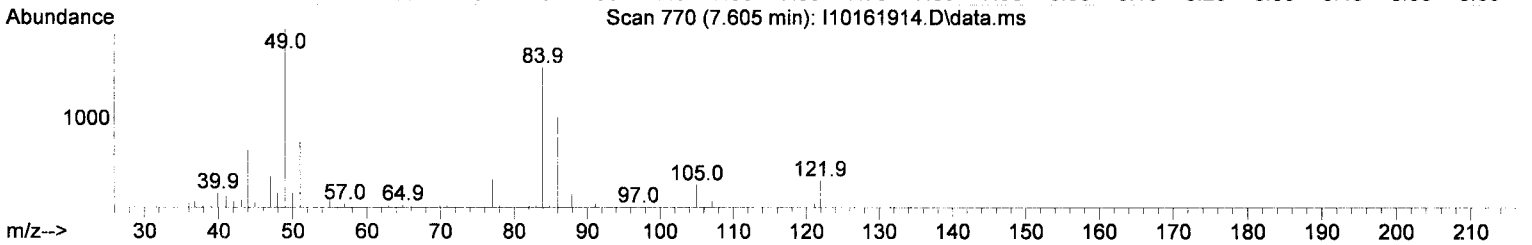
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	76.60
77.10	77.80	158.51#
0.00	0.00	0.00

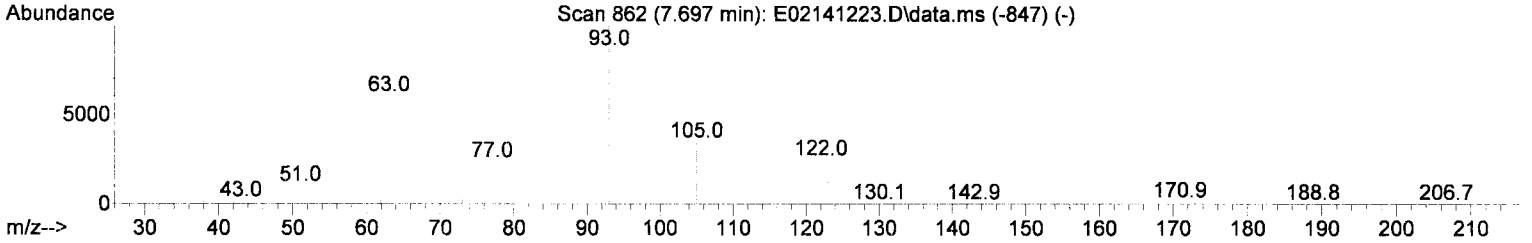
Quantitation Report (Qedit)

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

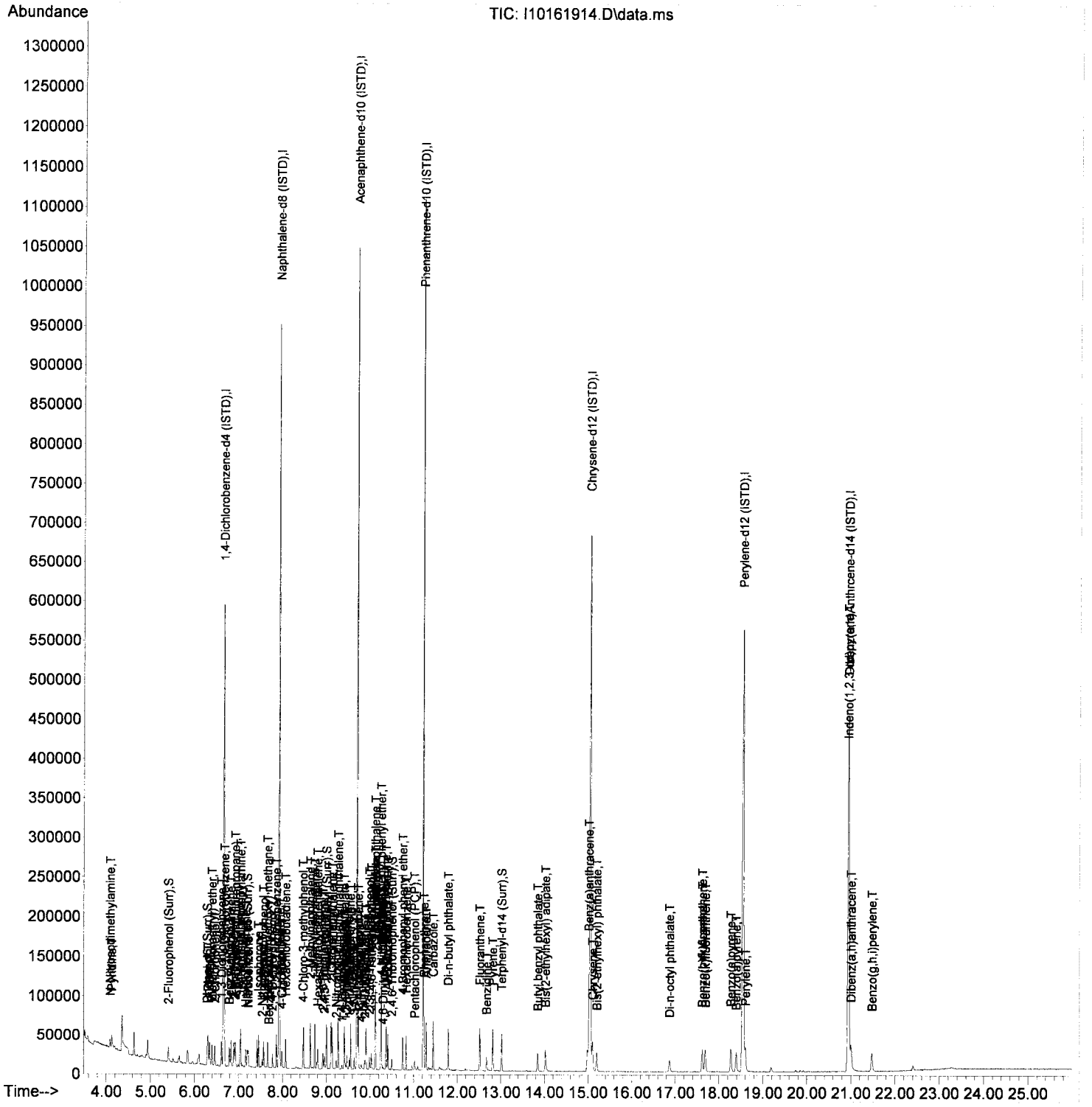
response 519

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

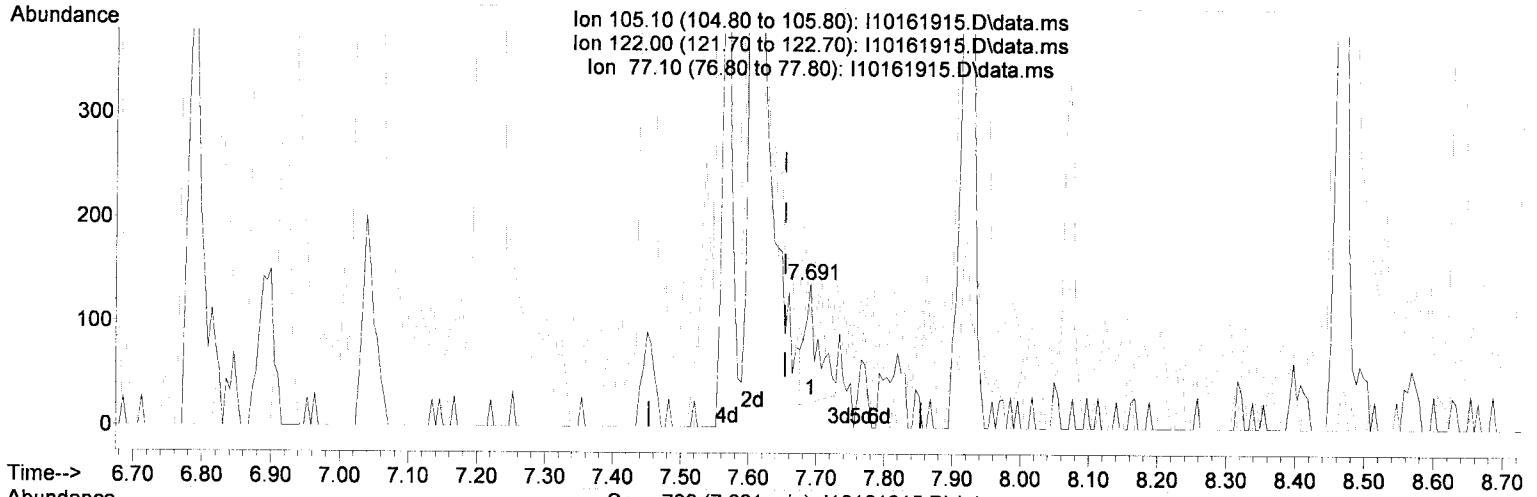
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	1277	114.39	ng/ml	92
45) Dimethyl phthalate	9.408	163	36622	219.94	ng/ml	98
46) 1,3-Dinitrobenzene	9.435	168	1889	68.72	ng/ml	91
47) 2,6-Dinitrotoluene	9.467	165	5062	131.41	ng/ml	97
48) 1,2-Dinitrobenzene	9.520	168	2119	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

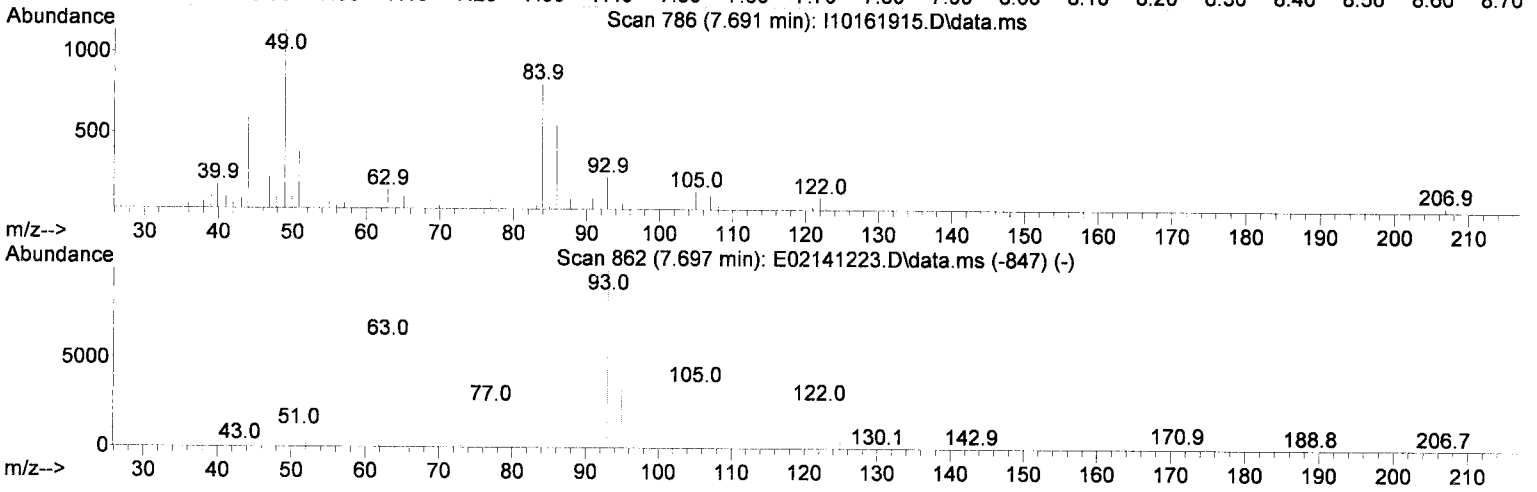
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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

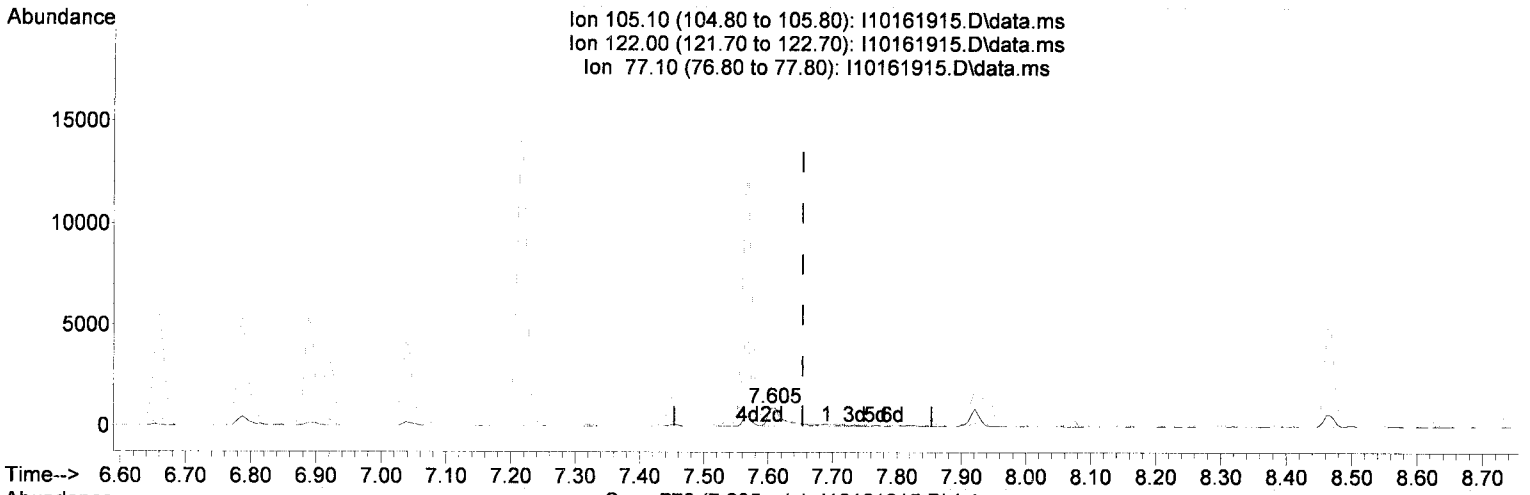
response 160

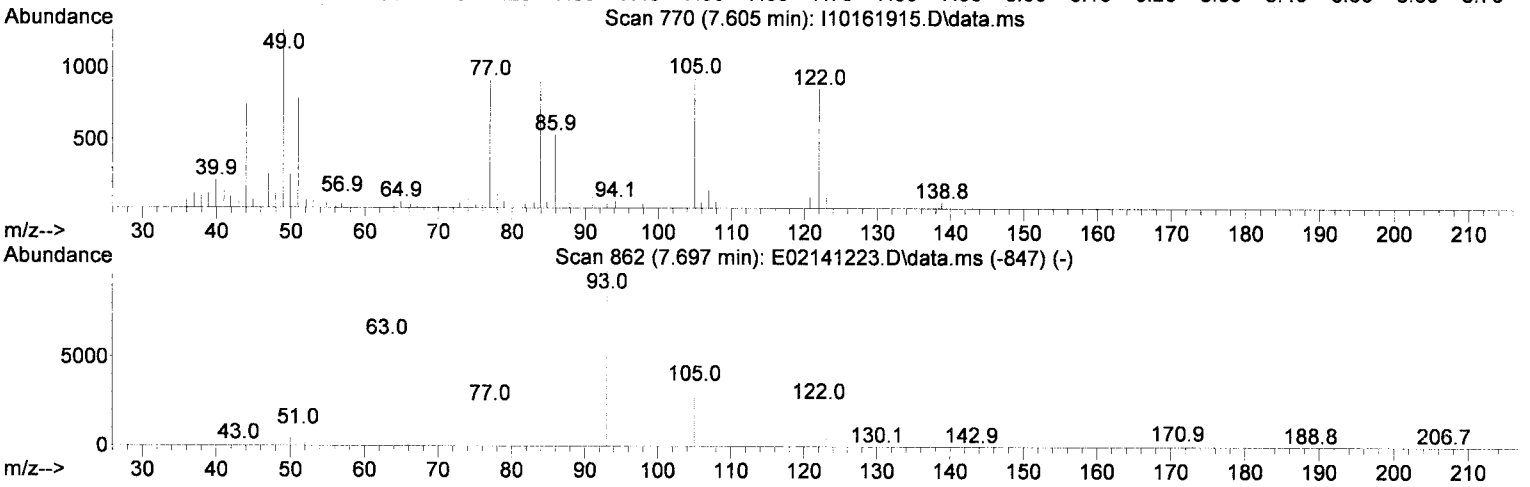
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	71.74
77.10	77.80	63.77
0.00	0.00	0.00

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 JK 10/17/19

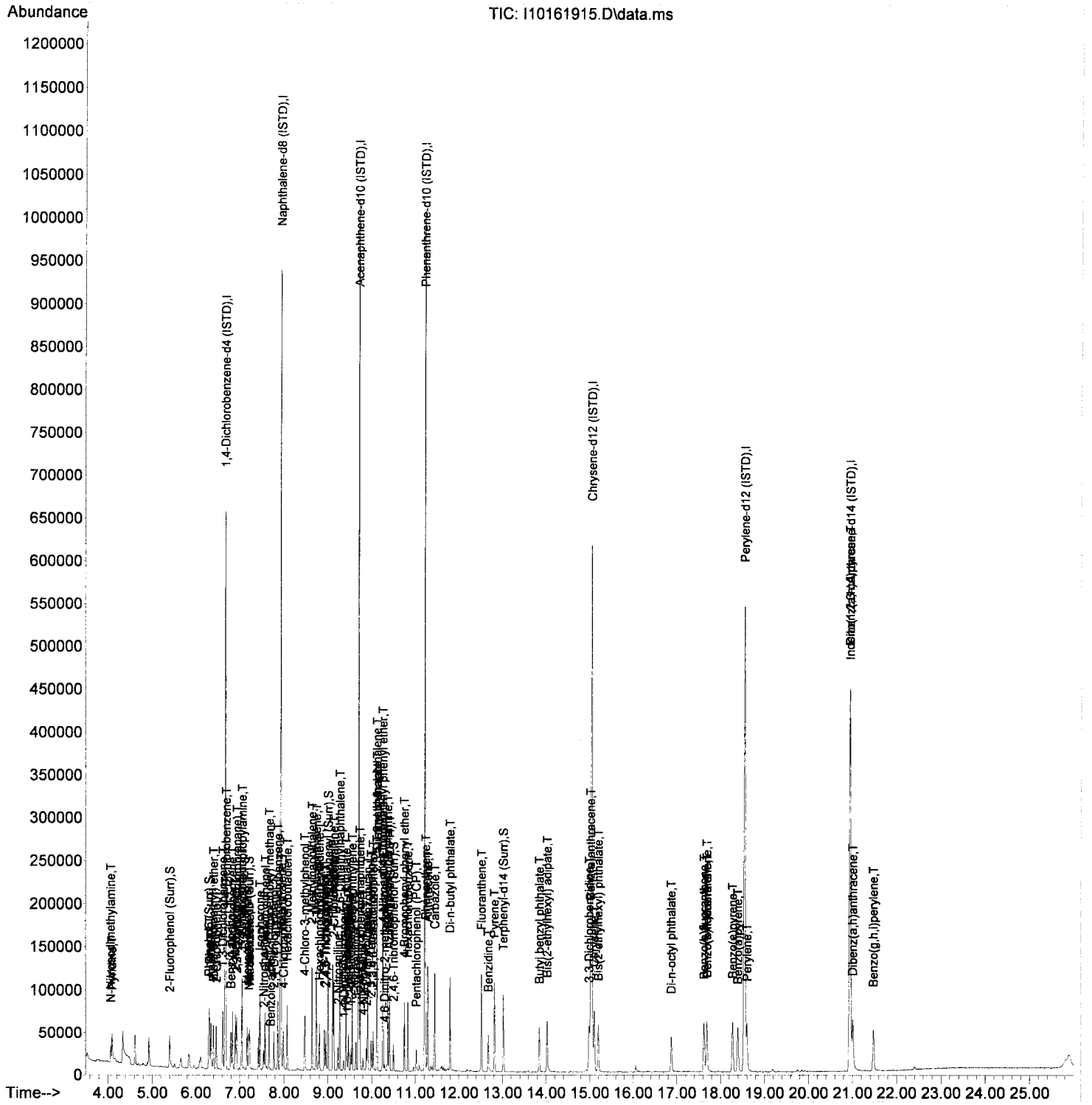
response 1889

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

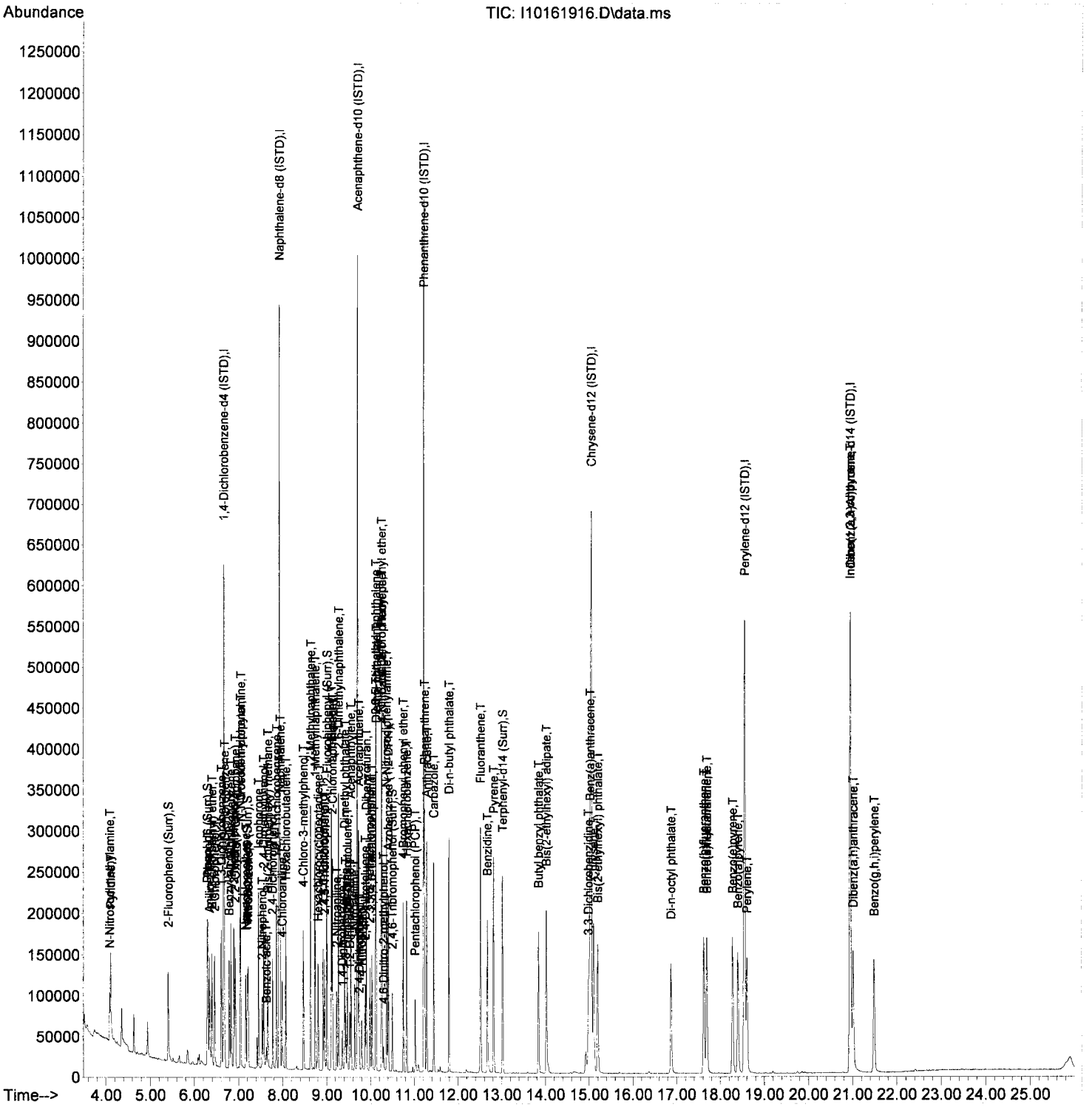
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.354	168	5080	270.73	ng/ml	99
45)	Dimethyl phthalate	9.408	163	89795	551.05	ng/ml	99
46)	1,3-Dinitrobenzene	9.434	168	7846	291.68	ng/ml	95
47)	2,6-Dinitrotoluene	9.467	165	16561	439.32	ng/ml	96
48)	1,2-Dinitrobenzene	9.525	168	7179	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

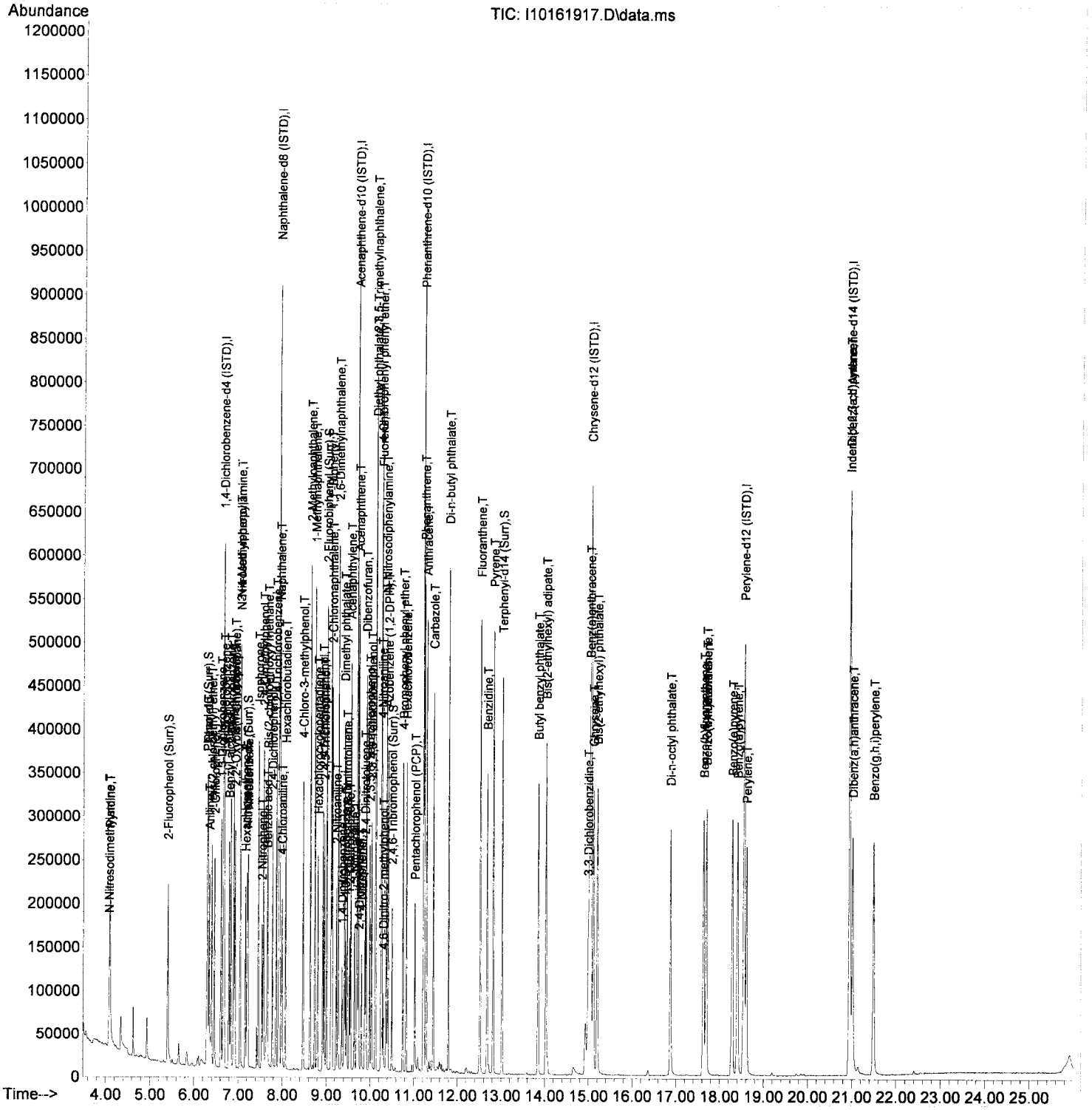
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	12494	603.08	ng/ml	100
45) Dimethyl phthalate	9.408	163	161978	1055.93	ng/ml	100
46) 1,3-Dinitrobenzene	9.434	168	18022	711.71	ng/ml	100
47) 2,6-Dinitrotoluene	9.467	165	33104	932.85	ng/ml	100
48) 1,2-Dinitrobenzene	9.525	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

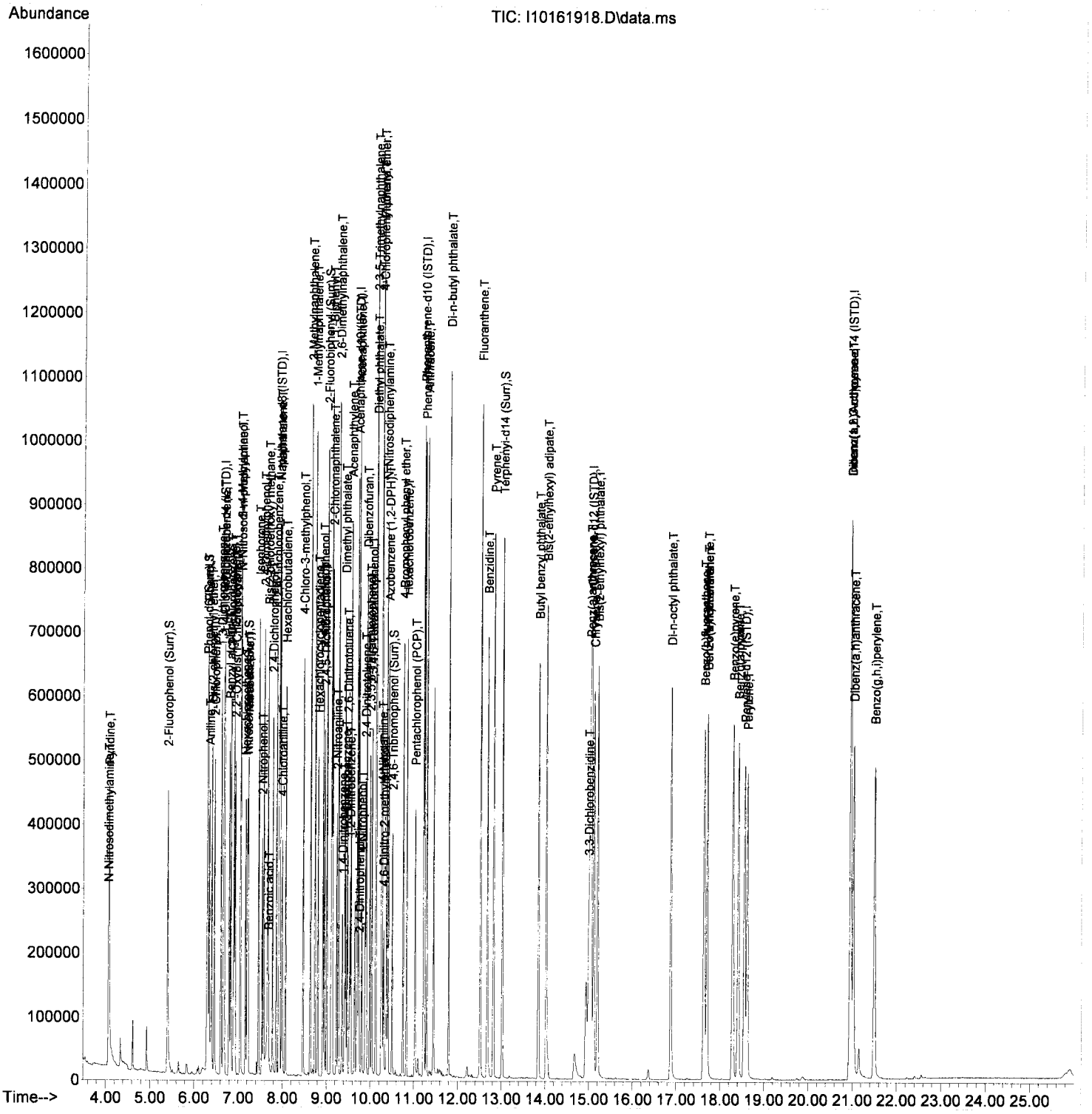
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.360	168	31930	1471.63	ng/ml	91
45)	Dimethyl phthalate	9.413	163	303831	2043.92	ng/ml	99
46)	1,3-Dinitrobenzene	9.440	168	41890	1707.10	ng/ml	97
47)	2,6-Dinitrotoluene	9.472	165	67679	1968.05	ng/ml	96
48)	1,2-Dinitrobenzene	9.531	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

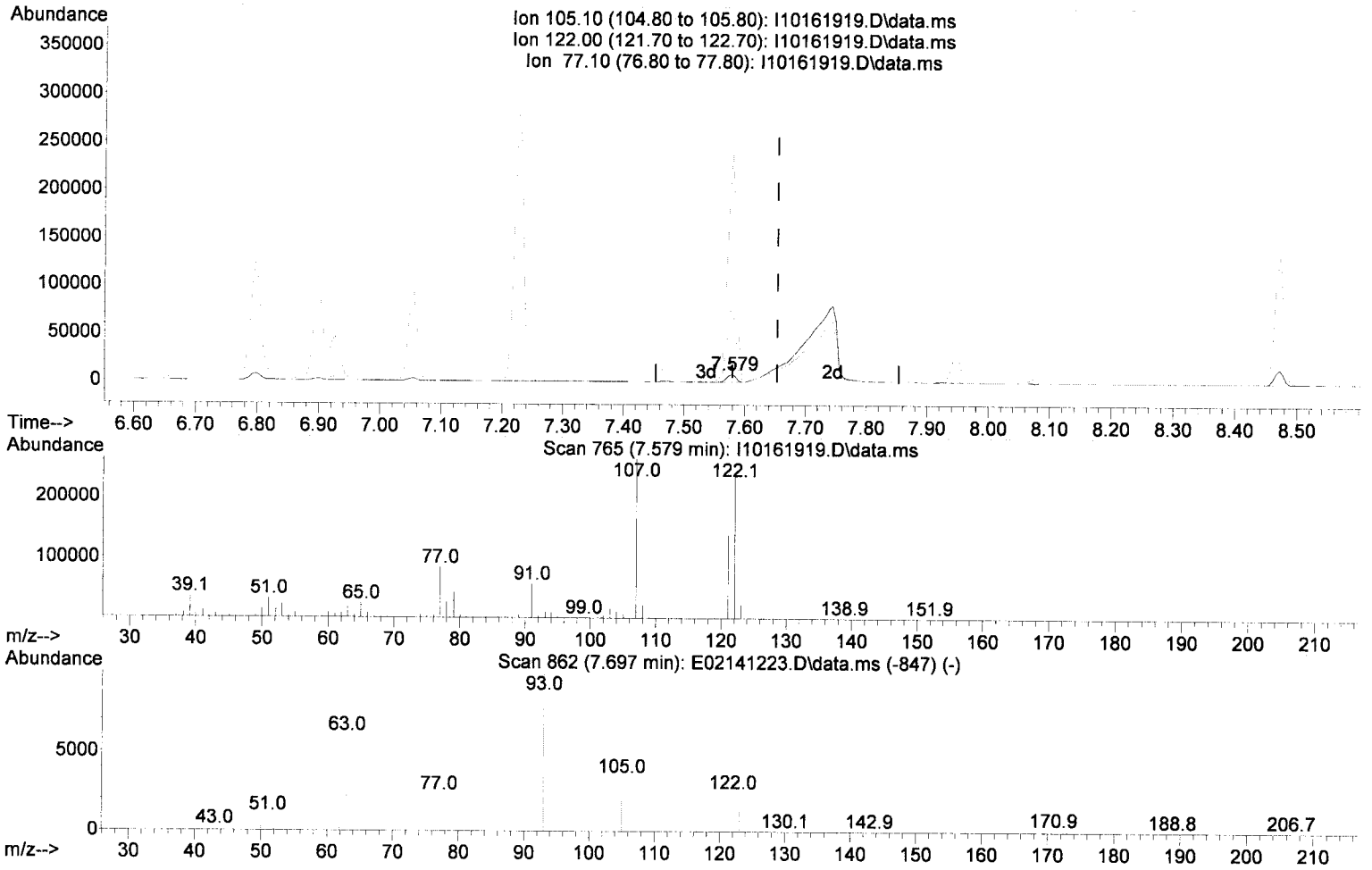
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.365	168	77125	3303.00	ng/ml	90
45) Dimethyl phthalate	9.424	163	566035	3708.34	ng/ml	99
46) 1,3-Dinitrobenzene	9.451	168	91162	3618.00	ng/ml	95
47) 2,6-Dinitrotoluene	9.483	165	135556	3838.90	ng/ml	87
48) 1,2-Dinitrobenzene	9.542	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

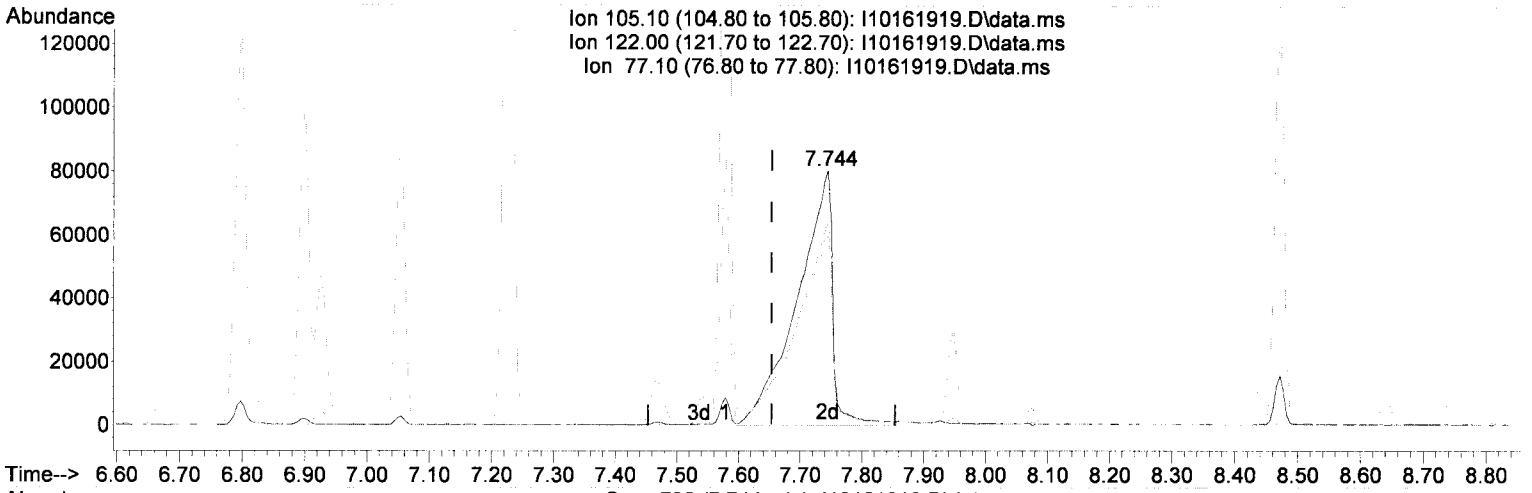
response 8424

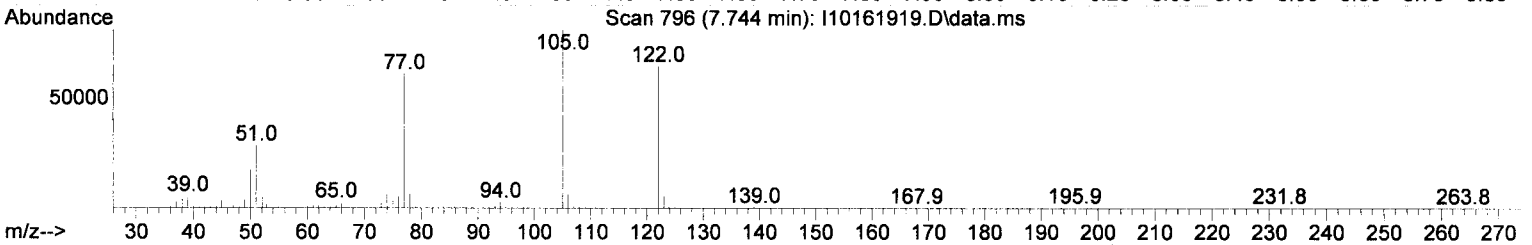
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	2779.75#
77.10	77.80	979.43#
0.00	0.00	0.00

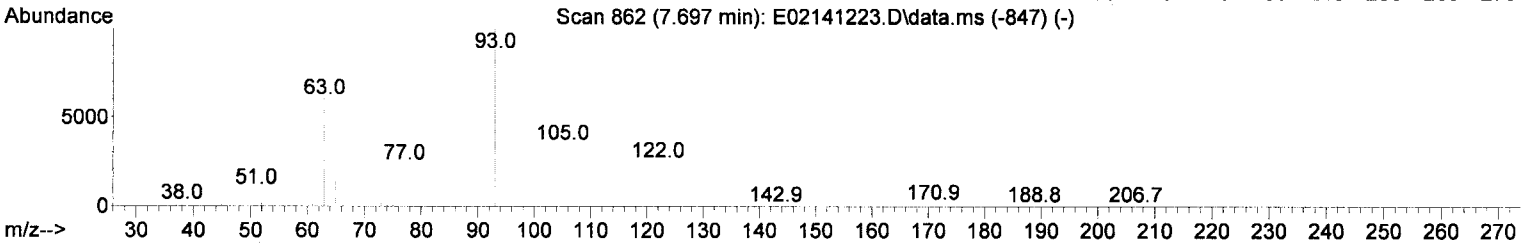
Quantitation Report (Qedit)

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

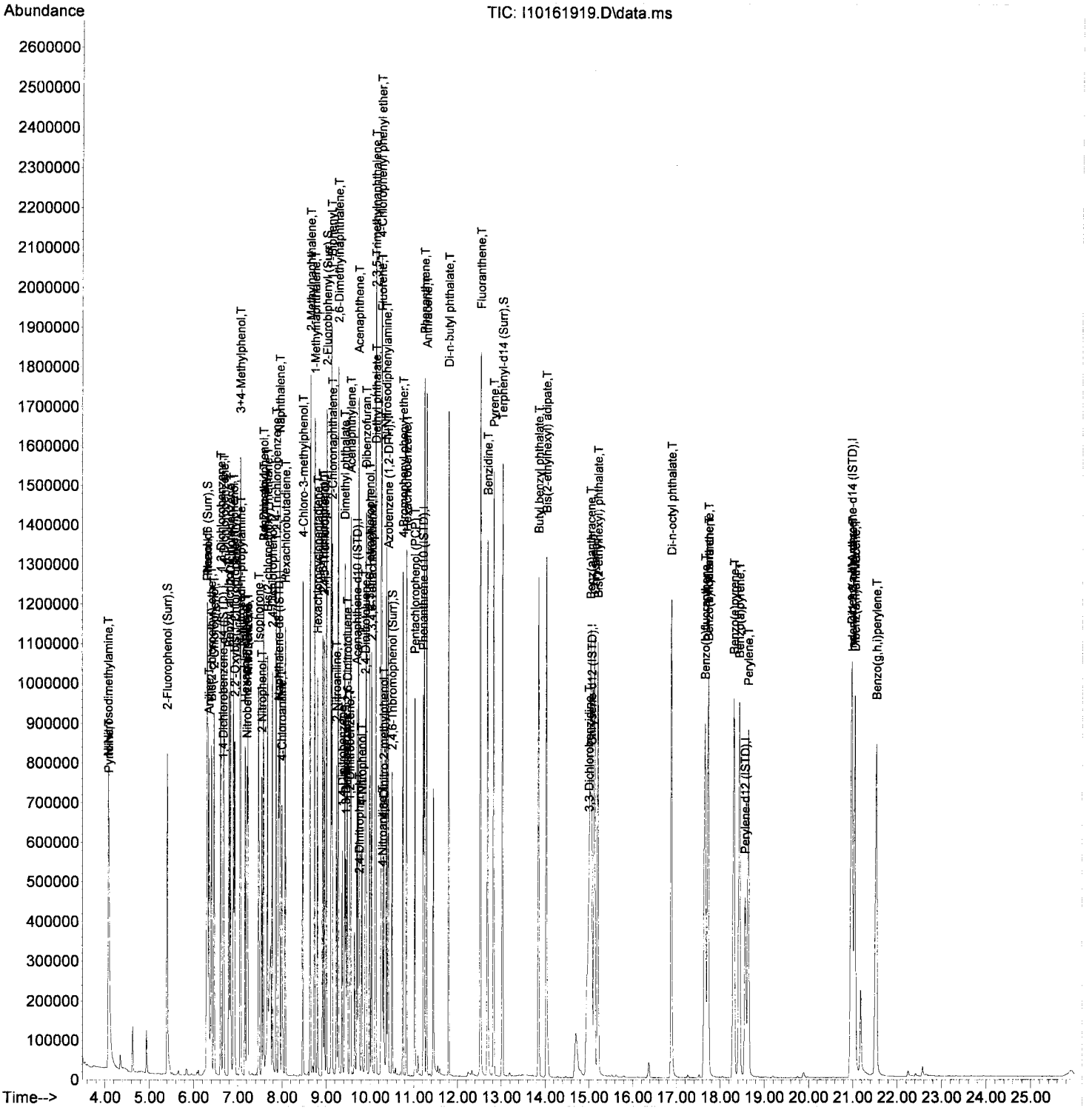
response 319266

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.	
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#~~	~~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

See MJ

See MJ

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

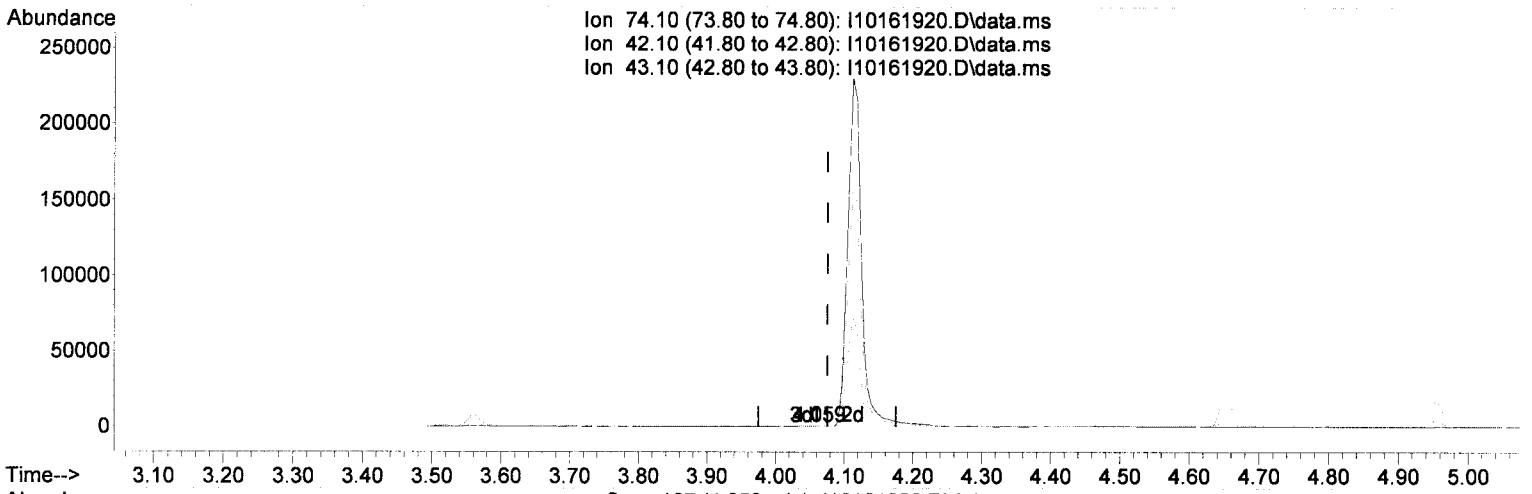
See NJ

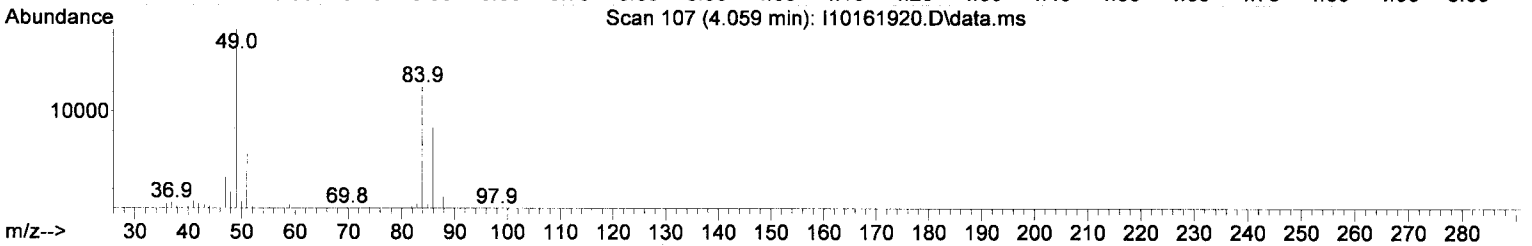
(#) = qualifier out of range (m) = manual integration (+) = signals summed

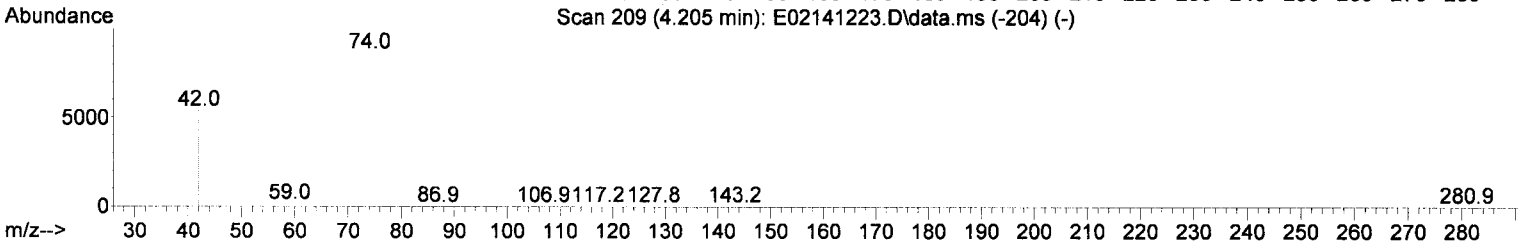
Quantitation Report (Qedit)

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

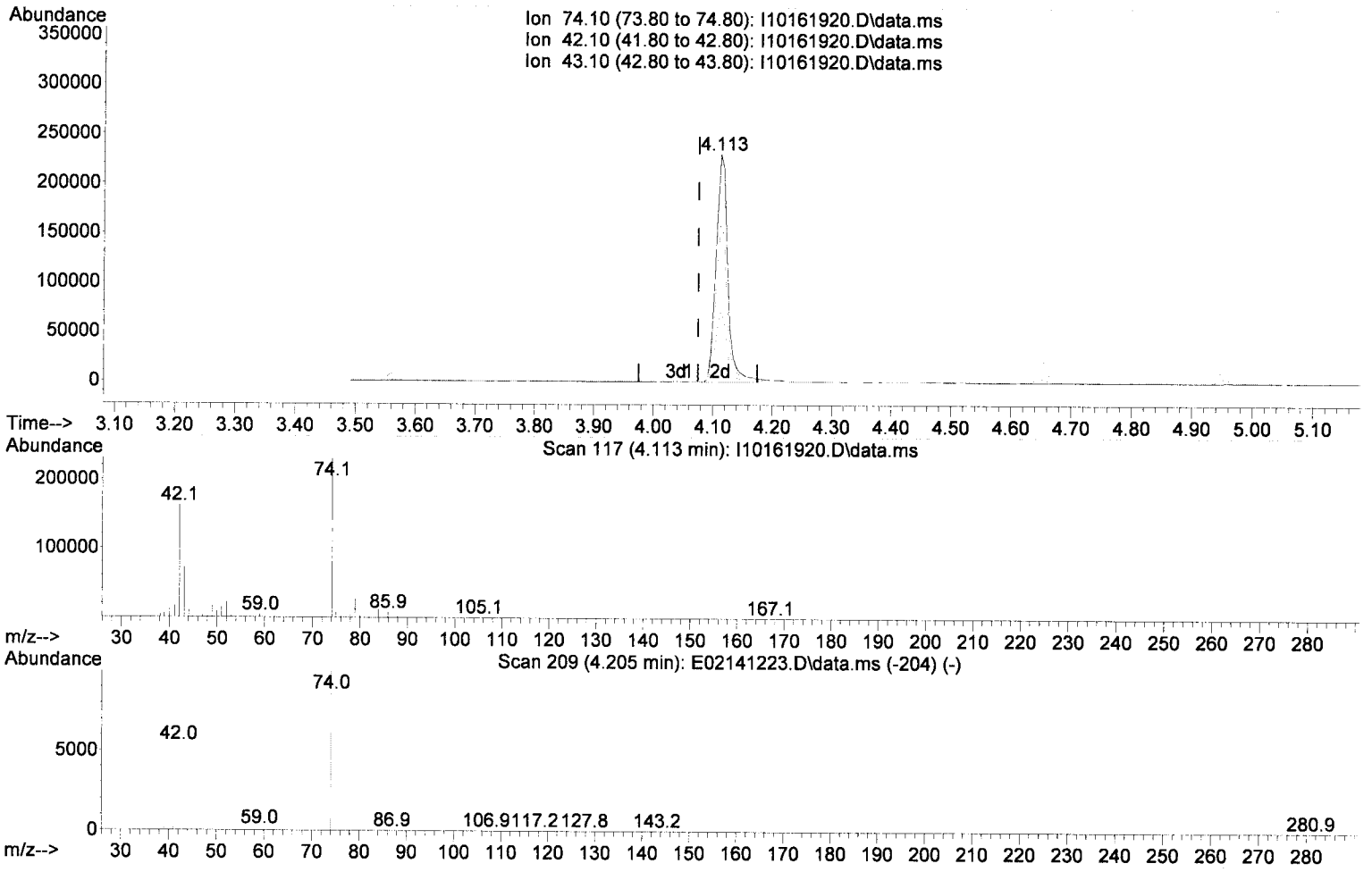
response 72

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

JK 10/17/19

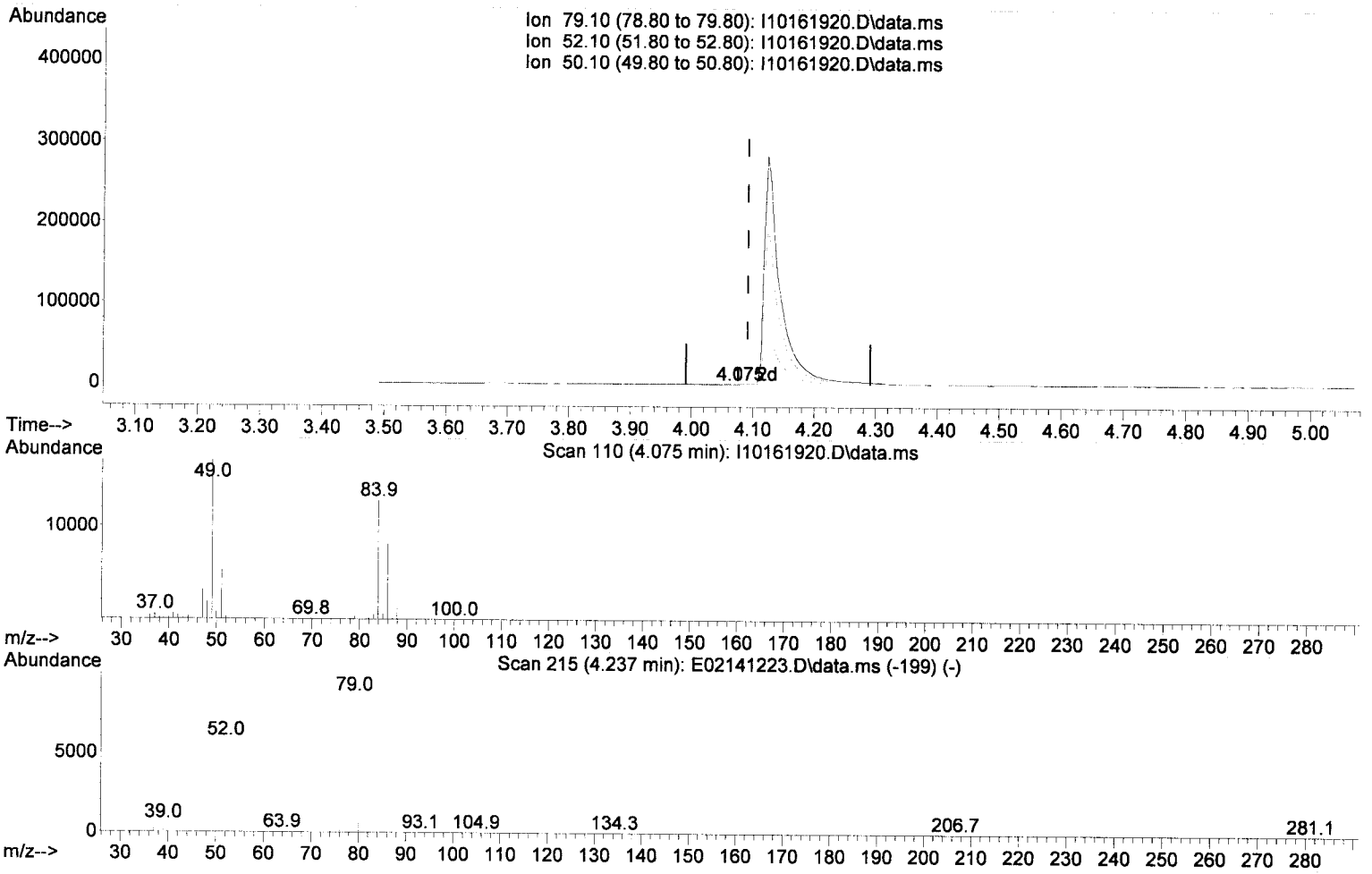
response 322758

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

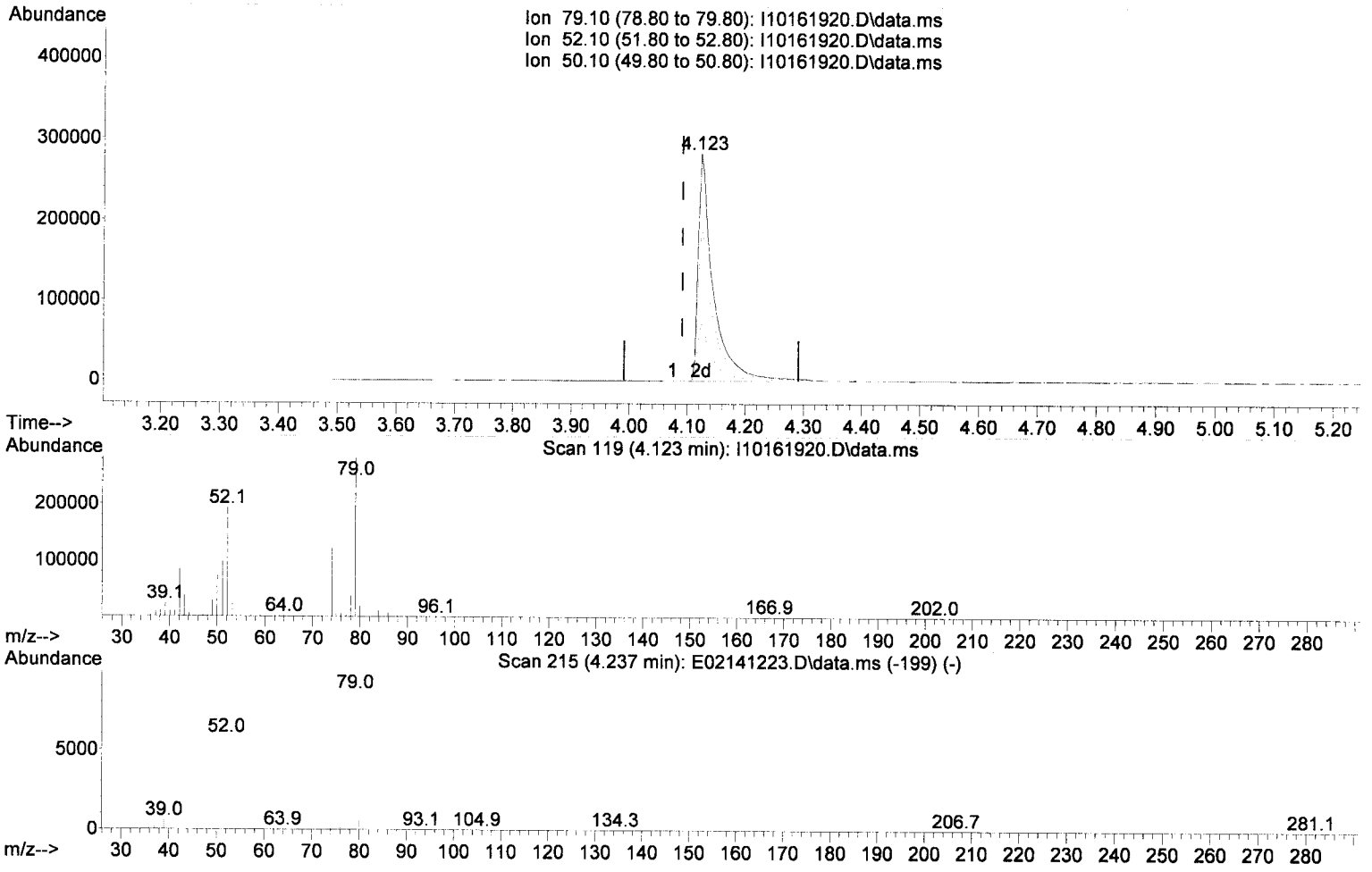
response 352

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

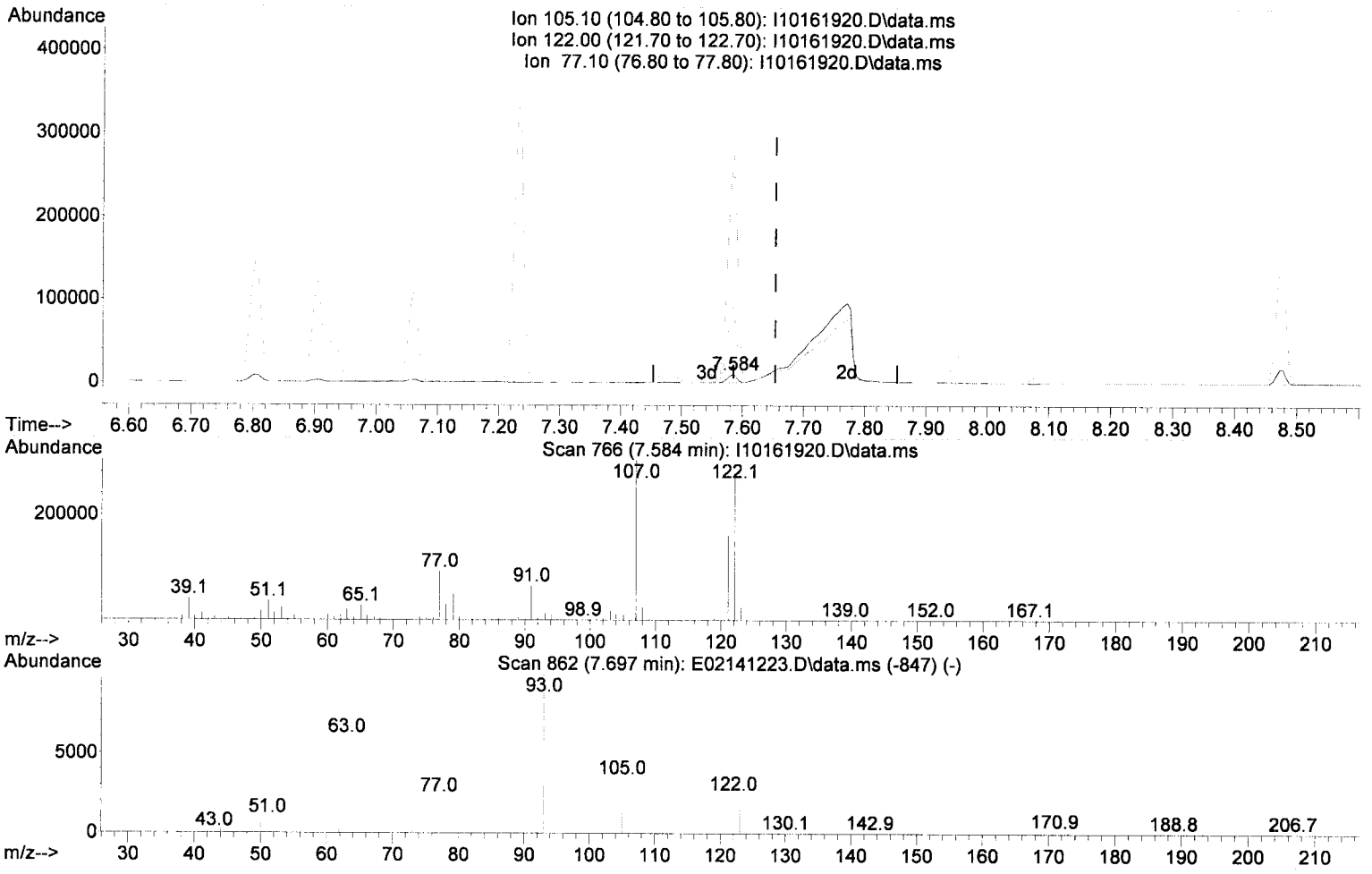
response 514636

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

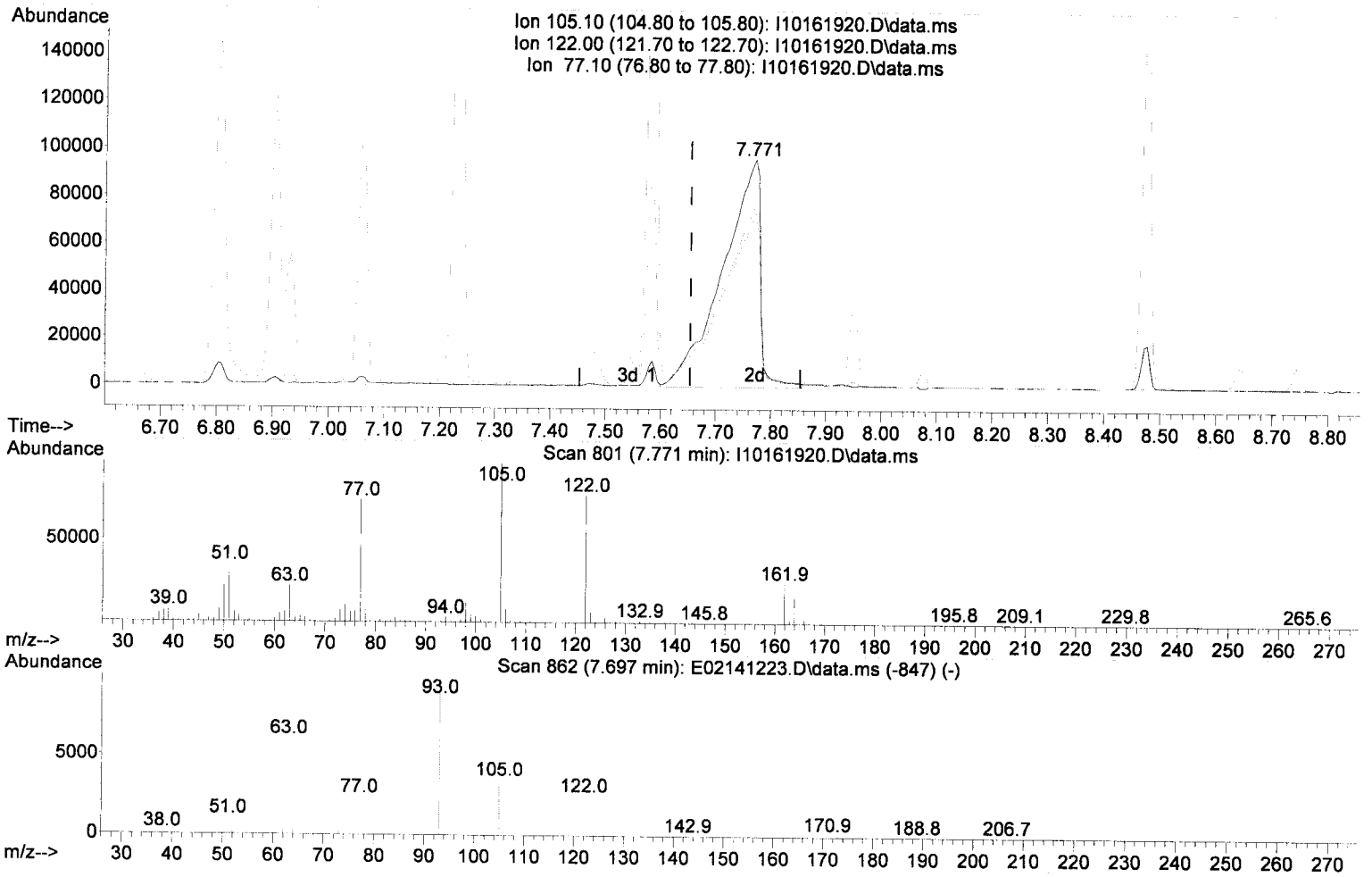
response 10798

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

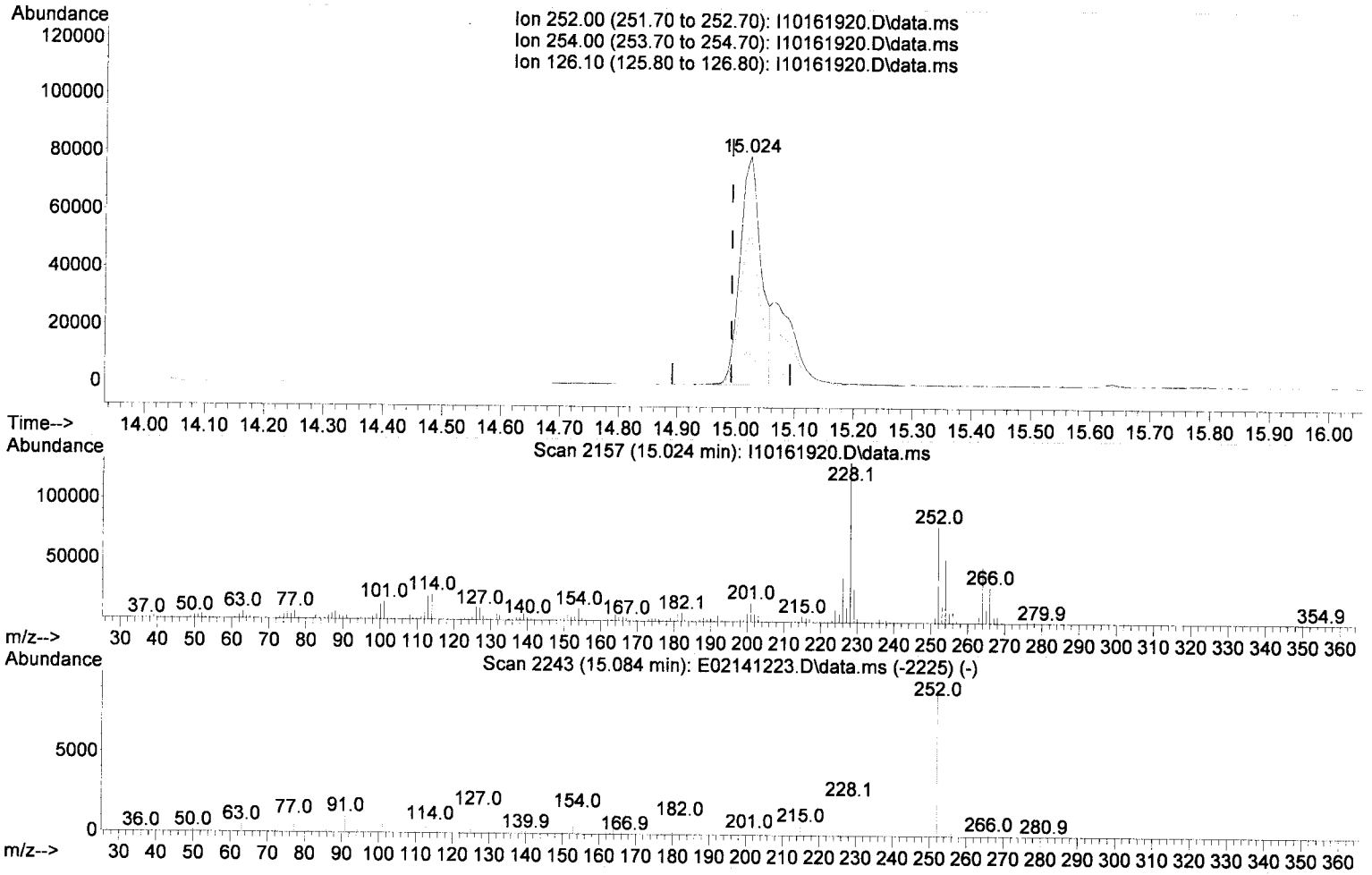
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	79.95
77.10	77.80	76.64
0.00	0.00	0.00

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

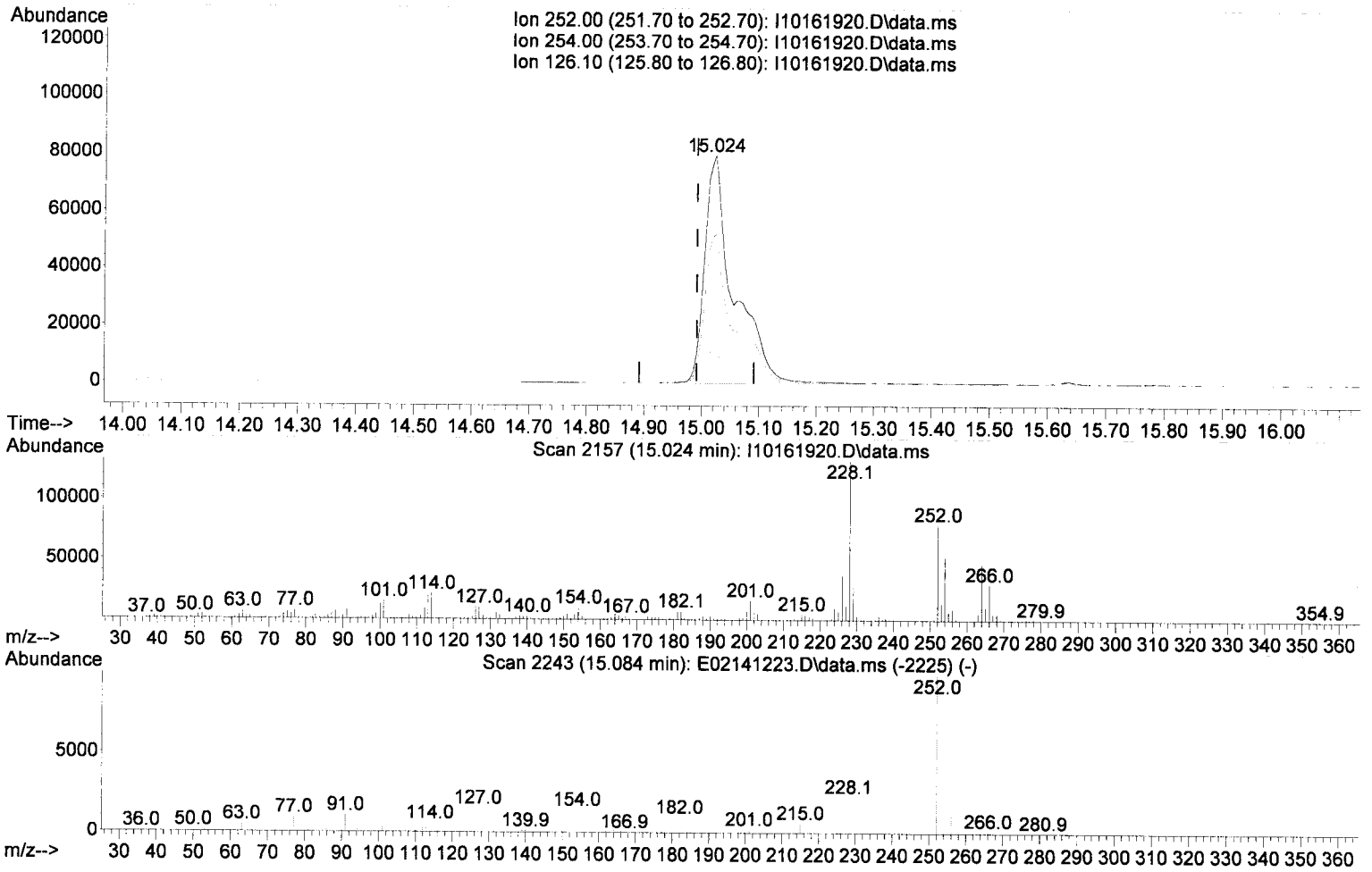
response 197737

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

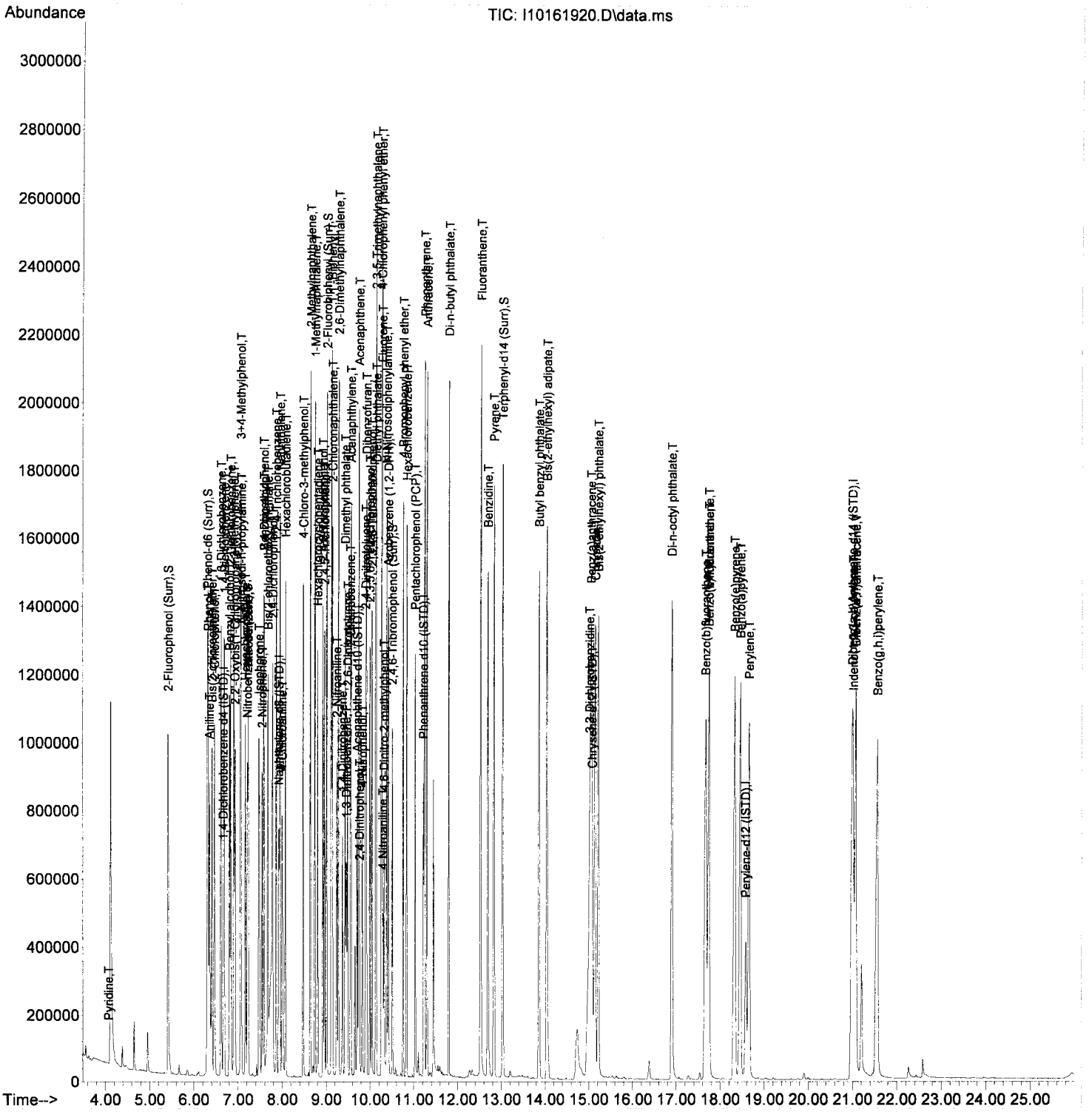
response 276349

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

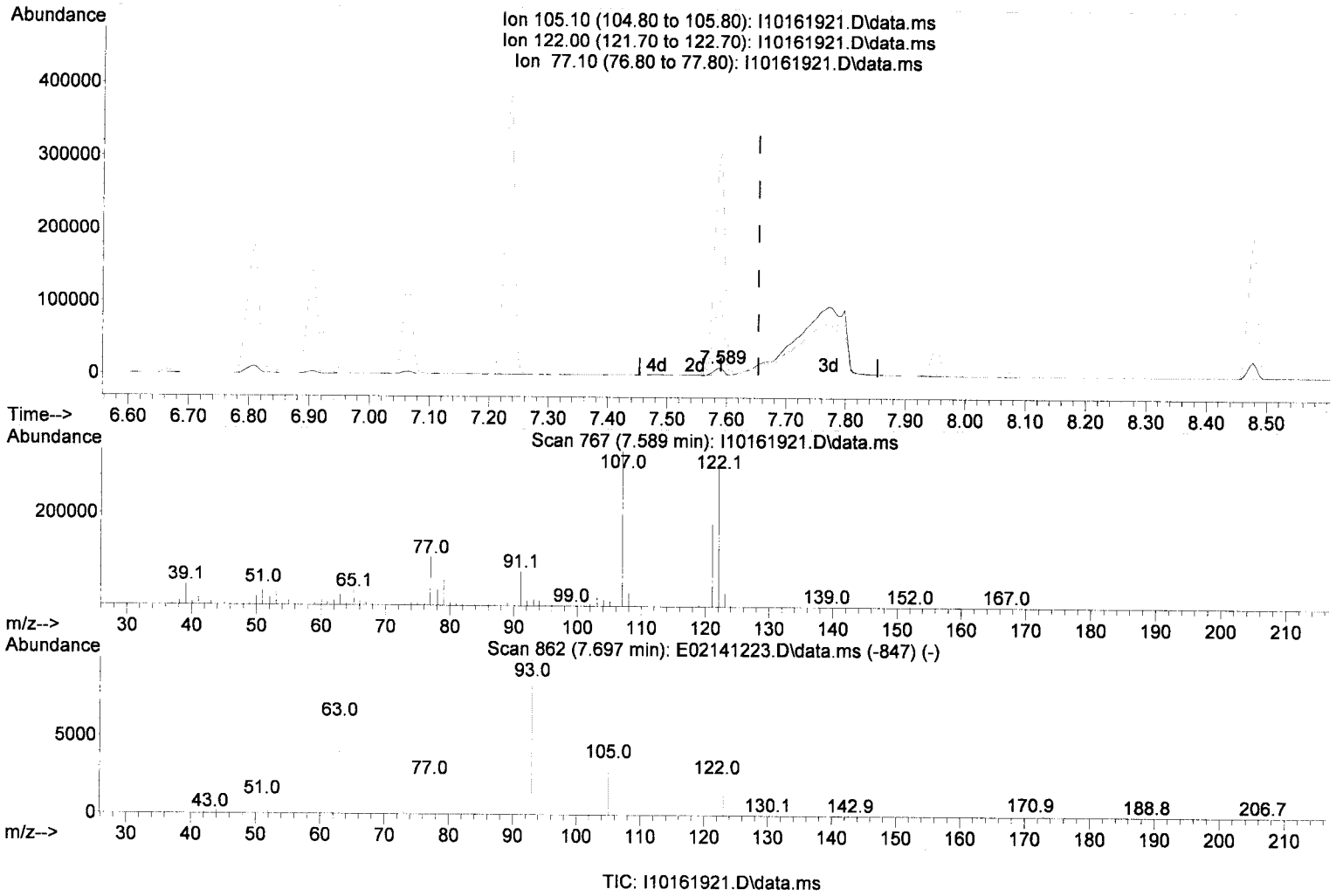
See m

(#) = 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

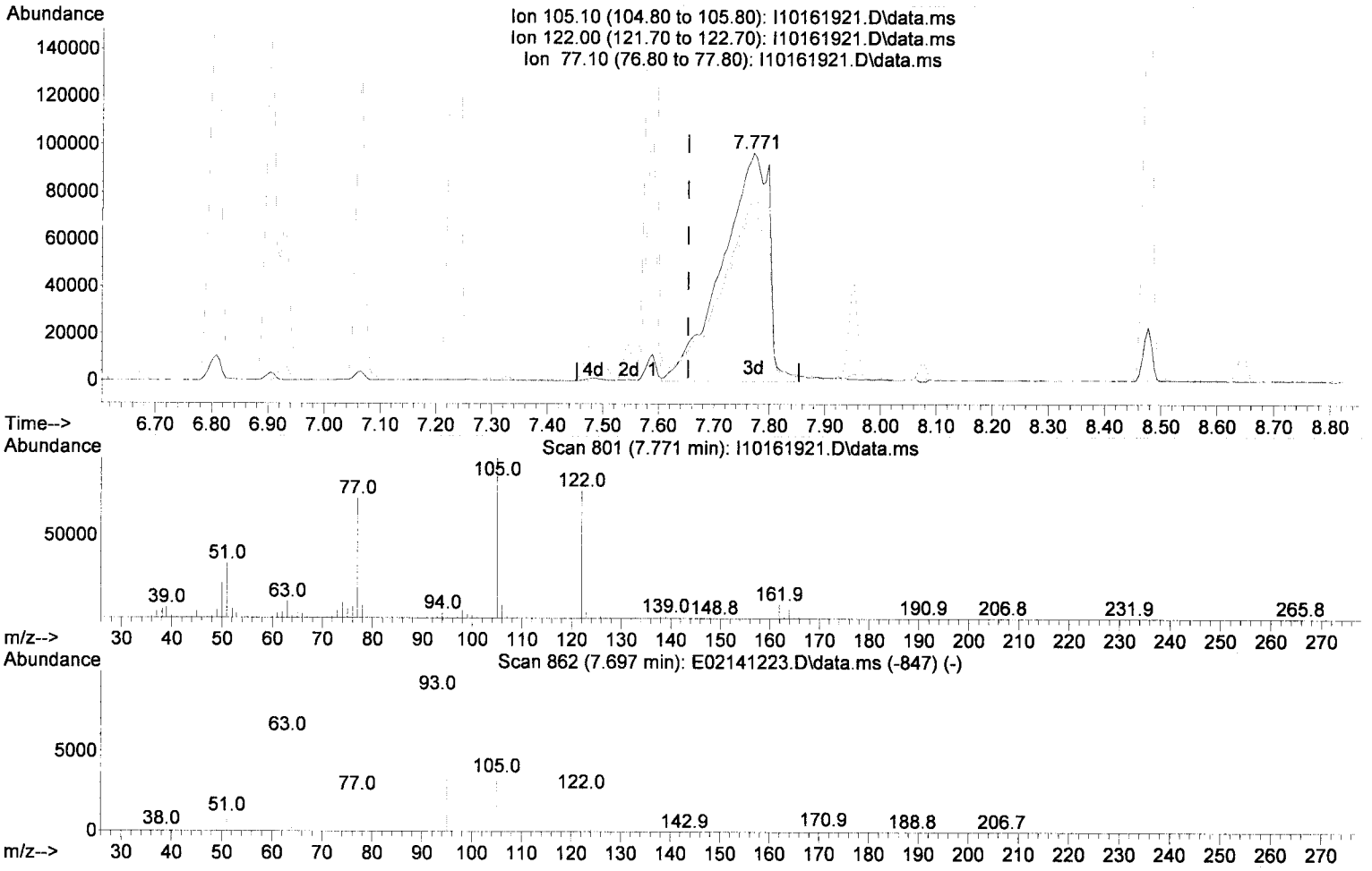
response 12763

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

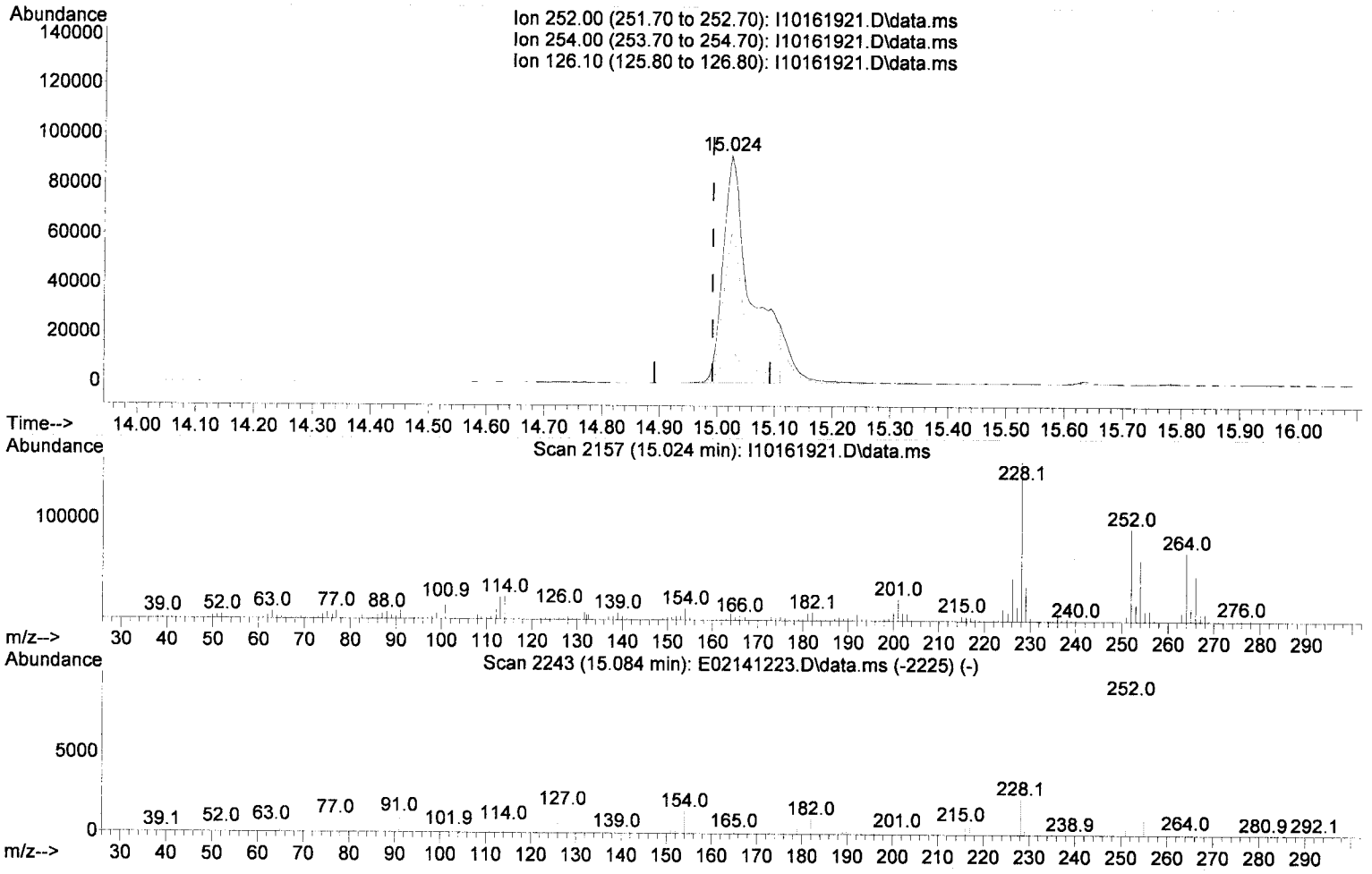
Ion	Exp%	Act%
105.10	100.00	100.00
122.00	80.10	79.63
77.10	77.80	74.83
0.00	0.00	0.00

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

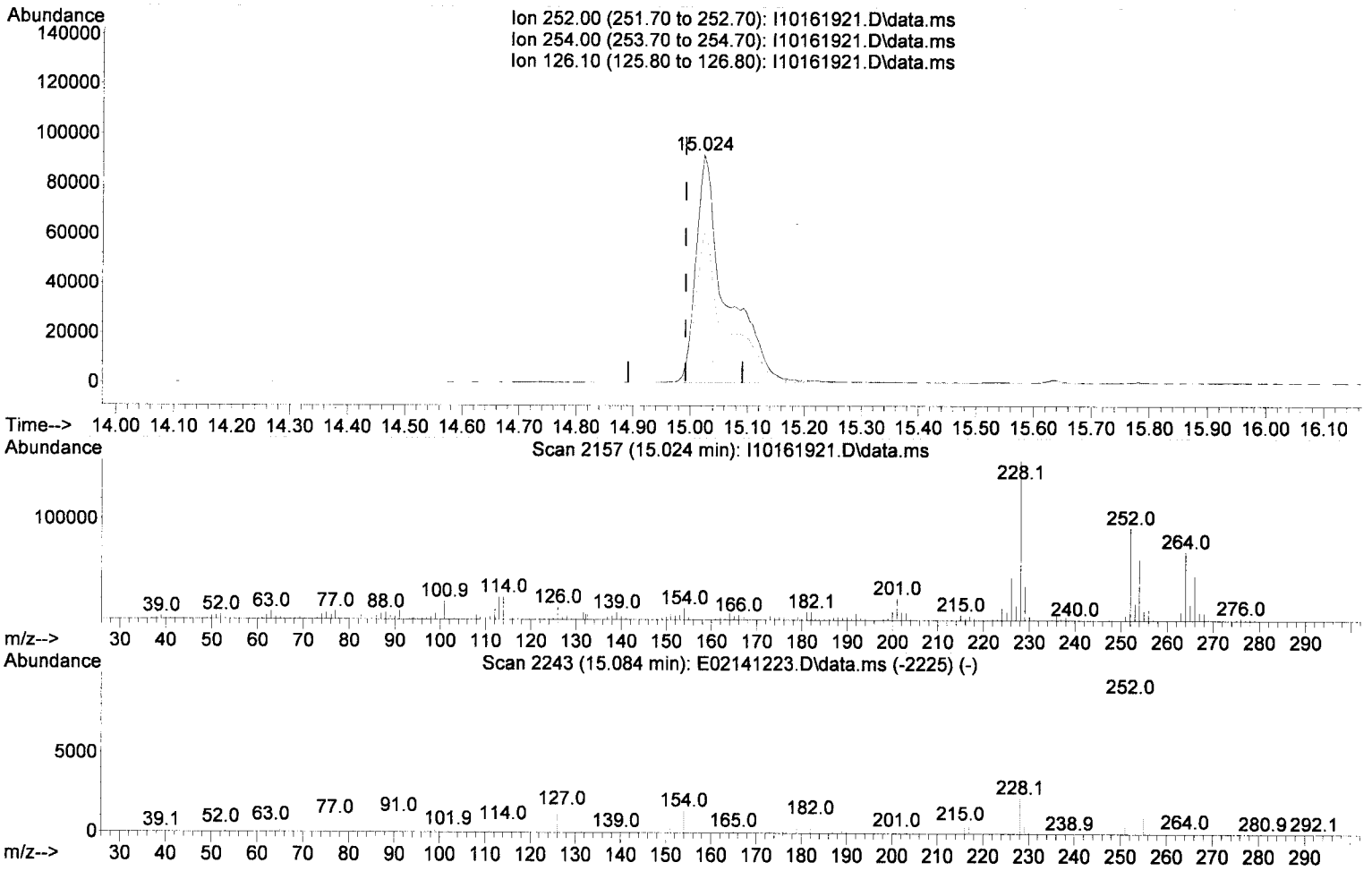
response 309217

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

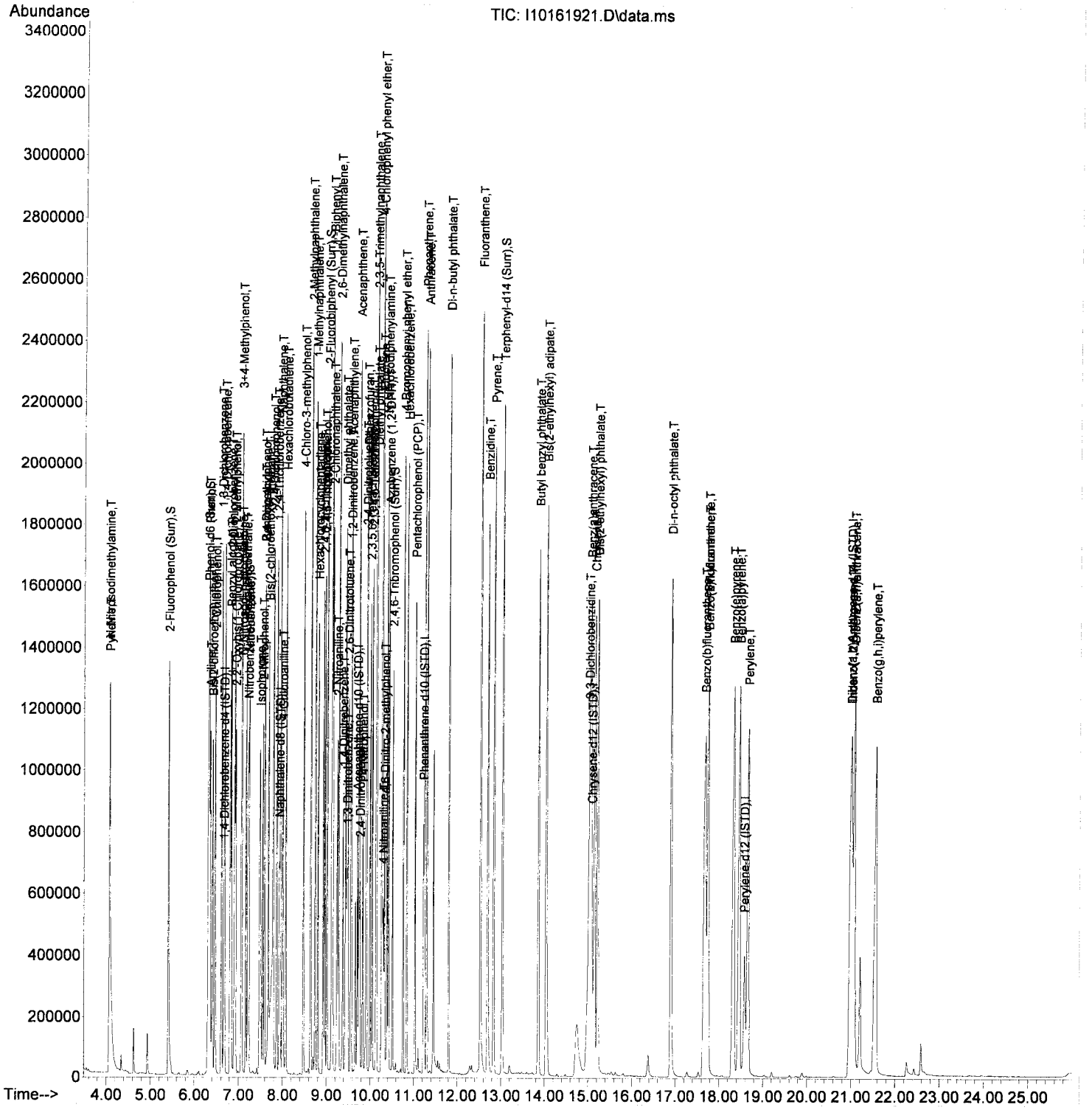
Ion	Exp%	Act%
252.00	100.00	100.00
254.00	64.00	65.81
126.10	14.00	13.07
0.00	0.00	0.00

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

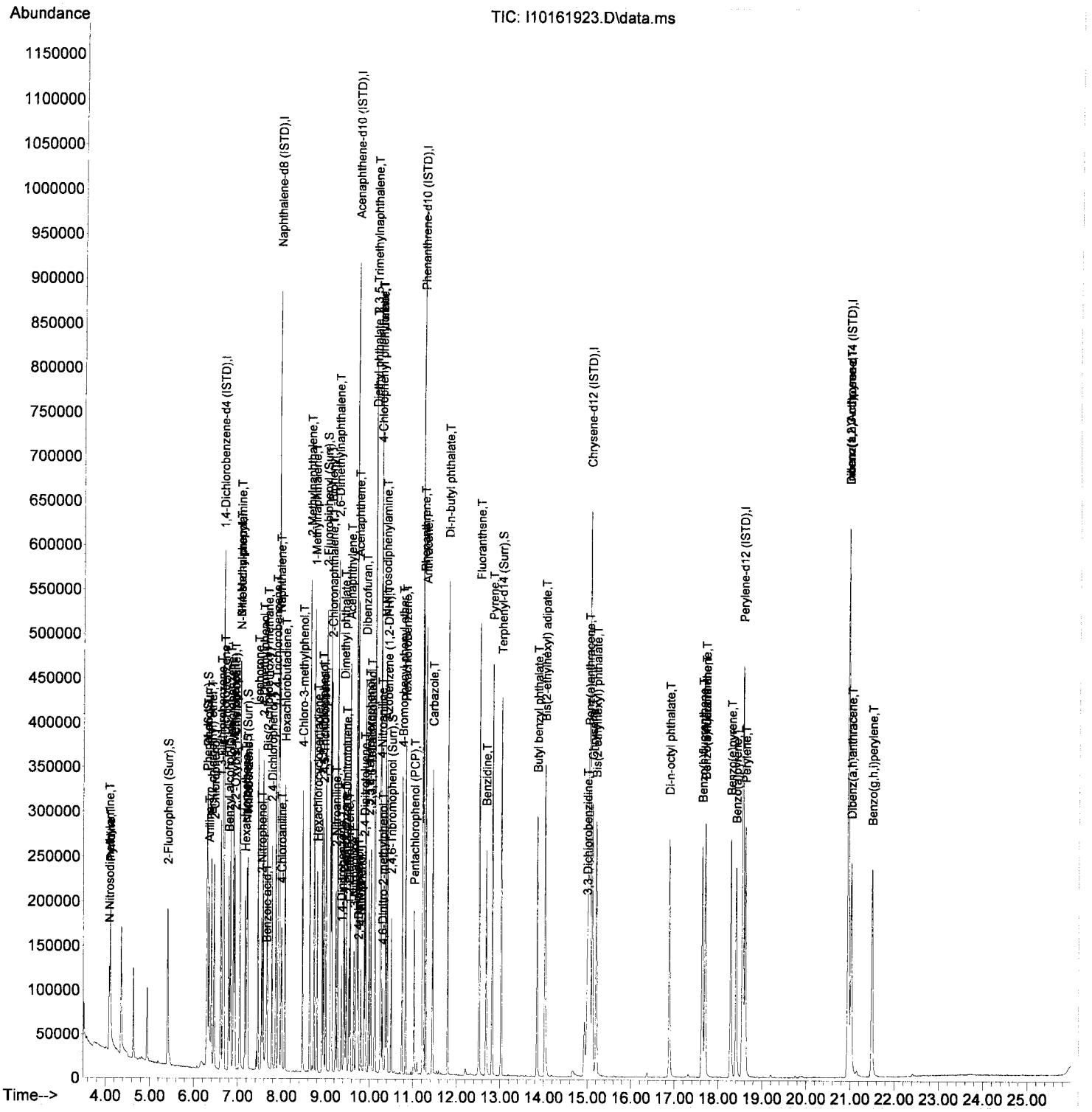
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.354	168	13499	650.23	ng/ml	95
45) Dimethyl phthalate	9.408	163	158407	1039.88	ng/ml	100
46) 1,3-Dinitrobenzene	9.434	168	18765	746.24	ng/ml	99
47) 2,6-Dinitrotoluene	9.467	165	32748	929.28	ng/ml	97
48) 1,2-Dinitrobenzene	9.525	168	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

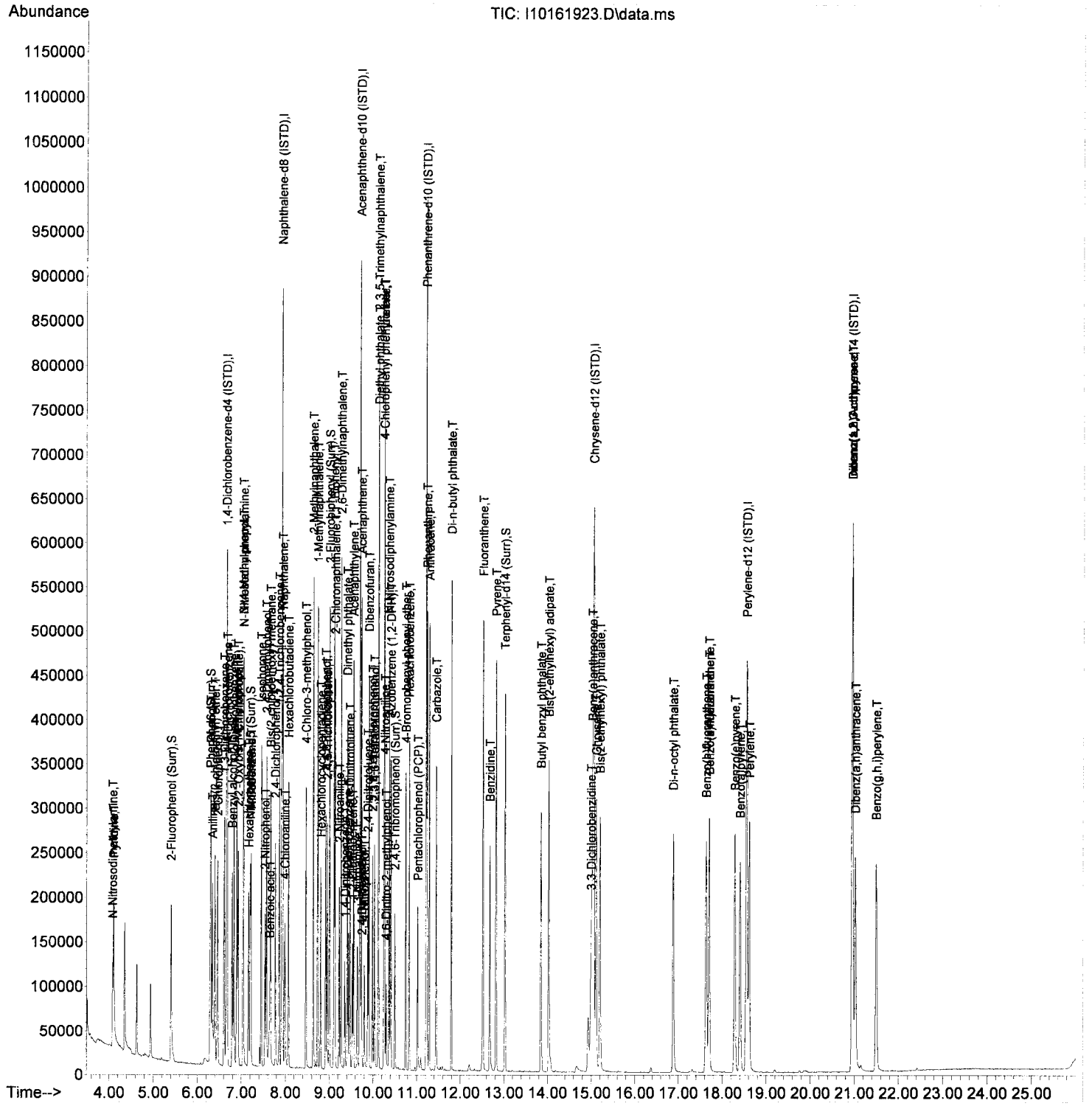
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.354	168	13499	1003.65	ng/ml	95
45)	Dimethyl phthalate	9.408	163	158407	1036.77	ng/ml	100
46)	1,3-Dinitrobenzene	9.434	168	18765	998.65	ng/ml	99
47)	2,6-Dinitrotoluene	9.467	165	32748	1046.42	ng/ml	97
48)	1,2-Dinitrobenzene	9.525	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

TCLP Semivolatile Organic Compounds by EPA 8270D
Benchsheet & Analysis Sequence Data

Batch 9110535
Sequence 9K07018 (A9J0954-01RE1,02RE1)

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110535 (Soil)

Prep Method: EPA 1311/3510C (BNA Extraction)

#	Lab Number		Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9110535-BLK1		QC	11/06/19 13:54	200	2				100					
	9110535-BSD1		QC	11/06/19 13:54	200	2	A19J490		100	100					
	9110535-BS1		QC	11/06/19 13:54	200	2	A19J490		100	100					
	A9J0954-01	A	1311/8270D TCLP SVOC Reg List	11/06/19 13:54	200	2				100	PDI-019SC-C-00 -3.2-191025				
	A9J0954-01RE1	A	1311/8270D TCLP SVOC Reg List	11/06/19 13:54	200	2				100	PDI-019SC-C-00 -3.2-191025	Added 11/8/2019 by DTH			
	A9J0954-02	A	1311/8270D TCLP SVOC Reg List	11/06/19 13:54	200	2				100	PDI-095SC-C-00 -8.8-191025				
	A9J0954-02RE1	A	1311/8270D TCLP SVOC Reg List	11/06/19 13:54	200	2				100	PDI-095SC-C-00 -8.8-191025	Added 11/8/2019 by DTH			
	A9K0048-01	A	1311/8270D TCLP SVOC Full list - LL	11/06/19 13:54	200	2				100	Vapor Carbon-T125-110 119	ppb			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18K311	12/31/20	Glass Wool
A19H399	08/23/21	Conc. HCl - Omnitrace
A19I263	03/18/20	DCM CHEM PROD. 194934
A19I297	03/22/20	6N Sodium Hydroxide
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)

Witness:_____

Prepared By: Date

DTH 11/8/19

Reviewed By: Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9110535 (Soil)

Prep Method: EPA ~~3546~~ 1311/3510C (BNA Extraction) CMA 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
	9110535-BLK1		QC	11/06/19 13:54	200	2				100					
	9110535-BSD1		QC	11/06/19 13:54	200	2	A19J490		100	100		* L			
	9110535-BS1		QC	11/06/19 13:54	200	2	A19J490		100	100		*			
	A9J0954-01	A	1311/8270D TCLP SVOC Reg List	11/06/19 13:54	200	2				100	PDI-019SC-C-00-3.2-191025				
	A9J0954-02	A	1311/8270D TCLP SVOC Reg List	11/06/19 13:54	200	2				100	PDI-095SC-C-00-8.8-191025				
	A9K0048-01	A	1311/8270D TCLP SVOC Full list - LL	11/06/19 13:54	200	2				100	Vapor Carbon-T125-110 119	ppb			

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
A19H299		HCl
A19I297		NaOH

CMA 11/6/19

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:~~ CMA 11/6/19

* = No BLK fluid added

L = Leaky Lid

Witness: CQS 11/06/19

CMA 11/6/19

Prepared By: CMA Date: 11/6/19

Reviewed By: CQS Date: 11/06/19

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9K07018**	Instrument:	**SV-GCMS10**
Date:	**11/07/19 08:24**	Calibration:	**A9I2405**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K07018-TUN1	Soil	QC	QC			A19G233	A19K083
2	9K07018-CCV1	Soil	QC	QC			A19G233	A19G243
3	9K07018-CCB1	Soil	QC	QC			A19G233	
4	9110535-BLK1	Soil	QC	QC		9110535	A19G233	
5	9110535-BS1	Soil	QC	QC		9110535	A19G233	
6	9110535-BSD1	Soil	QC	QC		9110535	A19G233	
7	A9J0954-01	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/07/19	9110535	A19G233	
8	A9J0954-02	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/07/19	9110535	A19G233	
9	A9K0048-01	Soil	1311/8270D TCLP SVOC Full list - LL		11/08/19	9110535	A19G233	
10	9110531-BLK1	Sediment	QC	QC		9110531	A19G233	
11	9110531-BS1	Sediment	QC	QC		9110531	A19G233	
12	A9K0087-04	Sediment	8270D RSET Sediment Freshwater (2		11/11/19	9110531	A19G233	
13	A9K0087-04RE1	Sediment	8270D RSET Sediment Freshwater (2		11/11/19	9110531	A19G233	
14	A9J0954-01RE1	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/07/19	9110535	A19G233	
15	A9J0954-02RE1	Soil	1311/8270D TCLP SVOC Reg List	Anchor QEA, LLC	11/07/19	9110535	A19G233	
16	A9K0087-04RE2	Sediment	8270D RSET Sediment Freshwater (2		11/11/19	9110531	A19G233	
17	9110531-DUP1	Sediment	QC	QC		9110531	A19G233	
18	9110531-MS1	Sediment	QC	QC		9110531	A19G233	
19	9K07018-IBL1	Soil	QC	QC			A19G233	

Data Entered By: DTH 11/8/19

Comments:

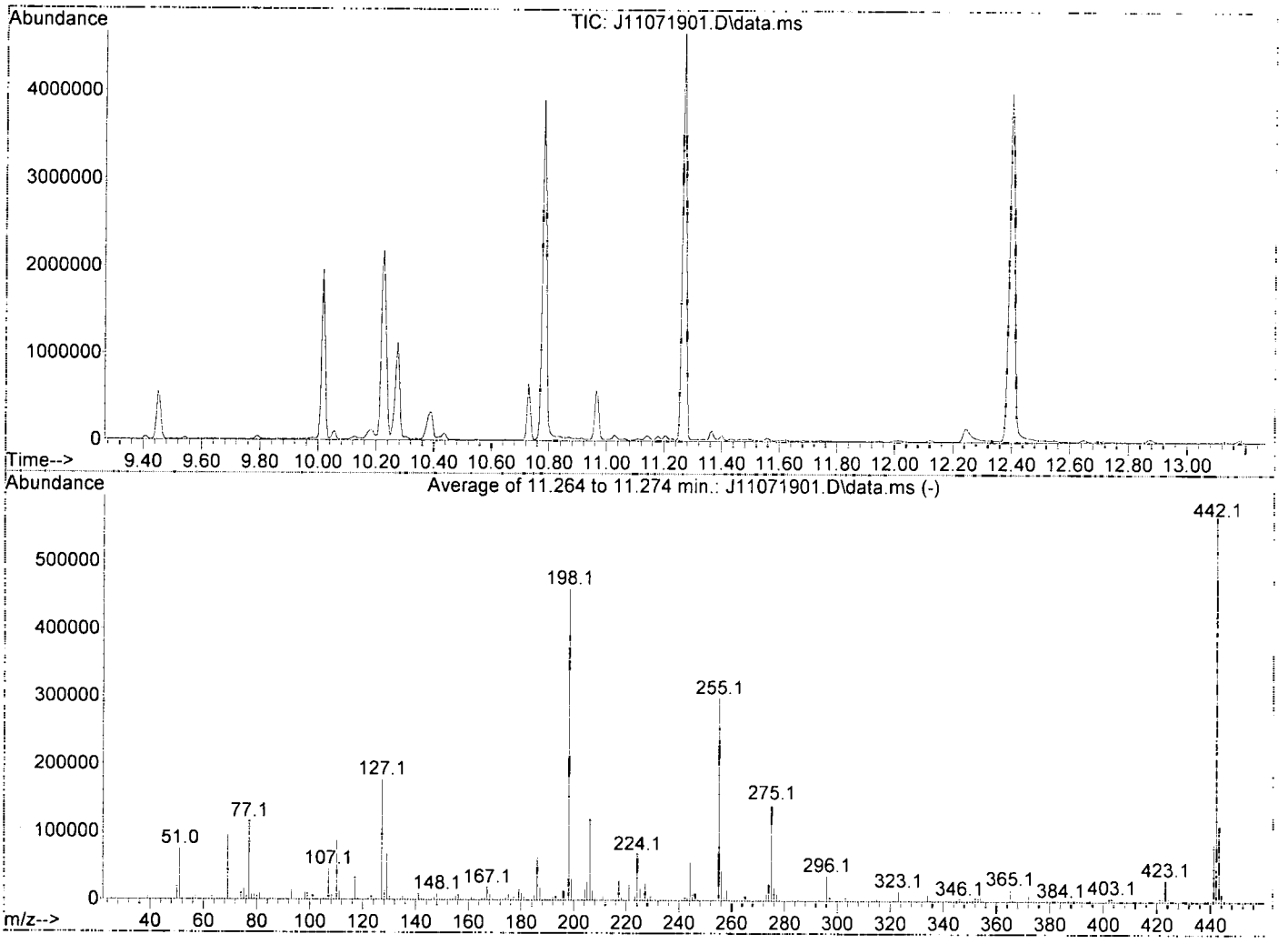
Data Reviewed By: 11/8/19

Data Path : T:\data\2019-11\9K07018\
Data File : J11071901.D
Acq On : 7 Nov 2019 8:30 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

AMS 11/7/19

Integration File: rteint.p

Method : T:\methods\DFTPP.M
Title : 8270 DFTPP Tune Method
Last Update : Fri Oct 25 10:39:45 2019



AutoFind: Scans 1454, 1455, 1456; Background Corrected with Scan 1449

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.5	1439	PASS
69	198	0.01	100	20.6	94692	PASS
70	69	0.00	2	0.5	458	PASS
197	198	0.00	2	0.2	1064	PASS
198	198	100	100	100.0	460608	PASS
199	198	5	9	6.9	32000	PASS
365	198	1	100	3.8	17638	PASS
441	443	0.01	150	75.3	84976	PASS
442	198	0.10	200	123.3	567872	PASS
443	442	15	24	19.9	112872	PASS

✓

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071901.D
Acq On : 7 Nov 2019 8:30 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 07 11:34:16 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Fri Oct 25 10:39:45 2019
Response via : Initial Calibration
InstName : SV-GCMS10

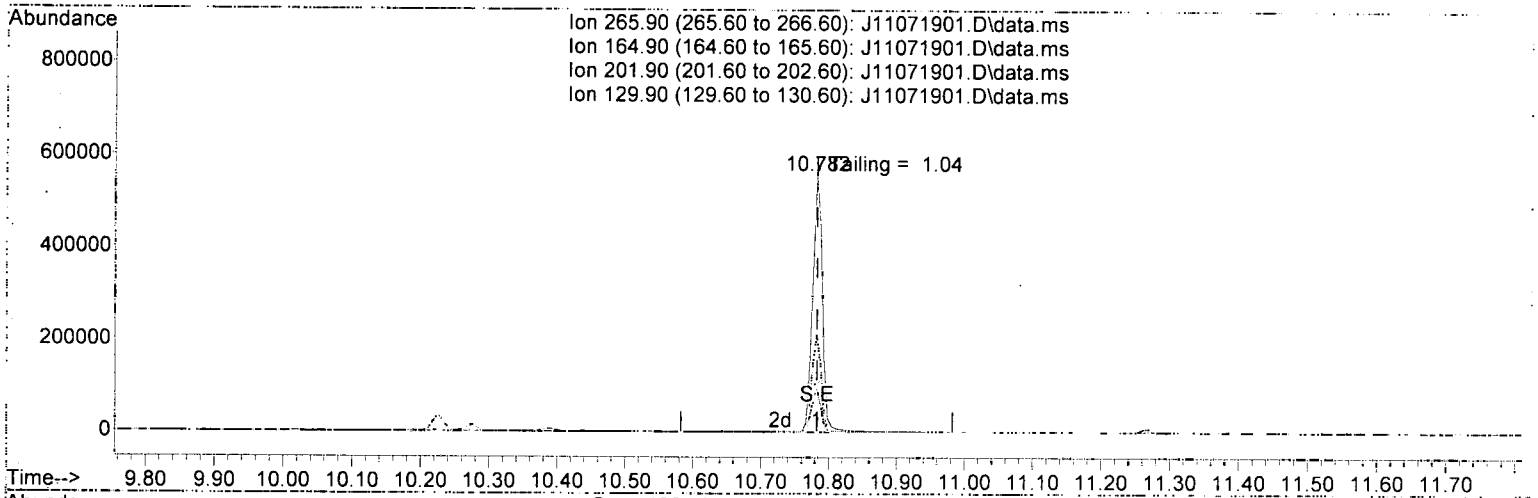
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.412	150	111132	2.00	ug/mL	0.00
2) Naphthalene-d8	7.675	136	277691	2.00	ug/mL	0.00
3) Acenaphthene-d10	9.450	162	131169	2.00	ug/mL	0.00
5) Phenanthrene-d10	10.964	188	234627	2.00	ug/mL	0.00
11) Chrysene-d12	14.574	240	187562	2.00	ug/mL	0.02
12) Perylene-d12	16.815	264	76	2.00	ug/mL	#-0.01
Target Compounds						Qvalue
4) Pentachlorophenol	10.782	266	552263	44.59	ug/mL	84
6) DFTPP	11.269	442	647911	34.21	ug/mL	82
7) Benzidine	12.403	184	2301018	27.57	ug/mL	95
8) 4,4-DDE	12.649	TIC	30254	No Calib		
9) 4,4-DDD	13.130	TIC	13398	No Calib		
10) 4,4-DDT	13.654	TIC	7721916	32.09	ug/mL	94

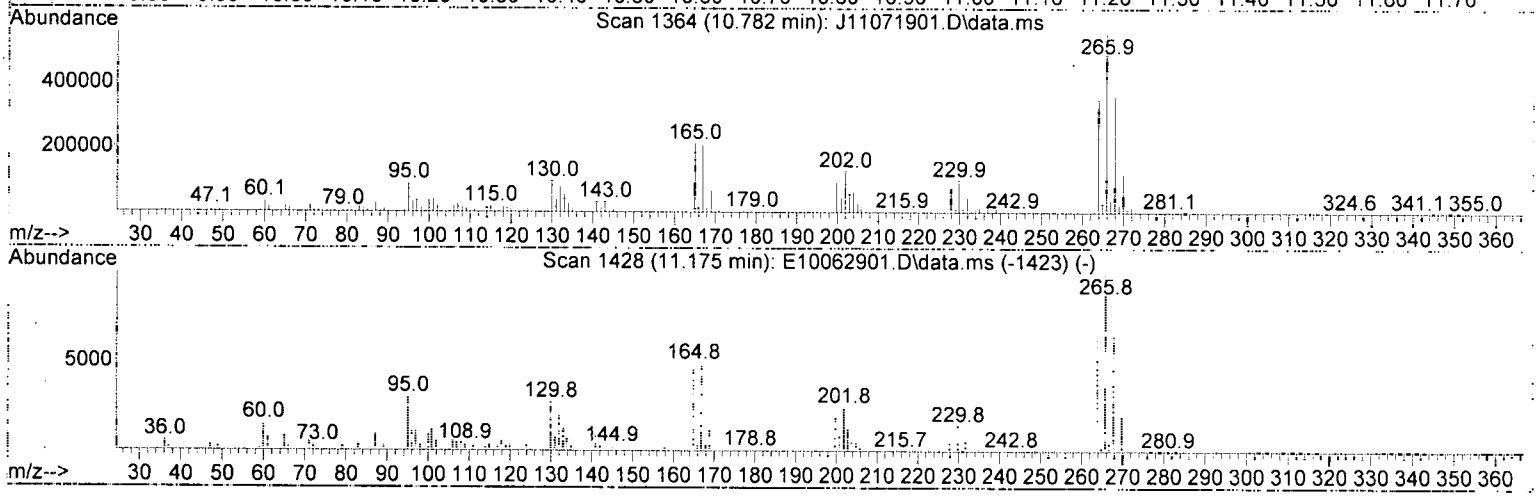
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071901.D
Acq On : 7 Nov 2019 8:30 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 07 11:34:16 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Fri Oct 25 10:39:45 2019
Response via : Initial Calibration
InstName : SV-GCMS10





TIC: J11071901.D\data.ms

(4) Pentachlorophenol

10.782min (-0.000) 44.59 ug/mL

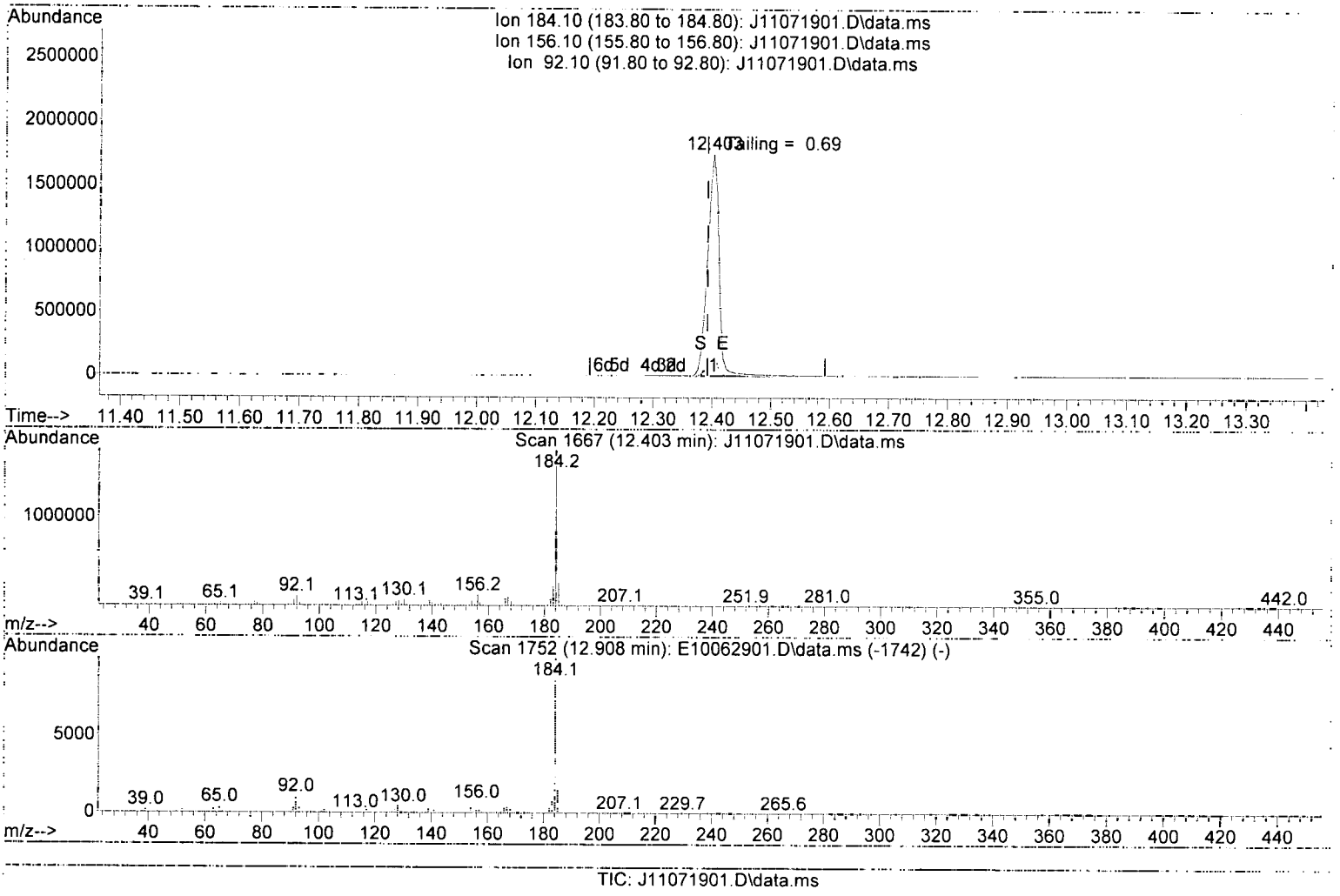
response 552263

Ion	Exp%	Act%
265.90	100.00	100.00
164.90	50.60	37.96
201.90	25.80	22.31
129.90	27.30	16.90

Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071901.D
Acq On : 7 Nov 2019 8:30 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 07 11:34:16 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Fri Oct 25 10:39:45 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J11071901.D\data.ms

(7) Benzidine

12.403min (+ 0.010) 27.57 ug/mL

response 2301018

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	8.50	7.15
92.10	8.20	6.33
0.00	0.00	0.00

DDT Breakdown Check (Validated 5/1/2013)

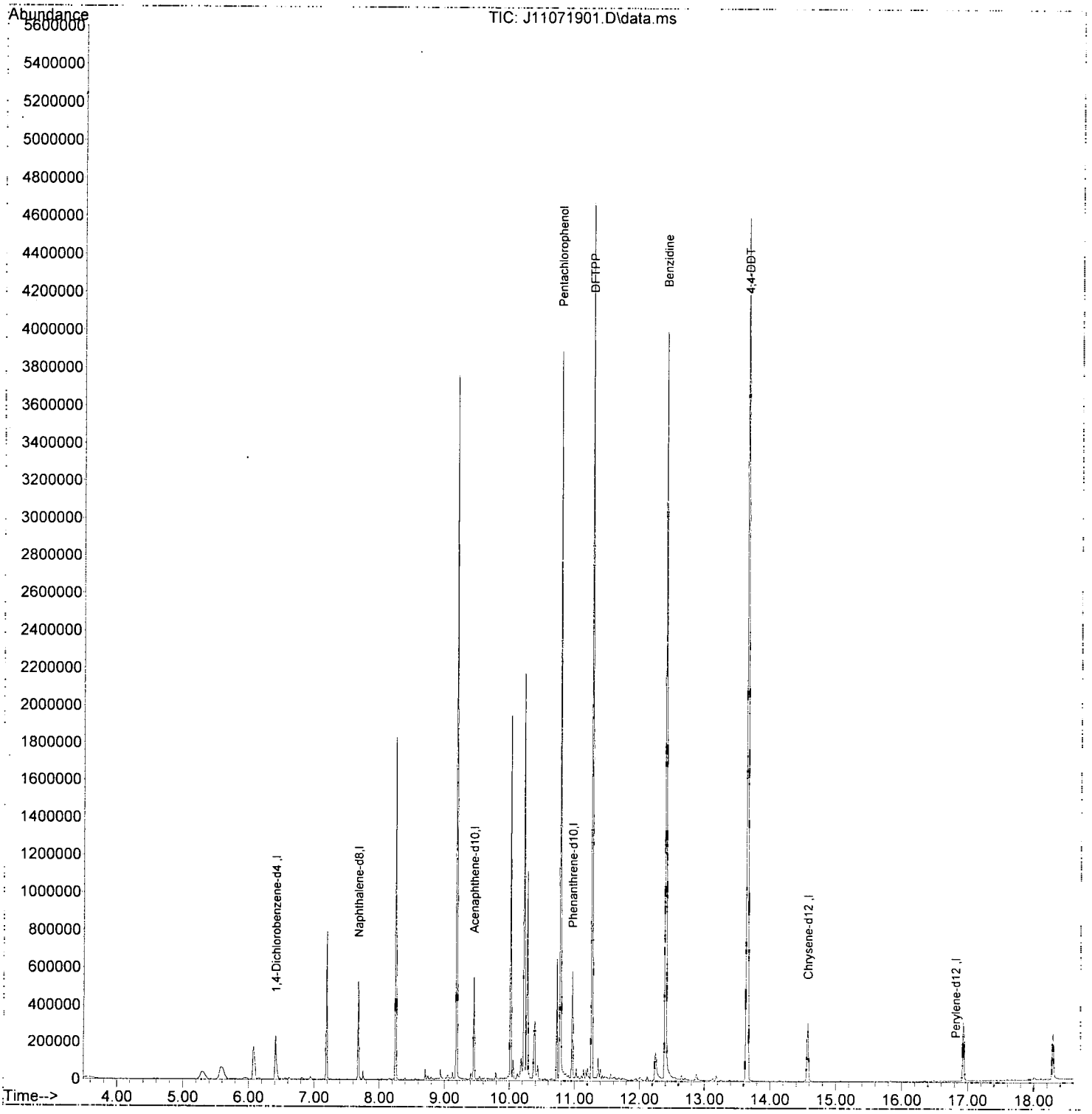
From:
9K07018-TUN1
SV-GCMS10

First Column Area Counts		Percent Breakdown	
DDE	30254		
DDD	13398		
DDT	7721916	0.56	PASS

Breakdown must be less than 20% to accept sample data.

Data Path : T:\data\2019-11\9K07018\
Data File : J11071901.D
Acq On : 7 Nov 2019 8:30 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-TUN1
Misc : 1x, A19K083 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Nov 07 11:34:16 2019
Quant Method : T:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Fri Oct 25 10:39:45 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Evaluate Continuing Calibration Report

Data Path : T:\data\2019-11\9K07018\
Data File : J11071902.D
Acq On : 7 Nov 2019 8:58 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/7/19

Quant Time: Nov 07 11:35:30 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	96	0.00
2	TG	N-Nitrosodimethylamine	1000.000	837.246	16.3	83	-0.04
3	TG	Pyridine	1000.000	797.730	20.2#	78	-0.04
4	S	2-Fluorophenol (Surr)	1000.000	985.853	1.4	91	-0.01
5	S	Phenol-d6(Surr)	1000.000	904.854	9.5	81	0.00
6	T	Phenol	1000.000	864.338	13.6	77	0.00
7	T	Aniline	1000.000	539.643	46.0#	57	-0.01
8	T	Bis(2-chloroethyl) ether	1000.000	960.031	4.0	85	0.00
9	T	2-Chlorophenol	1000.000	977.843	2.2	89	0.00
10	T	1,3-Dichlorobenzene	1000.000	998.626	0.1	94	0.00
11	T	1,4-Dichlorobenzene	1000.000	999.520	0.0	93	0.00
12	T	Benzyl alcohol	1000.000	805.165	19.5	73	0.00
13	T	1,2-Dichlorobenzene	1000.000	1006.599	-0.7	93	0.00
14	T	2-Methylphenol	1000.000	965.137	3.5	83	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	681.939	31.8#	62	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	803.257	19.7	72	0.00
17	T	3+4-Methylphenol	1000.000	967.487	3.3	82	0.00
18	T	Hexachloroethane	1000.000	1098.250	-9.8	105	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	892.004	10.8	78	0.00
20	T	Nitrobenzene	1000.000	861.749	13.8	76	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	89	0.00
22	T	Isophorone	1000.000	890.862	10.9	77	0.00
23	T	2-Nitrophenol	1000.000	1387.487	-38.7#	118	0.00
24	T	2,4-Dimethylphenol	1000.000	1062.168	-6.2	88	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	923.419	7.7	77	0.00
26	T	Benzoic acid	2000.000	2267.169	-13.4	127	0.00
27	T	2,4-Dichlorophenol	1000.000	1028.224	-2.8	91	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	1082.987	-8.3	93	0.00
29	T	Naphthalene	1000.000	1022.267	-2.2	86	0.00
30	T	4-Chloroaniline	1000.000	625.132	37.5#	53	0.00
31	T	Hexachlorobutadiene	1000.000	1117.074	-11.7	95	0.00
32	T	4-Chloro-3-methylphenol	1000.000	1002.014	-0.2	83	0.00
33	T	2-Methylnaphthalene	1000.000	1057.043	-5.7	87	0.00
34	T	1-Methylnaphthalene	1000.000	1032.418	-3.2	87	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	93	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1358.736	-35.9#	114	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1122.029	-12.2	100	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1119.623	-12.0	102	0.00
39	T	1,1'-Biphenyl	1000.000	1039.193	-3.9	91	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1056.014	-5.6	93	0.00
41	T	2-Chloronaphthalene	1000.000	1112.724	-11.3	97	0.00
42	T	2-Nitroaniline	1000.000	1142.287	-14.2	102	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1040.298	-4.0	91	0.00
44	T	1,4-Dinitrobenzene	1000.000	1316.017	-31.6#	128	0.00
45	T	Dimethyl phthalate	1000.000	1080.355	-8.0	94	0.00
46	T	1,3-Dinitrobenzene	1000.000	1167.939	-16.8	111	0.00
47	T	2,6-Dinitrotoluene	1000.000	1099.385	-9.9	100	0.00
48	T	1,2-Dinitrobenzene	1000.000	1118.641	-11.9	98	0.00

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-11\9K07018\
Data File : J11071902.D
Acq On : 7 Nov 2019 8:58 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:35:30 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	Acenaphthylene	1000.000	1048.611	-4.9	91	0.00
50	T	3-Nitroaniline	1000.000	1097.798	-9.8	97	0.00
51	T	Acenaphthene	1000.000	1009.078	-0.9	91	0.00
52	T	2,4-Dinitrophenol	1000.000	1195.242	-19.5	144	0.00
53	T	4-Nitrophenol	1000.000	1074.059	-7.4	98	0.00
54	T	2,4-Dinitrotoluene	1000.000	1127.944	-12.8	107	0.00
55	T	Dibenzofuran	1000.000	1094.933	-9.5	96	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1133.686	-13.4	103	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1118.352	-11.8	101	0.00
58	T	Diethyl phthalate	1000.000	1090.953	-9.1	92	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1121.568	-12.2	97	0.00
60	T	Fluorene	1000.000	1050.548	-5.1	94	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1092.646	-9.3	96	0.00
62	T	4-Nitroaniline	1000.000	1212.577	-21.3#	112	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1249.046	-24.9#	129	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	97	0.00
65	T	N-Nitrosodiphenylamine	1000.000	1078.636	-7.9	98	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	849.565	15.0	77	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	993.624	0.6	96	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1072.257	-7.2	100	0.00
69	T	Hexachlorobenzene	1000.000	1033.129	-3.3	95	0.00
70	T	Pentachlorophenol (PCP)	1000.000	1084.174	-8.4	118	0.00
71	T	Phenanthrene	1000.000	996.976	0.3	95	0.00
72	T	Anthracene	1000.000	1033.176	-3.3	95	0.00
73	T	Carbazole	1000.000	1121.382	-12.1	103	0.00
74	T	Di-n-butyl phthalate	1000.000	1048.085	-4.8	94	0.00
75	T	Fluoranthene	1000.000	1062.883	-6.3	95	0.00
76	T	Benzidine	2000.000	1642.585	17.9	77	0.00
77	T	Pyrene	1000.000	1078.527	-7.9	96	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	95	0.00
79	S	Terphenyl-d14 (Surr)	1000.000	1079.540	-8.0	98	0.00
80	T	Butyl benzyl phthalate	1000.000	1064.716	-6.5	98	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	992.442	0.8	93	0.00
82	T	3,3-Dichlorobenzidine	2000.000	1815.523	9.2	83	0.00
83	T	Benz(a)anthracene	1000.000	1019.298	-1.9	98	0.00
84	T	Chrysene	1000.000	1066.371	-6.6	100	0.00
85	T	Bis(2-ethylhexyl) phthalate	1000.000	1100.226	-10.0	101	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	98	0.00
87	T	Di-n-octyl phthalate	1000.000	1018.012	-1.8	101	0.00
88	T	Benzo(b)fluoranthene	1000.000	1033.152	-3.3	101	0.00
89	T	Benzo(k)fluoranthene	1000.000	1049.550	-5.0	102	0.00
90	T	Benzo(b+k)fluoranthene	2000.000	2074.131	-3.7	101	-0.06
91	T	Benzo(e)pyrene	1000.000	1113.888	-11.4	101	0.00
92	T	Benzo(a)pyrene	1000.000	1073.817	-7.4	103	0.00
93	T	Perylene	1000.000	1066.193	-6.6	103	0.00
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	101	0.00

Evaluate Continuing Calibration Report

Data Path : T:\data\2019-11\9K07018\
Data File : J11071902.D
Acq On : 7 Nov 2019 8:58 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:35:30 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
95	T	Indeno(1,2,3-cd)pyrene	1000.000	989.882	1.0	103	0.00
96	T	Dibenz(a,h)anthracene	1000.000	1057.986	-5.8	105	0.00
97	T	Benzo(g,h,i)perylene	1000.000	1101.731	-10.2	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071902.D
Acq On : 7 Nov 2019 8:58 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:35:30 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4...	6.391	152	273306	2000.00 ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1019692	2000.00 ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	542330	2000.00 ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.938	188	1038101	2000.00 ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.527	240	998531	2000.00 ng/ml	0.00
86) Perylene-d12 (ISTD)	17.966	264	1021125	2000.00 ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.357	292	897860	2000.00 ng/ml	0.00
System Monitoring Compounds					
4) 2-Fluorophenol (Surr)	5.140	112	163505	985.85 ng/ml	-0.01
5) Phenol-d6(Surr)	6.038	99	192088	904.85 ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	146904	892.00 ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	448206	1056.01 ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	62159	993.62 ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	496763	1079.54 ng/ml	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	3.781	74	87161m	837.25 ng/ml	
3) Pyridine	3.802	79	141581	797.73 ng/ml	96
6) Phenol	6.054	94	201759	864.34 ng/ml	97
7) Aniline	6.070	93	108680	539.64 ng/ml	98
8) Bis(2-chloroethyl) ether	6.129	93	202246	960.03 ng/ml	97
9) 2-Chlorophenol	6.188	128	189232	977.84 ng/ml	96
10) 1,3-Dichlorobenzene	6.338	146	217219	998.63 ng/ml	97
11) 1,4-Dichlorobenzene	6.407	146	213683	999.52 ng/ml	97
12) Benzyl alcohol	6.525	108	91595	805.17 ng/ml	97
13) 1,2-Dichlorobenzene	6.557	146	212225	1006.60 ng/ml	97
14) 2-Methylphenol	6.637	107	135864	965.14 ng/ml	96
15) 2,2'-Oxybis(1-Chloropr...	6.659	45	126781	681.94 ng/ml	77
16) N-Nitrosodi-n-propylamine	6.787	70	98246	803.26 ng/ml	90
17) 3+4-Methylphenol	6.787	107	168879	967.49 ng/ml	97
18) Hexachloroethane	6.889	201	72141	1098.25 ng/ml	94
20) Nitrobenzene	6.947	77	143790	861.75 ng/ml	89
22) Isophorone	7.183	82	289607	890.86 ng/ml	98
23) 2-Nitrophenol	7.268	139	135138	1387.49 ng/ml	88
24) 2,4-Dimethylphenol	7.311	122	145214	1062.17 ng/ml	98
25) Bis(2-chloroethoxy) me...	7.402	93	182497	923.42 ng/ml	98
26) Benzoic acid	7.413	105	125813	2267.17 ng/ml	94
27) 2,4-Dichlorophenol	7.509	162	157129	1028.22 ng/ml	95
28) 1,2,4-Trichlorobenzene	7.595	180	193276	1082.99 ng/ml	98
29) Naphthalene	7.670	128	548361	1022.27 ng/ml	100
30) 4-Chloroaniline	7.734	127	105097	625.13 ng/ml	94
31) Hexachlorobutadiene	7.803	225	107729	1117.07 ng/ml	97
32) 4-Chloro-3-methylphenol	8.210	107	135577	1002.01 ng/ml	94
33) 2-Methylnaphthalene	8.365	142	396175	1057.04 ng/ml	99
34) 1-Methylnaphthalene	8.466	142	374588	1032.42 ng/ml	98
36) Hexachlorocyclopentadiene	8.536	237	113949	1358.74 ng/ml	98
37) 2,4,6-Trichlorophenol	8.654	196	117950	1122.03 ng/ml	98
38) 2,4,5-Trichlorophenol	8.691	198	116081	1119.62 ng/ml	100
39) 1,1'-Biphenyl	8.836	154	484410	1039.19 ng/ml	99
41) 2-Chloronaphthalene	8.857	162	374603	1112.72 ng/ml	98
42) 2-Nitroaniline	8.959	138	115251	1142.29 ng/ml	87
43) 2,6-Dimethylnaphthalene	8.996	156	355746	1040.30 ng/ml	99

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071902.D
Acq On : 7 Nov 2019 8:58 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

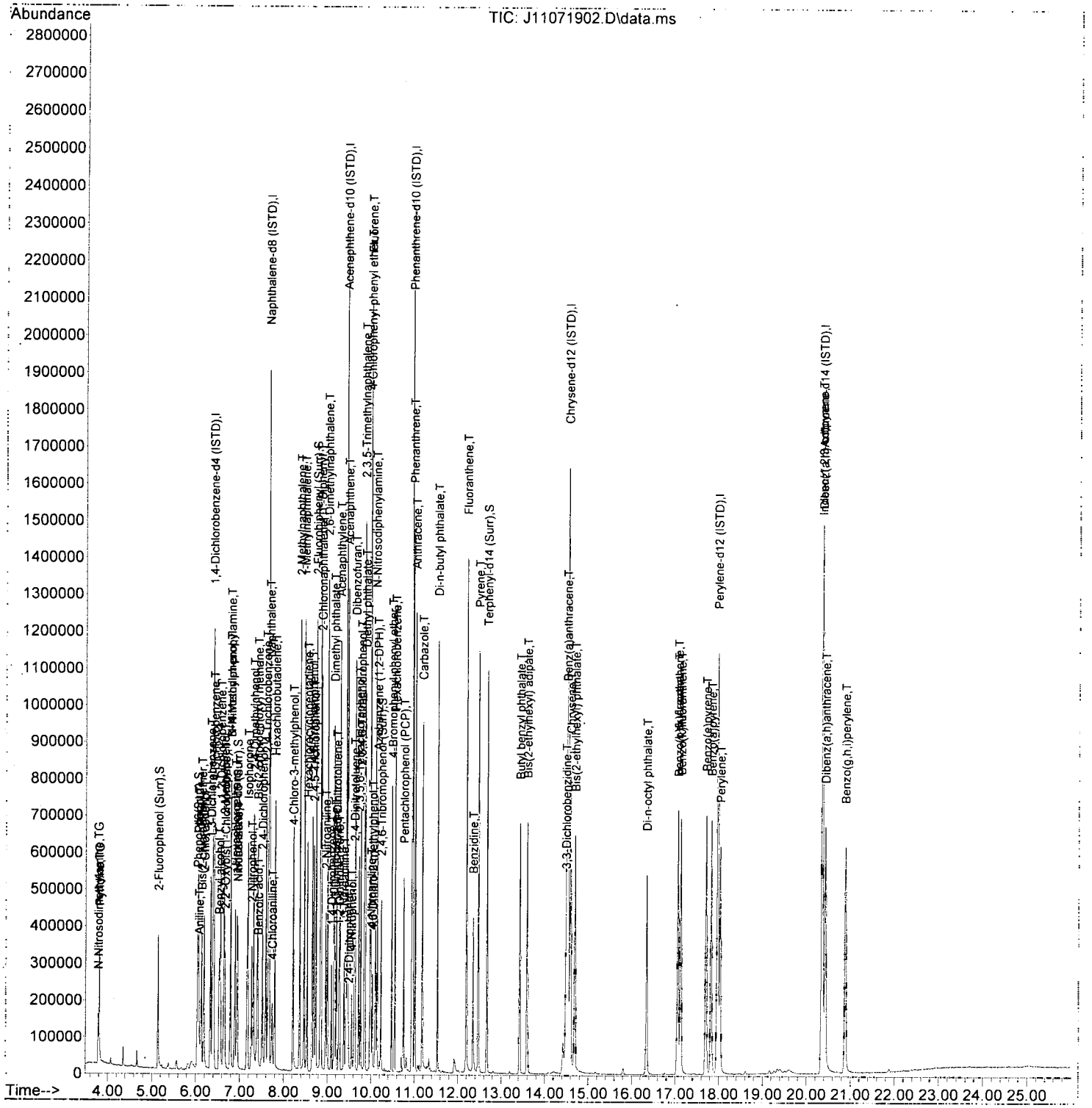
Quant Time: Nov 07 11:35:30 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.092	168	56627	1316.02	ng/ml	74
45) Dimethyl phthalate	9.146	163	423128	1080.36	ng/ml	99
46) 1,3-Dinitrobenzene	9.173	168	63363	1167.94	ng/ml	88
47) 2,6-Dinitrotoluene	9.205	165	97011	1099.39	ng/ml	89
48) 1,2-Dinitrobenzene	9.258	168	44386	1118.64	ng/ml	88
49) Acenaphthylene	9.279	152	578107	1048.61	ng/ml	99
50) 3-Nitroaniline	9.376	138	73745	1097.80	ng/ml	89
51) Acenaphthene	9.456	153	365309	1009.08	ng/ml	100
52) 2,4-Dinitrophenol	9.483	184	25958	1195.24	ng/ml	87
53) 4-Nitrophenol	9.552	139	57608	1074.06	ng/ml	91
54) 2,4-Dinitrotoluene	9.616	165	124559	1127.94	ng/ml	81
55) Dibenzofuran	9.633	168	528402	1094.93	ng/ml	97
56) 2,3,5,6-Tetrachlorophenol	9.718	232	94555	1133.69	ng/ml	93
57) 2,3,4,6-Tetrachlorophenol	9.761	232	102037	1118.35	ng/ml	97
58) Diethyl phthalate	9.863	149	393315	1090.95	ng/ml	97
59) 2,3,5-Trimethylnaphtha...	9.846	170	344667	1121.57	ng/ml	94
60) Fluorene	9.980	166	398976	1050.55	ng/ml	98
61) 4-Chlorophenyl phenyl ...	9.975	204	202300	1092.65	ng/ml	96
62) 4-Nitroaniline	9.996	138	70670	1212.58	ng/ml	92
63) 4,6-Dinitro-2-methylph...	10.028	198	50155	1249.05	ng/ml	92
65) N-Nitrosodiphenylamine	10.098	169	345251	1078.64	ng/ml	99
66) Azobenzene (1,2-DPH)	10.141	77	275185	849.57	ng/ml	81
68) 4-Bromophenyl phenyl e...	10.478	248	125602	1072.26	ng/ml	95
69) Hexachlorobenzene	10.552	284	145181	1033.13	ng/ml	97
70) Pentachlorophenol (PCP)	10.750	266	76681	1084.17	ng/ml	100
71) Phenanthrene	10.959	178	580619	996.98	ng/ml	99
72) Anthracene	11.012	178	578379	1033.18	ng/ml	99
73) Carbazole	11.173	167	474568	1121.38	ng/ml	99
74) Di-n-butyl phthalate	11.526	149	643447	1048.08	ng/ml	100
75) Fluoranthene	12.195	202	634428	1062.88	ng/ml	98
76) Benzidine	12.344	184	233724	1642.58	ng/ml	98
77) Pyrene	12.467	202	655130	1078.53	ng/ml	100
80) Butyl benzyl phthalate	13.419	149	272906	1064.72	ng/ml	86
81) Bis(2-ethylhexyl) adipate	13.585	129	229842	992.44	ng/ml	99
82) 3,3-Dichlorobenzidine	14.478	252	145389	1815.52	ng/ml	96
83) Benz(a)anthracene	14.500	228	568262	1019.30	ng/ml	97
84) Chrysene	14.580	228	557128	1066.37	ng/ml	99
85) Bis(2-ethylhexyl) phth...	14.687	149	395182	1100.23	ng/ml	98
87) Di-n-octyl phthalate	16.334	149	596725	1018.01	ng/ml	98
88) Benzo(b)fluoranthene	17.056	252	581823	1033.15	ng/ml	98
89) Benzo(k)fluoranthene	17.121	252	595344	1049.55	ng/ml	99
90) Benzo(b+k)fluoranthene	17.056	252	1199705	2074.13	ng/ml	97
91) Benzo(e)pyrene	17.704	252	584605	1113.89	ng/ml	100
92) Benzo(a)pyrene	17.821	252	549363	1073.82	ng/ml	98
93) Perylene	18.025	252	490995	1066.19	ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.346	276	525567	989.88	ng/ml	97
96) Dibenz(a,h)anthracene	20.421	278	515739	1057.99	ng/ml	97
97) Benzo(g,h,i)perylene	20.881	276	561862	1101.73	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\data\2019-11\9K07018\
Data File : J11071902.D
Acq On : 7 Nov 2019 8:58 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-CCV1
Misc : 1x, A19G243@1000
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:35:30 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071903.D
Acq On : 7 Nov 2019 9:33 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/7/19

Quant Time: Nov 07 11:36:06 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.380	152	295675	2000.00	ng/ml	-0.01
21) Naphthalene-d8 (ISTD)	7.648	136	1103503	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	581583	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	1057958	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.521	240	1099883	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.960	264	1083947	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.351	292	898431	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)	12.670	244	172	0.34	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	6.076	94	120	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	6.546	108	52	24.89	ng/ml#	6
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.584	107	77	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	7.012	77	59	N.D.		
22) Isophorone	7.167	82	56	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.		

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071903.D
Acq On : 7 Nov 2019 9:33 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:36:06 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

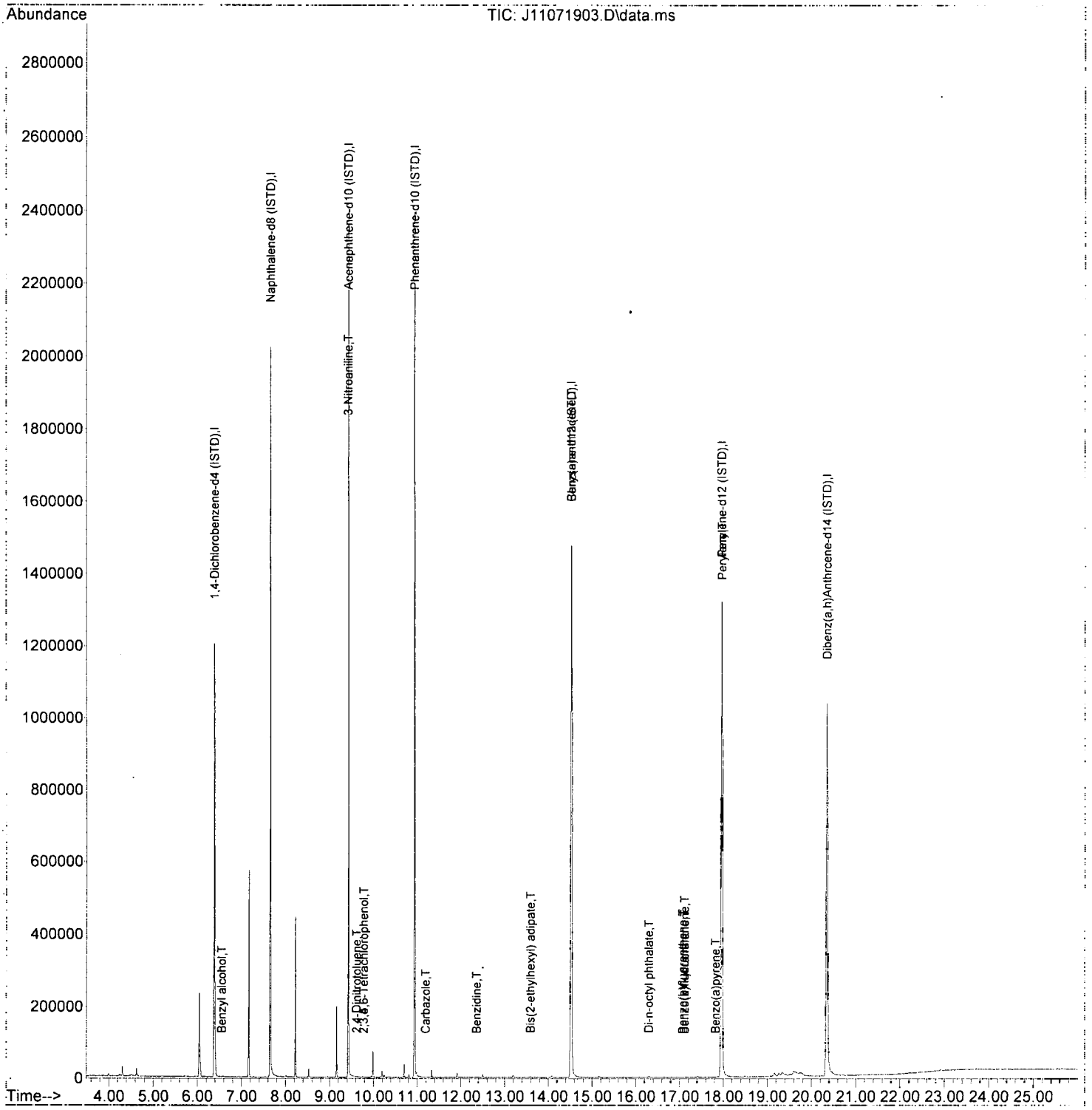
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	9.156	163	156	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	0.000		0	N.D.	
50) 3-Nitroaniline	9.418	138	59	30.36 ng/ml#	1
51) Acenaphthene	9.424	153	95	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	9.611	165	101	54.55 ng/ml#	27
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	9.771	232	50	36.08 ng/ml#	31
57) 2,3,4,6-Tetrachlorophenol	9.771	232	50	28.89 ng/ml#	18
58) Diethyl phthalate	0.000		0	N.D.	
59) 2,3,5-Trimethylnaphtha...	9.943	170	77	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)	10.194	77	75	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	10.953	178	75	N.D.	
72) Anthracene	11.012	178	67	N.D.	
73) Carbazole	11.183	167	82	5.74 ng/ml	60
74) Di-n-butyl phthalate	11.531	149	130	N.D.	
75) Fluoranthene	12.194	202	74	N.D.	
76) Benzidine	12.355	184	236	124.51 ng/ml	67
77) Pyrene	0.000		0	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.585	129	786	3.08 ng/ml	81
82) 3,3-Dichlorobenzidine	14.473	252	328	Below Cal #	59
83) Benz(a)anthracene	14.521	228	3028	4.93 ng/ml	64
84) Chrysene	14.575	228	239	N.D.	
85) Bis(2-ethylhexyl) phth...	14.687	149	83	N.D.	
87) Di-n-octyl phthalate	16.291	149	98	58.09 ng/ml	77
88) Benzo(b)fluoranthene	17.067	252	79	8.09 ng/ml	57
89) Benzo(k)fluoranthene	17.110	252	100	8.64 ng/ml	57
90) Benzo(b+k)fluoranthene	17.110	252	100	15.90 ng/ml	57
91) Benzo(e)pyrene	17.687	252	190	N.D.	
92) Benzo(a)pyrene	17.816	252	116	10.05 ng/ml	59
93) Perylene	17.966	252	3471	7.10 ng/ml	70
95) Indeno(1,2,3-cd)pyrene	20.335	276	313	N.D.	
96) Dibenz(a,h)anthracene	20.410	278	187	N.D.	
97) Benzo(g,h,i)perylene	20.859	276	177	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071903.D
Acq On : 7 Nov 2019 9:33 am
Operator : JK/ AMS/ DTH
Sample : 9K07018-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:36:06 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071904.D
Acq On : 7 Nov 2019 10:10 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BLK1
Misc : 1x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

B
B02

AMS
11/7/19

Quant Time: Nov 07 11:36:12 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4...	6.397	152	273504	2000.00	ng/ml	0.00	
21) Naphthalene-d8 (ISTD)	7.648	136	1013594	2000.00	ng/ml	0.00	
35) Acenaphthene-d10 (ISTD)	9.424	162	538821	2000.00	ng/ml	0.00	
64) Phenanthrene-d10 (ISTD)	10.932	188	1019165	2000.00	ng/ml	0.00	
78) Chrysene-d12 (ISTD)	14.516	240	1081342	2000.00	ng/ml	-0.01	
86) Perylene-d12 (ISTD)	17.960	264	1059317	2000.00	ng/ml	0.00	
94) Dibenz(a,h)Anthrcene-d...	20.346	292	966826	2000.00	ng/ml	0.00	
System Monitoring Compounds							
4) 2-Fluorophenol (Surr)	5.161	112	188853	1137.86	ng/ml	0.01	
5) Phenol-d6(Surr)	6.049	99	134212	631.76	ng/ml	0.00	
19) Nitrobenzene-d5 (Surr)	6.937	82	321969	1953.59	ng/ml	0.00	
40) 2-Fluorobiphenyl (Surr)	8.739	172	756716	1794.50	ng/ml	0.00	
67) 2,4,6-Tribromophenol (...	10.226	330	143778	2331.12	ng/ml	0.00	
79) Terphenyl-d14 (Surr)	12.665	244	1208582	2425.29	ng/ml	0.00	
Target Compounds						Qvalue	
2) N-Nitrosodimethylamine	3.819	74	446m	4.28	ng/ml#		
3) Pyridine	3.936	79	64	N.D.			
6) Phenol	6.060	94	7968	34.11	ng/ml	80	
7) Aniline	6.076	93	481	N.D.			
8) Bis(2-chloroethyl) ether	6.161	93	377	N.D.			
9) 2-Chlorophenol	6.199	128	558	2.88	ng/ml	98	
10) 1,3-Dichlorobenzene	6.343	146	74	N.D.			
11) 1,4-Dichlorobenzene	6.407	146	201	N.D.			
12) Benzyl alcohol	6.541	108	568	29.36	ng/ml	81	
13) 1,2-Dichlorobenzene	6.557	146	56	N.D.			
14) 2-Methylphenol	6.643	107	1277	9.06	ng/ml	85	
15) 2,2'-Oxybis(1-Chloropr...	6.659	45	401	N.D.			
16) N-Nitrosodi-n-propylamine	6.792	70	431	3.52	ng/ml	53	
17) 3+4-Methylphenol	6.814	107	1297	7.42	ng/ml#	60	
18) Hexachloroethane	0.000		0	N.D.			
20) Nitrobenzene	6.937	77	1425	8.53	ng/ml#	35	
22) Isophorone	7.194	82	1100	3.40	ng/ml	80	
23) 2-Nitrophenol	7.274	139	497	47.29	ng/ml#	36	
24) 2,4-Dimethylphenol	7.327	122	1093	8.04	ng/ml#	78	
25) Bis(2-chloroethoxy) me...	7.397	93	145	N.D.			
26) Benzoic acid	7.397	105	23522	(1089.69)	ng/ml	B02 93	
27) 2,4-Dichlorophenol	7.514	162	283	26.71	ng/ml	74	
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.			
29) Naphthalene	7.670	128	150111	281.52	ng/ml	100	B
30) 4-Chloroaniline	7.734	127	98	13.82	ng/ml#	56	
31) Hexachlorobutadiene	0.000		0	N.D.			
32) 4-Chloro-3-methylphenol	8.231	107	681	5.06	ng/ml#	1	
33) 2-Methylnaphthalene	8.365	142	11856	(31.82)	ng/ml	95	B02
34) 1-Methylnaphthalene	8.466	142	7008	19.43	ng/ml	97	
36) Hexachlorocyclopentadiene	0.000		0	N.D.			
37) 2,4,6-Trichlorophenol	8.659	196	730	30.62	ng/ml#	63	
38) 2,4,5-Trichlorophenol	8.713	198	725	29.66	ng/ml#	56	
39) 1,1'-Biphenyl	8.836	154	3709	8.01	ng/ml	90	
41) 2-Chloronaphthalene	8.857	162	145	N.D.			
42) 2-Nitroaniline	9.017	138	125	31.70	ng/ml#	27	
43) 2,6-Dimethylnaphthalene	9.007	156	1563	4.60	ng/ml	82	

Data Path : T:\data\2019-11\9K07018\
Data File : J11071904.D
Acq On : 7 Nov 2019 10:10 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BLK1
Misc : 1x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:36:12 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

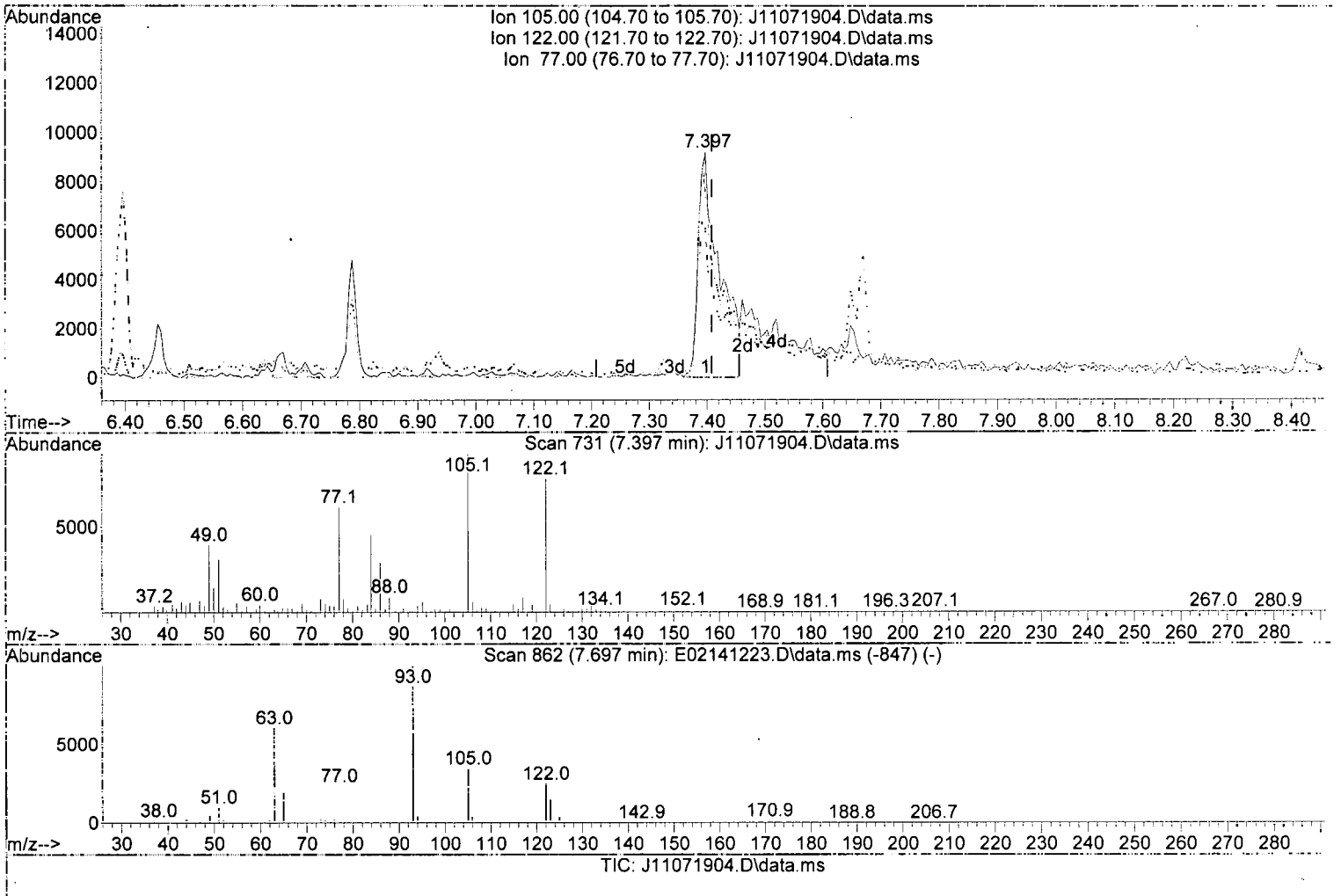
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
44)	1,4-Dinitrobenzene	9.114	168	165	70.18	ng/ml#	44	
45)	Dimethyl phthalate	9.140	163	747	N.D.			
46)	1,3-Dinitrobenzene	9.114	168	165	60.84	ng/ml#	48	
47)	2,6-Dinitrotoluene	9.215	165	268	28.04	ng/ml#	56	
48)	1,2-Dinitrobenzene	0.000		0	N.D.			
49)	Acenaphthylene	9.280	152	1409	2.57	ng/ml	80	
50)	3-Nitroaniline	9.344	138	247	32.64	ng/ml#	7	
51)	Acenaphthene	9.456	153	4337	12.06	ng/ml	92	B02
52)	2,4-Dinitrophenol	9.493	184	99	231.91	ng/ml#	1	
53)	4-Nitrophenol	9.542	139	220	77.85	ng/ml#	66	
54)	2,4-Dinitrotoluene	9.606	165	1322	65.09	ng/ml#	55	
55)	Dibenzofuran	9.633	168	1371	2.86	ng/ml#	1	
56)	2,3,5,6-Tetrachlorophenol	9.723	232	1078	48.28	ng/ml	73	
57)	2,3,4,6-Tetrachlorophenol	9.761	232	1805	47.75	ng/ml#	74	
58)	Diethyl phthalate	9.857	149	3907	10.91	ng/ml	89	
59)	2,3,5-Trimethylnaphtha...	9.841	170	758	N.D.			
60)	Fluorene	9.980	166	3453	9.15	ng/ml	88	
61)	4-Chlorophenyl phenyl ...	9.969	204	67	N.D.			
62)	4-Nitroaniline	9.986	138	50	N.D.			
63)	4,6-Dinitro-2-methylph...	10.028	198	250	164.53	ng/ml#	55	
65)	N-Nitrosodiphenylamine	10.103	169	425	N.D.			
66)	Azobenzene (1,2-DPH)	10.146	77	3843	12.08	ng/ml#	1	
68)	4-Bromophenyl phenyl e...	10.472	248	52	N.D.			
69)	Hexachlorobenzene	10.547	284	102	N.D.			
70)	Pentachlorophenol (PCP)	10.750	266	5091	144.51	ng/ml	97	B02
71)	Phenanthrene	10.954	178	17772	31.08	ng/ml	98	B
72)	Anthracene	11.007	178	1692	3.08	ng/ml	90	
73)	Carbazole	11.178	167	3825	12.55	ng/ml	88	B02
74)	Di-n-butyl phthalate	11.526	149	15754	26.14	ng/ml	98	B02
75)	Fluoranthene	12.189	202	8646	14.75	ng/ml	99	B02
76)	Benzidine	12.328	184	127	123.84	ng/ml	73	
77)	Pyrene	12.462	202	7641	12.81	ng/ml	98	B02
80)	Butyl benzyl phthalate	13.409	149	1342	34.15	ng/ml	92	
81)	Bis(2-ethylhexyl) adipate	13.580	129	3908	15.58	ng/ml	86	
82)	3,3-Dichlorobenzidine	0.000		0	N.D.			
83)	Benz(a)anthracene	14.516	228	4189	6.94	ng/ml	71	
84)	Chrysene	14.569	228	1584	2.80	ng/ml	92	
85)	Bis(2-ethylhexyl) phth...	14.682	149	32540	83.66	ng/ml	95	
87)	Di-n-octyl phthalate	16.345	149	281	58.38	ng/ml	65	
88)	Benzo(b)fluoranthene	17.040	252	1065	9.78	ng/ml	95	
89)	Benzo(k)fluoranthene	17.099	252	793	9.78	ng/ml	87	
90)	Benzo(b+k)fluoranthene	17.040	252	1971	18.98	ng/ml	95	
91)	Benzo(e)pyrene	17.682	252	1100	N.D.			
92)	Benzo(a)pyrene	17.811	252	440	10.66	ng/ml#	19	
93)	Perylene	17.966	252	3405	7.13	ng/ml	63	
95)	Indeno(1,2,3-cd)pyrene	20.330	276	1334	N.D.			
96)	Dibenz(a,h)anthracene	20.405	278	529	N.D.			
97)	Benzo(g,h,i)perylene	20.849	276	707	N.D.			

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : R:\data\2019-11\9K07018\
Data File : J11071904.D
Acq On : 7 Nov 2019 10:10 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BLK1
Misc : 1x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:36:12 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



(26) Benzoic acid (T)

7.397min (-0.011) 1089.69 ng/ml B07

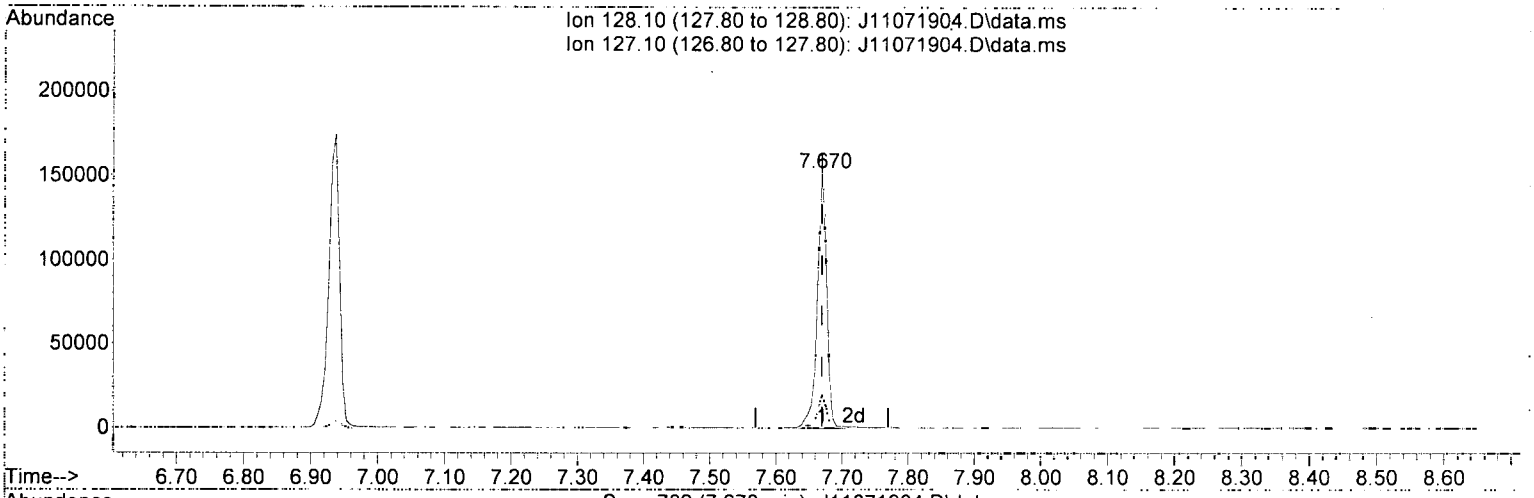
response 23522

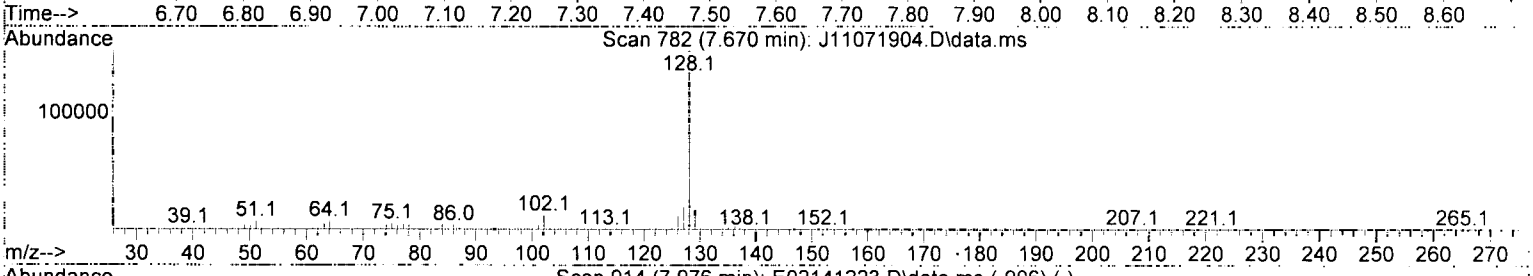
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	84.51
77.00	72.00	66.75
0.00	0.00	0.00

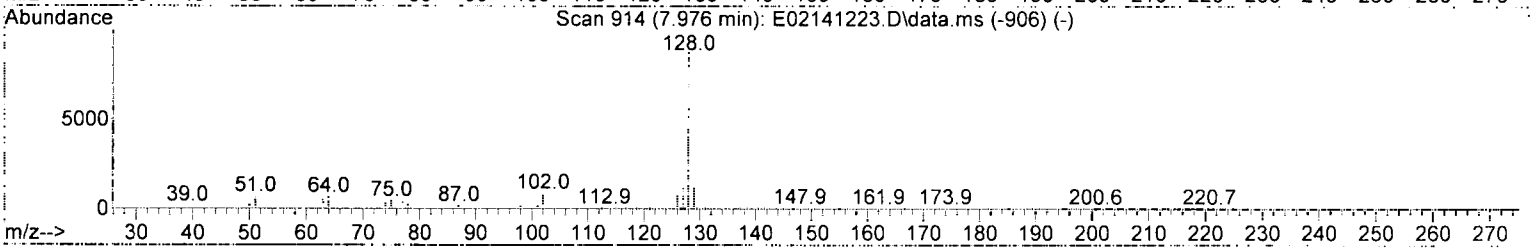
Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071904.D
Acq On : 7 Nov 2019 10:10 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BLK1
Misc : 1x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:36:12 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J11071904.D\data.ms

(29) Naphthalene (T)

7.670min (-0.000) 281.52 ng/ml

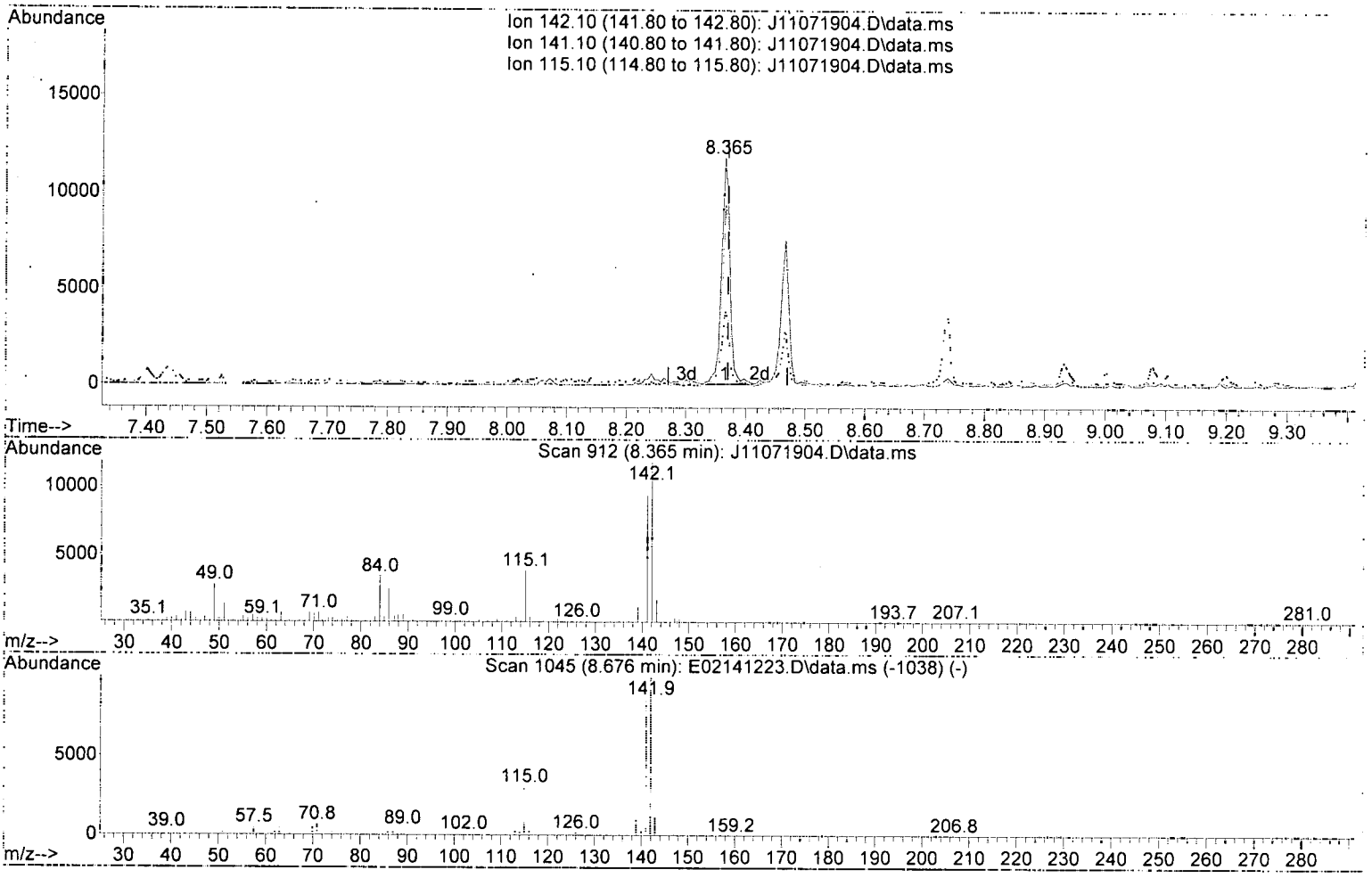
response 150111

Ion	Exp%	Act%
128.10	100.00	100.00
127.10	12.70	12.87
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071904.D
Acq.On : 7 Nov 2019 10:10 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BLK1
Misc : 1x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:36:12 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J11071904.D\data.ms

(33) 2-Methylnaphthalene (T)

8.365min (-0.005) 31.82 ng/ml

response 11856

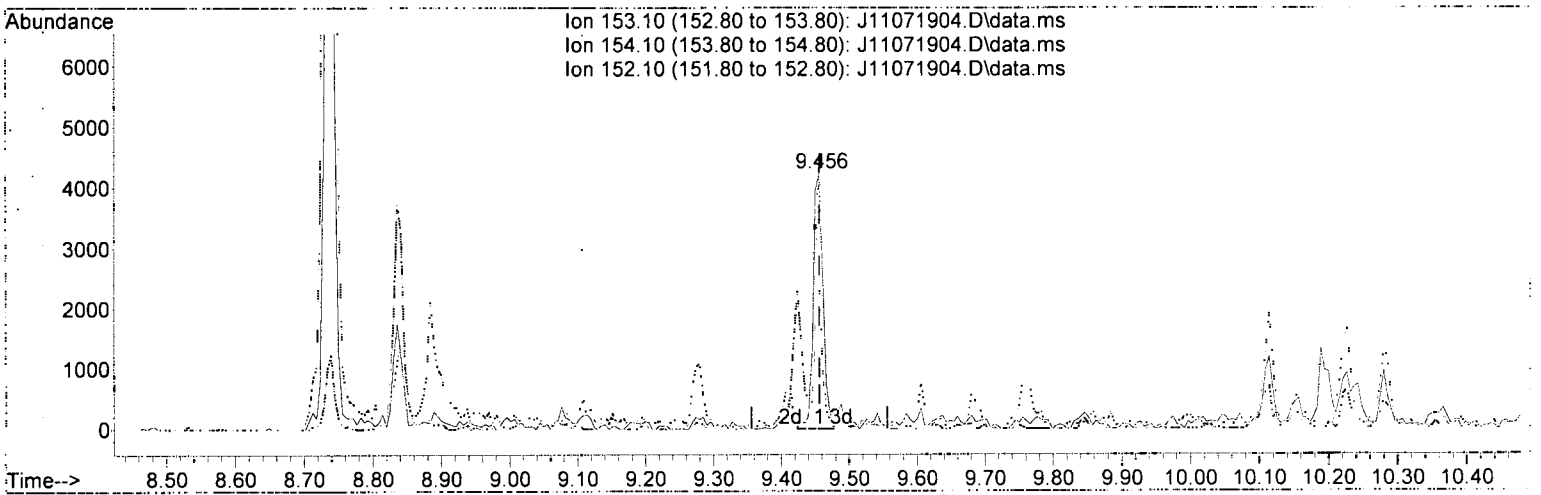
Ion	Exp%	Act%
142.10	100.00	100.00
141.10	84.80	79.42
115.10	30.60	32.50
0.00	0.00	0.00

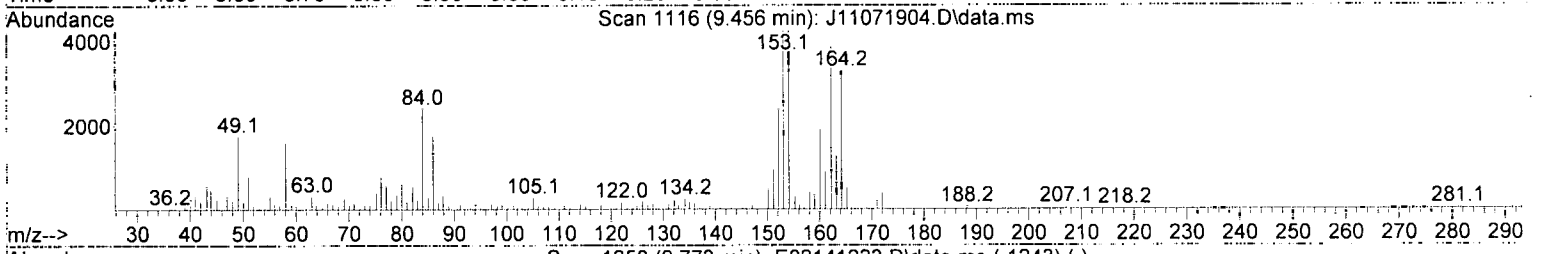
B02

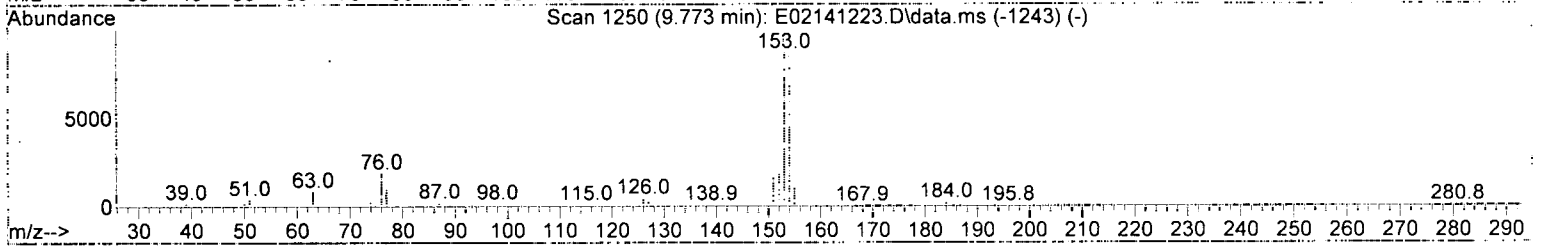
Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071904.D
Acq On : 7 Nov 2019 10:10 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BLK1
Misc : 1x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:36:12 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J11071904.D\data.ms

(51) Acenaphthene (T)

9.456min (-0.000) 12.06 ng/ml

response 4337

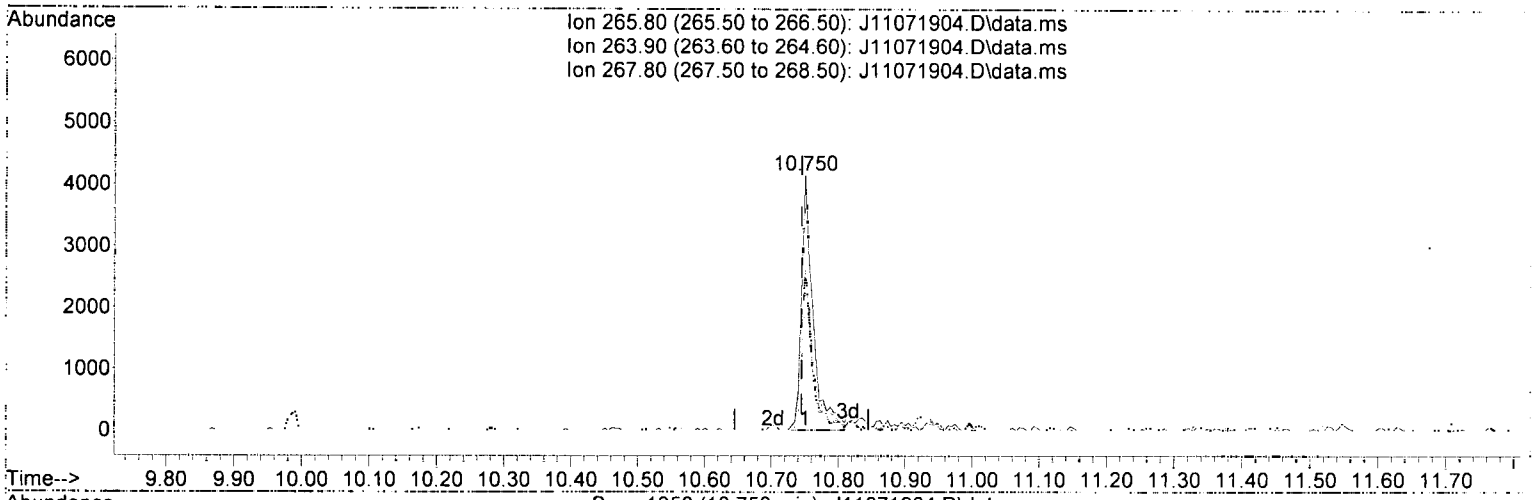
Ion	Exp%	Act%
153.10	100.00	100.00
154.10	93.60	99.67
152.10	48.20	55.66
0.00	0.00	0.00

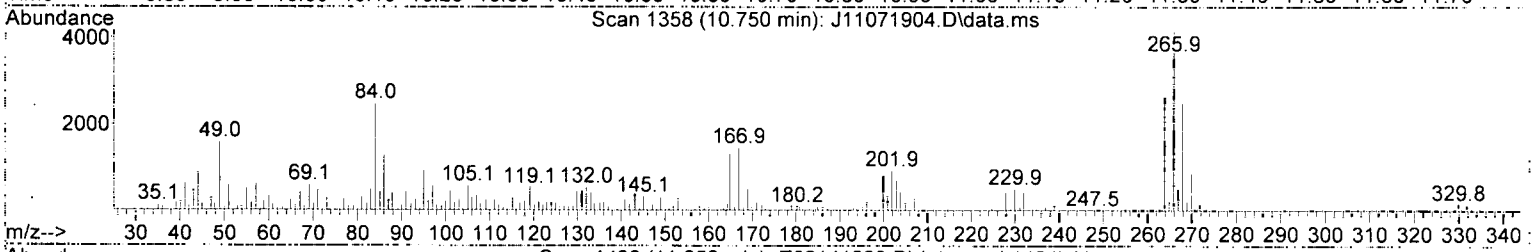
B02

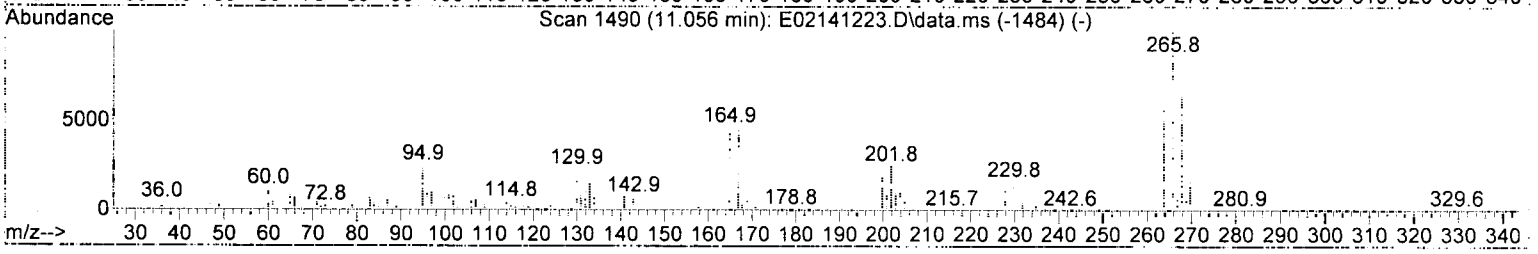
Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071904.D
Acq On : 7 Nov 2019 10:10 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BLK1
Misc : 1x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:36:12 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J11071904.D\data.ms

(70) Pentachlorophenol (PCP) (T)

10.750min (+ 0.005) 144.51 ng/ml

response 5091

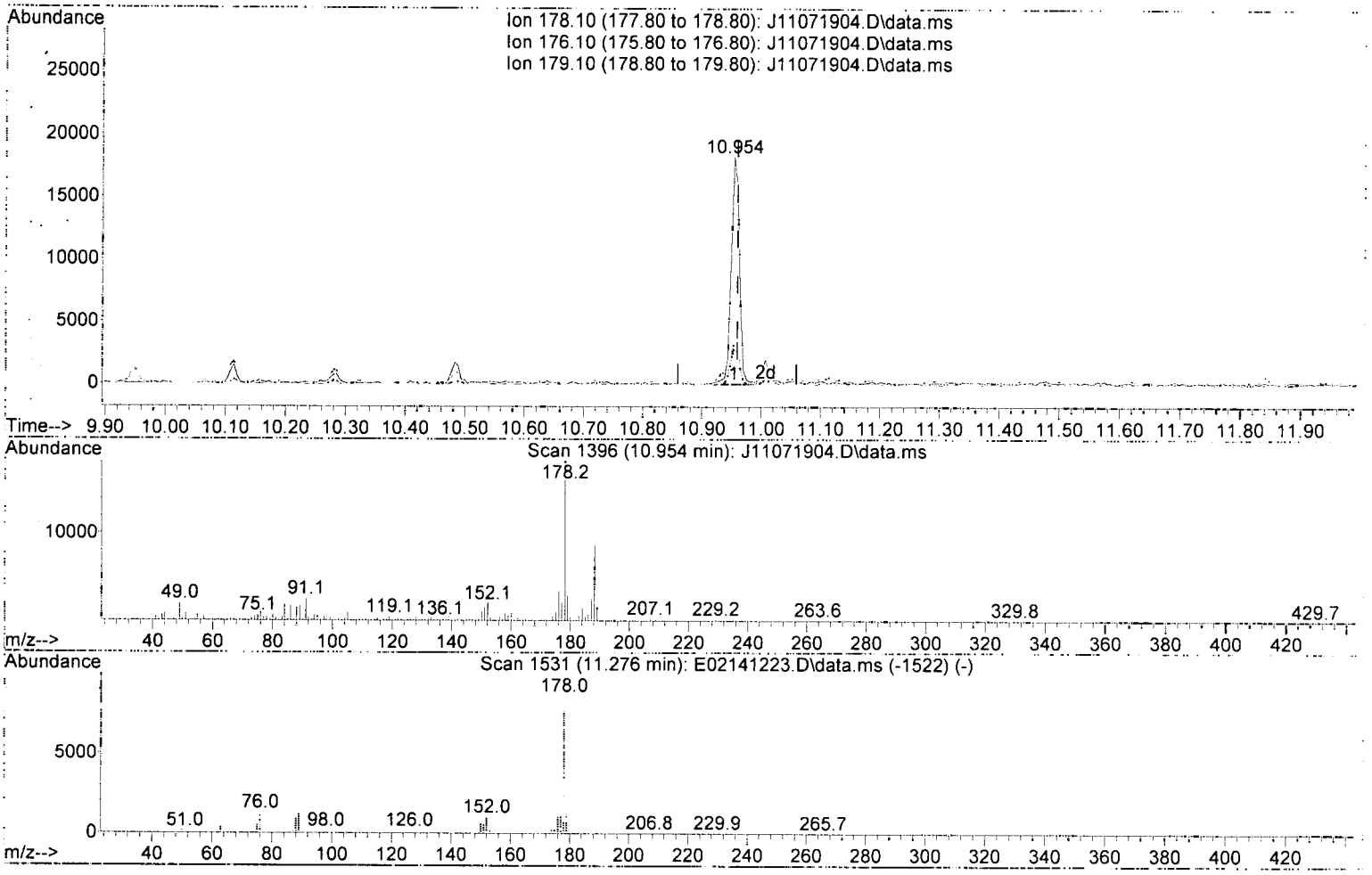
Ion	Exp%	Act%
265.80	100.00	100.00
263.90	63.30	63.10
267.80	64.70	60.31
0.00	0.00	0.00

B02

Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071904.D
Acq On : 7 Nov 2019 10:10 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BLK1
Misc : 1x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:36:12 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J11071904.D\data.ms

(71) Phenanthrene (T)

10.954min (-0.005) 31.08 ng/ml

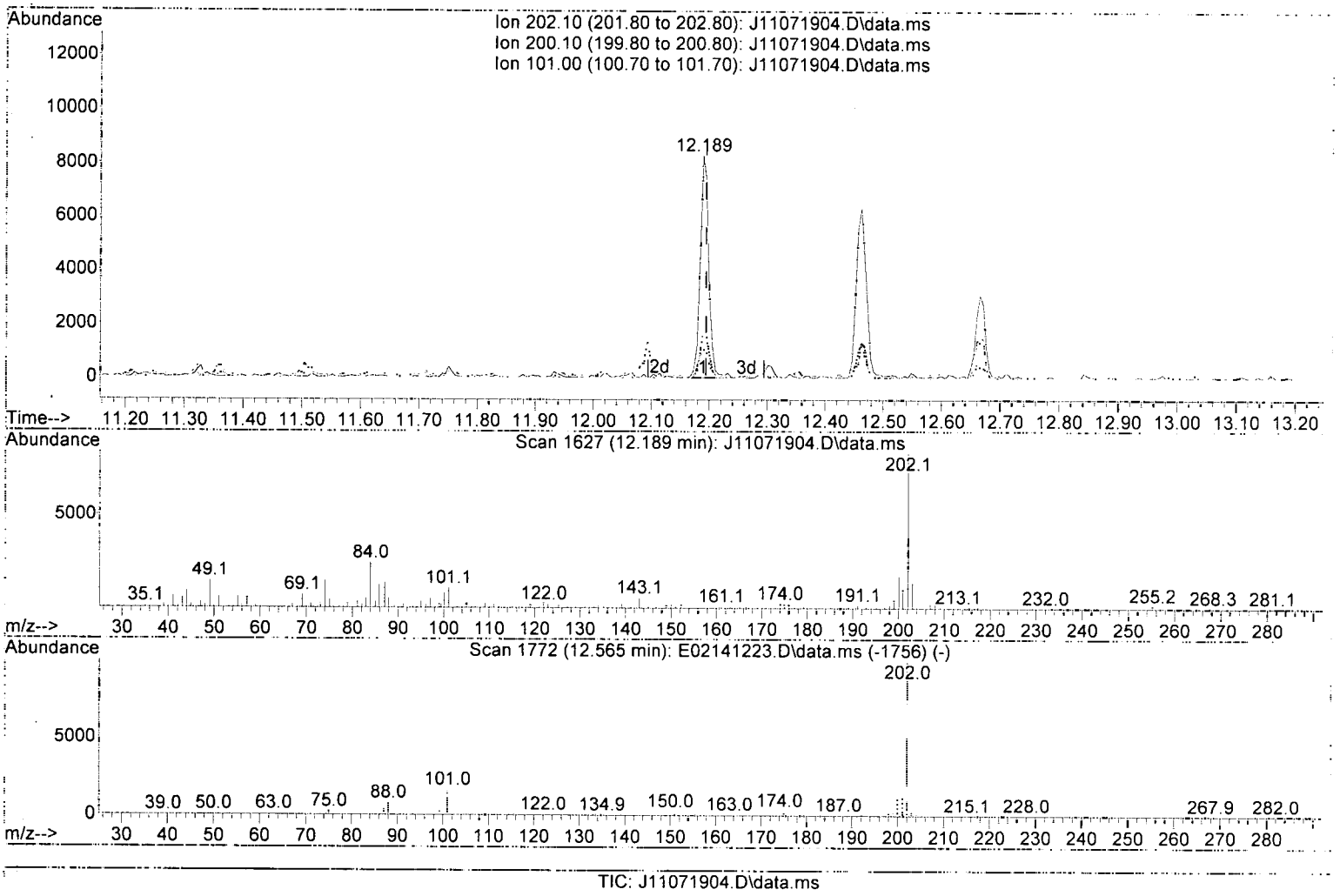
response 17772

Ion	Exp%	Act%
178.10	100.00	100.00
176.10	19.60	18.32
179.10	15.60	15.84
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071904.D
Acq On : 7 Nov 2019 10:10 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BLK1
Misc : 1x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:36:12 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J11071904.D\data.ms

(75) Fluoranthene (T)

12.189min (-0.005) 14.75 ng/ml

response 8646

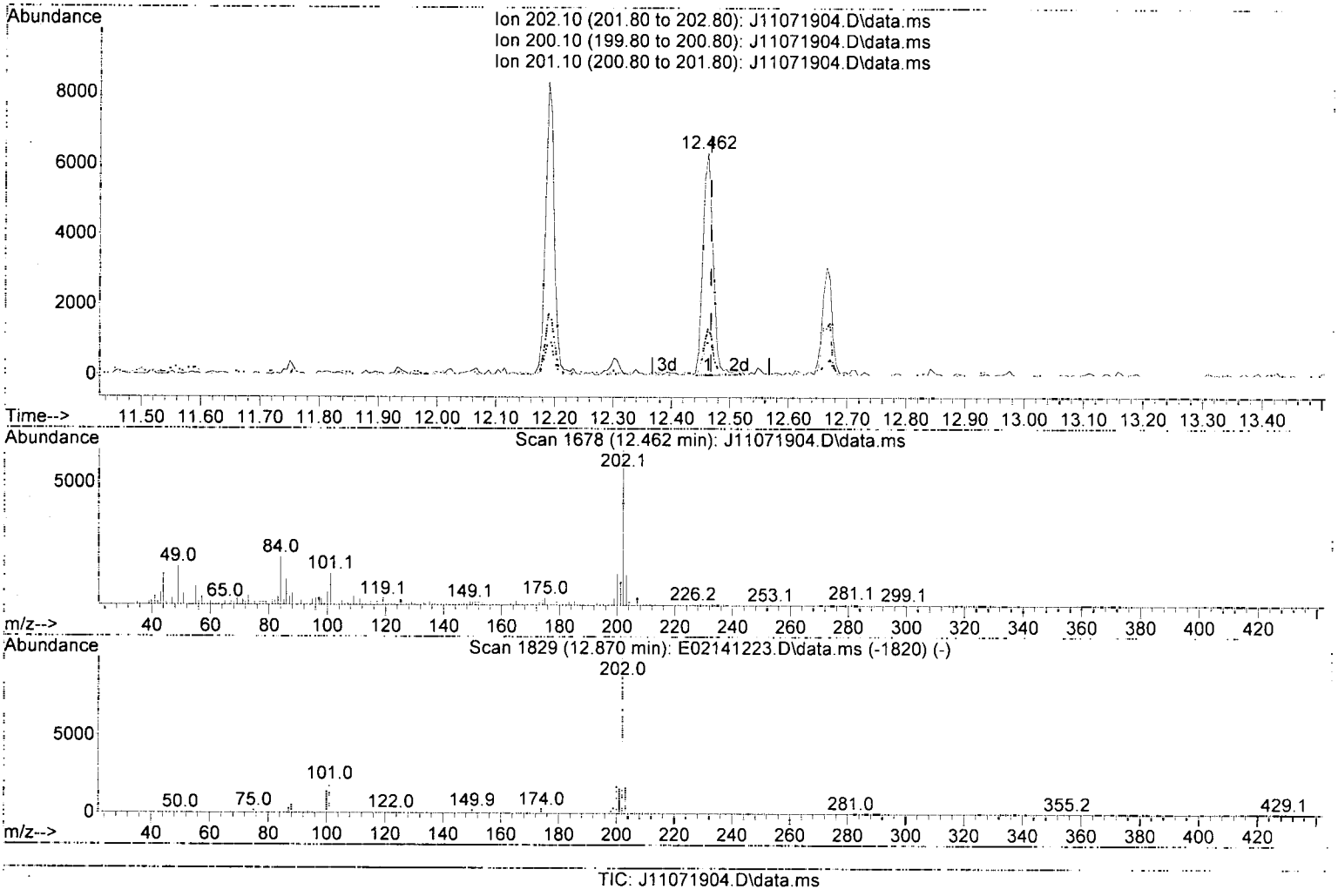
Ion	Exp%	Act%
202.10	100.00	100.00
200.10	20.90	20.74
101.00	13.50	12.89
0.00	0.00	0.00

B02

Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071904.D
Acq On : 7 Nov 2019 10:10 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BLK1
Misc : 1x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:36:12 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J11071904.D\data.ms

(77) Pyrene (T)

12.462min (-0.005) 12.81 ng/ml

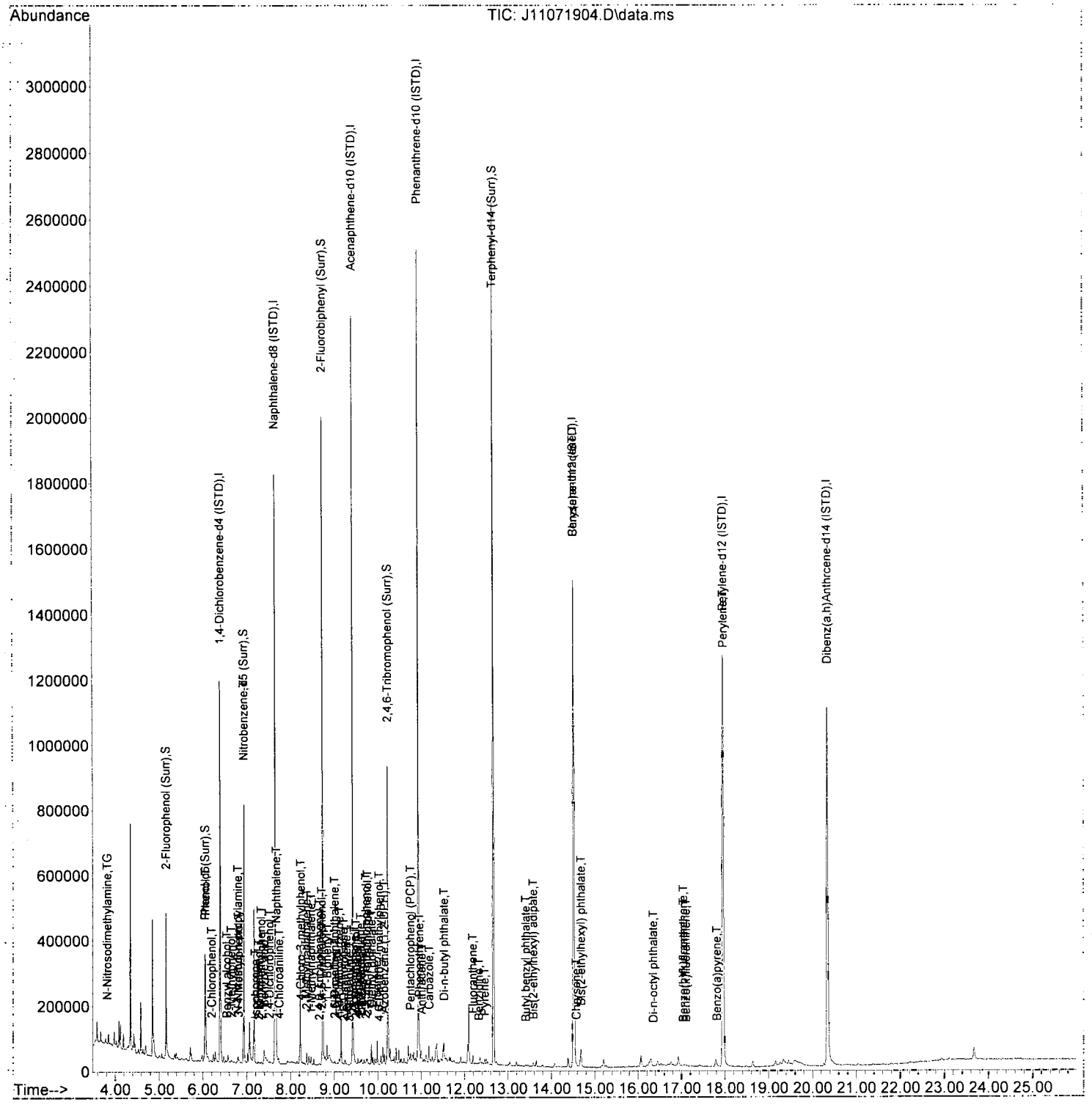
response 7641

Ion	Exp%	Act%
202.10	100.00	100.00
200.10	20.60	20.74
201.10	16.70	15.39
0.00	0.00	0.00

B02

Data Path : T:\data\2019-11\9K07018\
Data File : J11071904.D
Acq On : 7 Nov 2019 10:10 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BLK1
Misc : 1x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:36:12 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071905.D
Acq On : 7 Nov 2019 10:46 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BS1@4
Misc : 4x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/7/19

Quant Time: Nov 07 11:36:18 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.386	152	277048	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1010400	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	544114	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	984343	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.521	240	853868	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.960	264	808240	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.346	292	678516	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.129	112	47715	283.81	ng/ml	-0.02
5) Phenol-d6(Surr)	6.038	99	33812	157.12	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	76982	461.12	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	228750	537.19	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	33080	566.51	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.660	244	257360	654.04	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.738	74	35137m	332.96	ng/ml	
3) Pyridine	3.754	79	42397m	235.66	ng/ml	
6) Phenol	6.054	94	64044	270.66	ng/ml	95
7) Aniline	6.129	93	243936	1194.89	ng/ml#	59
8) Bis(2-chloroethyl) ether	6.129	93	245788	1150.96	ng/ml	96
9) 2-Chlorophenol	6.188	128	143339	730.69	ng/ml	96
10) 1,3-Dichlorobenzene	6.332	146	129609	587.81	ng/ml	97
11) 1,4-Dichlorobenzene	6.402	146	126723	584.75	ng/ml	99
12) Benzyl alcohol	6.530	108	57511	509.62	ng/ml	91
13) 1,2-Dichlorobenzene	6.557	146	132915	621.91	ng/ml	97
14) 2-Methylphenol	6.637	107	92056	645.11	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.653	45	106794	566.67	ng/ml	85
16) N-Nitrosodi-n-propylamine	6.782	70	88079	710.40	ng/ml	91
17) 3+4-Methylphenol	6.787	107	104347	589.72	ng/ml	95
18) Hexachloroethane	6.889	201	39065	586.68	ng/ml	94
20) Nitrobenzene	6.947	77	119473	706.34	ng/ml	90
22) Isophorone	7.183	82	264408	820.83	ng/ml	99
23) 2-Nitrophenol	7.268	139	111081	1158.87	ng/ml	85
24) 2,4-Dimethylphenol	7.311	122	114613	846.05	ng/ml	95
25) Bis(2-chloroethoxy) me...	7.397	93	162983	832.26	ng/ml	99
26) Benzoic acid	7.381	105	23666	1092.30	ng/ml	90
27) 2,4-Dichlorophenol	7.509	162	128988	854.43	ng/ml	95
28) 1,2,4-Trichlorobenzene	7.595	180	128814	728.42	ng/ml	99
29) Naphthalene	7.669	128	416675	783.92	ng/ml	100
30) 4-Chloroaniline	7.734	127	74946	451.41	ng/ml	96
31) Hexachlorobutadiene	7.803	225	67207	703.30	ng/ml	97
32) 4-Chloro-3-methylphenol	8.215	107	114333	852.78	ng/ml	91
33) 2-Methylnaphthalene	8.365	142	305063	821.43	ng/ml	99
34) 1-Methylnaphthalene	8.466	142	293969	817.67	ng/ml	99
36) Hexachlorocyclopentadiene	8.536	237	53317	633.67	ng/ml	100
37) 2,4,6-Trichlorophenol	8.654	196	100046	952.92	ng/ml	98
38) 2,4,5-Trichlorophenol	8.691	198	97097	937.15	ng/ml	98
39) 1,1'-Biphenyl	8.835	154	388188	830.04	ng/ml	99
41) 2-Chloronaphthalene	8.857	162	293005	867.49	ng/ml	97
42) 2-Nitroaniline	8.958	138	95262	949.30	ng/ml	87
43) 2,6-Dimethylnaphthalene	8.996	156	289653	844.25	ng/ml	98

Data Path : T:\data\2019-11\9K07018\
Data File : J11071905.D
Acq On : 7 Nov 2019 10:46 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BS1@4
Misc : 4x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

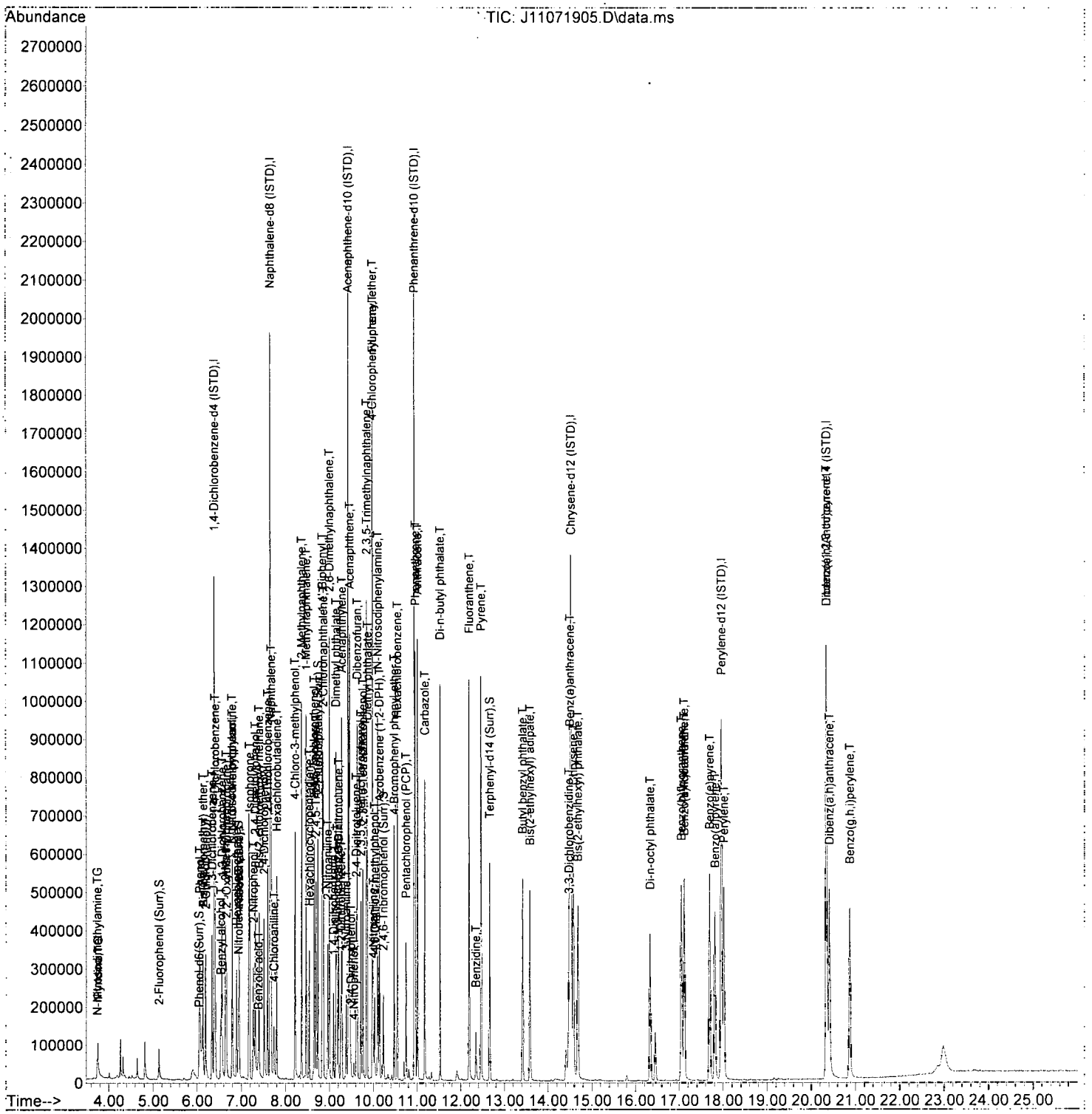
Quant Time: Nov 07 11:36:18 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.092	168	43076	1027.21	ng/ml	74
45) Dimethyl phthalate	9.146	163	384009	977.26	ng/ml	99
46) 1,3-Dinitrobenzene	9.172	168	49924	932.96	ng/ml	84
47) 2,6-Dinitrotoluene	9.205	165	85984	973.39	ng/ml	85
48) 1,2-Dinitrobenzene	9.258	168	37052	930.74	ng/ml	79
49) Acenaphthylene	9.279	152	479632	867.14	ng/ml	99
50) 3-Nitroaniline	9.376	138	57837	816.85	ng/ml	95
51) Acenaphthene	9.456	153	306826	844.75	ng/ml	99
52) 2,4-Dinitrophenol	9.483	184	17726	912.20	ng/ml	82
53) 4-Nitrophenol	9.552	139	13464	318.67	ng/ml	88
54) 2,4-Dinitrotoluene	9.611	165	103964	945.61	ng/ml	88
55) Dibenzofuran	9.632	168	445636	920.40	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.718	232	76221	919.92	ng/ml	94
57) 2,3,4,6-Tetrachlorophenol	9.761	232	78719	866.03	ng/ml	97
58) Diethyl phthalate	9.862	149	355173	981.93	ng/ml	96
59) 2,3,5-Trimethylnaphtha...	9.846	170	299265	970.63	ng/ml	97
60) Fluorene	9.980	166	350600	920.14	ng/ml	96
61) 4-Chlorophenyl phenyl ...	9.975	204	172138	926.69	ng/ml	98
62) 4-Nitroaniline	9.996	138	57742	987.51	ng/ml	93
63) 4,6-Dinitro-2-methylph...	10.028	198	41221	1060.85	ng/ml	90
65) N-Nitrosodiphenylamine	10.098	169	281080	926.11	ng/ml	99
66) Azobenzene (1,2-DPH)	10.135	77	235494	766.73	ng/ml	91
68) 4-Bromophenyl phenyl e...	10.477	248	106468	958.55	ng/ml	94
69) Hexachlorobenzene	10.547	284	127440	956.41	ng/ml	99
70) Pentachlorophenol (PCP)	10.745	266	49963	768.18	ng/ml	99
71) Phenanthrene	10.959	178	494452	895.39	ng/ml	99
72) Anthracene	11.007	178	496454	935.26	ng/ml	99
73) Carbazole	11.173	167	404318	965.16	ng/ml	98
74) Di-n-butyl phthalate	11.526	149	538620	925.25	ng/ml	99
75) Fluoranthene	12.194	202	537543	949.75	ng/ml	97
76) Benzidine	12.344	184	82725	694.15	ng/ml	96
77) Pyrene	12.462	202	555356	964.20	ng/ml	100
80) Butyl benzyl phthalate	13.414	149	209912	962.57	ng/ml	88
81) Bis(2-ethylhexyl) adipate	13.580	129	176206	889.75	ng/ml	96
82) 3,3-Dichlorobenzidine	14.473	252	124187	1813.09	ng/ml	96
83) Benz(a)anthracene	14.494	228	466117	977.73	ng/ml	96
84) Chrysene	14.575	228	432878	968.92	ng/ml	99
85) Bis(2-ethylhexyl) phth...	14.676	149	297571	968.83	ng/ml	99
87) Di-n-octyl phthalate	16.329	149	438736	950.52	ng/ml	98
88) Benzo(b)fluoranthene	17.046	252	442822	994.09	ng/ml	98
89) Benzo(k)fluoranthene	17.110	252	445024	990.05	ng/ml	97
90) Benzo(b+k)fluoranthene	17.110	252	907301	1981.93	ng/ml	97
91) Benzo(e)pyrene	17.693	252	441191	1062.05	ng/ml	100
92) Benzo(a)pyrene	17.816	252	375683	929.12	ng/ml	98
93) Perylene	18.014	252	388955	1067.08	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.340	276	378332	942.92	ng/ml	98
96) Dibenz(a,h)anthracene	20.410	278	367860	998.58	ng/ml	99
97) Benzo(g,h,i)perylene	20.875	276	403726	1047.57	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\data\2019-11\9K07018\
Data File : J11071905.D
Acq On : 7 Nov 2019 10:46 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BS1@4
Misc : 4x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:36:18 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071906.D
Acq On : 7 Nov 2019 11:23 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BSD1@4
Misc : 4x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/7/19 Q-19

Quant Time: Nov 07 11:56:46 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.391	152	285245	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1035826	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.429	162	552156	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	1061218	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.526	240	1083036	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.966	264	1102336	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.356	292	984451	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.150	112	50267	290.40	ng/ml	0.00
5) Phenol-d6(Surr)	6.049	99	35120	158.51	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	82095	477.62	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	248754	575.66	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	36591	580.68	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	326585	654.34	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.813	74	48755m	448.73	ng/ml	
3) Pyridine	3.834	79	72195	389.75	ng/ml	96
6) Phenol	6.060	94	70894	291.00	ng/ml	96
7) Aniline	6.076	93	86990	413.86	ng/ml	93
8) Bis(2-chloroethyl) ether	6.134	93	180139	819.30	ng/ml	97
9) 2-Chlorophenol	6.193	128	153078	757.91	ng/ml	96
10) 1,3-Dichlorobenzene	6.338	146	153620	676.68	ng/ml	98
11) 1,4-Dichlorobenzene	6.407	146	150538	674.68	ng/ml	100
12) Benzyl alcohol	6.530	108	71371	608.59	ng/ml	95
13) 1,2-Dichlorobenzene	6.562	146	150611	684.46	ng/ml	98
14) 2-Methylphenol	6.643	107	99519	677.36	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.659	45	111516	574.72	ng/ml	86
16) N-Nitrosodi-n-propylamine	6.787	70	91533	717.05	ng/ml	94
17) 3+4-Methylphenol	6.792	107	111073	609.69	ng/ml	97
18) Hexachloroethane	6.894	201	50058	730.17	ng/ml	91
20) Nitrobenzene	6.953	77	130968	752.05	ng/ml	93
22) Isophorone	7.188	82	272089	823.94	ng/ml	97
23) 2-Nitrophenol	7.268	139	119075	1209.68	ng/ml	89
24) 2,4-Dimethylphenol	7.311	122	115843	834.14	ng/ml	96
25) Bis(2-chloroethoxy) me...	7.402	93	170844	850.99	ng/ml	100
26) Benzoic acid	7.386	105	29927	1158.52	ng/ml	96
27) 2,4-Dichlorophenol	7.514	162	131936	852.54	ng/ml	96
28) 1,2,4-Trichlorobenzene	7.595	180	144431	796.69	ng/ml	99
29) Naphthalene	7.669	128	461462	846.87	ng/ml	100
30) 4-Chloroaniline	7.734	127	75666	444.68	ng/ml	95
31) Hexachlorobutadiene	7.803	225	73346	748.70	ng/ml	97
32) 4-Chloro-3-methylphenol	8.215	107	119863	872.08	ng/ml	95
33) 2-Methylnaphthalene	8.365	142	330373	867.75	ng/ml	99
34) 1-Methylnaphthalene	8.466	142	315521	856.08	ng/ml	98
36) Hexachlorocyclopentadiene	8.536	237	71525	837.69	ng/ml	99
37) 2,4,6-Trichlorophenol	8.654	196	108431	1015.86	ng/ml	98
38) 2,4,5-Trichlorophenol	8.691	198	106109	1007.50	ng/ml	98
39) 1,1'-Biphenyl	8.841	154	417448	879.60	ng/ml	99
41) 2-Chloronaphthalene	8.857	162	319086	930.95	ng/ml	98
42) 2-Nitroaniline	8.964	138	110454	1078.13	ng/ml	82
43) 2,6-Dimethylnaphthalene	8.996	156	306203	879.49	ng/ml	98

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071906.D
Acq On : 7 Nov 2019 11:23 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BSD1@4
Misc : 4x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:56:46 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

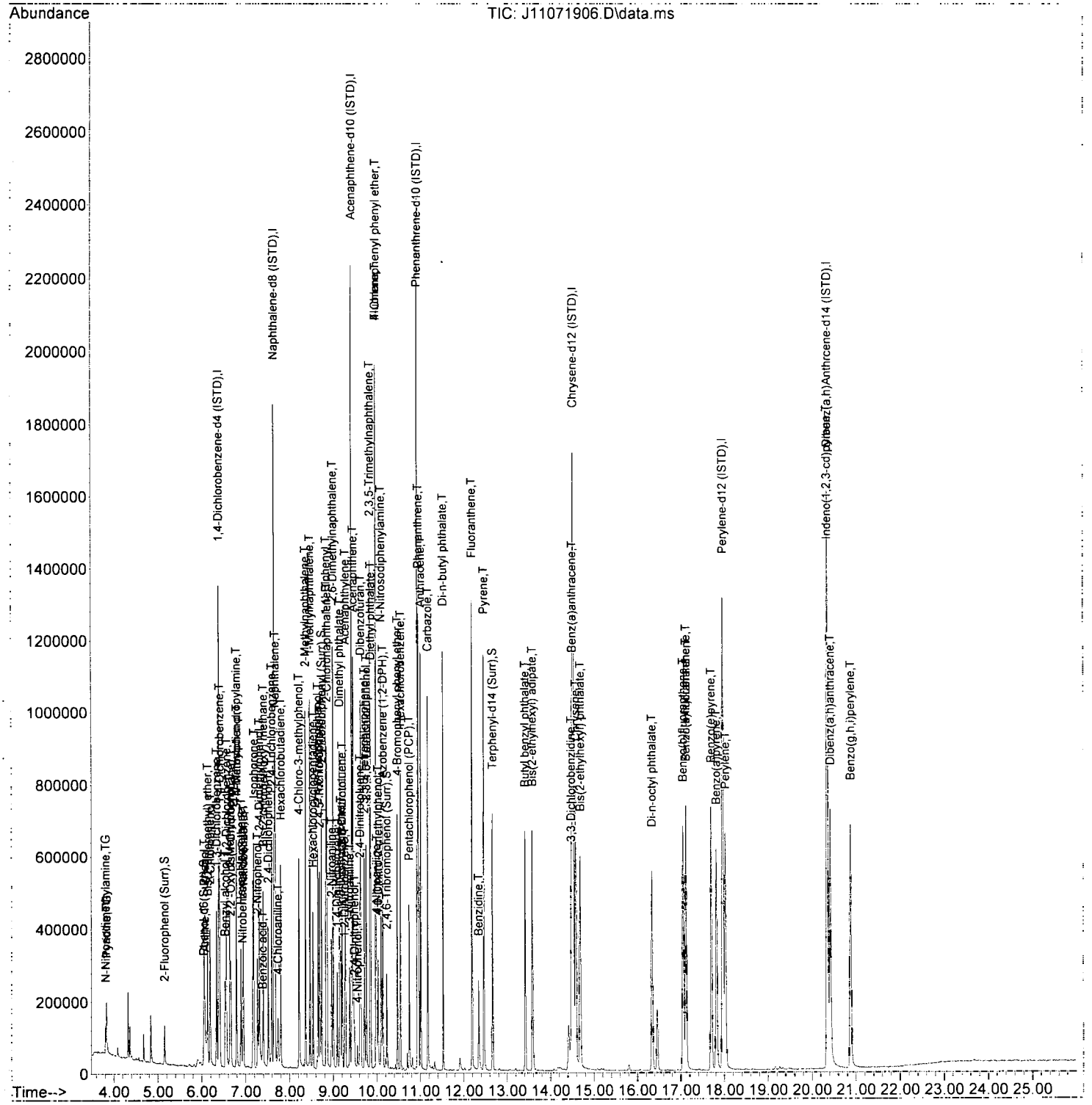
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.092	168	51032	1179.80	ng/ml	83
45)	Dimethyl phthalate	9.146	163	403112	1010.93	ng/ml	98
46)	1,3-Dinitrobenzene	9.172	168	61140	1110.90	ng/ml	85
47)	2,6-Dinitrotoluene	9.205	165	89453	997.43	ng/ml	90
48)	1,2-Dinitrobenzene	9.258	168	40664	1006.60	ng/ml	85
49)	Acenaphthylene	9.279	152	511150	910.66	ng/ml	100
50)	3-Nitroaniline	9.376	138	75048	1097.19	ng/ml	85
51)	Acenaphthene	9.456	153	325381	882.79	ng/ml	98
52)	2,4-Dinitrophenol	9.483	184	28539	1263.10	ng/ml	85
53)	4-Nitrophenol	9.558	139	19930	428.38	ng/ml	88
54)	2,4-Dinitrotoluene	9.616	165	116978	1043.70	ng/ml	84
55)	Dibenzofuran	9.632	168	476054	968.91	ng/ml	98
56)	2,3,5,6-Tetrachlorophenol	9.718	232	90127	1064.41	ng/ml	93
57)	2,3,4,6-Tetrachlorophenol	9.761	232	92378	997.35	ng/ml	96
58)	Diethyl phthalate	9.862	149	375376	1022.67	ng/ml	98
59)	2,3,5-Trimethylnaphtha...	9.846	170	308386	985.65	ng/ml	96
60)	Fluorene	9.980	166	364553	942.83	ng/ml	99
61)	4-Chlorophenyl phenyl ...	9.980	204	183516	973.55	ng/ml	92
62)	4-Nitroaniline	9.996	138	78910	1329.87	ng/ml	98
63)	4,6-Dinitro-2-methylph...	10.028	198	56031	1348.84	ng/ml	94
65)	N-Nitrosodiphenylamine	10.098	169	321155	981.50	ng/ml	100
66)	Azobenzene (1,2-DPH)	10.141	77	261079	788.46	ng/ml	85
68)	4-Bromophenyl phenyl e...	10.477	248	113823	950.53	ng/ml	96
69)	Hexachlorobenzene	10.552	284	134937	939.31	ng/ml	97
70)	Pentachlorophenol (PCP)	10.745	266	65431	917.12	ng/ml	97
71)	Phenanthrene	10.959	178	553791	930.20	ng/ml	99
72)	Anthracene	11.012	178	549813	960.75	ng/ml	99
73)	Carbazole	11.173	167	482000	1110.82	ng/ml	99
74)	Di-n-butyl phthalate	11.526	149	624077	994.39	ng/ml	99
75)	Fluoranthene	12.194	202	624014	1022.66	ng/ml	97
76)	Benzidine	12.344	184	146823	1060.75	ng/ml	97
77)	Pyrene	12.467	202	641264	1032.70	ng/ml	99
80)	Butyl benzyl phthalate	13.414	149	269929	975.23	ng/ml	89
81)	Bis(2-ethylhexyl) adipate	13.580	129	233995	931.54	ng/ml	96
82)	3,3-Dichlorobenzidine	14.478	252	173176	2030.65	ng/ml	98
83)	Benz(a)anthracene	14.500	228	599255	991.02	ng/ml	98
84)	Chrysene	14.580	228	554899	979.23	ng/ml	99
85)	Bis(2-ethylhexyl) phth...	14.687	149	388970	998.43	ng/ml	99
87)	Di-n-octyl phthalate	16.334	149	627736	993.79	ng/ml	98
88)	Benzo(b)fluoranthene	17.051	252	592820	976.07	ng/ml	98
89)	Benzo(k)fluoranthene	17.121	252	608688	992.93	ng/ml	99
90)	Benzo(b+k)fluoranthene	17.121	252	1225427	1962.73	ng/ml	99
91)	Benzo(e)pyrene	17.698	252	592820	1046.33	ng/ml	99
92)	Benzo(a)pyrene	17.816	252	517882	938.98	ng/ml	98
93)	Perylene	18.024	252	516624	1039.20	ng/ml	99
95)	Indeno(1,2,3-cd)pyrene	20.346	276	541574	930.31	ng/ml	94
96)	Dibenz(a,h)anthracene	20.421	278	526090	984.29	ng/ml	99
97)	Benzo(g,h,i)perylene	20.886	276	573878	1026.31	ng/ml	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071906.D
Acq On : 7 Nov 2019 11:23 am
Operator : JK/ AMS/ DTH
Sample : 9110535-BSD1@4
Misc : 4x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 11:56:46 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071907.D
Acq On : 7 Nov 2019 11:59 am
Operator : JK/ AMS/ DTH
Sample : A9J0954-01@50
Misc : 50x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

R821

AMS 11/7/19

Quant Time: Nov 07 12:31:58 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.386	152	282277	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1052190	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	565021	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	1080683	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.521	240	1145502	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.960	264	1166188	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.351	292	978062	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.129	112	2575	15.03	ng/ml	-0.02
5) Phenol-d6(Surr)	6.038	99	1138	5.19	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	6058	35.62	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	18409	41.63	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	1656	48.68	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	25084	47.52	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	3.829	79	56	N.D.		
6) Phenol	6.060	94	214	N.D.		
7) Aniline	0.000		0	N.D.		
8) Bis(2-chloroethyl) ether	0.000		0	N.D.		
9) 2-Chlorophenol	6.193	128	50	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	6.680	107	61	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	6.808	107	162	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	6.937	77	725	4.21	ng/ml#	12
22) Isophorone	7.188	82	88	N.D.		
23) 2-Nitrophenol	7.215	139	216	44.39	ng/ml	58
24) 2,4-Dimethylphenol	7.322	122	221	N.D.		
25) Bis(2-chloroethoxy) me...	7.397	93	145	N.D.		
26) Benzoic acid	7.397	105	1405	822.47	ng/ml#	12
27) 2,4-Dichlorophenol	7.525	162	116	25.62	ng/ml#	32
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.675	128	2719701	4913.53	ng/ml	96
30) 4-Chloroaniline	7.760	127	676	17.00	ng/ml#	43
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.231	107	370	2.65	ng/ml#	1
33) 2-Methylnaphthalene	8.365	142	522011	1349.77	ng/ml	99
34) 1-Methylnaphthalene	8.466	142	367872	982.59	ng/ml	99
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	8.659	196	65	24.33	ng/ml#	13
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	8.835	154	108022	222.43	ng/ml	97
41) 2-Chloronaphthalene	8.841	162	527	N.D.		
42) 2-Nitroaniline	8.937	138	157	31.94	ng/ml#	25
43) 2,6-Dimethylnaphthalene	9.007	156	42843	120.25	ng/ml	97

Data Path : T:\data\2019-11\9K07018\
Data File : J11071907.D
Acq On : 7 Nov 2019 11:59 am
Operator : JK/ AMS/ DTH
Sample : A9J0954-01@50
Misc : 50x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

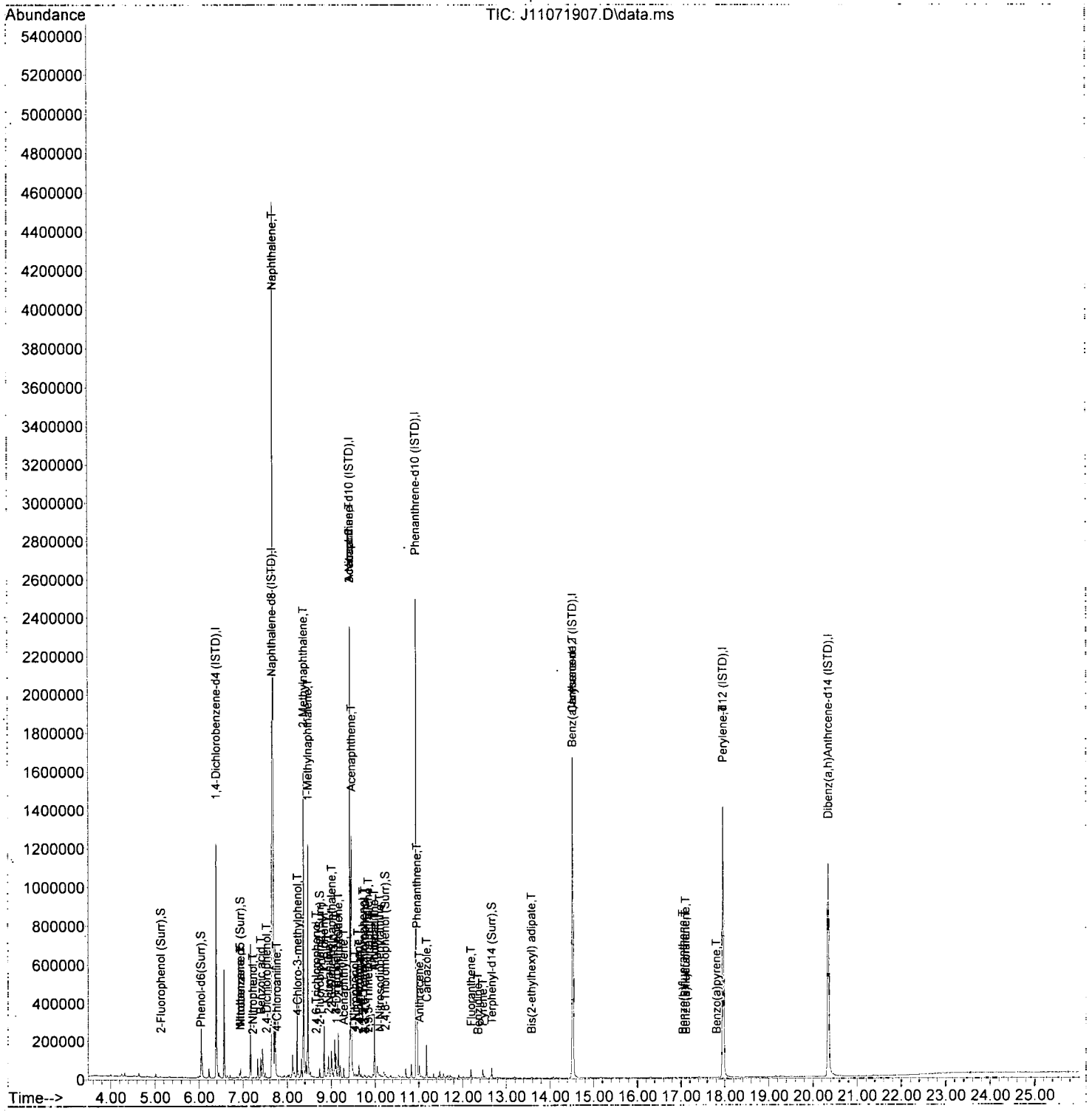
Quant Time: Nov 07 12:31:58 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.114	168	1489	99.78 ng/ml#	22
45) Dimethyl phthalate	9.156	163	81	N.D.	
46) 1,3-Dinitrobenzene	9.114	168	1489	83.36 ng/ml#	7
47) 2,6-Dinitrotoluene	9.162	165	67	25.78 ng/ml#	41
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.279	152	3403	5.92 ng/ml#	47
50) 3-Nitroaniline	9.424	138	116	31.02 ng/ml#	1
51) Acenaphthene	9.456	153	337515	894.86 ng/ml	98
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	9.525	139	325	79.53 ng/ml#	37
54) 2,4-Dinitrotoluene	9.611	165	105	54.61 ng/ml#	70
55) Dibenzofuran	9.632	168	24103	47.94 ng/ml	96
56) 2,3,5,6-Tetrachlorophenol	9.723	232	69	36.31 ng/ml	83
57) 2,3,4,6-Tetrachlorophenol	9.766	232	96	29.37 ng/ml	78
58) Diethyl phthalate	9.852	149	127	N.D.	
59) 2,3,5-Trimethylnaphtha...	9.841	170	4757	14.86 ng/ml	81
60) Fluorene	9.980	166	96156	243.02 ng/ml	97
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	9.980	138	827	13.62 ng/ml#	26
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	10.103	169	1165	3.50 ng/ml#	1
66) Azobenzene (1,2-DPH)	10.146	77	290	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	10.954	178	227712	375.60 ng/ml	99
72) Anthracene	11.007	178	27562	47.29 ng/ml	98
73) Carbazole	11.173	167	90950	166.88 ng/ml	98
74) Di-n-butyl phthalate	11.526	149	267	N.D.	
75) Fluoranthene	12.194	202	22954	36.94 ng/ml	96
76) Benzidine	12.350	184	154	123.96 ng/ml#	11
77) Pyrene	12.462	202	24619	38.93 ng/ml	98
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.574	129	1295	4.87 ng/ml	85
82) 3,3-Dichlorobenzidine	14.478	252	395	Below Cal #	61
83) Benz(a)anthracene	14.516	228	3747	5.86 ng/ml	78
84) Chrysene	14.569	228	862	N.D.	
85) Bis(2-ethylhexyl) phth...	14.676	149	169	N.D.	
87) Di-n-octyl phthalate	0.000		0	N.D.	
88) Benzo(b)fluoranthene	17.040	252	86	8.09 ng/ml	57
89) Benzo(k)fluoranthene	17.104	252	81	8.60 ng/ml	79
90) Benzo(b+k)fluoranthene	17.104	252	81	15.86 ng/ml	79
91) Benzo(e)pyrene	17.805	252	107	N.D.	
92) Benzo(a)pyrene	17.805	252	107	10.02 ng/ml	59
93) Perylene	17.960	252	3829	7.28 ng/ml	71
95) Indeno(1,2,3-cd)pyrene	20.351	276	570	N.D.	
96) Dibenz(a,h)anthracene	20.346	278	217	N.D.	
97) Benzo(g,h,i)perylene	20.865	276	105	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\data\2019-11\9K07018\
Data File : J11071907.D
Acq On : 7 Nov 2019 11:59 am
Operator : JK/ AMS/ DTH
Sample : A9J0954-01@50
Misc : 50x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 12:31:58 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071908.D
Acq On : 7 Nov 2019 12:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0954-02@50
Misc : 50x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/7/19 RR1

Quant Time: Nov 07 13:02:25 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.386	152	280424	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1030194	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	538490	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	893329	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.516	240	838952	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	17.960	264	813307	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.346	292	676351	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.140	112	2391	14.05	ng/ml	-0.01
5) Phenol-d6(Surr)	6.049	99	876	4.02	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.937	82	4813	28.48	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	16485	39.12	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.232	330	1289	47.24	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	17900	46.30	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	0.000		0	N.D.		
7) Aniline	6.108	93	51	N.D.		
8) Bis(2-chloroethyl) ether	6.108	93	51	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...	6.680	45	80	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	6.937	77	179	N.D.		
22) Isophorone	7.188	82	108	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	7.418	105	66	806.82	ng/ml#	27
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.670	128	7877	14.53	ng/ml	95
30) 4-Chloroaniline	7.702	127	56	13.57	ng/ml#	1
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.279	107	53	N.D.		
33) 2-Methylnaphthalene	8.365	142	30802	81.35	ng/ml	95
34) 1-Methylnaphthalene	8.466	142	28330	77.29	ng/ml	97
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	8.841	154	810	N.D.		
41) 2-Chloronaphthalene	8.910	162	723	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	9.007	156	5725	16.86	ng/ml	92

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071908.D
Acq On : 7 Nov 2019 12:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0954-02@50
Misc : 50x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 13:02:25 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

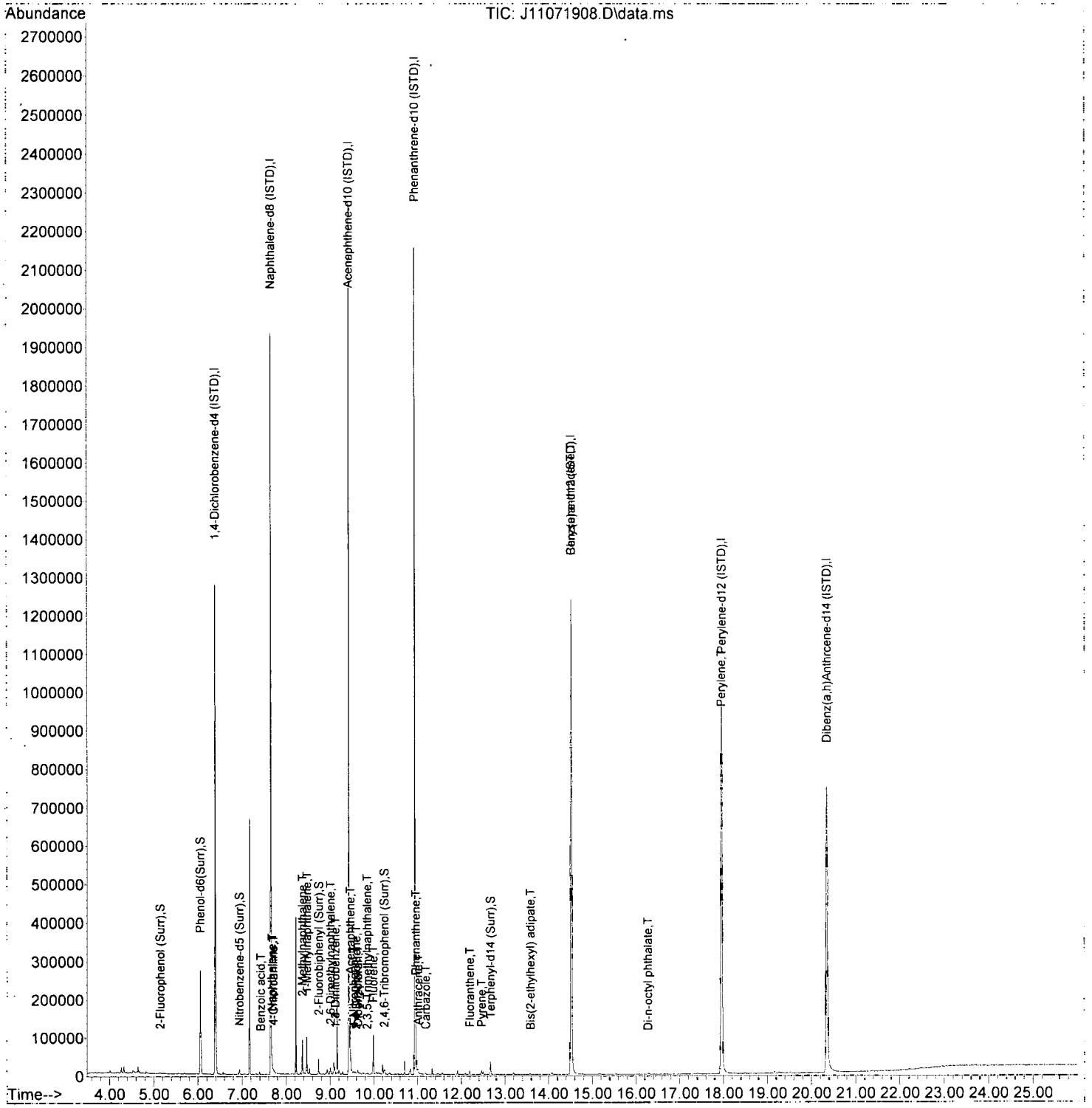
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	9.114	168	162	70.11 ng/ml#	17
45)	Dimethyl phthalate	9.140	163	55	N.D.	
46)	1,3-Dinitrobenzene	9.114	168	162	60.79 ng/ml#	45
47)	2,6-Dinitrotoluene	0.000		0	N.D.	
48)	1,2-Dinitrobenzene	0.000		0	N.D.	
49)	Acenaphthylene	9.274	152	459	N.D.	
50)	3-Nitroaniline	0.000		0	N.D.	
51)	Acenaphthene	9.456	153	35443	98.60 ng/ml	96
52)	2,4-Dinitrophenol	0.000		0	N.D.	
53)	4-Nitrophenol	9.542	139	82	75.28 ng/ml#	30
54)	2,4-Dinitrotoluene	9.595	165	445	57.57 ng/ml#	27
55)	Dibenzofuran	9.632	168	2734	5.71 ng/ml#	79
56)	2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57)	2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58)	Diethyl phthalate	9.857	149	82	N.D.	
59)	2,3,5-Trimethylnaphtha...	9.841	170	1310	4.29 ng/ml	84
60)	Fluorene	9.980	166	14135	37.48 ng/ml	96
61)	4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62)	4-Nitroaniline	9.980	138	100	N.D.	
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65)	N-Nitrosodiphenylamine	10.103	169	401	N.D.	
66)	Azobenzene (1,2-DPH)	10.151	77	88	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	10.954	178	50858	101.48 ng/ml	97
72)	Anthracene	11.007	178	5079	10.54 ng/ml	90
73)	Carbazole	11.178	167	1849	9.43 ng/ml	88
74)	Di-n-butyl phthalate	11.526	149	135	N.D.	
75)	Fluoranthene	12.194	202	5423	10.56 ng/ml	93
76)	Benzidine	0.000		0	N.D.	
77)	Pyrene	12.462	202	5554	10.63 ng/ml	95
80)	Butyl benzyl phthalate	0.000		0	N.D.	
81)	Bis(2-ethylhexyl) adipate	13.580	129	1078	5.54 ng/ml	94
82)	3,3-Dichlorobenzidine	14.468	252	59	Below Cal #	25
83)	Benz(a)anthracene	14.516	228	2324	4.96 ng/ml	68
84)	Chrysene	14.569	228	158	N.D.	
85)	Bis(2-ethylhexyl) phth...	14.682	149	261	N.D.	
87)	Di-n-octyl phthalate	16.270	149	50	58.04 ng/ml	77
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	17.698	252	90	N.D.	
92)	Benzo(a)pyrene	0.000		0	N.D.	
93)	Perylene	17.950	252	2678	7.30 ng/ml	74
95)	Indeno(1,2,3-cd)pyrene	20.351	276	292	N.D.	
96)	Dibenz(a,h)anthracene	20.335	278	100	N.D.	
97)	Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071908.D
Acq On : 7 Nov 2019 12:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0954-02@50
Misc : 50x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 13:02:25 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071910.D
Acq On : 7 Nov 2019 1:48 pm
Operator : JK/ AMS/ DTH
Sample : 9110531-BLK1
Misc : 1x, 8270D RSET FRESHWATER
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/7/19

Quant Time: Nov 07 14:31:10 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.391	152	272228	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1007493	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	521959	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	1039819	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.521	240	1078949	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.960	264	1103172	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.356	292	989310	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.156	112	323566	1958.67	ng/ml	0.00
5) Phenol-d6(Surr)	6.049	99	371848	1758.57	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	302341	1843.09	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	825286	2020.34	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	117916	1872.25	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	1128270	2269.15	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.851	74	171	N.D.		
3) Pyridine	0.000		0	N.D.		
6) Phenol	6.059	94	519	N.D.		
7) Aniline	6.108	93	100	N.D.		
8) Bis(2-chloroethyl) ether	6.129	93	255	N.D.		
9) 2-Chlorophenol	6.199	128	78	N.D.		
10) 1,3-Dichlorobenzene	6.407	146	105	N.D.		
11) 1,4-Dichlorobenzene	6.407	146	105	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.653	107	60	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	0.000		0	N.D.		
16) N-Nitrosodi-n-propylamine	6.792	70	155	N.D.		
17) 3+4-Methylphenol	6.808	107	67	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	6.931	77	1105	6.65	ng/ml#	33
22) Isophorone	7.193	82	270	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	0.000		0	N.D.		
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.669	128	1970	3.72	ng/ml	99
30) 4-Chloroaniline	7.669	127	334	15.19	ng/ml	75
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.226	107	67	N.D.		
33) 2-Methylnaphthalene	8.370	142	367	N.D.		
34) 1-Methylnaphthalene	8.466	142	190	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	8.841	154	1657	3.69	ng/ml	86
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	9.007	156	136	N.D.		

Data Path : T:\data\2019-11\9K07018\
Data File : J11071910.D
Acq On : 7 Nov 2019 1:48 pm
Operator : JK/ AMS/ DTH
Sample : 9110531-BLK1
Misc : 1x, 8270D RSET FRESHWATER
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

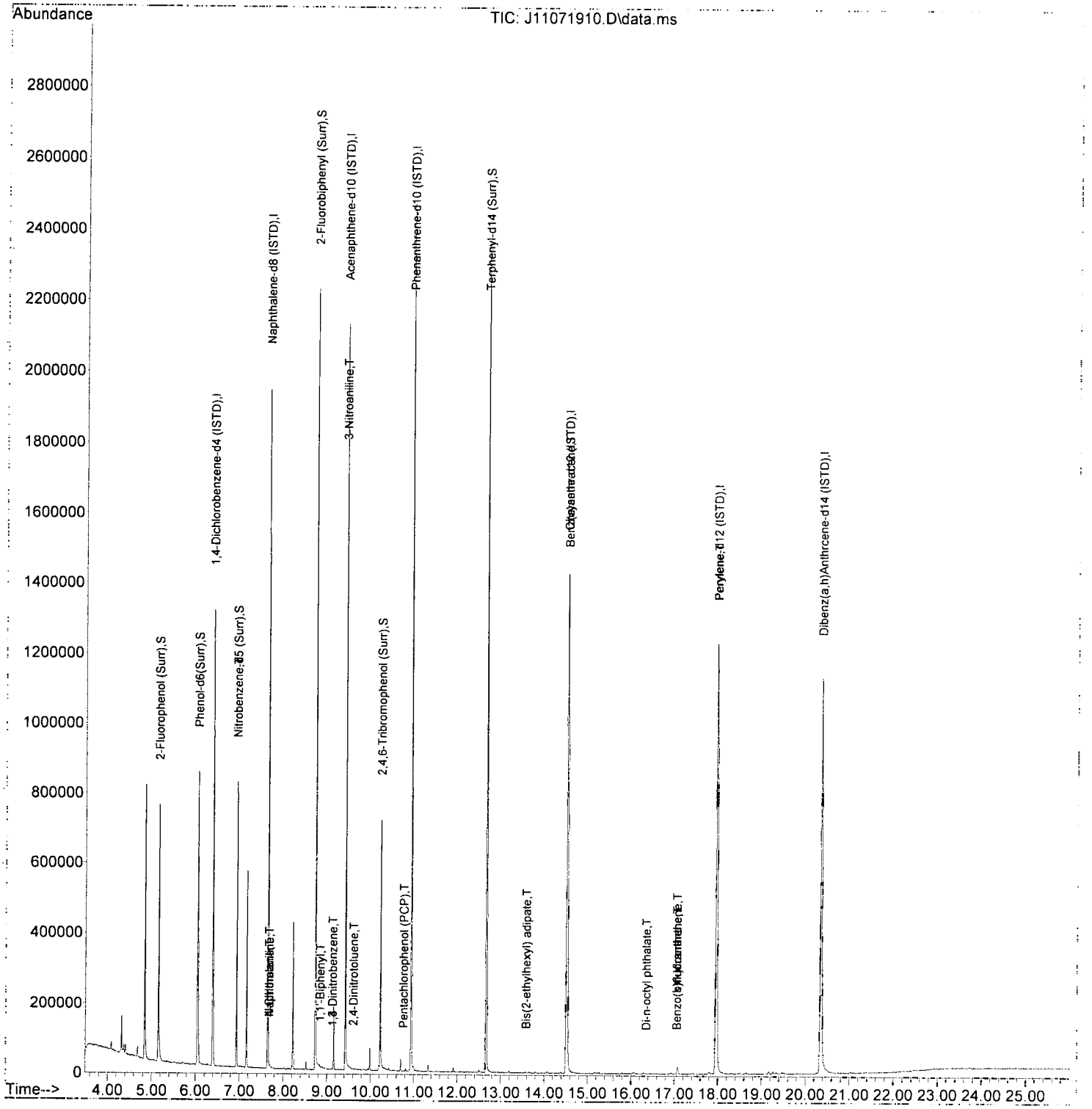
Quant Time: Nov 07 14:31:10 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.124	168	53	67.57 ng/ml#	9
45) Dimethyl phthalate	9.146	163	197	N.D.	
46) 1,3-Dinitrobenzene	9.124	168	53	58.86 ng/ml#	1
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.274	152	112	N.D.	
50) 3-Nitroaniline	9.418	138	68	30.54 ng/ml#	1
51) Acenaphthene	9.456	153	176	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	9.606	165	231	55.79 ng/ml#	27
55) Dibenzofuran	9.627	168	111	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	9.857	149	396	N.D.	
59) 2,3,5-Trimethylnaphtha...	9.841	170	92	N.D.	
60) Fluorene	9.975	166	71	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)	10.157	77	60	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.756	266	52	77.28 ng/ml#	18
71) Phenanthrene	10.959	178	871	N.D.	
72) Anthracene	11.007	178	138	N.D.	
73) Carbazole	0.000		0	N.D.	
74) Di-n-butyl phthalate	11.526	149	1152	N.D.	
75) Fluoranthene	12.200	202	332	N.D.	
76) Benzidine	0.000		0	N.D.	
77) Pyrene	12.462	202	415	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.580	129	775	3.10 ng/ml	94
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.526	228	2678	4.45 ng/ml	71
84) Chrysene	14.569	228	186	N.D.	
85) Bis(2-ethylhexyl) phth...	14.687	149	643	N.D.	
87) Di-n-octyl phthalate	16.345	149	50	58.02 ng/ml#	41
88) Benzo(b)fluoranthene	17.051	252	68	8.07 ng/ml	57
89) Benzo(k)fluoranthene	17.051	252	68	8.59 ng/ml	57
90) Benzo(b+k)fluoranthene	17.051	252	68	15.84 ng/ml	57
91) Benzo(e)pyrene	17.709	252	51	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	17.966	252	3099	6.23 ng/ml	72
95) Indeno(1,2,3-cd)pyrene	20.356	276	440	N.D.	
96) Dibenz(a,h)anthracene	20.356	278	247	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : T:\data\2019-11\9K07018\
Data File : J11071910.D
Acq On : 7 Nov 2019 1:48 pm
Operator : JK/ AMS/ DTH
Sample : 9110531-BLK1
Misc : 1x, 8270D RSET FRESHWATER
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 14:31:10 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071911.D
Acq On : 7 Nov 2019 2:25 pm
Operator : JK/ AMS/ DTH
Sample : 9110531-BS1@4
Misc : 1x, 8270D RSET FRESHWATER
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

AMS 11/7/19

Quant Time: Nov 07 14:52:17 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.386	152	273871	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	990892	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	537426	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	1034862	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.532	240	1090634	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.976	264	1117115	2000.00	ng/ml	0.01
94) Dibenz(a,h)Anthrcene-d...	20.362	292	989241	2000.00	ng/ml	0.01
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.129	112	83718	503.74	ng/ml	-0.02
5) Phenol-d6(Surr)	6.038	99	99106	465.89	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	75813	459.39	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.734	172	255071	606.45	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	36264	589.79	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	323932	644.50	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.744	74	64591m	619.16	ng/ml	
3) Pyridine	~~3.915~~	~~79~~	~~84~~	N.D.		MI
6) Phenol	6.049	94	170980	730.97	ng/ml	95
7) Aniline	6.070	93	109042	540.32	ng/ml	98
8) Bis(2-chloroethyl) ether	6.129	93	148314	702.57	ng/ml	96
9) 2-Chlorophenol	6.183	128	160438	827.34	ng/ml	97
10) 1,3-Dichlorobenzene	6.332	146	193725	888.78	ng/ml	97
11) 1,4-Dichlorobenzene	6.402	146	188844	881.51	ng/ml	97
12) Benzyl alcohol	6.525	108	83465	734.95	ng/ml	91
13) 1,2-Dichlorobenzene	6.552	146	187668	888.29	ng/ml	98
14) 2-Methylphenol	6.637	107	117270	831.33	ng/ml	97
15) 2,2'-Oxybis(1-Chloropr...	6.653	45	107371	576.34	ng/ml	85
16) N-Nitrosodi-n-propylamine	6.782	70	88492	722.02	ng/ml	96
17) 3+4-Methylphenol	6.787	107	142152	812.69	ng/ml	96
18) Hexachloroethane	6.889	201	61583	935.58	ng/ml	89
20) Nitrobenzene	6.947	77	125213	748.87	ng/ml	88
22) Isophorone	7.183	82	261726	828.50	ng/ml	98
23) 2-Nitrophenol	7.268	139	102318	1091.22	ng/ml	87
24) 2,4-Dimethylphenol	7.311	122	132633	998.34	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.397	93	163914	853.50	ng/ml	98
26) Benzoic acid	7.381	105	17039	1016.63	ng/ml	89
27) 2,4-Dichlorophenol	7.509	162	133632	901.69	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.595	180	171183	987.07	ng/ml	97
29) Naphthalene	7.670	128	487156	934.56	ng/ml	99
30) 4-Chloroaniline	7.728	127	70689	434.45	ng/ml	94
31) Hexachlorobutadiene	7.803	225	92955	991.89	ng/ml	98
32) 4-Chloro-3-methylphenol	8.215	107	120851	919.14	ng/ml	89
33) 2-Methylnaphthalene	8.365	142	348777	957.63	ng/ml	99
34) 1-Methylnaphthalene	8.467	142	330043	936.08	ng/ml	100
36) Hexachlorocyclopentadiene	8.536	237	92944	1118.38	ng/ml	99
37) 2,4,6-Trichlorophenol	8.654	196	105482	1015.34	ng/ml	99
38) 2,4,5-Trichlorophenol	8.691	198	102986	1004.71	ng/ml	99
39) 1,1'-Biphenyl	8.836	154	429740	930.32	ng/ml	98
41) 2-Chloronaphthalene	8.857	162	325969	977.10	ng/ml	97
42) 2-Nitroaniline	8.959	138	104696	1051.18	ng/ml	91
43) 2,6-Dimethylnaphthalene	8.996	156	320857	946.83	ng/ml	98

Data Path : T:\data\2019-11\9K07018\
Data File : J11071911.D
Acq On : 7 Nov 2019 2:25 pm
Operator : JK/ AMS/ DTH
Sample : 9110531-BS1@4
Misc : 1x, 8270D RSET FRESHWATER
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 14:52:17 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

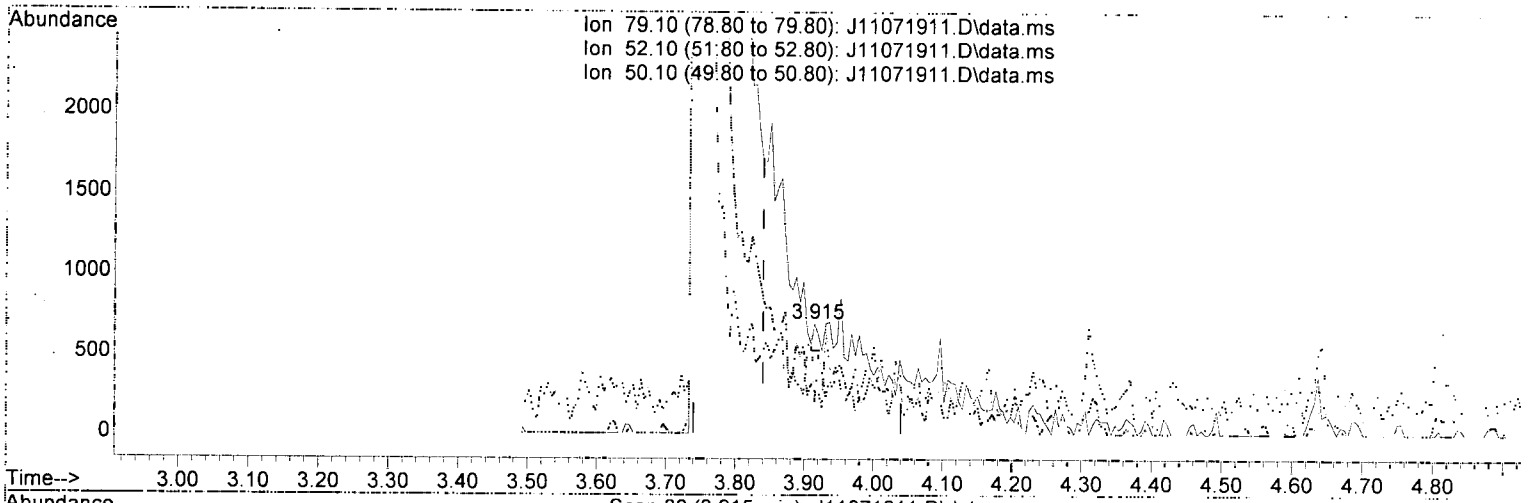
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.092	168	50070	1188.30	ng/ml	79
45) Dimethyl phthalate	9.146	163	391948	1009.88	ng/ml	98
46) 1,3-Dinitrobenzene	9.173	168	59818	1116.28	ng/ml	86
47) 2,6-Dinitrotoluene	9.205	165	88561	1014.22	ng/ml	89
48) 1,2-Dinitrobenzene	9.258	168	39549	1005.83	ng/ml	81
49) Acenaphthylene	9.280	152	528381	967.16	ng/ml	99
50) 3-Nitroaniline	9.376	138	57436	821.94	ng/ml	86
51) Acenaphthene	9.456	153	324950	905.79	ng/ml	98
52) 2,4-Dinitrophenol	9.483	184	20963	1033.64	ng/ml	84
53) 4-Nitrophenol	9.552	139	54346	1028.81	ng/ml	94
54) 2,4-Dinitrotoluene	9.611	165	115787	1060.66	ng/ml	90
55) Dibenzofuran	9.633	168	476848	997.12	ng/ml	97
56) 2,3,5,6-Tetrachlorophenol	9.718	232	87058	1056.70	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.761	232	92231	1022.38	ng/ml	96
58) Diethyl phthalate	9.863	149	373582	1045.67	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	9.846	170	314664	1033.28	ng/ml	92
60) Fluorene	9.980	166	362707	963.76	ng/ml	99
61) 4-Chlorophenyl phenyl ...	9.975	204	184148	1003.68	ng/ml	96
62) 4-Nitroaniline	9.996	138	72007	1246.79	ng/ml	90
63) 4,6-Dinitro-2-methylph...	10.028	198	51145	1278.95	ng/ml	92
65) N-Nitrosodiphenylamine	10.098	169	315619	989.15	ng/ml	99
66) Azobenzene (1,2-DPH)	10.135	77	253924	786.38	ng/ml	92
68) 4-Bromophenyl phenyl e...	10.478	248	118385	1013.81	ng/ml	92
69) Hexachlorobenzene	10.552	284	133939	956.11	ng/ml	97
70) Pentachlorophenol (PCP)	10.745	266	63817	917.27	ng/ml	97
71) Phenanthrene	10.959	178	555131	956.19	ng/ml	99
72) Anthracene	11.007	178	554998	994.51	ng/ml	99
73) Carbazole	11.173	167	476250	1132.40	ng/ml	99
74) Di-n-butyl phthalate	11.526	149	619796	1012.72	ng/ml	99
75) Fluoranthene	12.195	202	626525	1052.93	ng/ml	98
76) Benzidine	12.344	184	130602	978.90	ng/ml	97
77) Pyrene	12.467	202	650298	1073.92	ng/ml	99
80) Butyl benzyl phthalate	13.419	149	264495	950.19	ng/ml	86
81) Bis(2-ethylhexyl) adipate	13.585	129	227966	901.22	ng/ml	98
82) 3,3-Dichlorobenzidine	14.478	252	259558	3232.04	ng/ml	99
83) Benz(a)anthracene	14.500	228	607949	998.40	ng/ml	97
84) Chrysene	14.585	228	567745	994.92	ng/ml	98
85) Bis(2-ethylhexyl) phth...	14.687	149	376012	958.45	ng/ml	99
87) Di-n-octyl phthalate	16.340	149	620222	970.63	ng/ml	98
88) Benzo(b)fluoranthene	17.056	252	609211	989.55	ng/ml	97
89) Benzo(k)fluoranthene	17.121	252	605754	974.74	ng/ml	99
90) Benzo(b+k)fluoranthene	17.056	252	1239896	1959.64	ng/ml	97
91) Benzo(e)pyrene	17.704	252	604710	1053.19	ng/ml	99
92) Benzo(a)pyrene	17.821	252	534949	956.90	ng/ml	97
93) Perylene	18.025	252	546291	1084.34	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.351	276	549275	938.97	ng/ml	95
96) Dibenz(a,h)anthracene	20.426	278	534256	994.73	ng/ml	97
97) Benzo(g,h,i)perylene	20.886	276	586908	1044.53	ng/ml	94

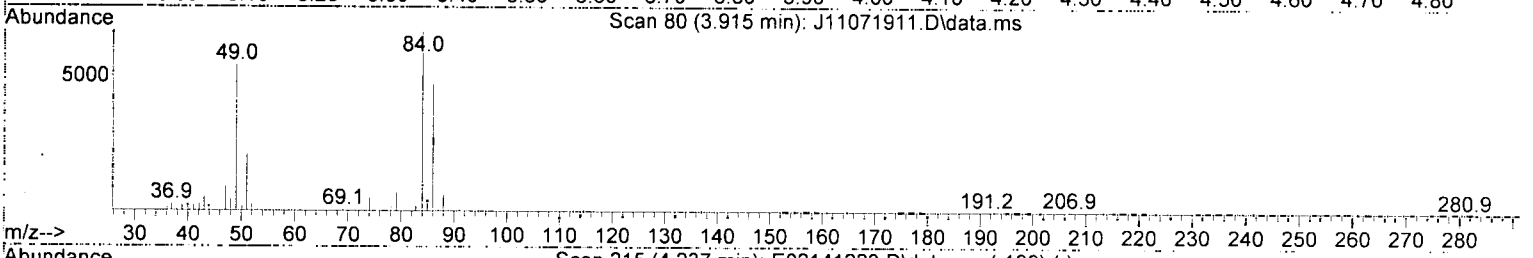
(#) = qualifier out of range (m) = manual integration (+) = signals summed

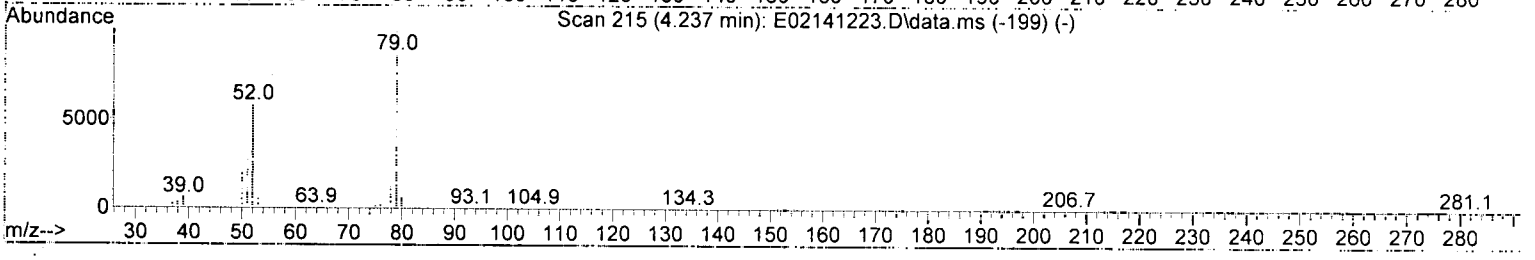
Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071911.D
Acq On : 7 Nov 2019 2:25 pm
Operator : JK/ AMS/ DTH
Sample : 9110531-BS1@4
Misc : 1x, 8270D RSET FRESHWATER
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 14:52:17 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J11071911.D\data.ms

(3) Pyridine (TG)

3.915min (+ 0.075) 0.47 ng/ml

response 84

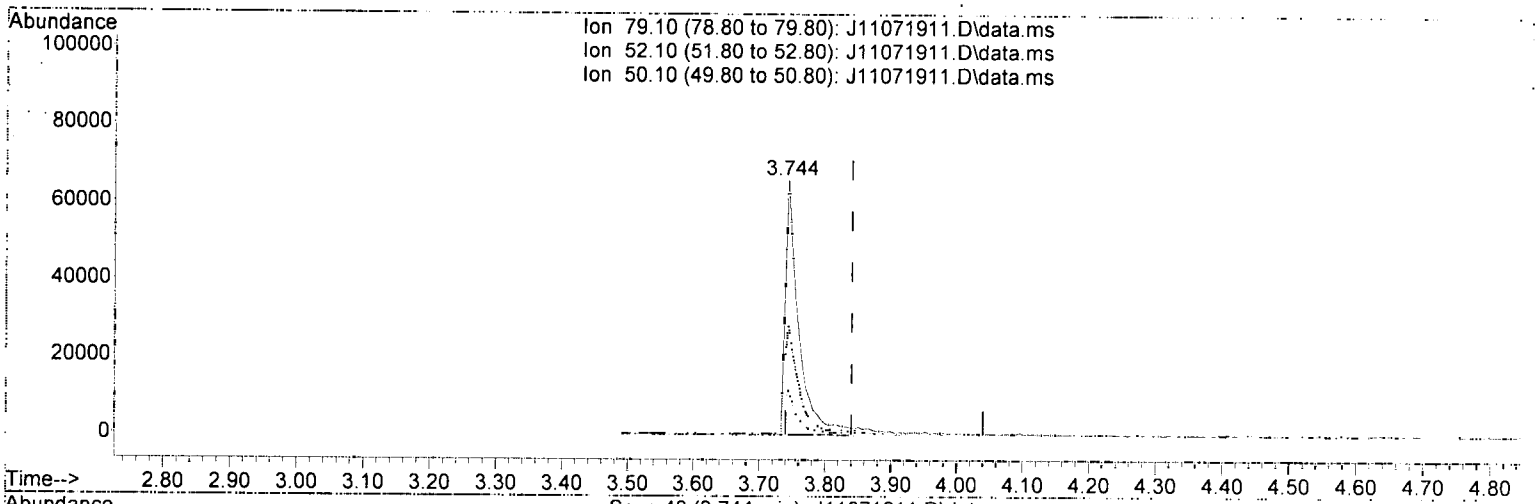
Ion	Exp%	Act%
79.10	100.00	100.00
52.10	50.80	38.43
50.10	18.70	27.66
0.00	0.00	0.00

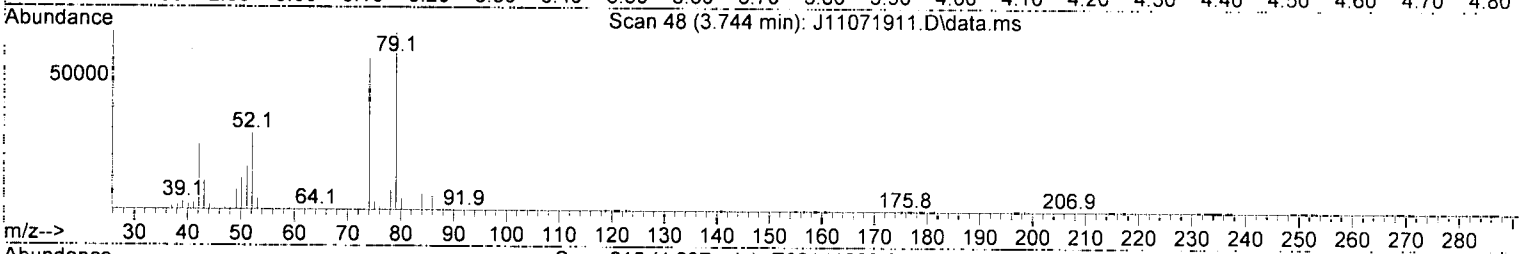
AMS
11/7/19

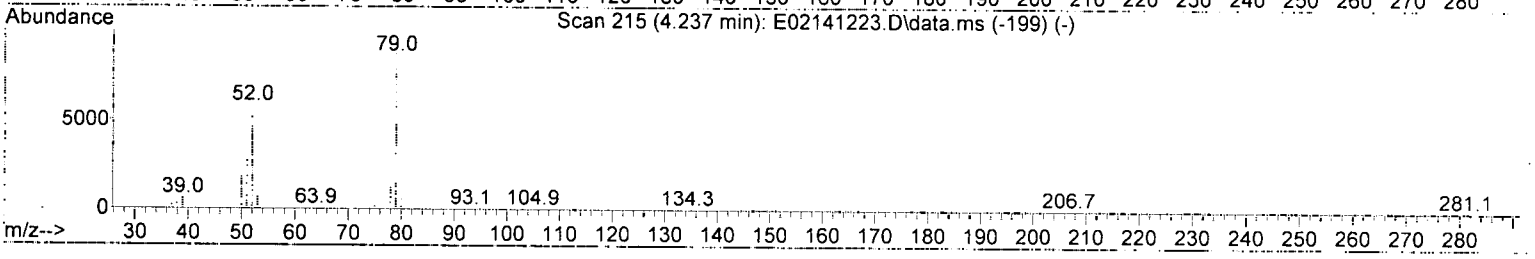
Quantitation Report (Qedit)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071911.D
Acq On : 7 Nov 2019 2:25 pm
Operator : JK/ AMS/ DTH
Sample : 9110531-BS1@4
Misc : 1x, 8270D RSET FRESHWATER
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 14:52:31 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J11071911.D\data.ms

(3) Pyridine (TG)

3.744min (-0.096) 520.27 ng/ml m

response 92529

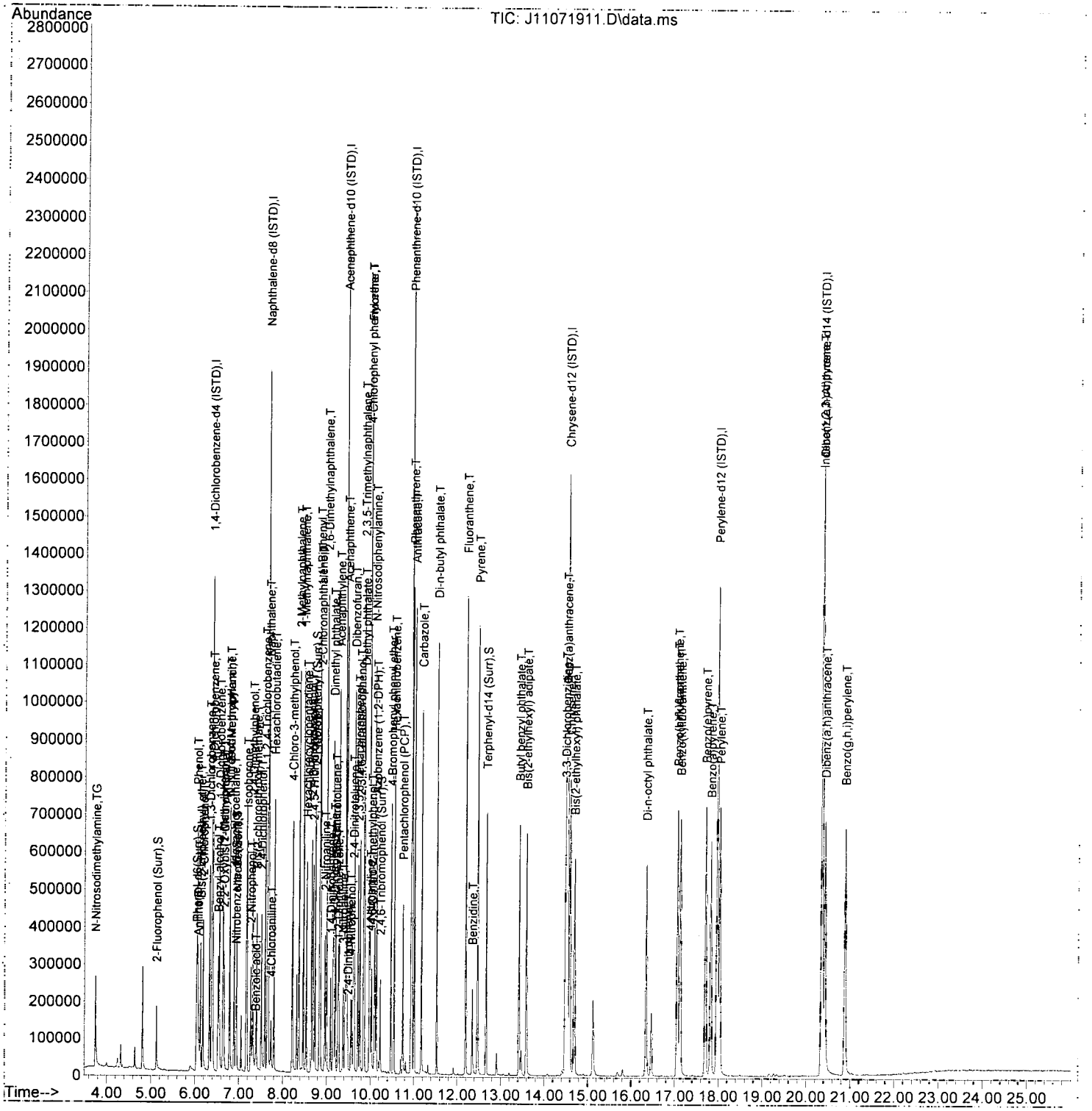
Ion	Exp%	Act%
79.10	100.00	100.00
52.10	50.80	43.20
50.10	18.70	17.29
0.00	0.00	0.00

AMS 11/7/19

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071911.D
Acq On : 7 Nov 2019 2:25 pm
Operator : JK/ AMS/ DTH
Sample : 9110531-BS1@4
Misc : 1x, 8270D RSET FRESHWATER
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 14:52:17 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071914.D
Acq On : 7 Nov 2019 4:23 pm
Operator : JK/ AMS/ DTH
Sample : A9J0954-01RE1@20
Misc : 20x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 20:00:04 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

DH 11/7/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.391	152	285308	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.653	136	1013740	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	577934	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.937	188	1103561	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.521	240	1135504	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.971	264	1145339	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.351	292	969563	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.145	112	9307	53.76	ng/ml	0.00
5) Phenol-d6(Surr)	6.049	99	6451	29.11	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	14912	86.74	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	45196	99.93	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	7291	130.35	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	64168	122.63	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.845	74	70	N.D.		
3) Pyridine	3.861	79	633m	3.42	ng/ml#	
6) Phenol	6.059	94	585	N.D.		
7) Aniline	6.076	93	141	N.D.		
8) Bis(2-chloroethyl) ether	6.113	93	280	N.D.		
9) 2-Chlorophenol	6.134	128	123	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	6.568	108	99	25.29	ng/ml#	1
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.643	107	187	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.659	45	59	N.D.		
16) N-Nitrosodi-n-propylamine	6.782	70	81	N.D.		
17) 3+4-Methylphenol	6.808	107	168	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	6.942	77	1191	6.84	ng/ml#	1
22) Isophorone	7.193	82	218	N.D.		
23) 2-Nitrophenol	7.279	139	128	43.58	ng/ml	63
24) 2,4-Dimethylphenol	7.327	122	113	N.D.		
25) Bis(2-chloroethoxy) me...	7.397	93	477	N.D.		
26) Benzoic acid	7.397	105	2826	840.34	ng/ml#	1
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.680	128	5063281	9494.50	ng/ml	95
30) 4-Chloroaniline	7.680	127	677754	4478.20	ng/ml# NM	20
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.236	107	196	N.D.		
33) 2-Methylnaphthalene	8.370	142	1123910	3016.34	ng/ml	99
34) 1-Methylnaphthalene	8.466	142	795014	2204.04	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	8.835	154	264626	532.72	ng/ml	99
41) 2-Chloronaphthalene	8.841	162	1496	4.17	ng/ml#	1
42) 2-Nitroaniline	8.932	138	531	35.36	ng/ml#	52
43) 2,6-Dimethylnaphthalene	9.001	156	102635	281.64	ng/ml	98

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071914.D
Acq On : 7 Nov 2019 4:23 pm
Operator : JK/ AMS/ DTH
Sample : A9J0954-01RE1@20
Misc : 20x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 20:00:04 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

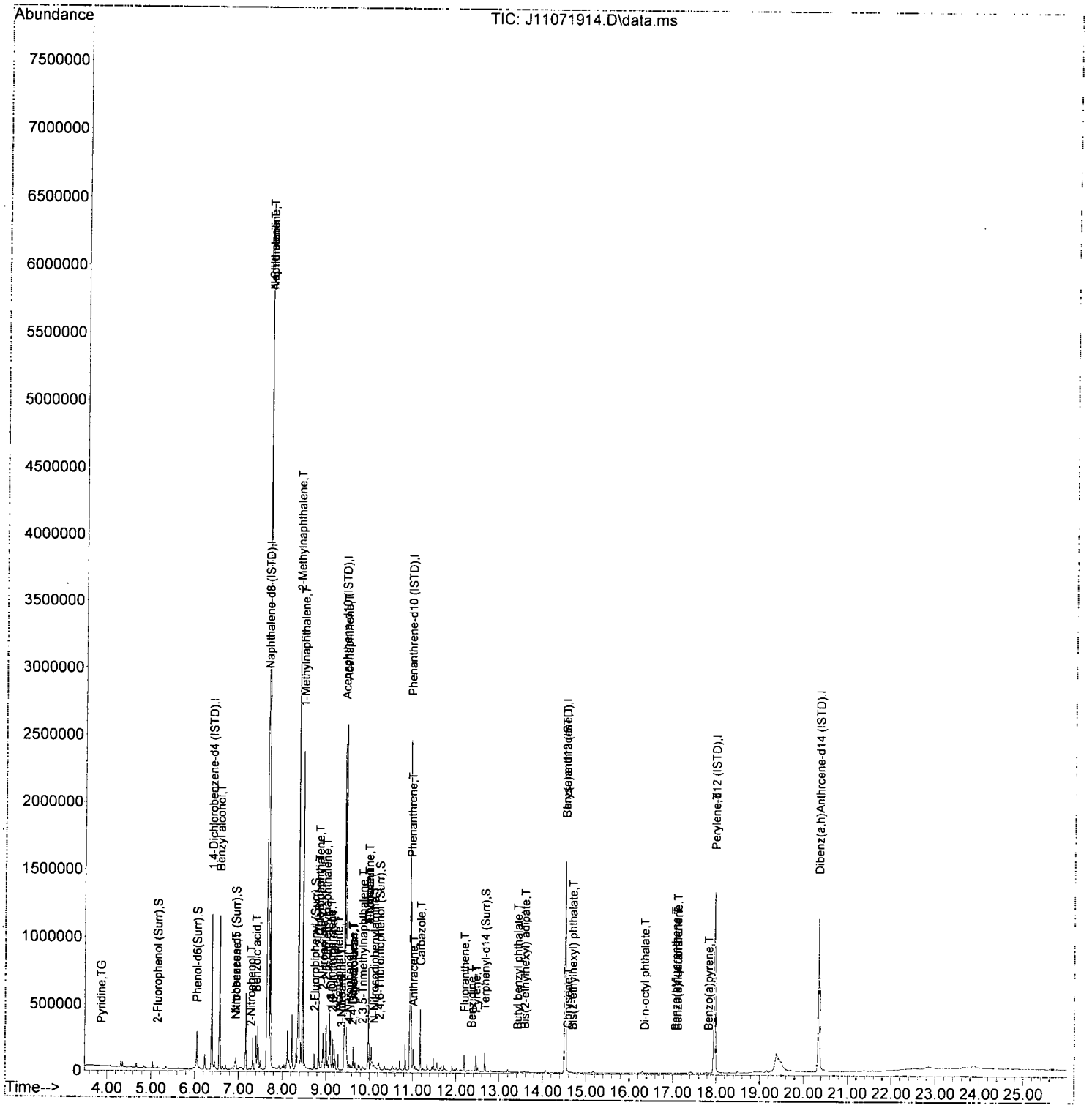
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.114	168	3459	142.21 ng/ml#	22
45) Dimethyl phthalate	9.140	163	427	N.D.	
46) 1,3-Dinitrobenzene	9.114	168	3459	115.73 ng/ml#	19
47) 2,6-Dinitrotoluene	9.151	165	221	27.36 ng/ml#	41
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.279	152	7498	12.76 ng/ml#	56
50) 3-Nitroaniline	9.354	138	80	30.59 ng/ml#	4
51) Acenaphthene	9.456	153	734154	1902.99 ng/ml	100
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	9.525	139	879	89.04 ng/ml#	46
54) 2,4-Dinitrotoluene	9.611	165	302	56.16 ng/ml#	70
55) Dibenzofuran	9.632	168	60320	117.29 ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	9.857	149	353	N.D.	
59) 2,3,5-Trimethylnaphtha...	9.841	170	11784	35.98 ng/ml	98
60) Fluorene	9.980	166	223441	552.10 ng/ml	99
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	9.980	138	2420	38.97 ng/ml#	29
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	10.108	169	2666	7.84 ng/ml#	1
66) Azobenzene (1,2-DPH)	10.146	77	829	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	10.959	178	533548	861.81 ng/ml	99
72) Anthracene	11.007	178	71094	119.46 ng/ml	100
73) Carbazole	11.173	167	229748	429.65 ng/ml	99
74) Di-n-butyl phthalate	11.526	149	807	N.D.	
75) Fluoranthene	12.194	202	59032	93.03 ng/ml	95
76) Benzidine	12.355	184	97	123.59 ng/ml#	1
77) Pyrene	12.462	202	62951	97.49 ng/ml	98
80) Butyl benzyl phthalate	13.419	149	210	30.07 ng/ml#	1
81) Bis(2-ethylhexyl) adipate	13.585	129	1534	5.82 ng/ml	89
82) 3,3-Dichlorobenzidine	14.484	252	57	Below Cal #	1
83) Benz(a)anthracene	14.521	228	4648	7.33 ng/ml	77
84) Chrysene	14.575	228	1900	3.20 ng/ml	93
85) Bis(2-ethylhexyl) phth...	14.687	149	1119	2.74 ng/ml	85
87) Di-n-octyl phthalate	16.350	149	133	58.13 ng/ml#	13
88) Benzo(b)fluoranthene	17.062	252	324	8.47 ng/ml	69
89) Benzo(k)fluoranthene	17.110	252	169	8.73 ng/ml	49
90) Benzo(b+k)fluoranthene	17.110	252	169	15.99 ng/ml	49
91) Benzo(e)pyrene	17.693	252	296	N.D.	
92) Benzo(a)pyrene	17.821	252	147	10.09 ng/ml#	1
93) Perylene	17.971	252	3650	7.07 ng/ml	68
95) Indeno(1,2,3-cd)pyrene	20.346	276	553	N.D.	
96) Dibenz(a,h)anthracene	20.372	278	103	N.D.	
97) Benzo(g,h,i)perylene	20.859	276	143	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071914.D
Acq On : 7 Nov 2019 4:23 pm
Operator : JK/ AMS/ DTH
Sample : A9J0954-01RE1@20
Misc : 20x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 20:00:04 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071915.D
Acq On : 7 Nov 2019 4:58 pm
Operator : JK/ AMS/ DTH
Sample : A9J0954-02RE1@10
Misc : 10x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 20:00:11 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

BNA 11/7/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.386	152	283598	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.648	136	1087722	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.424	162	573819	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	10.932	188	966146	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.521	240	883271	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	17.960	264	855858	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.346	292	698827	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.134	112	15438	89.71	ng/ml	-0.02
5) Phenol-d6(Surr)	6.043	99	8549	38.81	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	6.931	82	29563	172.99	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.739	172	88149	196.29	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.226	330	10392	197.20	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.665	244	93521	229.76	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	3.904	79	725m	3.94	ng/ml#	
6) Phenol	6.054	94	563	N.D.		
7) Aniline	6.113	93	306	N.D.		
8) Bis(2-chloroethyl) ether	6.113	93	306	N.D.		
9) 2-Chlorophenol	6.150	128	75	N.D.		
10) 1,3-Dichlorobenzene	6.396	146	54	N.D.		
11) 1,4-Dichlorobenzene	6.396	146	54	N.D.		
12) Benzyl alcohol	0.000		0	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.664	107	76	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.648	45	160	N.D.		
16) N-Nitrosodi-n-propylamine	6.792	70	75	N.D.		
17) 3+4-Methylphenol	6.792	107	173	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	6.942	77	449	2.59	ng/ml#	1
22) Isophorone	7.183	82	142	N.D.		
23) 2-Nitrophenol	7.279	139	55	42.81	ng/ml#	42
24) 2,4-Dimethylphenol	7.364	122	179	N.D.		
25) Bis(2-chloroethoxy) me...	7.391	93	129	N.D.		
26) Benzoic acid	7.402	105	1177	819.36	ng/ml#	63
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	7.669	128	39183	68.48	ng/ml	99
30) 4-Chloroaniline	7.696	127	349	15.13	ng/ml#	1
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.220	107	86	N.D.		
33) 2-Methylnaphthalene	8.365	142	156612	391.73	ng/ml	98
34) 1-Methylnaphthalene	8.466	142	140353	362.64	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	8.835	154	4898	9.93	ng/ml	98
41) 2-Chloronaphthalene	8.841	162	331	N.D.		
42) 2-Nitroaniline	8.942	138	112	31.50	ng/ml#	42
43) 2,6-Dimethylnaphthalene	9.001	156	30852	85.27	ng/ml	97

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071915.D
Acq On : 7 Nov 2019 4:58 pm
Operator : JK/ AMS/ DTH
Sample : A9J0954-02RE1@10
Misc : 10x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 20:00:11 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10

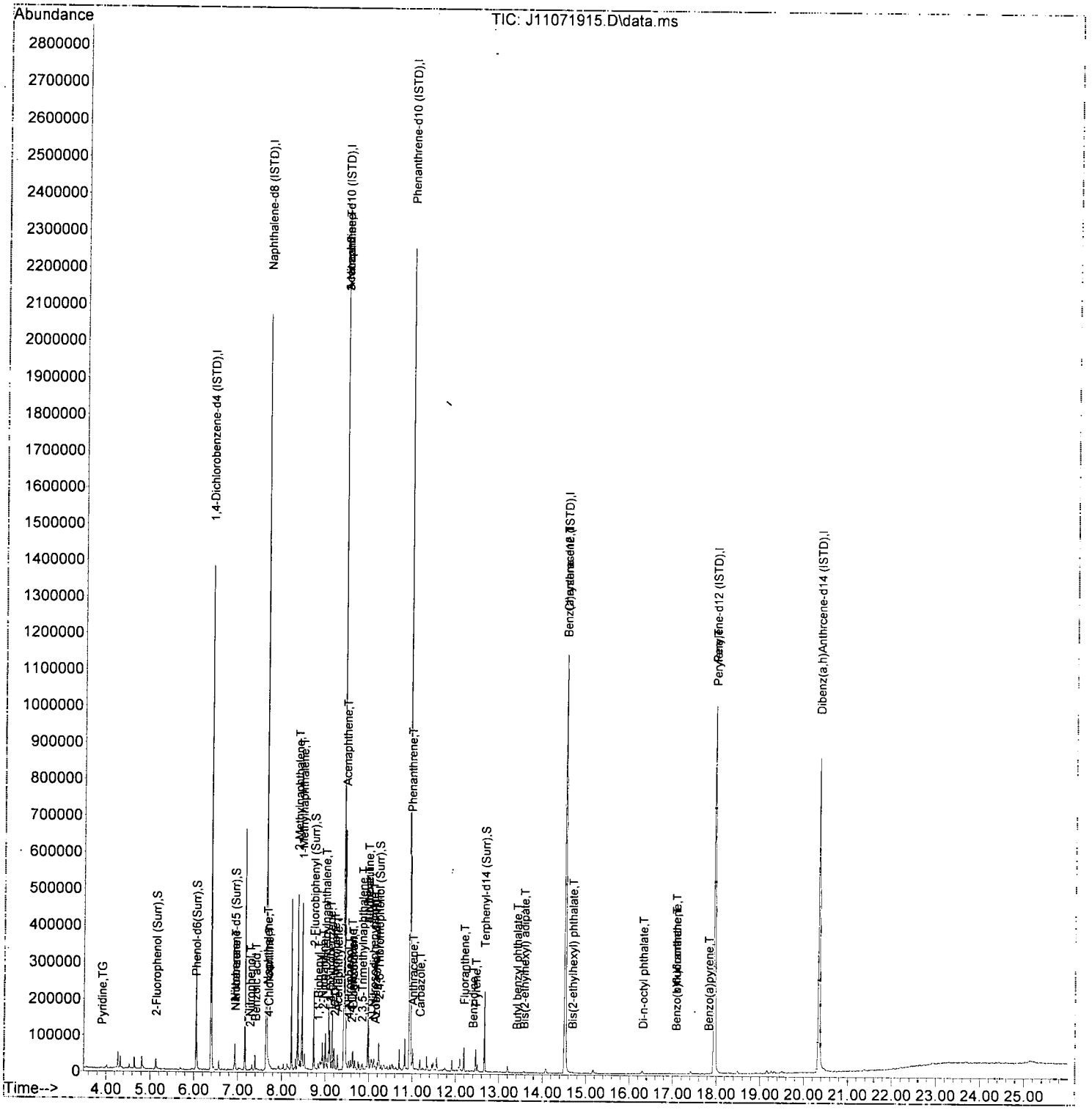
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.113	168	873	85.63 ng/ml#	23
45) Dimethyl phthalate	9.140	163	220	N.D.	
46) 1,3-Dinitrobenzene	9.113	168	873	72.59 ng/ml#	11
47) 2,6-Dinitrotoluene	9.210	165	54	25.64 ng/ml#	1
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.279	152	2193	3.76 ng/ml#	1
50) 3-Nitroaniline	9.429	138	108	30.91 ng/ml#	1
51) Acenaphthene	9.456	153	173468	452.87 ng/ml	97
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	9.531	139	707	86.14 ng/ml#	53
54) 2,4-Dinitrotoluene	9.606	165	603	58.60 ng/ml#	50
55) Dibenzofuran	9.632	168	14460	28.32 ng/ml	97
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	9.857	149	552	N.D.	
59) 2,3,5-Trimethylnaphtha...	9.841	170	6858	21.09 ng/ml	89
60) Fluorene	9.980	166	77234	192.21 ng/ml	98
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	9.980	138	849	13.77 ng/ml#	32
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	10.098	169	3080	10.34 ng/ml#	1
66) Azobenzene (1,2-DPH)	10.146	77	772	2.56 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	10.959	178	245741	453.39 ng/ml	99
72) Anthracene	11.007	178	25312	48.58 ng/ml	97
73) Carbazole	11.173	167	12440	29.53 ng/ml	94
74) Di-n-butyl phthalate	11.526	149	1038	N.D.	
75) Fluoranthene	12.194	202	32100	57.78 ng/ml	96
76) Benzidine	12.398	184	231	124.62 ng/ml	63
77) Pyrene	12.462	202	30796	54.47 ng/ml	98
80) Butyl benzyl phthalate	13.408	149	98	29.78 ng/ml	82
81) Bis(2-ethylhexyl) adipate	13.574	129	1295	6.32 ng/ml	79
82) 3,3-Dichlorobenzidine	0.000		0	N.D.	
83) Benz(a)anthracene	14.516	228	2951	5.98 ng/ml	72
84) Chrysene	14.574	228	530	N.D.	
85) Bis(2-ethylhexyl) phth...	14.687	149	2161	6.80 ng/ml	86
87) Di-n-octyl phthalate	16.313	149	74	58.08 ng/ml	77
88) Benzo(b)fluoranthene	17.078	252	64	8.09 ng/ml	57
89) Benzo(k)fluoranthene	17.078	252	64	8.61 ng/ml	57
90) Benzo(b+k)fluoranthene	17.078	252	64	15.87 ng/ml	57
91) Benzo(e)pyrene	17.821	252	156	N.D.	
92) Benzo(a)pyrene	17.821	252	156	10.20 ng/ml	59
93) Perylene	17.965	252	2794	7.24 ng/ml	67
95) Indeno(1,2,3-cd)pyrene	20.340	276	243	N.D.	
96) Dibenz(a,h)anthracene	20.346	278	191	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

No Name Entered Quantitation Report (Not Reviewed)

Data Path : T:\data\2019-11\9K07018\
Data File : J11071915.D
Acq On : 7 Nov 2019 4:58 pm
Operator : JK/ AMS/ DTH
Sample : A9J0954-02RE1@10
Misc : 10x, 8270 TCLP REG LIST / 8270 TCLP FULL LIST LL
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Nov 07 20:00:11 2019
Quant Method : T:\methods\SV10_091919R4.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Oct 25 11:15:50 2019
Response via : Initial Calibration
InstName : SV-GCMS10



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

TCLP Semivolatile Organic Compounds by EPA 8270D
Calibration Data

Sequence 9I19035 (Cal ID A9I2405) SV-GCMS10

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9I19035**	Instrument:	**SV-GCMS10**
Date:	**09/19/19 17:44**	Calibration:	**A9I2405**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9I19035-IBL1	Water	QC	QC			A19I086	
2	9I19035-TUN1	Water	QC	QC			A19I086	A19I165
3	9I19035-ICB1	Water	QC	QC			A19I086	
4	9I19035-CAL1	Water	QC	QC			A19I086	A19G238
5	9I19035-CAL2	Water	QC	QC			A19I086	A19G239
6	9I19035-CAL3	Water	QC	QC			A19I086	A19G240
7	9I19035-CAL4	Water	QC	QC			A19I086	A19G241
8	9I19035-CAL5	Water	QC	QC			A19I086	A19G242
9	9I19035-CAL6	Water	QC	QC			A19I086	A19G243
10	9I19035-CAL7	Water	QC	QC			A19I086	A19G244
11	9I19035-CAL8	Water	QC	QC			A19I086	A19G245
12	9I19035-CAL9	Water	QC	QC			A19I086	A19G246
13	9I19035-CALA	Water	QC	QC			A19I086	A19G247
14	9I19035-IBL2	Water	QC	QC			A19I086	
15	9I19035-ICV1	Water	QC	QC			A19I086	A19I254
16	9I19035-IBL3	Water	QC	QC			A19I086	

Data Entered By: 9/24/19

Data Reviewed By: 9/26/19

Comments:

Calibration Status Report SV-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Fri Sep 20 10:41:03 2019
Response Via : Initial Calibration

A9I 2405

9/23/19

#	ID	Conc	ISTD Conc	Path\File
1	20	20	2000	C:\msdchem\1\data\2019-09\9I19035\J09191918.D
2	50	50	2000	C:\msdchem\1\data\2019-09\9I19035\J09191919.D
3	100	100	2000	C:\msdchem\1\data\2019-09\9I19035\J09191920.D
4	200	200	2000	C:\msdchem\1\data\2019-09\9I19035\J09191921.D
5	500	500	2000	C:\msdchem\1\data\2019-09\9I19035\J09191922.D
6	1000	1000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191923.D
7	2000	2000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191924.D
8	4000	4000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191925.D
9	6000	6000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191926.D
10	8000	8000	2000	C:\msdchem\1\data\2019-09\9I19035\J09191927.D

#	ID	Update Time	Quant Time	Acquisition Time
1	20	Sep 20 10:40 2019	Sep 20 10:14 2019	20 Sep 2019 1:24 am
2	50	Sep 20 10:40 2019	Sep 20 10:17 2019	20 Sep 2019 1:59 am
3	100	Sep 20 10:40 2019	Sep 20 10:18 2019	20 Sep 2019 2:34 am
4	200	Sep 20 10:40 2019	Sep 20 10:21 2019	20 Sep 2019 3:09 am
5	500	Sep 20 10:40 2019	Sep 20 10:22 2019	20 Sep 2019 3:44 am
6	1000	Sep 20 10:40 2019	Sep 20 09:46 2019	20 Sep 2019 4:19 am
7	2000	Sep 20 10:40 2019	Sep 20 09:46 2019	20 Sep 2019 4:54 am
8	4000	Sep 20 10:40 2019	Sep 20 10:28 2019	20 Sep 2019 5:29 am
9	6000	Sep 20 10:40 2019	Sep 20 10:29 2019	20 Sep 2019 6:04 am
10	8000	Sep 20 10:41 2019	Sep 20 10:30 2019	20 Sep 2019 6:39 am

SV10_091919.M Fri Sep 20 14:11:04 2019

Compound List Report SV-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Fri Sep 20 10:41:03 2019
Response Via : Initial Calibration

9/20/19

Total Cpnds : 97

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-Dichlorobenzene-d4 (ISTD)	152	6.568	1.000	A	2	A	R
2	T	N-Nitrosodimethylamine	74	3.883	0.591	A	2	A	A
3	T	Pyridine	79	3.904	0.594	A	2	A	A
4	S	2-Fluorophenol (Surr)	112	5.289	0.805	A	1	A	R
5	S	Phenol-d6(Surr)	99	6.204	0.945	A	2	A	R
6	T	Phenol	94	6.215	0.946	A	2	A	R
7	T	Aniline	93	6.241	0.950	A	2	A	R
8	T	Bis(2-chloroethyl) ether	93	6.305	0.960	A	2	A	R
9	T	2-Chlorophenol	128	6.364	0.969	A	2	A	R
10	T	1,3-Dichlorobenzene	146	6.514	0.992	A	2	A	R
11	T	1,4-Dichlorobenzene	146	6.584	1.002	A	2	A	R
12	T	Benzyl alcohol	108	6.701	1.020	Q	2	A	R
13	T	1,2-Dichlorobenzene	146	6.739	1.026	A	2	A	R
14	T	2-Methylphenol	107	6.808	1.037	A	2	A	R
15	T	2,2'-Oxybis(1-Chloropropane)	45	6.835	1.041	A	2	A	R
16	T	N-Nitrosodi-n-propylamine	70	6.963	1.060	A	2	A	R
17	T	3+4-Methylphenol	107	6.958	1.059	A	3	A	R
18	T	Hexachloroethane	201	7.076	1.077	A	2	A	R
19	S	Nitrobenzene-d5 (Surr)	82	7.113	1.083	A	2	A	R
20	T	Nitrobenzene	77	7.129	1.085	A	2	A	R
21	I	Naphthalene-d8 (ISTD)	136	7.835	1.000	A	1	A	R
22	T	Isophorone	82	7.370	0.941	A	2	A	R
23	T	2-Nitrophenol	139	7.450	0.951	Q	2	A	R
24	T	2,4-Dimethylphenol	122	7.487	0.956	A	2	A	R
25	T	Bis(2-chloroethoxy) methane	93	7.579	0.967	A	2	A	R
26	T	Benzoic acid	105	7.578	0.967	Q	2	A	R
27	T	2,4-Dichlorophenol	162	7.690	0.981	Q	2	A	R
28	T	1,2,4-Trichlorobenzene	180	7.782	0.993	A	2	A	R
29	T	Naphthalene	128	7.857	1.003	A	1	A	R
30	T	4-Chloroaniline	127	7.904	1.009	Q	2	A	R
31	T	Hexachlorobutadiene	225	7.990	1.020	A	2	A	R
32	T	4-Chloro-3-methylphenol	107	8.386	1.070	A	2	A	R
33	T	2-Methylnaphthalene	142	8.557	1.092	A	2	A	R
34	T	1-Methylnaphthalene	142	8.659	1.105	A	2	A	R
35	I	Acenaphthene-d10 (ISTD)	162	9.616	1.000	A	2	A	R
36	T	Hexachlorocyclopentadiene	237	8.728	0.908	A	2	A	R
37	T	2,4,6-Trichlorophenol	196	8.840	0.919	Q	2	A	R
38	T	2,4,5-Trichlorophenol	198	8.872	0.923	Q	2	A	R
39	T	1,1'-Biphenyl	154	9.028	0.939	A	2	A	R
40	S	2-Fluorobiphenyl (Surr)	172	8.926	0.928	A	2	A	R
41	T	2-Chloronaphthalene	162	9.049	0.941	A	2	A	R
42	T	2-Nitroaniline	138	9.145	0.951	Q	2	A	R
43	T	2,6-Dimethylnaphthalene	156	9.188	0.955	A	2	A	R
44	T	1,4-Dinitrobenzene	168	9.274	0.964	Q	2	A	R
45	T	Dimethyl phthalate	163	9.333	0.971	A	2	A	R
46	T	1,3-Dinitrobenzene	168	9.354	0.973	Q	2	A	R
47	T	2,6-Dinitrotoluene	165	9.391	0.977	Q	2	A	R
48	T	1,2-Dinitrobenzene	168	9.445	0.982	A	2	A	R
49	T	Acenaphthylene	152	9.471	0.985	A	2	A	R
50	T	3-Nitroaniline	138	9.562	0.994	Q	2	A	R
51	T	Acenaphthene	153	9.648	1.003	A	2	A	R
52	T	2,4-Dinitrophenol	184	9.664	1.005	Q	2	A	R
53	T	4-Nitrophenol	139	9.723	1.011	Q	2	A	R
54	T	2,4-Dinitrotoluene	165	9.798	1.019	Q	2	A	R

55	T	Dibenzofuran	168	9.825	1.022	A		2	A	R
56	T	2,3,5,6-Tetrachlorophenol	232	9.905	1.030	Q	1/a²	2	A	R
57	T	2,3,4,6-Tetrachlorophenol	232	9.947	1.034	Q	1/a²	2	A	R
58	T	Diethyl phthalate	149	10.050	1.045	A		2	A	R
59	T	2,3,5-Trimethylnaphthalene	170	10.039	1.044	A		2	A	R
60	T	Fluorene	166	10.172	1.058	A		2	A	R
61	T	4-Chlorophenyl phenyl ether	204	10.167	1.057	A		2	A	R
62	T	4-Nitroaniline	138	10.183	1.059	A		2	A	R
63	T	4,6-Dinitro-2-methylphenol	198	10.215	1.062	Q	1/a²	2	A	R
64	I	Phenanthrene-d10 (ISTD)	188	11.135	1.000	A		2	A	R
65	T	N-Nitrosodiphenylamine	169	10.284	0.924	A		2	A	R
66	T	Azobenzene (1,2-DPH)	77	10.327	0.927	A		2	A	R
67	S	2,4,6-Tribromophenol (Surr)	330	10.418	0.936	Q	1/a²	2	A	R
68	T	4-Bromophenyl phenyl ether	248	10.670	0.958	A		2	A	R
69	T	Hexachlorobenzene	284	10.745	0.965	A		2	A	R
70	T	Pentachlorophenol (PCP)	266	10.942	0.983	Q	1/a	2	A	R
71	T	Phenanthrene	178	11.156	1.002	A		2	A	R
72	T	Anthracene	178	11.210	1.007	A		2	A	R
73	T	Carbazole	167	11.365	1.021	Q	1/a²	2	A	R
74	T	Di-n-butyl phthalate	149	11.718	1.052	A		2	A	R
75	T	Fluoranthene	202	12.424	1.116	A		2	A	R
76	T	Benzidine	184	12.579	1.130	Q	1/a²	2	A	R
77	T	Pyrene	202	12.713	1.142	A		2	A	R
78	I	Chrysene-d12 (ISTD)	240	14.917	1.000	A		2	A	R
79	S	Terphenyl-d14 (Surr)	244	12.922	0.866	A		2	A	R
80	T	Butyl benzyl phthalate	149	13.734	0.921	Q	1/a²	2	A	R
81	T	Bis(2-ethylhexyl) adipate	129	13.911	0.933	A		2	A	R
82	T	3,3-Dichlorobenzidine	252	14.863	0.996	Q	1/a²	2	A	R
83	T	Benz(a)anthracene	228	14.890	0.998	A		2	A	R
84	T	Chrysene	228	14.976	1.004	A		2	A	R
85	T	Bis(2-ethylhexyl) phthalate	149	15.071	1.010	A		2	A	R
86	I	Perylene-d12 (ISTD)	264	18.399	1.000	A		2	A	R
87	T	Di-n-octyl phthalate	149	16.746	0.910	Q	1/a²	2	A	R
88	T	Benzo(b)fluoranthene	252	17.478	0.950	Q	1/a²	2	A	R
89	T	Benzo(k)fluoranthene	252	17.548	0.954	Q	1/a²	2	A	R
90	T	Benzo(b+k)fluoranthene	252	17.548	0.954	Q	1/a²	2	A	R
91	T	Benzo(e)pyrene	252	18.137	0.986	A		2	A	R
92	T	Benzo(a)pyrene	252	18.254	0.992	Q	1/a²	2	A	R
93	T	Perylene	252	18.458	1.003	A		2	A	B
94	I	Dibenz(a,h)Anthrcene-d14 (I...	292	20.795	1.000	A		1	A	B
95	T	Indeno(1,2,3-cd)pyrene	276	20.790	1.000	A		1	A	R
96	T	Dibenz(a,h)anthracene	278	20.865	1.003	A		2	A	R
97	T	Benzo(g,h,i)perylene	276	21.325	1.025	A		2	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

SV10_091919.M Fri Sep 20 12:56:52 2019

Response Factor Report SV-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Fri Sep 20 10:41:03 2019
Response Via : Initial Calibration

9/23/19

Calibration Files
20 =J09191918.D 50 =J09191919.D 100 =J09191920.D 200 =J09191921.D 500 =J09191922.D 1000=J09191923.D 2000=J09191924.D
4000=J09191925.D 6000=J09191926.D 8000=J09191927.D

		Compound	20	50	100	200	500	1000	2000	4000	6000	8000	Avg	%RSD
														3.51
1)	I	1,4-Dichlorobenzen...	----------ISTD----------											
2)	TG	N-Nitrosodimet...	0.759	0.758	0.808	0.697	0.702	0.739	0.762	0.786	0.804	0.804	0.762	5.28
3)	TG	Pyridine		1.053	1.277	1.346	1.118	1.285	1.376	1.417	1.443	1.375	1.299	10.27
4)	S	2-Fluorophenol...	0.940	1.045	0.952	1.217	1.280	1.263	1.333	1.381	1.371	1.354	1.214	14.15
5)	S	Phenol-d6(Surr)	1.197	1.305	1.446	1.602	1.667	1.682	1.674	1.705	1.659	1.598	1.553	11.41
6)	T	Phenol	1.542	1.562	1.608	1.797	1.827	1.843	1.776	1.794	1.708	1.625	1.708	6.71
7)	T	Aniline		1.505	1.592	1.714	1.671	1.336	1.129	1.375	1.569	1.374	1.474	12.65
8)	T	Bis(2-chloroet...	1.409	1.401	1.477	1.489	1.547	1.678	1.759	1.573			1.542	8.18
9)	T	2-Chlorophenol	1.231	1.299	1.339	1.474	1.520	1.505	1.485	1.475	1.445	1.389	1.416	6.89
10)	T	1,3-Dichlorobe...	1.526	1.590	1.641	1.679	1.688	1.625	1.631	1.578	1.503	1.457	1.592	4.80
11)	T	1,4-Dichlorobe...	1.540	1.656	1.606	1.633	1.652	1.622	1.590	1.515	1.433	1.397	1.564	5.83
12)	T	Benzyl alcohol		0.475	0.613	0.639	0.793	0.881	0.917	0.951	0.916	0.866	0.783	21.39
13)	T	1,2-Dichlorobe...	1.431	1.680	1.634	1.675	1.672	1.602	1.552	1.481	1.383	1.318	1.543	8.56
14)	T	2-Methylphenol	0.930	0.880	0.981	1.077	1.155	1.148	1.117	1.057	1.001	0.957	1.030	9.22
15)	T	2,2'-Oxybis(1-...	1.500	1.454	1.504	1.552	1.511	1.442	1.285	1.209	1.125	1.024	1.360	13.68
16)	T	N-Nitrosodi-n-...	0.922	0.898	0.938	0.991	0.999	0.963	0.901	0.825	0.768	0.745	0.895	9.91
17)	T	3+4-Methylphenol	1.065	1.133	1.160	1.345	1.441	1.458	1.401	1.305	1.189		1.277	11.32
18)	T	Hexachloroethane	0.434	0.455	0.452	0.472	0.494	0.484	0.503	0.510	0.500	0.503	0.481	5.45
19)	S	Nitrobenzene-d...	0.981	1.085	1.135	1.209	1.313	1.322	1.282	1.286	1.246	1.193	1.205	9.14
20)	T	Nitrobenzene	1.076	1.183	1.189	1.302	1.341	1.327	1.281	1.234	1.165	1.113	1.221	7.44
														4.83
21)	I	Naphthalene-d8 (ISTD)	----------ISTD----------											
22)	T	Isophorone	0.569	0.605	0.640	0.652	0.683	0.661	0.671	0.637	0.632	0.627	0.638	5.17
23)	T	2-Nitrophenol			0.122	0.135	0.180	0.201	0.189	0.201	0.201	0.195	0.178	17.69
24)	T	2,4-Dimethylph...		0.198	0.249	0.265	0.283	0.287	0.304	0.287	0.284	0.256	0.268	11.73
25)	T	Bis(2-chloroet...	0.388	0.385	0.394	0.408	0.432	0.413	0.411	0.376	0.348	0.321	0.388	8.46
26)	T	Benzoic acid					0.037	0.087	0.142	0.188	0.195	0.216	0.144	48.51
27)	T	2,4-Dichloroph...		0.170	0.214	0.252	0.295	0.303	0.320	0.305	0.287	0.272	0.269	18.30
28)	T	1,2,4-Trichlor...	0.357	0.371	0.359	0.374	0.372	0.362	0.355	0.336	0.317	0.297	0.350	7.29
29)	T	Naphthalene	1.146	1.151	1.167	1.173	1.186	1.117	1.076	0.925	0.826	0.754	1.052	15.05
30)	T	4-Chloroaniline	0.125	0.244	0.255	0.320	0.351	0.349	0.340	0.277	0.276	0.276	0.281	23.94
31)	T	Hexachlorobuta...	0.184	0.200	0.195	0.200	0.201	0.199	0.191	0.185	0.174	0.163	0.189	6.74
32)	T	4-Chloro-3-met...			0.197	0.220	0.278	0.284	0.309	0.291	0.278	0.266	0.265	14.24
33)	T	2-Methylnaphth...	0.706	0.774	0.776	0.819	0.833	0.793	0.783	0.679	0.620	0.570	0.735	12.00
34)	T	1-Methylnaphth...	0.737	0.770	0.777	0.793	0.804	0.752	0.740	0.635	0.577	0.532	0.712	13.43
														3.37
35)	I	Acenaphthene-d10 (...	----------ISTD----------											
36)	T	Hexachlorocycl...		0.218	0.261	0.286	0.327	0.342	0.363	0.328	0.338	0.320	0.309	14.82
37)	T	2,4,6-Trichlor...		0.237	0.257	0.307	0.384	0.402	0.423	0.419	0.401	0.389	0.358	19.99
38)	T	2,4,5-Trichlor...		0.237	0.270	0.301	0.381	0.390	0.418	0.406	0.393	0.366	0.351	18.51
39)	T	1,1'-Biphenyl	1.593	1.862	1.891	1.926	1.923	1.827	1.723	1.451	1.275		1.719	13.51

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics

40)	S	2-Fluorobiphen...	1.477	1.610	1.735	1.751	1.740	1.652	1.564	1.351	1.207		1.565	12.07
41)	T	2-Chloronaphth...	1.194	1.263	1.356	1.408	1.432	1.325	1.296	1.154	1.045	0.943	1.242	12.73
42)	T	2-Nitroaniline		0.177	0.224	0.264	0.357	0.389	0.424	0.415	0.416	0.398	0.340	27.55
43)	T	2,6-Dimethylna...	1.108	1.335	1.410	1.426	1.405	1.336	1.263	1.089	0.979		1.261	12.95
44)	T	1,4-Dinitroben...			0.065	0.084	0.127	0.151	0.184	0.203	0.205	0.206	0.153	36.62
45)	T	Dimethyl phtha...	1.435	1.460	1.596	1.570	1.600	1.540	1.481	1.346	1.249	1.166	1.444	10.30
46)	T	1,3-Dinitroben...			0.099	0.125	0.180	0.196	0.220	0.228	0.229	0.221	0.187	26.72
47)	T	2,6-Dinitrotol...		0.189	0.212	0.275	0.327	0.334	0.344	0.334	0.324	0.306	0.294	19.32
48)	T	1,2-Dinitroben...				0.119	0.146	0.155	0.160	0.159	0.150	0.136	0.146	10.12
49)	T	Acenaphthylene	1.944	2.090	2.211	2.226	2.309	2.184	2.067	1.748	1.519		2.033	12.60
50)	T	3-Nitroaniline		0.137	0.196	0.256	0.282	0.261	0.196				0.221	24.71
51)	T	Acenaphthene	1.387	1.465	1.444	1.458	1.436	1.370	1.314	1.127	1.013		1.335	12.00
52)	T	2,4-Dinitrophenol				0.013	0.029	0.062	0.100	0.137	0.153		0.082	69.44
53)	T	4-Nitrophenol			0.068	0.095	0.164	0.201	0.242	0.257	0.263		0.184	42.54
54)	T	2,4-Dinitrotol...			0.221	0.277	0.369	0.398	0.439	0.437	0.413	0.366	0.365	21.35
55)	T	Dibenzofuran	1.822	1.907	2.037	2.018	1.983	1.887	1.852	1.604	1.422	1.264	1.780	14.79
56)	T	2,3,5,6-Tetrac...		0.109	0.184	0.216	0.296	0.315	0.344	0.342	0.335	0.322	0.274	30.66
57)	T	2,3,4,6-Tetrac...		0.163	0.236	0.262	0.323	0.347	0.364	0.355	0.339	0.326	0.302	22.30
58)	T	Diethyl phthalate	1.254	1.388	1.556	1.505	1.488	1.460	1.384	1.206	1.077	0.976	1.330	14.62
59)	T	2,3,5-Trimethy...	1.191	1.238	1.255	1.278	1.274	1.217	1.168	1.004	0.895	0.813	1.133	14.83
60)	T	Fluorene	1.423	1.444	1.592	1.562	1.562	1.460	1.385	1.151	1.025		1.401	13.79
61)	T	4-Chlorophenyl...	0.710	0.743	0.775	0.749	0.750	0.718	0.704	0.618	0.558	0.502	0.683	13.46
62)	T	4-Nitroaniline			0.181	0.210	0.234	0.216	0.220	0.221	0.217	0.220	0.215	7.13
63)	T	4,6-Dinitro-2-...				0.041	0.091	0.133	0.174	0.203	0.212	0.212	0.152	43.85
														4.15
64)	I	Phenanthrene-d10 (...	----------	ISTD	----------									
65)	T	N-Nitrosodiphe...	0.518	0.605	0.660	0.703	0.703	0.658	0.604	0.483			0.617	13.21
66)	T	Azobenzene (1,...	0.596	0.640	0.676	0.698	0.710	0.667	0.627	0.537	0.465		0.624	12.85
67)	S	2,4,6-Tribromo...		0.071	0.086	0.099	0.120	0.122	0.130	0.125	0.118	0.112	0.109	18.24
68)	T	4-Bromophenyl ...	0.208	0.233	0.237	0.239	0.238	0.236	0.235	0.223	0.211	0.198	0.226	6.56
69)	T	Hexachlorobenzene	0.300	0.280	0.292	0.278	0.295	0.286	0.279	0.252	0.231	0.215	0.271	10.61
70)	T	Pentachlorophe...			0.078	0.070	0.108	0.122	0.142	0.148	0.145	0.138	0.119	26.11
71)	T	Phenanthrene	1.195	1.197	1.225	1.228	1.225	1.146	1.091	0.940	0.851		1.122	12.26
72)	T	Anthracene	0.995	1.126	1.166	1.205	1.196	1.143	1.088	0.944	0.844		1.079	11.55
73)	T	Carbazole	0.798	0.900	0.979	1.011	1.002	0.861	0.592				0.878	16.89
74)	T	Di-n-butyl pht...		1.071	1.257	1.259	1.318	1.283	1.235	1.082	0.958		1.183	10.85
75)	T	Fluoranthene	1.065	1.146	1.256	1.262	1.316	1.257	1.229	1.088	0.992	0.891	1.150	12.02
76)	T	Benzidine			0.114	0.197	0.271	0.284	0.275	0.307	0.320	0.323	0.261	27.45
77)	T	Pyrene	1.099	1.203	1.242	1.308	1.336	1.283	1.225	1.094	0.997	0.915	1.170	11.89
														4.74
78)	I	Chrysene-d12 (ISTD)	----------	ISTD	----------									
79)	S	Terphenyl-d14 ...	0.821	0.902	0.977	0.959	0.995	0.969	0.953	0.924	0.880	0.837	0.922	6.53
80)	T	Butyl benzyl p...		0.243	0.334	0.380	0.487	0.533	0.570	0.590	0.580	0.569	0.476	26.60
81)	T	Bis(2-ethylhex...				0.336	0.441	0.473	0.506	0.520	0.488	0.482	0.464	13.26
82)	T	3,3-Dichlorobe...				0.241	0.193	0.167	0.129	0.122	0.119	0.117	0.155	30.50
83)	T	Benz(a)anthracene	1.161	1.070	1.154	1.114	1.143	1.102	1.125	1.115	1.107	1.076	1.117	2.72
84)	T	Chrysene	0.995	1.051	1.094	1.080	1.094	1.062	1.054	1.041	1.009	0.985	1.046	3.74
85)	T	Bis(2-ethylhex...				0.521	0.706	0.743	0.776	0.790	0.763	0.737	0.719	12.78
														4.02
86)	I	Perylene-d12 (ISTD)	----------	ISTD	----------									
87)	T	Di-n-octyl pht...			0.597	0.694	0.979	1.136	1.337	1.352	1.295	1.229	1.077	27.27

Method Path : C:\msdchem\1\methods\
Method File : SV10_091919.M
Title : EPA 8270D: Semivolatile Organics

88)	T	Benzo(b)fluora...	0.716	0.795	1.016	1.038	1.109	1.109	1.178	1.183	1.177	1.128	1.045	15.65 J
89)	T	Benzo(k)fluora...	0.705	0.864	1.038	1.065	1.120	1.117	1.168	1.078	0.973	0.854	0.998	14.77 J
90)	T	Benzo(b+k)fluo...	0.734	0.871	1.068	1.079	1.136	1.134	1.191	1.148	1.113	1.060	1.053	13.45 J
91)	T	Benzo(e)pyrene	0.747	0.896	1.032	1.039	1.102	1.105	1.133	1.110	1.089	1.027	1.028	11.67 J
92)	T	Benzo(a)pyrene	0.574	0.677	0.889	0.917	1.028	1.027	1.091	1.049	1.010	0.968	0.923	18.38 J
93)	T	Perylene	0.801	0.900	0.892	0.920	0.951	0.914	0.954	0.913	0.908	0.867	0.902	4.87 J
														6.05
94)	I	Dibenz(a,h)Anthrce...	----------ISTD----------											
95)	T	Indeno(1,2,3-c...	1.102	1.169	1.176	1.156	1.171	1.152	1.205	1.224	1.230	1.241	1.183	3.60 J
96)	T	Dibenz(a,h)ant...	0.958	1.019	1.091	1.097	1.135	1.105	1.145	1.152	1.103	1.054	1.086	5.57 J
97)	T	Benzo(g,h,i)pe...	0.850	0.944	1.107	1.165	1.222	1.214	1.250	1.243	1.204	1.158	1.136	11.87 J

(#) = Out of Range

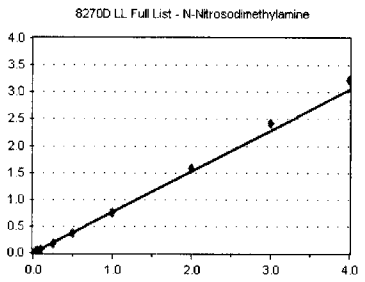
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

N-Nitrosodimethylamine

Curve Fit: **AVERAGE RF**

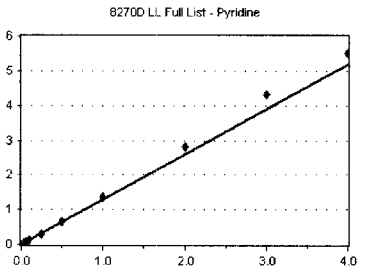


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2214	0.759	3.97
9I19035-CAL2	50	5516	0.758	3.95
9I19035-CAL3	100	11734	0.808	3.95
9I19035-CAL4	200	19941	0.697	3.92
9I19035-CAL5	500	52485	0.702	3.93
9I19035-CAL6	1000	104763	0.739	3.88
9I19035-CAL7	2000	217151	0.762	3.94
9I19035-CAL8	4000	480484	0.786	3.93
9I19035-CAL9	6000	674636	0.804	3.88
9I19035-CALA	8000	866525	0.804	3.96

AVE RF **0.762** RF RSD **5.28** AVE RT **3.93**

Pyridine

Curve Fit: **AVERAGE RF**

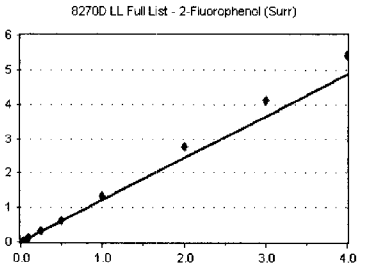


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2206~~	~~0.756~~	~~4.05~~
9I19035-CAL2	50	7667	1.053	4.00
9I19035-CAL3	100	18548	1.277	3.99
9I19035-CAL4	200	38499	1.346	3.95
9I19035-CAL5	500	83583	1.118	3.96
9I19035-CAL6	1000	182180	1.285	3.90
9I19035-CAL7	2000	392152	1.376	3.96
9I19035-CAL8	4000	866960	1.417	3.94
9I19035-CAL9	6000	1210013	1.443	3.89
9I19035-CALA	8000	1480958	1.375	3.96

AVE RF **1.299** RF RSD **10.27** AVE RT **3.95**

2-Fluorophenol (Surr)

Curve Fit: **AVERAGE RF**

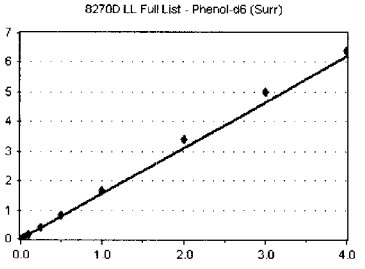


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2742	0.940	5.32
9I19035-CAL2	50	7611	1.045	5.31
9I19035-CAL3	100	13834	0.952	5.31
9I19035-CAL4	200	34817	1.217	5.30
9I19035-CAL5	500	95687	1.280	5.31
9I19035-CAL6	1000	179108	1.263	5.29
9I19035-CAL7	2000	379802	1.333	5.31
9I19035-CAL8	4000	844515	1.381	5.31
9I19035-CAL9	6000	1150405	1.371	5.30
9I19035-CALA	8000	1458990	1.354	5.32

AVE RF **1.214** RF RSD **14.15** AVE RT **5.31**

Phenol-d6 (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3493	1.197	6.20
9I19035-CAL2	50	9501	1.305	6.20
9I19035-CAL3	100	21003	1.446	6.20
9I19035-CAL4	200	45844	1.602	6.20
9I19035-CAL5	500	124621	1.667	6.20
9I19035-CAL6	1000	238398	1.682	6.20
9I19035-CAL7	2000	477001	1.674	6.21
9I19035-CAL8	4000	1043086	1.705	6.22
9I19035-CAL9	6000	1391310	1.659	6.22
9I19035-CALA	8000	1721904	1.598	6.23

AVE RF **1.553** RF RSD **11.41** AVE RT **6.21**

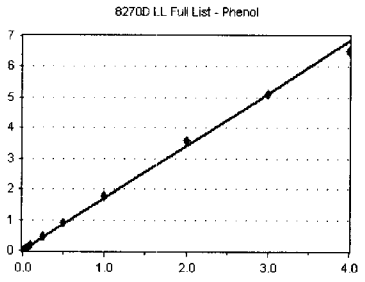
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Phenol

Curve Fit: **AVERAGE RF**

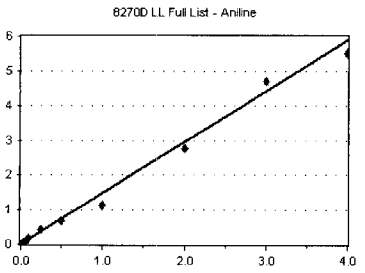


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4498	1.542	6.22
9I19035-CAL2	50	11373	1.562	6.22
9I19035-CAL3	100	23364	1.608	6.22
9I19035-CAL4	200	51417	1.797	6.22
9I19035-CAL5	500	136576	1.827	6.22
9I19035-CAL6	1000	261231	1.843	6.22
9I19035-CAL7	2000	506313	1.776	6.22
9I19035-CAL8	4000	1097096	1.794	6.23
9I19035-CAL9	6000	1432862	1.708	6.23
9I19035-CALA	8000	1750392	1.625	6.25

AVE RF **1.708** RF RSD **6.71** AVE RT **6.22**

Aniline

Curve Fit: **AVERAGE RF**

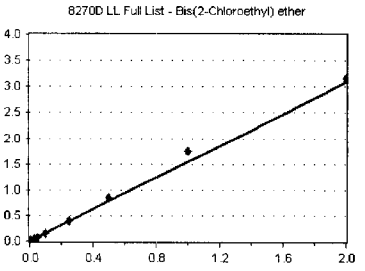


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2038~~	~~0.699~~	~~6.25~~
9I19035-CAL2	50	10955	1.505	6.25
9I19035-CAL3	100	23125	1.592	6.25
9I19035-CAL4	200	49031	1.714	6.25
9I19035-CAL5	500	124901	1.671	6.25
9I19035-CAL6	1000	189393	1.336	6.24
9I19035-CAL7	2000	321662	1.129	6.25
9I19035-CAL8	4000	840844	1.375	6.25
9I19035-CAL9	6000	1316393	1.569	6.25
9I19035-CALA	8000	1480736	1.374	6.26

AVE RF **1.474** RF RSD **12.65** AVE RT **6.25**

Bis(2-Chloroethyl) ether

Curve Fit: **AVERAGE RF**

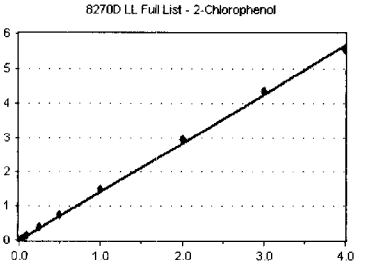


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4110	1.409	6.31
9I19035-CAL2	50	10198	1.401	6.31
9I19035-CAL3	100	21464	1.477	6.31
9I19035-CAL4	200	42595	1.489	6.31
9I19035-CAL5	500	115667	1.547	6.31
9I19035-CAL6	1000	237931	1.678	6.31
9I19035-CAL7	2000	501220	1.759	6.31
9I19035-CAL8	4000	962255	1.573	6.32
~~9I19035-CAL9~~	~~6000~~	~~1158478~~	~~1.381~~	~~6.32~~
~~9I19035-CALA~~	~~8000~~	~~1435010~~	~~1.332~~	~~6.32~~

AVE RF **1.542** RF RSD **8.18** AVE RT **6.31**

2-Chlorophenol

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3591	1.231	6.37
9I19035-CAL2	50	9461	1.299	6.36
9I19035-CAL3	100	19462	1.339	6.37
9I19035-CAL4	200	42160	1.474	6.36
9I19035-CAL5	500	113634	1.520	6.37
9I19035-CAL6	1000	213396	1.505	6.36
9I19035-CAL7	2000	423147	1.485	6.37
9I19035-CAL8	4000	902056	1.475	6.37
9I19035-CAL9	6000	1211719	1.445	6.37
9I19035-CALA	8000	1496104	1.389	6.38

AVE RF **1.416** RF RSD **6.89** AVE RT **6.37**

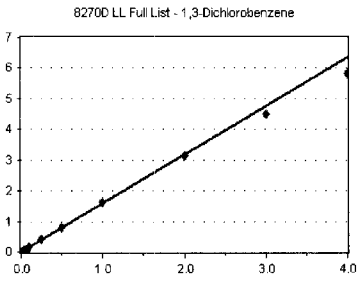
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

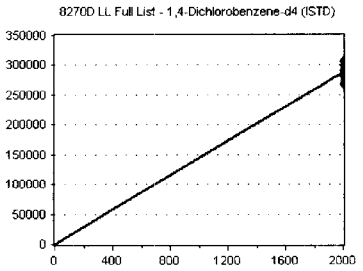


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4452	1.526	6.52
9I19035-CAL2	50	11576	1.590	6.52
9I19035-CAL3	100	23840	1.641	6.52
9I19035-CAL4	200	48050	1.679	6.51
9I19035-CAL5	500	126152	1.688	6.51
9I19035-CAL6	1000	230358	1.625	6.51
9I19035-CAL7	2000	464902	1.631	6.52
9I19035-CAL8	4000	965051	1.578	6.52
9I19035-CAL9	6000	1260484	1.503	6.52
9I19035-CALA	8000	1570022	1.457	6.53

AVE RF **1.592** RF RSD **4.80** AVE RT **6.52**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**

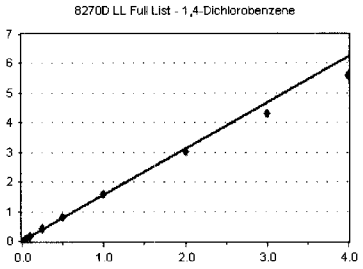


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	291746	145.873	6.57
9I19035-CAL2	2000	291253	145.626	6.57
9I19035-CAL3	2000	290594	145.297	6.57
9I19035-CAL4	2000	286105	143.053	6.57
9I19035-CAL5	2000	299020	149.510	6.57
9I19035-CAL6	2000	283511	141.755	6.57
9I19035-CAL7	2000	285023	142.511	6.57
9I19035-CAL8	2000	305814	152.907	6.57
9I19035-CAL9	2000	279602	139.801	6.57
9I19035-CALA	2000	269345	134.673	6.58

AVE RF **144.101** RF RSD **3.51** AVE RT **6.57**

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

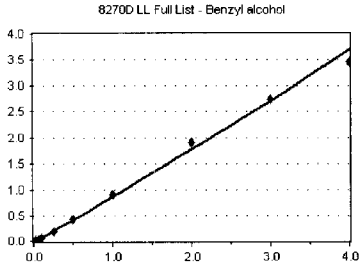


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4492	1.540	6.59
9I19035-CAL2	50	12059	1.656	6.59
9I19035-CAL3	100	23338	1.606	6.59
9I19035-CAL4	200	46724	1.633	6.58
9I19035-CAL5	500	123497	1.652	6.59
9I19035-CAL6	1000	229877	1.622	6.58
9I19035-CAL7	2000	453326	1.590	6.59
9I19035-CAL8	4000	926647	1.515	6.59
9I19035-CAL9	6000	1202300	1.433	6.59
9I19035-CALA	8000	1504749	1.397	6.59

AVE RF **1.564** RF RSD **5.83** AVE RT **6.59**

Benzyl alcohol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1506~~	~~0.516~~	~~6.72~~
9I19035-CAL2	50	3460	0.475	6.71
9I19035-CAL3	100	8907	0.613	6.71
9I19035-CAL4	200	18281	0.639	6.70
9I19035-CAL5	500	59263	0.793	6.70
9I19035-CAL6	1000	124850	0.881	6.70
9I19035-CAL7	2000	261354	0.917	6.71
9I19035-CAL8	4000	581465	0.951	6.71
9I19035-CAL9	6000	768204	0.916	6.71
9I19035-CALA	8000	932774	0.866	6.72

AVE RF **0.783** RF RSD **21.39** AVE RT **6.71**

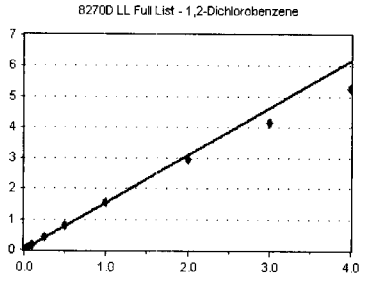
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

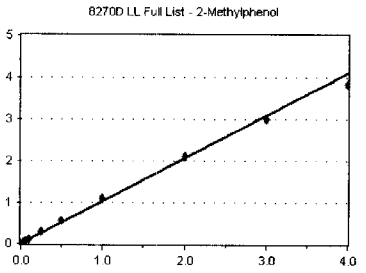


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4176	1.431	6.74
9I19035-CAL2	50	12229	1.680	6.74
9I19035-CAL3	100	23746	1.634	6.74
9I19035-CAL4	200	47924	1.675	6.74
9I19035-CAL5	500	124976	1.672	6.74
9I19035-CAL6	1000	227139	1.602	6.74
9I19035-CAL7	2000	442316	1.552	6.74
9I19035-CAL8	4000	906070	1.481	6.74
9I19035-CAL9	6000	1159865	1.383	6.74
9I19035-CALA	8000	1419977	1.318	6.74

AVE RF **1.543** RF RSD **8.56** AVE RT **6.74**

2-Methylphenol

Curve Fit: **AVERAGE RF**

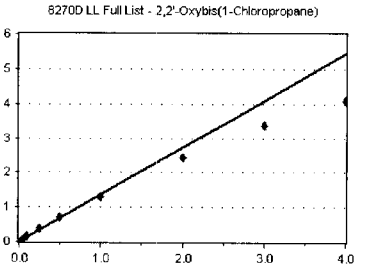


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2712	0.930	6.81
9I19035-CAL2	50	6405	0.880	6.81
9I19035-CAL3	100	14254	0.981	6.81
9I19035-CAL4	200	30801	1.077	6.81
9I19035-CAL5	500	86329	1.155	6.81
9I19035-CAL6	1000	162716	1.148	6.81
9I19035-CAL7	2000	318341	1.117	6.81
9I19035-CAL8	4000	646688	1.057	6.81
9I19035-CAL9	6000	839569	1.001	6.82
9I19035-CALA	8000	1030806	0.957	6.82

AVE RF **1.030** RF RSD **9.22** AVE RT **6.81**

2,2'-Oxybis(1-Chloropropane)

Curve Fit: **AVERAGE RF**

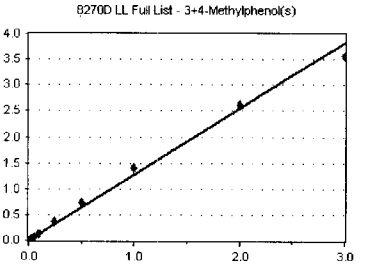


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4376	1.500	6.84
9I19035-CAL2	50	10585	1.454	6.84
9I19035-CAL3	100	21848	1.504	6.84
9I19035-CAL4	200	44401	1.552	6.84
9I19035-CAL5	500	112933	1.511	6.84
9I19035-CAL6	1000	204366	1.442	6.84
9I19035-CAL7	2000	366117	1.285	6.84
9I19035-CAL8	4000	739481	1.209	6.84
9I19035-CAL9	6000	943818	1.125	6.84
9I19035-CALA	8000	1103589	1.024	6.85

AVE RF **1.360** RF RSD **13.68** AVE RT **6.84**

3+4-Methylphenol(s)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3108	1.065	6.96
9I19035-CAL2	50	8248	1.133	6.96
9I19035-CAL3	100	16854	1.160	6.96
9I19035-CAL4	200	38484	1.345	6.96
9I19035-CAL5	500	107685	1.441	6.96
9I19035-CAL6	1000	206745	1.458	6.96
9I19035-CAL7	2000	399183	1.401	6.96
9I19035-CAL8	4000	797964	1.305	6.97
9I19035-CAL9	6000	997248	1.189	6.97
~~9I19035-CALA~~	~~8000~~	~~1205305~~	~~1.119~~	~~6.99~~

AVE RF **1.277** RF RSD **11.32** AVE RT **6.96**

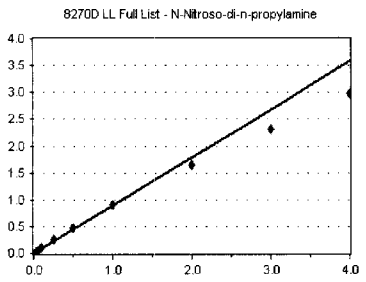
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

N-Nitroso-di-n-propylamine

Curve Fit: **AVERAGE RF**

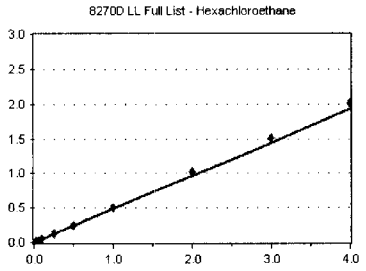


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2691	0.922	6.96
9I19035-CAL2	50	6538	0.898	6.96
9I19035-CAL3	100	13631	0.938	6.96
9I19035-CAL4	200	28365	0.991	6.96
9I19035-CAL5	500	74700	0.999	6.96
9I19035-CAL6	1000	136460	0.963	6.96
9I19035-CAL7	2000	256713	0.901	6.97
9I19035-CAL8	4000	504346	0.825	6.98
9I19035-CAL9	6000	644101	0.768	6.99
9I19035-CALA	8000	803148	0.745	7.00

AVE RF **0.895** RF RSD **9.91** AVE RT **6.97**

Hexachloroethane

Curve Fit: **AVERAGE RF**

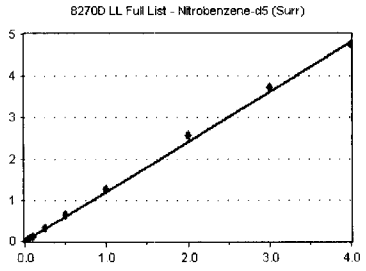


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	1267	0.434	7.08
9I19035-CAL2	50	3313	0.455	7.08
9I19035-CAL3	100	6562	0.452	7.08
9I19035-CAL4	200	13490	0.472	7.08
9I19035-CAL5	500	36961	0.494	7.08
9I19035-CAL6	1000	68545	0.484	7.08
9I19035-CAL7	2000	143490	0.503	7.08
9I19035-CAL8	4000	311702	0.510	7.08
9I19035-CAL9	6000	419784	0.500	7.08
9I19035-CALA	8000	541884	0.503	7.08

AVE RF **0.481** RF RSD **5.45** AVE RT **7.08**

Nitrobenzene-d5 (Surr)

Curve Fit: **AVERAGE RF**

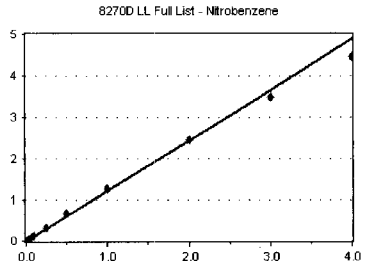


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2861	0.981	7.11
9I19035-CAL2	50	7903	1.085	7.11
9I19035-CAL3	100	16492	1.135	7.11
9I19035-CAL4	200	34591	1.209	7.11
9I19035-CAL5	500	98184	1.313	7.11
9I19035-CAL6	1000	187377	1.322	7.11
9I19035-CAL7	2000	365358	1.282	7.11
9I19035-CAL8	4000	786633	1.286	7.12
9I19035-CAL9	6000	1045001	1.246	7.12
9I19035-CALA	8000	1284804	1.193	7.13

AVE RF **1.205** RF RSD **9.14** AVE RT **7.12**

Nitrobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3138	1.076	7.14
9I19035-CAL2	50	8614	1.183	7.14
9I19035-CAL3	100	17280	1.189	7.14
9I19035-CAL4	200	37240	1.302	7.13
9I19035-CAL5	500	100238	1.341	7.13
9I19035-CAL6	1000	188065	1.327	7.13
9I19035-CAL7	2000	365107	1.281	7.14
9I19035-CAL8	4000	754990	1.234	7.14
9I19035-CAL9	6000	977466	1.165	7.15
9I19035-CALA	8000	1198679	1.113	7.15

AVE RF **1.221** RF RSD **7.44** AVE RT **7.14**

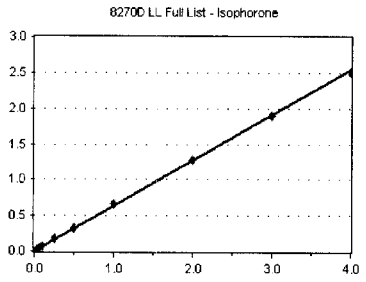
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Isophorone

Curve Fit: **AVERAGE RF**

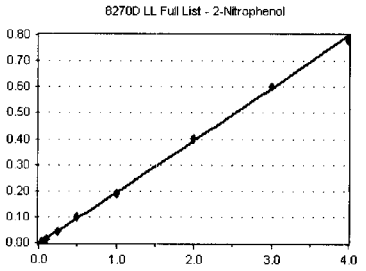


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	6954	0.569	7.37
9I19035-CAL2	50	18082	0.605	7.37
9I19035-CAL3	100	37997	0.640	7.37
9I19035-CAL4	200	78525	0.652	7.37
9I19035-CAL5	500	207804	0.683	7.37
9I19035-CAL6	1000	377941	0.661	7.37
9I19035-CAL7	2000	734609	0.671	7.38
9I19035-CAL8	4000	1524753	0.637	7.38
9I19035-CAL9	6000	2075603	0.632	7.39
9I19035-CALA	8000	2693969	0.627	7.40

AVE RF **0.638** RF RSD **5.17** AVE RT **7.38**

2-Nitrophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

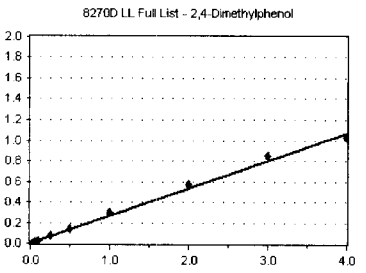


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1053~~	~~0.086~~	~~7.46~~
~~9I19035-CAL2~~	~~50~~	~~3400~~	~~0.114~~	~~7.46~~
9I19035-CAL3	100	7240	0.122	7.45
9I19035-CAL4	200	16298	0.135	7.45
9I19035-CAL5	500	54694	0.180	7.45
9I19035-CAL6	1000	114845	0.201	7.45
9I19035-CAL7	2000	207149	0.189	7.46
9I19035-CAL8	4000	481353	0.201	7.46
9I19035-CAL9	6000	659170	0.201	7.46
9I19035-CALA	8000	838038	0.195	7.46

AVE RF **0.178** RF RSD **17.69** AVE RT **7.45**

2,4-Dimethylphenol

Curve Fit: **AVERAGE RF**

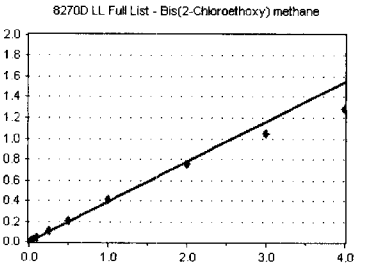


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2375~~	~~0.194~~	~~7.49~~
9I19035-CAL2	50	5922	0.198	7.49
9I19035-CAL3	100	14806	0.249	7.49
9I19035-CAL4	200	31880	0.265	7.49
9I19035-CAL5	500	86093	0.283	7.49
9I19035-CAL6	1000	164250	0.287	7.49
9I19035-CAL7	2000	333523	0.304	7.49
9I19035-CAL8	4000	686286	0.287	7.50
9I19035-CAL9	6000	932922	0.284	7.50
9I19035-CALA	8000	1099526	0.256	7.51

AVE RF **0.268** RF RSD **11.73** AVE RT **7.49**

Bis(2-Chloroethoxy) methane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4738	0.388	7.58
9I19035-CAL2	50	11523	0.385	7.58
9I19035-CAL3	100	23395	0.394	7.58
9I19035-CAL4	200	49149	0.408	7.58
9I19035-CAL5	500	131344	0.432	7.58
9I19035-CAL6	1000	236290	0.413	7.58
9I19035-CAL7	2000	449978	0.411	7.58
9I19035-CAL8	4000	900203	0.376	7.59
9I19035-CAL9	6000	1142883	0.348	7.59
9I19035-CALA	8000	1380842	0.321	7.60

AVE RF **0.388** RF RSD **8.46** AVE RT **7.58**

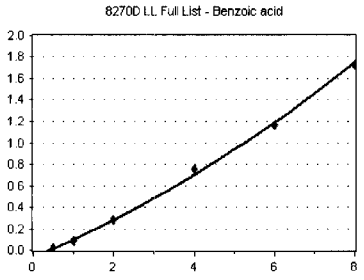
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Benzoic acid

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

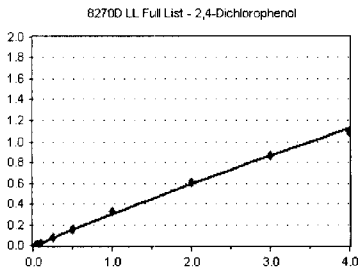


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~40~~	~~229~~	~~9.372~~	~~7.55~~
~~9I19035-CAL2~~	~~100~~	~~200~~	~~3.345~~	~~7.57~~
~~9I19035-CAL3~~	~~200~~	~~2086~~	~~0.018~~	~~7.54~~
~~9I19035-CAL4~~	~~400~~	~~3335~~	~~1.385~~	~~7.54~~
9I19035-CAL5	1000	22389	0.037	7.55
9I19035-CAL6	2000	99342	8.684	7.58
9I19035-CAL7	4000	311714	0.142	7.61
9I19035-CAL8	8000	902544	0.188	7.67
9I19035-CAL9	12000	1277463	0.195	7.69
9I19035-CALA	16000	1853462	0.216	7.73

AVE RF **0.144** RF RSD **48.51** AVE RT **7.64**

2,4-Dichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

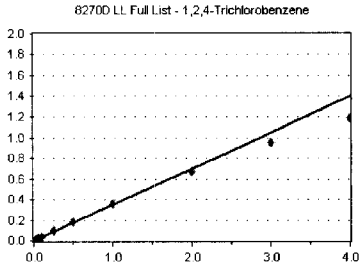


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1603~~	~~0.131~~	~~7.69~~
9I19035-CAL2	50	5068	0.170	7.69
9I19035-CAL3	100	12689	0.214	7.69
9I19035-CAL4	200	30346	0.252	7.69
9I19035-CAL5	500	89833	0.295	7.69
9I19035-CAL6	1000	173249	0.303	7.69
9I19035-CAL7	2000	350635	0.320	7.69
9I19035-CAL8	4000	731346	0.305	7.70
9I19035-CAL9	6000	943067	0.287	7.70
9I19035-CALA	8000	1167761	0.272	7.71

AVE RF **0.269** RF RSD **18.30** AVE RT **7.70**

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**

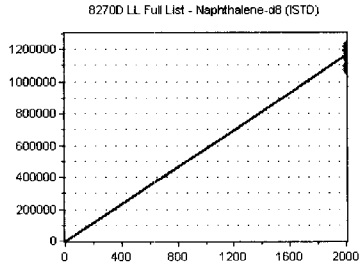


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4361	0.357	7.78
9I19035-CAL2	50	11103	0.371	7.78
9I19035-CAL3	100	21292	0.359	7.78
9I19035-CAL4	200	45007	0.374	7.78
9I19035-CAL5	500	113367	0.372	7.78
9I19035-CAL6	1000	206953	0.362	7.78
9I19035-CAL7	2000	388384	0.355	7.78
9I19035-CAL8	4000	805154	0.336	7.78
9I19035-CAL9	6000	1041502	0.317	7.79
9I19035-CALA	8000	1277566	0.297	7.79

AVE RF **0.350** RF RSD **7.29** AVE RT **7.78**

Naphthalene-d8 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	1221708	610.854	7.84
9I19035-CAL2	2000	1195757	597.878	7.84
9I19035-CAL3	2000	1186873	593.437	7.84
9I19035-CAL4	2000	1204364	602.182	7.84
9I19035-CAL5	2000	1217422	608.711	7.84
9I19035-CAL6	2000	1143968	571.984	7.84
9I19035-CAL7	2000	1095362	547.681	7.84
9I19035-CAL8	2000	1197569	598.784	7.84
9I19035-CAL9	2000	1094080	547.040	7.84
9I19035-CALA	2000	1074761	537.381	7.85

AVE RF **581.593** RF RSD **4.83** AVE RT **7.84**

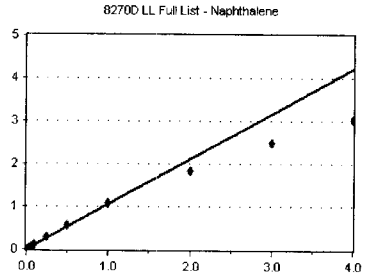
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Naphthalene

Curve Fit: **AVERAGE RF**

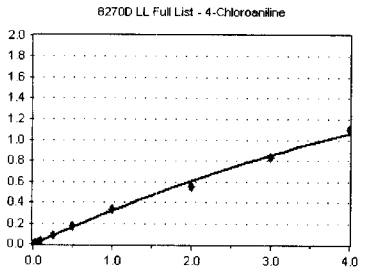


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	14004	1.146	7.86
9I19035-CAL2	50	34402	1.151	7.86
9I19035-CAL3	100	69263	1.167	7.86
9I19035-CAL4	200	141239	1.173	7.86
9I19035-CAL5	500	361018	1.186	7.86
9I19035-CAL6	1000	638989	1.117	7.86
9I19035-CAL7	2000	1178988	1.076	7.86
9I19035-CAL8	4000	2214900	0.925	7.86
9I19035-CAL9	6000	2711030	0.826	7.87
9I19035-CALA	8000	3240737	0.754	7.87

AVE RF **1.052** RF RSD **15.05** AVE RT **7.86**

4-Chloroaniline

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

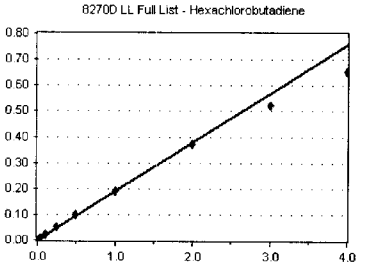


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	1531	0.125	7.91
9I19035-CAL2	50	7306	0.244	7.91
9I19035-CAL3	100	15139	0.255	7.91
9I19035-CAL4	200	38526	0.320	7.91
9I19035-CAL5	500	106945	0.351	7.91
9I19035-CAL6	1000	199585	0.349	7.91
9I19035-CAL7	2000	372183	0.340	7.92
9I19035-CAL8	4000	663200	0.277	7.93
9I19035-CAL9	6000	906180	0.276	7.93
9I19035-CALA	8000	1186251	0.276	7.93

AVE RF **0.281** RF RSD **23.94** AVE RT **7.91**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**

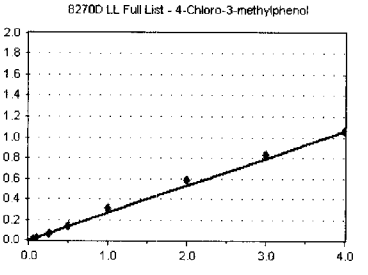


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2247	0.184	7.99
9I19035-CAL2	50	5972	0.200	7.99
9I19035-CAL3	100	11598	0.195	7.99
9I19035-CAL4	200	24136	0.200	7.99
9I19035-CAL5	500	61063	0.201	7.99
9I19035-CAL6	1000	113762	0.199	7.99
9I19035-CAL7	2000	208693	0.191	7.99
9I19035-CAL8	4000	442903	0.185	7.99
9I19035-CAL9	6000	570722	0.174	8.00
9I19035-CALA	8000	701350	0.163	8.00

AVE RF **0.189** RF RSD **6.74** AVE RT **7.99**

4-Chloro-3-methylphenol

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1917~~	~~0.157~~	~~8.39~~
~~9I19035-CAL2~~	~~50~~	~~5211~~	~~0.174~~	~~8.39~~
9I19035-CAL3	100	11698	0.197	8.39
9I19035-CAL4	200	26469	0.220	8.39
9I19035-CAL5	500	84667	0.278	8.39
9I19035-CAL6	1000	162469	0.284	8.39
9I19035-CAL7	2000	338452	0.309	8.39
9I19035-CAL8	4000	698064	0.291	8.39
9I19035-CAL9	6000	912303	0.278	8.40
9I19035-CALA	8000	1141605	0.266	8.40

AVE RF **0.265** RF RSD **14.24** AVE RT **8.39**

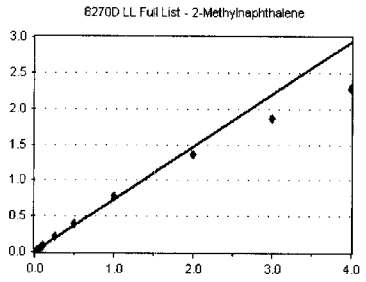
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

2-Methylnaphthalene

Curve Fit: **AVERAGE RF**

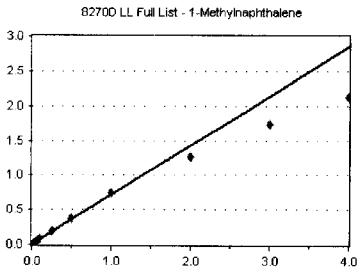


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8620	0.706	8.55
9I19035-CAL2	50	23135	0.774	8.56
9I19035-CAL3	100	46039	0.776	8.56
9I19035-CAL4	200	98607	0.819	8.56
9I19035-CAL5	500	253485	0.833	8.56
9I19035-CAL6	1000	453493	0.793	8.56
9I19035-CAL7	2000	857631	0.783	8.56
9I19035-CAL8	4000	1625949	0.679	8.56
9I19035-CAL9	6000	2034929	0.620	8.56
9I19035-CALA	8000	2448839	0.570	8.56

AVE RF **0.735** RF RSD **12.00** AVE RT **8.56**

1-Methylnaphthalene

Curve Fit: **AVERAGE RF**

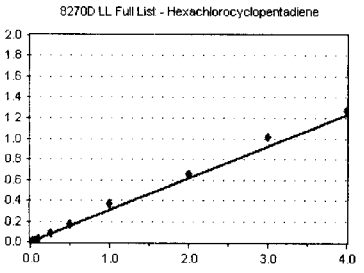


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9000	0.737	8.65
9I19035-CAL2	50	23006	0.770	8.65
9I19035-CAL3	100	46134	0.777	8.66
9I19035-CAL4	200	95459	0.793	8.65
9I19035-CAL5	500	244797	0.804	8.66
9I19035-CAL6	1000	430139	0.752	8.66
9I19035-CAL7	2000	810434	0.740	8.66
9I19035-CAL8	4000	1521185	0.635	8.66
9I19035-CAL9	6000	1893325	0.577	8.66
9I19035-CALA	8000	2286875	0.532	8.66

AVE RF **0.712** RF RSD **13.43** AVE RT **8.66**

Hexachlorocyclopentadiene

Curve Fit: **AVERAGE RF**

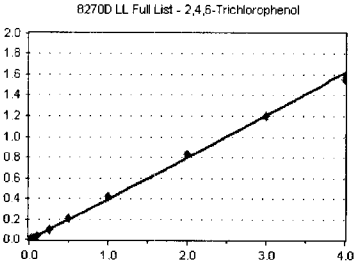


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1303~~	~~0.203~~	~~8.72~~
9I19035-CAL2	50	3356	0.218	8.72
9I19035-CAL3	100	8031	0.261	8.72
9I19035-CAL4	200	17504	0.286	8.73
9I19035-CAL5	500	51180	0.327	8.72
9I19035-CAL6	1000	99801	0.342	8.73
9I19035-CAL7	2000	213088	0.363	8.72
9I19035-CAL8	4000	417829	0.328	8.73
9I19035-CAL9	6000	601203	0.338	8.73
9I19035-CALA	8000	759063	0.320	8.73

AVE RF **0.309** RF RSD **14.82** AVE RT **8.73**

2,4,6-Trichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1119~~	~~0.175~~	~~8.84~~
9I19035-CAL2	50	3644	0.237	8.84
9I19035-CAL3	100	7912	0.257	8.84
9I19035-CAL4	200	18771	0.307	8.84
9I19035-CAL5	500	59985	0.384	8.84
9I19035-CAL6	1000	117480	0.402	8.84
9I19035-CAL7	2000	248218	0.423	8.84
9I19035-CAL8	4000	532499	0.419	8.85
9I19035-CAL9	6000	713503	0.401	8.85
9I19035-CALA	8000	922776	0.389	8.85

AVE RF **0.358** RF RSD **19.99** AVE RT **8.84**

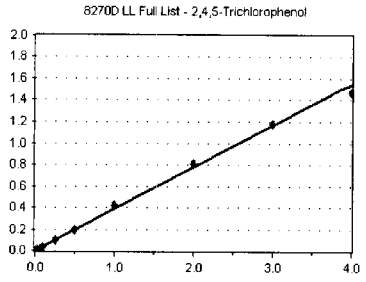
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

2,4,5-Trichlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

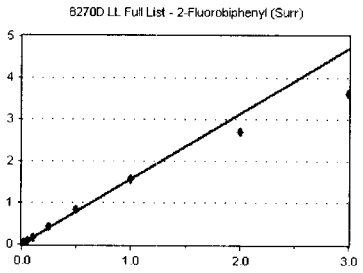


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1218~~	~~0.190~~	~~8.87~~
9I19035-CAL2	50	3657	0.237	8.87
9I19035-CAL3	100	8310	0.270	8.87
9I19035-CAL4	200	18422	0.301	8.87
9I19035-CAL5	500	59608	0.381	8.87
9I19035-CAL6	1000	113799	0.390	8.87
9I19035-CAL7	2000	245074	0.418	8.87
9I19035-CAL8	4000	516958	0.406	8.88
9I19035-CAL9	6000	699105	0.393	8.88
9I19035-CALA	8000	870124	0.366	8.88

AVE RF **0.351** RF RSD **18.51** AVE RT **8.88**

2-Fluorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

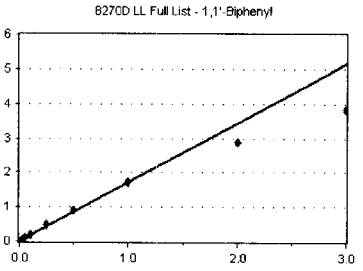


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9460	1.477	8.93
9I19035-CAL2	50	24802	1.610	8.93
9I19035-CAL3	100	53353	1.735	8.93
9I19035-CAL4	200	107137	1.751	8.93
9I19035-CAL5	500	272047	1.740	8.93
9I19035-CAL6	1000	482290	1.652	8.93
9I19035-CAL7	2000	917452	1.564	8.93
9I19035-CAL8	4000	1718307	1.351	8.93
9I19035-CAL9	6000	2148364	1.207	8.93
~~9I19035-CALA~~	~~8000~~	~~2595271~~	~~1.093~~	~~8.94~~

AVE RF **1.565** RF RSD **12.07** AVE RT **8.93**

1,1'-Biphenyl

Curve Fit: **AVERAGE RF**

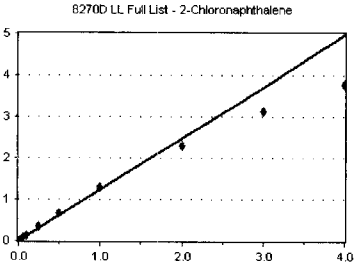


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	10205	1.593	9.03
9I19035-CAL2	50	28683	1.862	9.03
9I19035-CAL3	100	58168	1.891	9.03
9I19035-CAL4	200	117826	1.926	9.03
9I19035-CAL5	500	300735	1.923	9.03
9I19035-CAL6	1000	533233	1.827	9.03
9I19035-CAL7	2000	1010736	1.723	9.03
9I19035-CAL8	4000	1845876	1.451	9.03
9I19035-CAL9	6000	2268485	1.275	9.04
~~9I19035-CALA~~	~~8000~~	~~2706900~~	~~1.140~~	~~9.04~~

AVE RF **1.719** RF RSD **13.51** AVE RT **9.03**

2-Chloronaphthalene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	7646	1.194	9.05
9I19035-CAL2	50	19450	1.263	9.05
9I19035-CAL3	100	41705	1.356	9.05
9I19035-CAL4	200	86117	1.408	9.05
9I19035-CAL5	500	223930	1.432	9.05
9I19035-CAL6	1000	386877	1.325	9.05
9I19035-CAL7	2000	759926	1.296	9.05
9I19035-CAL8	4000	1467799	1.154	9.06
9I19035-CAL9	6000	1860060	1.045	9.06
9I19035-CALA	8000	2240055	0.943	9.06

AVE RF **1.242** RF RSD **12.73** AVE RT **9.05**

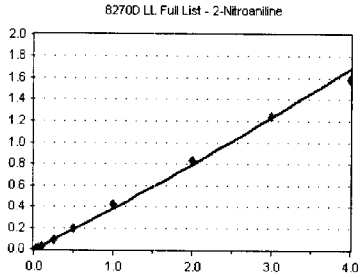
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

2-Nitroaniline

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

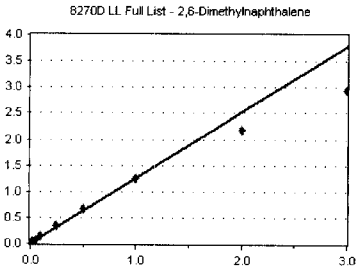


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~939~~	~~0.147~~	~~9.15~~
9I19035-CAL2	50	2728	0.177	9.15
9I19035-CAL3	100	6877	0.224	9.15
9I19035-CAL4	200	16161	0.264	9.15
9I19035-CAL5	500	55795	0.357	9.15
9I19035-CAL6	1000	113482	0.389	9.15
9I19035-CAL7	2000	248865	0.424	9.15
9I19035-CAL8	4000	528406	0.415	9.16
9I19035-CAL9	6000	739914	0.416	9.16
9I19035-CALA	8000	944974	0.398	9.17

AVE RF **0.340** RF RSD **27.55** AVE RT **9.15**

2,6-Dimethylnaphthalene

Curve Fit: **AVERAGE RF**

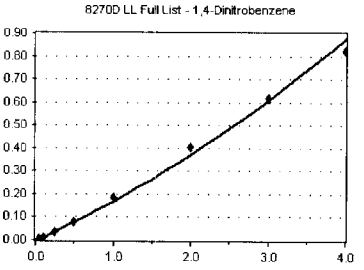


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	7097	1.108	9.19
9I19035-CAL2	50	20566	1.335	9.19
9I19035-CAL3	100	43362	1.410	9.19
9I19035-CAL4	200	87215	1.426	9.19
9I19035-CAL5	500	219677	1.405	9.19
9I19035-CAL6	1000	389863	1.336	9.19
9I19035-CAL7	2000	740663	1.263	9.19
9I19035-CAL8	4000	1385514	1.089	9.19
9I19035-CAL9	6000	1742370	0.979	9.20
~~9I19035-CALA~~	~~8000~~	~~2089018~~	~~0.880~~	~~9.20~~

AVE RF **1.261** RF RSD **12.95** AVE RT **9.19**

1,4-Dinitrobenzene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

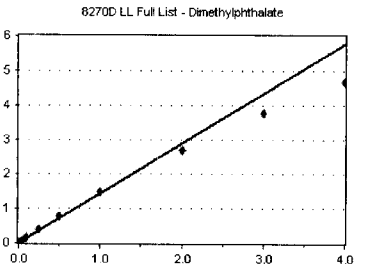


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~381~~	~~5.948~~	~~9.27~~
~~9I19035-CAL2~~	~~50~~	~~915~~	~~5.939~~	~~9.27~~
9I19035-CAL3	100	2006	0.065	9.27
9I19035-CAL4	200	5164	8.441	9.27
9I19035-CAL5	500	19841	0.127	9.27
9I19035-CAL6	1000	44207	0.151	9.27
9I19035-CAL7	2000	108019	0.184	9.28
9I19035-CAL8	4000	258106	0.203	9.29
9I19035-CAL9	6000	365105	0.205	9.29
9I19035-CALA	8000	488295	0.206	9.30

AVE RF **0.153** RF RSD **36.62** AVE RT **9.28**

Dimethylphthalate

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9190	1.435	9.33
9I19035-CAL2	50	22486	1.460	9.33
9I19035-CAL3	100	49089	1.596	9.33
9I19035-CAL4	200	96043	1.570	9.33
9I19035-CAL5	500	250192	1.600	9.33
9I19035-CAL6	1000	449574	1.540	9.33
9I19035-CAL7	2000	868820	1.481	9.34
9I19035-CAL8	4000	1712764	1.346	9.35
9I19035-CAL9	6000	2223667	1.249	9.35
9I19035-CALA	8000	2768841	1.166	9.36

AVE RF **1.444** RF RSD **10.30** AVE RT **9.34**

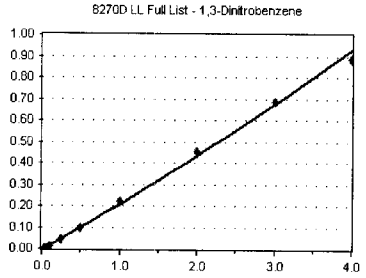
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

1,3-Dinitrobenzene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

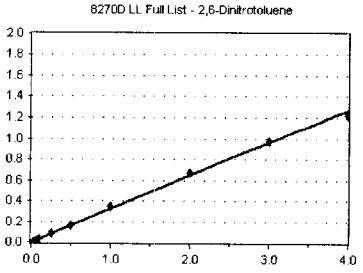


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~417~~	~~6.510~~	~~9.35~~
~~9I19035-CAL2~~	~~50~~	~~1390~~	~~9.023~~	~~9.35~~
9I19035-CAL3	100	3033	9.862	9.35
9I19035-CAL4	200	7621	0.125	9.35
9I19035-CAL5	500	28132	0.180	9.35
9I19035-CAL6	1000	57342	0.196	9.35
9I19035-CAL7	2000	128986	0.220	9.36
9I19035-CAL8	4000	289563	0.228	9.37
9I19035-CAL9	6000	407082	0.229	9.38
9I19035-CALA	8000	525829	0.221	9.39

AVE RF **0.187** RF RSD **26.72** AVE RT **9.36**

2,6-Dinitrotoluene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

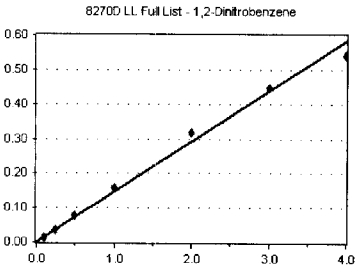


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1042~~	~~0.163~~	~~9.39~~
9I19035-CAL2	50	2915	0.189	9.39
9I19035-CAL3	100	6526	0.212	9.39
9I19035-CAL4	200	16812	0.275	9.39
9I19035-CAL5	500	51160	0.327	9.39
9I19035-CAL6	1000	97373	0.334	9.39
9I19035-CAL7	2000	201552	0.344	9.39
9I19035-CAL8	4000	424265	0.334	9.40
9I19035-CAL9	6000	575872	0.324	9.41
9I19035-CALA	8000	727325	0.306	9.41

AVE RF **0.294** RF RSD **19.32** AVE RT **9.39**

1,2-Dinitrobenzene

Curve Fit: **AVERAGE RF**

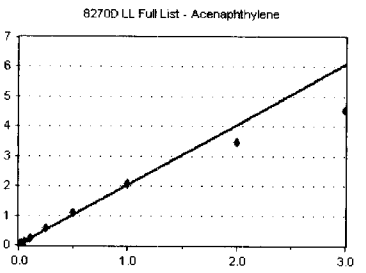


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~304~~	~~4.746~~	~~9.44~~
~~9I19035-CAL2~~	~~50~~	~~1349~~	~~8.757~~	~~9.44~~
~~9I19035-CAL3~~	~~100~~	~~2742~~	~~8.915~~	~~9.45~~
9I19035-CAL4	200	7269	0.119	9.44
9I19035-CAL5	500	22807	0.146	9.45
9I19035-CAL6	1000	45222	0.155	9.45
9I19035-CAL7	2000	94079	0.160	9.45
9I19035-CAL8	4000	202294	0.159	9.47
9I19035-CAL9	6000	266233	0.150	9.47
9I19035-CALA	8000	322227	0.136	9.48

AVE RF **0.146** RF RSD **10.12** AVE RT **9.46**

Acenaphthylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	12450	1.944	9.47
9I19035-CAL2	50	32192	2.090	9.47
9I19035-CAL3	100	68008	2.211	9.47
9I19035-CAL4	200	136163	2.226	9.47
9I19035-CAL5	500	361152	2.309	9.47
9I19035-CAL6	1000	637470	2.184	9.47
9I19035-CAL7	2000	1211941	2.067	9.48
9I19035-CAL8	4000	2224222	1.748	9.48
9I19035-CAL9	6000	2704211	1.519	9.48
~~9I19035-CALA~~	~~8000~~	~~3146686~~	~~1.325~~	~~9.49~~

AVE RF **2.033** RF RSD **12.60** AVE RT **9.48**

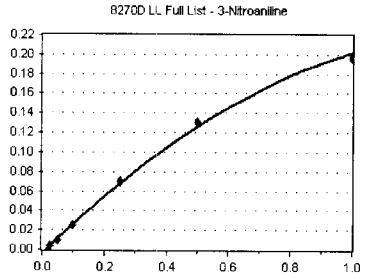
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

3-Nitroaniline

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

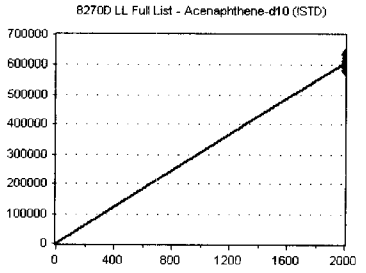


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~592~~	~~9.242~~	~~9.56~~
9I19035-CAL2	50	2106	0.137	9.56
9I19035-CAL3	100	6036	0.196	9.56
9I19035-CAL4	200	15637	0.256	9.56
9I19035-CAL5	500	44178	0.282	9.56
9I19035-CAL6	1000	76212	0.261	9.56
9I19035-CAL7	2000	114743	0.196	9.56
~~9I19035-CAL8~~	~~4000~~	~~123216~~	~~9.686~~	~~9.57~~
~~9I19035-CAL9~~	~~6000~~	~~180797~~	~~0.102~~	~~0.00~~
~~9I19035-CALA~~	~~8000~~	~~174843~~	~~7.362~~	~~0.00~~

AVE RF **0.221** RF RSD **24.71** AVE RT **9.56**

Acenaphthene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

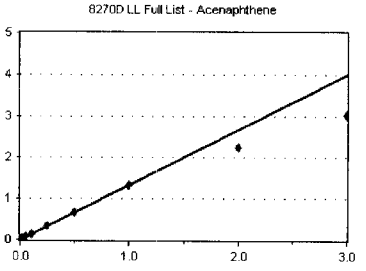


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	640527	320.263	9.62
9I19035-CAL2	2000	616226	308.113	9.62
9I19035-CAL3	2000	615111	307.555	9.62
9I19035-CAL4	2000	611745	305.873	9.62
9I19035-CAL5	2000	625555	312.778	9.62
9I19035-CAL6	2000	583825	291.913	9.62
9I19035-CAL7	2000	586466	293.233	9.62
9I19035-CAL8	2000	636039	318.020	9.62
9I19035-CAL9	2000	593235	296.618	9.62
9I19035-CALA	2000	593771	296.885	9.63

AVE RF **305.125** RF RSD **3.32** AVE RT **9.62**

Acenaphthene

Curve Fit: **AVERAGE RF**

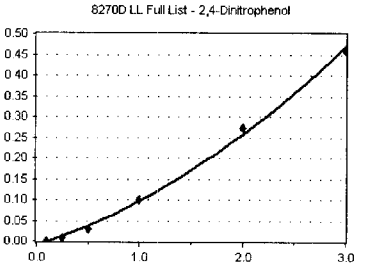


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8885	1.387	9.65
9I19035-CAL2	50	22572	1.465	9.65
9I19035-CAL3	100	44425	1.444	9.65
9I19035-CAL4	200	89211	1.458	9.65
9I19035-CAL5	500	224540	1.436	9.65
9I19035-CAL6	1000	399993	1.370	9.65
9I19035-CAL7	2000	770675	1.314	9.65
9I19035-CAL8	4000	1433796	1.127	9.66
9I19035-CAL9	6000	1803278	1.013	9.66
~~9I19035-CALA~~	~~8000~~	~~2204696~~	~~0.928~~	~~9.66~~

AVE RF **1.335** RF RSD **12.00** AVE RT **9.65**

2,4-Dinitrophenol

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9I19035-CAL2~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9I19035-CAL3~~	~~100~~	~~169~~	~~5.495~~	~~9.67~~
9I19035-CAL4	200	796	1.301	9.67
9I19035-CAL5	500	4568	2.921	9.67
9I19035-CAL6	1000	18042	6.181	9.66
9I19035-CAL7	2000	58400	9.958	9.67
9I19035-CAL8	4000	174238	0.137	9.68
9I19035-CAL9	6000	272053	0.153	9.68
~~9I19035-CALA~~	~~8000~~	~~388560~~	~~0.164~~	~~9.69~~

AVE RF **8.224** RF RSD **69.44** AVE RT **9.67**

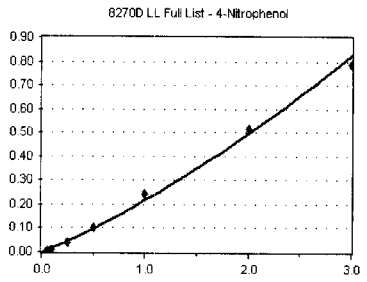
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

4-Nitrophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

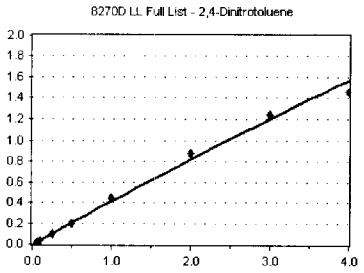


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~120~~	~~1.873~~	~~9.72~~
~~9I19035-CAL2~~	~~50~~	~~699~~	~~4.537~~	~~9.72~~
9I19035-CAL3	100	2106	6.848	9.72
9I19035-CAL4	200	5790	9.465	9.72
9I19035-CAL5	500	25654	0.164	9.72
9I19035-CAL6	1000	58727	0.201	9.72
9I19035-CAL7	2000	141903	0.242	9.73
9I19035-CAL8	4000	326661	0.257	9.74
9I19035-CAL9	6000	467183	0.263	9.75
~~9I19035-CALA~~	~~8000~~	~~610739~~	~~0.257~~	~~9.76~~

AVE RF **0.184** RF RSD **42.54** AVE RT **9.73**

2,4-Dinitrotoluene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

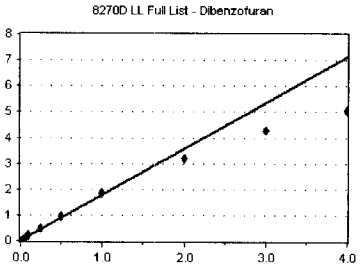


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1027~~	~~0.160~~	~~9.80~~
~~9I19035-CAL2~~	~~50~~	~~2508~~	~~0.163~~	~~9.80~~
9I19035-CAL3	100	6812	0.221	9.80
9I19035-CAL4	200	16915	0.277	9.80
9I19035-CAL5	500	57760	0.369	9.80
9I19035-CAL6	1000	116247	0.398	9.80
9I19035-CAL7	2000	257547	0.439	9.80
9I19035-CAL8	4000	555824	0.437	9.81
9I19035-CAL9	6000	734363	0.413	9.82
9I19035-CALA	8000	868405	0.366	9.83

AVE RF **0.365** RF RSD **21.35** AVE RT **9.81**

Dibenzofuran

Curve Fit: **AVERAGE RF**

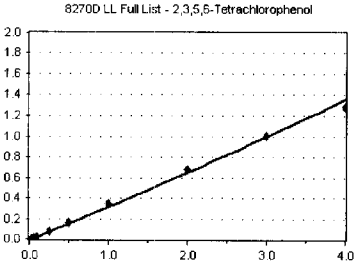


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	11668	1.822	9.83
9I19035-CAL2	50	29377	1.907	9.83
9I19035-CAL3	100	62656	2.037	9.83
9I19035-CAL4	200	123476	2.018	9.83
9I19035-CAL5	500	310051	1.983	9.83
9I19035-CAL6	1000	550893	1.887	9.83
9I19035-CAL7	2000	1086183	1.852	9.83
9I19035-CAL8	4000	2040744	1.604	9.83
9I19035-CAL9	6000	2531005	1.422	9.84
9I19035-CALA	8000	3003141	1.264	9.84

AVE RF **1.780** RF RSD **14.79** AVE RT **9.83**

2,3,5,6-Tetrachlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~774~~	~~0.121~~	~~9.91~~
9I19035-CAL2	50	1678	0.109	9.91
9I19035-CAL3	100	5673	0.184	9.91
9I19035-CAL4	200	13193	0.216	9.91
9I19035-CAL5	500	46260	0.296	9.91
9I19035-CAL6	1000	91879	0.315	9.91
9I19035-CAL7	2000	201504	0.344	9.91
9I19035-CAL8	4000	434819	0.342	9.91
9I19035-CAL9	6000	597064	0.335	9.92
9I19035-CALA	8000	763806	0.322	9.92

AVE RF **0.274** RF RSD **30.66** AVE RT **9.91**

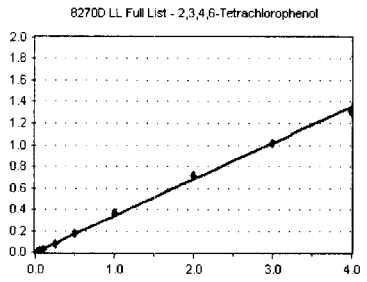
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

2,3,4,6-Tetrachlorophenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

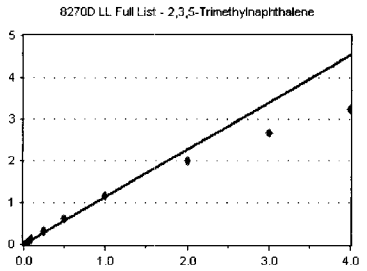


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~856~~	~~0.134~~	~~9.95~~
9I19035-CAL2	50	2513	0.163	9.95
9I19035-CAL3	100	7263	0.236	9.95
9I19035-CAL4	200	16040	0.262	9.95
9I19035-CAL5	500	50476	0.323	9.95
9I19035-CAL6	1000	101167	0.347	9.95
9I19035-CAL7	2000	213539	0.364	9.95
9I19035-CAL8	4000	451267	0.355	9.96
9I19035-CAL9	6000	603345	0.339	9.96
9I19035-CALA	8000	773723	0.326	9.96

AVE RF **0.302** RF RSD **22.30** AVE RT **9.95**

2,3,5-Trimethylnaphthalene

Curve Fit: **AVERAGE RF**

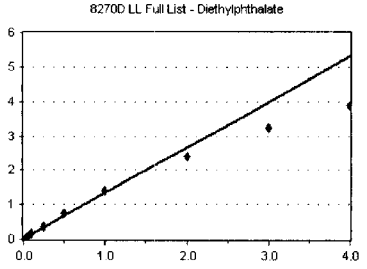


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	7629	1.191	10.03
9I19035-CAL2	50	19066	1.238	10.03
9I19035-CAL3	100	38608	1.255	10.03
9I19035-CAL4	200	78195	1.278	10.04
9I19035-CAL5	500	199252	1.274	10.03
9I19035-CAL6	1000	355247	1.217	10.04
9I19035-CAL7	2000	685050	1.168	10.04
9I19035-CAL8	4000	1276533	1.004	10.04
9I19035-CAL9	6000	1592300	0.895	10.05
9I19035-CALA	8000	1931750	0.813	10.05

AVE RF **1.133** RF RSD **14.83** AVE RT **10.04**

Diethylphthalate

Curve Fit: **AVERAGE RF**

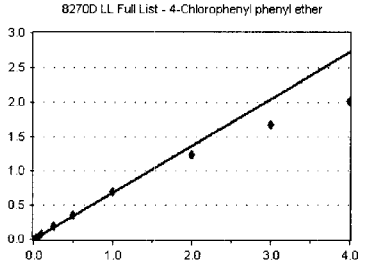


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8035	1.254	10.04
9I19035-CAL2	50	21378	1.388	10.04
9I19035-CAL3	100	47870	1.556	10.04
9I19035-CAL4	200	92047	1.505	10.04
9I19035-CAL5	500	232776	1.488	10.04
9I19035-CAL6	1000	426259	1.460	10.05
9I19035-CAL7	2000	811497	1.384	10.06
9I19035-CAL8	4000	1534521	1.206	10.06
9I19035-CAL9	6000	1916805	1.077	10.07
9I19035-CALA	8000	2319061	0.976	10.07

AVE RF **1.330** RF RSD **14.62** AVE RT **10.05**

4-Chlorophenyl phenyl ether

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	4548	0.710	10.17
9I19035-CAL2	50	11449	0.743	10.17
9I19035-CAL3	100	23837	0.775	10.17
9I19035-CAL4	200	45790	0.749	10.17
9I19035-CAL5	500	117369	0.750	10.17
9I19035-CAL6	1000	209713	0.718	10.17
9I19035-CAL7	2000	412942	0.704	10.17
9I19035-CAL8	4000	786385	0.618	10.17
9I19035-CAL9	6000	992417	0.558	10.18
9I19035-CALA	8000	1192807	0.502	10.18

AVE RF **0.683** RF RSD **13.46** AVE RT **10.17**

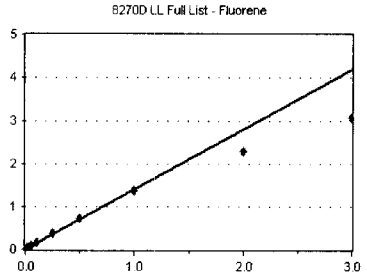
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Fluorene

Curve Fit: **AVERAGE RF**

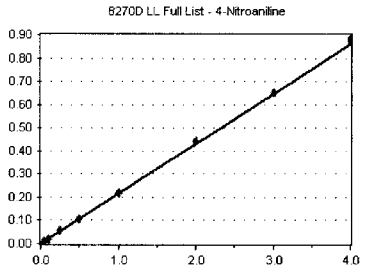


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9113	1.423	10.17
9I19035-CAL2	50	22247	1.444	10.17
9I19035-CAL3	100	48968	1.592	10.17
9I19035-CAL4	200	95574	1.562	10.17
9I19035-CAL5	500	244304	1.562	10.17
9I19035-CAL6	1000	426158	1.460	10.17
9I19035-CAL7	2000	812478	1.385	10.18
9I19035-CAL8	4000	1464263	1.151	10.18
9I19035-CAL9	6000	1824399	1.025	10.19
~~9I19035-CALA~~	~~8000~~	~~2171368~~	~~0.914~~	~~10.19~~

AVE RF **1.401** RF RSD **13.79** AVE RT **10.18**

4-Nitroaniline

Curve Fit: **AVERAGE RF**

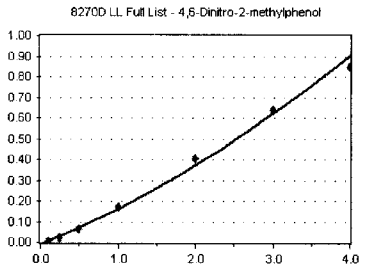


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~719~~	~~0.112~~	~~10.18~~
~~9I19035-CAL2~~	~~50~~	~~2192~~	~~0.142~~	~~10.18~~
9I19035-CAL3	100	5563	0.181	10.18
9I19035-CAL4	200	12832	0.210	10.18
9I19035-CAL5	500	36541	0.234	10.18
9I19035-CAL6	1000	63138	0.216	10.18
9I19035-CAL7	2000	129234	0.220	10.19
9I19035-CAL8	4000	281600	0.221	10.20
9I19035-CAL9	6000	385746	0.217	10.21
9I19035-CALA	8000	523369	0.220	10.21

AVE RF **0.215** RF RSD **7.13** AVE RT **10.19**

4,6-Dinitro-2-methylphenol

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

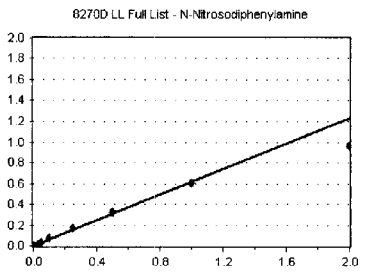


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~0~~	~~0.000~~	~~0.00~~
~~9I19035-CAL2~~	~~50~~	~~206~~	~~1.337~~	~~10.22~~
~~9I19035-CAL3~~	~~100~~	~~761~~	~~0.025~~	~~10.21~~
9I19035-CAL4	200	2504	4.093	10.22
9I19035-CAL5	500	14208	9.085	10.22
9I19035-CAL6	1000	38878	0.133	10.22
9I19035-CAL7	2000	101854	0.174	10.22
9I19035-CAL8	4000	258196	0.203	10.23
9I19035-CAL9	6000	377769	0.212	10.24
9I19035-CALA	8000	504056	0.212	10.24

AVE RF **0.152** RF RSD **43.85** AVE RT **10.23**

N-Nitrosodiphenylamine

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	5957	0.518	10.29
9I19035-CAL2	50	16461	0.605	10.29
9I19035-CAL3	100	36899	0.660	10.29
9I19035-CAL4	200	77183	0.703	10.29
9I19035-CAL5	500	197334	0.703	10.29
9I19035-CAL6	1000	350586	0.658	10.29
9I19035-CAL7	2000	659355	0.604	10.29
9I19035-CAL8	4000	1182676	0.483	10.30
~~9I19035-CAL9~~	~~6000~~	~~1569352~~	~~0.455~~	~~10.30~~
~~9I19035-CALA~~	~~8000~~	~~1760214~~	~~0.377~~	~~10.31~~

AVE RF **0.617** RF RSD **13.21** AVE RT **10.29**

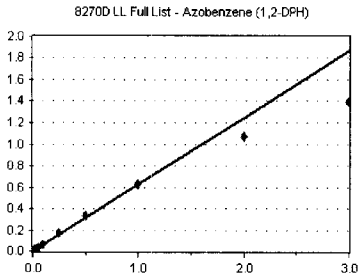
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Azobenzene (1,2-DPH)

Curve Fit: **AVERAGE RF**

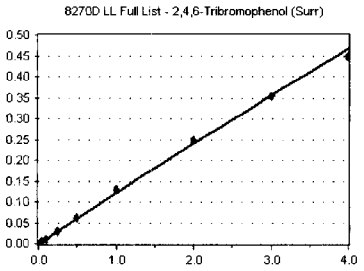


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	6853	0.596	10.33
9I19035-CAL2	50	17404	0.640	10.33
9I19035-CAL3	100	37821	0.676	10.33
9I19035-CAL4	200	76676	0.698	10.33
9I19035-CAL5	500	199437	0.710	10.33
9I19035-CAL6	1000	355316	0.667	10.33
9I19035-CAL7	2000	684303	0.627	10.33
9I19035-CAL8	4000	1316342	0.537	10.34
9I19035-CAL9	6000	1601806	0.465	10.34
~~9I19035-CALA~~	~~8000~~	~~1950077~~	~~0.418~~	~~10.34~~

AVE RF **0.624** RF RSD **12.85** AVE RT **10.33**

2,4,6-Tribromophenol (Surr)

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

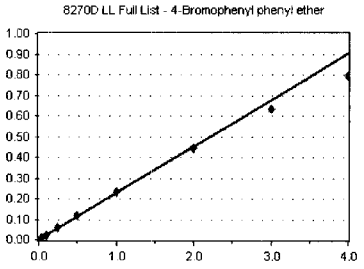


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~762~~	~~6.623~~	~~10.41~~
9I19035-CAL2	50	1929	7.093	10.42
9I19035-CAL3	100	4809	8.598	10.42
9I19035-CAL4	200	10829	9.862	10.42
9I19035-CAL5	500	33701	0.120	10.42
9I19035-CAL6	1000	65055	0.122	10.42
9I19035-CAL7	2000	142266	0.130	10.42
9I19035-CAL8	4000	305471	0.125	10.43
9I19035-CAL9	6000	407389	0.118	10.43
9I19035-CALA	8000	524653	0.112	10.44

AVE RF **0.109** RF RSD **18.24** AVE RT **10.42**

4-Bromophenyl phenyl ether

Curve Fit: **AVERAGE RF**

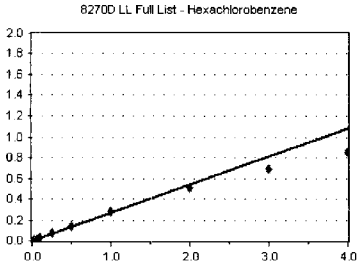


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	2390	0.208	10.67
9I19035-CAL2	50	6326	0.233	10.67
9I19035-CAL3	100	13242	0.237	10.67
9I19035-CAL4	200	26212	0.239	10.67
9I19035-CAL5	500	66857	0.238	10.67
9I19035-CAL6	1000	125621	0.236	10.67
9I19035-CAL7	2000	256334	0.235	10.67
9I19035-CAL8	4000	546207	0.223	10.68
9I19035-CAL9	6000	726568	0.211	10.68
9I19035-CALA	8000	926306	0.198	10.68

AVE RF **0.226** RF RSD **6.56** AVE RT **10.67**

Hexachlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	3454	0.300	10.75
9I19035-CAL2	50	7615	0.280	10.75
9I19035-CAL3	100	16314	0.292	10.75
9I19035-CAL4	200	30519	0.278	10.75
9I19035-CAL5	500	82813	0.295	10.75
9I19035-CAL6	1000	152211	0.286	10.75
9I19035-CAL7	2000	304969	0.279	10.75
9I19035-CAL8	4000	617226	0.252	10.75
9I19035-CAL9	6000	795928	0.231	10.76
9I19035-CALA	8000	1001688	0.215	10.76

AVE RF **0.271** RF RSD **10.61** AVE RT **10.75**

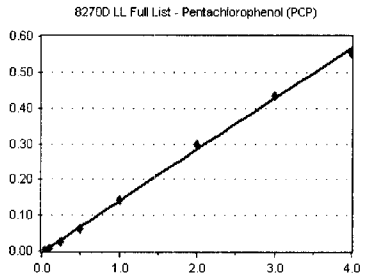
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Pentachlorophenol (PCP)

Curve Fit: **QUADRATIC: Weighting: (1/a), Origin: Ignore**

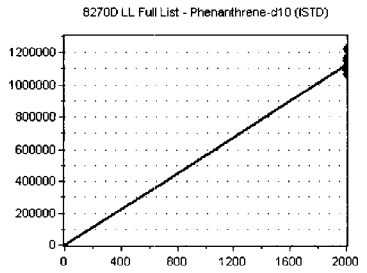


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~1000~~	~~8.692~~	~~10.94~~
~~9I19035-CAL2~~	~~50~~	~~1392~~	~~5.118~~	~~10.94~~
9I19035-CAL3	100	4341	7.762	10.94
9I19035-CAL4	200	7638	6.956	10.94
9I19035-CAL5	500	30348	0.108	10.94
9I19035-CAL6	1000	65122	0.122	10.94
9I19035-CAL7	2000	154858	0.142	10.94
9I19035-CAL8	4000	363768	0.148	10.94
9I19035-CAL9	6000	500914	0.145	10.95
9I19035-CALA	8000	646595	0.138	10.95

AVE RF **0.119** RF RSD **26.11** AVE RT **10.94**

Phenanthrene-d10 (ISTD)

Curve Fit: **AVERAGE RF**

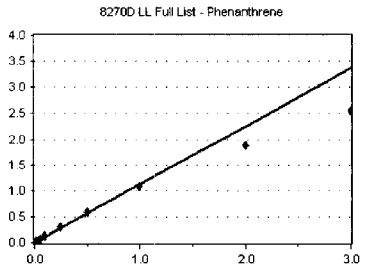


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	1150535	575.268	11.13
9I19035-CAL2	2000	1087898	543.949	11.13
9I19035-CAL3	2000	1118597	559.298	11.13
9I19035-CAL4	2000	1098102	549.051	11.13
9I19035-CAL5	2000	1123094	561.547	11.13
9I19035-CAL6	2000	1065192	532.596	11.14
9I19035-CAL7	2000	1091855	545.928	11.14
9I19035-CAL8	2000	1224924	612.462	11.14
9I19035-CAL9	2000	1148482	574.241	11.14
9I19035-CALA	2000	1167219	583.609	11.14

AVE RF **563.795** RF RSD **4.15** AVE RT **11.13**

Phenanthrene

Curve Fit: **AVERAGE RF**

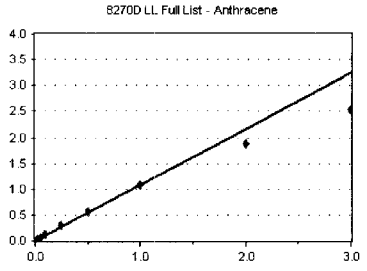


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	13749	1.195	11.16
9I19035-CAL2	50	32566	1.197	11.16
9I19035-CAL3	100	68493	1.225	11.15
9I19035-CAL4	200	134878	1.228	11.15
9I19035-CAL5	500	343840	1.225	11.16
9I19035-CAL6	1000	610421	1.146	11.16
9I19035-CAL7	2000	1191270	1.091	11.16
9I19035-CAL8	4000	2302690	0.940	11.16
9I19035-CAL9	6000	2932288	0.851	11.17
~~9I19035-CALA~~	~~8000~~	~~3584429~~	~~0.768~~	~~11.17~~

AVE RF **1.122** RF RSD **12.26** AVE RT **11.16**

Anthracene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	11450	0.995	11.21
9I19035-CAL2	50	30636	1.126	11.21
9I19035-CAL3	100	65192	1.166	11.21
9I19035-CAL4	200	132343	1.205	11.21
9I19035-CAL5	500	335865	1.196	11.21
9I19035-CAL6	1000	608748	1.143	11.21
9I19035-CAL7	2000	1187408	1.088	11.21
9I19035-CAL8	4000	2312152	0.944	11.22
9I19035-CAL9	6000	2907155	0.844	11.22
~~9I19035-CALA~~	~~8000~~	~~3477728~~	~~0.745~~	~~11.22~~

AVE RF **1.079** RF RSD **11.55** AVE RT **11.21**

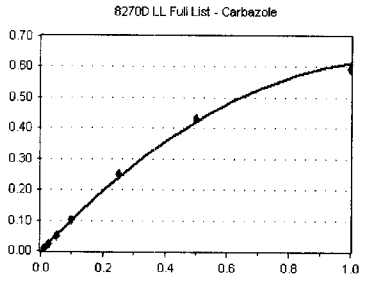
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Carbazole

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

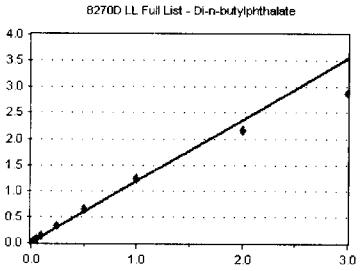


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9186	0.798	11.37
9I19035-CAL2	50	24489	0.900	11.37
9I19035-CAL3	100	54742	0.979	11.37
9I19035-CAL4	200	110985	1.011	11.37
9I19035-CAL5	500	281210	1.002	11.37
9I19035-CAL6	1000	458747	0.861	11.37
9I19035-CAL7	2000	646631	0.592	11.37
~~9I19035-CAL8~~	~~4000~~	~~858655~~	~~0.350~~	~~11.37~~
~~9I19035-CAL9~~	~~6000~~	~~1156567~~	~~0.336~~	~~11.37~~
~~9I19035-CALA~~	~~8000~~	~~1165062~~	~~0.250~~	~~11.37~~

AVE RF **0.878** RF RSD **16.89** AVE RT **11.37**

Di-n-butylphthalate

Curve Fit: **AVERAGE RF**

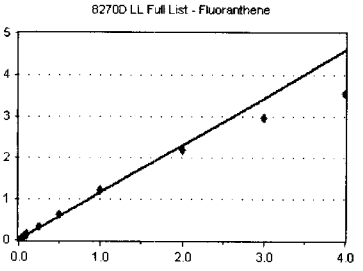


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~11697~~	~~1.017~~	~~11.72~~
9I19035-CAL2	50	29117	1.071	11.72
9I19035-CAL3	100	70280	1.257	11.72
9I19035-CAL4	200	138215	1.259	11.72
9I19035-CAL5	500	369981	1.318	11.72
9I19035-CAL6	1000	683398	1.283	11.72
9I19035-CAL7	2000	1348435	1.235	11.72
9I19035-CAL8	4000	2651399	1.082	11.72
9I19035-CAL9	6000	3301933	0.958	11.73
~~9I19035-CALA~~	~~8000~~	~~4037361~~	~~0.865~~	~~11.72~~

AVE RF **1.183** RF RSD **10.85** AVE RT **11.72**

Fluoranthene

Curve Fit: **AVERAGE RF**

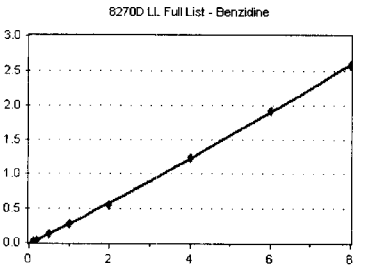


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	12248	1.065	12.43
9I19035-CAL2	50	31166	1.146	12.42
9I19035-CAL3	100	70234	1.256	12.42
9I19035-CAL4	200	138551	1.262	12.42
9I19035-CAL5	500	369455	1.316	12.43
9I19035-CAL6	1000	669325	1.257	12.42
9I19035-CAL7	2000	1341415	1.229	12.43
9I19035-CAL8	4000	2665095	1.088	12.44
9I19035-CAL9	6000	3417993	0.992	12.44
9I19035-CALA	8000	4158773	0.891	12.44

AVE RF **1.150** RF RSD **12.02** AVE RT **12.43**

Benzidine

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~40~~	~~3398~~	~~0.148~~	~~12.58~~
~~9I19035-CAL2~~	~~100~~	~~5652~~	~~0.104~~	~~12.58~~
9I19035-CAL3	200	12748	0.114	12.58
9I19035-CAL4	400	43242	0.197	12.58
9I19035-CAL5	1000	152022	0.271	12.58
9I19035-CAL6	2000	302104	0.284	12.58
9I19035-CAL7	4000	601547	0.275	12.59
9I19035-CAL8	8000	1506619	0.307	12.60
9I19035-CAL9	12000	2204013	0.320	12.60
9I19035-CALA	16000	3017555	0.323	12.60

AVE RF **0.261** RF RSD **27.45** AVE RT **12.59**

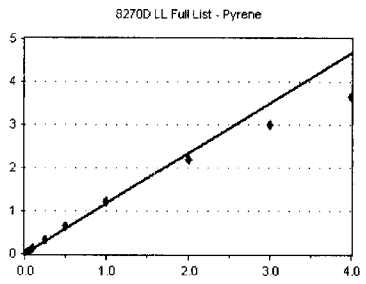
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Pyrene

Curve Fit: **AVERAGE RF**

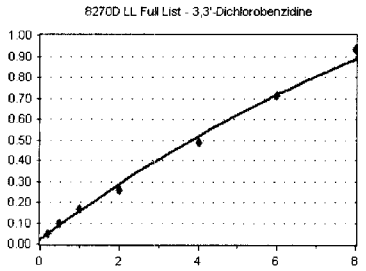


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	12641	1.099	12.71
9I19035-CAL2	50	32717	1.203	12.71
9I19035-CAL3	100	69474	1.242	12.71
9I19035-CAL4	200	143586	1.308	12.71
9I19035-CAL5	500	375136	1.336	12.71
9I19035-CAL6	1000	683508	1.283	12.71
9I19035-CAL7	2000	1337637	1.225	12.72
9I19035-CAL8	4000	2681088	1.094	12.73
9I19035-CAL9	6000	3436590	0.997	12.74
9I19035-CALA	8000	4271888	0.915	12.73

AVE RF **1.170** RF RSD **11.89** AVE RT **12.72**

3,3'-Dichlorobenzidine

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

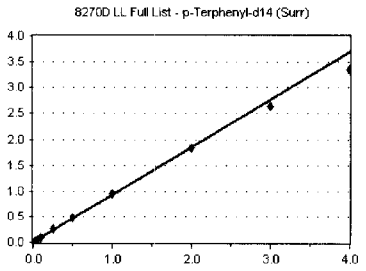


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~40~~	~~3617~~	~~0.156~~	~~0.00~~
~~9I19035-CAL2~~	~~100~~	~~11318~~	~~0.203~~	~~0.00~~
~~9I19035-CAL3~~	~~200~~	~~24584~~	~~0.219~~	~~14.85~~
9I19035-CAL4	400	53778	0.241	14.86
9I19035-CAL5	1000	110907	0.193	14.86
9I19035-CAL6	2000	174855	0.167	14.86
9I19035-CAL7	4000	281736	0.129	14.86
9I19035-CAL8	8000	555604	0.122	14.88
9I19035-CAL9	12000	730056	0.119	14.89
9I19035-CALA	16000	945543	0.117	0.00

AVE RF **0.155** RF RSD **30.50** AVE RT **12.74**

p-Terphenyl-d14 (Surr)

Curve Fit: **AVERAGE RF**

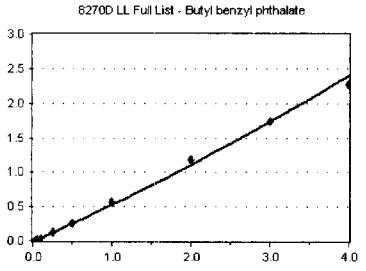


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9512	0.821	12.92
9I19035-CAL2	50	25113	0.902	12.92
9I19035-CAL3	100	54871	0.977	12.92
9I19035-CAL4	200	107135	0.959	12.92
9I19035-CAL5	500	285146	0.995	12.92
9I19035-CAL6	1000	507926	0.969	12.92
9I19035-CAL7	2000	1038865	0.953	12.93
9I19035-CAL8	4000	2102593	0.924	12.94
9I19035-CAL9	6000	2699067	0.880	12.94
9I19035-CALA	8000	3392009	0.837	12.93

AVE RF **0.922** RF RSD **6.53** AVE RT **12.93**

Butyl benzyl phthalate

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2535~~	~~0.219~~	~~13.73~~
9I19035-CAL2	50	6765	0.243	13.74
9I19035-CAL3	100	18774	0.334	13.74
9I19035-CAL4	200	42397	0.380	13.74
9I19035-CAL5	500	139695	0.487	13.74
9I19035-CAL6	1000	279356	0.533	13.74
9I19035-CAL7	2000	621242	0.570	13.74
9I19035-CAL8	4000	1344154	0.590	13.75
9I19035-CAL9	6000	1779167	0.580	13.76
9I19035-CALA	8000	2308181	0.569	13.75

AVE RF **0.476** RF RSD **26.60** AVE RT **13.74**

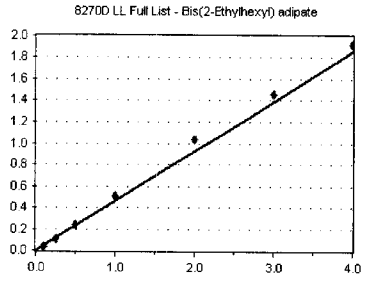
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Bis(2-Ethylhexyl) adipate

Curve Fit: **AVERAGE RF**

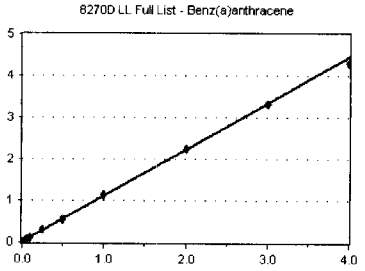


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2762~~	~~0.238~~	~~13.91~~
~~9I19035-CAL2~~	~~50~~	~~6924~~	~~0.249~~	~~13.91~~
~~9I19035-CAL3~~	~~100~~	~~18358~~	~~0.327~~	~~13.91~~
9I19035-CAL4	200	37581	0.336	13.91
9I19035-CAL5	500	126449	0.441	13.91
9I19035-CAL6	1000	247877	0.473	13.91
9I19035-CAL7	2000	551677	0.506	13.92
9I19035-CAL8	4000	1183408	0.520	13.92
9I19035-CAL9	6000	1497303	0.488	13.93
9I19035-CALA	8000	1955106	0.482	13.92

AVE RF **0.464** RF RSD **13.26** AVE RT **13.92**

Benz(a)anthracene

Curve Fit: **AVERAGE RF**

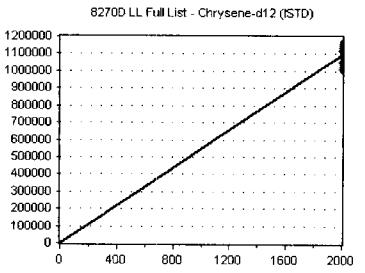


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	13459	1.161	14.89
9I19035-CAL2	50	29779	1.070	14.89
9I19035-CAL3	100	64818	1.154	14.89
9I19035-CAL4	200	124472	1.114	14.89
9I19035-CAL5	500	327557	1.143	14.89
9I19035-CAL6	1000	577553	1.102	14.89
9I19035-CAL7	2000	1225586	1.125	14.90
9I19035-CAL8	4000	2538581	1.115	14.91
9I19035-CAL9	6000	3394067	1.107	14.92
9I19035-CALA	8000	4360504	1.076	14.91

AVE RF **1.117** RF RSD **2.72** AVE RT **14.90**

Chrysene-d12 (ISTD)

Curve Fit: **AVERAGE RF**

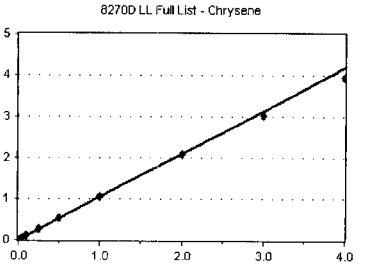


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	1159268	579.634	14.91
9I19035-CAL2	2000	1113286	556.643	14.91
9I19035-CAL3	2000	1122909	561.454	14.91
9I19035-CAL4	2000	1116848	558.424	14.91
9I19035-CAL5	2000	1146727	573.363	14.92
9I19035-CAL6	2000	1048464	524.232	14.92
9I19035-CAL7	2000	1089712	544.856	14.92
9I19035-CAL8	2000	1138264	569.132	14.94
9I19035-CAL9	2000	1022230	511.115	14.94
9I19035-CALA	2000	1013392	506.696	14.93

AVE RF **548.555** RF RSD **4.74** AVE RT **14.92**

Chrysene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	11530	0.995	14.97
9I19035-CAL2	50	29254	1.051	14.96
9I19035-CAL3	100	61418	1.094	14.97
9I19035-CAL4	200	120574	1.080	14.97
9I19035-CAL5	500	313539	1.094	14.97
9I19035-CAL6	1000	556735	1.062	14.98
9I19035-CAL7	2000	1148470	1.054	14.98
9I19035-CAL8	4000	2370714	1.041	15.00
9I19035-CAL9	6000	3095456	1.009	15.01
9I19035-CALA	8000	3992263	0.985	15.00

AVE RF **1.046** RF RSD **3.74** AVE RT **14.98**

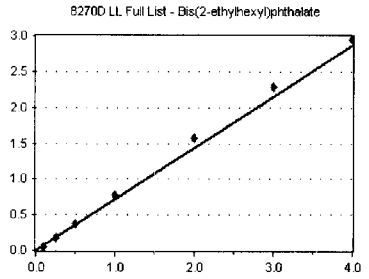
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Bis(2-ethylhexyl)phthalate

Curve Fit: **AVERAGE RF**

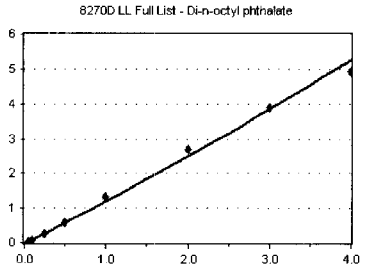


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~2659~~	~~0.229~~	~~15.08~~
~~9I19035-CAL2~~	~~50~~	~~8694~~	~~0.312~~	~~15.07~~
~~9I19035-CAL3~~	~~100~~	~~26668~~	~~0.475~~	~~15.07~~
9I19035-CAL4	200	58143	0.521	15.07
9I19035-CAL5	500	202494	0.706	15.08
9I19035-CAL6	1000	389483	0.743	15.07
9I19035-CAL7	2000	846014	0.776	15.08
9I19035-CAL8	4000	1799096	0.790	15.09
9I19035-CAL9	6000	2338505	0.763	15.09
9I19035-CALA	8000	2986931	0.737	15.08

AVE RF **0.719** RF RSD **12.78** AVE RT **15.08**

Di-n-octyl phthalate

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

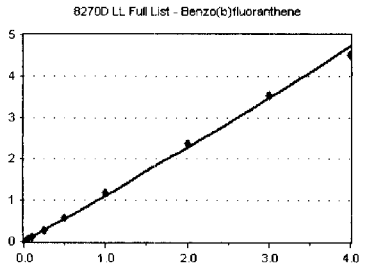


Standard	Concentration	Response	Response Factor	RT
~~9I19035-CAL1~~	~~20~~	~~3334~~	~~0.288~~	~~16.74~~
~~9I19035-CAL2~~	~~50~~	~~9861~~	~~0.359~~	~~16.74~~
9I19035-CAL3	100	33665	0.597	16.74
9I19035-CAL4	200	75567	0.694	16.74
9I19035-CAL5	500	281414	0.979	16.75
9I19035-CAL6	1000	592055	1.136	16.75
9I19035-CAL7	2000	1439135	1.337	16.75
9I19035-CAL8	4000	3203842	1.352	16.76
9I19035-CAL9	6000	4149203	1.295	16.77
9I19035-CALA	8000	5450180	1.229	16.75

AVE RF **1.077** RF RSD **27.27** AVE RT **16.75**

Benzo(b)fluoranthene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

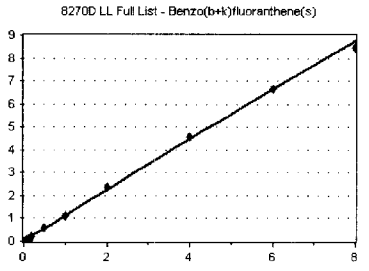


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8297	0.716	17.46
9I19035-CAL2	50	21819	0.795	17.47
9I19035-CAL3	100	57260	1.016	17.47
9I19035-CAL4	200	113080	1.038	17.48
9I19035-CAL5	500	318669	1.109	17.48
9I19035-CAL6	1000	578435	1.109	17.48
9I19035-CAL7	2000	1267321	1.178	17.49
9I19035-CAL8	4000	2803227	1.183	17.52
9I19035-CAL9	6000	3768759	1.177	17.52
9I19035-CALA	8000	5003892	1.128	17.52

AVE RF **1.045** RF RSD **15.65** AVE RT **17.49**

Benzo(b+k)fluoranthene(s)

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	40	17019	0.734	17.46
9I19035-CAL2	100	47809	0.871	17.47
9I19035-CAL3	200	120376	1.068	17.54
9I19035-CAL4	400	234995	1.079	17.48
9I19035-CAL5	1000	653019	1.136	17.54
9I19035-CAL6	2000	1182652	1.134	17.55
9I19035-CAL7	4000	2563432	1.191	17.55
9I19035-CAL8	8000	5439284	1.148	17.59
9I19035-CAL9	12000	7129046	1.113	17.60
9I19035-CALA	16000	9407940	1.060	17.59

AVE RF **1.053** RF RSD **13.45** AVE RT **17.54**

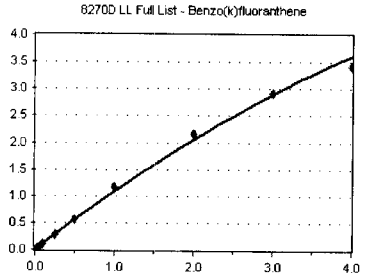
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Benzo(k)fluoranthene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

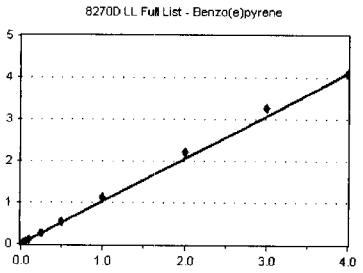


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8174	0.705	17.54
9I19035-CAL2	50	23687	0.864	17.54
9I19035-CAL3	100	58523	1.038	17.54
9I19035-CAL4	200	115987	1.065	17.54
9I19035-CAL5	500	321918	1.120	17.54
9I19035-CAL6	1000	582389	1.117	17.55
9I19035-CAL7	2000	1256906	1.168	17.55
9I19035-CAL8	4000	2555733	1.078	17.59
9I19035-CAL9	6000	3115398	0.973	17.60
9I19035-CALA	8000	3789489	0.854	17.59

AVE RF **0.998** RF RSD **14.77** AVE RT **17.56**

Benzo(e)pyrene

Curve Fit: **AVERAGE RF**

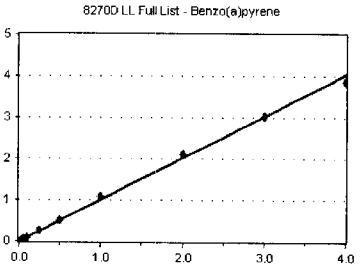


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8657	0.747	18.13
9I19035-CAL2	50	24570	0.896	18.12
9I19035-CAL3	100	58165	1.032	18.12
9I19035-CAL4	200	113143	1.039	18.13
9I19035-CAL5	500	316818	1.102	18.13
9I19035-CAL6	1000	576088	1.105	18.14
9I19035-CAL7	2000	1218818	1.133	18.14
9I19035-CAL8	4000	2630004	1.110	18.17
9I19035-CAL9	6000	3489142	1.089	18.19
9I19035-CALA	8000	4556103	1.027	18.17

AVE RF **1.028** RF RSD **11.67** AVE RT **18.14**

Benzo(a)pyrene

Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

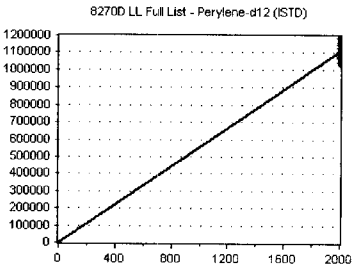


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	6648	0.574	18.24
9I19035-CAL2	50	18583	0.677	18.24
9I19035-CAL3	100	50114	0.889	18.24
9I19035-CAL4	200	99882	0.917	18.24
9I19035-CAL5	500	295305	1.028	18.25
9I19035-CAL6	1000	535317	1.027	18.25
9I19035-CAL7	2000	1174506	1.091	18.26
9I19035-CAL8	4000	2485829	1.049	18.29
9I19035-CAL9	6000	3235783	1.010	18.31
9I19035-CALA	8000	4292201	0.968	18.30

AVE RF **0.923** RF RSD **18.38** AVE RT **18.26**

Perylene-d12 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	1158997	579.498	18.39
9I19035-CAL2	2000	1097209	548.604	18.39
9I19035-CAL3	2000	1127380	563.690	18.39
9I19035-CAL4	2000	1089238	544.619	18.40
9I19035-CAL5	2000	1149483	574.742	18.40
9I19035-CAL6	2000	1042709	521.354	18.40
9I19035-CAL7	2000	1076142	538.071	18.40
9I19035-CAL8	2000	1185024	592.512	18.42
9I19035-CAL9	2000	1067597	533.798	18.43
9I19035-CALA	2000	1108960	554.480	18.41

AVE RF **555.137** RF RSD **4.02** AVE RT **18.40**

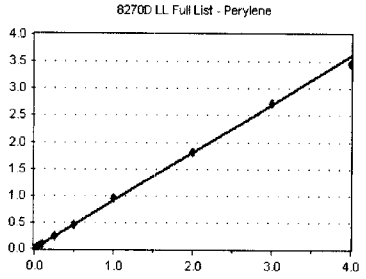
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

Perylene

Curve Fit: **AVERAGE RF**

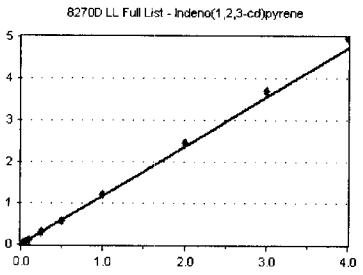


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	9278	0.801	18.45
9I19035-CAL2	50	24689	0.900	18.45
9I19035-CAL3	100	50289	0.892	18.45
9I19035-CAL4	200	100217	0.920	18.45
9I19035-CAL5	500	273199	0.951	18.45
9I19035-CAL6	1000	476752	0.914	18.46
9I19035-CAL7	2000	1026574	0.954	18.47
9I19035-CAL8	4000	2164033	0.913	18.50
9I19035-CAL9	6000	2908580	0.908	18.51
9I19035-CALA	8000	3844220	0.867	18.50

AVE RF **0.902** RF RSD **4.87** AVE RT **18.47**

Indeno(1,2,3-cd)pyrene

Curve Fit: **AVERAGE RF**

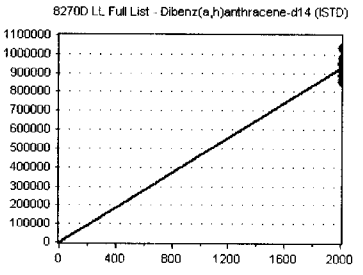


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	10072	1.102	20.77
9I19035-CAL2	50	25006	1.169	20.78
9I19035-CAL3	100	52504	1.176	20.78
9I19035-CAL4	200	100411	1.156	20.78
9I19035-CAL5	500	279363	1.171	20.78
9I19035-CAL6	1000	510691	1.152	20.79
9I19035-CAL7	2000	1143875	1.205	20.80
9I19035-CAL8	4000	2539375	1.224	20.84
9I19035-CAL9	6000	3489319	1.230	20.85
9I19035-CALA	8000	4879339	1.241	20.84

AVE RF **1.183** RF RSD **3.60** AVE RT **20.80**

Dibenz(a,h)anthracene-d14 (ISTD)

Curve Fit: **AVERAGE RF**

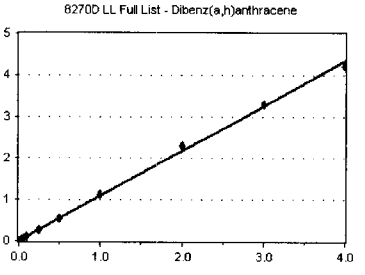


Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	2000	913932	456.966	20.80
9I19035-CAL2	2000	855339	427.669	20.79
9I19035-CAL3	2000	892958	446.479	20.79
9I19035-CAL4	2000	868590	434.295	20.80
9I19035-CAL5	2000	954508	477.254	20.80
9I19035-CAL6	2000	886236	443.118	20.80
9I19035-CAL7	2000	949148	474.574	20.80
9I19035-CAL8	2000	1037191	518.596	20.83
9I19035-CAL9	2000	945822	472.911	20.84
9I19035-CALA	2000	982889	491.444	20.82

AVE RF **464.331** RF RSD **6.05** AVE RT **20.80**

Dibenz(a,h)anthracene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	8754	0.958	20.85
9I19035-CAL2	50	21791	1.019	20.85
9I19035-CAL3	100	48705	1.091	20.85
9I19035-CAL4	200	95316	1.097	20.85
9I19035-CAL5	500	270778	1.135	20.86
9I19035-CAL6	1000	489557	1.105	20.87
9I19035-CAL7	2000	1087002	1.145	20.88
9I19035-CAL8	4000	2389624	1.152	20.90
9I19035-CAL9	6000	3129173	1.103	20.91
9I19035-CALA	8000	4143300	1.054	20.90

AVE RF **1.086** RF RSD **5.57** AVE RT **20.87**

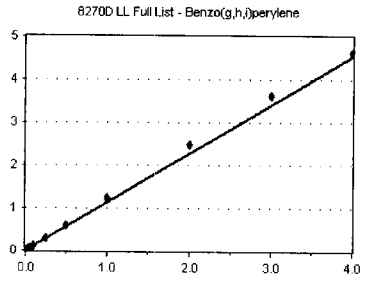
Element Calibration Review Sheet

Calibration ID: **A9I2405** Instrument: **SV-GCMS10** Calibration Date: **09/24/2019**

Analysis: **8270D LL Full List** Instrument Cal ID: **A9I2405**

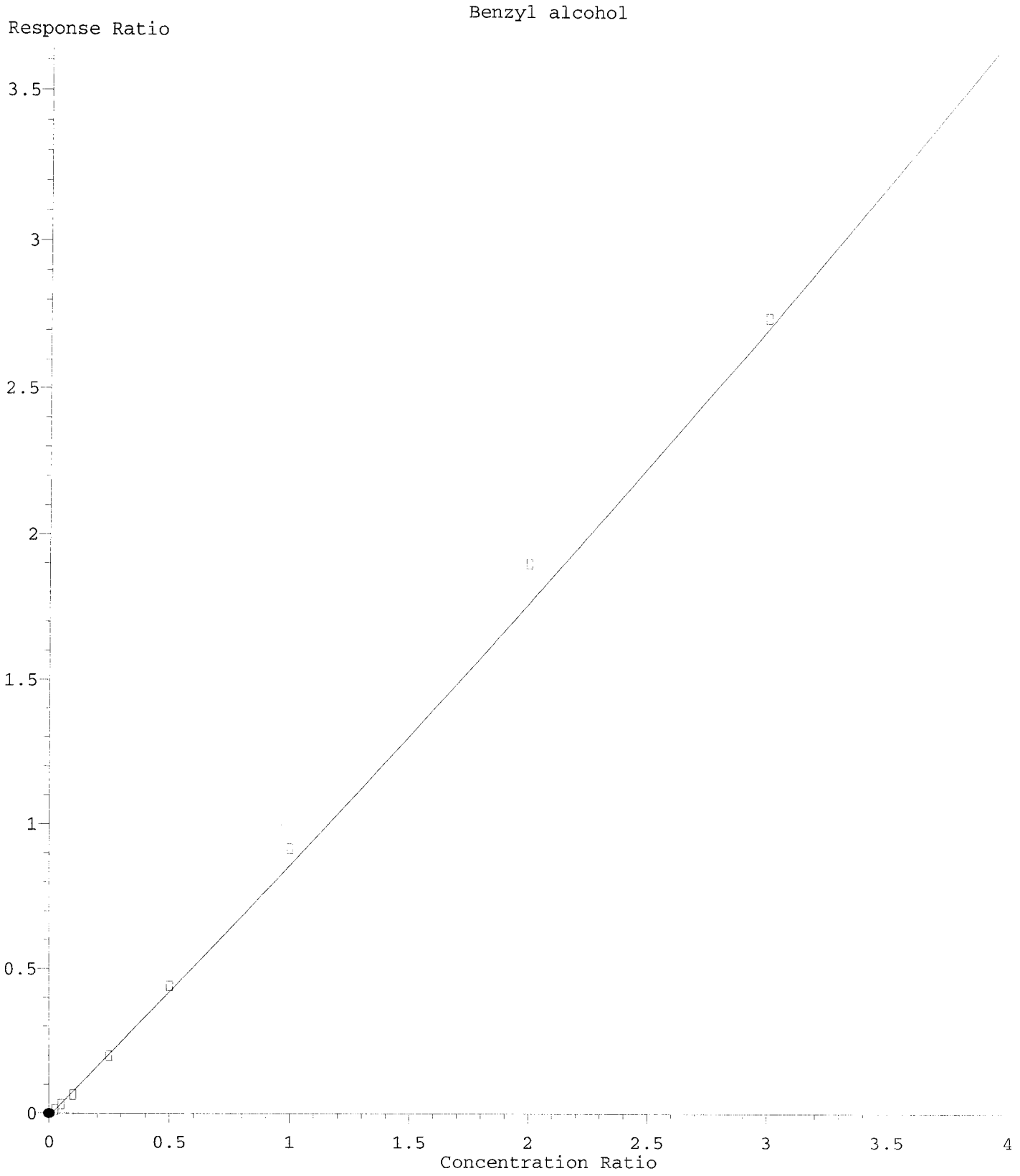
Benzo(g,h,i)perylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I19035-CAL1	20	7772	0.850	21.32
9I19035-CAL2	50	20181	0.944	21.31
9I19035-CAL3	100	49447	1.107	21.31
9I19035-CAL4	200	101188	1.165	21.32
9I19035-CAL5	500	291609	1.222	21.33
9I19035-CAL6	1000	538150	1.214	21.33
9I19035-CAL7	2000	1186793	1.250	21.34
9I19035-CAL8	4000	2579448	1.243	21.38
9I19035-CAL9	6000	3417702	1.204	21.39
9I19035-CALA	8000	4554601	1.158	21.38

AVE RF **1.136** RF RSD **11.87** AVE RT **21.34**

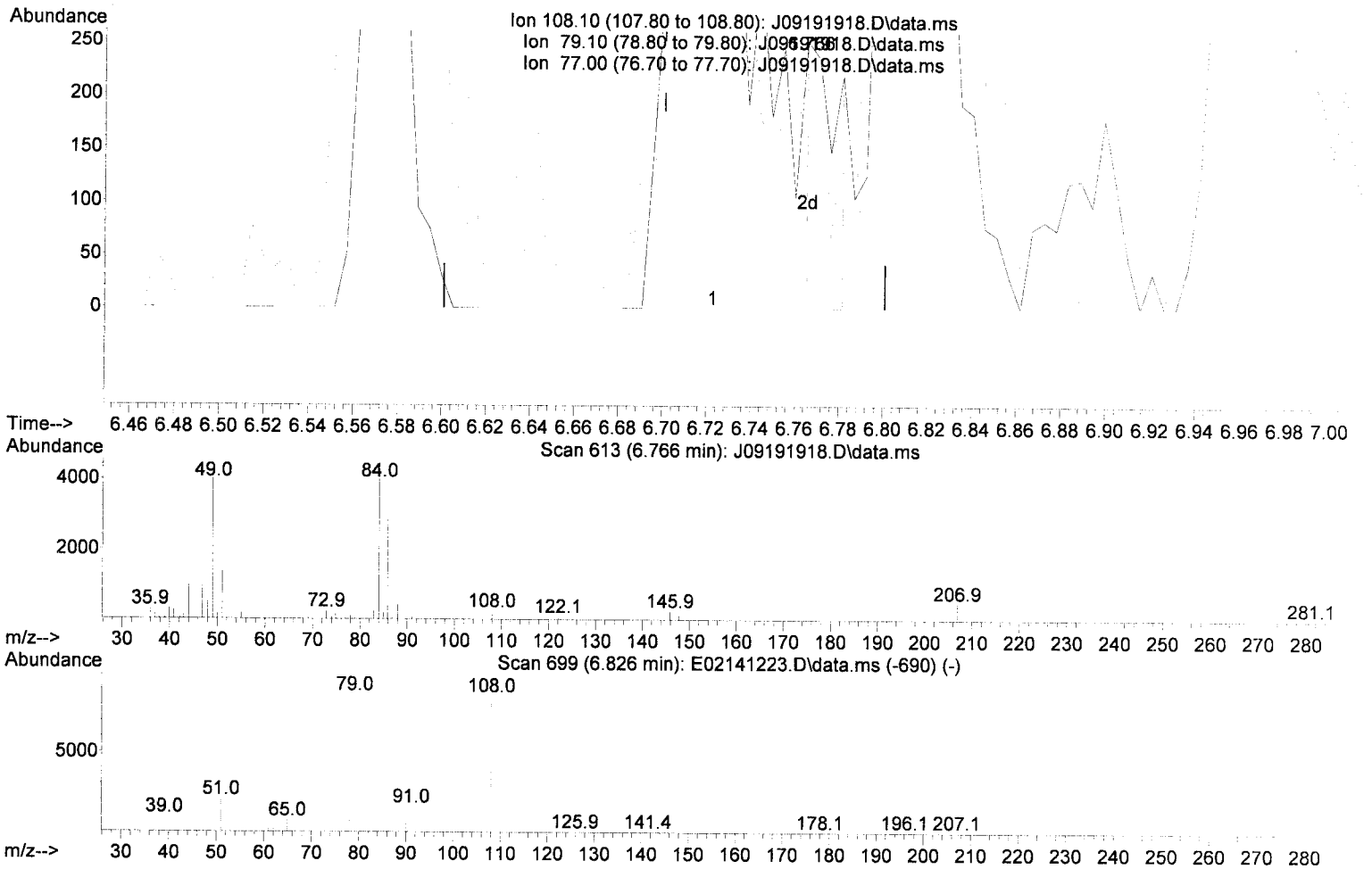


R = 1.89e-002 A*A + 8.51e-001 A - 1.04e-002
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



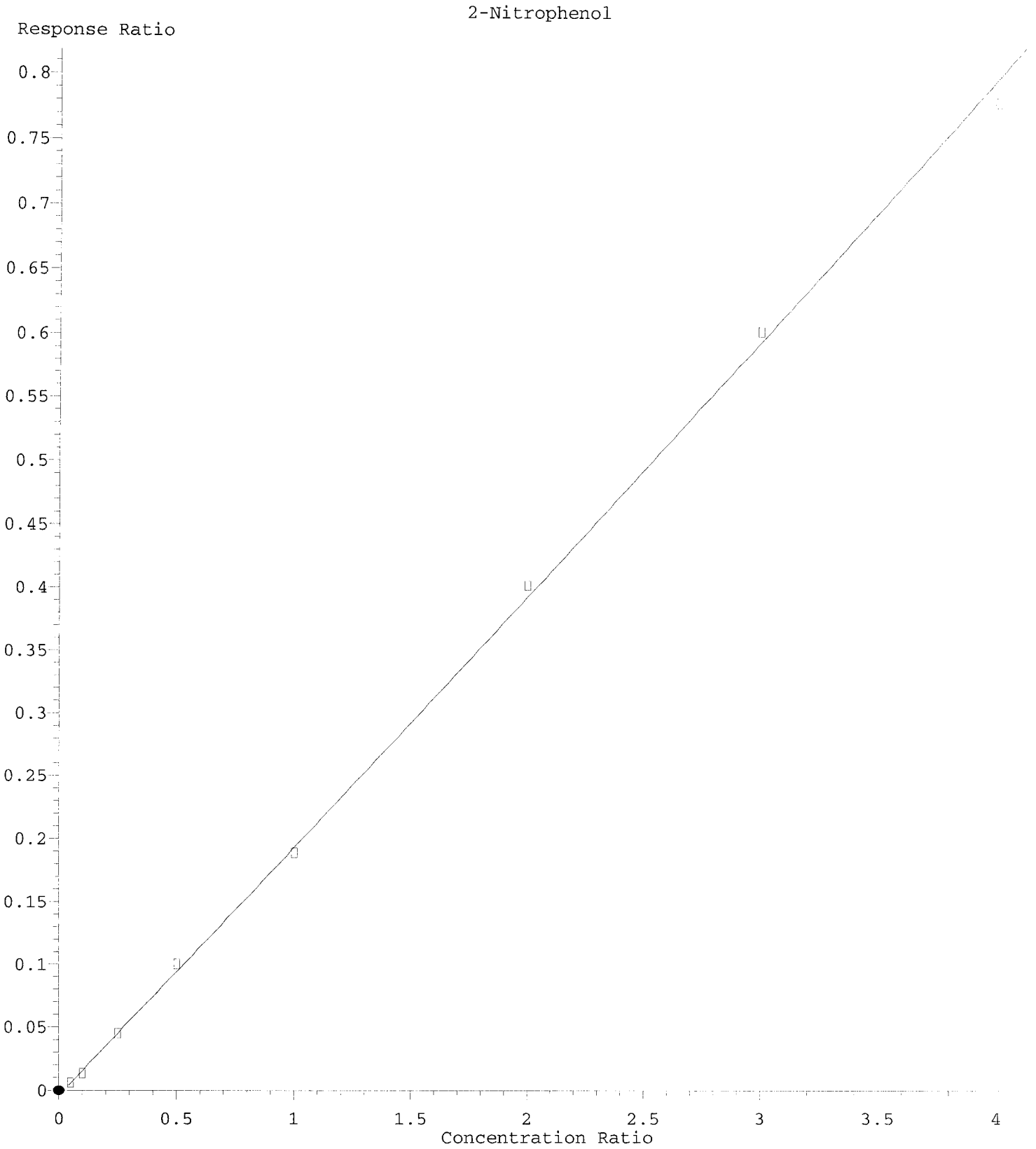
TIC: J09191918.D\data.ms

(12) Benzyl alcohol (T)

6.766min (+ 0.065) 26.03 ng/ml m

response 193

Ion	Exp%	Act%
108.10	100.00	100.00
79.10	108.60	31.35#
77.00	68.40	50.40
0.00	0.00	0.00

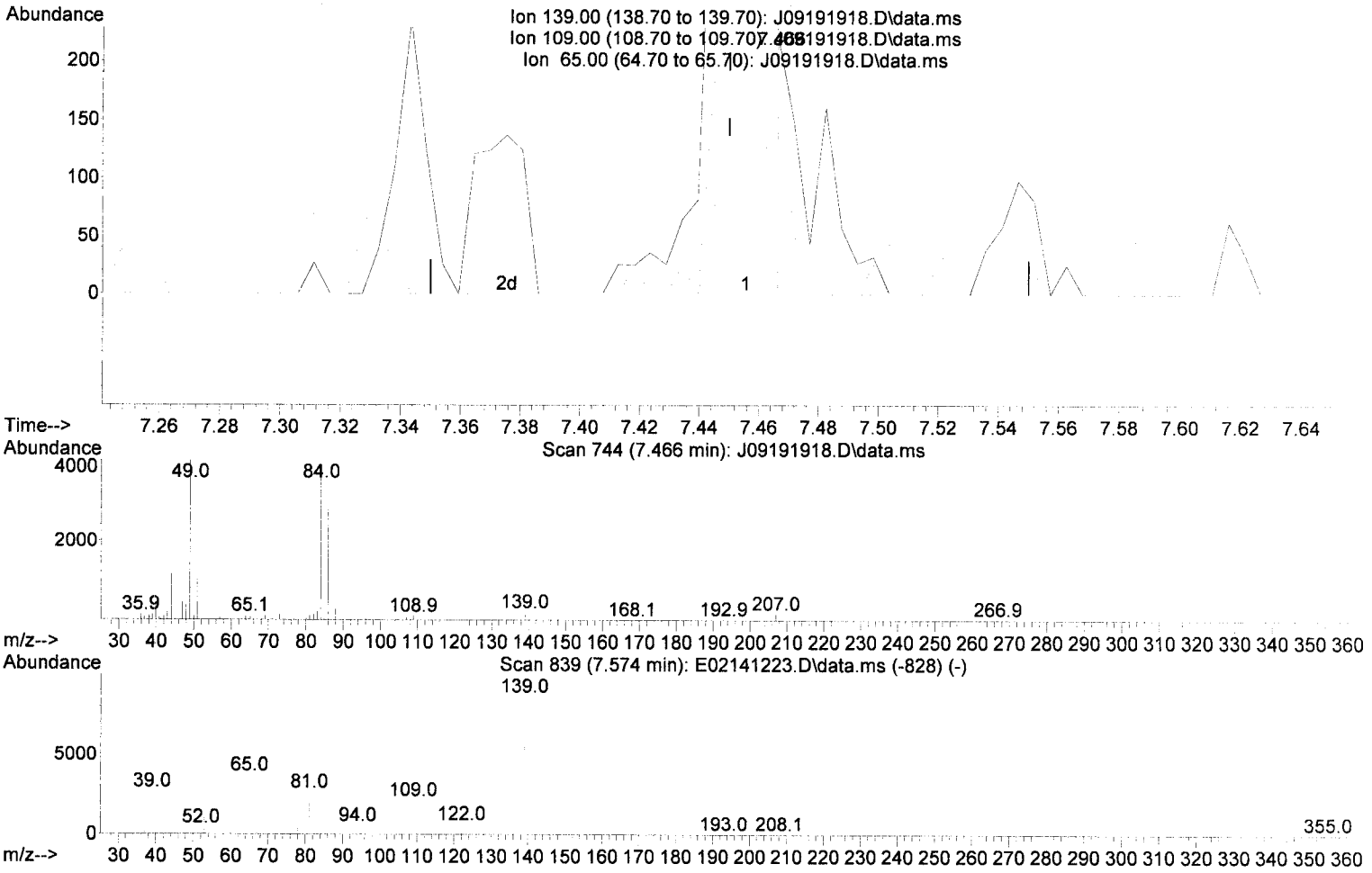


R = 1.05e-003 A*A + 1.96e-001 A - 4.15e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



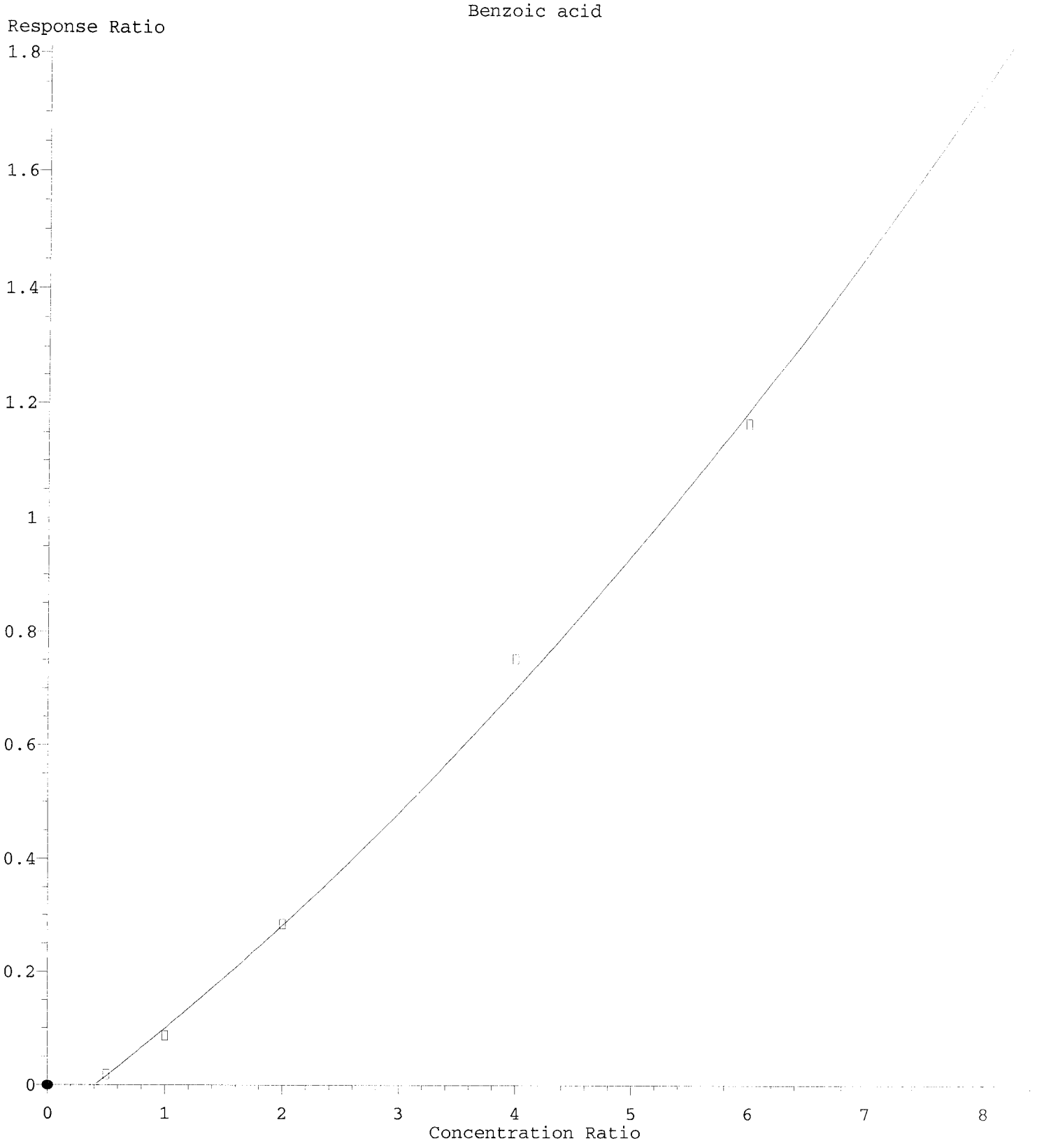
TIC: J09191918.D\data.ms

(23) 2-Nitrophenol (T)

7.466min (+ 0.016) 43.56 ng/ml m

response 151

Ion	Exp%	Act%
139.00	100.00	100.00
109.00	25.20	53.85
65.00	38.40	58.82
0.00	0.00	0.00

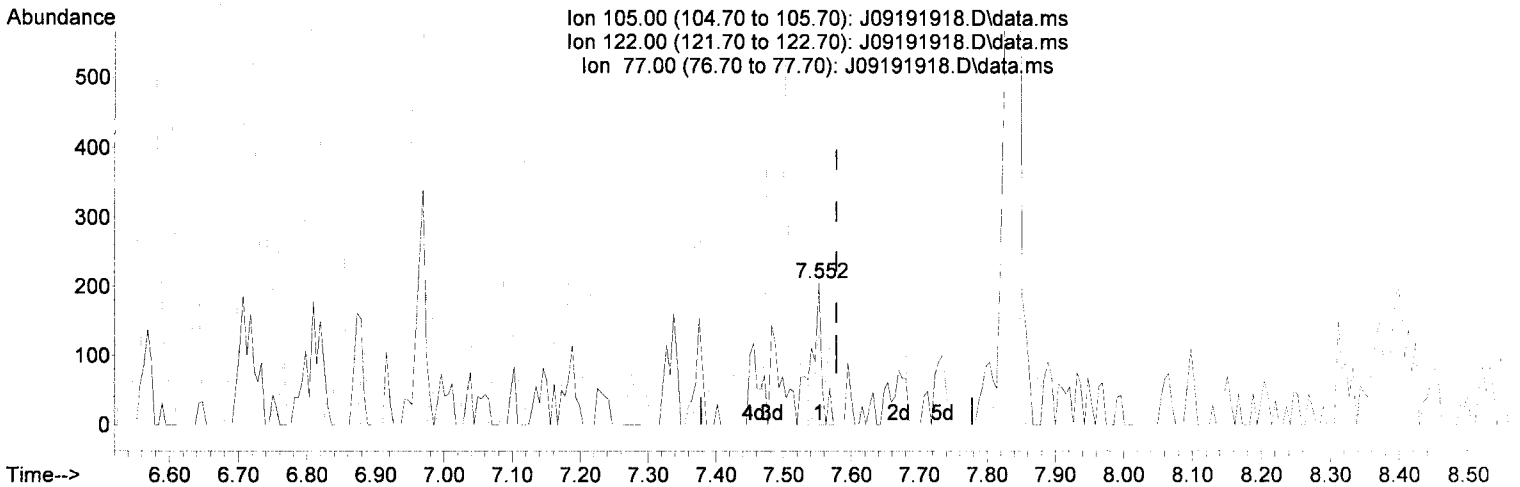


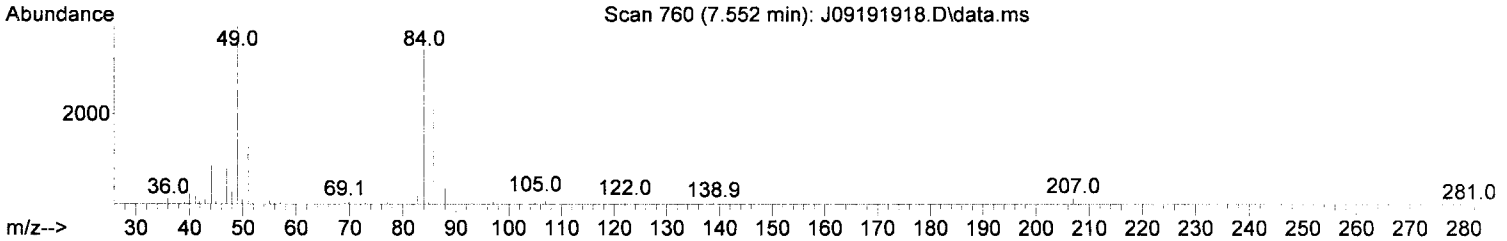
R = 8.94e-003 A*A + 1.55e-001 A - 6.40e-002
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w/1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

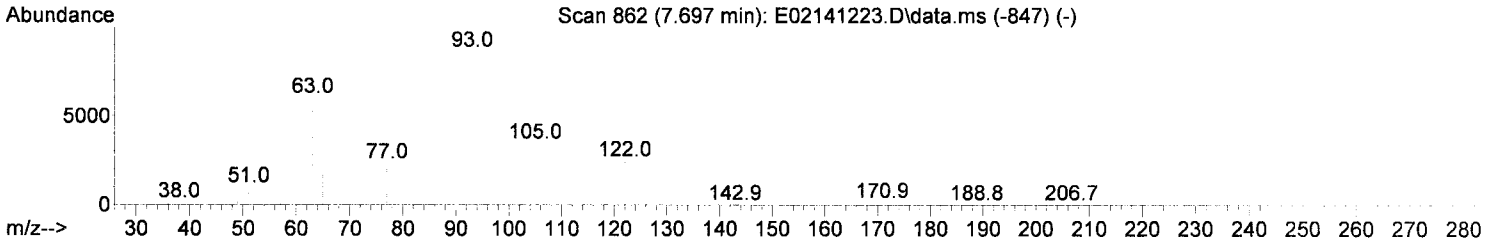
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







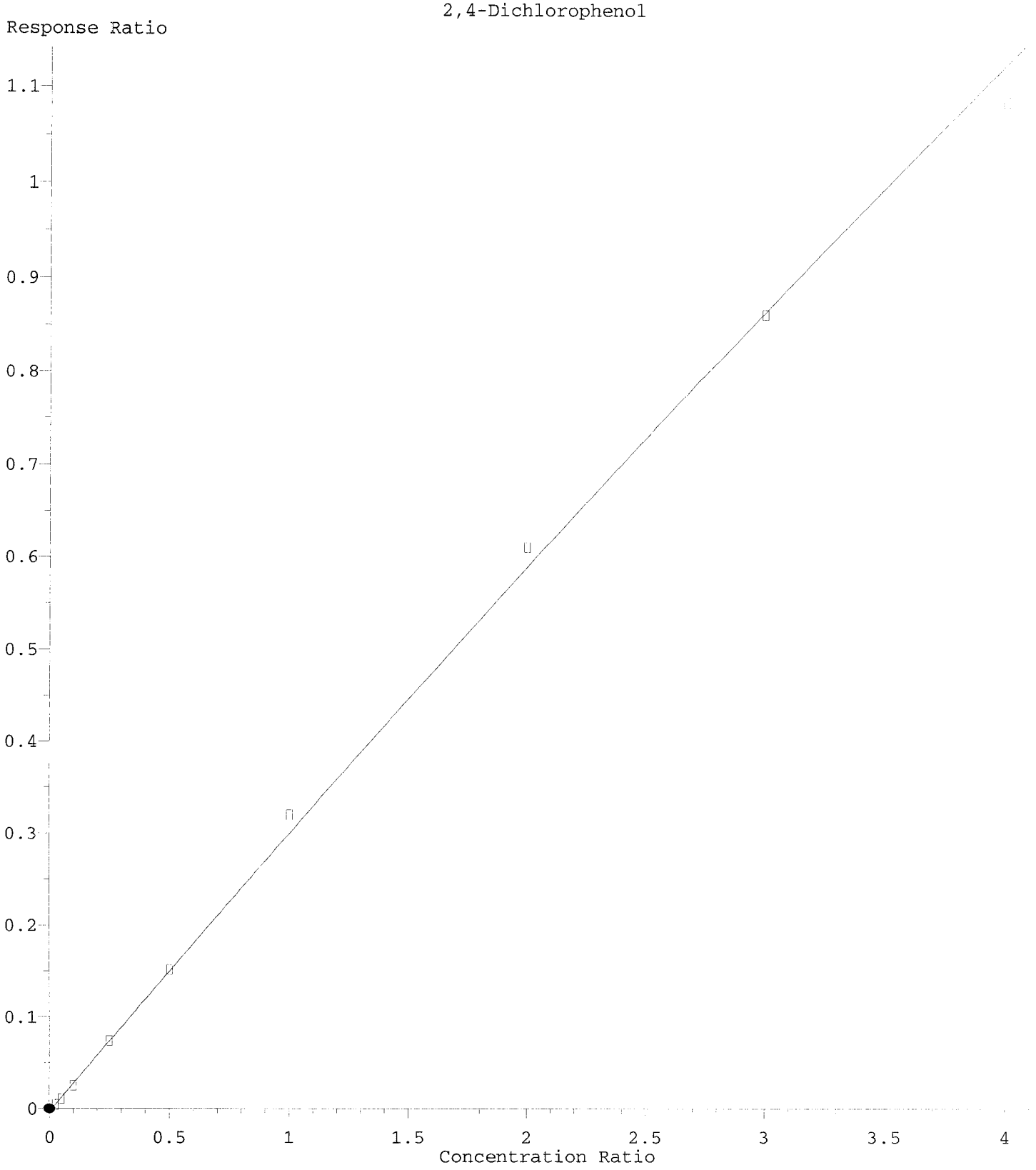
TIC: J09191918.D\data.ms

(26) Benzoic acid (T)

7.552min (-0.026) 807.68 ng/ml m

response 164

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	63.41
77.00	72.00	38.05#
0.00	0.00	0.00

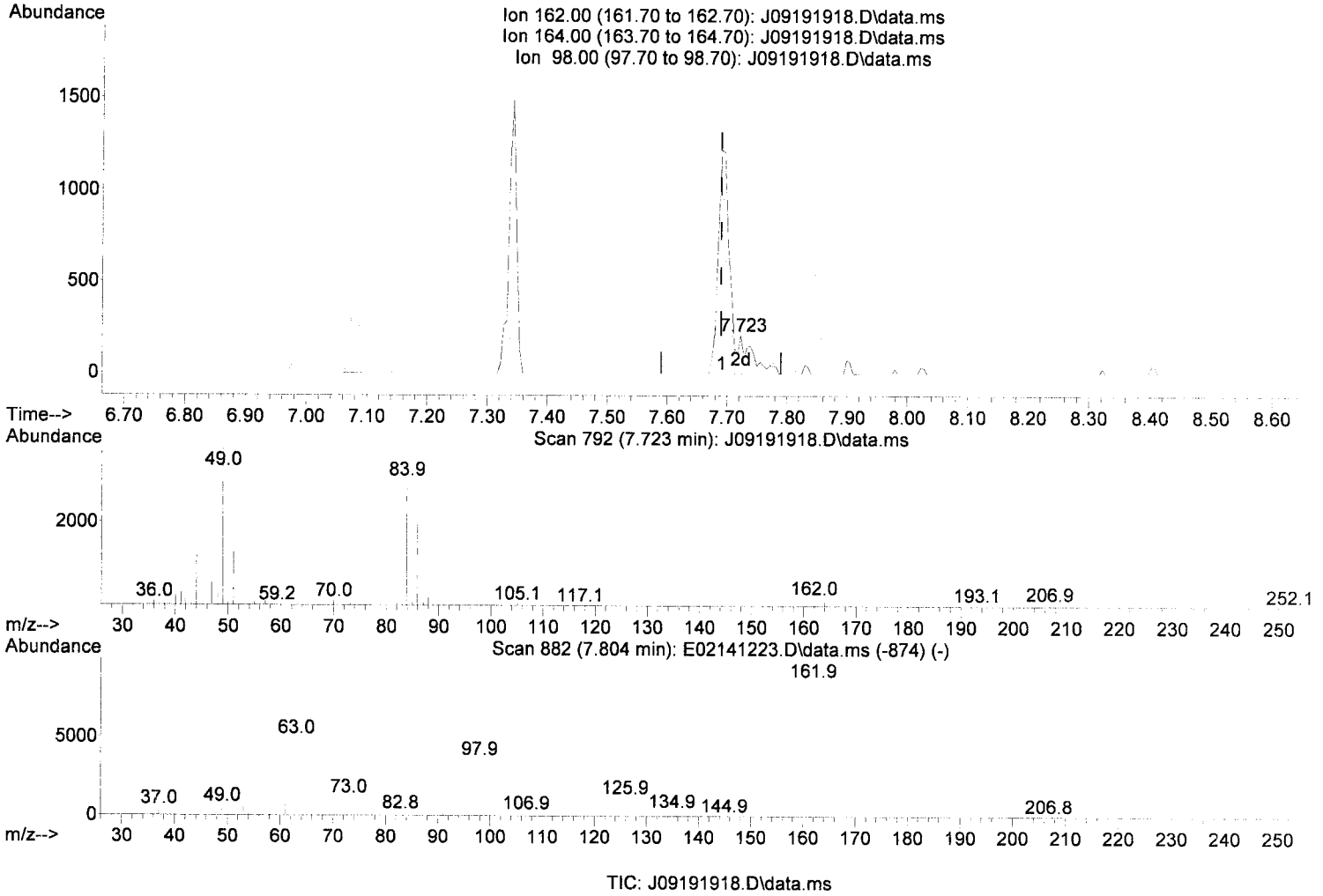


R = -7.18e-003 A*A + 3.11e-001 A - 3.87e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



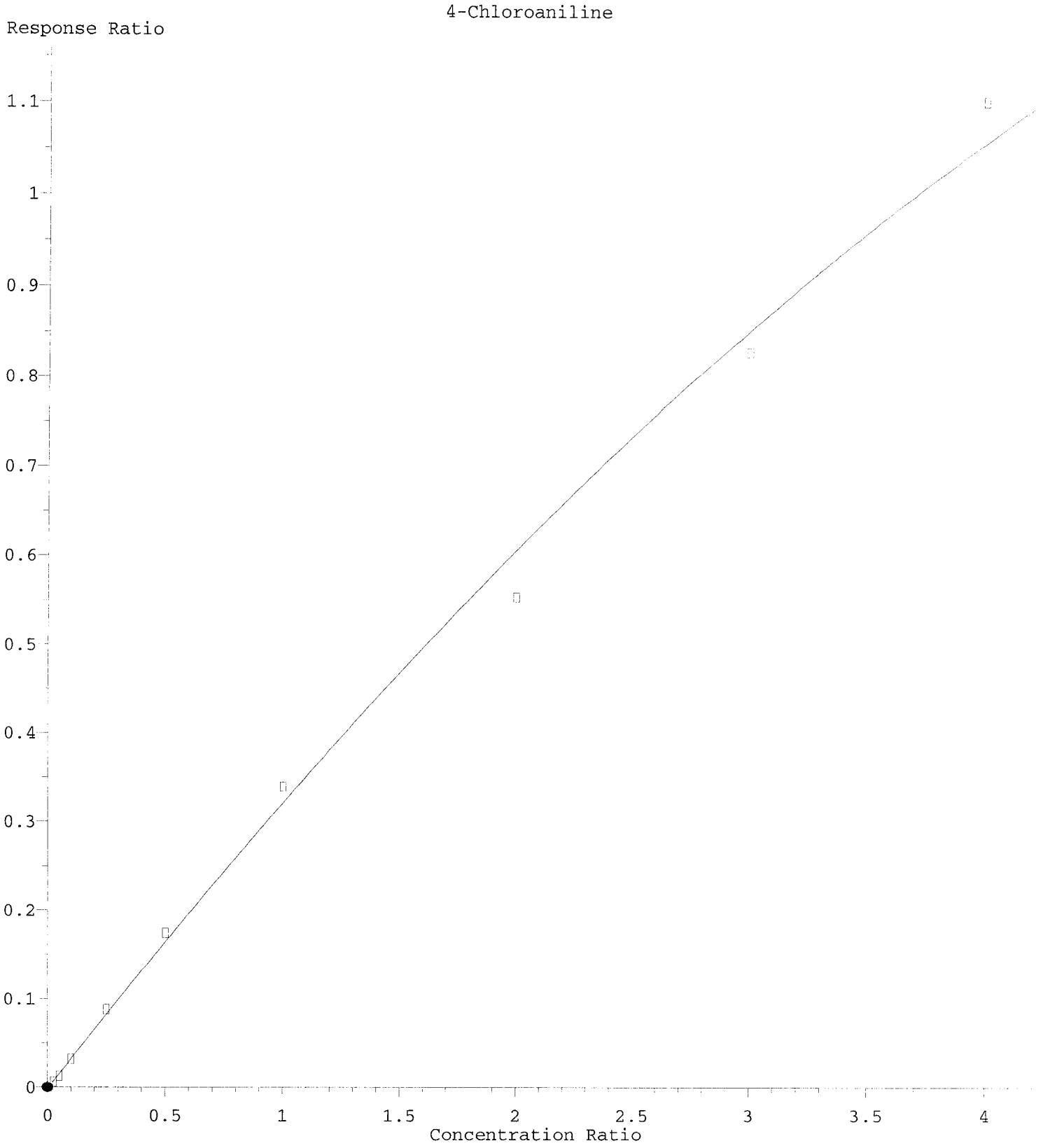
TIC: J09191918.D\data.ms

(27) 2,4-Dichlorophenol (T)

7.723min (+ 0.033) 25.85 ng/ml m

response 177

Ion	Exp%	Act%
162.00	100.00	100.00
164.00	64.50	62.20
98.00	33.60	0.00#
0.00	0.00	0.00

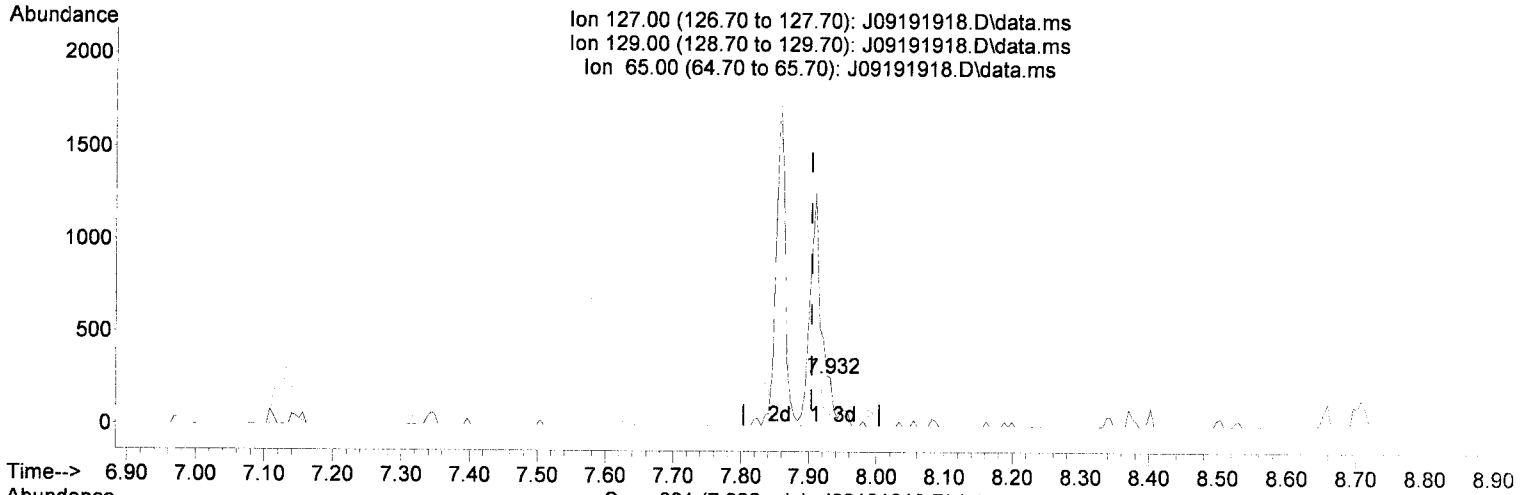


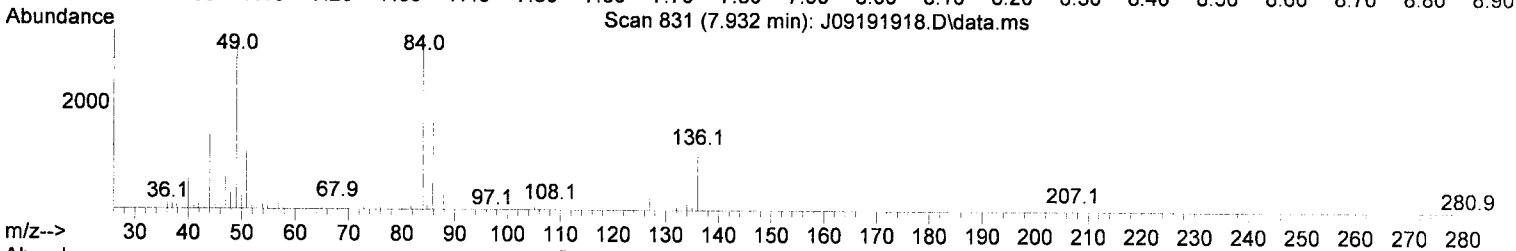
R = -1.94e-002 A*A + 3.43e-001 A - 2.27e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

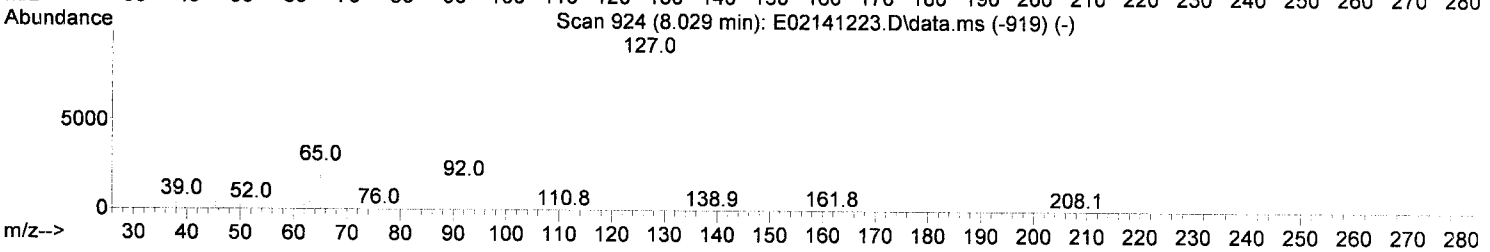
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







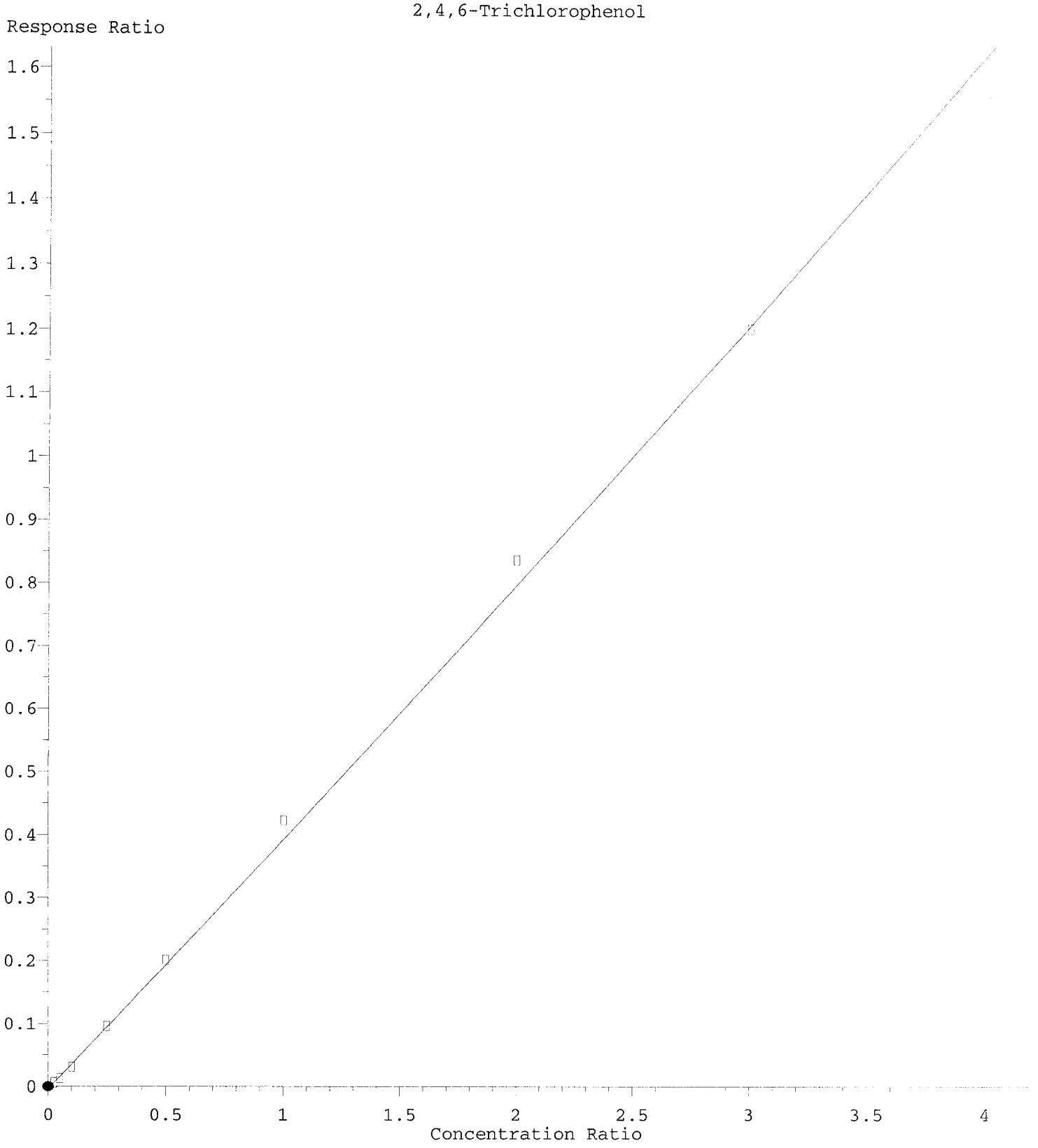
TIC: J09191918.D\data.ms

(30) 4-Chloroaniline (T)

7.932min (+ 0.028) 14.02 ng/ml m

response 160

Ion	Exp%	Act%
127.00	100.00	100.00
129.00	33.00	0.00#
65.00	23.50	18.01
0.00	0.00	0.00

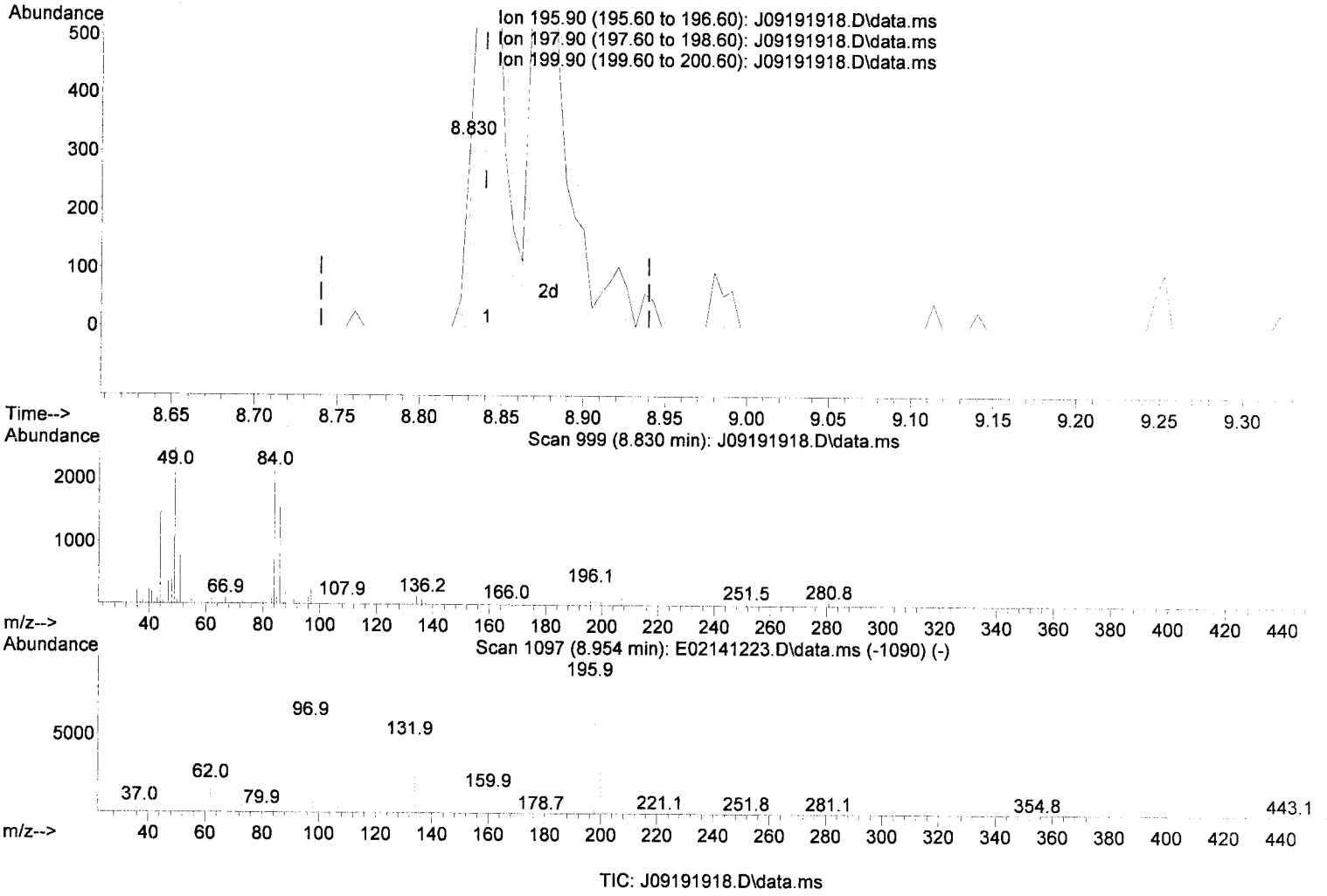


R = 3.29e-003 A*A + 3.94e-001 A - 4.68e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



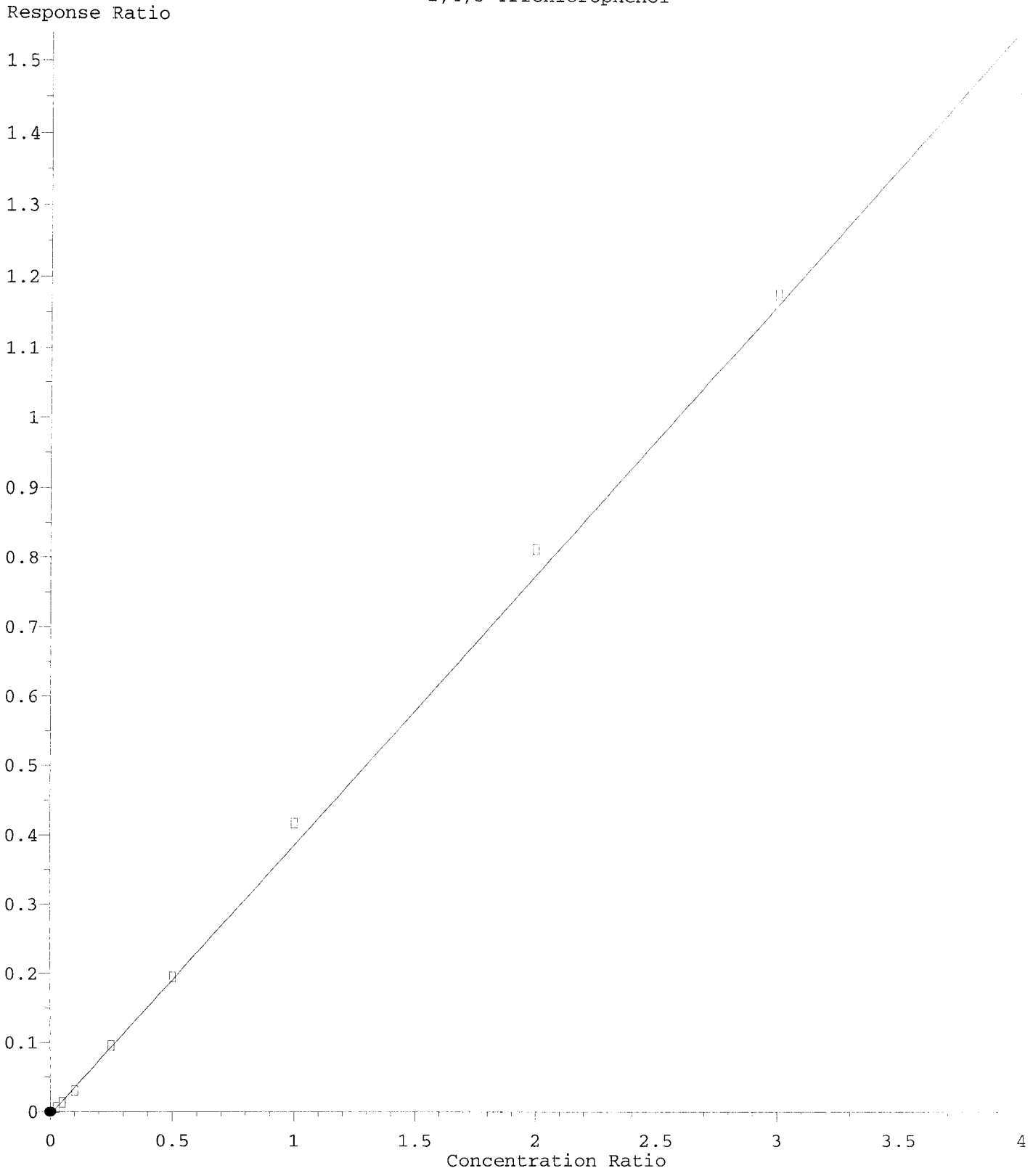
TIC: J09191918.D\data.ms

(37) 2,4,6-Trichlorophenol (T)

8.830min (-0.010) 24.69 ng/ml m

response 119

Ion	Exp%	Act%
195.90	100.00	100.00
197.90	94.40	61.61#
199.90	29.80	21.67
0.00	0.00	0.00

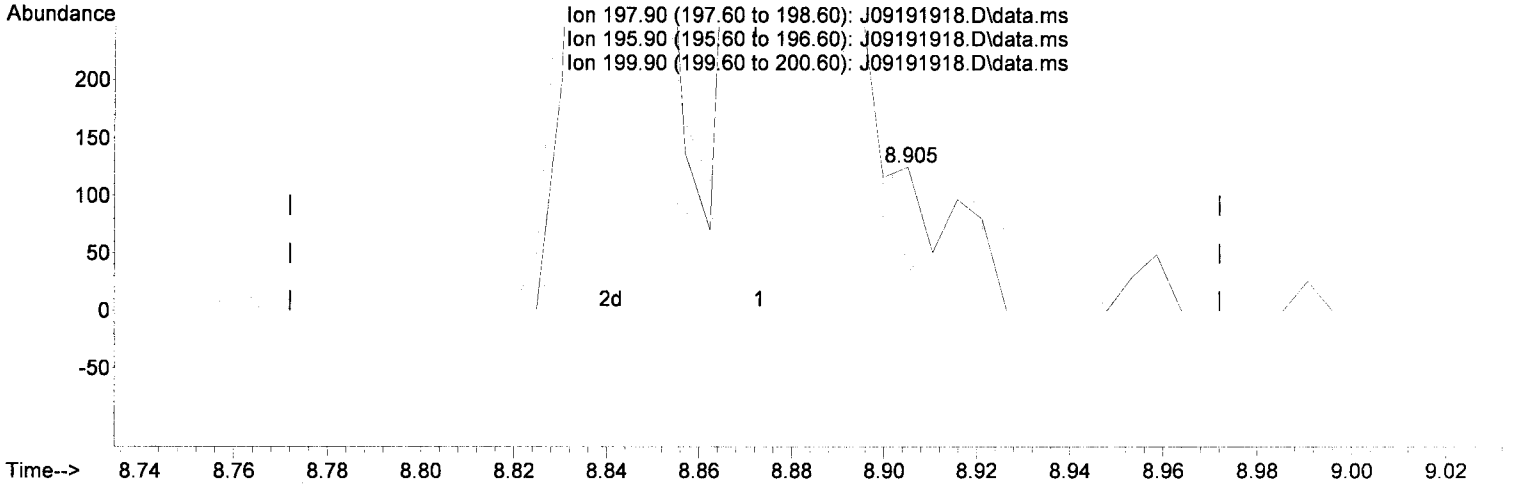


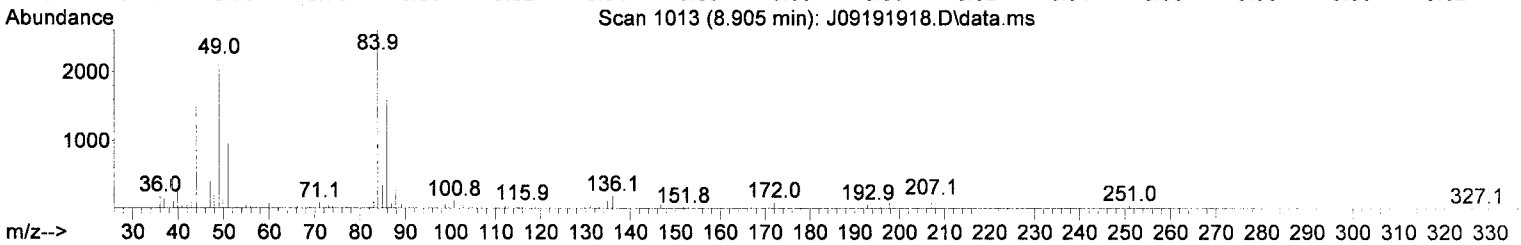
R = -3.95e-004 A*A + 3.91e-001 A - 4.45e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

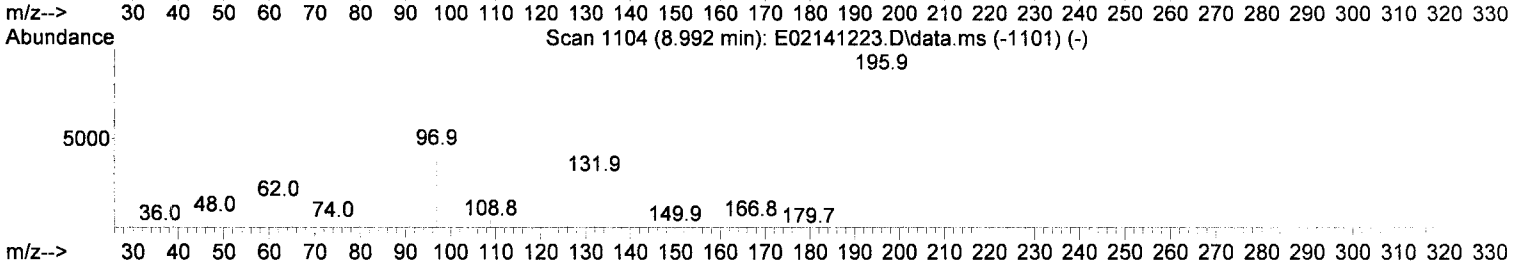
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







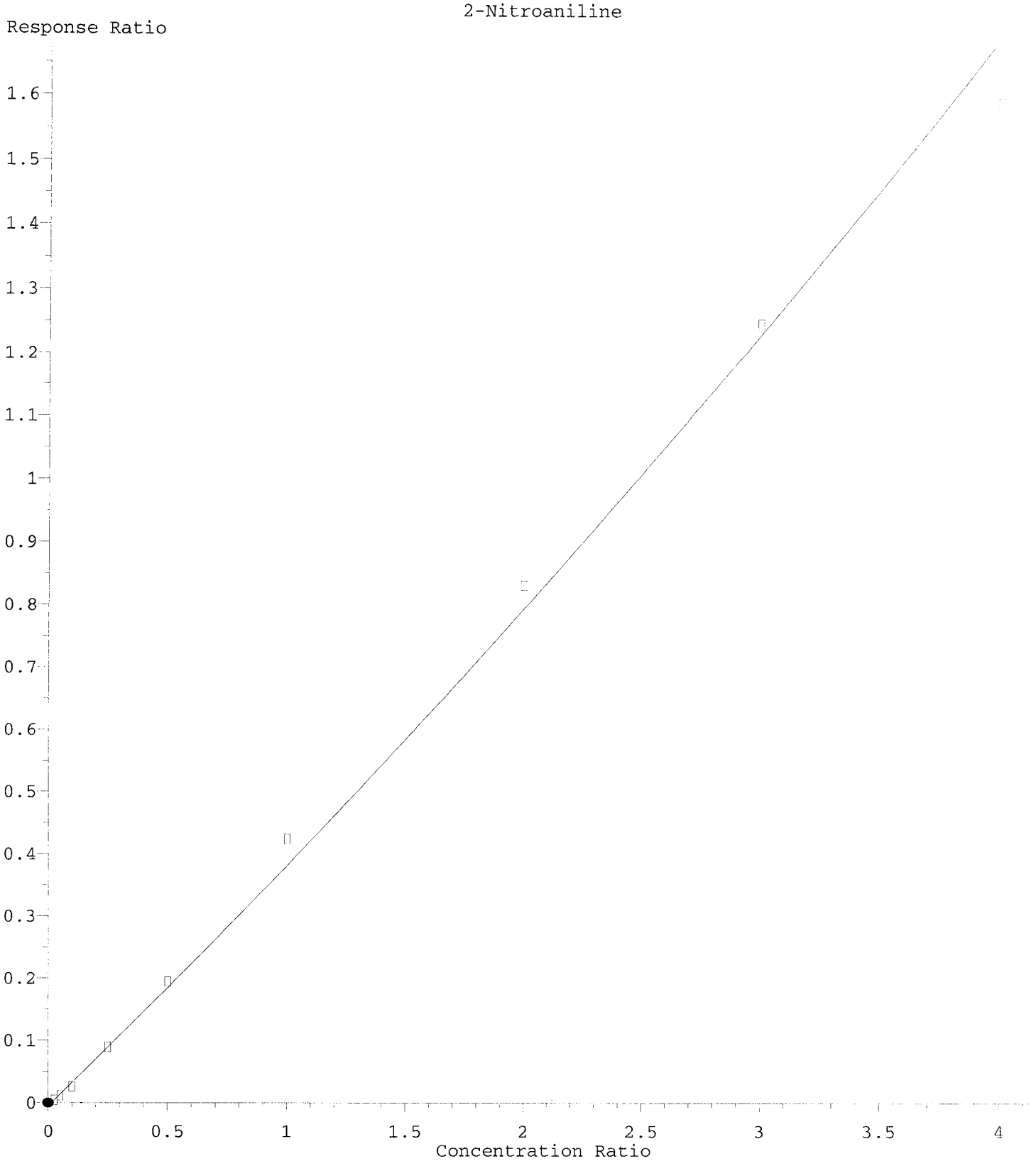
TIC: J09191918.D\data.ms

(38) 2,4,5-Trichlorophenol (T)

8.905min (+ 0.033) 23.67 ng/ml m

response 113

Ion	Exp%	Act%
197.90	100.00	100.00
195.90	103.40	26.40#
199.90	32.90	21.60
0.00	0.00	0.00

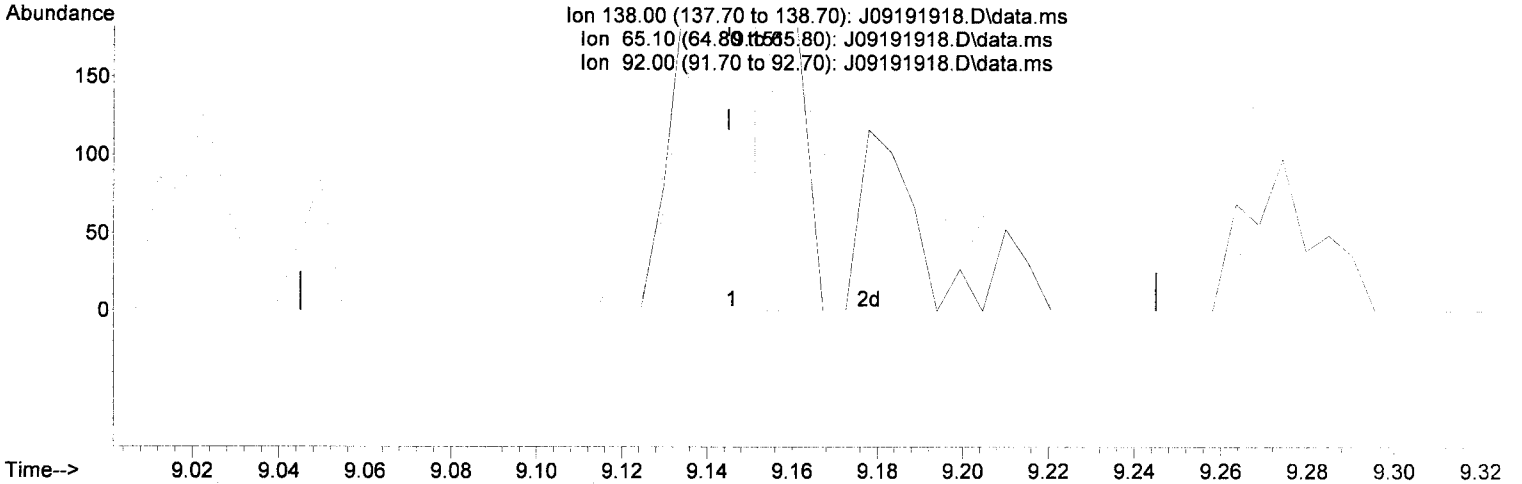


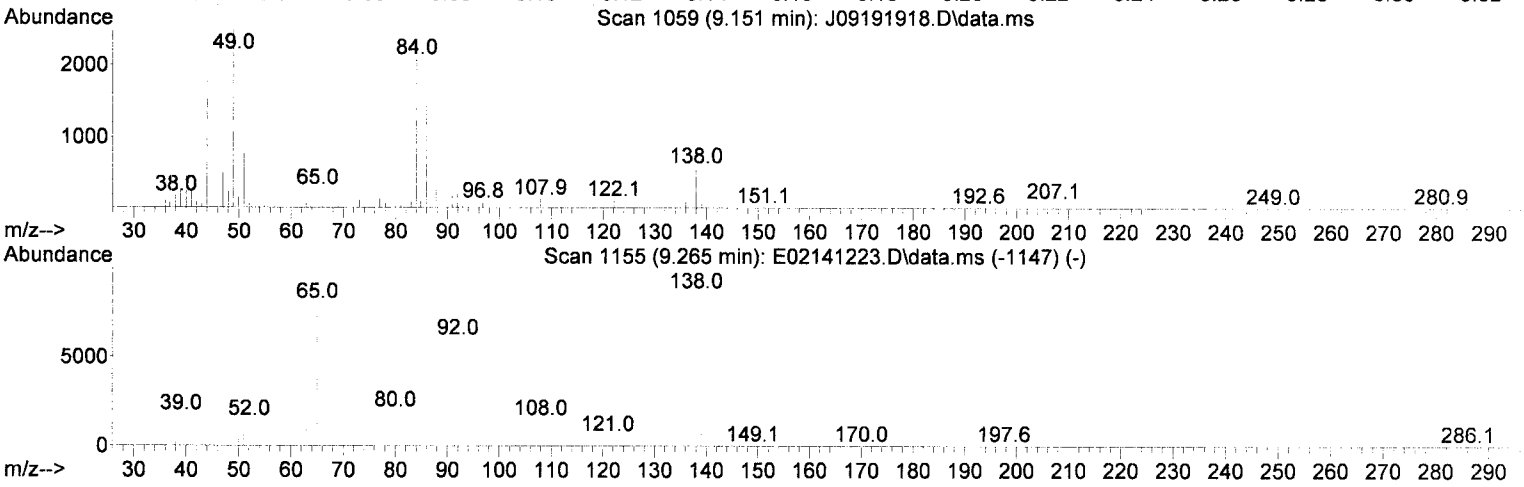
R = 1.23e-002 A*A + 3.75e-001 A - 5.72e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10





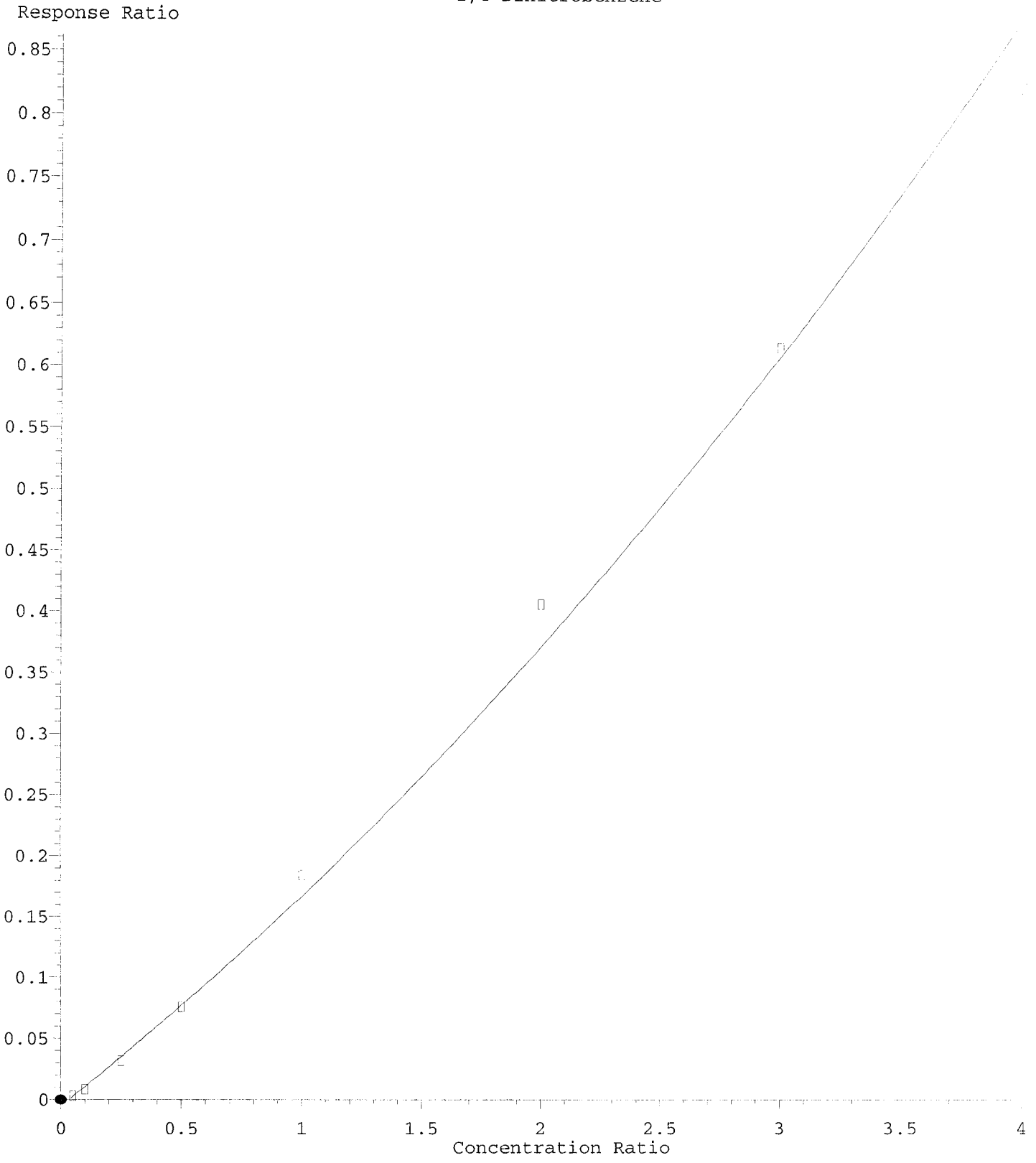
TIC: J09191918.D\data.ms

(42) 2-Nitroaniline (T)

9.151min (+ 0.006) 31.75 ng/ml m

response 155

Ion	Exp%	Act%
138.00	100.00	100.00
65.10	69.90	48.28
92.00	55.20	48.97
0.00	0.00	0.00

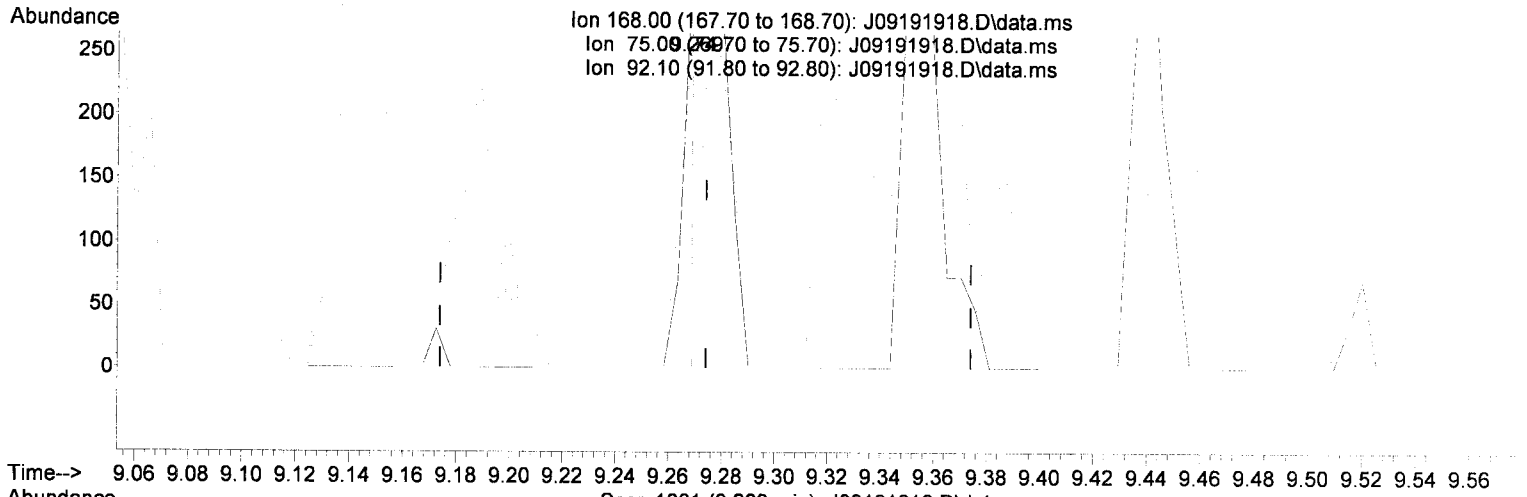


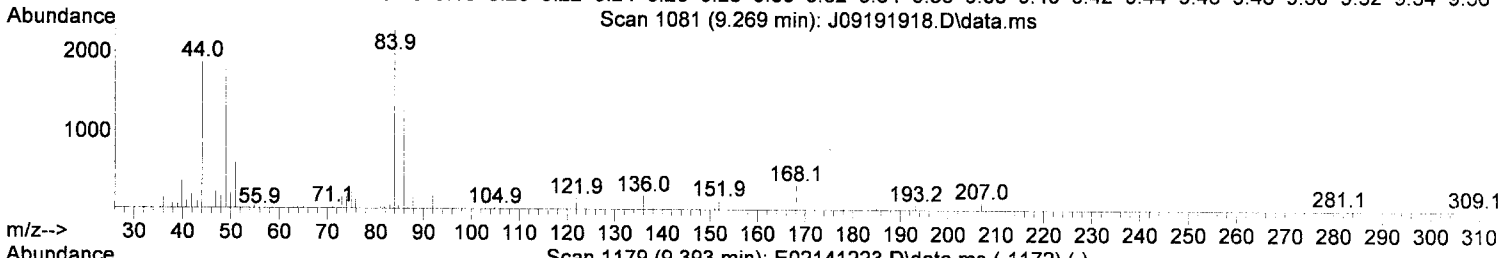
R = 1.61e-002 A*A + 1.56e-001 A - 5.19e-003
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

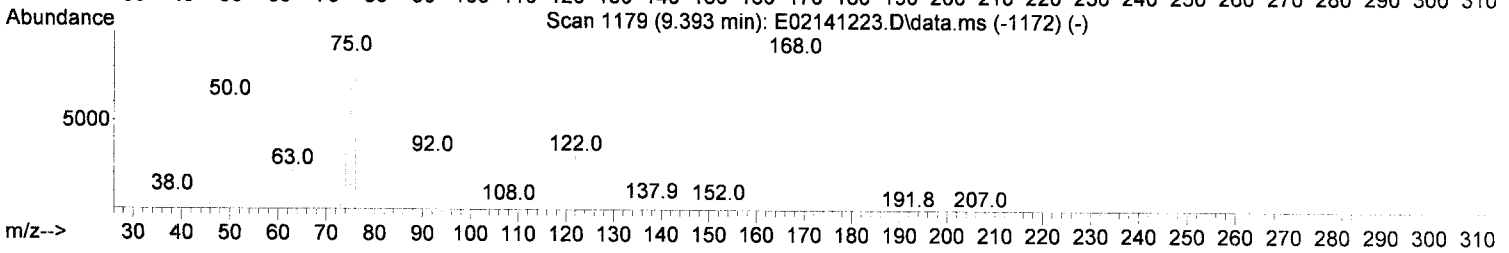
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







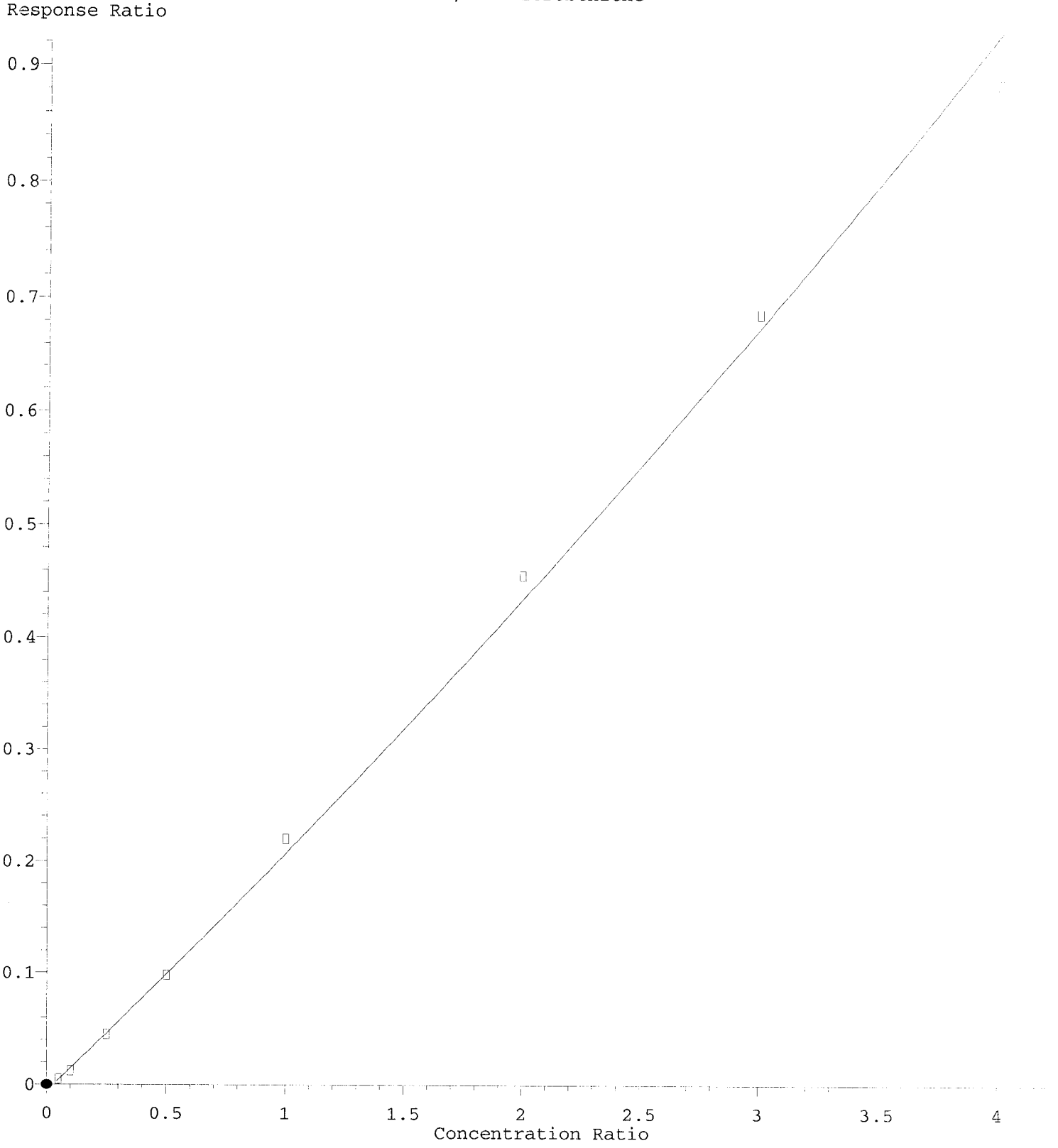
TIC: J09191918.D\data.ms

(44) 1,4-Dinitrobenzene (T)

9.269min (-0.005) 68.86 ng/ml m

response 130

Ion	Exp%	Act%
168.00	100.00	100.00
75.00	102.70	80.36
92.10	34.10	55.06
0.00	0.00	0.00

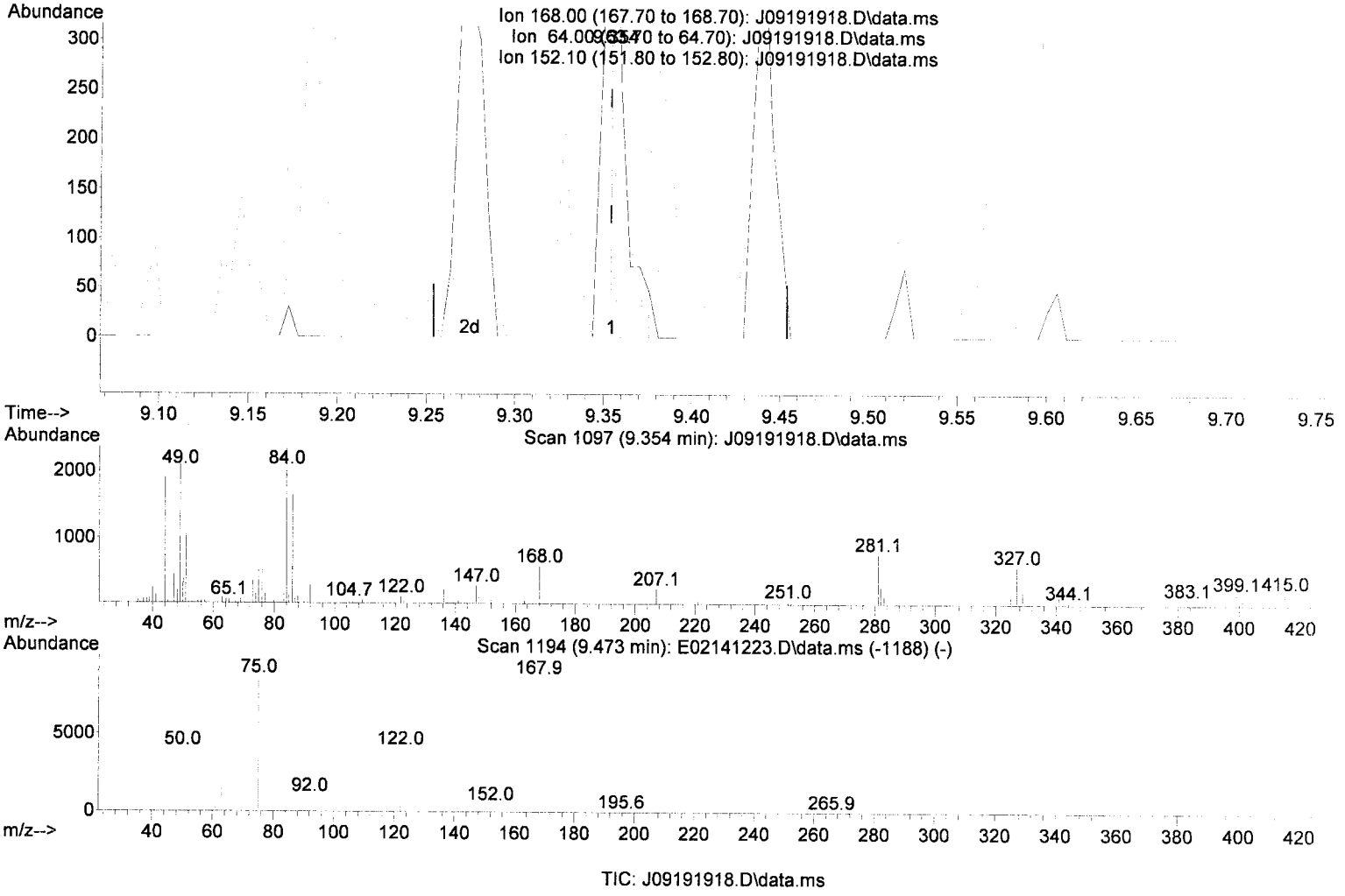


R = 6.81e-003 A*A + 2.06e-001 A - 5.98e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



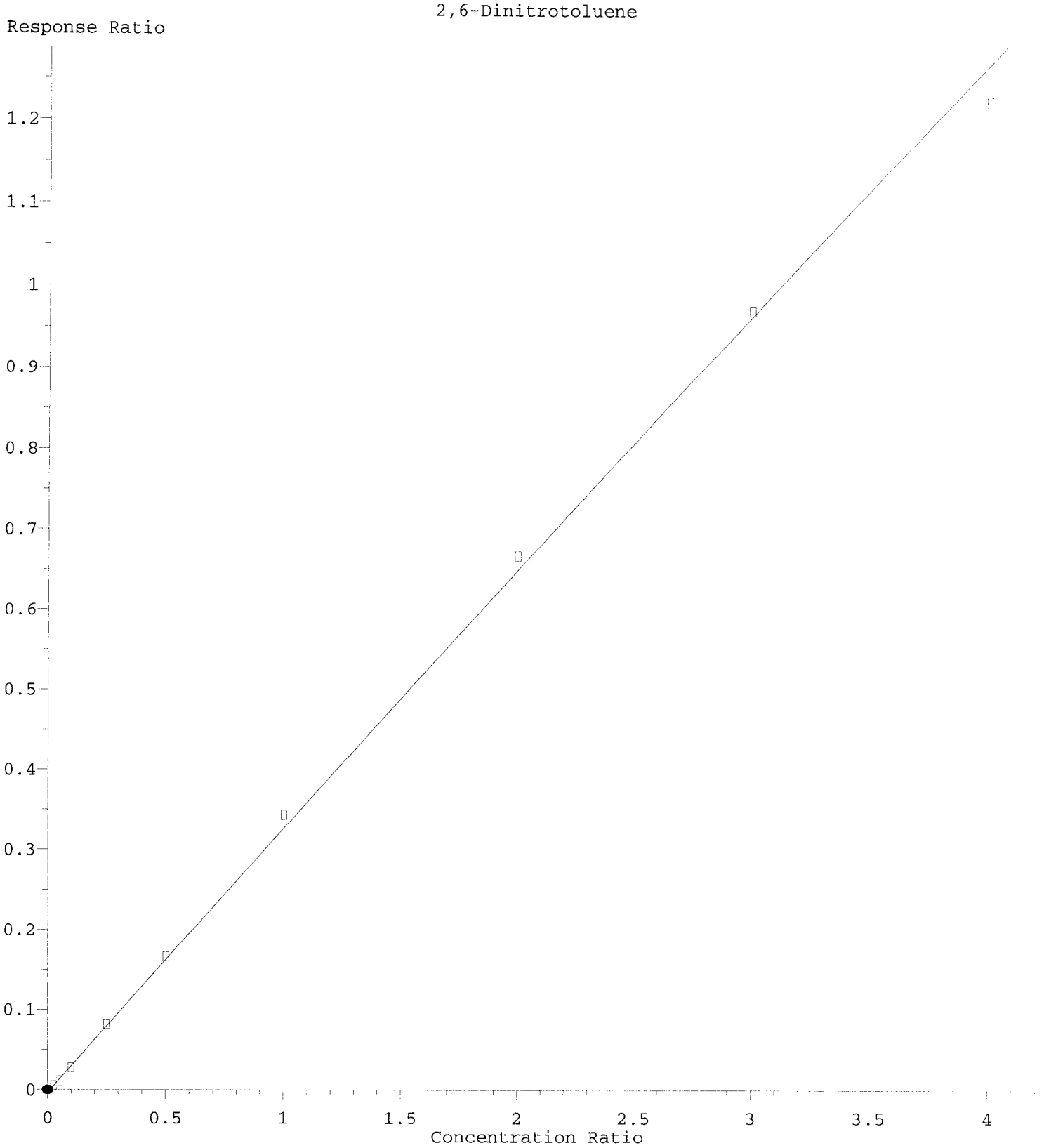
TIC: J09191918.D\data.ms

(46) 1,3-Dinitrobenzene (T)

9.354min (+ 0.000) 60.01 ng/ml m

response 141

Ion	Exp%	Act%
168.00	100.00	100.00
64.00	23.30	14.38
152.10	9.60	34.76
0.00	0.00	0.00

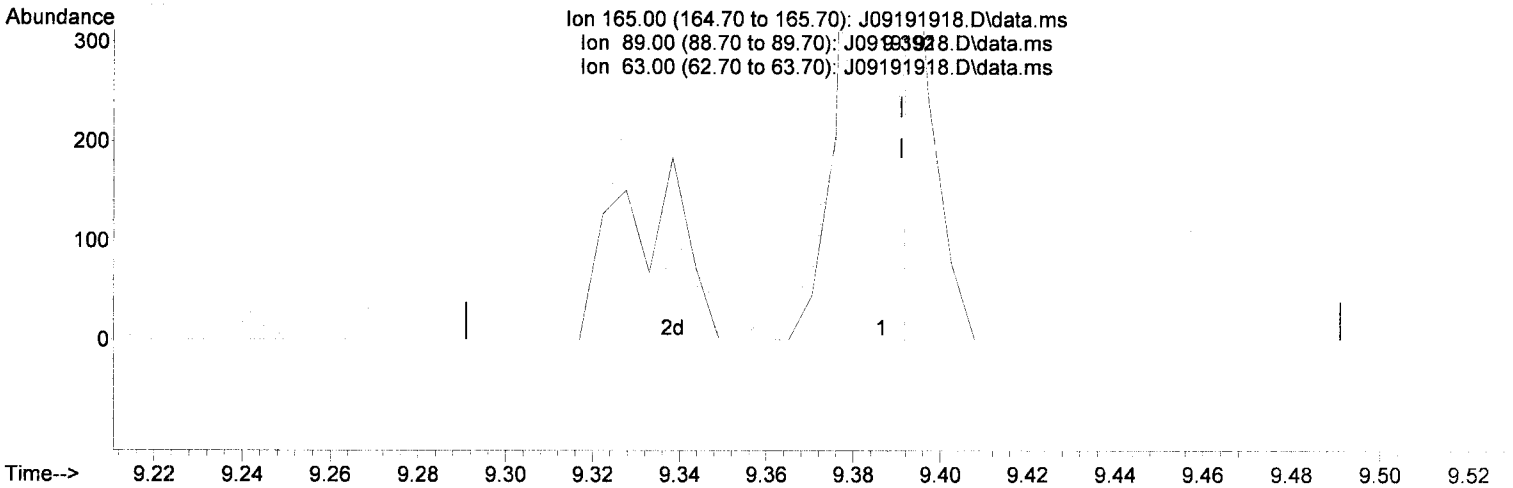


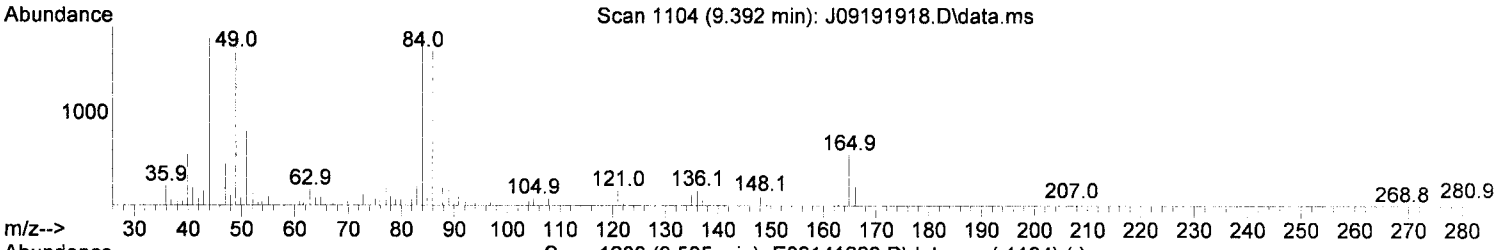
R = -4.24e-003 A*A + 3.35e-001 A - 4.20e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

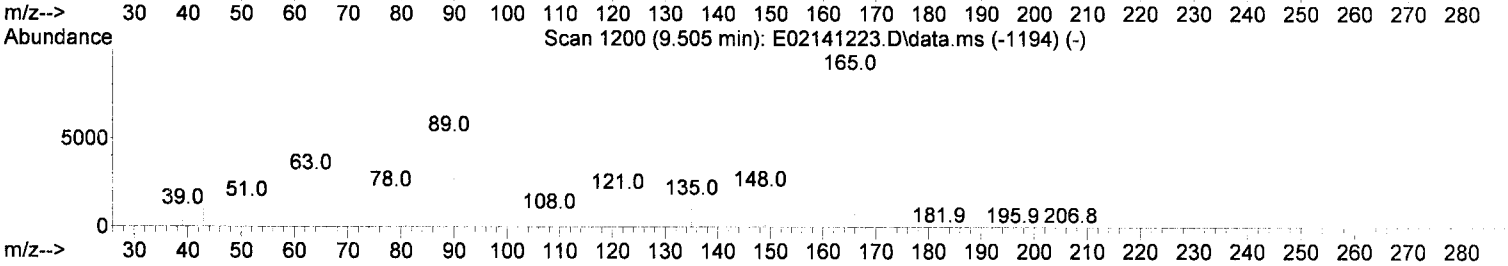
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







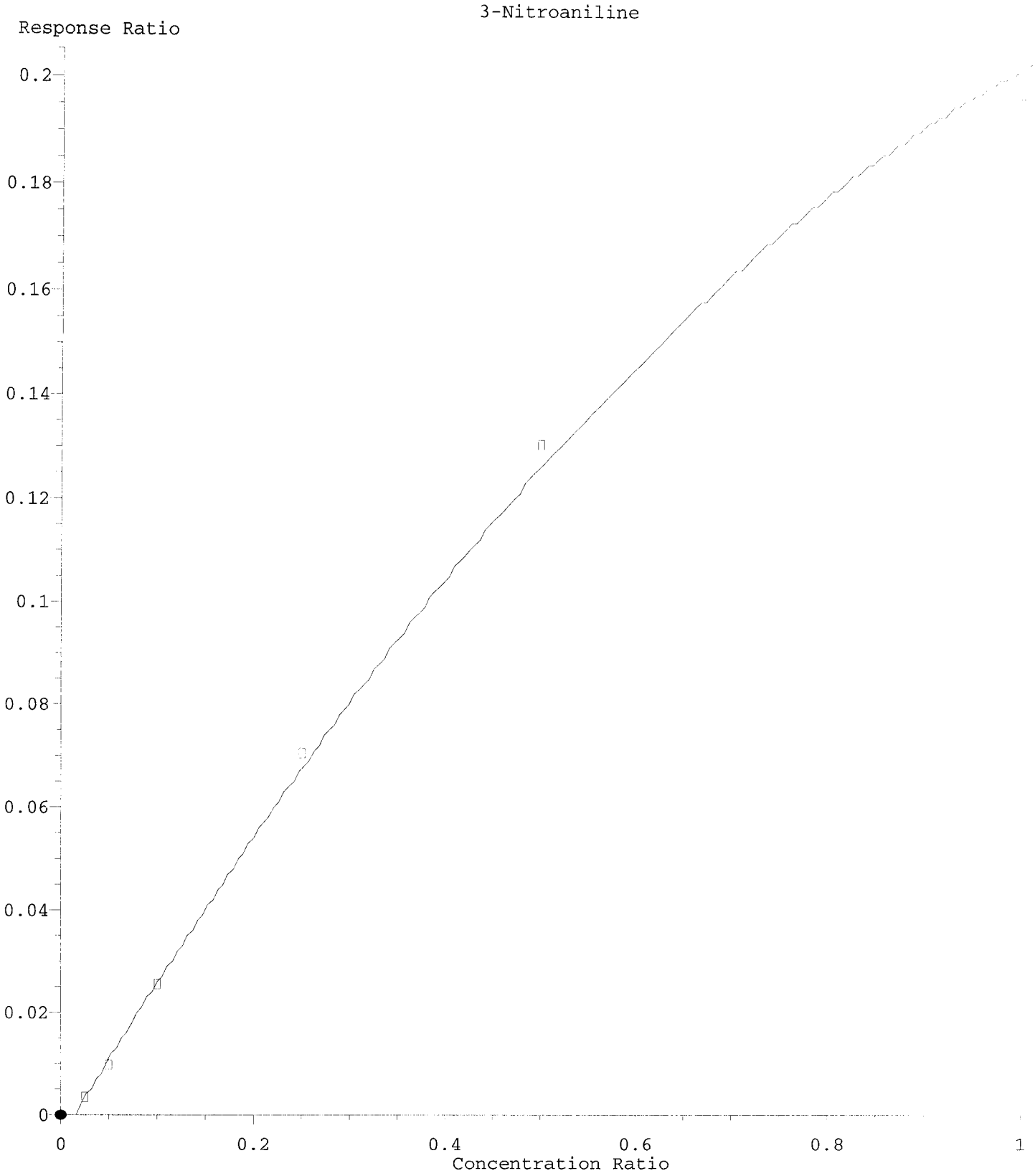
TIC: J09191918.D\data.ms

(47) 2,6-Dinitrotoluene (T)

9.392min (+ 0.001) 26.03 ng/ml m

response 103

Ion	Exp%	Act%
165.00	100.00	100.00
89.00	46.30	43.52
63.00	36.80	34.46
0.00	0.00	0.00

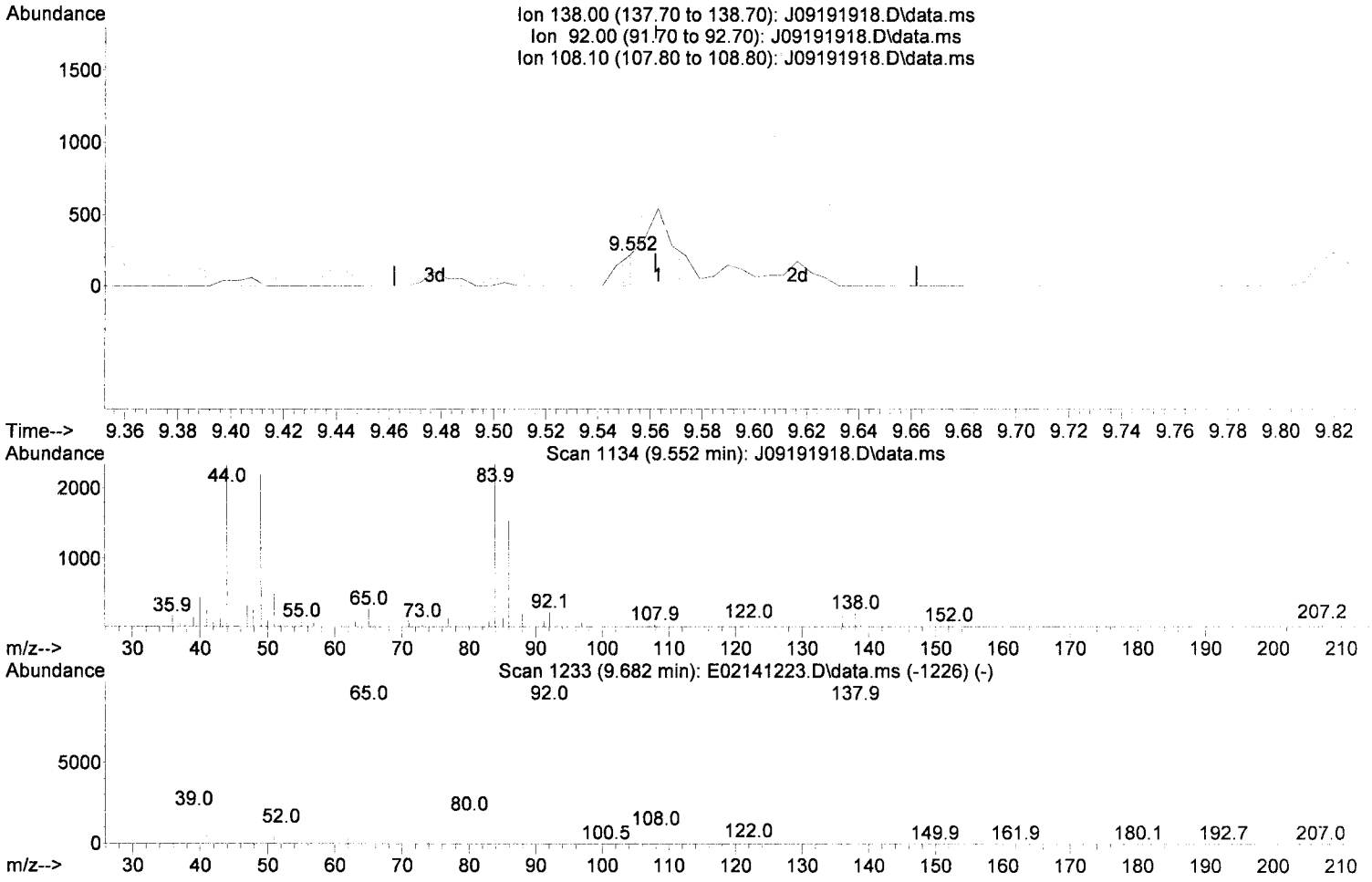


R = -1.10e-001 A*A + 3.17e-001 A - 4.68e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



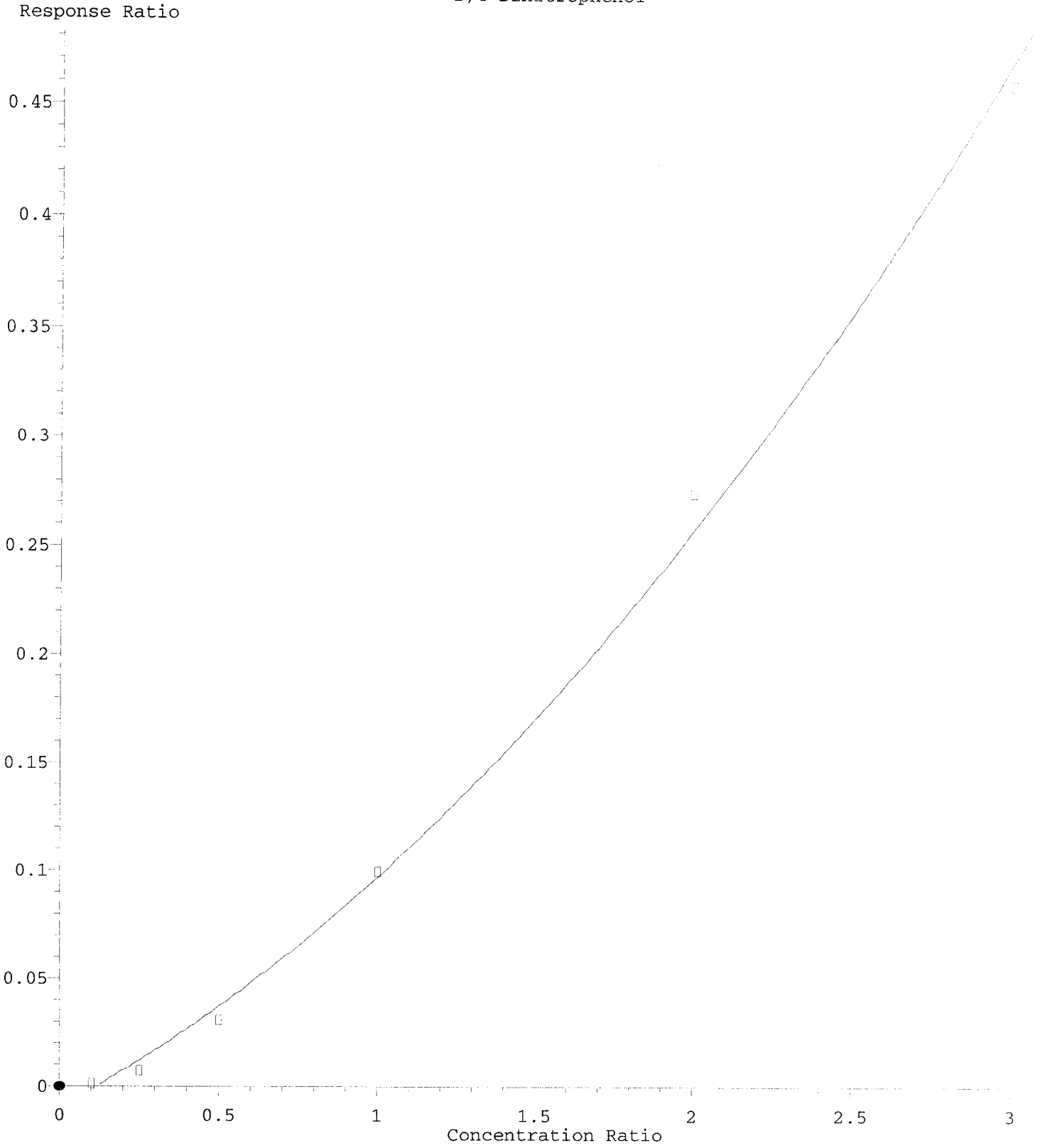
TIC: J09191918.D\data.ms

(50) 3-Nitroaniline (T)

9.552min (-0.010) 30.87 ng/ml m

response 116

Ion	Exp%	Act%
138.00	100.00	100.00
92.00	100.10	107.34
108.10	10.00	24.31
0.00	0.00	0.00

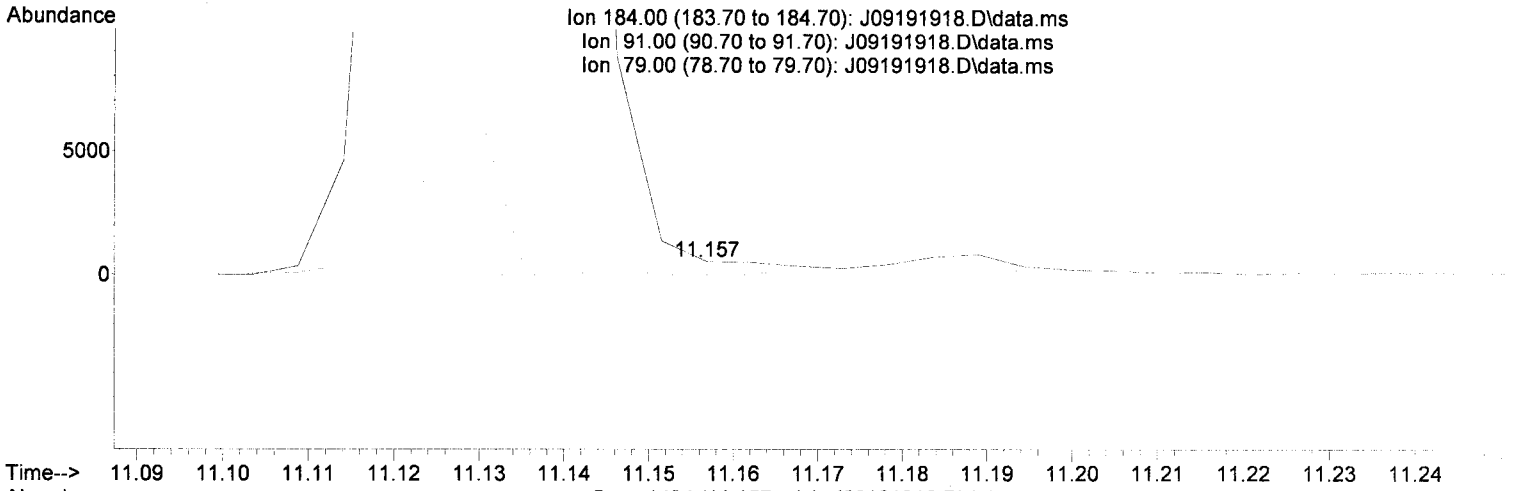


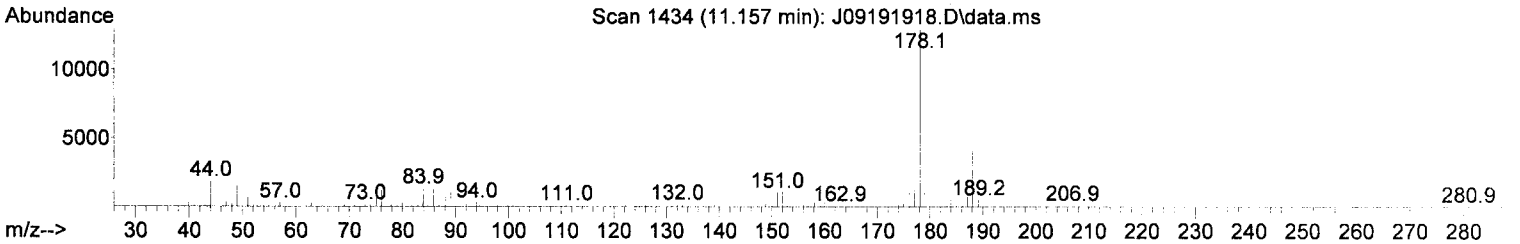
R = 2.65e-002 A*A + 8.01e-002 A - 9.46e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w/(1/a)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

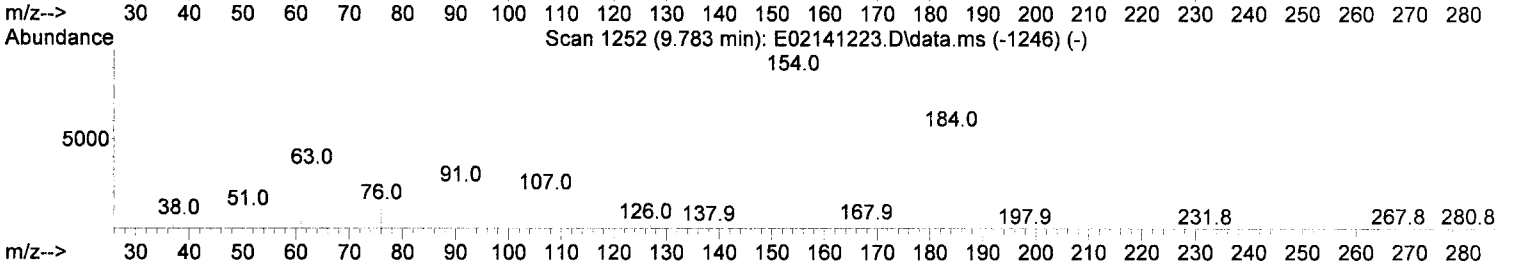
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 12:58:40 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







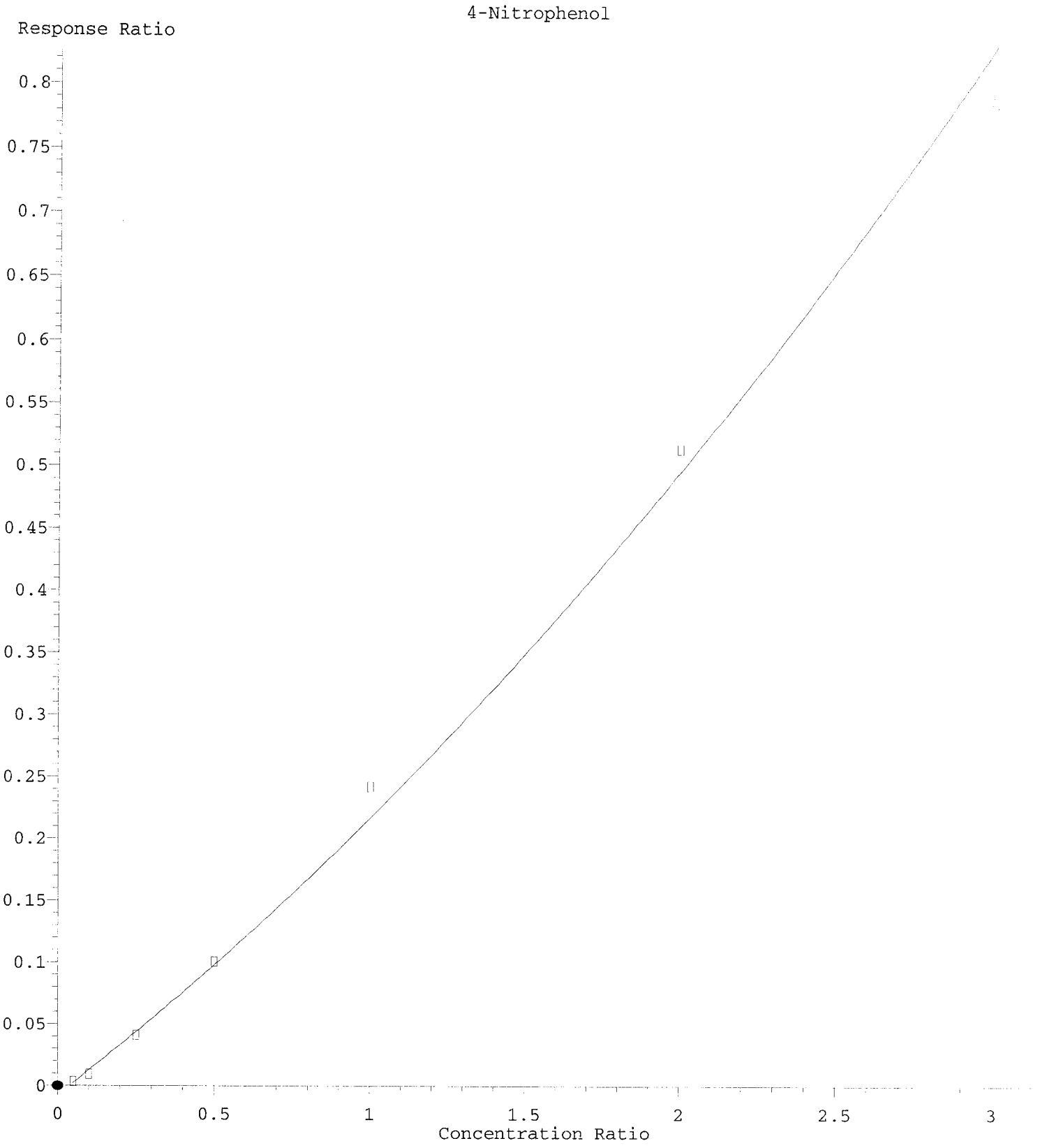
TIC: J09191918.D\data.ms

(52) 2,4-Dinitrophenol (T)

11.157min (+ 1.493) 233.65 ng/ml m

response 166

Ion	Exp%	Act%
184.00	100.00	100.00
91.00	42.80	6.68#
79.00	26.10	17.15
0.00	0.00	0.00

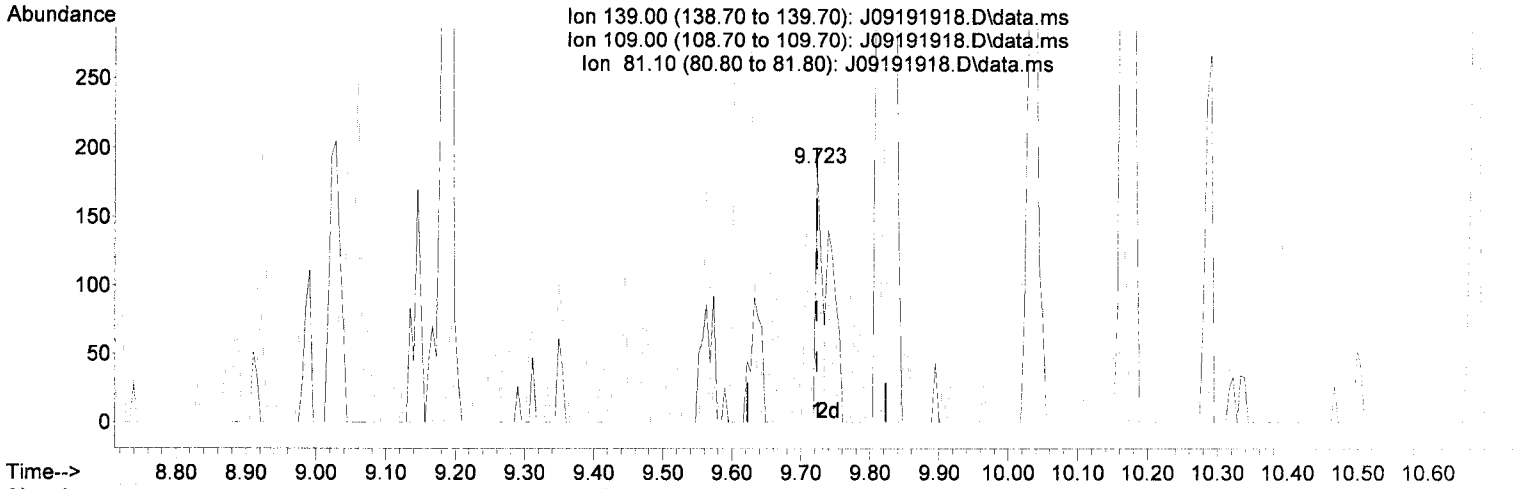


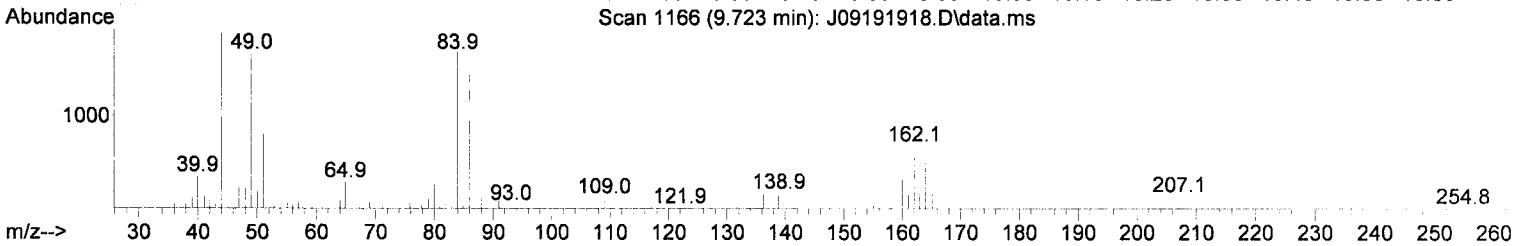
R = 2.73e-002 A*A + 1.97e-001 A - 7.29e-003
Coef of Det (r^2) = 0.991 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

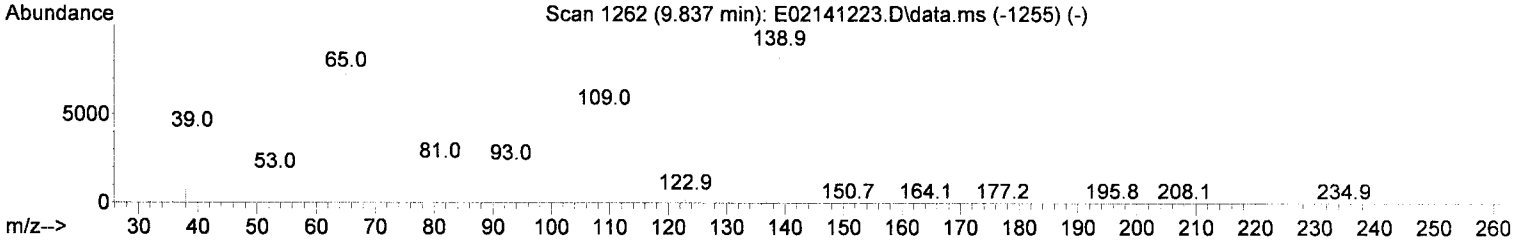
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







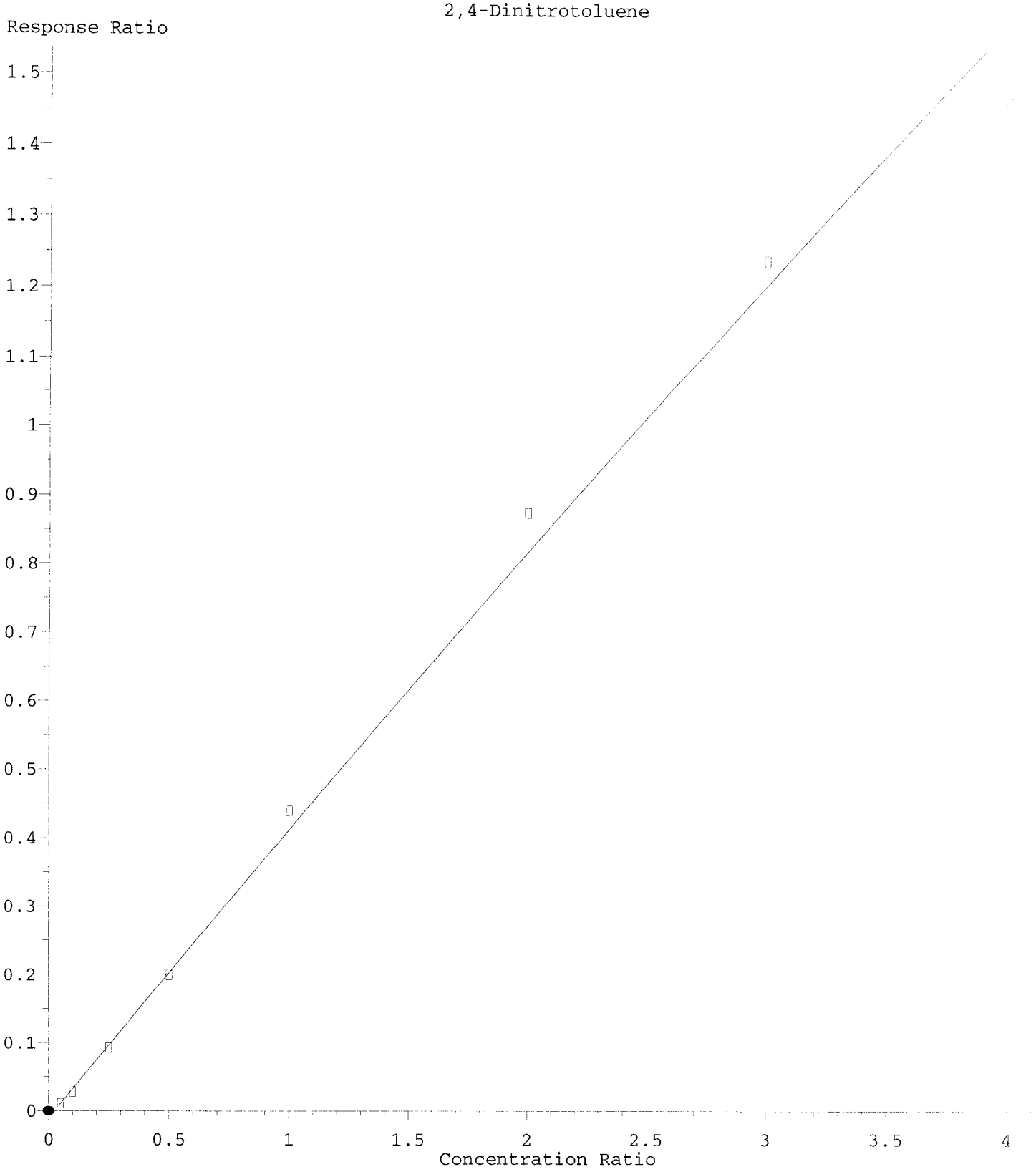
TIC: J09191918.D\data.ms

(53) 4-Nitrophenol (T)

9.723min (+ 0.000) 75.63 ng/ml

response 120

Ion	Exp%	Act%
139.00	100.00	100.00
109.00	58.50	72.04
81.10	23.90	27.42
0.00	0.00	0.00

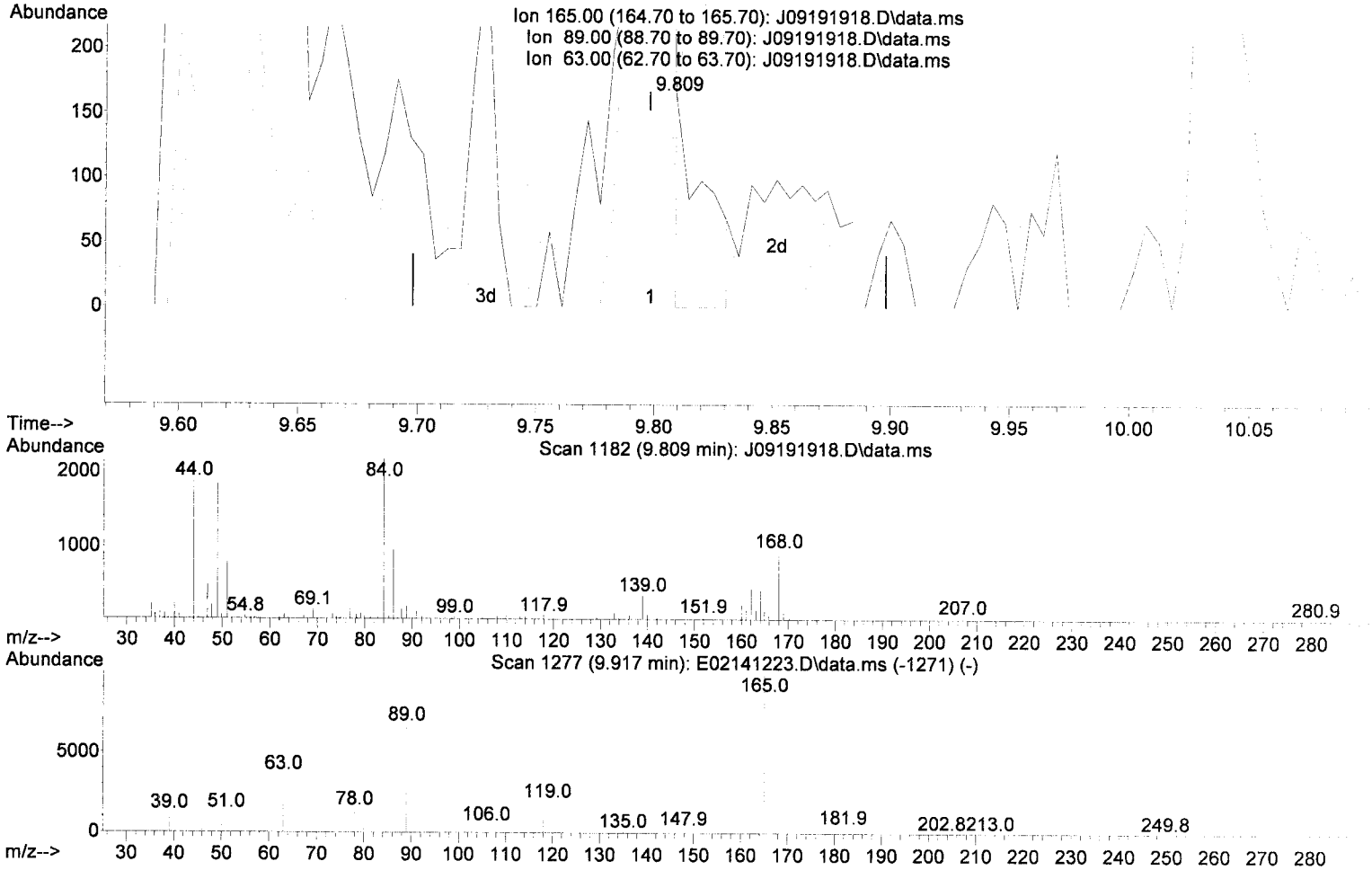


R = -9.39e-003 A*A + 4.33e-001 A - 1.16e-002
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



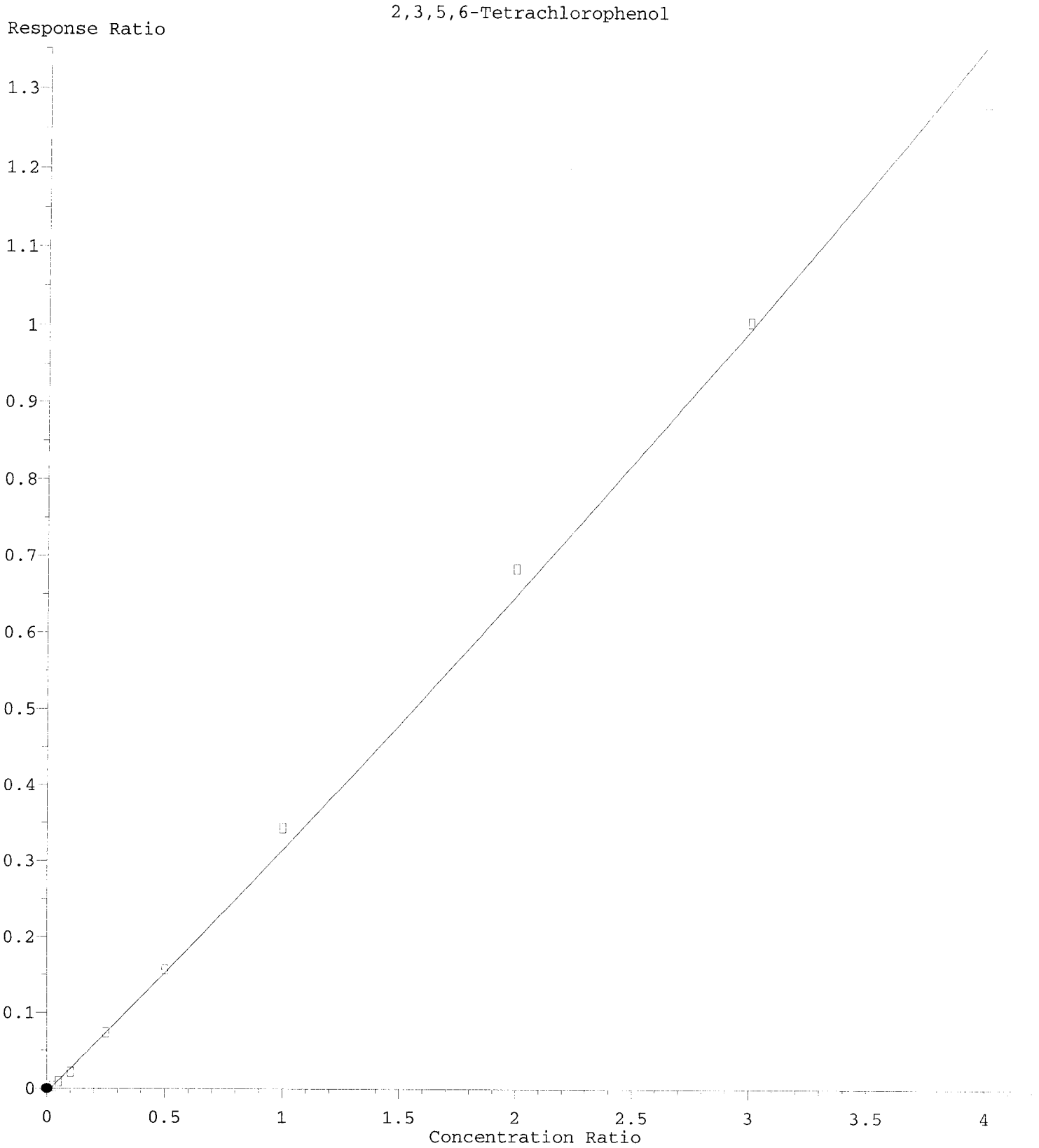
TIC: J09191918.D\data.ms

(54) 2,4-Dinitrotoluene (T)

9.809min (+ 0.011) 54.53 ng/ml m

response 109

Ion	Exp%	Act%
165.00	100.00	100.00
89.00	61.80	135.76#
63.00	32.90	55.76
0.00	0.00	0.00

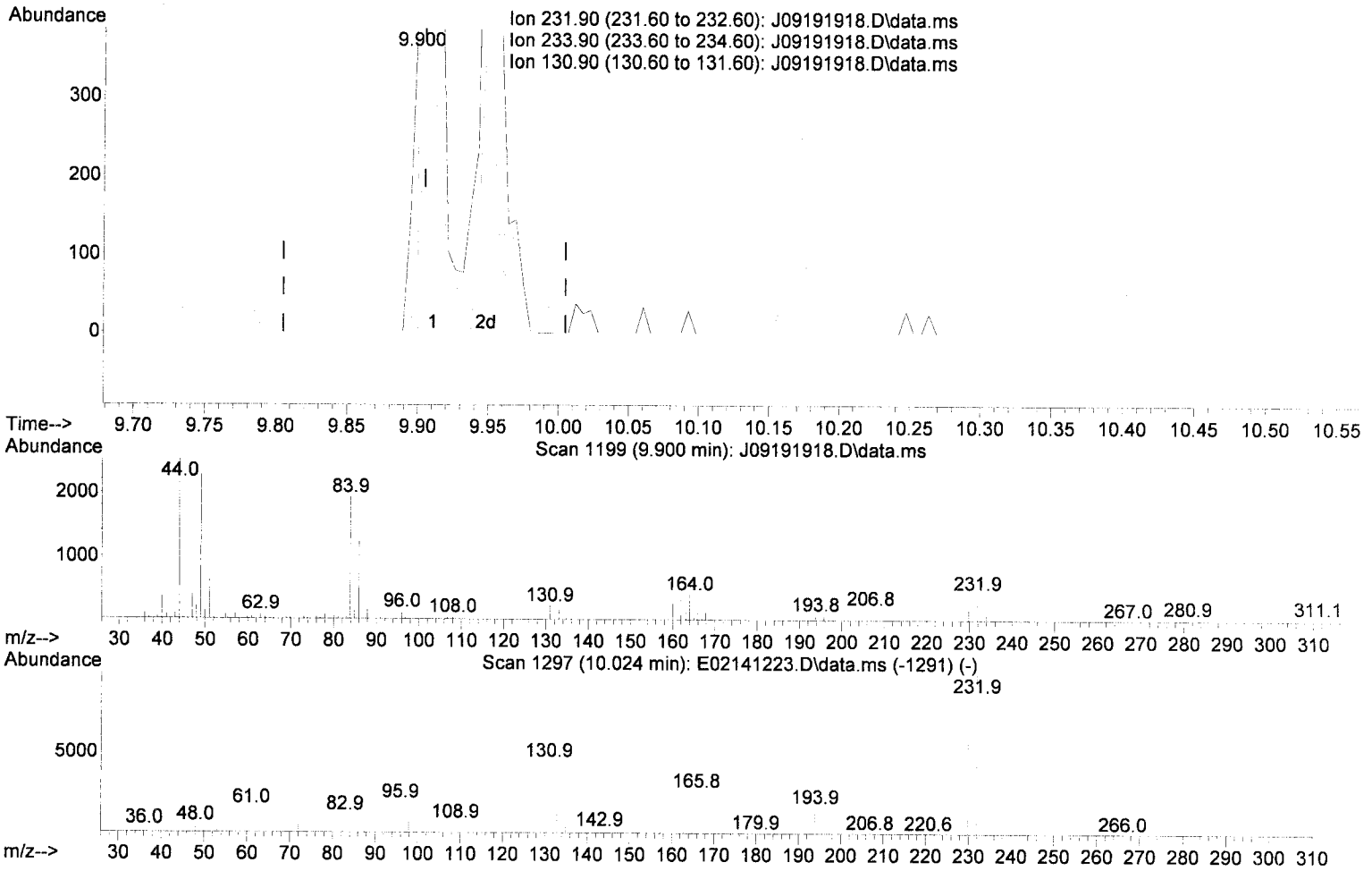


R = 6.93e-003 A*A + 3.13e-001 A - 5.57e-003
Coef of Det (r^2) = 0.994 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\sv10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



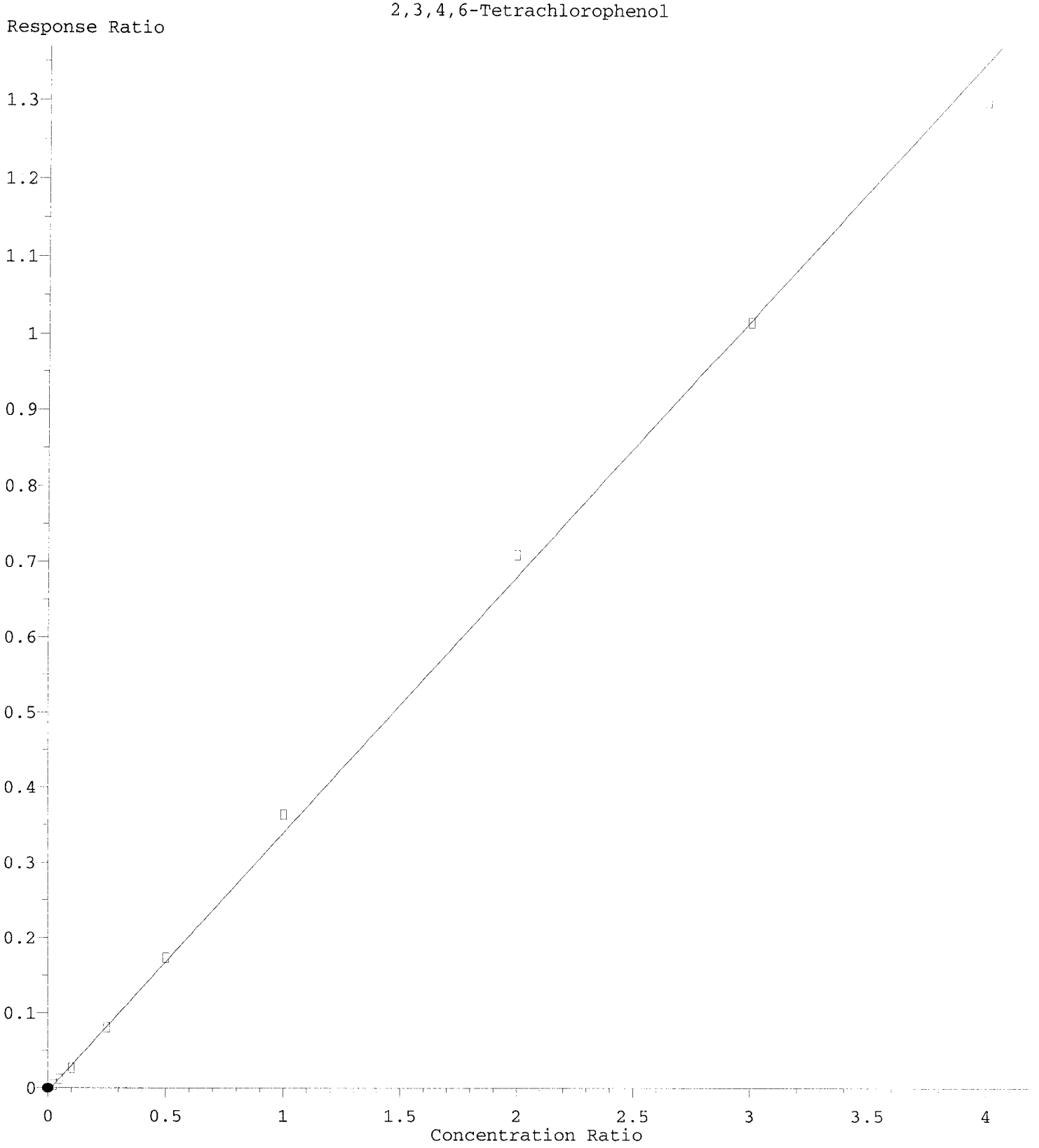
TIC: J09191918.D\data.ms

(56) 2,3,5,6-Tetrachlorophenol (T)

9.900min (-0.005) 37.40 ng/ml m

response 188

Ion	Exp%	Act%
231.90	100.00	100.00
233.90	48.30	24.72
130.90	40.60	55.10
0.00	0.00	0.00

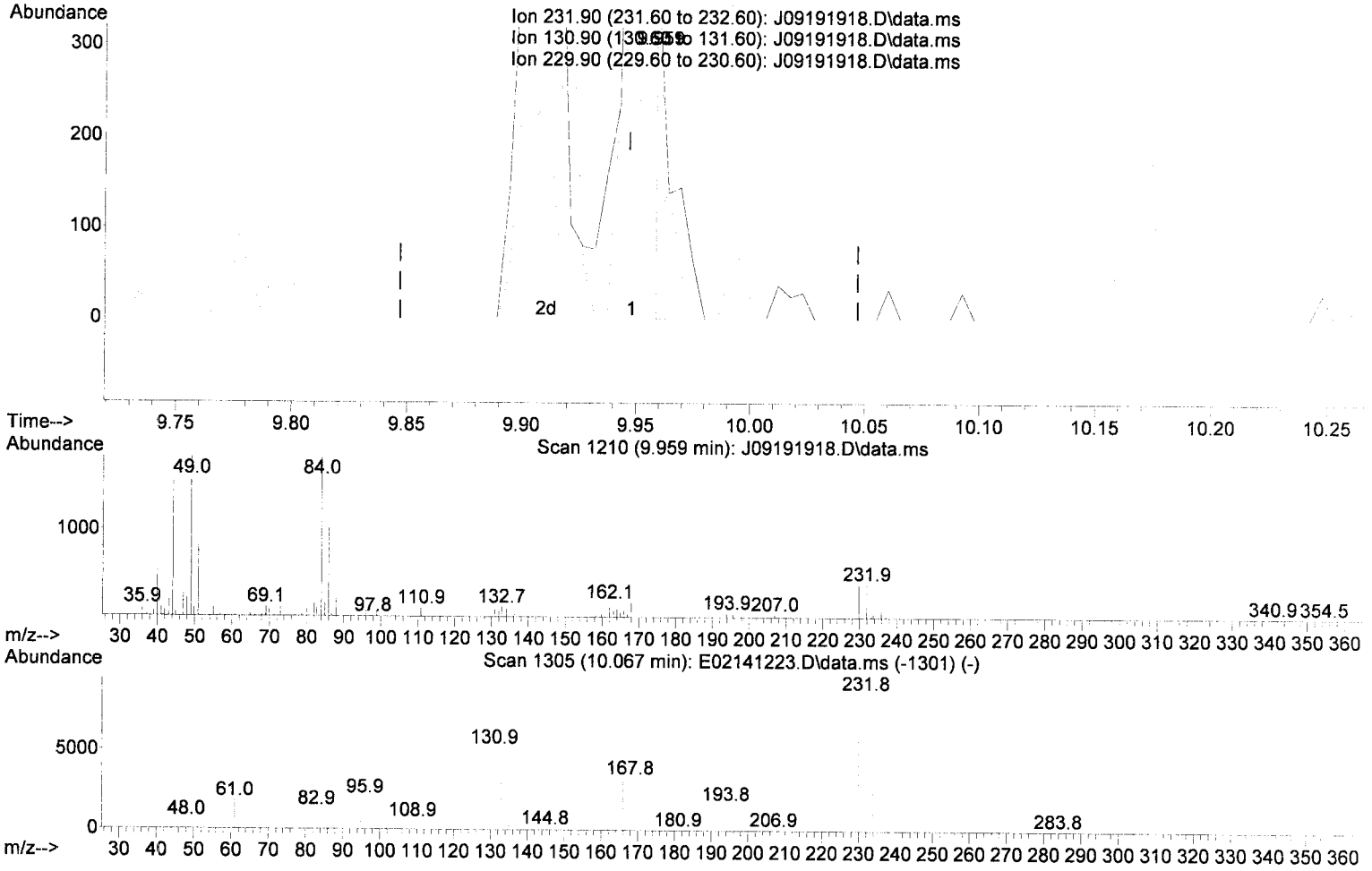


R = -1.57e-003 A*A + 3.46e-001 A - 4.91e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



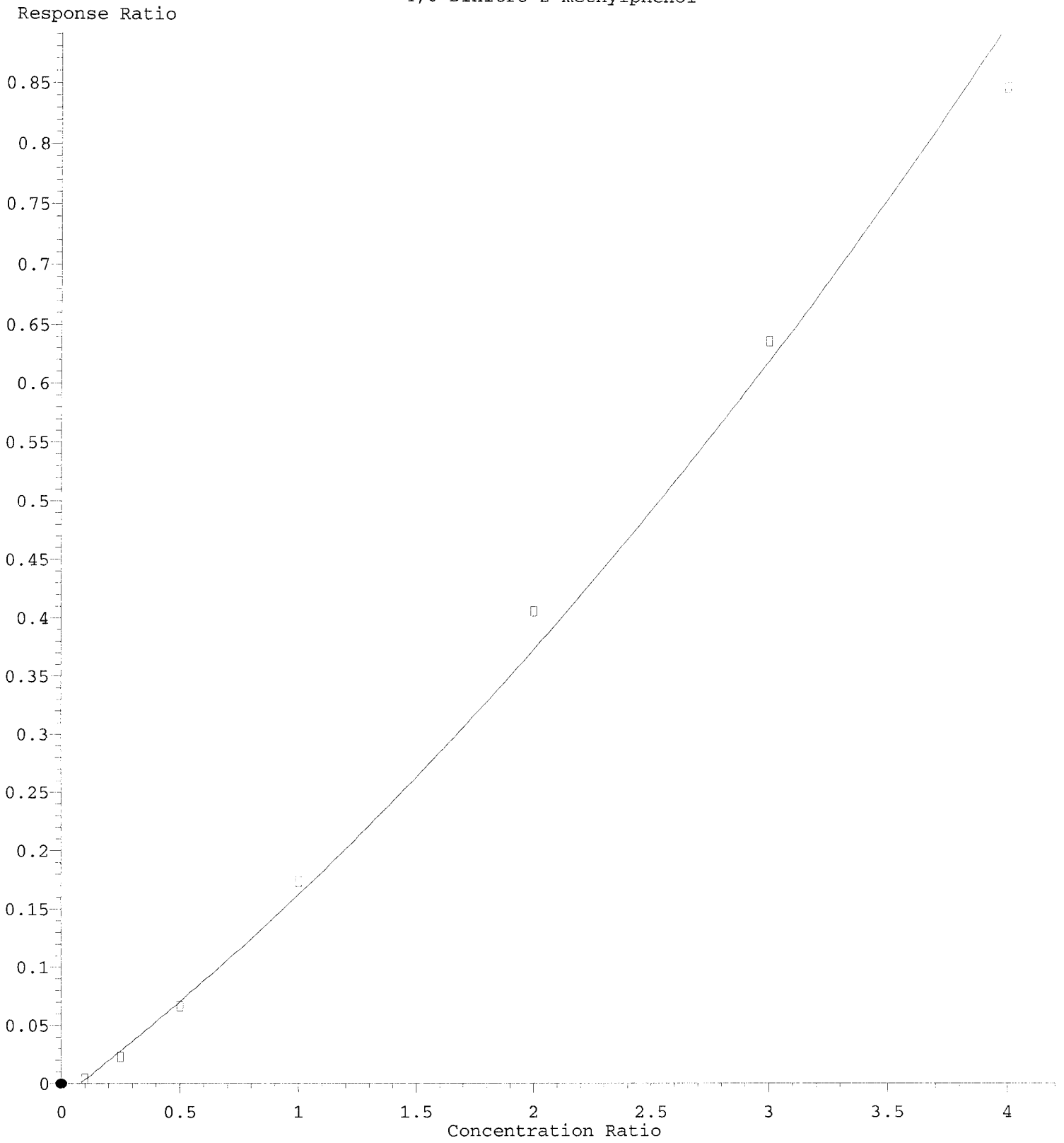
TIC: J09191918.D\data.ms

(57) 2,3,4,6-Tetrachlorophenol (T)

9.959min (+ 0.012) 29.40 ng/ml m

response 112

Ion	Exp%	Act%
231.90	100.00	100.00
130.90	45.50	28.97
229.90	77.80	98.74
0.00	0.00	0.00

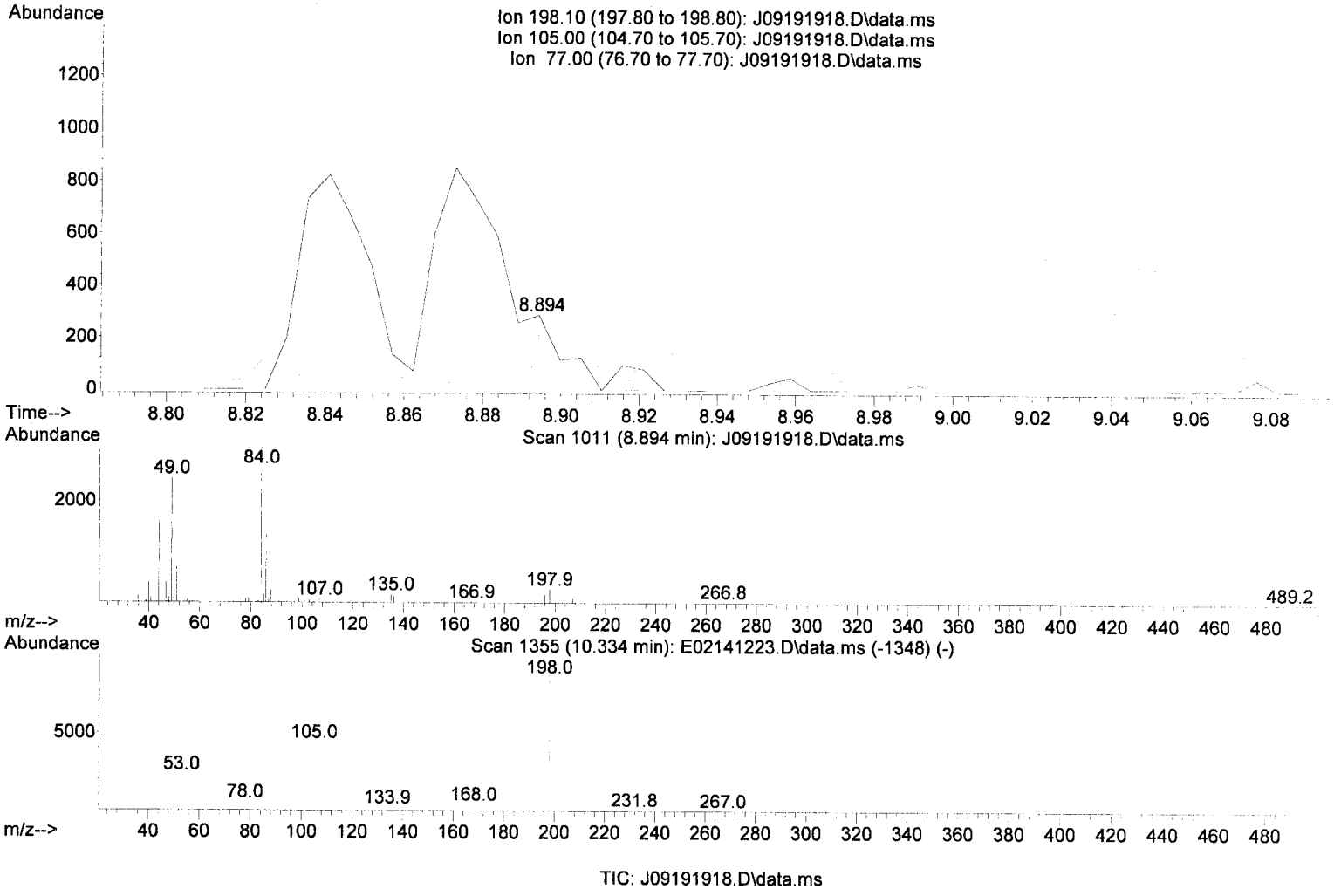


R = 1.79e-002 A*A + 1.57e-001 A - 1.26e-002
Coef of Det (r^2) = 0.993 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



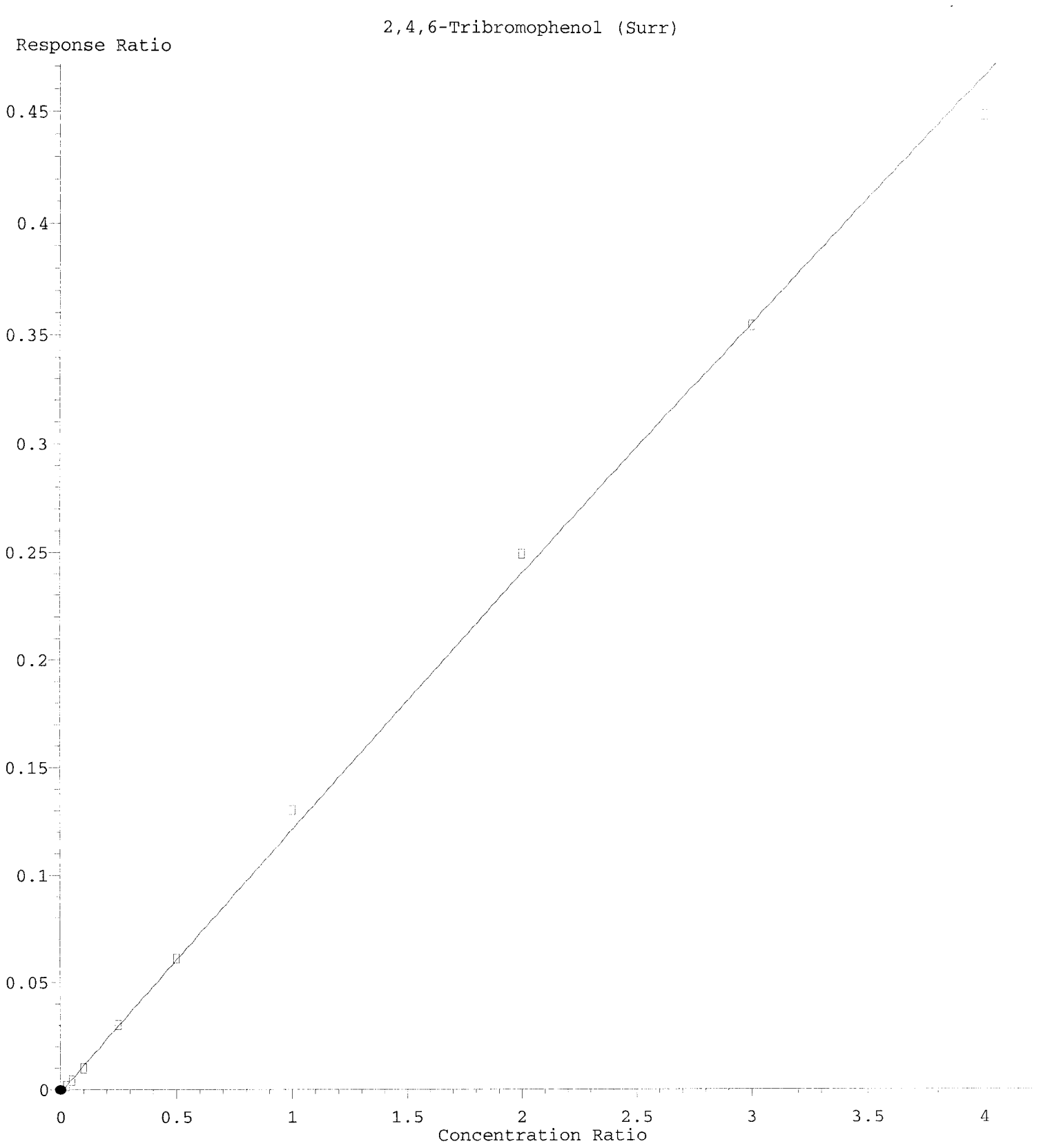
TIC: J09191918.D\data.ms

(63) 4,6-Dinitro-2-methylphenol (T)

8.894min (-1.321) 161.35 ng/ml m

response 134

Ion	Exp%	Act%
198.10	100.00	100.00
105.00	40.70	9.00#
77.00	20.00	37.37
0.00	0.00	0.00

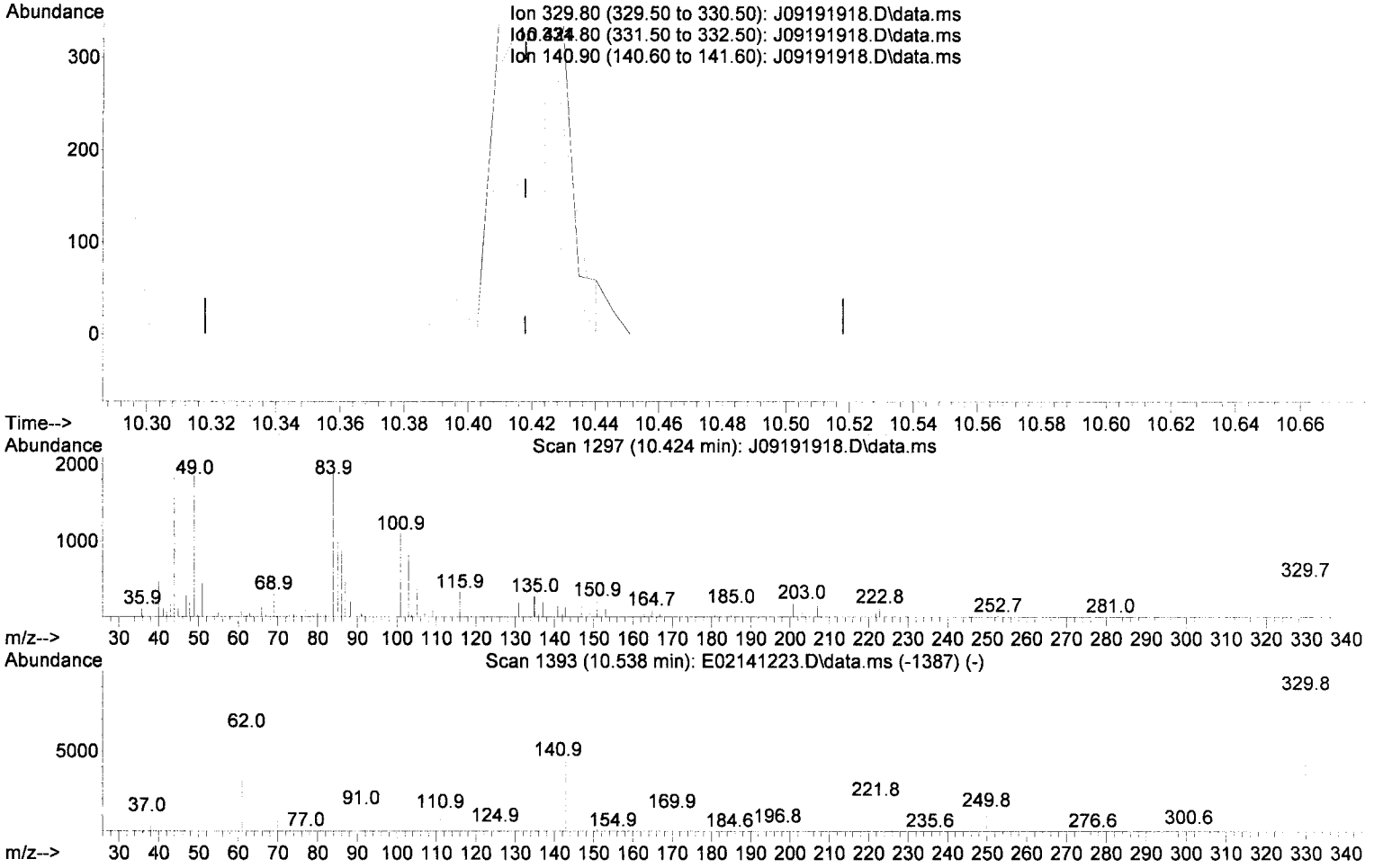


R = -1.82e-003 A*A + 1.24e-001 A - 1.50e-003
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_0919I9.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



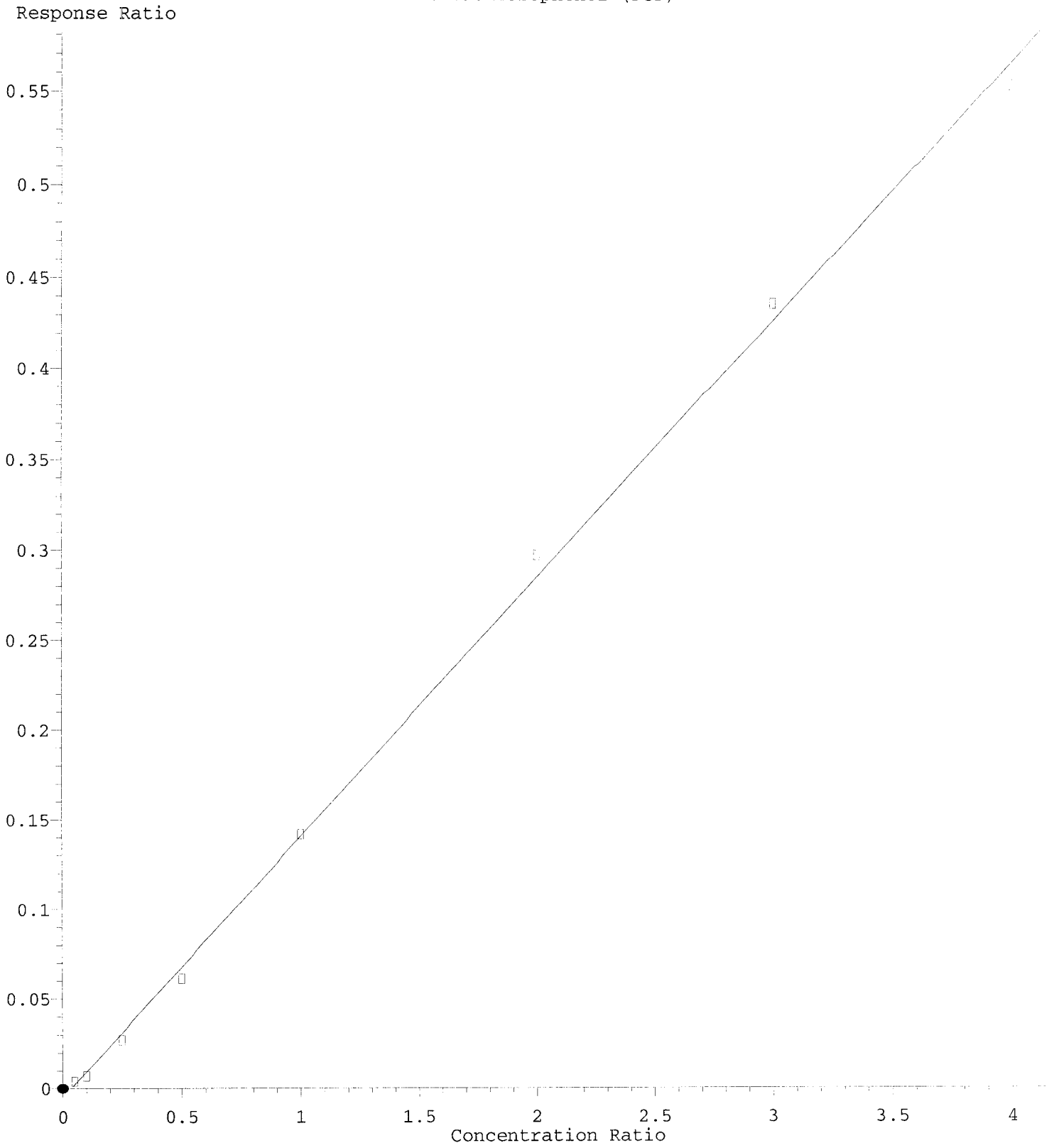
TIC: J09191918.D\data.ms

(67) 2,4,6-Tribromophenol (Surr) (S)

10.424min (+ 0.006) 26.15 ng/ml m

response 151

Ion	Exp%	Act%
329.80	100.00	100.00
331.80	97.00	81.25
140.90	32.90	37.90
0.00	0.00	0.00

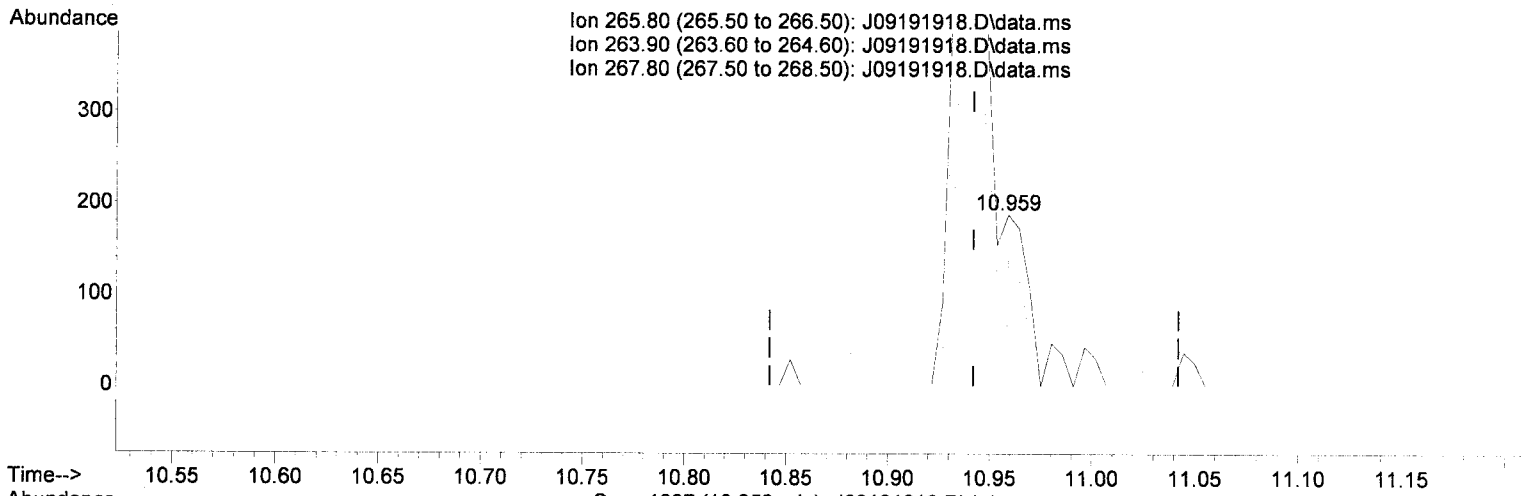


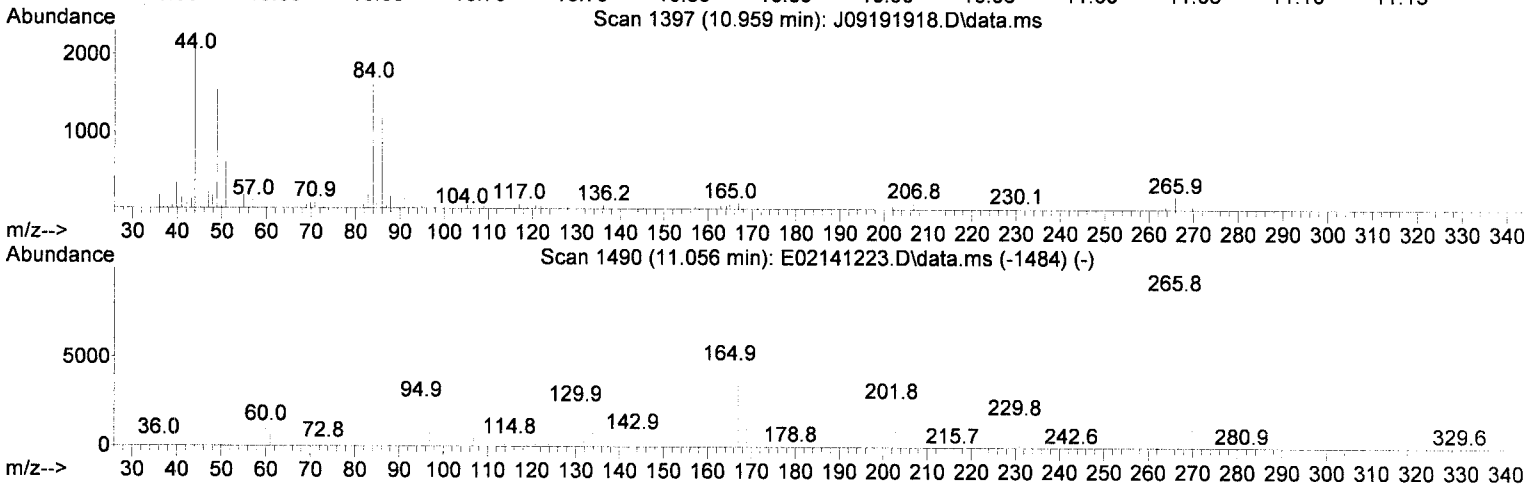
R = -1.05e-003 A*A + 1.47e-001 A - 5.64e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10





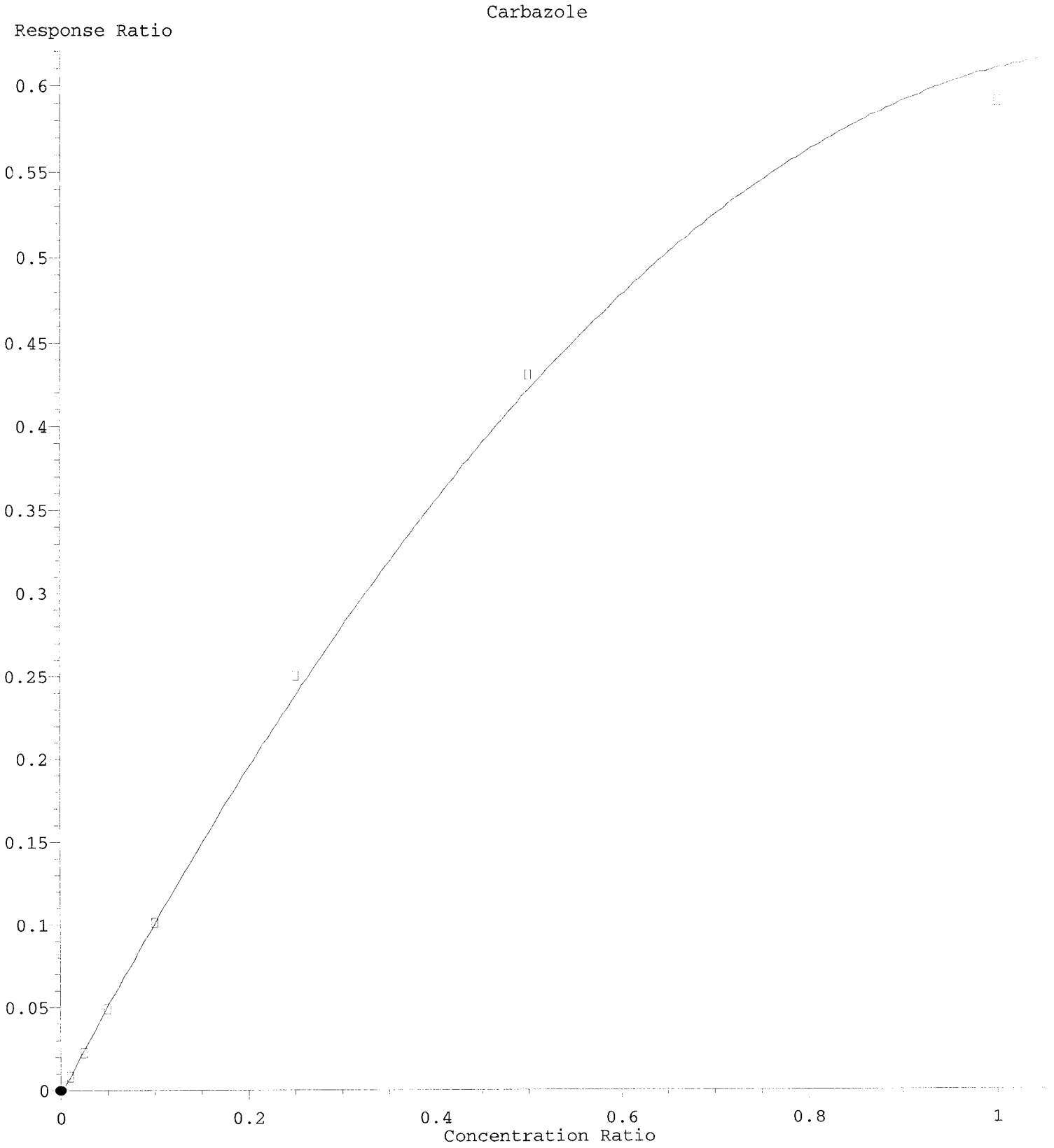
TIC: J09191918.D\data.ms

(70) Pentachlorophenol (PCP) (T)

10.959min (+ 0.017) 77.97 ng/ml m

response 116

Ion	Exp%	Act%
265.80	100.00	100.00
263.90	63.30	32.28#
267.80	64.70	0.00#
0.00	0.00	0.00

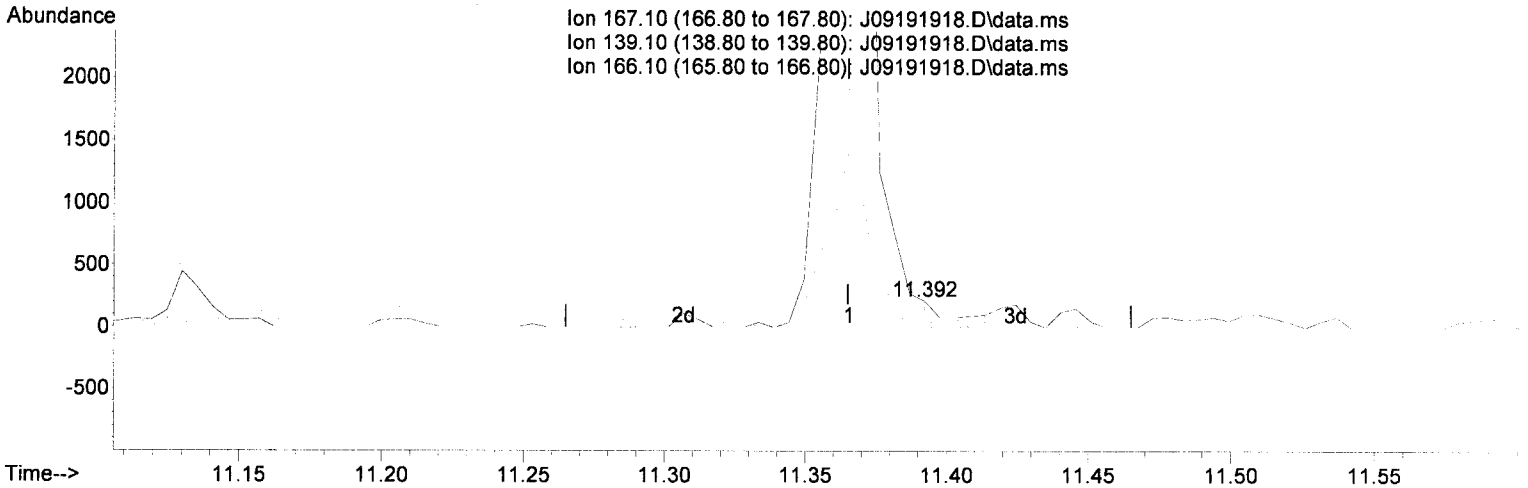


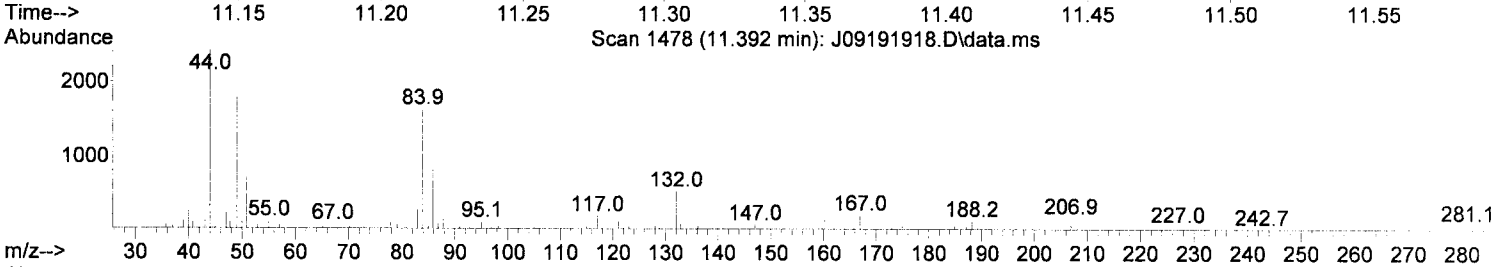
R = -4.70e-001 A*A + 1.08e+000 A - 3.03e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M

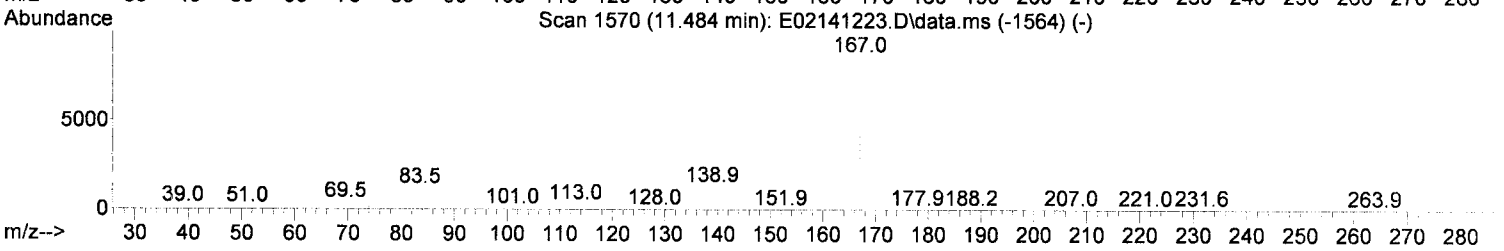
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10







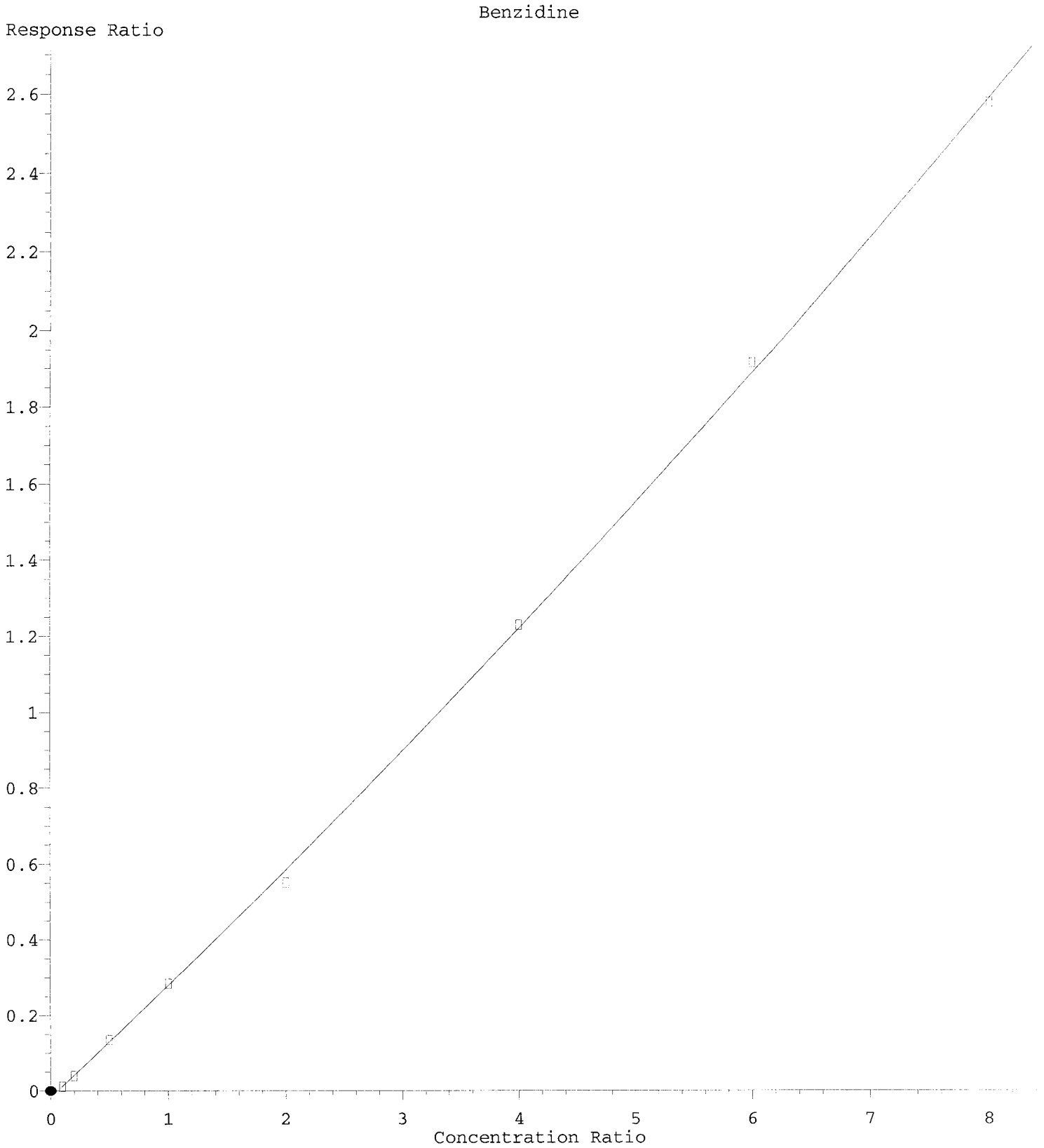
TIC: J09191918.D\data.ms

(73) Carbazole (T)

11.392min (+ 0.027) 5.78 ng/ml m

response 115

Ion	Exp%	Act%
167.10	100.00	100.00
139.10	12.90	18.22
166.10	20.90	15.42
0.00	0.00	0.00

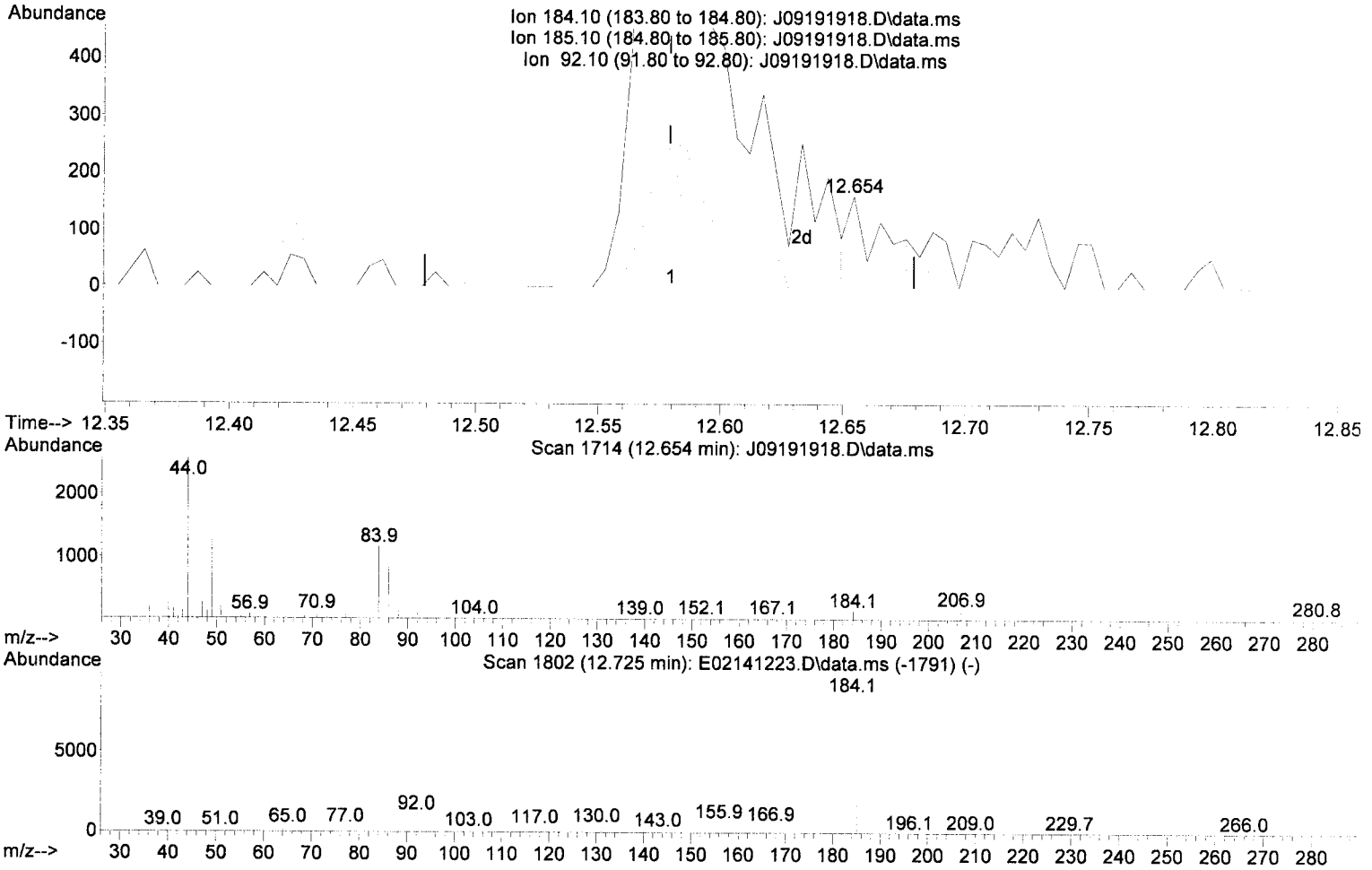


R = 4.30e-003 A*A + 2.93e-001 A - 1.80e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



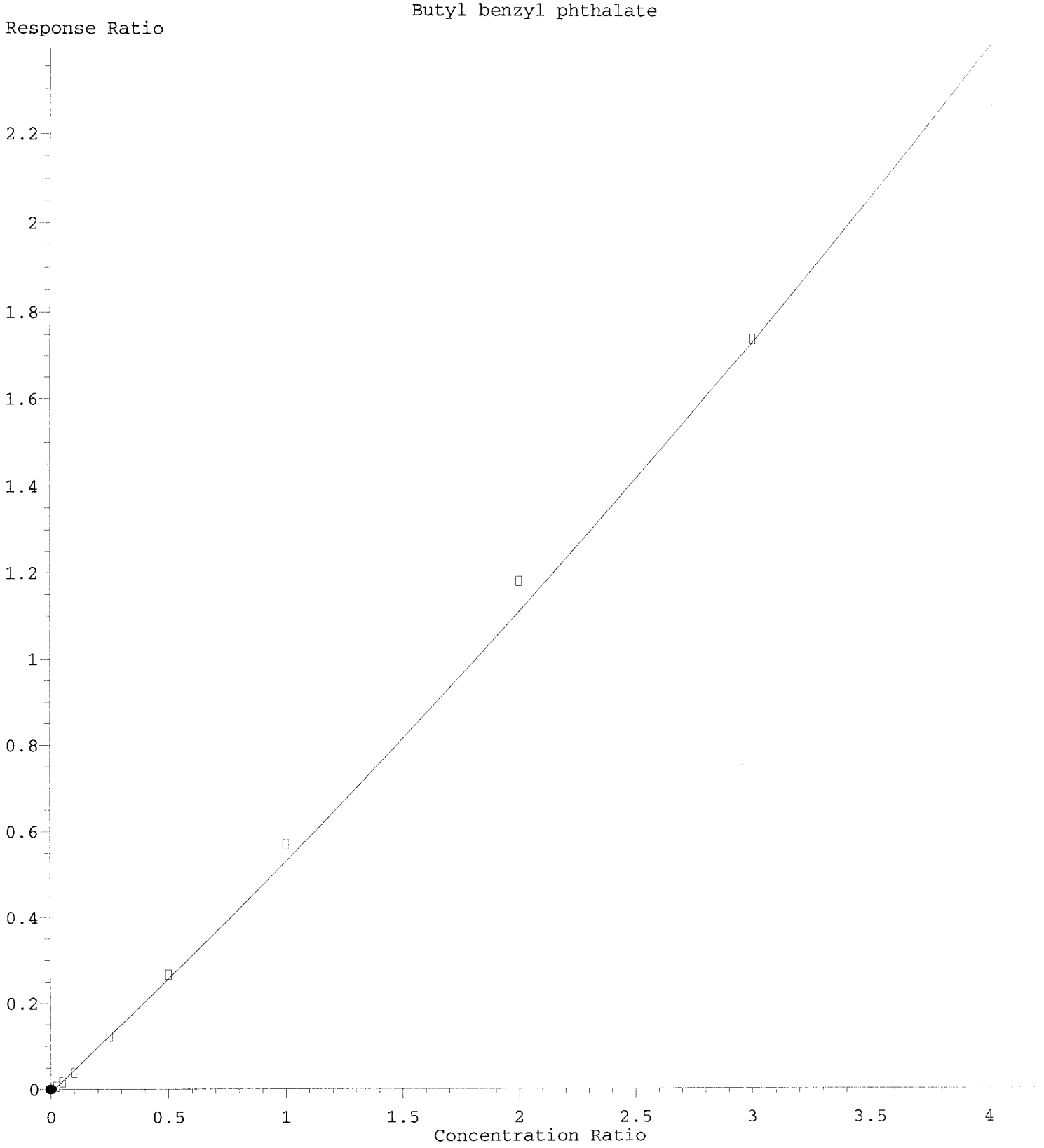
TIC: J09191918.D\data.ms

(76) Benzidine (T)

12.654min (+ 0.075) 123.93 ng/ml m

response 158

Ion	Exp%	Act%
184.10	100.00	100.00
185.10	15.50	0.00
92.10	9.10	70.99#
0.00	0.00	0.00

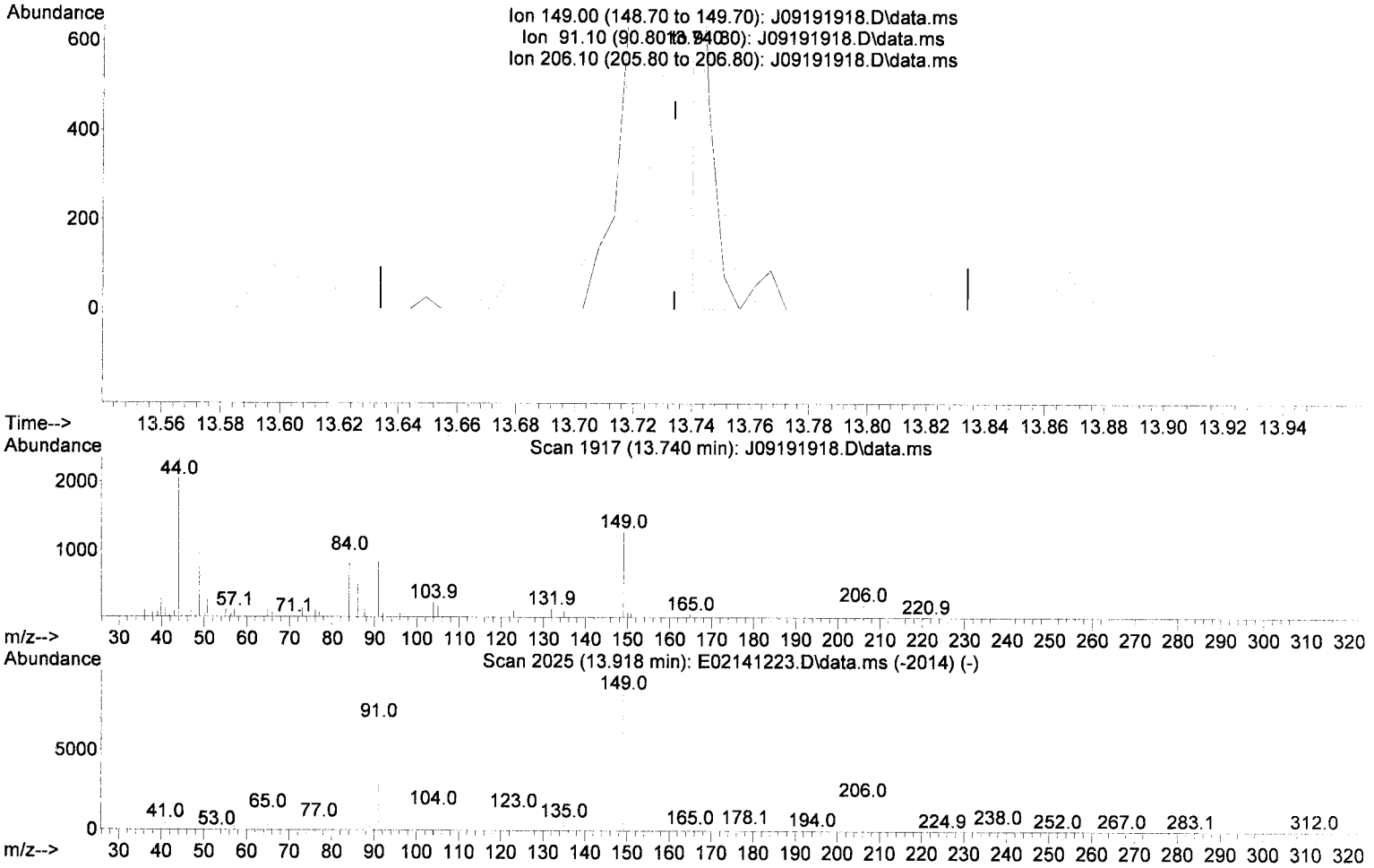


R = 2.13e-002 A*A + 5.16e-001 A - 7.58e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w/(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_0919I9.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



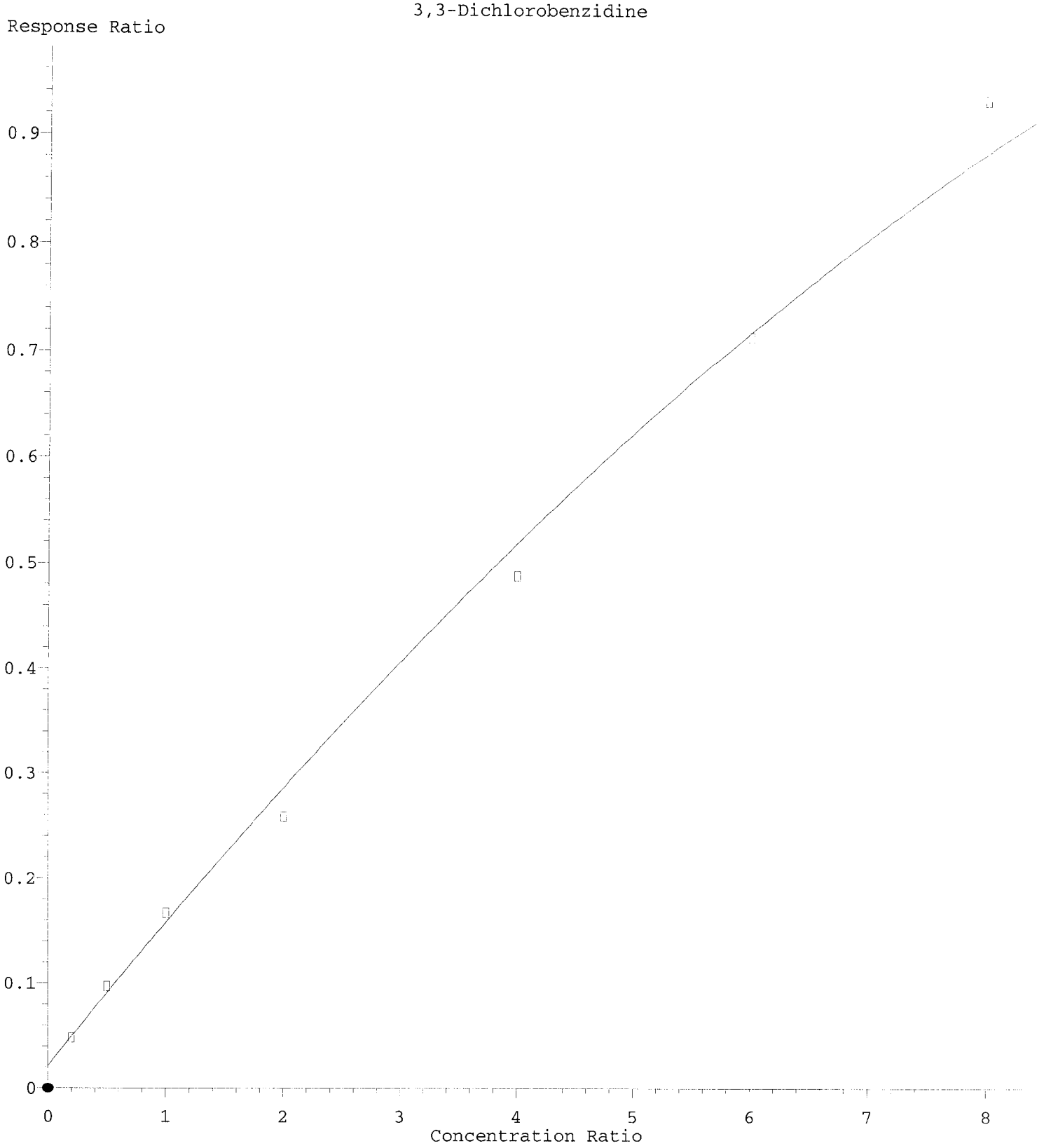
TIC: J09191918.D\data.ms

(80) Butyl benzyl phthalate (T)

13.740min (+ 0.006) 29.98 ng/ml m

response 188

Ion	Exp%	Act%
149.00	100.00	100.00
91.10	64.60	66.02
206.10	20.40	16.13
0.00	0.00	0.00

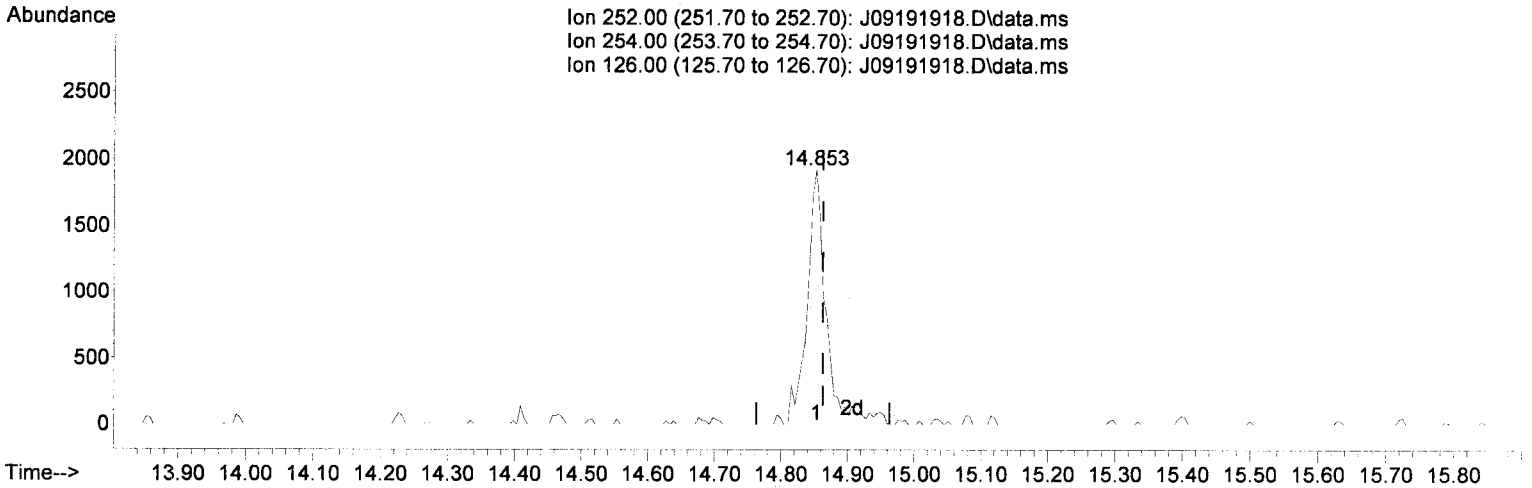


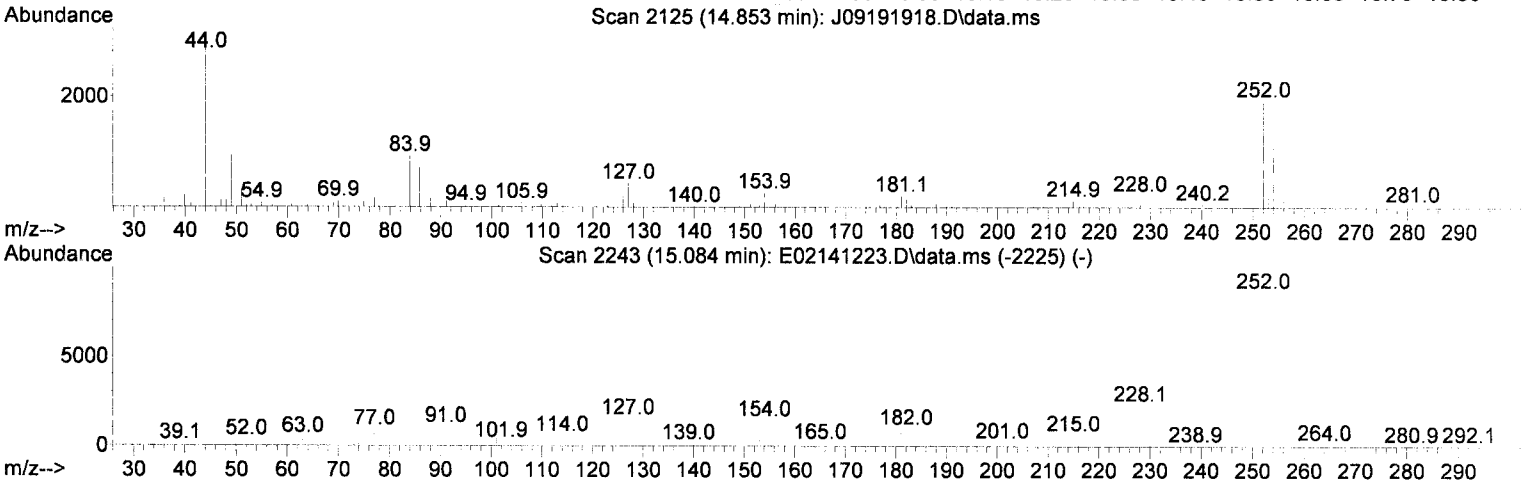
R = -4.11e-003 A*A + 1.41e-001 A + 2.12e-002
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10





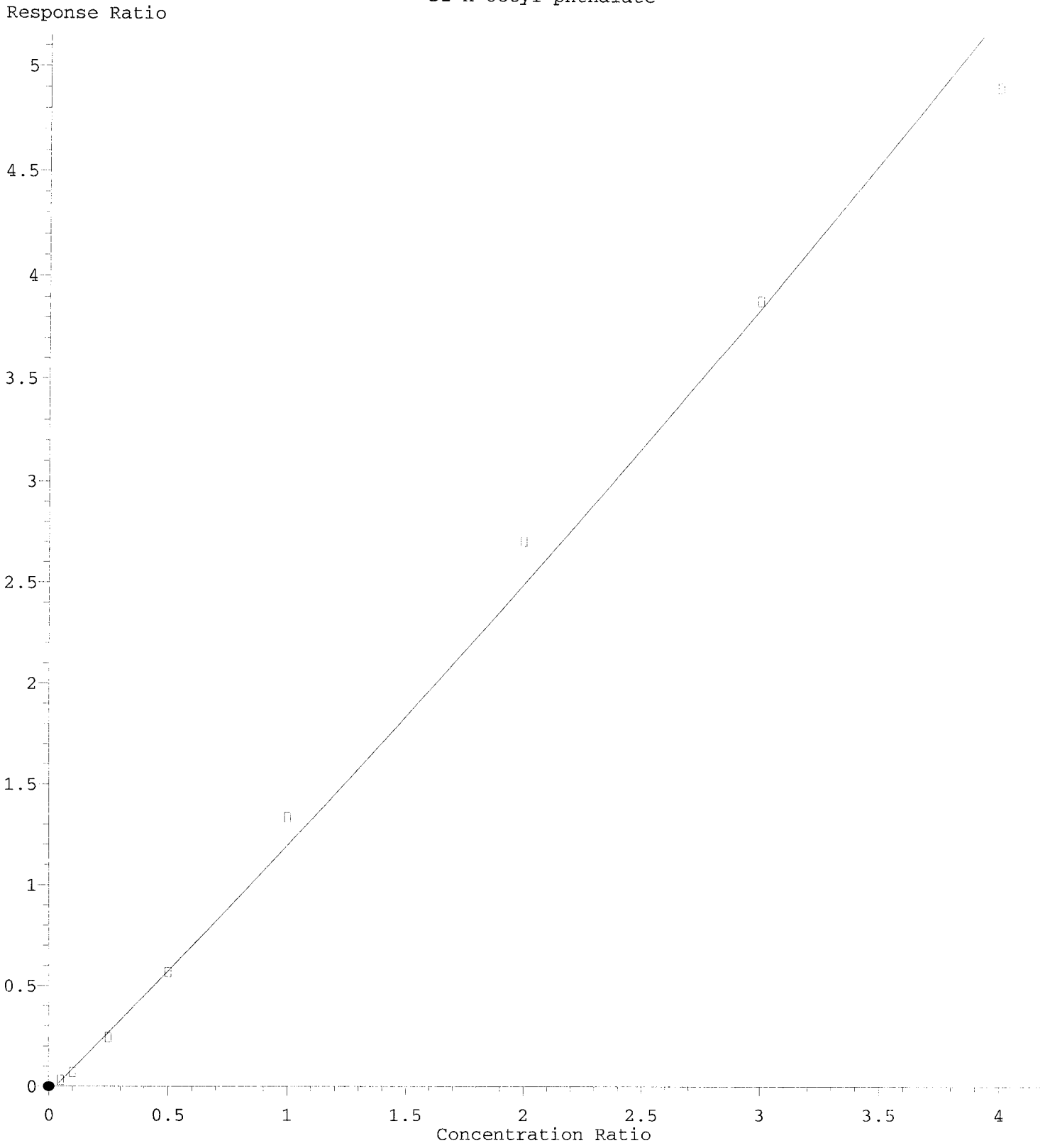
TIC: J09191918.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.853min (-0.010) -1.00 ng/ml m

response 3954

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	62.09
126.00	12.00	11.91
0.00	0.00	0.00

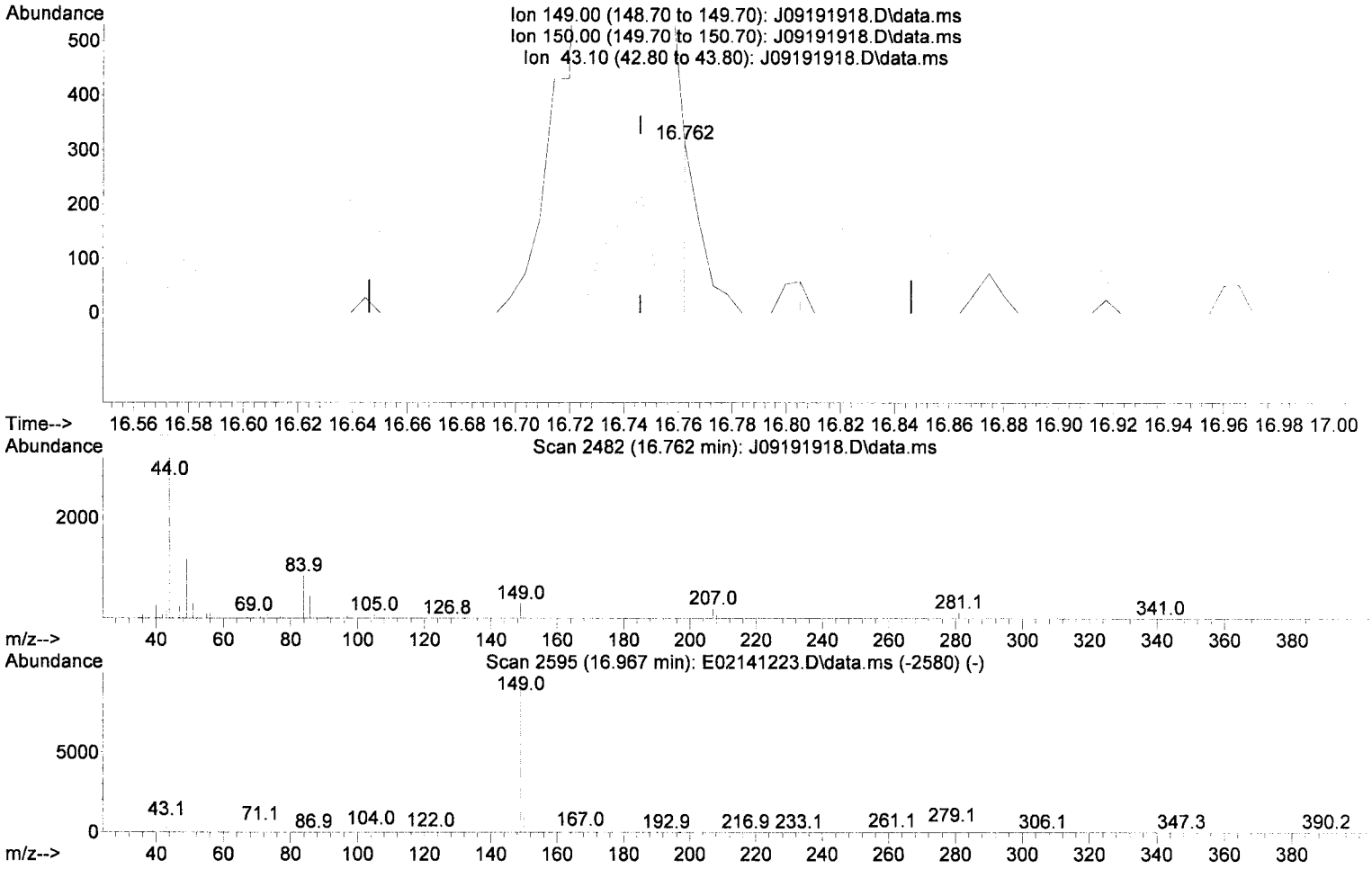


R = 3.12e-002 A*A + 1.20e+000 A - 3.48e-002
Coef of Det (r^2) = 0.990 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



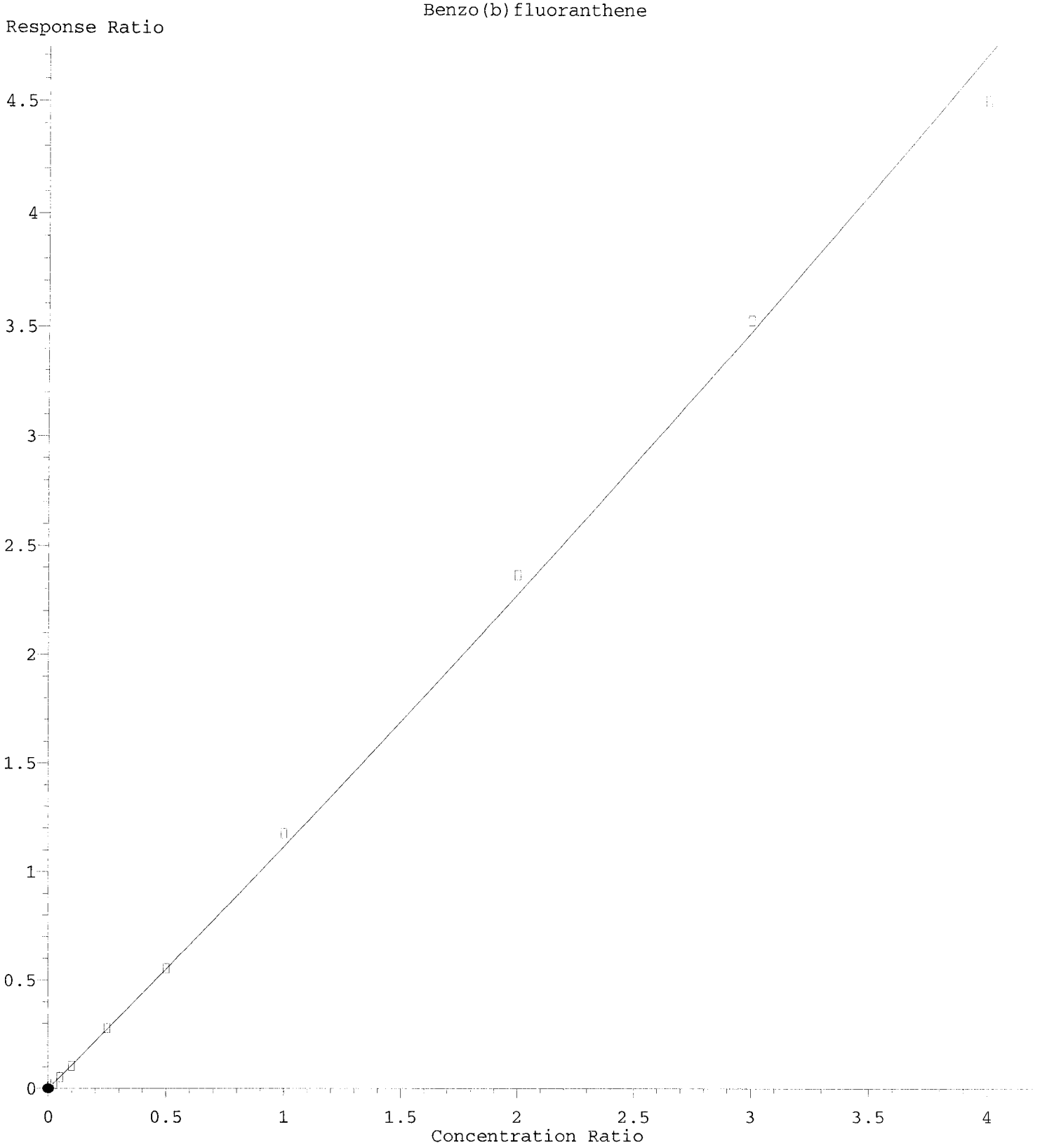
TIC: J09191918.D\data.ms

(87) Di-n-octyl phthalate (T)

16.762min (+ 0.016) 58.11 ng/ml m ✓

response 117

Ion	Exp%	Act%
149.00	100.00	100.00
150.00	9.90	19.81
43.10	5.60	52.08#
0.00	0.00	0.00

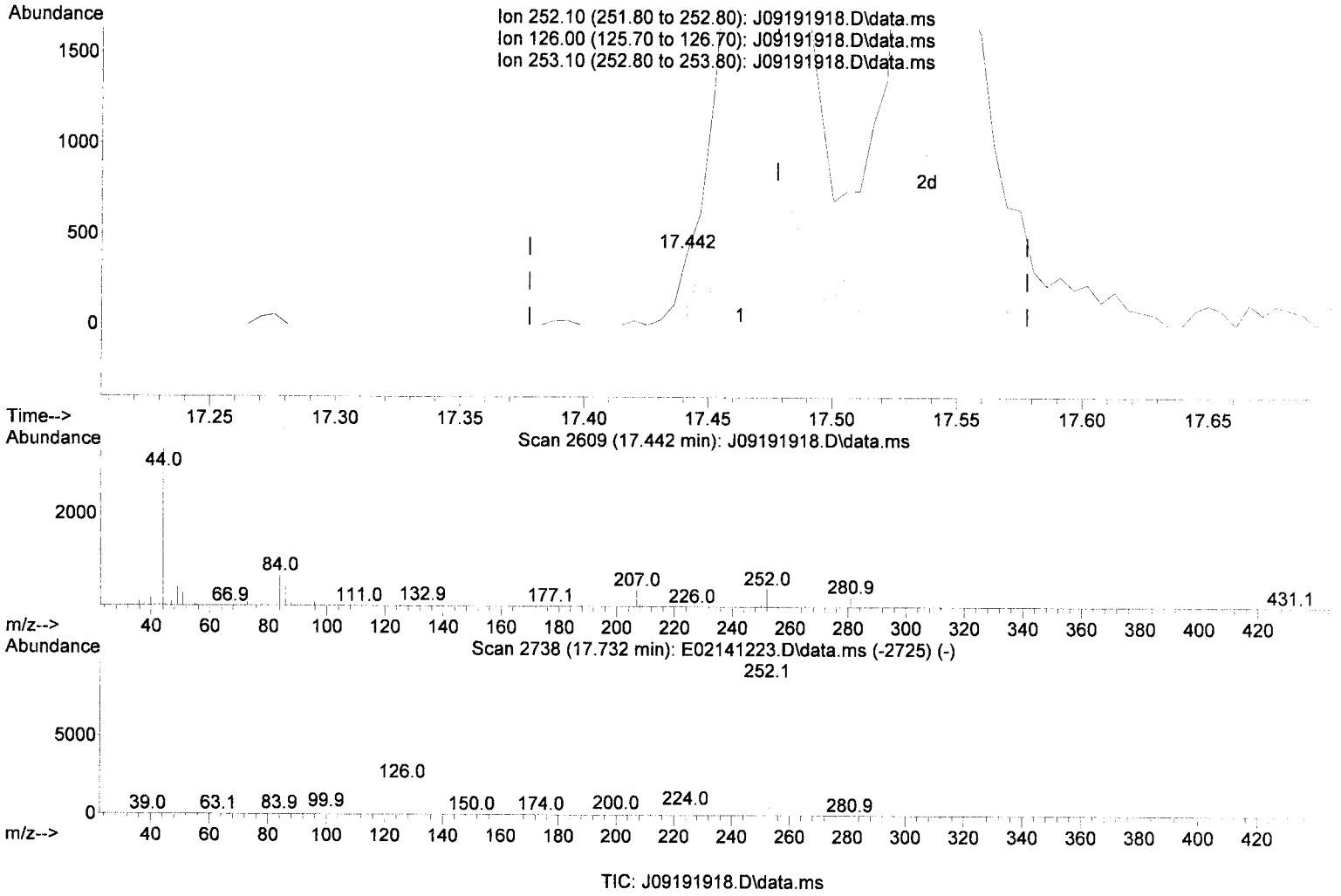


R = 1.98e-002 A*A + 1.10e+000 A - 4.38e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191918.D\data.ms

(88) Benzo(b)fluoranthene (T)

17.442min (-0.036) 8.23 ng/ml m

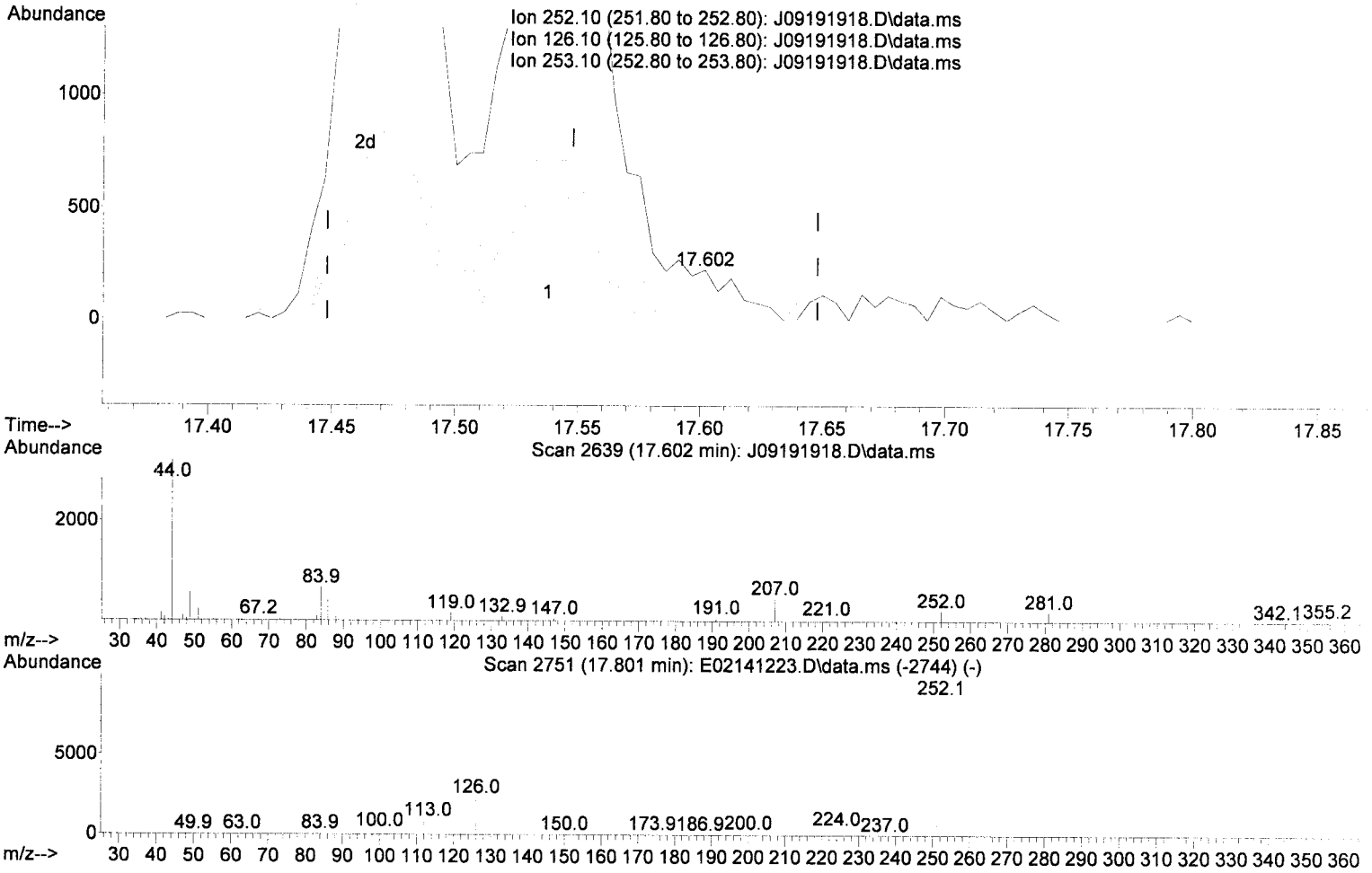
response 176

Ion	Exp%	Act%
252.10	100.00	100.00
126.00	16.50	12.07
253.10	21.90	8.37
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



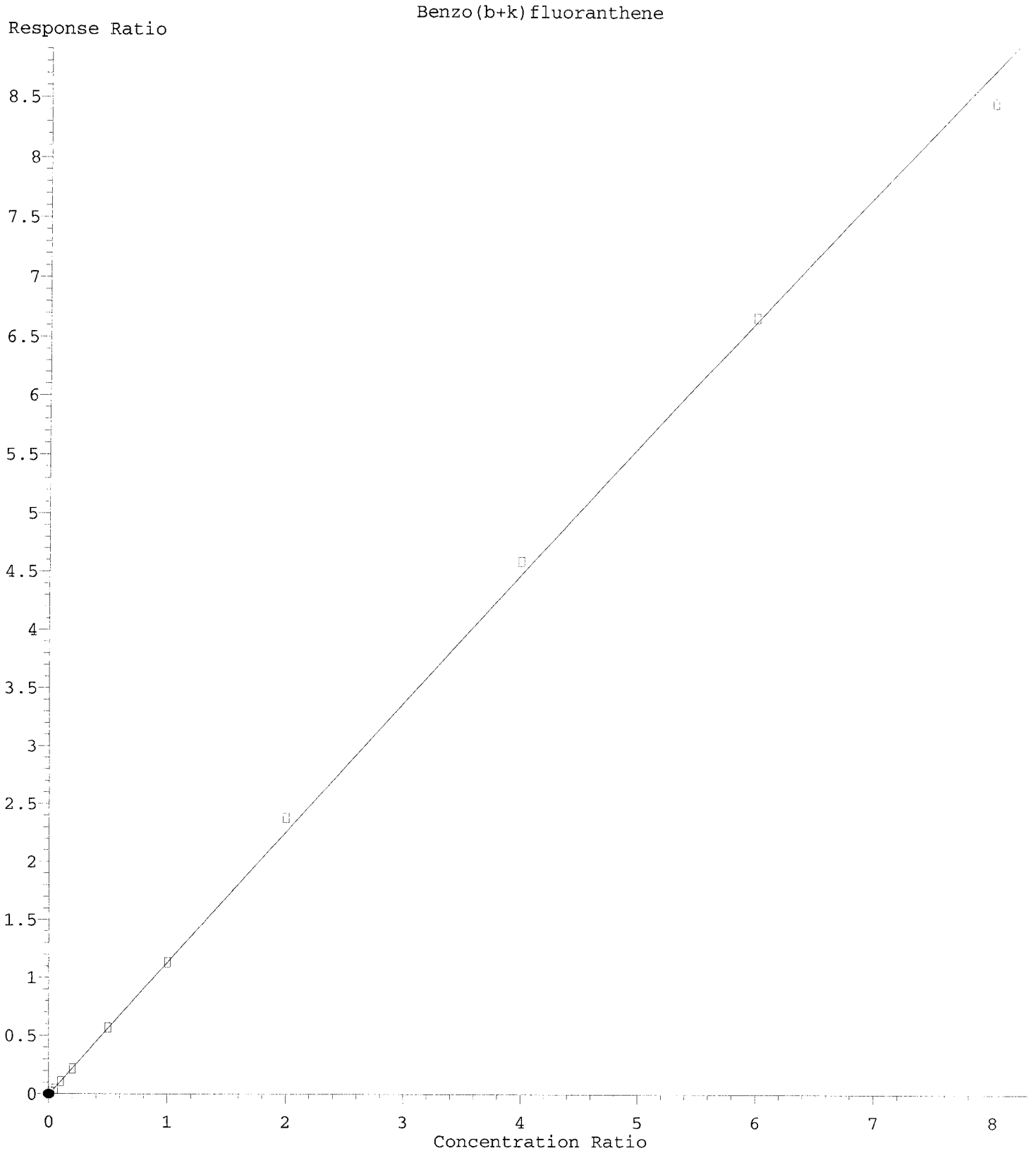
TIC: J09191918.D\data.ms

(89) Benzo(k)fluoranthene (T)

17.602min (+ 0.054) 8.71 ng/ml m J

response 154

Ion	Exp%	Act%
252.10	100.00	100.00
126.10	16.90	0.00
253.10	22.00	0.00
0.00	0.00	0.00

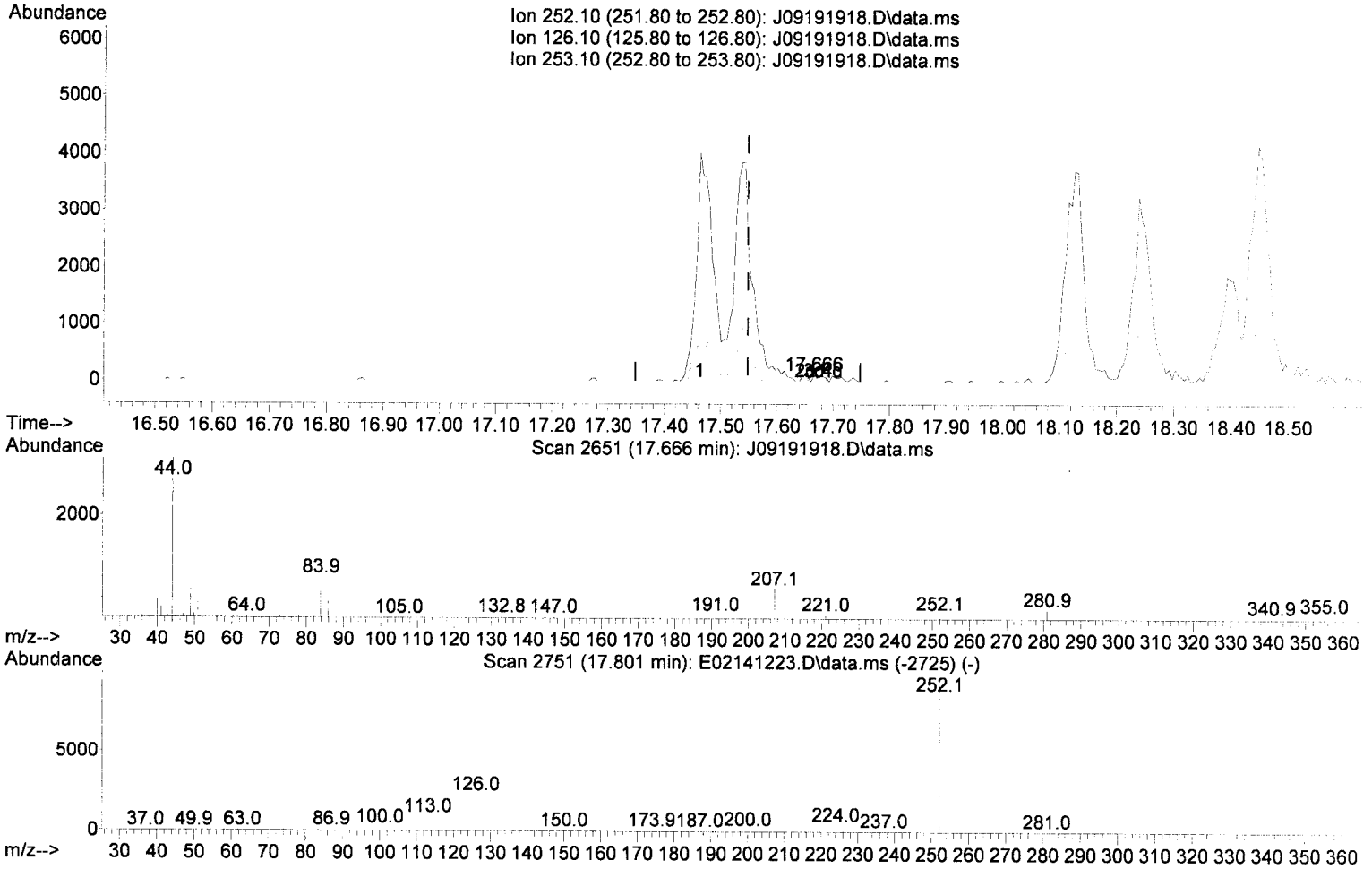


R = -6.69e-003 A*A + 1.15e+000 A - 9.04e-003
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



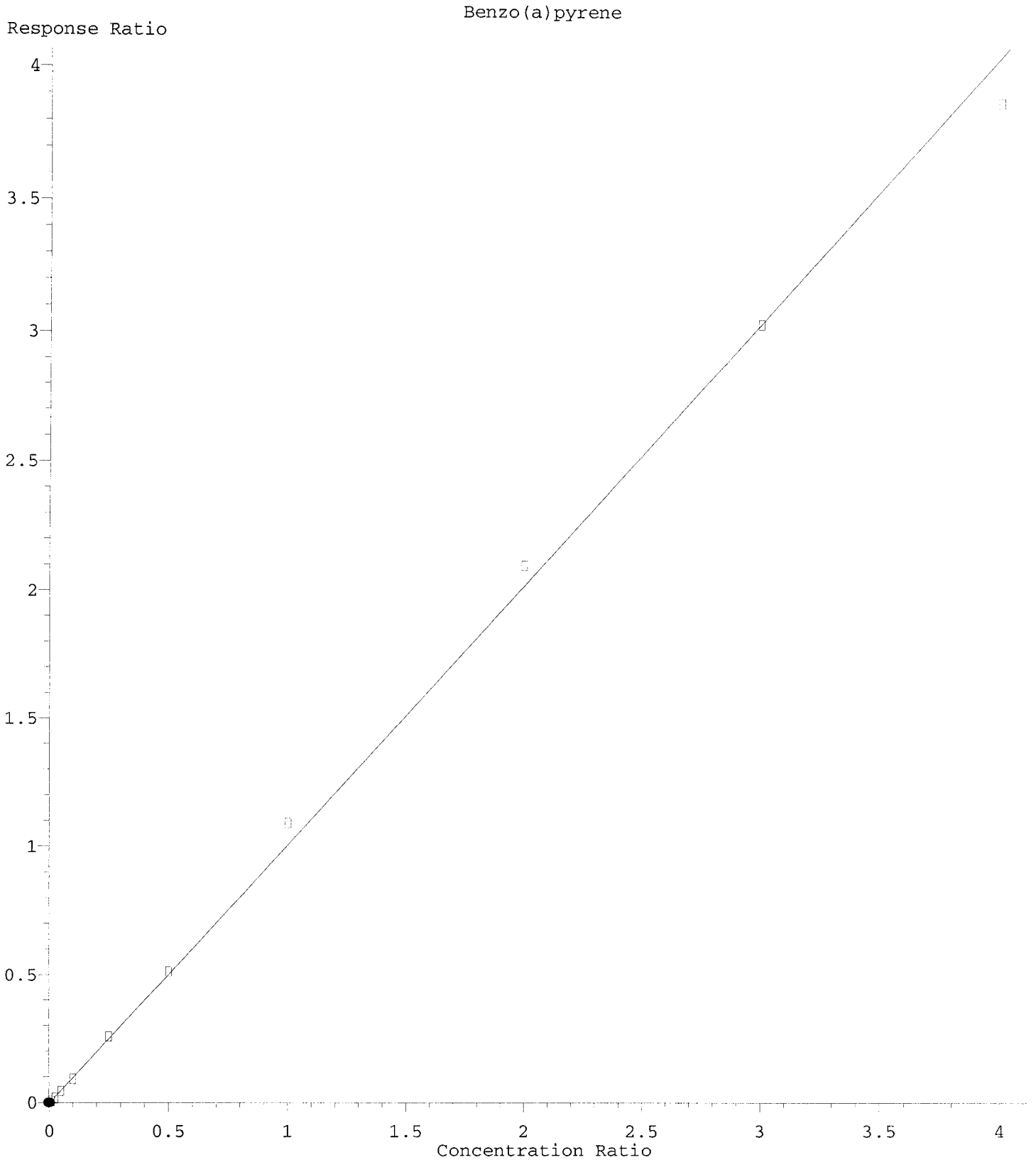
TIC: J09191918.D\data.ms

(90) Benzo(b+k)fluoranthene (T)

17.666min (+ 0.118) 15.95 ng/ml m

response 140

Ion	Exp%	Act%
252.10	100.00	100.00
126.10	16.90	0.00
253.10	22.00	0.00
0.00	0.00	0.00

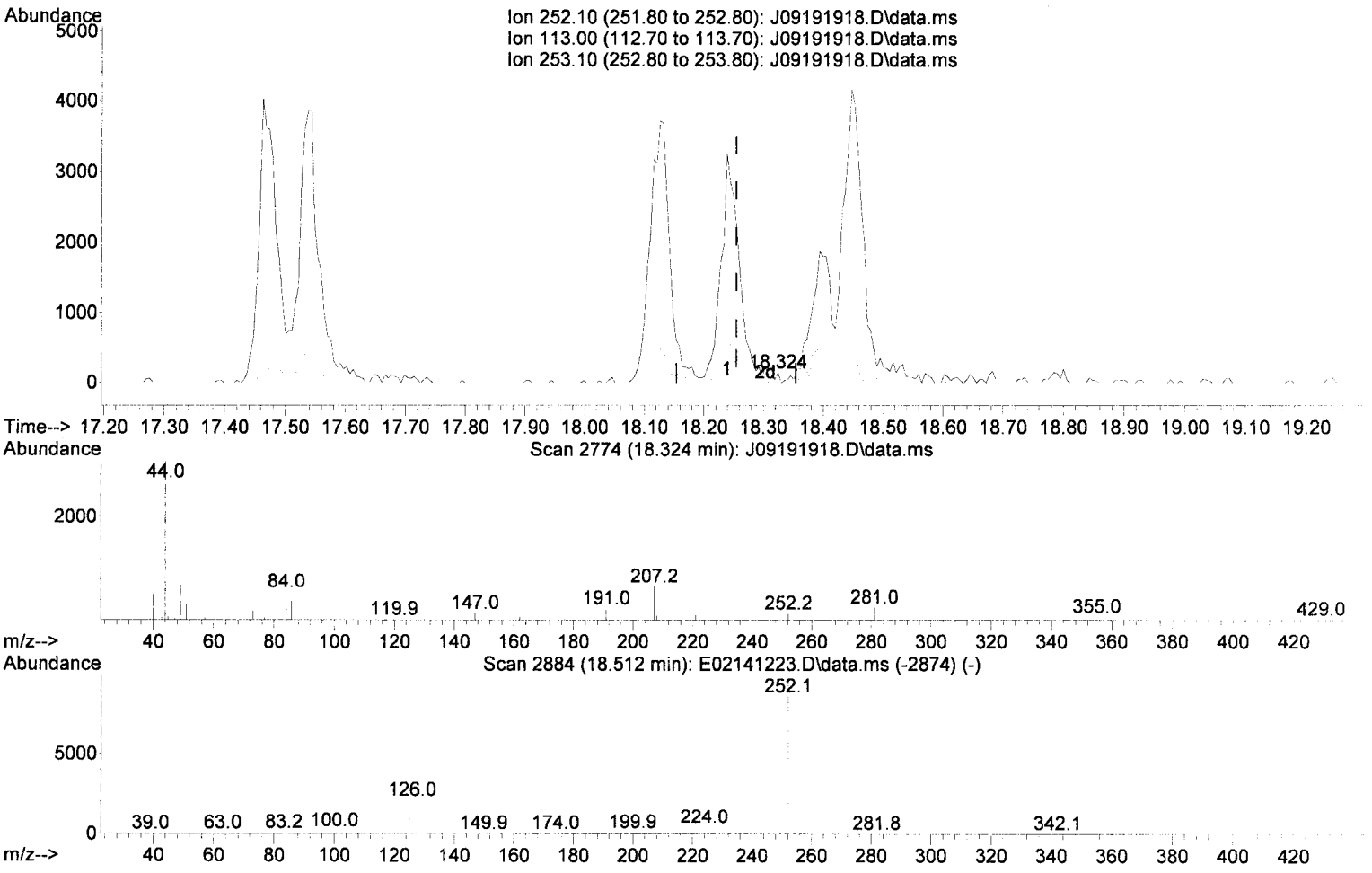


R = 4.44e-004 A*A + 1.01e+000 A - 4.97e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\SV10_091919.M
Calibration Table Last Updated: Fri Sep 20 13:01:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\REQUANT\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 13:02:03 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191918.D\data.ms

(92) Benzo(a)pyrene (T)

18.324min (+ 0.070) 10.04 ng/ml m ✓

response 116

Ion	Exp%	Act%
252.10	100.00	100.00
113.00	9.90	0.00
253.10	22.50	0.00
0.00	0.00	0.00

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9I19035

Analysis Included
8270D LL Full List

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9I19035-TUN1	MS Tune	Soil	A19I165	A19I086	9/20/2019 12:22:00AM
9I19035-ICB1	Initial Cal Blank	Soil		A19I086	9/20/2019 12:49:00AM
9I19035-CAL1	Cal Standard	Soil	A19G238	"	9/20/2019 1:24:00AM
9I19035-CAL2	Cal Standard	Soil	A19G239	"	9/20/2019 1:59:00AM
9I19035-CAL3	Cal Standard	Soil	A19G240	"	9/20/2019 2:34:00AM
9I19035-CAL4	Cal Standard	Soil	A19G241	"	9/20/2019 3:09:00AM
9I19035-CAL5	Cal Standard	Soil	A19G242	"	9/20/2019 3:44:00AM
9I19035-CAL6	Cal Standard	Soil	A19G243	"	9/20/2019 4:19:00AM
9I19035-CAL7	Cal Standard	Soil	A19G244	"	9/20/2019 4:54:00AM
9I19035-CAL8	Cal Standard	Soil	A19G245	"	9/20/2019 5:29:00AM
9I19035-CAL9	Cal Standard	Soil	A19G246	"	9/20/2019 6:04:00AM
9I19035-CALA	Cal Standard	Soil	A19G247	"	9/20/2019 6:39:00AM
9I19035-ICV1	Initial Cal Check	Soil	A19I254	"	9/20/2019 7:50:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9I2405** Instrument: **SV-GCMS10**

8270D LL Full List Sequence: **9I19035** Matrix: **Soil**

9I19035-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9I19035

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9I2405** Instrument: **SV-GCMS10**

8270D LL Full List Sequence: **9I19035** Matrix: **Soil**

9I19035-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9I19035

Analysis Included
8270D LL Full List

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9I19035-TUN1	MS Tune	Water	A19I165	A19I086	9/20/2019 12:22:00AM
9I19035-ICB1	Initial Cal Blank	Water		A19I086	9/20/2019 12:49:00AM
9I19035-CAL1	Cal Standard	Water	A19G238	"	9/20/2019 1:24:00AM
9I19035-CAL2	Cal Standard	Water	A19G239	"	9/20/2019 1:59:00AM
9I19035-CAL3	Cal Standard	Water	A19G240	"	9/20/2019 2:34:00AM
9I19035-CAL4	Cal Standard	Water	A19G241	"	9/20/2019 3:09:00AM
9I19035-CAL5	Cal Standard	Water	A19G242	"	9/20/2019 3:44:00AM
9I19035-CAL6	Cal Standard	Water	A19G243	"	9/20/2019 4:19:00AM
9I19035-CAL7	Cal Standard	Water	A19G244	"	9/20/2019 4:54:00AM
9I19035-CAL8	Cal Standard	Water	A19G245	"	9/20/2019 5:29:00AM
9I19035-CAL9	Cal Standard	Water	A19G246	"	9/20/2019 6:04:00AM
9I19035-CALA	Cal Standard	Water	A19G247	"	9/20/2019 6:39:00AM
9I19035-ICV1	Initial Cal Check	Water	A19I254	"	9/20/2019 7:50:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9I2405** Instrument: **SV-GCMS10**

8270D LL Full List Sequence: **9I19035** Matrix: **Water**

9I19035-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I19035-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

Compounds listed above have recalculated recoveries outside 70-130% of the true values, and the calibration levels are above the reporting level. If no compounds are listed, all are OK. Please see the next section for quadatic fit compounds.

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9I19035

Analytes With Quadratic Curve Fits

Qualifier	iMDL	iMRL	Spike Amt	%Difference	OK?	Raise MRL to ?
				———	☐	☐ ———

Analytes listed above have quadratic curve fits. If they are using a weighting otpion, they must be checked against the requanted curve points to determine if the recalculated results are within limits (70-130 or as specified).

ICV RECOVERIES

Calibration: **A9I2405** Instrument: **SV-GCMS10**

8270D LL Full List Sequence: **9I19035** Matrix: **Water**

9I19035-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual

Compounds listed above have Initial Calibration Verification standard recoveries outside 70-130% of the true values. If no compounds are listed, all have passing recoveries.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/23/19

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 (IST	2000.000	2000.000	0.0	106	0.00
2	TG	N-Nitrosodimethylamine	1000.000	1045.350	-4.5	114	0.09
3	TG	Pyridine	1000.000	896.190	10.4	96	0.10
4	S	2-Fluorophenol (Surr)	1000.000	981.272	1.9	100	0.03
5	S	Phenol-d6(Surr)	1000.000	1015.692	-1.6	99	0.00
6	T	Phenol	1000.000	989.661	1.0	97	0.01
7	T	Aniline	1000.000	836.204	16.4	97	0.02
8	T	Bis(2-chloroethyl) ether	1000.000	1091.651	-9.2	106	0.00
9	T	2-Chlorophenol	1000.000	1008.898	-0.9	100	0.00
10	T	1,3-Dichlorobenzene	1000.000	1009.723	-1.0	105	0.00
11	T	1,4-Dichlorobenzene	1000.000	1002.987	-0.3	102	0.00
12	T	Benzyl alcohol	1000.000	910.785	8.9	91	0.00
13	T	1,2-Dichlorobenzene	1000.000	1024.110	-2.4	104	0.00
14	T	2-Methylphenol	1000.000	1052.523	-5.3	100	0.00
15	T	2,2'-Oxybis(1-Chloropropane	1000.000	970.278	3.0	97	0.00
16	T	N-Nitrosodi-n-propylamine	1000.000	1043.262	-4.3	102	0.00
17	T	3+4-Methylphenol	1000.000	1067.423	-6.7	99	0.00
18	T	Hexachloroethane	1000.000	1040.964	-4.1	109	0.00
19	S	Nitrobenzene-d5 (Surr)	1000.000	1065.680	-6.6	103	0.00
20	T	Nitrobenzene	1000.000	1058.009	-5.8	103	0.00
21	I	Naphthalene-d8 (ISTD)	2000.000	2000.000	0.0	102	0.00
22	T	Isophorone	1000.000	1048.414	-4.8	103	0.00
23	T	2-Nitrophenol	1000.000	968.550	3.1	93	0.00
24	T	2,4-Dimethylphenol	1000.000	967.663	3.2	92	0.00
25	T	Bis(2-chloroethoxy) methane	1000.000	1057.133	-5.7	101	0.00
26	T	Benzoic acid	2000.000	1974.824	1.3	115	0.00
27	T	2,4-Dichlorophenol	1000.000	968.833	3.1	98	0.00
28	T	1,2,4-Trichlorobenzene	1000.000	999.393	0.1	99	0.00
29	T	Naphthalene	1000.000	1048.170	-4.8	101	0.00
30	T	4-Chloroaniline	1000.000	939.273	6.1	90	0.00
31	T	Hexachlorobutadiene	1000.000	1037.179	-3.7	101	0.00
32	T	4-Chloro-3-methylphenol	1000.000	1056.418	-5.6	101	0.00
33	T	2-Methylnaphthalene	1000.000	1097.134	-9.7	104	0.00
34	T	1-Methylnaphthalene	1000.000	1073.196	-7.3	104	0.00
35	I	Acenaphthene-d10 (ISTD)	2000.000	2000.000	0.0	105	0.00
36	T	Hexachlorocyclopentadiene	1000.000	1072.195	-7.2	102	0.00
37	T	2,4,6-Trichlorophenol	1000.000	1033.651	-3.4	105	0.00
38	T	2,4,5-Trichlorophenol	1000.000	1048.469	-4.8	108	0.00
39	T	1,1'-Biphenyl	1000.000	1032.434	-3.2	102	0.00
40	S	2-Fluorobiphenyl (Surr)	1000.000	1062.096	-6.2	106	0.00
41	T	2-Chloronaphthalene	1000.000	1056.535	-5.7	104	0.00
42	T	2-Nitroaniline	1000.000	1106.583	-10.7	111	0.00
43	T	2,6-Dimethylnaphthalene	1000.000	1034.190	-3.4	103	0.00
44	T	1,4-Dinitrobenzene	1000.000	1114.508	-11.5	121	0.00
45	T	Dimethyl phthalate	1000.000	1061.398	-6.1	105	0.00
46	T	1,3-Dinitrobenzene	1000.000	1081.705	-8.2	115	0.00
47	T	2,6-Dinitrotoluene	1000.000	1043.999	-4.4	107	0.00
48	T	1,2-Dinitrobenzene	1000.000	1063.484	-6.3	106	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	Acenaphthylene	1000.000	1059.382	-5.9	104	0.00
50	T	3-Nitroaniline	1000.000	1060.772	-6.1	107	0.00
51	T	Acenaphthene	1000.000	1001.616	-0.2	103	0.00
52	T	2,4-Dinitrophenol	1000.000	972.001	2.8	122	0.00
53	T	4-Nitrophenol	1000.000	1106.887	-10.7	115	0.00
54	T	2,4-Dinitrotoluene	1000.000	1048.405	-4.8	113	0.00
55	T	Dibenzofuran	1000.000	1071.222	-7.1	106	0.00
56	T	2,3,5,6-Tetrachlorophenol	1000.000	1077.305	-7.7	111	0.00
57	T	2,3,4,6-Tetrachlorophenol	1000.000	1013.999	-1.4	103	0.00
58	T	Diethyl phthalate	1000.000	1087.436	-8.7	104	0.00
59	T	2,3,5-Trimethylnaphthalene	1000.000	1037.334	-3.7	102	0.00
60	T	Fluorene	1000.000	1045.897	-4.6	106	0.00
61	T	4-Chlorophenyl phenyl ether	1000.000	1051.565	-5.2	105	0.00
62	T	4-Nitroaniline	1000.000	1080.738	-8.1	113	0.00
63	T	4,6-Dinitro-2-methylphenol	1000.000	1157.716	-15.8	133	0.00
64	I	Phenanthrene-d10 (ISTD)	2000.000	2000.000	0.0	108	0.00
65	T	N-Nitrosodiphenylamine	1000.000	1064.375	-6.4	108	0.00
66	T	Azobenzene (1,2-DPH)	1000.000	1037.259	-3.7	105	0.00
67	S	2,4,6-Tribromophenol (Surr)	1000.000	1040.672	-4.1	111	0.00
68	T	4-Bromophenyl phenyl ether	1000.000	1032.582	-3.3	107	0.00
69	T	Hexachlorobenzene	1000.000	1010.042	-1.0	104	0.00
70	T	Pentachlorophenol (PCP)	1000.000	975.756	2.4	117	0.00
71	T	Phenanthrene	1000.000	1015.497	-1.5	108	0.00
72	T	Anthracene	1000.000	1058.253	-5.8	108	0.00
73	T	Carbazole	1000.000	964.910	3.5	103	0.00
74	T	Di-n-butyl phthalate	1000.000	1057.534	-5.8	106	0.00
75	T	Fluoranthene	1000.000	1088.446	-8.8	108	0.00
76	T	Benzidine	2000.000	1842.776	7.9	97	0.00
77	T	Pyrene	1000.000	1070.616	-7.1	106	0.00
78	I	Chrysene-d12 (ISTD)	2000.000	2000.000	0.0	109	-0.01
79	S	Terphenyl-d14 (Surr)	1000.000	1060.782	-6.1	110	0.00
80	T	Butyl benzyl phthalate	1000.000	1003.995	-0.4	105	0.00
81	T	Bis(2-ethylhexyl) adipate	1000.000	1058.578	-5.9	113	-0.01
82	T	3,3-Dichlorobenzidine	2000.000	2062.773	-3.1	106	-0.01
83	T	Benz(a)anthracene	1000.000	1029.118	-2.9	114	-0.01
84	T	Chrysene	1000.000	1009.528	-1.0	108	-0.01
85	T	Bis(2-ethylhexyl) phthalate	1000.000	1039.182	-3.9	110	0.00
86	I	Perylene-d12 (ISTD)	2000.000	2000.000	0.0	111	-0.01
87	T	Di-n-octyl phthalate	1000.000	1013.796	-1.4	114	-0.02
88	T	Benzo(b)fluoranthene	1000.000	1008.508	-0.9	112	-0.02
89	T	Benzo(k)fluoranthene	1000.000	992.118	0.8	110	-0.02
90	T	Benzo(b+k)fluoranthene	2000.000	1987.636	0.6	111	-0.02
91	T	Benzo(e)pyrene	1000.000	1042.799	-4.3	108	-0.02
92	T	Benzo(a)pyrene	1000.000	971.420	2.9	105	-0.02
93	T	Perylene	1000.000	1215.264	-21.5	134	-0.02
94	I	Dibenz(a,h)Anthrcene-d14 (I	2000.000	2000.000	0.0	113	-0.02

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
95 T	Indeno(1,2,3-cd)pyrene	1000.000	973.509	2.6	113	-0.02
96 T	Dibenz(a,h)anthracene	1000.000	1019.307	-1.9	113	-0.02
97 T	Benzo(g,h,i)perylene	1000.000	1054.879	-5.5	111	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 20 09:40:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 19 15:09:10 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.600	150	134967	2.00	ug/mL	0.00
2) Naphthalene-d8	7.867	136	357596	2.00	ug/mL	0.00
3) Acenaphthene-d10	9.648	162	174398	2.00	ug/mL	0.00
5) Phenanthrene-d10	11.162	188	269663	2.00	ug/mL	0.00
11) Chrysene-d12	14.885	240	230198	2.00	ug/mL	0.00
12) Perylene-d12	17.126	264	213465	2.00	ug/mL	#-0.03
Target Compounds						Qvalue
4) Pentachlorophenol	10.975	266	684363	41.56	ug/mL	84
6) DFTPP	11.456	442	746382	34.29	ug/mL	85
7) Benzidine	12.628	184	2478643	25.84	ug/mL	98
8) 4,4-DDE	12.890	TIC	40067	No Calib		
9) 4,4-DDD	13.403	TIC	23267	No Calib		
10) 4,4-DDT	13.975	TIC	9144669	33.07	ug/mL	95

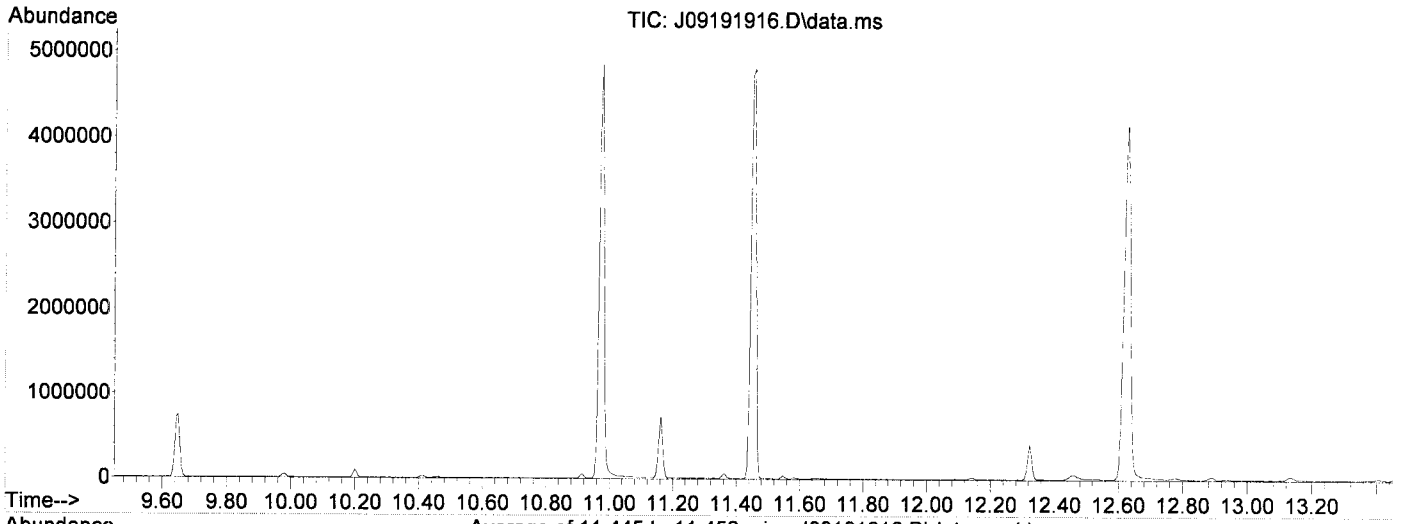
(#) = qualifier out of range (m) = manual integration (+) = signals summed

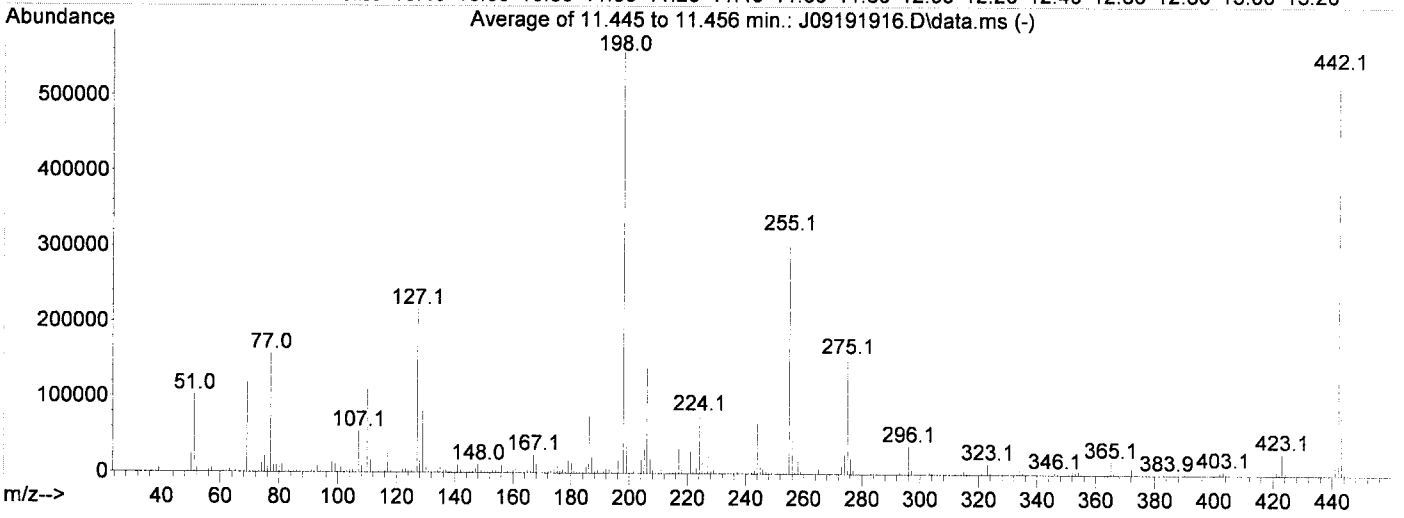
Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\DFTPP.M
Title : 8270 DFTPP Tune Method
Last Update : Thu Sep 19 15:09:10 2019

JK 9/20/19





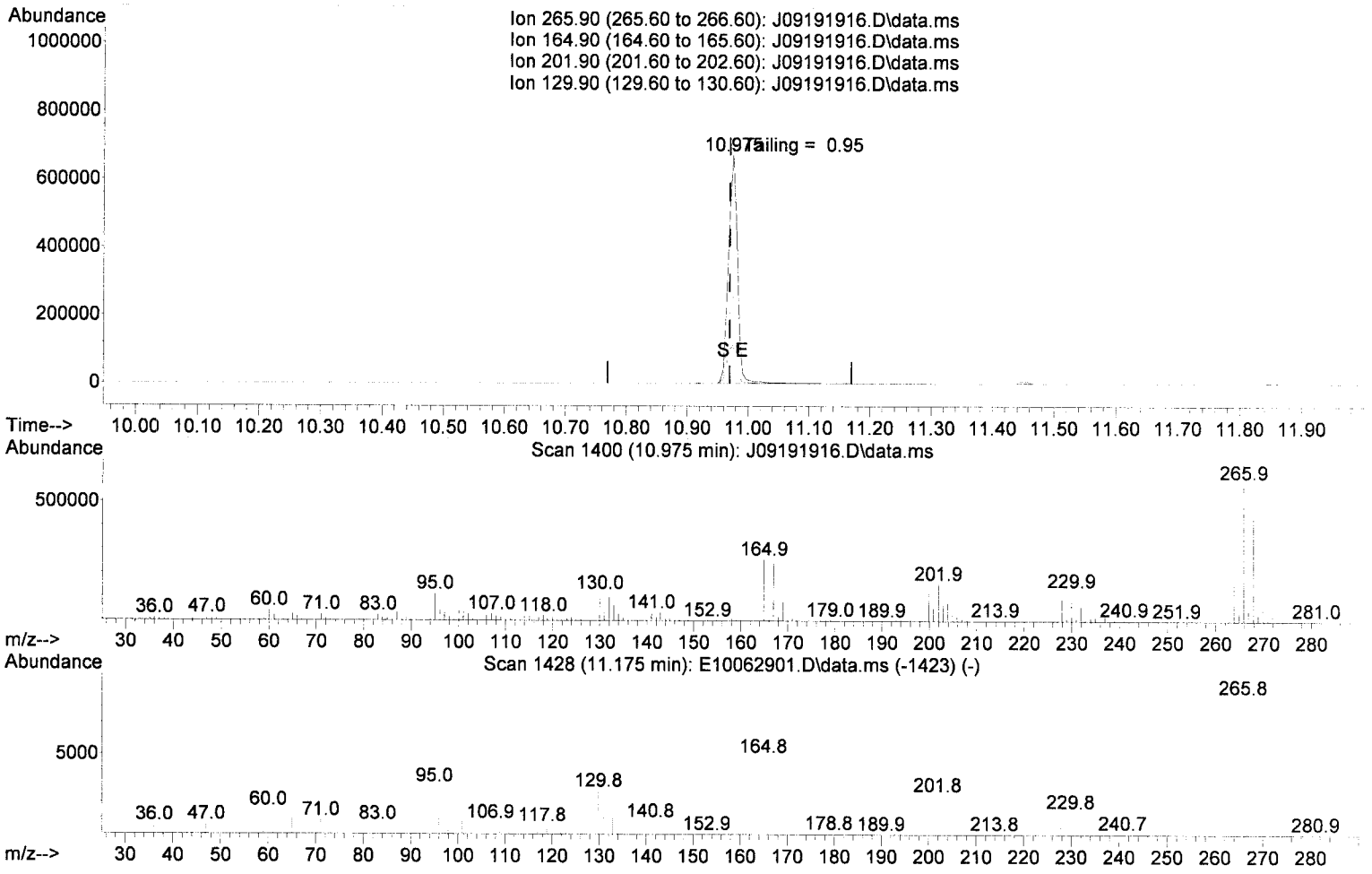
AutoFind: Scans 1488, 1489, 1490; Background Corrected with Scan 1483

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.6	1920	PASS
69	198	0.01	100	21.3	118967	PASS
70	69	0.00	2	0.5	611	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	557760	PASS
199	198	5	9	6.9	38464	PASS
365	198	1	100	3.2	17707	PASS
441	443	0.01	150	73.9	77592	PASS
442	198	0.10	200	95.5	532779	PASS
443	442	15	24	19.7	104995	PASS

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 20 09:40:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 19 15:09:10 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191916.D\data.ms

(4) Pentachlorophenol

10.975min (+ 0.005) 41.56 ug/mL

response 684363

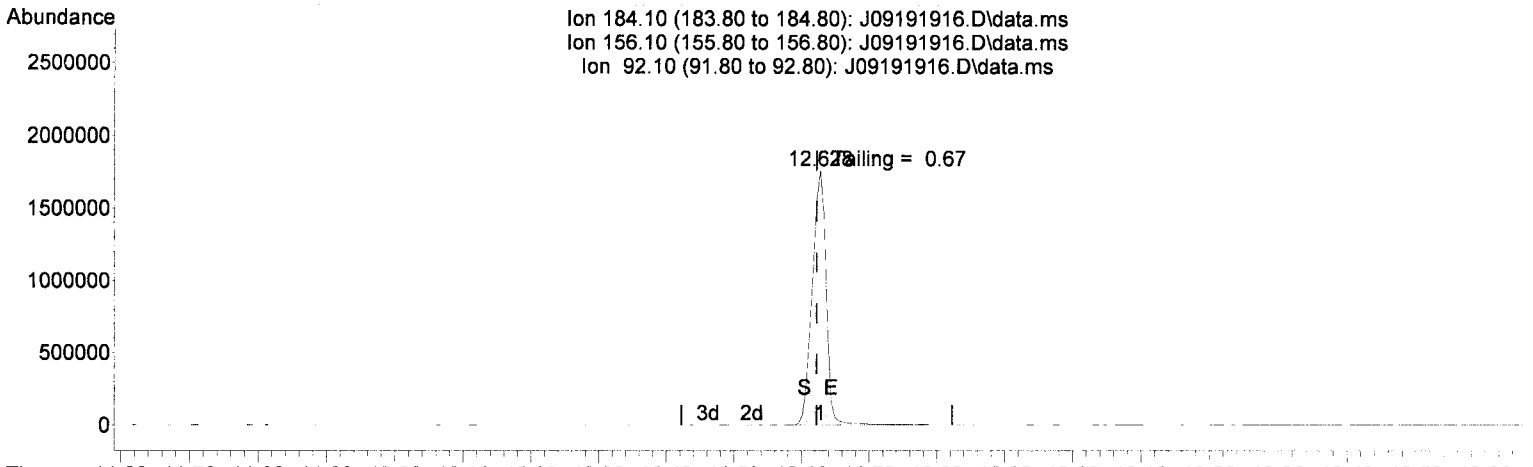
Ion	Exp%	Act%
265.90	100.00	100.00
164.90	50.60	38.07
201.90	25.80	22.85
129.90	27.30	16.90

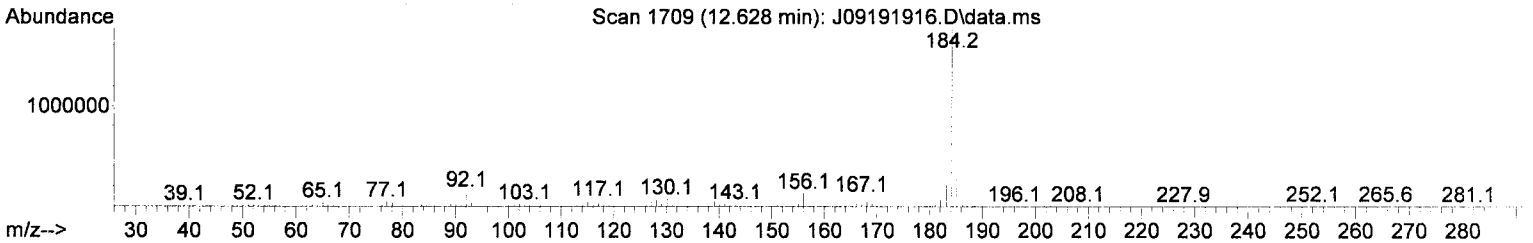
9/20/19

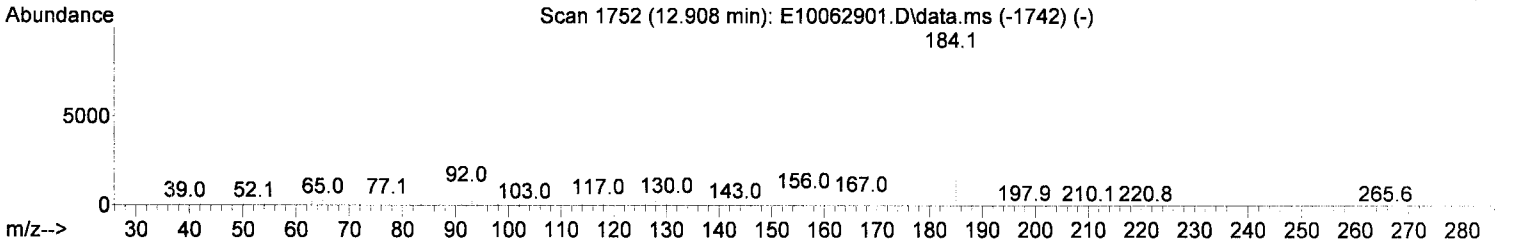
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 20 09:40:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 19 15:09:10 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191916.D\data.ms

(7) Benzidine

12.628min (+ 0.005) 25.84 ug/mL

response 2478643

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	8.50	7.27
92.10	8.20	8.38
0.00	0.00	0.00

JK 9/20/19

DDT Breakdown Check (Validated 5/1/2013)

From:
9I19035-TUN1
SV-GCMS10

First Column Area Counts		Percent Breakdown	
DDE	40067		
DDD	23267		
DDT	9144669	**0.69**	**PASS**

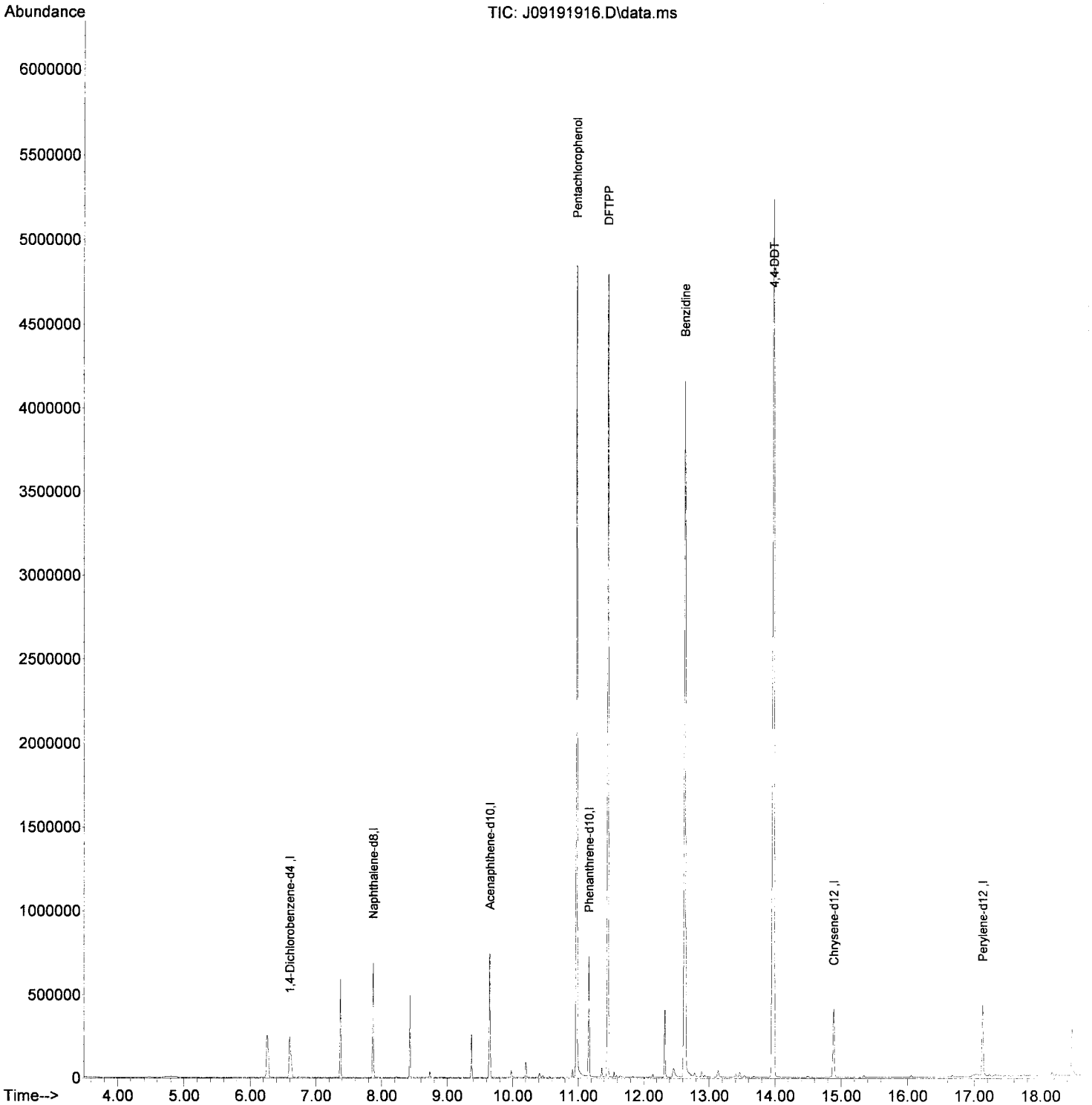
Breakdown must be less than 20% to accept sample data.

9/9/2019

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191916.D
Acq On : 20 Sep 2019 12:22 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-TUN1
Misc : 1x, A19I165 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 20 09:40:00 2019
Quant Method : C:\msdchem\1\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 19 15:09:10 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:06 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	263426	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1245077	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	634026	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1140103	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1131801	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1099318	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.790	292	879454	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.402	112	67	0.37	ng/ml	0.11
5) Phenol-d6(Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	7.129	82	88	0.42	ng/ml	0.02
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	3.947	79	261	N.D.		
6) Phenol	6.215	94	79	N.D.		
7) Aniline	6.284	93	59	N.D.		
8) Bis(2-chloroethyl) ether	6.306	93	72	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	6.744	108	78	N.D.		
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.819	107	109	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.814	45	64	N.D.		
16) N-Nitrosodi-n-propylamine	7.028	70	172	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.086	77	108	N.D.		
22) Isophorone	7.370	82	96	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	7.563	105	152	305.02	ng/ml#	28
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.392	107	91	N.D.		
33) 2-Methylnaphthalene	8.557	142	100	N.D.		
34) 1-Methylnaphthalene	8.659	142	61	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:06 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

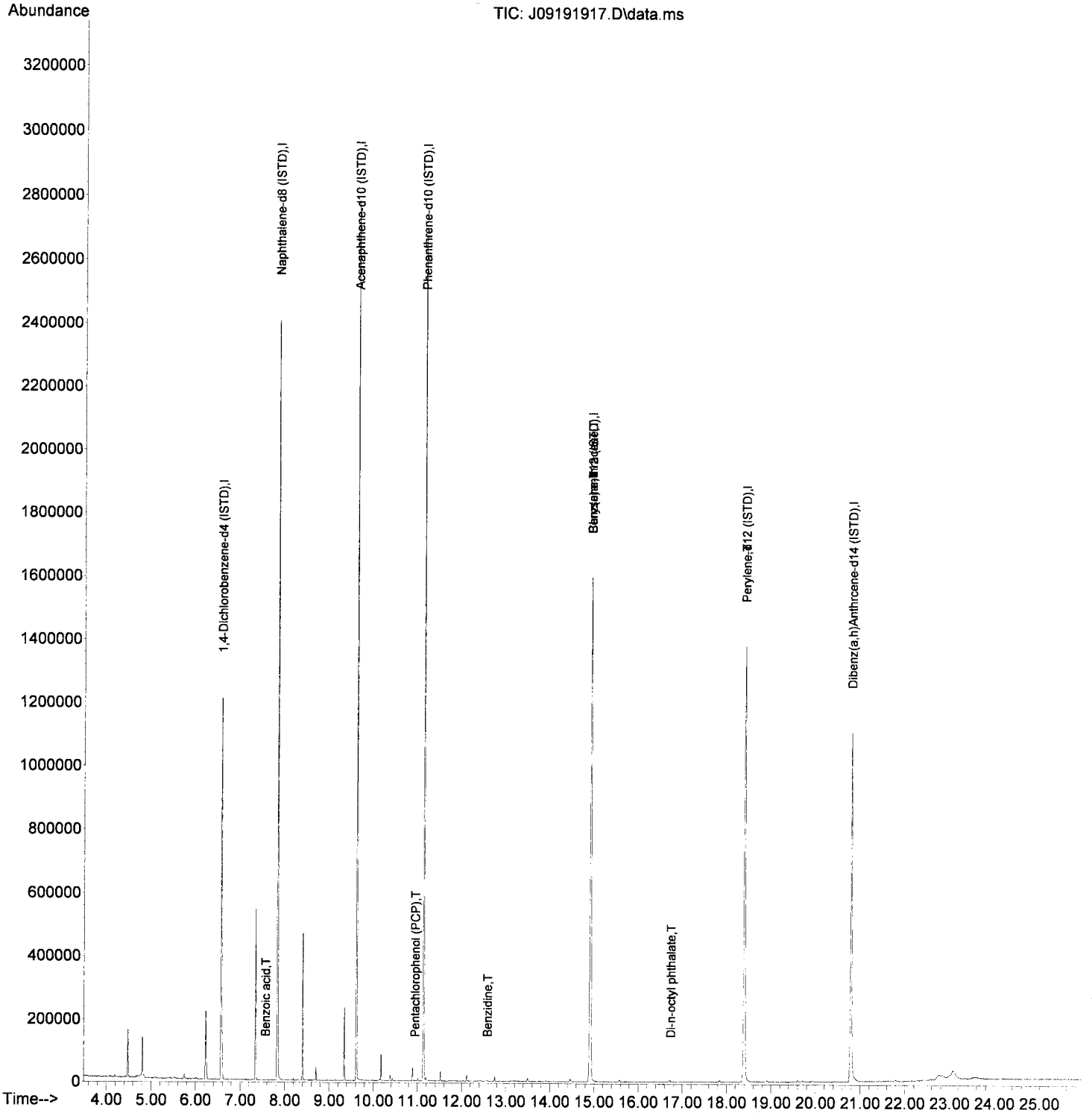
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44)	1,4-Dinitrobenzene	0.000		0	N.D.	
45)	Dimethyl phthalate	9.344	163	194	N.D.	
46)	1,3-Dinitrobenzene	0.000		0	N.D.	
47)	2,6-Dinitrotoluene	0.000		0	N.D.	
48)	1,2-Dinitrobenzene	0.000		0	N.D.	
49)	Acenaphthylene	9.483	152	84	N.D.	
50)	3-Nitroaniline	0.000		0	N.D.	
51)	Acenaphthene	9.648	153	78	N.D.	
52)	2,4-Dinitrophenol	0.000		0	N.D.	
53)	4-Nitrophenol	0.000		0	N.D.	
54)	2,4-Dinitrotoluene	9.777	165	228	N.D.	
55)	Dibenzofuran	0.000		0	N.D.	
56)	2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57)	2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58)	Diethyl phthalate	10.039	149	103	N.D.	
59)	2,3,5-Trimethylnaphtha...	10.146	170	164	N.D.	
60)	Fluorene	0.000		0	N.D.	
61)	4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62)	4-Nitroaniline	0.000		0	N.D.	
63)	4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65)	N-Nitrosodiphenylamine	0.000		0	N.D.	
66)	Azobenzene (1,2-DPH)	10.338	77	165	N.D.	
68)	4-Bromophenyl phenyl e...	0.000		0	N.D.	
69)	Hexachlorobenzene	0.000		0	N.D.	
70)	Pentachlorophenol (PCP)	10.938	266	325	35.51 ng/ml	76
71)	Phenanthrene	11.135	178	418	N.D.	
72)	Anthracene	11.135	178	418	N.D.	
73)	Carbazole	11.381	167	91	N.D.	
74)	Di-n-butyl phthalate	11.718	149	81	N.D.	
75)	Fluoranthene	12.414	202	105	N.D.	
76)	Benzidine	12.580	184	2179	68.20 ng/ml	91
77)	Pyrene	12.724	202	64	N.D.	
80)	Butyl benzyl phthalate	0.000		0	N.D.	
81)	Bis(2-ethylhexyl) adipate	13.906	129	791	N.D.	
82)	3,3-Dichlorobenzidine	14.863	252	271	Below Cal #	25
83)	Benz(a)anthracene	14.912	228	2854	4.30 ng/ml	67
84)	Chrysene	14.912	228	2826	4.62 ng/ml	66
85)	Bis(2-ethylhexyl) phth...	15.067	149	83	N.D.	
87)	Di-n-octyl phthalate	16.735	149	81	30.90 ng/ml#	1
88)	Benzo(b)fluoranthene	17.468	252	54	N.D.	
89)	Benzo(k)fluoranthene	17.538	252	89	N.D.	
90)	Benzo(b+k)fluoranthene	17.538	252	89	N.D.	
91)	Benzo(e)pyrene	0.000		0	N.D.	
92)	Benzo(a)pyrene	0.000		0	N.D.	
93)	Perylene	18.399	252	3568	6.28 ng/ml	70
95)	Indeno(1,2,3-cd)pyrene	20.790	276	464	N.D.	
96)	Dibenz(a,h)anthracene	20.790	278	242	N.D.	
97)	Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:06 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Final Segment
9/27/19

Quant Time: Sep 20 14:22:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	263426	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1245077	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	634026	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1140103	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1131801	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1099318	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.790	292	879454	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.402	112	67	0.42	ng/ml	0.11
5) Phenol-d6(Surr)	0.000	99	0	0.00	ng/ml	
19) Nitrobenzene-d5 (Surr)	7.129	82	88	0.55	ng/ml	0.02
40) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
67) 2,4,6-Tribromophenol (...	0.000	330	0	0.00	ng/ml	
79) Terphenyl-d14 (Surr)	0.000	244	0	0.00	ng/ml	
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.000		0	N.D.		
3) Pyridine	3.947	79	261	N.D.		
6) Phenol	6.215	94	79	N.D.		
7) Aniline	6.284	93	59	N.D.		
8) Bis(2-chloroethyl) ether	6.306	93	72	N.D.		
9) 2-Chlorophenol	0.000		0	N.D.		
10) 1,3-Dichlorobenzene	0.000		0	N.D.		
11) 1,4-Dichlorobenzene	0.000		0	N.D.		
12) Benzyl alcohol	6.744	108	78	25.17	ng/ml#	41
13) 1,2-Dichlorobenzene	0.000		0	N.D.		
14) 2-Methylphenol	6.819	107	109	N.D.		
15) 2,2'-Oxybis(1-Chloropr...	6.814	45	64	N.D.		
16) N-Nitrosodi-n-propylamine	7.028	70	172	N.D.		
17) 3+4-Methylphenol	0.000		0	N.D.		
18) Hexachloroethane	0.000		0	N.D.		
20) Nitrobenzene	7.086	77	108	N.D.		
22) Isophorone	7.370	82	96	N.D.		
23) 2-Nitrophenol	0.000		0	N.D.		
24) 2,4-Dimethylphenol	0.000		0	N.D.		
25) Bis(2-chloroethoxy) me...	0.000		0	N.D.		
26) Benzoic acid	7.563	105	152	807.53	ng/ml#	28
27) 2,4-Dichlorophenol	0.000		0	N.D.		
28) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
29) Naphthalene	0.000		0	N.D.		
30) 4-Chloroaniline	0.000		0	N.D.		
31) Hexachlorobutadiene	0.000		0	N.D.		
32) 4-Chloro-3-methylphenol	8.392	107	91	N.D.		
33) 2-Methylnaphthalene	8.557	142	100	N.D.		
34) 1-Methylnaphthalene	8.659	142	61	N.D.		
36) Hexachlorocyclopentadiene	0.000		0	N.D.		
37) 2,4,6-Trichlorophenol	0.000		0	N.D.		
38) 2,4,5-Trichlorophenol	0.000		0	N.D.		
39) 1,1'-Biphenyl	0.000		0	N.D.		
41) 2-Chloronaphthalene	0.000		0	N.D.		
42) 2-Nitroaniline	0.000		0	N.D.		
43) 2,6-Dimethylnaphthalene	0.000		0	N.D.		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:22:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

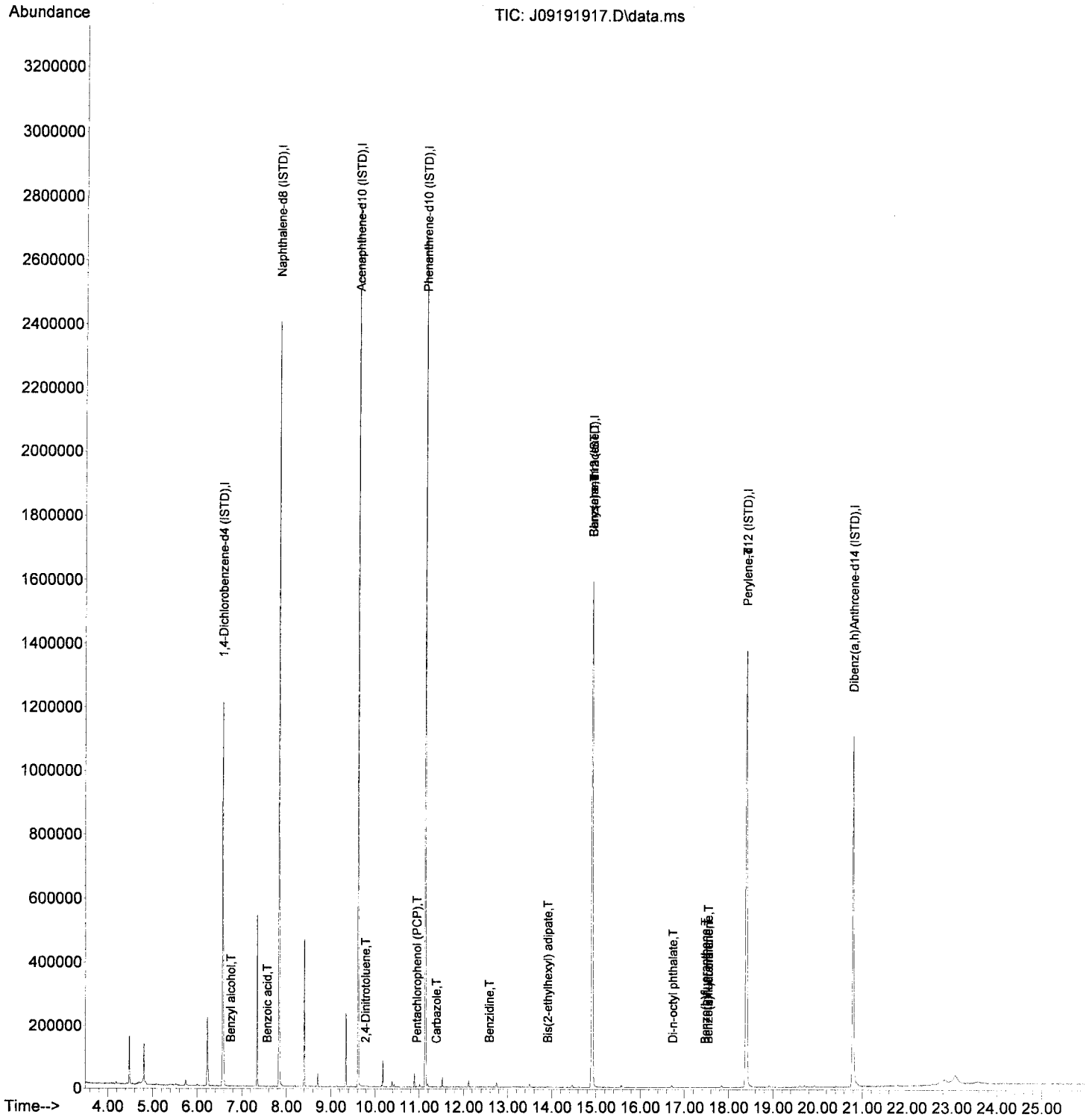
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	0.000		0	N.D.	
45) Dimethyl phthalate	9.344	163	194	N.D.	
46) 1,3-Dinitrobenzene	0.000		0	N.D.	
47) 2,6-Dinitrotoluene	0.000		0	N.D.	
48) 1,2-Dinitrobenzene	0.000		0	N.D.	
49) Acenaphthylene	9.483	152	84	N.D.	
50) 3-Nitroaniline	0.000		0	N.D.	
51) Acenaphthene	9.648	153	78	N.D.	
52) 2,4-Dinitrophenol	0.000		0	N.D.	
53) 4-Nitrophenol	0.000		0	N.D.	
54) 2,4-Dinitrotoluene	9.777	165	228	55.41 ng/ml#	54
55) Dibenzofuran	0.000		0	N.D.	
56) 2,3,5,6-Tetrachlorophenol	0.000		0	N.D.	
57) 2,3,4,6-Tetrachlorophenol	0.000		0	N.D.	
58) Diethyl phthalate	10.039	149	103	N.D.	
59) 2,3,5-Trimethylnaphtha...	10.146	170	164	N.D.	
60) Fluorene	0.000		0	N.D.	
61) 4-Chlorophenyl phenyl ...	0.000		0	N.D.	
62) 4-Nitroaniline	0.000		0	N.D.	
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.	
65) N-Nitrosodiphenylamine	0.000		0	N.D.	
66) Azobenzene (1,2-DPH)	10.338	77	165	N.D.	
68) 4-Bromophenyl phenyl e...	0.000		0	N.D.	
69) Hexachlorobenzene	0.000		0	N.D.	
70) Pentachlorophenol (PCP)	10.938	266	325	80.48 ng/ml	76
71) Phenanthrene	11.135	178	418	N.D.	
72) Anthracene	11.135	178	418	N.D.	
73) Carbazole	11.381	167	91	5.75 ng/ml	60
74) Di-n-butyl phthalate	11.718	149	81	N.D.	
75) Fluoranthene	12.414	202	105	N.D.	
76) Benzidine	12.580	184	2179	136.03 ng/ml	91
77) Pyrene	12.724	202	64	N.D.	
80) Butyl benzyl phthalate	0.000		0	N.D.	
81) Bis(2-ethylhexyl) adipate	13.906	129	791	3.01 ng/ml	88
82) 3,3-Dichlorobenzidine	14.863	252	271	Below Cal #	25
83) Benz(a)anthracene	14.912	228	2854	4.52 ng/ml	67
84) Chrysene	14.912	228	2826	4.77 ng/ml	66
85) Bis(2-ethylhexyl) phth...	15.067	149	83	N.D.	
87) Di-n-octyl phthalate	16.735	149	81	58.06 ng/ml#	1
88) Benzo(b)fluoranthene	17.468	252	54	8.05 ng/ml	57
89) Benzo(k)fluoranthene	17.538	252	89	8.62 ng/ml	57
90) Benzo(b+k)fluoranthene	17.538	252	89	15.88 ng/ml	57
91) Benzo(e)pyrene	0.000		0	N.D.	
92) Benzo(a)pyrene	0.000		0	N.D.	
93) Perylene	18.399	252	3568	7.20 ng/ml	70
95) Indeno(1,2,3-cd)pyrene	20.790	276	464	N.D.	
96) Dibenz(a,h)anthracene	20.790	278	242	N.D.	
97) Benzo(g,h,i)perylene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191917.D
Acq On : 20 Sep 2019 12:49 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:22:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	291746	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1221708	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	640527	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1150535	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1159268	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.394	264	1158997	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.795	292	913932	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.316	112	2742	13.86	ng/ml	0.03
5) Phenol-d6(Surr)	6.204	99	3493	13.74	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	2861	12.28	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	9460	20.11	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.413	330	762	14.12	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	9512	16.78	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	~~0.000~~		~~0~~	N.D.		See MJ
3) Pyridine	~~3.840~~	79	~~55~~	N.D.		See MJ
6) Phenol	6.220	94	4498	15.57	ng/ml	89
7) Aniline	6.252	93	2038	7.89	ng/ml	96
8) Bis(2-chloroethyl) ether	6.311	93	4110	15.97	ng/ml	98
9) 2-Chlorophenol	6.370	128	3591	17.25	ng/ml	95
10) 1,3-Dichlorobenzene	6.520	146	4452	19.78	ng/ml	92
11) 1,4-Dichlorobenzene	6.589	146	4492	20.57	ng/ml	93
12) Benzyl alcohol	6.723	108	1506	11.29	ng/ml	96
13) 1,2-Dichlorobenzene	6.744	146	4176	19.02	ng/ml	90
14) 2-Methylphenol	6.808	107	2712	16.21	ng/ml	89
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	4376	13.18	ng/ml	93
16) N-Nitrosodi-n-propylamine	6.964	70	2691	15.96	ng/ml	91
17) 3+4-Methylphenol	6.958	107	3108	15.07	ng/ml	89
18) Hexachloroethane	7.081	201	1267	21.07	ng/ml	89
20) Nitrobenzene	7.135	77	3138	13.45	ng/ml	95
22) Isophorone	7.370	82	6954	15.68	ng/ml	93
23) 2-Nitrophenol	7.456	139	1053	38.03	ng/ml	91
24) 2,4-Dimethylphenol	7.488	122	2375	14.05	ng/ml	83
25) Bis(2-chloroethoxy) me...	7.579	93	4738	19.18	ng/ml	96
26) Benzoic acid	7.552	105	229	305.92	ng/ml#	66
27) 2,4-Dichlorophenol	7.691	162	1603	10.94	ng/ml	76
28) 1,2,4-Trichlorobenzene	7.782	180	4361	24.59	ng/ml	82
29) Naphthalene	7.857	128	14004	22.32	ng/ml	100
30) 4-Chloroaniline	7.910	127	1531	18.26	ng/ml	90
31) Hexachlorobutadiene	7.990	225	2247	23.76	ng/ml	84
32) 4-Chloro-3-methylphenol	8.392	107	1917	10.87	ng/ml#	53
33) 2-Methylnaphthalene	8.552	142	8620	20.12	ng/ml	94
34) 1-Methylnaphthalene	8.654	142	9000	21.86	ng/ml	91
36) Hexachlorocyclopentadiene	8.723	237	1303	12.86	ng/ml	74
37) 2,4,6-Trichlorophenol	8.841	196	1119	20.94	ng/ml	79
38) 2,4,5-Trichlorophenol	8.873	198	1218	11.18	ng/ml	91
39) 1,1'-Biphenyl	9.028	154	10205	19.18	ng/ml	95
41) 2-Chloronaphthalene	9.050	162	7646	19.58	ng/ml	99
42) 2-Nitroaniline	9.146	138	939	7.22	ng/ml	82
43) 2,6-Dimethylnaphthalene	9.189	156	7097	17.82	ng/ml	96

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

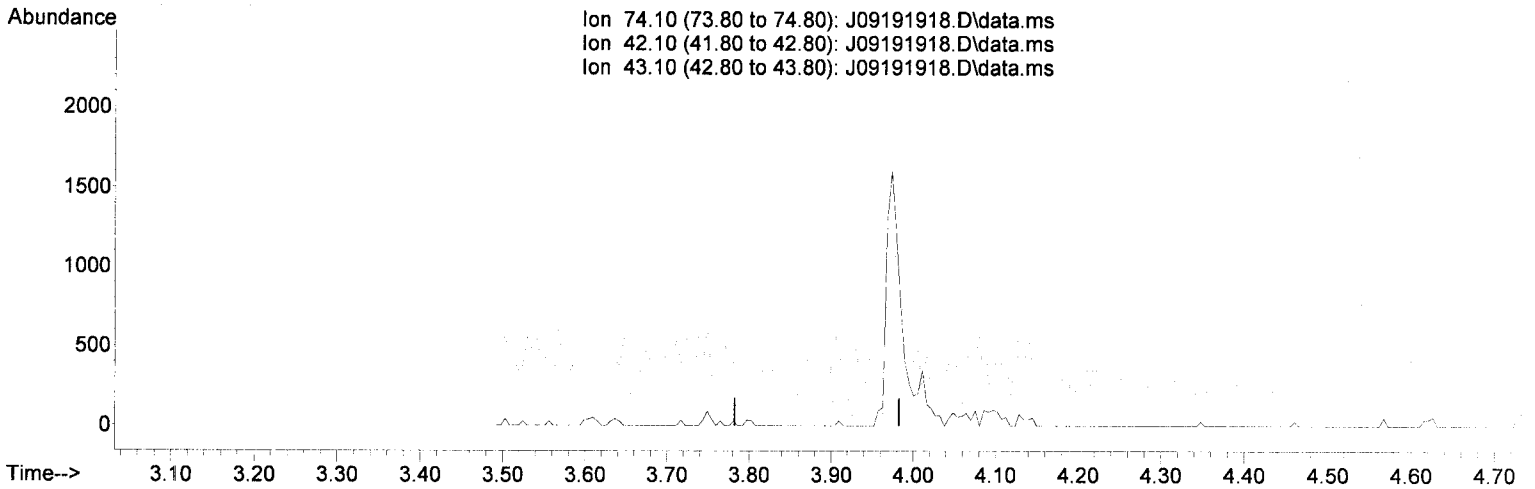
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	381	6.28	ng/ml#	63
45) Dimethyl phthalate	9.328	163	9190	20.06	ng/ml	91
46) 1,3-Dinitrobenzene	9.354	168	417	5.99	ng/ml	67
47) 2,6-Dinitrotoluene	9.386	165	1042	10.58	ng/ml	99
48) 1,2-Dinitrobenzene	9.440	168	304	6.59	ng/ml#	34
49) Acenaphthylene	9.472	152	12450	19.89	ng/ml	95
50) 3-Nitroaniline	9.563	138	592	27.61	ng/ml	93
51) Acenaphthene	9.649	153	8885	21.89	ng/ml	96
52) 2,4-Dinitrophenol	0.000		0	N.D.		
53) 4-Nitrophenol	9.723	139	120	34.89	ng/ml	85
54) 2,4-Dinitrotoluene	9.798	165	1027	8.10	ng/ml#	60
55) Dibenzofuran	9.825	168	11668	21.08	ng/ml	90
56) 2,3,5,6-Tetrachlorophenol	9.911	232	774	34.62	ng/ml	97
57) 2,3,4,6-Tetrachlorophenol	9.948	232	856	19.53	ng/ml	77
58) Diethyl phthalate	10.044	149	8035	18.39	ng/ml	97
59) 2,3,5-Trimethylnaphtha...	10.034	170	7629	21.57	ng/ml	95
60) Fluorene	10.173	166	9113	20.91	ng/ml	94
61) 4-Chlorophenyl phenyl ...	10.167	204	4548	22.45	ng/ml	95
62) 4-Nitroaniline	10.183	138	719	8.15	ng/ml	91
63) 4,6-Dinitro-2-methylph...	0.000		0	N.D.		
65) N-Nitrosodiphenylamine	10.285	169	5957	16.84	ng/ml	88
66) Azobenzene (1,2-DPH)	10.328	77	6853	14.60	ng/ml	95
68) 4-Bromophenyl phenyl e...	10.670	248	2390	20.18	ng/ml	86
69) Hexachlorobenzene	10.745	284	3454	25.35	ng/ml	83
70) Pentachlorophenol (PCP)	10.938	266	1000	46.06	ng/ml	93
71) Phenanthrene	11.157	178	13749	21.85	ng/ml	98
72) Anthracene	11.205	178	11450	18.50	ng/ml	96
73) Carbazole	11.365	167	9186	17.97	ng/ml	96
74) Di-n-butyl phthalate	11.718	149	11697	16.31	ng/ml	94
75) Fluoranthene	12.425	202	12248	18.61	ng/ml	96
76) Benzidine	12.580	184	3398	75.33	ng/ml	91
77) Pyrene	12.708	202	12641	19.23	ng/ml	93
80) Butyl benzyl phthalate	13.730	149	2535	6.98	ng/ml	75
81) Bis(2-ethylhexyl) adipate	13.906	129	2762	8.49	ng/ml	94
82) 3,3-Dichlorobenzidine	14.853	252	3617	Below	Cal	95
83) Benz(a)anthracene	14.890	228	13459	19.80	ng/ml	92
84) Chrysene	14.970	228	11530	18.39	ng/ml	96
85) Bis(2-ethylhexyl) phth...	15.077	149	2659	5.54	ng/ml	99
87) Di-n-octyl phthalate	16.741	149	3334	34.72	ng/ml	97
88) Benzo(b)fluoranthene	17.463	252	8297	11.82	ng/ml	98
89) Benzo(k)fluoranthene	17.538	252	8174	12.27	ng/ml	92
90) Benzo(b+k)fluoranthene	17.463	252	17019	24.40	ng/ml	98
91) Benzo(e)pyrene	18.126	252	8657	12.60	ng/ml	95
92) Benzo(a)pyrene	18.238	252	6648	10.53	ng/ml	84
93) Perylene	18.447	252	9278	15.50	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.774	276	10072	19.60	ng/ml	76
96) Dibenz(a,h)anthracene	20.854	278	8754	19.00	ng/ml	94
97) Benzo(g,h,i)perylene	21.319	276	7772	15.71	ng/ml	96

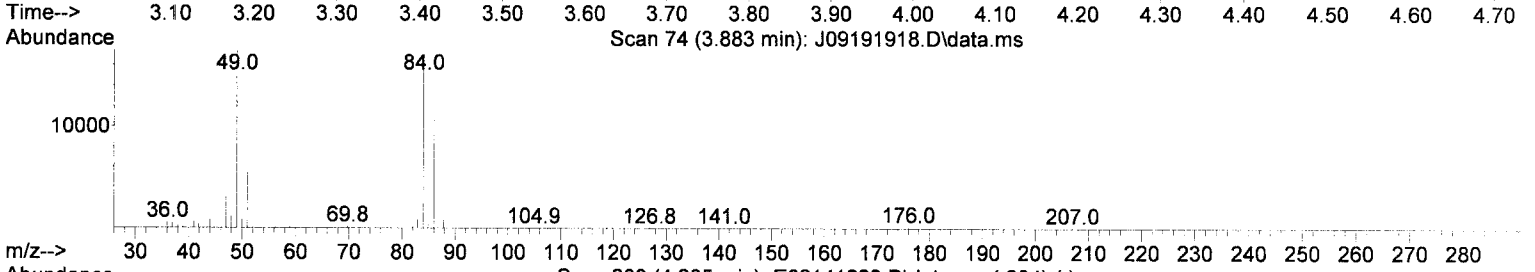
(#) = qualifier out of range (m) = manual integration (+) = signals summed

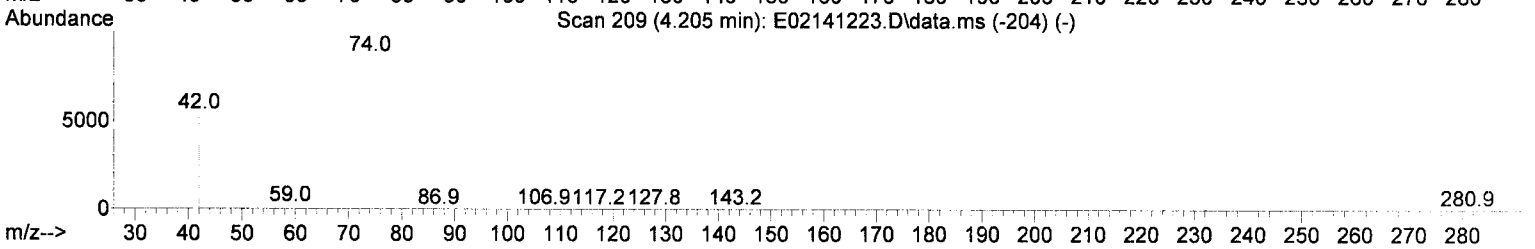
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191918.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.883min (-3.883) 0.00 ng/ml

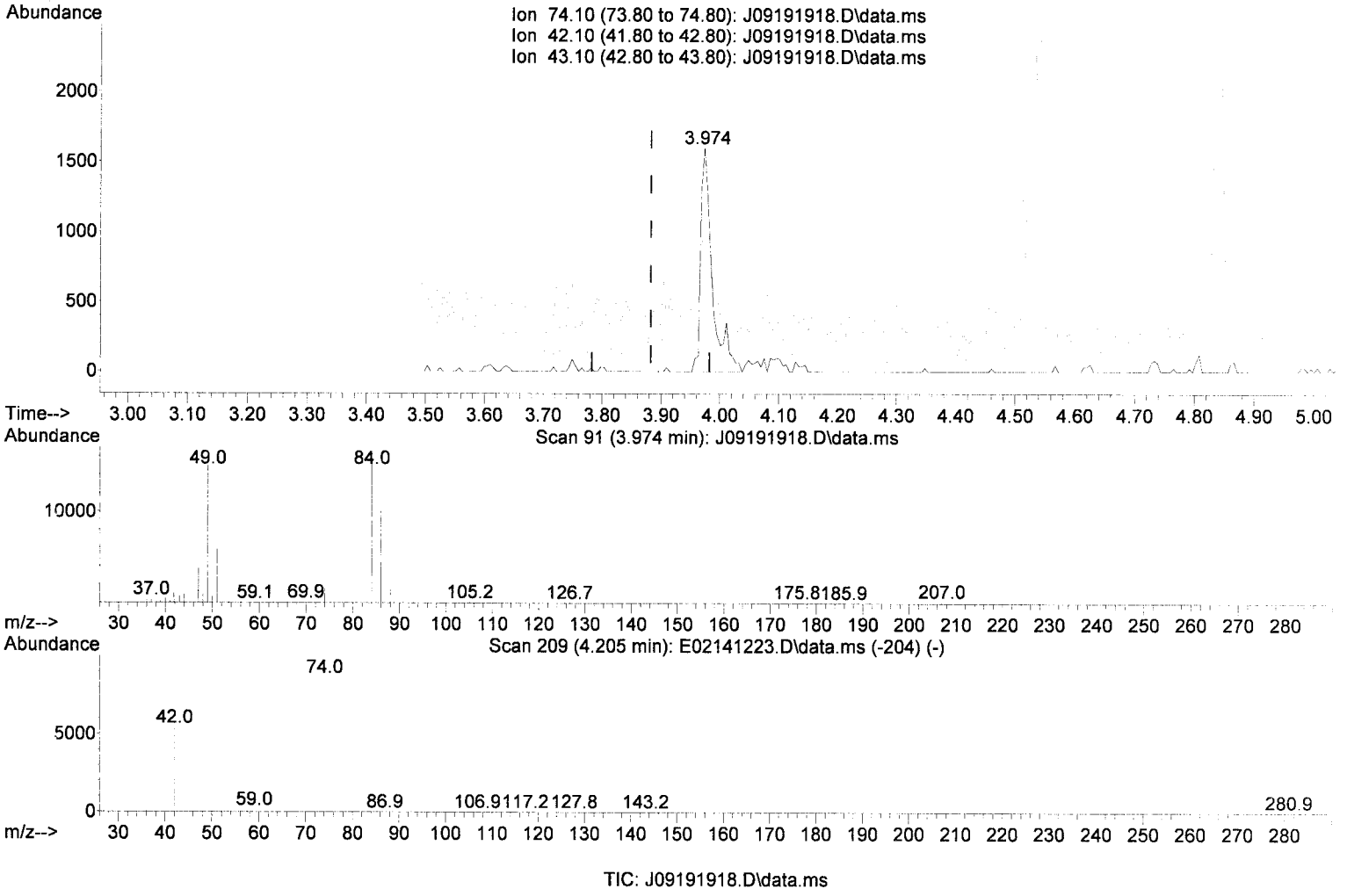
response 0

Ion	Exp%	Act%
74.10	100.00	0.00
42.10	49.40	0.00#
43.10	22.20	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191918.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.974min (+ 0.091) 16.33 ng/ml (m)

response 2214

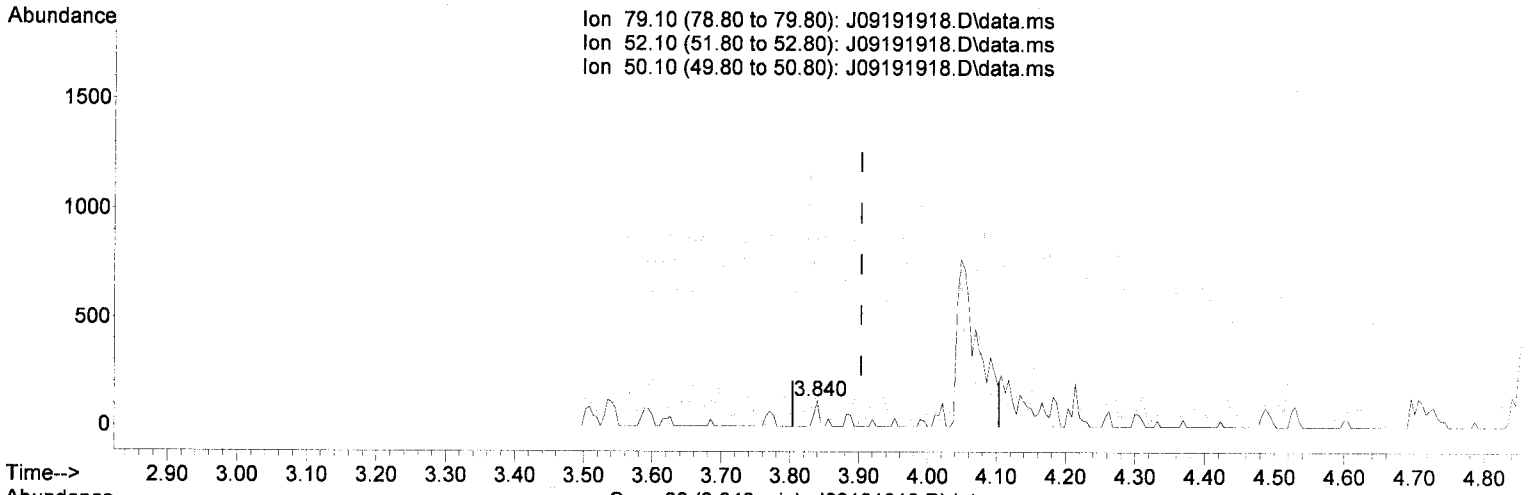
Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	66.21
43.10	22.20	47.47
0.00	0.00	0.00

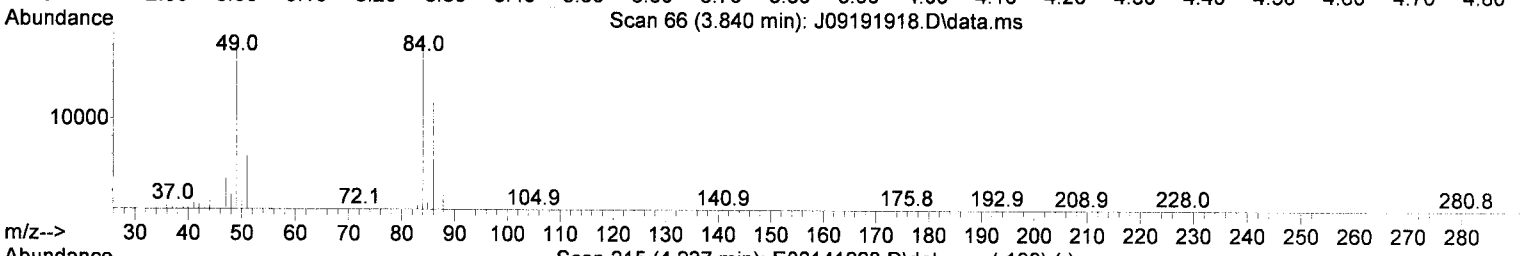
9/20/19

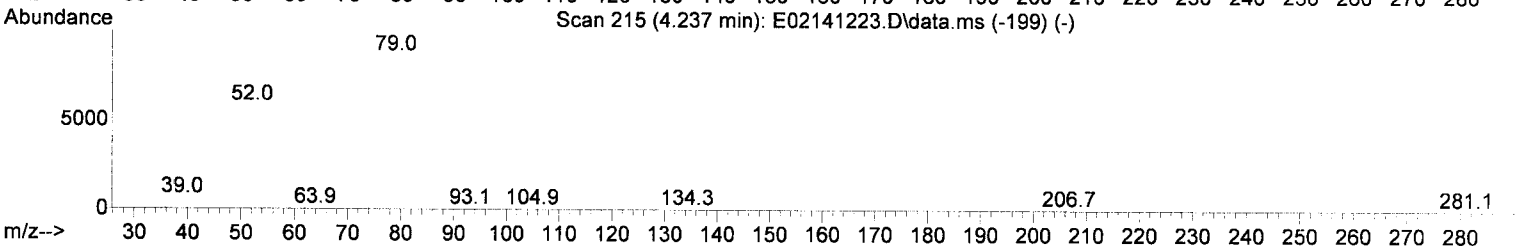
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191918.D\data.ms

(3) Pyridine (TG)

3.840min (-0.064) 0.24 ng/ml

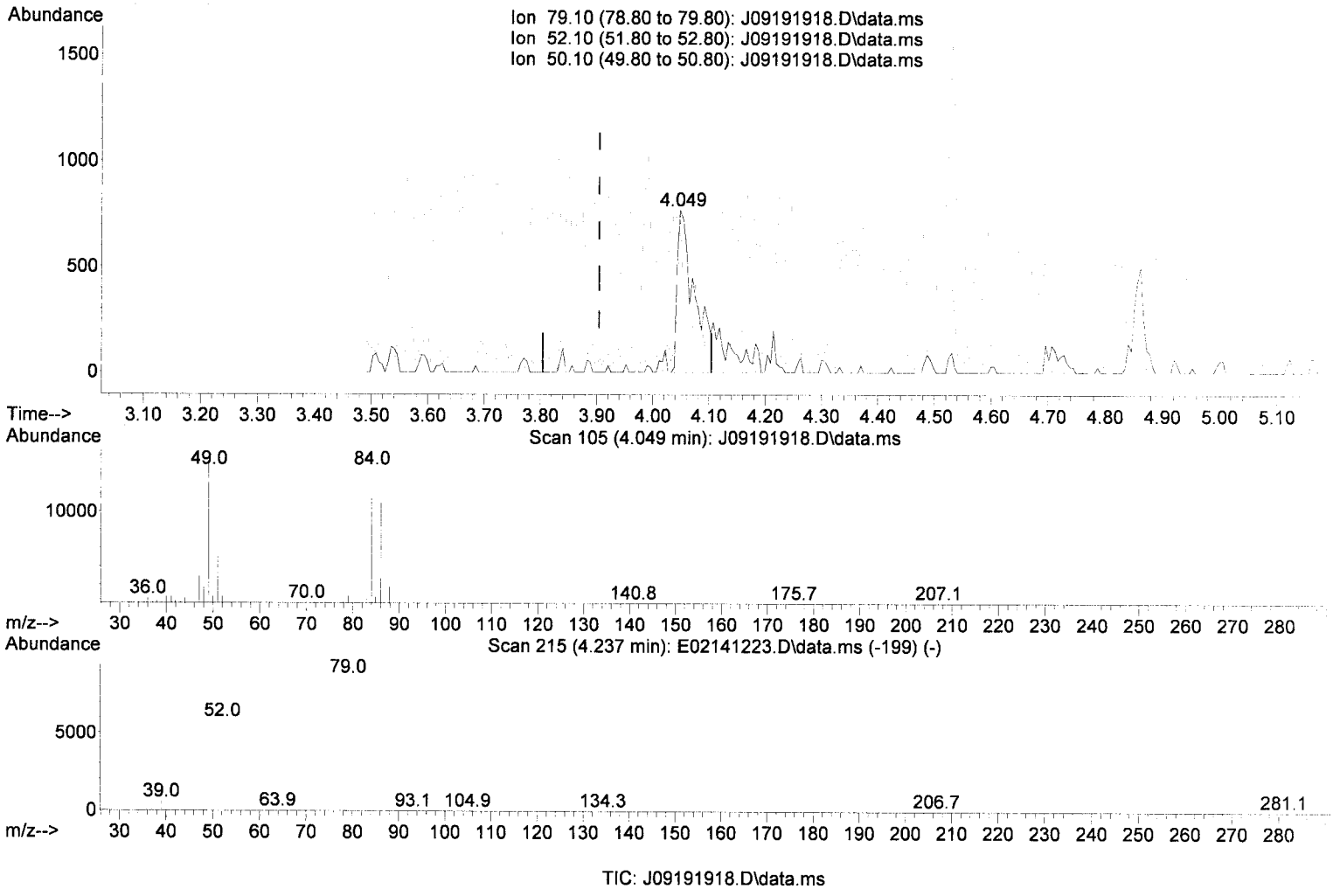
response 55

Ion	Exp%	Act%
79.10	100.00	100.00
52.10	50.80	81.20#
50.10	18.70	146.15#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191918.D\data.ms

(3) Pyridine (TG)

4.049min (+ 0.145) 9.55 ng/ml m

response 2206

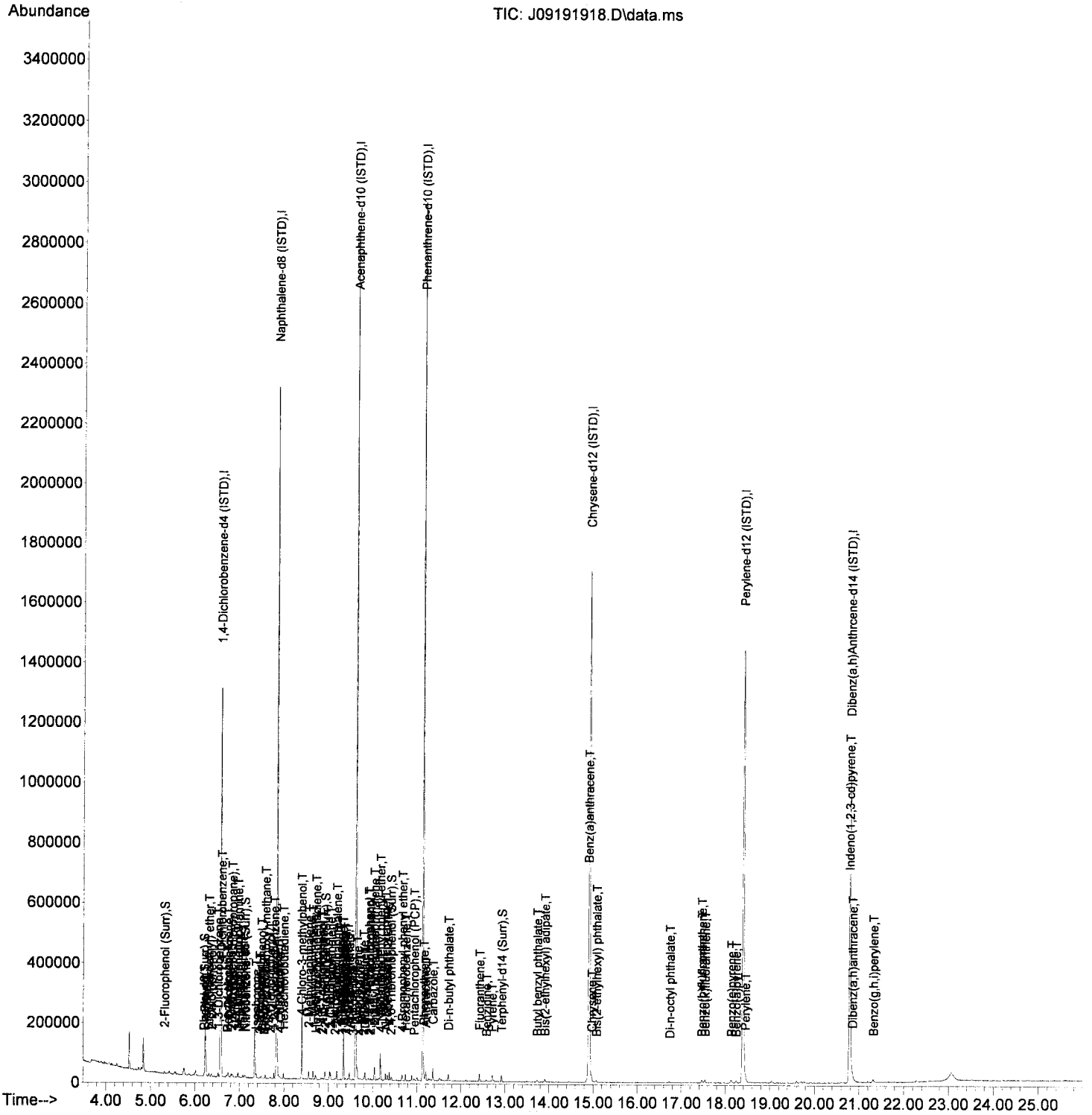
Ion	Exp%	Act%
79.10	100.00	100.00
52.10	50.80	96.24#
50.10	18.70	93.39#
0.00	0.00	0.00

9/20/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191918.D
Acq On : 20 Sep 2019 1:24 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL1
Misc : 1x, A19G238@20
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:20 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	291253	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1195757	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	616226	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1087898	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.906	240	1113286	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.393	264	1097209	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.790	292	855339	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.311	112	7611	38.53	ng/ml	0.02
5) Phenol-d6(Surr)	6.204	99	9501	37.44	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	7903	33.99	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	24802	54.81	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	1929	37.79	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	25113	46.14	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	~~3.952~~	~~74~~	~~4569~~	~~33.76~~	~~ng/ml~~	93
3) Pyridine	4.000	79	7667m	33.23	ng/ml#	
6) Phenol	6.215	94	11373	39.43	ng/ml	93
7) Aniline	6.252	93	10955	42.49	ng/ml	95
8) Bis(2-chloroethyl) ether	6.306	93	10198	39.70	ng/ml	95
9) 2-Chlorophenol	6.364	128	9461	45.54	ng/ml	88
10) 1,3-Dichlorobenzene	6.519	146	11576	51.52	ng/ml	97
11) 1,4-Dichlorobenzene	6.589	146	12059	55.30	ng/ml	94
12) Benzyl alcohol	6.707	108	3460	25.97	ng/ml	94
13) 1,2-Dichlorobenzene	6.739	146	12229	55.79	ng/ml	98
14) 2-Methylphenol	6.808	107	6405	38.35	ng/ml	90
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	10585	31.94	ng/ml	90
16) N-Nitrosodi-n-propylamine	6.963	70	6538	38.84	ng/ml	98
17) 3+4-Methylphenol	6.958	107	8248	40.07	ng/ml	95
18) Hexachloroethane	7.076	201	3313	55.18	ng/ml	93
20) Nitrobenzene	7.135	77	8614	36.98	ng/ml	95
22) Isophorone	7.370	82	18082	41.67	ng/ml	97
23) 2-Nitrophenol	7.455	139	3400	54.77	ng/ml	93
24) 2,4-Dimethylphenol	7.488	122	5922	35.79	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.579	93	11523	47.66	ng/ml	92
26) Benzoic acid	7.573	105	200	305.64	ng/ml#	58
27) 2,4-Dichlorophenol	7.691	162	5068	35.35	ng/ml	91
28) 1,2,4-Trichlorobenzene	7.776	180	11103	63.97	ng/ml	92
29) Naphthalene	7.857	128	34402	56.01	ng/ml	99
30) 4-Chloroaniline	7.905	127	7306	53.73	ng/ml	92
31) Hexachlorobutadiene	7.990	225	5972	64.52	ng/ml	97
32) 4-Chloro-3-methylphenol	8.392	107	5211	30.18	ng/ml	82
33) 2-Methylnaphthalene	8.557	142	23135	55.17	ng/ml	94
34) 1-Methylnaphthalene	8.654	142	23006	57.09	ng/ml	92
36) Hexachlorocyclopentadiene	8.723	237	3356	34.42	ng/ml	95
37) 2,4,6-Trichlorophenol	8.835	196	3644	44.63	ng/ml	82
38) 2,4,5-Trichlorophenol	8.873	198	3657	34.90	ng/ml	96
39) 1,1'-Biphenyl	9.028	154	28683	56.03	ng/ml	96
41) 2-Chloronaphthalene	9.049	162	19450	51.76	ng/ml	98
42) 2-Nitroaniline	9.146	138	2728	21.81	ng/ml	70
43) 2,6-Dimethylnaphthalene	9.188	156	20566	53.66	ng/ml	99

See mJ

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

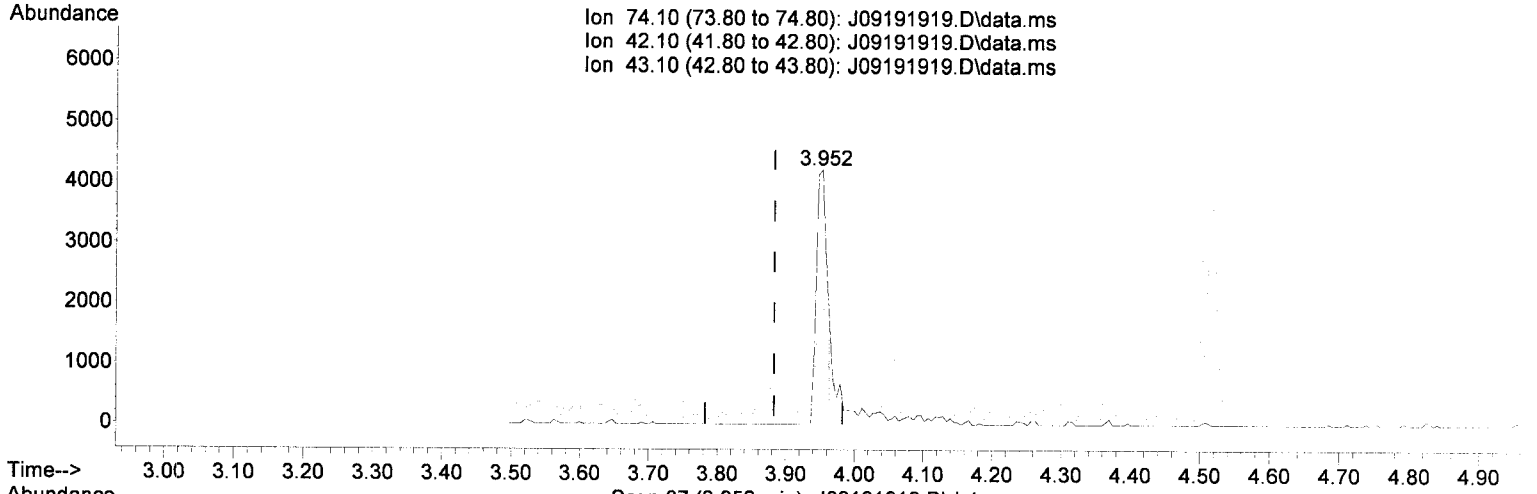
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	915	15.67	ng/ml#	75
45) Dimethyl phthalate	9.328	163	22486	51.02	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	1390	20.76	ng/ml	79
47) 2,6-Dinitrotoluene	9.386	165	2915	30.76	ng/ml	88
48) 1,2-Dinitrobenzene	9.440	168	1349	30.38	ng/ml	98
49) Acenaphthylene	9.472	152	32192	53.45	ng/ml	98
50) 3-Nitroaniline	9.563	138	2106	41.58	ng/ml#	68
51) Acenaphthene	9.648	153	22572	57.81	ng/ml	99
52) 2,4-Dinitrophenol	0.000		0	N.D.		
53) 4-Nitrophenol	9.723	139	699	42.87	ng/ml	71
54) 2,4-Dinitrotoluene	9.798	165	2508	20.56	ng/ml	84
55) Dibenzofuran	9.825	168	29377	55.18	ng/ml	94
56) 2,3,5,6-Tetrachlorophenol	9.905	232	1678	45.25	ng/ml	83
57) 2,3,4,6-Tetrachlorophenol	9.948	232	2513	38.75	ng/ml	86
58) Diethyl phthalate	10.044	149	21378	50.87	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.034	170	19066	56.02	ng/ml	97
60) Fluorene	10.173	166	22247	53.06	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.167	204	11449	58.75	ng/ml	94
62) 4-Nitroaniline	10.178	138	2192	25.82	ng/ml	87
63) 4,6-Dinitro-2-methylph...	10.215	198	206	74.51	ng/ml#	65
65) N-Nitrosodiphenylamine	10.285	169	16461	49.20	ng/ml	97
66) Azobenzene (1,2-DPH)	10.328	77	17404	39.22	ng/ml	93
68) 4-Bromophenyl phenyl e...	10.665	248	6326	56.49	ng/ml	91
69) Hexachlorobenzene	10.745	284	7615	59.10	ng/ml	98
70) Pentachlorophenol (PCP)	10.937	266	1392	53.47	ng/ml#	61
71) Phenanthrene	11.157	178	32566	54.75	ng/ml	95
72) Anthracene	11.205	178	30636	52.34	ng/ml	98
73) Carbazole	11.365	167	24489	50.68	ng/ml	93
74) Di-n-butyl phthalate	11.718	149	29117	42.93	ng/ml	99
75) Fluoranthene	12.424	202	31166	50.09	ng/ml	93
76) Benzidine	12.579	184	5652	90.66	ng/ml	93
77) Pyrene	12.713	202	32717	52.64	ng/ml	98
80) Butyl benzyl phthalate	13.735	149	6765	19.40	ng/ml	97
81) Bis(2-ethylhexyl) adipate	13.911	129	6924	22.16	ng/ml	92
82) 3,3-Dichlorobenzidine	14.847	252	11318	Below Cal		86
83) Benz(a)anthracene	14.890	228	29779	45.62	ng/ml	97
84) Chrysene	14.960	228	29254	48.57	ng/ml	97
85) Bis(2-ethylhexyl) phth...	15.072	149	8694	18.85	ng/ml	93
87) Di-n-octyl phthalate	16.735	149	9861	43.05	ng/ml	94
88) Benzo(b)fluoranthene	17.468	252	21819	32.83	ng/ml	93
89) Benzo(k)fluoranthene	17.543	252	23687	37.57	ng/ml	95
90) Benzo(b+k)fluoranthene	17.468	252	47809	72.40	ng/ml	93
91) Benzo(e)pyrene	18.121	252	24570	37.78	ng/ml	95
92) Benzo(a)pyrene	18.238	252	18583	31.08	ng/ml	97
93) Perylene	18.447	252	24689	43.56	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.779	276	25006	52.00	ng/ml	88
96) Dibenz(a,h)anthracene	20.848	278	21791	50.52	ng/ml	94
97) Benzo(g,h,i)perylene	21.308	276	20181	43.59	ng/ml	97

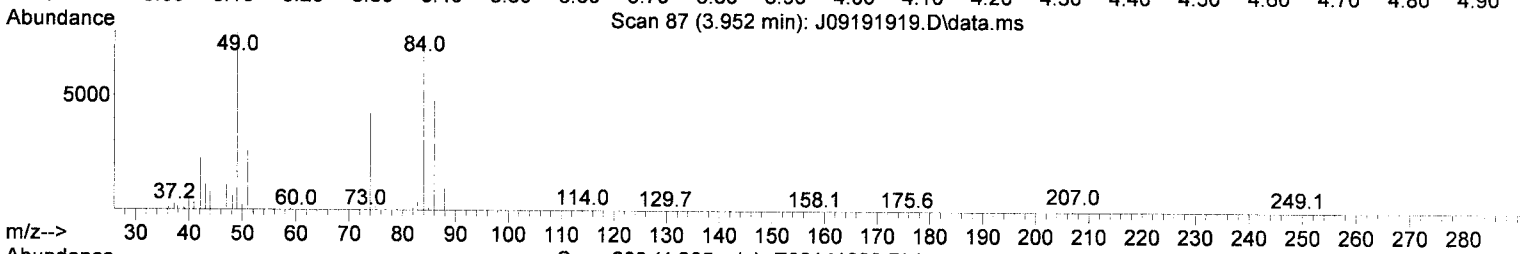
(#) = qualifier out of range (m) = manual integration (+) = signals summed

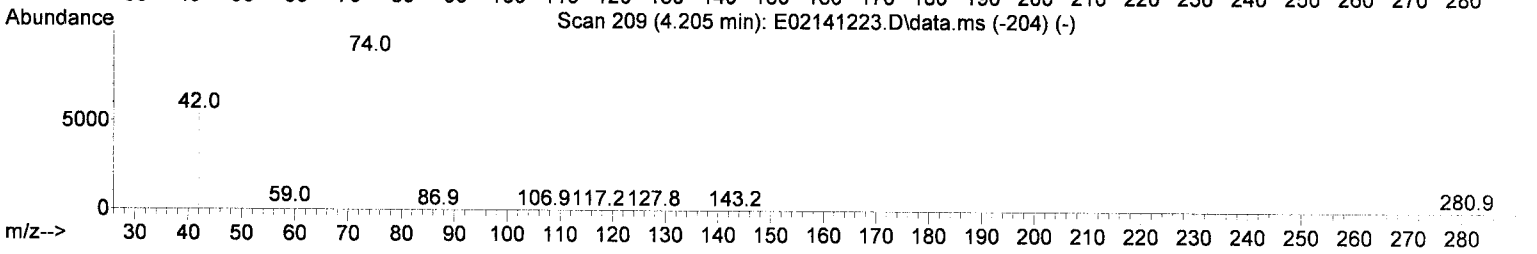
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191919.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.952min (+ 0.070) 33.76 ng/ml

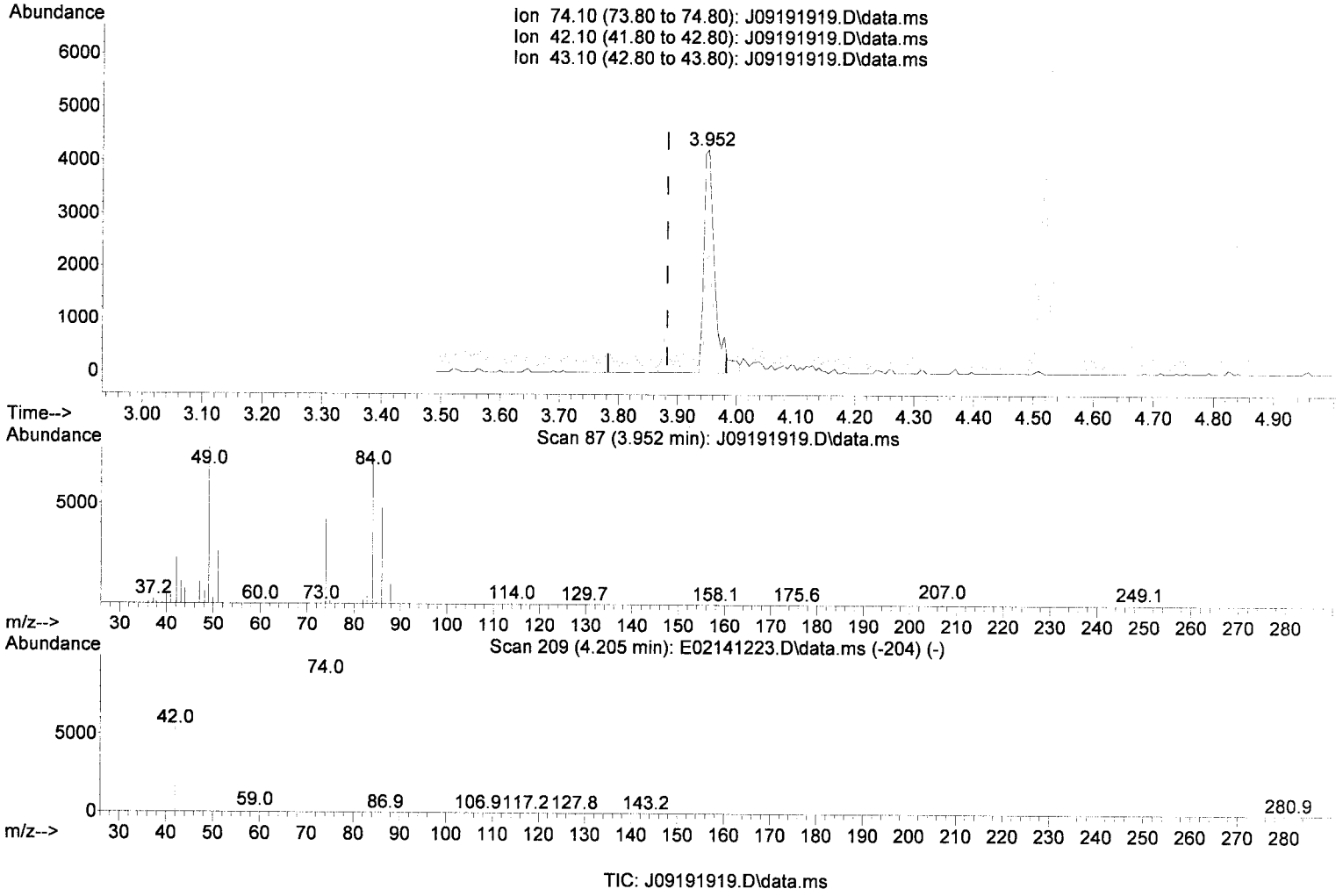
response 4569

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	53.59
43.10	22.20	26.52
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191919.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.952min (+ 0.070) 40.76 ng/ml m 9/20/19

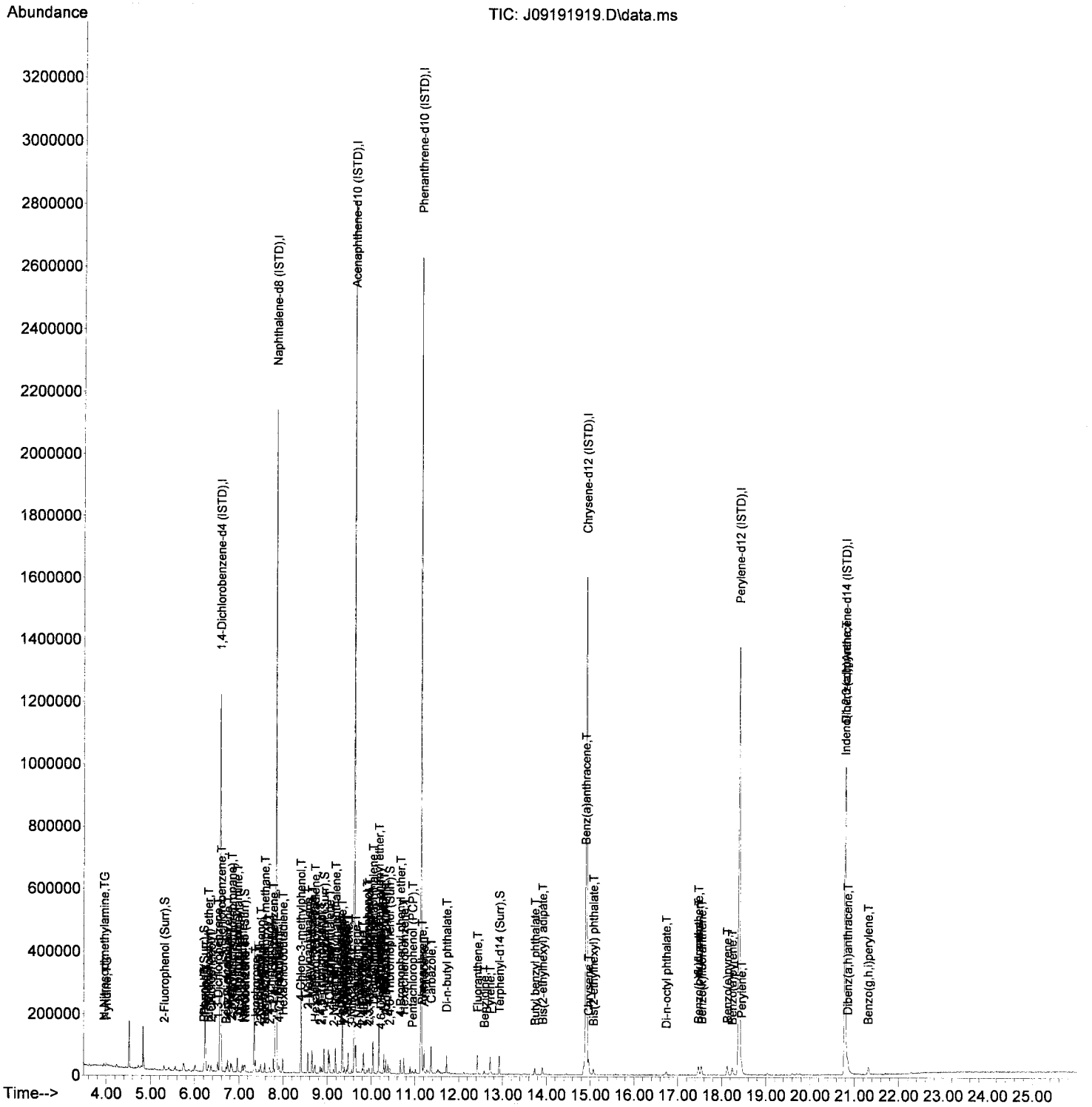
response 5516

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	53.59
43.10	22.20	26.52
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191919.D
Acq On : 20 Sep 2019 1:59 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL2
Misc : 1x, A19G239@50
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	290594	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1186873	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	615111	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1118597	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1122909	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.394	264	1127380	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.790	292	892958	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.311	112	13834	70.19	ng/ml	0.02
5) Phenol-d6(Surr)	6.204	99	21003	82.96	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	16492	71.09	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	53353	118.12	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	4809	91.63	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	54871	99.96	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.952	74	9178	67.07	ng/ml	91
3) Pyridine	3.990	79	18548m	80.58	ng/ml#	
6) Phenol	6.220	94	23364	81.19	ng/ml	97
7) Aniline	6.252	93	23125	89.89	ng/ml	94
8) Bis(2-chloroethyl) ether	6.311	93	21464	83.74	ng/ml	93
9) 2-Chlorophenol	6.370	128	19462	93.88	ng/ml	97
10) 1,3-Dichlorobenzene	6.520	146	23840	106.35	ng/ml	98
11) 1,4-Dichlorobenzene	6.589	146	23338	107.27	ng/ml	92
12) Benzyl alcohol	6.707	108	8907	67.02	ng/ml	96
13) 1,2-Dichlorobenzene	6.739	146	23746	108.58	ng/ml	95
14) 2-Methylphenol	6.808	107	14254	85.54	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	21848	66.08	ng/ml	97
16) N-Nitrosodi-n-propylamine	6.963	70	13631	81.17	ng/ml	98
17) 3+4-Methylphenol	6.958	107	16854	82.07	ng/ml	89
18) Hexachloroethane	7.076	201	6562	109.55	ng/ml	86
20) Nitrobenzene	7.135	77	17280	74.35	ng/ml	100
22) Isophorone	7.370	82	37997	88.22	ng/ml	97
23) 2-Nitrophenol	7.450	139	7240	82.31	ng/ml	87
24) 2,4-Dimethylphenol	7.488	122	14806	90.15	ng/ml	90
25) Bis(2-chloroethoxy) me...	7.579	93	23395	97.49	ng/ml	95
26) Benzoic acid	7.605	105	129	304.84	ng/ml#	68
27) 2,4-Dichlorophenol	7.691	162	12689	89.17	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.776	180	21292	123.58	ng/ml	98
29) Naphthalene	7.857	128	69263	113.61	ng/ml	96
30) 4-Chloroaniline	7.905	127	15139	102.27	ng/ml	96
31) Hexachlorobutadiene	7.990	225	11598	126.23	ng/ml	93
32) 4-Chloro-3-methylphenol	8.386	107	11698	68.25	ng/ml	89
33) 2-Methylnaphthalene	8.557	142	46039	110.62	ng/ml	99
34) 1-Methylnaphthalene	8.659	142	46134	115.33	ng/ml	98
36) Hexachlorocyclopentadiene	8.723	237	8031	82.51	ng/ml	94
37) 2,4,6-Trichlorophenol	8.841	196	7912	84.10	ng/ml	95
38) 2,4,5-Trichlorophenol	8.873	198	8310	79.46	ng/ml	93
39) 1,1'-Biphenyl	9.028	154	58168	113.83	ng/ml	98
41) 2-Chloronaphthalene	9.049	162	41705	111.19	ng/ml	97
42) 2-Nitroaniline	9.146	138	6877	55.07	ng/ml	89
43) 2,6-Dimethylnaphthalene	9.189	156	43362	113.35	ng/ml	96

See MJ

See MJ

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

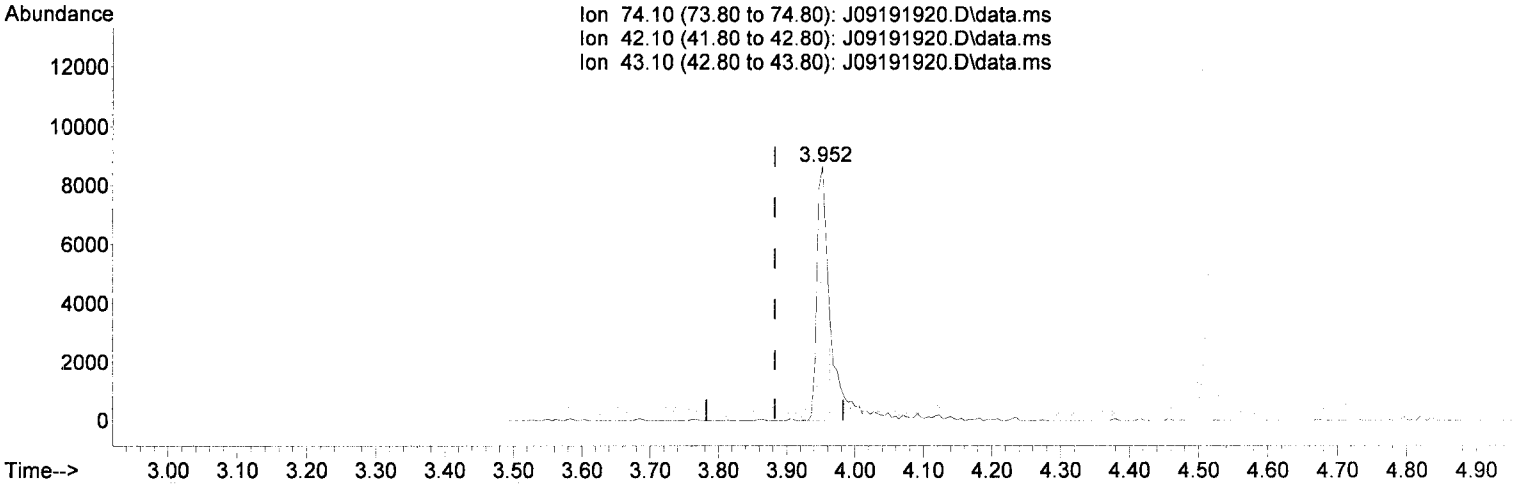
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	2006	34.41	ng/ml	84
45) Dimethyl phthalate	9.328	163	49089	111.58	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	3033	45.87	ng/ml	81
47) 2,6-Dinitrotoluene	9.386	165	6526	68.97	ng/ml	84
48) 1,2-Dinitrobenzene	9.445	168	2742	61.87	ng/ml	83
49) Acenaphthylene	9.472	152	68008	113.12	ng/ml	97
50) 3-Nitroaniline	9.558	138	6036	77.71	ng/ml	97
51) Acenaphthene	9.649	153	44425	113.99	ng/ml	98
52) 2,4-Dinitrophenol	9.670	184	169	146.81	ng/ml	80
53) 4-Nitrophenol	9.723	139	2106	62.15	ng/ml	64
54) 2,4-Dinitrotoluene	9.798	165	6812	55.94	ng/ml	98
55) Dibenzofuran	9.825	168	62656	117.90	ng/ml	96
56) 2,3,5,6-Tetrachlorophenol	9.905	232	5673	90.84	ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	9.948	232	7263	92.88	ng/ml	95
58) Diethyl phthalate	10.044	149	47870	114.11	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.034	170	38608	113.65	ng/ml	97
60) Fluorene	10.173	166	48968	116.99	ng/ml	96
61) 4-Chlorophenyl phenyl ...	10.167	204	23837	122.54	ng/ml	99
62) 4-Nitroaniline	10.178	138	5563	65.64	ng/ml	90
63) 4,6-Dinitro-2-methylph...	10.210	198	761	84.48	ng/ml	74
65) N-Nitrosodiphenylamine	10.285	169	36899	107.27	ng/ml	97
66) Azobenzene (1,2-DPH)	10.328	77	37821	82.88	ng/ml	96
68) 4-Bromophenyl phenyl e...	10.665	248	13242	115.00	ng/ml	94
69) Hexachlorobenzene	10.745	284	16314	123.13	ng/ml	97
70) Pentachlorophenol (PCP)	10.938	266	4341	100.38	ng/ml	92
71) Phenanthrene	11.151	178	68493	111.98	ng/ml	98
72) Anthracene	11.205	178	65192	108.32	ng/ml	98
73) Carbazole	11.365	167	54742	110.17	ng/ml	98
74) Di-n-butyl phthalate	11.718	149	70280	100.78	ng/ml	99
75) Fluoranthene	12.424	202	70234	109.79	ng/ml	96
76) Benzidine	12.580	184	12748	133.02	ng/ml	98
77) Pyrene	12.713	202	69474	108.72	ng/ml	98
80) Butyl benzyl phthalate	13.735	149	18774	53.39	ng/ml	97
81) Bis(2-ethylhexyl) adipate	13.911	129	18358	58.24	ng/ml	95
82) 3,3-Dichlorobenzidine	14.853	252	24584	98.99	ng/ml	93
83) Benz(a)anthracene	14.885	228	64818	98.44	ng/ml	99
84) Chrysene	14.965	228	61418	101.11	ng/ml	98
85) Bis(2-ethylhexyl) phth...	15.072	149	26668	57.33	ng/ml	98
87) Di-n-octyl phthalate	16.741	149	33665	71.49	ng/ml	95
88) Benzo(b)fluoranthene	17.468	252	57260	83.86	ng/ml	95
89) Benzo(k)fluoranthene	17.538	252	58523	90.33	ng/ml	99
90) Benzo(b+k)fluoranthene	17.538	252	120376	177.42	ng/ml	99
91) Benzo(e)pyrene	18.121	252	58165	87.04	ng/ml	93
92) Benzo(a)pyrene	18.244	252	50114	81.58	ng/ml	96
93) Perylene	18.447	252	50289	86.35	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.779	276	52504	104.59	ng/ml	97
96) Dibenz(a,h)anthracene	20.854	278	48705	108.17	ng/ml	97
97) Benzo(g,h,i)perylene	21.309	276	49447	102.31	ng/ml	98

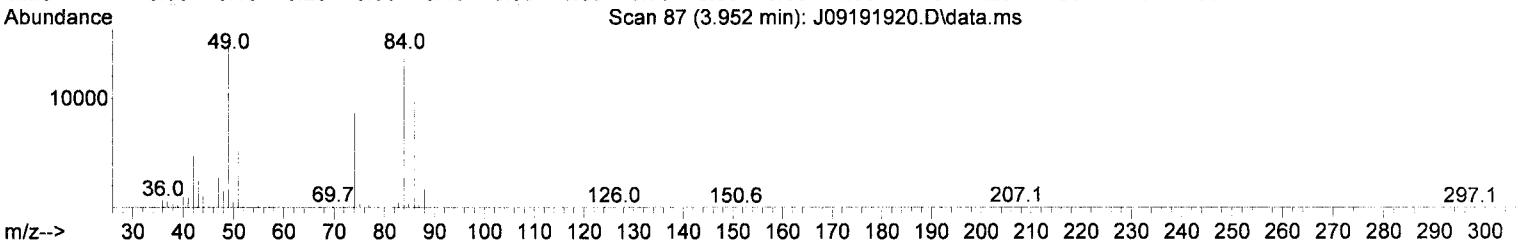
(#) = qualifier out of range (m) = manual integration (+) = signals summed

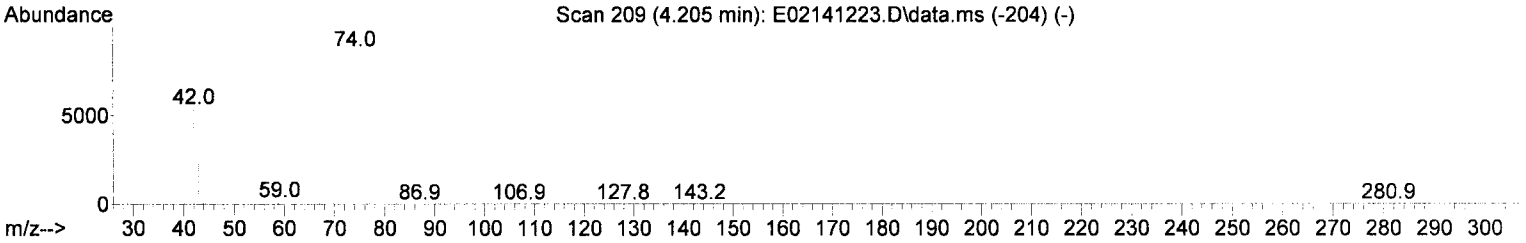
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191920.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.952min (+ 0.070) 67.97 ng/ml

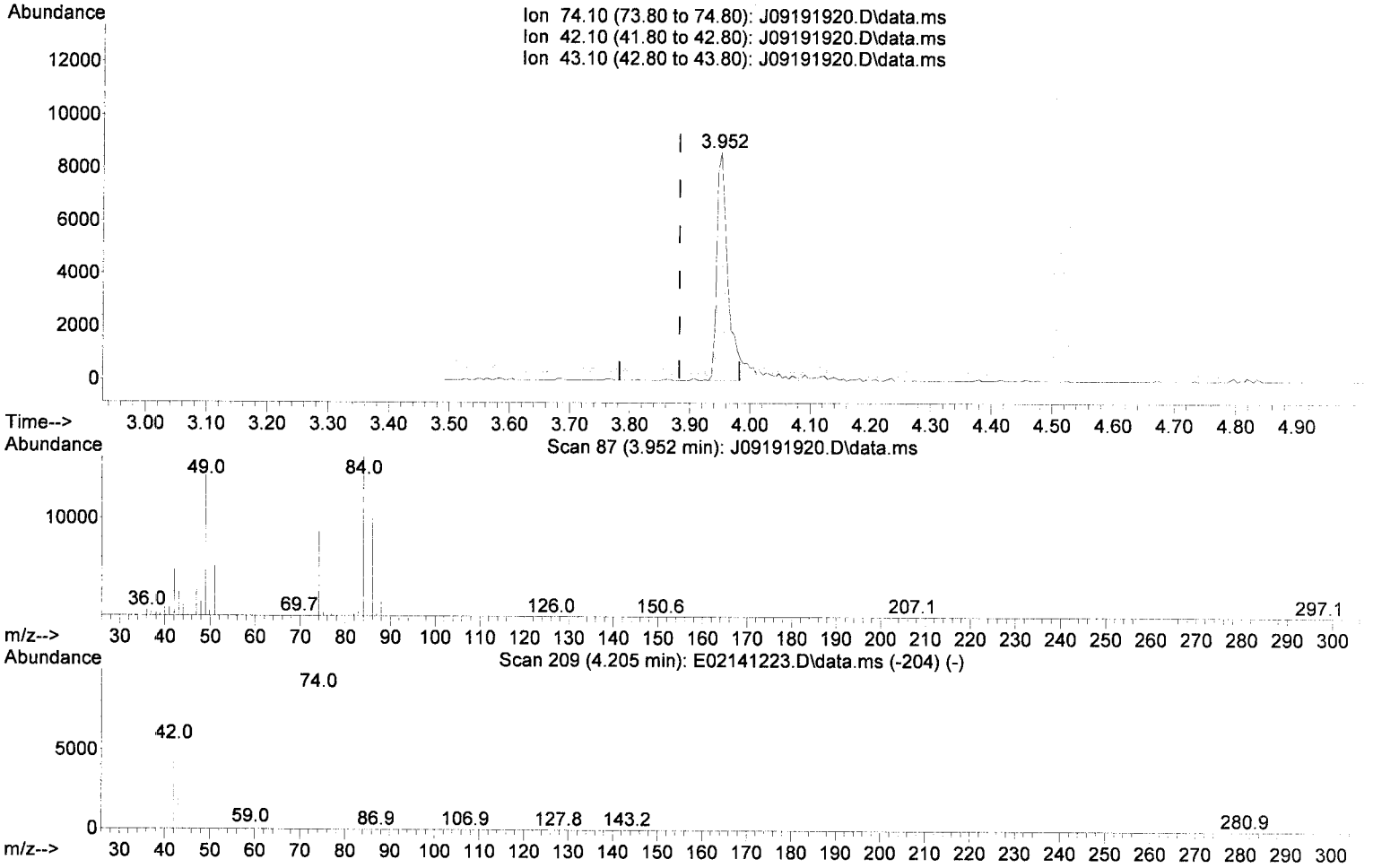
response 9178

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	55.00
43.10	22.20	27.95
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191920.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.952min (+ 0.070) 86.90 ng/ml (m)

response 11734

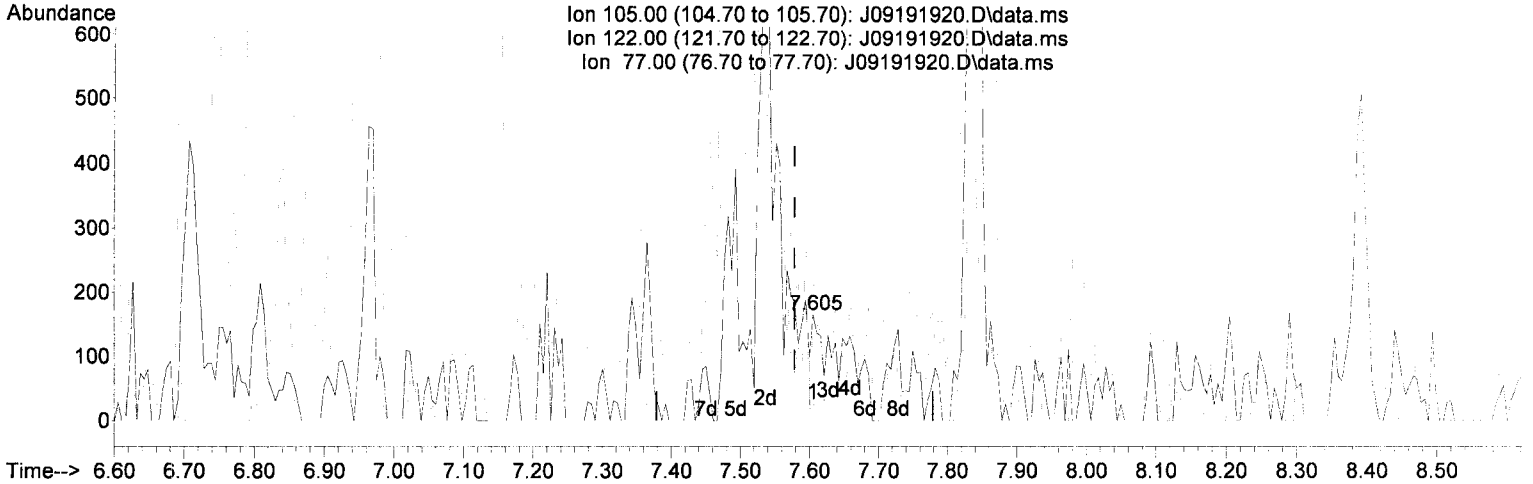
Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	55.00
43.10	22.20	27.95
0.00	0.00	0.00

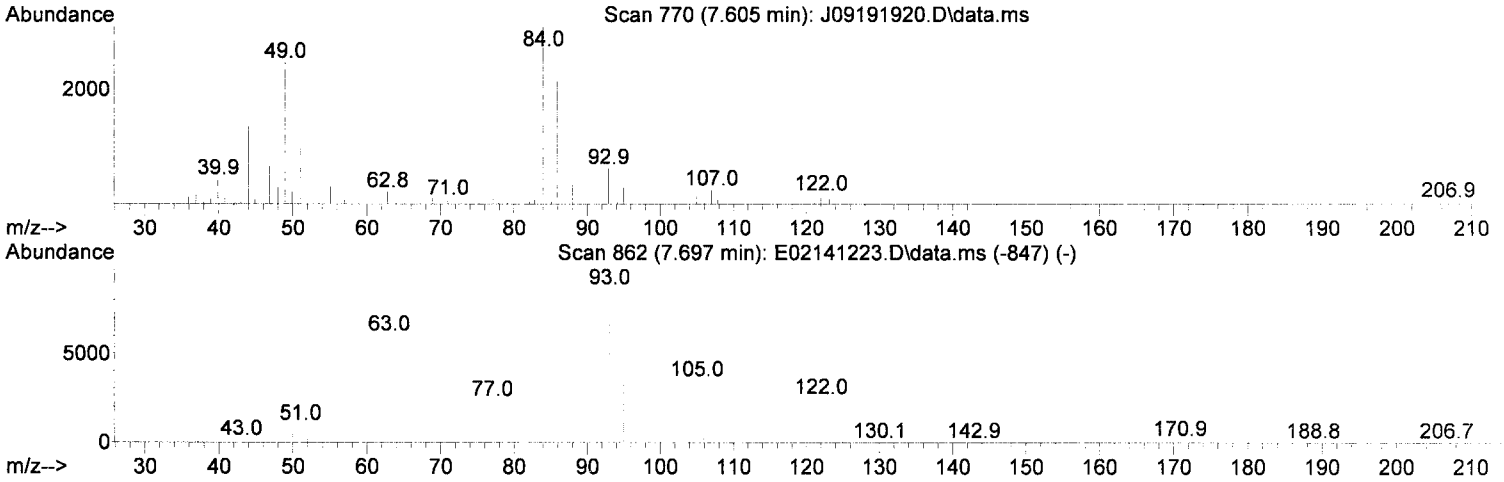
9/20/19

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10





TIC: J09191920.D\data.ms

(26) Benzoic acid (T)

7.605min (+ 0.027) 304.84 ng/ml

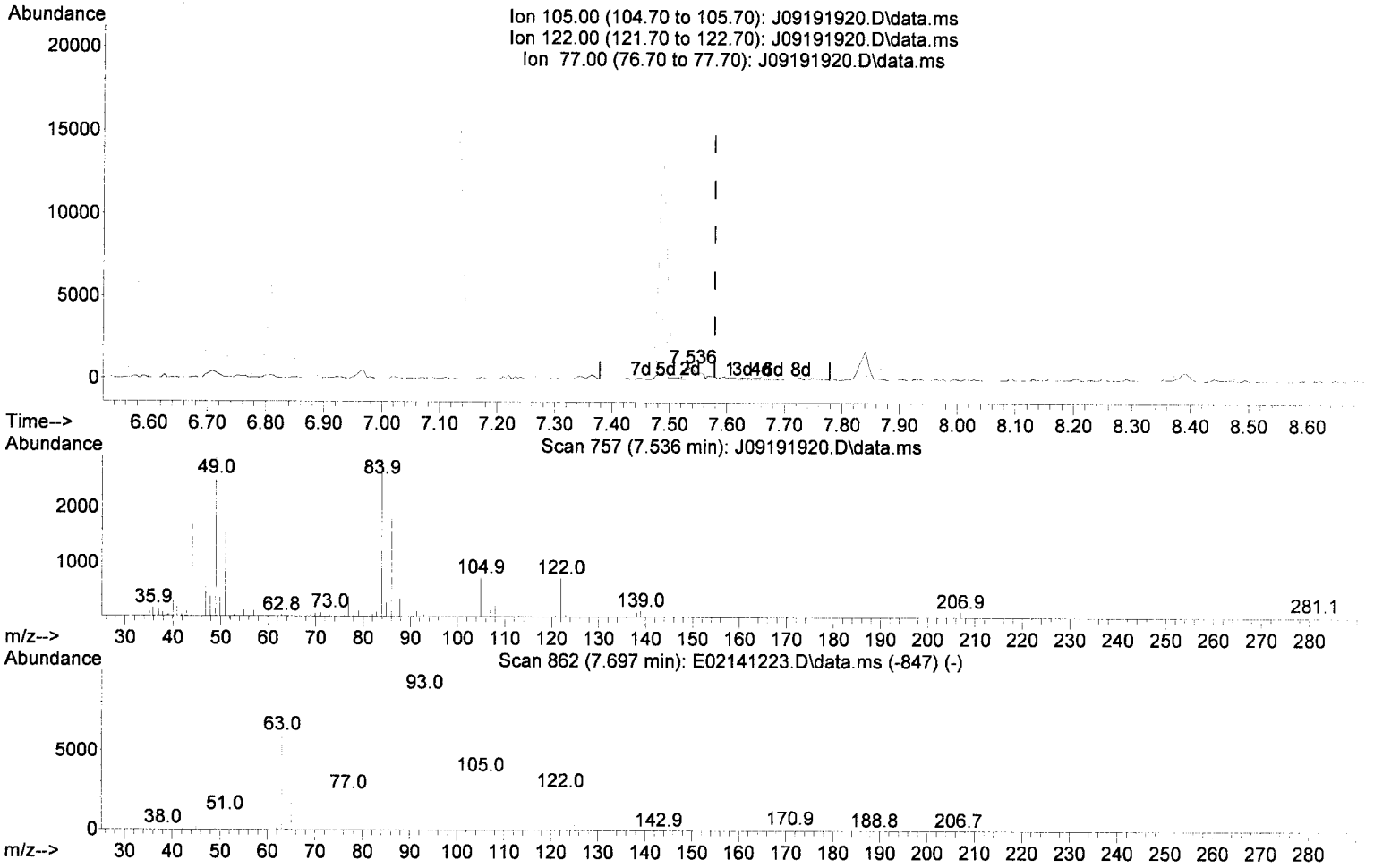
response 129

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	108.48
77.00	72.00	113.33#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191920.D\data.ms

(26) Benzoic acid (T)

7.536min (-0.043) 327.42 ng/ml m GL 9/20/19

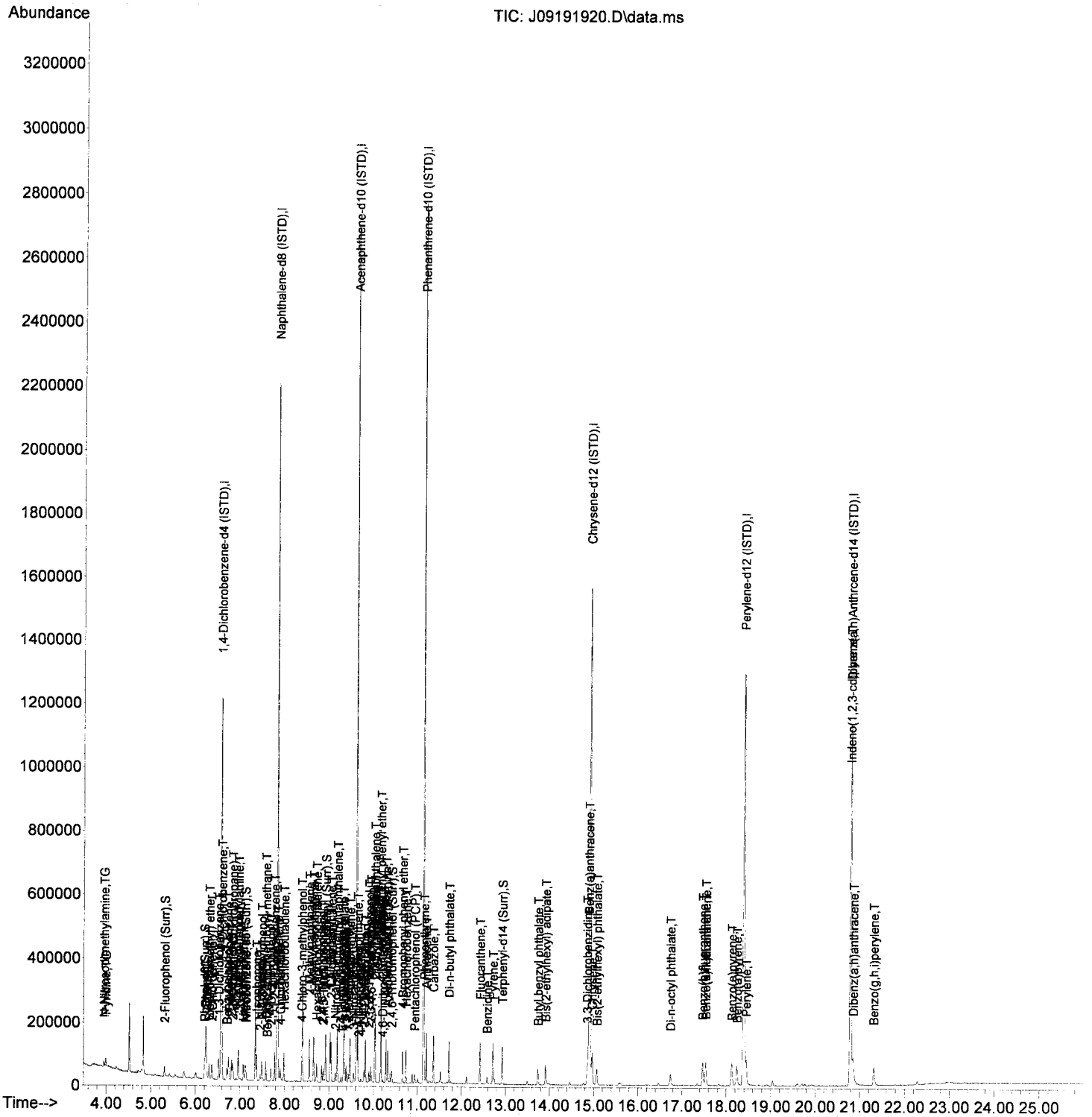
response 2086

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	99.19
77.00	72.00	54.47
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191920.D
Acq On : 20 Sep 2019 2:34 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL3
Misc : 1x, A19G240@100
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:30 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	286105	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1204364	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	611745	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1098102	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.912	240	1116848	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1089238	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.795	292	868590	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.300	112	34817	179.42	ng/ml	0.01
5) Phenol-d6(Surr)	6.204	99	45844	183.93	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	34591	151.44	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	107137	238.50	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	10829	210.19	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	107135	196.23	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.915	74	19941	150.00	ng/ml	98
3) Pyridine	3.947	79	38499m	169.88	ng/ml#	
6) Phenol	6.215	94	51417	181.47	ng/ml	97
7) Aniline	6.247	93	49031	193.59	ng/ml	96
8) Bis(2-chloroethyl) ether	6.306	93	42595	168.79	ng/ml	93
9) 2-Chlorophenol	6.364	128	42160	206.57	ng/ml	96
10) 1,3-Dichlorobenzene	6.514	146	48050	217.71	ng/ml	98
11) 1,4-Dichlorobenzene	6.584	146	46724	218.13	ng/ml	96
12) Benzyl alcohol	6.701	108	18281	139.70	ng/ml	91
13) 1,2-Dichlorobenzene	6.739	146	47924	222.58	ng/ml	95
14) 2-Methylphenol	6.808	107	30801	187.74	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	44401	136.40	ng/ml	97
16) N-Nitrosodi-n-propylamine	6.963	70	28365	171.56	ng/ml	98
17) 3+4-Methylphenol	6.958	107	38484	190.34	ng/ml	97
18) Hexachloroethane	7.076	201	13490	228.75	ng/ml	98
20) Nitrobenzene	7.129	77	37240	162.74	ng/ml	98
22) Isophorone	7.365	82	78525	179.67	ng/ml	96
23) 2-Nitrophenol	7.450	139	16298	145.34	ng/ml	96
24) 2,4-Dimethylphenol	7.488	122	31880	191.29	ng/ml	96
25) Bis(2-chloroethoxy) me...	7.579	93	49149	201.85	ng/ml	96
26) Benzoic acid	7.573	105	338	307.20	ng/ml	78
27) 2,4-Dichlorophenol	7.691	162	30346	210.14	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.776	180	45007	257.44	ng/ml	95
29) Naphthalene	7.857	128	141239	228.31	ng/ml	99
30) 4-Chloroaniline	7.905	127	38526	242.70	ng/ml	98
31) Hexachlorobutadiene	7.990	225	24136	258.88	ng/ml	95
32) 4-Chloro-3-methylphenol	8.386	107	26469	152.19	ng/ml	98
33) 2-Methylnaphthalene	8.557	142	98607	233.48	ng/ml	98
34) 1-Methylnaphthalene	8.654	142	95459	235.18	ng/ml	99
36) Hexachlorocyclopentadiene	8.729	237	17504	180.83	ng/ml	95
37) 2,4,6-Trichlorophenol	8.841	196	18771	185.20	ng/ml	90
38) 2,4,5-Trichlorophenol	8.873	198	18422	177.11	ng/ml	88
39) 1,1'-Biphenyl	9.028	154	117826	231.84	ng/ml	99
41) 2-Chloronaphthalene	9.049	162	86117	230.86	ng/ml	100
42) 2-Nitroaniline	9.146	138	16161	130.13	ng/ml	94
43) 2,6-Dimethylnaphthalene	9.188	156	87215	229.24	ng/ml	96

See MI

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

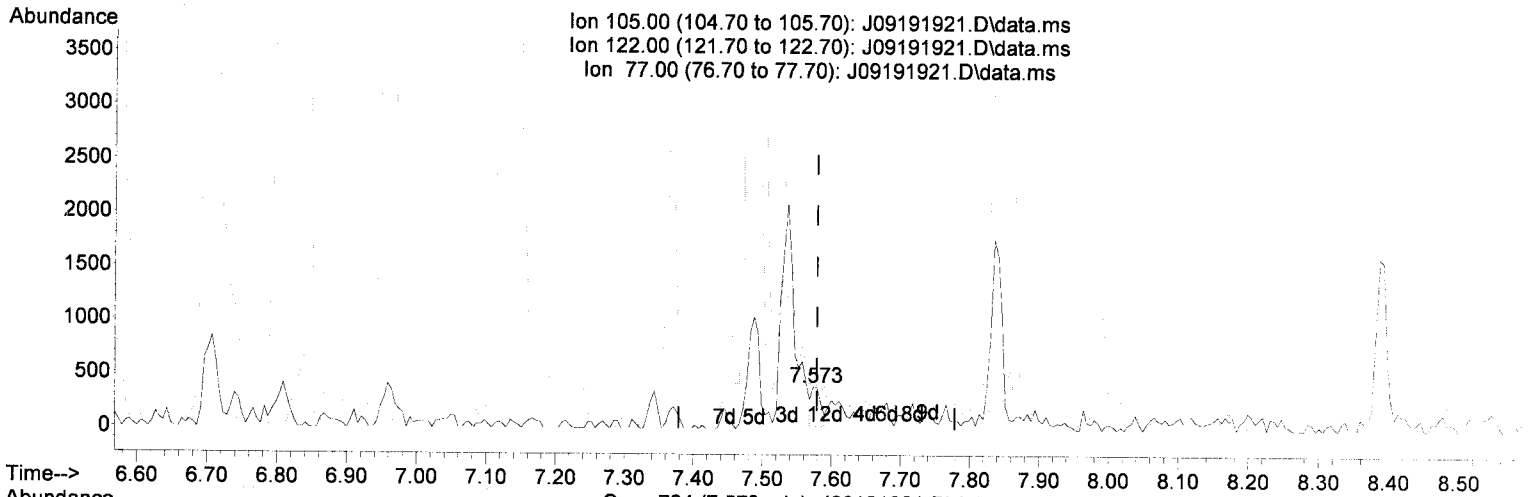
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	5164	89.07	ng/ml	88
45) Dimethyl phthalate	9.328	163	96043	219.51	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	7621	114.64	ng/ml	85
47) 2,6-Dinitrotoluene	9.386	165	16812	178.66	ng/ml	87
48) 1,2-Dinitrobenzene	9.440	168	7269	164.92	ng/ml	83
49) Acenaphthylene	9.472	152	136163	227.72	ng/ml	99
50) 3-Nitroaniline	9.558	138	15637	168.60	ng/ml	93
51) Acenaphthene	9.648	153	89211	230.16	ng/ml	98
52) 2,4-Dinitrophenol	9.665	184	796	162.82	ng/ml	85
53) 4-Nitrophenol	9.723	139	5790	112.91	ng/ml	91
54) 2,4-Dinitrotoluene	9.798	165	16915	139.67	ng/ml	99
55) Dibenzofuran	9.825	168	123476	233.62	ng/ml	99
56) 2,3,5,6-Tetrachlorophenol	9.905	232	13193	177.32	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.948	232	16040	193.66	ng/ml	99
58) Diethyl phthalate	10.044	149	92047	220.62	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.039	170	78195	231.45	ng/ml	96
60) Fluorene	10.173	166	95574	229.60	ng/ml	98
61) 4-Chlorophenyl phenyl ...	10.167	204	45790	236.70	ng/ml	98
62) 4-Nitroaniline	10.178	138	12832	152.25	ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.215	198	2504	115.96	ng/ml	91
65) N-Nitrosodiphenylamine	10.285	169	77183	228.56	ng/ml	96
66) Azobenzene (1,2-DPH)	10.328	77	76676	171.16	ng/ml	99
68) 4-Bromophenyl phenyl e...	10.670	248	26212	231.88	ng/ml	97
69) Hexachlorobenzene	10.745	284	30519	234.65	ng/ml	96
70) Pentachlorophenol (PCP)	10.938	266	7638	155.67	ng/ml	93
71) Phenanthrene	11.151	178	134878	224.63	ng/ml	96
72) Anthracene	11.205	178	132343	224.01	ng/ml	97
73) Carbazole	11.365	167	110985	227.54	ng/ml	99
74) Di-n-butyl phthalate	11.718	149	138215	201.89	ng/ml	98
75) Fluoranthene	12.424	202	138551	220.63	ng/ml	99
76) Benzidine	12.580	184	43242	323.12	ng/ml	97
77) Pyrene	12.713	202	143586	228.88	ng/ml	99
80) Butyl benzyl phthalate	13.735	149	42397	121.22	ng/ml	99
81) Bis(2-ethylhexyl) adipate	13.911	129	37581	119.87	ng/ml	98
82) 3,3-Dichlorobenzidine	14.858	252	53778	529.15	ng/ml	97
83) Benz(a)anthracene	14.885	228	124472	190.07	ng/ml	97
84) Chrysene	14.965	228	120574	199.57	ng/ml	98
85) Bis(2-ethylhexyl) phth...	15.072	149	58143	125.67	ng/ml	100
87) Di-n-octyl phthalate	16.741	149	75567	125.21	ng/ml	98
88) Benzo(b)fluoranthene	17.479	252	113080	171.41	ng/ml	95
89) Benzo(k)fluoranthene	17.538	252	115987	185.29	ng/ml	97
90) Benzo(b+k)fluoranthene	17.479	252	234995	358.49	ng/ml	95
91) Benzo(e)pyrene	18.126	252	113143	175.23	ng/ml	91
92) Benzo(a)pyrene	18.244	252	99882	168.29	ng/ml	97
93) Perylene	18.447	252	100217	178.11	ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.784	276	100411	205.68	ng/ml	96
96) Dibenz(a,h)anthracene	20.854	278	95316	217.63	ng/ml	99
97) Benzo(g,h,i)perylene	21.319	276	101188	215.24	ng/ml	98

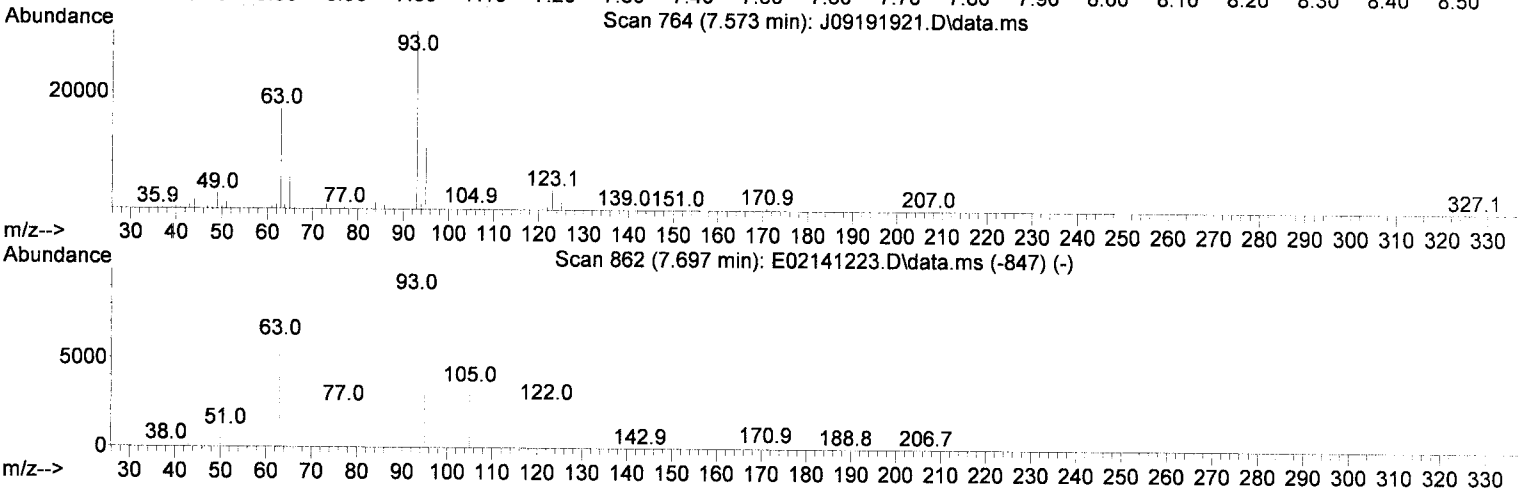
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10





TIC: J09191921.D\data.ms

(26) Benzoic acid (T)

7.573min (-0.005) 307.20 ng/ml

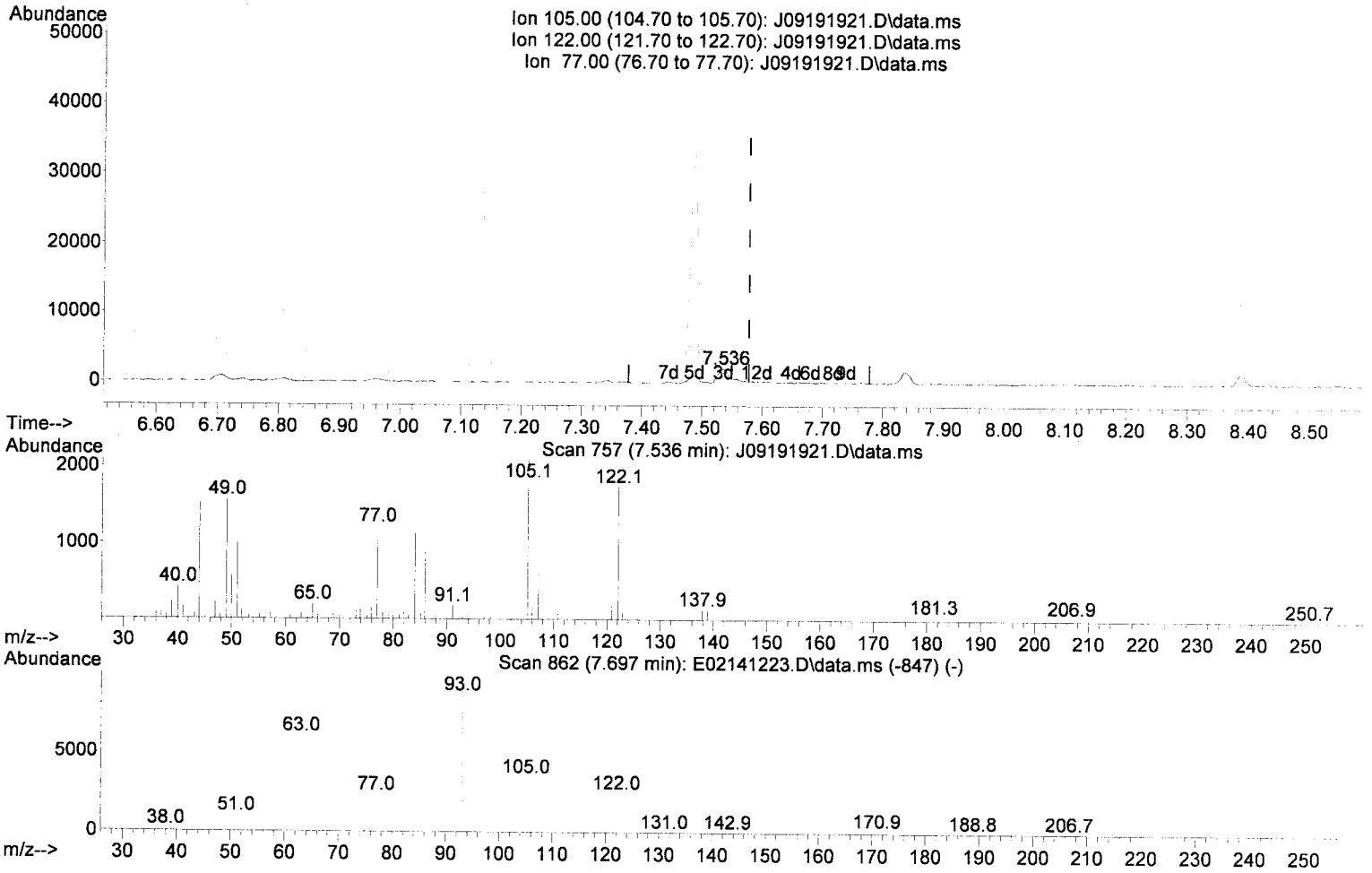
response 338

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	119.23
77.00	72.00	82.82
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191921.D\data.ms

(26) Benzoic acid (T)

7.536min (-0.043) 341.24 ng/ml m

response 3335

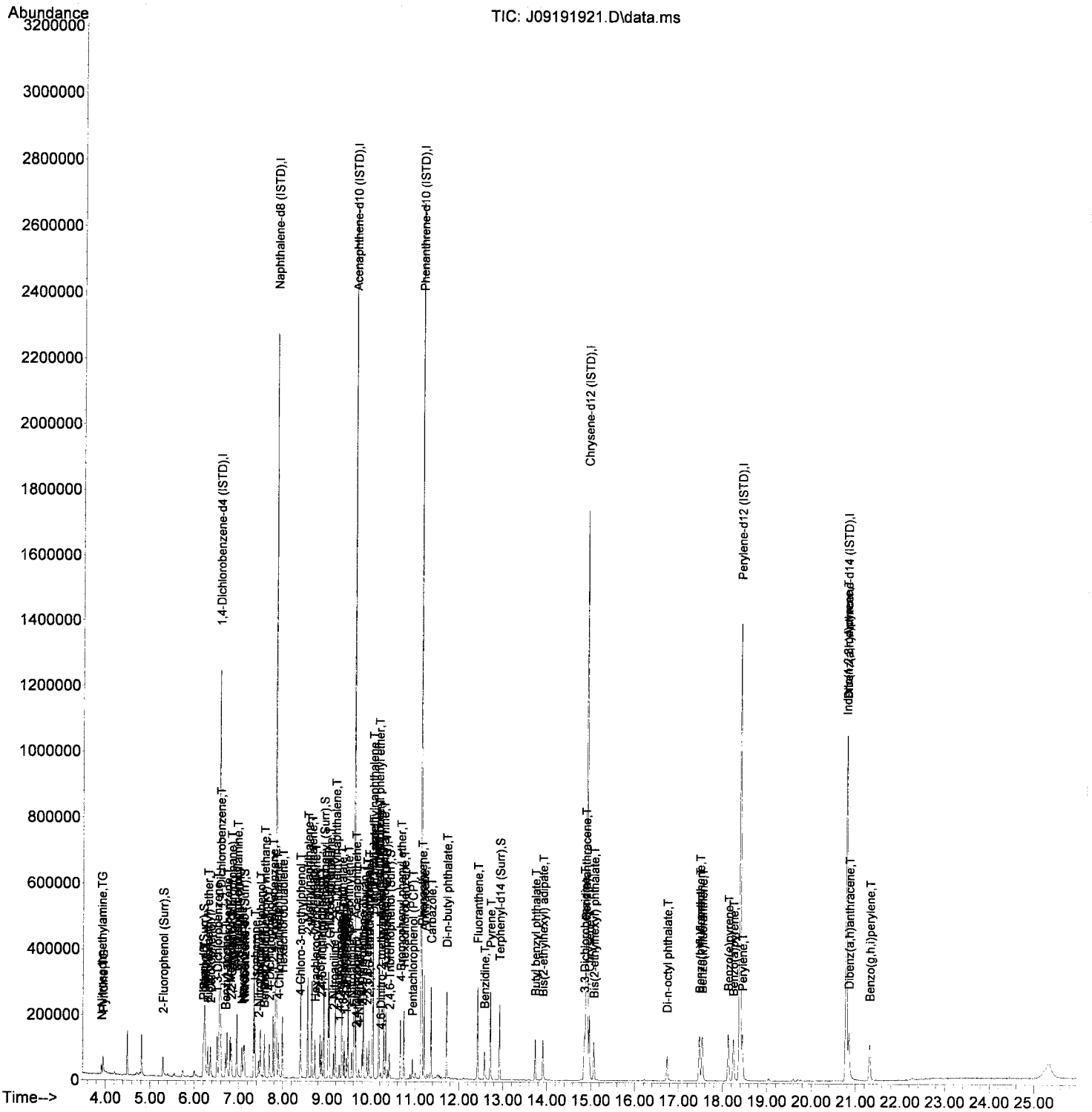
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	83.48
77.00	72.00	58.50
0.00	0.00	0.00

JK 9/20/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191921.D
Acq On : 20 Sep 2019 3:09 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL4
Misc : 1x, A19G241@200
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:34 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	299020	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1217422	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.617	162	625555	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1123094	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.917	240	1146727	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1149483	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.795	292	954508	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.306	112	95687	471.80	ng/ml	0.02
5) Phenol-d6(Surr)	6.204	99	124621	478.38	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	98184	411.28	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.927	172	272047	592.23	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	33701	639.58	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	285146	508.67	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.931	74	52485m	377.75	ng/ml#	
3) Pyridine	3.958	79	83583	352.88	ng/ml	96
6) Phenol	6.215	94	136576	461.22	ng/ml	97
7) Aniline	6.247	93	124901	471.84	ng/ml	97
8) Bis(2-chloroethyl) ether	6.306	93	115667	438.55	ng/ml	97
9) 2-Chlorophenol	6.365	128	113634	532.72	ng/ml	95
10) 1,3-Dichlorobenzene	6.514	146	126152	546.89	ng/ml	98
11) 1,4-Dichlorobenzene	6.589	146	123497	551.64	ng/ml	99
12) Benzyl alcohol	6.702	108	59263	433.38	ng/ml	97
13) 1,2-Dichlorobenzene	6.739	146	124976	555.38	ng/ml	99
14) 2-Methylphenol	6.808	107	86329	503.48	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	112933	331.95	ng/ml	97
16) N-Nitrosodi-n-propylamine	6.964	70	74700	432.29	ng/ml	99
17) 3+4-Methylphenol	6.958	107	107685	509.59	ng/ml	99
18) Hexachloroethane	7.076	201	36961	599.67	ng/ml	99
20) Nitrobenzene	7.129	77	100238	419.13	ng/ml	95
22) Isophorone	7.370	82	207804	470.36	ng/ml	99
23) 2-Nitrophenol	7.450	139	54694	414.23	ng/ml	98
24) 2,4-Dimethylphenol	7.488	122	86093	511.06	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.579	93	131344	533.62	ng/ml	98
26) Benzoic acid	7.605	105	979	314.37	ng/ml#	66
27) 2,4-Dichlorophenol	7.691	162	89833	615.41	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.777	180	113367	641.50	ng/ml	99
29) Naphthalene	7.857	128	361018	577.32	ng/ml	99
30) 4-Chloroaniline	7.905	127	106945	650.30	ng/ml	98
31) Hexachlorobutadiene	7.991	225	61063	647.92	ng/ml	98
32) 4-Chloro-3-methylphenol	8.386	107	84667	481.59	ng/ml	100
33) 2-Methylnaphthalene	8.557	142	253485	593.76	ng/ml	98
34) 1-Methylnaphthalene	8.659	142	244797	596.63	ng/ml	99
36) Hexachlorocyclopentadiene	8.723	237	51180	517.04	ng/ml	98
37) 2,4,6-Trichlorophenol	8.841	196	59985	553.45	ng/ml	98
38) 2,4,5-Trichlorophenol	8.873	198	59608	560.44	ng/ml	98
39) 1,1'-Biphenyl	9.028	154	300735	578.68	ng/ml	99
41) 2-Chloronaphthalene	9.050	162	223930	587.06	ng/ml	97
42) 2-Nitroaniline	9.146	138	55795	439.35	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.189	156	219677	564.67	ng/ml	99

See MJ

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

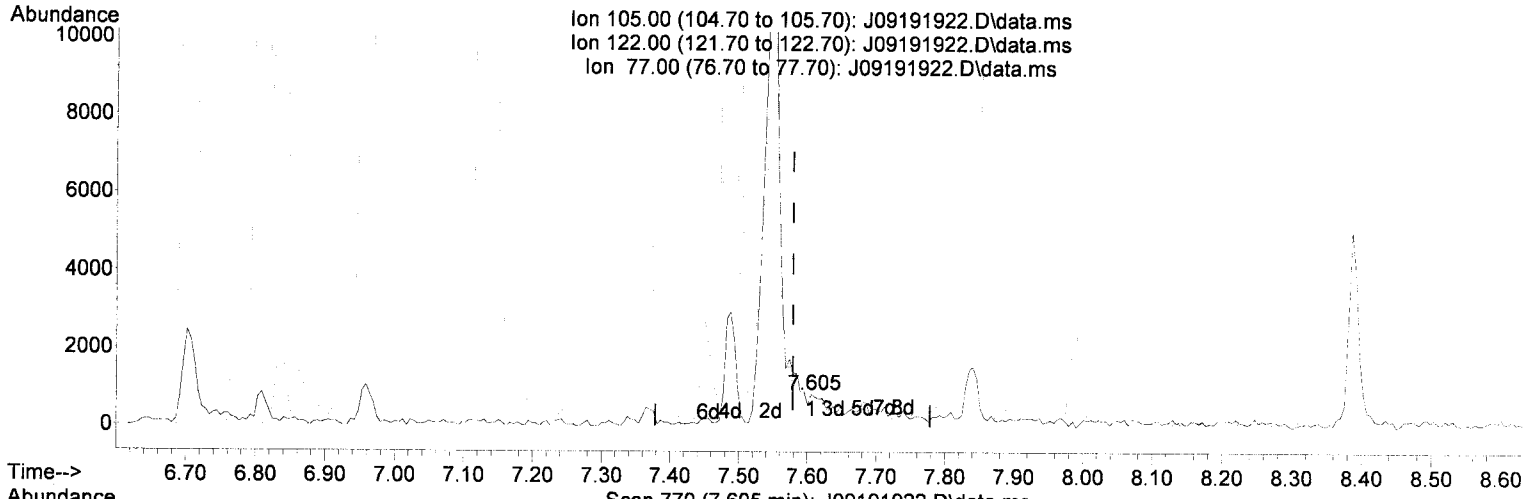
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	19841	334.66	ng/ml	93
45) Dimethyl phthalate	9.328	163	250192	559.21	ng/ml	100
46) 1,3-Dinitrobenzene	9.354	168	28132	413.82	ng/ml	96
47) 2,6-Dinitrotoluene	9.387	165	51160	531.66	ng/ml	94
48) 1,2-Dinitrobenzene	9.445	168	22807	506.03	ng/ml	94
49) Acenaphthylene	9.472	152	361152	590.67	ng/ml	99
50) 3-Nitroaniline	9.558	138	44178	446.02	ng/ml	100
51) Acenaphthene	9.649	153	224540	566.51	ng/ml	99
52) 2,4-Dinitrophenol	9.665	184	4568	255.77	ng/ml	95
53) 4-Nitrophenol	9.723	139	25654	375.44	ng/ml	94
54) 2,4-Dinitrotoluene	9.798	165	57760	466.41	ng/ml	98
55) Dibenzofuran	9.825	168	310051	573.66	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.905	232	46260	542.89	ng/ml	99
57) 2,3,4,6-Tetrachlorophenol	9.948	232	50476	572.73	ng/ml	99
58) Diethyl phthalate	10.044	149	232776	545.61	ng/ml	99
59) 2,3,5-Trimethylnaphtha...	10.034	170	199252	576.75	ng/ml	99
60) Fluorene	10.173	166	244304	573.93	ng/ml	97
61) 4-Chlorophenyl phenyl ...	10.167	204	117369	593.31	ng/ml	99
62) 4-Nitroaniline	10.178	138	36541	423.99	ng/ml	96
63) 4,6-Dinitro-2-methylph...	10.216	198	14208	319.68	ng/ml	90
65) N-Nitrosodiphenylamine	10.285	169	197334	571.35	ng/ml	99
66) Azobenzene (1,2-DPH)	10.328	77	199437	435.30	ng/ml	99
68) 4-Bromophenyl phenyl e...	10.670	248	66857	578.28	ng/ml	97
69) Hexachlorobenzene	10.745	284	82813	622.55	ng/ml	99
70) Pentachlorophenol (PCP)	10.938	266	30348	512.59	ng/ml	94
71) Phenanthrene	11.157	178	343840	559.91	ng/ml	98
72) Anthracene	11.205	178	335865	555.84	ng/ml	99
73) Carbazole	11.366	167	281210	563.69	ng/ml	99
74) Di-n-butyl phthalate	11.719	149	369981	528.41	ng/ml	99
75) Fluoranthene	12.425	202	369455	575.22	ng/ml	98
76) Benzidine	12.580	184	152022	962.70	ng/ml	100
77) Pyrene	12.713	202	375136	584.68	ng/ml	99
80) Butyl benzyl phthalate	13.735	149	139695	388.99	ng/ml	98
81) Bis(2-ethylhexyl) adipate	13.911	129	126449	392.82	ng/ml	98
82) 3,3-Dichlorobenzidine	14.858	252	110907	1341.90	ng/ml	97
83) Benz(a)anthracene	14.890	228	327557	487.16	ng/ml	98
84) Chrysene	14.970	228	313539	505.43	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.077	149	202494	426.28	ng/ml	96
87) Di-n-octyl phthalate	16.746	149	281414	361.89	ng/ml	98
88) Benzo(b)fluoranthene	17.479	252	318669	457.74	ng/ml	99
89) Benzo(k)fluoranthene	17.543	252	321918	487.31	ng/ml	99
90) Benzo(b+k)fluoranthene	17.543	252	653019	943.99	ng/ml	99
91) Benzo(e)pyrene	18.132	252	316818	464.95	ng/ml	99
92) Benzo(a)pyrene	18.249	252	295305	471.49	ng/ml	97
93) Perylene	18.452	252	273199	460.10	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.784	276	279363	520.62	ng/ml	99
96) Dibenz(a,h)anthracene	20.859	278	270778	562.60	ng/ml	97
97) Benzo(g,h,i)perylene	21.325	276	291609	564.45	ng/ml	96

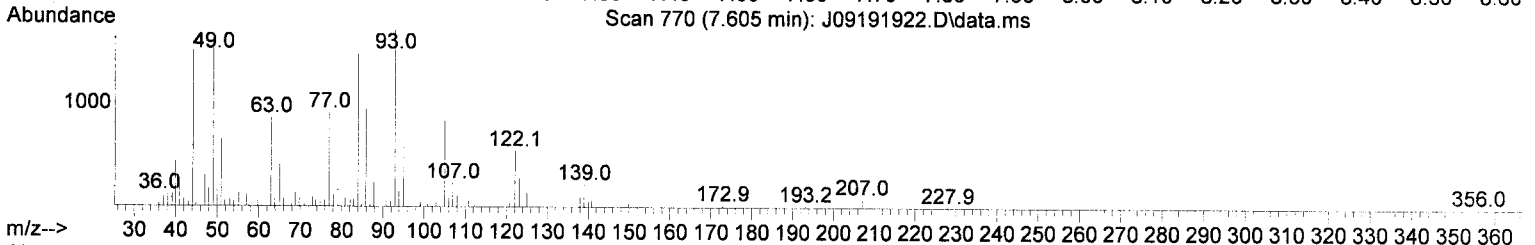
(#) = qualifier out of range (m) = manual integration (+) = signals summed

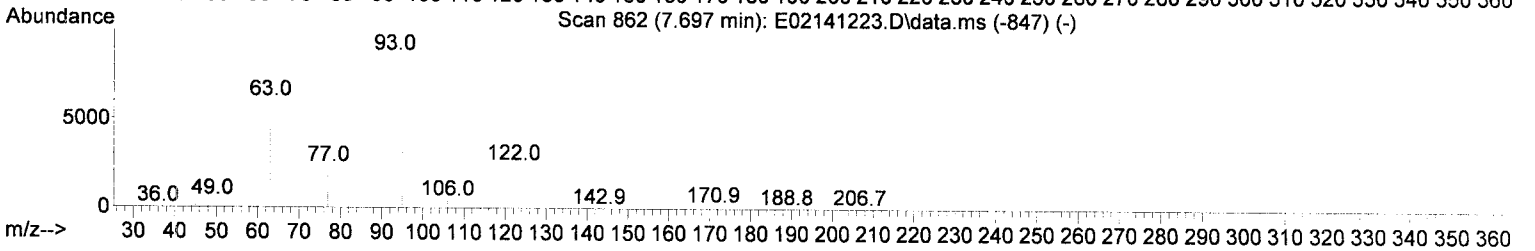
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191922.D\data.ms

(26) Benzoic acid (T)

7.605min (+ 0.027) 314.37 ng/ml

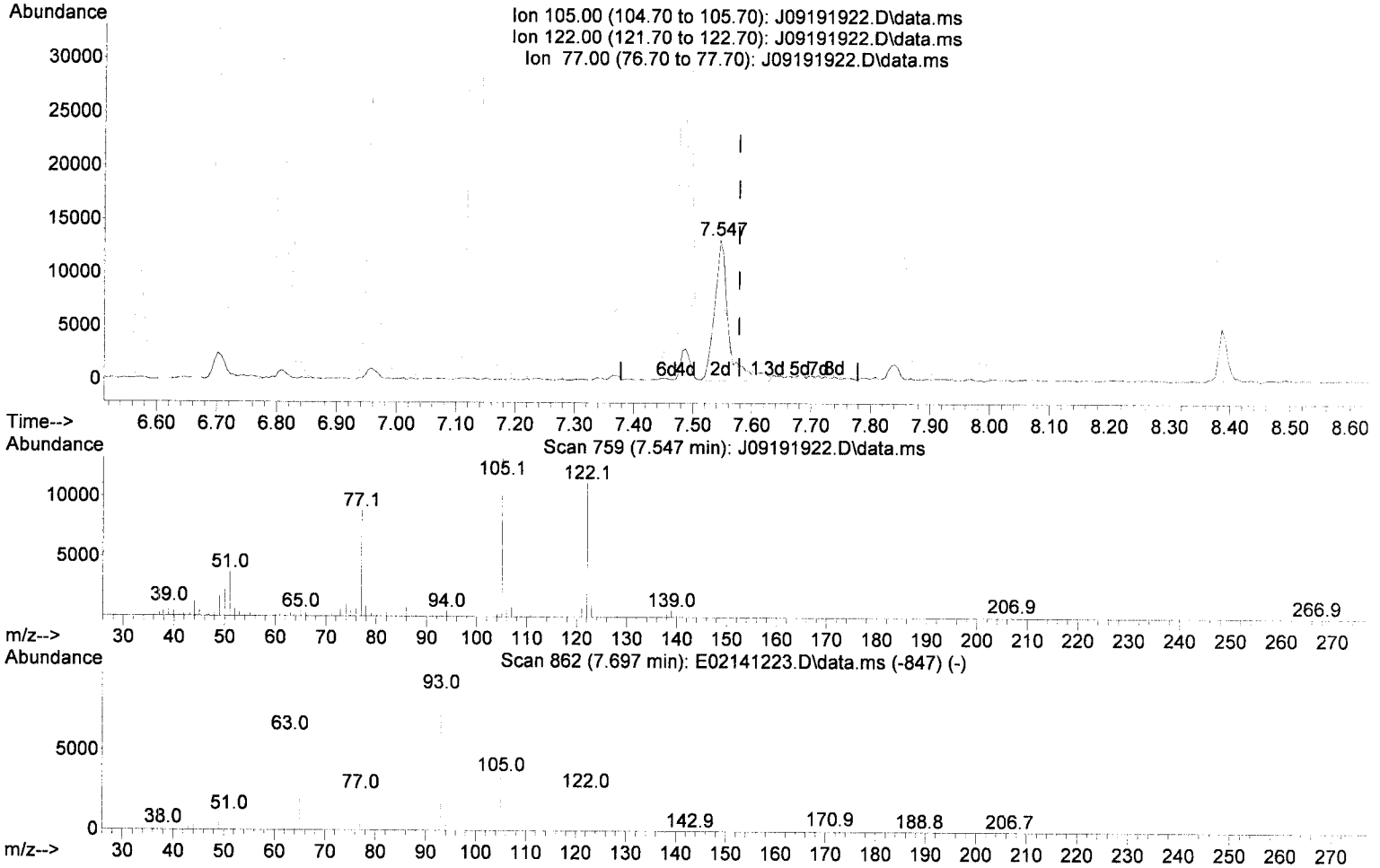
response 979

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	66.67
77.00	72.00	109.78#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191922.D\data.ms

(26) Benzoic acid (T)

7.547min (-0.032) 552.34 ng/ml m

response 22389

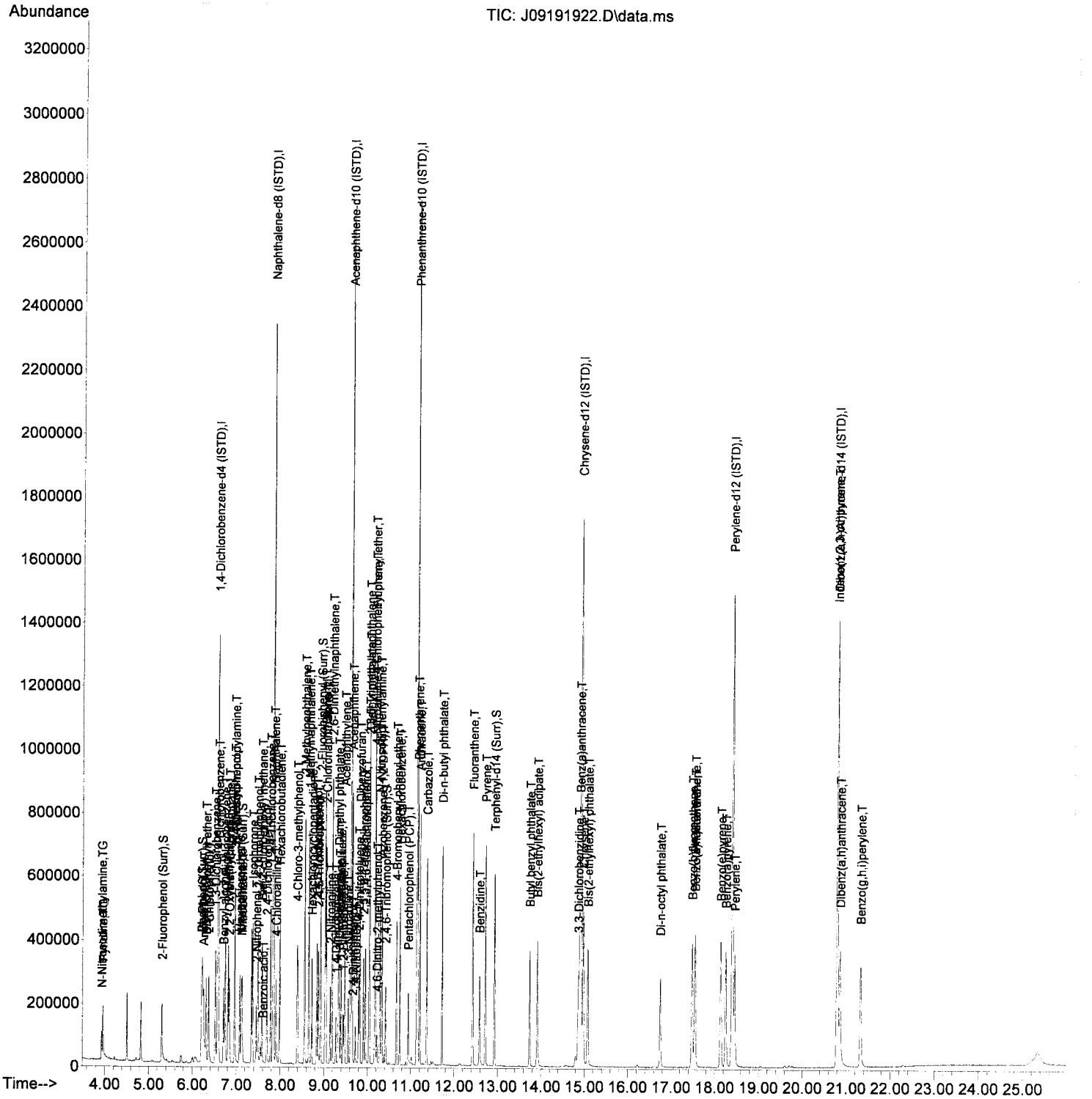
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	83.94
77.00	72.00	66.43
0.00	0.00	0.00

9/20/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191922.D
Acq On : 20 Sep 2019 3:44 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL5
Misc : 1x, A19G242@500
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:39 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191923.D
Acq On : 20 Sep 2019 4:19 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL6
Misc : 1x, A19G243@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:43 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JJ2 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	283511	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.835	136	1143968	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.616	162	583825	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.135	188	1065192	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.917	240	1048464	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.399	264	1042709	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.795	292	886236	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.289	112	179108	931.44	ng/ml	0.00
5) Phenol-d6(Surr)	6.204	99	238398	965.20	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	187377	827.84	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	482290	1124.97	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	65055	1301.74	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.922	244	507926	991.00	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.883	74	104763m	795.26	ng/ml	
3) Pyridine	3.904	79	182180	811.23	ng/ml	100
6) Phenol	6.215	94	261231	930.43	ng/ml	100
7) Aniline	6.241	93	189393	754.62	ng/ml	100
8) Bis(2-chloroethyl) ether	6.306	93	237931	951.45	ng/ml	100
9) 2-Chlorophenol	6.364	128	213396	1055.12	ng/ml	100
10) 1,3-Dichlorobenzene	6.514	146	230358	1053.27	ng/ml	100
11) 1,4-Dichlorobenzene	6.584	146	229877	1082.99	ng/ml	100
12) Benzyl alcohol	6.701	108	124850	962.84	ng/ml	100
13) 1,2-Dichlorobenzene	6.739	146	227139	1064.59	ng/ml	100
14) 2-Methylphenol	6.808	107	162716	1000.89	ng/ml	100
15) 2,2'-Oxybis(1-Chloropr...	6.835	45	204366	633.56	ng/ml	100
16) N-Nitrosodi-n-propylamine	6.963	70	136460	832.90	ng/ml	100
17) 3+4-Methylphenol	6.958	107	206745	1031.88	ng/ml	100
18) Hexachloroethane	7.076	201	68545	1172.94	ng/ml	100
20) Nitrobenzene	7.129	77	188065	829.39	ng/ml	100
22) Isophorone	7.370	82	377941	910.39	ng/ml	100
23) 2-Nitrophenol	7.450	139	114845	900.33	ng/ml	100
24) 2,4-Dimethylphenol	7.488	122	164250	1037.61	ng/ml	100
25) Bis(2-chloroethoxy) me...	7.579	93	236290	1021.63	ng/ml	100
26) Benzoic acid	7.579	105	99342	1429.28	ng/ml	100
27) 2,4-Dichlorophenol	7.691	162	173249	1263.07	ng/ml	100
28) 1,2,4-Trichlorobenzene	7.782	180	206953	1246.26	ng/ml	100
29) Naphthalene	7.857	128	638989	1087.45	ng/ml	100
30) 4-Chloroaniline	7.905	127	199585	1281.62	ng/ml	100
31) Hexachlorobutadiene	7.990	225	113762	1284.60	ng/ml	100
32) 4-Chloro-3-methylphenol	8.386	107	162469	983.46	ng/ml	100
33) 2-Methylnaphthalene	8.557	142	453493	1130.47	ng/ml	100
34) 1-Methylnaphthalene	8.659	142	430139	1115.66	ng/ml	100
36) Hexachlorocyclopentadiene	8.728	237	99801	1080.30	ng/ml	100
37) 2,4,6-Trichlorophenol	8.841	196	117480	1142.89	ng/ml	100
38) 2,4,5-Trichlorophenol	8.873	198	113799	1146.42	ng/ml	100
39) 1,1'-Biphenyl	9.028	154	533233	1099.40	ng/ml	100
41) 2-Chloronaphthalene	9.049	162	386877	1086.74	ng/ml	100
42) 2-Nitroaniline	9.146	138	113482	957.47	ng/ml	100
43) 2,6-Dimethylnaphthalene	9.188	156	389863	1073.75	ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191923.D
Acq On : 20 Sep 2019 4:19 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL6
Misc : 1x, A19G243@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:43 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

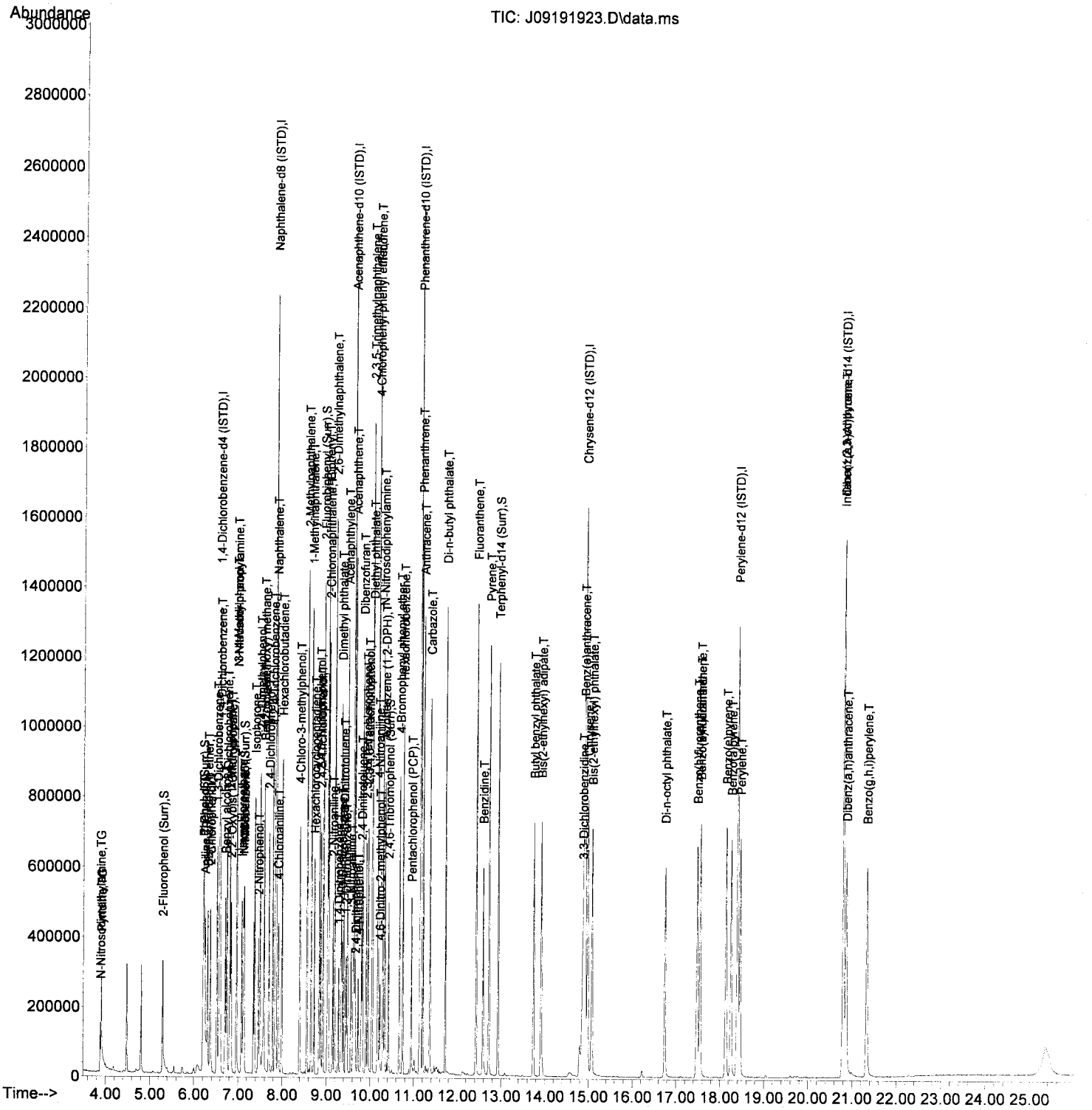
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	44207	798.94	ng/ml	100
45) Dimethyl phthalate	9.333	163	449574	1076.67	ng/ml	100
46) 1,3-Dinitrobenzene	9.354	168	57342	903.80	ng/ml	100
47) 2,6-Dinitrotoluene	9.392	165	97373	1084.24	ng/ml	100
48) 1,2-Dinitrobenzene	9.445	168	45222	1075.08	ng/ml	100
49) Acenaphthylene	9.472	152	637470	1117.11	ng/ml	100
50) 3-Nitroaniline	9.563	138	76212	868.39	ng/ml	100
51) Acenaphthene	9.648	153	399993	1081.31	ng/ml	100
52) 2,4-Dinitrophenol	9.664	184	18042	611.46	ng/ml	100
53) 4-Nitrophenol	9.723	139	58727	860.32	ng/ml	100
54) 2,4-Dinitrotoluene	9.798	165	116247	1005.79	ng/ml	100
55) Dibenzofuran	9.825	168	550893	1092.13	ng/ml	100
56) 2,3,5,6-Tetrachlorophenol	9.905	232	91879	1120.36	ng/ml	100
57) 2,3,4,6-Tetrachlorophenol	9.948	232	101167	1210.65	ng/ml	100
58) Diethyl phthalate	10.050	149	426259	1070.54	ng/ml	100
59) 2,3,5-Trimethylnaphtha...	10.039	170	355247	1101.79	ng/ml	100
60) Fluorene	10.173	166	426158	1072.71	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.167	204	209713	1135.90	ng/ml	100
62) 4-Nitroaniline	10.183	138	63138	784.97	ng/ml	100
63) 4,6-Dinitro-2-methylph...	10.215	198	38878	789.70	ng/ml	100
65) N-Nitrosodiphenylamine	10.285	169	350586	1070.25	ng/ml	100
66) Azobenzene (1,2-DPH)	10.328	77	355316	817.68	ng/ml	100
68) 4-Bromophenyl phenyl e...	10.670	248	125621	1145.62	ng/ml	100
69) Hexachlorobenzene	10.745	284	152211	1206.46	ng/ml	100
70) Pentachlorophenol (PCP)	10.943	266	65122	1104.57	ng/ml	100
71) Phenanthrene	11.157	178	610421	1048.04	ng/ml	100
72) Anthracene	11.210	178	608748	1062.21	ng/ml	100
73) Carbazole	11.365	167	458747	969.56	ng/ml	100
74) Di-n-butyl phthalate	11.718	149	683398	1029.09	ng/ml	100
75) Fluoranthene	12.424	202	669325	1098.75	ng/ml	100
76) Benzidine	12.579	184	302104	1915.60	ng/ml	100
77) Pyrene	12.713	202	683508	1123.21	ng/ml	100
80) Butyl benzyl phthalate	13.735	149	279356	850.79	ng/ml	100
81) Bis(2-ethylhexyl) adipate	13.911	129	247877	842.20	ng/ml	100
82) 3,3-Dichlorobenzidine	14.863	252	174855	2557.16	ng/ml	100
83) Benz(a)anthracene	14.890	228	577553	939.46	ng/ml	100
84) Chrysene	14.976	228	556735	981.53	ng/ml	100
85) Bis(2-ethylhexyl) phth...	15.072	149	389483	896.77	ng/ml	100
87) Di-n-octyl phthalate	16.746	149	592055	790.12	ng/ml	100
88) Benzo(b)fluoranthene	17.479	252	578435	915.96	ng/ml	100
89) Benzo(k)fluoranthene	17.548	252	582389	971.88	ng/ml	100
90) Benzo(b+k)fluoranthene	17.548	252	1182652	1884.67	ng/ml	100
91) Benzo(e)pyrene	18.137	252	576088	932.03	ng/ml	100
92) Benzo(a)pyrene	18.254	252	535317	942.21	ng/ml	100
93) Perylene	18.458	252	476752	885.12	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.790	276	510691	1025.03	ng/ml	100
96) Dibenz(a,h)anthracene	20.865	278	489557	1095.51	ng/ml	100
97) Benzo(g,h,i)perylene	21.325	276	538150	1121.91	ng/ml	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191923.D
Acq On : 20 Sep 2019 4:19 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL6
Misc : 1x, A19G243@1000
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:43 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191924.D
Acq On : 20 Sep 2019 4:54 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL7
Misc : 1x, A19G244@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:48 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	285023	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1095362	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.622	162	586466	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.135	188	1091855	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.922	240	1089712	2000.00	ng/ml	0.00
86) Perylene-d12 (ISTD)	18.404	264	1076142	2000.00	ng/ml	0.00
94) Dibenz(a,h)Anthrcene-d...	20.800	292	949148	2000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.305	112	379802	1964.65	ng/ml	0.02
5) Phenol-d6(Surr)	6.209	99	477001	1920.99	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	365358	1605.60	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.926	172	917452	2130.37	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.424	330	142266	2777.20	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.927	244	1038865	1950.18	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.941	74	217151	1639.66	ng/ml	99
3) Pyridine	3.958	79	392152m	1736.94	ng/ml	
6) Phenol	6.220	94	506313	1793.78	ng/ml	98
7) Aniline	6.252	93	321662	1274.83	ng/ml	97
8) Bis(2-chloroethyl) ether	6.311	93	501220	1993.67	ng/ml	99
9) 2-Chlorophenol	6.370	128	423147	2081.13	ng/ml	99
10) 1,3-Dichlorobenzene	6.519	146	464902	2114.40	ng/ml	99
11) 1,4-Dichlorobenzene	6.589	146	453326	2124.37	ng/ml	99
12) Benzyl alcohol	6.707	108	261354	2004.87	ng/ml	98
13) 1,2-Dichlorobenzene	6.744	146	442316	2062.13	ng/ml	99
14) 2-Methylphenol	6.814	107	318341	1947.77	ng/ml	96
15) 2,2'-Oxybis(1-Chloropr...	6.840	45	366117	1128.98	ng/ml	97
16) N-Nitrosodi-n-propylamine	6.969	70	256713	1558.56	ng/ml	99
17) 3+4-Methylphenol	6.963	107	399183	1981.79	ng/ml	98
18) Hexachloroethane	7.076	201	143490	2442.36	ng/ml	97
20) Nitrobenzene	7.135	77	365107	1601.63	ng/ml	98
22) Isophorone	7.375	82	734609	1848.05	ng/ml	100
23) 2-Nitrophenol	7.456	139	207149	1710.18	ng/ml	94
24) 2,4-Dimethylphenol	7.493	122	333523	2200.44	ng/ml	97
25) Bis(2-chloroethoxy) me...	7.584	93	449978	2031.87	ng/ml	99
26) Benzoic acid	7.611	105	311714	3637.31	ng/ml	96
27) 2,4-Dichlorophenol	7.691	162	350635	2669.74	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.782	180	388384	2442.61	ng/ml	100
29) Naphthalene	7.862	128	1178988	2095.46	ng/ml	99
30) 4-Chloroaniline	7.915	127	372183	2483.94	ng/ml	99
31) Hexachlorobutadiene	7.990	225	208693	2461.13	ng/ml	98
32) 4-Chloro-3-methylphenol	8.392	107	338452	2139.63	ng/ml	97
33) 2-Methylnaphthalene	8.557	142	857631	2232.77	ng/ml	98
34) 1-Methylnaphthalene	8.659	142	810434	2195.32	ng/ml	99
36) Hexachlorocyclopentadiene	8.723	237	213088	2296.19	ng/ml	97
37) 2,4,6-Trichlorophenol	8.841	196	248218	2364.26	ng/ml	100
38) 2,4,5-Trichlorophenol	8.873	198	245074	2457.78	ng/ml	99
39) 1,1'-Biphenyl	9.028	154	1010736	2074.51	ng/ml	98
41) 2-Chloronaphthalene	9.049	162	759926	2125.02	ng/ml	100
42) 2-Nitroaniline	9.151	138	248865	2090.27	ng/ml	95
43) 2,6-Dimethylnaphthalene	9.188	156	740663	2030.74	ng/ml	100

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191924.D
Acq On : 20 Sep 2019 4:54 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL7
Misc : 1x, A19G244@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:48 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

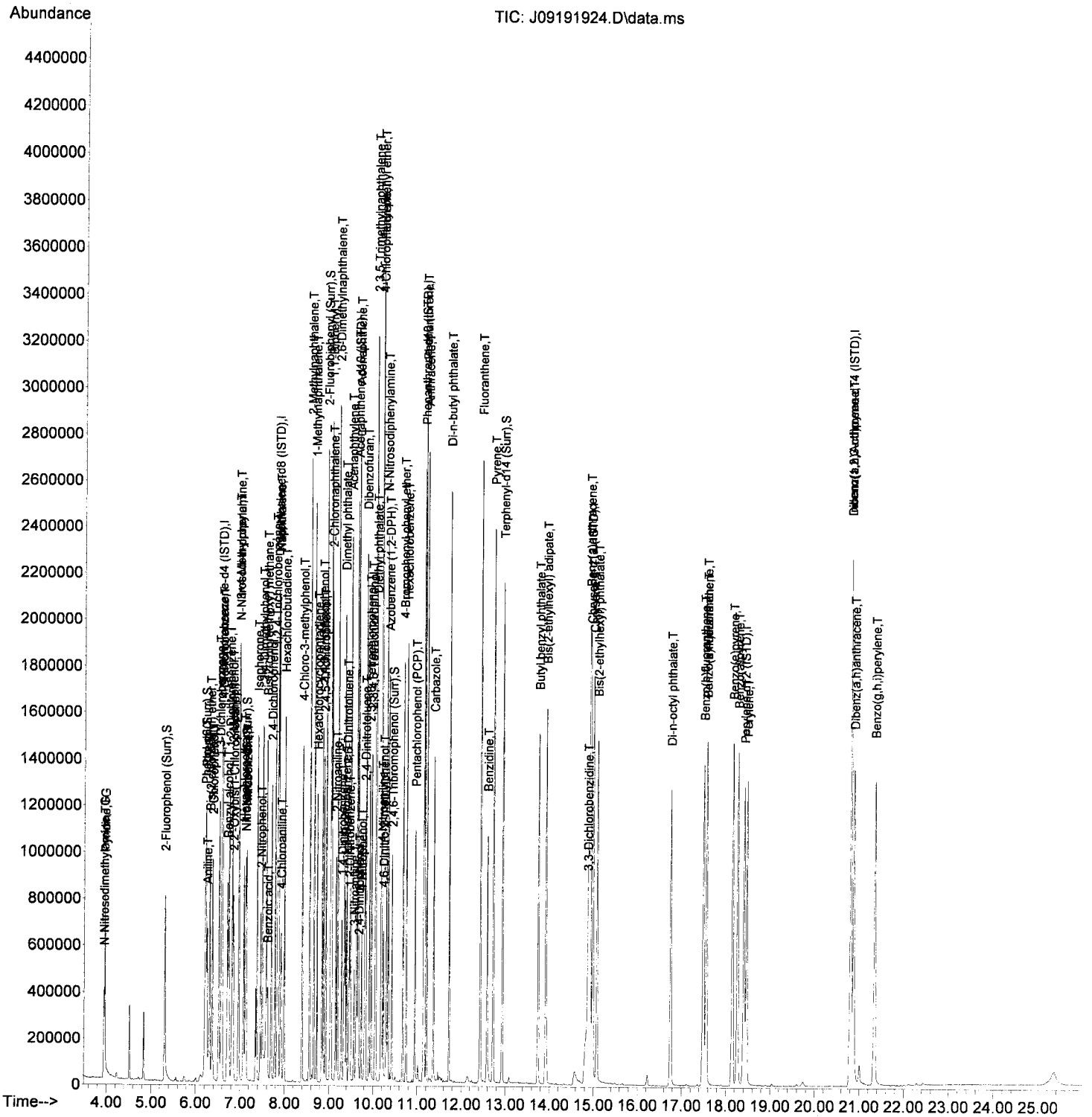
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.279	168	108019	1943.39	ng/ml	94
45) Dimethyl phthalate	9.338	163	868820	2071.34	ng/ml	99
46) 1,3-Dinitrobenzene	9.360	168	128986	2023.86	ng/ml	95
47) 2,6-Dinitrotoluene	9.392	165	201552	2234.16	ng/ml	96
48) 1,2-Dinitrobenzene	9.451	168	94079	2226.50	ng/ml	97
49) Acenaphthylene	9.477	152	1211941	2114.25	ng/ml	99
50) 3-Nitroaniline	9.563	138	114743	1447.64	ng/ml	96
51) Acenaphthene	9.654	153	770675	2074.00	ng/ml	99
52) 2,4-Dinitrophenol	9.670	184	58400	1570.56	ng/ml	93
53) 4-Nitrophenol	9.729	139	141903	1959.29	ng/ml	98
54) 2,4-Dinitrotoluene	9.804	165	257547	2218.31	ng/ml	97
55) Dibenzofuran	9.825	168	1086183	2143.62	ng/ml	98
56) 2,3,5,6-Tetrachlorophenol	9.905	232	201504	2389.21	ng/ml	99
57) 2,3,4,6-Tetrachlorophenol	9.953	232	213539	2500.78	ng/ml	97
58) Diethyl phthalate	10.055	149	811497	2028.87	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.039	170	685050	2115.10	ng/ml	99
60) Fluorene	10.178	166	812478	2035.94	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.173	204	412942	2226.61	ng/ml	94
62) 4-Nitroaniline	10.189	138	129234	1599.47	ng/ml	95
63) 4,6-Dinitro-2-methylph...	10.221	198	101854	1883.45	ng/ml	99
65) N-Nitrosodiphenylamine	10.290	169	659355	1963.69	ng/ml	97
66) Azobenzene (1,2-DPH)	10.333	77	684303	1536.31	ng/ml	93
68) 4-Bromophenyl phenyl e...	10.670	248	256334	2280.59	ng/ml	96
69) Hexachlorobenzene	10.750	284	304969	2358.22	ng/ml	98
70) Pentachlorophenol (PCP)	10.943	266	154858	2438.76	ng/ml	99
71) Phenanthrene	11.157	178	1191270	1995.35	ng/ml	99
72) Anthracene	11.210	178	1187408	2021.38	ng/ml	98
73) Carbazole	11.365	167	646631	1333.27	ng/ml	99
74) Di-n-butyl phthalate	11.718	149	1348435	1980.94	ng/ml	100
75) Fluoranthene	12.430	202	1341415	2148.26	ng/ml	98
76) Benzidine	12.585	184	601547	3540.61	ng/ml	100
77) Pyrene	12.719	202	1337637	2144.45	ng/ml	98
80) Butyl benzyl phthalate	13.740	149	621242	1820.39	ng/ml	96
81) Bis(2-ethylhexyl) adipate	13.917	129	551677	1803.46	ng/ml	99
82) 3,3-Dichlorobenzidine	14.863	252	281736	4236.61	ng/ml	94
83) Benz(a)anthracene	14.895	228	1225586	1918.11	ng/ml	99
84) Chrysene	14.981	228	1148470	1948.23	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.077	149	846014	1874.18	ng/ml	98
87) Di-n-octyl phthalate	16.746	149	1439135	1774.42	ng/ml	99
88) Benzo(b)fluoranthene	17.490	252	1267321	1944.46	ng/ml	99
89) Benzo(k)fluoranthene	17.554	252	1256906	2032.34	ng/ml	98
90) Benzo(b+k)fluoranthene	17.554	252	2563432	3958.17	ng/ml	98
91) Benzo(e)pyrene	18.142	252	1218818	1910.61	ng/ml	98
92) Benzo(a)pyrene	18.260	252	1174506	2003.02	ng/ml	99
93) Perylene	18.468	252	1026574	1846.69	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.800	276	1143875	2143.74	ng/ml	99
96) Dibenz(a,h)anthracene	20.875	278	1087002	2271.22	ng/ml	97
97) Benzo(g,h,i)perylene	21.341	276	1186793	2310.18	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191924.D
Acq On : 20 Sep 2019 4:54 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL7
Misc : 1x, A19G244@2000
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:48 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	305814	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1197569	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.622	162	636039	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.135	188	1224924	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.938	240	1138264	2000.00	ng/ml	0.02
86) Perylene-d12 (ISTD)	18.420	264	1185024	2000.00	ng/ml	0.02
94) Dibenz(a,h)Anthrcene-d...	20.827	292	1037191	2000.00	ng/ml	0.03
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.305	112	844515	4071.54	ng/ml	0.02
5) Phenol-d6(Surr)	6.215	99	1043086	3915.14	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.124	82	786633	3221.91	ng/ml	0.01
40) 2-Fluorobiphenyl (Surr)	8.932	172	1718307	3679.02	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.429	330	305471	5315.35	ng/ml	0.01
79) Terphenyl-d14 (Surr)	12.938	244	2102593	3778.67	ng/ml	0.02
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.925	74	480484	3381.37	ng/ml	99
3) Pyridine	3.942	79	866960	3578.93	ng/ml	99
6) Phenol	6.231	94	1097096	3622.58	ng/ml	98
7) Aniline	6.252	93	840844	3105.93	ng/ml	96
8) Bis(2-chloroethyl) ether	6.316	93	962255	3567.28	ng/ml	99
9) 2-Chlorophenol	6.370	128	902056	4134.88	ng/ml	98
10) 1,3-Dichlorobenzene	6.520	146	965051	4090.70	ng/ml	99
11) 1,4-Dichlorobenzene	6.589	146	926647	4047.22	ng/ml	99
12) Benzyl alcohol	6.712	108	581465	4157.22	ng/ml	99
13) 1,2-Dichlorobenzene	6.744	146	906070	3937.01	ng/ml	99
14) 2-Methylphenol	6.814	107	646688	3687.77	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.840	45	739481	2125.28	ng/ml	94
16) N-Nitrosodi-n-propylamine	6.980	70	504346	2853.83	ng/ml	95
17) 3+4-Methylphenol	6.969	107	797964	3692.25	ng/ml	97
18) Hexachloroethane	7.076	201	311702	4944.82	ng/ml	98
20) Nitrobenzene	7.140	77	754990	3086.77	ng/ml	95
22) Isophorone	7.381	82	1524753	3508.45	ng/ml	100
23) 2-Nitrophenol	7.456	139	481353	3856.12	ng/ml	95
24) 2,4-Dimethylphenol	7.498	122	686286	4141.39	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.589	93	900203	3717.94	ng/ml	99
26) Benzoic acid	~~7.498~~	~~105~~	~~22439~~	~~556.08~~	~~ng/ml#~~	1
27) 2,4-Dichlorophenol	7.702	162	731346	5093.24	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.782	180	805154	4631.57	ng/ml	99
29) Naphthalene	7.862	128	2214900	3600.66	ng/ml	97
30) 4-Chloroaniline	7.926	127	663200	4035.49	ng/ml	99
31) Hexachlorobutadiene	7.990	225	442903	4777.41	ng/ml	97
32) 4-Chloro-3-methylphenol	8.392	107	698064	4036.41	ng/ml	97
33) 2-Methylnaphthalene	8.563	142	1625949	3871.75	ng/ml	97
34) 1-Methylnaphthalene	8.664	142	1521185	3768.94	ng/ml	99
36) Hexachlorocyclopentadiene	8.729	237	417829	4151.52	ng/ml	96
37) 2,4,6-Trichlorophenol	8.846	196	532499	4570.85	ng/ml	99
38) 2,4,5-Trichlorophenol	8.878	198	516958	4780.35	ng/ml	99
39) 1,1'-Biphenyl	9.033	154	1845876	3493.33	ng/ml	96
41) 2-Chloronaphthalene	9.055	162	1467799	3784.57	ng/ml	99
42) 2-Nitroaniline	9.156	138	528406	4092.28	ng/ml	94
43) 2,6-Dimethylnaphthalene	9.194	156	1385514	3502.70	ng/ml	97

See MS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.285	168	258106	4281.72	ng/ml	92
45) Dimethyl phthalate	9.349	163	1712764	3765.11	ng/ml	98
46) 1,3-Dinitrobenzene	9.370	168	289563	4189.29	ng/ml	93
47) 2,6-Dinitrotoluene	9.402	165	424265	4336.35	ng/ml	97
48) 1,2-Dinitrobenzene	9.467	168	202294	4414.41	ng/ml	92
49) Acenaphthylene	9.483	152	2224222	3577.77	ng/ml	97
50) 3-Nitroaniline	9.574	138	123216	1427.55	ng/ml	97
51) Acenaphthene	9.659	153	1433796	3557.81	ng/ml	99
52) 2,4-Dinitrophenol	9.675	184	174238	3652.38	ng/ml	99
53) 4-Nitrophenol	9.739	139	326661	3903.35	ng/ml	98
54) 2,4-Dinitrotoluene	9.814	165	555824	4414.31	ng/ml	93
55) Dibenzofuran	9.830	168	2040744	3713.59	ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.911	232	434819	4639.23	ng/ml	97
57) 2,3,4,6-Tetrachlorophenol	9.959	232	451267	4758.24	ng/ml	95
58) Diethyl phthalate	10.060	149	1534521	3537.53	ng/ml	96
59) 2,3,5-Trimethylnaphtha...	10.044	170	1276533	3634.12	ng/ml	98
60) Fluorene	10.183	166	1464263	3383.22	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.173	204	786385	3909.75	ng/ml	95
62) 4-Nitroaniline	10.199	138	281600	3213.60	ng/ml	99
63) 4,6-Dinitro-2-methylph...	10.232	198	258196	4046.65	ng/ml	96
65) N-Nitrosodiphenylamine	10.296	169	1182676	3139.61	ng/ml	98
66) Azobenzene (1,2-DPH)	10.338	77	1316342	2634.24	ng/ml	87
68) 4-Bromophenyl phenyl e...	10.675	248	546207	4331.66	ng/ml	97
69) Hexachlorobenzene	10.750	284	617226	4254.30	ng/ml	98
70) Pentachlorophenol (PCP)	10.943	266	363768	4791.33	ng/ml	99
71) Phenanthrene	11.162	178	2302690	3437.96	ng/ml	97
72) Anthracene	11.216	178	2312152	3508.40	ng/ml	96
73) Carbazole	11.371	167	858655	1578.11	ng/ml	99
74) Di-n-butyl phthalate	11.724	149	2651399	3471.94	ng/ml	98
75) Fluoranthene	12.435	202	2665095	3804.46	ng/ml	97
76) Benzidine	12.596	184	1506619	7251.57	ng/ml	99
77) Pyrene	12.729	202	2681088	3831.29	ng/ml	95
80) Butyl benzyl phthalate	13.751	149	1344154	3770.70	ng/ml	94
81) Bis(2-ethylhexyl) adipate	13.922	129	1183408	3703.61	ng/ml	99
82) 3,3-Dichlorobenzidine	~~14.879~~	~~252~~	~~448650~~	~~6944.09~~	~~ng/ml~~	~~96~~
83) Benz(a)anthracene	14.912	228	2538581	3803.56	ng/ml	99
84) Chrysene	15.003	228	2370714	3850.07	ng/ml	96
85) Bis(2-ethylhexyl) phth...	15.088	149	1799096	3815.54	ng/ml	97
87) Di-n-octyl phthalate	16.762	149	3203842	3414.68	ng/ml	99
88) Benzo(b)fluoranthene	17.516	252	2803227	3905.83	ng/ml	98
89) Benzo(k)fluoranthene	17.586	252	2555733	3752.77	ng/ml	99
90) Benzo(b+k)fluoranthene	17.586	252	5439284	7627.06	ng/ml	99
91) Benzo(e)pyrene	18.174	252	2630004	3743.97	ng/ml	99
92) Benzo(a)pyrene	18.292	252	2485829	3849.85	ng/ml	99
93) Perylene	18.500	252	2164033	3535.17	ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.838	276	2539375	4355.08	ng/ml	98
96) Dibenz(a,h)anthracene	20.902	278	2389624	4569.13	ng/ml	98
97) Benzo(g,h,i)perylene	21.378	276	2579448	4594.87	ng/ml	98

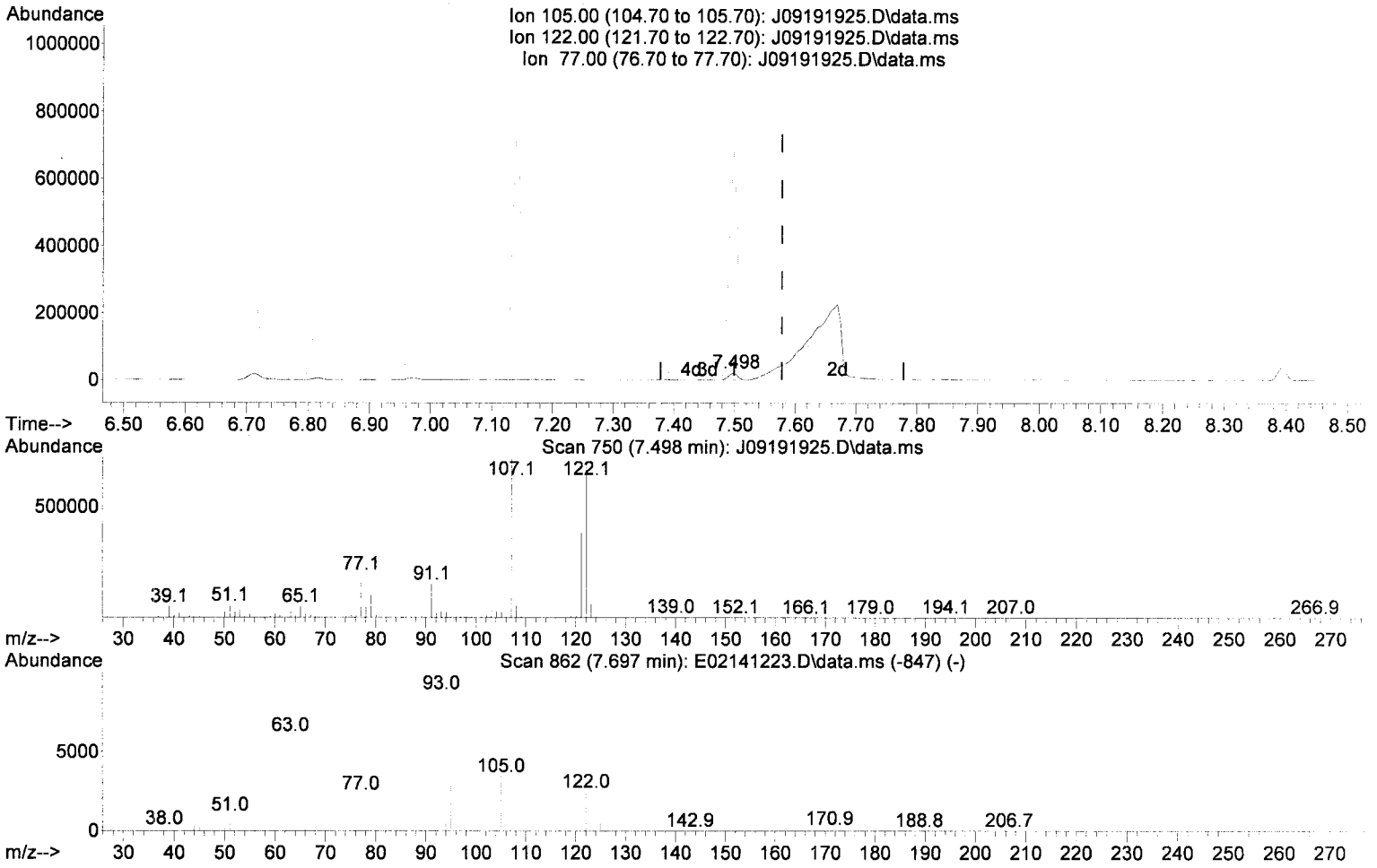
See MJ

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191925.D\data.ms

(26) Benzoic acid (T)

7.498min (-0.080) 556.98 ng/ml

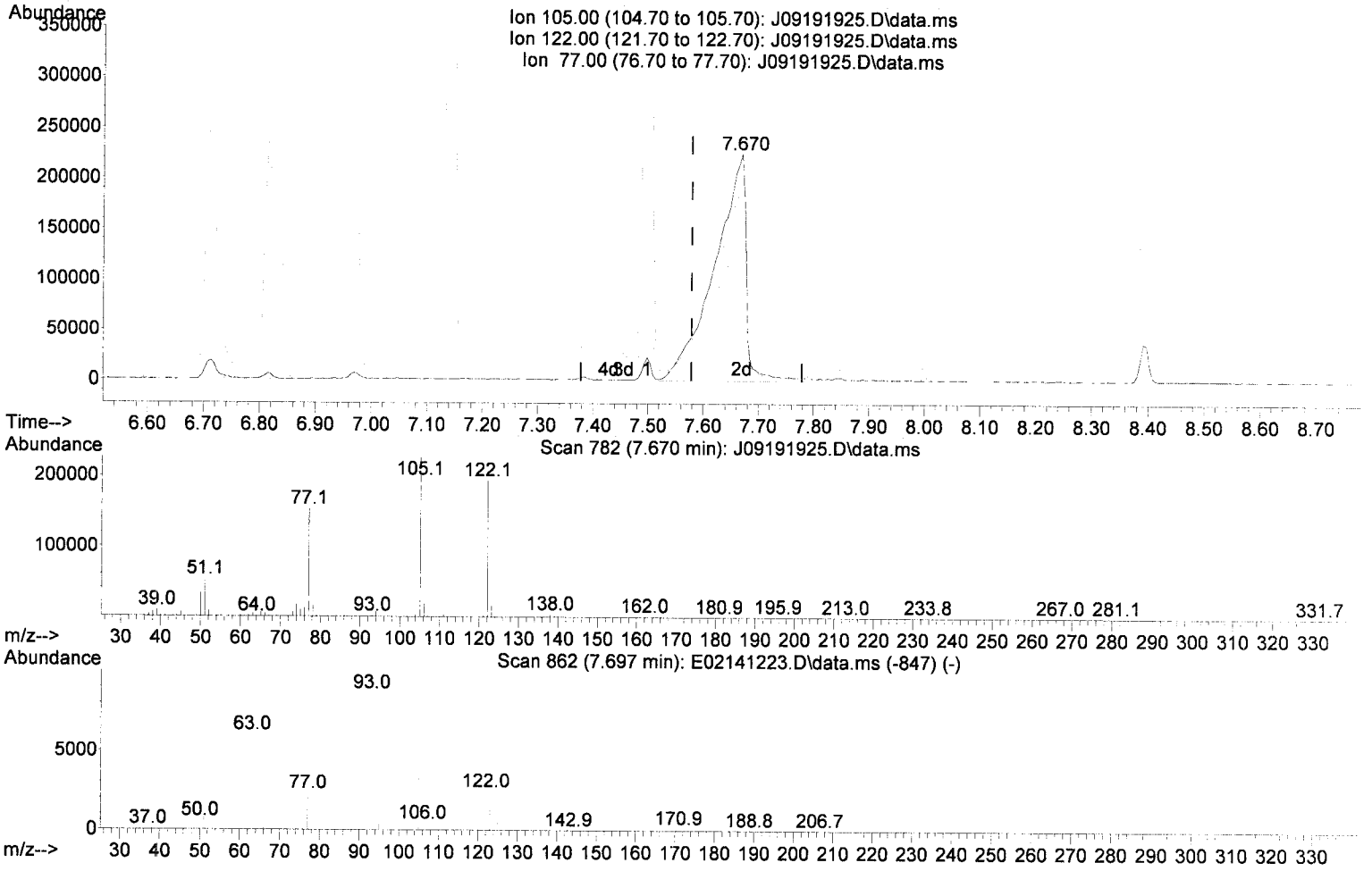
response 22439

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	2944.12#
77.00	72.00	841.49#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191925.D\data.ms

(26) Benzoic acid (T)

7.670min (+ 0.091) 7780.16 ng/ml m

response 902544

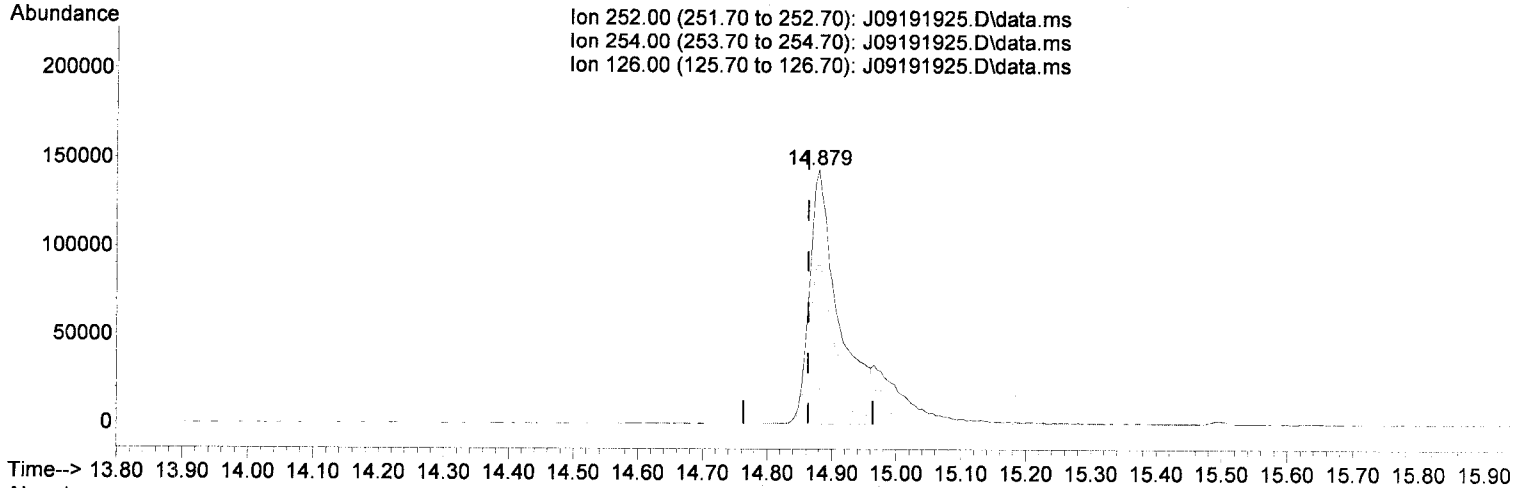
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	85.67
77.00	72.00	68.01
0.00	0.00	0.00

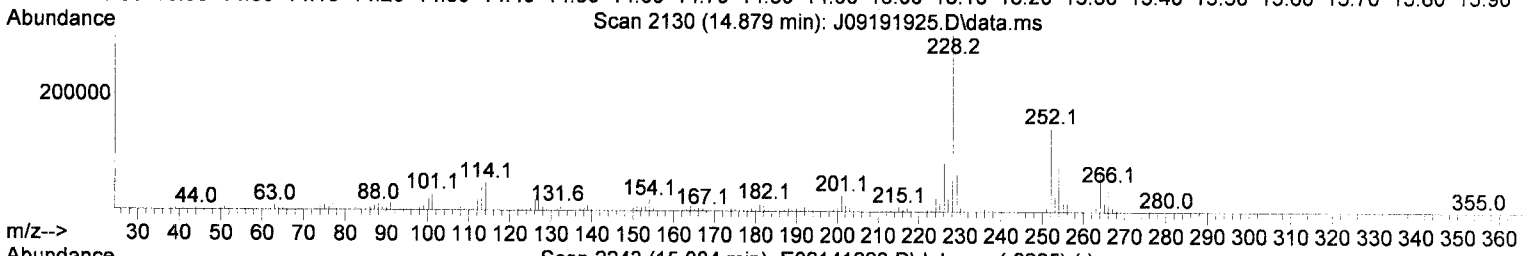
9/20/19

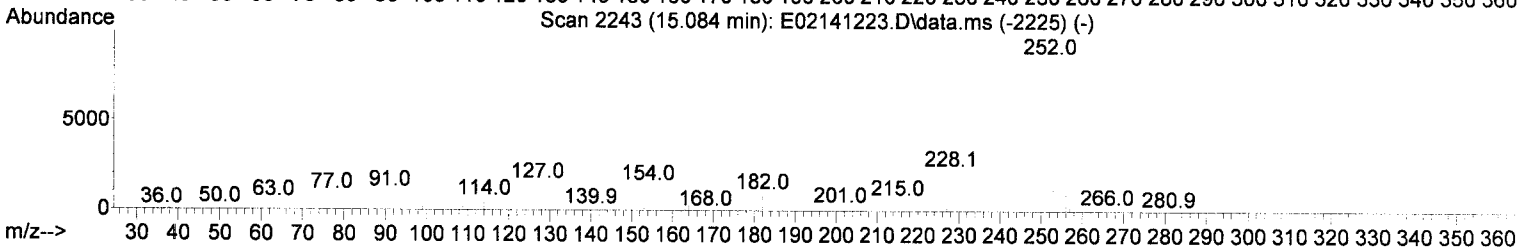
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191925.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.879min (+ 0.016) 6944.09 ng/ml

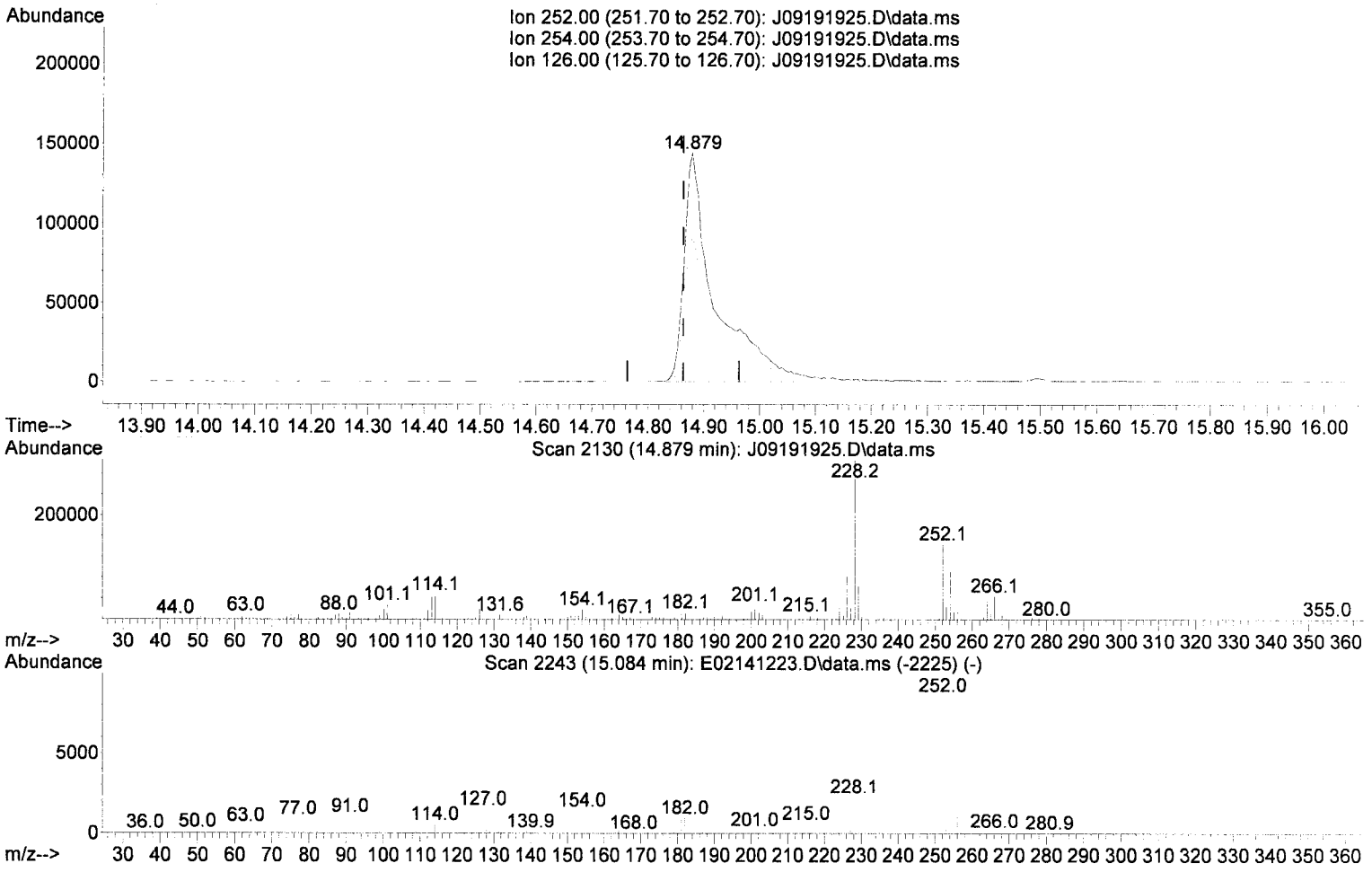
response 448650

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	63.38
126.00	12.00	13.81
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191925.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.879min (+ 0.016) 9026.86 ng/ml D 9/20/19

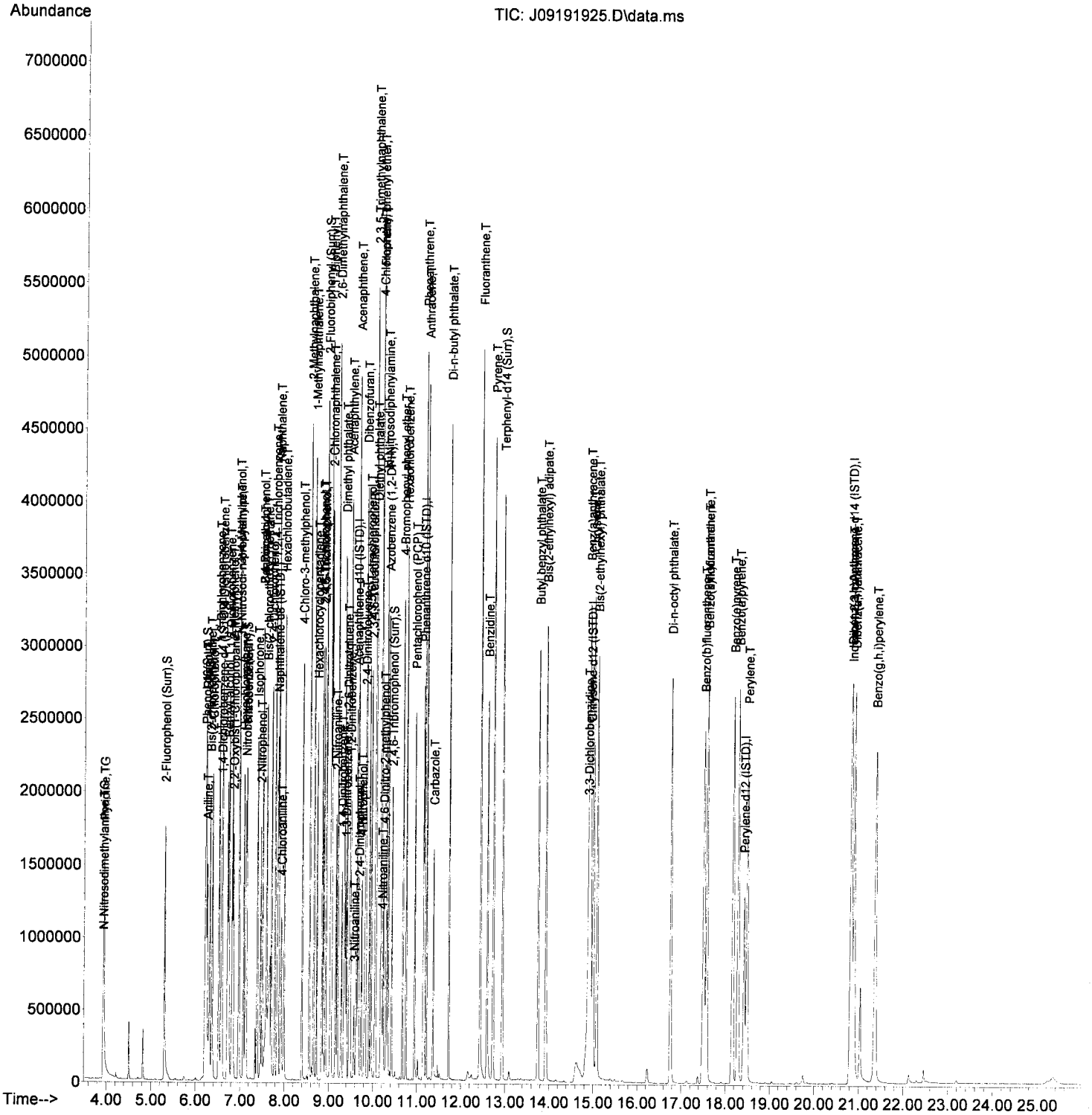
response 555604

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	63.38
126.00	12.00	13.81
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191925.D
Acq On : 20 Sep 2019 5:29 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL8
Misc : 1x, A19G245@4000
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:52 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.568	152	279602	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1094080	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.622	162	593235	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.141	188	1148482	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.944	240	1022230	2000.00	ng/ml	0.03
86) Perylene-d12 (ISTD)	18.426	264	1067597	2000.00	ng/ml	0.03
94) Dibenz(a,h)Anthrcene-d...	20.838	292	945822	2000.00	ng/ml	0.04
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.295	112	1150405	6066.23	ng/ml	0.00
5) Phenol-d6(Surr)	6.215	99	1391310	5711.74	ng/ml	0.01
19) Nitrobenzene-d5 (Surr)	7.124	82	1045001	4681.39	ng/ml	0.01
40) 2-Fluorobiphenyl (Surr)	8.932	172	2148364	4931.70	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.429	330	407389	7560.59	ng/ml	0.01
79) Terphenyl-d14 (Surr)	12.938	244	2699067	5401.22	ng/ml	0.02
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.883	74	674636m	5192.78	ng/ml	
3) Pyridine	3.893	79	1210013m	5463.38	ng/ml	
6) Phenol	6.231	94	1432862	5174.81	ng/ml	98
7) Aniline	6.252	93	1316393	5318.37	ng/ml	95
8) Bis(2-chloroethyl) ether	6.316	93	1158478	4697.35	ng/ml	99
9) 2-Chlorophenol	6.370	128	1211719	6075.04	ng/ml	99
10) 1,3-Dichlorobenzene	6.520	146	1260484	5843.89	ng/ml	100
11) 1,4-Dichlorobenzene	6.589	146	1202300	5743.45	ng/ml	99
12) Benzyl alcohol	6.712	108	768204	6007.21	ng/ml	98
13) 1,2-Dichlorobenzene	6.739	146	1159865	5512.26	ng/ml	99
14) 2-Methylphenol	6.819	107	839569	5236.51	ng/ml	98
15) 2,2'-Oxybis(1-Chloropr...	6.841	45	943818	2966.84	ng/ml	91
16) N-Nitrosodi-n-propylamine	6.985	70	644101	3986.31	ng/ml	94
17) 3+4-Methylphenol	6.974	107	997248	5046.94	ng/ml	99
18) Hexachloroethane	7.076	201	419784	7283.73	ng/ml	95
20) Nitrobenzene	7.145	77	977466	4371.02	ng/ml	92
22) Isophorone	7.386	82	2075603	5227.70	ng/ml	100
23) 2-Nitrophenol	7.461	139	659170	6267.15	ng/ml	93
24) 2,4-Dimethylphenol	7.504	122	932922	6162.23	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.589	93	1142883	5166.72	ng/ml	98
26) Benzoic acid	7.579	105	96795	1449.32	ng/ml	96 See MJ
27) 2,4-Dichlorophenol	7.702	162	943067	7188.94	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.787	180	1041502	6557.84	ng/ml	100
29) Naphthalene	7.867	128	2711030	4824.07	ng/ml	95
30) 4-Chloroaniline	7.926	127	906180	6017.35	ng/ml	100
31) Hexachlorobutadiene	7.996	225	570722	6738.45	ng/ml	98
32) 4-Chloro-3-methylphenol	8.397	107	912303	5774.18	ng/ml	93
33) 2-Methylnaphthalene	8.563	142	2034929	5303.97	ng/ml	97
34) 1-Methylnaphthalene	8.664	142	1893325	5134.69	ng/ml	98
36) Hexachlorocyclopentadiene	8.729	237	601203	6404.52	ng/ml	95
37) 2,4,6-Trichlorophenol	8.846	196	713503	6449.67	ng/ml	99
38) 2,4,5-Trichlorophenol	8.884	198	699105	6931.12	ng/ml	99
39) 1,1'-Biphenyl	9.039	154	2268485	4602.89	ng/ml	95
41) 2-Chloronaphthalene	9.060	162	1860060	5142.02	ng/ml	98
42) 2-Nitroaniline	9.162	138	739914	6143.79	ng/ml	93
43) 2,6-Dimethylnaphthalene	9.199	156	1742370	4722.69	ng/ml	98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.290	168	365105	6493.74 ng/ml	88
45) Dimethyl phthalate	9.354	163	2223667	5240.92 ng/ml	97
46) 1,3-Dinitrobenzene	9.381	168	407082	6314.46 ng/ml	91
47) 2,6-Dinitrotoluene	9.408	165	575872	6310.58 ng/ml	96
48) 1,2-Dinitrobenzene	9.472	168	266233	6228.85 ng/ml	93
49) Acenaphthylene	9.483	152	2704211	4663.72 ng/ml	95
50) 3-Nitroaniline	9.579	138	180797	Below Cal	97
51) Acenaphthene	9.659	153	1803278	4797.51 ng/ml	99
52) 2,4-Dinitrophenol	9.681	184	272053	5508.37 ng/ml	97
53) 4-Nitrophenol	9.745	139	467183	5690.24 ng/ml	97
54) 2,4-Dinitrotoluene	9.820	165	734363	6253.07 ng/ml	93
55) Dibenzofuran	9.836	168	2531005	4938.04 ng/ml	95
56) 2,3,5,6-Tetrachlorophenol	9.916	232	597064	6702.12 ng/ml	95
57) 2,3,4,6-Tetrachlorophenol	9.959	232	603345	6692.46 ng/ml	96
58) Diethyl phthalate	10.066	149	1916805	4737.64 ng/ml	94
59) 2,3,5-Trimethylnaphtha...	10.050	170	1592300	4860.15 ng/ml	97
60) Fluorene	10.189	166	1824399	4519.48 ng/ml	98
61) 4-Chlorophenyl phenyl ...	10.178	204	992417	5290.11 ng/ml	95
62) 4-Nitroaniline	10.205	138	385746	4719.73 ng/ml	97
63) 4,6-Dinitro-2-methylph...	10.237	198	377769	5981.86 ng/ml	95
65) N-Nitrosodiphenylamine	10.301	169	1569352	4443.39 ng/ml	97
66) Azobenzene (1,2-DPH)	10.339	77	1601806	3418.86 ng/ml	88
68) 4-Bromophenyl phenyl e...	10.681	248	726568	6145.51 ng/ml	92
69) Hexachlorobenzene	10.756	284	795928	5851.17 ng/ml	98
70) Pentachlorophenol (PCP)	10.948	266	500914	6716.78 ng/ml	99
71) Phenanthrene	11.168	178	2932288	4669.35 ng/ml	96
72) Anthracene	11.221	178	2907155	4704.86 ng/ml	96
73) Carbazole	11.371	167	1156567	2267.12 ng/ml	99
74) Di-n-butyl phthalate	11.729	149	3301933	4611.59 ng/ml	97
75) Fluoranthene	12.441	202	3417993	5203.99 ng/ml	96
76) Benzidine	12.601	184	2204013	10575.22 ng/ml	99
77) Pyrene	12.735	202	3436590	5237.78 ng/ml	95
80) Butyl benzyl phthalate	13.756	149	1779167	5557.56 ng/ml	93
81) Bis(2-ethylhexyl) adipate	13.933	129	1497303	5217.89 ng/ml	99
82) 3,3-Dichlorobenzidine	~~14.890~~	~~252~~	~~494238~~	~~8919.45 ng/ml~~	97
83) Benz(a)anthracene	14.917	228	3394067	5662.58 ng/ml	99
84) Chrysene	15.013	228	3095456	5597.68 ng/ml	97
85) Bis(2-ethylhexyl) phth...	15.093	149	2338505	5522.48 ng/ml	96
87) Di-n-octyl phthalate	16.773	149	4149203	4742.46 ng/ml	99
88) Benzo(b)fluoranthene	17.522	252	3768759	5828.72 ng/ml	99
89) Benzo(k)fluoranthene	17.602	252	3115398	5077.74 ng/ml	99
90) Benzo(b+k)fluoranthene	17.602	252	7129046	11096.00 ng/ml	99
91) Benzo(e)pyrene	18.185	252	3489142	5513.34 ng/ml	99
92) Benzo(a)pyrene	18.308	252	3235783	5562.53 ng/ml	100
93) Perylene	18.511	252	2908580	5274.09 ng/ml	99
95) Indeno(1,2,3-cd)pyrene	20.854	276	3489319	6562.35 ng/ml	97
96) Dibenz(a,h)anthracene	20.913	278	3129173	6561.19 ng/ml	99
97) Benzo(g,h,i)perylene	21.389	276	3417702	6676.22 ng/ml	97

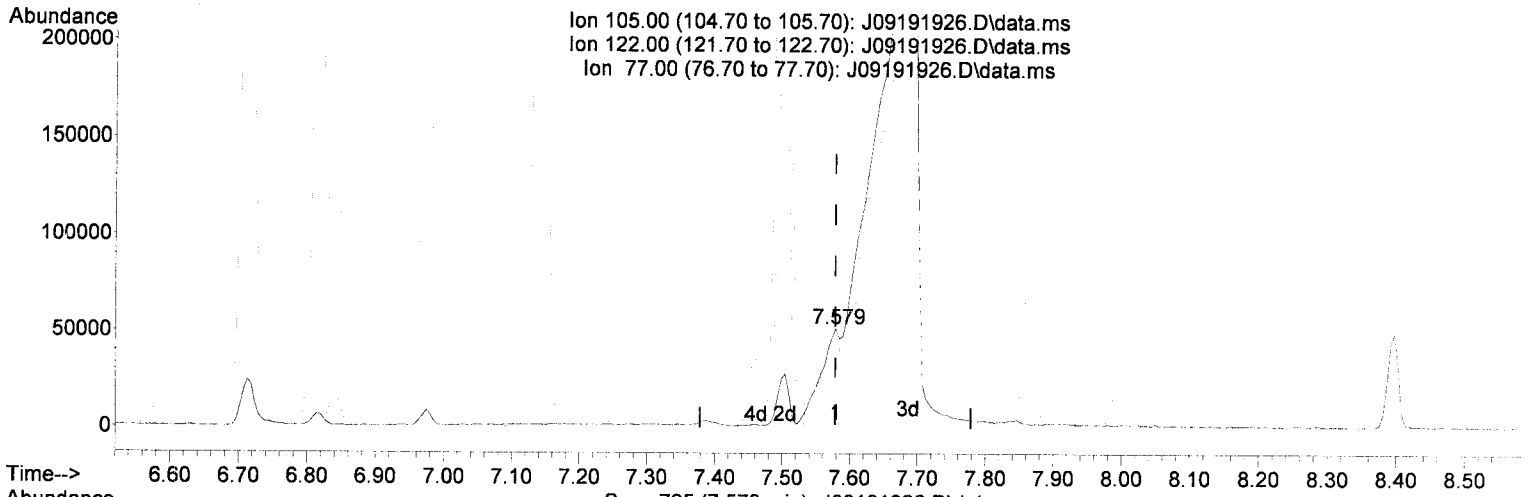
See MI

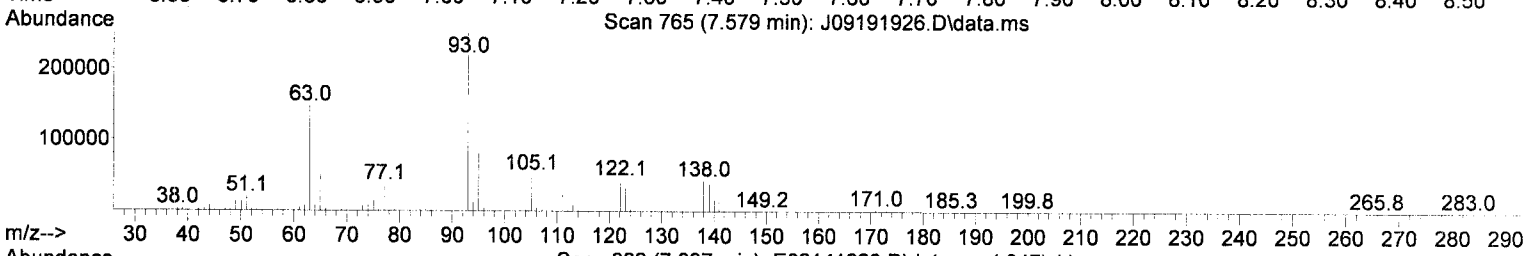
(#) = qualifier out of range (m) = manual integration (+) = signals summed

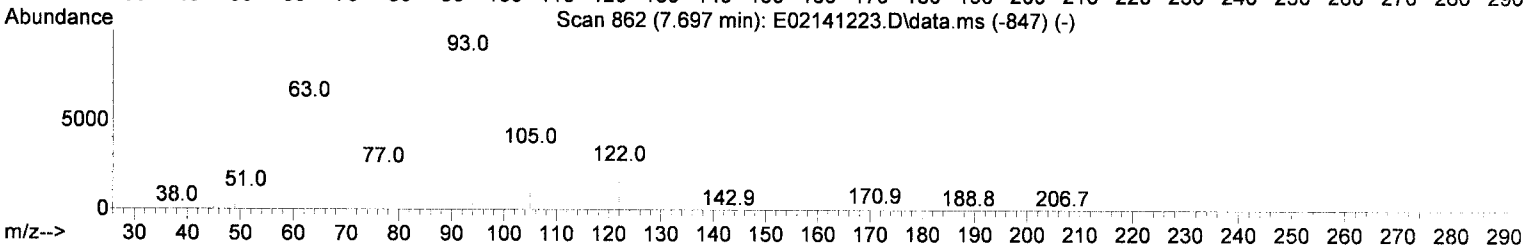
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191926.D\data.ms

(26) Benzoic acid (T)

7.579min (+ 0.000) 1449.32 ng/ml

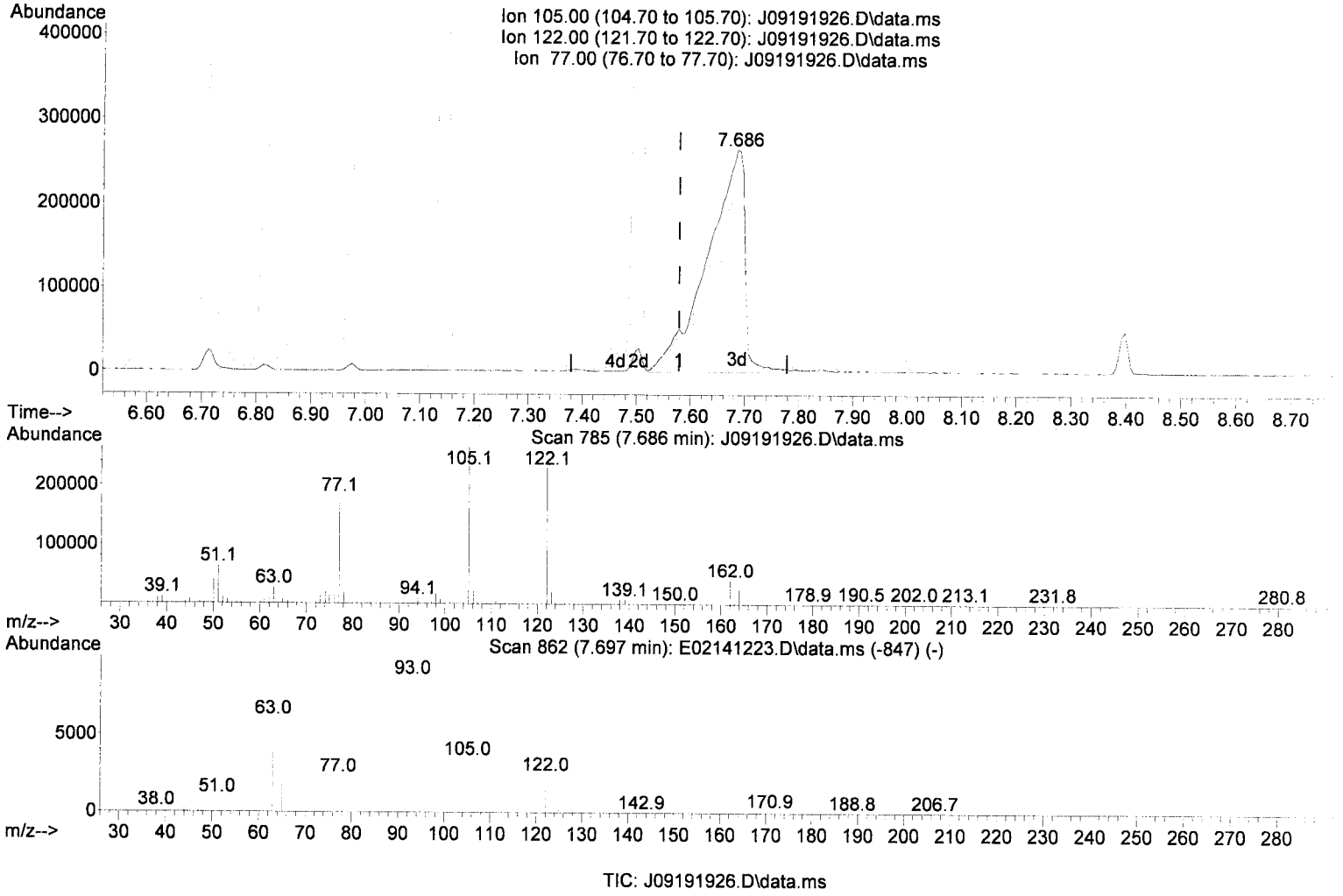
response 96795

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	84.66
77.00	72.00	72.18
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191926.D\data.ms

(26) Benzoic acid (T)

7.686min (+ 0.107) 10743.23 ng/ml m 9/20/19

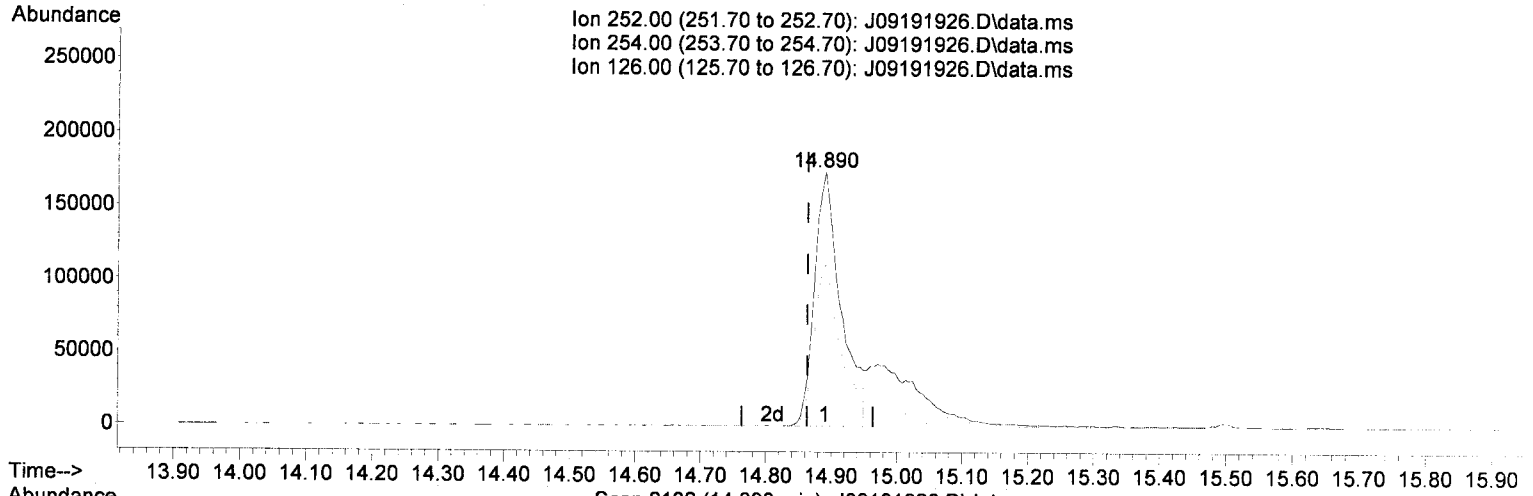
response 1277463

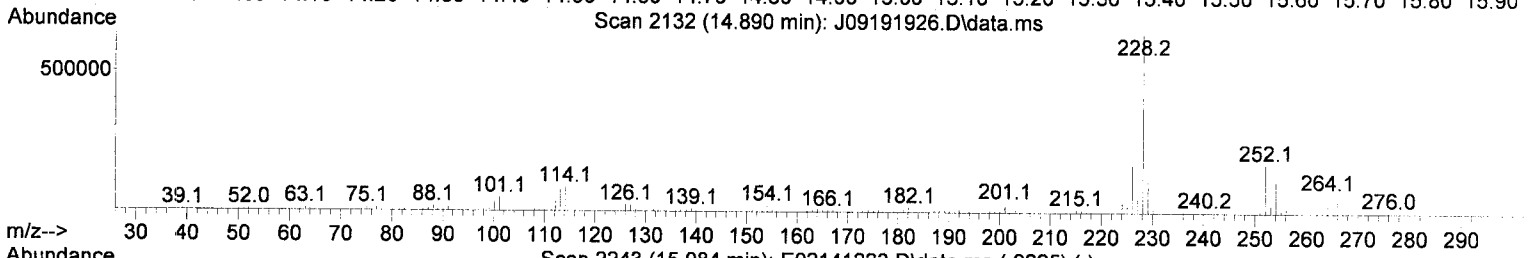
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	87.13
77.00	72.00	68.78
0.00	0.00	0.00

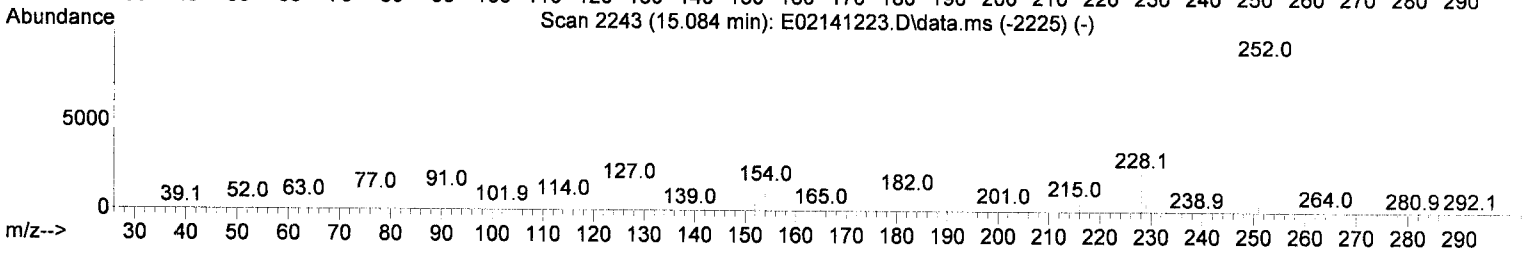
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191926.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.890min (+ 0.027) 8919.45 ng/ml

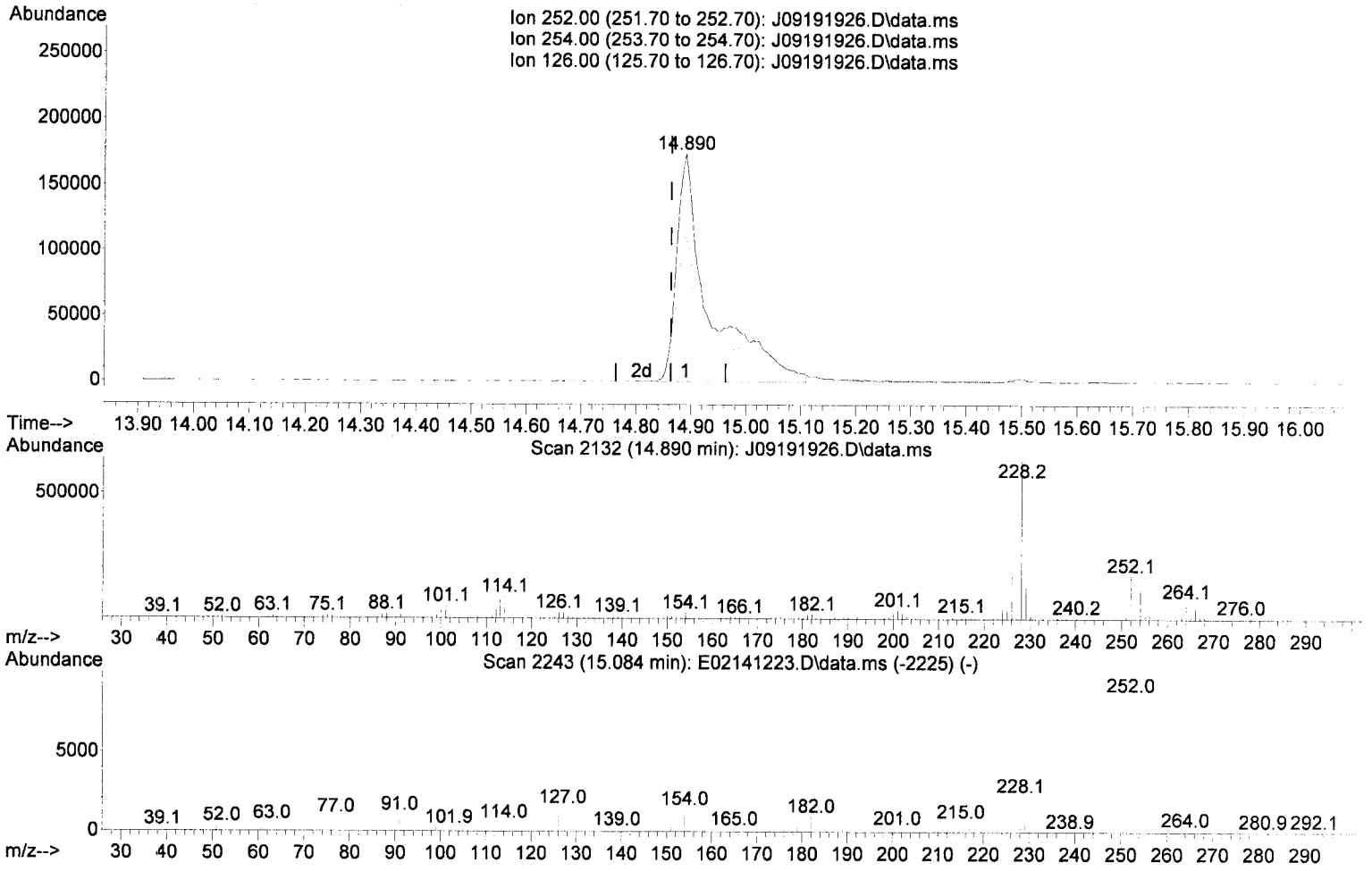
response 494238

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	63.96
126.00	12.00	13.33
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191926.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.890min (+ 0.027) 15215.95 ng/ml 9/20/19

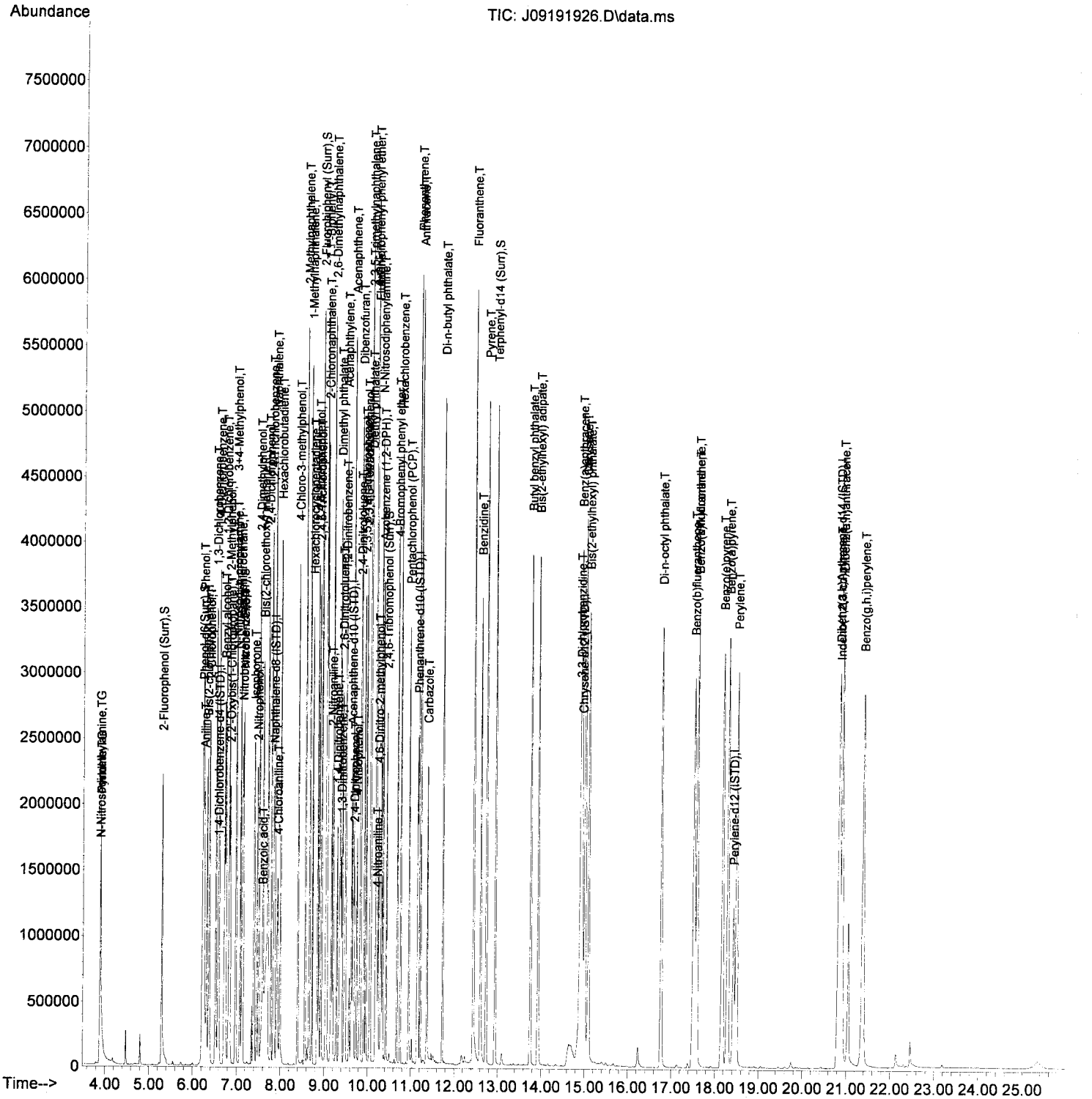
response 730056

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	63.96
126.00	12.00	13.33
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191926.D
Acq On : 20 Sep 2019 6:04 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CAL9
Misc : 1x, A19G246@6000
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:46:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

GJL 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.578	152	269345	2000.00	ng/ml	0.01
21) Naphthalene-d8 (ISTD)	7.846	136	1074761	2000.00	ng/ml	0.01
35) Acenaphthene-d10 (ISTD)	9.627	162	593771	2000.00	ng/ml	0.01
64) Phenanthrene-d10 (ISTD)	11.135	188	1167219	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.933	240	1013392	2000.00	ng/ml	0.02
86) Perylene-d12 (ISTD)	18.409	264	1108960	2000.00	ng/ml	0.01
94) Dibenz(a,h)Anthrcene-d...	20.822	292	982889	2000.00	ng/ml	0.03
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.316	112	1458990	7986.41	ng/ml	0.03
5) Phenol-d6(Surr)	6.225	99	1721904	7338.12	ng/ml	0.02
19) Nitrobenzene-d5 (Surr)	7.129	82	1284804	5974.84	ng/ml	0.02
40) 2-Fluorobiphenyl (Surr)	8.937	172	2595271	5952.22	ng/ml	0.01
67) 2,4,6-Tribromophenol (...	10.435	330	524653	9580.55	ng/ml	0.02
79) Terphenyl-d14 (Surr)	12.932	244	3392009	6847.09	ng/ml	0.01
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.957	74	799031	6384.48	ng/ml	95
3) Pyridine	3.963	79	1480958m	6941.87	ng/ml#	
6) Phenol	6.247	94	1750392	6562.31	ng/ml	93
7) Aniline	6.263	93	1480736	6210.15	ng/ml	95
8) Bis(2-chloroethyl) ether	6.322	93	1435010	6040.20	ng/ml	98
9) 2-Chlorophenol	6.375	128	1496104	7786.46	ng/ml	98
10) 1,3-Dichlorobenzene	6.525	146	1570022	7556.17	ng/ml	99
11) 1,4-Dichlorobenzene	6.594	146	1504749	7462.00	ng/ml	99
12) Benzyl alcohol	6.723	108	932774	7571.89	ng/ml	99
13) 1,2-Dichlorobenzene	6.744	146	1419977	7005.43	ng/ml	100
14) 2-Methylphenol	6.824	107	1030806	6674.12	ng/ml	99
15) 2,2'-Oxybis(1-Chloropr...	6.846	45	1103589	3601.18	ng/ml	87
16) N-Nitrosodi-n-propylamine	6.995	70	803148	5159.93	ng/ml	94
17) 3+4-Methylphenol	6.985	107	1205305	6332.18	ng/ml	99
18) Hexachloroethane	7.081	201	541884	9760.36	ng/ml	92
20) Nitrobenzene	7.151	77	1198679	5564.36	ng/ml	91
22) Isophorone	7.397	82	2693969	6907.11	ng/ml	99
23) 2-Nitrophenol	7.461	139	838038	8987.28	ng/ml	94
24) 2,4-Dimethylphenol	7.509	122	1099526	7393.25	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.595	93	1380842	6354.69	ng/ml	98
26) Benzoic acid	7.509	105	38011	776.83	ng/ml#	1
27) 2,4-Dichlorophenol	7.707	162	1167761	9061.78	ng/ml	97
28) 1,2,4-Trichlorobenzene	7.787	180	1277566	8188.82	ng/ml	99
29) Naphthalene	7.867	128	3240737	5870.30	ng/ml	95
30) 4-Chloroaniline	7.931	127	1186251	7997.52	ng/ml	100
31) Hexachlorobutadiene	7.996	225	701350	8429.61	ng/ml	98
32) 4-Chloro-3-methylphenol	8.397	107	1141605	7355.36	ng/ml	93
33) 2-Methylnaphthalene	8.563	142	2448839	6497.55	ng/ml	98
34) 1-Methylnaphthalene	8.664	142	2286875	6313.48	ng/ml	98
36) Hexachlorocyclopentadiene	8.728	237	759063	8078.87	ng/ml	96
37) 2,4,6-Trichlorophenol	8.851	196	922776	8200.21	ng/ml	98
38) 2,4,5-Trichlorophenol	8.884	198	870124	8618.86	ng/ml	98
39) 1,1'-Biphenyl	9.039	154	2706900	5487.50	ng/ml	95
41) 2-Chloronaphthalene	9.060	162	2240055	6186.91	ng/ml	98
42) 2-Nitroaniline	9.167	138	944974	7839.40	ng/ml	90
43) 2,6-Dimethylnaphthalene	9.199	156	2089018	5657.17	ng/ml	98

See MI

See MI

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.295	168	488295	8676.95	ng/ml	84
45) Dimethyl phthalate	9.360	163	2768841	6519.94	ng/ml	96
46) 1,3-Dinitrobenzene	9.386	168	525829	8149.05	ng/ml	91
47) 2,6-Dinitrotoluene	9.413	165	727325	7963.06	ng/ml	93
48) 1,2-Dinitrobenzene	9.477	168	322227	7532.10	ng/ml	94
49) Acenaphthylene	9.488	152	3146686	5421.92	ng/ml	95
50) 3-Nitroaniline	9.584	138	174843	Below Cal		96
51) Acenaphthene	9.664	153	2204696	5860.16	ng/ml	99
52) 2,4-Dinitrophenol	9.686	184	388560	7229.26	ng/ml	93
53) 4-Nitrophenol	9.755	139	610739	7150.14	ng/ml	97
54) 2,4-Dinitrotoluene	9.825	165	868405	7387.76	ng/ml	92
55) Dibenzofuran	9.836	168	3003141	5853.90	ng/ml	93
56) 2,3,5,6-Tetrachlorophenol	9.916	232	763806	8438.44	ng/ml	96
57) 2,3,4,6-Tetrachlorophenol	9.964	232	773723	8433.64	ng/ml	95
58) Diethyl phthalate	10.066	149	2319061	5726.69	ng/ml	94
59) 2,3,5-Trimethylnaphtha...	10.050	170	1931750	5890.92	ng/ml	99
60) Fluorene	10.189	166	2171368	5374.15	ng/ml	99
61) 4-Chlorophenyl phenyl ...	10.178	204	1192807	6352.55	ng/ml	94
62) 4-Nitroaniline	10.210	138	523369	6397.82	ng/ml	97
63) 4,6-Dinitro-2-methylph...	10.242	198	504056	7617.61	ng/ml	93
65) N-Nitrosodiphenylamine	10.306	169	1760214	4903.79	ng/ml	97
66) Azobenzene (1,2-DPH)	10.344	77	1950077	4095.39	ng/ml	78
68) 4-Bromophenyl phenyl e...	10.681	248	926306	7709.18	ng/ml	93
69) Hexachlorobenzene	10.756	284	1001688	7245.58	ng/ml	98
70) Pentachlorophenol (PCP)	10.948	266	646595	8238.97	ng/ml	98
71) Phenanthrene	11.167	178	3584429	5616.19	ng/ml	96
72) Anthracene	11.221	178	3477728	5537.91	ng/ml	95
73) Carbazole	11.371	167	1165062	2247.11	ng/ml	99
74) Di-n-butyl phthalate	11.724	149	4037361	5548.19	ng/ml	96
75) Fluoranthene	12.435	202	4158773	6230.20	ng/ml	95
76) Benzidine	12.595	184	3017555	13485.44	ng/ml	99
77) Pyrene	12.729	202	4271888	6406.36	ng/ml	95
80) Butyl benzyl phthalate	13.745	149	2308181	7272.91	ng/ml	91
81) Bis(2-ethylhexyl) adipate	13.917	129	1955106	6872.69	ng/ml	99
82) 3,3-Dichlorobenzidine	14.874	252	572542	10901.24	ng/ml	98
83) Benz(a)anthracene	14.906	228	4360504	7338.40	ng/ml	98
84) Chrysene	15.002	228	3992263	7282.39	ng/ml	96
85) Bis(2-ethylhexyl) phth...	15.083	149	2986931	7115.28	ng/ml	95
87) Di-n-octyl phthalate	16.751	149	5450180	5838.44	ng/ml	98
88) Benzo(b)fluoranthene	17.522	252	5003892	7450.31	ng/ml	98
89) Benzo(k)fluoranthene	17.591	252	3789489	5946.05	ng/ml	98
90) Benzo(b+k)fluoranthene	17.591	252	9407940	14096.81	ng/ml	98
91) Benzo(e)pyrene	18.174	252	4556103	6930.76	ng/ml	96
92) Benzo(a)pyrene	18.302	252	4292201	7103.37	ng/ml	100
93) Perylene	18.500	252	3844220	6710.68	ng/ml	98
95) Indeno(1,2,3-cd)pyrene	20.838	276	4879339	8830.49	ng/ml	97
96) Dibenz(a,h)anthracene	20.902	278	4143300	8359.97	ng/ml	98
97) Benzo(g,h,i)perylene	21.383	276	4554601	8561.53	ng/ml	98

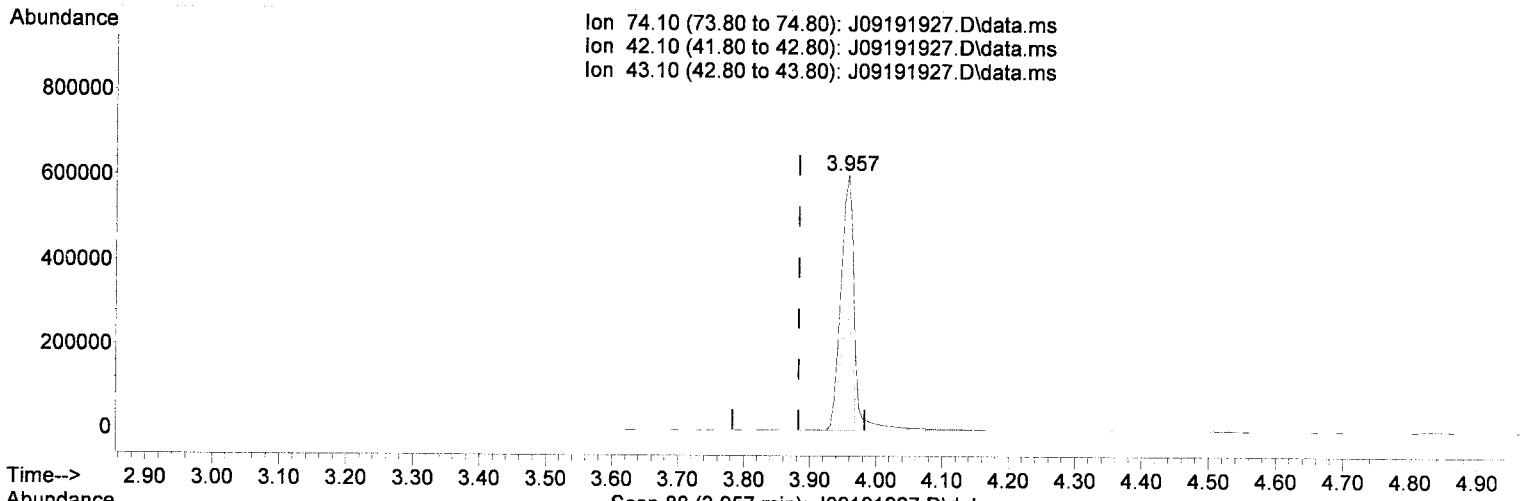
See MS

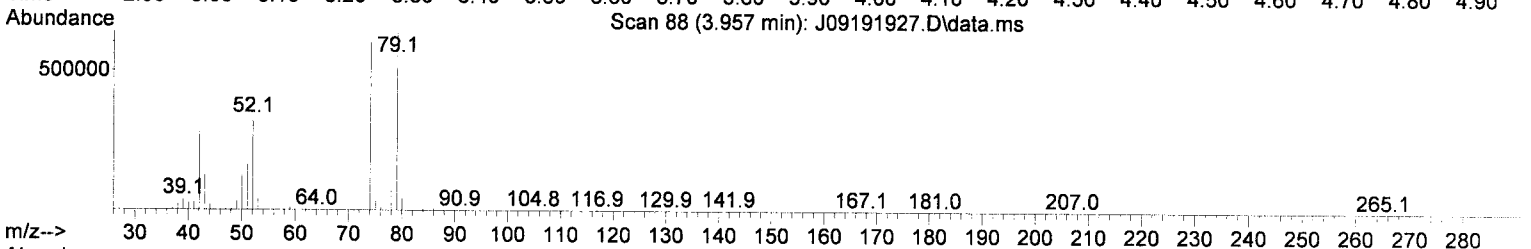
(#) = qualifier out of range (m) = manual integration (+) = signals summed

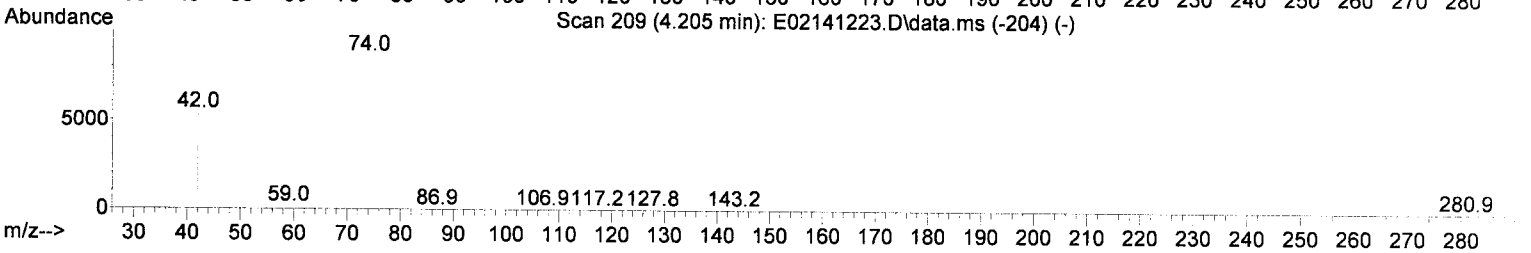
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191927.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.957min (+ 0.075) 6384.48 ng/ml

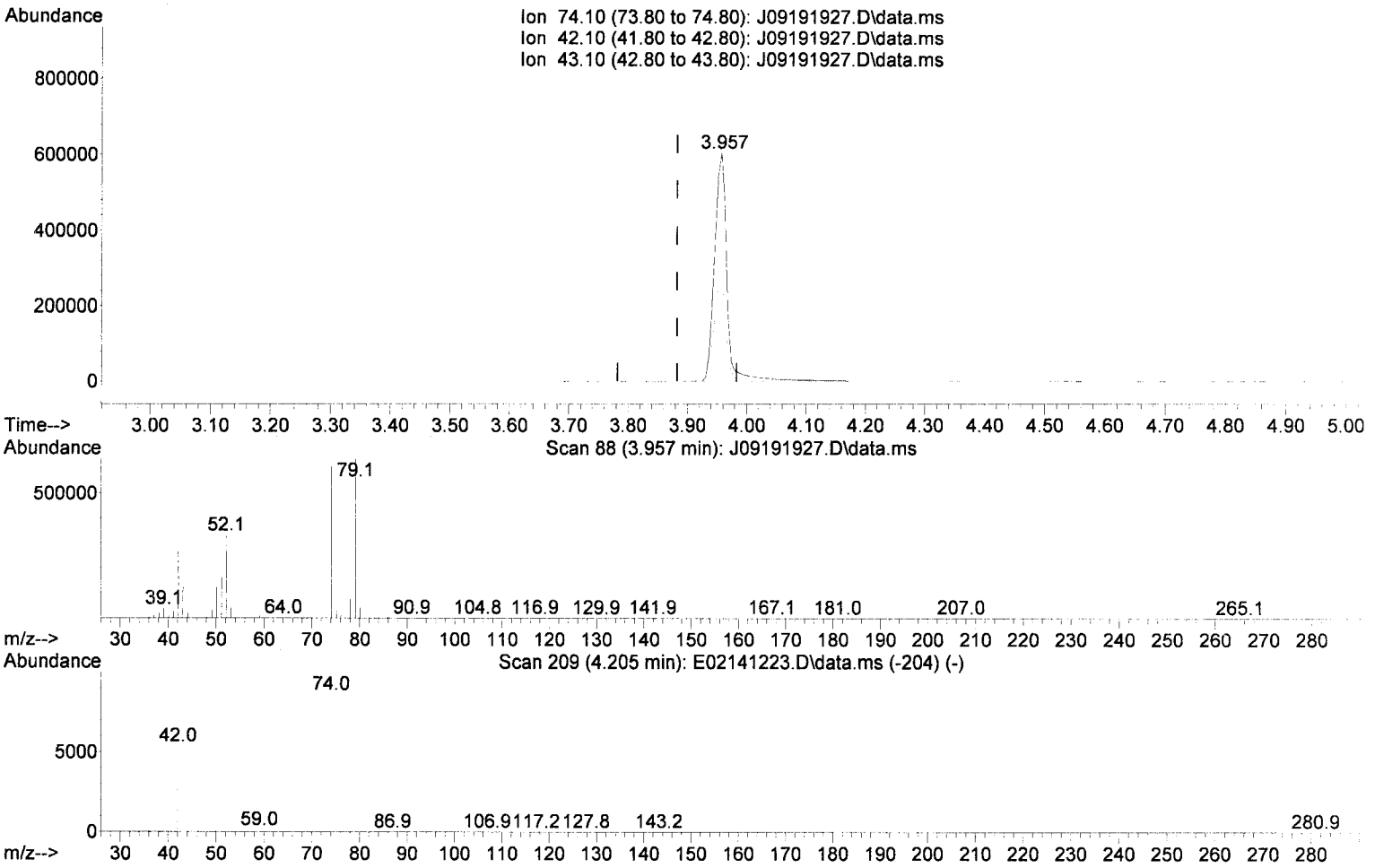
response 799081

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	45.78
43.10	22.20	20.07
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.957min (+ 0.075) 6923.78 ng/ml m 9/20/19

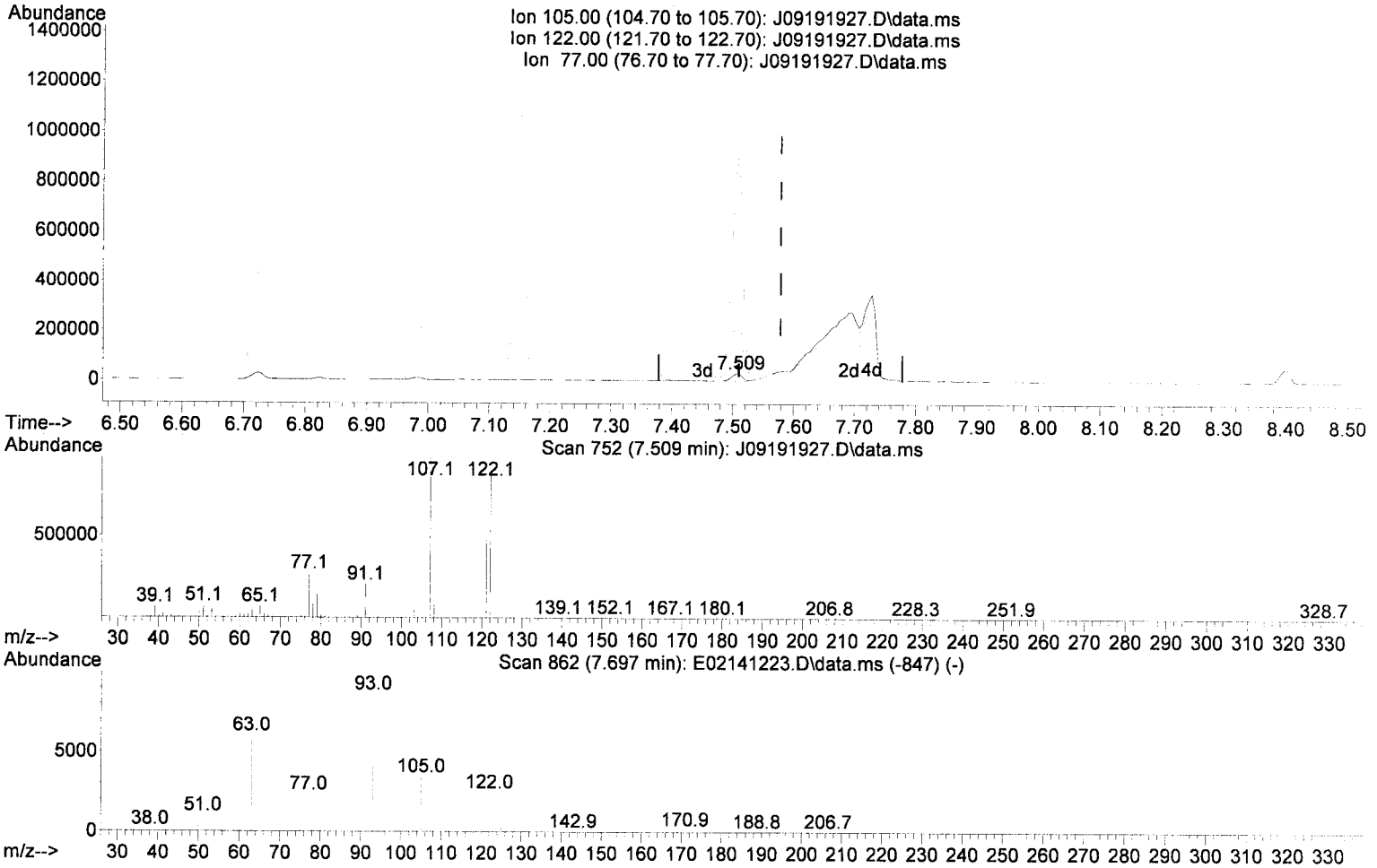
response 866525

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	45.78
43.10	22.20	20.07
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(26) Benzoic acid (T)

7.509min (-0.070) 776.83 ng/ml

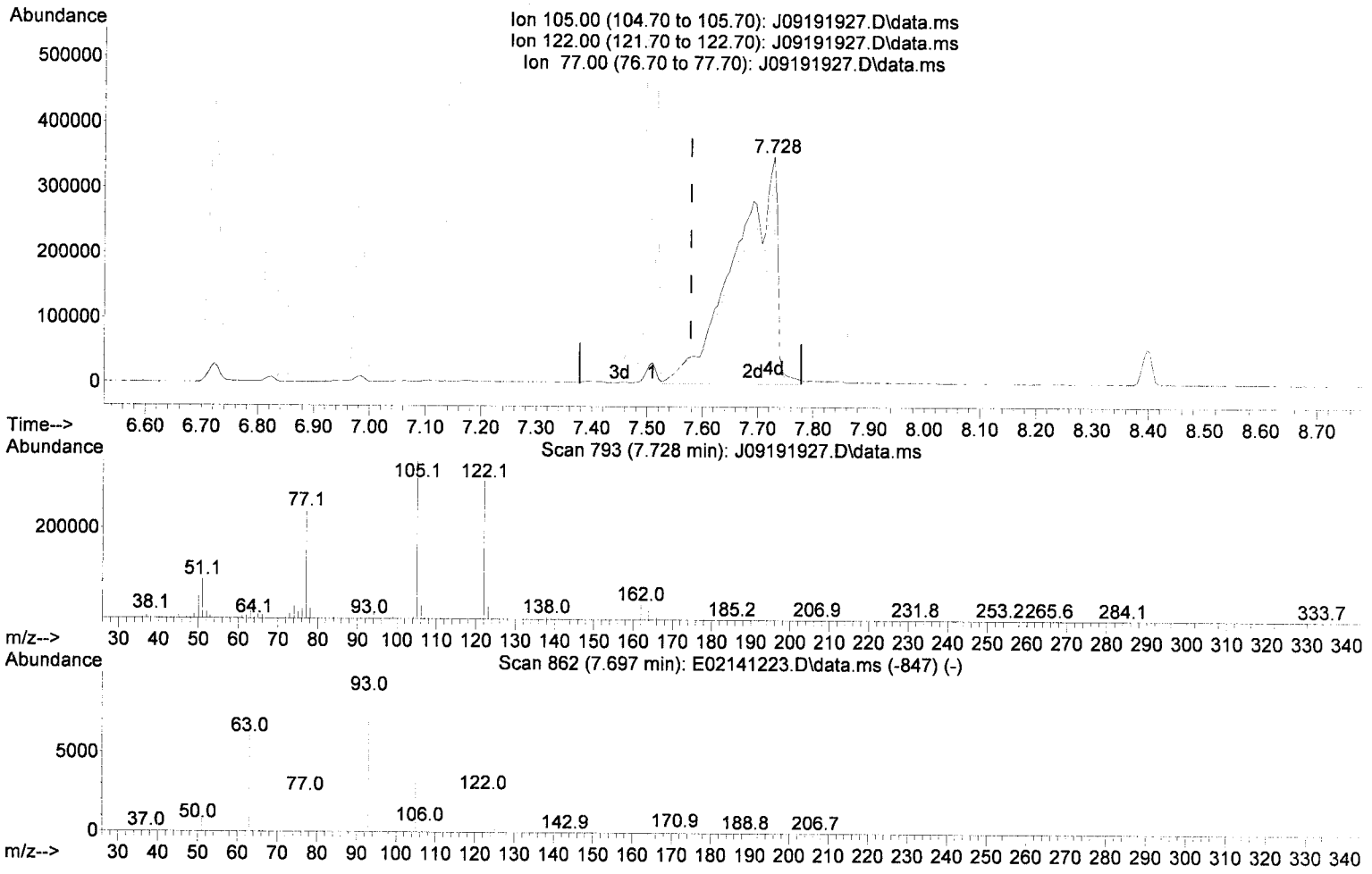
response 38011

Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	2797.37#
77.00	72.00	828.09#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(26) Benzoic acid (T)

7.728min (+ 0.150) 14150.47 ng/ml m

9/20/19

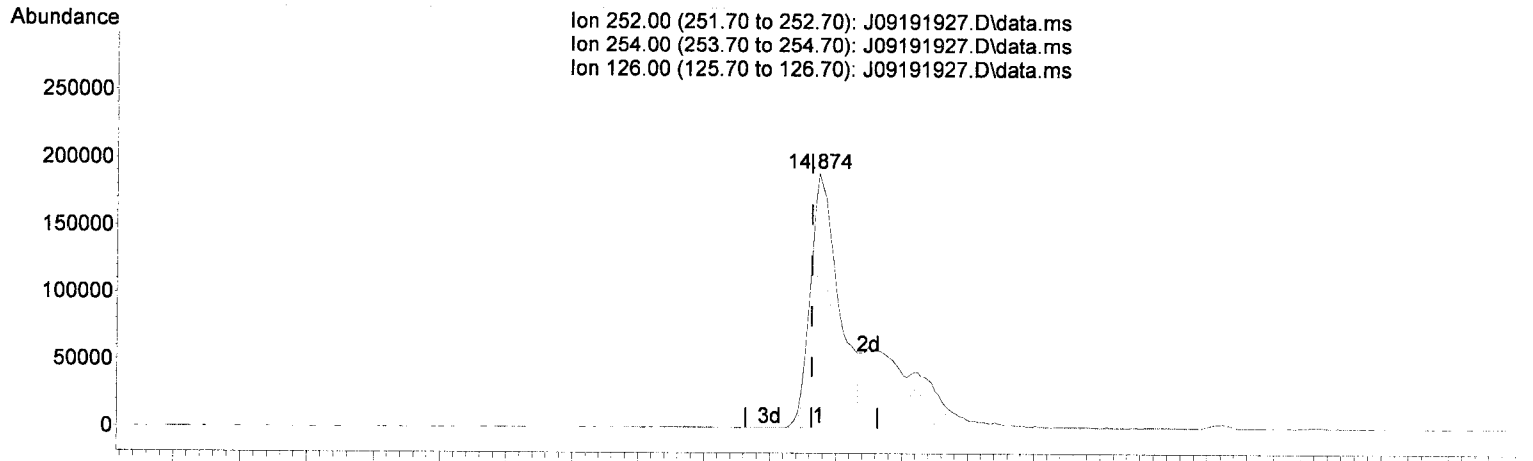
response 1853462

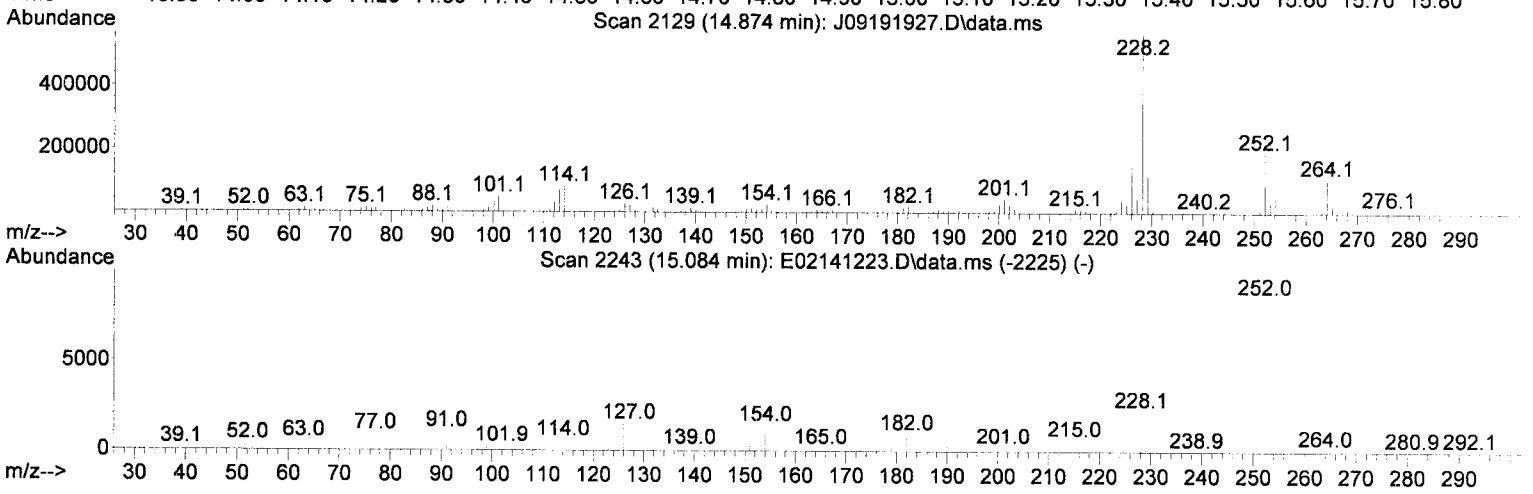
Ion	Exp%	Act%
105.00	100.00	100.00
122.00	90.90	87.13
77.00	72.00	68.18
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10





TIC: J09191927.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.874min (+ 0.011) 10901.24 ng/ml

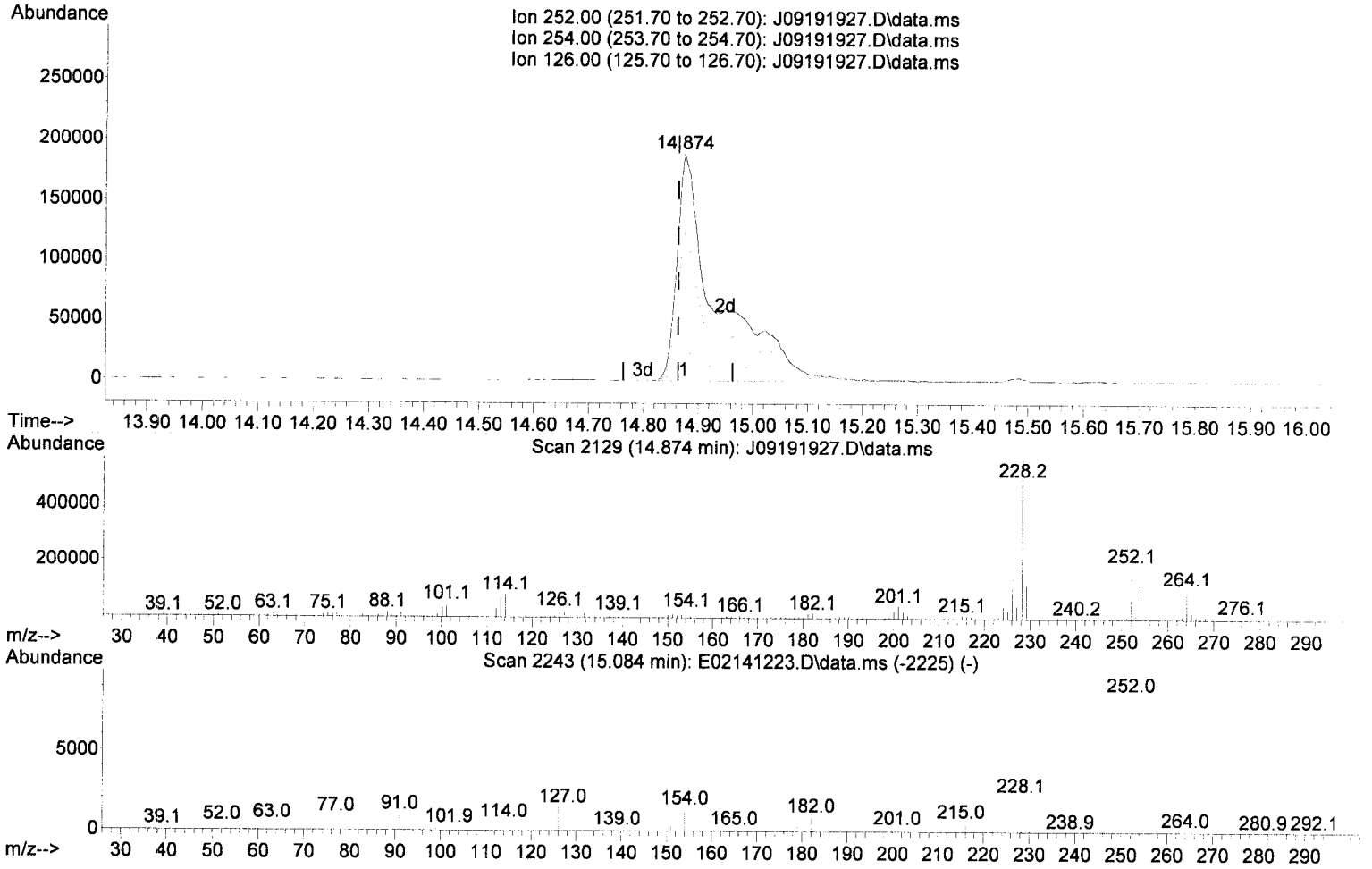
response 572542

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	64.83
126.00	12.00	13.82
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



TIC: J09191927.D\data.ms

(82) 3,3-Dichlorobenzidine (T)

14.874min (+ 0.011) -2000.00 ng/ml m

9/20/19

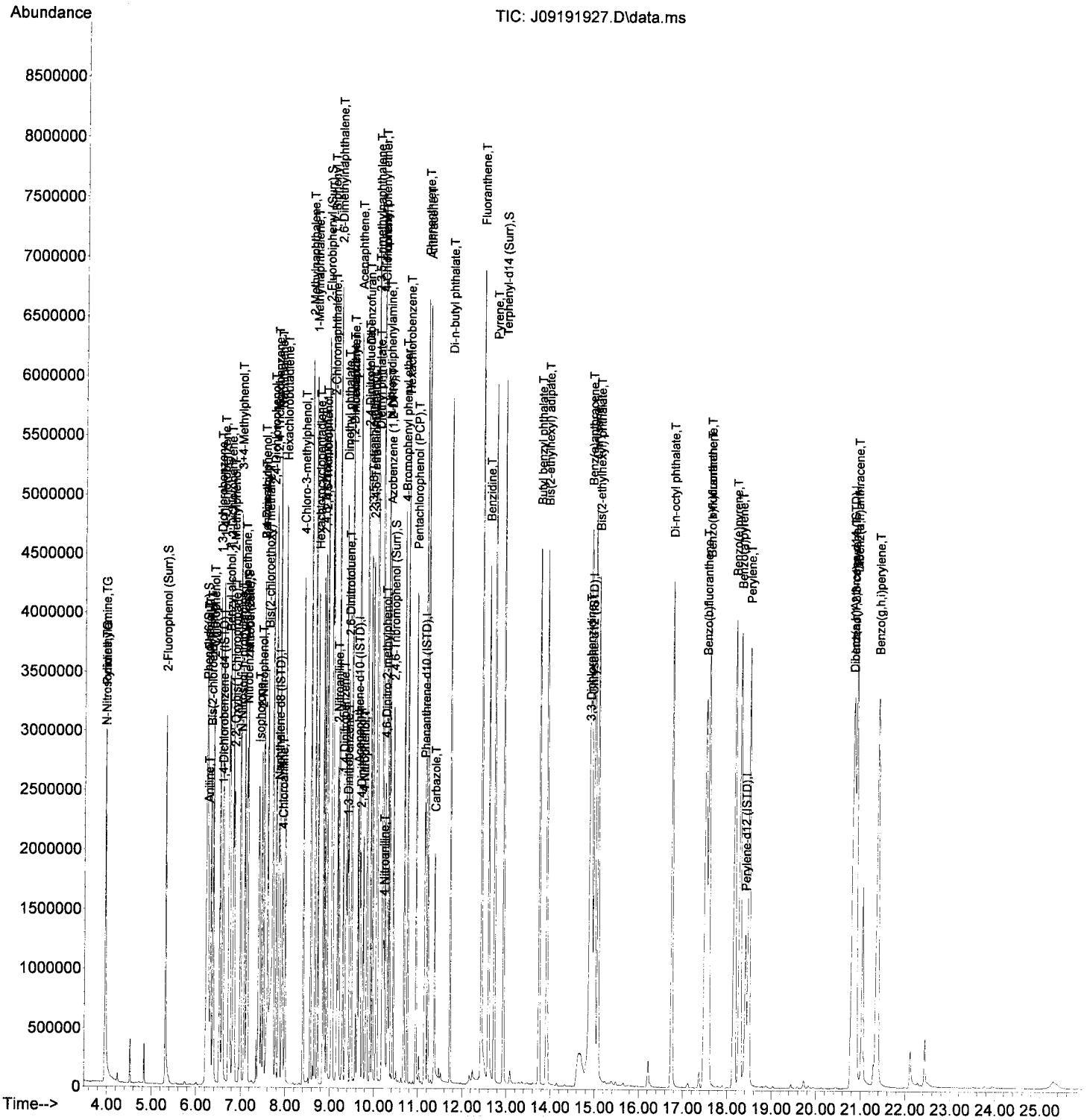
response 945543

Ion	Exp%	Act%
252.00	100.00	100.00
254.00	66.30	64.83
126.00	12.00	13.82
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191927.D
Acq On : 20 Sep 2019 6:39 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-CALA
Misc : 1x, A19G247@8000
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:02 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

JK 9/20/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	299574	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1168153	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.617	162	615222	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1152828	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.906	240	1141161	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.388	264	1161309	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.774	292	999067	2000.00	ng/ml	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.316	112	178387	877.95	ng/ml	0.03
5) Phenol-d6(Surr)	6.209	99	236341	905.57	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	192375	804.35	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.927	172	511376	1131.94	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	72353	1337.71	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.917	244	557856	1000.00	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	~~0.000~~		0	N.D.		See MS
3) Pyridine	4.000	79	174343m	734.70	ng/ml#	
6) Phenol	6.225	94	253216	853.53	ng/ml	99
7) Aniline	6.258	93	184591	696.05	ng/ml	95
8) Bis(2-chloroethyl) ether	6.311	93	252838	956.85	ng/ml	98
9) 2-Chlorophenol	6.370	128	214007	1001.41	ng/ml	96
10) 1,3-Dichlorobenzene	6.520	146	240742	1041.72	ng/ml	100
11) 1,4-Dichlorobenzene	6.589	146	235033	1047.91	ng/ml	99
12) Benzyl alcohol	6.707	108	114114	832.86	ng/ml	97
13) 1,2-Dichlorobenzene	6.744	146	236669	1049.78	ng/ml	100
14) 2-Methylphenol	6.814	107	162406	945.42	ng/ml	97
15) 2,2'-Oxybis(1-Chloropr...	6.841	45	197724	580.10	ng/ml	98
16) N-Nitrosodi-n-propylamine	6.969	70	139865	807.91	ng/ml	99
17) 3+4-Methylphenol	6.964	107	204231	964.68	ng/ml	99
18) Hexachloroethane	7.081	201	74950	1213.77	ng/ml	97
20) Nitrobenzene	7.135	77	193505	807.62	ng/ml	99
22) Isophorone	7.370	82	390447	921.04	ng/ml	96
23) 2-Nitrophenol	7.456	139	106480	818.33	ng/ml	95
24) 2,4-Dimethylphenol	7.488	122	151555	937.59	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.584	93	239341	1013.40	ng/ml	99
26) Benzoic acid	7.579	105	114401	1564.85	ng/ml	97
27) 2,4-Dichlorophenol	7.691	162	169468	1209.93	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.782	180	204325	1204.96	ng/ml	98
29) Naphthalene	7.857	128	644117	1073.48	ng/ml	100
30) 4-Chloroaniline	7.910	127	180562	1136.69	ng/ml	98
31) Hexachlorobutadiene	7.991	225	114587	1267.13	ng/ml	98
32) 4-Chloro-3-methylphenol	8.386	107	163749	970.69	ng/ml	98
33) 2-Methylnaphthalene	8.557	142	471069	1149.97	ng/ml	99
34) 1-Methylnaphthalene	8.659	142	446075	1133.04	ng/ml	100
36) Hexachlorocyclopentadiene	8.723	237	102004	1047.80	ng/ml	99
37) 2,4,6-Trichlorophenol	8.841	196	122991	1135.59	ng/ml	99
38) 2,4,5-Trichlorophenol	8.873	198	123145	1177.26	ng/ml	99
39) 1,1'-Biphenyl	9.028	154	545943	1068.16	ng/ml	99
41) 2-Chloronaphthalene	9.050	162	403493	1075.57	ng/ml	98
42) 2-Nitroaniline	9.146	138	126470	1012.60	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.189	156	401191	1048.56	ng/ml	98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10

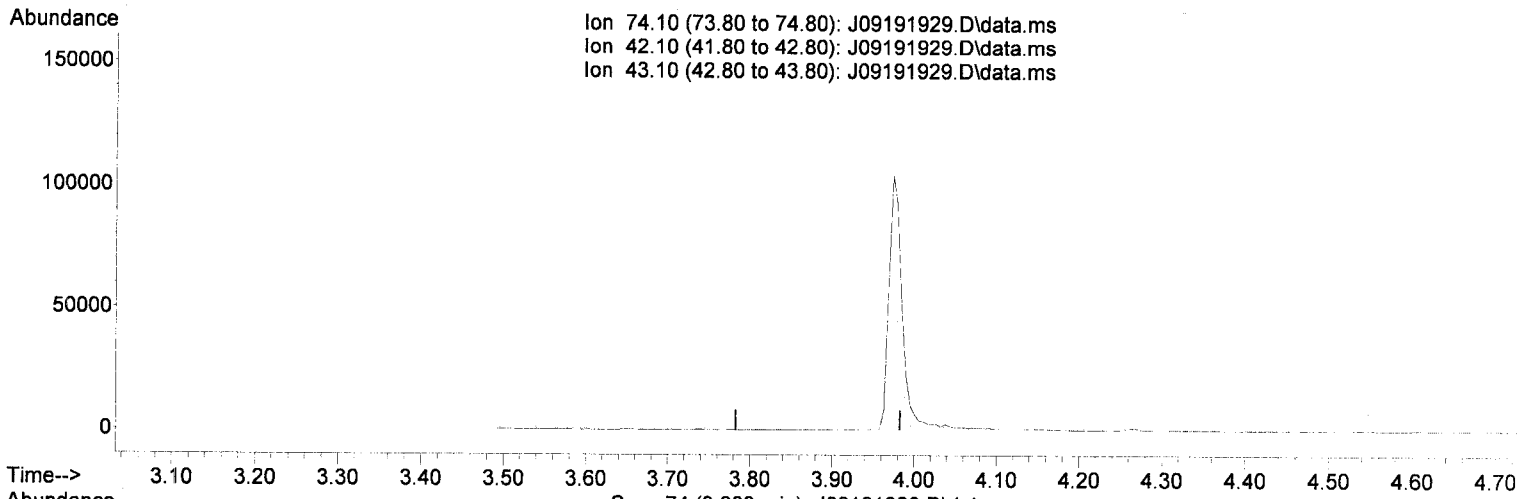
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	53357	915.09	ng/ml	94
45) Dimethyl phthalate	9.333	163	471576	1071.73	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	66203	990.21	ng/ml	96
47) 2,6-Dinitrotoluene	9.392	165	104413	1103.30	ng/ml	94
48) 1,2-Dinitrobenzene	9.445	168	47869	1079.93	ng/ml	96
49) Acenaphthylene	9.472	152	662544	1101.80	ng/ml	98
50) 3-Nitroaniline	9.563	138	81403	882.15	ng/ml	95
51) Acenaphthene	9.649	153	411344	1055.24	ng/ml	99
52) 2,4-Dinitrophenol	9.665	184	21975	682.22	ng/ml	97
53) 4-Nitrophenol	9.723	139	67638	935.18	ng/ml	99
54) 2,4-Dinitrotoluene	9.798	165	130952	1075.20	ng/ml	96
55) Dibenzofuran	9.825	168	586441	1103.27	ng/ml	99
56) 2,3,5,6-Tetrachlorophenol	9.905	232	101694	1174.90	ng/ml	98
57) 2,3,4,6-Tetrachlorophenol	9.948	232	104694	1189.35	ng/ml	98
58) Diethyl phthalate	10.050	149	444740	1059.95	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.039	170	361627	1064.34	ng/ml	98
60) Fluorene	10.173	166	450597	1076.35	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.167	204	220862	1135.24	ng/ml	98
62) 4-Nitroaniline	10.183	138	71452	843.00	ng/ml	94
63) 4,6-Dinitro-2-methylph...	10.216	198	51879	975.85	ng/ml	99
65) N-Nitrosodiphenylamine	10.285	169	378338	1067.17	ng/ml	97
66) Azobenzene (1,2-DPH)	10.328	77	373113	793.36	ng/ml	97
68) 4-Bromophenyl phenyl e...	10.665	248	134322	1131.85	ng/ml	95
69) Hexachlorobenzene	10.745	284	157623	1154.38	ng/ml	96
70) Pentachlorophenol (PCP)	10.938	266	76022	1186.58	ng/ml	99
71) Phenanthrene	11.157	178	656765	1041.88	ng/ml	99
72) Anthracene	11.205	178	657889	1060.69	ng/ml	100
73) Carbazole	11.366	167	473433	924.53	ng/ml	100
74) Di-n-butyl phthalate	11.713	149	721001	1003.18	ng/ml	100
75) Fluoranthene	12.419	202	721487	1094.34	ng/ml	99
76) Benzidine	12.574	184	294532	1737.87	ng/ml	98
77) Pyrene	12.708	202	722196	1096.56	ng/ml	100
80) Butyl benzyl phthalate	13.724	149	293237	820.52	ng/ml	99
81) Bis(2-ethylhexyl) adipate	13.901	129	280177	874.62	ng/ml	98
82) 3,3-Dichlorobenzidine	14.853	252	184897	2473.10	ng/ml	97
83) Benz(a)anthracene	14.880	228	655689	979.93	ng/ml	98
84) Chrysene	14.965	228	602768	976.42	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.061	149	426572	902.38	ng/ml	98
87) Di-n-octyl phthalate	16.730	149	675629	808.44	ng/ml	100
88) Benzo(b)fluoranthene	17.463	252	645650	917.98	ng/ml	99
89) Benzo(k)fluoranthene	17.532	252	640735	960.05	ng/ml	99
90) Benzo(b+k)fluoranthene	17.532	252	1307403	1870.70	ng/ml	99
91) Benzo(e)pyrene	18.115	252	622430	904.16	ng/ml	100
92) Benzo(a)pyrene	18.238	252	564640	892.33	ng/ml	98
93) Perylene	18.442	252	636474	1060.98	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.774	276	575136	1024.01	ng/ml	100
96) Dibenz(a,h)anthracene	20.843	278	552893	1097.51	ng/ml	99
97) Benzo(g,h,i)perylene	21.309	276	598608	1107.02	ng/ml	98

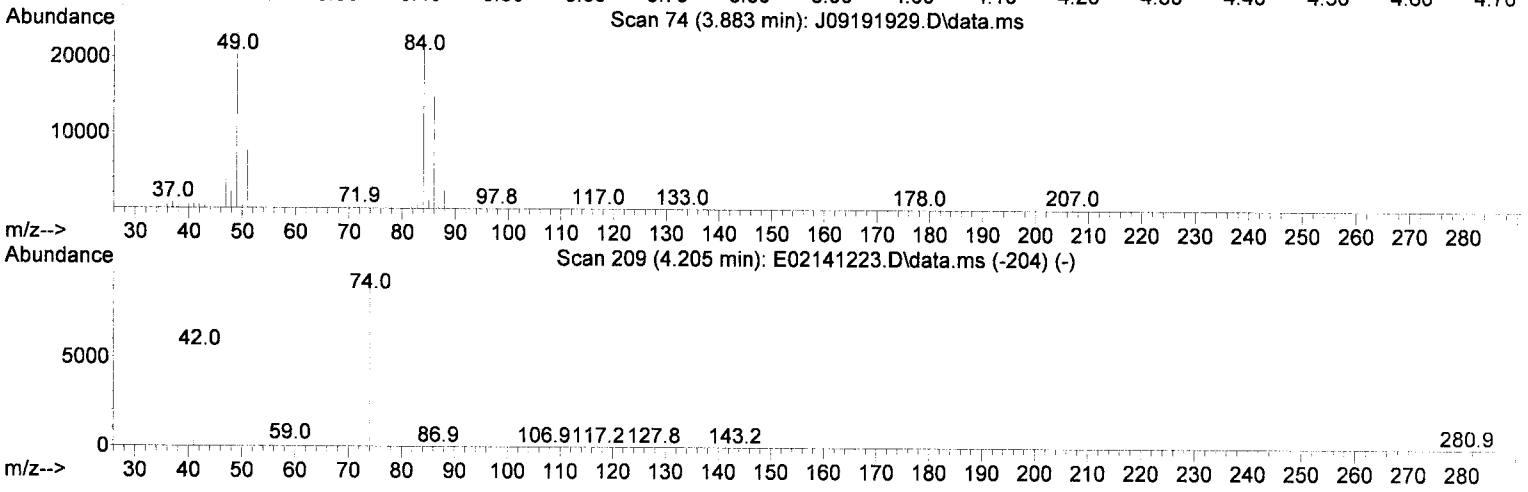
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10





TIC: J09191929.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.883min (-3.883) 0.00 ng/ml

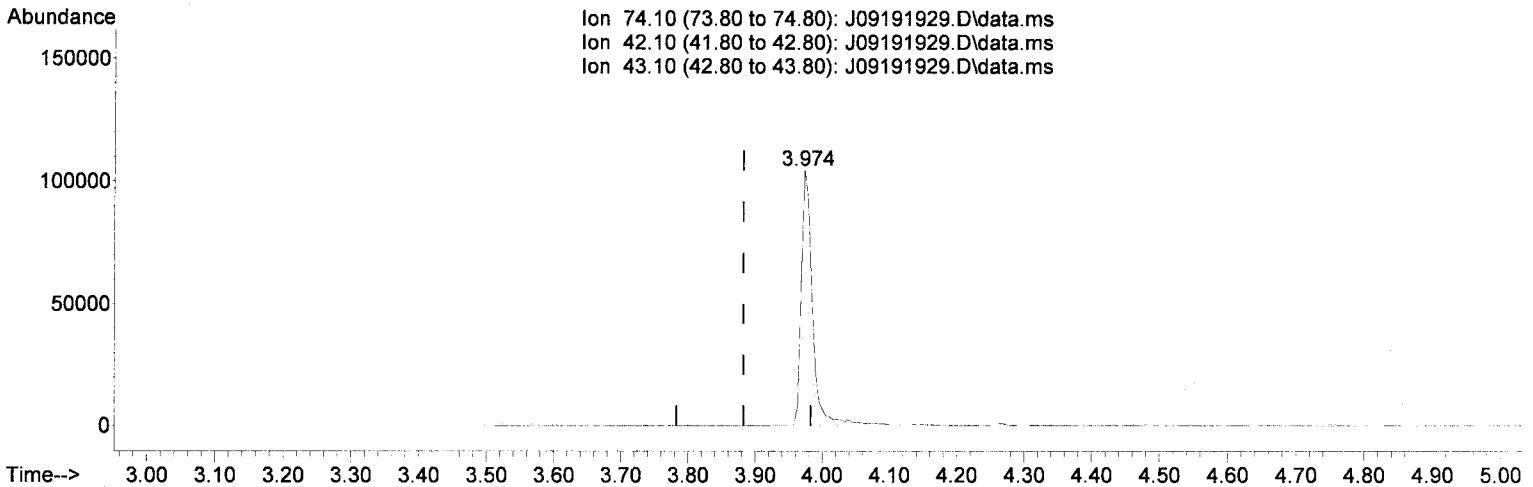
response 0

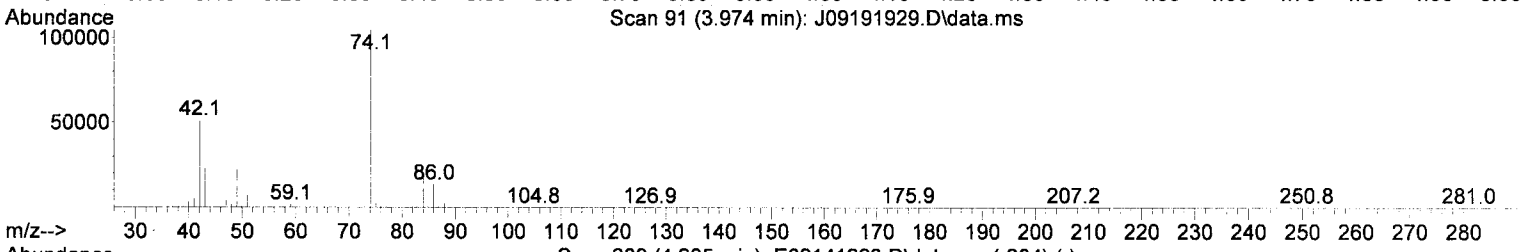
Ion	Exp%	Act%
74.10	100.00	0.00
42.10	49.40	0.00#
43.10	22.20	0.00
0.00	0.00	0.00

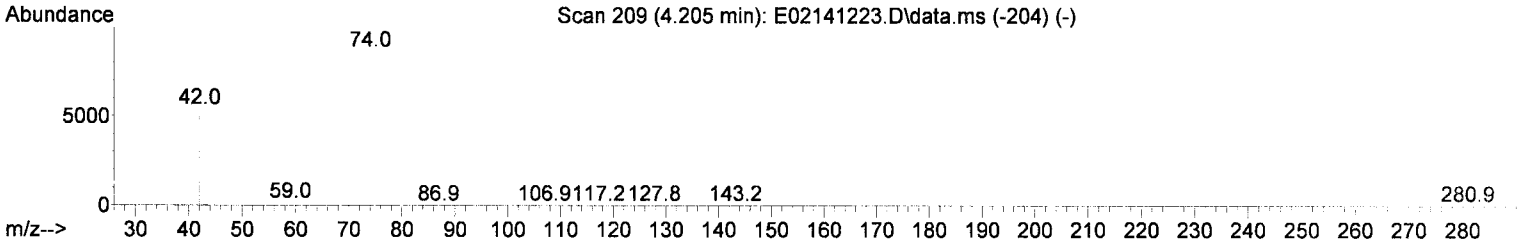
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10







TIC: J09191929.D\data.ms

(2) N-Nitrosodimethylamine (TG)

3.974min (+ 0.091) 856.94 ng/ml m JK 9/20/19

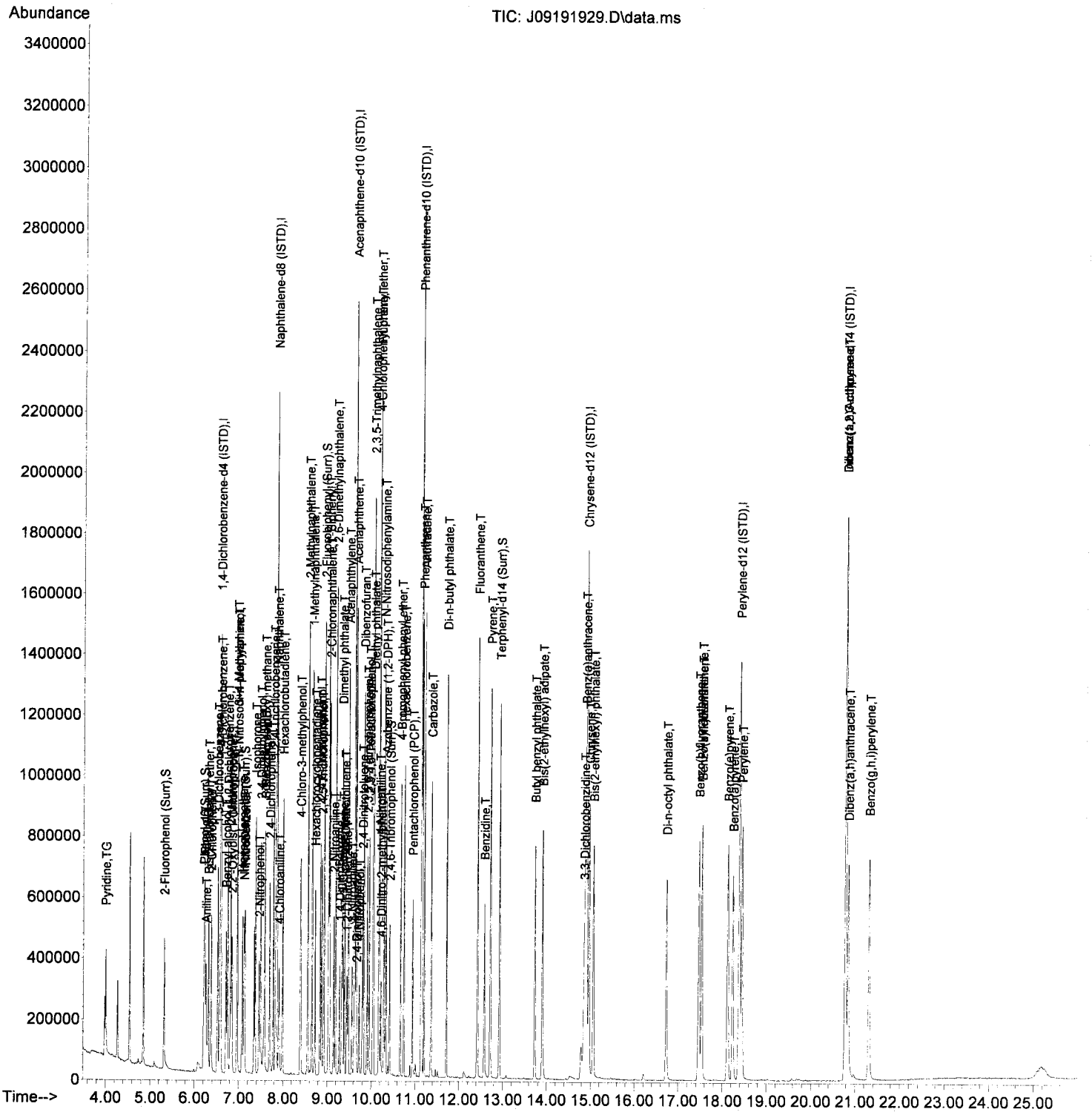
response 119285

Ion	Exp%	Act%
74.10	100.00	100.00
42.10	49.40	49.08
43.10	22.20	22.06
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 09:47:25 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 09:45:16 2019
Response via : Initial Calibration
InstName : SV-GCMS10



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Final Reqmnt
9/23/19

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	6.573	152	299574	2000.00	ng/ml	0.00
21) Naphthalene-d8 (ISTD)	7.841	136	1168153	2000.00	ng/ml	0.00
35) Acenaphthene-d10 (ISTD)	9.617	162	615222	2000.00	ng/ml	0.00
64) Phenanthrene-d10 (ISTD)	11.130	188	1152828	2000.00	ng/ml	0.00
78) Chrysene-d12 (ISTD)	14.906	240	1141161	2000.00	ng/ml	-0.01
86) Perylene-d12 (ISTD)	18.388	264	1161309	2000.00	ng/ml	-0.01
94) Dibenz(a,h)Anthrcene-d...	20.774	292	999067	2000.00	ng/ml	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol (Surr)	5.316	112	178387	981.27	ng/ml	0.03
5) Phenol-d6(Surr)	6.209	99	236341	1015.69	ng/ml	0.00
19) Nitrobenzene-d5 (Surr)	7.113	82	192375	1065.68	ng/ml	0.00
40) 2-Fluorobiphenyl (Surr)	8.927	172	511376	1062.10	ng/ml	0.00
67) 2,4,6-Tribromophenol (...	10.419	330	72353	1040.67	ng/ml	0.00
79) Terphenyl-d14 (Surr)	12.917	244	557856	1060.78	ng/ml	0.00
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.974	74	119285m	1045.35	ng/ml	
3) Pyridine	4.000	79	174343m	896.19	ng/ml#	
6) Phenol	6.225	94	253216	989.66	ng/ml	99
7) Aniline	6.258	93	184591	836.20	ng/ml	95
8) Bis(2-chloroethyl) ether	6.311	93	252077	1091.65	ng/ml	98
9) 2-Chlorophenol	6.370	128	214007	1008.90	ng/ml	96
10) 1,3-Dichlorobenzene	6.520	146	240742	1009.72	ng/ml	100
11) 1,4-Dichlorobenzene	6.589	146	235033	1002.99	ng/ml	99
12) Benzyl alcohol	6.707	108	114114	910.79	ng/ml	97
13) 1,2-Dichlorobenzene	6.744	146	236669	1024.11	ng/ml	100
14) 2-Methylphenol	6.814	107	162406	1052.52	ng/ml	97
15) 2,2'-Oxybis(1-Chloropr...	6.841	45	197724	970.28	ng/ml	98
16) N-Nitrosodi-n-propylamine	6.969	70	139865	1043.26	ng/ml	99
17) 3+4-Methylphenol	6.964	107	204231	1067.42	ng/ml	99
18) Hexachloroethane	7.081	201	74950	1040.96	ng/ml	97
20) Nitrobenzene	7.135	77	193505	1058.01	ng/ml	99
22) Isophorone	7.370	82	390447	1048.41	ng/ml	96
23) 2-Nitrophenol	7.456	139	106480	968.55	ng/ml	95
24) 2,4-Dimethylphenol	7.488	122	151555	967.66	ng/ml	98
25) Bis(2-chloroethoxy) me...	7.584	93	239341	1057.13	ng/ml	99
26) Benzoic acid	7.579	105	114401	1974.82	ng/ml	97
27) 2,4-Dichlorophenol	7.691	162	169468	968.83	ng/ml	98
28) 1,2,4-Trichlorobenzene	7.782	180	204325	999.39	ng/ml	98
29) Naphthalene	7.857	128	644117	1048.17	ng/ml	100
30) 4-Chloroaniline	7.910	127	180562	939.27	ng/ml	98
31) Hexachlorobutadiene	7.991	225	114587	1037.18	ng/ml	98
32) 4-Chloro-3-methylphenol	8.386	107	163749	1056.42	ng/ml	98
33) 2-Methylnaphthalene	8.557	142	471069	1097.13	ng/ml	99
34) 1-Methylnaphthalene	8.659	142	446075	1073.20	ng/ml	100
36) Hexachlorocyclopentadiene	8.723	237	102004	1072.19	ng/ml	99
37) 2,4,6-Trichlorophenol	8.841	196	122991	1033.65	ng/ml	99
38) 2,4,5-Trichlorophenol	8.873	198	123145	1048.47	ng/ml	99
39) 1,1'-Biphenyl	9.028	154	545943	1032.43	ng/ml	99
41) 2-Chloronaphthalene	9.050	162	403493	1056.54	ng/ml	98
42) 2-Nitroaniline	9.146	138	126470	1106.58	ng/ml	98
43) 2,6-Dimethylnaphthalene	9.189	156	401191	1034.19	ng/ml	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10

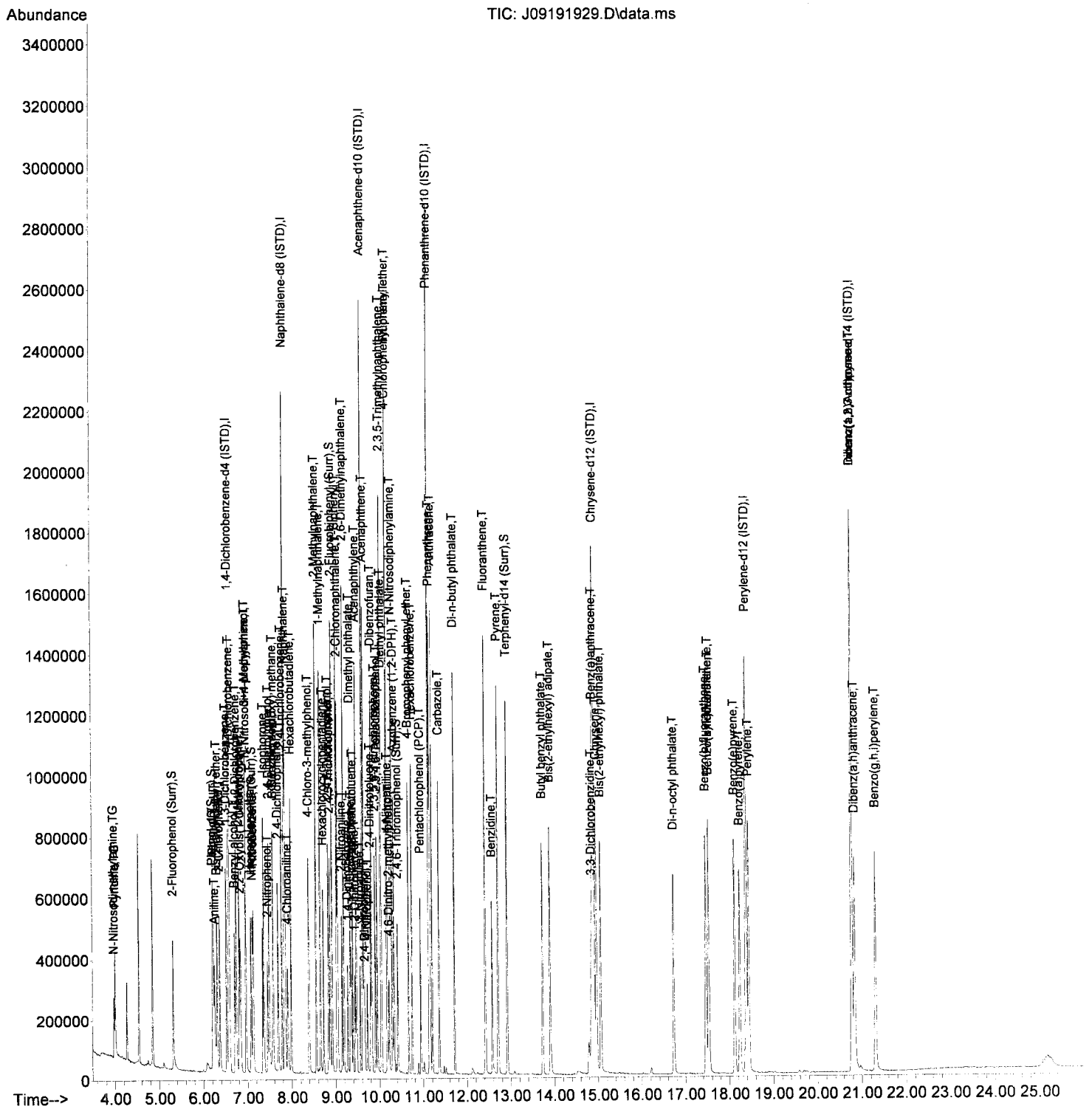
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,4-Dinitrobenzene	9.274	168	53357	1114.51	ng/ml	94
45) Dimethyl phthalate	9.333	163	471576	1061.40	ng/ml	99
46) 1,3-Dinitrobenzene	9.354	168	66203	1081.70	ng/ml	96
47) 2,6-Dinitrotoluene	9.392	165	104413	1044.00	ng/ml	94
48) 1,2-Dinitrobenzene	9.445	168	47869	1063.48	ng/ml	96
49) Acenaphthylene	9.472	152	662544	1059.38	ng/ml	98
50) 3-Nitroaniline	9.563	138	81403	1060.77	ng/ml	95
51) Acenaphthene	9.649	153	411344	1001.62	ng/ml	99
52) 2,4-Dinitrophenol	9.665	184	21975	972.00	ng/ml	97
53) 4-Nitrophenol	9.723	139	67638	1106.89	ng/ml	99
54) 2,4-Dinitrotoluene	9.798	165	130952	1048.40	ng/ml	96
55) Dibenzofuran	9.825	168	586441	1071.22	ng/ml	99
56) 2,3,5,6-Tetrachlorophenol	9.905	232	101694	1077.31	ng/ml	98
57) 2,3,4,6-Tetrachlorophenol	9.948	232	104694	1014.00	ng/ml	98
58) Diethyl phthalate	10.050	149	444740	1087.44	ng/ml	98
59) 2,3,5-Trimethylnaphtha...	10.039	170	361627	1037.33	ng/ml	98
60) Fluorene	10.173	166	450597	1045.90	ng/ml	100
61) 4-Chlorophenyl phenyl ...	10.167	204	220862	1051.57	ng/ml	98
62) 4-Nitroaniline	10.183	138	71452	1080.74	ng/ml	94
63) 4,6-Dinitro-2-methylph...	10.216	198	51879	1157.72	ng/ml	99
65) N-Nitrosodiphenylamine	10.285	169	378338	1064.38	ng/ml	97
66) Azobenzene (1,2-DPH)	10.328	77	373113	1037.26	ng/ml	97
68) 4-Bromophenyl phenyl e...	10.665	248	134322	1032.58	ng/ml	95
69) Hexachlorobenzene	10.745	284	157623	1010.04	ng/ml	96
70) Pentachlorophenol (PCP)	10.938	266	76022	975.76	ng/ml	99
71) Phenanthrene	11.157	178	656765	1015.50	ng/ml	99
72) Anthracene	11.205	178	657889	1058.25	ng/ml	100
73) Carbazole	11.366	167	473433	964.91	ng/ml	100
74) Di-n-butyl phthalate	11.713	149	721001	1057.53	ng/ml	100
75) Fluoranthene	12.419	202	721487	1088.45	ng/ml	99
76) Benzidine	12.574	184	294175	1842.78	ng/ml	98
77) Pyrene	12.708	202	722196	1070.62	ng/ml	100
80) Butyl benzyl phthalate	13.724	149	293237	1004.00	ng/ml	99
81) Bis(2-ethylhexyl) adipate	13.901	129	280177	1058.58	ng/ml	98
82) 3,3-Dichlorobenzidine	14.853	252	184897	2062.77	ng/ml	97
83) Benz(a)anthracene	14.880	228	655689	1029.12	ng/ml	98
84) Chrysene	14.965	228	602768	1009.53	ng/ml	99
85) Bis(2-ethylhexyl) phth...	15.061	149	426572	1039.18	ng/ml	98
87) Di-n-octyl phthalate	16.730	149	675629	1013.80	ng/ml	100
88) Benzo(b)fluoranthene	17.463	252	645650	1008.51	ng/ml	99
89) Benzo(k)fluoranthene	17.532	252	640735	992.12	ng/ml	99
90) Benzo(b+k)fluoranthene	17.532	252	1307403	1987.64	ng/ml	99
91) Benzo(e)pyrene	18.115	252	622430	1042.80	ng/ml	100
92) Benzo(a)pyrene	18.238	252	564640	971.42	ng/ml	98
93) Perylene	18.442	252	636474	1215.26	ng/ml	100
95) Indeno(1,2,3-cd)pyrene	20.774	276	575136	973.51	ng/ml	100
96) Dibenz(a,h)anthracene	20.843	278	552893	1019.31	ng/ml	99
97) Benzo(g,h,i)perylene	21.309	276	598608	1054.88	ng/ml	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I19035\
Data File : J09191929.D
Acq On : 20 Sep 2019 7:50 am
Operator : JK/ AMS/ DTH
Sample : 9I19035-ICV1
Misc : 1x, A19I254@1000
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:SV10_AQUISITION.M

Quant Time: Sep 20 14:32:58 2019
Quant Method : C:\msdchem\1\methods\SV10_091919.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Fri Sep 20 10:41:03 2019
Response via : Initial Calibration
InstName : SV-GCMS10



APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Total Metals by EPA 6020A (ICPMS)
Benchsheet Data and Analysis (Including Calibration)

Batch 9110369
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

9110369

NOV 1 1 2019

Apex Laboratories

BATCH #: 9110369 (Sediment)

Prep Method: EPA 3051A

Lab Number	Due	Prepared	Initial (g)	Final (mL)	Client	ClientID / Sample	Extraction Comments
9110369-BLK1		11/01/19 10:01	0.5	50	QC Sample		
9110369-BS1		11/01/19 10:01	0.5	50	QC Sample		
Spike 1: 2500 uL of A19J430 Spike 2: 250 uL of A19I359							
A9J0954-01	11/07/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PDI-019SC-C-00-3.2-19102	
☐ 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							
A9J0954-02	11/07/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PDI-095SC-C-00-8.8-19102	
☐ 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							
A9J1007-01	11/11/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PDI-083SC-C-00-08-19102	
☐ 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							
A9J1137-06	11/13/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PD-15	
☐ 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							
9110369-DUP1		11/01/19 10:01	0.5	50	QC Sample		
Source: A9J1137-06							
9110369-MS1		11/01/19 10:01	0.5	50	QC Sample		
Source: A9J1137-06 Spike 1: 2500 uL of A19J430 Spike 2: 250 uL of A19I359							
A9J1137-12	11/13/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PD-16	
☐ 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							
A9J1137-18	11/13/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PD-17	
☐ 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							
A9J1137-24	11/13/19	11/01/19 10:01	0.5	50	Anchor QEA, LLC	PD-18	
☐ 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: Date 11/1/19

Reviewed By: ESS Date 11/4/19

11/1/19

APEX LABORATORIES

Apex Laboratories
BATCH #: 9110369 (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
A17E426	05/31/20	Mars-4 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 LCT 11/1/19
A19J430	12/11/19	**Combo Spike** A+B+C

LCT 11/1/19
A.) A19J351, 1250uL
B.) A19J308, 625uL
C.) A19J309, 625uL

Digestion time and temperature achieved? YES
Initials: LCT 11/1/19

Prepared By: Date 11/1/19

Reviewed By: Date

Batch #: 9110369

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: 11/01/19 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	S69	9110369-BLK1	186.78	186.75	n/a
2	S65	9110369-BS1	186.03	186.02	n/a
3	S35	A9J0954-01	185.92	185.92	n/a
4	S95	A9J0954-02	187.71	187.70	n/a
5	S38	A9J1007-01	186.25	186.24	n/a
6	S18	A9J1137-06	186.39	186.38	n/a
7	S13	9110369-DUP1	186.23	186.23	n/a
8	S31	9110369-MS1	185.61	185.55	n/a
9	S6	A9J1137-12	185.55	185.55	n/a
10	S25	A9J1137-18	185.62	185.61	n/a
11	S94	A9J1137-24	183.81	183.80	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.

APEX LABORATORIES

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			

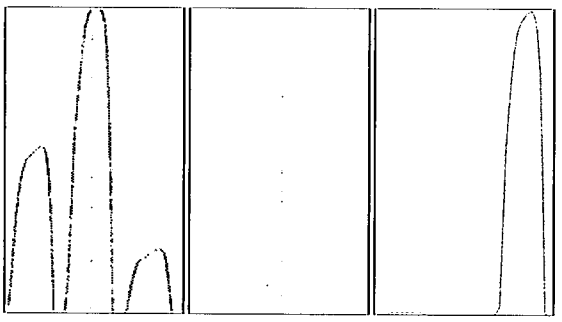
Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

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

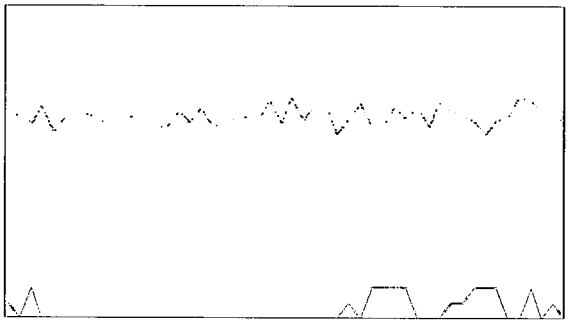
Tune Report

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:

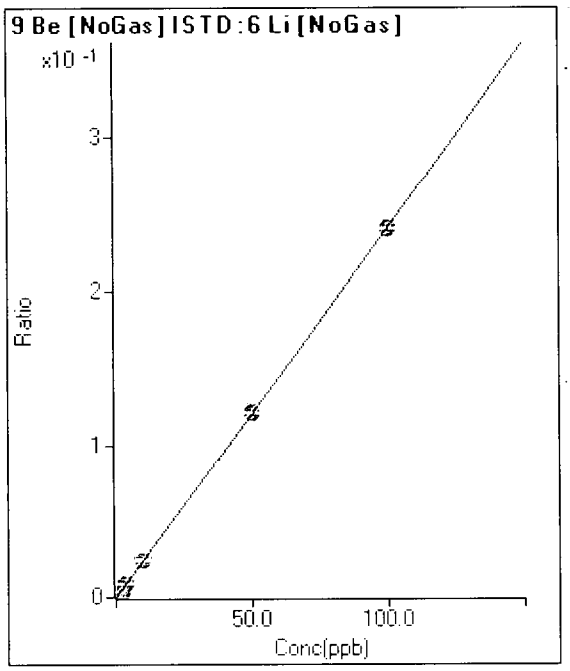
Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	817,567	1.1	975380.393333333	Mix	83.8	
Sc	45	H2	1,897,017	0.6	2277280.85	Analog	83.3	
Sc	45	He	290,220	0.5	348790.796666667	Pulse	83.2	
Sc	45	NoGas	2,551,512	1.3	3065554.46333333	Analog	83.2	
Ge	74	H2	566,952	0.4	718037.156666667	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

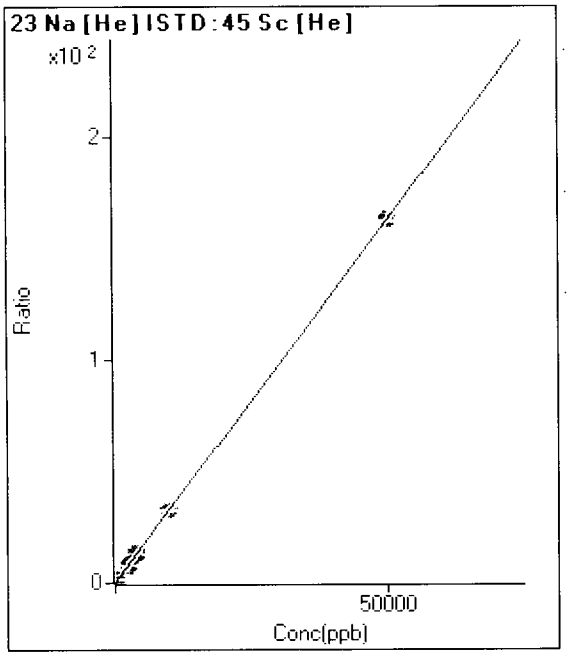
Calibration for 013_ICV.d



	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>

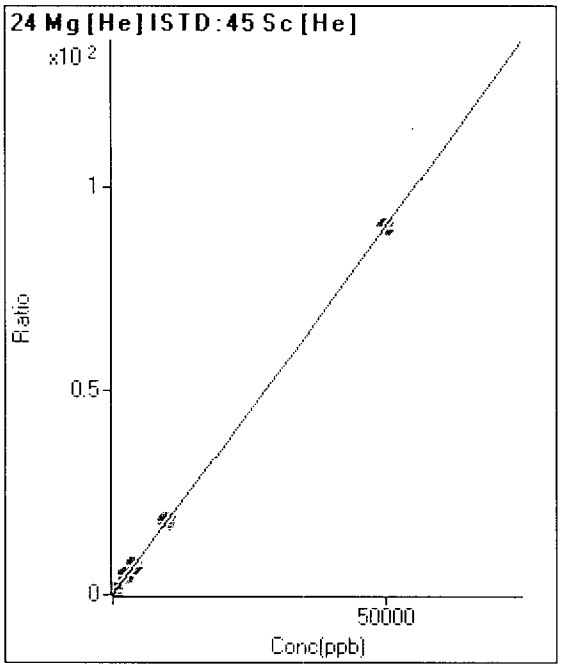


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4,204	0.012	P	7.4
2	☐			14,320	0.041	P	0.4
3	☐	45.000	44.816	55,613	0.158	P	0.3
4	☐	90.000	88.737	106,067	0.301	P	0.8
5	☐	180.000	178.718	208,986	0.594	P	1.1
6	☐	400.000	403.486	459,095	1.326	P	0.5
7	☐	2500.000	2480.844	2,714,631	8.089	A	1.2
8	☐	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>

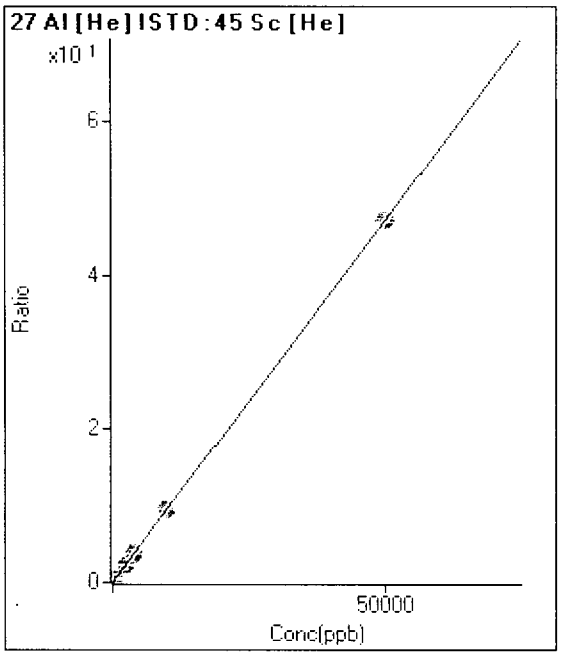
Calibration for 013_ICV.d



	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>

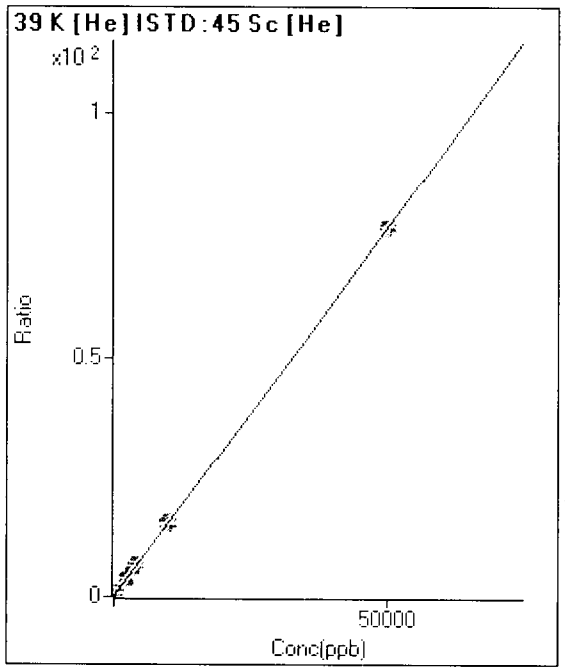


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	104	0.000	P	26.3
2	☐			3,069	0.009	P	8.0
3	☐	45.000	44.620	14,932	0.042	P	0.7
4	☐	90.000	90.062	30,064	0.085	P	1.2
5	☐	180.000	181.038	60,228	0.171	P	1.7
6	☐	400.000	404.466	132,306	0.382	P	1.1
7	☐	2500.000	2452.882	777,022	2.315	P	0.2
8	☐	4000.000	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>

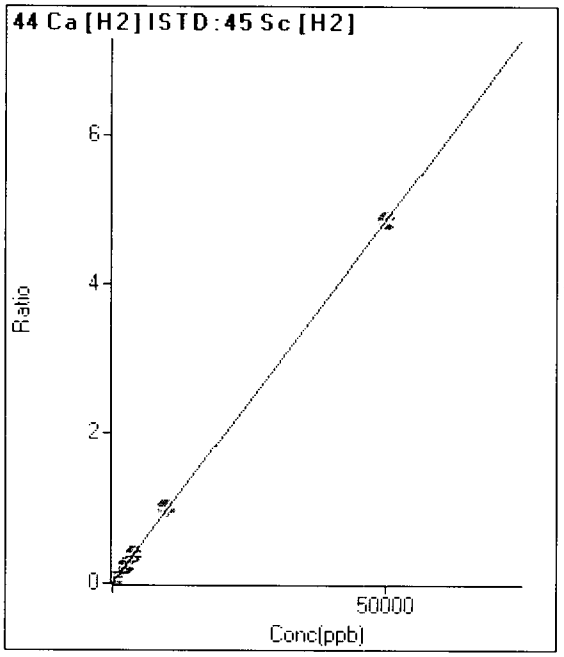
Calibration for 013_ICV.d



	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>

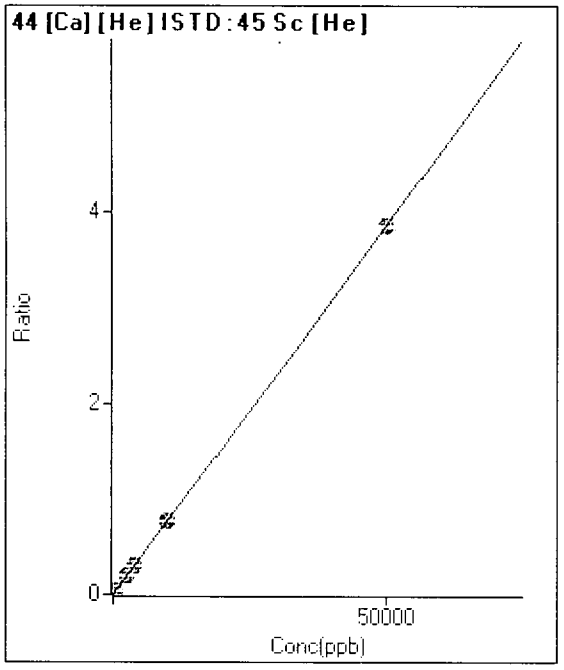


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	444	0.000	P	17.7
2	☐			2,559	0.001	P	3.8
3	☐	45.000	46.589	10,825	0.005	P	1.0
4	☐	90.000	91.733	20,742	0.009	P	1.0
5	☐	180.000	181.777	41,149	0.018	P	1.6
6	☐	400.000	404.457	90,248	0.039	P	0.4
7	☐	2500.000	2487.233	535,387	0.242	P	0.9
8	☐	4000.000	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>

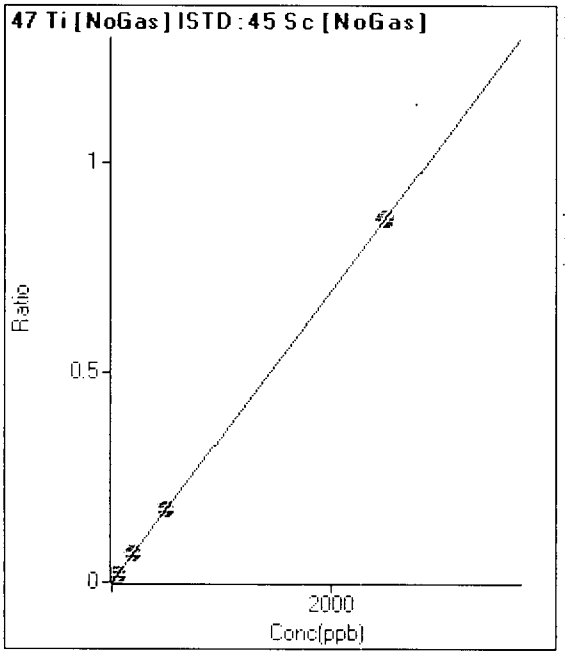
Calibration for 013_ICV.d



	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>

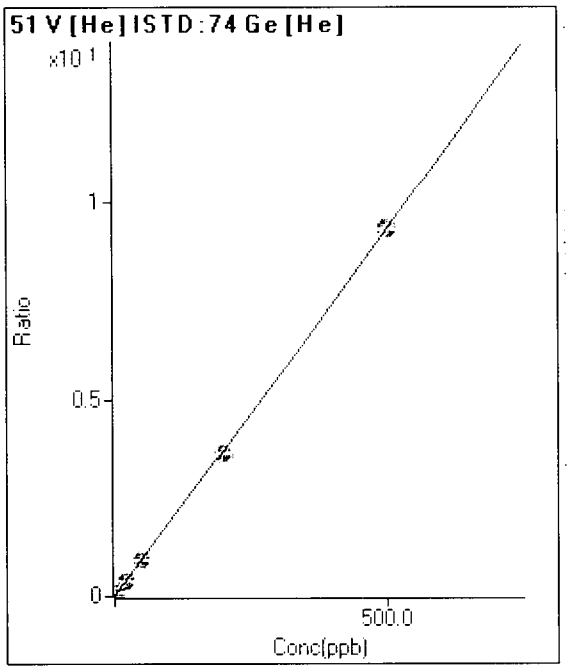


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37	0.000	P	15.2
2	☐	0.180	0.224	277	0.000	P	15.3
3	☐	0.900	0.886	981	0.000	P	7.8
4	☐	1.800	1.857	2,016	0.001	P	4.3
5	☐	3.600	3.706	4,030	0.001	P	0.8
6	☐	20.000	21.099	22,313	0.007	P	2.4
7	☐	50.000	50.374	50,987	0.017	P	2.9
8	☐	200.000	203.424	188,800	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>

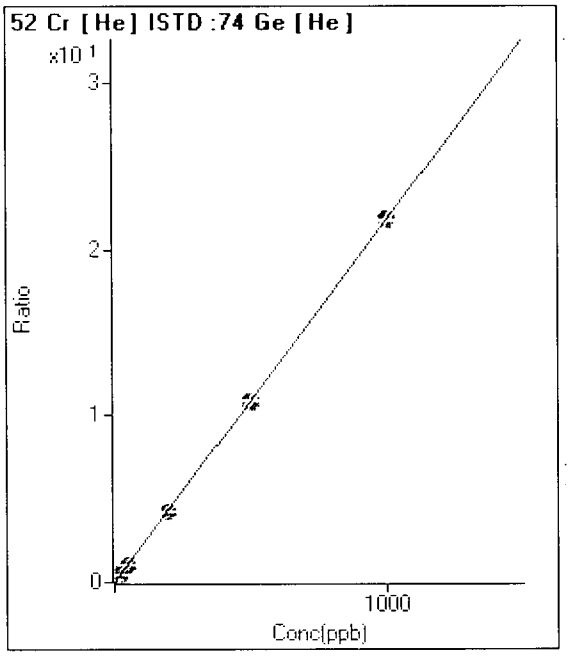
Calibration for 013_ICV.d



	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>

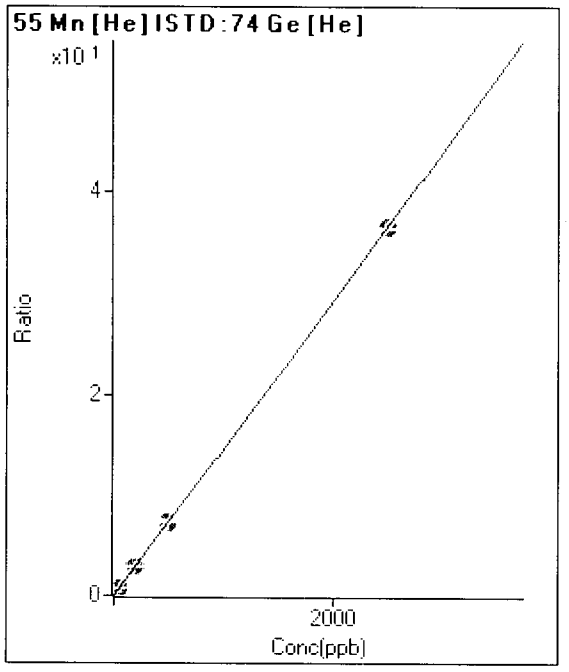


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	254	0.001	P	12.0
2	☐	0.180	0.186	1,100	0.005	P	3.6
3	☐	0.900	0.938	4,528	0.022	P	1.1
4	☐	1.800	1.857	8,671	0.042	P	2.2
5	☐	3.600	3.609	16,614	0.080	P	1.3
6	☐	20.000	20.306	90,893	0.444	P	0.8
7	☐	50.000	49.774	214,611	1.086	P	0.6
8	☐	200.000	197.611	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>

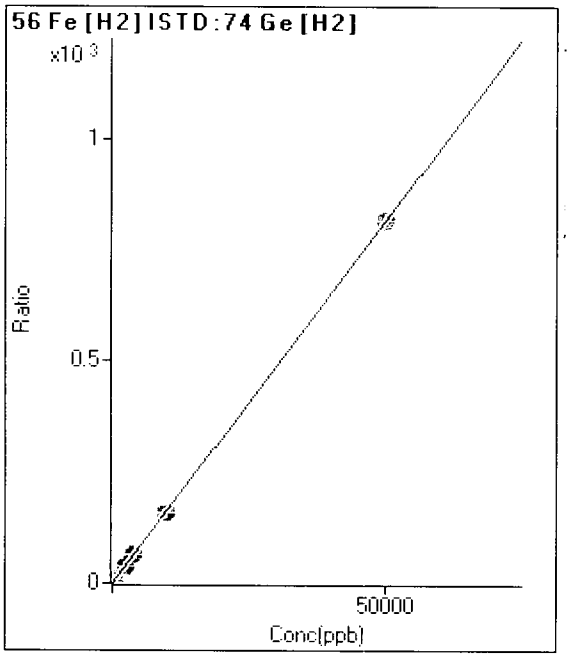
Calibration for 013_ICV.d



	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

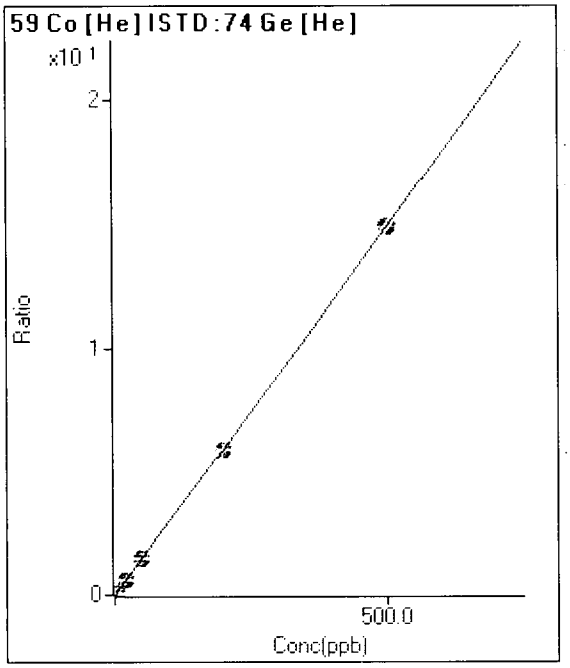
Weight: <None>
Min Conc: <None>



	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

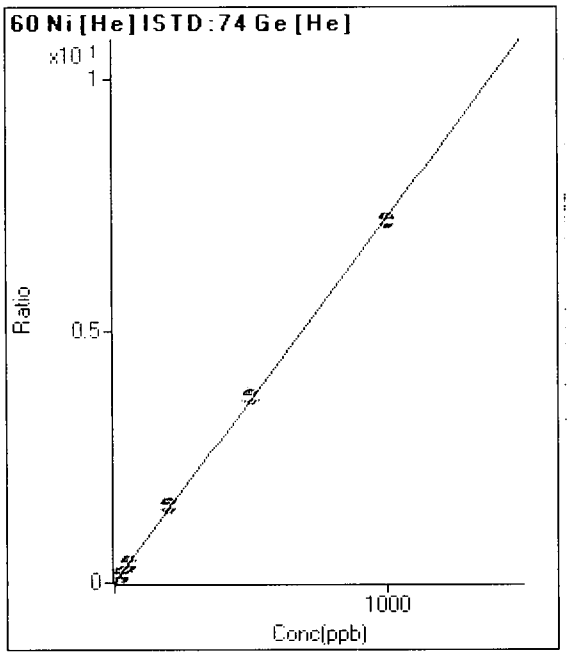
Weight: <None>
Min Conc: <None>



	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>

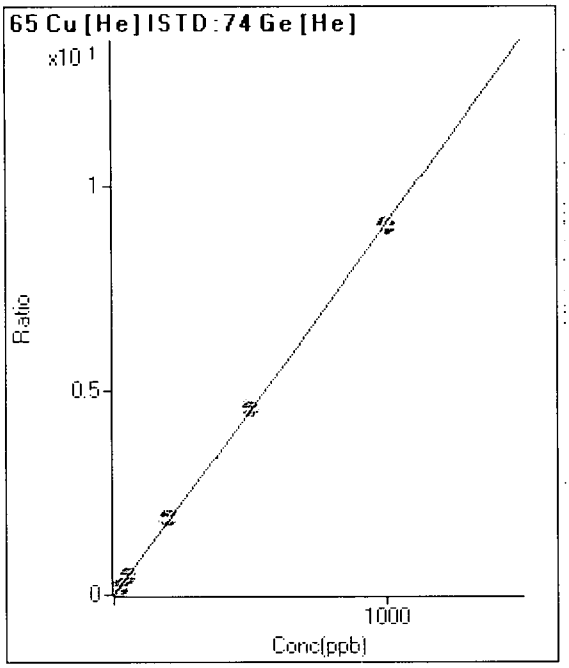


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61	0.000	P	41.7
2	☐	0.180	0.176	327	0.002	P	8.5
3	☐	0.900	0.969	1,526	0.007	P	5.0
4	☐	1.800	1.933	2,968	0.014	P	3.6
5	☐	3.600	3.916	5,952	0.029	P	4.6
6	☐	20.000	21.737	32,277	0.158	P	1.1
7	☐	50.000	53.287	76,255	0.386	P	0.9
8	☐	200.000	210.071	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>

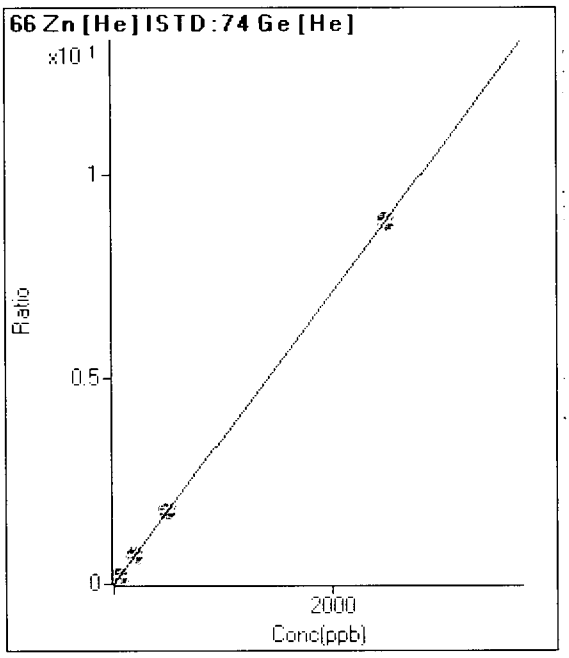
Calibration for 013_ICV.d



	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>

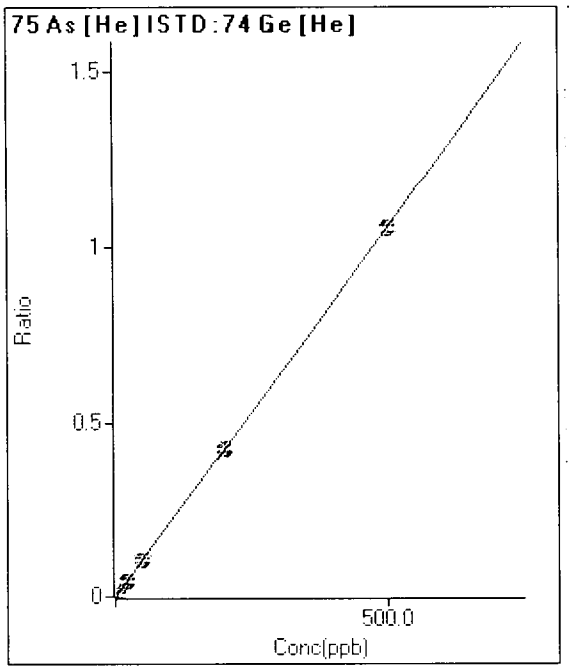


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40	0.000	P	21.5
2	☐	0.180	0.157	156	0.001	P	10.9
3	☐	0.900	0.918	719	0.003	P	7.6
4	☐	1.800	1.833	1,388	0.007	P	4.5
5	☐	3.600	3.693	2,757	0.013	P	3.1
6	☐	20.000	20.433	14,844	0.072	P	0.4
7	☐	50.000	50.926	35,641	0.180	P	0.8
8	☐	200.000	203.411	132,642	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>

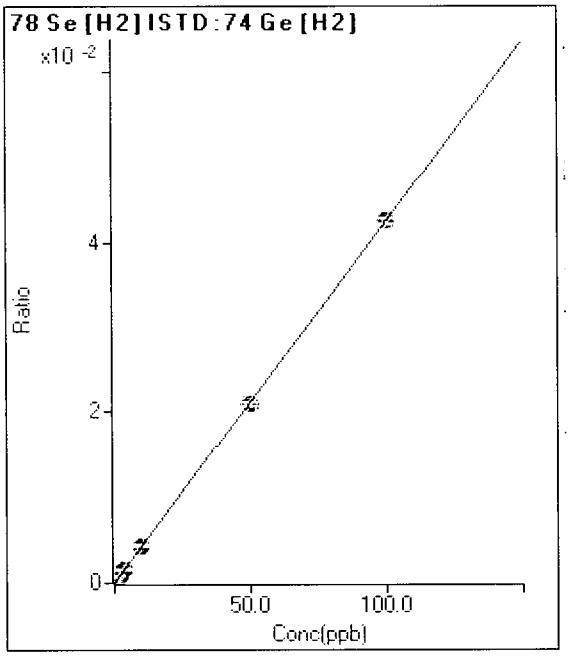
Calibration for 013_ICV.d



	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>

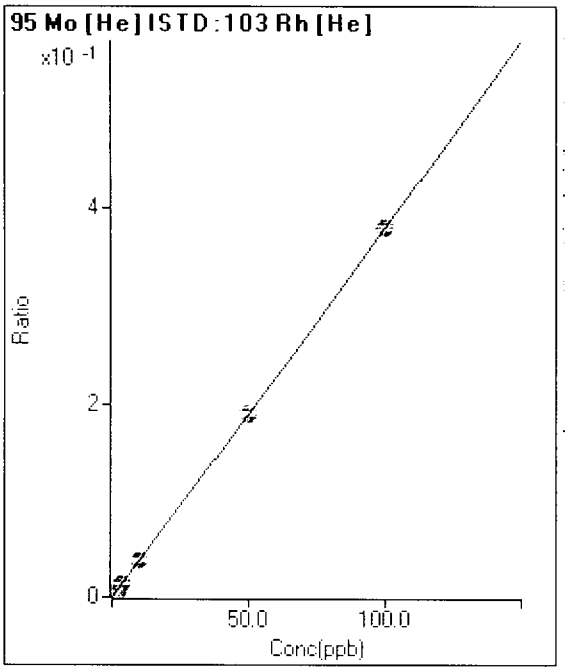


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2	0.000	P	173.2
2	☐	0.180	0.221	70	0.000	P	10.6
3	☐	0.900	0.947	293	0.000	P	5.0
4	☐	1.800	1.881	580	0.001	P	4.8
5	☐	3.600	3.583	1,101	0.002	P	4.6
6	☐	10.000	10.326	3,152	0.004	P	1.4
7	☐	50.000	49.403	14,679	0.021	P	1.3
8	☐	100.000	100.264	28,203	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>

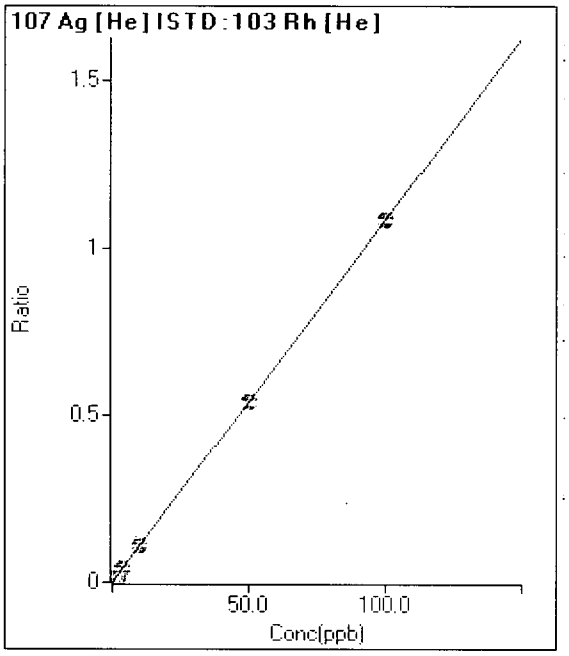
Calibration for 013_ICV.d



	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>

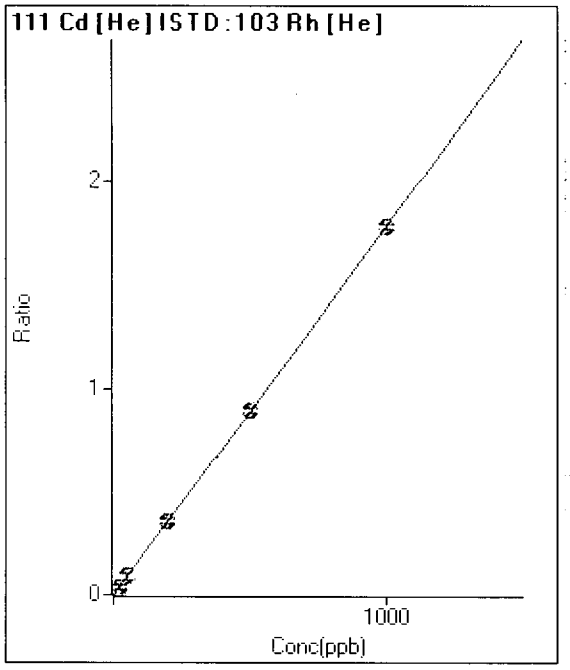


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7	0.000	P	86.6
2	☐	0.180	0.181	924	0.002	P	7.7
3	☐	0.900	0.884	4,498	0.010	P	5.4
4	☐	1.800	1.779	9,004	0.019	P	6.0
5	☐	3.600	3.610	18,118	0.039	P	2.0
6	☐	10.000	10.193	50,353	0.110	P	2.3
7	☐	50.000	49.721	236,150	0.539	P	0.6
8	☐	100.000	100.121	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>

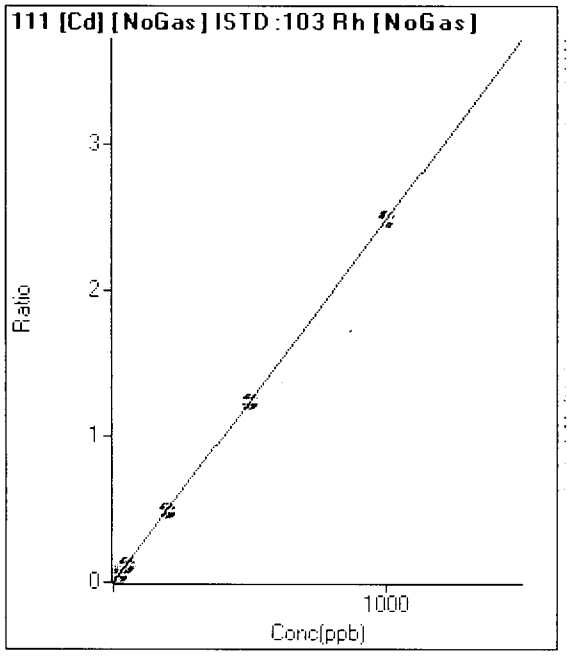
Calibration for 013_ICV.d



	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>

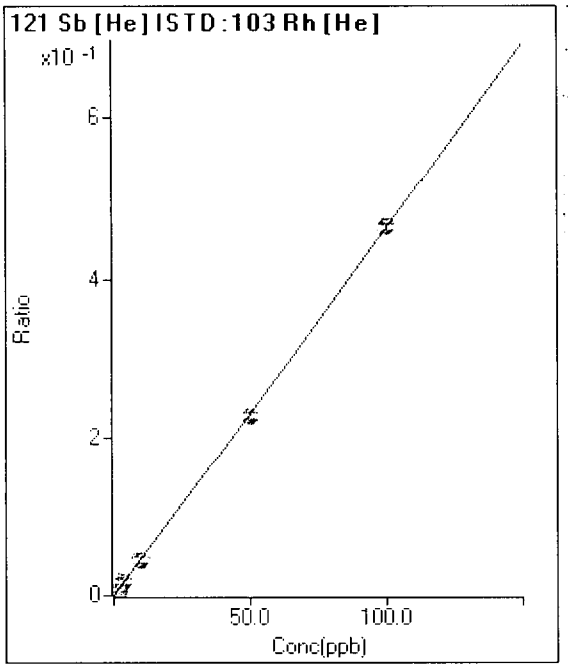


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21	0.000	P	27.1
2	☐	0.180	0.175	380	0.000	P	21.3
3	☐	0.900	0.852	1,773	0.002	P	5.9
4	☐	1.800	1.739	3,577	0.004	P	5.9
5	☐	3.600	3.576	7,271	0.009	P	1.7
6	☐	20.000	19.621	39,435	0.049	P	0.7
7	☐	50.000	48.700	92,541	0.121	P	0.4
8	☐	200.000	196.624	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>

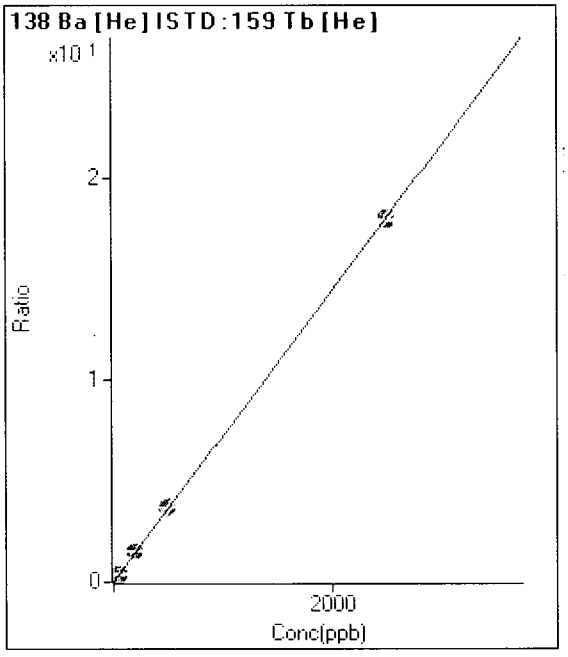
Calibration for 013_ICV.d



	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>

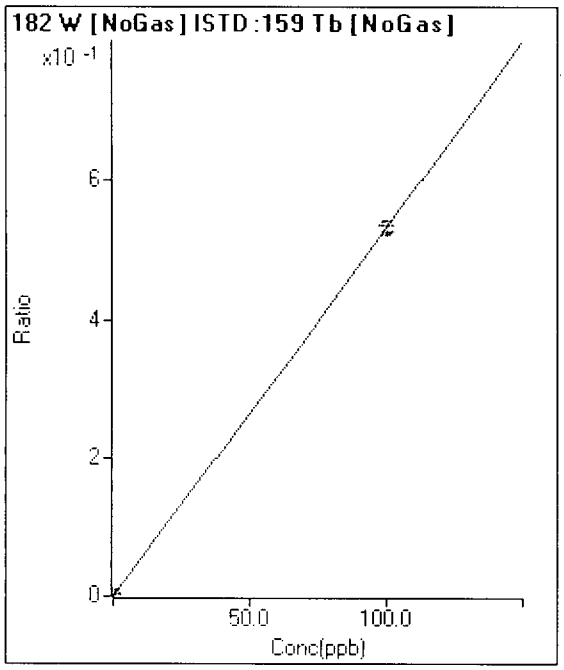


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	119	0.000	P	19.6
2	☐	0.180	0.181	904	0.002	P	5.0
3	☐	0.900	0.969	4,345	0.007	P	1.2
4	☐	1.800	1.959	8,583	0.014	P	1.8
5	☐	3.600	3.852	16,733	0.028	P	3.2
6	☐	20.000	21.839	93,488	0.158	P	1.1
7	☐	50.000	53.238	223,712	0.384	P	0.5
8	☐	200.000	209.750	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>

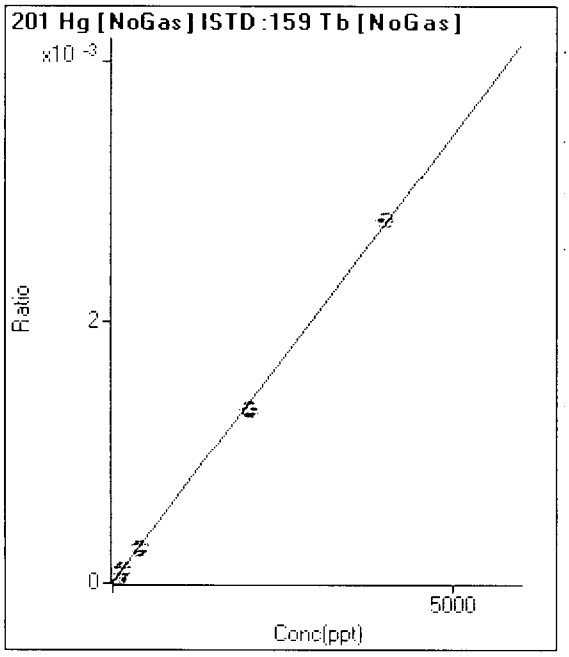
Calibration for 013_ICV.d



	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>

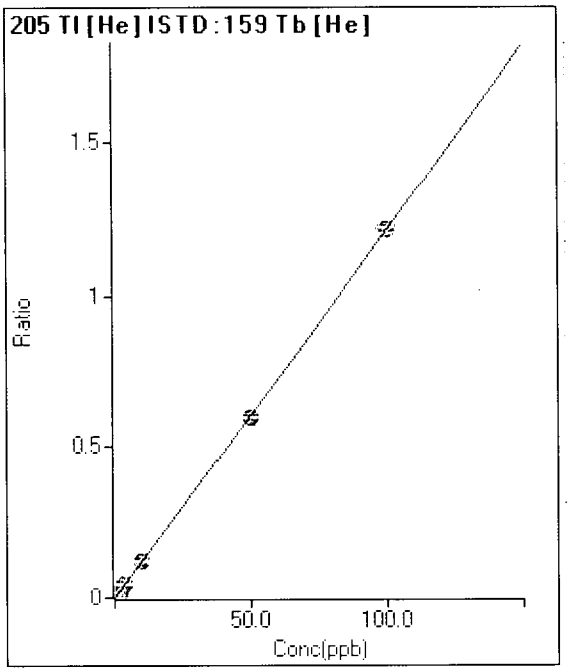


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6	0.000	P	13.0
2	☐			13	0.000	P	17.1
3	☐	36.000	33.080	38	0.000	P	8.9
4	☐	72.000	67.108	72	0.000	P	8.5
5	☐	144.000	137.791	140	0.000	P	7.2
6	☐	400.000	389.145	383	0.000	P	2.1
7	☐	2000.000	1931.963	1,817	0.001	P	3.0
8	☐	4000.000	4035.442	3,494	0.003	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>

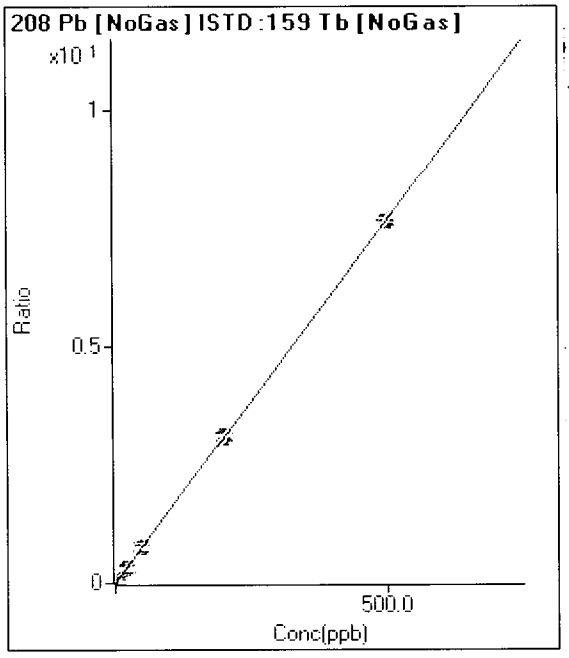
Calibration for 013_ICV.d



	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>

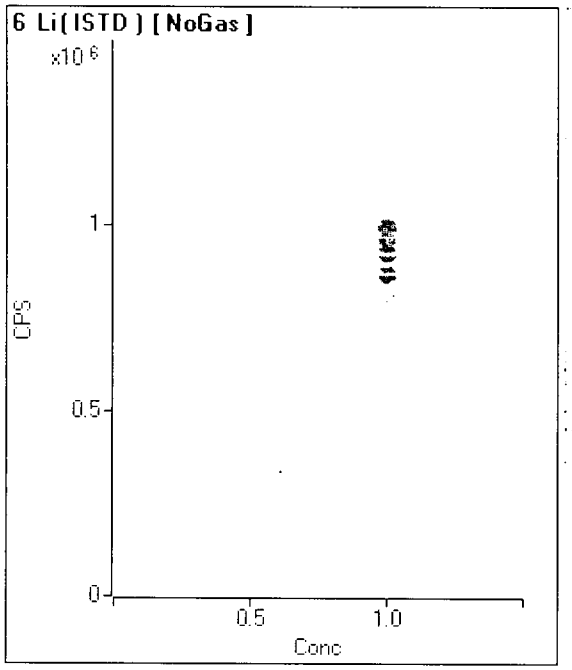


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	758	0.001	P	6.0
2	☐	0.180	0.180	4,646	0.003	P	4.6
3	☐	0.900	0.910	20,318	0.015	P	1.3
4	☐	1.800	1.766	39,544	0.028	P	1.3
5	☐	3.600	3.561	77,774	0.055	P	0.7
6	☐	20.000	19.822	428,915	0.305	P	2.2
7	☐	50.000	49.019	1,025,313	0.753	P	0.7
8	☐	200.000	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

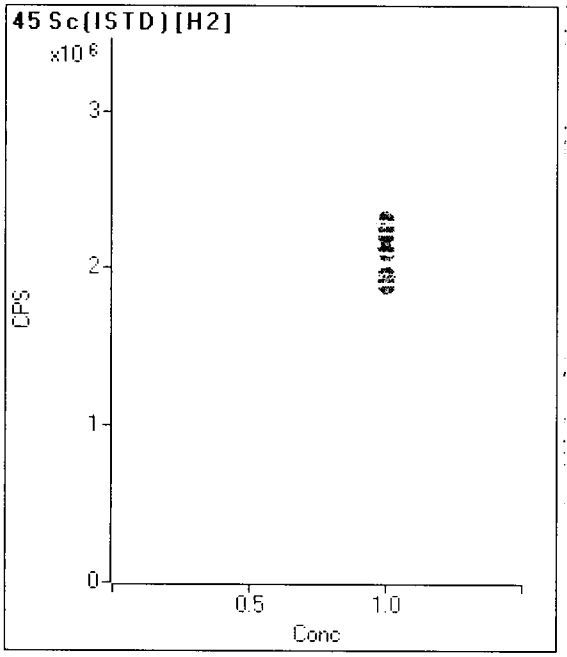
y = 0.0154 * x + 5.3793E-004
R = 1.0000
DL = 0.006291
BEC = 0.03503

Weight: <None>
Min Conc: <None>

Calibration for 013_ICV.d

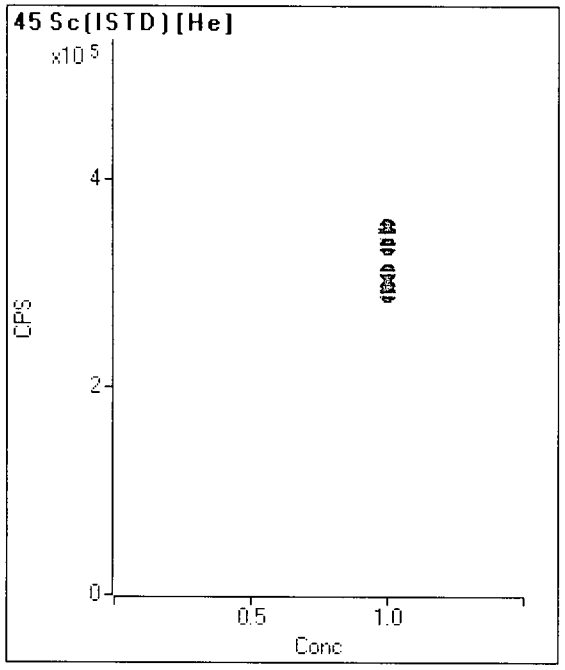


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		975,380		A	1.6
2	☐	1.000		992,255		A	0.9
3	☐	1.000		993,278		A	0.6
4	☐	1.000		974,530		A	1.2
5	☐	1.000		982,176		A	0.8
6	☐	1.000		960,475		A	2.2
7	☐	1.000		924,373		A	0.1
8	☐	1.000		870,870		A	0.3
9	☐	1.000		813,919		P	0.2
10	☐	1.000		817,567		M	1.1

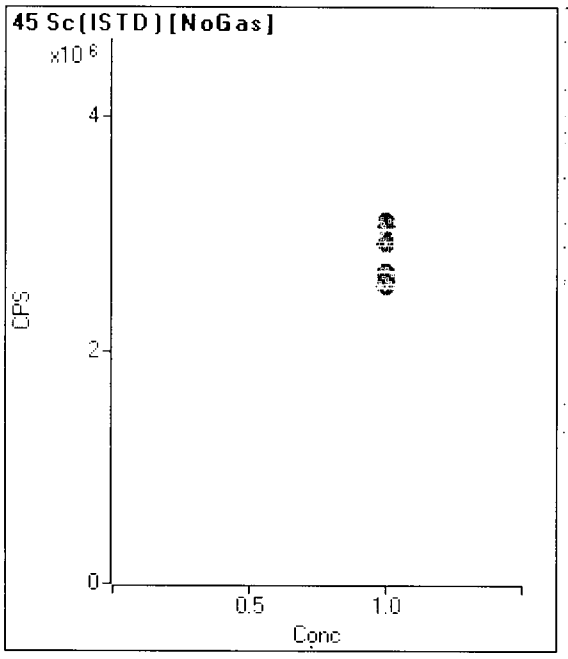


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2,277,281		A	1.0
2	☐	1.000		2,275,915		A	0.6
3	☐	1.000		2,293,568		A	0.2
4	☐	1.000		2,278,691		A	1.1
5	☐	1.000		2,305,677		A	0.4
6	☐	1.000		2,286,427		A	1.1
7	☐	1.000		2,214,928		A	0.7
8	☐	1.000		2,096,878		A	0.8
9	☐	1.000		1,954,437		A	1.1
10	☐	1.000		1,897,017		A	0.6

Calibration for 013_ICV.d

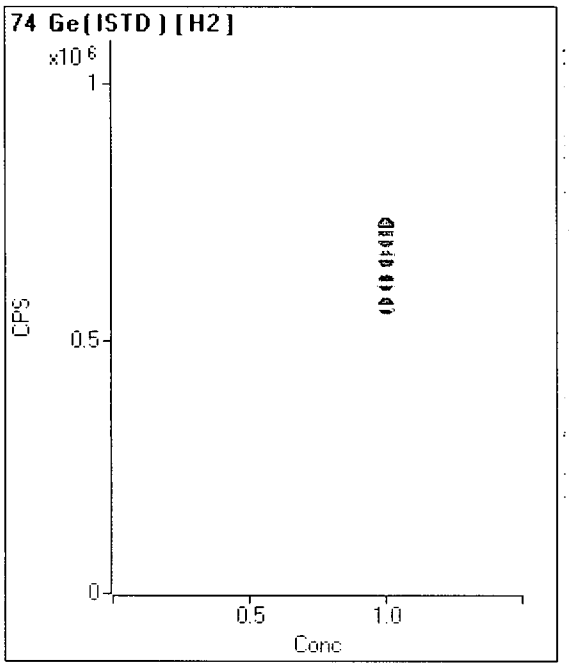


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		348,791		P	1.3
2	☐	1.000		353,540		P	0.6
3	☐	1.000		352,074		P	1.0
4	☐	1.000		352,430		P	0.9
5	☐	1.000		351,907		P	1.3
6	☐	1.000		346,301		P	0.5
7	☐	1.000		335,585		P	0.1
8	☐	1.000		310,973		P	0.4
9	☐	1.000		295,975		P	0.1
10	☐	1.000		290,220		P	0.5

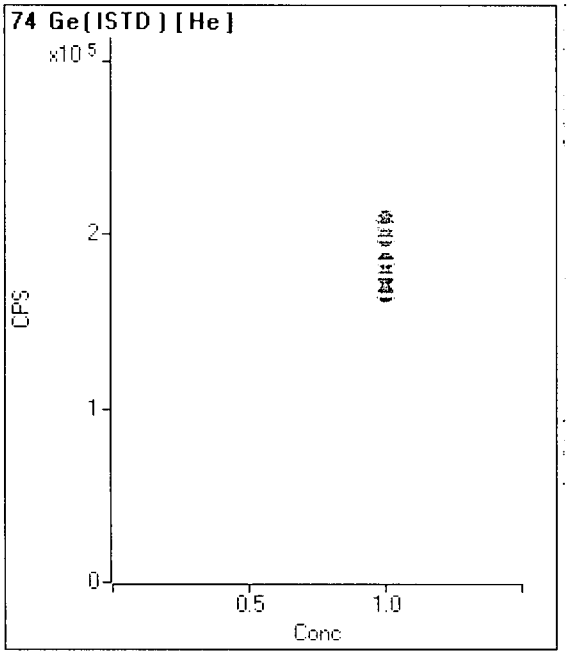


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3,065,554		A	0.6
2	☐	1.000		3,087,536		A	0.9
3	☐	1.000		3,077,189		A	2.0
4	☐	1.000		3,073,166		A	0.6
5	☐	1.000		3,106,368		A	0.2
6	☐	1.000		3,043,775		A	0.5
7	☐	1.000		2,916,250		A	0.9
8	☐	1.000		2,675,094		A	0.9
9	☐	1.000		2,588,372		A	0.3
10	☐	1.000		2,551,512		A	1.3

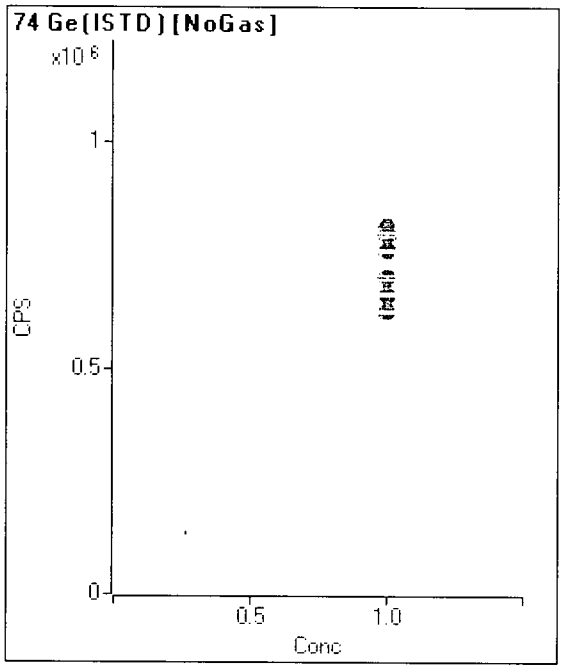
Calibration for 013_ICV.d



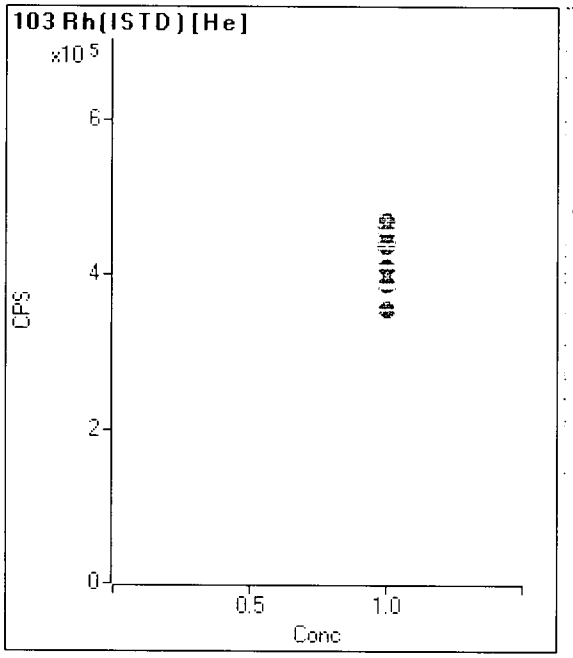
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		718,037		P	0.1
2	☐	1.000		723,924		P	0.5
3	☐	1.000		723,420		P	0.6
4	☐	1.000		723,010		P	0.5
5	☐	1.000		721,863		P	0.7
6	☐	1.000		717,552		P	0.4
7	☐	1.000		698,880		P	0.6
8	☐	1.000		661,613		P	0.3
9	☐	1.000		613,281		P	0.5
10	☐	1.000		566,952		P	0.4



	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

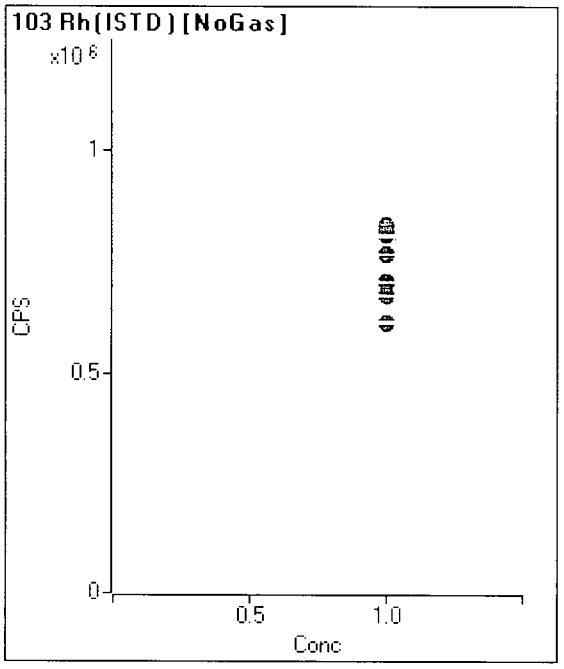


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		806,775		P	0.8
2	☐	1.000		810,726		P	0.7
3	☐	1.000		813,013		P	1.1
4	☐	1.000		812,915		P	1.1
5	☐	1.000		808,452		P	0.6
6	☐	1.000		798,835		P	1.1
7	☐	1.000		761,126		P	0.7
8	☐	1.000		703,151		P	0.9
9	☐	1.000		665,594		P	1.0
10	☐	1.000		627,888		P	0.6

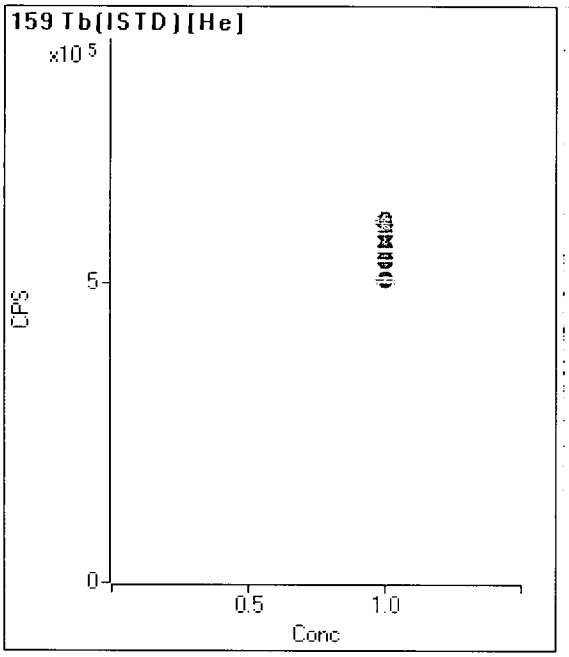


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		466,758		P	0.4
2	☐	1.000		468,420		P	0.2
3	☐	1.000		469,037		P	0.8
4	☐	1.000		466,717		P	0.7
5	☐	1.000		462,920		P	0.9
6	☐	1.000		455,803		P	0.8
7	☐	1.000		438,255		P	1.1
8	☐	1.000		410,785		P	0.9
9	☐	1.000		387,341		P	0.7
10	☐	1.000		355,627		P	0.6

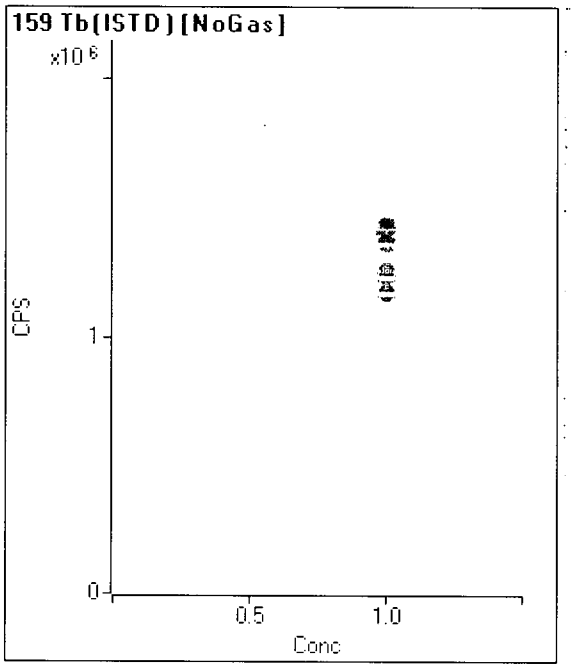
Calibration for 013_ICV.d



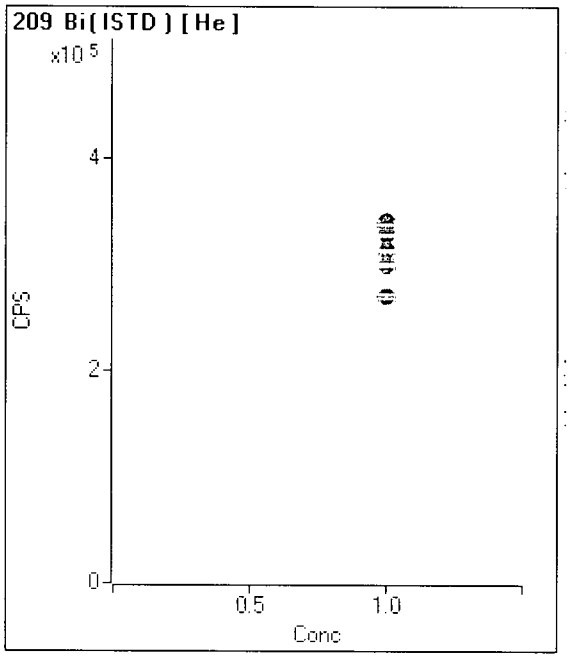
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		832,260		P	0.5
2		1.000		827,553		P	0.9
3		1.000		830,411		P	0.4
4		1.000		825,866		P	0.5
5		1.000		818,888		P	0.7
6		1.000		811,251		P	0.5
7		1.000		767,237		P	0.3
8		1.000		706,263		P	0.2
9		1.000		674,439		P	0.5
10		1.000		614,700		P	0.7



	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

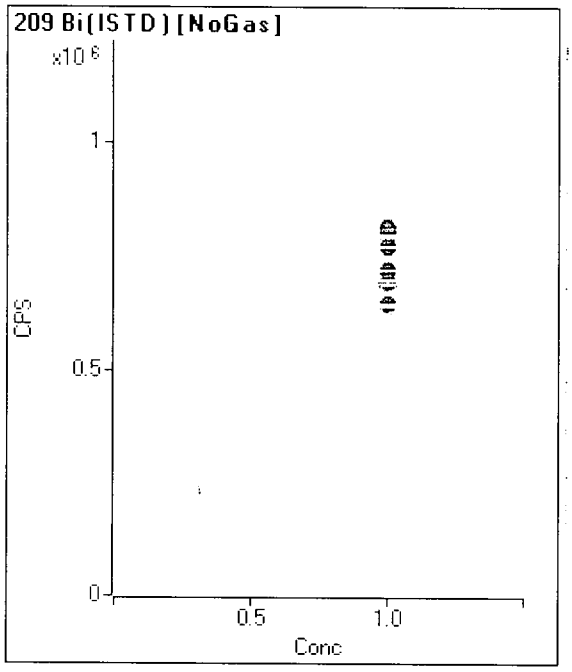


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1,409,745		A	1.8
2	☐	1.000		1,409,937		A	0.4
3	☐	1.000		1,399,598		A	1.1
4	☐	1.000		1,429,591		A	0.8
5	☐	1.000		1,408,536		A	0.1
6	☐	1.000		1,407,136		A	1.9
7	☐	1.000		1,361,289		A	0.8
8	☐	1.000		1,255,555		P	0.7
9	☐	1.000		1,231,847		P	1.0
10	☐	1.000		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	

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	

Quantitation Report - ICPMS5

Sample Name:	**9110369-BLK1**	Total Dilution:	**5.0000**
File Name:	096SMPL.d	Vial:	3413
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 19:05:46	I.S. Reference File:	002CALB.d
Comment:	**9110369 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	0.006	ppb	62.5	30	100	
Na	23	45	He	7.83	ppb	2.8	13,091	50000	
Mg	24	45	He	1.809	ppb	6.8	1,567	50000	
Al	27	45	He	4.677	ppb	2.5	1,643	50000	
K	39	45	He	1.437	ppb	65.2	28,073	50000	
Ca	44	45	H2	6.073	ppb	3.3	1,835	50000	
[Ca]	44	45	He	5.388	ppb	10.8	381	50000	
Ti	47	45	NoGas	0.439	ppb	9.4	516	2500	
V	51	74	He	0.042	ppb	28.1	1,912	500	
Cr	52	74	He	0.018	ppb	42.0	322	1000	
Mn	55	74	He	0.102	ppb	7.2	329	2500	
Fe	56	74	H2	13.365	ppb	8.0	156,421	50000	
Co	59	74	He	0.007	ppb	20.0	58	500	
Ni	60	74	He	-0.006	ppb	N/A	50	1000	
Cu	65	74	He	0.013	ppb	26.5	91	1000	
Zn	66	74	He	0.065	ppb	70.6	84	2500	
As	75	74	He	0.01	ppb	220.3	33	500	
Se	78	74	H2	0.005	ppb	147.3	3	100	
Mo	95	103	He	0.008	ppb	70.3	23	100	
Ag	107	103	He	0.003	ppb	65.8	19	100	
Cd	111	103	He	-0.006	ppb	N/A	3	1000	
[Cd]	111	103	NoGas	0	ppb	231.0	20	1000	
Sb	121	103	He	-0.001	ppb	N/A	58	100	
Ba	138	159	He	0.021	ppb	46.8	202	2500	
W	182	159	NoGas	0.001	ppb	126.6	34	40	
Hg	201	159	NoGas	-1.338	ppt	N/A	5	4000	
Tl	205	159	He	0.002	ppb	177.9	24	100	
Pb	208	159	NoGas	0.01	ppb	22.9	1,008	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,050,389	1.4	975380.393333333	Analog	107.7	
Sc	45	H2	2,336,424	0.9	2277280.85	Analog	102.6	
Sc	45	He	348,704	0.8	348790.796666667	Pulse	100.0	
Sc	45	NoGas	3,142,972	0.3	3065554.46333333	Analog	102.5	
Ge	74	H2	690,060	0.3	718037.156666667	Pulse	96.1	
Ge	74	He	197,746	0.9	204919.68	Pulse	96.5	
Ge	74	NoGas	777,204	1.2	806774.886666667	Pulse	96.3	
Rh	103	He	441,306	0.8	466758.146666667	Pulse	94.5	
Rh	103	NoGas	784,588	0.7	832259.633333333	Pulse	94.3	
Tb	159	He	581,846	0.7	600193.66	Pulse	96.9	
Tb	159	NoGas	1,451,029	2.1	1409745.36	Analog	102.9	
Bi	209	He	318,179	0.8	341192.286666667	Pulse	93.3	
Bi	209	NoGas	761,769	0.1	809398.153333333	Pulse	94.1	

Quantitation Report - ICPMS5

Sample Name:	**9110369-BS1**	Total Dilution:	**5.0000**
File Name:	097SMPL.d	Vial:	3414
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 19:10:27	I.S. Reference File:	002CALB.d
Comment:	**9110369 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	25.638	ppb	1.5	63,202	100	
Na	23	45	He	2856.005	ppb	0.9	3,174,587	50000	
Mg	24	45	He	2890.988	ppb	0.1	1,779,307	50000	
Al	27	45	He	2727.757	ppb	0.7	877,931	50000	
K	39	45	He	2932.165	ppb	0.8	1,555,616	50000	
Ca	44	45	H2	2590.435	ppb	0.6	588,082	50000	
[Ca]	44	45	He	2763.954	ppb	0.5	72,717	50000	
Ti	47	45	NoGas	53.201	ppb	2.1	56,623	2500	
V	51	74	He	54.361	ppb	0.9	199,292	500	
Cr	52	74	He	53.986	ppb	0.4	230,318	1000	
Mn	55	74	He	55.665	ppb	0.5	158,925	2500	
Fe	56	74	H2	2815.863	ppb	0.5	31,411,020	50000	
Co	59	74	He	54.827	ppb	0.5	319,711	500	
Ni	60	74	He	56.65	ppb	0.8	80,219	1000	
Cu	65	74	He	55.808	ppb	0.1	98,967	1000	
Zn	66	74	He	52.036	ppb	0.3	36,035	2500	
As	75	74	He	52.767	ppb	0.9	21,817	500	
Se	78	74	H2	25.032	ppb	0.8	7,283	100	
Mo	95	103	He	26.966	ppb	1.2	44,140	100	
Ag	107	103	He	27.987	ppb	1.0	130,791	100	
Cd	111	103	He	52.073	ppb	1.2	40,103	1000	
[Cd]	111	103	NoGas	50.982	ppb	1.3	95,607	1000	
Sb	121	103	He	25.674	ppb	1.4	51,241	100	
Ba	138	159	He	57.197	ppb	0.3	238,027	2500	
W	182	159	NoGas	0.012	ppb	24.5	123	40	
Hg	201	159	NoGas	936.261	ppt	2.3	933	4000	
Tl	205	159	He	25.913	ppb	0.4	181,149	100	
Pb	208	159	NoGas	49.107	ppb	1.4	1,084,479	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,024,320	2.3	975380.393333333	Analog	105.0	
Sc	45	H2	2,336,018	0.7	2277280.85	Analog	102.6	
Sc	45	He	340,972	0.6	348790.796666667	Pulse	97.8	
Sc	45	NoGas	3,066,478	1.2	3065554.46333333	Analog	100.0	
Ge	74	H2	684,178	0.4	718037.156666667	Pulse	95.3	
Ge	74	He	195,566	1.0	204919.68	Pulse	95.4	
Ge	74	NoGas	759,154	0.3	806774.886666667	Pulse	94.1	
Rh	103	He	431,201	1.1	466758.146666667	Pulse	92.4	
Rh	103	NoGas	757,171	0.2	832259.633333333	Pulse	91.0	
Tb	159	He	576,859	0.6	600193.66	Pulse	96.1	
Tb	159	NoGas	1,437,289	0.7	1409745.36	Analog	102.0	
Bi	209	He	313,325	0.5	341192.286666667	Pulse	91.8	
Bi	209	NoGas	753,082	0.5	809398.153333333	Pulse	93.0	

Quantitation Report - ICPMS5

Sample Name:	**A9J0954-01**	Total Dilution:	**5.0000**
File Name:	098SMPL.d	Vial:	3415
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 19:15:04	I.S. Reference File:	002CALB.d
Comment:	**9110369 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	0.615	ppb	2.7	1,478	100	
Na	23	45	He	849.792	ppb	0.3	960,177	50000	
Mg	24	45	He	7430.933	ppb	0.1	4,634,009	50000	
Al	27	45	He	29822.934	ppb	0.6	9,726,220	50000	
K	39	45	He	1418.982	ppb	0.6	776,870	50000	
Ca	44	45	H2	7894.018	ppb	1.3	1,823,408	50000	
[Ca]	44	45	He	7963.099	ppb	0.3	211,864	50000	
Ti	47	45	NoGas	2581.188	ppb	0.6	2,788,397	2500	>LDR RR-2
V	51	74	He	125.387	ppb	0.4	433,765	500	
Cr	52	74	He	34.391	ppb	1.1	139,213	1000	
Mn	55	74	He	611.005	ppb	0.5	1,653,851	2500	
Fe	56	74	H2	48647.938	ppb	0.9	516,051,495	50000	>LDR RR-2
Co	59	74	He	23.797	ppb	0.5	131,599	500	
Ni	60	74	He	37.62	ppb	0.8	50,535	1000	
Cu	65	74	He	35.091	ppb	1.0	59,030	1000	
Zn	66	74	He	101.771	ppb	0.6	66,795	2500	
As	75	74	He	4.612	ppb	3.7	1,833	500	
Se	78	74	H2	0.19	ppb	11.2	54	100	
Mo	95	103	He	0.491	ppb	4.3	763	100	
Ag	107	103	He	0.167	ppb	4.5	738	100	
Cd	111	103	He	0.231	ppb	5.6	173	1000	
[Cd]	111	103	NoGas	0.723	ppb	8.0	1,309	1000	
Sb	121	103	He	0.251	ppb	12.1	524	100	
Ba	138	159	He	182.686	ppb	0.3	739,231	2500	
W	182	159	NoGas	0.062	ppb	7.8	486	40	
Hg	201	159	NoGas	76.203	ppt	11.0	79	4000	
Tl	205	159	He	0.116	ppb	4.8	804	100	
Pb	208	159	NoGas	9.688	ppb	0.1	208,832	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	988,266	0.9	975380.393333333	Analog	101.3	
Sc	45	H2	2,378,439	2.0	2277280.85	Analog	104.4	
Sc	45	He	345,533	0.2	348790.796666667	Pulse	99.1	
Sc	45	NoGas	3,113,944	1.4	3065554.46333333	Analog	101.6	
Ge	74	H2	650,774	1.2	718037.156666667	Pulse	90.6	
Ge	74	He	185,446	0.5	204919.68	Pulse	90.5	
Ge	74	NoGas	725,932	1.4	806774.886666667	Pulse	90.0	
Rh	103	He	404,587	0.4	466758.146666667	Pulse	86.7	
Rh	103	NoGas	720,309	1.0	832259.633333333	Pulse	86.5	
Tb	159	He	561,110	1.2	600193.66	Pulse	93.5	
Tb	159	NoGas	1,398,721	0.4	1409745.36	Analog	99.2	
Bi	209	He	298,149	0.5	341192.286666667	Pulse	87.4	
Bi	209	NoGas	723,996	0.8	809398.153333333	Pulse	89.4	

Quantitation Report - ICPMS5

Sample Name:	**A9J0954-02**	Total Dilution:	**5.0000**
File Name:	099SMPL.d	Vial:	3501
File Path:	C:\Agilent\ICPMH\1\DATA\9K01022.b	Sample Type:	Sample
Acq Time:	11/1/2019 19:19:38	I.S. Reference File:	002CALB.d
Comment:	**9110369 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	1.003	ppb	2.4	2,364	100	
Na	23	45	He	848.36	ppb	1.6	975,033	50000	
Mg	24	45	He	8667.343	ppb	0.6	5,497,937	50000	
Al	27	45	He	44245.231	ppb	0.8	14,677,734	50000	
K	39	45	He	1725.694	ppb	0.1	955,120	50000	
Ca	44	45	H2	8651.788	ppb	0.3	2,021,557	50000	
[Ca]	44	45	He	8843.578	ppb	0.3	239,313	50000	
Ti	47	45	NoGas	3132.648	ppb	2.0	3,470,727	2500	>LDR RR-2
V	51	74	He	157.254	ppb	0.7	535,778	500	
Cr	52	74	He	54.79	ppb	0.8	218,475	1000	
Mn	55	74	He	903.235	ppb	0.8	2,409,818	2500	
Fe	56	74	H2	56909.238	ppb	0.5	583,994,982	50000	>LDR RR-2
Co	59	74	He	23.255	ppb	0.4	126,762	500	
Ni	60	74	He	43.188	ppb	2.2	57,167	1000	
Cu	65	74	He	77.332	ppb	1.1	128,145	1000	
Zn	66	74	He	198.886	ppb	1.1	128,623	2500	
As	75	74	He	7.585	ppb	1.5	2,954	500	
Se	78	74	H2	0.454	ppb	4.3	123	100	
Mo	95	103	He	0.668	ppb	6.8	1,017	100	
Ag	107	103	He	1.033	ppb	1.0	4,456	100	
Cd	111	103	He	0.707	ppb	3.1	508	1000	
[Cd]	111	103	NoGas	1.476	ppb	4.1	2,603	1000	
Sb	121	103	He	0.905	ppb	2.2	1,717	100	
Ba	138	159	He	254.16	ppb	0.4	1,016,481	2500	
W	182	159	NoGas	0.081	ppb	15.1	633	40	
Hg	201	159	NoGas	426.892	ppt	5.4	418	4000	
Tl	205	159	He	0.163	ppb	4.8	1,110	100	
Pb	208	159	NoGas	35.095	ppb	3.1	756,513	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	973,205	1.5	975380.393333333	Analog	99.8	
Sc	45	H2	2,405,638	1.1	2277280.85	Analog	105.6	
Sc	45	He	351,483	0.6	348790.796666667	Pulse	100.8	
Sc	45	NoGas	3,194,840	2.9	3065554.46333333	Analog	104.2	
Ge	74	H2	629,521	0.7	718037.156666667	Pulse	87.7	
Ge	74	He	182,790	1.0	204919.68	Pulse	89.2	
Ge	74	NoGas	713,872	1.2	806774.886666667	Pulse	88.5	
Rh	103	He	397,487	0.7	466758.146666667	Pulse	85.2	
Rh	103	NoGas	707,110	0.6	832259.633333333	Pulse	85.0	
Tb	159	He	554,584	0.5	600193.66	Pulse	92.4	
Tb	159	NoGas	1,403,299	2.9	1409745.36	Analog	99.5	
Bi	209	He	295,536	0.5	341192.286666667	Pulse	86.6	
Bi	209	NoGas	713,794	0.1	809398.153333333	Pulse	88.2	

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
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
[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
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
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	

< MRL

< MRL

< MRL

< MRL

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

Total Metals by EPA 6020A (ICPMS)
Benchsheet Data and Analysis (Including Calibration)

Sequence 9K04033

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9K04033	Instrument:	ICPMS5
Date:	11/04/19 10:05	Calibration:	UNASSIGNED

Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
9K04033-CAL1	Water	QC	QC			A19J130	A19J368
9K04033-CAL2	Water	QC	QC			A19J130	A19J369
9K04033-CAL3	Water	QC	QC			A19J130	A19J370
9K04033-CAL4	Water	QC	QC			A19J130	A19J371
9K04033-CAL5	Water	QC	QC			A19J130	A19J373
9K04033-CAL6	Water	QC	QC			A19J130	A19J372
9K04033-CAL7	Water	QC	QC			A19J130	A19J374
9K04033-CAL8	Water	QC	QC			A19J130	A19J188
9K04033-CAL9	Water	QC	QC			A19J130	A19J189
9K04033-ICV1	Water	QC	QC			A19J130	A19J138
9K04033-ICB1	Water	QC	QC			A19J130	
9K04033-ICB2	Water	QC	QC			A19J130	
9K04033-CRL1	Water	QC	QC			A19J130	A19J368
9K04033-CRL2	Water	QC	QC			A19J130	A19J369
9K04033-CRL3	Water	QC	QC			A19J130	A19J370
9K04033-IFA1	Water	QC	QC			A19J130	A19J465
9K04033-IFB1	Water	QC	QC			A19J130	A19J466
A9J1115-01RE1	Water	Mg (Magnesium) - 200.8 - Total		11/13/19	9101831	A19J130	
A9J1115-02RE1	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
9101831-DUP2	Water	QC	QC		9101831	A19J130	
9101831-MS3	Water	QC	QC		9101831	A19J130	
A9J1115-03RE1	Water	Mg (Magnesium) - 200.8 - Total		11/13/19	9101831	A19J130	
A9J1115-04RE1	Water	Mg (Magnesium) - 200.8 - Total		11/13/19	9101831	A19J130	
A9J1115-05RE1	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Total	"	11/13/19	9101831	A19J130	
A9J1116-01RE1	Water	Mg (Magnesium) - 200.8 - Total		11/13/19	9101831	A19J130	
A9J1116-02RE1	Water	Ca (Calcium) - 200.8 - Total		11/13/19	9101831	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Total		11/13/19	9101831	A19J130	
A9J1117-01RE1	Water	Mg (Magnesium) - 200.8 - Total		11/13/19	9101831	A19J130	
9K04033-CCV1	Water	QC	QC			A19J130	A19J138
9K04033-CCB1	Water	QC	QC			A19J130	
A9J1117-02RE1	Water	Mg (Magnesium) - 200.8 - Total		11/13/19	9101831	A19J130	
9101831-MS4	Water	QC	QC		9101831	A19J130	
A9J1133-01RE1	Water	Ag (Silver) - 200.8 - Total		11/13/19	9101831	A19J130	
A9J1076-01RE1	Water	Mo (Molybdenum) - 200.8 - Total		11/05/19	9101831	A19J130	
9110369-BLK2	Sediment	QC	QC		9110369	A19J130	
9110369-BS2	Sediment	QC	QC		9110369	A19J130	
A9J0954-01RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/07/19	9110369	A19J130	
A9J0954-02RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/07/19	9110369	A19J130	
A9J1007-01RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/11/19	9110369	A19J130	
A9J1137-06RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
9K04033-CCV2	Water	QC	QC			A19J130	A19J138
9K04033-CCB2	Water	QC	QC			A19J130	
9110369-DUP2	Sediment	QC	QC		9110369	A19J130	
9110369-MS2	Sediment	QC	QC		9110369	A19J130	
A9J1137-12RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
A9J1137-18RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
A9J1137-24RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/13/19	9110369	A19J130	
A9J1006-01RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/11/19	9101805	A19J130	
A9J1006-02RE1	Sediment	Hg (Mercury) - 6020 - Total	Anchor QEA, LLC	11/11/19	9101805	A19J130	

Sequence: **9K04033** Instrument: **ICPMS5**

Date: **11/04/19 10:05** Calibration: **UNASSIGNED**

Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
A9J1029-02RE2	Water	Hg (Mercury) - 6020 - Total		11/04/19	9101795	A19J130	
A9J1061-02RE2	Water	K (Potassium) - 200.8 - Dissolved		11/12/19	9101780	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/12/19	9101780	A19J130	
9K04033-CCV3	Water	QC	QC			A19J130	A19J138
9K04033-CCV4	Water	QC	QC			A19J130	A19J138
9K04033-CCB3	Water	QC	QC			A19J130	
9101835-BLK1	Water	QC	QC		9101835	A19J130	
9101835-BS1	Water	QC	QC		9101835	A19J130	
A9J1115-01	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
9110416-BLK1	Soil	QC	QC		9110416	A19J130	
9110416-BS1	Soil	QC	QC		9110416	A19J130	
A9K0017-04	Soil	Ag (Silver) - 6020 - Total		11/14/19	9110416	A19J130	
"	Soil	As (Arsenic) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Ba (Barium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cd (Cadmium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cr (Chromium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cu (Copper) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Hg (Mercury) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Ni (Nickel) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Pb (Lead) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Se (Selenium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Zn (Zinc) - 6020 - Total	"	11/14/19	9110416	A19J130	
9110416-DUP1	Soil	QC	QC		9110416	A19J130	
9110416-MS1	Soil	QC	QC		9110416	A19J130	
A9K0052-05	Soil	Ag (Silver) - 6020 - Total		11/05/19	9110416	A19J130	
"	Soil	As (Arsenic) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Ba (Barium) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Cd (Cadmium) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Cr (Chromium) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Hg (Mercury) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Pb (Lead) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Se (Selenium) - 6020 - Total	"	11/05/19	9110416	A19J130	
A9K0052-10	Soil	Ag (Silver) - 6020 - Total		11/05/19	9110416	A19J130	
"	Soil	As (Arsenic) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Ba (Barium) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Cd (Cadmium) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Cr (Chromium) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Hg (Mercury) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Pb (Lead) - 6020 - Total	"	11/05/19	9110416	A19J130	
"	Soil	Se (Selenium) - 6020 - Total	"	11/05/19	9110416	A19J130	
9K04033-CCV5	Water	QC	QC			A19J130	A19J138
9K04033-CCB4	Water	QC	QC			A19J130	
9K04033-CRL4	Water	QC	QC			A19J130	A19J368
9K04033-CRL5	Water	QC	QC			A19J130	A19J369
9K04033-CRL6	Water	QC	QC			A19J130	A19J370
A9J0579-13	Soil	Cd (Cadmium) - 6020 - Total		11/11/19	9110416	A19J130	
"	Soil	Cr (Chromium) - 6020 - Total	"	11/11/19	9110416	A19J130	
"	Soil	Pb (Lead) - 6020 - Total	"	11/11/19	9110416	A19J130	
A9K0017-01	Soil	Ag (Silver) - 6020 - Total		11/14/19	9110416	A19J130	
"	Soil	As (Arsenic) - 6020 - Total	"	11/14/19	9110416	A19J130	

Sequence: **9K04033** Instrument: **ICPMS5**

Date: **11/04/19 10:05** Calibration: **UNASSIGNED**

Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
"	Soil	Ba (Barium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cd (Cadmium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cr (Chromium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cu (Copper) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Hg (Mercury) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Ni (Nickel) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Pb (Lead) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Se (Selenium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Zn (Zinc) - 6020 - Total	"	11/14/19	9110416	A19J130	
A9K0017-03	Soil	Ag (Silver) - 6020 - Total		11/14/19	9110416	A19J130	
"	Soil	As (Arsenic) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Ba (Barium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cd (Cadmium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cr (Chromium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Cu (Copper) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Hg (Mercury) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Ni (Nickel) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Pb (Lead) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Se (Selenium) - 6020 - Total	"	11/14/19	9110416	A19J130	
"	Soil	Zn (Zinc) - 6020 - Total	"	11/14/19	9110416	A19J130	
A9J1115-02	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
A9J1115-03	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
A9J1115-04	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
9101835-DUP1	Water	QC	QC		9101835	A19J130	
9101835-MS1	Water	QC	QC		9101835	A19J130	
A9J1115-05	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
A9J1116-01	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
9K04033-CCV6	Water	QC	QC			A19J130	A19J138
9K04033-CCB5	Water	QC	QC			A19J130	
A9J1116-02	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	

Sequence: **9K04033** Instrument: **ICPMS5**

Date: **11/04/19 10:05** Calibration: **UNASSIGNED**

Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
A9J1117-01	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
A9J1117-02	Water	Ca (Calcium) - 200.8 - Dissolved		11/13/19	9101835	A19J130	
"	Water	Fe (Iron) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	K (Potassium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mg (Magnesium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Mn (Manganese) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
"	Water	Na (Sodium) - 200.8 - Dissolved	"	11/13/19	9101835	A19J130	
9110409-BLK1	Solid	QC	QC		9110409	A19J130	
9110409-BS1	Solid	QC	QC		9110409	A19J130	
A9J1112-01	Solid	Al (Aluminum) - 6020 - Total		11/13/19	9110409	A19J130	
"	Solid	Cu (Copper) - 6020 - Total	"	11/13/19	9110409	A19J130	
"	Solid	Fe (Iron) - 6020 - Total	"	11/13/19	9110409	A19J130	
"	Solid	Pb (Lead) - 6020 - Total	"	11/13/19	9110409	A19J130	
"	Solid	Zn (Zinc) - 6020 - Total	"	11/13/19	9110409	A19J130	
A9J1123-01	Solid	Ag (Silver) - 6020 - Total		11/06/19	9110409	A19J130	
"	Solid	Al (Aluminum) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	As (Arsenic) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Ba (Barium) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Be (Beryllium) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Cd (Cadmium) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Co (Cobalt) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Cr (Chromium) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Cu (Copper) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Fe (Iron) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Hg (Mercury) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Mo (Molybdenum) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Ni (Nickel) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Pb (Lead) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Sb (Antimony) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Se (Selenium) - 6020 - Total	"	11/06/19	9110409	A19J130	
"	Solid	Tl (Thallium) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	V (Vanadium) - 6020 - Total	(QC Source)		9110409	A19J130	
"	Solid	Zn (Zinc) - 6020 - Total	(QC Source)		9110409	A19J130	
9110409-DUP1	Solid	QC	QC		9110409	A19J130	
9110409-MS1	Solid	QC	QC		9110409	A19J130	
A9K0045-01	Solid	Ag (Silver) - 6020 - Total		11/08/19	9110409	A19J130	
"	Solid	As (Arsenic) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Ba (Barium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cd (Cadmium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cr (Chromium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Hg (Mercury) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Pb (Lead) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Se (Selenium) - 6020 - Total	"	11/08/19	9110409	A19J130	
9K04033-CCV7	Water	QC	QC			A19J130	A19J138
9K04033-CCB6	Water	QC	QC			A19J130	

Sequence: **9K04033** Instrument: **ICPMS5**

Date: **11/04/19 10:05** Calibration: **UNASSIGNED**

Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
A9K0046-01	Solid	Ag (Silver) - 6020 - Total		11/08/19	9110409	A19J130	
"	Solid	As (Arsenic) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Ba (Barium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cd (Cadmium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cr (Chromium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Hg (Mercury) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Pb (Lead) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Se (Selenium) - 6020 - Total	"	11/08/19	9110409	A19J130	
A9K0048-01	Solid	Ag (Silver) - 6020 - Total		11/08/19	9110409	A19J130	
"	Solid	As (Arsenic) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Ba (Barium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Be (Beryllium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cd (Cadmium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Co (Cobalt) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cr (Chromium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cu (Copper) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Fe (Iron) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Hg (Mercury) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Mo (Molybdenum) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Ni (Nickel) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Pb (Lead) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Sb (Antimony) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Se (Selenium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Tl (Thallium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	V (Vanadium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Zn (Zinc) - 6020 - Total	"	11/08/19	9110409	A19J130	
A9K0051-01	Solid	Ag (Silver) - 6020 - Total		11/08/19	9110409	A19J130	
"	Solid	As (Arsenic) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Ba (Barium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cd (Cadmium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cr (Chromium) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Cu (Copper) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Hg (Mercury) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Pb (Lead) - 6020 - Total	"	11/08/19	9110409	A19J130	
"	Solid	Se (Selenium) - 6020 - Total	"	11/08/19	9110409	A19J130	
9110442-BLK1	Water	QC	QC		9110442	A19J130	
9110442-BS1	Water	QC	QC		9110442	A19J130	
A9J0579-08	Water	Cd (Cadmium) - 6020 - Total		11/11/19	9110442	A19J130	
"	Water	Cr (Chromium) - 6020 - Total	"	11/11/19	9110442	A19J130	
"	Water	Pb (Lead) - 6020 - Total	"	11/11/19	9110442	A19J130	
A9J1131-01RE1	Water	Ag (Silver) - 200.8 - Total		11/13/19	9110442	A19J130	
A9K0022-01	Water	Ag (Silver) - 200.8 - Total		11/14/19	9110442	A19J130	
"	Water	Cd (Cadmium) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Cr (Chromium) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Cu (Copper) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Ni (Nickel) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Pb (Lead) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Zn (Zinc) - 200.8 - Total	"	11/14/19	9110442	A19J130	
A9K0022-02	Water	Ag (Silver) - 200.8 - Total		11/14/19	9110442	A19J130	
"	Water	Cd (Cadmium) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Cr (Chromium) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Cu (Copper) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Ni (Nickel) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Pb (Lead) - 200.8 - Total	"	11/14/19	9110442	A19J130	
"	Water	Zn (Zinc) - 200.8 - Total	"	11/14/19	9110442	A19J130	

Sequence: **9K04033** Instrument: **ICPMS5**

Date: **11/04/19 10:05** Calibration: **UNASSIGNED**

Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
A9K0044-01	Water	Cu (Copper) - 6020 - Total		11/08/19	9110442	A19J130	
"	Water	Fe (Iron) - 6020 - Total	"	11/08/19	9110442	A19J130	
"	Water	Hg (Mercury) - 6020 - Total	"	11/08/19	9110442	A19J130	
"	Water	Pb (Lead) - 6020 - Total	"	11/08/19	9110442	A19J130	
9K04033-CCV8	Water	QC	QC			A19J130	A19J138
9K04033-CCB7	Water	QC	QC			A19J130	
9K04033-CCB8	Water	QC	QC			A19J130	
A9K0050-01	Water	Ag (Silver) - 6020 - Total		11/06/19	9110442	A19J130	
"	Water	Ag (Silver) - 200.8 - Total	(QC Source)		9110442	A19J130	
"	Water	As (Arsenic) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Ba (Barium) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Cd (Cadmium) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Cd (Cadmium) - 200.8 - Total	(QC Source)		9110442	A19J130	
"	Water	Cr (Chromium) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Cr (Chromium) - 200.8 - Total	(QC Source)		9110442	A19J130	
"	Water	Cu (Copper) - 6020 - Total	(QC Source)		9110442	A19J130	
"	Water	Cu (Copper) - 200.8 - Total	(QC Source)		9110442	A19J130	
"	Water	Fe (Iron) - 6020 - Total	(QC Source)		9110442	A19J130	
"	Water	Hg (Mercury) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Ni (Nickel) - 200.8 - Total	(QC Source)		9110442	A19J130	
"	Water	Pb (Lead) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Pb (Lead) - 200.8 - Total	(QC Source)		9110442	A19J130	
"	Water	Se (Selenium) - 6020 - Total	"	11/06/19	9110442	A19J130	
"	Water	Zn (Zinc) - 200.8 - Total	(QC Source)		9110442	A19J130	
9110442-DUP1	Water	QC	QC		9110442	A19J130	
9110442-MS1	Water	QC	QC		9110442	A19J130	
9K04033-CCV9	Water	QC	QC			A19J130	A19J138
9K04033-CCB9	Water	QC	QC			A19J130	
9K04033-CRL7	Water	QC	QC			A19J130	A19J368
9K04033-CRL8	Water	QC	QC			A19J130	A19J369
9K04033-CRL9	Water	QC	QC			A19J130	A19J370
9K04033-CRLA	Water	QC	QC			A19J130	A19J371

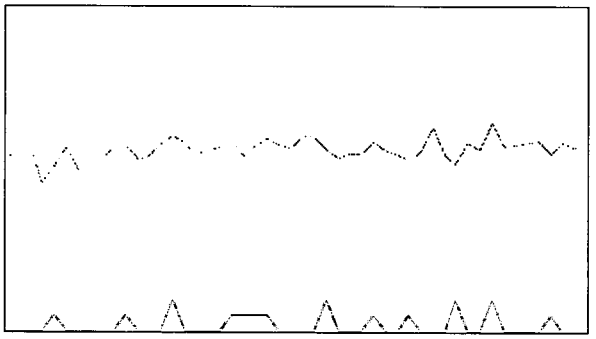
Data Entered By: ESS 11/5/19 Comments:

Data Reviewed By: [signature] 11/05/19

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9K04033.b
Acq. Date-Time	11/4/2019 10:52
Report Comment	9K04033 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	564	5640.09	1000.00	
89	5000	2732	27322.67	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	6.03	5.00	[F]
89	4.38	5.00	
78	184.20		

see EPA report for RSDS
ESS 11/5/19

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	-50 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	717	7171.25	1000.00	
89	1000	681	6805.94	1000.00	
205	1000	804	8036.44	1000.00	
75	20	5			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	6.76	5.00	[F]
89	7.09	5.00	[F]
205	6.33	5.00	[F]
75	44.58		

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	-50 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	1258	12575.45	1000.00	
89	5000	2829	28293.61	1000.00	
205	2000	1701	17014.30	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	3.98	5.00	
89	3.34	5.00	
205	4.21	5.00	
102	342.56		

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Ratio (oxide)	156/140	1.226 %	✓
Ratio (2+)	69/138	2.026 %	✓

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	-50 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 %		

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9K04033.b
Acq. Date-Time	11/4/2019 11:01
Report Comment	9K04033 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		2982	29818.44	1000.00	
89		14702	147015.83	1000.00	
78		10			

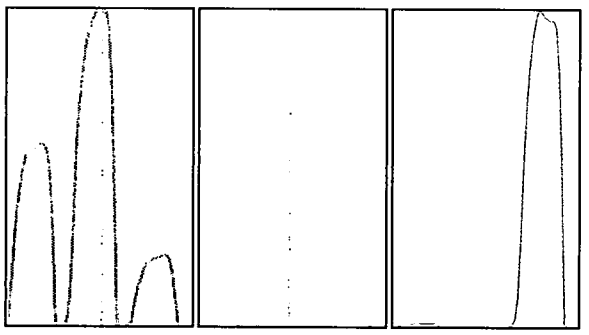
Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	2.21	5.00	
89	1.63	5.00	
78	30.48		

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	2910	3048	3033	2913	3004
89	14441	14890	14816	14444	14916
78	7	15	12	8	12

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	519.54	59.05	58.9 - 59.1		0.60	0.771	0.900	

Tune Report

89	2543.12	89.00	88.9 - 89.1	0.59	0.758	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	-50 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		4052	40515.49	1000.00	
89		3837	38368.54	1000.00	
205		4472	44724.71	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	2.00	5.00	
89	1.74	5.00	
205	1.55	5.00	
75	22.55		

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	3913	4081	4074	4128	4062
89	3728	3839	3871	3840	3906
205	4408	4410	4466	4572	4508
75	21	39	33	33	26

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	707.11	59.00	58.9 - 59.1		0.59	0.767	0.900	
89	676.90	89.05	88.9 - 89.1		0.59	0.741	0.900	
205	786.91	205.05	204.9 - 205.1		0.57	0.779	0.900	
75	4.85	75.10	-		0.63	0.696		

Integration Time [sec] 0.1 **Acquisition Time [sec]** 134.8 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	1.0 V
Omega Lens	6.0 V	Plate Bias	-50 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		7371	73707.23	1000.00	
89		15949	159489.58	1000.00	
205		9511	95105.39	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	1.58	5.00	
89	0.79	5.00	
205	0.91	5.00	
102	62.36		

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	7488	7283	7310	7267	7505
89	15910	16021	15873	15812	16129
205	9451	9525	9608	9397	9572
102	1	2	2	1	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	1235.73	7.00	6.9 - 7.1		0.62	0.784	0.900	
89	2759.80	89.05	88.9 - 89.1		0.60	0.760	0.900	
205	1669.86	205.05	204.9 - 205.1		0.58	0.781	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	-50 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 %		

P/A Factor Tuning Report

========== Current Sample ==========
Sample Name: 9K04033-ICV1
Data File: 013_ICV.d
Acquired: 11/4/2019 12:26:33

========= Detector Parameters and P/A Factors =========
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	0.090004
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: 11/4/2019 12:06:05

Mass[u]	Element	P/A Factor
23	Na	0.114595
44	Ca	0.129744
45	Sc	0.128332
56	Fe	0.136471
57	Fe	0.134717
74	Ge	0.141524
78	Se	Signal too low

Tune Mode Name: He
Discriminator: 4.5 mV
AnalogHV: 1861 V
PulseHV: 1710 V

Acquired: 11/4/2019 12:21:13

Mass[u]	Element	P/A Factor
23	Na	0.114467
24	Mg	0.119411
27	Al	0.124308
39	K	0.127179
44	Ca	0.126980
51	V	0.129829
52	Cr	0.132309
55	Mn	0.134308
59	Co	0.137314
60	Ni	0.138418
65	Cu	0.140870
66	Zn	0.138696
103	Rh	0.144968

107	Ag	0.146496
111	Cd	0.143768
138	Ba	0.145644
159	Tb	0.150764
205	Tl	0.150316
45	Sc	Signal too low
74	Ge	Signal too low
75	As	Signal too low
95	Mo	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: 11/4/2019 12:17:58

Mass[u]	Element	P/A Factor
6	Li	0.089568
45	Sc	0.127612
47	Ti	0.127101
65	Cu	0.140445
74	Ge	0.141951
103	Rh	0.144568
111	Cd	0.144517
159	Tb	0.150054
182	W	0.146914
206	Pb	0.151220
207	Pb	0.152160
208	Pb	0.153333
209	Bi	0.156296
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: 11/5/2019 10:21:21

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	001RINS.d	Vial:	3
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	Rinse
Acq Time:	11/4/2019 11:27:11	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		859	0.18	
Na	23	45	He		ppb		8,558	90	
Mg	24	45	He		ppb		719	90	
Al	27	45	He		ppb		450	45	
K	39	45	He		ppb		42,664	90	
Ca	44	45	H2		ppb		891	90	
[Ca]	44	45	He		ppb		382		
Ti	47	45	NoGas		ppb		97	0.9	
V	51	74	He		ppb		3,070	0.9	
Cr	52	74	He		ppb		1,907	0.9	
Mn	55	74	He		ppb		316	0.9	
Fe	56	74	H2		ppb		47,035	45	
Co	59	74	He		ppb		1,610	0.18	
Ni	60	74	He		ppb		750	0.9	
Cu	65	74	He		ppb		251	0.9	
Zn	66	74	He		ppb		244	3.6	
As	75	74	He		ppb		47	0.9	
Se	78	74	H2		ppb		1	0.9	
Mo	95	103	He		ppb		67	0.9	
Ag	107	103	He		ppb		0	0.18	
Cd	111	103	He		ppb		5		
[Cd]	111	103	NoGas		ppb		21	0.18	
Sb	121	103	He		ppb		63	0.9	
Ba	138	159	He		ppb		2,486	0.9	
W	182	159	NoGas		ppb		230		
Hg	201	159	NoGas		ppt		2	72	
Tl	205	159	He		ppb		1,879	0.18	
Pb	208	159	NoGas		ppb		853	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	269,654	168.9	0	Mix		Note RSD; OK < 20%
Sc	45	H2	3,086	1.5	0	Pulse		
Sc	45	He	98	30.6	0	Pulse		Note RSD; OK < 20%
Sc	45	NoGas	789,644	172.8	0	Mix		Note RSD; OK < 20%
Ge	74	H2	280	4.0	0	Pulse		
Ge	74	He	78	5.4	0	Pulse		
Ge	74	NoGas	225,259	172.9	0	Pulse		Note RSD; OK < 20%
Rh	103	He	280	8.3	0	Pulse		
Rh	103	NoGas	228,647	172.8	0	Pulse		Note RSD; OK < 20%
Tb	159	He	32	48.9	0	Pulse		Note RSD; OK < 20%
Tb	159	NoGas	314,667	173.2	0	Mix		Note RSD; OK < 20%
Bi	209	He	140	15.6	0	Pulse		Note RSD; OK < 20%
Bi	209	NoGas	207,215	172.8	0	Pulse		Note RSD; OK < 20%

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	002RINS.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	Rinse
Acq Time:	11/4/2019 11:31:55	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		11	0.18	
Na	23	45	He		ppb		6,222	90	
Mg	24	45	He		ppb		524	90	
Al	27	45	He		ppb		129	45	
K	39	45	He		ppb		44,209	90	
Ca	44	45	H2		ppb		677	90	
[Ca]	44	45	He		ppb		404		
Ti	47	45	NoGas		ppb		53	0.9	
V	51	74	He		ppb		3,026	0.9	
Cr	52	74	He		ppb		437	0.9	
Mn	55	74	He		ppb		116	0.9	
Fe	56	74	H2		ppb		13,995	45	
Co	59	74	He		ppb		54	0.18	
Ni	60	74	He		ppb		67	0.9	
Cu	65	74	He		ppb		43	0.9	
Zn	66	74	He		ppb		57	3.6	
As	75	74	He		ppb		56	0.9	
Se	78	74	H2		ppb		4	0.9	
Mo	95	103	He		ppb		11	0.9	
Ag	107	103	He		ppb		2	0.18	
Cd	111	103	He		ppb		1		
[Cd]	111	103	NoGas		ppb		3	0.18	
Sb	121	103	He		ppb		48	0.9	
Ba	138	159	He		ppb		51	0.9	
W	182	159	NoGas		ppb		50		
Hg	201	159	NoGas		ppt		5	72	
Tl	205	159	He		ppb		17	0.18	
Pb	208	159	NoGas		ppb		747	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,338,878	0.6	0	Analog		
Sc	45	H2	2,824,616	0.1	0	Analog		
Sc	45	He	492,223	0.7	0	Pulse		
Sc	45	NoGas	4,077,198	1.6	0	Analog		
Ge	74	H2	938,982	0.5	0	Pulse		
Ge	74	He	284,034	1.2	0	Pulse		
Ge	74	NoGas	1,119,503	0.8	0	Pulse		
Rh	103	He	621,063	0.8	0	Pulse		
Rh	103	NoGas	1,143,327	0.1	0	Pulse		
Tb	159	He	793,862	0.7	0	Pulse		
Tb	159	NoGas	1,645,165	2.3	0	Analog		
Bi	209	He	449,578	0.8	0	Pulse		
Bi	209	NoGas	1,042,077	0.3	0	Pulse		

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL0**	Total Dilution:	**1.0000**
File Name:	003CALB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalBlk
Acq Time:	11/4/2019 11:36:38		
Comment:	**3.5%HNO3+0.4%HCl**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0	ppb	N/A	23	71.4	
Na	23	45	He	0	ppb	N/A	6,027	1.9	
Mg	24	45	He	0	ppb	N/A	537	10.9	
Al	27	45	He	0	ppb	N/A	113	10.6	
K	39	45	He	0	ppb	N/A	44,462	2.0	
Ca	44	45	H2	0	ppb	N/A	539	7.7	
[Ca]	44	45	He	0	ppb	N/A	384	10.3	
Ti	47	45	NoGas	0	ppb	N/A	35	24.7	
V	51	74	He	0	ppb	N/A	3,040	4.5	
Cr	52	74	He	0	ppb	N/A	373	6.2	
Mn	55	74	He	0	ppb	N/A	138	12.4	
Fe	56	74	H2	0	ppb	N/A	9,917	4.4	
Co	59	74	He	0	ppb	N/A	38	58.7	
Ni	60	74	He	0	ppb	N/A	43	33.5	
Cu	65	74	He	0	ppb	N/A	39	40.5	
Zn	66	74	He	0	ppb	N/A	38	18.4	
As	75	74	He	0	ppb	N/A	57	14.4	
Se	78	74	H2	0	ppb	N/A	6	112.1	
Mo	95	103	He	0	ppb	N/A	6	91.6	
Ag	107	103	He	0	ppb	N/A	1	173.2	
Cd	111	103	He	0	ppb	N/A	4	63.0	
[Cd]	111	103	NoGas	0	ppb	N/A	6	120.7	
Sb	121	103	He	0	ppb	N/A	40	52.0	
Ba	138	159	He	0	ppb	N/A	66	33.1	
W	182	159	NoGas	0	ppb	N/A	22	110.6	
Hg	201	159	NoGas	0	ppt	N/A	6	22.2	
Tl	205	159	He	0	ppb	N/A	16	24.8	
Pb	208	159	NoGas	0	ppb	N/A	781	7.7	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,328,006	1.5	1328005.7	Analog	100.0	
Sc	45	H2	2,880,502	0.5	2880501.55333333	Analog	100.0	
Sc	45	He	495,175	0.4	495174.883333333	Pulse	100.0	
Sc	45	NoGas	4,124,212	1.8	4124211.75	Analog	100.0	
Ge	74	H2	948,676	0.2	948676.153333333	Pulse	100.0	
Ge	74	He	284,256	1.0	284255.65	Pulse	100.0	
Ge	74	NoGas	1,128,393	0.9	1128393.34666667	Pulse	100.0	
Rh	103	He	616,443	1.3	616442.69	Pulse	100.0	
Rh	103	NoGas	1,143,555	0.4	1143555.12333333	Pulse	100.0	
Tb	159	He	794,731	0.4	794731.056666667	Pulse	100.0	
Tb	159	NoGas	1,665,549	0.7	1665548.91666667	Analog	100.0	
Bi	209	He	446,100	0.6	446099.653333333	Pulse	100.0	
Bi	209	NoGas	1,052,566	0.9	1052566.13	Pulse	100.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL1**	Total Dilution:	**1.0000**
File Name:	004CALS.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 11:41:19		
Comment:	**A19J368 - ESS 11/4**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.166	ppb	7.6	626	6.4	
Na	23	45	He	9.243	ppb	3.1	21,327	1.7	
Mg	24	45	He	9.037	ppb	1.9	8,939	1.2	
Al	27	45	He	9.235	ppb	1.2	4,653	0.9	
K	39	45	He	10.685	ppb	8.7	53,459	1.3	
Ca	44	45	H2	10.634	ppb	3.8	3,915	3.5	
[Ca]	44	45	He	10.144	ppb	9.9	799	4.2	
Ti	47	45	NoGas	0.407	ppb	71.2	739	66.2	
V	51	74	He	0.171	ppb	5.5	3,987	0.7	
Cr	52	74	He	0.197	ppb	7.0	1,613	4.7	
Mn	55	74	He	0.184	ppb	6.4	957	6.1	
Fe	56	74	H2	9.149	ppb	0.7	159,100	0.8	
Co	59	74	He	0.184	ppb	6.3	1,607	5.5	
Ni	60	74	He	0.245	ppb	5.8	554	5.0	
Cu	65	74	He	0.237	ppb	4.1	638	4.3	
Zn	66	74	He	0.256	ppb	3.2	293	3.0	
As	75	74	He	0.188	ppb	13.4	173	9.0	
Se	78	74	H2	0.198	ppb	18.0	88	17.2	
Mo	95	103	He	0.179	ppb	11.3	441	10.7	
Ag	107	103	He	0.185	ppb	7.6	1,282	7.8	
Cd	111	103	He	0.174	ppb	5.6	207	5.6	
[Cd]	111	103	NoGas	0.152	ppb	19.7	478	19.4	
Sb	121	103	He	0.162	ppb	10.1	530	9.8	
Ba	138	159	He	0.199	ppb	3.8	1,298	3.9	
W	182	159	NoGas	0.004	ppb	135.8	62	81.1	
Hg	201	159	NoGas	7.538	ppt	35.5	16	20.3	
Tl	205	159	He	0.18	ppb	0.3	1,791	0.2	
Pb	208	159	NoGas	0.187	ppb	1.1	6,113	1.8	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,360,333	1.2	1328005.7	Analog	102.4	
Sc	45	H2	3,044,665	0.7	2880501.55333333	Analog	105.7	
Sc	45	He	496,972	1.2	495174.883333333	Pulse	100.4	
Sc	45	NoGas	4,461,976	1.3	4124211.75	Analog	108.2	
Ge	74	H2	945,285	0.5	948676.153333333	Pulse	99.6	
Ge	74	He	286,831	0.8	284255.65	Pulse	100.9	
Ge	74	NoGas	1,135,979	1.0	1128393.34666667	Pulse	100.7	
Rh	103	He	619,578	0.5	616442.69	Pulse	100.5	
Rh	103	NoGas	1,139,932	0.6	1143555.12333333	Pulse	99.7	
Tb	159	He	797,839	0.3	794731.056666667	Pulse	100.4	
Tb	159	NoGas	1,883,901	0.8	1665548.91666667	Analog	113.1	
Bi	209	He	445,705	0.4	446099.653333333	Pulse	99.9	
Bi	209	NoGas	1,047,796	0.4	1052566.13	Pulse	99.5	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL2**	Total Dilution:	**1.0000**
File Name:	005CALS.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 11:46:19		
Comment:	**A19J369 - ESS 11/4**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.906	ppb	2.8	3,257	4.6	
Na	23	45	He	44.658	ppb	0.5	80,503	1.0	
Mg	24	45	He	44.447	ppb	1.4	42,186	1.2	
Al	27	45	He	45.674	ppb	2.5	22,740	2.6	
K	39	45	He	46.15	ppb	1.1	83,449	0.9	
Ca	44	45	H2	46.173	ppb	2.6	15,255	2.1	
[Ca]	44	45	He	48.479	ppb	4.1	2,380	3.9	
Ti	47	45	NoGas	0.842	ppb	1.8	1,501	1.0	
V	51	74	He	0.876	ppb	3.2	7,791	1.3	
Cr	52	74	He	0.929	ppb	3.3	6,235	3.7	
Mn	55	74	He	0.886	ppb	1.1	4,078	1.7	
Fe	56	74	H2	45.583	ppb	0.6	751,954	0.6	
Co	59	74	He	0.967	ppb	1.1	8,318	0.3	
Ni	60	74	He	0.935	ppb	2.1	2,005	2.0	
Cu	65	74	He	0.952	ppb	7.3	2,450	6.3	
Zn	66	74	He	1.015	ppb	13.4	1,052	12.0	
As	75	74	He	0.929	ppb	6.9	632	6.4	
Se	78	74	H2	0.857	ppb	2.9	362	2.7	
Mo	95	103	He	0.902	ppb	6.9	2,197	7.3	
Ag	107	103	He	0.935	ppb	2.3	6,470	3.0	
Cd	111	103	He	0.914	ppb	2.0	1,072	2.1	
[Cd]	111	103	NoGas	0.796	ppb	5.1	2,489	5.3	
Sb	121	103	He	0.895	ppb	2.4	2,741	1.7	
Ba	138	159	He	0.977	ppb	6.7	6,146	7.9	
W	182	159	NoGas	0.001	ppb	275.6	39	99.0	
Hg	201	159	NoGas	34.636	ppt	13.5	49	11.7	
Tl	205	159	He	0.903	ppb	0.6	8,953	0.6	
Pb	208	159	NoGas	0.95	ppb	1.0	27,133	1.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,340,615	1.8	1328005.7	Analog	100.9	
Sc	45	H2	3,077,212	0.5	2880501.55333333	Analog	106.8	
Sc	45	He	500,846	0.5	495174.883333333	Pulse	101.1	
Sc	45	NoGas	4,467,684	1.3	4124211.75	Analog	108.3	
Ge	74	H2	943,610	0.2	948676.153333333	Pulse	99.5	
Ge	74	He	287,850	1.0	284255.65	Pulse	101.3	
Ge	74	NoGas	1,134,363	0.5	1128393.34666667	Pulse	100.5	
Rh	103	He	619,802	0.7	616442.69	Pulse	100.5	
Rh	103	NoGas	1,141,887	0.3	1143555.12333333	Pulse	99.9	
Tb	159	He	800,892	1.2	794731.056666667	Pulse	100.8	
Tb	159	NoGas	1,865,604	0.2	1665548.91666667	Analog	112.0	
Bi	209	He	449,982	0.8	446099.653333333	Pulse	100.9	
Bi	209	NoGas	1,050,375	0.1	1052566.13	Pulse	99.8	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL3**	Total Dilution:	**1.0000**
File Name:	006CALS.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 11:51:17		
Comment:	**A19J370 - ESS 11/4**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	1.819	ppb	3.9	6,641	2.4	
Na	23	45	He	89.823	ppb	0.3	154,604	0.4	
Mg	24	45	He	90.183	ppb	0.1	84,412	0.6	
Al	27	45	He	90.699	ppb	1.5	44,709	0.9	
K	39	45	He	91.123	ppb	0.9	120,054	0.9	
Ca	44	45	H2	92.93	ppb	1.4	30,001	1.5	
[Ca]	44	45	He	91.465	ppb	5.8	4,115	5.3	
Ti	47	45	NoGas	1.739	ppb	2.1	3,039	3.6	
V	51	74	He	1.819	ppb	0.9	12,820	0.6	
Cr	52	74	He	1.808	ppb	1.6	11,740	2.4	
Mn	55	74	He	1.799	ppb	1.3	8,109	0.8	
Fe	56	74	H2	92.133	ppb	0.7	1,515,483	1.5	
Co	59	74	He	1.89	ppb	1.2	16,157	1.5	
Ni	60	74	He	1.977	ppb	4.0	4,173	3.0	
Cu	65	74	He	2.071	ppb	1.6	5,264	2.2	
Zn	66	74	He	1.896	ppb	1.2	1,926	1.7	
As	75	74	He	1.898	ppb	2.7	1,228	3.5	
Se	78	74	H2	1.745	ppb	4.8	734	4.0	
Mo	95	103	He	1.817	ppb	2.0	4,383	2.9	
Ag	107	103	He	1.834	ppb	1.8	12,585	2.6	
Cd	111	103	He	1.798	ppb	1.9	2,087	1.0	
[Cd]	111	103	NoGas	1.679	ppb	5.3	5,168	4.7	
Sb	121	103	He	1.766	ppb	3.3	5,320	4.0	
Ba	138	159	He	2.022	ppb	2.0	12,517	1.4	
W	182	159	NoGas	0.002	ppb	74.1	46	34.6	
Hg	201	159	NoGas	79.957	ppt	4.1	105	3.2	
Tl	205	159	He	1.82	ppb	0.6	17,832	1.6	
Pb	208	159	NoGas	1.875	ppb	1.6	52,466	1.0	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,367,632	1.6	1328005.7	Analog	103.0	
Sc	45	H2	3,065,246	1.9	2880501.55333333	Analog	106.4	
Sc	45	He	497,152	0.6	495174.883333333	Pulse	100.4	
Sc	45	NoGas	4,438,571	1.9	4124211.75	Analog	107.6	
Ge	74	H2	947,126	0.8	948676.153333333	Pulse	99.8	
Ge	74	He	286,769	0.9	284255.65	Pulse	100.9	
Ge	74	NoGas	1,124,572	1.1	1128393.34666667	Pulse	99.7	
Rh	103	He	614,332	0.9	616442.69	Pulse	99.7	
Rh	103	NoGas	1,125,424	0.6	1143555.12333333	Pulse	98.4	
Tb	159	He	792,637	1.0	794731.056666667	Pulse	99.7	
Tb	159	NoGas	1,858,479	1.1	1665548.91666667	Analog	111.6	
Bi	209	He	445,640	0.7	446099.653333333	Pulse	99.9	
Bi	209	NoGas	1,031,296	1.0	1052566.13	Pulse	98.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL4**	Total Dilution:	**1.0000**
File Name:	007CALS.d	Vial:	1105
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 11:56:14		
Comment:	**A19J371 - ESS 11/4**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	3.55	ppb	2.9	13,016	2.4	
Na	23	45	He	179.056	ppb	0.6	301,940	0.1	
Mg	24	45	He	178.546	ppb	0.5	166,463	0.9	
Al	27	45	He	182.01	ppb	1.0	89,539	0.9	
K	39	45	He	182.042	ppb	0.7	195,145	0.7	
Ca	44	45	H2	181.989	ppb	0.8	58,537	0.7	
[Ca]	44	45	He	177.133	ppb	2.1	7,602	2.2	
Ti	47	45	NoGas	3.431	ppb	3.5	5,998	3.2	
V	51	74	He	3.7	ppb	1.6	22,849	1.6	
Cr	52	74	He	3.679	ppb	3.6	23,422	2.7	
Mn	55	74	He	3.639	ppb	2.3	16,217	1.2	
Fe	56	74	H2	185.313	ppb	0.4	3,034,056	0.0	
Co	59	74	He	3.708	ppb	1.2	31,588	1.5	
Ni	60	74	He	3.867	ppb	4.0	8,098	2.9	
Cu	65	74	He	4.047	ppb	2.2	10,223	1.5	
Zn	66	74	He	3.798	ppb	2.3	3,809	2.3	
As	75	74	He	3.786	ppb	0.7	2,386	0.3	
Se	78	74	H2	3.55	ppb	0.9	1,485	0.8	
Mo	95	103	He	3.638	ppb	4.0	8,770	4.1	
Ag	107	103	He	3.621	ppb	1.6	24,848	1.5	
Cd	111	103	He	3.61	ppb	2.3	4,188	2.3	
[Cd]	111	103	NoGas	3.277	ppb	3.8	10,140	3.9	
Sb	121	103	He	3.504	ppb	3.8	10,520	4.0	
Ba	138	159	He	3.939	ppb	1.9	24,298	2.7	
W	182	159	NoGas	0	ppb	N/A	23	42.9	
Hg	201	159	NoGas	150.252	ppt	2.5	195	3.0	
Tl	205	159	He	3.626	ppb	1.0	35,479	0.5	
Pb	208	159	NoGas	3.7	ppb	0.7	104,251	0.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,375,569	0.6	1328005.7	Analog	103.6	
Sc	45	H2	3,082,517	0.1	2880501.55333333	Analog	107.0	
Sc	45	He	496,764	0.6	495174.883333333	Pulse	100.3	
Sc	45	NoGas	4,468,940	0.7	4124211.75	Analog	108.4	
Ge	74	H2	945,891	0.4	948676.153333333	Pulse	99.7	
Ge	74	He	286,016	1.0	284255.65	Pulse	100.6	
Ge	74	NoGas	1,131,554	1.1	1128393.34666667	Pulse	100.3	
Rh	103	He	614,512	0.4	616442.69	Pulse	99.7	
Rh	103	NoGas	1,131,753	0.8	1143555.12333333	Pulse	99.0	
Tb	159	He	791,883	0.8	794731.056666667	Pulse	99.6	
Tb	159	NoGas	1,886,178	0.5	1665548.91666667	Analog	113.2	
Bi	209	He	444,222	0.8	446099.653333333	Pulse	99.6	
Bi	209	NoGas	1,037,773	0.1	1052566.13	Pulse	98.6	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL5**	Total Dilution:	**1.0000**
File Name:	008CALS.d	Vial:	1106
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 12:01:08		
Comment:	**A19J373 - ESS 11/4**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	10.084	ppb	1.7	36,705	1.2	
Na	23	45	He	404.067	ppb	0.5	666,017	0.2	
Mg	24	45	He	403.821	ppb	0.1	371,479	0.4	
Al	27	45	He	407.324	ppb	0.3	197,933	0.1	
K	39	45	He	407.13	ppb	0.5	376,887	0.0	
Ca	44	45	H2	408.431	ppb	0.8	131,027	0.3	
[Ca]	44	45	He	407.006	ppb	0.9	16,770	0.7	
Ti	47	45	NoGas	19.081	ppb	0.9	32,701	1.2	
V	51	74	He	20.563	ppb	0.6	111,392	0.6	
Cr	52	74	He	20.538	ppb	0.1	127,200	0.8	
Mn	55	74	He	20.34	ppb	1.8	88,713	1.1	
Fe	56	74	H2	408.781	ppb	0.8	6,681,942	0.4	
Co	59	74	He	20.84	ppb	0.9	174,763	0.3	
Ni	60	74	He	21.715	ppb	1.0	44,626	0.7	
Cu	65	74	He	22.561	ppb	0.8	55,994	1.0	
Zn	66	74	He	21.253	ppb	1.3	20,841	2.2	
As	75	74	He	20.813	ppb	1.6	12,674	2.4	
Se	78	74	H2	10	ppb	2.9	4,174	2.6	
Mo	95	103	He	10.024	ppb	1.8	23,787	1.9	
Ag	107	103	He	10.174	ppb	0.6	68,742	1.1	
Cd	111	103	He	20.097	ppb	0.2	22,942	0.7	
[Cd]	111	103	NoGas	18.463	ppb	0.4	56,208	0.3	
Sb	121	103	He	10.065	ppb	0.9	29,678	1.5	
Ba	138	159	He	22.042	ppb	0.4	135,273	0.4	
W	182	159	NoGas	0.007	ppb	122.5	88	88.0	
Hg	201	159	NoGas	419.935	ppt	8.0	528	8.1	
Tl	205	159	He	10.091	ppb	1.3	98,435	0.6	
Pb	208	159	NoGas	20.792	ppb	0.1	576,277	0.6	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,367,298	1.1	1328005.7	Analog	103.0	
Sc	45	H2	3,091,352	0.6	2880501.55333333	Analog	107.3	
Sc	45	He	491,038	0.4	495174.883333333	Pulse	99.2	
Sc	45	NoGas	4,402,783	0.7	4124211.75	Analog	106.8	
Ge	74	H2	946,046	0.4	948676.153333333	Pulse	99.7	
Ge	74	He	281,881	0.9	284255.65	Pulse	99.2	
Ge	74	NoGas	1,113,381	0.7	1128393.34666667	Pulse	98.7	
Rh	103	He	605,090	0.7	616442.69	Pulse	98.2	
Rh	103	NoGas	1,113,933	0.2	1143555.12333333	Pulse	97.4	
Tb	159	He	789,655	0.7	794731.056666667	Pulse	99.4	
Tb	159	NoGas	1,868,481	0.7	1665548.91666667	Analog	112.2	
Bi	209	He	443,428	0.6	446099.653333333	Pulse	99.4	
Bi	209	NoGas	1,032,048	0.2	1052566.13	Pulse	98.1	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL6**	Total Dilution:	**1.0000**
File Name:	009CALS.d	Vial:	1107
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 12:06:03		
Comment:	**A19J372**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	49.518	ppb	1.0	174,481	0.5	
Na	23	45	He	2471.726	ppb	1.3	3,915,731	1.1	
Mg	24	45	He	2519.79	ppb	0.6	2,242,030	0.6	
Al	27	45	He	2465.418	ppb	0.5	1,159,631	0.5	
K	39	45	He	2512.096	ppb	0.3	2,031,290	0.6	
Ca	44	45	H2	2489.845	ppb	0.9	776,927	0.5	
[Ca]	44	45	He	2463.296	ppb	0.3	96,430	1.0	
Ti	47	45	NoGas	46.667	ppb	1.3	77,043	1.1	
V	51	74	He	50.645	ppb	0.4	261,140	0.6	
Cr	52	74	He	50.189	ppb	0.3	300,182	0.5	
Mn	55	74	He	50.245	ppb	0.7	211,818	0.2	
Fe	56	74	H2	2497.725	ppb	0.4	39,665,772	0.3	
Co	59	74	He	50.741	ppb	0.8	411,590	0.2	
Ni	60	74	He	52.578	ppb	0.8	104,469	0.6	
Cu	65	74	He	53.197	ppb	0.3	127,674	0.8	
Zn	66	74	He	51.374	ppb	0.2	48,679	0.9	
As	75	74	He	50.703	ppb	0.3	29,788	0.5	
Se	78	74	H2	49.524	ppb	0.1	20,089	0.3	
Mo	95	103	He	49.651	ppb	1.1	112,836	1.2	
Ag	107	103	He	49.894	ppb	1.1	322,908	1.1	
Cd	111	103	He	49.981	ppb	0.6	54,646	0.6	
[Cd]	111	103	NoGas	45.561	ppb	0.7	131,658	0.4	
Sb	121	103	He	49.247	ppb	1.2	138,939	1.2	
Ba	138	159	He	53.349	ppb	1.0	319,417	0.7	
W	182	159	NoGas	0.012	ppb	23.0	133	19.5	
Hg	201	159	NoGas	2028.926	ppt	3.1	2,456	1.9	
Tl	205	159	He	49.437	ppb	0.7	470,597	0.8	
Pb	208	159	NoGas	51.271	ppb	1.0	1,379,309	0.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,324,276	0.5	1328005.7	Analog	99.7	
Sc	45	H2	3,018,009	0.5	2880501.55333333	Analog	104.8	
Sc	45	He	475,533	0.9	495174.883333333	Pulse	96.0	
Sc	45	NoGas	4,244,490	1.6	4124211.75	Analog	102.9	
Ge	74	H2	920,247	0.4	948676.153333333	Pulse	97.0	
Ge	74	He	272,685	0.7	284255.65	Pulse	95.9	
Ge	74	NoGas	1,070,509	1.0	1128393.34666667	Pulse	94.9	
Rh	103	He	579,600	0.2	616442.69	Pulse	94.0	
Rh	103	NoGas	1,057,444	0.6	1143555.12333333	Pulse	92.5	
Tb	159	He	770,604	0.7	794731.056666667	Pulse	97.0	
Tb	159	NoGas	1,815,354	1.2	1665548.91666667	Analog	109.0	
Bi	209	He	432,361	0.7	446099.653333333	Pulse	96.9	
Bi	209	NoGas	1,004,346	0.7	1052566.13	Pulse	95.4	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL7**	Total Dilution:	**1.0000**
File Name:	010CALS.d	Vial:	1108
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 12:10:55		
Comment:	**A19J374**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	100.234	ppb	1.6	326,796	0.4	
Na	23	45	He	3996.502	ppb	0.3	5,901,308	0.2	
Mg	24	45	He	4062.49	ppb	0.7	3,370,746	0.7	
Al	27	45	He	4056.355	ppb	0.9	1,779,284	0.9	
K	39	45	He	4046.113	ppb	0.5	3,026,870	0.7	
Ca	44	45	H2	3961.51	ppb	1.0	1,180,747	0.7	
[Ca]	44	45	He	3989.059	ppb	0.5	145,418	0.8	
Ti	47	45	NoGas	184.922	ppb	1.7	281,688	0.1	
V	51	74	He	200.423	ppb	0.6	964,034	0.3	
Cr	52	74	He	199.486	ppb	0.3	1,121,380	0.5	
Mn	55	74	He	199.245	ppb	0.5	789,780	0.3	
Fe	56	74	H2	4006.054	ppb	0.3	60,467,596	0.7	
Co	59	74	He	206.965	ppb	0.5	1,579,165	0.2	
Ni	60	74	He	206.64	ppb	0.6	386,113	0.3	
Cu	65	74	He	210.349	ppb	0.3	474,793	0.3	
Zn	66	74	He	204.796	ppb	0.5	182,441	0.9	
As	75	74	He	202.029	ppb	0.1	111,498	0.5	
Se	78	74	H2	100.241	ppb	1.2	38,643	0.5	
Mo	95	103	He	100.171	ppb	0.8	216,458	0.8	
Ag	107	103	He	100.034	ppb	0.4	615,607	0.5	
Cd	111	103	He	199.673	ppb	0.5	207,577	0.6	
[Cd]	111	103	NoGas	183.923	ppb	0.2	494,282	0.6	
Sb	121	103	He	100.374	ppb	0.4	269,231	0.4	
Ba	138	159	He	210.616	ppb	1.1	1,220,678	0.2	
W	182	159	NoGas	0.02	ppb	14.0	202	12.6	
Hg	201	159	NoGas	3983.187	ppt	1.5	4,691	1.4	
Tl	205	159	He	100.271	ppb	0.5	924,112	0.8	
Pb	208	159	NoGas	204.362	ppb	0.8	5,351,496	0.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,225,541	1.4	1328005.7	Analog	92.3	
Sc	45	H2	2,883,551	0.7	2880501.55333333	Analog	100.1	
Sc	45	He	443,471	0.4	495174.883333333	Pulse	89.6	
Sc	45	NoGas	3,918,041	1.7	4124211.75	Analog	95.0	
Ge	74	H2	874,743	0.8	948676.153333333	Pulse	92.2	
Ge	74	He	256,511	0.4	284255.65	Pulse	90.2	
Ge	74	NoGas	992,541	1.1	1128393.34666667	Pulse	88.0	
Rh	103	He	551,125	0.1	616442.69	Pulse	89.4	
Rh	103	NoGas	983,438	0.7	1143555.12333333	Pulse	86.0	
Tb	159	He	746,109	1.3	794731.056666667	Pulse	93.9	
Tb	159	NoGas	1,767,773	0.4	1665548.91666667	Analog	106.1	
Bi	209	He	417,805	0.6	446099.653333333	Pulse	93.7	
Bi	209	NoGas	957,218	0.6	1052566.13	Pulse	90.9	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL8**	Total Dilution:	**1.0000**
File Name:	011CALS.d	Vial:	1109
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 12:15:42		
Comment:	**A19J188**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.025	ppb	31.6	100	25.2	
Na	23	45	He	9975.991	ppb	0.5	13,893,548	0.6	
Mg	24	45	He	9969.931	ppb	0.8	7,805,573	0.3	
Al	27	45	He	10096.437	ppb	1.0	4,179,021	0.4	
K	39	45	He	9978.194	ppb	0.6	6,988,957	0.2	
Ca	44	45	H2	10131.988	ppb	0.4	2,826,259	1.1	
[Ca]	44	45	He	9873.024	ppb	0.9	339,152	0.5	
Ti	47	45	NoGas	466.119	ppb	0.5	668,749	0.3	
V	51	74	He	499.743	ppb	1.1	2,267,494	1.2	
Cr	52	74	He	506.608	ppb	0.3	2,690,405	0.3	
Mn	55	74	He	510.456	ppb	0.5	1,911,710	0.3	
Fe	56	74	H2	9921.413	ppb	0.7	139,217,468	0.9	
Co	59	74	He	497.105	ppb	0.7	3,583,916	0.4	
Ni	60	74	He	502.031	ppb	0.4	886,331	0.3	
Cu	65	74	He	511.435	ppb	0.4	1,090,740	0.5	
Zn	66	74	He	508.226	ppb	0.7	427,744	0.5	
As	75	74	He	499.084	ppb	0.3	260,191	0.3	
Se	78	74	H2	0.115	ppb	13.9	46	12.1	
Mo	95	103	He	0.114	ppb	18.3	234	18.1	
Ag	107	103	He	0.022	ppb	18.9	130	17.9	
Cd	111	103	He	500.366	ppb	0.5	485,450	0.3	
[Cd]	111	103	NoGas	469.023	ppb	0.7	1,181,722	0.4	
Sb	121	103	He	0.061	ppb	13.7	187	10.7	
Ba	138	159	He	519.232	ppb	1.5	2,883,110	1.5	
W	182	159	NoGas	100	ppb	1.2	874,621	0.1	
Hg	201	159	NoGas	87.846	ppt	9.0	107	8.6	
Tl	205	159	He	0.035	ppb	20.9	322	19.2	
Pb	208	159	NoGas	498.095	ppb	1.0	12,802,185	0.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,188,352	0.6	1328005.7	Analog	89.5	
Sc	45	H2	2,699,337	1.0	2880501.55333333	Analog	93.7	
Sc	45	He	418,497	0.6	495174.883333333	Pulse	84.5	
Sc	45	NoGas	3,689,860	0.5	4124211.75	Analog	89.5	
Ge	74	H2	813,251	0.3	948676.153333333	Pulse	85.7	
Ge	74	He	242,377	0.3	284255.65	Pulse	85.3	
Ge	74	NoGas	927,218	0.6	1128393.34666667	Pulse	82.2	
Rh	103	He	514,353	0.8	616442.69	Pulse	83.4	
Rh	103	NoGas	922,009	0.4	1143555.12333333	Pulse	80.6	
Tb	159	He	714,789	0.8	794731.056666667	Pulse	89.9	
Tb	159	NoGas	1,735,369	1.4	1665548.91666667	Analog	104.2	
Bi	209	He	400,209	0.5	446099.653333333	Pulse	89.7	
Bi	209	NoGas	909,920	0.3	1052566.13	Pulse	86.4	

Calibration Standard Report - ICPMS5

Sample Name:	**9K04033-CAL9**	Total Dilution:	**1.0000**
File Name:	012CALS.d	Vial:	1110
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	CalStd
Acq Time:	11/4/2019 12:20:17		
Comment:	**A19J189**	Last Calib:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.017	ppb	26.6	68	29.6	
Na	23	45	He	50006.467	ppb	0.4	67,200,623	0.3	
Mg	24	45	He	49384.325	ppb	1.2	37,316,553	0.9	
Al	27	45	He	49977.866	ppb	0.6	19,966,539	0.2	
K	39	45	He	48921.025	ppb	0.3	32,932,496	0.7	
Ca	44	45	H2	49977.108	ppb	1.5	13,184,000	0.9	
[Ca]	44	45	He	50028.054	ppb	0.4	1,657,492	0.2	
Ti	47	45	NoGas	2508.057	ppb	12.5	3,249,215	1.6	
V	51	74	He	-0.085	ppb	N/A	2,055	1.4	
Cr	52	74	He	996.778	ppb	0.4	4,928,659	0.7	
Mn	55	74	He	2497.961	ppb	0.3	8,710,526	0.8	
Fe	56	74	H2	50015.253	ppb	0.8	638,127,604	0.7	
Co	59	74	He	0.235	ppb	1.9	1,610	2.4	
Ni	60	74	He	997.492	ppb	1.3	1,639,763	1.5	
Cu	65	74	He	992	ppb	0.6	1,969,867	0.1	
Zn	66	74	He	2497.933	ppb	1.7	1,957,341	1.1	
As	75	74	He	0.14	ppb	7.5	113	4.9	
Se	78	74	H2	0.106	ppb	7.9	39	6.8	
Mo	95	103	He	0.134	ppb	19.8	248	19.5	
Ag	107	103	He	0.031	ppb	17.1	160	17.1	
Cd	111	103	He	999.882	ppb	0.1	875,310	0.1	
[Cd]	111	103	NoGas	1018.958	ppb	13.2	2,137,023	1.0	
Sb	121	103	He	0.049	ppb	27.0	140	21.2	
Ba	138	159	He	2495.22	ppb	0.3	12,946,859	0.6	
W	182	159	NoGas	0.318	ppb	20.2	2,358	4.7	
Hg	201	159	NoGas	38.828	ppt	21.5	43	5.4	
Tl	205	159	He	0.011	ppb	27.2	102	23.6	
Pb	208	159	NoGas	0.219	ppb	20.6	5,423	3.5	

ISTD Table:

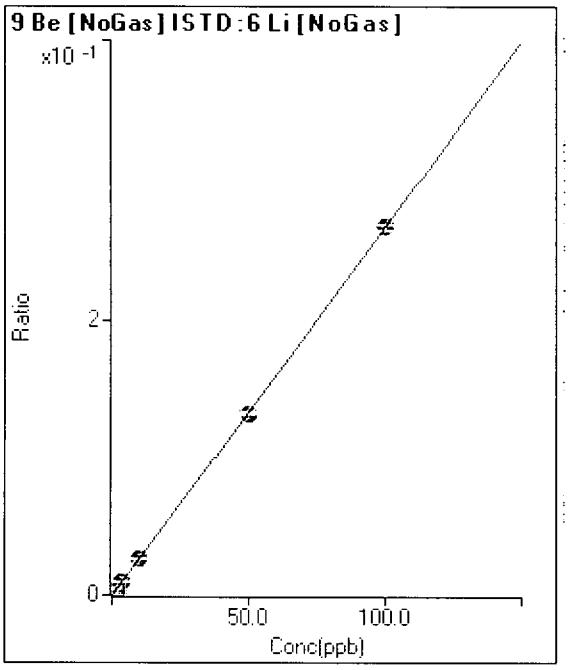
Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,079,605	13.3	1328005.7	Analog	81.3	
Sc	45	H2	2,553,443	1.5	2880501.55333333	Analog	88.6	
Sc	45	He	403,934	0.4	495174.883333333	Pulse	81.6	
Sc	45	NoGas	3,363,641	11.4	4124211.75	Analog	81.6	
Ge	74	H2	739,500	0.2	948676.153333333	Pulse	78.0	
Ge	74	He	225,685	0.7	284255.65	Pulse	79.4	
Ge	74	NoGas	804,416	12.0	1128393.34666667	Pulse	71.3	
Rh	103	He	464,098	0.1	616442.69	Pulse	75.3	
Rh	103	NoGas	775,770	12.2	1143555.12333333	Pulse	67.8	IS Q-06
Tb	159	He	667,923	0.3	794731.056666667	Pulse	84.0	
Tb	159	NoGas	1,485,670	14.2	1665548.91666667	Mix	89.2	
Bi	209	He	356,718	0.7	446099.653333333	Pulse	80.0	
Bi	209	NoGas	777,321	12.1	1052566.13	Pulse	73.9	

Calibration for 013_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\9K04033.b\
Analysis File: 9K04033.batch.bin
DA Date-Time: 11/5/2019 10:07:05
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	9K04033-CAL0	11/4/2019 11:36:38
2	004CALS.d	9K04033-CAL1	11/4/2019 11:41:19
3	005CALS.d	9K04033-CAL2	11/4/2019 11:46:19
4	006CALS.d	9K04033-CAL3	11/4/2019 11:51:17
5	007CALS.d	9K04033-CAL4	11/4/2019 11:56:14
6	008CALS.d	9K04033-CAL5	11/4/2019 12:01:08
7	009CALS.d	9K04033-CAL6	11/4/2019 12:06:03
8	010CALS.d	9K04033-CAL7	11/4/2019 12:10:55
9	011CALS.d	9K04033-CAL8	11/4/2019 12:15:42
10	012CALS.d	9K04033-CAL9	11/4/2019 12:20:17

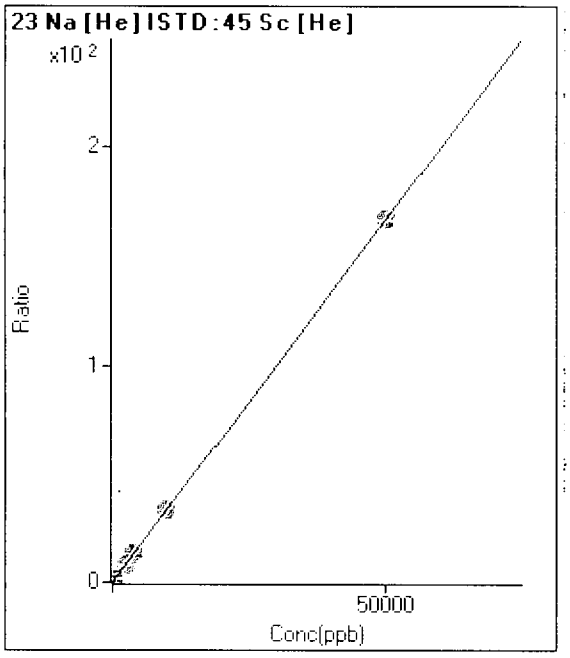
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23	0.000	P	70.6
2	☐	0.180	0.166	626	0.000	P	7.3
3	☐	0.900	0.906	3,257	0.002	P	2.8
4	☐	1.800	1.819	6,641	0.005	P	3.9
5	☐	3.600	3.550	13,016	0.009	P	2.9
6	☐	10.000	10.084	36,705	0.027	P	1.7
7	☐	50.000	49.518	174,481	0.132	P	1.0
8	☐	100.000	100.234	326,798	0.267	P	1.6
9	☐			100	0.000	P	25.0
10	☐			68	0.000	P	19.1

y = 0.0027 * x + 1.7448E-005
R = 1.0000
DL = 0.01388
BEC = 0.006558

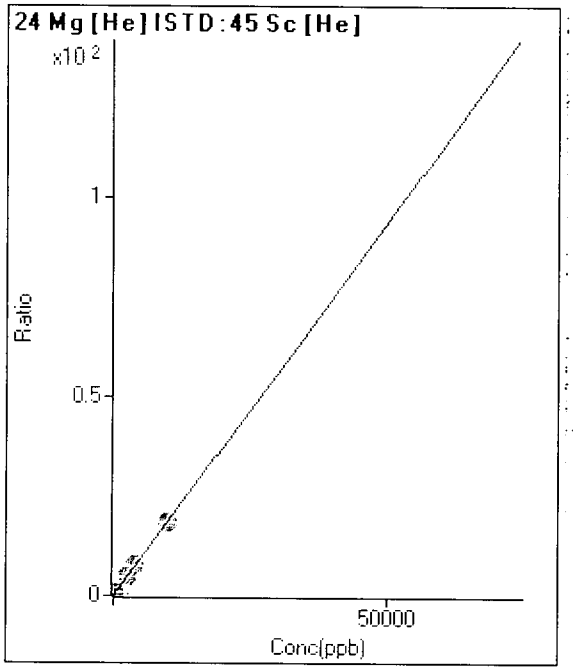
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6,027	0.012	P	1.9
2	☐			21,327	0.043	P	2.2
3	☐	45.000	44.658	80,503	0.161	P	0.5
4	☐	90.000	89.823	154,604	0.311	P	0.3
5	☐	180.000	179.056	301,940	0.608	P	0.6
6	☐	400.000	404.067	666,017	1.356	P	0.5
7	☐	2500.000	2471.726	3,915,731	8.235	A	1.3
8	☐	4000.000	3996.502	5,901,308	13.307	A	0.3
9	☐	10000.000	9975.991	13,893,548	33.199	A	0.5
10	☐	50000.000	50006.467	67,200,623	166.367	A	0.4

y = 0.0033 * x + 0.0122
R = 1.0000
DL = 0.2064
BEC = 3.659

Weight: <None>
Min Conc: <None>

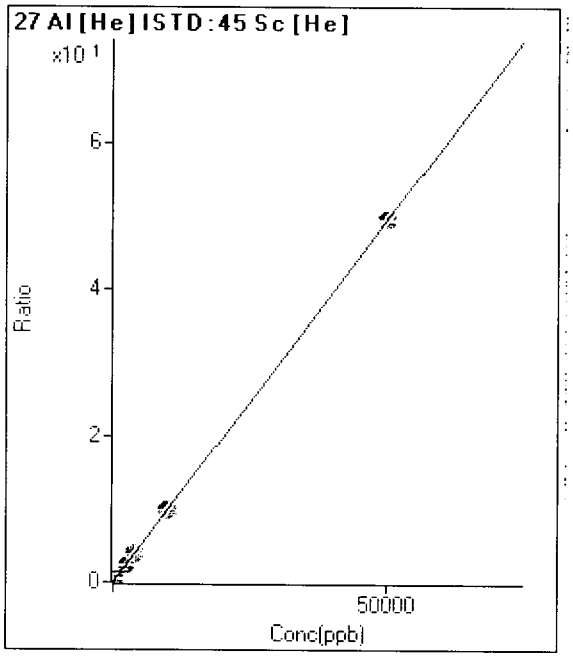


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	537	0.001	P	10.7
2	☐			8,939	0.018	P	1.8
3	☐	45.000	44.447	42,186	0.084	P	1.4
4	☐	90.000	90.183	84,412	0.170	P	0.1
5	☐	180.000	178.546	166,463	0.335	P	0.5
6	☐	400.000	403.821	371,479	0.757	P	0.1
7	☐	2500.000	2519.790	2,242,030	4.715	A	0.6
8	☐	4000.000	4062.490	3,370,746	7.601	A	0.7
9	☐	10000.000	9969.931	7,805,573	18.652	A	0.8
10	☑	50000.000		37,316,553	92.385	A	1.2

y = 0.0019 * x + 0.0011
R = 1.0000
DL = 0.1855
BEC = 0.5793

Mg LDR = 10,000 ppb
ESS 11/5/19

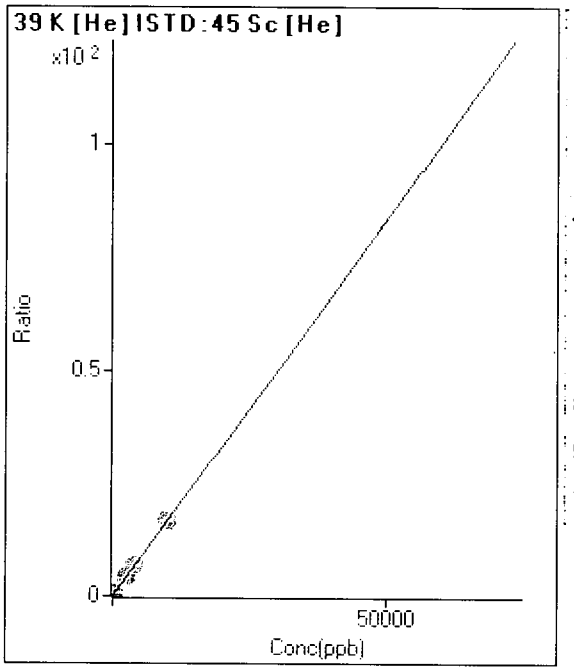
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113	0.000	P	10.9
2	☐			4,653	0.009	P	1.2
3	☐	45.000	45.674	22,740	0.045	P	2.5
4	☐	90.000	90.699	44,709	0.090	P	1.5
5	☐	180.000	182.010	89,539	0.180	P	1.0
6	☐	400.000	407.324	197,933	0.403	P	0.3
7	☐	2500.000	2465.418	1,159,631	2.439	P	0.5
8	☐	4000.000	4056.355	1,779,284	4.012	A	0.9
9	☐	10000.000	10096.437	4,179,021	9.986	A	1.0
10	☐	50000.000	49977.866	19,966,539	49.431	A	0.6

y = 9.8905E-004 * x + 2.2893E-004
R = 1.0000
DL = 0.07563
BEC = 0.2315

Weight: <None>
Min Conc: <None>

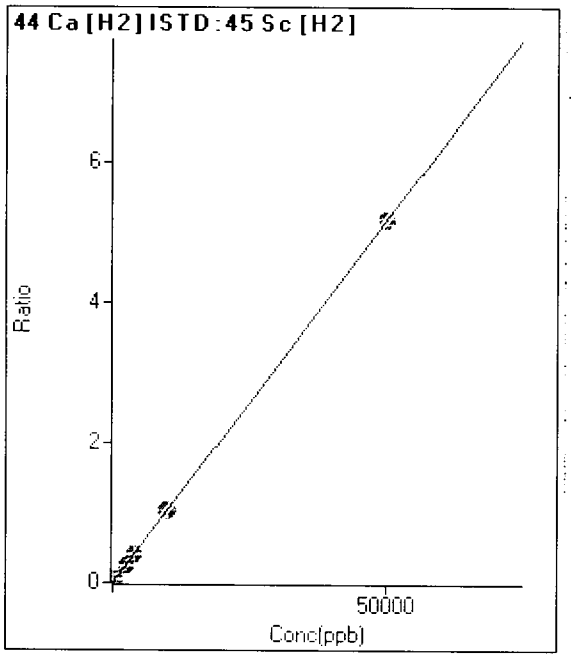


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44,462	0.090	P	1.6
2	☐			53,459	0.108	P	1.4
3	☐	45.000	46.150	83,449	0.167	P	0.5
4	☐	90.000	91.123	120,054	0.241	P	0.5
5	☐	180.000	182.042	195,145	0.393	P	0.6
6	☐	400.000	407.130	376,887	0.768	P	0.4
7	☐	2500.000	2512.096	2,031,290	4.272	A	0.3
8	☐	4000.000	4046.113	3,026,870	6.825	A	0.5
9	☐	10000.000	9978.194	6,988,957	16.701	A	0.6
10	☑	50000.000		32,932,496	81.529	A	0.3

y = 0.0017 * x + 0.0898
R = 1.0000
DL = 2.633
BEC = 53.94

K LDR = 10,000 ppb
ESS 11/5/19

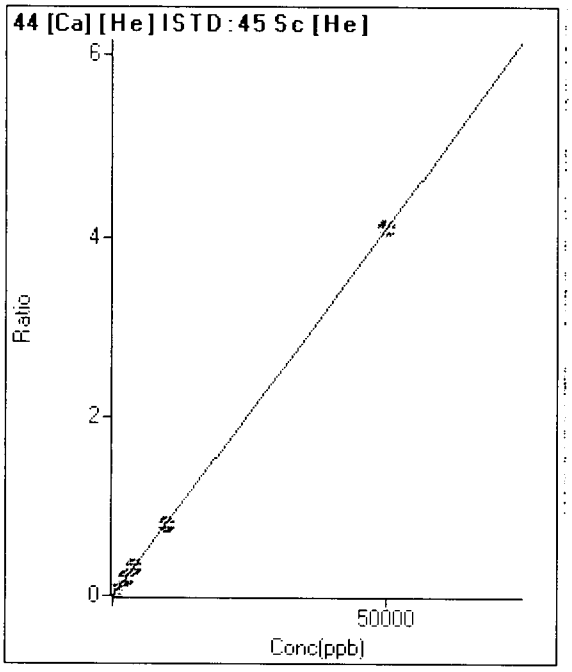
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	539	0.000	P	7.3
2	☐			3,915	0.001	P	3.3
3	☐	45.000	46.173	15,255	0.005	P	2.5
4	☐	90.000	92.930	30,001	0.010	P	1.4
5	☐	180.000	181.989	58,537	0.019	P	0.8
6	☐	400.000	408.431	131,027	0.042	P	0.7
7	☐	2500.000	2489.845	776,927	0.257	P	0.9
8	☐	4000.000	3961.510	1,180,747	0.409	P	1.0
9	☐	10000.000	10131.988	2,826,259	1.047	A	0.4
10	☐	50000.000	49977.108	13,184,000	5.164	A	1.5

y = 1.0332E-004 * x + 1.8705E-004
R = 1.0000
DL = 0.3954
BEC = 1.81

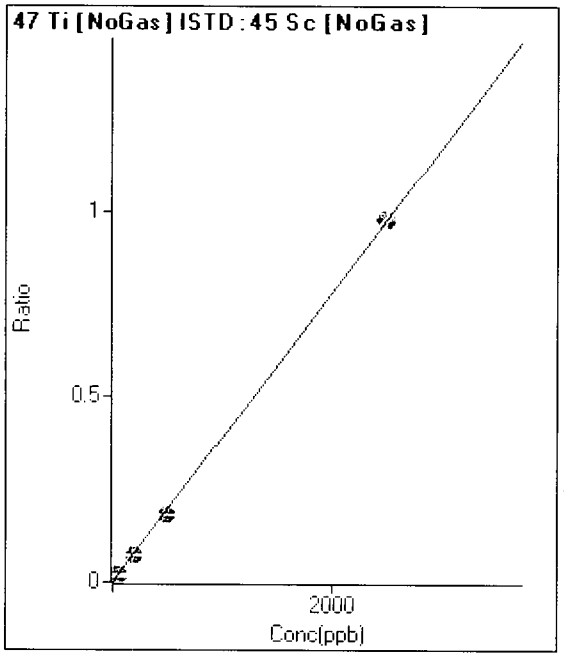
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	384	0.001	P	10.1
2	☐			799	0.002	P	5.1
3	☐	45.000	48.479	2,380	0.005	P	3.5
4	☐	90.000	91.465	4,115	0.008	P	5.2
5	☐	180.000	177.133	7,602	0.015	P	2.0
6	☐	400.000	407.006	16,770	0.034	P	0.9
7	☐	2500.000	2463.296	96,430	0.203	P	0.3
8	☐	4000.000	3989.059	145,418	0.328	P	0.5
9	☐	10000.000	9873.024	339,152	0.810	P	0.9
10	☐	50000.000	50028.054	1,657,492	4.103	A	0.4

y = 8.2007E-005 * x + 7.7626E-004
R = 1.0000
DL = 2.86
BEC = 9.466

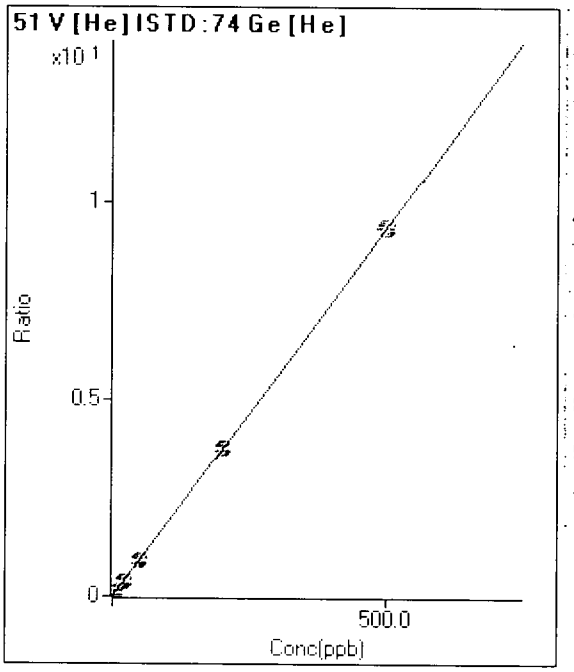
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35	0.000	P	23.0
2	☐	0.180	0.407	739	0.000	P	67.6
3	☐	0.900	0.842	1,501	0.000	P	1.7
4	☐	1.800	1.739	3,039	0.001	P	2.1
5	☐	3.600	3.431	5,998	0.001	P	3.5
6	☐	20.000	19.081	32,701	0.007	P	0.9
7	☐	50.000	46.667	77,043	0.018	P	1.3
8	☐	200.000	184.922	281,688	0.072	P	1.7
9	☐	500.000	466.119	668,749	0.181	P	0.5
10	☐	2500.000	2508.057	3,249,215	0.975	A	12.5

y = 3.8881E-004 * x + 8.4634E-006
R = 0.9999
DL = 0.01505
BEC = 0.02177

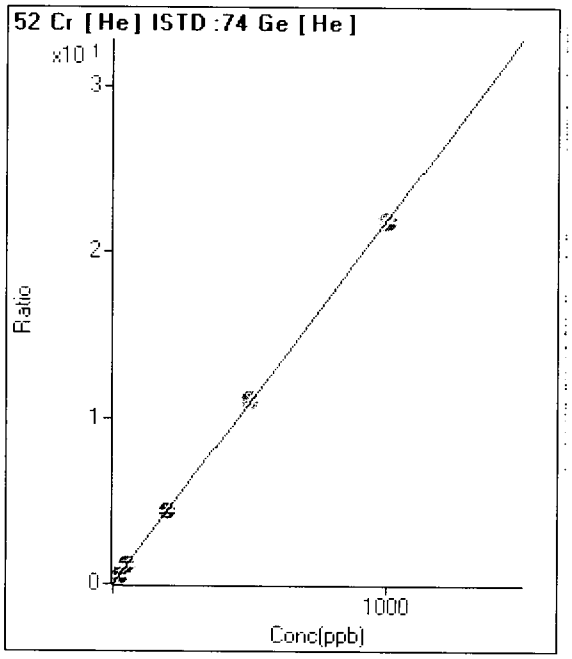
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3,040	0.011	P	4.5
2	☐	0.180	0.171	3,987	0.014	P	1.3
3	☐	0.900	0.876	7,791	0.027	P	1.9
4	☐	1.800	1.819	12,820	0.045	P	0.7
5	☐	3.600	3.700	22,849	0.080	P	1.4
6	☐	20.000	20.563	111,392	0.395	P	0.5
7	☐	50.000	50.645	261,140	0.958	P	0.4
8	☐	200.000	200.423	964,034	3.758	P	0.6
9	☐	500.000	499.743	2,267,494	9.355	A	1.1
10	☐			2,055	0.009	P	2.0

y = 0.0187 * x + 0.0107
R = 1.0000
DL = 0.0764
BEC = 0.5719

Weight: <None>
Min Conc: <None>

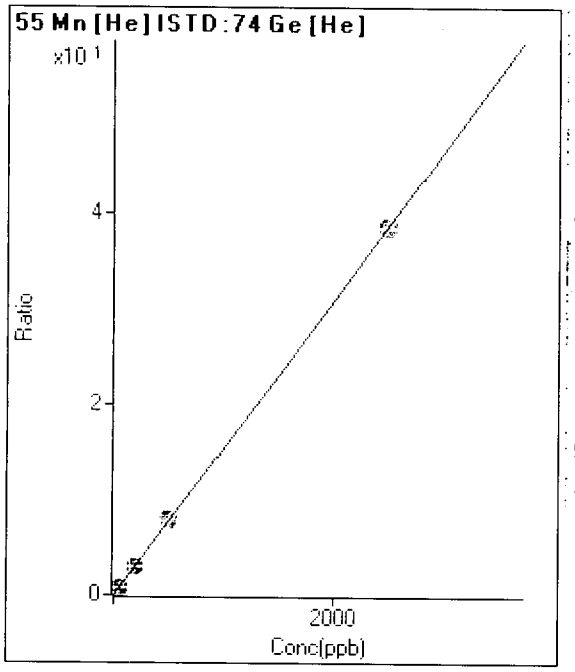


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	373	0.001	P	7.1
2	☐	0.180	0.197	1,613	0.006	P	5.4
3	☐	0.900	0.929	6,235	0.022	P	3.1
4	☐	1.800	1.808	11,740	0.041	P	1.5
5	☐	3.600	3.679	23,422	0.082	P	3.6
6	☐	20.000	20.538	127,200	0.451	P	0.1
7	☐	50.000	50.189	300,182	1.101	P	0.3
8	☐	200.000	199.486	1,121,380	4.372	P	0.3
9	☐	500.000	506.608	2,690,405	11.100	A	0.3
10	☐	1000.000	996.778	4,928,659	21.839	A	0.4

y = 0.0219 * x + 0.0013
R = 1.0000
DL = 0.01278
BEC = 0.05998

Weight: <None>
Min Conc: <None>

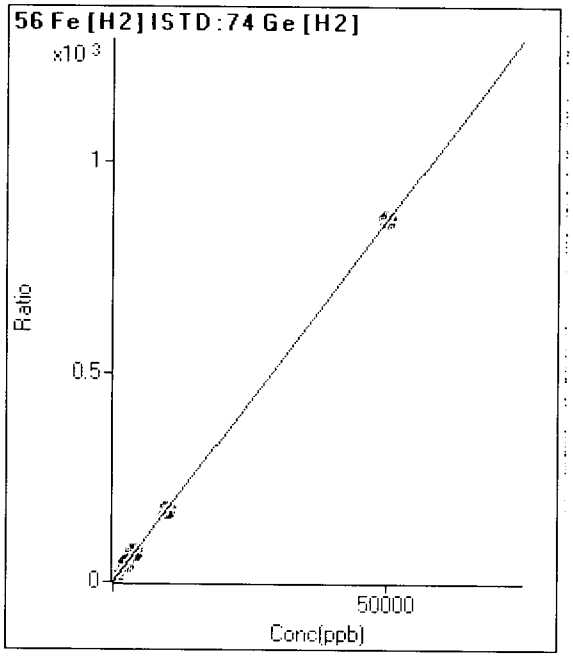
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	138	0.000	P	11.5
2	☐	0.180	0.184	957	0.003	P	5.5
3	☐	0.900	0.886	4,078	0.014	P	1.0
4	☐	1.800	1.799	8,109	0.028	P	1.3
5	☐	3.600	3.639	16,217	0.057	P	2.2
6	☐	20.000	20.340	88,713	0.315	P	1.8
7	☐	50.000	50.245	211,818	0.777	P	0.7
8	☐	200.000	199.245	789,780	3.079	P	0.5
9	☐	500.000	510.456	1,911,710	7.887	A	0.5
10	☐	2500.000	2497.961	8,710,526	38.596	A	0.3

y = 0.0155 * x + 4.8438E-004
R = 1.0000
DL = 0.0108
BEC = 0.03135

Weight: <None>
Min Conc: <None>

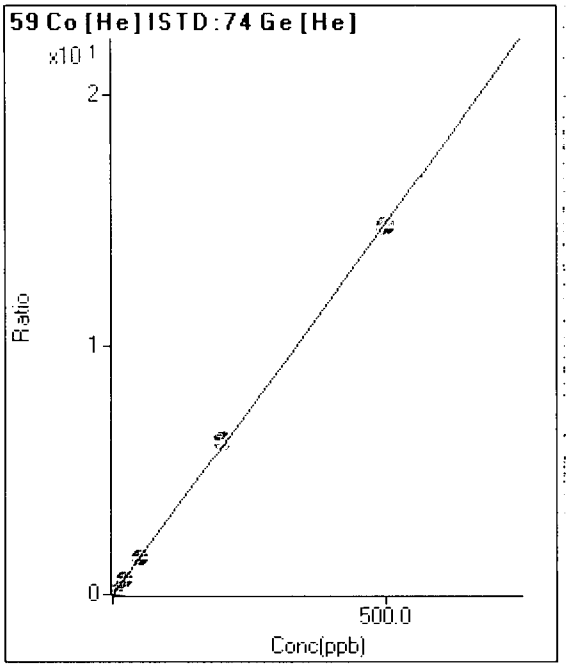


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9,917	0.010	P	4.2
2	☐			159,100	0.168	P	0.7
3	☐	45.000	45.583	751,954	0.797	P	0.6
4	☐	90.000	92.133	1,515,483	1.600	A	0.7
5	☐	180.000	185.313	3,034,056	3.208	A	0.4
6	☐	400.000	408.781	6,681,942	7.063	A	0.8
7	☐	2500.000	2497.725	39,665,772	43.104	A	0.4
8	☐	4000.000	4006.054	60,467,596	69.127	A	0.3
9	☐	10000.000	9921.413	139,217,468	171.185	A	0.7
10	☐	50000.000	50015.253	638,127,604	862.924	A	0.8

y = 0.0173 * x + 0.0105
R = 1.0000
DL = 0.07644
BEC = 0.6059

Weight: <None>
Min Conc: <None>

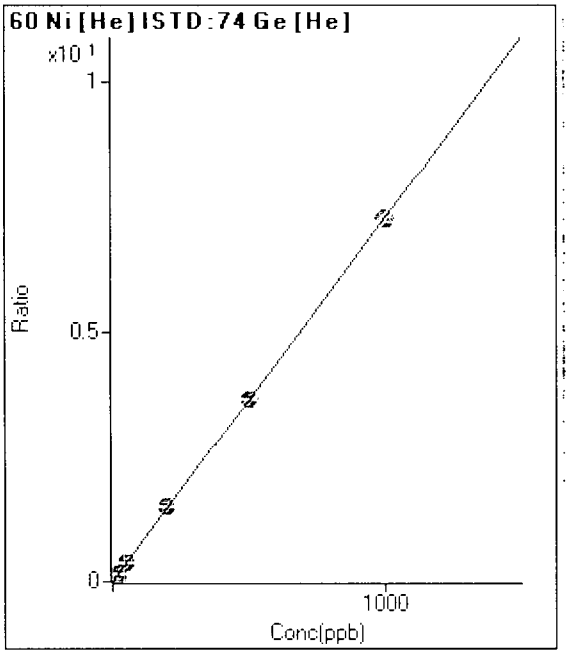
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38	0.000	P	58.6
2	☐	0.180	0.184	1,607	0.006	P	6.1
3	☐	0.900	0.967	8,318	0.029	P	1.1
4	☐	1.800	1.890	16,157	0.056	P	1.2
5	☐	3.600	3.708	31,588	0.110	P	1.2
6	☐	20.000	20.840	174,763	0.620	P	0.9
7	☐	50.000	50.741	411,590	1.509	P	0.8
8	☐	200.000	206.965	1,579,165	6.156	A	0.5
9	☐	500.000	497.105	3,583,916	14.787	A	0.7
10	☐			1,610	0.007	P	1.8

y = 0.0297 * x + 1.3282E-004
R = 0.9999
DL = 0.007856
BEC = 0.004465

Weight: <None>
Min Conc: <None>

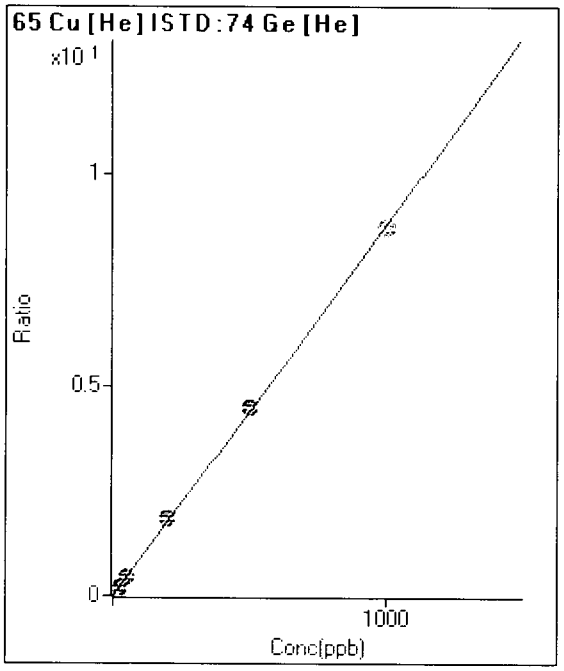


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43	0.000	P	32.9
2	☐	0.180	0.245	554	0.002	P	5.3
3	☐	0.900	0.935	2,005	0.007	P	2.1
4	☐	1.800	1.977	4,173	0.015	P	3.9
5	☐	3.600	3.867	8,098	0.028	P	4.0
6	☐	20.000	21.715	44,626	0.158	P	1.0
7	☐	50.000	52.578	104,469	0.383	P	0.8
8	☐	200.000	206.640	386,113	1.505	P	0.6
9	☐	500.000	502.031	886,331	3.657	P	0.4
10	☐	1000.000	997.492	1,639,763	7.266	A	1.3

y = 0.0073 * x + 1.5217E-004
R = 1.0000
DL = 0.02065
BEC = 0.02089

Weight: <None>
Min Conc: <None>

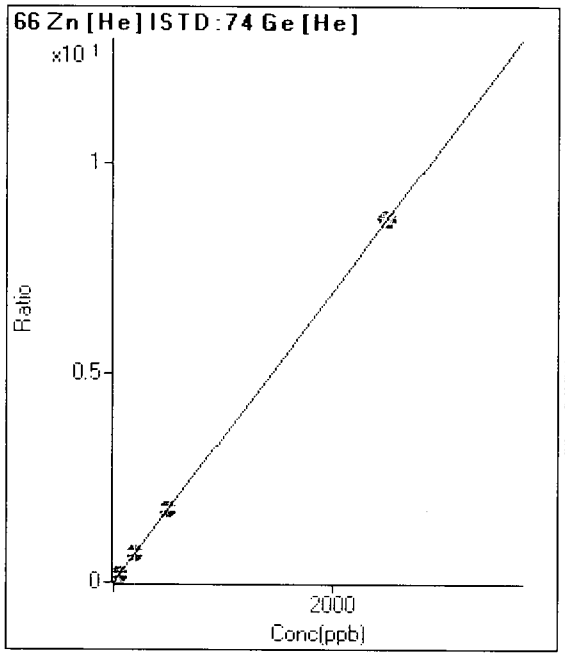
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	39	0.000	P	41.4
2	☐	0.180	0.237	638	0.002	P	3.8
3	☐	0.900	0.952	2,450	0.009	P	7.2
4	☐	1.800	2.071	5,264	0.018	P	1.6
5	☐	3.600	4.047	10,223	0.036	P	2.2
6	☐	20.000	22.561	55,994	0.199	P	0.8
7	☐	50.000	53.197	127,674	0.468	P	0.3
8	☐	200.000	210.349	474,793	1.851	P	0.3
9	☐	500.000	511.435	1,090,740	4.500	P	0.4
10	☐	1000.000	992.000	1,969,867	8.729	A	0.6

y = 0.0088 * x + 1.3711E-004
R = 0.9999
DL = 0.01936
BEC = 0.01558

Weight: <None>
Min Conc: <None>

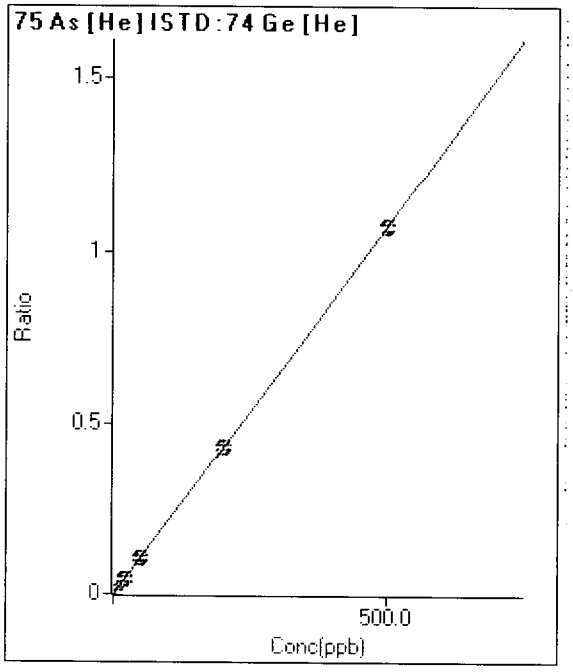


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38	0.000	P	18.2
2	☐	0.180	0.256	293	0.001	P	2.8
3	☐	0.900	1.015	1,052	0.004	P	12.9
4	☐	1.800	1.896	1,926	0.007	P	1.2
5	☐	3.600	3.798	3,809	0.013	P	2.3
6	☐	20.000	21.253	20,841	0.074	P	1.3
7	☐	50.000	51.374	48,679	0.179	P	0.2
8	☐	200.000	204.796	182,441	0.711	P	0.5
9	☐	500.000	508.226	427,744	1.765	P	0.7
10	☐	2500.000	2497.933	1,957,341	8.674	A	1.7

y = 0.0035 * x + 1.3288E-004
R = 1.0000
DL = 0.02089
BEC = 0.03827

Weight: <None>
Min Conc: <None>

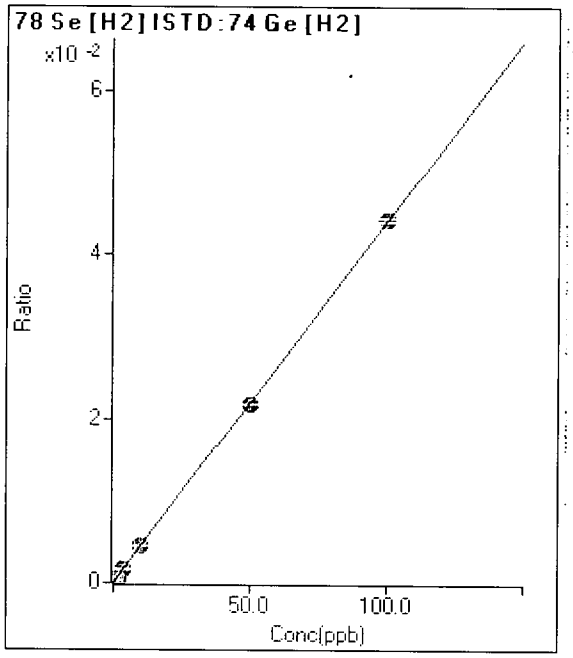
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	57	0.000	P	15.3
2	☐	0.180	0.188	173	0.001	P	9.0
3	☐	0.900	0.929	632	0.002	P	6.3
4	☐	1.800	1.898	1,228	0.004	P	2.6
5	☐	3.600	3.786	2,386	0.008	P	0.7
6	☐	20.000	20.813	12,674	0.045	P	1.6
7	☐	50.000	50.703	29,788	0.109	P	0.3
8	☐	200.000	202.029	111,498	0.435	P	0.1
9	☐	500.000	499.084	260,191	1.074	P	0.3
10	☐			113	0.001	P	4.5

y = 0.0022 * x + 1.9956E-004
R = 1.0000
DL = 0.04249
BEC = 0.09279

Weight: <None>
Min Conc: <None>

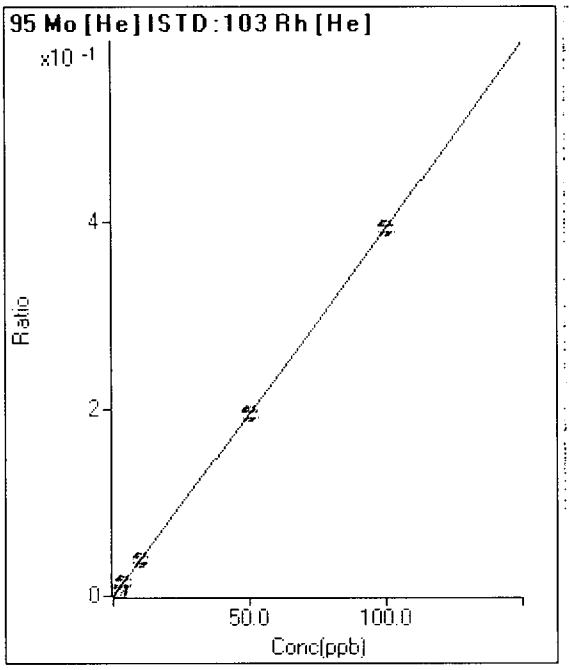


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6	0.000	P	112.2
2	☐	0.180	0.198	88	0.000	P	16.8
3	☐	0.900	0.857	362	0.000	P	2.8
4	☐	1.800	1.745	734	0.001	P	4.7
5	☐	3.600	3.550	1,485	0.002	P	0.9
6	☐	10.000	10.000	4,174	0.004	P	2.9
7	☐	50.000	49.524	20,089	0.022	P	0.1
8	☐	100.000	100.241	38,643	0.044	P	1.2
9	☐			46	0.000	P	12.4
10	☐			39	0.000	P	7.0

y = 4.4066E-004 * x + 5.9829E-006
R = 1.0000
DL = 0.04572
BEC = 0.01358

Weight: <None>
Min Conc: <None>

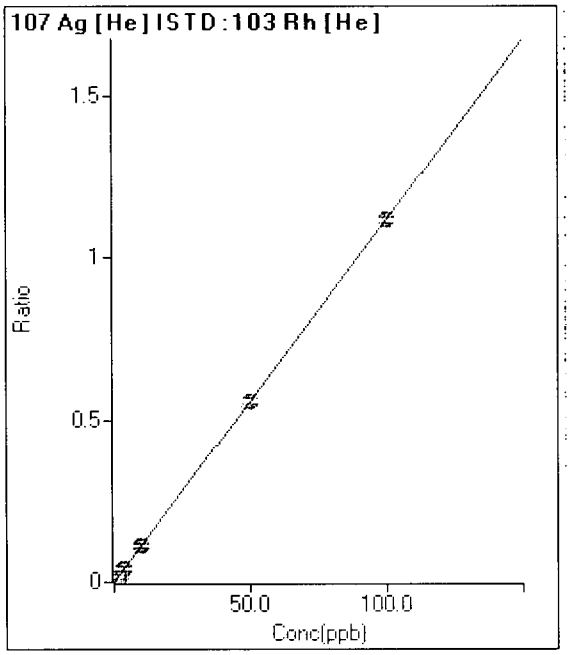
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6	0.000	P	91.9
2	☐	0.180	0.179	441	0.001	P	11.1
3	☐	0.900	0.902	2,197	0.004	P	6.9
4	☐	1.800	1.817	4,383	0.007	P	2.0
5	☐	3.600	3.638	8,770	0.014	P	4.0
6	☐	10.000	10.024	23,787	0.039	P	1.8
7	☐	50.000	49.651	112,836	0.195	P	1.1
8	☐	100.000	100.171	216,458	0.393	P	0.8
9	☐			234	0.000	P	18.0
10	☐			248	0.001	P	19.5

y = 0.0039 * x + 8.9670E-006
R = 1.0000
DL = 0.006307
BEC = 0.002287

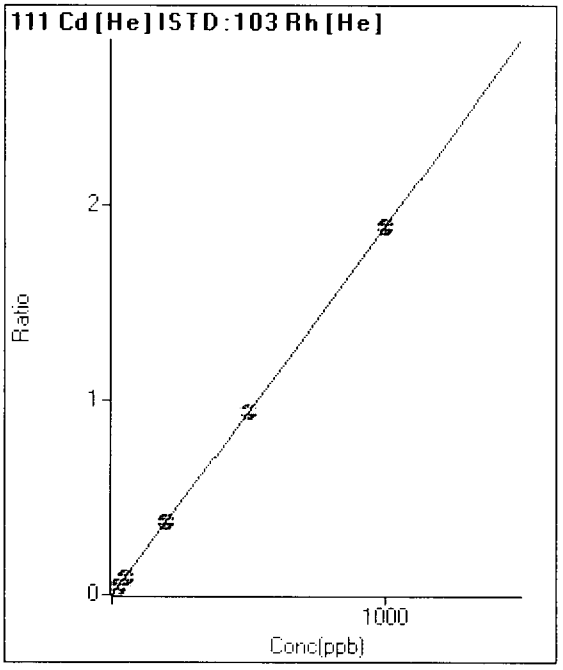
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1	0.000	P	173.2
2	☐	0.180	0.185	1,282	0.002	P	7.6
3	☐	0.900	0.935	6,470	0.010	P	2.3
4	☐	1.800	1.834	12,585	0.020	P	1.8
5	☐	3.600	3.621	24,848	0.040	P	1.6
6	☐	10.000	10.174	68,742	0.114	P	0.6
7	☐	50.000	49.894	322,908	0.557	P	1.1
8	☐	100.000	100.034	615,607	1.117	P	0.4
9	☐			130	0.000	P	18.7
10	☐			160	0.000	P	17.0

y = 0.0112 * x + 1.8243E-006
R = 1.0000
DL = 0.000849
BEC = 0.0001634

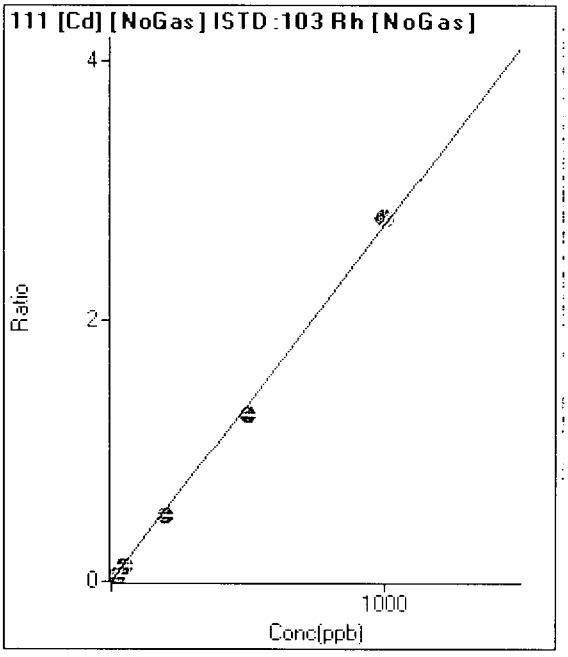
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4	0.000	P	63.4
2	☐	0.180	0.174	207	0.000	P	5.5
3	☐	0.900	0.914	1,072	0.002	P	2.0
4	☐	1.800	1.798	2,087	0.003	P	1.9
5	☐	3.600	3.610	4,188	0.007	P	2.3
6	☐	20.000	20.097	22,942	0.038	P	0.2
7	☐	50.000	49.981	54,646	0.094	P	0.6
8	☐	200.000	199.673	207,577	0.377	P	0.5
9	☐	500.000	500.366	485,450	0.944	P	0.5
10	☐	1000.000	999.882	875,310	1.886	P	0.1

y = 0.0019 * x + 5.9758E-006
R = 1.0000
DL = 0.006025
BEC = 0.003168

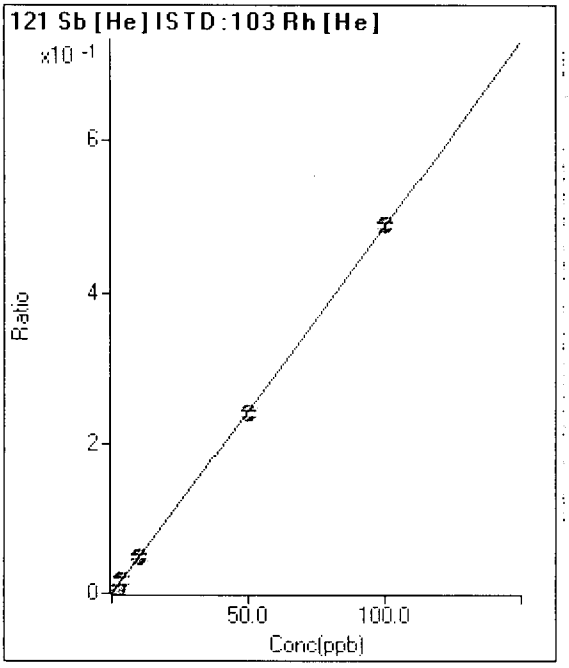
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6	0.000	P	120.4
2	☐	0.180	0.152	478	0.000	P	19.4
3	☐	0.900	0.796	2,489	0.002	P	5.1
4	☐	1.800	1.679	5,168	0.005	P	5.3
5	☐	3.600	3.277	10,140	0.009	P	3.8
6	☐	20.000	18.463	56,208	0.050	P	0.4
7	☐	50.000	45.561	131,658	0.125	P	0.7
8	☐	200.000	183.923	494,282	0.503	P	0.2
9	☐	500.000	469.023	1,181,722	1.282	P	0.7
10	☐	1000.000	1018.958	2,137,023	2.785	A	13.2

y = 0.0027 * x + 4.9284E-006
R = 0.9993
DL = 0.006515
BEC = 0.001803

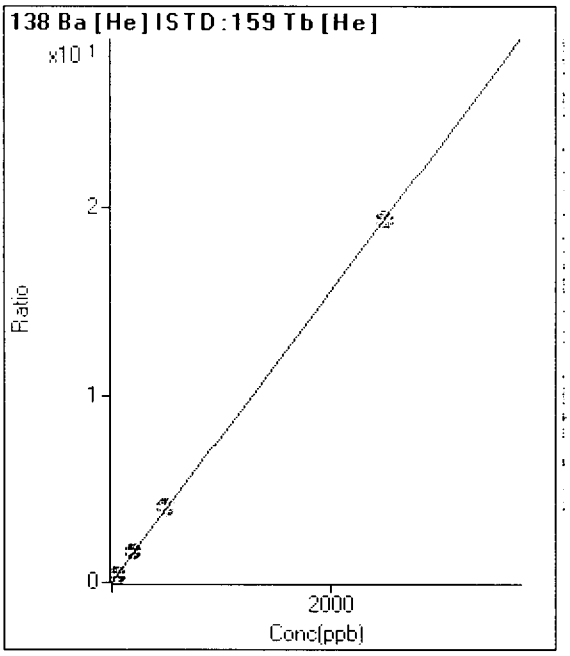
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40	0.000	P	53.3
2	☐	0.180	0.162	530	0.001	P	9.3
3	☐	0.900	0.895	2,741	0.004	P	2.4
4	☐	1.800	1.766	5,320	0.009	P	3.3
5	☐	3.600	3.504	10,520	0.017	P	3.8
6	☐	10.000	10.065	29,678	0.049	P	0.9
7	☐	50.000	49.247	138,939	0.240	P	1.2
8	☐	100.000	100.374	269,231	0.489	P	0.4
9	☐			187	0.000	P	11.2
10	☐			140	0.000	P	21.2

y = 0.0049 * x + 6.5169E-005
R = 1.0000
DL = 0.0214
BEC = 0.01339

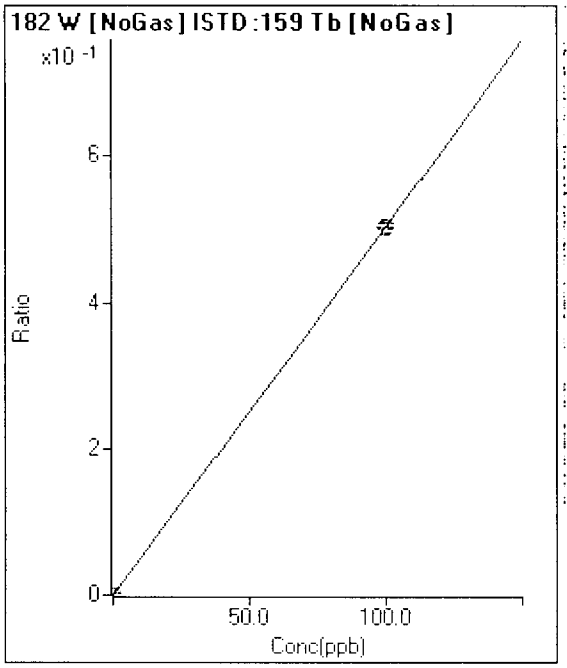
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66	0.000	P	33.4
2	☐	0.180	0.199	1,298	0.002	P	3.6
3	☐	0.900	0.977	6,146	0.008	P	6.6
4	☐	1.800	2.022	12,517	0.016	P	2.0
5	☐	3.600	3.939	24,298	0.031	P	1.9
6	☐	20.000	22.042	135,273	0.171	P	0.4
7	☐	50.000	53.349	319,417	0.415	P	1.0
8	☐	200.000	210.616	1,220,678	1.636	P	1.1
9	☐	500.000	519.232	2,883,110	4.034	A	1.5
10	☐	2500.000	2495.220	12,946,859	19.384	A	0.3

y = 0.0078 * x + 8.2555E-005
R = 1.0000
DL = 0.01066
BEC = 0.01063

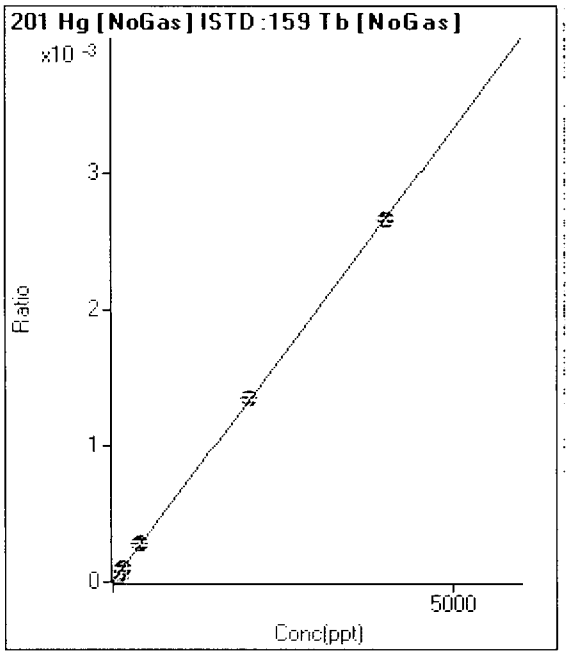
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22	0.000	P	111.0
2	☐			62	0.000	P	80.7
3	☐			39	0.000	P	99.1
4	☐			46	0.000	P	33.6
5	☐			23	0.000	P	43.3
6	☐			88	0.000	P	87.5
7	☐			133	0.000	P	18.8
8	☐			202	0.000	P	12.3
9	☐	100.000	100.000	874,621	0.504	P	1.2
10	☐			2,358	0.002	P	20.0

y = 0.0050 * x + 1.3365E-005
R = 1.0000
DL = 0.008831
BEC = 0.002652

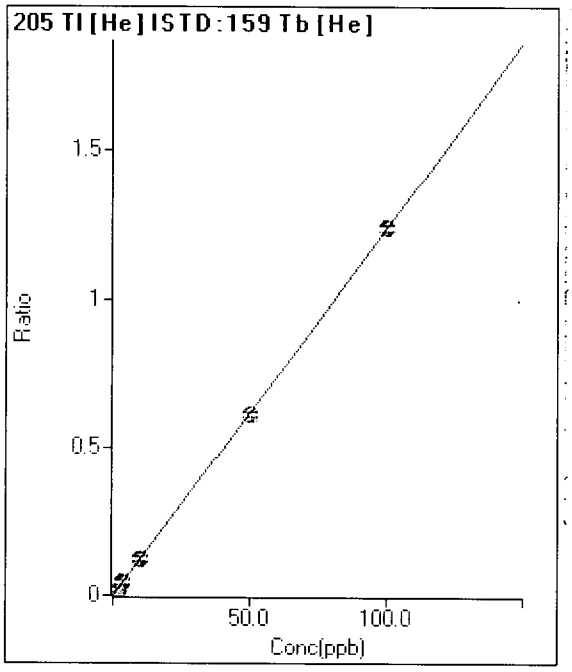
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6	0.000	P	21.5
2	☐			16	0.000	P	21.2
3	☐	36.000	34.636	49	0.000	P	11.8
4	☐	72.000	79.957	105	0.000	P	3.8
5	☐	144.000	150.252	195	0.000	P	2.5
6	☐	400.000	419.935	528	0.000	P	7.9
7	☐	2000.000	2028.926	2,456	0.001	P	3.1
8	☐	4000.000	3983.187	4,691	0.003	P	1.5
9	☐			107	0.000	P	8.5
10	☐			43	0.000	P	19.0

y = 6.6536E-007 * x + 3.3990E-006
R = 1.0000
DL = 3.292
BEC = 5.108

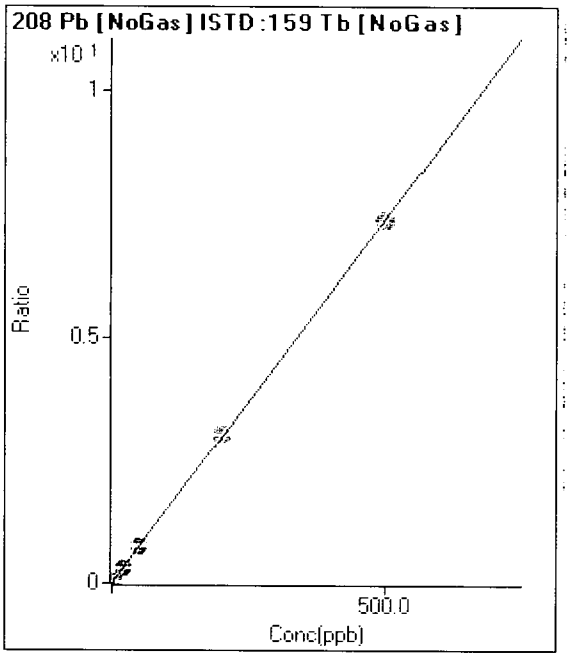
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16	0.000	P	24.6
2	☐	0.180	0.180	1,791	0.002	P	0.3
3	☐	0.900	0.903	8,953	0.011	P	0.6
4	☐	1.800	1.820	17,832	0.022	P	0.6
5	☐	3.600	3.626	35,479	0.045	P	1.0
6	☐	10.000	10.091	98,435	0.125	P	1.3
7	☐	50.000	49.437	470,597	0.611	P	0.7
8	☐	100.000	100.271	924,112	1.239	P	0.5
9	☐			322	0.000	P	20.0
10	☐			102	0.000	P	23.7

y = 0.0124 * x + 1.9567E-005
R = 1.0000
DL = 0.00117
BEC = 0.001584

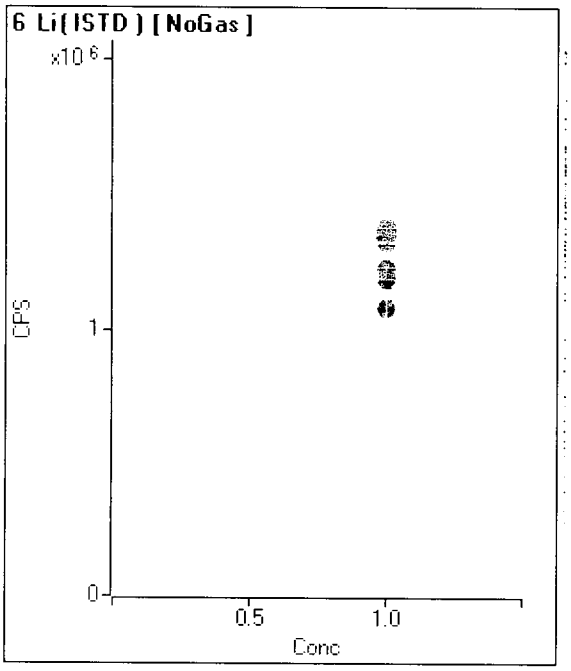
Weight: <None>
Min Conc: <None>



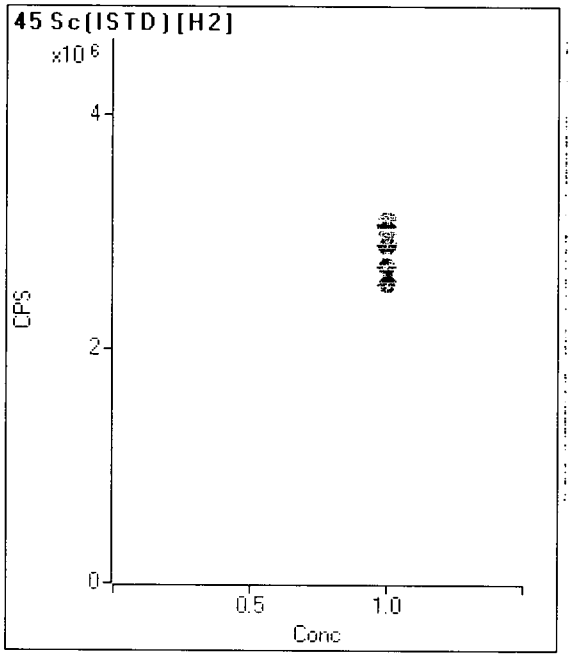
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	781	0.000	P	7.1
2	☐	0.180	0.187	6,113	0.003	P	1.0
3	☐	0.900	0.950	27,133	0.015	P	1.0
4	☐	1.800	1.875	52,466	0.028	P	1.6
5	☐	3.600	3.700	104,251	0.055	P	0.7
6	☐	20.000	20.792	576,277	0.308	P	0.1
7	☐	50.000	51.271	1,379,309	0.760	P	1.0
8	☐	200.000	204.362	5,351,496	3.027	A	0.8
9	☐	500.000	498.095	12,802,185	7.378	A	1.0
10	☐			5,423	0.004	P	18.0

y = 0.0148 * x + 4.6886E-004
R = 1.0000
DL = 0.006705
BEC = 0.03166

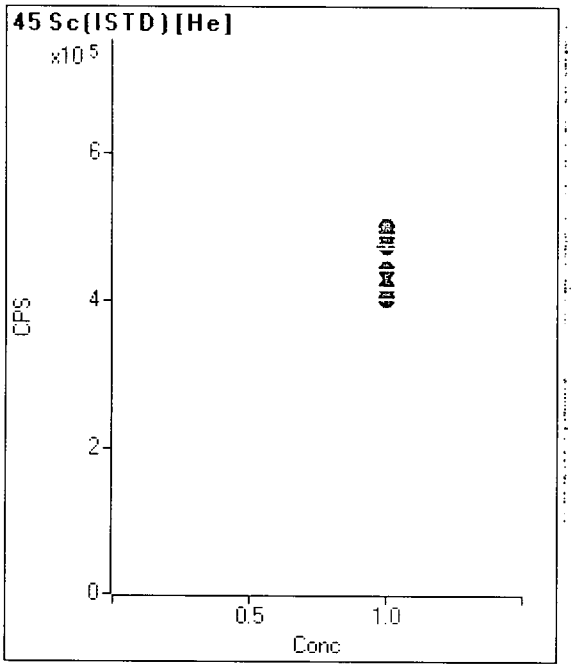
Weight: <None>
Min Conc: <None>



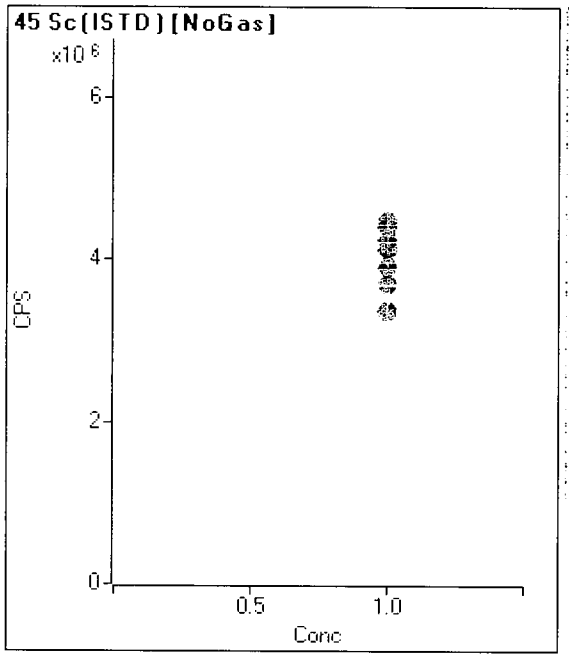
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		1,328,006		A	1.5
2		1.000		1,360,333		A	1.2
3		1.000		1,340,615		A	1.8
4		1.000		1,367,632		A	1.6
5		1.000		1,375,569		A	0.6
6		1.000		1,367,298		A	1.1
7		1.000		1,324,276		A	0.5
8		1.000		1,225,541		A	1.4
9		1.000		1,188,352		A	0.6
10		1.000		1,079,605		A	13.3



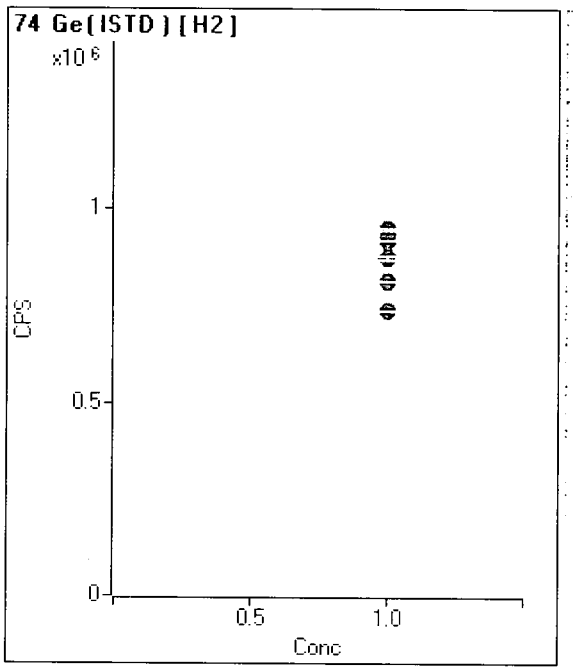
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		2,880,502		A	0.5
2		1.000		3,044,665		A	0.7
3		1.000		3,077,212		A	0.5
4		1.000		3,065,246		A	1.9
5		1.000		3,082,517		A	0.1
6		1.000		3,091,352		A	0.6
7		1.000		3,018,009		A	0.5
8		1.000		2,883,551		A	0.7
9		1.000		2,699,337		A	1.0
10		1.000		2,553,443		A	1.5



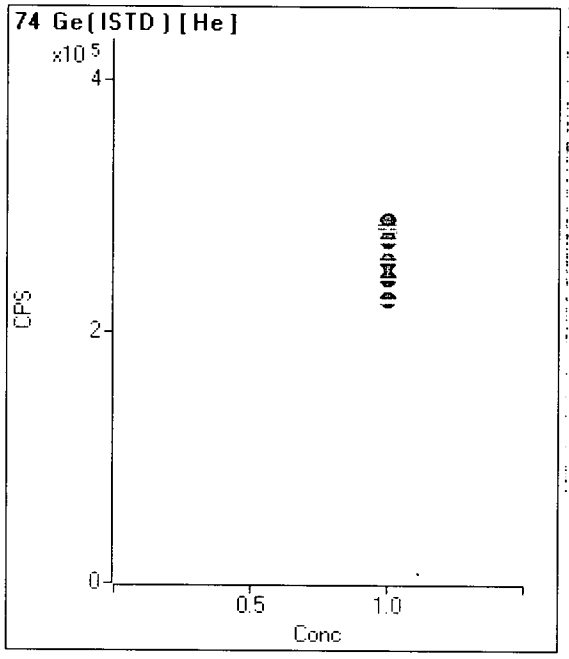
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		495,175		P	0.4
2		1.000		496,972		P	1.2
3		1.000		500,846		P	0.5
4		1.000		497,152		P	0.6
5		1.000		496,764		P	0.6
6		1.000		491,038		P	0.4
7		1.000		475,533		P	0.9
8		1.000		443,471		P	0.4
9		1.000		418,497		P	0.6
10		1.000		403,934		P	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		4,124,212		A	1.8
2		1.000		4,461,976		A	1.3
3		1.000		4,467,684		A	1.3
4		1.000		4,438,571		A	1.9
5		1.000		4,468,940		A	0.7
6		1.000		4,402,783		A	0.7
7		1.000		4,244,490		A	1.6
8		1.000		3,918,041		A	1.7
9		1.000		3,689,860		A	0.5
10		1.000		3,363,641		A	11.4

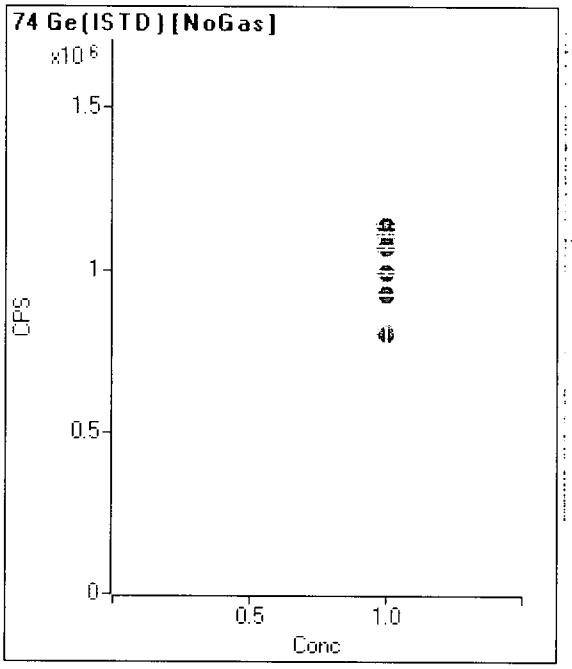


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		948,676		P	0.2
2		1.000		945,285		P	0.5
3		1.000		943,610		P	0.2
4		1.000		947,126		P	0.8
5		1.000		945,891		P	0.4
6		1.000		946,046		P	0.4
7		1.000		920,247		P	0.4
8		1.000		874,743		P	0.8
9		1.000		813,251		P	0.3
10		1.000		739,500		P	0.2

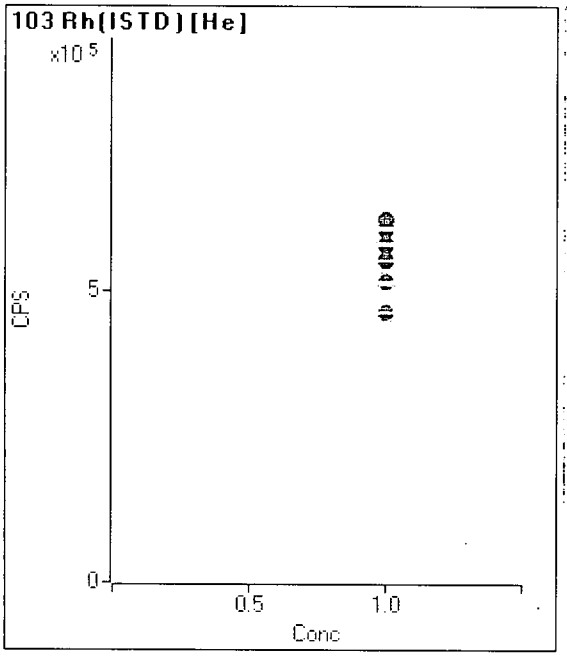


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		284,256		P	1.0
2		1.000		286,831		P	0.8
3		1.000		287,850		P	1.0
4		1.000		286,769		P	0.9
5		1.000		286,016		P	1.0
6		1.000		281,881		P	0.9
7		1.000		272,685		P	0.7
8		1.000		256,511		P	0.4
9		1.000		242,377		P	0.3
10		1.000		225,685		P	0.7

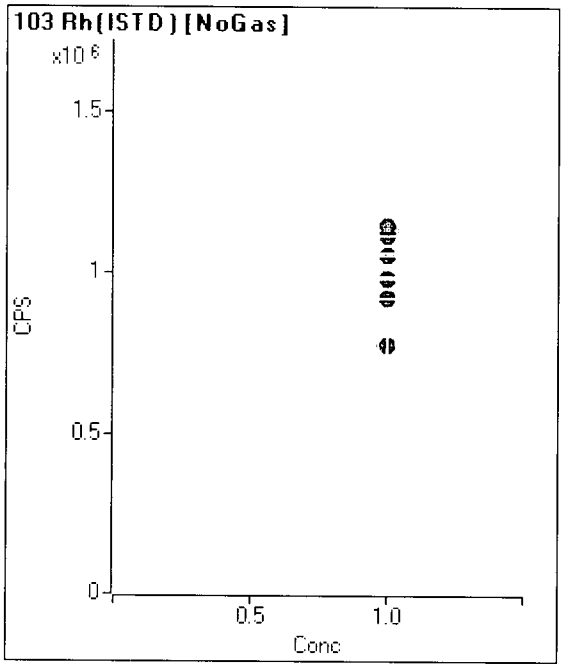
Calibration for 013_ICV.d



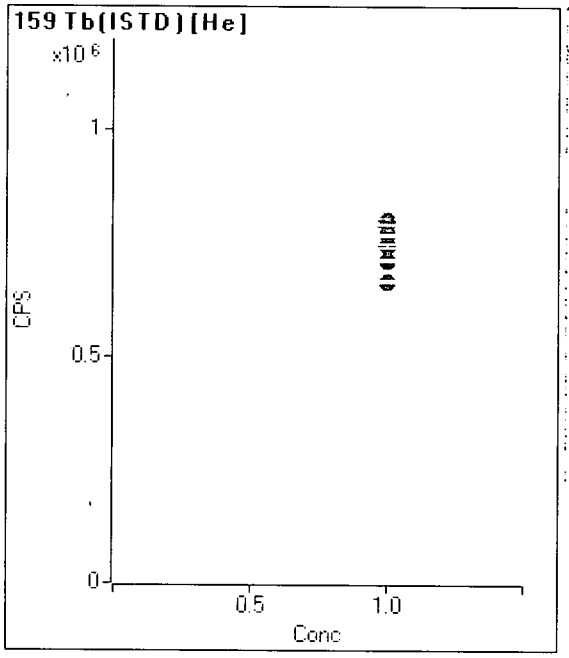
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		1,128,393		P	0.9
2		1.000		1,135,979		P	1.0
3		1.000		1,134,363		P	0.5
4		1.000		1,124,572		P	1.1
5		1.000		1,131,554		P	1.1
6		1.000		1,113,381		P	0.7
7		1.000		1,070,509		P	1.0
8		1.000		992,541		P	1.1
9		1.000		927,218		P	0.6
10		1.000		804,416		P	12.0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		616,443		P	1.3
2		1.000		619,578		P	0.5
3		1.000		619,802		P	0.7
4		1.000		614,332		P	0.9
5		1.000		614,512		P	0.4
6		1.000		605,090		P	0.7
7		1.000		579,600		P	0.2
8		1.000		551,125		P	0.1
9		1.000		514,353		P	0.8
10		1.000		464,098		P	0.1

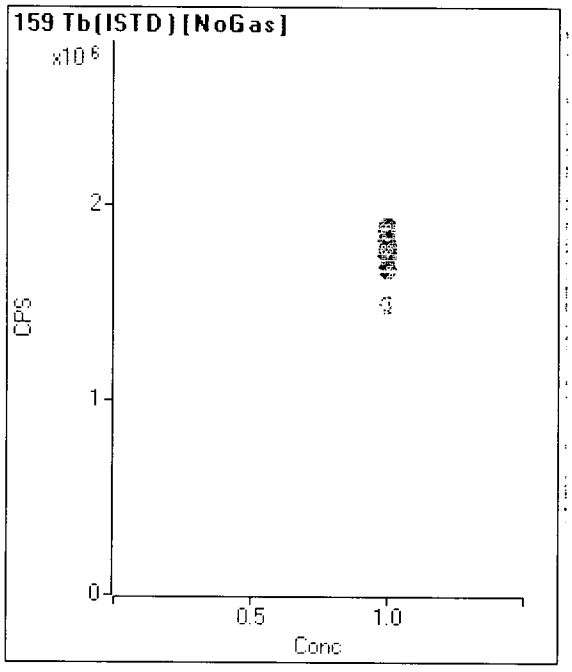


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		1,143,555		P	0.4
2		1.000		1,139,932		P	0.6
3		1.000		1,141,887		P	0.3
4		1.000		1,125,424		P	0.6
5		1.000		1,131,753		P	0.8
6		1.000		1,113,933		P	0.2
7		1.000		1,057,444		P	0.6
8		1.000		983,438		P	0.7
9		1.000		922,009		P	0.4
10		1.000		775,770		P	12.2

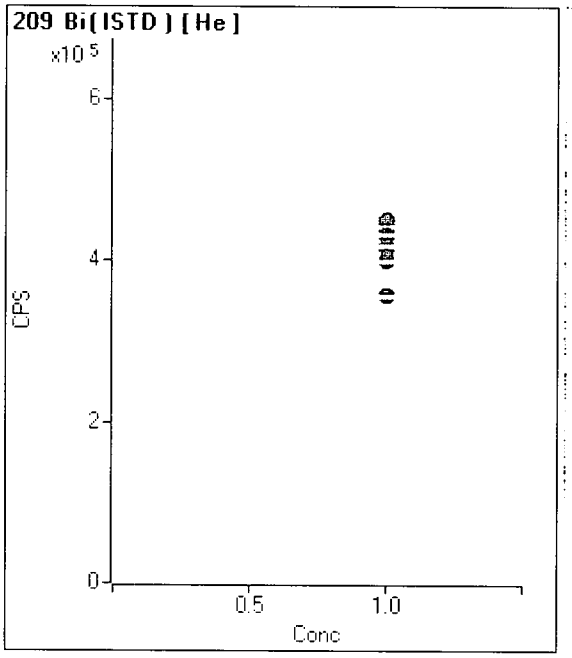


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		794,731		P	0.4
2		1.000		797,839		P	0.3
3		1.000		800,892		P	1.2
4		1.000		792,637		P	1.0
5		1.000		791,883		P	0.8
6		1.000		789,655		P	0.7
7		1.000		770,604		P	0.7
8		1.000		746,109		P	1.3
9		1.000		714,789		P	0.8
10		1.000		667,923		P	0.3

Calibration for 013_ICV.d

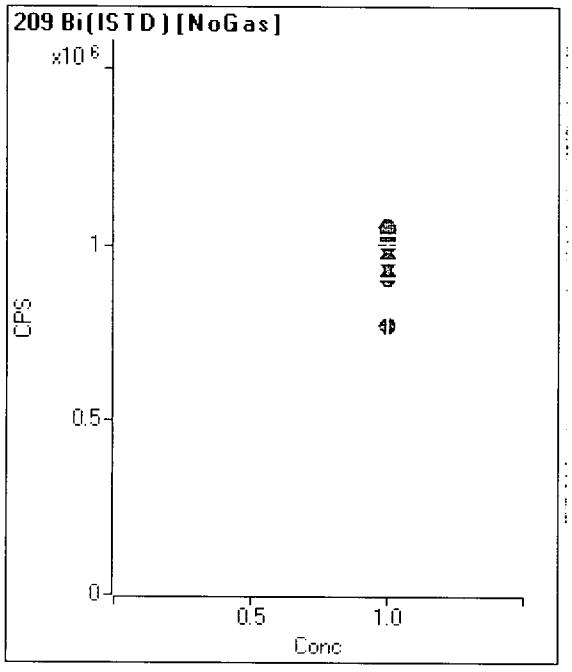


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		1,665,549		A	0.7
2		1.000		1,883,901		A	0.8
3		1.000		1,865,604		A	0.2
4		1.000		1,858,479		A	1.1
5		1.000		1,886,178		A	0.5
6		1.000		1,868,481		A	0.7
7		1.000		1,815,354		A	1.2
8		1.000		1,767,773		A	0.4
9		1.000		1,735,369		A	1.4
10		1.000		1,485,670		M	14.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		446,100		P	0.6
2		1.000		445,705		P	0.4
3		1.000		449,982		P	0.8
4		1.000		445,640		P	0.7
5		1.000		444,222		P	0.8
6		1.000		443,428		P	0.6
7		1.000		432,361		P	0.7
8		1.000		417,805		P	0.6
9		1.000		400,209		P	0.5
10		1.000		356,718		P	0.7

Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1,052,566		P	0.9
2	☐	1.000		1,047,796		P	0.4
3	☐	1.000		1,050,375		P	0.1
4	☐	1.000		1,031,296		P	1.0
5	☐	1.000		1,037,773		P	0.1
6	☐	1.000		1,032,048		P	0.2
7	☐	1.000		1,004,346		P	0.7
8	☐	1.000		957,218		P	0.6
9	☐	1.000		909,920		P	0.3
10	☐	1.000		777,321		P	12.1

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-ICV1**	Total Dilution:	1.0000
File Name:	013_ICV.d	Sample Type:	ICV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 12:26:33
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.634	ppb	1.1	126,894	40	99.08	
Na	23	45	He	4098.207	ppb	0.6	5,804,097	4000	102.46	
Mg	24	45	He	4266.233	ppb	2.1	3,394,883	4000	106.66	
Al	27	45	He	4151.617	ppb	1.0	1,746,651	4000	103.79	
K	39	45	He	4139.201	ppb	1.4	2,968,952	4000	103.48	
Ca	44	45	H2	4097.383	ppb	1.7	1,155,947	4000	102.43	
[Ca]	44	45	He	4121.542	ppb	1.7	144,092	4000	103.04	
Ti	47	45	NoGas	91.273	ppb	0.8	134,523	100	91.27	
V	51	74	He	98.516	ppb	0.6	455,170	100	98.52	
Cr	52	74	He	98.734	ppb	0.8	531,712	100	98.73	
Mn	55	74	He	102.429	ppb	0.5	388,913	100	102.43	
Fe	56	74	H2	4150.965	ppb	0.4	59,505,171	4000	103.77	
Co	59	74	He	102.302	ppb	0.4	747,599	100	102.3	
Ni	60	74	He	104.092	ppb	0.6	186,301	100	104.09	
Cu	65	74	He	105.310	ppb	0.2	227,671	100	105.31	
Zn	66	74	He	102.245	ppb	1.1	87,247	100	102.24	
As	75	74	He	98.759	ppb	1.0	52,225	100	98.76	
Se	78	74	H2	39.483	ppb	0.7	14,459	40	98.71	
Mo	95	103	He	40.494	ppb	0.7	84,214	40	101.24	
Ag	107	103	He	41.162	ppb	1.0	243,770	40	102.9	
Cd	111	103	He	98.567	ppb	1.1	98,611	100	98.57	
[Cd]	111	103	NoGas	91.651	ppb	0.6	236,378	100	91.65	
Sb	121	103	He	41.262	ppb	0.8	106,533	40	103.16	
Ba	138	159	He	104.314	ppb	1.0	595,320	100	104.31	
Hg	201	159	NoGas	821.145	ppt	2.4	951	800	102.64	
Tl	205	159	He	40.563	ppb	1.3	368,061	40	101.41	
Pb	208	159	NoGas	101.376	ppb	0.4	2,598,611	100	101.38	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.2	1,203,276	1328005.7	90.6	
Sc	45	H2	Analog	1.6	2,729,837	2880501.55333333	94.8	
Sc	45	He	Pulse	0.7	425,358	495174.883333333	85.9	
Sc	45	NoGas	Analog	0.8	3,789,891	4124211.75	91.9	
Ge	74	H2	Pulse	0.5	830,772	948676.153333333	87.6	
Ge	74	He	Pulse	0.5	245,668	284255.65	86.4	
Ge	74	NoGas	Pulse	1.0	958,482	1128393.34666667	84.9	
Rh	103	He	Pulse	0.9	530,405	616442.69	86.0	
Rh	103	NoGas	Pulse	0.4	943,786	1143555.12333333	82.5	
Tb	159	He	Pulse	0.5	734,577	794731.056666667	92.4	
Tb	159	NoGas	Analog	0.1	1,730,139	1665548.91666667	103.9	
Bi	209	He	Pulse	0.4	407,962	446099.653333333	91.5	
Bi	209	NoGas	Pulse	0.1	950,738	1052566.13	90.3	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-ICB2**	Total Dilution:	1.0000
File Name:	015_ICB.d	Sample Type:	ICB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 12:35:48
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.007	ppb	71.6	47	
Na	23	45	He	2.663	ppb	3.0	9,151	
Mg	24	45	He	1.913	ppb	3.7	2,029	
Al	27	45	He	1.799	ppb	11.0	873	
K	39	45	He	2.112	ppb	17.1	40,603	
Ca	44	45	H2	1.830	ppb	10.0	1,036	
[Ca]	44	45	He	0.248	ppb	255.6	347	
Ti	47	45	NoGas	0.092	ppb	12.3	173	
V	51	74	He	-0.110	ppb	N/A	2,180	
Cr	52	74	He	0.058	ppb	13.0	650	
Mn	55	74	He	0.068	ppb	15.2	387	
Fe	56	74	H2	1.795	ppb	0.4	34,903	
Co	59	74	He	0.015	ppb	6.8	147	
Ni	60	74	He	0.056	ppb	22.0	141	
Cu	65	74	He	0.063	ppb	37.2	174	
Zn	66	74	He	0.129	ppb	7.6	147	
As	75	74	He	0.009	ppb	295.0	55	
Se	78	74	H2	0.005	ppb	51.7	7	
Mo	95	103	He	0.009	ppb	19.3	24	
Ag	107	103	He	0.004	ppb	18.9	28	
Cd	111	103	He	0.065	ppb	11.6	71	
[Cd]	111	103	NoGas	0.060	ppb	4.5	169	
Sb	121	103	He	0.043	ppb	14.5	152	
Ba	138	159	He	0.071	ppb	11.9	474	
Hg	201	159	NoGas	2.205	ppt	96.3	9	
Tl	205	159	He	0.004	ppb	60.6	54	
Pb	208	159	NoGas	0.060	ppb	2.3	2,408	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.8	1,249,505	1328005.7	94.1	
Sc	45	H2	Analog	1.4	2,754,617	2880501.55333333	95.6	
Sc	45	He	Pulse	0.8	435,182	495174.883333333	87.9	
Sc	45	NoGas	Analog	1.4	3,911,706	4124211.75	94.8	
Ge	74	H2	Pulse	0.4	842,590	948676.153333333	88.8	
Ge	74	He	Pulse	0.7	252,204	284255.65	88.7	
Ge	74	NoGas	Pulse	0.8	991,235	1128393.34666667	87.8	
Rh	103	He	Pulse	0.4	553,016	616442.69	89.7	
Rh	103	NoGas	Pulse	0.4	998,959	1143555.12333333	87.4	
Tb	159	He	Pulse	0.4	743,969	794731.056666667	93.6	
Tb	159	NoGas	Analog	0.3	1,780,875	1665548.91666667	106.9	
Bi	209	He	Pulse	0.7	422,970	446099.653333333	94.8	
Bi	209	NoGas	Pulse	0.7	983,266	1052566.13	93.4	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL1**	Total Dilution:	1.0000
File Name:	016CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 12:40:30
Comment:	A19J368 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.191	ppb	4.6	664	106.11		
Na	23	45	He	11.330	ppb	1.9	21,878	125.89		
Mg	24	45	He	10.592	ppb	2.9	9,168	117.69		
Al	27	45	He	10.404	ppb	6.2	4,614	115.6		
K	39	45	He	10.671	ppb	12.3	47,186	118.57		
Ca	44	45	H2	11.757	ppb	8.4	3,883	130.63	R-11	<MRL
[Ca]	44	45	He	10.299	ppb	2.0	711	114.43		
Ti	47	45	NoGas	0.242	ppb	17.9	405	134.44	R-11	<MRL
V	51	74	He	0.122	ppb	7.3	3,296	67.78	R-11	
Cr	52	74	He	0.218	ppb	12.1	1,547	121.11		
Mn	55	74	He	0.247	ppb	11.5	1,091	137.22	R-11	<MRL
Fe	56	74	H2	10.313	ppb	1.5	160,149	114.59		
Co	59	74	He	0.200	ppb	5.2	1,541	111.11		
Ni	60	74	He	0.257	ppb	6.9	514	142.78	R-11	
Cu	65	74	He	0.286	ppb	12.3	674	158.89	R-11	<MRL
Zn	66	74	He	0.380	ppb	20.4	369	211.11	R-11	
As	75	74	He	0.178	ppb	17.8	148	98.89		
Se	78	74	H2	0.187	ppb	6.9	75	103.89		
Mo	95	103	He	0.191	ppb	17.2	419	106.11		
Ag	107	103	He	0.183	ppb	10.3	1,130	101.67		
Cd	111	103	He	0.229	ppb	12.3	242	127.22		
[Cd]	111	103	NoGas	0.208	ppb	12.9	576	115.56		
Sb	121	103	He	0.207	ppb	13.7	594	115		
Ba	138	159	He	0.275	ppb	3.0	1,660	152.78	R-11	<MRL
Hg	201	159	NoGas	7.748	ppt	14.3	15	107.61		
Tl	205	159	He	0.187	ppb	1.6	1,741	103.89		
Pb	208	159	NoGas	0.231	ppb	1.8	6,912	128.33		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	1,264,379	1328005.7	95.2	
Sc	45	H2	Analog	0.9	2,769,215	2880501.55333333	96.1	
Sc	45	He	Pulse	1.1	438,787	495174.883333333	88.6	
Sc	45	NoGas	Analog	0.8	3,940,403	4124211.75	95.5	
Ge	74	H2	Pulse	0.5	850,147	948676.153333333	89.6	
Ge	74	He	Pulse	0.7	253,974	284255.65	89.3	
Ge	74	NoGas	Pulse	1.4	994,818	1128393.34666667	88.2	
Rh	103	He	Pulse	1.2	553,164	616442.69	89.7	
Rh	103	NoGas	Pulse	0.8	1,003,707	1143555.12333333	87.8	
Tb	159	He	Pulse	1.1	748,509	794731.056666667	94.2	
Tb	159	NoGas	Analog	2.0	1,775,004	1665548.91666667	106.6	
Bi	209	He	Pulse	0.6	424,238	446099.653333333	95.1	
Bi	209	NoGas	Pulse	1.2	978,939	1052566.13	93.0	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL2**	Total Dilution:	1.0000
File Name:	017_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 12:45:11
Comment:	A19J369 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.936	ppb	3.7	3,187	104	
Na	23	45	He	46.810	ppb	1.2	74,284	104.02	
Mg	24	45	He	46.946	ppb	0.8	39,337	104.32	
Al	27	45	He	47.199	ppb	2.5	20,754	104.89	
K	39	45	He	46.342	ppb	1.6	73,862	102.98	
Ca	44	45	H2	46.006	ppb	1.8	13,878	102.24	
[Ca]	44	45	He	45.443	ppb	7.8	1,992	100.98	
Ti	47	45	NoGas	0.880	ppb	9.0	1,401	97.78	
V	51	74	He	0.882	ppb	3.1	6,986	98	
Cr	52	74	He	0.949	ppb	2.3	5,680	105.44	
Mn	55	74	He	0.900	ppb	3.4	3,698	100	
Fe	56	74	H2	45.664	ppb	0.2	682,103	101.48	
Co	59	74	He	0.907	ppb	2.0	6,969	100.78	
Ni	60	74	He	0.954	ppb	0.6	1,826	106	
Cu	65	74	He	1.018	ppb	9.2	2,338	113.11	
Zn	66	74	He	1.077	ppb	8.8	996	119.67	
As	75	74	He	0.909	ppb	11.0	554	101	
Se	78	74	H2	0.916	ppb	7.2	350	101.78	
Mo	95	103	He	0.857	ppb	4.8	1,875	95.22	
Ag	107	103	He	0.918	ppb	1.5	5,704	102	
Cd	111	103	He	0.988	ppb	6.0	1,040	109.78	
[Cd]	111	103	NoGas	0.869	ppb	6.6	2,411	96.56	
Sb	121	103	He	0.903	ppb	7.3	2,479	100.33	
Ba	138	159	He	1.029	ppb	4.3	6,059	114.33	
Hg	201	159	NoGas	37.554	ppt	15.3	51	104.32	
Tl	205	159	He	0.907	ppb	0.7	8,418	100.78	
Pb	208	159	NoGas	0.970	ppb	0.8	26,664	107.78	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.3	1,271,053	1328005.7	95.7	
Sc	45	H2	Analog	0.8	2,808,847	2880501.55333333	97.5	
Sc	45	He	Pulse	0.4	442,455	495174.883333333	89.4	
Sc	45	NoGas	Analog	1.1	3,996,788	4124211.75	96.9	
Ge	74	H2	Pulse	0.6	854,450	948676.153333333	90.1	
Ge	74	He	Pulse	0.7	257,019	284255.65	90.4	
Ge	74	NoGas	Pulse	0.7	1,005,843	1128393.34666667	89.1	
Rh	103	He	Pulse	0.8	556,209	616442.69	90.2	
Rh	103	NoGas	Pulse	0.8	1,013,632	1143555.12333333	88.6	
Tb	159	He	Pulse	0.8	750,361	794731.056666667	94.4	
Tb	159	NoGas	Analog	0.6	1,797,542	1665548.91666667	107.9	
Bi	209	He	Pulse	0.7	425,253	446099.653333333	95.3	
Bi	209	NoGas	Pulse	0.7	984,543	1052566.13	93.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL3**	Total Dilution:	1.0000
File Name:	018CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 12:49:50
Comment:	A19J370 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.778	ppb	2.6	6,098	98.78	
Na	23	45	He	92.131	ppb	0.6	141,977	102.37	
Mg	24	45	He	91.585	ppb	1.1	76,812	101.76	
Al	27	45	He	92.732	ppb	1.3	40,962	103.04	
K	39	45	He	92.607	ppb	0.6	108,692	102.9	
Ca	44	45	H2	90.487	ppb	2.2	27,061	100.54	
[Ca]	44	45	He	94.198	ppb	3.4	3,787	104.66	
Ti	47	45	NoGas	1.765	ppb	4.2	2,804	98.06	
V	51	74	He	1.787	ppb	1.9	11,428	99.28	
Cr	52	74	He	1.824	ppb	1.6	10,699	101.33	
Mn	55	74	He	1.864	ppb	3.1	7,587	103.56	
Fe	56	74	H2	93.147	ppb	0.2	1,393,548	103.5	
Co	59	74	He	1.845	ppb	2.1	14,257	102.5	
Ni	60	74	He	1.858	ppb	7.7	3,547	103.22	
Cu	65	74	He	2.043	ppb	0.6	4,695	113.5	
Zn	66	74	He	1.972	ppb	3.1	1,809	109.56	
As	75	74	He	1.827	ppb	4.8	1,070	101.5	
Se	78	74	H2	1.745	ppb	6.0	668	96.94	
Mo	95	103	He	1.743	ppb	4.6	3,834	96.83	
Ag	107	103	He	1.771	ppb	0.4	11,079	98.39	
Cd	111	103	He	1.849	ppb	0.8	1,957	102.72	
[Cd]	111	103	NoGas	1.754	ppb	2.7	4,886	97.44	
Sb	121	103	He	1.720	ppb	2.4	4,725	95.56	
Ba	138	159	He	1.971	ppb	2.1	11,652	109.5	
Hg	201	159	NoGas	67.850	ppt	1.1	88	94.24	
Tl	205	159	He	1.799	ppb	0.9	16,836	99.94	
Pb	208	159	NoGas	1.901	ppb	2.1	51,672	105.61	

ISTD Table:

Name	Mass	Tune Mode	Del.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.7	1,284,839	1328005.7	96.7	
Sc	45	H2	Analog	0.7	2,838,021	2880501.55333333	98.5	
Sc	45	He	Pulse	0.9	445,540	495174.883333333	90.0	
Sc	45	NoGas	Analog	1.8	4,033,976	4124211.75	97.8	
Ge	74	H2	Pulse	0.4	861,539	948676.153333333	90.8	
Ge	74	He	Pulse	0.9	259,156	284255.65	91.2	
Ge	74	NoGas	Pulse	1.4	1,014,684	1128393.34666667	89.9	
Rh	103	He	Pulse	0.6	560,190	616442.69	90.9	
Rh	103	NoGas	Pulse	0.5	1,018,234	1143555.12333333	89.0	
Tb	159	He	Pulse	0.9	756,961	794731.056666667	95.2	
Tb	159	NoGas	Analog	1.7	1,805,762	1665548.91666667	108.4	
Bi	209	He	Pulse	0.5	428,317	446099.653333333	96.0	
Bi	209	NoGas	Pulse	0.8	987,462	1052566.13	93.8	

Quantitation Report ICPMS5

File Name	019ICSA.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K04033.b		
Acq Time	11/4/2019 12:54:31	Sample Type	
Sample Name	**9K04033-IFA1**	ICSA	
Comment	**A19J465**	Last Calib	11/05/2019 10:07:05
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	0.012	0.012	ppb	14.3		
Na	23	45	He	249079.681	249079.681	ppb	0.4		
Mg	24	45	He	98123.072	98123.072	ppb	0.4	100000	
Al	27	45	He	99861.326	99861.326	ppb	0.2	100000	
K	39	45	He	95272.268	95272.268	ppb	1.3	100000	
Ca	44	45	H2	284201.522	284201.522	ppb	0.6		
[Ca]	44	45	He	292365.752	292365.752	ppb	0.5		
Ti	47	45	NoGas	1923.328	1923.328	ppb	1.4		
V	51	74	He	0.108	0.108	ppb	22.9	2	
Cr	52	74	He	1.84	1.840	ppb	2.4	2	
Mn	55	74	He	2.364	2.364	ppb	2.5	2	> CRI
Fe	56	74	H2	246697.221	246697.221	ppb	0.1		
Co	59	74	He	0.851	0.851	ppb	0.3		
Ni	60	74	He	0.792	0.792	ppb	3.5	2	
Cu	65	74	He	1.1	1.100	ppb	2.9	2	
Zn	66	74	He	2.589	2.589	ppb	1.5	2	> CRI
As	75	74	He	0.215	0.215	ppb	18.1	0.9	
Se	78	74	H2	0.207	0.207	ppb	8.4	0.9	
Mo	95	103	He	2243.664	2243.664	ppb	0.4	2000	
Ag	107	103	He	0.326	0.326	ppb	3.8		
Cd	111	103	He	6.28	6.280	ppb	3.2		
[Cd]	111	103	NoGas	0.485	0.485	ppb	12.6		
Sb	121	103	He	0.158	0.158	ppb	12.9	0.9	
Ba	138	159	He	1.666	1.666	ppb	2.2	2	
W	182	159	NoGas	105.612	105.612	ppb	1.0		
Hg	201	159	NoGas	91.486	91.486	ppt	13.6		
Tl	205	159	He	0.007	0.007	ppb	30.6	0.9	
Pb	208	159	NoGas	0.826	0.826	ppb	1.3		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	1,080,637	0.4	1328005.7	Analog	81.4	
Sc	45	H2	2,359,833	1.4	2880501.55333333	Analog	81.9	
Sc	45	He	370,454	0.9	495174.883333333	Pulse	74.8	
Sc	45	NoGas	3,316,037	2.1	4124211.75	Analog	80.4	
Ge	74	H2	633,618	0.5	948676.153333333	Pulse	66.8	IS Q-06
Ge	74	He	199,483	1.3	284255.65	Pulse	70.2	
Ge	74	NoGas	776,724	0.9	1128393.34666667	Pulse	68.8	IS Q-06
Rh	103	He	387,988	1.1	616442.69	Pulse	62.9	IS Q-06
Rh	103	NoGas	712,705	1.1	1143555.12333333	Pulse	62.3	IS Q-06
Tb	159	He	591,918	0.5	794731.056666667	Pulse	74.5	
Tb	159	NoGas	1,390,964	0.8	1665548.91666667	Pulse	83.5	
Bi	209	He	295,217	0.7	446099.653333333	Pulse	66.2	IS Q-06
Bi	209	NoGas	716,993	0.7	1052566.13	Pulse	68.1	IS Q-06

Quantitation Report ICPMS5

File Name	020ICSB.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K04033.b		
Acq Time	11/4/2019 13:01:32	Sample Type	ICSB
Sample Name	**9K04033-IFB1**	Last Calib	11/05/2019 10:07:05
Comment	**A19J466**	Vial:	1112
Prep Dilution	1.0000	Operator Name	ICPMS Analyst
Total Dilution	**1.0000**		

FullQuant Table

Element	Mass	ISTD	Tune Mode	Raw Conc	Corrected Conc.	Units	RSD(%)	ExpectedValue	QC Flag
Be	9	6	NoGas	0.003	0.003	ppb	220.8		
Na	23	45	He	249056.189	249056.189	ppb	0.5		
Mg	24	45	He	98453.56	98453.560	ppb	0.5	100000	
Al	27	45	He	100376.216	100376.216	ppb	0.7	100000	
K	39	45	He	96523.013	96523.013	ppb	1.5	100000	
Ca	44	45	H2	286098.544	286098.544	ppb	1.1		
[Ca]	44	45	He	292488.179	292488.179	ppb	0.6		
Ti	47	45	NoGas	1919.17	1919.170	ppb	1.1		
V	51	74	He	208.832	208.832	ppb	0.3	200	
Cr	52	74	He	199.27	199.270	ppb	0.6	200	
Mn	55	74	He	207.204	207.204	ppb	0.6	200	
Fe	56	74	H2	246558.194	246558.194	ppb	0.4		
Co	59	74	He	192.823	192.823	ppb	0.2		
Ni	60	74	He	188.423	188.423	ppb	0.3	200	
Cu	65	74	He	188.021	188.021	ppb	0.5	200	
Zn	66	74	He	94.142	94.142	ppb	0.5	100	
As	75	74	He	99.101	99.101	ppb	1.1	100	
Se	78	74	H2	99.557	99.557	ppb	0.9	100	
Mo	95	103	He	2262	2262.000	ppb	0.7	2000	
Ag	107	103	He	50.642	50.642	ppb	0.4	50	
Cd	111	103	He	105.247	105.247	ppb	1.0		
[Cd]	111	103	NoGas	92.953	92.953	ppb	0.5		
Sb	121	103	He	0.155	0.155	ppb	20.4	0.9	
Ba	138	159	He	1.717	1.717	ppb	4.6	2	> +/- 10%
W	182	159	NoGas	104.661	104.661	ppb	0.8		
Hg	201	159	NoGas	2101.415	2101.415	ppt	1.1		
Tl	205	159	He	0.004	0.004	ppb	37.3	0.9	
Pb	208	159	NoGas	0.826	0.826	ppb	1.3		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	1,087,256	1.0	1328005.7	Analog	81.9	
Sc	45	H2	2,298,838	1.2	2880501.55333333	Analog	79.8	
Sc	45	He	359,517	0.2	495174.883333333	Pulse	72.6	
Sc	45	NoGas	3,267,978	0.5	4124211.75	Analog	79.2	
Ge	74	H2	620,516	0.6	948676.153333333	Pulse	65.4	IS Q-06
Ge	74	He	193,692	0.7	284255.65	Pulse	68.1	IS Q-06
Ge	74	NoGas	759,902	1.1	1128393.34666667	Pulse	67.3	IS Q-06
Rh	103	He	378,612	0.2	616442.69	Pulse	61.4	IS Q-06
Rh	103	NoGas	703,689	0.6	1143555.12333333	Pulse	61.5	IS Q-06
Tb	159	He	579,221	0.3	794731.056666667	Pulse	72.9	
Tb	159	NoGas	1,375,208	0.6	1665548.91666667	Pulse	82.6	
Bi	209	He	290,219	0.9	446099.653333333	Pulse	65.1	IS Q-06
Bi	209	NoGas	703,002	0.4	1052566.13	Pulse	66.8	IS Q-06

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV1**	Total Dilution:	1.0000
File Name:	032_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 14:02:42
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.351	ppb	0.9	115,774	40	98.38	
Na	23	45	He	4143.456	ppb	0.9	5,147,198	4000	103.59	
Mg	24	45	He	4344.532	ppb	0.6	3,032,751	4000	108.61	
Al	27	45	He	4199.689	ppb	1.6	1,549,788	4000	104.99	
K	39	45	He	4190.549	ppb	1.0	2,636,190	4000	104.76	
Ca	44	45	H2	4037.311	ppb	0.4	1,022,862	4000	100.93	
[Ca]	44	45	He	4119.162	ppb	0.7	126,321	4000	102.98	
Ti	47	45	NoGas	90.661	ppb	0.5	120,455	100	90.66	
V	51	74	He	96.871	ppb	0.5	398,699	100	96.87	
Cr	52	74	He	97.883	ppb	0.8	469,527	100	97.88	
Mn	55	74	He	101.955	ppb	0.1	344,811	100	101.96	
Fe	56	74	H2	4200.569	ppb	0.2	54,092,329	4000	105.01	
Co	59	74	He	100.628	ppb	0.1	655,011	100	100.63	
Ni	60	74	He	103.271	ppb	0.2	164,633	100	103.27	
Cu	65	74	He	104.219	ppb	0.7	200,694	100	104.22	
Zn	66	74	He	102.302	ppb	0.3	77,757	100	102.3	
As	75	74	He	97.862	ppb	0.4	46,097	100	97.86	
Se	78	74	H2	39.859	ppb	0.5	13,112	40	99.65	
Mo	95	103	He	40.180	ppb	0.8	75,270	40	100.45	
Ag	107	103	He	41.485	ppb	0.4	221,310	40	103.71	
Cd	111	103	He	99.589	ppb	0.8	89,751	100	99.59	
[Cd]	111	103	NoGas	92.317	ppb	0.7	217,562	100	92.32	
Sb	121	103	He	42.048	ppb	0.7	97,789	40	105.12	
Ba	138	159	He	101.516	ppb	1.0	549,676	100	101.52	
Hg	201	159	NoGas	797.640	ppt	1.5	895	800	99.7	
Tl	205	159	He	40.721	ppb	0.6	350,593	40	101.8	
Pb	208	159	NoGas	100.550	ppb	0.5	2,497,219	100	100.55	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,105,653	1328005.7	83.3	
Sc	45	H2	Analog	0.6	2,451,060	2880501.55333333	85.1	
Sc	45	He	Pulse	0.4	373,101	495174.883333333	75.3	
Sc	45	NoGas	Analog	1.3	3,416,311	4124211.75	82.8	
Ge	74	H2	Pulse	0.1	746,277	948676.153333333	78.7	
Ge	74	He	Pulse	0.5	218,822	284255.65	77.0	
Ge	74	NoGas	Pulse	0.5	865,731	1128393.34666667	76.7	
Rh	103	He	Pulse	0.5	477,756	616442.69	77.5	
Rh	103	NoGas	Pulse	0.6	862,386	1143555.12333333	75.4	
Tb	159	He	Pulse	0.4	696,959	794731.056666667	87.7	
Tb	159	NoGas	Analog	0.6	1,676,304	1665548.91666667	100.6	
Bi	209	He	Pulse	0.5	392,035	446099.653333333	87.9	
Bi	209	NoGas	Pulse	0.4	902,250	1052566.13	85.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB1**	Total Dilution:	1.0000
File Name:	033_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 14:07:18
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.002	ppb	123.8	27	
Na	23	45	He	5.018	ppb	4.3	10,741	
Mg	24	45	He	1.764	ppb	6.0	1,631	
Al	27	45	He	0.789	ppb	11.7	376	
K	39	45	He	-0.574	ppb	N/A	33,063	
Ca	44	45	H2	3.848	ppb	3.8	1,398	
[Ca]	44	45	He	1.048	ppb	204.9	321	
Ti	47	45	NoGas	0.043	ppb	50.4	87	
V	51	74	He	-0.159	ppb	N/A	1,696	
Cr	52	74	He	-0.005	ppb	N/A	262	
Mn	55	74	He	0.010	ppb	29.6	140	
Fe	56	74	H2	1.664	ppb	7.2	28,959	
Co	59	74	He	0.013	ppb	7.6	114	
Ni	60	74	He	0.005	ppb	73.9	42	
Cu	65	74	He	0.053	ppb	15.6	133	
Zn	66	74	He	0.018	ppb	168.9	43	
As	75	74	He	-0.002	ppb	N/A	43	
Se	78	74	H2	0.032	ppb	77.3	15	
Mo	95	103	He	0.049	ppb	39.0	98	
Ag	107	103	He	0.008	ppb	35.7	46	
Cd	111	103	He	0.023	ppb	29.5	24	
[Cd]	111	103	NoGas	0.015	ppb	14.0	40	
Sb	121	103	He	0.220	ppb	13.8	554	
Ba	138	159	He	0.017	ppb	24.6	147	
Hg	201	159	NoGas	2.638	ppt	71.6	9	
Tl	205	159	He	0.006	ppb	45.6	67	
Pb	208	159	NoGas	0.024	ppb	7.1	1,401	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.5	1,129,018	1328005.7	85.0	
Sc	45	H2	Analog	0.8	2,390,644	2880501.55333333	83.0	
Sc	45	He	Pulse	1.2	372,211	495174.883333333	75.2	
Sc	45	NoGas	Analog	1.0	3,440,886	4124211.75	83.4	
Ge	74	H2	Pulse	0.1	739,436	948676.153333333	77.9	
Ge	74	He	Pulse	1.0	219,560	284255.65	77.2	
Ge	74	NoGas	Pulse	0.9	873,790	1128393.34666667	77.4	
Rh	103	He	Pulse	0.9	489,564	616442.69	79.4	
Rh	103	NoGas	Pulse	0.3	886,062	1143555.12333333	77.5	
Tb	159	He	Pulse	0.4	695,833	794731.056666667	87.6	
Tb	159	NoGas	Analog	1.2	1,684,800	1665548.91666667	101.2	
Bi	209	He	Pulse	0.5	400,110	446099.653333333	89.7	
Bi	209	NoGas	Pulse	0.5	924,000	1052566.13	87.8	

Quantitation Report - ICPMS5

Sample Name:	**9110369-BLK2**	Total Dilution:	**5.0000**
File Name:	038SMPL.d	Vial:	3213
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	Sample
Acq Time:	11/4/2019 14:37:54	I.S. Reference File:	003CALB.d
Comment:	**9110369 Sediment Hg Q-31**	Last Calibration:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.002	ppb	97.4	24	100	
Na	23	45	He	4.318	ppb	6.7	9,903	50000	
Mg	24	45	He	1.172	ppb	9.5	1,222	50000	
Al	27	45	He	1.274	ppb	9.1	556	50000	
K	39	45	He	0.436	ppb	157.0	33,782	50000	
Ca	44	45	H2	7.052	ppb	3.4	2,169	50000	
[Ca]	44	45	He	4.949	ppb	9.6	441	50000	
Ti	47	45	NoGas	0.094	ppb	19.7	152	2500	
V	51	74	He	0.166	ppb	8.5	3,014	500	
Cr	52	74	He	0.016	ppb	27.0	366	1000	
Mn	55	74	He	-0.003	ppb	N/A	97	2500	
Fe	56	74	H2	0.922	ppb	4.5	18,895	50000	
Co	59	74	He	0	ppb	N/A	28	500	
Ni	60	74	He	-0.001	ppb	N/A	32	1000	
Cu	65	74	He	0.061	ppb	23.6	148	1000	
Zn	66	74	He	0.076	ppb	44.5	87	2500	
As	75	74	He	0.026	ppb	131.0	56	500	
Se	78	74	H2	0.001	ppb	405.1	5	100	
Mo	95	103	He	0.018	ppb	49.4	38	100	
Ag	107	103	He	0.003	ppb	94.3	16	100	
Cd	111	103	He	0.006	ppb	20.2	8	1000	
[Cd]	111	103	NoGas	0.003	ppb	106.3	12	1000	
Sb	121	103	He	0.018	ppb	10.6	74	100	
Ba	138	159	He	0.037	ppb	19.1	261	2500	
W	182	159	NoGas	0.026	ppb	53.1	243	40	
Hg	201	159	NoGas	-0.976	ppt	N/A	5	4000	
Tl	205	159	He	0	ppb	121.7	18	100	
Pb	208	159	NoGas	0.003	ppb	216.7	863	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,109,279	0.8	1328005.7	Analog	83.5	
Sc	45	H2	2,369,269	0.9	2880501.55333333	Analog	82.3	
Sc	45	He	373,263	1.1	495174.883333333	Pulse	75.4	
Sc	45	NoGas	3,371,716	0.2	4124211.75	Analog	81.8	
Ge	74	H2	716,856	0.4	948676.153333333	Pulse	75.6	
Ge	74	He	218,561	0.9	284255.65	Pulse	76.9	
Ge	74	NoGas	852,049	0.9	1128393.34666667	Pulse	75.5	
Rh	103	He	486,158	1.0	616442.69	Pulse	78.9	
Rh	103	NoGas	874,005	0.9	1143555.12333333	Pulse	76.4	
Tb	159	He	701,276	1.2	794731.056666667	Pulse	88.2	
Tb	159	NoGas	1,697,068	0.7	1665548.91666667	Analog	101.9	
Bi	209	He	398,334	0.7	446099.653333333	Pulse	89.3	
Bi	209	NoGas	903,435	1.0	1052566.13	Pulse	85.8	

Quantitation Report - ICPMS5

Sample Name:	**9110369-BS2**	Total Dilution:	**5.0000**
File Name:	039SMPL.d	Vial:	3214
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	Sample
Acq Time:	11/4/2019 14:42:34	I.S. Reference File:	003CALB.d
Comment:	**9110369 Sediment Hg Q-31**	Last Calibration:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	23.93	ppb	0.8	69,605	100	
Na	23	45	He	2656.346	ppb	0.1	3,216,030	50000	
Mg	24	45	He	2681.578	ppb	0.9	1,823,517	50000	
Al	27	45	He	2560.918	ppb	0.1	920,629	50000	
K	39	45	He	2662.117	ppb	1.1	1,643,257	50000	
Ca	44	45	H2	2503.582	ppb	1.1	605,273	50000	
[Ca]	44	45	He	2566.735	ppb	0.8	76,783	50000	
Ti	47	45	NoGas	45.623	ppb	1.5	59,096	2500	
V	51	74	He	49.76	ppb	0.2	200,610	500	
Cr	52	74	He	49.099	ppb	0.2	229,561	1000	
Mn	55	74	He	51.231	ppb	0.7	168,828	2500	
Fe	56	74	H2	2591.823	ppb	0.9	31,768,350	50000	
Co	59	74	He	50.668	ppb	0.7	321,287	500	
Ni	60	74	He	51.005	ppb	0.5	79,223	1000	
Cu	65	74	He	52.502	ppb	0.7	98,499	1000	
Zn	66	74	He	51.273	ppb	0.1	37,977	2500	
As	75	74	He	49.297	ppb	1.4	22,641	500	
Se	78	74	H2	24.105	ppb	0.9	7,549	100	
Mo	95	103	He	25.339	ppb	0.0	46,939	100	
Ag	107	103	He	27.087	ppb	0.4	142,889	100	
Cd	111	103	He	50.614	ppb	0.1	45,106	1000	
[Cd]	111	103	NoGas	47.183	ppb	0.8	108,743	1000	
Sb	121	103	He	25.559	ppb	1.0	58,792	100	
Ba	138	159	He	51.753	ppb	0.3	277,642	2500	
W	182	159	NoGas	0.022	ppb	17.0	202	40	
Hg	201	159	NoGas	1006.21	ppt	0.5	1,107	4000	
Tl	205	159	He	25.949	ppb	0.5	221,329	100	
Pb	208	159	NoGas	52.397	ppb	0.7	1,277,677	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,093,027	1.3	1328005.7	Analog	82.3	
Sc	45	H2	2,338,381	0.9	2880501.55333333	Analog	81.2	
Sc	45	He	363,436	0.4	495174.883333333	Pulse	73.4	
Sc	45	NoGas	3,330,222	1.2	4124211.75	Analog	80.7	
Ge	74	H2	710,273	0.3	948676.153333333	Pulse	74.9	
Ge	74	He	213,156	0.3	284255.65	Pulse	75.0	
Ge	74	NoGas	836,082	1.0	1128393.34666667	Pulse	74.1	
Rh	103	He	472,430	0.7	616442.69	Pulse	76.6	
Rh	103	NoGas	843,394	1.0	1143555.12333333	Pulse	73.8	
Tb	159	He	690,449	0.5	794731.056666667	Pulse	86.9	
Tb	159	NoGas	1,645,410	0.7	1665548.91666667	Analog	98.8	
Bi	209	He	388,300	0.6	446099.653333333	Pulse	87.0	
Bi	209	NoGas	891,378	0.4	1052566.13	Pulse	84.7	

Quantitation Report - ICPMS5

Sample Name:	**A9J0954-01RE1**	Total Dilution:	**5.0000**
File Name:	040SMPL.d	Vial:	3215
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	Sample
Acq Time:	11/4/2019 14:47:10	I.S. Reference File:	003CALB.d
Comment:	**9110369 Sediment Hg Q-31**	Last Calibration:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.684	ppb	4.0	2,124	100	
Na	23	45	He	896.836	ppb	0.8	1,225,169	50000	
Mg	24	45	He	7539.603	ppb	0.9	5,769,001	50000	
Al	27	45	He	30794.332	ppb	0.5	12,456,329	50000	
K	39	45	He	1437.006	ppb	0.4	1,015,080	50000	
Ca	44	45	H2	8286.866	ppb	2.1	2,202,446	50000	
[Ca]	44	45	He	8287.465	ppb	0.3	278,262	50000	
Ti	47	45	NoGas	2531.78	ppb	1.0	3,763,875	2500	>LDR RR-2
V	51	74	He	131.209	ppb	0.2	542,124	500	
Cr	52	74	He	36.067	ppb	0.5	174,125	1000	
Mn	55	74	He	633.641	ppb	0.8	2,153,974	2500	
Fe	56	74	H2	49846.573	ppb	0.5	609,773,329	50000	>LDR RR-2
Co	59	74	He	24.836	ppb	0.9	162,557	500	
Ni	60	74	He	38.763	ppb	1.3	62,150	1000	
Cu	65	74	He	37.384	ppb	0.9	72,406	1000	
Zn	66	74	He	110.579	ppb	0.8	84,506	2500	
As	75	74	He	4.734	ppb	0.5	2,284	500	
Se	78	74	H2	0.213	ppb	8.5	71	100	
Mo	95	103	He	0.511	ppb	8.4	963	100	
Ag	107	103	He	0.208	ppb	1.8	1,111	100	
Cd	111	103	He	0.233	ppb	12.8	213	1000	
[Cd]	111	103	NoGas	0.839	ppb	3.4	2,046	1000	
Sb	121	103	He	0.272	ppb	11.3	666	100	
Ba	138	159	He	186.923	ppb	0.8	1,023,615	2500	
W	182	159	NoGas	0.082	ppb	5.3	747	40	
Hg	201	159	NoGas	85.7	ppt	4.9	106	4000	
Tl	205	159	He	0.123	ppb	5.0	1,081	100	
Pb	208	159	NoGas	10.93	ppb	0.7	284,814	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,156,557	1.5	1328005.7	Analog	87.1	
Sc	45	H2	2,572,254	1.3	2880501.55333333	Analog	89.3	
Sc	45	He	408,972	0.9	495174.883333333	Pulse	82.6	
Sc	45	NoGas	3,823,892	1.5	4124211.75	Analog	92.7	
Ge	74	H2	709,031	0.2	948676.153333333	Pulse	74.7	
Ge	74	He	220,011	1.2	284255.65	Pulse	77.4	
Ge	74	NoGas	888,310	1.2	1128393.34666667	Pulse	78.7	
Rh	103	He	479,018	1.4	616442.69	Pulse	77.7	
Rh	103	NoGas	890,317	0.3	1143555.12333333	Pulse	77.9	
Tb	159	He	704,890	0.9	794731.056666667	Pulse	88.7	
Tb	159	NoGas	1,754,237	0.4	1665548.91666667	Analog	105.3	
Bi	209	He	380,091	1.1	446099.653333333	Pulse	85.2	
Bi	209	NoGas	898,576	0.9	1052566.13	Pulse	85.4	

Quantitation Report - ICPMS5

Sample Name:	**A9J0954-02RE1**	Total Dilution:	**5.0000**
File Name:	041SMPL.d	Vial:	3301
File Path:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Sample Type:	Sample
Acq Time:	11/4/2019 14:51:42	I.S. Reference File:	003CALB.d
Comment:	**9110369 Sediment Hg Q-31**	Last Calibration:	11/05/2019 10:07:05

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.922	ppb	3.8	2,863	100	
Na	23	45	He	741.522	ppb	0.3	1,062,938	50000	
Mg	24	45	He	7711.217	ppb	0.0	6,185,914	50000	
Al	27	45	He	40055.817	ppb	0.4	16,987,347	50000	
K	39	45	He	1515.775	ppb	0.5	1,120,456	50000	
Ca	44	45	H2	8079.362	ppb	1.2	2,309,951	50000	
[Ca]	44	45	He	7968.581	ppb	0.4	280,533	50000	
Ti	47	45	NoGas	2687.57	ppb	0.5	4,111,062	2500	>LDR RR-2
V	51	74	He	143.292	ppb	0.9	603,746	500	
Cr	52	74	He	49.791	ppb	0.4	245,127	1000	
Mn	55	74	He	811.006	ppb	0.2	2,812,573	2500	
Fe	56	74	H2	51312.891	ppb	1.0	659,567,630	50000	>LDR RR-2
Co	59	74	He	21.338	ppb	0.6	142,484	500	
Ni	60	74	He	38.849	ppb	1.0	63,547	1000	
Cu	65	74	He	71.823	ppb	0.6	141,868	1000	
Zn	66	74	He	185.795	ppb	0.9	144,819	2500	
As	75	74	He	7.045	ppb	0.7	3,445	500	
Se	78	74	H2	0.453	ppb	13.7	153	100	
Mo	95	103	He	0.568	ppb	4.7	1,087	100	
Ag	107	103	He	0.952	ppb	2.9	5,165	100	
Cd	111	103	He	0.644	ppb	3.5	593	1000	
[Cd]	111	103	NoGas	1.36	ppb	1.7	3,316	1000	
Sb	121	103	He	0.825	ppb	7.5	1,982	100	
Ba	138	159	He	226.286	ppb	0.3	1,246,826	2500	
W	182	159	NoGas	0.09	ppb	7.1	816	40	
Hg	201	159	NoGas	408.201	ppt	2.9	480	4000	
Tl	205	159	He	0.147	ppb	4.1	1,306	100	
Pb	208	159	NoGas	35.16	ppb	0.7	910,758	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,159,169	0.4	1328005.7	Analog	87.3	
Sc	45	H2	2,766,583	0.3	2880501.55333333	Analog	96.0	
Sc	45	He	428,786	0.2	495174.883333333	Pulse	86.6	
Sc	45	NoGas	3,934,005	1.8	4124211.75	Analog	95.4	
Ge	74	H2	745,026	0.3	948676.153333333	Pulse	78.5	
Ge	74	He	224,447	0.7	284255.65	Pulse	79.0	
Ge	74	NoGas	893,904	1.2	1128393.34666667	Pulse	79.2	
Rh	103	He	485,915	0.6	616442.69	Pulse	78.8	
Rh	103	NoGas	890,713	0.3	1143555.12333333	Pulse	77.9	
Tb	159	He	709,249	0.6	794731.056666667	Pulse	89.2	
Tb	159	NoGas	1,747,347	0.7	1665548.91666667	Analog	104.9	
Bi	209	He	386,177	0.3	446099.653333333	Pulse	86.6	
Bi	209	NoGas	903.676	0.6	1052566.13	Pulse	85.9	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV2**	Total Dilution:	1.0000
File Name:	044_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 15:05:25
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.388	ppb	1.6	127,664	40	98.47	
Na	23	45	He	4087.145	ppb	0.5	5,624,086	4000	102.18	
Mg	24	45	He	4320.180	ppb	1.0	3,340,487	4000	108	
Al	27	45	He	4233.938	ppb	1.5	1,730,700	4000	105.85	
K	39	45	He	4173.838	ppb	0.3	2,908,619	4000	104.35	
Ca	44	45	H2	4006.512	ppb	0.2	1,114,700	4000	100.16	
[Ca]	44	45	He	4106.066	ppb	0.4	139,481	4000	102.65	
Ti	47	45	NoGas	90.639	ppb	0.9	135,873	100	90.64	
V	51	74	He	97.918	ppb	0.4	441,871	100	97.92	
Cr	52	74	He	98.119	ppb	1.1	516,055	100	98.12	
Mn	55	74	He	101.529	ppb	1.2	376,484	100	101.53	
Fe	56	74	H2	4251.011	ppb	0.4	59,178,805	4000	106.28	
Co	59	74	He	101.581	ppb	0.7	725,004	100	101.58	
Ni	60	74	He	104.327	ppb	0.9	182,357	100	104.33	
Cu	65	74	He	104.470	ppb	0.2	220,587	100	104.47	
Zn	66	74	He	101.458	ppb	0.2	84,558	100	101.46	
As	75	74	He	98.268	ppb	0.6	50,754	100	98.27	
Se	78	74	H2	39.998	ppb	0.9	14,225	40	99.99	
Mo	95	103	He	40.172	ppb	1.1	81,429	40	100.43	
Ag	107	103	He	41.066	ppb	0.7	237,053	40	102.66	
Cd	111	103	He	98.095	ppb	0.8	95,657	100	98.1	
[Cd]	111	103	NoGas	90.292	ppb	0.4	234,999	100	90.29	
Sb	121	103	He	41.398	ppb	0.8	104,180	40	103.5	
Ba	138	159	He	103.897	ppb	0.3	586,592	100	103.9	
Hg	201	159	NoGas	789.481	ppt	2.3	941	800	98.69	
Tl	205	159	He	40.573	ppb	0.2	364,232	40	101.43	
Pb	208	159	NoGas	98.549	ppb	1.8	2,600,112	100	98.55	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.1	1,218,334	1328005.7	91.7	
Sc	45	H2	Analog	1.3	2,691,640	2880501.55333333	93.4	
Sc	45	He	Pulse	0.3	413,273	495174.883333333	83.5	
Sc	45	NoGas	Analog	0.8	3,854,721	4124211.75	93.5	
Ge	74	H2	Pulse	0.7	806,766	948676.153333333	85.0	
Ge	74	He	Pulse	0.9	239,940	284255.65	84.4	
Ge	74	NoGas	Pulse	0.9	960,411	1128393.34666667	85.1	
Rh	103	He	Pulse	0.5	516,961	616442.69	83.9	
Rh	103	NoGas	Pulse	0.6	952,391	1143555.12333333	83.3	
Tb	159	He	Pulse	0.7	726,712	794731.056666667	91.4	
Tb	159	NoGas	Analog	2.3	1,781,275	1665548.91666667	106.9	
Bi	209	He	Pulse	0.9	404,534	446099.653333333	90.7	
Bi	209	NoGas	Pulse	0.2	949,116	1052566.13	90.2	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB2**	Total Dilution:	1.0000
File Name:	045_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 15:10:00
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.006	ppb	58.4	42	
Na	23	45	He	1.759	ppb	3.6	7,777	
Mg	24	45	He	1.767	ppb	18.5	1,895	
Al	27	45	He	3.930	ppb	7.3	1,776	
K	39	45	He	0.279	ppb	62.5	38,949	
Ca	44	45	H2	2.607	ppb	9.5	1,276	
[Ca]	44	45	He	0.518	ppb	346.2	353	
Ti	47	45	NoGas	0.251	ppb	21.4	430	
V	51	74	He	-0.129	ppb	N/A	2,078	
Cr	52	74	He	0.005	ppb	161.3	357	
Mn	55	74	He	0.073	ppb	6.7	404	
Fe	56	74	H2	6.179	ppb	1.6	97,346	
Co	59	74	He	0.012	ppb	23.3	120	
Ni	60	74	He	0.003	ppb	78.5	44	
Cu	65	74	He	0.030	ppb	40.8	100	
Zn	66	74	He	0.053	ppb	71.6	79	
As	75	74	He	0.008	ppb	290.8	54	
Se	78	74	H2	0.017	ppb	44.8	11	
Mo	95	103	He	0.031	ppb	20.5	70	
Ag	107	103	He	0.007	ppb	8.9	42	
Cd	111	103	He	0.026	ppb	3.1	30	
[Cd]	111	103	NoGas	0.020	ppb	43.9	60	
Sb	121	103	He	0.127	ppb	28.9	372	
Ba	138	159	He	0.041	ppb	14.4	294	
Hg	201	159	NoGas	3.394	ppt	43.9	10	
Tl	205	159	He	0.006	ppb	30.2	73	
Pb	208	159	NoGas	0.031	ppb	1.7	1,703	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.4	1,275,107	1328005.7	96.0	
Sc	45	H2	Analog	0.9	2,795,517	2880501.55333333	97.0	
Sc	45	He	Pulse	0.6	431,567	495174.883333333	87.2	
Sc	45	NoGas	Analog	1.2	4,062,017	4124211.75	98.5	
Ge	74	H2	Pulse	0.5	831,575	948676.153333333	87.7	
Ge	74	He	Pulse	0.9	250,702	284255.65	88.2	
Ge	74	NoGas	Pulse	1.6	1,007,611	1128393.34666667	89.3	
Rh	103	He	Pulse	0.6	544,626	616442.69	88.3	
Rh	103	NoGas	Pulse	0.8	1,010,980	1143555.12333333	88.4	
Tb	159	He	Pulse	0.6	738,724	794731.056666667	93.0	
Tb	159	NoGas	Analog	0.6	1,827,725	1665548.91666667	109.7	
Bi	209	He	Pulse	0.7	412,938	446099.653333333	92.6	
Bi	209	NoGas	Pulse	0.5	975,954	1052566.13	92.7	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV3**	Total Dilution:	1.0000
File Name:	056_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 16:02:07
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.380	ppb	0.8	130,961	40	98.45	
Na	23	45	He	4189.219	ppb	1.0	5,907,248	4000	104.73	
Mg	24	45	He	4369.291	ppb	1.3	3,462,080	4000	109.23	
Al	27	45	He	4315.265	ppb	0.8	1,807,667	4000	107.88	
K	39	45	He	4320.703	ppb	0.9	3,084,315	4000	108.02	
Ca	44	45	H2	4107.500	ppb	5.8	1,214,875	4000	102.69	
[Ca]	44	45	He	4119.236	ppb	0.9	143,393	4000	102.98	
Ti	47	45	NoGas	91.207	ppb	1.5	137,521	100	91.21	
V	51	74	He	99.593	ppb	0.6	454,345	100	99.59	
Cr	52	74	He	99.383	ppb	0.5	528,497	100	99.38	
Mn	55	74	He	103.131	ppb	1.1	386,657	100	103.13	
Fe	56	74	H2	4327.948	ppb	0.5	62,653,934	4000	108.2	
Co	59	74	He	102.713	ppb	1.0	741,175	100	102.71	
Ni	60	74	He	105.473	ppb	0.8	186,402	100	105.47	
Cu	65	74	He	105.643	ppb	0.3	225,529	100	105.64	
Zn	66	74	He	101.165	ppb	0.0	85,245	100	101.17	
As	75	74	He	99.017	ppb	0.2	51,706	100	99.02	
Se	78	74	H2	39.878	ppb	1.0	14,748	40	99.7	
Mo	95	103	He	40.229	ppb	0.5	82,311	40	100.57	
Ag	107	103	He	40.931	ppb	0.4	238,495	40	102.33	
Cd	111	103	He	98.131	ppb	0.1	96,594	100	98.13	
[Cd]	111	103	NoGas	90.445	ppb	0.1	234,476	100	90.44	
Sb	121	103	He	41.482	ppb	1.1	105,370	40	103.7	
Ba	138	159	He	105.673	ppb	0.2	589,554	100	105.67	
Hg	201	159	NoGas	773.703	ppt	2.1	933	800	96.71	
Tl	205	159	He	40.343	ppb	0.3	357,871	40	100.86	
Pb	208	159	NoGas	95.867	ppb	1.0	2,557,084	100	95.87	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,249,805	1328005.7	94.1	
Sc	45	H2	Analog	2.7	2,863,508	2880501.55333333	99.4	
Sc	45	He	Pulse	0.5	423,525	495174.883333333	85.5	
Sc	45	NoGas	Analog	1.5	3,877,551	4124211.75	94.0	
Ge	74	H2	Pulse	0.3	838,968	948676.153333333	88.4	
Ge	74	He	Pulse	0.6	242,590	284255.65	85.3	
Ge	74	NoGas	Pulse	0.8	962,390	1128393.34666667	85.3	
Rh	103	He	Pulse	0.6	521,827	616442.69	84.7	
Rh	103	NoGas	Pulse	0.4	948,661	1143555.12333333	83.0	
Tb	159	He	Pulse	0.5	718,107	794731.056666667	90.4	
Tb	159	NoGas	Analog	1.2	1,800,435	1665548.91666667	108.1	
Bi	209	He	Pulse	0.8	397,335	446099.653333333	89.1	
Bi	209	NoGas	Pulse	0.9	928,364	1052566.13	88.2	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB3**	Total Dilution:	1.0000
File Name:	058_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 16:11:17
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.007	ppb	22.0	44	
Na	23	45	He	3.871	ppb	6.7	10,260	
Mg	24	45	He	2.093	ppb	5.2	2,047	
Al	27	45	He	2.828	ppb	10.5	1,239	
K	39	45	He	3.248	ppb	36.4	38,982	
Ca	44	45	H2	3.819	ppb	1.6	1,570	
[Ca]	44	45	He	-0.203	ppb	N/A	311	
Ti	47	45	NoGas	0.213	ppb	14.0	353	
V	51	74	He	-0.145	ppb	N/A	1,881	
Cr	52	74	He	0.025	ppb	11.5	438	
Mn	55	74	He	0.059	ppb	20.9	329	
Fe	56	74	H2	6.133	ppb	1.3	92,291	
Co	59	74	He	0.018	ppb	13.6	159	
Ni	60	74	He	0.017	ppb	37.3	66	
Cu	65	74	He	0.054	ppb	6.9	144	
Zn	66	74	He	0.068	ppb	26.7	87	
As	75	74	He	0.010	ppb	122.4	52	
Se	78	74	H2	0.051	ppb	30.1	23	
Mo	95	103	He	0.045	ppb	22.6	97	
Ag	107	103	He	0.016	ppb	7.1	91	
Cd	111	103	He	0.027	ppb	23.2	30	
[Cd]	111	103	NoGas	0.017	ppb	17.9	51	
Sb	121	103	He	0.174	ppb	5.5	474	
Ba	138	159	He	0.041	ppb	18.4	282	
Hg	201	159	NoGas	4.908	ppt	69.2	12	
Tl	205	159	He	0.010	ppb	9.4	102	
Pb	208	159	NoGas	0.043	ppb	7.5	1,962	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.8	1,255,249	1328005.7	94.5	
Sc	45	H2	Analog	1.2	2,699,354	2880501.55333333	93.7	
Sc	45	He	Pulse	0.7	409,537	495174.883333333	82.7	
Sc	45	NoGas	Analog	2.4	3,882,607	4124211.75	94.1	
Ge	74	H2	Pulse	0.5	793,870	948676.153333333	83.7	
Ge	74	He	Pulse	0.6	235,865	284255.65	83.0	
Ge	74	NoGas	Pulse	1.2	955,526	1128393.34666667	84.7	
Rh	103	He	Pulse	0.6	519,130	616442.69	84.2	
Rh	103	NoGas	Pulse	0.9	960,738	1143555.12333333	84.0	
Tb	159	He	Pulse	0.8	707,805	794731.056666667	89.1	
Tb	159	NoGas	Analog	0.4	1,774,302	1665548.91666667	106.5	
Bi	209	He	Pulse	1.1	398,518	446099.653333333	89.3	
Bi	209	NoGas	Pulse	0.7	934,050	1052566.13	88.7	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV5**	Total Dilution:	1.0000
File Name:	069_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 17:02:05
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.813	ppb	2.0	135,912	40	99.53	
Na	23	45	He	4104.941	ppb	0.6	6,008,478	4000	102.62	
Mg	24	45	He	4297.081	ppb	1.3	3,534,284	4000	107.43	
Al	27	45	He	4276.585	ppb	1.6	1,859,520	4000	106.91	
K	39	45	He	4320.258	ppb	0.8	3,201,119	4000	108.01	
Ca	44	45	H2	4182.854	ppb	3.0	1,250,077	4000	104.57	
[Ca]	44	45	He	4108.091	ppb	0.9	148,440	4000	102.7	
Ti	47	45	NoGas	89.862	ppb	1.4	145,467	100	89.86	> +/- 10%
V	51	74	He	100.399	ppb	0.5	471,687	100	100.4	
Cr	52	74	He	100.048	ppb	0.5	547,930	100	100.05	
Mn	55	74	He	103.995	ppb	0.1	401,561	100	104	
Fe	56	74	H2	4350.706	ppb	0.7	63,749,051	4000	108.77	
Co	59	74	He	102.975	ppb	0.6	765,281	100	102.98	
Ni	60	74	He	105.656	ppb	0.1	192,310	100	105.66	
Cu	65	74	He	105.554	ppb	1.2	232,063	100	105.55	
Zn	66	74	He	101.528	ppb	0.3	88,109	100	101.53	
As	75	74	He	101.964	ppb	0.6	54,833	100	101.96	
Se	78	74	H2	39.998	ppb	0.8	14,972	40	99.99	
Mo	95	103	He	41.028	ppb	0.5	85,180	40	102.57	
Ag	107	103	He	41.050	ppb	0.2	242,704	40	102.62	
Cd	111	103	He	98.752	ppb	0.3	98,631	100	98.75	
[Cd]	111	103	NoGas	89.346	ppb	1.0	244,328	100	89.35	> +/- 10% → NR
Sb	121	103	He	42.693	ppb	0.2	110,038	40	106.73	
Ba	138	159	He	107.430	ppb	0.3	606,991	100	107.43	
Hg	201	159	NoGas	751.084	ppt	0.5	933	800	93.89	
Tl	205	159	He	39.684	ppb	1.5	356,495	40	99.21	
Pb	208	159	NoGas	95.922	ppb	0.8	2,635,685	100	95.92	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.5	1,283,141	1328005.7	96.6	
Sc	45	H2	Analog	1.0	2,890,823	2880501.55333333	100.4	
Sc	45	He	Pulse	0.2	439,608	495174.883333333	88.8	
Sc	45	NoGas	Analog	1.6	4,162,887	4124211.75	100.9	
Ge	74	H2	Pulse	0.6	849,181	948676.153333333	89.5	
Ge	74	He	Pulse	0.7	249,840	284255.65	87.9	
Ge	74	NoGas	Pulse	0.7	1,012,020	1128393.34666667	89.7	
Rh	103	He	Pulse	0.4	529,486	616442.69	85.9	
Rh	103	NoGas	Pulse	0.6	1,000,725	1143555.12333333	87.5	
Tb	159	He	Pulse	0.9	727,272	794731.056666667	91.5	
Tb	159	NoGas	Analog	1.4	1,854,583	1665548.91666667	111.3	
Bi	209	He	Pulse	0.9	400,839	446099.653333333	89.9	
Bi	209	NoGas	Pulse	0.2	937,918	1052566.13	89.1	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB4**	Total Dilution:	1.0000
File Name:	070_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 17:06:40
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.015	ppb	37.2	76	
Na	23	45	He	0.660	ppb	4.5	6,464	
Mg	24	45	He	1.062	ppb	12.7	1,381	
Al	27	45	He	3.070	ppb	2.3	1,469	
K	39	45	He	2.459	ppb	24.4	42,239	
Ca	44	45	H2	2.002	ppb	3.4	1,149	
[Ca]	44	45	He	0.775	ppb	146.6	378	
Ti	47	45	NoGas	0.159	ppb	24.9	307	
V	51	74	He	-0.141	ppb	N/A	2,082	
Cr	52	74	He	0.016	ppb	33.3	432	
Mn	55	74	He	0.071	ppb	12.6	407	
Fe	56	74	H2	7.083	ppb	3.5	114,007	
Co	59	74	He	0.015	ppb	29.1	153	
Ni	60	74	He	0.006	ppb	258.1	51	
Cu	65	74	He	0.030	ppb	15.9	104	
Zn	66	74	He	0.031	ppb	47.3	62	
As	75	74	He	0.002	ppb	1357.6	53	
Se	78	74	H2	0.022	ppb	81.7	14	
Mo	95	103	He	0.040	ppb	24.7	92	
Ag	107	103	He	0.008	ppb	21.6	53	
Cd	111	103	He	0.023	ppb	9.2	27	
[Cd]	111	103	NoGas	0.022	ppb	42.6	71	
Sb	121	103	He	0.040	ppb	22.5	146	
Ba	138	159	He	0.030	ppb	10.0	234	
Hg	201	159	NoGas	1.755	ppt	126.3	9	
Tl	205	159	He	0.011	ppb	24.2	117	
Pb	208	159	NoGas	0.032	ppb	14.0	1,803	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.4	1,335,643	1328005.7	100.6	
Sc	45	H2	Analog	0.2	2,916,689	2880501.55333333	101.3	
Sc	45	He	Pulse	0.7	449,934	495174.883333333	90.9	
Sc	45	NoGas	Analog	1.3	4,355,696	4124211.75	105.6	
Ge	74	H2	Pulse	0.7	859,493	948676.153333333	90.6	
Ge	74	He	Pulse	1.0	258,505	284255.65	90.9	
Ge	74	NoGas	Pulse	1.0	1,072,248	1128393.34666667	95.0	
Rh	103	He	Pulse	0.7	556,521	616442.69	90.3	
Rh	103	NoGas	Pulse	0.4	1,073,325	1143555.12333333	93.9	
Tb	159	He	Pulse	1.1	736,844	794731.056666667	92.7	
Tb	159	NoGas	Analog	0.7	1,900,702	1665548.91666667	114.1	
Bi	209	He	Pulse	1.0	408,512	446099.653333333	91.6	
Bi	209	NoGas	Pulse	0.7	975,802	1052566.13	92.7	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL4**	Total Dilution:	1.0000
File Name:	071CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 17:11:21
Comment:	A19J368 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.186	ppb	6.5	696	103.33		
Na	23	45	He	9.685	ppb	1.3	20,694	107.61		
Mg	24	45	He	9.683	ppb	1.1	8,950	107.59		
Al	27	45	He	11.596	ppb	0.9	5,454	128.84		
K	39	45	He	10.610	ppb	9.4	50,093	117.89		
Ca	44	45	H2	11.382	ppb	8.1	4,102	126.47		
[Ca]	44	45	He	11.569	ppb	11.5	804	128.54		
Ti	47	45	NoGas	0.291	ppb	11.9	538	161.67	R-11	
V	51	74	He	0.084	ppb	15.3	3,258	46.67	R-11	< MRL
Cr	52	74	He	0.183	ppb	5.6	1,411	101.67		
Mn	55	74	He	0.236	ppb	15.6	1,097	131.11	R-11	< MRL
Fe	56	74	H2	14.005	ppb	0.7	222,259	155.61	R-11	
Co	59	74	He	0.180	ppb	3.2	1,457	100		
Ni	60	74	He	0.264	ppb	2.1	550	146.67	R-11	
Cu	65	74	He	0.255	ppb	2.8	632	141.67	R-11	< MRL
Zn	66	74	He	0.328	ppb	4.8	338	182.22	R-11	
As	75	74	He	0.174	ppb	17.2	152	96.67		
Se	78	74	H2	0.182	ppb	23.4	76	101.11		
Mo	95	103	He	0.201	ppb	16.6	451	111.67		
Ag	107	103	He	0.182	ppb	7.2	1,148	101.11		
Cd	111	103	He	0.201	ppb	3.6	217	111.67		
[Cd]	111	103	NoGas	0.175	ppb	2.2	522	97.22		
Sb	121	103	He	0.202	ppb	13.0	592	112.22		
Ba	138	159	He	0.216	ppb	8.4	1,313	120		
Hg	201	159	NoGas	9.392	ppt	21.8	18	130.44	R-11	< MRL
Tl	205	159	He	0.184	ppb	7.5	1,707	102.22		
Pb	208	159	NoGas	0.200	ppb	4.8	6,467	111.11		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.6	1,358,269	1328005.7	102.3	
Sc	45	H2	Analog	0.3	3,009,168	2880501.55333333	104.5	
Sc	45	He	Pulse	0.8	466,215	495174.883333333	94.2	
Sc	45	NoGas	Analog	0.8	4,430,313	4124211.75	107.4	
Ge	74	H2	Pulse	0.3	881,671	948676.153333333	92.9	
Ge	74	He	Pulse	0.8	265,512	284255.65	93.4	
Ge	74	NoGas	Pulse	1.2	1,083,262	1128393.34666667	96.0	
Rh	103	He	Pulse	0.5	565,709	616442.69	91.8	
Rh	103	NoGas	Pulse	1.0	1,081,859	1143555.12333333	94.6	
Tb	159	He	Pulse	0.5	744,985	794731.056666667	93.7	
Tb	159	NoGas	Analog	1.2	1,881,301	1665548.91666667	113.0	
Bi	209	He	Pulse	0.6	411,965	446099.653333333	92.3	
Bi	209	NoGas	Pulse	1.0	971,139	1052566.13	92.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL5**	Total Dilution:	1.0000
File Name:	072_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 17:16:59
Comment:	A19J369 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.879	ppb	3.9	3,267	97.67	
Na	23	45	He	44.729	ppb	0.8	75,580	99.4	
Mg	24	45	He	45.952	ppb	0.3	40,872	102.12	
Al	27	45	He	47.813	ppb	0.7	22,311	106.25	
K	39	45	He	49.334	ppb	1.1	80,720	109.63	
Ca	44	45	H2	45.585	ppb	0.3	14,957	101.3	
[Ca]	44	45	He	47.380	ppb	3.8	2,189	105.29	
Ti	47	45	NoGas	0.861	ppb	2.4	1,541	95.67	
V	51	74	He	0.832	ppb	2.2	7,034	92.44	
Cr	52	74	He	0.910	ppb	3.4	5,697	101.11	
Mn	55	74	He	0.947	ppb	3.2	4,052	105.22	
Fe	56	74	H2	47.962	ppb	0.1	746,644	106.58	
Co	59	74	He	0.929	ppb	1.9	7,443	103.22	
Ni	60	74	He	0.962	ppb	2.7	1,919	106.89	
Cu	65	74	He	0.995	ppb	7.1	2,384	110.56	
Zn	66	74	He	0.918	ppb	7.1	890	102	
As	75	74	He	0.901	ppb	6.7	572	100.11	
Se	78	74	H2	0.880	ppb	4.6	351	97.78	
Mo	95	103	He	0.911	ppb	5.7	2,045	101.22	
Ag	107	103	He	0.898	ppb	3.5	5,726	99.78	
Cd	111	103	He	0.903	ppb	3.5	975	100.33	
[Cd]	111	103	NoGas	0.818	ppb	4.7	2,442	90.89	
Sb	121	103	He	0.898	ppb	3.7	2,530	99.78	
Ba	138	159	He	1.022	ppb	2.6	5,992	113.56	
Hg	201	159	NoGas	32.565	ppt	20.0	48	90.46	
Tl	205	159	He	0.898	ppb	4.8	8,300	99.78	
Pb	208	159	NoGas	0.876	ppb	2.5	25,645	97.33	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,387,406	1328005.7	104.5	
Sc	45	H2	Analog	0.5	3,054,287	2880501.55333333	106.0	
Sc	45	He	Pulse	0.9	469,529	495174.883333333	94.8	
Sc	45	NoGas	Analog	1.3	4,490,506	4124211.75	108.9	
Ge	74	H2	Pulse	0.7	891,041	948676.153333333	93.9	
Ge	74	He	Pulse	1.1	268,062	284255.65	94.3	
Ge	74	NoGas	Pulse	1.1	1,099,332	1128393.34666667	97.4	
Rh	103	He	Pulse	0.9	570,699	616442.69	92.6	
Rh	103	NoGas	Pulse	0.6	1,090,032	1143555.12333333	95.3	
Tb	159	He	Pulse	0.9	747,028	794731.056666667	94.0	
Tb	159	NoGas	Analog	1.8	1,908,366	1665548.91666667	114.6	
Bi	209	He	Pulse	1.1	414,294	446099.653333333	92.9	
Bi	209	NoGas	Pulse	0.6	986,624	1052566.13	93.7	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL6**	Total Dilution:	1.0000
File Name:	073CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 17:21:49
Comment:	A19J370 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.827	ppb	1.5	6,744	101.5	
Na	23	45	He	89.713	ppb	0.4	145,422	99.68	
Mg	24	45	He	91.349	ppb	1.1	80,512	101.5	
Al	27	45	He	93.349	ppb	0.7	43,334	103.72	
K	39	45	He	94.585	ppb	0.7	115,753	105.09	
Ca	44	45	H2	89.752	ppb	2.6	28,976	99.72	
[Ca]	44	45	He	85.329	ppb	1.1	3,639	94.81	
Ti	47	45	NoGas	1.748	ppb	3.5	3,090	97.11	
V	51	74	He	1.768	ppb	3.2	11,606	98.22	
Cr	52	74	He	1.819	ppb	0.8	10,921	101.06	
Mn	55	74	He	1.829	ppb	3.8	7,622	101.61	
Fe	56	74	H2	99.539	ppb	0.9	1,549,596	110.6	
Co	59	74	He	1.896	ppb	1.0	14,994	105.33	
Ni	60	74	He	1.902	ppb	1.9	3,716	105.67	
Cu	65	74	He	2.001	ppb	2.7	4,706	111.17	
Zn	66	74	He	1.840	ppb	7.0	1,731	102.22	
As	75	74	He	1.884	ppb	4.3	1,127	104.67	
Se	78	74	H2	1.855	ppb	1.3	738	103.06	
Mo	95	103	He	1.870	ppb	1.9	4,176	103.89	
Ag	107	103	He	1.801	ppb	1.7	11,443	100.06	
Cd	111	103	He	1.809	ppb	0.9	1,945	100.5	
[Cd]	111	103	NoGas	1.623	ppb	1.3	4,874	90.17	
Sb	121	103	He	1.799	ppb	0.8	5,016	99.94	
Ba	138	159	He	2.011	ppb	0.6	11,759	111.72	
Hg	201	159	NoGas	68.924	ppt	0.6	95	95.73	
Tl	205	159	He	1.792	ppb	1.7	16,590	99.56	
Pb	208	159	NoGas	1.734	ppb	0.7	50,441	96.33	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	1,382,119	1328005.7	104.1	
Sc	45	H2	Analog	0.9	3,063,418	2880501.55333333	106.4	
Sc	45	He	Pulse	0.9	468,179	495174.883333333	94.5	
Sc	45	NoGas	Analog	2.1	4,494,034	4124211.75	109.0	
Ge	74	H2	Pulse	0.3	896,851	948676.153333333	94.5	
Ge	74	He	Pulse	1.3	265,292	284255.65	93.3	
Ge	74	NoGas	Pulse	1.4	1,102,456	1128393.34666667	97.7	
Rh	103	He	Pulse	0.6	568,911	616442.69	92.3	
Rh	103	NoGas	Pulse	1.0	1,097,978	1143555.12333333	96.0	
Tb	159	He	Pulse	1.2	748,764	794731.056666667	94.2	
Tb	159	NoGas	Analog	1.1	1,928,556	1665548.91666667	115.8	
Bi	209	He	Pulse	1.1	412,484	446099.653333333	92.5	
Bi	209	NoGas	Pulse	1.1	982,409	1052566.13	93.3	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV6**	Total Dilution:	1.0000
File Name:	084_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 18:12:22
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.334	ppb	1.3	122,011	40	95.84	
Na	23	45	He	4178.771	ppb	1.1	5,500,868	4000	104.47	
Mg	24	45	He	4370.445	ppb	0.9	3,232,725	4000	109.26	
Al	27	45	He	4308.941	ppb	0.3	1,684,977	4000	107.72	
K	39	45	He	4310.875	ppb	1.1	2,872,757	4000	107.77	
Ca	44	45	H2	3952.056	ppb	1.8	1,083,699	4000	98.8	
[Ca]	44	45	He	4143.621	ppb	1.0	134,644	4000	103.59	
Ti	47	45	NoGas	88.344	ppb	1.5	128,358	100	88.34	> +/- 10%
V	51	74	He	97.976	ppb	0.6	421,338	100	97.98	
Cr	52	74	He	97.695	ppb	1.3	489,667	100	97.7	
Mn	55	74	He	103.151	ppb	1.3	364,515	100	103.15	
Fe	56	74	H2	4324.875	ppb	0.7	57,745,071	4000	108.12	
Co	59	74	He	101.059	ppb	0.6	687,368	100	101.06	
Ni	60	74	He	102.338	ppb	0.1	170,478	100	102.34	
Cu	65	74	He	103.354	ppb	0.5	207,972	100	103.35	
Zn	66	74	He	100.997	ppb	0.7	80,214	100	101	
As	75	74	He	98.442	ppb	0.8	48,451	100	98.44	
Se	78	74	H2	40.457	ppb	0.7	13,800	40	101.14	
Mo	95	103	He	40.178	ppb	0.5	77,906	40	100.44	
Ag	107	103	He	41.070	ppb	1.1	226,775	40	102.68	
Cd	111	103	He	99.102	ppb	1.4	92,439	100	99.1	
[Cd]	111	103	NoGas	89.612	ppb	1.3	224,442	100	89.61	> +/- 10% → NR
Sb	121	103	He	42.269	ppb	0.2	101,752	40	105.67	
Ba	138	159	He	104.183	ppb	0.2	568,585	100	104.18	
Hg	201	159	NoGas	765.768	ppt	4.8	913	800	95.72	
Tl	205	159	He	40.425	ppb	0.6	350,804	40	101.06	
Pb	208	159	NoGas	94.679	ppb	1.2	2,496,565	100	94.68	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,196,187	1328005.7	90.1	
Sc	45	H2	Analog	1.6	2,653,305	2880501.55333333	92.1	
Sc	45	He	Pulse	0.5	395,350	495174.883333333	79.8	
Sc	45	NoGas	Analog	0.7	3,736,112	4124211.75	90.6	
Ge	74	H2	Pulse	0.6	773,798	948676.153333333	81.6	
Ge	74	He	Pulse	0.7	228,657	284255.65	80.4	
Ge	74	NoGas	Pulse	0.9	927,043	1128393.34666667	82.2	
Rh	103	He	Pulse	0.9	494,532	616442.69	80.2	
Rh	103	NoGas	Pulse	0.4	916,538	1143555.12333333	80.1	
Tb	159	He	Pulse	0.5	702,476	794731.056666667	88.4	
Tb	159	NoGas	Analog	0.9	1,779,848	1665548.91666667	106.9	
Bi	209	He	Pulse	0.6	388,349	446099.653333333	87.1	
Bi	209	NoGas	Pulse	0.7	916,042	1052566.13	87.0	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB5**	Total Dilution:	1.0000
File Name:	085_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 18:16:59
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.006	ppb	68.0	39	
Na	23	45	He	5.278	ppb	5.3	11,965	
Mg	24	45	He	2.102	ppb	8.6	2,020	
Al	27	45	He	0.662	ppb	15.2	356	
K	39	45	He	1.195	ppb	79.1	36,945	
Ca	44	45	H2	5.515	ppb	7.9	1,983	
[Ca]	44	45	He	3.729	ppb	21.6	436	
Ti	47	45	NoGas	0.030	ppb	12.9	77	
V	51	74	He	-0.203	ppb	N/A	1,602	
Cr	52	74	He	-0.001	ppb	N/A	301	
Mn	55	74	He	0.014	ppb	77.8	162	
Fe	56	74	H2	1.671	ppb	5.0	30,512	
Co	59	74	He	0.009	ppb	31.5	92	
Ni	60	74	He	0.002	ppb	54.3	39	
Cu	65	74	He	0.040	ppb	6.7	114	
Zn	66	74	He	0.015	ppb	71.8	43	
As	75	74	He	0.011	ppb	218.9	52	
Se	78	74	H2	0.017	ppb	66.2	10	
Mo	95	103	He	0.037	ppb	27.8	78	
Ag	107	103	He	0.007	ppb	15.6	43	
Cd	111	103	He	0.021	ppb	32.5	23	
[Cd]	111	103	NoGas	0.011	ppb	73.5	34	
Sb	121	103	He	0.105	ppb	17.2	292	
Ba	138	159	He	0.029	ppb	38.1	217	
Hg	201	159	NoGas	0.227	ppt	778.4	6	
Tl	205	159	He	0.004	ppb	56.6	50	
Pb	208	159	NoGas	0.027	ppb	1.8	1,541	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	2.1	1,199,693	1328005.7	90.3	
Sc	45	H2	Analog	1.1	2,621,354	2880501.55333333	91.0	
Sc	45	He	Pulse	1.0	402,534	495174.883333333	81.3	
Sc	45	NoGas	Analog	1.0	3,817,762	4124211.75	92.6	
Ge	74	H2	Pulse	0.3	776,760	948676.153333333	81.9	
Ge	74	He	Pulse	0.4	232,445	284255.65	81.8	
Ge	74	NoGas	Pulse	1.2	939,058	1128393.34666667	83.2	
Rh	103	He	Pulse	0.4	506,368	616442.69	82.1	
Rh	103	NoGas	Pulse	1.2	945,826	1143555.12333333	82.7	
Tb	159	He	Pulse	1.0	706,402	794731.056666667	88.9	
Tb	159	NoGas	Analog	1.2	1,788,660	1665548.91666667	107.4	
Bi	209	He	Pulse	1.0	398,579	446099.653333333	89.3	
Bi	209	NoGas	Pulse	0.6	934,182	1052566.13	88.8	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV7**	Total Dilution:	1.0000
File Name:	096_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 19:07:55
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.150	ppb	1.2	121,830	40	97.88	
Na	23	45	He	4165.041	ppb	0.4	5,495,501	4000	104.13	
Mg	24	45	He	4386.699	ppb	0.4	3,252,386	4000	109.67	
Al	27	45	He	4299.131	ppb	1.5	1,685,083	4000	107.48	
K	39	45	He	4347.695	ppb	0.5	2,903,681	4000	108.69	
Ca	44	45	H2	3968.600	ppb	1.0	1,097,002	4000	99.22	
[Ca]	44	45	He	4152.265	ppb	0.9	135,246	4000	103.81	
Ti	47	45	NoGas	87.825	ppb	0.2	125,957	100	87.82	> +/- 10%
V	51	74	He	97.507	ppb	0.6	419,268	100	97.51	
Cr	52	74	He	98.089	ppb	0.9	491,580	100	98.09	
Mn	55	74	He	103.180	ppb	1.0	364,570	100	103.18	
Fe	56	74	H2	4335.436	ppb	0.5	58,269,836	4000	108.39	
Co	59	74	He	101.259	ppb	0.4	688,625	100	101.26	
Ni	60	74	He	103.632	ppb	0.9	172,602	100	103.63	
Cu	65	74	He	103.216	ppb	1.0	207,656	100	103.22	
Zn	66	74	He	101.485	ppb	0.5	80,590	100	101.48	
As	75	74	He	97.804	ppb	0.8	48,131	100	97.8	
Se	78	74	H2	40.114	ppb	0.6	13,773	40	100.28	
Mo	95	103	He	40.228	ppb	1.5	77,575	40	100.57	
Ag	107	103	He	41.219	ppb	0.8	226,359	40	103.05	
Cd	111	103	He	99.974	ppb	0.3	92,746	100	99.97	
[Cd]	111	103	NoGas	90.954	ppb	0.3	224,158	100	90.95	
Sb	121	103	He	42.375	ppb	0.6	101,445	40	105.94	
Ba	138	159	He	104.043	ppb	0.7	567,913	100	104.04	
Hg	201	159	NoGas	753.787	ppt	2.4	896	800	94.22	
Tl	205	159	He	40.485	ppb	0.7	351,389	40	101.21	
Pb	208	159	NoGas	96.055	ppb	0.5	2,525,578	100	96.06	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.1	1,169,552	1328005.7	88.1	
Sc	45	H2	Analog	0.5	2,674,255	2880501.55333333	92.8	
Sc	45	He	Pulse	0.1	396,278	495174.883333333	80.0	
Sc	45	NoGas	Analog	0.8	3,687,697	4124211.75	89.4	
Ge	74	H2	Pulse	0.1	778,904	948676.153333333	82.1	
Ge	74	He	Pulse	0.5	228,621	284255.65	80.4	
Ge	74	NoGas	Pulse	0.7	903,831	1128393.34666667	80.1	
Rh	103	He	Pulse	0.1	491,804	616442.69	79.8	
Rh	103	NoGas	Pulse	0.5	901,832	1143555.12333333	78.9	
Tb	159	He	Pulse	0.5	702,601	794731.056666667	88.4	
Tb	159	NoGas	Analog	1.0	1,774,681	1665548.91666667	106.6	
Bi	209	He	Pulse	0.8	391,152	446099.653333333	87.7	
Bi	209	NoGas	Pulse	1.1	915,346	1052566.13	87.0	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB6**	Total Dilution:	1.0000
File Name:	097_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 19:12:32
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.007	ppb	50.7	42	
Na	23	45	He	1.612	ppb	7.0	6,722	
Mg	24	45	He	0.973	ppb	5.6	1,113	
Al	27	45	He	0.672	ppb	22.2	342	
K	39	45	He	-2.283	ppb	N/A	32,970	
Ca	44	45	H2	11.782	ppb	5.5	3,589	
[Ca]	44	45	He	9.110	ppb	23.4	584	
Ti	47	45	NoGas	0.032	ppb	24.1	75	
V	51	74	He	-0.252	ppb	N/A	1,326	
Cr	52	74	He	-0.002	ppb	N/A	281	
Mn	55	74	He	0.041	ppb	22.2	249	
Fe	56	74	H2	2.614	ppb	1.5	41,947	
Co	59	74	He	0.011	ppb	16.0	104	
Ni	60	74	He	0.005	ppb	85.2	42	
Cu	65	74	He	0.064	ppb	10.3	154	
Zn	66	74	He	0.057	ppb	31.0	73	
As	75	74	He	-0.013	ppb	N/A	38	
Se	78	74	H2	0.036	ppb	11.6	17	
Mo	95	103	He	0.029	ppb	24.4	61	
Ag	107	103	He	0.011	ppb	0.8	60	
Cd	111	103	He	0.016	ppb	39.9	18	
[Cd]	111	103	NoGas	0.017	ppb	39.2	45	
Sb	121	103	He	0.104	ppb	9.5	280	
Ba	138	159	He	0.018	ppb	24.1	152	
Hg	201	159	NoGas	-0.136	ppt	N/A	6	
Tl	205	159	He	0.009	ppb	40.7	88	
Pb	208	159	NoGas	0.032	ppb	6.1	1,656	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.5	1,157,452	1328005.7	87.2	
Sc	45	H2	Analog	0.8	2,555,996	2880501.55333333	88.7	
Sc	45	He	Pulse	0.7	383,482	495174.883333333	77.4	
Sc	45	NoGas	Analog	1.1	3,580,714	4124211.75	86.8	
Ge	74	H2	Pulse	0.8	755,100	948676.153333333	79.6	
Ge	74	He	Pulse	0.7	221,910	284255.65	78.1	
Ge	74	NoGas	Pulse	0.7	888,230	1128393.34666667	78.7	
Rh	103	He	Pulse	0.8	491,228	616442.69	79.7	
Rh	103	NoGas	Pulse	0.4	901,527	1143555.12333333	78.8	
Tb	159	He	Pulse	0.8	691,961	794731.056666667	87.1	
Tb	159	NoGas	Analog	1.9	1,764,166	1665548.91666667	105.9	
Bi	209	He	Pulse	0.5	391,506	446099.653333333	87.8	
Bi	209	NoGas	Pulse	0.8	919,323	1052566.13	87.3	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV8**	Total Dilution:	1.0000
File Name:	108_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:03:25
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.324	ppb	2.7	127,408	40	95.81	
Na	23	45	He	4414.978	ppb	0.6	5,998,593	4000	110.37	> +/- 10%
Mg	24	45	He	4500.601	ppb	2.2	3,436,030	4000	112.52	> +/- 10%
Al	27	45	He	4387.431	ppb	1.6	1,770,883	4000	109.69	
K	39	45	He	4378.026	ppb	1.3	3,010,735	4000	109.45	
Ca	44	45	H2	3965.784	ppb	2.4	1,149,289	4000	99.14	
[Ca]	44	45	He	4161.117	ppb	1.2	139,569	4000	104.03	
Ti	47	45	NoGas	88.062	ppb	1.0	132,939	100	88.06	> +/- 10%
V	51	74	He	99.846	ppb	0.7	432,592	100	99.85	
Cr	52	74	He	100.180	ppb	1.3	505,933	100	100.18	
Mn	55	74	He	104.905	ppb	0.9	373,532	100	104.9	
Fe	56	74	H2	4468.896	ppb	0.6	61,515,084	4000	111.72	> +/- 10%
Co	59	74	He	101.818	ppb	0.4	697,791	100	101.82	
Ni	60	74	He	103.732	ppb	1.1	174,104	100	103.73	
Cu	65	74	He	103.673	ppb	0.9	210,192	100	103.67	
Zn	66	74	He	100.864	ppb	0.4	80,718	100	100.86	
As	75	74	He	97.907	ppb	0.3	48,556	100	97.91	
Se	78	74	H2	40.576	ppb	0.3	14,269	40	101.44	
Mo	95	103	He	40.508	ppb	0.3	78,565	40	101.27	
Ag	107	103	He	41.000	ppb	0.5	226,457	40	102.5	
Cd	111	103	He	98.599	ppb	0.4	91,998	100	98.6	
[Cd]	111	103	NoGas	90.194	ppb	1.4	226,923	100	90.19	
Sb	121	103	He	41.594	ppb	0.2	100,152	40	103.98	
Ba	138	159	He	104.391	ppb	0.7	558,392	100	104.39	
Hg	201	159	NoGas	743.872	ppt	3.9	884	800	92.98	
Tl	205	159	He	40.157	ppb	0.9	341,535	40	100.39	
Pb	208	159	NoGas	94.777	ppb	1.1	2,491,386	100	94.78	

Mg, Fe
Q-41
ESS 11/5/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.7	1,249,738	1328005.7	94.1	
Sc	45	H2	Analog	2.5	2,804,735	2880501.55333333	97.4	
Sc	45	He	Pulse	0.7	408,098	495174.883333333	82.4	
Sc	45	NoGas	Analog	1.6	3,881,939	4124211.75	94.1	
Ge	74	H2	Pulse	0.2	797,739	948676.153333333	84.1	
Ge	74	He	Pulse	0.7	230,394	284255.65	81.1	
Ge	74	NoGas	Pulse	0.8	929,752	1128393.34666667	82.4	
Rh	103	He	Pulse	0.2	494,644	616442.69	80.2	
Rh	103	NoGas	Pulse	0.7	920,715	1143555.12333333	80.5	
Tb	159	He	Pulse	0.8	688,529	794731.056666667	86.6	
Tb	159	NoGas	Analog	1.1	1,774,330	1665548.91666667	106.5	
Bi	209	He	Pulse	0.3	377,908	446099.653333333	84.7	
Bi	209	NoGas	Pulse	0.4	900,756	1052566.13	85.6	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB7**	Total Dilution:	1.0000
File Name:	109_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:08:03
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	28.9	46	
Na	23	45	He	85.535	ppb	1.5	117,045	> 1/2 MRL
Mg	24	45	He	1.632	ppb	13.5	1,631	
Al	27	45	He	0.819	ppb	0.3	410	
K	39	45	He	-0.024	ppb	N/A	35,403	
Ca	44	45	H2	3.503	ppb	4.7	1,437	
[Ca]	44	45	He	1.977	ppb	42.2	370	
Ti	47	45	NoGas	0.012	ppb	167.9	50	
V	51	74	He	-0.185	ppb	N/A	1,637	
Cr	52	74	He	-0.009	ppb	N/A	252	
Mn	55	74	He	0.018	ppb	131.2	171	
Fe	56	74	H2	1.564	ppb	6.7	28,654	
Co	59	74	He	0.007	ppb	6.9	78	
Ni	60	74	He	0.003	ppb	414.4	40	
Cu	65	74	He	0.122	ppb	11.2	273	
Zn	66	74	He	0.049	ppb	53.0	69	
As	75	74	He	0.001	ppb	2167.4	46	
Se	78	74	H2	0.016	ppb	64.2	10	
Mo	95	103	He	0.032	ppb	19.7	67	
Ag	107	103	He	0.012	ppb	48.7	66	
Cd	111	103	He	0.017	ppb	22.8	19	
[Cd]	111	103	NoGas	0.015	ppb	21.7	41	
Sb	121	103	He	0.147	ppb	17.2	387	
Ba	138	159	He	0.035	ppb	20.3	242	
Hg	201	159	NoGas	-0.006	ppt	N/A	6	
Tl	205	159	He	0.005	ppb	56.5	57	
Pb	208	159	NoGas	0.076	ppb	2.5	2,820	

Na - B-02
ESS 11/5/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.6	1,212,086	1328005.7	91.3	
Sc	45	H2	Analog	1.0	2,617,196	2880501.55333333	90.9	
Sc	45	He	Pulse	1.0	394,504	495174.883333333	79.7	
Sc	45	NoGas	Analog	1.5	3,769,531	4124211.75	91.4	
Ge	74	H2	Pulse	0.3	765,563	948676.153333333	80.7	
Ge	74	He	Pulse	1.0	226,302	284255.65	79.6	
Ge	74	NoGas	Pulse	0.9	920,599	1128393.34666667	81.6	
Rh	103	He	Pulse	1.0	496,030	616442.69	80.5	
Rh	103	NoGas	Pulse	0.3	929,200	1143555.12333333	81.3	
Tb	159	He	Pulse	1.3	684,848	794731.056666667	86.2	
Tb	159	NoGas	Analog	1.5	1,766,371	1665548.91666667	106.1	
Bi	209	He	Pulse	1.0	386,384	446099.653333333	86.6	
Bi	209	NoGas	Pulse	0.6	914,612	1052566.13	86.9	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB8**	Total Dilution:	1.0000
File Name:	110_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:12:46
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.003	ppb	73.6	31	
Na	23	45	He	60.819	ppb	0.7	84,436	> 1/2 MRL
Mg	24	45	He	1.118	ppb	12.5	1,250	
Al	27	45	He	0.462	ppb	12.5	270	
K	39	45	He	-0.828	ppb	N/A	34,803	
Ca	44	45	H2	2.317	ppb	21.2	1,116	
[Ca]	44	45	He	-0.249	ppb	N/A	298	
Ti	47	45	NoGas	0.023	ppb	50.2	65	
V	51	74	He	-0.171	ppb	N/A	1,693	
Cr	52	74	He	-0.004	ppb	N/A	279	
Mn	55	74	He	0.011	ppb	59.3	149	
Fe	56	74	H2	0.534	ppb	1.2	15,009	
Co	59	74	He	0.002	ppb	131.0	47	
Ni	60	74	He	-0.009	ppb	N/A	19	
Cu	65	74	He	0.109	ppb	7.5	248	
Zn	66	74	He	0.033	ppb	28.3	56	
As	75	74	He	-0.026	ppb	N/A	32	
Se	78	74	H2	-0.001	ppb	N/A	4	
Mo	95	103	He	0.007	ppb	13.6	18	
Ag	107	103	He	0.005	ppb	22.7	31	
Cd	111	103	He	0.010	ppb	12.0	13	
[Cd]	111	103	NoGas	0.013	ppb	60.4	38	
Sb	121	103	He	0.035	ppb	38.0	116	
Ba	138	159	He	0.018	ppb	3.7	156	
Hg	201	159	NoGas	0.361	ppt	713.8	7	
Tl	205	159	He	0.001	ppb	24.6	21	
Pb	208	159	NoGas	0.051	ppb	6.1	2,203	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.8	1,209,344	1328005.7	91.1	
Sc	45	H2	Analog	1.3	2,615,898	2880501.55333333	90.8	
Sc	45	He	Pulse	0.6	393,663	495174.883333333	79.5	
Sc	45	NoGas	Analog	1.5	3,762,338	4124211.75	91.2	
Ge	74	H2	Pulse	0.1	763,218	948676.153333333	80.5	
Ge	74	He	Pulse	0.5	225,721	284255.65	79.4	
Ge	74	NoGas	Pulse	1.1	920,341	1128393.34666667	81.6	
Rh	103	He	Pulse	0.7	495,559	616442.69	80.4	
Rh	103	NoGas	Pulse	0.9	929,460	1143555.12333333	81.3	
Tb	159	He	Pulse	0.5	687,859	794731.056666667	86.6	
Tb	159	NoGas	Analog	0.8	1,789,477	1665548.91666667	107.4	
Bi	209	He	Pulse	0.6	387,873	446099.653333333	86.9	
Bi	209	NoGas	Pulse	0.7	918,104	1052566.13	87.2	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K04033-CCV9**	Total Dilution:	1.0000
File Name:	114_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:31:20
Comment:	A19J138 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.266	ppb	0.8	119,298	40	98.16	
Na	23	45	He	4252.268	ppb	0.8	5,416,621	4000	106.31	
Mg	24	45	He	4398.485	ppb	1.2	3,148,341	4000	109.96	
Al	27	45	He	4338.343	ppb	1.1	1,641,676	4000	108.46	
K	39	45	He	4377.956	ppb	0.6	2,822,736	4000	109.45	
Ca	44	45	H2	3956.526	ppb	1.3	1,058,304	4000	98.91	
[Ca]	44	45	He	4158.910	ppb	0.8	130,779	4000	103.97	
Ti	47	45	NoGas	88.748	ppb	2.2	124,913	100	88.75	> +/- 10%
V	51	74	He	97.936	ppb	0.3	404,910	100	97.94	
Cr	52	74	He	98.148	ppb	0.4	472,969	100	98.15	
Mn	55	74	He	103.949	ppb	0.2	353,170	100	103.95	
Fe	56	74	H2	4415.749	ppb	0.4	57,140,070	4000	110.39	< +/- 10%
Co	59	74	He	101.252	ppb	0.3	662,103	100	101.25	
Ni	60	74	He	103.667	ppb	0.4	166,023	100	103.67	
Cu	65	74	He	102.863	ppb	0.2	198,991	100	102.86	
Zn	66	74	He	102.686	ppb	0.4	78,408	100	102.69	
As	75	74	He	98.543	ppb	0.5	46,630	100	98.54	
Se	78	74	H2	41.192	ppb	1.0	13,616	40	102.98	
Mo	95	103	He	40.525	ppb	1.4	75,130	40	101.31	
Ag	107	103	He	41.571	ppb	1.2	219,470	40	103.93	
Cd	111	103	He	100.375	ppb	1.3	89,520	100	100.37	
[Cd]	111	103	NoGas	90.256	ppb	0.1	217,453	100	90.26	
Sb	121	103	He	42.689	ppb	0.9	98,251	40	106.72	
Ba	138	159	He	103.954	ppb	0.4	552,059	100	103.95	
Hg	201	159	NoGas	730.466	ppt	3.8	860	800	91.31	
Tl	205	159	He	40.387	ppb	0.1	341,028	40	100.97	
Pb	208	159	NoGas	94.262	ppb	1.9	2,453,984	100	94.26	

Fe rounds to 110%. ESS 11/5/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.5	1,141,801	1328005.7	86.0	
Sc	45	H2	Analog	1.4	2,588,013	2880501.55333333	89.8	
Sc	45	He	Pulse	1.0	382,598	495174.883333333	77.3	
Sc	45	NoGas	Analog	1.8	3,620,053	4124211.75	87.8	
Ge	74	H2	Pulse	0.5	749,907	948676.153333333	79.0	
Ge	74	He	Pulse	0.1	219,827	284255.65	77.3	
Ge	74	NoGas	Pulse	1.1	887,015	1128393.34666667	78.6	
Rh	103	He	Pulse	1.1	472,844	616442.69	76.7	
Rh	103	NoGas	Pulse	0.6	881,641	1143555.12333333	77.1	
Tb	159	He	Pulse	0.4	683,554	794731.056666667	86.0	
Tb	159	NoGas	Analog	1.5	1,757,423	1665548.91666667	105.5	
Bi	209	He	Pulse	0.6	376,390	446099.653333333	84.4	
Bi	209	NoGas	Pulse	0.6	890,779	1052566.13	84.6	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K04033-CCB9**	Total Dilution:	1.0000
File Name:	115_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:35:57
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.002	ppb	150.8	26	
Na	23	45	He	31.637	ppb	0.9	44,045	
Mg	24	45	He	1.644	ppb	12.9	1,560	
Al	27	45	He	0.703	ppb	6.3	347	
K	39	45	He	-0.991	ppb	N/A	33,061	
Ca	44	45	H2	2.470	ppb	6.4	1,102	
[Ca]	44	45	He	1.083	ppb	48.6	324	
Ti	47	45	NoGas	0.032	ppb	19.8	75	
V	51	74	He	-0.220	ppb	N/A	1,424	
Cr	52	74	He	-0.012	ppb	N/A	228	
Mn	55	74	He	0.015	ppb	31.7	156	
Fe	56	74	H2	2.021	ppb	2.4	32,989	
Co	59	74	He	0.008	ppb	17.9	78	
Ni	60	74	He	0.004	ppb	127.3	40	
Cu	65	74	He	0.089	ppb	26.4	200	
Zn	66	74	He	0.068	ppb	47.8	80	
As	75	74	He	0.015	ppb	13.6	50	
Se	78	74	H2	0.034	ppb	45.9	15	
Mo	95	103	He	0.035	ppb	5.3	70	
Ag	107	103	He	0.008	ppb	31.2	46	
Cd	111	103	He	0.026	ppb	15.0	27	
[Cd]	111	103	NoGas	0.015	ppb	81.1	40	
Sb	121	103	He	0.245	ppb	1.5	602	
Ba	138	159	He	0.031	ppb	23.1	218	
Hg	201	159	NoGas	1.942	ppt	112.4	8	
Tl	205	159	He	0.005	ppb	26.6	58	
Pb	208	159	NoGas	0.039	ppb	4.0	1,820	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.5	1,142,839	1328005.7	86.1	
Sc	45	H2	Analog	1.4	2,492,996	2880501.55333333	86.5	
Sc	45	He	Pulse	0.4	375,110	495174.883333333	75.8	
Sc	45	NoGas	Analog	1.7	3,573,380	4124211.75	86.6	
Ge	74	H2	Pulse	0.1	727,853	948676.153333333	76.7	
Ge	74	He	Pulse	0.7	216,565	284255.65	76.2	
Ge	74	NoGas	Pulse	0.9	875,112	1128393.34666667	77.6	
Rh	103	He	Pulse	0.2	478,610	616442.69	77.6	
Rh	103	NoGas	Pulse	0.6	883,176	1143555.12333333	77.2	
Tb	159	He	Pulse	1.1	677,555	794731.056666667	85.3	
Tb	159	NoGas	Analog	0.7	1,743,428	1665548.91666667	104.7	
Bi	209	He	Pulse	0.4	381,858	446099.653333333	85.6	
Bi	209	NoGas	Pulse	0.3	897,887	1052566.13	85.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL7**	Total Dilution:	1.0000
File Name:	116CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:40:40
Comment:	A19J368 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.183	ppb	13.8	589	101.67		
Na	23	45	He	36.928	ppb	2.3	50,926	410.31	R-11	< MRL
Mg	24	45	He	10.488	ppb	2.8	7,808	116.53		
Al	27	45	He	10.308	ppb	5.9	3,932	114.53		
K	39	45	He	9.082	ppb	18.0	39,567	100.91		
Ca	44	45	H2	12.599	ppb	4.9	3,715	139.99	R-11	< MRL
[Ca]	44	45	He	11.571	ppb	12.7	651	128.57		
Ti	47	45	NoGas	0.186	ppb	4.2	293	103.33		
V	51	74	He	-0.043	ppb	N/A	2,157	-23.89	R-11	< MRL
Cr	52	74	He	0.173	ppb	13.5	1,115	96.11		
Mn	55	74	He	0.209	ppb	12.8	809	116.11		
Fe	56	74	H2	10.010	ppb	0.8	133,800	111.22		
Co	59	74	He	0.189	ppb	7.9	1,257	105		
Ni	60	74	He	0.195	ppb	15.2	342	108.33		
Cu	65	74	He	0.323	ppb	4.2	649	179.44	R-11	< MRL
Zn	66	74	He	0.394	ppb	10.6	327	218.89	R-11	
As	75	74	He	0.146	ppb	14.0	112	81.11		
Se	78	74	H2	0.196	ppb	13.6	67	108.89		
Mo	95	103	He	0.189	ppb	11.1	361	105		
Ag	107	103	He	0.185	ppb	1.6	992	102.78		
Cd	111	103	He	0.186	ppb	3.9	172	103.33		
[Cd]	111	103	NoGas	0.178	ppb	1.2	445	98.89		
Sb	121	103	He	0.281	ppb	4.6	689	156.11	R-11	< MRL
Ba	138	159	He	0.220	ppb	3.3	1,220	122.22		
Hg	201	159	NoGas	6.166	ppt	50.7	13	85.64		
Tl	205	159	He	0.191	ppb	2.4	1,622	106.11		
Pb	208	159	NoGas	0.222	ppb	3.0	6,683	123.33		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.3	1,165,097	1328005.7	87.7	
Sc	45	H2	Analog	0.8	2,495,063	2880501.55333333	86.6	
Sc	45	He	Pulse	1.2	377,243	495174.883333333	76.2	
Sc	45	NoGas	Analog	1.9	3,632,366	4124211.75	88.1	
Ge	74	H2	Pulse	0.4	730,530	948676.153333333	77.0	
Ge	74	He	Pulse	0.8	217,926	284255.65	76.7	
Ge	74	NoGas	Pulse	0.6	891,044	1128393.34666667	79.0	
Rh	103	He	Pulse	0.5	480,428	616442.69	77.9	
Rh	103	NoGas	Pulse	0.8	904,531	1143555.12333333	79.1	
Tb	159	He	Pulse	0.4	680,566	794731.056666667	85.6	
Tb	159	NoGas	Analog	0.6	1,779,217	1665548.91666667	106.8	
Bi	209	He	Pulse	0.6	382,807	446099.653333333	85.8	
Bi	209	NoGas	Pulse	0.4	905,462	1052566.13	86.0	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL8**	Total Dilution:	1.0000
File Name:	117_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:45:19
Comment:	A19J369 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.895	ppb	2.7	2,851	99.44	
Na	23	45	He	69.331	ppb	0.2	93,448	154.07	R-11
Mg	24	45	He	46.355	ppb	0.3	33,792	103.01	
Al	27	45	He	47.818	ppb	1.9	18,288	106.26	
K	39	45	He	45.575	ppb	2.6	63,752	101.28	
Ca	44	45	H2	45.991	ppb	2.0	12,668	102.2	
[Ca]	44	45	He	46.432	ppb	6.2	1,765	103.18	
Ti	47	45	NoGas	0.853	ppb	8.6	1,261	94.78	
V	51	74	He	0.697	ppb	2.6	5,279	77.44	
Cr	52	74	He	0.867	ppb	7.4	4,516	96.33	
Mn	55	74	He	0.935	ppb	2.4	3,321	103.89	
Fe	56	74	H2	45.671	ppb	0.7	596,351	101.49	
Co	59	74	He	0.905	ppb	1.8	6,016	100.56	
Ni	60	74	He	0.879	ppb	4.8	1,458	97.67	
Cu	65	74	He	1.005	ppb	2.3	1,998	111.67	
Zn	66	74	He	0.928	ppb	3.3	747	103.11	
As	75	74	He	0.872	ppb	1.2	461	96.89	
Se	78	74	H2	0.966	ppb	8.5	322	107.33	
Mo	95	103	He	0.873	ppb	2.4	1,663	97	
Ag	107	103	He	0.876	ppb	3.1	4,743	97.33	
Cd	111	103	He	0.958	ppb	3.7	879	106.44	
[Cd]	111	103	NoGas	0.849	ppb	1.7	2,135	94.33	
Sb	121	103	He	0.944	ppb	2.3	2,258	104.89	
Ba	138	159	He	0.953	ppb	1.1	5,121	105.89	
Hg	201	159	NoGas	30.466	ppt	28.1	42	84.63	
Tl	205	159	He	0.930	ppb	1.0	7,872	103.33	
Pb	208	159	NoGas	0.894	ppb	1.3	24,325	99.33	

< MRL

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.2	1,188,364	1328005.7	89.5	
Sc	45	H2	Analog	0.7	2,565,121	2880501.55333333	89.1	
Sc	45	He	Pulse	0.7	384,862	495174.883333333	77.7	
Sc	45	NoGas	Analog	0.6	3,706,380	4124211.75	89.9	
Ge	74	H2	Pulse	0.4	746,933	948676.153333333	78.7	
Ge	74	He	Pulse	0.9	222,471	284255.65	78.3	
Ge	74	NoGas	Pulse	1.2	910,330	1128393.34666667	80.7	
Rh	103	He	Pulse	0.8	484,662	616442.69	78.6	
Rh	103	NoGas	Pulse	0.5	918,459	1143555.12333333	80.3	
Tb	159	He	Pulse	0.8	684,374	794731.056666667	86.1	
Tb	159	NoGas	Analog	1.1	1,774,019	1665548.91666667	106.5	
Bi	209	He	Pulse	0.5	384,844	446099.653333333	86.3	
Bi	209	NoGas	Pulse	1.1	915,915	1052566.13	87.0	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRL9**	Total Dilution:	1.0000
File Name:	118CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:50:00
Comment:	A19J370 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.755	ppb	1.1	5,667	97.5	
Na	23	45	He	113.959	ppb	0.6	153,496	126.62	
Mg	24	45	He	92.692	ppb	0.5	68,449	102.99	
Al	27	45	He	91.975	ppb	2.1	35,778	102.19	
K	39	45	He	90.752	ppb	0.6	94,489	100.84	
Ca	44	45	H2	89.952	ppb	1.2	24,528	99.95	
[Ca]	44	45	He	93.942	ppb	4.6	3,327	104.38	
Ti	47	45	NoGas	1.634	ppb	4.4	2,427	90.78	
V	51	74	He	1.574	ppb	0.3	9,082	87.44	
Cr	52	74	He	1.765	ppb	2.1	9,047	98.06	
Mn	55	74	He	1.892	ppb	2.1	6,725	105.11	
Fe	56	74	H2	89.614	ppb	0.3	1,180,074	99.57	
Co	59	74	He	1.807	ppb	0.5	12,192	100.39	
Ni	60	74	He	1.784	ppb	1.2	2,975	99.11	
Cu	65	74	He	2.024	ppb	0.9	4,062	112.44	
Zn	66	74	He	1.888	ppb	5.7	1,513	104.89	
As	75	74	He	1.818	ppb	3.2	930	101	
Se	78	74	H2	1.730	ppb	5.0	582	96.11	
Mo	95	103	He	1.751	ppb	2.7	3,398	97.28	
Ag	107	103	He	1.827	ppb	0.9	10,084	101.5	
Cd	111	103	He	1.831	ppb	5.3	1,710	101.72	
[Cd]	111	103	NoGas	1.745	ppb	5.4	4,461	96.94	
Sb	121	103	He	1.895	ppb	3.9	4,591	105.28	
Ba	138	159	He	1.999	ppb	1.7	10,748	111.06	
Hg	201	159	NoGas	63.685	ppt	10.9	83	88.45	
Tl	205	159	He	1.818	ppb	1.4	15,481	101	
Pb	208	159	NoGas	1.728	ppb	0.4	47,279	96	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.2	1,208,871	1328005.7	91.0	
Sc	45	H2	Analog	0.7	2,587,052	2880501.55333333	89.8	
Sc	45	He	Pulse	0.4	392,297	495174.883333333	79.2	
Sc	45	NoGas	Analog	0.3	3,770,371	4124211.75	91.4	
Ge	74	H2	Pulse	0.4	758,127	948676.153333333	79.9	
Ge	74	He	Pulse	0.3	226,297	284255.65	79.6	
Ge	74	NoGas	Pulse	0.9	928,519	1128393.34666667	82.3	
Rh	103	He	Pulse	0.3	494,267	616442.69	80.2	
Rh	103	NoGas	Pulse	0.7	934,397	1143555.12333333	81.7	
Tb	159	He	Pulse	1.0	688,577	794731.056666667	86.6	
Tb	159	NoGas	Analog	0.9	1,813,578	1665548.91666667	108.9	
Bi	209	He	Pulse	0.7	384,244	446099.653333333	86.1	
Bi	209	NoGas	Pulse	0.8	920,510	1052566.13	87.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K04033-CRLA**	Total Dilution:	1.0000
File Name:	119CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K04033.b	Acq Time:	11/4/2019 20:54:40
Comment:	A19J371 - ESS 11/4		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.438	ppb	0.6	11,097	95.5	
Na	23	45	He	201.034	ppb	0.7	267,276	111.69	
Mg	24	45	He	183.174	ppb	1.0	134,923	101.76	
Al	27	45	He	184.183	ppb	1.2	71,591	102.32	
K	39	45	He	182.689	ppb	0.3	154,616	101.49	
Ca	44	45	H2	174.599	ppb	1.0	47,949	97	
[Ca]	44	45	He	183.370	ppb	1.9	6,207	101.87	
Ti	47	45	NoGas	3.282	ppb	1.9	4,836	91.17	
V	51	74	He	3.344	ppb	0.6	16,568	92.89	
Cr	52	74	He	3.453	ppb	3.2	17,413	95.92	
Mn	55	74	He	3.658	ppb	3.0	12,899	101.61	
Fe	56	74	H2	196.861	ppb	0.6	2,604,846	109.37	
Co	59	74	He	3.595	ppb	1.0	24,229	99.86	
Ni	60	74	He	3.622	ppb	1.5	6,004	100.61	
Cu	65	74	He	3.871	ppb	4.2	7,737	107.53	
Zn	66	74	He	3.578	ppb	3.9	2,841	99.39	
As	75	74	He	3.678	ppb	1.4	1,835	102.17	
Se	78	74	H2	3.680	ppb	4.5	1,245	102.22	
Mo	95	103	He	3.487	ppb	3.6	6,716	96.86	
Ag	107	103	He	3.667	ppb	0.8	20,100	101.86	
Cd	111	103	He	3.737	ppb	0.3	3,463	103.81	
[Cd]	111	103	NoGas	3.312	ppb	1.2	8,384	92	
Sb	121	103	He	3.716	ppb	0.8	8,908	103.22	
Ba	138	159	He	3.815	ppb	0.6	20,448	105.97	
Hg	201	159	NoGas	120.299	ppt	3.9	150	83.54	
Tl	205	159	He	3.679	ppb	2.5	31,276	102.19	
Pb	208	159	NoGas	3.465	ppb	1.6	93,319	96.25	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	1,210,853	1328005.7	91.2	
Sc	45	H2	Analog	0.6	2,630,793	2880501.55333333	91.3	
Sc	45	He	Pulse	0.7	392,519	495174.883333333	79.3	
Sc	45	NoGas	Analog	1.0	3,765,061	4124211.75	91.3	
Ge	74	H2	Pulse	0.3	764,585	948676.153333333	80.6	
Ge	74	He	Pulse	0.7	226,275	284255.65	79.6	
Ge	74	NoGas	Pulse	1.2	920,146	1128393.34666667	81.5	
Rh	103	He	Pulse	0.8	490,894	616442.69	79.6	
Rh	103	NoGas	Pulse	1.0	926,000	1143555.12333333	81.0	
Tb	159	He	Pulse	0.5	688,047	794731.056666667	86.6	
Tb	159	NoGas	Analog	1.3	1,802,069	1665548.91666667	108.2	
Bi	209	He	Pulse	0.4	387,767	446099.653333333	86.9	
Bi	209	NoGas	Pulse	0.9	921,586	1052566.13	87.6	

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 9110517
Sequence 9K06041

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

9110517

NOV 1 1 2019

Apex Laboratories
BATCH #: 9110517 (Solid)
Prep Method: EPA 1311/3015

Lab Number	Due	Prepared	Initial (mL)	Final (mL)	Client	ClientID / Sample	Extraction Comments
9110517-BLK1	---	11/06/19 10:26	10	50	QC Sample		
9110517-BS1	---	11/06/19 10:26	10	50	QC Sample		
	Spike 1: 250 uL of A19J064	Spike 2: 1000 uL of A19J206					
A9J0954-01	11/07/19	11/06/19 10:26	10	50	Anchor QEA, LLC	PDI-019SC-C-00-3-2-19102	
☐ 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							
A9J0954-02	11/07/19	11/06/19 10:26	10	50	Anchor QEA, LLC	PDI-095SC-C-00-8-8-19102	
☐ 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							
9110517-MS1	---	11/06/19 10:26	10	50	QC Sample		
	Source: A9J0954-02	Spike 1: 250 uL of A19J064	Spike 2: 1000 uL of A19J206				
A9K0048-01	11/08/19	11/06/19 10:26	10	50	Sevenson Environmental Services	Vapor Carbon T125-110119	Tppb
☐ 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							
9110517-MS2	---	11/06/19 10:26	10	50	QC Sample		
	Source: A9K0048-01	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 11/6/19

Fluid ID: A19K039
Extraction Batch: 9110477
Digestion time and temperature achieved? yes
Initials: CRL

CRL 11/6/19
Prepared By: Date

ESS 11/6/19
Reviewed By: Date

Batch #: 9110517

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: 11/06/19 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	S30	9110517-BLK1	206.65	206.63	n/a
2	S17	9110517-BS1	209.14	209.11	n/a
3	S39	A9J0954-01	206.71	206.68	n/a
4	S109	A9J0954-02	208.60	208.54	n/a
5	S13	9110517-MS1	208.85	208.80	n/a
6	S38	A9K0048-01	207.15	207.11	n/a
7	S70	9110517-MS1	207.36	207.34	n/a
8					n/a
9					n/a
10					n/a
11					n/a
12					n/a
13					n/a
14					n/a
15					n/a
16					n/a
17					n/a
18					n/a
19					n/a
20					n/a
21					n/a
22					n/a
23					n/a
24					n/a
					n/a

*Example Calculation: (Pre(g) – Post(g))/(Post(g) – 159.32g) This represents the mean weight of the empty digestion vessels. By factoring in the mean digestion vessel weight, we observe weight loss from only the sample, rather than as a percentage of the sample+vessel weight.

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9K06041** Instrument: **ICPMS5**

Date: **11/06/19 09:59** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9K06041-CAL1	Water	QC	QC			A19J130	A19J368
2	9K06041-CAL2	Water	QC	QC			A19J130	A19J369
3	9K06041-CAL3	Water	QC	QC			A19J130	A19J370
4	9K06041-CAL4	Water	QC	QC			A19J130	A19J371
5	9K06041-CAL5	Water	QC	QC			A19J130	A19J373
6	9K06041-CAL6	Water	QC	QC			A19J130	A19J372
7	9K06041-CAL7	Water	QC	QC			A19J130	A19J374
8	9K06041-CAL8	Water	QC	QC			A19J130	A19J188
9	9K06041-CAL9	Water	QC	QC			A19J130	A19J189
10	9K06041-ICV1	Water	QC	QC			A19J130	A19J138
11	9K06041-ICB1	Water	QC	QC			A19J130	
12	9K06041-CRL1	Water	QC	QC			A19J130	A19J368
13	9K06041-CRL2	Water	QC	QC			A19J130	A19J369
14	9K06041-CRL3	Water	QC	QC			A19J130	A19J370
15	9K06041-IFA1	Water	QC	QC			A19J130	A19J465
16	9K06041-IFB1	Water	QC	QC			A19J130	A19J466
17	9110504-BLK1	Soil	QC	QC		9110504	A19J130	
18	9110504-BS1	Soil	QC	QC		9110504	A19J130	
19	A9K0109-01	Soil	Ag (Silver) - 6020 - Total		11/06/19	9110504	A19J130	
20	"	Soil	As (Arsenic) - 6020 - Total	"	11/06/19	9110504	A19J130	
21	"	Soil	Ba (Barium) - 6020 - Total	"	11/06/19	9110504	A19J130	
22	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/06/19	9110504	A19J130	
23	"	Soil	Cr (Chromium) - 6020 - Total	"	11/06/19	9110504	A19J130	
24	"	Soil	Hg (Mercury) - 6020 - Total	"	11/06/19	9110504	A19J130	
25	"	Soil	Pb (Lead) - 6020 - Total	"	11/06/19	9110504	A19J130	
26	"	Soil	Se (Selenium) - 6020 - Total	"	11/06/19	9110504	A19J130	
27	A9K0109-02	Soil	Ag (Silver) - 6020 - Total		11/06/19	9110504	A19J130	
28	"	Soil	As (Arsenic) - 6020 - Total	"	11/06/19	9110504	A19J130	
29	"	Soil	Ba (Barium) - 6020 - Total	"	11/06/19	9110504	A19J130	
30	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/06/19	9110504	A19J130	
31	"	Soil	Cr (Chromium) - 6020 - Total	"	11/06/19	9110504	A19J130	
32	"	Soil	Hg (Mercury) - 6020 - Total	"	11/06/19	9110504	A19J130	
33	"	Soil	Pb (Lead) - 6020 - Total	"	11/06/19	9110504	A19J130	
34	"	Soil	Se (Selenium) - 6020 - Total	"	11/06/19	9110504	A19J130	
35	A9K0109-03	Soil	Ag (Silver) - 6020 - Total		11/06/19	9110504	A19J130	
36	"	Soil	As (Arsenic) - 6020 - Total	"	11/06/19	9110504	A19J130	
37	"	Soil	Ba (Barium) - 6020 - Total	"	11/06/19	9110504	A19J130	
38	"	Soil	Cd (Cadmium) - 6020 - Total	"	11/06/19	9110504	A19J130	
39	"	Soil	Cr (Chromium) - 6020 - Total	"	11/06/19	9110504	A19J130	
40	"	Soil	Cu (Copper) - 6020 - Total	(QC Source)		9110504	A19J130	
41	"	Soil	Hg (Mercury) - 6020 - Total	"	11/06/19	9110504	A19J130	
42	"	Soil	Ni (Nickel) - 6020 - Total	(QC Source)		9110504	A19J130	
43	"	Soil	Pb (Lead) - 6020 - Total	"	11/06/19	9110504	A19J130	
44	"	Soil	Se (Selenium) - 6020 - Total	"	11/06/19	9110504	A19J130	
45	"	Soil	Zn (Zinc) - 6020 - Total	(QC Source)		9110504	A19J130	
46	9110504-DUP1	Soil	QC	QC		9110504	A19J130	
47	9110504-MS1	Soil	QC	QC		9110504	A19J130	
48	A9K0121-02	Soil	Pb (Lead) - 6020 - Total		11/12/19	9110504	A19J130	
49	A9K0121-04	Soil	Pb (Lead) - 6020 - Total		11/12/19	9110504	A19J130	
50	9110512-BLK1	Sediment	QC	QC		9110512	A19J130	
51	9K06041-CCV1	Water	QC	QC			A19J130	A19J138

Sequence: **9K06041** Instrument: **ICPMS5**

Date: **11/06/19 09:59** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
52	9K06041-CCB1	Water	QC	QC			A19J130	
53	9110512-BS1	Sediment	QC	QC		9110512	A19J130	
54	A9K0087-04	Sediment	Ag (Silver) - 6020 - Total		11/11/19	9110512	A19J130	
55	"	Sediment	As (Arsenic) - 6020 - Total		11/11/19	9110512	A19J130	
56	"	Sediment	Cd (Cadmium) - 6020 - Total	"	11/11/19	9110512	A19J130	
57	"	Sediment	Cr (Chromium) - 6020 - Total	"	11/11/19	9110512	A19J130	
58	"	Sediment	Cu (Copper) - 6020 - Total	"	11/11/19	9110512	A19J130	
59	"	Sediment	Hg (Mercury) - 6020 - Total	"	11/11/19	9110512	A19J130	
60	"	Sediment	Ni (Nickel) - 6020 - Total	"	11/11/19	9110512	A19J130	
61	"	Sediment	Pb (Lead) - 6020 - Total	"	11/11/19	9110512	A19J130	
62	"	Sediment	Sb (Antimony) - 6020 - Total	"	11/11/19	9110512	A19J130	
63	"	Sediment	Se (Selenium) - 6020 - Total	"	11/11/19	9110512	A19J130	
64	"	Sediment	Zn (Zinc) - 6020 - Total	"	11/11/19	9110512	A19J130	
65	9110512-DUP1	Sediment	QC	QC		9110512	A19J130	
66	9110512-MS1	Sediment	QC	QC		9110512	A19J130	
67	9110503-BLK1	Water	QC	QC		9110503	A19J130	
68	9110503-BS1	Water	QC	QC		9110503	A19J130	
69	9110519-BLK1	Solid	QC	QC		9110519	A19J130	
70	9110519-BS1	Solid	QC	QC		9110519	A19J130	
71	A9K0046-01	Solid	Ag (Silver) - 6020 - TCLP		11/08/19	9110519	A19J130	
72	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/08/19	9110519	A19J130	
73	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/08/19	9110519	A19J130	
74	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/08/19	9110519	A19J130	
75	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/08/19	9110519	A19J130	
76	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/08/19	9110519	A19J130	
77	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/08/19	9110519	A19J130	
78	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/08/19	9110519	A19J130	
79	A9K0067-01	Solid	Ag (Silver) - 6020 - TCLP		11/06/19	9110519	A19J130	
80	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/06/19	9110519	A19J130	
81	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/06/19	9110519	A19J130	
82	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/06/19	9110519	A19J130	
83	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/06/19	9110519	A19J130	
84	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/06/19	9110519	A19J130	
85	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/06/19	9110519	A19J130	
86	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/06/19	9110519	A19J130	
87	9K06041-CCV2	Water	QC	QC			A19J130	A19J138
88	9K06041-CCB2	Water	QC	QC			A19J130	
89	9110519-MS1	Solid	QC	QC		9110519	A19J130	
90	9110517-BLK1	Solid	QC	QC		9110517	A19J130	
91	9110517-BS1	Solid	QC	QC		9110517	A19J130	
92	A9J0954-01	Solid	Ag (Silver) - 6020 - TCLP	Anchor QEA, LLC	11/07/19	9110517	A19J130	
93	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/07/19	9110517	A19J130	
94	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/07/19	9110517	A19J130	
95	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/07/19	9110517	A19J130	
96	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/07/19	9110517	A19J130	
97	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/07/19	9110517	A19J130	
98	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/07/19	9110517	A19J130	
99	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/07/19	9110517	A19J130	
100	A9J0954-02	Solid	Ag (Silver) - 6020 - TCLP	Anchor QEA, LLC	11/07/19	9110517	A19J130	
101	"	Solid	As (Arsenic) - 6020 - TCLP	"	11/07/19	9110517	A19J130	
102	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/07/19	9110517	A19J130	
103	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/07/19	9110517	A19J130	
104	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/07/19	9110517	A19J130	
105	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/07/19	9110517	A19J130	
106	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/07/19	9110517	A19J130	

Sequence: **9K06041** Instrument: **ICPMS5**

Date: **11/06/19 09:59** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
107	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/07/19	9110517	A19J130	
108	9110517-MS1	Solid	QC	QC		9110517	A19J130	
109	A9K0048-01	Solid	Ag (Silver) - 6020 - TCLP		11/08/19	9110517	A19J130	
110	"	Solid	As (Arsenic) - 6020 - TCLP		11/08/19	9110517	A19J130	
111	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/08/19	9110517	A19J130	
112	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/08/19	9110517	A19J130	
113	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/08/19	9110517	A19J130	
114	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/08/19	9110517	A19J130	
115	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/08/19	9110517	A19J130	
116	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/08/19	9110517	A19J130	
117	9110517-MS2	Solid	QC	QC		9110517	A19J130	
118	9K06041-CCV3	Water	QC	QC			A19J130	A19J138
119	9K06041-CCB3	Water	QC	QC			A19J130	
120	9K06041-CRL4	Water	QC	QC			A19J130	A19J368
121	9K06041-CRL5	Water	QC	QC			A19J130	A19J369
122	9K06041-CRL6	Water	QC	QC			A19J130	A19J370
123	9110518-BLK1	Solid	QC	QC		9110518	A19J130	
124	9110518-BS1	Solid	QC	QC		9110518	A19J130	
125	A9K0045-01	Solid	Ag (Silver) - 6020 - TCLP		11/08/19	9110518	A19J130	
126	"	Solid	As (Arsenic) - 6020 - TCLP		11/08/19	9110518	A19J130	
127	"	Solid	Ba (Barium) - 6020 - TCLP	"	11/08/19	9110518	A19J130	
128	"	Solid	Cd (Cadmium) - 6020 - TCLP	"	11/08/19	9110518	A19J130	
129	"	Solid	Cr (Chromium) - 6020 - TCLP	"	11/08/19	9110518	A19J130	
130	"	Solid	Hg (Mercury) - 6020 - TCLP	"	11/08/19	9110518	A19J130	
131	"	Solid	Pb (Lead) - 6020 - TCLP	"	11/08/19	9110518	A19J130	
132	"	Solid	Se (Selenium) - 6020 - TCLP	"	11/08/19	9110518	A19J130	
133	9110518-MS1	Solid	QC	QC		9110518	A19J130	
134	A9J1131-01RE2	Water	Ag (Silver) - 200.8 - Total		11/13/19	9110503	A19J130	
135	A9K0022-02RE1	Water	Ag (Silver) - 200.8 - Total		11/14/19	9110503	A19J130	
136	"	Water	Cd (Cadmium) - 200.8 - Total	"	11/14/19	9110503	A19J130	
137	"	Water	Cr (Chromium) - 200.8 - Total	"	11/14/19	9110503	A19J130	
138	"	Water	Cu (Copper) - 200.8 - Total	"	11/14/19	9110503	A19J130	
139	"	Water	Ni (Nickel) - 200.8 - Total	"	11/14/19	9110503	A19J130	
140	"	Water	Pb (Lead) - 200.8 - Total	"	11/14/19	9110503	A19J130	
141	"	Water	Zn (Zinc) - 200.8 - Total	"	11/14/19	9110503	A19J130	
142	A9K0059-02	Water	Al (Aluminum) - 200.8 - Total		11/08/19	9110503	A19J130	
143	A9K0059-03	Water	Ag (Silver) - 6020 - Total	(QC Source)		9110503	A19J130	
144	"	Water	Ag (Silver) - 200.8 - Total	(QC Source)		9110503	A19J130	
145	"	Water	Al (Aluminum) - 200.8 - Total	"	11/08/19	9110503	A19J130	
146	"	Water	As (Arsenic) - 6020 - Total	(QC Source)		9110503	A19J130	
147	"	Water	Ba (Barium) - 6020 - Total	(QC Source)		9110503	A19J130	
148	"	Water	Cd (Cadmium) - 6020 - Total	(QC Source)		9110503	A19J130	
149	"	Water	Cd (Cadmium) - 200.8 - Total	(QC Source)		9110503	A19J130	
150	"	Water	Cr (Chromium) - 6020 - Total	(QC Source)		9110503	A19J130	
151	"	Water	Cr (Chromium) - 200.8 - Total	(QC Source)		9110503	A19J130	
152	"	Water	Cu (Copper) - 6020 - Total	(QC Source)		9110503	A19J130	
153	"	Water	Cu (Copper) - 200.8 - Total	(QC Source)		9110503	A19J130	
154	"	Water	Fe (Iron) - 6020 - Total	(QC Source)		9110503	A19J130	
155	"	Water	Hg (Mercury) - 6020 - Total	(QC Source)		9110503	A19J130	
156	"	Water	Ni (Nickel) - 200.8 - Total	(QC Source)		9110503	A19J130	
157	"	Water	Pb (Lead) - 6020 - Total	(QC Source)		9110503	A19J130	
158	"	Water	Pb (Lead) - 200.8 - Total	(QC Source)		9110503	A19J130	
159	"	Water	Se (Selenium) - 6020 - Total	(QC Source)		9110503	A19J130	
160	"	Water	Zn (Zinc) - 200.8 - Total	(QC Source)		9110503	A19J130	
161	9110503-DUP1	Water	QC	QC		9110503	A19J130	

Sequence: **9K06041** Instrument: **ICPMS5**

Date: **11/06/19 09:59** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
162	9110503-MS1	Water	QC	QC		9110503	A19J130	
163	9K06041-CCV4	Water	QC	QC			A19J130	A19J138
164	9K06041-CCV5	Water	QC	QC			A19J130	A19J138
165	9K06041-CCB4	Water	QC	QC			A19J130	
166	9110538-BLK1	Solid	QC	QC		9110538	A19J130	
167	9110538-BS1	Solid	QC	QC		9110538	A19J130	
168	A9K0140-01	Solid	Ag (Silver) - 6020 - Total		11/07/19	9110538	A19J130	
169	"	Solid	As (Arsenic) - 6020 - Total		11/07/19	9110538	A19J130	
170	"	Solid	Ba (Barium) - 6020 - Total	"	11/07/19	9110538	A19J130	
171	"	Solid	Cd (Cadmium) - 6020 - Total	"	11/07/19	9110538	A19J130	
172	"	Solid	Cr (Chromium) - 6020 - Total	"	11/07/19	9110538	A19J130	
173	"	Solid	Hg (Mercury) - 6020 - Total	"	11/07/19	9110538	A19J130	
174	"	Solid	Pb (Lead) - 6020 - Total	"	11/07/19	9110538	A19J130	
175	"	Solid	Se (Selenium) - 6020 - Total	"	11/07/19	9110538	A19J130	
176	9110540-BLK1	Oil	QC	QC		9110540	A19J130	
177	9110540-BS1	Oil	QC	QC		9110540	A19J130	
178	A9K0141-01	Oil	Mo (Molybdenum) - 6020 - Total		11/07/19	9110540	A19J130	
179	9110540-DUP1	Oil	QC	QC		9110540	A19J130	
180	9110540-MS1	Oil	QC	QC		9110540	A19J130	
181	9110541-BLK1	Liquid	QC	QC		9110541	A19J130	
182	9110541-BS1	Liquid	QC	QC		9110541	A19J130	
183	9K06041-CCV6	Water	QC	QC			A19J130	A19J138
184	9K06041-CCB5	Water	QC	QC			A19J130	
185	A9K0141-02	Liquid	Mo (Molybdenum) - 6020 - Total		11/07/19	9110541	A19J130	
186	9110541-DUP1	Liquid	QC	QC		9110541	A19J130	
187	9110541-MS1	Liquid	QC	QC		9110541	A19J130	
188	9K06041-CCV7	Water	QC	QC			A19J130	A19J138
189	9K06041-CCB6	Water	QC	QC			A19J130	
190	9K06041-CRL7	Water	QC	QC			A19J130	A19J368
191	9K06041-CRL8	Water	QC	QC			A19J130	A19J369
192	9K06041-CRL9	Water	QC	QC			A19J130	A19J370
193	A9K0059-04	Water	Al (Aluminum) - 200.8 - Total		11/08/19	9110503	A19J130	
194	A9K0059-05	Water	Al (Aluminum) - 200.8 - Total		11/08/19	9110503	A19J130	
195	A9K0059-06	Water	Al (Aluminum) - 200.8 - Total		11/08/19	9110503	A19J130	
196	A9K0059-07	Water	Al (Aluminum) - 200.8 - Total		11/08/19	9110503	A19J130	
197	A9K0090-02	Water	Pb (Lead) - 200.8 - Total		11/18/19	9110503	A19J130	
198	"	Water	Zn (Zinc) - 200.8 - Total	"	11/18/19	9110503	A19J130	
199	A9K0108-01	Water	Cu (Copper) - 200.8 - Total		11/13/19	9110503	A19J130	
200	A9K0111-01	Water	Ag (Silver) - 6020 - Total	(QC Source)		9110503	A19J130	
201	"	Water	Ag (Silver) - 200.8 - Total	(QC Source)		9110503	A19J130	
202	"	Water	Al (Aluminum) - 200.8 - Total	(QC Source)		9110503	A19J130	
203	"	Water	As (Arsenic) - 6020 - Total	(QC Source)		9110503	A19J130	
204	"	Water	Ba (Barium) - 6020 - Total	(QC Source)		9110503	A19J130	
205	"	Water	Cd (Cadmium) - 6020 - Total	(QC Source)		9110503	A19J130	
206	"	Water	Cd (Cadmium) - 200.8 - Total	(QC Source)		9110503	A19J130	
207	"	Water	Cr (Chromium) - 6020 - Total	(QC Source)		9110503	A19J130	
208	"	Water	Cr (Chromium) - 200.8 - Total	"	11/18/19	9110503	A19J130	
209	"	Water	Cu (Copper) - 6020 - Total	(QC Source)		9110503	A19J130	
210	"	Water	Cu (Copper) - 200.8 - Total	"	11/18/19	9110503	A19J130	
211	"	Water	Fe (Iron) - 6020 - Total	(QC Source)		9110503	A19J130	
212	"	Water	Hg (Mercury) - 6020 - Total	(QC Source)		9110503	A19J130	
213	"	Water	Ni (Nickel) - 200.8 - Total	"	11/18/19	9110503	A19J130	
214	"	Water	Pb (Lead) - 6020 - Total	(QC Source)		9110503	A19J130	
215	"	Water	Pb (Lead) - 200.8 - Total	"	11/18/19	9110503	A19J130	
216	"	Water	Se (Selenium) - 6020 - Total	(QC Source)		9110503	A19J130	

Sequence: **9K06041** Instrument: **ICPMS5**

Date: **11/06/19 09:59** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
217	"	Water	Zn (Zinc) - 200.8 - Total	"	11/18/19	9110503	A19J130	
218	9110503-MS2	Water	QC	QC		9110503	A19J130	
219	A9K0136-01	Water	Cu (Copper) - 6020 - Total		11/12/19	9110503	A19J130	
220	"	Water	Fe (Iron) - 6020 - Total	"	11/12/19	9110503	A19J130	
221	A9K0136-02	Water	Cu (Copper) - 6020 - Total		11/12/19	9110503	A19J130	
222	"	Water	Fe (Iron) - 6020 - Total	"	11/12/19	9110503	A19J130	
223	9K06041-CCV8	Water	QC	QC			A19J130	A19J138
224	9K06041-CCB7	Water	QC	QC			A19J130	
225	A9K0136-03	Water	Cu (Copper) - 6020 - Total		11/12/19	9110503	A19J130	
226	"	Water	Fe (Iron) - 6020 - Total		11/12/19	9110503	A19J130	
227	A9K0136-04	Water	Cu (Copper) - 6020 - Total		11/12/19	9110503	A19J130	
228	"	Water	Fe (Iron) - 6020 - Total	"	11/12/19	9110503	A19J130	
229	A9K0136-05	Water	Cu (Copper) - 6020 - Total		11/12/19	9110503	A19J130	
230	"	Water	Fe (Iron) - 6020 - Total		11/12/19	9110503	A19J130	
231	A9K0136-06	Water	Cu (Copper) - 6020 - Total		11/12/19	9110503	A19J130	
232	"	Water	Fe (Iron) - 6020 - Total		11/12/19	9110503	A19J130	
233	A9K0136-07	Water	Cu (Copper) - 6020 - Total		11/12/19	9110503	A19J130	
234	"	Water	Fe (Iron) - 6020 - Total		11/12/19	9110503	A19J130	
235	A9K0136-08	Water	Cu (Copper) - 6020 - Total		11/12/19	9110503	A19J130	
236	"	Water	Fe (Iron) - 6020 - Total		11/12/19	9110503	A19J130	
237	A9K0136-09	Water	Ag (Silver) - 6020 - Total		11/12/19	9110503	A19J130	
238	"	Water	As (Arsenic) - 6020 - Total	"	11/12/19	9110503	A19J130	
239	"	Water	Ba (Barium) - 6020 - Total	"	11/12/19	9110503	A19J130	
240	"	Water	Cd (Cadmium) - 6020 - Total	"	11/12/19	9110503	A19J130	
241	"	Water	Cr (Chromium) - 6020 - Total	"	11/12/19	9110503	A19J130	
242	"	Water	Cu (Copper) - 6020 - Total	"	11/12/19	9110503	A19J130	
243	"	Water	Fe (Iron) - 6020 - Total	"	11/12/19	9110503	A19J130	
244	"	Water	Hg (Mercury) - 6020 - Total	"	11/12/19	9110503	A19J130	
245	"	Water	Pb (Lead) - 6020 - Total	"	11/12/19	9110503	A19J130	
246	"	Water	Se (Selenium) - 6020 - Total	"	11/12/19	9110503	A19J130	
247	A9J0990-62RE1	Soil	Cu (Copper) - 6020 - Total		11/11/19	9110360	A19J130	
248	9110360-DUP3	Soil	QC	QC		9110360	A19J130	
249	9110360-DUP4	Soil	QC	QC		9110360	A19J130	
250	9K06041-CCV9	Water	QC	QC			A19J130	A19J138
251	9K06041-CCB8	Water	QC	QC			A19J130	
252	9110360-MS2	Soil	QC	QC		9110360	A19J130	
253	A9J1043-02RE1	Soil	Se (Selenium) - 6020 - Total		11/11/19	9110360	A19J130	
254	9110520-BLK1	Water	QC	QC		9110520	A19J130	
255	9110520-BS1	Water	QC	QC		9110520	A19J130	
256	A9K0080-02	Water	Cu (Copper) - 200.8 - Dissolved		11/13/19	9110520	A19J130	
257	"	Water	Pb (Lead) - 200.8 - Dissolved		11/13/19	9110520	A19J130	
258	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/13/19	9110520	A19J130	
259	A9K0080-04	Water	Cu (Copper) - 200.8 - Dissolved		11/13/19	9110520	A19J130	
260	"	Water	Pb (Lead) - 200.8 - Dissolved		11/13/19	9110520	A19J130	
261	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/13/19	9110520	A19J130	
262	A9K0080-06	Water	Cu (Copper) - 200.8 - Dissolved		11/13/19	9110520	A19J130	
263	"	Water	Pb (Lead) - 200.8 - Dissolved		11/13/19	9110520	A19J130	
264	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/13/19	9110520	A19J130	
265	9110520-DUP1	Water	QC	QC		9110520	A19J130	
266	A9K0080-08	Water	Cu (Copper) - 200.8 - Dissolved		11/13/19	9110520	A19J130	
267	"	Water	Pb (Lead) - 200.8 - Dissolved		11/13/19	9110520	A19J130	
268	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/13/19	9110520	A19J130	
269	9110520-MS1	Water	QC	QC		9110520	A19J130	
270	9K06041-CCVA	Water	QC	QC			A19J130	A19J138
271	9K06041-CCB9	Water	QC	QC			A19J130	

Sequence: **9K06041** Instrument: **ICPMS5**

Date: **11/06/19 09:59** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
272	A9K0080-10	Water	Cu (Copper) - 200.8 - Dissolved		11/13/19	9110520	A19J130	
273	"	Water	Pb (Lead) - 200.8 - Dissolved	"	11/13/19	9110520	A19J130	
274	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/13/19	9110520	A19J130	
275	A9K0080-12	Water	Cu (Copper) - 200.8 - Dissolved		11/13/19	9110520	A19J130	
276	"	Water	Pb (Lead) - 200.8 - Dissolved	"	11/13/19	9110520	A19J130	
277	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/13/19	9110520	A19J130	
278	A9K0080-14	Water	Cu (Copper) - 200.8 - Dissolved		11/13/19	9110520	A19J130	
279	"	Water	Pb (Lead) - 200.8 - Dissolved	"	11/13/19	9110520	A19J130	
280	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/13/19	9110520	A19J130	
281	A9K0080-16	Water	Cu (Copper) - 200.8 - Dissolved		11/13/19	9110520	A19J130	
282	"	Water	Pb (Lead) - 200.8 - Dissolved	"	11/13/19	9110520	A19J130	
283	"	Water	Zn (Zinc) - 200.8 - Dissolved	"	11/13/19	9110520	A19J130	
284	9110466-BLK1	Solid	QC	QC		9110466	A19J130	
285	9110466-BS1	Solid	QC	QC		9110466	A19J130	
286	A9K0066-02	Solid	Ag (Silver) - 6020 - Total		11/15/19	9110466	A19J130	
287	"	Solid	As (Arsenic) - 6020 - Total	"	11/15/19	9110466	A19J130	
288	"	Solid	Ba (Barium) - 6020 - Total	"	11/15/19	9110466	A19J130	
289	"	Solid	Cd (Cadmium) - 6020 - Total	"	11/15/19	9110466	A19J130	
290	"	Solid	Cr (Chromium) - 6020 - Total	"	11/15/19	9110466	A19J130	
291	"	Solid	Cu (Copper) - 6020 - Total	"	11/15/19	9110466	A19J130	
292	"	Solid	Hg (Mercury) - 6020 - Total	"	11/15/19	9110466	A19J130	
293	"	Solid	Ni (Nickel) - 6020 - Total	"	11/15/19	9110466	A19J130	
294	"	Solid	Pb (Lead) - 6020 - Total	"	11/15/19	9110466	A19J130	
295	"	Solid	Se (Selenium) - 6020 - Total	"	11/15/19	9110466	A19J130	
296	"	Solid	Zn (Zinc) - 6020 - Total	"	11/15/19	9110466	A19J130	
297	9110466-DUP1	Solid	QC	QC		9110466	A19J130	
298	9110466-MS1	Solid	QC	QC		9110466	A19J130	
299	A9K0098-01	Solid	Ag (Silver) - 6020 - Total		11/11/19	9110466	A19J130	
300	"	Solid	As (Arsenic) - 6020 - Total	"	11/11/19	9110466	A19J130	
301	"	Solid	Ba (Barium) - 6020 - Total	"	11/11/19	9110466	A19J130	
302	"	Solid	Cd (Cadmium) - 6020 - Total	"	11/11/19	9110466	A19J130	
303	"	Solid	Cr (Chromium) - 6020 - Total	"	11/11/19	9110466	A19J130	
304	"	Solid	Cu (Copper) - 6020 - Total	"	11/11/19	9110466	A19J130	
305	"	Solid	Hg (Mercury) - 6020 - Total	"	11/11/19	9110466	A19J130	
306	"	Solid	Ni (Nickel) - 6020 - Total	"	11/11/19	9110466	A19J130	
307	"	Solid	Pb (Lead) - 6020 - Total	"	11/11/19	9110466	A19J130	
308	"	Solid	Se (Selenium) - 6020 - Total	"	11/11/19	9110466	A19J130	
309	"	Solid	Zn (Zinc) - 6020 - Total	"	11/11/19	9110466	A19J130	
310	9K06041-CCVB	Water	QC	QC			A19J130	A19J138
311	9K06041-CCVC	Water	QC	QC			A19J130	A19J138
312	9K06041-CCBA	Water	QC	QC			A19J130	
313	9K06041-CCVD	Water	QC	QC			A19J130	A19J138
314	9K06041-CCVE	Water	QC	QC			A19J130	A19J138
315	9K06041-CCBB	Water	QC	QC			A19J130	
316	9K06041-CRLA	Water	QC	QC			A19J130	A19J368
317	9K06041-CRLB	Water	QC	QC			A19J130	A19J369
318	9K06041-CRLC	Water	QC	QC			A19J130	A19J370
319	9K06041-CRLD	Water	QC	QC			A19J130	A19J371
320	A9K0133-03	Solid	Na (Sodium) - 6020 - Total		11/19/19	9110538	A19J130	
321	A9K0133-04	Solid	Na (Sodium) - 6020 - Total		11/19/19	9110538	A19J130	
322	A9K0133-05	Solid	Na (Sodium) - 6020 - Total		11/19/19	9110538	A19J130	
323	A9K0133-06	Solid	Se (Selenium) - 6020 - Total	(QC Source)		9110538	A19J130	
324	"	Solid	Pb (Lead) - 6020 - Total	(QC Source)		9110538	A19J130	
325	"	Solid	Na (Sodium) - 6020 - Total	"	11/19/19	9110538	A19J130	
326	"	Solid	Hg (Mercury) - 6020 - Total	(QC Source)		9110538	A19J130	

Sequence: **9K06041** Instrument: **ICPMS5**

Date: **11/06/19 09:59** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
327	"	Solid	Cr (Chromium) - 6020 - Total	(QC Source)		9110538	A19J130	
328	"	Solid	Cd (Cadmium) - 6020 - Total	(QC Source)		9110538	A19J130	
329	"	Solid	Ba (Barium) - 6020 - Total	(QC Source)		9110538	A19J130	
330	"	Solid	As (Arsenic) - 6020 - Total	(QC Source)		9110538	A19J130	
331	"	Solid	Ag (Silver) - 6020 - Total	(QC Source)		9110538	A19J130	
332	9110538-DUP1	Solid	QC	QC		9110538	A19J130	
333	9110538-MS1	Solid	QC	QC		9110538	A19J130	
334	A9K0133-07	Solid	Na (Sodium) - 6020 - Total		11/19/19	9110538	A19J130	
335	A9K0133-08	Solid	Na (Sodium) - 6020 - Total		11/19/19	9110538	A19J130	
336	9K06041-CCVF	Water	QC	QC			A19J130	A19J138
337	9K06041-CCBC	Water	QC	QC			A19J130	
338	9K06041-CRLE	Water	QC	QC			A19J130	A19J368
339	9K06041-CRLF	Water	QC	QC			A19J130	A19J369
340	9K06041-CRLG	Water	QC	QC			A19J130	A19J370
341	9K06041-CRLH	Water	QC	QC			A19J130	A19J371

Pre Review wf 11/7/19.

Data Entered By: ESS 11/7/19 Comments:

Data Reviewed By: [signature] 11/8/19

Notes. for Review.

Tin ✓ 6

2200

10 Batches.

6020B ✓ RSD ✓

Brackets.

Ag. ✓

Al As

Cd All ✓

Prep

Nd 0.1 BS

FLLP Flags ✓

Dups

RSM ✓

Preps Sheets Done.

Q-17

Q-42 Q-16

~~R-10~~

R-04

RR- 1, 10

136-01 -03

REI

~~0911~~

990-062

Need Flag.

9110503 ~~MS~~

K0136-09 QC Sample R-4

MS2

11/7/19

~~9110446~~

91104661 No MSD1 (SD) MS & R ✓

Tune Report

Batch Folder	C:\Agilent\ICPMH\1\DATA\9K06041.b
Acq. Date-Time	11/6/2019 10:25
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		4399	43990.03	1000.00	
89		20873	208728.88	1000.00	
78		10			

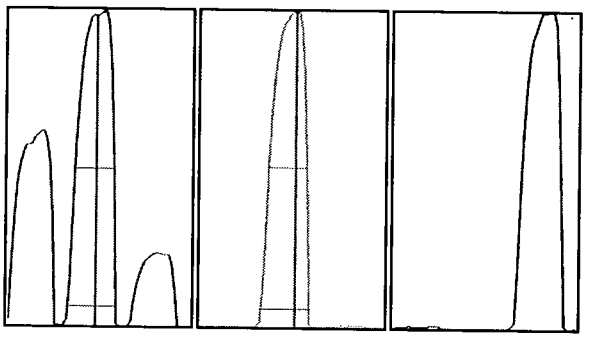
Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	0.23	5.00	
89	0.47	5.00	
78	44.61		

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	4382	4403	4409	4400	4401
89	20865	21008	20931	20764	20797
78	8	12	5	9	17

Integration Time [sec] 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
59	727.87	59.00	58.9 - 59.1		0.62	0.778	0.900	

Tune Report

89	3617.88	89.05	88.9 - 89.1	0.60	0.775	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		6057	60568.57	1000.00	
89		5442	54418.11	1000.00	
205		6184	61840.15	1000.00	
75		24			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	2.45	5.00	
89	3.37	5.00	
205	2.63	5.00	
75	20.92		

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	5886	6047	6216	5939	6197
89	5452	5420	5405	5210	5723
205	6176	6140	6285	5944	6375
75	30	27	25	18	20

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	1020.72	59.00	58.9 - 59.1		0.62	0.778	0.900	
89	950.53	89.05	88.9 - 89.1		0.60	0.772	0.900	
205	1114.07	205.00	204.9 - 205.1		0.56	0.741	0.900	
75	4.20	75.05	-		0.55	0.645		

Integration Time [sec] 0.1 **Acquisition Time [sec]** 134.8 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	1.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	3.3 mL/min	OctP RF	180 V
H2 Flow	0.0 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[NoGas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
7		9710	97103.31	1000.00	
89		22589	225888.69	1000.00	
205		13182	131820.23	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	1.56	5.00	
89	0.69	5.00	
205	1.39	5.00	
102	34.23		

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	9668	9647	9978	9602	9657
89	22456	22410	22718	22598	22762
205	12936	13205	13082	13271	13417
102	4	2	2	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	1607.63	7.00	6.9 - 7.1		0.63	0.780	0.900	
89	3853.11	89.05	88.9 - 89.1		0.61	0.778	0.900	
205	2321.74	205.00	204.9 - 205.1		0.57	0.743	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

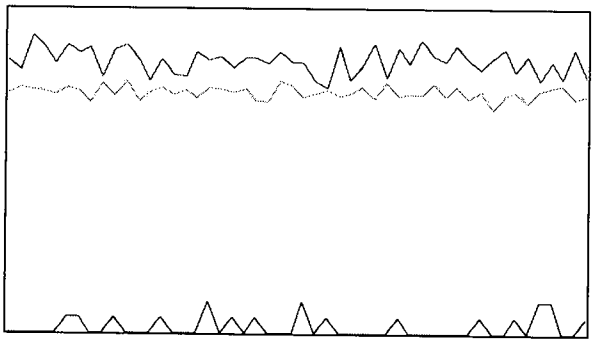
Tune Report

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\9K06041.b
Acq. Date-Time	11/6/2019 10:12
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	843	8425.99	1000.00	
89	5000	3728	37279.92	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	4.61	5.00	
89	2.55	5.00	
78	167.20		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59			
89			
78			

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.306

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.08 L/min	Makeup/Dilution Gas	0.00 L/min

Tune Report

Option Gas	0.0 %

Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-160.0 V	Cell Exit	-60 V
Omega Bias	-90 V	Deflect	2.0 V
Omega Lens	6.0 V	Plate Bias	-40 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	0.0 mL/min	OctP RF	180 V
H2 Flow	3.3 mL/min	Energy Discrimination	5.0 V
3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	2000	1129	11285.38	1000.00	
89	2000	1095	10949.85	1000.00	
205	2000	1213	12128.02	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	4.44	5.00	
89	3.63	5.00	
205	3.41	5.00	
75	61.40		

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	1595	15947.63	1000.00	
89	5000	3813	38129.75	1000.00	
205	5000	2382	23815.41	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	3.19	5.00	
89	2.13	5.00	
205	2.39	5.00	
102	298.33		

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Ratio (oxide)	156/140	1.456 %	✓
Ratio (2+)	69/138	2.417 %	✓

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: 9K06041-ICV1
Data File: 014_ICV.d
Acquired: 11/6/2019 11:43:46

========= Detector Parameters and P/A Factors =========
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	0.090004
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: 11/6/2019 11:13:00

Mass[u]	Element	P/A Factor
23	Na	0.111005
44	Ca	0.121316
45	Sc	0.121138
56	Fe	0.127360
57	Fe	0.126358
74	Ge	0.131924
78	Se	Signal too low

Tune Mode Name: He
Discriminator: 4.5 mV
AnalogHV: 1861 V
PulseHV: 1710 V

Acquired: 11/6/2019 11:28:12

Mass[u]	Element	P/A Factor
23	Na	0.109371
24	Mg	0.114087
27	Al	0.117013
39	K	0.120642
44	Ca	0.119921
51	V	0.122905
52	Cr	0.124630
55	Mn	0.125472
59	Co	0.127844
60	Ni	0.128864
65	Cu	0.130238
66	Zn	0.129469
111	Cd	0.132450

138	Ba	0.132856
159	Tb	0.137666
205	Tl	0.135137
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: 11/6/2019 11:29:32

Mass[u]	Element	P/A Factor
6	Li	0.087362
45	Sc	0.120755
47	Ti	0.119074
65	Cu	0.130214
74	Ge	0.131808
103	Rh	0.133459
111	Cd	0.132925
159	Tb	0.136993
182	W	0.135667
206	Pb	0.136235
207	Pb	0.136765
208	Pb	0.137847
209	Bi	0.140499
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: 11/7/2019 10:47:31

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	001RINS.d	Vial:	3
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Sample Type:	Rinse
Acq Time:	11/6/2019 10:29:02	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		1,072	0.18	
Na	23	45	He		ppb		7,078	90	
Mg	24	45	He		ppb		839	90	
Al	27	45	He		ppb		557	45	
K	39	45	He		ppb		34,644	90	
Ca	44	45	H2		ppb		851	90	
[Ca]	44	45	He		ppb		340		
Ti	47	45	NoGas		ppb		148	0.9	
V	51	74	He		ppb		1,780	0.9	
Cr	52	74	He		ppb		1,948	0.9	
Mn	55	74	He		ppb		524	0.9	
Fe	56	74	H2		ppb		62,894	45	
Co	59	74	He		ppb		1,538	0.18	
Ni	60	74	He		ppb		827	0.9	
Cu	65	74	He		ppb		721	0.9	
Zn	66	74	He		ppb		226	3.6	
As	75	74	He		ppb		27	0.9	
Se	78	74	H2		ppb		2	0.9	
Mo	95	103	He		ppb		83	0.9	
Ag	107	103	He		ppb		3	0.18	
Cd	111	103	He		ppb		2		
[Cd]	111	103	NoGas		ppb		8	0.18	
Sb	121	103	He		ppb		44	0.9	
Ba	138	159	He		ppb		2,589	0.9	
W	182	159	NoGas		ppb		100		
Hg	201	159	NoGas		ppt		4	72	
Tl	205	159	He		ppb		1,553	0.18	
Pb	208	159	NoGas		ppb		701	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	6,400	2.5	0	Pulse		
Sc	45	H2	2,261	1.2	0	Pulse		
Sc	45	He	118	5.9	0	Pulse		
Sc	45	NoGas	1,698	2.5	0	Pulse		
Ge	74	H2	392	6.5	0	Pulse		
Ge	74	He	103	2.2	0	Pulse		
Ge	74	NoGas	571	3.1	0	Pulse		
Rh	103	He	523	5.6	0	Pulse		
Rh	103	NoGas	1,019	5.6	0	Pulse		
Tb	159	He	82	36.8	0	Pulse		Note RSD; OK < 20%
Tb	159	NoGas	216	24.0	0	Pulse		Note RSD; OK < 20%
Bi	209	He	260	8.4	0	Pulse		
Bi	209	NoGas	603	19.4	0	Pulse		Note RSD; OK < 20%

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	002RINS.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Sample Type:	Rinse
Acq Time:	11/6/2019 10:33:46	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		11	0.18	
Na	23	45	He		ppb		4,831	90	
Mg	24	45	He		ppb		597	90	
Al	27	45	He		ppb		130	45	
K	39	45	He		ppb		34,825	90	
Ca	44	45	H2		ppb		414	90	
[Ca]	44	45	He		ppb		273		
Ti	47	45	NoGas		ppb		45	0.9	
V	51	74	He		ppb		1,652	0.9	
Cr	52	74	He		ppb		264	0.9	
Mn	55	74	He		ppb		320	0.9	
Fe	56	74	H2		ppb		22,376	45	
Co	59	74	He		ppb		72	0.18	
Ni	60	74	He		ppb		90	0.9	
Cu	65	74	He		ppb		60	0.9	
Zn	66	74	He		ppb		23	3.6	
As	75	74	He		ppb		29	0.9	
Se	78	74	H2		ppb		2	0.9	
Mo	95	103	He		ppb		3	0.9	
Ag	107	103	He		ppb		6	0.18	
Cd	111	103	He		ppb		4		
[Cd]	111	103	NoGas		ppb		18	0.18	
Sb	121	103	He		ppb		46	0.9	
Ba	138	159	He		ppb		101	0.9	
W	182	159	NoGas		ppb		32		
Hg	201	159	NoGas		ppt		5	72	
Tl	205	159	He		ppb		32	0.18	
Pb	208	159	NoGas		ppb		704	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,160,030	0.5	0	Analog		
Sc	45	H2	2,722,790	0.9	0	Analog		
Sc	45	He	417,128	0.6	0	Pulse		
Sc	45	NoGas	3,785,853	0.4	0	Analog		
Ge	74	H2	842,300	0.4	0	Pulse		
Ge	74	He	246,655	1.0	0	Pulse		
Ge	74	NoGas	968,500	0.8	0	Pulse		
Rh	103	He	549,244	0.8	0	Pulse		
Rh	103	NoGas	974,237	0.8	0	Pulse		
Tb	159	He	696,371	0.8	0	Pulse		
Tb	159	NoGas	1,651,916	0.6	0	Analog		
Bi	209	He	392,924	0.7	0	Pulse		
Bi	209	NoGas	903,608	0.3	0	Pulse		

Calibration Standard Report - ICPMS5

Sample Name:	**9K06041-CAL0**	Total Dilution:	**1.0000**
File Name:	003CALB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b		
Acq Time:	11/6/2019 10:38:27	Sample Type:	CalBlk
Comment:	**3.5%HNO3+0.4%HCl**	Last Calib:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0	ppb	N/A	22	60.6	
Na	23	45	He	0	ppb	N/A	4,707	1.1	
Mg	24	45	He	0	ppb	N/A	568	5.5	
Al	27	45	He	0	ppb	N/A	117	14.3	
K	39	45	He	0	ppb	N/A	34,312	1.1	
Ca	44	45	H2	0	ppb	N/A	480	10.9	
[Ca]	44	45	He	0	ppb	N/A	234	9.7	
Ti	47	45	NoGas	0	ppb	N/A	37	34.3	
V	51	74	He	0	ppb	N/A	1,724	0.6	
Cr	52	74	He	0	ppb	N/A	319	11.7	
Mn	55	74	He	0	ppb	N/A	334	26.9	
Fe	56	74	H2	0	ppb	N/A	22,105	1.4	
Co	59	74	He	0	ppb	N/A	89	9.4	
Ni	60	74	He	0	ppb	N/A	84	14.9	
Cu	65	74	He	0	ppb	N/A	44	38.5	
Zn	66	74	He	0	ppb	N/A	33	17.3	
As	75	74	He	0	ppb	N/A	37	21.1	
Se	78	74	H2	0	ppb	N/A	3	62.4	
Mo	95	103	He	0	ppb	N/A	8	107.8	
Ag	107	103	He	0	ppb	N/A	4	43.4	
Cd	111	103	He	0	ppb	N/A	2	24.7	
[Cd]	111	103	NoGas	0	ppb	N/A	10	82.8	
Sb	121	103	He	0	ppb	N/A	36	23.6	
Ba	138	159	He	0	ppb	N/A	83	4.0	
W	182	159	NoGas	0	ppb	N/A	36	37.9	
Hg	201	159	NoGas	4.574	ppt	20.6	3	31.2	
Tl	205	159	He	0	ppb	N/A	17	34.6	
Pb	208	159	NoGas	0	ppb	N/A	684	5.7	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,152,922	1.3	1152921.90333333	Analog	100.0	
Sc	45	H2	2,718,831	1.5	2718830.82666667	Analog	100.0	
Sc	45	He	416,020	0.5	416019.95	Pulse	100.0	
Sc	45	NoGas	3,735,081	0.3	3735081.11333333	Analog	100.0	
Ge	74	H2	835,242	0.5	835241.986666667	Pulse	100.0	
Ge	74	He	244,427	0.6	244427.376666667	Pulse	100.0	
Ge	74	NoGas	957,883	1.0	957882.84	Pulse	100.0	
Rh	103	He	540,468	0.6	540467.566666667	Pulse	100.0	
Rh	103	NoGas	961,648	0.5	961648.273333333	Pulse	100.0	
Tb	159	He	691,118	0.3	691118.286666667	Pulse	100.0	
Tb	159	NoGas	1,636,278	1.3	1636278.29333333	Analog	100.0	
Bi	209	He	387,814	0.9	387813.86	Pulse	100.0	
Bi	209	NoGas	890,232	0.1	890232.166666667	Pulse	100.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9K06041-CAL1**	Total Dilution:	**1.0000**
File Name:	004CALS.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b		
Acq Time:	11/6/2019 10:43:08	Sample Type:	CalStd
Comment:	**A19J368 - ESS 11/6**	Last Calib:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.165	ppb	1.4	500	1.8	
Na	23	45	He	9.344	ppb	2.2	17,742	2.3	
Mg	24	45	He	9.114	ppb	4.5	7,684	4.8	
Al	27	45	He	9.027	ppb	1.2	3,799	1.9	
K	39	45	He	9.453	ppb	4.2	40,428	0.4	
Ca	44	45	H2	9.714	ppb	1.6	3,024	2.2	
[Ca]	44	45	He	8.628	ppb	15.4	524	9.3	
Ti	47	45	NoGas	0.245	ppb	8.2	363	7.1	
V	51	74	He	0.171	ppb	7.2	2,544	1.7	
Cr	52	74	He	0.166	ppb	9.2	1,238	6.1	
Mn	55	74	He	0.178	ppb	3.0	1,003	1.2	
Fe	56	74	H2	8.987	ppb	1.1	148,744	0.7	
Co	59	74	He	0.184	ppb	2.4	1,498	3.0	
Ni	60	74	He	0.176	ppb	12.2	417	9.4	
Cu	65	74	He	0.195	ppb	10.3	497	10.2	
Zn	66	74	He	0.205	ppb	11.0	216	9.1	
As	75	74	He	0.183	ppb	4.0	135	3.5	
Se	78	74	H2	0.178	ppb	1.3	69	0.8	
Mo	95	103	He	0.203	ppb	16.8	447	16.9	
Ag	107	103	He	0.186	ppb	5.3	1,145	5.6	
Cd	111	103	He	0.192	ppb	6.1	195	5.4	
[Cd]	111	103	NoGas	0.17	ppb	10.2	425	10.1	
Sb	121	103	He	0.151	ppb	16.5	427	14.6	
Ba	138	159	He	0.199	ppb	1.9	1,113	2.2	
W	182	159	NoGas	0.001	ppb	148.1	40	22.0	
Hg	201	159	NoGas	16.502	ppt	8.4	16	9.4	
Tl	205	159	He	0.174	ppb	4.9	1,545	5.5	
Pb	208	159	NoGas	0.189	ppb	2.2	5,289	1.1	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,137,221	0.8	1152921.90333333	Analog	98.6	
Sc	45	H2	2,626,279	0.8	2718830.82666667	Analog	96.6	
Sc	45	He	414,166	0.8	416019.95	Pulse	99.6	
Sc	45	NoGas	3,674,030	0.7	3735081.11333333	Analog	98.4	
Ge	74	H2	831,105	0.4	835241.986666667	Pulse	99.5	
Ge	74	He	244,731	0.8	244427.376666667	Pulse	100.1	
Ge	74	NoGas	962,380	1.3	957882.84	Pulse	100.5	
Rh	103	He	544,878	0.7	540467.566666667	Pulse	100.8	
Rh	103	NoGas	966,702	0.5	961648.273333333	Pulse	100.5	
Tb	159	He	688,295	0.6	691118.286666667	Pulse	99.6	
Tb	159	NoGas	1,581,860	1.5	1636278.29333333	Analog	96.7	
Bi	209	He	390,102	0.7	387813.86	Pulse	100.6	
Bi	209	NoGas	892,045	0.3	890232.166666667	Pulse	100.2	

Calibration Standard Report - ICPMS5

Sample Name:	**9K06041-CAL2**	Total Dilution:	**1.0000**
File Name:	005CALS.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b		
Acq Time:	11/6/2019 10:48:09	Sample Type:	CalStd
Comment:	**A19J369 - ESS 11/6**	Last Calib:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.982	ppb	8.6	2,664	2.6	
Na	23	45	He	43.866	ppb	1.4	66,003	0.7	
Mg	24	45	He	44.934	ppb	0.4	35,677	1.0	
Al	27	45	He	45.173	ppb	1.5	18,556	1.7	
K	39	45	He	45.339	ppb	1.1	64,262	0.6	
Ca	44	45	H2	45.252	ppb	1.6	12,519	2.1	
[Ca]	44	45	He	43.459	ppb	2.1	1,699	1.4	
Ti	47	45	NoGas	1.049	ppb	10.4	1,334	6.8	
V	51	74	He	0.875	ppb	0.8	5,882	0.9	
Cr	52	74	He	0.917	ppb	0.5	5,370	0.8	
Mn	55	74	He	0.925	ppb	3.3	3,785	1.9	
Fe	56	74	H2	44.587	ppb	0.6	651,791	0.4	
Co	59	74	He	0.949	ppb	3.2	7,321	4.1	
Ni	60	74	He	1.039	ppb	2.7	2,032	2.1	
Cu	65	74	He	0.959	ppb	3.8	2,256	2.7	
Zn	66	74	He	0.943	ppb	7.2	868	7.8	
As	75	74	He	0.912	ppb	4.4	522	4.5	
Se	78	74	H2	0.92	ppb	10.1	342	9.5	
Mo	95	103	He	0.872	ppb	7.8	1,880	7.4	
Ag	107	103	He	0.874	ppb	4.0	5,328	3.2	
Cd	111	103	He	0.871	ppb	2.8	872	3.8	
[Cd]	111	103	NoGas	0.95	ppb	10.8	2,149	3.9	
Sb	121	103	He	0.83	ppb	6.6	2,164	5.4	
Ba	138	159	He	0.986	ppb	3.7	5,163	3.7	
W	182	159	NoGas	-0.001	ppb	N/A	22	60.6	
Hg	201	159	NoGas	40.392	ppt	6.4	39	14.2	
Tl	205	159	He	0.899	ppb	1.9	7,881	2.4	
Pb	208	159	NoGas	1.011	ppb	9.9	23,322	1.2	

NR - re-running for high RSDs
ESS 11/7/19

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,062,000	6.2	1152921.90333333	Analog	92.1	
Sc	45	H2	2,653,780	0.6	2718830.82666667	Analog	97.6	
Sc	45	He	414,400	0.6	416019.95	Pulse	99.6	
Sc	45	NoGas	3,424,824	7.3	3735081.11333333	Analog	91.7	
Ge	74	H2	832,351	0.5	835241.986666667	Pulse	99.7	
Ge	74	He	243,185	1.1	244427.376666667	Pulse	99.5	
Ge	74	NoGas	893,961	6.9	957882.84	Pulse	93.3	
Rh	103	He	541,465	1.2	540467.566666667	Pulse	100.2	
Rh	103	NoGas	895,990	6.9	961648.273333333	Pulse	93.2	
Tb	159	He	686,348	1.1	691118.286666667	Pulse	99.3	
Tb	159	NoGas	1,456,230	8.2	1636278.29333333	Analog	89.0	
Bi	209	He	385,803	0.8	387813.86	Pulse	99.5	
Bi	209	NoGas	830,394	6.6	890232.166666667	Pulse	93.3	

Calibration Standard Report - ICPMS5

Sample Name:	**9K06041-CAL3**	Total Dilution:	**1.0000**
File Name:	006CALS.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b		
Acq Time:	11/6/2019 10:53:08	Sample Type:	CalStd
Comment:	**A19J370 - ESS 11/6**	Last Calib:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	1.782	ppb	2.8	5,183	1.8	
Na	23	45	He	89.122	ppb	0.8	128,409	0.5	
Mg	24	45	He	90.976	ppb	0.3	71,177	0.1	
Al	27	45	He	90.982	ppb	0.3	37,009	0.6	
K	39	45	He	94.366	ppb	0.5	96,150	0.1	
Ca	44	45	H2	94.457	ppb	1.3	25,027	1.4	
[Ca]	44	45	He	87.331	ppb	1.2	3,158	1.4	
Ti	47	45	NoGas	1.913	ppb	3.0	2,594	3.9	
V	51	74	He	1.764	ppb	1.8	10,099	1.3	
Cr	52	74	He	1.804	ppb	2.3	10,235	2.7	
Mn	55	74	He	1.852	ppb	1.9	7,228	0.9	
Fe	56	74	H2	90.66	ppb	1.5	1,293,326	1.9	
Co	59	74	He	1.85	ppb	0.9	14,159	1.8	
Ni	60	74	He	1.919	ppb	5.5	3,674	4.5	
Cu	65	74	He	1.995	ppb	4.6	4,636	4.1	
Zn	66	74	He	1.864	ppb	4.4	1,680	4.2	
As	75	74	He	1.871	ppb	1.2	1,031	1.1	
Se	78	74	H2	1.783	ppb	2.7	655	2.3	
Mo	95	103	He	1.831	ppb	4.8	3,899	5.2	
Ag	107	103	He	1.743	ppb	1.4	10,522	2.3	
Cd	111	103	He	1.874	ppb	2.0	1,854	1.2	
[Cd]	111	103	NoGas	1.758	ppb	2.5	4,271	2.6	
Sb	121	103	He	1.764	ppb	4.1	4,515	3.2	
Ba	138	159	He	2.002	ppb	2.7	10,323	2.2	
W	182	159	NoGas	0	ppb	332.1	38	31.0	
Hg	201	159	NoGas	75.371	ppt	8.2	81	9.7	
Tl	205	159	He	1.813	ppb	1.8	15,757	1.5	
Pb	208	159	NoGas	1.816	ppb	1.9	45,166	1.1	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,139,092	2.0	1152921.90333333	Analog	98.8	
Sc	45	H2	2,592,248	0.3	2718830.82666667	Analog	95.3	
Sc	45	He	411,656	0.4	416019.95	Pulse	99.0	
Sc	45	NoGas	3,677,661	1.0	3735081.11333333	Analog	98.5	
Ge	74	H2	826,419	0.4	835241.986666667	Pulse	98.9	
Ge	74	He	242,737	0.8	244427.376666667	Pulse	99.3	
Ge	74	NoGas	956,562	1.1	957882.84	Pulse	99.9	
Rh	103	He	535,953	0.9	540467.566666667	Pulse	99.2	
Rh	103	NoGas	958,855	0.5	961648.273333333	Pulse	99.7	
Tb	159	He	681,196	0.4	691118.286666667	Pulse	98.6	
Tb	159	NoGas	1,580,182	1.5	1636278.29333333	Analog	96.6	
Bi	209	He	385,502	1.1	387813.86	Pulse	99.4	
Bi	209	NoGas	884,739	0.5	890232.166666667	Pulse	99.4	

Calibration Standard Report - ICPMS5

Sample Name:	**9K06041-CAL4**	Total Dilution:	**1.0000**
File Name:	007CALS.d	Vial:	1105
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b		
Acq Time:	11/6/2019 10:58:05	Sample Type:	CalStd
Comment:	**A19J371 - ESS 11/6**	Last Calib:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	3.635	ppb	1.6	10,537	1.7	
Na	23	45	He	178.225	ppb	0.3	252,551	0.5	
Mg	24	45	He	179.331	ppb	0.4	139,990	0.6	
Al	27	45	He	181.747	ppb	1.2	73,936	1.3	
K	39	45	He	184.871	ppb	0.8	156,061	1.1	
Ca	44	45	H2	183.977	ppb	1.5	49,100	1.6	
[Ca]	44	45	He	185.082	ppb	2.5	6,442	2.3	
Ti	47	45	NoGas	3.836	ppb	1.2	5,155	1.0	
V	51	74	He	3.567	ppb	0.3	18,653	1.1	
Cr	52	74	He	3.61	ppb	2.1	20,142	1.7	
Mn	55	74	He	3.619	ppb	2.1	13,795	0.8	
Fe	56	74	H2	183.135	ppb	0.5	2,591,506	0.5	
Co	59	74	He	3.685	ppb	1.6	28,081	0.3	
Ni	60	74	He	3.806	ppb	3.2	7,197	3.1	
Cu	65	74	He	3.929	ppb	1.2	9,081	2.4	
Zn	66	74	He	3.557	ppb	2.1	3,173	2.8	
As	75	74	He	3.785	ppb	2.2	2,046	1.6	
Se	78	74	H2	3.525	ppb	2.6	1,292	2.6	
Mo	95	103	He	3.609	ppb	2.4	7,694	1.6	
Ag	107	103	He	3.584	ppb	1.1	21,678	1.0	
Cd	111	103	He	3.746	ppb	1.8	3,713	0.9	
[Cd]	111	103	NoGas	3.538	ppb	1.4	8,516	1.2	
Sb	121	103	He	3.484	ppb	1.7	8,908	1.6	
Ba	138	159	He	3.918	ppb	1.5	20,089	1.5	
W	182	159	NoGas	0.001	ppb	105.1	42	19.9	
Hg	201	159	NoGas	160.634	ppt	5.6	175	5.1	
Tl	205	159	He	3.631	ppb	1.6	31,485	1.6	
Pb	208	159	NoGas	3.626	ppb	0.7	89,583	0.8	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,137,295	1.2	1152921.90333333	Analog	98.6	
Sc	45	H2	2,634,536	0.5	2718830.82666667	Analog	96.9	
Sc	45	He	412,332	0.5	416019.95	Pulse	99.1	
Sc	45	NoGas	3,671,759	1.2	3735081.11333333	Analog	98.3	
Ge	74	H2	826,855	0.1	835241.986666667	Pulse	99.0	
Ge	74	He	242,484	1.3	244427.376666667	Pulse	99.2	
Ge	74	NoGas	948,356	0.6	957882.84	Pulse	99.0	
Rh	103	He	537,309	0.8	540467.566666667	Pulse	99.4	
Rh	103	NoGas	951,445	0.8	961648.273333333	Pulse	98.9	
Tb	159	He	680,029	0.5	691118.286666667	Pulse	98.4	
Tb	159	NoGas	1,581,602	0.5	1636278.29333333	Analog	96.7	
Bi	209	He	385,006	0.4	387813.86	Pulse	99.3	
Bi	209	NoGas	882,535	0.3	890232.166666667	Pulse	99.1	

Calibration Standard Report - ICPMS5

Sample Name:	**9K06041-CAL2**	Total Dilution:	**1.0000**
File Name:	008CALS.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Sample Type:	CalStd
Acq Time:	11/6/2019 11:03:02		
Comment:	**A19J369 - ESS 11/6**	Last Calib:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.868	ppb	3.1	2,538	3.6	
Na	23	45	He	44.516	ppb	2.7	66,381	2.2	
Mg	24	45	He	45.242	ppb	1.8	35,633	2.0	
Al	27	45	He	45.019	ppb	1.9	18,346	1.6	
K	39	45	He	47.003	ppb	0.8	64,849	0.7	
Ca	44	45	H2	45.946	ppb	2.6	12,683	1.5	
[Ca]	44	45	He	45.216	ppb	5.2	1,745	4.7	
Ti	47	45	NoGas	0.914	ppb	4.9	1,246	4.5	
V	51	74	He	0.911	ppb	4.6	6,002	4.0	
Cr	52	74	He	0.912	ppb	5.3	5,291	4.5	
Mn	55	74	He	0.9	ppb	4.4	3,658	3.5	
Fe	56	74	H2	44.677	ppb	0.6	646,796	0.2	
Co	59	74	He	0.905	ppb	3.2	6,920	3.2	
Ni	60	74	He	0.962	ppb	13.3	1,871	13.4	
Cu	65	74	He	0.961	ppb	7.5	2,241	8.0	
Zn	66	74	He	0.925	ppb	4.4	844	4.5	
As	75	74	He	0.902	ppb	6.8	512	5.8	
Se	78	74	H2	0.905	ppb	6.9	333	6.9	
Mo	95	103	He	0.898	ppb	4.3	1,920	4.0	
Ag	107	103	He	0.903	ppb	0.7	5,462	0.7	
Cd	111	103	He	0.915	ppb	4.3	908	4.4	
[Cd]	111	103	NoGas	0.888	ppb	4.3	2,147	4.7	
Sb	121	103	He	0.833	ppb	2.9	2,157	3.0	
Ba	138	159	He	0.99	ppb	3.9	5,104	4.7	
W	182	159	NoGas	-0.001	ppb	N/A	26	7.5	
Hg	201	159	NoGas	38.989	ppt	18.2	41	19.6	
Tl	205	159	He	0.909	ppb	1.7	7,845	0.8	
Pb	208	159	NoGas	0.887	ppb	2.4	22,366	1.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,139,215	1.0	1152921.90333333	Analog	98.8	
Sc	45	H2	2,649,960	1.2	2718830.82666667	Analog	97.5	
Sc	45	He	411,120	0.5	416019.95	Pulse	98.8	
Sc	45	NoGas	3,643,546	0.3	3735081.11333333	Analog	97.5	
Ge	74	H2	824,366	0.4	835241.986666667	Pulse	98.7	
Ge	74	He	241,021	0.8	244427.376666667	Pulse	98.6	
Ge	74	NoGas	940,675	0.5	957882.84	Pulse	98.2	
Rh	103	He	537,032	0.3	540467.566666667	Pulse	99.4	
Rh	103	NoGas	952,058	0.6	961648.273333333	Pulse	99.0	
Tb	159	He	675,541	1.1	691118.286666667	Pulse	97.7	
Tb	159	NoGas	1,578,683	1.4	1636278.29333333	Analog	96.5	
Bi	209	He	384,261	0.8	387813.86	Pulse	99.1	
Bi	209	NoGas	876,848	0.2	890232.166666667	Pulse	98.5	

Calibration Standard Report - ICPMS5

Sample Name:	**9K06041-CAL5**	Total Dilution:	**1.0000**
File Name:	009CALS.d	Vial:	1106
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Sample Type:	CalStd
Acq Time:	11/6/2019 11:08:02		
Comment:	**A19J373 - ESS 11/6**	Last Calib:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	9.897	ppb	0.5	27,948	0.9	
Na	23	45	He	398.073	ppb	0.4	546,626	0.2	
Mg	24	45	He	400.461	ppb	0.4	305,375	0.1	
Al	27	45	He	401.121	ppb	0.9	159,627	1.3	
K	39	45	He	411.42	ppb	0.4	299,219	0.6	
Ca	44	45	H2	404.496	ppb	0.8	106,695	0.8	
[Ca]	44	45	He	402.201	ppb	2.0	13,440	1.9	
Ti	47	45	NoGas	20.136	ppb	3.3	26,190	2.7	
V	51	74	He	19.672	ppb	0.7	93,061	0.3	
Cr	52	74	He	19.95	ppb	1.1	107,466	0.6	
Mn	55	74	He	20.185	ppb	1.0	73,775	0.6	
Fe	56	74	H2	403.713	ppb	0.4	5,599,114	0.6	
Co	59	74	He	20.426	ppb	1.2	151,848	1.1	
Ni	60	74	He	20.98	ppb	0.7	38,434	0.1	
Cu	65	74	He	21.432	ppb	1.6	48,254	2.3	
Zn	66	74	He	19.921	ppb	1.3	17,227	2.0	
As	75	74	He	20.284	ppb	0.7	10,568	1.5	
Se	78	74	H2	10.026	ppb	1.8	3,611	1.5	
Mo	95	103	He	9.878	ppb	1.6	20,411	1.6	
Ag	107	103	He	10.031	ppb	1.8	58,836	1.9	
Cd	111	103	He	19.834	ppb	0.4	19,057	0.4	
[Cd]	111	103	NoGas	19.129	ppb	1.3	44,653	1.4	
Sb	121	103	He	9.937	ppb	0.3	24,574	0.3	
Ba	138	159	He	21.758	ppb	0.8	109,198	0.9	
W	182	159	NoGas	0	ppb	N/A	32	68.9	
Hg	201	159	NoGas	405.67	ppt	3.7	435	3.9	
Tl	205	159	He	9.92	ppb	1.3	84,458	0.7	
Pb	208	159	NoGas	19.802	ppb	0.1	476,173	0.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,109,318	0.9	1152921.90333333	Analog	96.2	
Sc	45	H2	2,617,391	0.7	2718830.82666667	Analog	96.3	
Sc	45	He	403,693	0.4	416019.95	Pulse	97.0	
Sc	45	NoGas	3,574,229	0.5	3735081.11333333	Analog	95.7	
Ge	74	H2	814,144	0.4	835241.986666667	Pulse	97.5	
Ge	74	He	237,139	0.7	244427.376666667	Pulse	97.0	
Ge	74	NoGas	921,710	0.6	957882.84	Pulse	96.2	
Rh	103	He	521,021	0.0	540467.566666667	Pulse	96.4	
Rh	103	NoGas	923,576	0.6	961648.273333333	Pulse	96.0	
Tb	159	He	667,923	0.6	691118.286666667	Pulse	96.6	
Tb	159	NoGas	1,548,530	0.2	1636278.29333333	Analog	94.6	
Bi	209	He	376,634	1.0	387813.86	Pulse	97.1	
Bi	209	NoGas	863,055	0.5	890232.166666667	Pulse	96.9	

Calibration Standard Report - ICPMS5

Sample Name:	**9K06041-CAL6**	Total Dilution:	**1.0000**
File Name:	010CALS.d	Vial:	1107
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b		
Acq Time:	11/6/2019 11:12:58	Sample Type:	CalStd
Comment:	**A19J372**	Last Calib:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	49.464	ppb	2.0	135,015	1.4	
Na	23	45	He	2468.073	ppb	0.3	3,265,904	0.9	
Mg	24	45	He	2502.979	ppb	0.8	1,849,516	1.5	
Al	27	45	He	2440.171	ppb	0.4	941,763	0.6	
K	39	45	He	2586.173	ppb	1.5	1,654,414	1.4	
Ca	44	45	H2	2507.937	ppb	0.6	638,045	0.2	
[Ca]	44	45	He	2455.749	ppb	1.1	78,508	1.3	
Ti	47	45	NoGas	50.567	ppb	0.9	62,864	0.5	
V	51	74	He	49.257	ppb	0.8	220,966	0.5	
Cr	52	74	He	50.025	ppb	0.4	257,879	0.3	
Mn	55	74	He	50.004	ppb	1.5	174,735	1.2	
Fe	56	74	H2	2491.375	ppb	0.8	33,298,526	0.8	
Co	59	74	He	50.462	ppb	0.4	359,508	0.2	
Ni	60	74	He	52.587	ppb	0.6	92,236	0.8	
Cu	65	74	He	53.366	ppb	0.3	115,114	0.3	
Zn	66	74	He	51.127	ppb	0.8	42,332	0.9	
As	75	74	He	50.86	ppb	0.3	25,349	0.5	
Se	78	74	H2	49.777	ppb	0.7	17,322	0.7	
Mo	95	103	He	49.535	ppb	0.7	97,734	1.0	
Ag	107	103	He	49.557	ppb	0.7	277,593	1.0	
Cd	111	103	He	50.008	ppb	0.4	45,890	1.0	
[Cd]	111	103	NoGas	48.93	ppb	1.1	107,867	1.1	
Sb	121	103	He	49.434	ppb	0.4	116,628	0.9	
Ba	138	159	He	53.76	ppb	0.8	264,050	1.2	
W	182	159	NoGas	0.008	ppb	59.0	97	39.2	
Hg	201	159	NoGas	1936.029	ppt	3.6	2,050	4.4	
Tl	205	159	He	49.318	ppb	0.5	411,032	0.4	
Pb	208	159	NoGas	49.022	ppb	1.1	1,160,115	0.3	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,073,007	0.9	1152921.90333333	Analog	93.1	
Sc	45	H2	2,533,744	0.8	2718830.82666667	Analog	93.2	
Sc	45	He	391,757	0.8	416019.95	Pulse	94.2	
Sc	45	NoGas	3,418,794	0.8	3735081.11333333	Analog	91.5	
Ge	74	H2	787,125	0.0	835241.986666667	Pulse	94.2	
Ge	74	He	227,327	0.3	244427.376666667	Pulse	93.0	
Ge	74	NoGas	875,797	0.6	957882.84	Pulse	91.4	
Rh	103	He	497,627	0.6	540467.566666667	Pulse	92.1	
Rh	103	NoGas	872,315	0.3	961648.273333333	Pulse	90.7	
Tb	159	He	653,929	0.6	691118.286666667	Pulse	94.6	
Tb	159	NoGas	1,525,346	1.3	1636278.29333333	Analog	93.2	
Bi	209	He	366,651	0.6	387813.86	Pulse	94.5	
Bi	209	NoGas	828,570	0.2	890232.166666667	Pulse	93.1	

Calibration Standard Report - ICPMS5

Sample Name:	**9K06041-CAL7**	Total Dilution:	**1.0000**
File Name:	011CALS.d	Vial:	1108
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Sample Type:	CalStd
Acq Time:	11/6/2019 11:17:51		
Comment:	**A19J374**	Last Calib:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	100.278	ppb	0.5	261,894	0.5	
Na	23	45	He	3966.5	ppb	0.8	4,862,548	1.8	
Mg	24	45	He	4026.029	ppb	0.5	2,756,888	0.7	
Al	27	45	He	4019.186	ppb	1.9	1,437,802	2.7	
K	39	45	He	4109.557	ppb	1.7	2,419,002	1.7	
Ca	44	45	H2	4030.567	ppb	0.1	966,290	0.2	
[Ca]	44	45	He	3967.441	ppb	1.2	117,424	0.2	
Ti	47	45	NoGas	202.676	ppb	1.1	234,079	0.6	
V	51	74	He	194.788	ppb	0.4	816,440	0.3	
Cr	52	74	He	198.027	ppb	0.1	958,181	0.5	
Mn	55	74	He	199.917	ppb	0.3	655,424	0.3	
Fe	56	74	H2	3979.961	ppb	0.2	50,675,470	0.3	
Co	59	74	He	204.13	ppb	1.9	1,365,884	1.3	
Ni	60	74	He	205.993	ppb	0.7	339,198	0.4	
Cu	65	74	He	209.456	ppb	0.7	424,322	0.4	
Zn	66	74	He	201.355	ppb	1.1	156,527	0.7	
As	75	74	He	201.759	ppb	0.7	94,368	0.2	
Se	78	74	H2	100.112	ppb	0.8	33,194	1.0	
Mo	95	103	He	100.244	ppb	0.5	188,270	0.9	
Ag	107	103	He	100.22	ppb	0.5	534,390	0.7	
Cd	111	103	He	200.34	ppb	0.3	174,995	0.7	
[Cd]	111	103	NoGas	198.272	ppb	0.7	413,785	0.3	
Sb	121	103	He	100.295	ppb	0.4	225,209	0.4	
Ba	138	159	He	210.317	ppb	0.6	999,502	0.6	
W	182	159	NoGas	0.02	ppb	26.7	186	22.2	
Hg	201	159	NoGas	4030.732	ppt	2.1	4,079	1.6	
Tl	205	159	He	100.347	ppb	0.4	809,387	0.3	
Pb	208	159	NoGas	203.355	ppb	0.7	4,596,616	0.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,026,681	0.9	1152921.90333333	Analog	89.1	
Sc	45	H2	2,388,201	0.2	2718830.82666667	Analog	87.8	
Sc	45	He	363,106	1.0	416019.95	Pulse	87.3	
Sc	45	NoGas	3,177,480	0.9	3735081.11333333	Analog	85.1	
Ge	74	H2	750,035	0.4	835241.986666667	Pulse	89.8	
Ge	74	He	213,558	0.6	244427.376666667	Pulse	87.4	
Ge	74	NoGas	823,994	0.5	957882.84	Pulse	86.0	
Rh	103	He	473,704	0.5	540467.566666667	Pulse	87.6	
Rh	103	NoGas	825,868	0.5	961648.273333333	Pulse	85.9	
Tb	159	He	632,875	0.2	691118.286666667	Pulse	91.6	
Tb	159	NoGas	1,457,476	0.9	1636278.29333333	Analog	89.1	
Bi	209	He	356,851	0.5	387813.86	Pulse	92.0	
Bi	209	NoGas	805,999	0.3	890232.166666667	Pulse	90.5	

Calibration Standard Report - ICPMS5

Sample Name:	**9K06041-CAL8**	Total Dilution:	**1.0000**
File Name:	012CALS.d	Vial:	1109
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Sample Type:	CalStd
Acq Time:	11/6/2019 11:22:39		
Comment:	**A19J188**	Last Calib:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.015	ppb	4.4	58	3.3	
Na	23	45	He	9919.425	ppb	0.3	11,423,068	0.4	
Mg	24	45	He	10018.801	ppb	0.9	6,447,528	0.5	
Al	27	45	He	9960.276	ppb	0.1	3,348,600	0.7	
K	39	45	He	10075.75	ppb	0.9	5,533,996	1.5	
Ca	44	45	H2	10172.308	ppb	0.7	2,309,466	0.9	
[Ca]	44	45	He	9840.319	ppb	0.6	273,473	0.5	
Ti	47	45	NoGas	504.266	ppb	0.4	548,080	0.1	
V	51	74	He	502.173	ppb	1.4	1,966,712	1.9	
Cr	52	74	He	505.986	ppb	0.4	2,289,675	0.4	
Mn	55	74	He	507.876	ppb	0.7	1,557,084	1.0	
Fe	56	74	H2	9935.265	ppb	0.4	117,270,979	0.3	
Co	59	74	He	498.284	ppb	0.5	3,118,762	0.2	
Ni	60	74	He	501.048	ppb	0.4	771,649	0.3	
Cu	65	74	He	509.008	ppb	0.0	964,506	0.6	
Zn	66	74	He	503.373	ppb	0.4	365,994	0.7	
As	75	74	He	499.197	ppb	0.6	218,361	0.6	
Se	78	74	H2	0.116	ppb	8.7	38	8.4	
Mo	95	103	He	0.096	ppb	19.5	176	19.4	
Ag	107	103	He	0.022	ppb	7.0	112	7.5	
Cd	111	103	He	503.467	ppb	0.2	410,899	0.6	
[Cd]	111	103	NoGas	501.834	ppb	0.5	978,806	0.2	
Sb	121	103	He	0.084	ppb	17.2	204	14.8	
Ba	138	159	He	520.192	ppb	0.9	2,355,986	1.3	
W	182	159	NoGas	100	ppb	1.9	756,081	0.3	
Hg	201	159	NoGas	92.623	ppt	9.9	89	8.5	
Tl	205	159	He	0.035	ppb	0.9	280	0.0	
Pb	208	159	NoGas	498.763	ppb	1.4	10,942,951	0.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	995,249	0.8	1152921.90333333	Analog	86.3	
Sc	45	H2	2,262,204	0.2	2718830.82666667	Analog	83.2	
Sc	45	He	341,285	0.6	416019.95	Pulse	82.0	
Sc	45	NoGas	2,990,357	0.5	3735081.11333333	Analog	80.1	
Ge	74	H2	695,471	0.6	835241.986666667	Pulse	83.3	
Ge	74	He	199,760	0.6	244427.376666667	Pulse	81.7	
Ge	74	NoGas	769,383	0.7	957882.84	Pulse	80.3	
Rh	103	He	442,612	0.8	540467.566666667	Pulse	81.9	
Rh	103	NoGas	771,862	0.6	961648.273333333	Pulse	80.3	
Tb	159	He	603,169	0.8	691118.286666667	Pulse	87.3	
Tb	159	NoGas	1,414,963	1.7	1636278.29333333	Analog	86.5	
Bi	209	He	342,763	0.8	387813.86	Pulse	88.4	
Bi	209	NoGas	767,186	0.1	890232.166666667	Pulse	86.2	

Calibration Standard Report - ICPMS5

Sample Name:	**9K06041-CAL9**	Total Dilution:	**1.0000**
File Name:	013CALS.d	Vial:	1110
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Sample Type:	CalStd
Acq Time:	11/6/2019 11:27:15		
Comment:	**A19J189**	Last Calib:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.018	ppb	59.5	62	40.9	
Na	23	45	He	50020.415	ppb	0.6	54,491,098	0.1	
Mg	24	45	He	49994.005	ppb	0.6	30,442,438	0.2	
Al	27	45	He	50009.384	ppb	0.5	15,908,470	0.1	
K	39	45	He	49971.658	ppb	0.4	25,864,644	0.6	
Ca	44	45	H2	49962.637	ppb	0.9	10,495,799	0.3	
[Ca]	44	45	He	50036.722	ppb	0.7	1,315,071	0.2	
Ti	47	45	NoGas	2498.92	ppb	0.2	2,647,393	2.3	
V	51	74	He	0.002	ppb	130.9	1,299	1.4	
Cr	52	74	He	997.401	ppb	0.6	4,141,181	1.4	
Mn	55	74	He	2498.43	ppb	0.6	7,027,334	1.2	
Fe	56	74	H2	50014.939	ppb	0.5	522,636,606	0.4	
Co	59	74	He	0.22	ppb	3.5	1,328	3.7	
Ni	60	74	He	998.127	ppb	0.1	1,410,388	0.8	
Cu	65	74	He	993.406	ppb	0.6	1,727,143	1.1	
Zn	66	74	He	2499.195	ppb	1.1	1,667,156	1.1	
As	75	74	He	0.106	ppb	27.1	70	16.4	
Se	78	74	H2	0.085	ppb	31.1	26	28.2	
Mo	95	103	He	0.103	ppb	24.3	169	23.7	
Ag	107	103	He	0.031	ppb	15.3	144	15.4	
Cd	111	103	He	998.201	ppb	0.4	733,156	1.1	
[Cd]	111	103	NoGas	999.5	ppb	1.5	1,763,735	1.5	
Sb	121	103	He	0.053	ppb	6.8	126	5.5	
Ba	138	159	He	2495.046	ppb	0.4	10,522,523	1.2	
W	182	159	NoGas	0.299	ppb	5.0	2,086	4.9	
Hg	201	159	NoGas	51.237	ppt	9.6	44	9.6	
Tl	205	159	He	0.006	ppb	18.2	59	13.1	
Pb	208	159	NoGas	0.196	ppb	7.6	4,456	6.5	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	955,939	1.0	1152921.90333333	Analog	82.9	
Sc	45	H2	2,093,629	1.0	2718830.82666667	Analog	77.0	
Sc	45	He	322,940	0.6	416019.95	Pulse	77.6	
Sc	45	NoGas	2,914,934	2.5	3735081.11333333	Analog	78.0	
Ge	74	H2	615,769	0.1	835241.986666667	Pulse	73.7	
Ge	74	He	183,289	0.9	244427.376666667	Pulse	75.0	
Ge	74	NoGas	707,649	0.5	957882.84	Pulse	73.9	
Rh	103	He	398,317	0.8	540467.566666667	Pulse	73.7	
Rh	103	NoGas	698,314	0.4	961648.273333333	Pulse	72.6	
Tb	159	He	561,677	1.3	691118.286666667	Pulse	81.3	
Tb	159	NoGas	1,286,993	0.4	1636278.29333333	Pulse	78.7	
Bi	209	He	305,808	0.7	387813.86	Pulse	78.9	
Bi	209	NoGas	703,899	0.4	890232.166666667	Pulse	79.1	

		Current Calibration Concentraion, ppb										Current CRL	CRL +/- 20% Range, ppb	CRL as a % of Cal curve
Be	6 ug/l	0	0.18	0.9	1.8	3.6	10	50	100			0.180	0.036	0.18%
Na	45 ug/l	0		45	90	180	400	2500	4000	10000	50000	90.0	18.0	0.18%
Mg	45 ug/l	0		45	90	180	400	2500	4000	10000	50000	90.0	18.0	0.18%
Al	45 ug/l	0		45	90	180	400	2500	4000	10000	50000	90.0	18.0	0.18%
K	45 ug/l	0		45	90	180	400	2500	4000	10000	50000	90.0	18.0	0.18%
Ca	45 ug/l	0		45	90	180	400	2500	4000	10000	50000	90.0	18.0	0.18%
Ti	45 ug/l	0	0.18	0.9	1.8	3.6	20	50	200	500	2500	3.60	0.720	0.14%
V	74 ug/l	0	0.18	0.9	1.8	3.6	20	50	200	500		1.80	0.360	0.36%
Cr	74 ug/l	0	0.18	0.9	1.8	3.6	20	50	200	500	1000	0.900	0.180	0.09%
Mn	74 ug/l	0	0.18	0.9	1.8	3.6	20	50	200	500	2500	0.900	0.180	0.04%
Fe	74 ug/l	0	9	45	90	180	400	2500	4000	10000	50000	90.0	18.0	0.18%
Co	74 ug/l	0	0.18	0.9	1.8	3.6	20	50	200	500		0.180	0.036	0.04%
Ni	74 ug/l	0	0.18	0.9	1.8	3.6	20	50	200	500	1000	1.80	0.360	0.18%
Cu	74 ug/l	0	0.18	0.9	1.8	3.6	20	50	200	500	1000	1.80	0.360	0.18%
Zn	74 ug/l	0		0.9	1.8	3.6	20	50	200	500	2500	3.60	0.720	0.14%
As	74 ug/l	0	0.18	0.9	1.8	3.6	20	50	200	500		0.900	0.180	0.18%
Se	74 ug/l	0	0.18	0.9	1.8	3.6	10	50	100			0.900	0.180	0.90%
Mo	103 ug/l	0	0.18	0.9	1.8	3.6	10	50	100	*200*		0.900	0.180	0.45%
Ag	103 ug/l	0	0.18	0.9	1.8	3.6	10	50	100			0.180	0.036	0.18%
Cd No Equ	103 ug/l	0	0.18	0.9	1.8	3.6	20	50	200	*500*	~~1000~~	0.180	0.036	0.04%
Sb	103 ug/l	0	0.18	0.9	1.8	3.6	10	50	100			0.180	0.036	0.18%
Ba	159 ug/l	0	0.18	0.9	1.8	3.6	20	50	200	500	2500	0.900	0.180	0.04%
Hg	159 ng/l (ppt)	0		36	72	144	400	2000	4000			72.0	14.4	1.80%
Tl	159 ug/l	0	0.18	0.9	1.8	3.6	10	50	100			0.180	0.036	0.18%
Pb	159 ug/l	0	0.18	0.9	1.8	3.6	20	50	200	500		0.180	0.036	0.04%

500 Denote projected change

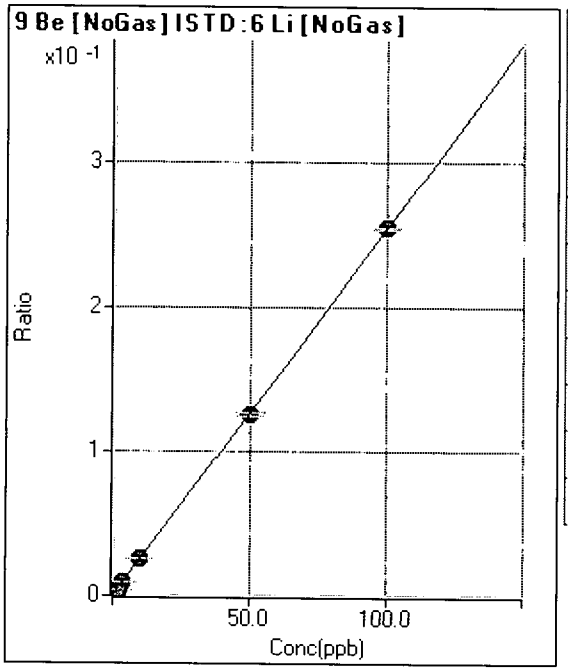
Denotes Cal Point > 5% of botom of the Curve, to be controlled for 6020B @ 10%

Calibration for 014_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\9K06041.b\
Analysis File: 9K06041.batch.bin
DA Date-Time: 11/6/2019 11:46:29
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	9K06041-CAL0	11/6/2019 10:38:27
2	004CALS.d	9K06041-CAL1	11/6/2019 10:43:08
3	008CALS.d	9K06041-CAL2	11/6/2019 11:03:02
4	006CALS.d	9K06041-CAL3	11/6/2019 10:53:08
5	007CALS.d	9K06041-CAL4	11/6/2019 10:58:05
6	009CALS.d	9K06041-CAL5	11/6/2019 11:08:02
7	010CALS.d	9K06041-CAL6	11/6/2019 11:12:58
8	011CALS.d	9K06041-CAL7	11/6/2019 11:17:51
9	012CALS.d	9K06041-CAL8	11/6/2019 11:22:39
10	013CALS.d	9K06041-CAL9	11/6/2019 11:27:15

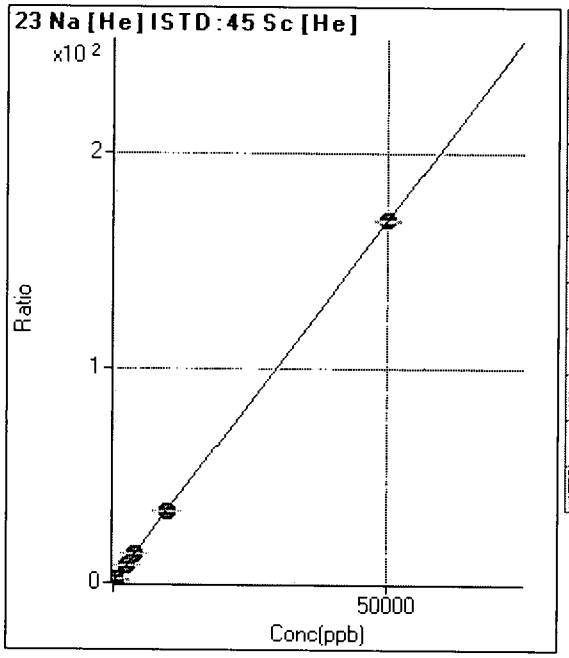
Calibration for 014_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22	0.000	P	61.0
2	☐	0.180	0.165	500	0.000	P	1.3
3	☐	0.900	0.868	2,538	0.002	P	3.0
4	☐	1.800	1.782	5,183	0.005	P	2.8
5	☐	3.600	3.635	10,537	0.009	P	1.6
6	☐	10.000	9.897	27,948	0.025	P	0.5
7	☐	50.000	49.464	135,015	0.126	P	2.0
8	☐	100.000	100.278	261,894	0.255	P	0.5
9	☐			58	0.000	P	2.9
10	☐			62	0.000	P	41.9

y = 0.0025 * x + 1.9277E-005
R = 1.0000
DL = 0.01387
BEC = 0.007578

Weight: <None>
Min Conc: <None>

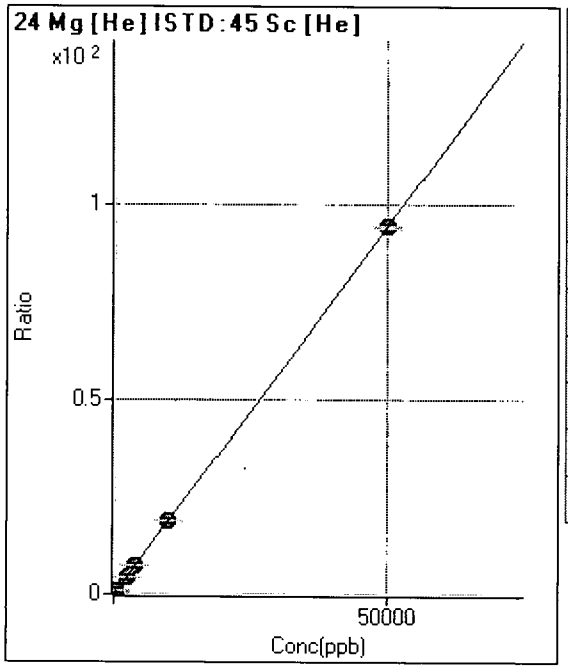


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4,707	0.011	P	0.8
2	☐			17,742	0.043	P	1.6
3	☐	45.000	44.516	66,381	0.161	P	2.6
4	☐	90.000	89.122	128,409	0.312	P	0.7
5	☐	180.000	178.225	252,551	0.612	P	0.3
6	☐	400.000	398.073	546,626	1.354	P	0.4
7	☐	2500.000	2468.073	3,265,904	8.337	A	0.3
8	☐	4000.000	3966.500	4,862,548	13.391	A	0.8
9	☐	10000.000	9919.425	11,423,068	33.471	A	0.3
10	☐	50000.000	50020.415	54,491,098	168.738	A	0.6

y = 0.0034 * x + 0.0113
R = 1.0000
DL = 0.07879
BEC = 3.354

Weight: <None>
Min Conc: <None>

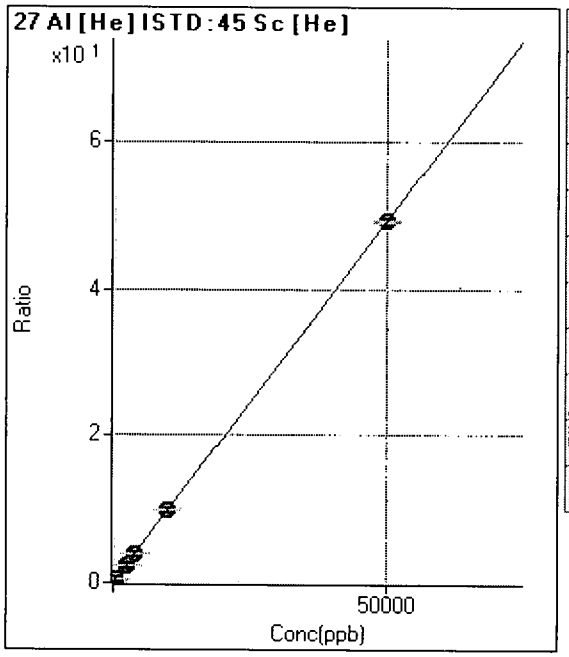
Calibration for 014_ICV.d



	Rjct	Conc.	Calc.Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	568	0.001	P	5.4
2	☐			7,684	0.019	P	4.2
3	☐	45.000	45.242	35,633	0.087	P	1.8
4	☐	90.000	90.976	71,177	0.173	P	0.3
5	☐	180.000	179.331	139,990	0.340	P	0.4
6	☐	400.000	400.461	305,375	0.756	P	0.4
7	☐	2500.000	2502.979	1,849,516	4.721	A	0.8
8	☐	4000.000	4026.029	2,756,888	7.593	A	0.5
9	☐	10000.000	10018.801	6,447,528	18.892	A	0.9
10	☐	50000.000	49994.005	30,442,438	94.268	A	0.6

y = 0.0019 * x + 0.0014
R = 1.0000
DL = 0.1168
BEC = 0.7238

Weight: <None>
Min Conc: <None>

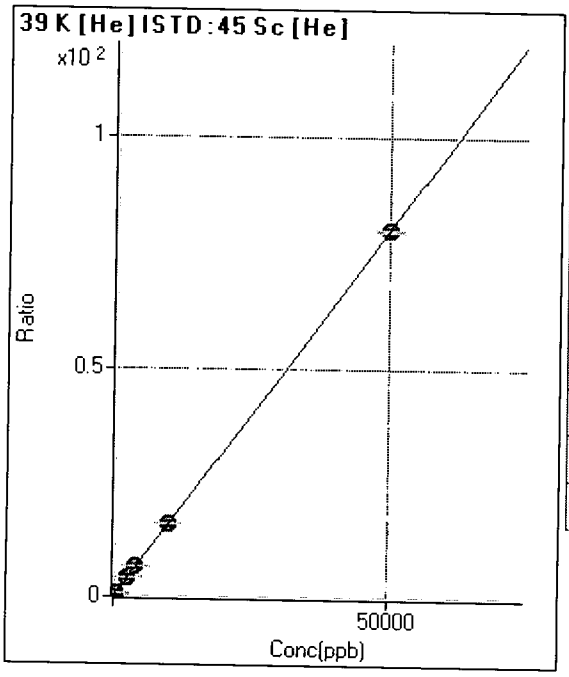


	Rjct	Conc.	Calc.Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	117	0.000	P	14.8
2	☐			3,799	0.009	P	1.2
3	☐	45.000	45.019	18,346	0.045	P	1.9
4	☐	90.000	90.982	37,009	0.090	P	0.3
5	☐	180.000	181.747	73,936	0.179	P	1.2
6	☐	400.000	401.121	159,627	0.395	P	0.9
7	☐	2500.000	2440.171	941,763	2.404	P	0.4
8	☐	4000.000	4019.186	1,437,802	3.959	A	1.9
9	☐	10000.000	9960.276	3,348,600	9.812	A	0.1
10	☐	50000.000	50009.384	15,908,470	49.262	A	0.5

y = 9.8505E-004 * x + 2.8058E-004
R = 1.0000
DL = 0.1263
BEC = 0.2848

Weight: <None>
Min Conc: <None>

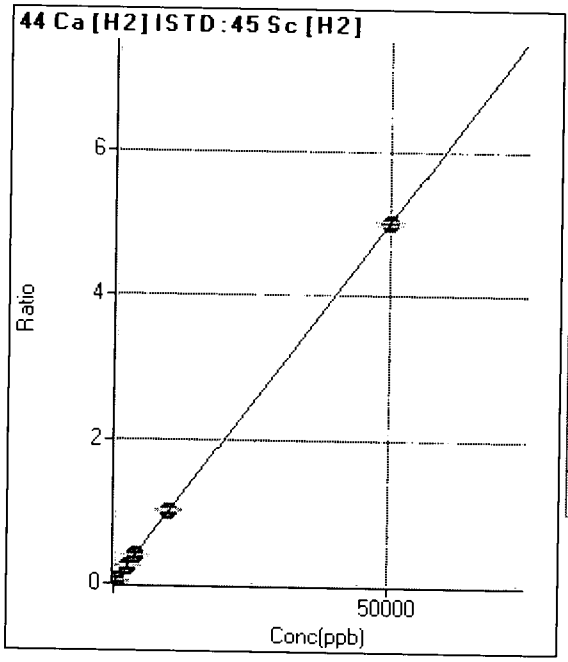
Calibration for 014_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	34,312	0.082	P	1.6
2	☐			40,428	0.098	P	0.6
3	☐	45.000	47.003	64,849	0.158	P	0.4
4	☐	90.000	94.366	96,150	0.234	P	0.3
5	☐	180.000	184.871	156,061	0.378	P	0.6
6	☐	400.000	411.420	299,219	0.741	P	0.3
7	☐	2500.000	2586.173	1,654,414	4.223	A	1.5
8	☐	4000.000	4109.557	2,419,002	6.662	A	1.7
9	☐	10000.000	10075.750	5,533,996	16.215	A	0.9
10	☐	50000.000	49971.658	25,864,644	80.091	A	0.4

y = 0.0016 * x + 0.0825
R = 1.0000
DL = 2.4
BEC = 51.52

Weight: <None>
Min Conc: <None>

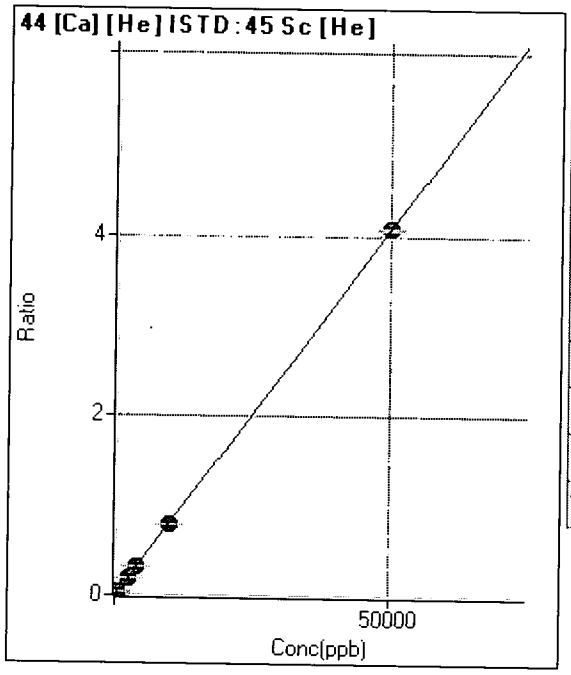


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	480	0.000	P	10.2
2	☐			3,024	0.001	P	1.4
3	☐	45.000	45.946	12,683	0.005	P	2.5
4	☐	90.000	94.457	25,027	0.010	P	1.3
5	☐	180.000	183.977	49,100	0.019	P	1.5
6	☐	400.000	404.496	106,695	0.041	P	0.8
7	☐	2500.000	2507.937	638,045	0.252	P	0.6
8	☐	4000.000	4030.567	966,290	0.405	P	0.1
9	☐	10000.000	10172.308	2,309,466	1.021	A	0.7
10	☐	50000.000	49962.637	10,495,799	5.014	A	0.9

y = 1.0034E-004 * x + 1.7648E-004
R = 1.0000
DL = 0.5382
BEC = 1.759

Weight: <None>
Min Conc: <None>

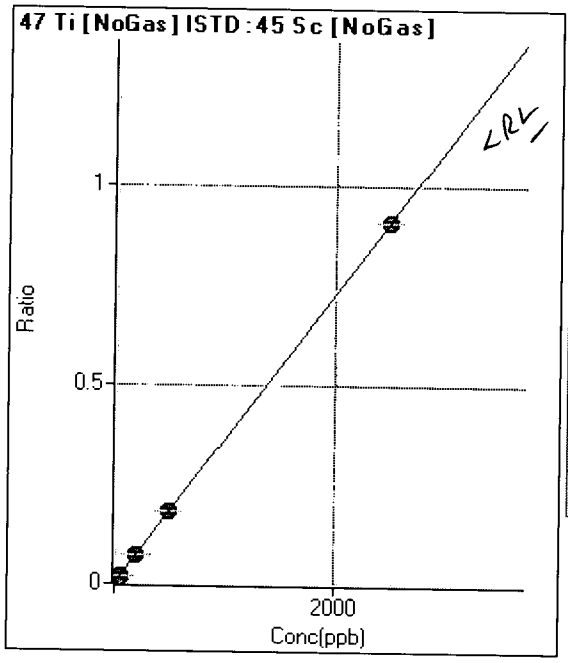
Calibration for 014_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	234	0.001	P	10.1
2	☐			524	0.001	P	8.5
3	☐	45.000	45.216	1,745	0.004	P	4.5
4	☐	90.000	87.331	3,158	0.008	P	1.1
5	☐	180.000	185.082	6,442	0.016	P	2.4
6	☐	400.000	402.201	13,440	0.033	P	2.0
7	☐	2500.000	2455.749	78,508	0.200	P	1.1
8	☐	4000.000	3967.441	117,424	0.323	P	1.2
9	☐	10000.000	9840.319	273,473	0.801	P	0.6
10	☐	50000.000	50036.722	1,315,071	4.072	A	0.7

y = 8.1375E-005 * x + 5.6371E-004
R = 1.0000
DL = 2.098
BEC = 6.927

Weight: <None>
Min Conc: <None>

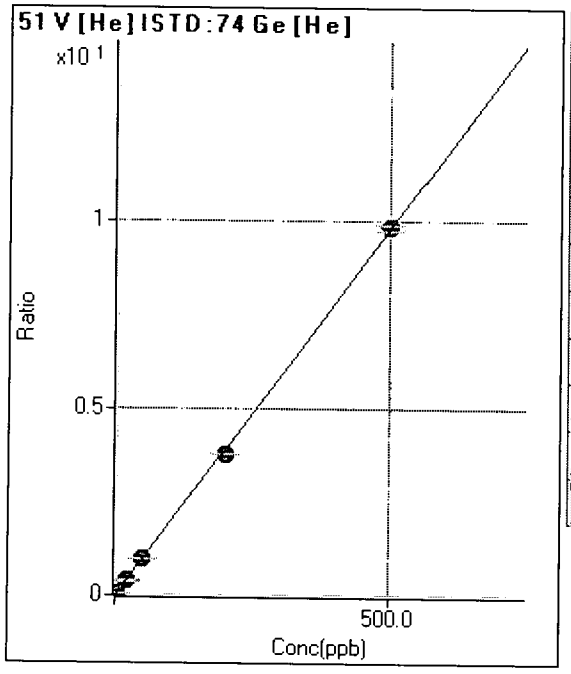


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37	0.000	P	34.1
2	☐	0.180	0.245	363	0.000	P	7.4
3	☐	0.900	0.914	1,246	0.000	P	4.7
4	☐	1.800	1.913	2,594	0.001	P	3.0
5	☐	3.600	3.836	5,155	0.001	P	1.1
6	☐	20.000	20.136	26,190	0.007	P	3.3
7	☐	50.000	50.567	62,864	0.018	P	0.9
8	☐	200.000	202.676	234,079	0.074	P	1.1
9	☐	500.000	504.266	548,080	0.183	P	0.4
10	☐	2500.000	2498.920	2,647,393	0.908	A	0.2

y = 3.6345E-004 * x + 9.8077E-006
R = 1.0000
DL = 0.02759
BEC = 0.02698

Weight: <None>
Min Conc: <None>

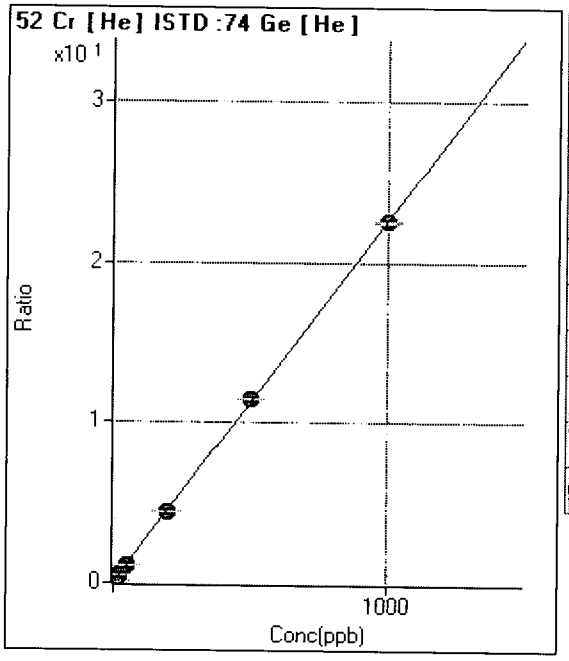
Calibration for 014_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1,724	0.007	P	1.2
2	☐	0.180	0.171	2,544	0.010	P	2.3
3	☐	0.900	0.911	6,002	0.025	P	3.3
4	☐	1.800	1.764	10,099	0.042	P	1.5
5	☐	3.600	3.567	18,653	0.077	P	0.3
6	☐	20.000	19.672	93,061	0.392	P	0.7
7	☐	50.000	49.257	220,966	0.972	P	0.8
8	☐	200.000	194.788	816,440	3.823	P	0.4
9	☐	500.000	502.173	1,966,712	9.845	A	1.4
10	☐			1,299	0.007	P	0.6

y = 0.0196 * x + 0.0071
R = 0.9999
DL = 0.01243
BEC = 0.36

Weight: <None>
Min Conc: <None>

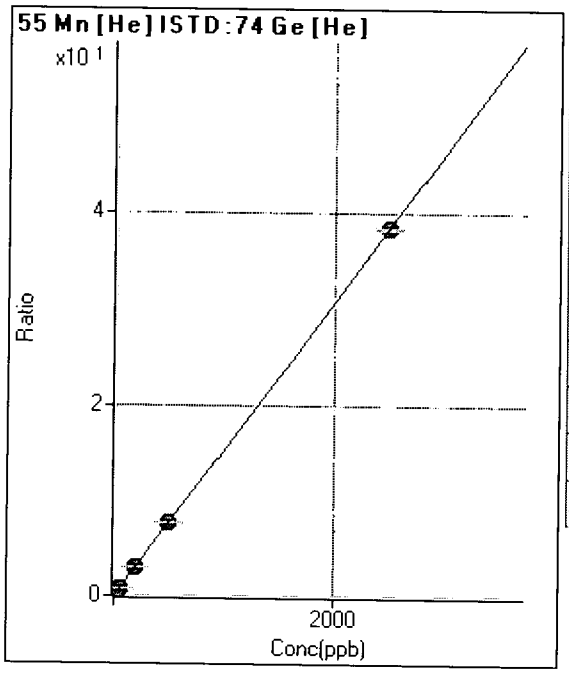


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	319	0.001	P	11.7
2	☐	0.180	0.166	1,238	0.005	P	6.8
3	☐	0.900	0.912	5,291	0.022	P	5.0
4	☐	1.800	1.804	10,235	0.042	P	2.3
5	☐	3.600	3.610	20,142	0.083	P	2.0
6	☐	20.000	19.950	107,466	0.453	P	1.1
7	☐	50.000	50.025	257,879	1.134	P	0.4
8	☐	200.000	198.027	958,181	4.487	P	0.1
9	☐	500.000	505.986	2,289,675	11.462	A	0.4
10	☐	1000.000	997.401	4,141,181	22.593	A	0.6

y = 0.0227 * x + 0.0013
R = 1.0000
DL = 0.02013
BEC = 0.0576

Weight: <None>
Min Conc: <None>

Calibration for 014_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	334	0.001	P	27.5
2	☐	0.180	0.178	1,003	0.004	P	2.0
3	☐	0.900	0.900	3,658	0.015	P	4.0
4	☐	1.800	1.852	7,228	0.030	P	1.8
5	☐	3.600	3.619	13,795	0.057	P	2.1
6	☐	20.000	20.185	73,775	0.311	P	0.9
7	☐	50.000	50.004	174,735	0.769	P	1.5
8	☐	200.000	199.917	655,424	3.069	P	0.3
9	☐	500.000	507.876	1,557,084	7.795	A	0.7
10	☐	2500.000	2498.430	7,027,334	38.340	A	0.6

y = 0.0153 * x + 0.0014

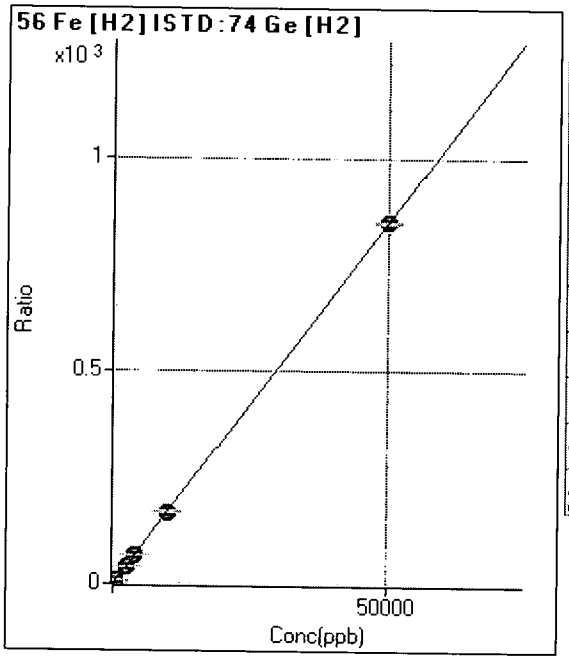
R = 1.0000

DL = 0.0736

BEC = 0.08926

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22,105	0.026	P	1.6
2	☐			148,744	0.179	P	0.9
3	☐	45.000	44.677	646,796	0.785	P	0.6
4	☐	90.000	90.660	1,293,326	1.565	A	1.5
5	☐	180.000	183.135	2,591,506	3.134	A	0.5
6	☐	400.000	403.713	5,599,114	6.877	A	0.4
7	☐	2500.000	2491.375	33,298,526	42.304	A	0.8
8	☐	4000.000	3979.961	50,675,470	67.565	A	0.2
9	☐	10000.000	9935.265	117,270,979	168.623	A	0.4
10	☐	50000.000	50014.939	522,636,606	848.757	A	0.5

y = 0.0170 * x + 0.0265

R = 1.0000

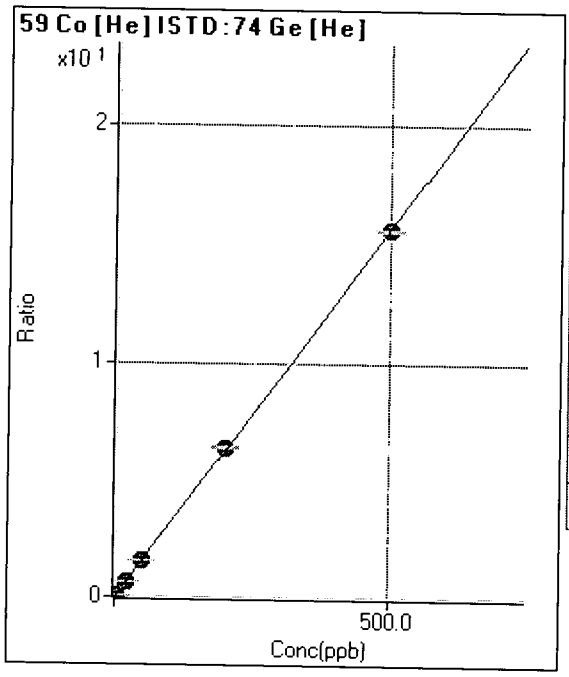
DL = 0.07596

BEC = 1.56

Weight: <None>

Min Conc: <None>

Calibration for 014_ICV.d

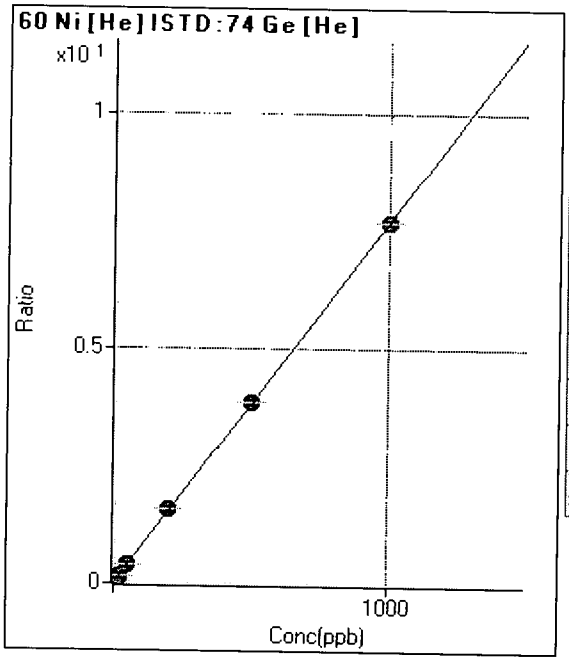


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	89	0.000	P	9.9
2	☐	0.180	0.184	1,498	0.006	P	2.3
3	☐	0.900	0.905	6,920	0.029	P	3.1
4	☐	1.800	1.850	14,159	0.058	P	0.9
5	☐	3.600	3.685	28,081	0.116	P	1.6
6	☐	20.000	20.426	151,848	0.640	P	1.2
7	☐	50.000	50.462	359,508	1.581	P	0.4
8	☐	200.000	204.130	1,365,884	6.396	A	1.9
9	☐	500.000	498.284	3,118,762	15.613	A	0.5
10	☐			1,328	0.007	P	3.4

y = 0.0313 * x + 3.6379E-004
R = 1.0000
DL = 0.003455
BEC = 0.01161

Weight: <None>
Min Conc: <None>

✓ 60208



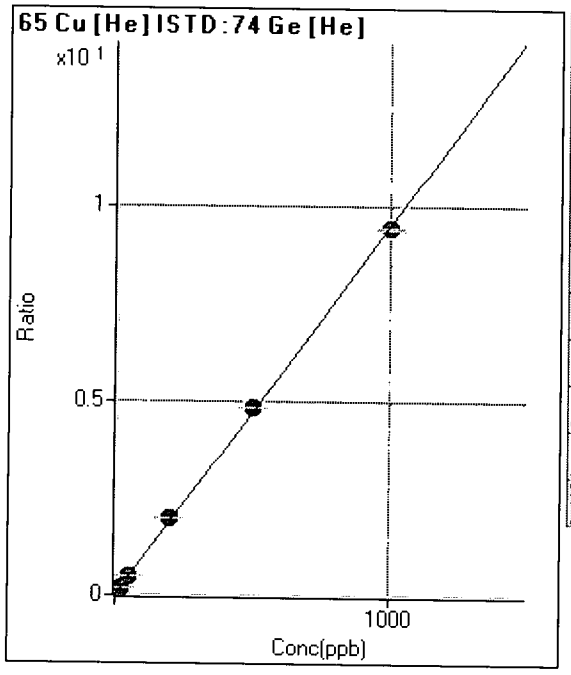
	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	84	0.000	P	14.9
2	☐	0.180	0.176	417	0.002	P	9.8
3	☐	0.900	0.962	1,871	0.008	P	12.7
4	☐	1.800	1.919	3,674	0.015	P	5.4
5	☐	3.600	3.806	7,197	0.030	P	3.1
6	☐	20.000	20.980	38,434	0.162	P	0.7
7	☐	50.000	52.587	92,236	0.406	P	0.6
8	☐	200.000	205.993	339,198	1.588	P	0.7
9	☐	500.000	501.048	771,649	3.863	P	0.4
10	☐	1000.000	998.127	1,410,388	7.695	A	0.1

y = 0.0077 * x + 3.4547E-004
R = 1.0000
DL = 0.02005
BEC = 0.04481

Weight: <None>
Min Conc: <None>

✓ 60208

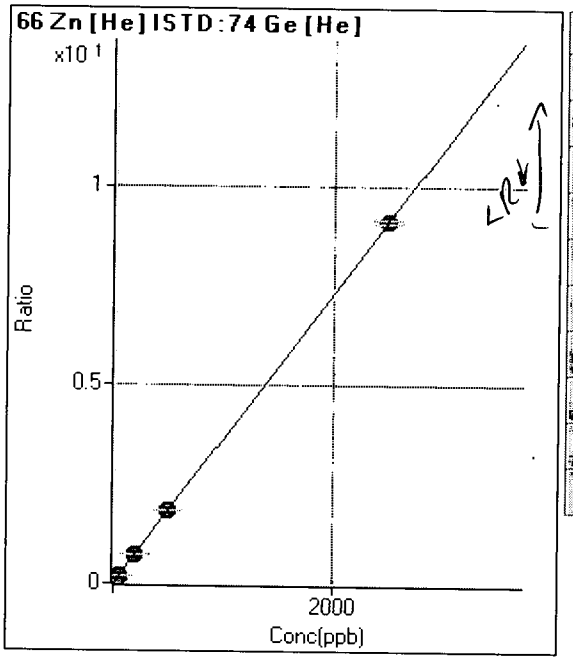
Calibration for 014_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	44	0.000	P	38.7
2	☐	0.180	0.195	497	0.002	P	9.3
3	☐	0.900	0.961	2,241	0.009	P	7.4
4	☐	1.800	1.995	4,636	0.019	P	4.5
5	☐	3.600	3.929	9,081	0.037	P	1.2
6	☐	20.000	21.432	48,254	0.203	P	1.6
7	☐	50.000	53.366	115,114	0.506	P	0.3
8	☐	200.000	209.456	424,322	1.987	P	0.7
9	☐	500.000	509.008	964,506	4.828	P	0.0
10	☐	1000.000	993.406	1,727,143	9.423	A	0.6

y = 0.0095 * x + 1.8199E-004
R = 0.9999
DL = 0.0223
BEC = 0.01919

Weight: <None>
Min Conc: <None>

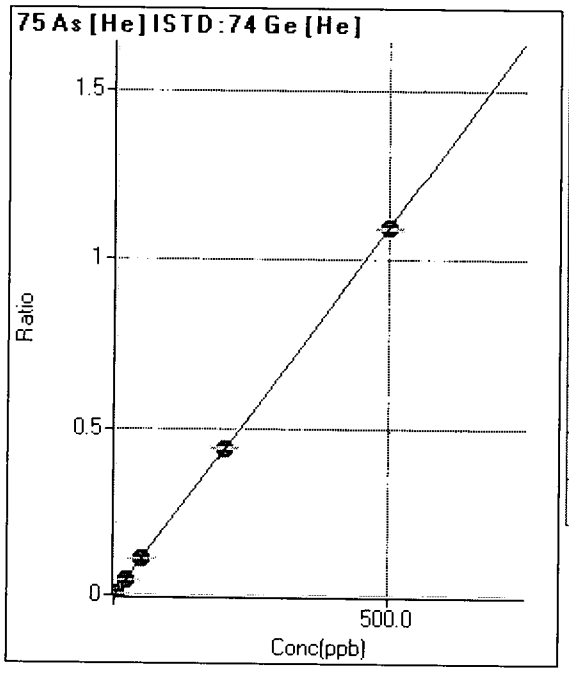


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	33	0.000	P	16.6
2	☐	0.180	0.205	216	0.001	P	9.3
3	☐	0.900	0.925	844	0.004	P	4.2
4	☐	1.800	1.864	1,680	0.007	P	4.3
5	☐	3.600	3.557	3,173	0.013	P	2.1
6	☐	20.000	19.921	17,227	0.073	P	1.3
7	☐	50.000	51.127	42,332	0.186	P	0.8
8	☐	200.000	201.355	156,527	0.733	P	1.1
9	☐	500.000	503.373	365,994	1.832	P	0.4
10	☐	2500.000	2499.195	1,667,156	9.096	A	1.1

y = 0.0036 * x + 1.3628E-004
R = 1.0000
DL = 0.0187
BEC = 0.03744

Weight: <None>
Min Conc: <None>

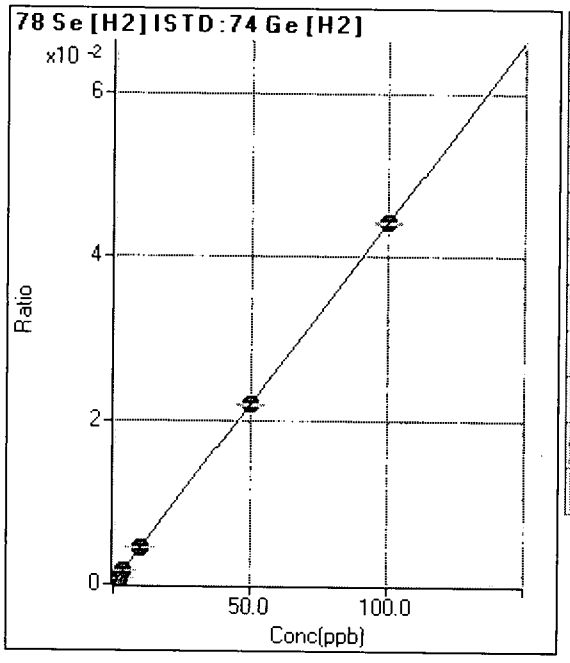
Calibration for 014_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	37	0.000	P	20.4
2	☐	0.180	0.183	135	0.001	P	2.9
3	☐	0.900	0.902	512	0.002	P	6.3
4	☐	1.800	1.871	1,031	0.004	P	1.1
5	☐	3.600	3.785	2,046	0.008	P	2.2
6	☐	20.000	20.284	10,568	0.045	P	0.7
7	☐	50.000	50.860	25,349	0.112	P	0.3
8	☐	200.000	201.759	94,368	0.442	P	0.7
9	☐	500.000	499.197	218,361	1.093	P	0.6
10	☐			70	0.000	P	16.4

y = 0.0022 * x + 1.5125E-004
R = 1.0000
DL = 0.04235
BEC = 0.06908

Weight: <None>
Min Conc: <None>

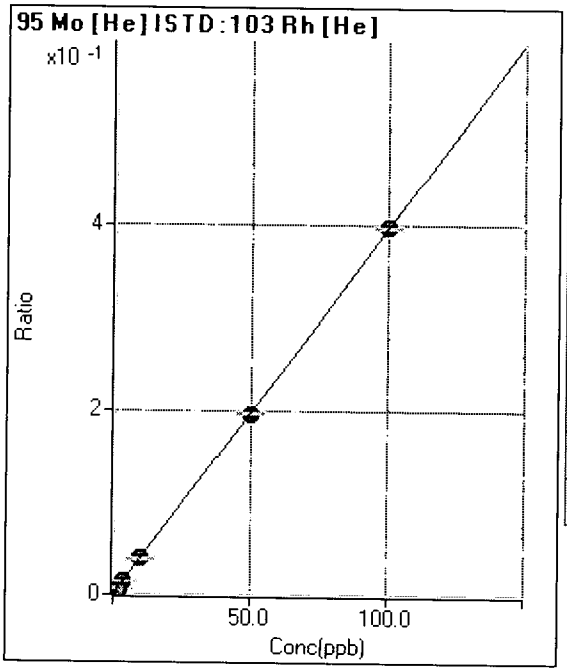


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3	0.000	P	62.6
2	☐	0.180	0.178	69	0.000	P	1.2
3	☐	0.900	0.905	333	0.000	P	6.9
4	☐	1.800	1.783	655	0.001	P	2.7
5	☐	3.600	3.525	1,292	0.002	P	2.6
6	☐	10.000	10.026	3,611	0.004	P	1.8
7	☐	50.000	49.777	17,322	0.022	P	0.7
8	☐	100.000	100.112	33,194	0.044	P	0.8
9	☐			38	0.000	P	8.1
10	☐			26	0.000	P	28.1

y = 4.4202E-004 * x + 3.9923E-006
R = 1.0000
DL = 0.01697
BEC = 0.009032

Weight: <None>
Min Conc: <None>

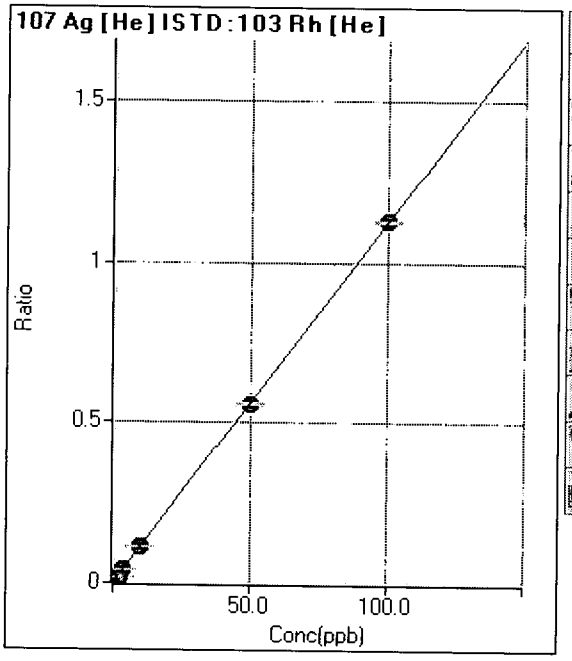
Calibration for 014_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8	0.000	P	107.4
2	☐	0.180	0.203	447	0.001	P	16.5
3	☐	0.900	0.898	1,920	0.004	P	4.3
4	☐	1.800	1.831	3,899	0.007	P	4.8
5	☐	3.600	3.609	7,694	0.014	P	2.4
6	☐	10.000	9.878	20,411	0.039	P	1.6
7	☐	50.000	49.535	97,734	0.196	P	0.7
8	☐	100.000	100.244	188,270	0.397	P	0.5
9	☐			176	0.000	P	18.8
10	☐			169	0.000	P	23.5

y = 0.0040 * x + 1.4346E-005
R = 1.0000
DL = 0.01166
BEC = 0.003619

Weight: <None>
Min Conc: <None>

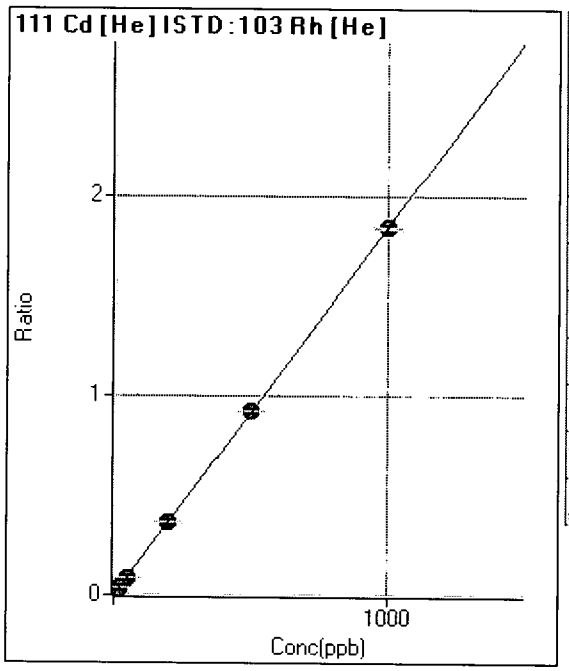


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4	0.000	P	43.8
2	☐	0.180	0.186	1,145	0.002	P	5.2
3	☐	0.900	0.903	5,462	0.010	P	0.7
4	☐	1.800	1.743	10,522	0.020	P	1.4
5	☐	3.600	3.584	21,678	0.040	P	1.1
6	☐	10.000	10.031	58,836	0.113	P	1.8
7	☐	50.000	49.557	277,593	0.558	P	0.7
8	☐	100.000	100.220	534,390	1.128	P	0.5
9	☐			112	0.000	P	6.7
10	☐			144	0.000	P	14.9

y = 0.0113 * x + 8.2307E-006
R = 1.0000
DL = 0.0009616
BEC = 0.0007312

Weight: <None>
Min Conc: <None>

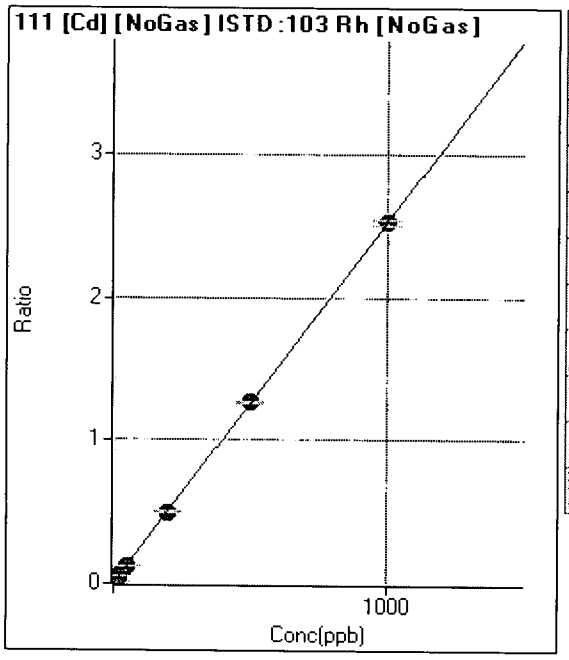
Calibration for 014_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2	0.000	P	24.9
2	☐	0.180	0.192	195	0.000	P	6.1
3	☐	0.900	0.915	908	0.002	P	4.3
4	☐	1.800	1.874	1,854	0.003	P	2.0
5	☐	3.600	3.746	3,713	0.007	P	1.8
6	☐	20.000	19.834	19,057	0.037	P	0.4
7	☐	50.000	50.008	45,890	0.092	P	0.4
8	☐	200.000	200.340	174,995	0.369	P	0.3
9	☐	500.000	503.467	410,899	0.928	P	0.2
10	☐	1000.000	998.201	733,156	1.841	P	0.4

y = 0.0018 * x + 4.3186E-006
R = 1.0000
DL = 0.001753
BEC = 0.002342

Weight: <None>
Min Conc: <None>

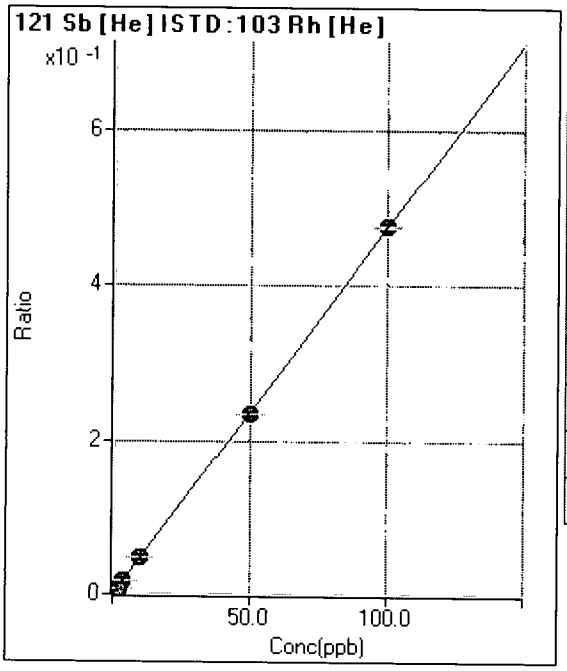


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	10	0.000	P	82.8
2	☐	0.180	0.170	425	0.000	P	9.9
3	☐	0.900	0.888	2,147	0.002	P	4.2
4	☐	1.800	1.758	4,271	0.004	P	2.5
5	☐	3.600	3.538	8,516	0.009	P	1.4
6	☐	20.000	19.129	44,653	0.048	P	1.3
7	☐	50.000	48.930	107,867	0.124	P	1.1
8	☐	200.000	198.272	413,785	0.501	P	0.7
9	☐	500.000	501.834	978,806	1.268	P	0.5
10	☐	1000.000	999.500	1,763,735	2.526	A	1.5

y = 0.0025 * x + 1.0677E-005
R = 1.0000
DL = 0.01049
BEC = 0.004225

Weight: <None>
Min Conc: <None>

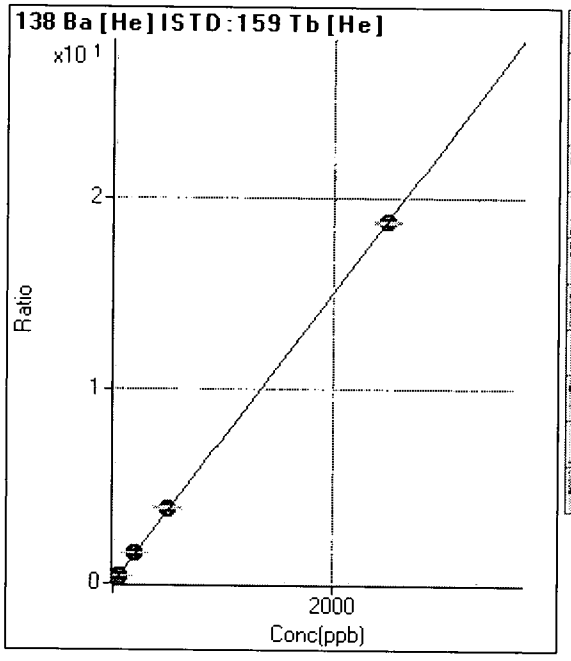
Calibration for 014_ICV.d



	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	36	0.000	P	24.0
2	☐	0.180	0.151	427	0.001	P	15.1
3	☐	0.900	0.833	2,157	0.004	P	2.8
4	☐	1.800	1.764	4,515	0.008	P	4.1
5	☐	3.600	3.484	8,908	0.017	P	1.7
6	☐	10.000	9.937	24,574	0.047	P	0.3
7	☐	50.000	49.434	116,628	0.234	P	0.4
8	☐	100.000	100.295	225,209	0.475	P	0.4
9	☐			204	0.000	P	14.8
10	☐			126	0.000	P	5.4

y = 0.0047 * x + 6.5839E-005
R = 1.0000
DL = 0.009991
BEC = 0.01389

Weight: <None>
Min Conc: <None>

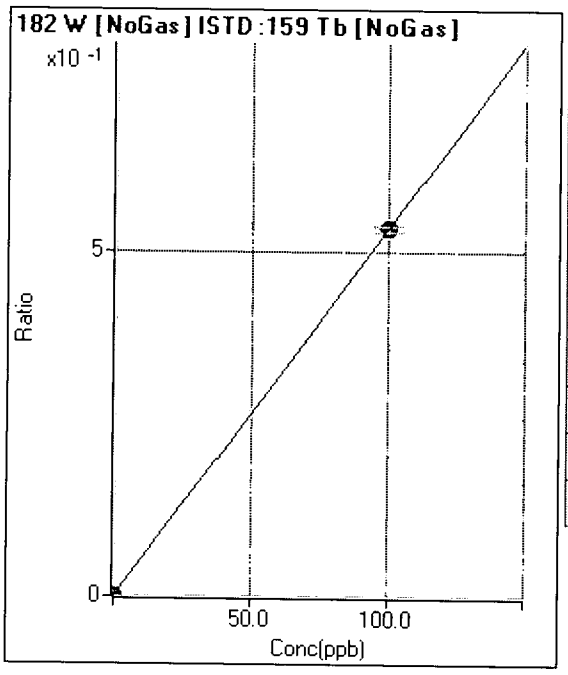


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	83	0.000	P	4.0
2	☐	0.180	0.199	1,113	0.002	P	1.7
3	☐	0.900	0.990	5,104	0.008	P	3.8
4	☐	1.800	2.002	10,323	0.015	P	2.6
5	☐	3.600	3.918	20,089	0.030	P	1.5
6	☐	20.000	21.758	109,198	0.163	P	0.8
7	☐	50.000	53.760	264,050	0.404	P	0.8
8	☐	200.000	210.317	999,502	1.579	P	0.6
9	☐	500.000	520.192	2,355,986	3.906	A	0.9
10	☐	2500.000	2495.046	10,522,523	18.734	A	0.4

y = 0.0075 * x + 1.2058E-004
R = 1.0000
DL = 0.001943
BEC = 0.01606

Weight: <None>
Min Conc: <None>

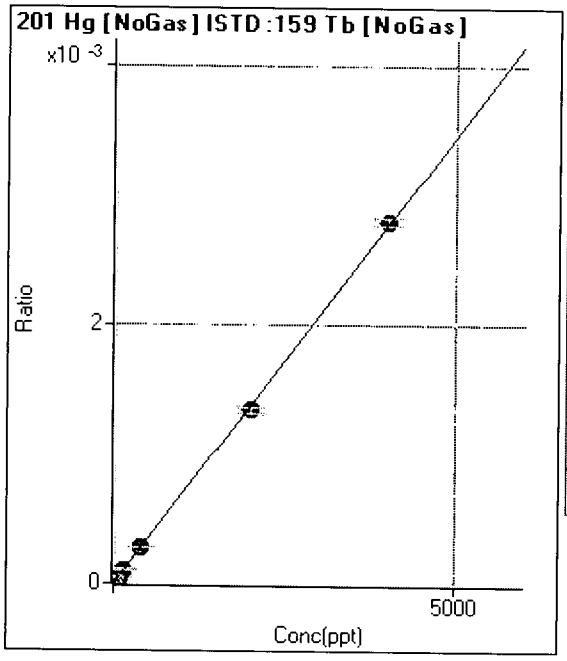
Calibration for 014_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36	0.000	P	37.3
2	☐			40	0.000	P	20.9
3	☐			26	0.000	P	8.6
4	☐			38	0.000	P	31.4
5	☐			42	0.000	P	19.7
6	☐			32	0.000	P	69.1
7	☐			97	0.000	P	38.8
8	☐			186	0.000	P	22.1
9	☐	100.000	100.000	756,081	0.534	P	1.9
10	☐			2,086	0.002	P	4.9

y = 0.0053 * x + 2.1680E-005
R = 1.0000
DL = 0.004536
BEC = 0.004057

Weight: <None>
Min Conc: <None>

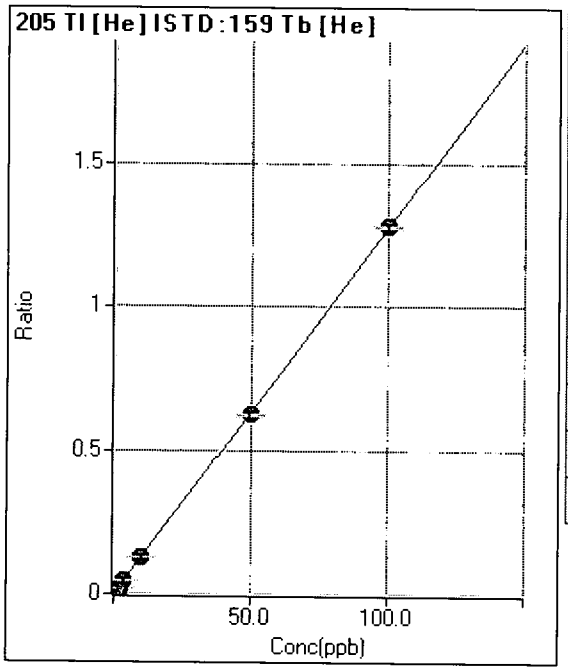


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	4.574	3	0.000	P	32.1
2	☐			16	0.000	P	9.3
3	☐	36.000	38.989	41	0.000	P	19.0
4	☐	72.000	75.371	81	0.000	P	8.4
5	☐	144.000	160.634	175	0.000	P	5.6
6	☐	400.000	405.670	435	0.000	P	3.7
7	☐	2000.000	1936.029	2,050	0.001	P	3.6
8	☐	4000.000	4030.732	4,079	0.003	P	2.1
9	☐			89	0.000	P	10.1
10	☐			44	0.000	P	9.9

y = 6.946822E-007 * x - 1.137588E-006
R = 0.9998
DL = 2.827
BEC = -1.638

Weight: <None>
Min Conc: <None>

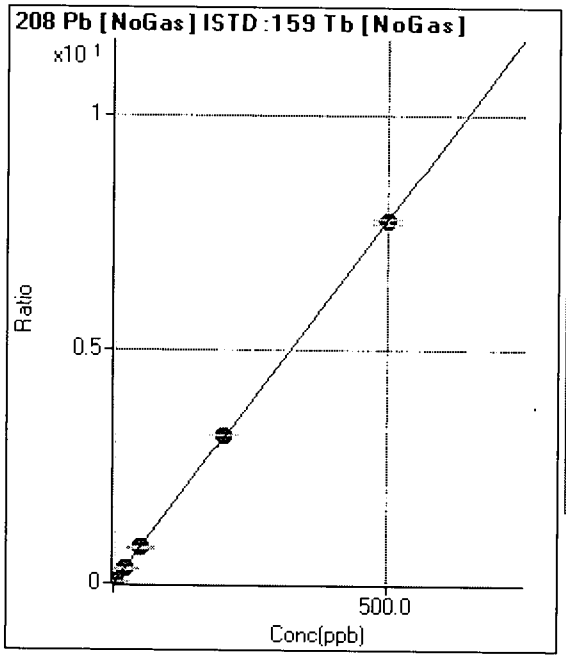
Calibration for 014_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17	0.000	P	34.6
2	☐	0.180	0.174	1,545	0.002	P	4.9
3	☐	0.900	0.909	7,845	0.012	P	1.7
4	☐	1.800	1.813	15,757	0.023	P	1.8
5	☐	3.600	3.631	31,485	0.046	P	1.6
6	☐	10.000	9.920	84,458	0.126	P	1.3
7	☐	50.000	49.318	411,032	0.629	P	0.5
8	☐	100.000	100.347	809,387	1.279	P	0.4
9	☐			280	0.000	P	0.9
10	☐			59	0.000	P	14.1

y = 0.0127 * x + 2.4109E-005
R = 1.0000
DL = 0.001961
BEC = 0.001892

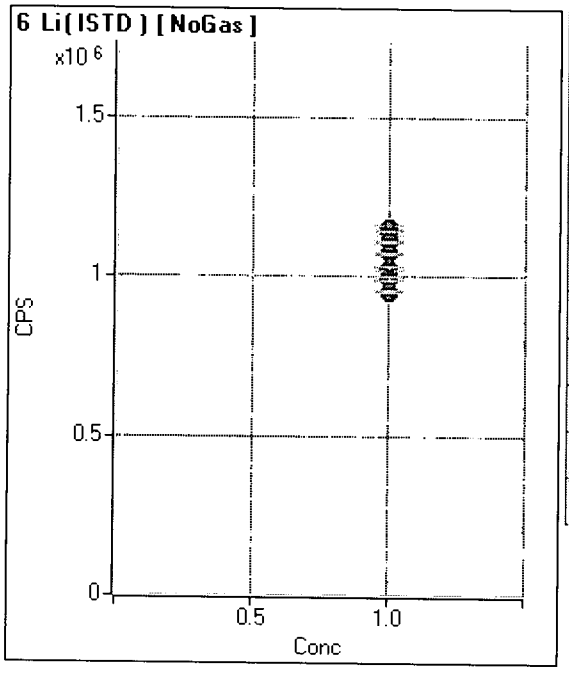
Weight: <None>
Min Conc: <None>



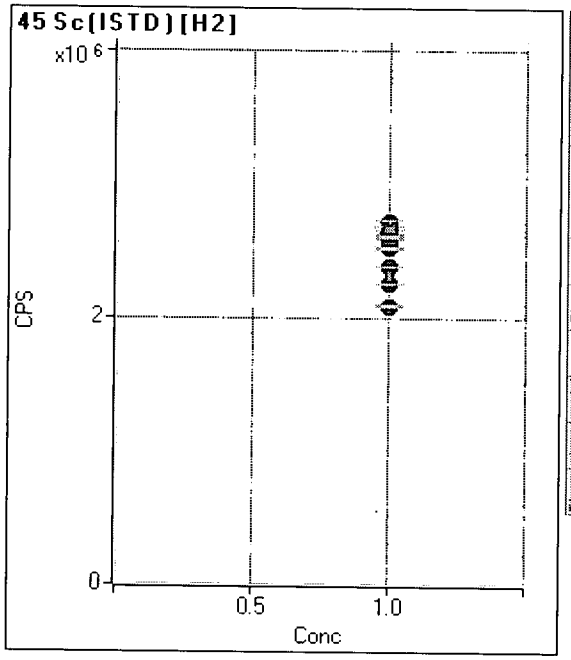
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	684	0.000	P	6.4
2	☐	0.180	0.189	5,289	0.003	P	1.9
3	☐	0.900	0.887	22,366	0.014	P	2.3
4	☐	1.800	1.816	45,166	0.029	P	1.9
5	☐	3.600	3.626	89,583	0.057	P	0.7
6	☐	20.000	19.802	476,173	0.308	P	0.1
7	☐	50.000	49.022	1,160,115	0.761	P	1.1
8	☐	200.000	203.355	4,596,616	3.154	A	0.7
9	☐	500.000	498.763	10,942,951	7.735	A	1.4
10	☐			4,456	0.003	P	6.6

y = 0.0155 * x + 4.1844E-004
R = 1.0000
DL = 0.005162
BEC = 0.02698

Weight: <None>
Min Conc: <None>

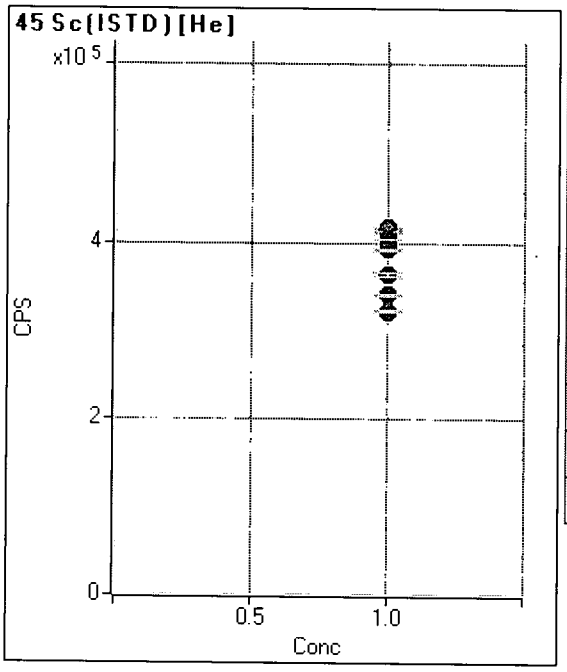


	Rjct	Conc	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1,152,922		A	1.3
2	☐	1.000		1,137,221		A	0.8
3	☐	1.000		1,139,215		A	1.0
4	☐	1.000		1,139,092		A	2.0
5	☐	1.000		1,137,295		A	1.2
6	☐	1.000		1,109,318		A	0.9
7	☐	1.000		1,073,007		A	0.9
8	☐	1.000		1,026,681		A	0.9
9	☐	1.000		995,249		A	0.8
10	☐	1.000		955,939		A	1.0

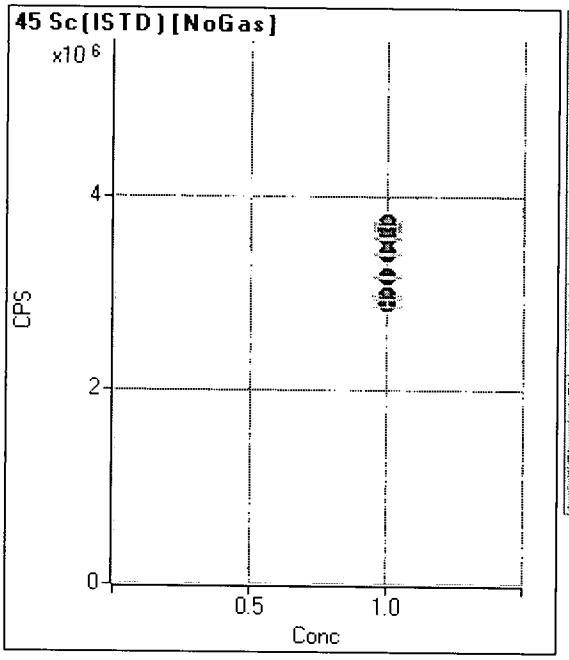


	Rjct	Conc	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2,718,831		A	1.5
2	☐	1.000		2,626,279		A	0.8
3	☐	1.000		2,649,960		A	1.2
4	☐	1.000		2,592,248		A	0.3
5	☐	1.000		2,634,536		A	0.5
6	☐	1.000		2,617,391		A	0.7
7	☐	1.000		2,533,744		A	0.8
8	☐	1.000		2,388,201		A	0.2
9	☐	1.000		2,262,204		A	0.2
10	☐	1.000		2,093,629		A	1.0

Calibration for 014_ICV.d

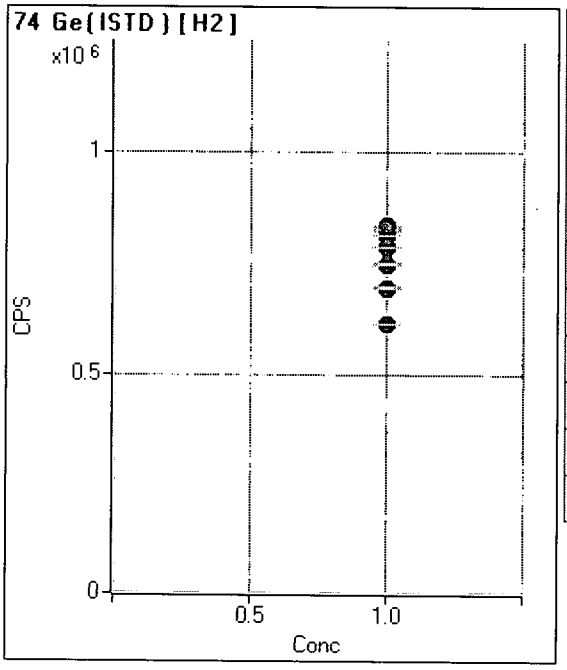


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		416,020		P	0.5
2	☐	1.000		414,166		P	0.8
3	☐	1.000		411,120		P	0.5
4	☐	1.000		411,656		P	0.4
5	☐	1.000		412,332		P	0.5
6	☐	1.000		403,693		P	0.4
7	☐	1.000		391,757		P	0.8
8	☐	1.000		363,106		P	1.0
9	☐	1.000		341,285		P	0.6
10	☐	1.000		322,940		P	0.6

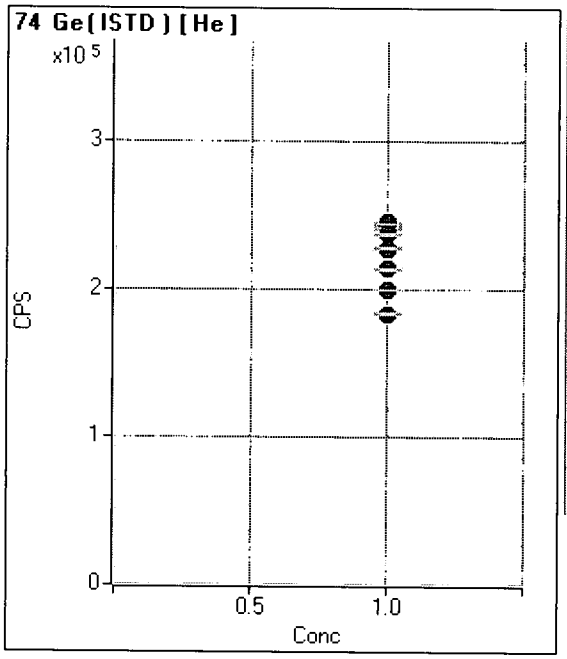


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		3,735,081		A	0.3
2	☐	1.000		3,674,030		A	0.7
3	☐	1.000		3,643,546		A	0.3
4	☐	1.000		3,677,661		A	1.0
5	☐	1.000		3,671,759		A	1.2
6	☐	1.000		3,574,229		A	0.5
7	☐	1.000		3,418,794		A	0.8
8	☐	1.000		3,177,480		A	0.9
9	☐	1.000		2,990,357		A	0.5
10	☐	1.000		2,914,934		A	2.5

Calibration for 014_ICV.d

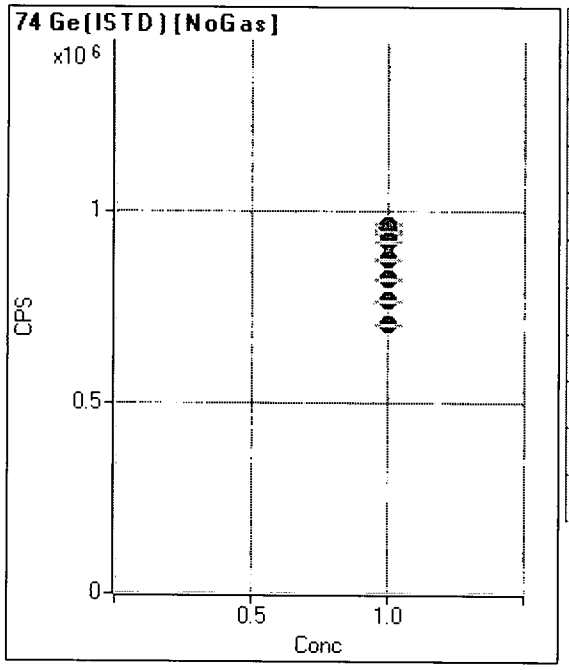


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		835,242		P	0.5
2	☐	1.000		831,105		P	0.4
3	☐	1.000		824,366		P	0.4
4	☐	1.000		826,419		P	0.4
5	☐	1.000		826,855		P	0.1
6	☐	1.000		814,144		P	0.4
7	☐	1.000		787,125		P	0.0
8	☐	1.000		750,035		P	0.4
9	☐	1.000		695,471		P	0.6
10	☐	1.000		615,769		P	0.1

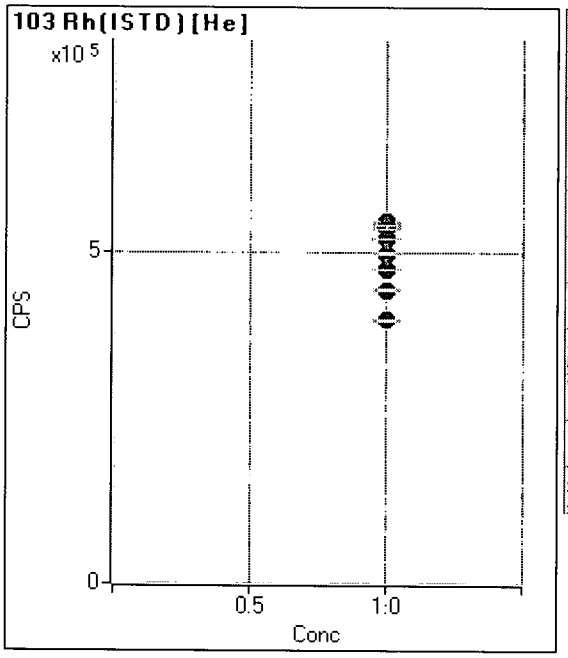


	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		244,427		P	0.6
2	☐	1.000		244,731		P	0.8
3	☐	1.000		241,021		P	0.8
4	☐	1.000		242,737		P	0.8
5	☐	1.000		242,484		P	1.3
6	☐	1.000		237,139		P	0.7
7	☐	1.000		227,327		P	0.3
8	☐	1.000		213,558		P	0.6
9	☐	1.000		199,760		P	0.6
10	☐	1.000		183,289		P	0.9

Calibration for 014_ICV.d

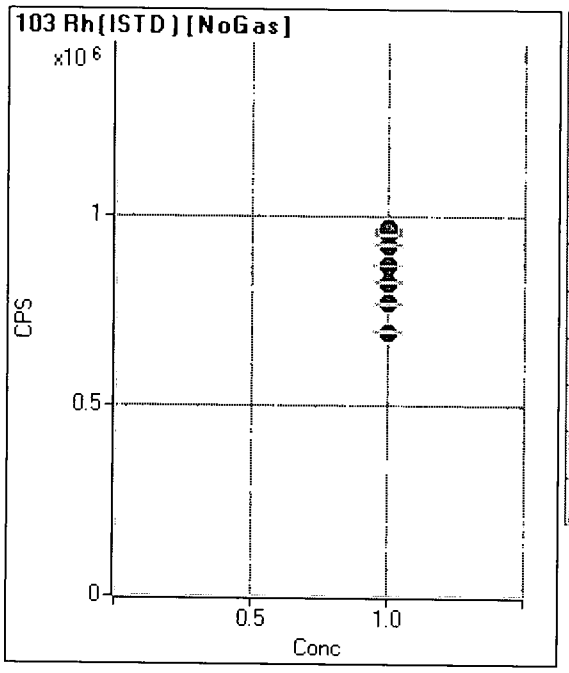


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		957,883		P	1.0
2	☐	1.000		962,380		P	1.3
3	☐	1.000		940,675		P	0.5
4	☐	1.000		956,562		P	1.1
5	☐	1.000		948,356		P	0.6
6	☐	1.000		921,710		P	0.6
7	☐	1.000		875,797		P	0.6
8	☐	1.000		823,994		P	0.5
9	☐	1.000		769,383		P	0.7
10	☐	1.000		707,649		P	0.5

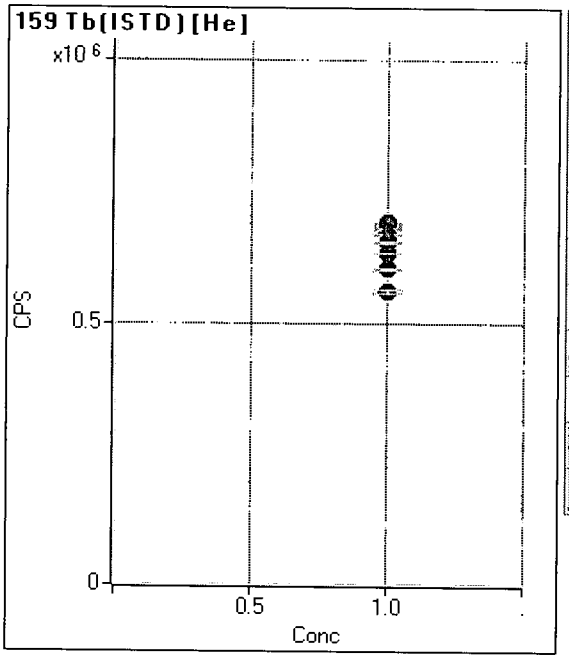


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		540,468		P	0.6
2	☐	1.000		544,878		P	0.7
3	☐	1.000		537,032		P	0.3
4	☐	1.000		535,953		P	0.9
5	☐	1.000		537,309		P	0.8
6	☐	1.000		521,021		P	0.0
7	☐	1.000		497,627		P	0.6
8	☐	1.000		473,704		P	0.5
9	☐	1.000		442,612		P	0.8
10	☐	1.000		398,317		P	0.8

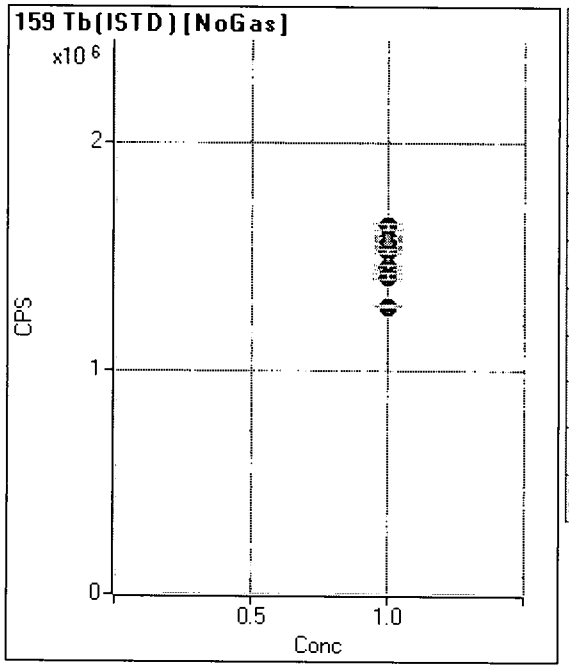
Calibration for 014_ICV.d



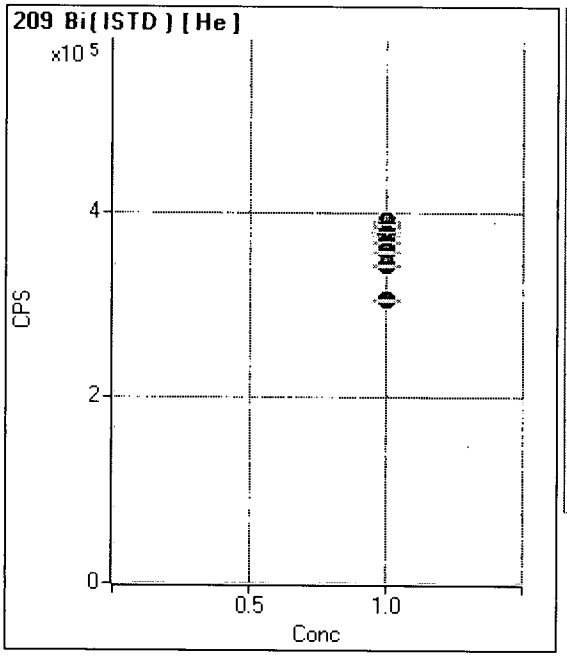
	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		961,648		P	0.5
2	☐	1.000		966,702		P	0.5
3	☐	1.000		952,058		P	0.6
4	☐	1.000		958,855		P	0.5
5	☐	1.000		951,445		P	0.8
6	☐	1.000		923,576		P	0.6
7	☐	1.000		872,315		P	0.3
8	☐	1.000		825,868		P	0.5
9	☐	1.000		771,862		P	0.6
10	☐	1.000		698,314		P	0.4



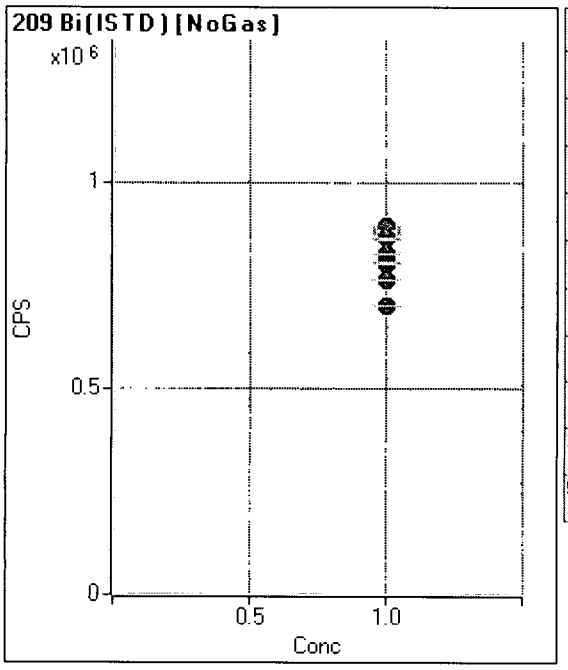
	Rjct	Conc	Calc Conc	CPS	Ratio	Det	RSD
1	☐	1.000		691,118		P	0.3
2	☐	1.000		688,295		P	0.6
3	☐	1.000		675,541		P	1.1
4	☐	1.000		681,196		P	0.4
5	☐	1.000		680,029		P	0.5
6	☐	1.000		667,923		P	0.6
7	☐	1.000		653,929		P	0.6
8	☐	1.000		632,875		P	0.2
9	☐	1.000		603,169		P	0.8
10	☐	1.000		561,677		P	1.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1,636,278		A	1.3
2	☐	1.000		1,581,860		A	1.5
3	☐	1.000		1,578,683		A	1.4
4	☐	1.000		1,580,182		A	1.5
5	☐	1.000		1,581,602		A	0.5
6	☐	1.000		1,548,530		A	0.2
7	☐	1.000		1,525,346		A	1.3
8	☐	1.000		1,457,476		A	0.9
9	☐	1.000		1,414,963		A	1.7
10	☐	1.000		1,286,993		P	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		387,814		P	0.9
2	☐	1.000		390,102		P	0.7
3	☐	1.000		384,261		P	0.8
4	☐	1.000		385,502		P	1.1
5	☐	1.000		385,006		P	0.4
6	☐	1.000		376,634		P	1.0
7	☐	1.000		366,651		P	0.6
8	☐	1.000		356,851		P	0.5
9	☐	1.000		342,763		P	0.8
10	☐	1.000		305,808		P	0.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		890,232		P	0.1
2	☐	1.000		892,045		P	0.3
3	☐	1.000		876,848		P	0.2
4	☐	1.000		884,739		P	0.5
5	☐	1.000		882,535		P	0.3
6	☐	1.000		863,055		P	0.5
7	☐	1.000		828,570		P	0.2
8	☐	1.000		805,999		P	0.3
9	☐	1.000		767,186		P	0.1
10	☐	1.000		703,899		P	0.4

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-ICV1**	Total Dilution:	1.0000
File Name:	014_ICV.d	Sample Type:	ICV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 11:43:46
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.671	ppb	1.9	102,658	40	99.18	
Na	23	45	He	3980.442	ppb	0.5	4,751,644	4000	99.51	
Mg	24	45	He	4186.847	ppb	0.5	2,792,052	4000	104.67	
Al	27	45	He	4077.497	ppb	0.0	1,420,373	4000	101.94	
K	39	45	He	4216.402	ppb	0.3	2,416,299	4000	105.41	
Ca	44	45	H2	4128.799	ppb	0.9	939,068	4000	103.22	
[Ca]	44	45	He	4070.718	ppb	0.7	117,334	4000	101.77	
Ti	47	45	NoGas	100.227	ppb	1.0	111,683	100	100.23	
V	51	74	He	95.389	ppb	0.2	392,094	100	95.39	
Cr	52	74	He	98.238	ppb	0.4	465,394	100	98.24	
Mn	55	74	He	102.443	ppb	0.6	328,869	100	102.44	
Fe	56	74	H2	4073.239	ppb	0.2	49,064,398	4000	101.83	
Co	59	74	He	100.860	ppb	0.7	660,633	100	100.86	
Ni	60	74	He	104.570	ppb	0.4	168,579	100	104.57	
Cu	65	74	He	103.122	ppb	0.8	204,493	100	103.12	
Zn	66	74	He	100.284	ppb	1.4	76,316	100	100.28	
As	75	74	He	98.734	ppb	0.1	45,218	100	98.73	
Se	78	74	H2	39.511	ppb	1.5	12,395	40	98.78	
Mo	95	103	He	39.883	ppb	1.2	73,991	40	99.71	
Ag	107	103	He	40.779	ppb	0.6	214,782	40	101.95	
Cd	111	103	He	98.768	ppb	0.7	85,217	100	98.77	
[Cd]	111	103	NoGas	97.683	ppb	0.4	195,963	100	97.68	
Sb	121	103	He	41.963	ppb	1.0	93,091	40	104.91	
Ba	138	159	He	105.591	ppb	0.2	504,332	100	105.59	
Hg	201	159	NoGas	832.053	ppt	5.4	839	800	104.01	
Tl	205	159	He	40.458	ppb	0.4	327,966	40	101.14	
Pb	208	159	NoGas	100.009	ppb	2.3	2,257,048	100	100.01	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.3	1,017,280	1152921.90333333	88.2	
Sc	45	H2	Analog	1.4	2,265,924	2718830.82666667	83.3	
Sc	45	He	Pulse	0.7	353,605	416019.95	85.0	
Sc	45	NoGas	Analog	1.3	3,065,325	3735081.11333333	82.1	
Ge	74	H2	Pulse	0.3	709,563	835241.986666667	85.0	
Ge	74	He	Pulse	0.9	209,030	244427.376666667	85.5	
Ge	74	NoGas	Pulse	1.1	792,312	957882.84	82.7	
Rh	103	He	Pulse	1.1	467,924	540467.566666667	86.6	
Rh	103	NoGas	Pulse	0.4	793,851	961648.273333333	82.6	
Tb	159	He	Pulse	1.1	636,019	691118.286666667	92.0	
Tb	159	NoGas	Analog	2.3	1,455,463	1636278.29333333	88.9	
Bi	209	He	Pulse	1.3	359,032	387813.86	92.6	
Bi	209	NoGas	Pulse	0.5	811,003	890232.166666667	91.1	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K06041-ICB1**	Total Dilution:	1.0000
File Name:	015_ICB.d	Sample Type:	ICB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 11:48:22
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.011	ppb	20.6	50	
Na	23	45	He	2.547	ppb	8.3	7,077	
Mg	24	45	He	1.910	ppb	8.0	1,766	
Al	27	45	He	1.791	ppb	7.2	727	
K	39	45	He	0.253	ppb	265.5	29,458	
Ca	44	45	H2	2.509	ppb	3.1	981	
[Ca]	44	45	He	1.680	ppb	42.0	249	
Ti	47	45	NoGas	0.110	ppb	36.0	157	
V	51	74	He	-0.029	ppb	N/A	1,365	
Cr	52	74	He	0.042	ppb	30.0	473	
Mn	55	74	He	0.057	ppb	4.5	473	
Fe	56	74	H2	2.587	ppb	2.2	50,212	
Co	59	74	He	0.022	ppb	25.7	223	
Ni	60	74	He	0.037	ppb	65.3	133	
Cu	65	74	He	0.061	ppb	18.1	160	
Zn	66	74	He	0.108	ppb	48.3	111	
As	75	74	He	0.021	ppb	49.2	41	
Se	78	74	H2	0.034	ppb	28.7	14	
Mo	95	103	He	0.037	ppb	39.5	78	
Ag	107	103	He	0.010	ppb	25.8	57	
Cd	111	103	He	0.064	ppb	17.4	59	
[Cd]	111	103	NoGas	0.068	ppb	22.4	152	
Sb	121	103	He	0.232	ppb	15.7	559	
Ba	138	159	He	0.076	ppb	7.6	437	
Hg	201	159	NoGas	14.186	ppt	13.0	13	
Tl	205	159	He	0.006	ppb	28.2	61	
Pb	208	159	NoGas	0.060	ppb	2.7	2,011	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	2.3	1,053,017	1152921.90333333	91.3	
Sc	45	H2	Analog	0.9	2,291,307	2718830.82666667	84.3	
Sc	45	He	Pulse	0.9	355,419	416019.95	85.4	
Sc	45	NoGas	Analog	1.3	3,137,250	3735081.11333333	84.0	
Ge	74	H2	Pulse	0.5	713,546	835241.986666667	85.4	
Ge	74	He	Pulse	1.3	210,457	244427.376666667	86.1	
Ge	74	NoGas	Pulse	1.0	812,764	957882.84	84.9	
Rh	103	He	Pulse	0.6	479,102	540467.566666667	88.6	
Rh	103	NoGas	Pulse	0.1	832,438	961648.273333333	86.6	
Tb	159	He	Pulse	1.0	635,208	691118.286666667	91.9	
Tb	159	NoGas	Analog	0.8	1,492,459	1636278.29333333	91.2	
Bi	209	He	Pulse	0.6	364,820	387813.86	94.1	
Bi	209	NoGas	Pulse	0.2	832,433	890232.166666667	93.5	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRL1**	Total Dilution:	1.0000
File Name:	016CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 11:53:03
Comment:	A19J368 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.179	ppb	19.0	497	99.44		
Na	23	45	He	11.603	ppb	3.6	18,079	128.92		
Mg	24	45	He	10.419	ppb	5.2	7,528	115.77		
Al	27	45	He	10.071	ppb	5.1	3,655	111.9		
K	39	45	He	10.279	ppb	4.5	35,452	114.21		
Ca	44	45	H2	10.685	ppb	0.5	2,937	118.72		
[Ca]	44	45	He	9.152	ppb	6.6	469	101.69		
Ti	47	45	NoGas	0.276	ppb	11.4	348	153.33	R-11	< MRL
V	51	74	He	0.166	ppb	9.1	2,179	92.22		
Cr	52	74	He	0.193	ppb	8.4	1,203	107.22		
Mn	55	74	He	0.226	ppb	5.3	1,024	125.56		
Fe	56	74	H2	10.256	ppb	0.7	144,539	113.96		
Co	59	74	He	0.186	ppb	6.7	1,312	103.33		
Ni	60	74	He	0.209	ppb	15.4	414	116.11		
Cu	65	74	He	0.251	ppb	10.0	543	139.44	R-11	< MRL
Zn	66	74	He	0.284	ppb	3.7	248	157.78	R-11	
As	75	74	He	0.201	ppb	14.8	125	111.67		
Se	78	74	H2	0.195	ppb	19.0	65	108.33		
Mo	95	103	He	0.169	ppb	18.1	330	93.89		
Ag	107	103	He	0.182	ppb	3.1	991	101.11		
Cd	111	103	He	0.232	ppb	4.0	208	128.89		
[Cd]	111	103	NoGas	0.217	ppb	10.3	469	120.56		
Sb	121	103	He	0.236	ppb	3.1	571	131.11	R-11	
Ba	138	159	He	0.239	ppb	9.8	1,222	132.78	R-11	< MRL
Hg	201	159	NoGas	15.176	ppt	15.7	14	210.78	R-11	
Tl	205	159	He	0.174	ppb	5.1	1,425	96.67		
Pb	208	159	NoGas	0.221	ppb	4.8	5,802	122.78		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.0	1,046,356	1152921.90333333	90.8	
Sc	45	H2	Analog	2.9	2,352,123	2718830.82666667	86.5	
Sc	45	He	Pulse	0.6	358,322	416019.95	86.1	
Sc	45	NoGas	Analog	0.5	3,157,875	3735081.11333333	84.5	
Ge	74	H2	Pulse	0.5	720,893	835241.986666667	86.3	
Ge	74	He	Pulse	0.7	211,616	244427.376666667	86.6	
Ge	74	NoGas	Pulse	0.2	819,841	957882.84	85.6	
Rh	103	He	Pulse	1.1	481,819	540467.566666667	89.1	
Rh	103	NoGas	Pulse	0.4	839,430	961648.273333333	87.3	
Tb	159	He	Pulse	0.7	636,942	691118.286666667	92.2	
Tb	159	NoGas	Analog	0.1	1,506,049	1636278.29333333	92.0	
Bi	209	He	Pulse	0.7	366,326	387813.86	94.5	
Bi	209	NoGas	Pulse	0.5	830,509	890232.166666667	93.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRL2**	Total Dilution:	1.0000
File Name:	017_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 11:57:44
Comment:	A19J369 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.905	ppb	1.3	2,476	100.56	
Na	23	45	He	46.901	ppb	2.3	60,996	104.22	
Mg	24	45	He	46.857	ppb	0.5	32,285	104.13	
Al	27	45	He	46.818	ppb	1.2	16,698	104.04	
K	39	45	He	47.372	ppb	2.2	56,970	105.27	
Ca	44	45	H2	47.338	ppb	1.6	11,443	105.2	
[Ca]	44	45	He	46.242	ppb	7.0	1,557	102.76	
Ti	47	45	NoGas	0.953	ppb	8.3	1,148	105.89	
V	51	74	He	0.896	ppb	0.9	5,254	99.56	
Cr	52	74	He	0.917	ppb	3.8	4,712	101.89	
Mn	55	74	He	0.959	ppb	4.3	3,436	106.56	
Fe	56	74	H2	45.837	ppb	0.4	587,569	101.86	
Co	59	74	He	0.896	ppb	0.8	6,073	99.56	
Ni	60	74	He	0.914	ppb	3.7	1,578	101.56	
Cu	65	74	He	1.073	ppb	2.5	2,212	119.22	
Zn	66	74	He	0.968	ppb	3.7	781	107.56	
As	75	74	He	0.992	ppb	4.9	496	110.22	
Se	78	74	H2	0.893	ppb	1.3	291	99.22	
Mo	95	103	He	0.858	ppb	8.8	1,653	95.33	
Ag	107	103	He	0.900	ppb	1.2	4,907	100	
Cd	111	103	He	0.952	ppb	0.6	852	105.78	
[Cd]	111	103	NoGas	0.925	ppb	7.1	1,980	102.78	
Sb	121	103	He	0.952	ppb	6.1	2,216	105.78	
Ba	138	159	He	0.998	ppb	1.9	4,846	110.89	
Hg	201	159	NoGas	41.260	ppt	9.0	41	114.61	
Tl	205	159	He	0.938	ppb	1.7	7,628	104.22	
Pb	208	159	NoGas	0.967	ppb	0.4	22,953	107.44	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.8	1,066,931	1152921.90333333	92.5	
Sc	45	H2	Analog	0.5	2,322,832	2718830.82666667	85.4	
Sc	45	He	Pulse	1.3	359,854	416019.95	86.5	
Sc	45	NoGas	Analog	0.1	3,223,168	3735081.11333333	86.3	
Ge	74	H2	Pulse	0.6	730,535	835241.986666667	87.5	
Ge	74	He	Pulse	0.8	213,519	244427.376666667	87.4	
Ge	74	NoGas	Pulse	0.9	832,281	957882.84	86.9	
Rh	103	He	Pulse	1.1	484,179	540467.566666667	89.6	
Rh	103	NoGas	Pulse	0.3	842,864	961648.273333333	87.6	
Tb	159	He	Pulse	0.3	636,761	691118.286666667	92.1	
Tb	159	NoGas	Analog	0.4	1,489,314	1636278.29333333	91.0	
Bi	209	He	Pulse	0.7	367,320	387813.86	94.7	
Bi	209	NoGas	Pulse	0.4	836,145	890232.166666667	93.9	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRL3**	Total Dilution:	1.0000
File Name:	018CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 12:02:25
Comment:	A19J370 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.719	ppb	3.1	4,774	95.5	
Na	23	45	He	91.918	ppb	0.9	116,800	102.13	
Mg	24	45	He	93.426	ppb	0.8	64,521	103.81	
Al	27	45	He	92.516	ppb	0.8	33,224	102.8	
K	39	45	He	92.295	ppb	1.3	83,686	102.55	
Ca	44	45	H2	91.867	ppb	1.6	22,034	102.07	
[Ca]	44	45	He	91.245	ppb	1.9	2,904	101.38	
Ti	47	45	NoGas	1.880	ppb	7.8	2,244	104.44	
V	51	74	He	1.754	ppb	2.2	8,877	97.44	
Cr	52	74	He	1.818	ppb	1.1	9,108	101	
Mn	55	74	He	1.806	ppb	4.3	6,236	100.33	
Fe	56	74	H2	90.041	ppb	0.6	1,140,164	100.05	
Co	59	74	He	1.796	ppb	2.4	12,143	99.78	
Ni	60	74	He	1.910	ppb	3.5	3,230	106.11	
Cu	65	74	He	2.044	ppb	2.3	4,195	113.56	
Zn	66	74	He	1.837	ppb	3.8	1,462	102.06	
As	75	74	He	1.856	ppb	2.5	903	103.11	
Se	78	74	H2	1.736	ppb	2.8	566	96.44	
Mo	95	103	He	1.852	ppb	4.0	3,554	102.89	
Ag	107	103	He	1.788	ppb	1.4	9,727	99.33	
Cd	111	103	He	1.838	ppb	1.3	1,639	102.11	
[Cd]	111	103	NoGas	1.822	ppb	1.4	3,922	101.22	
Sb	121	103	He	1.804	ppb	4.2	4,164	100.22	
Ba	138	159	He	1.955	ppb	2.7	9,478	108.61	
Hg	201	159	NoGas	77.182	ppt	4.0	79	107.2	
Tl	205	159	He	1.830	ppb	1.5	14,948	101.67	
Pb	208	159	NoGas	1.875	ppb	1.1	44,391	104.17	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.4	1,086,836	1152921.90333333	94.3	
Sc	45	H2	Analog	0.6	2,345,256	2718830.82666667	86.3	
Sc	45	He	Pulse	0.5	363,455	416019.95	87.4	
Sc	45	NoGas	Analog	0.3	3,238,463	3735081.11333333	86.7	
Ge	74	H2	Pulse	0.1	733,495	835241.986666667	87.8	
Ge	74	He	Pulse	0.7	214,340	244427.376666667	87.7	
Ge	74	NoGas	Pulse	1.1	834,797	957882.84	87.2	
Rh	103	He	Pulse	0.9	483,061	540467.566666667	89.4	
Rh	103	NoGas	Pulse	0.2	849,692	961648.273333333	88.4	
Tb	159	He	Pulse	0.5	640,352	691118.286666667	92.7	
Tb	159	NoGas	Analog	1.3	1,504,984	1636278.29333333	92.0	
Bi	209	He	Pulse	1.0	366,934	387813.86	94.6	
Bi	209	NoGas	Pulse	0.3	841,248	890232.166666667	94.5	

Quantitation Report ICPMS5

File Name	019ICSA.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K06041.b		
Acq Time	11/6/2019 12:07:07	Sample Type	ICSA
Sample Name	**9K06041-IFA1**	Last Calib	11/06/2019 11:30:01
Comment	**A19J465**	Vial:	1111
Prep Dilution	1.0000	Operator Name	ICPMS Analyst
Total Dilution	**1.0000**		

FullQuant Table

Element	Mass	ISTD	Tune Mode	Raw Conc	Corrected Conc.	Units	RSD(%)	ExpectedValue	QC Flag
Be	9	6	NoGas	0.006	0.006	ppb	30.3		
Na	23	45	He	254516.769	254516.769	ppb	0.4		
Mg	24	45	He	102116.083	102116.083	ppb	0.3	100000	
Al	27	45	He	101513.08	101513.080	ppb	1.1	100000	
K	39	45	He	99848.774	99848.774	ppb	0.4	100000	
Ca	44	45	H2	294737.798	294737.798	ppb	1.1		
[Ca]	44	45	He	294769.452	294769.452	ppb	0.4		
Ti	47	45	NoGas	2153.463	2153.463	ppb	0.9		
V	51	74	He	0.211	0.211	ppb	7.8	2	
Cr	52	74	He	1.914	1.914	ppb	1.2	2	
Mn	55	74	He	2.951	2.951	ppb	0.8	2	> CRI
Fe	56	74	H2	252212.928	252212.928	ppb	0.5		
Co	59	74	He	0.837	0.837	ppb	2.7		
Ni	60	74	He	0.792	0.792	ppb	9.0	2	
Cu	65	74	He	0.899	0.899	ppb	8.1	2	
Zn	66	74	He	2.611	2.611	ppb	3.7	2	> CRI
As	75	74	He	0.224	0.224	ppb	4.8	0.9	
Se	78	74	H2	0.185	0.185	ppb	17.6	0.9	
Mo	95	103	He	2316.511	2316.511	ppb	1.1	2000	
Ag	107	103	He	0.332	0.332	ppb	5.9		
Cd	111	103	He	6.012	6.012	ppb	1.0		
[Cd]	111	103	NoGas	0.474	0.474	ppb	62.3		
Sb	121	103	He	0.187	0.187	ppb	10.6	0.9	
Ba	138	159	He	1.803	1.803	ppb	1.6	2	
W	182	159	NoGas	107.544	107.544	ppb	0.6		
Hg	201	159	NoGas	92.45	92.450	ppt	15.8		
Tl	205	159	He	0.006	0.006	ppb	54.2	0.9	
Pb	208	159	NoGas	0.866	0.866	ppb	4.9		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	910,394	1.3	1152921.90333333	Analog	79.0	
Sc	45	H2	1,885,590	0.5	2718830.82666667	Analog	69.4	IS Q-06
Sc	45	He	291,670	0.8	416019.95	Pulse	70.1	
Sc	45	NoGas	2,675,272	1.8	3735081.11333333	Analog	71.6	
Ge	74	H2	523,737	0.7	835241.986666667	Pulse	62.7	IS Q-06
Ge	74	He	160,821	1.0	244427.376666667	Pulse	65.8	IS Q-06
Ge	74	NoGas	630,297	0.4	957882.84	Pulse	65.8	IS Q-06
Rh	103	He	328,590	0.6	540467.566666667	Pulse	60.8	IS Q-06
Rh	103	NoGas	592,214	0.2	961648.273333333	Pulse	61.6	IS Q-06
Tb	159	He	488,246	0.9	691118.286666667	Pulse	70.6	
Tb	159	NoGas	1,157,095	0.1	1636278.29333333	Pulse	70.7	
Bi	209	He	249,867	1.0	387813.86	Pulse	64.4	IS Q-06
Bi	209	NoGas	597,291	0.4	890232.166666667	Pulse	67.1	IS Q-06

Quantitation Report · ICPMS5

File Name	020ICSB.d		
File Path	C:\Agilent\ICPMH\1\DATA\9K06041.b		
Acq Time	11/6/2019 12:11:38	Sample Type	ICSB
Sample Name	**9K06041-IFB1**	Last Calib	11/06/2019 11:30:01
Comment	**A19J466**		
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	0.01	0.010	ppb	16.2		
Na	23	45	He	262741.859	262741.859	ppb	0.8		
Mg	24	45	He	104911.96	104911.960	ppb	1.0	100000	
Al	27	45	He	103021.482	103021.482	ppb	0.7	100000	
K	39	45	He	99092.476	99092.476	ppb	1.0	100000	
Ca	44	45	H2	291707.077	291707.077	ppb	0.6		
[Ca]	44	45	He	298598.281	298598.281	ppb	0.6		
Ti	47	45	NoGas	2142.673	2142.673	ppb	0.4		
V	51	74	He	212.673	212.673	ppb	0.2	200	
Cr	52	74	He	208.031	208.031	ppb	0.2	200	
Mn	55	74	He	214.414	214.414	ppb	0.6	200	
Fe	56	74	H2	258412.276	258412.276	ppb	0.9		
Co	59	74	He	200.86	200.860	ppb	0.2		
Ni	60	74	He	197.024	197.024	ppb	0.9	200	
Cu	65	74	He	196.817	196.817	ppb	0.4	200	
Zn	66	74	He	96.33	96.330	ppb	0.2	100	
As	75	74	He	102.071	102.071	ppb	0.4	100	
Se	78	74	H2	103.879	103.879	ppb	0.3	100	
Mo	95	103	He	2278.828	2278.828	ppb	0.7	2000	
Ag	107	103	He	52.599	52.599	ppb	0.6	50	
Cd	111	103	He	106.676	106.676	ppb	0.3		
[Cd]	111	103	NoGas	104.386	104.386	ppb	1.3		
Sb	121	103	He	0.208	0.208	ppb	10.8	0.9	
Ba	138	159	He	1.768	1.768	ppb	0.3	2	> +/- 10%
W	182	159	NoGas	106.575	106.575	ppb	0.3		
Hg	201	159	NoGas	2117.282	2117.282	ppt	2.3		
Tl	205	159	He	0.008	0.008	ppb	67.0	0.9	
Pb	208	159	NoGas	0.835	0.835	ppb	1.6		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	896,421	0.9	1152921.90333333	Analog	77.8	
Sc	45	H2	1,887,816	1.0	2718830.82666667	Analog	69.4	IS Q-06
Sc	45	He	281,675	0.6	416019.95	Pulse	67.7	IS Q-06
Sc	45	NoGas	2,593,814	1.8	3735081.11333333	Analog	69.4	IS Q-06
Ge	74	H2	516,292	0.8	835241.986666667	Pulse	61.8	IS Q-06
Ge	74	He	153,561	0.4	244427.376666667	Pulse	62.8	IS Q-06
Ge	74	NoGas	613,437	1.2	957882.84	Pulse	64.0	IS Q-06
Rh	103	He	316,552	1.0	540467.566666667	Pulse	58.6	IS Q-06
Rh	103	NoGas	574,806	0.8	961648.273333333	Pulse	59.8	IS Q-06
Tb	159	He	467,191	0.5	691118.286666667	Pulse	67.6	IS Q-06
Tb	159	NoGas	1,123,800	0.2	1636278.29333333	Pulse	68.7	IS Q-06
Bi	209	He	238,719	0.5	387813.86	Pulse	61.6	IS Q-06
Bi	209	NoGas	581,092	0.6	890232.166666667	Pulse	65.3	IS Q-06

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-CCV1**	Total Dilution:	1.0000
File Name:	032_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 13:10:24
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.971	ppb	0.2	99,357	40	99.93	
Na	23	45	He	4018.975	ppb	0.8	4,555,652	4000	100.47	
Mg	24	45	He	4290.429	ppb	1.3	2,716,714	4000	107.26	
Al	27	45	He	4125.777	ppb	1.3	1,364,666	4000	103.14	
K	39	45	He	4217.678	ppb	1.9	2,295,081	4000	105.44	
Ca	44	45	H2	4038.140	ppb	0.9	907,642	4000	100.95	
[Ca]	44	45	He	4062.428	ppb	1.2	111,191	4000	101.56	
Ti	47	45	NoGas	99.149	ppb	1.2	107,653	100	99.15	
V	51	74	He	95.533	ppb	0.4	374,801	100	95.53	
Cr	52	74	He	98.824	ppb	0.4	446,871	100	98.82	
Mn	55	74	He	102.933	ppb	0.8	315,396	100	102.93	
Fe	56	74	H2	4188.736	ppb	0.2	49,127,295	4000	104.72	
Co	59	74	He	101.357	ppb	0.1	633,679	100	101.36	
Ni	60	74	He	104.413	ppb	0.2	160,663	100	104.41	
Cu	65	74	He	103.428	ppb	0.6	195,765	100	103.43	
Zn	66	74	He	99.259	ppb	0.9	72,100	100	99.26	
As	75	74	He	99.681	ppb	1.4	43,577	100	99.68	
Se	78	74	H2	40.215	ppb	2.3	12,285	40	100.54	
Mo	95	103	He	39.950	ppb	1.3	71,126	40	99.88	
Ag	107	103	He	40.971	ppb	1.1	207,079	40	102.43	
Cd	111	103	He	97.952	ppb	0.7	81,102	100	97.95	
[Cd]	111	103	NoGas	98.186	ppb	0.8	192,748	100	98.19	
Sb	121	103	He	42.801	ppb	0.8	91,119	40	107	
Ba	138	159	He	104.383	ppb	0.5	481,347	100	104.38	
Hg	201	159	NoGas	783.759	ppt	2.9	785	800	97.97	
Tl	205	159	He	40.788	ppb	0.5	319,203	40	101.97	
Pb	208	159	NoGas	98.818	ppb	0.2	2,216,042	100	98.82	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.1	977,025	1152921.90333333	84.7	
Sc	45	H2	Analog	1.4	2,239,183	2718830.82666667	82.4	
Sc	45	He	Pulse	0.6	335,776	416019.95	80.7	
Sc	45	NoGas	Analog	1.0	2,986,839	3735081.11333333	80.0	
Ge	74	H2	Pulse	0.4	690,889	835241.986666667	82.7	
Ge	74	He	Pulse	0.7	199,514	244427.376666667	81.6	
Ge	74	NoGas	Pulse	0.4	768,207	957882.84	80.2	
Rh	103	He	Pulse	0.3	449,016	540467.566666667	83.1	
Rh	103	NoGas	Pulse	0.2	776,829	961648.273333333	80.8	
Tb	159	He	Pulse	1.2	614,059	691118.286666667	88.9	
Tb	159	NoGas	Analog	0.3	1,445,719	1636278.29333333	88.4	
Bi	209	He	Pulse	1.0	348,907	387813.86	90.0	
Bi	209	NoGas	Pulse	0.5	790,837	890232.166666667	88.8	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K06041-CCB1**	Total Dilution:	1.0000
File Name:	033_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 13:15:02
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.003	ppb	197.5	27	
Na	23	45	He	2.376	ppb	8.1	6,685	
Mg	24	45	He	1.582	ppb	8.3	1,503	
Al	27	45	He	3.174	ppb	11.1	1,178	
K	39	45	He	-1.839	ppb	N/A	27,505	
Ca	44	45	H2	2.223	ppb	25.9	901	
[Ca]	44	45	He	0.739	ppb	143.1	216	
Ti	47	45	NoGas	0.137	ppb	40.9	185	
V	51	74	He	-0.011	ppb	N/A	1,400	
Cr	52	74	He	0.021	ppb	62.7	362	
Mn	55	74	He	0.011	ppb	128.5	317	
Fe	56	74	H2	4.794	ppb	1.1	75,175	
Co	59	74	He	0.010	ppb	72.2	138	
Ni	60	74	He	0.009	ppb	97.5	86	
Cu	65	74	He	0.028	ppb	46.0	91	
Zn	66	74	He	0.068	ppb	117.0	79	
As	75	74	He	0.022	ppb	27.9	41	
Se	78	74	H2	0.047	ppb	40.3	17	
Mo	95	103	He	0.028	ppb	18.3	59	
Ag	107	103	He	0.004	ppb	8.7	26	
Cd	111	103	He	0.016	ppb	25.9	16	
[Cd]	111	103	NoGas	0.016	ppb	44.2	41	
Sb	121	103	He	0.046	ppb	20.4	132	
Ba	138	159	He	0.021	ppb	30.7	173	
Hg	201	159	NoGas	9.835	ppt	43.1	9	
Tl	205	159	He	0.007	ppb	51.3	73	
Pb	208	159	NoGas	0.031	ppb	12.0	1,333	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.8	1,005,123	1152921.90333333	87.2	
Sc	45	H2	Analog	1.2	2,256,621	2718830.82666667	83.0	
Sc	45	He	Pulse	1.0	345,833	416019.95	83.1	
Sc	45	NoGas	Analog	0.9	3,101,285	3735081.11333333	83.0	
Ge	74	H2	Pulse	0.6	697,228	835241.986666667	83.5	
Ge	74	He	Pulse	1.6	204,651	244427.376666667	83.7	
Ge	74	NoGas	Pulse	1.0	800,552	957882.84	83.6	
Rh	103	He	Pulse	1.2	467,980	540467.566666667	86.6	
Rh	103	NoGas	Pulse	0.3	825,505	961648.273333333	85.8	
Tb	159	He	Pulse	1.2	621,583	691118.286666667	89.9	
Tb	159	NoGas	Analog	2.6	1,489,832	1636278.29333333	91.1	
Bi	209	He	Pulse	1.0	356,020	387813.86	91.8	
Bi	209	NoGas	Pulse	0.5	817,306	890232.166666667	91.8	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-CCV2**	Total Dilution:	1.0000
File Name:	044_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 14:07:31
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.887	ppb	0.5	98,696	40	97.22	
Na	23	45	He	4099.874	ppb	1.7	4,742,549	4000	102.5	
Mg	24	45	He	4302.861	ppb	0.7	2,780,646	4000	107.57	
Al	27	45	He	4152.684	ppb	1.2	1,401,778	4000	103.82	
K	39	45	He	4263.423	ppb	0.7	2,367,380	4000	106.59	
Ca	44	45	H2	4094.488	ppb	0.2	932,606	4000	102.36	
[Ca]	44	45	He	4053.165	ppb	1.2	113,212	4000	101.33	
Ti	47	45	NoGas	98.068	ppb	1.5	108,411	100	98.07	
V	51	74	He	96.770	ppb	0.9	380,029	100	96.77	
Cr	52	74	He	99.314	ppb	0.6	449,544	100	99.31	
Mn	55	74	He	102.600	ppb	0.3	314,714	100	102.6	
Fe	56	74	H2	4214.141	ppb	0.4	49,827,471	4000	105.35	
Co	59	74	He	101.377	ppb	0.4	634,467	100	101.38	
Ni	60	74	He	103.868	ppb	1.3	159,984	100	103.87	
Cu	65	74	He	103.603	ppb	0.5	196,306	100	103.6	
Zn	66	74	He	99.803	ppb	1.1	72,571	100	99.8	
As	75	74	He	98.236	ppb	0.4	42,988	100	98.24	
Se	78	74	H2	40.555	ppb	0.8	12,488	40	101.39	
Mo	95	103	He	40.458	ppb	0.5	71,202	40	101.14	
Ag	107	103	He	41.197	ppb	0.1	205,836	40	102.99	
Cd	111	103	He	98.407	ppb	0.3	80,544	100	98.41	
[Cd]	111	103	NoGas	97.723	ppb	0.7	188,637	100	97.72	
Sb	121	103	He	41.285	ppb	1.3	86,888	40	103.21	
Ba	138	159	He	105.418	ppb	0.4	476,620	100	105.42	
Hg	201	159	NoGas	775.356	ppt	3.6	772	800	96.92	
Tl	205	159	He	40.362	ppb	0.2	309,716	40	100.9	
Pb	208	159	NoGas	96.175	ppb	0.2	2,142,921	100	96.18	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.9	997,563	1152921.90333333	86.5	
Sc	45	H2	Analog	0.1	2,268,980	2718830.82666667	83.5	
Sc	45	He	Pulse	0.9	342,680	416019.95	82.4	
Sc	45	NoGas	Analog	1.6	3,041,232	3735081.11333333	81.4	
Ge	74	H2	Pulse	0.2	696,510	835241.986666667	83.4	
Ge	74	He	Pulse	0.6	199,723	244427.376666667	81.7	
Ge	74	NoGas	Pulse	0.7	759,930	957882.84	79.3	
Rh	103	He	Pulse	0.5	443,872	540467.566666667	82.1	
Rh	103	NoGas	Pulse	0.2	763,851	961648.273333333	79.4	
Tb	159	He	Pulse	0.6	602,064	691118.286666667	87.1	
Tb	159	NoGas	Analog	0.5	1,436,428	1636278.29333333	87.8	
Bi	209	He	Pulse	0.3	335,864	387813.86	86.6	
Bi	209	NoGas	Pulse	1.1	769,937	890232.166666667	86.5	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K06041-CCB2**	Total Dilution:	1.0000
File Name:	045_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 14:12:08
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.012	ppb	22.3	50	
Na	23	45	He	6.574	ppb	7.5	11,436	
Mg	24	45	He	1.266	ppb	11.6	1,282	
Al	27	45	He	1.653	ppb	9.7	652	
K	39	45	He	0.187	ppb	475.5	28,272	
Ca	44	45	H2	2.089	ppb	21.9	851	
[Ca]	44	45	He	0.752	ppb	83.1	213	
Ti	47	45	NoGas	0.055	ppb	13.0	92	
V	51	74	He	0.038	ppb	43.9	1,560	
Cr	52	74	He	0.019	ppb	37.7	347	
Mn	55	74	He	0.003	ppb	235.8	283	
Fe	56	74	H2	2.421	ppb	4.1	46,387	
Co	59	74	He	0.013	ppb	50.7	154	
Ni	60	74	He	-0.007	ppb	N/A	59	
Cu	65	74	He	0.031	ppb	42.1	96	
Zn	66	74	He	0.053	ppb	44.3	66	
As	75	74	He	0.029	ppb	120.6	43	
Se	78	74	H2	0.055	ppb	29.4	19	
Mo	95	103	He	0.040	ppb	28.7	79	
Ag	107	103	He	0.007	ppb	9.1	40	
Cd	111	103	He	0.021	ppb	16.5	20	
[Cd]	111	103	NoGas	0.010	ppb	16.8	28	
Sb	121	103	He	0.117	ppb	14.2	286	
Ba	138	159	He	0.024	ppb	10.4	180	
Hg	201	159	NoGas	13.775	ppt	21.1	12	
Tl	205	159	He	0.009	ppb	45.6	84	
Pb	208	159	NoGas	0.041	ppb	3.3	1,550	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.5	1,024,279	1152921.90333333	88.8	
Sc	45	H2	Analog	2.4	2,201,891	2718830.82666667	81.0	
Sc	45	He	Pulse	1.2	341,572	416019.95	82.1	
Sc	45	NoGas	Analog	1.6	3,075,020	3735081.11333333	82.3	
Ge	74	H2	Pulse	0.2	686,764	835241.986666667	82.2	
Ge	74	He	Pulse	1.0	200,169	244427.376666667	81.9	
Ge	74	NoGas	Pulse	1.7	777,605	957882.84	81.2	
Rh	103	He	Pulse	0.8	459,864	540467.566666667	85.1	
Rh	103	NoGas	Pulse	0.8	797,905	961648.273333333	83.0	
Tb	159	He	Pulse	0.7	604,613	691118.286666667	87.5	
Tb	159	NoGas	Analog	1.1	1,461,894	1636278.29333333	89.3	
Bi	209	He	Pulse	0.2	346,329	387813.86	89.3	
Bi	209	NoGas	Pulse	1.0	792,106	890232.166666667	89.0	

Quantitation Report - ICPMS5

Sample Name:	**9110517-BLK1**	Total Dilution:	**10.0000**
File Name:	047SMPL.d	Vial:	3301
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Sample Type:	Sample
Acq Time:	11/6/2019 14:21:27	I.S. Reference File:	003CALB.d
Comment:	**9110517 TCLP RCRA**	Last Calibration:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.017	ppb	98.7	63	100	
Na	23	45	He	30186.909	ppb	0.7	34,201,593	50000	
Mg	24	45	He	5.858	ppb	2.9	4,169	50000	
Al	27	45	He	4.419	ppb	4.7	1,557	50000	
K	39	45	He	6.384	ppb	8.7	31,132	50000	
Ca	44	45	H2	33.179	ppb	2.1	7,713	50000	
[Ca]	44	45	He	33.861	ppb	3.9	1,115	50000	
Ti	47	45	NoGas	0.145	ppb	26.2	188	2500	
V	51	74	He	-0.05	ppb	N/A	1,191	500	
Cr	52	74	He	0.052	ppb	10.1	487	1000	
Mn	55	74	He	0.018	ppb	64.3	322	2500	
Fe	56	74	H2	2.067	ppb	2.2	41,070	50000	
Co	59	74	He	0.008	ppb	24.7	120	500	
Ni	60	74	He	0.608	ppb	5.0	989	1000	
Cu	65	74	He	0.165	ppb	13.1	342	1000	
Zn	66	74	He	0.983	ppb	8.6	730	2500	
As	75	74	He	0.034	ppb	34.1	44	500	
Se	78	74	H2	0.038	ppb	27.0	14	100	
Mo	95	103	He	0.013	ppb	52.4	29	100	
Ag	107	103	He	0.006	ppb	30.9	36	100	
Cd	111	103	He	0.012	ppb	26.1	12	1000	
[Cd]	111	103	NoGas	0.014	ppb	71.8	36	1000	
Sb	121	103	He	0.03	ppb	31.9	92	100	
Ba	138	159	He	1.689	ppb	1.1	7,630	2500	
W	182	159	NoGas	0.006	ppb	46.7	73	40	
Hg	201	159	NoGas	17.801	ppt	19.1	16	4000	
Tl	205	159	He	0.017	ppb	3.8	141	100	
Pb	208	159	NoGas	0.047	ppb	9.4	1,649	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,005,877	0.1	1152921.90333333	Analog	87.2	
Sc	45	H2	2,200,233	1.0	2718830.82666667	Analog	80.9	
Sc	45	He	335,847	1.1	416019.95	Pulse	80.7	
Sc	45	NoGas	3,007,768	0.9	3735081.11333333	Analog	80.5	
Ge	74	H2	667,429	0.5	835241.986666667	Pulse	79.9	
Ge	74	He	196,426	0.6	244427.376666667	Pulse	80.4	
Ge	74	NoGas	763,480	0.5	957882.84	Pulse	79.7	
Rh	103	He	438,662	0.8	540467.566666667	Pulse	81.2	
Rh	103	NoGas	767,585	0.6	961648.273333333	Pulse	79.8	
Tb	159	He	595,828	0.7	691118.286666667	Pulse	86.2	
Tb	159	NoGas	1,427,887	1.5	1636278.29333333	Analog	87.3	
Bi	209	He	336,951	0.5	387813.86	Pulse	86.9	
Bi	209	NoGas	771,457	0.3	890232.166666667	Pulse	86.7	

Quantitation Report - ICPMS5

Sample Name:	**9110517-BS1**	Total Dilution:	**10.0000**
File Name:	048SMPL.d	Vial:	3302
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Sample Type:	Sample
Acq Time:	11/6/2019 14:26:06	I.S. Reference File:	003CALB.d
Comment:	**9110517 TCLP RCRA**	Last Calibration:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	46.698	ppb	0.8	120,683	100	
Na	23	45	He	28528.263	ppb	0.6	32,538,269	50000	
Mg	24	45	He	5.086	ppb	3.3	3,704	50000	
Al	27	45	He	3.102	ppb	11.8	1,128	50000	
K	39	45	He	4.816	ppb	11.3	30,493	50000	
Ca	44	45	H2	29.281	ppb	3.3	6,947	50000	
[Ca]	44	45	He	31.766	ppb	2.4	1,065	50000	
Ti	47	45	NoGas	0.088	ppb	19.8	127	2500	
V	51	74	He	47.423	ppb	0.7	184,574	500	
Cr	52	74	He	97.482	ppb	0.8	435,623	1000	
Mn	55	74	He	49.818	ppb	1.1	151,000	2500	
Fe	56	74	H2	1.856	ppb	0.7	39,252	50000	
Co	59	74	He	48.865	ppb	1.1	301,956	500	
Ni	60	74	He	51.147	ppb	1.4	77,810	1000	
Cu	65	74	He	51.279	ppb	0.7	95,942	1000	
Zn	66	74	He	102.66	ppb	0.5	73,698	2500	
As	75	74	He	98.877	ppb	0.3	42,716	500	
Se	78	74	H2	19.523	ppb	1.5	5,847	100	
Mo	95	103	He	0.008	ppb	84.1	20	100	
Ag	107	103	He	20.662	ppb	1.5	101,957	100	
Cd	111	103	He	20.095	ppb	1.1	16,245	1000	
[Cd]	111	103	NoGas	19.878	ppb	1.2	38,678	1000	
Sb	121	103	He	20.803	ppb	0.9	43,251	100	
Ba	138	159	He	209.529	ppb	0.4	933,989	2500	
W	182	159	NoGas	0	ppb	N/A	30	40	
Hg	201	159	NoGas	1911.715	ppt	2.8	1,865	4000	
Tl	205	159	He	50.245	ppb	0.2	380,148	100	
Pb	208	159	NoGas	98.048	ppb	1.7	2,138,014	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,015,845	0.8	1152921.90333333	Analog	88.1	
Sc	45	H2	2,230,415	0.3	2718830.82666667	Analog	82.0	
Sc	45	He	338,087	0.2	416019.95	Pulse	81.3	
Sc	45	NoGas	3,028,503	1.0	3735081.11333333	Analog	81.1	
Ge	74	H2	677,299	0.7	835241.986666667	Pulse	81.1	
Ge	74	He	197,175	0.3	244427.376666667	Pulse	80.7	
Ge	74	NoGas	762,845	1.1	957882.84	Pulse	79.6	
Rh	103	He	438,361	0.3	540467.566666667	Pulse	81.1	
Rh	103	NoGas	769,829	0.1	961648.273333333	Pulse	80.1	
Tb	159	He	593,627	0.6	691118.286666667	Pulse	85.9	
Tb	159	NoGas	1,406,072	1.9	1636278.29333333	Analog	85.9	
Bi	209	He	335,659	0.7	387813.86	Pulse	86.6	
Bi	209	NoGas	770,108	0.9	890232.166666667	Pulse	86.5	

Quantitation Report - ICPMS5

Sample Name:	**A9J0954-01**	Total Dilution:	**10.0000**
File Name:	049SMPL.d	Vial:	3303
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Sample Type:	Sample
Acq Time:	11/6/2019 14:30:44	I.S. Reference File:	003CALB.d
Comment:	**9110517 TCLP RCRA**	Last Calibration:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.033	ppb	33.8	106	100	
Na	23	45	He	27276.565	ppb	0.7	31,411,687	50000	
Mg	24	45	He	203.504	ppb	0.6	131,457	50000	
Al	27	45	He	8.294	ppb	0.7	2,885	50000	
K	39	45	He	82.779	ppb	1.9	73,397	50000	
Ca	44	45	H2	712.172	ppb	0.7	160,613	50000	
[Ca]	44	45	He	719.105	ppb	0.8	20,169	50000	
Ti	47	45	NoGas	0.118	ppb	9.0	162	2500	
V	51	74	He	-0.053	ppb	N/A	1,201	500	
Cr	52	74	He	0.091	ppb	18.2	671	1000	
Mn	55	74	He	35.93	ppb	0.6	110,509	2500	
Fe	56	74	H2	33.709	ppb	0.3	408,042	50000	
Co	59	74	He	0.799	ppb	2.3	5,075	500	
Ni	60	74	He	0.844	ppb	8.9	1,369	1000	
Cu	65	74	He	0.308	ppb	8.6	620	1000	
Zn	66	74	He	3.963	ppb	3.9	2,911	2500	
As	75	74	He	0.058	ppb	13.8	56	500	
Se	78	74	H2	0.021	ppb	42.2	9	100	
Mo	95	103	He	0.013	ppb	36.4	29	100	
Ag	107	103	He	0.005	ppb	63.9	28	100	
Cd	111	103	He	0.035	ppb	37.3	31	1000	
[Cd]	111	103	NoGas	0.016	ppb	69.8	40	1000	
Sb	121	103	He	0.028	ppb	33.6	88	100	
Ba	138	159	He	8.13	ppb	1.2	36,699	2500	
W	182	159	NoGas	0.001	ppb	254.6	38	40	
Hg	201	159	NoGas	16.442	ppt	15.6	15	4000	
Tl	205	159	He	0.015	ppb	30.1	130	100	
Pb	208	159	NoGas	0.056	ppb	1.6	1,850	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,019,924	0.5	1152921.90333333	Analog	88.5	
Sc	45	H2	2,242,119	0.7	2718830.82666667	Analog	82.5	
Sc	45	He	341,374	0.9	416019.95	Pulse	82.1	
Sc	45	NoGas	3,076,229	1.0	3735081.11333333	Analog	82.4	
Ge	74	H2	681,786	0.1	835241.986666667	Pulse	81.6	
Ge	74	He	199,934	0.6	244427.376666667	Pulse	81.8	
Ge	74	NoGas	772,622	0.9	957882.84	Pulse	80.7	
Rh	103	He	445,291	0.8	540467.566666667	Pulse	82.4	
Rh	103	NoGas	775,173	0.3	961648.273333333	Pulse	80.6	
Tb	159	He	600,048	0.8	691118.286666667	Pulse	86.8	
Tb	159	NoGas	1,440,437	1.4	1636278.29333333	Analog	88.0	
Bi	209	He	339,116	1.1	387813.86	Pulse	87.4	
Bi	209	NoGas	776,316	0.6	890232.166666667	Pulse	87.2	

Quantitation Report - ICPMS5

Sample Name:	**A9J0954-02**	Total Dilution:	**10.0000**
File Name:	050SMPL.d	Vial:	3304
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Sample Type:	Sample
Acq Time:	11/6/2019 14:35:23	I.S. Reference File:	003CALB.d
Comment:	**9110517 TCLP RCRA**	Last Calibration:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.02	ppb	39.6	74	100	
Na	23	45	He	26801.224	ppb	0.6	31,283,279	50000	
Mg	24	45	He	254.082	ppb	0.6	166,235	50000	
Al	27	45	He	6.152	ppb	8.9	2,195	50000	
K	39	45	He	93.206	ppb	1.1	80,172	50000	
Ca	44	45	H2	937.689	ppb	0.6	215,113	50000	
[Ca]	44	45	He	956.674	ppb	1.5	27,130	50000	
Ti	47	45	NoGas	0.173	ppb	8.4	228	2500	
V	51	74	He	0.025	ppb	59.5	1,526	500	
Cr	52	74	He	0.051	ppb	28.9	497	1000	
Mn	55	74	He	27.31	ppb	1.3	84,964	2500	
Fe	56	74	H2	6.596	ppb	7.3	95,090	50000	
Co	59	74	He	0.872	ppb	4.1	5,597	500	
Ni	60	74	He	0.666	ppb	12.3	1,107	1000	
Cu	65	74	He	0.584	ppb	2.8	1,156	1000	
Zn	66	74	He	16.409	ppb	1.5	12,098	2500	
As	75	74	He	0.298	ppb	11.5	162	500	
Se	78	74	H2	0.006	ppb	130.4	5	100	
Mo	95	103	He	0.01	ppb	75.8	24	100	
Ag	107	103	He	0.003	ppb	93.1	17	100	
Cd	111	103	He	0.069	ppb	11.2	60	1000	
[Cd]	111	103	NoGas	0.072	ppb	43.7	151	1000	
Sb	121	103	He	0.018	ppb	58.9	69	100	
Ba	138	159	He	11.104	ppb	1.5	50,453	2500	
W	182	159	NoGas	0	ppb	N/A	31	40	
Hg	201	159	NoGas	10.704	ppt	26.9	9	4000	
Tl	205	159	He	0.006	ppb	16.1	62	100	
Pb	208	159	NoGas	0.12	ppb	3.2	3,332	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,055,528	0.4	1152921.90333333	Analog	91.6	
Sc	45	H2	2,282,003	0.4	2718830.82666667	Analog	83.9	
Sc	45	He	346,006	1.0	416019.95	Pulse	83.2	
Sc	45	NoGas	3,137,582	0.5	3735081.11333333	Analog	84.0	
Ge	74	H2	687,154	0.3	835241.986666667	Pulse	82.3	
Ge	74	He	202,098	0.8	244427.376666667	Pulse	82.7	
Ge	74	NoGas	789,382	0.9	957882.84	Pulse	82.4	
Rh	103	He	450,721	0.7	540467.566666667	Pulse	83.4	
Rh	103	NoGas	784,852	0.2	961648.273333333	Pulse	81.6	
Tb	159	He	604,305	1.3	691118.286666667	Pulse	87.4	
Tb	159	NoGas	1,457,307	1.6	1636278.29333333	Analog	89.1	
Bi	209	He	341,554	1.0	387813.86	Pulse	88.1	
Bi	209	NoGas	782,249	0.4	890232.166666667	Pulse	87.9	

Quantitation Report - ICPMS5

Sample Name:	**9110517-MS1**	Total Dilution:	**10.0000**
File Name:	051SMPL.d	Vial:	3305
File Path:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Sample Type:	Sample
Acq Time:	11/6/2019 14:40:02	I.S. Reference File:	003CALB.d
Comment:	**9110517 TCLP RCRA**	Last Calibration:	11/06/2019 11:30:01

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	47.946	ppb	1.6	124,491	100	
Na	23	45	He	27081.079	ppb	0.7	31,781,005	50000	
Mg	24	45	He	258.182	ppb	0.4	169,827	50000	
Al	27	45	He	7.44	ppb	4.0	2,647	50000	
K	39	45	He	95.754	ppb	1.8	82,024	50000	
Ca	44	45	H2	960.211	ppb	0.7	220,213	50000	
[Ca]	44	45	He	994.766	ppb	0.2	28,356	50000	
Ti	47	45	NoGas	0.537	ppb	114.1	640	2500	
V	51	74	He	48.519	ppb	1.0	193,466	500	
Cr	52	74	He	99.201	ppb	0.5	454,254	1000	
Mn	55	74	He	78.592	ppb	0.5	243,945	2500	
Fe	56	74	H2	6.771	ppb	1.9	97,421	50000	
Co	59	74	He	50.622	ppb	0.4	320,547	500	
Ni	60	74	He	50.761	ppb	1.2	79,129	1000	
Cu	65	74	He	52.508	ppb	1.0	100,673	1000	
Zn	66	74	He	118.616	ppb	1.4	87,263	2500	
As	75	74	He	100.865	ppb	0.8	44,652	500	
Se	78	74	H2	19.753	ppb	1.3	6,020	100	
Mo	95	103	He	0.011	ppb	8.5	26	100	
Ag	107	103	He	20.818	ppb	0.9	103,990	100	
Cd	111	103	He	20.295	ppb	1.2	16,611	1000	
[Cd]	111	103	NoGas	20.127	ppb	1.0	39,650	1000	
Sb	121	103	He	21.302	ppb	0.1	44,836	100	
Ba	138	159	He	222.089	ppb	0.3	1,005,118	2500	
W	182	159	NoGas	0.002	ppb	13.4	44	40	
Hg	201	159	NoGas	1884.062 ✓	ppt	2.3 ✓	1,875	4000	
Tl	205	159	He	49.726	ppb	0.5	381,971	100	
Pb	208	159	NoGas	96.541	ppb	1.8	2,147,178	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	1,020,774	1.7	1152921.90333333	Analog	88.5	
Sc	45	H2	2,281,470	0.8	2718830.82666667	Analog	83.9	
Sc	45	He	347,873	0.6	416019.95	Pulse	83.6	
Sc	45	NoGas	3,122,118	0.2	3735081.11333333	Analog	83.6	
Ge	74	H2	689,132	0.4	835241.986666667	Pulse	82.5	
Ge	74	He	202,052	1.1	244427.376666667	Pulse	82.7	
Ge	74	NoGas	779,032	0.5	957882.84	Pulse	81.3	
Rh	103	He	443,783	1.5	540467.566666667	Pulse	82.1	
Rh	103	NoGas	779,415	0.3	961648.273333333	Pulse	81.0	
Tb	159	He	602,692	0.7	691118.286666667	Pulse	87.2	
Tb	159	NoGas	1,434,160	2.0	1636278.29333333	Analog	87.6	
Bi	209	He	334,908	0.2	387813.86	Pulse	86.4	
Bi	209	NoGas	768,957	0.4	890232.166666667	Pulse	86.4	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-CCV3**	Total Dilution:	1.0000
File Name:	054_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 14:53:59
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.415	ppb	0.2	104,051	40	98.54	
Na	23	45	He	4103.927	ppb	0.2	4,871,400	4000	102.6	
Mg	24	45	He	4311.961	ppb	0.7	2,859,235	4000	107.8	
Al	27	45	He	4177.972	ppb	0.9	1,447,160	4000	104.45	
K	39	45	He	4271.529	ppb	1.2	2,433,734	4000	106.79	
Ca	44	45	H2	4057.595	ppb	1.0	954,517	4000	101.44	
[Ca]	44	45	He	4089.346	ppb	0.6	117,202	4000	102.23	
Ti	47	45	NoGas	98.412	ppb	0.7	111,574	100	98.41	
V	51	74	He	96.675	ppb	0.1	389,013	100	96.68	
Cr	52	74	He	99.300	ppb	0.3	460,542	100	99.3	
Mn	55	74	He	103.237	ppb	0.7	324,465	100	103.24	
Fe	56	74	H2	4228.816	ppb	0.3	50,940,974	4000	105.72	
Co	59	74	He	101.712	ppb	0.1	652,235	100	101.71	
Ni	60	74	He	105.083	ppb	0.8	165,843	100	105.08	
Cu	65	74	He	104.077	ppb	1.2	202,055	100	104.08	
Zn	66	74	He	99.594	ppb	0.4	74,204	100	99.59	
As	75	74	He	98.620	ppb	0.4	44,217	100	98.62	
Se	78	74	H2	40.907	ppb	0.9	12,833	40	102.27	
Mo	95	103	He	40.633	ppb	1.1	73,668	40	101.58	
Ag	107	103	He	40.895	ppb	0.4	210,490	40	102.24	
Cd	111	103	He	98.337	ppb	0.6	82,915	100	98.34	
[Cd]	111	103	NoGas	97.647	ppb	0.6	196,628	100	97.65	
Sb	121	103	He	41.356	ppb	1.5	89,653	40	103.39	
Ba	138	159	He	106.133	ppb	0.5	487,420	100	106.13	
Hg	201	159	NoGas	803.400	ppt	2.7	820	800	100.42	
Tl	205	159	He	40.728	ppb	0.9	317,437	40	101.82	
Pb	208	159	NoGas	97.055	ppb	1.3	2,215,943	100	97.06	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.5	1,037,592	1152921.90333333	90.0	
Sc	45	H2	Analog	1.3	2,343,547	2718830.82666667	86.2	
Sc	45	He	Pulse	0.5	351,613	416019.95	84.5	
Sc	45	NoGas	Analog	0.0	3,118,546	3735081.11333333	83.5	
Ge	74	H2	Pulse	0.5	709,604	835241.986666667	85.0	
Ge	74	He	Pulse	0.2	204,638	244427.376666667	83.7	
Ge	74	NoGas	Pulse	0.6	788,007	957882.84	82.3	
Rh	103	He	Pulse	0.6	457,261	540467.566666667	84.6	
Rh	103	NoGas	Pulse	0.6	796,839	961648.273333333	82.9	
Tb	159	He	Pulse	0.9	611,561	691118.286666667	88.5	
Tb	159	NoGas	Analog	1.0	1,472,035	1636278.29333333	90.0	
Bi	209	He	Pulse	0.7	344,430	387813.86	88.8	
Bi	209	NoGas	Pulse	0.9	792,860	890232.166666667	89.1	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K06041-CCB3**	Total Dilution:	1.0000
File Name:	055_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 14:58:35
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	37.1	43	
Na	23	45	He	4.997	ppb	4.2	9,942	
Mg	24	45	He	0.562	ppb	20.2	856	
Al	27	45	He	0.550	ppb	16.1	290	
K	39	45	He	-0.131	ppb	N/A	29,038	
Ca	44	45	H2	1.250	ppb	26.8	701	
[Ca]	44	45	He	0.845	ppb	329.4	223	
Ti	47	45	NoGas	0.032	ppb	83.2	68	
V	51	74	He	-0.002	ppb	N/A	1,443	
Cr	52	74	He	0.017	ppb	34.7	349	
Mn	55	74	He	-0.028	ppb	N/A	193	
Fe	56	74	H2	1.190	ppb	7.0	32,960	
Co	59	74	He	0.010	ppb	29.8	140	
Ni	60	74	He	-0.009	ppb	N/A	57	
Cu	65	74	He	0.032	ppb	17.5	100	
Zn	66	74	He	0.075	ppb	27.7	84	
As	75	74	He	0.022	ppb	75.2	41	
Se	78	74	H2	0.055	ppb	23.1	20	
Mo	95	103	He	0.035	ppb	56.8	72	
Ag	107	103	He	0.011	ppb	23.1	63	
Cd	111	103	He	0.020	ppb	33.5	19	
[Cd]	111	103	NoGas	0.017	ppb	30.6	44	
Sb	121	103	He	0.132	ppb	28.8	326	
Ba	138	159	He	0.016	ppb	58.3	151	
Hg	201	159	NoGas	16.381	ppt	14.2	15	
Tl	205	159	He	0.010	ppb	12.5	94	
Pb	208	159	NoGas	0.041	ppb	7.0	1,575	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.7	1,063,327	1152921.90333333	92.2	
Sc	45	H2	Analog	0.3	2,321,637	2718830.82666667	85.4	
Sc	45	He	Pulse	0.6	352,944	416019.95	84.8	
Sc	45	NoGas	Analog	1.7	3,154,276	3735081.11333333	84.5	
Ge	74	H2	Pulse	0.3	706,495	835241.986666667	84.6	
Ge	74	He	Pulse	0.7	205,631	244427.376666667	84.1	
Ge	74	NoGas	Pulse	0.8	806,283	957882.84	84.2	
Rh	103	He	Pulse	1.1	470,768	540467.566666667	87.1	
Rh	103	NoGas	Pulse	0.4	829,030	961648.273333333	86.2	
Tb	159	He	Pulse	0.4	618,314	691118.286666667	89.5	
Tb	159	NoGas	Analog	0.3	1,496,603	1636278.29333333	91.5	
Bi	209	He	Pulse	1.1	353,576	387813.86	91.2	
Bi	209	NoGas	Pulse	0.6	813,604	890232.166666667	91.4	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRL4**	Total Dilution:	1.0000
File Name:	056CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 15:03:16
Comment:	A19J368 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.180	ppb	2.6	511	100		
Na	23	45	He	12.706	ppb	1.3	19,133	141.18	R-11	< MRL
Mg	24	45	He	9.271	ppb	0.2	6,656	103.01		
Al	27	45	He	9.608	ppb	6.1	3,443	106.76		
K	39	45	He	10.266	ppb	6.1	34,937	114.07		
Ca	44	45	H2	10.277	ppb	4.8	2,819	114.19		
[Ca]	44	45	He	9.806	ppb	14.4	481	108.96		
Ti	47	45	NoGas	0.258	ppb	13.3	327	143.33	R-11	< MRL
V	51	74	He	0.169	ppb	5.5	2,152	93.89		
Cr	52	74	He	0.186	ppb	7.7	1,143	103.33		
Mn	55	74	He	0.148	ppb	17.8	754	82.22		
Fe	56	74	H2	9.052	ppb	0.2	128,115	100.58		
Co	59	74	He	0.171	ppb	8.7	1,187	95		
Ni	60	74	He	0.155	ppb	22.3	319	86.11		
Cu	65	74	He	0.185	ppb	8.3	402	102.78		
Zn	66	74	He	0.239	ppb	11.3	209	132.78	R-11	< MRL
As	75	74	He	0.202	ppb	12.2	123	112.22		
Se	78	74	H2	0.150	ppb	3.6	50	83.33		
Mo	95	103	He	0.201	ppb	9.6	381	111.67		
Ag	107	103	He	0.188	ppb	6.4	997	104.44		
Cd	111	103	He	0.202	ppb	14.9	177	112.22		
[Cd]	111	103	NoGas	0.192	ppb	6.9	410	106.67		
Sb	121	103	He	0.192	ppb	13.7	458	106.67		
Ba	138	159	He	0.202	ppb	2.8	1,013	112.22		
Hg	201	159	NoGas	22.600	ppt	17.8	22	313.89	R-11	< MRL
Tl	205	159	He	0.185	ppb	8.5	1,472	102.78		
Pb	208	159	NoGas	0.196	ppb	1.3	5,173	108.89		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.3	1,068,335	1152921.90333333	92.7	
Sc	45	H2	Analog	0.6	2,334,838	2718830.82666667	85.9	
Sc	45	He	Pulse	0.9	353,165	416019.95	84.9	
Sc	45	NoGas	Analog	1.2	3,153,998	3735081.11333333	84.4	
Ge	74	H2	Pulse	0.1	711,471	835241.986666667	85.2	
Ge	74	He	Pulse	0.6	207,546	244427.376666667	84.9	
Ge	74	NoGas	Pulse	1.6	806,621	957882.84	84.2	
Rh	103	He	Pulse	1.0	470,382	540467.566666667	87.0	
Rh	103	NoGas	Pulse	0.8	827,333	961648.273333333	86.0	
Tb	159	He	Pulse	0.6	619,019	691118.286666667	89.6	
Tb	159	NoGas	Analog	1.8	1,496,999	1636278.29333333	91.5	
Bi	209	He	Pulse	0.7	355,102	387813.86	91.6	
Bi	209	NoGas	Pulse	0.7	815,013	890232.166666667	91.6	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRL5**	Total Dilution:	1.0000
File Name:	057_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 15:07:57
Comment:	A19J369 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.876	ppb	4.7	2,399	97.33	
Na	23	45	He	47.784	ppb	1.0	61,484	106.19	
Mg	24	45	He	46.304	ppb	1.4	31,607	102.9	
Al	27	45	He	46.391	ppb	1.8	16,390	103.09	
K	39	45	He	45.094	ppb	0.4	55,136	100.21	
Ca	44	45	H2	44.766	ppb	3.7	10,976	99.48	
[Ca]	44	45	He	46.099	ppb	4.6	1,538	102.44	
Ti	47	45	NoGas	0.922	ppb	4.2	1,095	102.44	
V	51	74	He	0.906	ppb	1.3	5,173	100.67	
Cr	52	74	He	0.896	ppb	1.7	4,502	99.56	
Mn	55	74	He	0.863	ppb	1.9	3,047	95.89	
Fe	56	74	H2	44.995	ppb	0.3	565,405	99.99	
Co	59	74	He	0.904	ppb	1.1	5,983	100.44	
Ni	60	74	He	0.917	ppb	2.9	1,546	101.89	
Cu	65	74	He	0.924	ppb	3.2	1,865	102.67	
Zn	66	74	He	0.998	ppb	7.5	786	110.89	
As	75	74	He	0.929	ppb	3.4	456	103.22	
Se	78	74	H2	0.931	ppb	6.2	297	103.44	
Mo	95	103	He	0.861	ppb	2.9	1,620	95.67	
Ag	107	103	He	0.906	ppb	1.3	4,820	100.67	
Cd	111	103	He	0.897	ppb	3.5	783	99.67	
[Cd]	111	103	NoGas	0.890	ppb	6.0	1,876	98.89	
Sb	121	103	He	0.899	ppb	4.0	2,044	99.89	
Ba	138	159	He	0.958	ppb	1.4	4,533	106.44	
Hg	201	159	NoGas	45.492	ppt	3.5	45	126.37	
Tl	205	159	He	0.919	ppb	1.6	7,275	102.11	
Pb	208	159	NoGas	0.923	ppb	3.0	21,909	102.56	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	2.0	1,067,252	1152921.90333333	92.6	
Sc	45	H2	Analog	0.5	2,351,256	2718830.82666667	86.5	
Sc	45	He	Pulse	0.6	356,448	416019.95	85.7	
Sc	45	NoGas	Analog	0.9	3,173,261	3735081.11333333	85.0	
Ge	74	H2	Pulse	0.1	715,689	835241.986666667	85.7	
Ge	74	He	Pulse	0.9	208,524	244427.376666667	85.3	
Ge	74	NoGas	Pulse	0.7	810,449	957882.84	84.6	
Rh	103	He	Pulse	0.9	472,445	540467.566666667	87.4	
Rh	103	NoGas	Pulse	0.5	830,041	961648.273333333	86.3	
Tb	159	He	Pulse	0.2	619,856	691118.286666667	89.7	
Tb	159	NoGas	Analog	1.4	1,487,789	1636278.29333333	90.9	
Bi	209	He	Pulse	0.9	355,081	387813.86	91.6	
Bi	209	NoGas	Pulse	0.5	815,675	890232.166666667	91.6	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRL6**	Total Dilution:	1.0000
File Name:	058CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 15:12:37
Comment:	A19J370 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.667	ppb	6.8	4,556	92.61	
Na	23	45	He	92.936	ppb	0.7	116,939	103.26	
Mg	24	45	He	91.604	ppb	0.6	62,678	101.78	
Al	27	45	He	91.960	ppb	2.0	32,718	102.18	
K	39	45	He	90.518	ppb	1.1	81,875	100.58	
Ca	44	45	H2	90.375	ppb	1.7	21,499	100.42	
[Ca]	44	45	He	91.761	ppb	4.4	2,891	101.96	
Ti	47	45	NoGas	1.901	ppb	8.3	2,237	105.61	
V	51	74	He	1.780	ppb	2.6	8,806	98.89	
Cr	52	74	He	1.789	ppb	3.4	8,788	99.39	
Mn	55	74	He	1.792	ppb	5.9	6,066	99.56	
Fe	56	74	H2	89.929	ppb	0.6	1,114,133	99.92	
Co	59	74	He	1.779	ppb	1.5	11,785	98.83	
Ni	60	74	He	1.838	ppb	4.4	3,048	102.11	
Cu	65	74	He	1.905	ppb	3.0	3,835	105.83	
Zn	66	74	He	1.860	ppb	2.1	1,451	103.33	
As	75	74	He	1.750	ppb	4.9	837	97.22	
Se	78	74	H2	1.812	ppb	9.9	578	100.67	
Mo	95	103	He	1.706	ppb	4.2	3,231	94.78	
Ag	107	103	He	1.844	ppb	2.8	9,901	102.44	
Cd	111	103	He	1.819	ppb	3.1	1,602	101.06	
[Cd]	111	103	NoGas	1.772	ppb	2.4	3,742	98.44	
Sb	121	103	He	1.741	ppb	5.8	3,965	96.72	
Ba	138	159	He	1.921	ppb	4.5	9,055	106.72	
Hg	201	159	NoGas	78.372	ppt	5.9	80	108.85	
Tl	205	159	He	1.832	ppb	1.0	14,550	101.78	
Pb	208	159	NoGas	1.808	ppb	1.8	42,631	100.44	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.9	1,069,706	1152921.90333333	92.8	
Sc	45	H2	Analog	0.7	2,325,330	2718830.82666667	85.5	
Sc	45	He	Pulse	0.6	360,037	416019.95	86.5	
Sc	45	NoGas	Analog	0.3	3,192,559	3735081.11333333	85.5	
Ge	74	H2	Pulse	0.1	717,630	835241.986666667	85.9	
Ge	74	He	Pulse	0.9	210,063	244427.376666667	85.9	
Ge	74	NoGas	Pulse	0.8	818,530	957882.84	85.5	
Rh	103	He	Pulse	1.1	476,908	540467.566666667	88.2	
Rh	103	NoGas	Pulse	0.6	833,617	961648.273333333	86.7	
Tb	159	He	Pulse	1.1	622,562	691118.286666667	90.1	
Tb	159	NoGas	Analog	1.2	1,498,243	1636278.29333333	91.6	
Bi	209	He	Pulse	1.0	356,884	387813.86	92.0	
Bi	209	NoGas	Pulse	0.2	819,397	890232.166666667	92.0	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-CCV5**	Total Dilution:	1.0000
File Name:	070_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 16:12:02
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.885	ppb	0.5	101,960	40	97.21	
Na	23	45	He	4016.973	ppb	0.8	4,683,209	4000	100.42	
Mg	24	45	He	4235.148	ppb	2.2	2,758,275	4000	105.88	
Al	27	45	He	4036.689	ppb	3.9	1,373,390	4000	100.92	
K	39	45	He	4209.879	ppb	2.5	2,356,351	4000	105.25	
Ca	44	45	H2	4131.016	ppb	0.9	936,455	4000	103.28	
[Ca]	44	45	He	4072.069	ppb	0.8	114,628	4000	101.8	
Ti	47	45	NoGas	97.347	ppb	2.9	107,971	100	97.35	
V	51	74	He	96.025	ppb	1.1	377,629	100	96.02	
Cr	52	74	He	98.846	ppb	0.7	448,034	100	98.85	
Mn	55	74	He	104.186	ppb	0.8	320,009	100	104.19	
Fe	56	74	H2	4164.308	ppb	0.2	49,136,457	4000	104.11	
Co	59	74	He	101.171	ppb	0.9	634,035	100	101.17	
Ni	60	74	He	104.068	ppb	0.7	160,517	100	104.07	
Cu	65	74	He	102.632	ppb	1.0	194,729	100	102.63	
Zn	66	74	He	100.069	ppb	0.4	72,869	100	100.07	
As	75	74	He	97.313	ppb	1.2	42,640	100	97.31	
Se	78	74	H2	40.567	ppb	1.7	12,466	40	101.42	
Mo	95	103	He	40.161	ppb	1.0	70,921	40	100.4	
Ag	107	103	He	41.277	ppb	1.2	206,945	40	103.19	
Cd	111	103	He	99.102	ppb	0.4	81,394	100	99.1	
[Cd]	111	103	NoGas	98.056	ppb	0.2	191,401	100	98.06	
Sb	121	103	He	41.911	ppb	1.0	88,502	40	104.78	
Ba	138	159	He	105.020	ppb	0.7	485,342	100	105.02	
Hg	201	159	NoGas	799.171	ppt	0.6	800	800	99.9	
Tl	205	159	He	40.246	ppb	0.7	315,654	40	100.62	
Pb	208	159	NoGas	97.555	ppb	1.8	2,184,499	100	97.56	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.4	1,030,626	1152921.90333333	89.4	
Sc	45	H2	Analog	0.4	2,258,188	2718830.82666667	83.1	
Sc	45	He	Pulse	0.6	345,341	416019.95	83.0	
Sc	45	NoGas	Analog	2.5	3,052,325	3735081.11333333	81.7	
Ge	74	H2	Pulse	0.6	695,076	835241.986666667	83.2	
Ge	74	He	Pulse	1.2	200,004	244427.376666667	81.8	
Ge	74	NoGas	Pulse	0.9	774,150	957882.84	80.8	
Rh	103	He	Pulse	0.9	445,410	540467.566666667	82.4	
Rh	103	NoGas	Pulse	0.8	772,408	961648.273333333	80.3	
Tb	159	He	Pulse	0.9	615,385	691118.286666667	89.0	
Tb	159	NoGas	Analog	1.9	1,443,907	1636278.29333333	88.2	
Bi	209	He	Pulse	1.3	345,710	387813.86	89.1	
Bi	209	NoGas	Pulse	0.5	786,491	890232.166666667	88.3	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K06041-CCB4**	Total Dilution:	1.0000
File Name:	071_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 16:16:39
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.014	ppb	41.7	58	
Na	23	45	He	5.298	ppb	2.8	10,205	
Mg	24	45	He	0.769	ppb	23.5	983	
Al	27	45	He	0.790	ppb	11.1	370	
K	39	45	He	0.505	ppb	301.5	29,114	
Ca	44	45	H2	1.986	ppb	27.9	859	
[Ca]	44	45	He	1.284	ppb	94.5	233	
Ti	47	45	NoGas	0.007	ppb	244.8	38	
V	51	74	He	0.088	ppb	19.5	1,799	
Cr	52	74	He	0.019	ppb	8.2	353	
Mn	55	74	He	-0.002	ppb	N/A	276	
Fe	56	74	H2	1.474	ppb	6.3	36,216	
Co	59	74	He	0.014	ppb	16.4	166	
Ni	60	74	He	-0.004	ppb	N/A	64	
Cu	65	74	He	0.024	ppb	21.6	84	
Zn	66	74	He	0.028	ppb	86.6	49	
As	75	74	He	0.043	ppb	65.4	50	
Se	78	74	H2	0.039	ppb	21.8	15	
Mo	95	103	He	0.043	ppb	34.3	87	
Ag	107	103	He	0.012	ppb	16.4	67	
Cd	111	103	He	0.027	ppb	21.6	25	
[Cd]	111	103	NoGas	0.022	ppb	19.1	54	
Sb	121	103	He	0.206	ppb	11.6	482	
Ba	138	159	He	0.028	ppb	17.2	206	
Hg	201	159	NoGas	9.232	ppt	15.3	8	
Tl	205	159	He	0.008	ppb	12.4	78	
Pb	208	159	NoGas	0.046	ppb	6.5	1,687	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.2	1,036,102	1152921.90333333	89.9	
Sc	45	H2	Analog	0.1	2,286,071	2718830.82666667	84.1	
Sc	45	He	Pulse	1.2	349,627	416019.95	84.0	
Sc	45	NoGas	Analog	0.2	3,065,857	3735081.11333333	82.1	
Ge	74	H2	Pulse	0.3	703,488	835241.986666667	84.2	
Ge	74	He	Pulse	1.1	204,821	244427.376666667	83.8	
Ge	74	NoGas	Pulse	1.1	789,839	957882.84	82.5	
Rh	103	He	Pulse	1.3	463,998	540467.566666667	85.9	
Rh	103	NoGas	Pulse	0.6	807,064	961648.273333333	83.9	
Tb	159	He	Pulse	1.4	627,311	691118.286666667	90.8	
Tb	159	NoGas	Analog	1.1	1,483,076	1636278.29333333	90.6	
Bi	209	He	Pulse	1.1	352,967	387813.86	91.0	
Bi	209	NoGas	Pulse	0.4	807,861	890232.166666667	90.7	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-CCV6**	Total Dilution:	1.0000
File Name:	082_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 17:09:34
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.945	ppb	1.1	100,640	40	97.36	
Na	23	45	He	3989.815	ppb	1.3	4,721,610	4000	99.75	
Mg	24	45	He	4222.642	ppb	1.6	2,791,616	4000	105.57	
Al	27	45	He	4025.699	ppb	0.9	1,390,190	4000	100.64	
K	39	45	He	4193.869	ppb	1.4	2,382,922	4000	104.85	
Ca	44	45	H2	4108.712	ppb	1.5	959,349	4000	102.72	
[Ca]	44	45	He	4044.855	ppb	1.0	115,582	4000	101.12	
Ti	47	45	NoGas	97.119	ppb	0.6	107,922	100	97.12	
V	51	74	He	96.195	ppb	0.6	385,543	100	96.2	
Cr	52	74	He	98.162	ppb	0.6	453,447	100	98.16	
Mn	55	74	He	103.073	ppb	0.1	322,668	100	103.07	
Fe	56	74	H2	4169.518	ppb	0.7	50,576,675	4000	104.24	
Co	59	74	He	101.252	ppb	0.8	646,682	100	101.25	
Ni	60	74	He	103.286	ppb	0.8	162,357	100	103.29	
Cu	65	74	He	102.645	ppb	1.0	198,482	100	102.64	
Zn	66	74	He	99.796	ppb	1.3	74,055	100	99.8	
As	75	74	He	99.171	ppb	0.6	44,287	100	99.17	
Se	78	74	H2	40.904	ppb	0.7	12,922	40	102.26	
Mo	95	103	He	39.839	ppb	1.7	72,391	40	99.6	
Ag	107	103	He	40.737	ppb	0.9	210,170	40	101.84	
Cd	111	103	He	97.906	ppb	0.5	82,745	100	97.91	
[Cd]	111	103	NoGas	96.882	ppb	0.6	191,520	100	96.88	
Sb	121	103	He	42.042	ppb	0.5	91,362	40	105.1	
Ba	138	159	He	103.229	ppb	0.4	489,360	100	103.23	
Hg	201	159	NoGas	777.204	ppt	2.7	786	800	97.15	
Tl	205	159	He	39.264	ppb	0.7	315,909	40	98.16	
Pb	208	159	NoGas	96.801	ppb	0.1	2,191,433	100	96.8	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.3	1,015,802	1152921.90333333	88.1	
Sc	45	H2	Analog	1.4	2,326,286	2718830.82666667	85.6	
Sc	45	He	Pulse	0.7	350,558	416019.95	84.3	
Sc	45	NoGas	Analog	0.4	3,056,624	3735081.11333333	81.8	
Ge	74	H2	Pulse	0.3	714,558	835241.986666667	85.6	
Ge	74	He	Pulse	1.0	203,829	244427.376666667	83.4	
Ge	74	NoGas	Pulse	0.4	785,315	957882.84	82.0	
Rh	103	He	Pulse	1.1	458,351	540467.566666667	84.8	
Rh	103	NoGas	Pulse	0.3	782,254	961648.273333333	81.3	
Tb	159	He	Pulse	1.0	631,264	691118.286666667	91.3	
Tb	159	NoGas	Analog	0.2	1,459,453	1636278.29333333	89.2	
Bi	209	He	Pulse	0.9	350,095	387813.86	90.3	
Bi	209	NoGas	Pulse	0.3	796,993	890232.166666667	89.5	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K06041-CCB5**	Total Dilution:	1.0000
File Name:	083_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 17:14:10
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.005	ppb	53.5	33	
Na	23	45	He	2.444	ppb	5.6	6,953	
Mg	24	45	He	0.636	ppb	25.7	911	
Al	27	45	He	0.738	ppb	19.8	358	
K	39	45	He	-0.860	ppb	N/A	28,827	
Ca	44	45	H2	1.362	ppb	15.7	730	
[Ca]	44	45	He	-0.816	ppb	N/A	177	
Ti	47	45	NoGas	0.020	ppb	61.6	53	
V	51	74	He	0.095	ppb	7.7	1,849	
Cr	52	74	He	0.016	ppb	56.8	344	
Mn	55	74	He	-0.026	ppb	N/A	201	
Fe	56	74	H2	1.214	ppb	7.5	33,834	
Co	59	74	He	0.011	ppb	28.0	146	
Ni	60	74	He	-0.005	ppb	N/A	63	
Cu	65	74	He	0.028	ppb	20.7	93	
Zn	66	74	He	0.042	ppb	16.5	60	
As	75	74	He	0.056	ppb	40.4	57	
Se	78	74	H2	0.047	ppb	41.5	18	
Mo	95	103	He	0.031	ppb	28.8	64	
Ag	107	103	He	0.008	ppb	11.6	46	
Cd	111	103	He	0.031	ppb	32.8	29	
[Cd]	111	103	NoGas	0.027	ppb	14.3	64	
Sb	121	103	He	0.075	ppb	6.8	200	
Ba	138	159	He	0.013	ppb	31.7	137	
Hg	201	159	NoGas	9.926	ppt	8.6	9	
Tl	205	159	He	0.014	ppb	19.0	128	
Pb	208	159	NoGas	0.049	ppb	18.2	1,746	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.8	1,029,126	1152921.90333333	89.3	
Sc	45	H2	Analog	1.7	2,332,235	2718830.82666667	85.8	
Sc	45	He	Pulse	0.5	355,421	416019.95	85.4	
Sc	45	NoGas	Analog	1.1	3,094,232	3735081.11333333	82.8	
Ge	74	H2	Pulse	1.0	718,987	835241.986666667	86.1	
Ge	74	He	Pulse	1.4	207,606	244427.376666667	84.9	
Ge	74	NoGas	Pulse	0.8	798,677	957882.84	83.4	
Rh	103	He	Pulse	1.5	474,335	540467.566666667	87.8	
Rh	103	NoGas	Pulse	0.2	810,717	961648.273333333	84.3	
Tb	159	He	Pulse	0.9	632,518	691118.286666667	91.5	
Tb	159	NoGas	Analog	0.4	1,476,451	1636278.29333333	90.2	
Bi	209	He	Pulse	1.1	356,858	387813.86	92.0	
Bi	209	NoGas	Pulse	0.4	817,937	890232.166666667	91.9	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-CCV7**	Total Dilution:	1.0000
File Name:	088_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 17:38:04
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.105	ppb	2.1	101,291	40	97.76	
Na	23	45	He	4041.476	ppb	0.9	4,793,559	4000	101.04	
Mg	24	45	He	4240.853	ppb	0.8	2,810,017	4000	106.02	
Al	27	45	He	4086.909	ppb	0.5	1,414,590	4000	102.17	
K	39	45	He	4202.838	ppb	1.4	2,393,082	4000	105.07	
Ca	44	45	H2	4116.389	ppb	0.2	964,114	4000	102.91	
[Ca]	44	45	He	4077.406	ppb	1.4	116,771	4000	101.94	
Ti	47	45	NoGas	97.578	ppb	0.2	108,383	100	97.58	
V	51	74	He	95.989	ppb	0.5	386,989	100	95.99	
Cr	52	74	He	98.831	ppb	0.8	459,221	100	98.83	
Mn	55	74	He	103.303	ppb	1.1	325,266	100	103.3	
Fe	56	74	H2	4176.648	ppb	0.0	50,819,649	4000	104.42	
Co	59	74	He	101.168	ppb	0.6	649,975	100	101.17	
Ni	60	74	He	103.799	ppb	1.6	164,116	100	103.8	
Cu	65	74	He	102.582	ppb	0.3	199,535	100	102.58	
Zn	66	74	He	100.734	ppb	0.4	75,195	100	100.73	
As	75	74	He	97.328	ppb	0.3	43,722	100	97.33	
Se	78	74	H2	40.408	ppb	1.0	12,805	40	101.02	
Mo	95	103	He	40.032	ppb	0.4	72,802	40	100.08	
Ag	107	103	He	40.981	ppb	0.5	211,588	40	102.45	
Cd	111	103	He	98.105	ppb	0.5	82,975	100	98.1	
[Cd]	111	103	NoGas	97.791	ppb	0.3	193,439	100	97.79	
Sb	121	103	He	42.080	ppb	0.6	91,512	40	105.2	
Ba	138	159	He	104.446	ppb	0.5	493,083	100	104.45	
Hg	201	159	NoGas	769.706	ppt	3.2	789	800	96.21	
Tl	205	159	He	40.278	ppb	0.9	322,719	40	100.7	
Pb	208	159	NoGas	96.690	ppb	2.4	2,218,936	100	96.69	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.4	1,018,285	1152921.90333333	88.3	
Sc	45	H2	Analog	0.3	2,333,158	2718830.82666667	85.8	
Sc	45	He	Pulse	0.9	351,354	416019.95	84.5	
Sc	45	NoGas	Analog	0.3	3,055,241	3735081.11333333	81.8	
Ge	74	H2	Pulse	0.4	716,757	835241.986666667	85.8	
Ge	74	He	Pulse	0.9	205,028	244427.376666667	83.9	
Ge	74	NoGas	Pulse	0.8	782,443	957882.84	81.7	
Rh	103	He	Pulse	0.5	458,678	540467.566666667	84.9	
Rh	103	NoGas	Pulse	0.3	782,755	961648.273333333	81.4	
Tb	159	He	Pulse	0.4	628,637	691118.286666667	91.0	
Tb	159	NoGas	Analog	2.5	1,480,036	1636278.29333333	90.5	
Bi	209	He	Pulse	0.5	350,776	387813.86	90.4	
Bi	209	NoGas	Pulse	1.1	802,166	890232.166666667	90.1	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K06041-CCB6**	Total Dilution:	1.0000
File Name:	089_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 17:42:41
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.007	ppb	63.0	40	
Na	23	45	He	2.424	ppb	10.6	6,919	
Mg	24	45	He	0.510	ppb	22.8	826	
Al	27	45	He	0.758	ppb	9.0	364	
K	39	45	He	0.090	ppb	1028.0	29,333	
Ca	44	45	H2	1.402	ppb	16.4	751	
[Ca]	44	45	He	-0.886	ppb	N/A	174	
Ti	47	45	NoGas	0.021	ppb	40.9	55	
V	51	74	He	0.072	ppb	12.0	1,760	
Cr	52	74	He	0.008	ppb	224.8	309	
Mn	55	74	He	-0.027	ppb	N/A	200	
Fe	56	74	H2	1.175	ppb	6.4	33,519	
Co	59	74	He	0.011	ppb	16.2	146	
Ni	60	74	He	0.005	ppb	313.1	80	
Cu	65	74	He	0.044	ppb	41.6	126	
Zn	66	74	He	0.052	ppb	13.3	68	
As	75	74	He	0.033	ppb	5.5	47	
Se	78	74	H2	0.023	ppb	73.7	10	
Mo	95	103	He	0.029	ppb	46.5	61	
Ag	107	103	He	0.014	ppb	32.7	77	
Cd	111	103	He	0.026	ppb	25.3	24	
[Cd]	111	103	NoGas	0.012	ppb	45.1	33	
Sb	121	103	He	0.120	ppb	8.5	299	
Ba	138	159	He	0.013	ppb	18.4	140	
Hg	201	159	NoGas	9.647 ✓	ppt	10.9	8	
Tl	205	159	He	0.007	ppb	80.2	76	
Pb	208	159	NoGas	0.039	ppb	10.9	1,532	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	3.6	1,073,553	1152921.90333333	93.1	
Sc	45	H2	Analog	1.6	2,368,076	2718830.82666667	87.1	
Sc	45	He	Pulse	0.6	355,005	416019.95	85.3	
Sc	45	NoGas	Analog	1.3	3,132,480	3735081.11333333	83.9	
Ge	74	H2	Pulse	0.5	722,311	835241.986666667	86.5	
Ge	74	He	Pulse	1.1	207,994	244427.376666667	85.1	
Ge	74	NoGas	Pulse	0.9	802,337	957882.84	83.8	
Rh	103	He	Pulse	0.5	470,986	540467.566666667	87.1	
Rh	103	NoGas	Pulse	0.2	814,475	961648.273333333	84.7	
Tb	159	He	Pulse	0.7	634,105	691118.286666667	91.8	
Tb	159	NoGas	Analog	1.2	1,498,664	1636278.29333333	91.6	
Bi	209	He	Pulse	0.8	356,764	387813.86	92.0	
Bi	209	NoGas	Pulse	0.2	822,399	890232.166666667	92.4	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRL7**	Total Dilution:	1.0000
File Name:	090CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 17:47:24
Comment:	A19J368 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.171	ppb	7.2	486	95		
Na	23	45	He	10.818	ppb	3.8	17,098	120.2		
Mg	24	45	He	9.067	ppb	3.1	6,602	100.74		
Al	27	45	He	9.039	ppb	5.2	3,284	100.43		
K	39	45	He	8.054	ppb	7.7	34,109	89.49		
Ca	44	45	H2	9.708	ppb	3.8	2,720	107.87		
[Ca]	44	45	He	9.033	ppb	4.5	464	100.37		
Ti	47	45	NoGas	0.168	ppb	16.0	222	93.33		
V	51	74	He	0.241	ppb	3.3	2,457	133.89	R-11	< MRL
Cr	52	74	He	0.179	ppb	1.4	1,120	99.44		
Mn	55	74	He	0.152	ppb	12.4	772	84.44		
Fe	56	74	H2	8.914	ppb	0.5	128,622	99.04		
Co	59	74	He	0.169	ppb	7.2	1,181	93.89		
Ni	60	74	He	0.145	ppb	10.8	306	80.56		
Cu	65	74	He	0.201	ppb	12.9	437	111.67		
Zn	66	74	He	0.214	ppb	12.4	191	118.89		
As	75	74	He	0.183	ppb	4.9	115	101.67		
Se	78	74	H2	0.180	ppb	5.7	60	100		
Mo	95	103	He	0.168	ppb	1.4	323	93.33		
Ag	107	103	He	0.170	ppb	6.5	912	94.44		
Cd	111	103	He	0.179	ppb	10.5	159	99.44		
[Cd]	111	103	NoGas	0.195	ppb	13.0	413	108.33		
Sb	121	103	He	0.213	ppb	5.6	512	118.33		
Ba	138	159	He	0.189	ppb	10.6	976	105		
Hg	201	159	NoGas	14.031	ppt	29.8	13	194.88	R-11	< MRL
Tl	205	159	He	0.175	ppb	7.2	1,432	97.22		
Pb	208	159	NoGas	0.209	ppb	6.5	5,330	116.11		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.9	1,068,370	1152921.90333333	92.7	
Sc	45	H2	Analog	0.6	2,364,119	2718830.82666667	87.0	
Sc	45	He	Pulse	0.9	357,642	416019.95	86.0	
Sc	45	NoGas	Analog	0.8	3,122,896	3735081.11333333	83.6	
Ge	74	H2	Pulse	0.5	723,716	835241.986666667	86.6	
Ge	74	He	Pulse	0.8	208,712	244427.376666667	85.4	
Ge	74	NoGas	Pulse	0.8	804,970	957882.84	84.0	
Rh	103	He	Pulse	0.8	476,217	540467.566666667	88.1	
Rh	103	NoGas	Pulse	0.5	820,903	961648.273333333	85.4	
Tb	159	He	Pulse	0.9	633,958	691118.286666667	91.7	
Tb	159	NoGas	Analog	2.5	1,456,832	1636278.29333333	89.0	
Bi	209	He	Pulse	0.6	357,811	387813.86	92.3	
Bi	209	NoGas	Pulse	0.6	824,269	890232.166666667	92.6	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRL8**	Total Dilution:	1.0000
File Name:	091_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 17:52:05
Comment:	A19J369 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.881	ppb	1.5	2,366	97.89	
Na	23	45	He	46.221	ppb	0.9	59,634	102.71	
Mg	24	45	He	44.921	ppb	3.1	30,689	99.82	
Al	27	45	He	44.784	ppb	2.4	15,830	99.52	
K	39	45	He	43.283	ppb	1.5	54,127	96.18	
Ca	44	45	H2	44.984	ppb	0.5	11,018	99.96	
[Ca]	44	45	He	44.302	ppb	8.6	1,487	98.45	
Ti	47	45	NoGas	0.853	ppb	7.5	1,000	94.78	
V	51	74	He	0.927	ppb	2.1	5,263	103	
Cr	52	74	He	0.905	ppb	2.6	4,548	100.56	
Mn	55	74	He	0.872	ppb	5.4	3,077	96.89	
Fe	56	74	H2	43.743	ppb	0.6	558,095	97.21	
Co	59	74	He	0.880	ppb	2.5	5,829	97.78	
Ni	60	74	He	0.854	ppb	8.1	1,447	94.89	
Cu	65	74	He	0.967	ppb	1.6	1,952	107.44	
Zn	66	74	He	1.036	ppb	3.3	816	115.11	
As	75	74	He	0.880	ppb	6.0	433	97.78	
Se	78	74	H2	0.897	ppb	8.2	291	99.67	
Mo	95	103	He	0.840	ppb	5.5	1,588	93.33	
Ag	107	103	He	0.900	ppb	3.2	4,814	100	
Cd	111	103	He	0.883	ppb	6.0	775	98.11	
[Cd]	111	103	NoGas	0.872	ppb	1.7	1,803	96.89	
Sb	121	103	He	0.841	ppb	2.7	1,923	93.44	
Ba	138	159	He	0.941	ppb	2.2	4,558	104.56	
Hg	201	159	NoGas	40.069	ppt	18.9	38	111.3	
Tl	205	159	He	0.883	ppb	1.9	7,157	98.11	
Pb	208	159	NoGas	0.921	ppb	6.1	21,206	102.33	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.0	1,046,785	1152921.90333333	90.8	
Sc	45	H2	Analog	2.0	2,349,316	2718830.82666667	86.4	
Sc	45	He	Pulse	0.4	356,603	416019.95	85.7	
Sc	45	NoGas	Analog	0.6	3,126,062	3735081.11333333	83.7	
Ge	74	H2	Pulse	0.8	725,965	835241.986666667	86.9	
Ge	74	He	Pulse	1.0	208,692	244427.376666667	85.4	
Ge	74	NoGas	Pulse	0.8	802,867	957882.84	83.8	
Rh	103	He	Pulse	0.3	474,877	540467.566666667	87.9	
Rh	103	NoGas	Pulse	0.4	814,592	961648.273333333	84.7	
Tb	159	He	Pulse	0.9	634,474	691118.286666667	91.8	
Tb	159	NoGas	Analog	4.8	1,444,650	1636278.29333333	88.3	
Bi	209	He	Pulse	0.5	357,338	387813.86	92.1	
Bi	209	NoGas	Pulse	0.1	820,460	890232.166666667	92.2	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRL9**	Total Dilution:	1.0000
File Name:	092CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 17:56:45
Comment:	A19J370 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.706	ppb	1.7	4,545	94.78	
Na	23	45	He	92.109	ppb	0.5	114,478	102.34	
Mg	24	45	He	90.597	ppb	0.9	61,216	100.66	
Al	27	45	He	90.635	ppb	0.5	31,840	100.71	
K	39	45	He	91.781	ppb	1.4	81,564	101.98	
Ca	44	45	H2	89.864	ppb	1.8	21,622	99.85	
[Ca]	44	45	He	87.104	ppb	1.4	2,720	96.78	
Ti	47	45	NoGas	1.812	ppb	10.4	2,076	100.67	
V	51	74	He	1.835	ppb	0.7	8,967	101.94	
Cr	52	74	He	1.802	ppb	1.4	8,785	100.11	
Mn	55	74	He	1.781	ppb	5.0	5,984	98.94	
Fe	56	74	H2	88.576	ppb	0.2	1,108,767	98.42	
Co	59	74	He	1.776	ppb	2.0	11,683	98.67	
Ni	60	74	He	1.841	ppb	3.2	3,031	102.28	
Cu	65	74	He	2.014	ppb	1.5	4,022	111.89	
Zn	66	74	He	1.819	ppb	5.7	1,409	101.06	
As	75	74	He	1.832	ppb	4.6	868	101.78	
Se	78	74	H2	1.789	ppb	7.4	576	99.39	
Mo	95	103	He	1.721	ppb	2.7	3,228	95.61	
Ag	107	103	He	1.787	ppb	0.6	9,503	99.28	
Cd	111	103	He	1.811	ppb	0.7	1,579	100.61	
[Cd]	111	103	NoGas	1.752	ppb	0.9	3,605	97.33	
Sb	121	103	He	1.728	ppb	2.0	3,898	96	
Ba	138	159	He	1.864	ppb	1.2	8,917	103.56	
Hg	201	159	NoGas	67.371	ppt	10.0	69	93.57	
Tl	205	159	He	1.786	ppb	1.7	14,392	99.22	
Pb	208	159	NoGas	1.768	ppb	2.8	41,889	98.22	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.6	1,043,123	1152921.90333333	90.5	
Sc	45	H2	Analog	1.0	2,351,639	2718830.82666667	86.5	
Sc	45	He	Pulse	0.1	355,508	416019.95	85.5	
Sc	45	NoGas	Analog	1.0	3,105,817	3735081.11333333	83.2	
Ge	74	H2	Pulse	0.3	724,890	835241.986666667	86.8	
Ge	74	He	Pulse	0.5	208,546	244427.376666667	85.3	
Ge	74	NoGas	Pulse	0.9	799,662	957882.84	83.5	
Rh	103	He	Pulse	0.4	472,179	540467.566666667	87.4	
Rh	103	NoGas	Pulse	0.2	812,094	961648.273333333	84.4	
Tb	159	He	Pulse	0.5	631,615	691118.286666667	91.4	
Tb	159	NoGas	Analog	3.4	1,506,214	1636278.29333333	92.1	
Bi	209	He	Pulse	0.5	358,773	387813.86	92.5	
Bi	209	NoGas	Pulse	0.5	820,869	890232.166666667	92.2	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-CCV8**	Total Dilution:	1.0000
File Name:	103_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 18:47:59
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.556	ppb	1.8	99,445	40	96.39	
Na	23	45	He	4174.111	ppb	1.2	4,763,954	4000	104.35	
Mg	24	45	He	4348.161	ppb	0.4	2,772,328	4000	108.7	
Al	27	45	He	4135.154	ppb	1.5	1,377,224	4000	103.38	
K	39	45	He	4220.373	ppb	0.5	2,312,384	4000	105.51	
Ca	44	45	H2	4117.119	ppb	0.5	934,505	4000	102.93	
[Ca]	44	45	He	4080.104	ppb	0.5	112,441	4000	102	
Ti	47	45	NoGas	97.325	ppb	1.4	106,478	100	97.32	
V	51	74	He	96.268	ppb	0.7	371,702	100	96.27	
Cr	52	74	He	98.629	ppb	0.5	438,923	100	98.63	
Mn	55	74	He	103.663	ppb	0.2	312,624	100	103.66	
Fe	56	74	H2	4267.066	ppb	0.5	49,735,066	4000	106.68	
Co	59	74	He	101.310	ppb	0.6	623,361	100	101.31	
Ni	60	74	He	103.940	ppb	0.4	157,406	100	103.94	
Cu	65	74	He	103.298	ppb	0.9	192,427	100	103.3	
Zn	66	74	He	99.386	ppb	0.4	71,054	100	99.39	
As	75	74	He	97.387	ppb	0.4	41,899	100	97.39	
Se	78	74	H2	40.974	ppb	0.5	12,438	40	102.43	
Mo	95	103	He	39.928	ppb	1.5	69,669	40	99.82	
Ag	107	103	He	40.961	ppb	0.2	202,915	40	102.4	
Cd	111	103	He	98.344	ppb	1.0	79,804	100	98.34	
[Cd]	111	103	NoGas	98.446	ppb	1.7	187,638	100	98.45	
Sb	121	103	He	41.351	ppb	1.6	86,277	40	103.38	
Ba	138	159	He	103.206	ppb	0.7	468,637	100	103.21	
Hg	201	159	NoGas	756.449	ppt	1.7	753	800	94.56	
Tl	205	159	He	40.179	ppb	0.9	309,643	40	100.45	
Pb	208	159	NoGas	96.358	ppb	1.0	2,147,365	100	96.36	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.8	1,013,957	1152921.90333333	87.9	
Sc	45	H2	Analog	0.5	2,261,143	2718830.82666667	83.2	
Sc	45	He	Pulse	0.3	338,085	416019.95	81.3	
Sc	45	NoGas	Analog	1.4	3,009,588	3735081.11333333	80.6	
Ge	74	H2	Pulse	0.2	686,598	835241.986666667	82.2	
Ge	74	He	Pulse	0.7	196,361	244427.376666667	80.3	
Ge	74	NoGas	Pulse	0.9	756,917	957882.84	79.0	
Rh	103	He	Pulse	0.6	440,089	540467.566666667	81.4	
Rh	103	NoGas	Pulse	0.7	754,292	961648.273333333	78.4	
Tb	159	He	Pulse	0.4	604,662	691118.286666667	87.5	
Tb	159	NoGas	Analog	0.4	1,436,696	1636278.29333333	87.8	
Bi	209	He	Pulse	0.4	339,187	387813.86	87.5	
Bi	209	NoGas	Pulse	0.5	775,248	890232.166666667	87.1	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K06041-CCB7**	Total Dilution:	1.0000
File Name:	104_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 18:52:37
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.014	ppb	50.1	53	
Na	23	45	He	15.147	ppb	2.5	20,835	
Mg	24	45	He	1.054	ppb	5.6	1,119	
Al	27	45	He	0.682	ppb	9.9	318	
K	39	45	He	0.086	ppb	1051.4	27,582	
Ca	44	45	H2	3.173	ppb	7.2	1,107	
[Ca]	44	45	He	3.171	ppb	23.7	274	
Ti	47	45	NoGas	0.021	ppb	31.1	52	
V	51	74	He	0.077	ppb	7.9	1,663	
Cr	52	74	He	0.012	ppb	116.8	304	
Mn	55	74	He	0.011	ppb	56.4	300	
Fe	56	74	H2	1.638	ppb	4.2	36,844	
Co	59	74	He	0.011	ppb	26.1	140	
Ni	60	74	He	-0.003	ppb	N/A	62	
Cu	65	74	He	0.060	ppb	29.9	147	
Zn	66	74	He	0.055	ppb	26.8	66	
As	75	74	He	0.041	ppb	45.9	47	
Se	78	74	H2	0.039	ppb	55.6	14	
Mo	95	103	He	0.040	ppb	19.9	77	
Ag	107	103	He	0.011	ppb	32.4	58	
Cd	111	103	He	0.032	ppb	32.5	28	
[Cd]	111	103	NoGas	0.025	ppb	31.7	56	
Sb	121	103	He	0.132	ppb	9.8	309	
Ba	138	159	He	0.010	ppb	34.6	119	
Hg	201	159	NoGas	7.548	ppt	28.0	6	
Tl	205	159	He	0.007	ppb	28.6	67	
Pb	208	159	NoGas	0.033	ppb	3.6	1,316	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.9	994,792	1152921.90333333	86.3	
Sc	45	H2	Analog	0.5	2,236,413	2718830.82666667	82.3	
Sc	45	He	Pulse	1.0	333,879	416019.95	80.3	
Sc	45	NoGas	Analog	1.7	2,933,550	3735081.11333333	78.5	
Ge	74	H2	Pulse	0.5	678,896	835241.986666667	81.3	
Ge	74	He	Pulse	0.5	194,396	244427.376666667	79.5	
Ge	74	NoGas	Pulse	0.8	745,105	957882.84	77.8	
Rh	103	He	Pulse	0.8	446,274	540467.566666667	82.6	
Rh	103	NoGas	Pulse	0.9	759,290	961648.273333333	79.0	
Tb	159	He	Pulse	0.6	599,343	691118.286666667	86.7	
Tb	159	NoGas	Analog	1.0	1,420,640	1636278.29333333	86.8	
Bi	209	He	Pulse	1.0	343,172	387813.86	88.5	
Bi	209	NoGas	Pulse	0.4	777,245	890232.166666667	87.3	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-CCV9**	Total Dilution:	1.0000
File Name:	115_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 19:43:51
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.649	ppb	1.6	102,444	40	96.62	
Na	23	45	He	4121.250	ppb	0.5	4,821,573	4000	103.03	
Mg	24	45	He	4329.375	ppb	0.4	2,829,506	4000	108.23	
Al	27	45	He	4173.168	ppb	0.8	1,424,719	4000	104.33	
K	39	45	He	4237.786	ppb	0.7	2,379,991	4000	105.94	
Ca	44	45	H2	4011.879	ppb	0.5	951,509	4000	100.3	
[Ca]	44	45	He	4058.859	ppb	0.7	114,658	4000	101.47	
Ti	47	45	NoGas	96.202	ppb	1.5	108,051	100	96.2	
V	51	74	He	96.997	ppb	0.9	380,361	100	97	
Cr	52	74	He	99.527	ppb	0.9	449,839	100	99.53	
Mn	55	74	He	104.200	ppb	1.0	319,142	100	104.2	
Fe	56	74	H2	4292.335	ppb	0.2	51,013,277	4000	107.31	
Co	59	74	He	101.966	ppb	1.1	637,198	100	101.97	
Ni	60	74	He	105.127	ppb	0.9	161,689	100	105.13	
Cu	65	74	He	102.840	ppb	1.2	194,567	100	102.84	
Zn	66	74	He	100.056	ppb	0.5	72,652	100	100.06	
As	75	74	He	98.024	ppb	0.7	42,833	100	98.02	
Se	78	74	H2	40.844	ppb	1.1	12,642	40	102.11	
Mo	95	103	He	40.153	ppb	0.5	70,876	40	100.38	
Ag	107	103	He	41.161	ppb	0.2	206,269	40	102.9	
Cd	111	103	He	98.185	ppb	0.2	80,602	100	98.18	
[Cd]	111	103	NoGas	97.864	ppb	0.6	191,809	100	97.86	
Sb	121	103	He	41.669	ppb	0.4	87,953	40	104.17	
Ba	138	159	He	105.369	ppb	0.6	481,024	100	105.37	
Hg	201	159	NoGas	753.000	ppt	1.3	772	800	94.12	
Tl	205	159	He	40.242	ppb	0.9	311,782	40	100.6	
Pb	208	159	NoGas	94.314	ppb	0.3	2,163,767	100	94.31	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.0	1,041,945	1152921.90333333	90.4	
Sc	45	H2	Analog	0.3	2,362,616	2718830.82666667	86.9	
Sc	45	He	Pulse	0.2	346,553	416019.95	83.3	
Sc	45	NoGas	Analog	1.0	3,089,716	3735081.11333333	82.7	
Ge	74	H2	Pulse	0.4	700,107	835241.986666667	83.8	
Ge	74	He	Pulse	0.9	199,436	244427.376666667	81.6	
Ge	74	NoGas	Pulse	0.6	772,978	957882.84	80.7	
Rh	103	He	Pulse	0.6	445,193	540467.566666667	82.4	
Rh	103	NoGas	Pulse	0.5	775,572	961648.273333333	80.7	
Tb	159	He	Pulse	0.6	607,905	691118.286666667	88.0	
Tb	159	NoGas	Analog	0.5	1,479,017	1636278.29333333	90.4	
Bi	209	He	Pulse	0.9	338,835	387813.86	87.4	
Bi	209	NoGas	Pulse	0.8	780,723	890232.166666667	87.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K06041-CCB8**	Total Dilution:	1.0000
File Name:	116_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 19:48:29
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.008	ppb	26.2	41	
Na	23	45	He	8.737	ppb	4.3	14,166	
Mg	24	45	He	0.383	ppb	20.1	724	
Al	27	45	He	0.518	ppb	17.5	274	
K	39	45	He	0.143	ppb	993.3	28,736	
Ca	44	45	H2	1.622	ppb	4.9	784	
[Ca]	44	45	He	-0.607	ppb	N/A	179	
Ti	47	45	NoGas	0.026	ppb	58.7	60	
V	51	74	He	0.016	ppb	62.6	1,497	
Cr	52	74	He	0.004	ppb	241.2	283	
Mn	55	74	He	-0.019	ppb	N/A	219	
Fe	56	74	H2	1.590	ppb	6.7	37,373	
Co	59	74	He	0.007	ppb	24.8	118	
Ni	60	74	He	-0.002	ppb	N/A	67	
Cu	65	74	He	0.056	ppb	11.4	146	
Zn	66	74	He	0.056	ppb	65.9	69	
As	75	74	He	0.014	ppb	38.5	37	
Se	78	74	H2	0.047	ppb	44.1	17	
Mo	95	103	He	0.028	ppb	47.3	58	
Ag	107	103	He	0.009	ppb	46.7	48	
Cd	111	103	He	0.021	ppb	14.4	20	
[Cd]	111	103	NoGas	0.022	ppb	40.7	53	
Sb	121	103	He	0.151	ppb	24.4	358	
Ba	138	159	He	0.014	ppb	37.7	138	
Hg	201	159	NoGas	7.352	ppt	25.7	6	
Tl	205	159	He	0.008	ppb	26.4	73	
Pb	208	159	NoGas	0.027	ppb	3.0	1,232	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.5	1,051,368	1152921.90333333	91.2	
Sc	45	H2	Analog	1.3	2,312,363	2718830.82666667	85.0	
Sc	45	He	Pulse	1.2	347,363	416019.95	83.5	
Sc	45	NoGas	Analog	0.2	3,130,152	3735081.11333333	83.8	
Ge	74	H2	Pulse	0.6	699,272	835241.986666667	83.7	
Ge	74	He	Pulse	0.9	203,042	244427.376666667	83.1	
Ge	74	NoGas	Pulse	0.9	789,452	957882.84	82.4	
Rh	103	He	Pulse	0.4	459,027	540467.566666667	84.9	
Rh	103	NoGas	Pulse	0.8	799,034	961648.273333333	83.1	
Tb	159	He	Pulse	1.4	611,966	691118.286666667	88.5	
Tb	159	NoGas	Analog	1.9	1,471,297	1636278.29333333	89.9	
Bi	209	He	Pulse	1.3	345,818	387813.86	89.2	
Bi	209	NoGas	Pulse	0.3	798,846	890232.166666667	89.7	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-CCVA**	Total Dilution:	1.0000
File Name:	127_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 20:39:28
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.475	ppb	1.7	103,276	40	96.19	
Na	23	45	He	4200.364	ppb	0.3	4,794,174	4000	105.01	
Mg	24	45	He	4391.334	ppb	0.9	2,800,008	4000	109.78	
Al	27	45	He	4103.483	ppb	3.1	1,366,812	4000	102.59	
K	39	45	He	4253.701	ppb	3.0	2,330,641	4000	106.34	
Ca	44	45	H2	4071.115	ppb	0.4	938,812	4000	101.78	
[Ca]	44	45	He	4071.497	ppb	0.4	112,207	4000	101.79	
Ti	47	45	NoGas	96.609	ppb	1.7	107,779	100	96.61	
V	51	74	He	97.131	ppb	0.5	374,040	100	97.13	
Cr	52	74	He	98.864	ppb	0.4	438,815	100	98.86	
Mn	55	74	He	104.127	ppb	0.5	313,188	100	104.13	
Fe	56	74	H2	4310.546	ppb	0.7	50,413,511	4000	107.76	
Co	59	74	He	101.936	ppb	0.3	625,578	100	101.94	
Ni	60	74	He	104.405	ppb	0.5	157,694	100	104.4	
Cu	65	74	He	103.479	ppb	0.4	192,263	100	103.48	
Zn	66	74	He	100.177	ppb	0.9	71,433	100	100.18	
As	75	74	He	98.318	ppb	0.2	42,188	100	98.32	
Se	78	74	H2	41.253	ppb	0.9	12,566	40	103.13	
Mo	95	103	He	40.066	ppb	1.7	69,852	40	100.17	
Ag	107	103	He	41.105	ppb	0.3	203,476	40	102.76	
Cd	111	103	He	99.009	ppb	0.5	80,285	100	99.01	
[Cd]	111	103	NoGas	98.693	ppb	0.6	191,877	100	98.69	
Sb	121	103	He	41.635	ppb	0.3	86,810	40	104.09	
Ba	138	159	He	104.956	ppb	0.5	470,959	100	104.96	
Hg	201	159	NoGas	790.619	ppt	5.0	808	800	98.83	
Tl	205	159	He	40.644	ppb	0.3	309,523	40	101.61	
Pb	208	159	NoGas	94.854	ppb	1.2	2,170,597	100	94.85	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.7	1,055,244	1152921.90333333	91.5	
Sc	45	H2	Analog	0.7	2,297,224	2718830.82666667	84.5	
Sc	45	He	Pulse	0.3	338,097	416019.95	81.3	
Sc	45	NoGas	Analog	1.0	3,068,846	3735081.11333333	82.2	
Ge	74	H2	Pulse	0.4	688,952	835241.986666667	82.5	
Ge	74	He	Pulse	0.6	195,844	244427.376666667	80.1	
Ge	74	NoGas	Pulse	0.9	766,606	957882.84	80.0	
Rh	103	He	Pulse	1.2	439,764	540467.566666667	81.4	
Rh	103	NoGas	Pulse	0.9	769,358	961648.273333333	80.0	
Tb	159	He	Pulse	1.0	597,514	691118.286666667	86.5	
Tb	159	NoGas	Analog	1.3	1,475,385	1636278.29333333	90.2	
Bi	209	He	Pulse	0.4	339,624	387813.86	87.6	
Bi	209	NoGas	Pulse	0.2	781,734	890232.166666667	87.8	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K06041-CCB9**	Total Dilution:	1.0000
File Name:	128_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 20:44:06
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.007	ppb	135.2	40	
Na	23	45	He	7.619	ppb	4.1	12,727	
Mg	24	45	He	2.110	ppb	43.9	1,836	
Al	27	45	He	0.739	ppb	15.8	347	
K	39	45	He	0.665	ppb	81.5	28,727	
Ca	44	45	H2	4.098	ppb	11.1	1,365	
[Ca]	44	45	He	2.123	ppb	78.5	253	
Ti	47	45	NoGas	0.047	ppb	101.5	83	
V	51	74	He	0.355	ppb	7.0	2,785	
Cr	52	74	He	0.009	ppb	61.1	301	
Mn	55	74	He	0.012	ppb	74.8	310	
Fe	56	74	H2	1.271	ppb	9.6	33,366	
Co	59	74	He	0.011	ppb	27.5	140	
Ni	60	74	He	-0.008	ppb	N/A	57	
Cu	65	74	He	0.044	ppb	22.7	119	
Zn	66	74	He	0.048	ppb	63.7	62	
As	75	74	He	0.075	ppb	51.2	63	
Se	78	74	H2	0.034	ppb	52.3	13	
Mo	95	103	He	0.039	ppb	13.1	76	
Ag	107	103	He	0.009	ppb	25.9	50	
Cd	111	103	He	0.029	ppb	16.3	26	
[Cd]	111	103	NoGas	0.026	ppb	28.5	60	
Sb	121	103	He	0.181	ppb	5.1	418	
Ba	138	159	He	0.027	ppb	27.6	193	
Hg	201	159	NoGas	8.944	ppt	10.7	8	
Tl	205	159	He	0.008	ppb	10.6	73	
Pb	208	159	NoGas	0.041	ppb	4.8	1,548	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.9	1,067,351	1152921.90333333	92.6	
Sc	45	H2	Analog	0.6	2,321,973	2718830.82666667	85.4	
Sc	45	He	Pulse	1.0	343,867	416019.95	82.7	
Sc	45	NoGas	Analog	1.9	3,113,715	3735081.11333333	83.4	
Ge	74	H2	Pulse	0.2	694,558	835241.986666667	83.2	
Ge	74	He	Pulse	0.8	198,731	244427.376666667	81.3	
Ge	74	NoGas	Pulse	0.7	783,081	957882.84	81.8	
Rh	103	He	Pulse	1.1	451,562	540467.566666667	83.6	
Rh	103	NoGas	Pulse	0.2	799,604	961648.273333333	83.1	
Tb	159	He	Pulse	0.8	604,861	691118.286666667	87.5	
Tb	159	NoGas	Analog	0.5	1,477,284	1636278.29333333	90.3	
Bi	209	He	Pulse	0.8	342,488	387813.86	88.3	
Bi	209	NoGas	Pulse	0.8	799,282	890232.166666667	89.8	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-CCVB**	Total Dilution:	1.0000
File Name:	139_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 21:35:06
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.644	ppb	1.0	101,831	40	96.61	
Na	23	45	He	4178.747	ppb	0.9	4,692,873	4000	104.47	
Mg	24	45	He	4414.534	ppb	1.0	2,769,582	4000	110.36	> +/- 10%
Al	27	45	He	4202.043	ppb	1.4	1,377,058	4000	105.05	
K	39	45	He	4295.523	ppb	0.2	2,315,389	4000	107.39	
Ca	44	45	H2	4040.159	ppb	0.3	902,271	4000	101	
[Ca]	44	45	He	4056.508	ppb	0.5	110,001	4000	101.41	
Ti	47	45	NoGas	96.604	ppb	1.3	105,715	100	96.6	
V	51	74	He	97.163	ppb	0.5	366,615	100	97.16	
Cr	52	74	He	99.767	ppb	0.8	433,885	100	99.77	
Mn	55	74	He	104.317	ppb	0.4	307,441	100	104.32	
Fe	56	74	H2	4319.563	ppb	0.3	48,966,443	4000	107.99	
Co	59	74	He	102.193	ppb	0.5	614,518	100	102.19	
Ni	60	74	He	104.525	ppb	0.8	154,698	100	104.52	
Cu	65	74	He	103.994	ppb	0.4	189,326	100	103.99	
Zn	66	74	He	100.941	ppb	0.2	70,524	100	100.94	
As	75	74	He	98.482	ppb	0.5	41,407	100	98.48	
Se	78	74	H2	41.129	ppb	0.6	12,143	40	102.82	
Mo	95	103	He	40.142	ppb	0.7	69,009	40	100.36	
Ag	107	103	He	41.393	ppb	0.2	202,028	40	103.48	
Cd	111	103	He	99.392	ppb	1.0	79,466	100	99.39	
[Cd]	111	103	NoGas	99.271	ppb	1.0	189,215	100	99.27	
Sb	121	103	He	41.721	ppb	0.2	85,770	40	104.3	
Ba	138	159	He	104.395	ppb	0.6	466,679	100	104.4	
Hg	201	159	NoGas	758.428	ppt	1.3	770	800	94.8	
Tl	205	159	He	40.721	ppb	0.4	308,929	40	101.8	
Pb	208	159	NoGas	95.064	ppb	0.2	2,160,218	100	95.06	

Mg rounds to 110%.

ESS 11/7/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.3	1,035,753	1152921.90333333	89.8	
Sc	45	H2	Analog	0.5	2,224,708	2718830.82666667	81.8	
Sc	45	He	Pulse	0.5	332,671	416019.95	80.0	
Sc	45	NoGas	Analog	0.4	3,010,139	3735081.11333333	80.6	
Ge	74	H2	Pulse	0.4	667,773	835241.986666667	79.9	
Ge	74	He	Pulse	0.8	191,896	244427.376666667	78.5	
Ge	74	NoGas	Pulse	0.9	751,493	957882.84	78.5	
Rh	103	He	Pulse	1.1	433,599	540467.566666667	80.2	
Rh	103	NoGas	Pulse	0.4	754,262	961648.273333333	78.4	
Tb	159	He	Pulse	1.0	595,260	691118.286666667	86.1	
Tb	159	NoGas	Analog	0.3	1,464,949	1636278.29333333	89.5	
Bi	209	He	Pulse	0.9	336,350	387813.86	86.7	
Bi	209	NoGas	Pulse	0.6	776,217	890232.166666667	87.2	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-CCVC**	Total Dilution:	1.0000
File Name:	140_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 21:39:43
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.922	ppb	1.4	100,987	40	97.3	
Na	23	45	He	4183.596	ppb	0.8	4,704,415	4000	104.59	
Mg	24	45	He	4371.834	ppb	0.7	2,746,319	4000	109.3	
Al	27	45	He	4220.462	ppb	0.6	1,384,953	4000	105.51	
K	39	45	He	4304.223	ppb	1.2	2,323,153	4000	107.61	
Ca	44	45	H2	4038.872	ppb	0.4	912,916	4000	100.97	
[Ca]	44	45	He	4046.930	ppb	0.8	109,890	4000	101.17	
Ti	47	45	NoGas	96.717	ppb	1.0	106,442	100	96.72	
V	51	74	He	97.032	ppb	0.2	366,743	100	97.03	
Cr	52	74	He	99.450	ppb	0.4	433,233	100	99.45	
Mn	55	74	He	103.964	ppb	1.0	306,896	100	103.96	
Fe	56	74	H2	4320.539	ppb	1.0	49,436,846	4000	108.01	
Co	59	74	He	101.774	ppb	0.2	613,013	100	101.77	
Ni	60	74	He	104.805	ppb	1.0	155,360	100	104.81	
Cu	65	74	He	103.555	ppb	0.6	188,837	100	103.56	
Zn	66	74	He	100.546	ppb	0.5	70,365	100	100.55	
As	75	74	He	98.546	ppb	0.7	41,503	100	98.55	
Se	78	74	H2	40.880	ppb	0.8	12,183	40	102.2	
Mo	95	103	He	40.401	ppb	0.8	69,269	40	101	
Ag	107	103	He	41.377	ppb	0.8	201,400	40	103.44	
Cd	111	103	He	99.101	ppb	0.4	79,023	100	99.1	
[Cd]	111	103	NoGas	100.136	ppb	0.8	190,771	100	100.14	
Sb	121	103	He	41.890	ppb	0.9	85,882	40	104.72	
Ba	138	159	He	105.254	ppb	0.3	465,466	100	105.25	
Hg	201	159	NoGas	764.039	ppt	1.7	774	800	95.5	
Tl	205	159	He	41.022	ppb	0.7	307,881	40	102.56	
Pb	208	159	NoGas	95.396	ppb	2.0	2,162,614	100	95.4	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.0	1,019,906	1152921.90333333	88.5	
Sc	45	H2	Analog	0.3	2,251,668	2718830.82666667	82.8	
Sc	45	He	Pulse	0.6	333,109	416019.95	80.1	
Sc	45	NoGas	Analog	0.2	3,027,245	3735081.11333333	81.0	
Ge	74	H2	Pulse	0.3	674,055	835241.986666667	80.7	
Ge	74	He	Pulse	0.8	192,217	244427.376666667	78.6	
Ge	74	NoGas	Pulse	0.6	752,900	957882.84	78.6	
Rh	103	He	Pulse	1.3	432,448	540467.566666667	80.0	
Rh	103	NoGas	Pulse	0.4	753,894	961648.273333333	78.4	
Tb	159	He	Pulse	0.7	588,886	691118.286666667	85.2	
Tb	159	NoGas	Analog	1.6	1,461,771	1636278.29333333	89.3	
Bi	209	He	Pulse	0.9	332,171	387813.86	85.7	
Bi	209	NoGas	Pulse	0.4	773,584	890232.166666667	86.9	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K06041-CCBA**	Total Dilution:	1.0000
File Name:	141_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 21:44:21
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.009	ppb	54.9	44	
Na	23	45	He	4.879	ppb	2.7	9,446	
Mg	24	45	He	0.828	ppb	5.8	996	
Al	27	45	He	0.965	ppb	23.1	419	
K	39	45	He	1.443	ppb	106.4	28,839	
Ca	44	45	H2	1.566	ppb	11.8	763	
[Ca]	44	45	He	0.658	ppb	94.7	210	
Ti	47	45	NoGas	0.052	ppb	36.5	88	
V	51	74	He	0.098	ppb	4.2	1,768	
Cr	52	74	He	0.014	ppb	57.3	320	
Mn	55	74	He	-0.010	ppb	N/A	240	
Fe	56	74	H2	1.841	ppb	5.5	39,645	
Co	59	74	He	0.011	ppb	7.5	141	
Ni	60	74	He	-0.003	ppb	N/A	63	
Cu	65	74	He	0.046	ppb	17.0	121	
Zn	66	74	He	0.052	ppb	54.3	64	
As	75	74	He	0.042	ppb	71.1	48	
Se	78	74	H2	0.033	ppb	16.1	13	
Mo	95	103	He	0.038	ppb	15.6	76	
Ag	107	103	He	0.016	ppb	30.9	83	
Cd	111	103	He	0.031	ppb	25.5	28	
[Cd]	111	103	NoGas	0.039	ppb	24.8	86	
Sb	121	103	He	0.175	ppb	17.5	404	
Ba	138	159	He	0.023	ppb	11.9	174	
Hg	201	159	NoGas	8.462	ppt	29.9	7	
Tl	205	159	He	0.007	ppb	15.6	66	
Pb	208	159	NoGas	0.048	ppb	19.0	1,712	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.7	1,060,322	1152921.90333333	92.0	
Sc	45	H2	Analog	0.9	2,287,726	2718830.82666667	84.1	
Sc	45	He	Pulse	1.1	340,131	416019.95	81.8	
Sc	45	NoGas	Analog	1.1	3,096,857	3735081.11333333	82.9	
Ge	74	H2	Pulse	0.6	687,122	835241.986666667	82.3	
Ge	74	He	Pulse	1.0	197,239	244427.376666667	80.7	
Ge	74	NoGas	Pulse	1.0	771,820	957882.84	80.6	
Rh	103	He	Pulse	0.8	452,940	540467.566666667	83.8	
Rh	103	NoGas	Pulse	0.7	787,917	961648.273333333	81.9	
Tb	159	He	Pulse	1.0	599,346	691118.286666667	86.7	
Tb	159	NoGas	Analog	1.5	1,481,537	1636278.29333333	90.5	
Bi	209	He	Pulse	0.8	342,985	387813.86	88.4	
Bi	209	NoGas	Pulse	0.7	791,175	890232.166666667	88.9	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-CCVE**	Total Dilution:	1.0000
File Name:	143_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 21:53:38
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.028	ppb	0.7	100,979	40	97.57	
Na	23	45	He	4182.363	ppb	1.0	4,681,535	4000	104.56	
Mg	24	45	He	4426.693	ppb	0.4	2,768,305	4000	110.67	> +/- 10%
Al	27	45	He	4208.831	ppb	0.9	1,374,835	4000	105.22	
K	39	45	He	4283.916	ppb	1.0	2,301,641	4000	107.1	
Ca	44	45	H2	4002.413	ppb	0.5	907,433	4000	100.06	
[Ca]	44	45	He	4073.998	ppb	1.6	110,106	4000	101.85	
Ti	47	45	NoGas	98.343	ppb	1.0	106,586	100	98.34	
V	51	74	He	96.946	ppb	0.6	365,247	100	96.95	
Cr	52	74	He	99.496	ppb	0.6	432,057	100	99.5	
Mn	55	74	He	103.486	ppb	0.3	304,529	100	103.49	
Fe	56	74	H2	4334.031	ppb	0.5	49,290,812	4000	108.35	
Co	59	74	He	101.582	ppb	0.2	609,915	100	101.58	
Ni	60	74	He	104.196	ppb	0.0	153,976	100	104.2	
Cu	65	74	He	103.257	ppb	0.7	187,695	100	103.26	
Zn	66	74	He	100.785	ppb	1.0	70,306	100	100.78	
As	75	74	He	97.889	ppb	0.3	41,095	100	97.89	
Se	78	74	H2	40.742	ppb	1.5	12,068	40	101.85	
Mo	95	103	He	40.283	ppb	0.3	68,603	40	100.71	
Ag	107	103	He	41.329	ppb	0.7	199,818	40	103.32	
Cd	111	103	He	99.549	ppb	0.7	78,843	100	99.55	
[Cd]	111	103	NoGas	100.192	ppb	0.6	189,197	100	100.19	
Sb	121	103	He	42.114	ppb	1.0	85,764	40	105.28	
Ba	138	159	He	104.516	ppb	0.3	461,006	100	104.52	
Hg	201	159	NoGas	744.158	ppt	3.1	755	800	93.02	
Tl	205	159	He	40.999	ppb	0.6	306,921	40	102.5	
Pb	208	159	NoGas	94.665	ppb	0.5	2,150,076	100	94.66	

Mg Q-41
ESS 11/7/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.5	1,016,968	1152921.90333333	88.2	
Sc	45	H2	Analog	0.4	2,258,535	2718830.82666667	83.1	
Sc	45	He	Pulse	1.4	331,602	416019.95	79.7	
Sc	45	NoGas	Analog	1.4	2,981,488	3735081.11333333	79.8	
Ge	74	H2	Pulse	0.4	669,966	835241.986666667	80.2	
Ge	74	He	Pulse	0.9	191,608	244427.376666667	78.4	
Ge	74	NoGas	Pulse	1.4	747,443	957882.84	78.0	
Rh	103	He	Pulse	1.0	429,527	540467.566666667	79.5	
Rh	103	NoGas	Pulse	0.8	747,266	961648.273333333	77.7	
Tb	159	He	Pulse	1.1	587,369	691118.286666667	85.0	
Tb	159	NoGas	Analog	0.5	1,464,221	1636278.29333333	89.5	
Bi	209	He	Pulse	1.1	331,941	387813.86	85.6	
Bi	209	NoGas	Pulse	0.5	770,130	890232.166666667	86.5	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K06041-CCBB**	Total Dilution:	1.0000
File Name:	144_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 21:58:16
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.006	ppb	62.8	36	
Na	23	45	He	4.962	ppb	3.3	9,444	
Mg	24	45	He	0.645	ppb	34.6	868	
Al	27	45	He	0.726	ppb	41.7	334	
K	39	45	He	2.383	ppb	57.0	29,049	
Ca	44	45	H2	1.663	ppb	9.1	782	
[Ca]	44	45	He	-0.564	ppb	N/A	174	
Ti	47	45	NoGas	0.024	ppb	124.2	57	
V	51	74	He	0.096	ppb	18.0	1,749	
Cr	52	74	He	0.019	ppb	9.9	341	
Mn	55	74	He	-0.040	ppb	N/A	149	
Fe	56	74	H2	1.290	ppb	8.6	32,823	
Co	59	74	He	0.012	ppb	55.5	148	
Ni	60	74	He	-0.006	ppb	N/A	59	
Cu	65	74	He	0.032	ppb	18.1	94	
Zn	66	74	He	0.056	ppb	51.4	67	
As	75	74	He	0.058	ppb	20.0	55	
Se	78	74	H2	0.052	ppb	37.8	18	
Mo	95	103	He	0.053	ppb	19.2	101	
Ag	107	103	He	0.014	ppb	45.8	74	
Cd	111	103	He	0.042	ppb	10.8	36	
[Cd]	111	103	NoGas	0.017	ppb	20.5	43	
Sb	121	103	He	0.235	ppb	17.6	529	
Ba	138	159	He	0.014	ppb	19.2	133	
Hg	201	159	NoGas	9.125	ppt	26.2	8	
Tl	205	159	He	0.012	ppb	5.9	109	
Pb	208	159	NoGas	0.052	ppb	3.7	1,805	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	0.8	1,035,953	1152921.90333333	89.9	
Sc	45	H2	Analog	0.4	2,277,815	2718830.82666667	83.8	
Sc	45	He	Pulse	1.0	336,674	416019.95	80.9	
Sc	45	NoGas	Analog	0.9	3,046,942	3735081.11333333	81.6	
Ge	74	H2	Pulse	0.3	678,837	835241.986666667	81.3	
Ge	74	He	Pulse	0.6	195,868	244427.376666667	80.1	
Ge	74	NoGas	Pulse	0.6	762,269	957882.84	79.6	
Rh	103	He	Pulse	0.9	448,360	540467.566666667	83.0	
Rh	103	NoGas	Pulse	0.6	780,259	961648.273333333	81.1	
Tb	159	He	Pulse	0.6	594,441	691118.286666667	86.0	
Tb	159	NoGas	Analog	0.9	1,473,359	1636278.29333333	90.0	
Bi	209	He	Pulse	0.9	338,832	387813.86	87.4	
Bi	209	NoGas	Pulse	0.2	785,235	890232.166666667	88.2	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRLA**	Total Dilution:	1.0000
File Name:	145CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 22:02:59
Comment:	A19J368 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.169	ppb	4.8	467	93.89	
Na	23	45	He	13.598	ppb	3.3	19,353	151.09	R-11
Mg	24	45	He	9.183	ppb	3.6	6,322	102.03	
Al	27	45	He	9.134	ppb	5.8	3,140	101.49	
K	39	45	He	9.873	ppb	11.9	33,265	109.7	
Ca	44	45	H2	9.642	ppb	4.5	2,615	107.13	
[Ca]	44	45	He	7.960	ppb	0.4	410	88.44	
Ti	47	45	NoGas	0.208	ppb	1.2	260	115.56	
V	51	74	He	0.252	ppb	5.4	2,352	140	R-11
Cr	52	74	He	0.187	ppb	8.3	1,087	103.89	
Mn	55	74	He	0.147	ppb	6.3	712	81.67	
Fe	56	74	H2	8.918	ppb	0.5	121,695	99.09	
Co	59	74	He	0.170	ppb	11.6	1,117	94.44	
Ni	60	74	He	0.167	ppb	20.3	320	92.78	
Cu	65	74	He	0.209	ppb	7.8	424	116.11	
Zn	66	74	He	0.184	ppb	19.3	158	102.22	
As	75	74	He	0.195	ppb	17.2	113	108.33	
Se	78	74	H2	0.212	ppb	7.0	67	117.78	
Mo	95	103	He	0.200	ppb	13.0	366	111.11	
Ag	107	103	He	0.182	ppb	11.2	931	101.11	
Cd	111	103	He	0.199	ppb	17.4	168	110.56	
[Cd]	111	103	NoGas	0.175	ppb	9.5	352	97.22	
Sb	121	103	He	0.258	ppb	21.7	581	143.33	R-11
Ba	138	159	He	0.197	ppb	8.7	949	109.44	
Hg	201	159	NoGas	13.965	ppt	16.2	13	193.96	R-11
Tl	205	159	He	0.178	ppb	2.8	1,365	98.89	
Pb	208	159	NoGas	0.208	ppb	2.0	5,399	115.56	

< MRL

< MRL

< MRL

< MRL

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.1	1,040,638	1152921.90333333	90.3	
Sc	45	H2	Analog	1.4	2,285,457	2718830.82666667	84.1	
Sc	45	He	Pulse	0.2	338,443	416019.95	81.4	
Sc	45	NoGas	Analog	1.0	3,036,649	3735081.11333333	81.3	
Ge	74	H2	Pulse	0.2	684,439	835241.986666667	81.9	
Ge	74	He	Pulse	0.5	196,262	244427.376666667	80.3	
Ge	74	NoGas	Pulse	0.3	762,178	957882.84	79.6	
Rh	103	He	Pulse	0.6	451,659	540467.566666667	83.6	
Rh	103	NoGas	Pulse	0.5	777,616	961648.273333333	80.9	
Tb	159	He	Pulse	1.4	593,740	691118.286666667	85.9	
Tb	159	NoGas	Analog	0.3	1,479,371	1636278.29333333	90.4	
Bi	209	He	Pulse	0.9	340,236	387813.86	87.7	
Bi	209	NoGas	Pulse	0.3	784,861	890232.166666667	88.2	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRLB**	Total Dilution:	1.0000
File Name:	146_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 22:07:40
Comment:	A19J369 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.856	ppb	10.1	2,316	95.11	
Na	23	45	He	50.068	ppb	1.9	60,853	111.26	
Mg	24	45	He	46.538	ppb	0.2	30,096	103.42	
Al	27	45	He	44.773	ppb	0.3	14,990	99.5	
K	39	45	He	45.673	ppb	2.0	52,552	101.5	
Ca	44	45	H2	44.643	ppb	2.9	10,627	99.21	
[Ca]	44	45	He	42.917	ppb	5.5	1,370	95.37	
Ti	47	45	NoGas	0.839	ppb	5.3	968	93.22	
V	51	74	He	0.938	ppb	2.1	5,003	104.22	
Cr	52	74	He	0.881	ppb	3.1	4,183	97.89	
Mn	55	74	He	0.856	ppb	6.8	2,853	95.11	
Fe	56	74	H2	44.143	ppb	0.7	531,535	98.1	
Co	59	74	He	0.904	ppb	2.4	5,643	100.44	
Ni	60	74	He	0.913	ppb	4.9	1,452	101.44	
Cu	65	74	He	0.969	ppb	5.0	1,845	107.67	
Zn	66	74	He	1.002	ppb	7.7	744	111.33	
As	75	74	He	0.868	ppb	3.7	404	96.44	
Se	78	74	H2	0.896	ppb	8.7	274	99.56	
Mo	95	103	He	0.915	ppb	7.5	1,642	101.67	
Ag	107	103	He	0.899	ppb	0.7	4,566	99.89	
Cd	111	103	He	0.853	ppb	2.3	711	94.78	
[Cd]	111	103	NoGas	0.925	ppb	8.6	1,832	102.78	
Sb	121	103	He	0.885	ppb	4.7	1,922	98.33	
Ba	138	159	He	0.913	ppb	3.0	4,154	101.44	
Hg	201	159	NoGas	43.347	ppt	16.5	43	120.41	
Tl	205	159	He	0.902	ppb	1.9	6,859	100.22	
Pb	208	159	NoGas	0.876	ppb	0.4	20,599	97.33	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.3	1,054,133	1152921.90333333	91.4	
Sc	45	H2	Analog	0.4	2,282,429	2718830.82666667	83.9	
Sc	45	He	Pulse	1.0	337,732	416019.95	81.2	
Sc	45	NoGas	Analog	1.6	3,075,371	3735081.11333333	82.3	
Ge	74	H2	Pulse	0.1	685,366	835241.986666667	82.1	
Ge	74	He	Pulse	0.9	196,701	244427.376666667	80.5	
Ge	74	NoGas	Pulse	0.8	762,250	957882.84	79.6	
Rh	103	He	Pulse	1.2	450,984	540467.566666667	83.4	
Rh	103	NoGas	Pulse	0.5	779,654	961648.273333333	81.1	
Tb	159	He	Pulse	0.9	595,305	691118.286666667	86.1	
Tb	159	NoGas	Analog	2.2	1,470,420	1636278.29333333	89.9	
Bi	209	He	Pulse	0.8	339,730	387813.86	87.6	
Bi	209	NoGas	Pulse	0.3	786,418	890232.166666667	88.3	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRLC**	Total Dilution:	1.0000
File Name:	147CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 22:12:21
Comment:	A19J370 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.656	ppb	3.0	4,452	92	
Na	23	45	He	96.800	ppb	0.5	113,720	107.56	
Mg	24	45	He	92.093	ppb	0.7	58,911	102.33	
Al	27	45	He	89.610	ppb	2.1	29,807	99.57	
K	39	45	He	91.948	ppb	1.8	77,322	102.16	
Ca	44	45	H2	89.680	ppb	1.4	21,137	99.64	
[Ca]	44	45	He	89.819	ppb	4.7	2,650	99.8	
Ti	47	45	NoGas	1.831	ppb	2.9	2,046	101.72	
V	51	74	He	1.894	ppb	0.7	8,631	105.22	
Cr	52	74	He	1.752	ppb	2.3	8,011	97.33	
Mn	55	74	He	1.835	ppb	3.0	5,769	101.94	
Fe	56	74	H2	89.515	ppb	0.4	1,055,806	99.46	
Co	59	74	He	1.810	ppb	3.3	11,154	100.56	
Ni	60	74	He	1.833	ppb	2.0	2,828	101.83	
Cu	65	74	He	1.946	ppb	1.0	3,643	108.11	
Zn	66	74	He	1.836	ppb	0.5	1,332	102	
As	75	74	He	1.778	ppb	2.1	790	98.78	
Se	78	74	H2	1.754	ppb	6.0	532	97.44	
Mo	95	103	He	1.758	ppb	3.9	3,132	97.67	
Ag	107	103	He	1.774	ppb	1.8	8,958	98.56	
Cd	111	103	He	1.804	ppb	3.5	1,493	100.22	
[Cd]	111	103	NoGas	1.823	ppb	4.5	3,579	101.28	
Sb	121	103	He	1.744	ppb	2.4	3,736	96.89	
Ba	138	159	He	1.896	ppb	0.2	8,532	105.33	
Hg	201	159	NoGas	71.540	ppt	5.8	72	99.36	
Tl	205	159	He	1.788	ppb	2.1	13,558	99.33	
Pb	208	159	NoGas	1.765	ppb	2.1	40,923	98.06	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.2	1,052,109	1152921.90333333	91.3	
Sc	45	H2	Analog	0.9	2,303,927	2718830.82666667	84.7	
Sc	45	He	Pulse	0.4	336,616	416019.95	80.9	
Sc	45	NoGas	Analog	0.1	3,029,383	3735081.11333333	81.1	
Ge	74	H2	Pulse	0.4	683,147	835241.986666667	81.8	
Ge	74	He	Pulse	1.2	195,417	244427.376666667	79.9	
Ge	74	NoGas	Pulse	1.0	762,336	957882.84	79.6	
Rh	103	He	Pulse	1.1	448,440	540467.566666667	83.0	
Rh	103	NoGas	Pulse	0.3	775,286	961648.273333333	80.6	
Tb	159	He	Pulse	1.1	594,345	691118.286666667	86.0	
Tb	159	NoGas	Analog	0.7	1,472,714	1636278.29333333	90.0	
Bi	209	He	Pulse	0.8	339,267	387813.86	87.5	
Bi	209	NoGas	Pulse	0.5	783,564	890232.166666667	88.0	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRLD**	Total Dilution:	1.0000
File Name:	148CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 22:17:02
Comment:	A19J371 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.286	ppb	3.5	8,888	91.28	
Na	23	45	He	183.098	ppb	0.3	212,297	101.72	
Mg	24	45	He	178.904	ppb	0.6	114,330	99.39	
Al	27	45	He	174.281	ppb	1.0	58,043	96.82	
K	39	45	He	177.035	ppb	0.7	123,523	98.35	
Ca	44	45	H2	169.390	ppb	1.4	39,583	94.11	
[Ca]	44	45	He	172.434	ppb	3.5	4,926	95.8	
Ti	47	45	NoGas	3.328	ppb	2.4	3,750	92.44	
V	51	74	He	3.465	ppb	0.5	14,765	96.25	
Cr	52	74	He	3.416	ppb	1.5	15,501	94.89	
Mn	55	74	He	3.506	ppb	4.4	10,867	97.39	
Fe	56	74	H2	185.443	ppb	0.1	2,175,163	103.02	
Co	59	74	He	3.429	ppb	0.6	21,245	95.25	
Ni	60	74	He	3.469	ppb	0.6	5,338	96.36	
Cu	65	74	He	3.688	ppb	3.2	6,929	102.44	
Zn	66	74	He	3.555	ppb	1.9	2,577	98.75	
As	75	74	He	3.472	ppb	4.8	1,528	96.44	
Se	78	74	H2	3.475	ppb	1.2	1,055	96.53	
Mo	95	103	He	3.351	ppb	1.3	5,988	93.08	
Ag	107	103	He	3.413	ppb	1.9	17,304	94.81	
Cd	111	103	He	3.514	ppb	3.6	2,920	97.61	
[Cd]	111	103	NoGas	3.457	ppb	1.1	6,843	96.03	
Sb	121	103	He	3.411	ppb	2.6	7,308	94.75	
Ba	138	159	He	3.683	ppb	1.7	16,546	102.31	
Hg	201	159	NoGas	149.195	ppt	6.0	151	103.61	
Tl	205	159	He	3.453	ppb	1.2	26,235	95.92	
Pb	208	159	NoGas	3.352	ppb	0.8	77,193	93.11	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.7	1,061,189	1152921.90333333	92.0	
Sc	45	H2	Analog	0.8	2,305,076	2718830.82666667	84.8	
Sc	45	He	Pulse	0.5	337,554	416019.95	81.1	
Sc	45	NoGas	Analog	0.2	3,075,368	3735081.11333333	82.3	
Ge	74	H2	Pulse	0.2	685,448	835241.986666667	82.1	
Ge	74	He	Pulse	1.1	197,056	244427.376666667	80.6	
Ge	74	NoGas	Pulse	0.7	766,196	957882.84	80.0	
Rh	103	He	Pulse	1.4	450,299	540467.566666667	83.3	
Rh	103	NoGas	Pulse	0.3	782,336	961648.273333333	81.4	
Tb	159	He	Pulse	0.7	595,829	691118.286666667	86.2	
Tb	159	NoGas	Analog	0.7	1,473,391	1636278.29333333	90.0	
Bi	209	He	Pulse	0.7	342,995	387813.86	88.4	
Bi	209	NoGas	Pulse	0.5	791,698	890232.166666667	88.9	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9K06041-CCVF**	Total Dilution:	1.0000
File Name:	157_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 22:58:52
Comment:	A19J138 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.395	ppb	1.8	102,532	40	95.99	
Na	23	45	He	4211.214	ppb	0.8	4,893,121	4000	105.28	
Mg	24	45	He	4384.983	ppb	1.0	2,846,345	4000	109.62	
Al	27	45	He	4180.045	ppb	1.0	1,417,507	4000	104.5	
K	39	45	He	4313.325	ppb	0.1	2,405,479	4000	107.83	
Ca	44	45	H2	4041.391	ppb	0.7	946,742	4000	101.03	
[Ca]	44	45	He	4077.999	ppb	0.5	114,414	4000	101.95	
Ti	47	45	NoGas	96.086	ppb	0.8	107,177	100	96.09	
V	51	74	He	97.487	ppb	0.2	378,479	100	97.49	
Cr	52	74	He	100.008	ppb	0.7	447,527	100	100.01	
Mn	55	74	He	104.068	ppb	0.6	315,579	100	104.07	
Fe	56	74	H2	4351.849	ppb	0.8	51,112,328	4000	108.8	
Co	59	74	He	101.871	ppb	0.2	630,288	100	101.87	
Ni	60	74	He	104.419	ppb	1.0	159,000	100	104.42	
Cu	65	74	He	103.484	ppb	0.6	193,845	100	103.48	
Zn	66	74	He	99.569	ppb	1.0	71,575	100	99.57	
As	75	74	He	97.482	ppb	0.2	42,171	100	97.48	
Se	78	74	H2	41.218	ppb	0.7	12,609	40	103.05	
Mo	95	103	He	40.449	ppb	0.9	70,138	40	101.12	
Ag	107	103	He	41.359	ppb	1.3	203,601	40	103.4	
Cd	111	103	He	99.000	ppb	0.5	79,836	100	99	
[Cd]	111	103	NoGas	99.129	ppb	0.7	188,823	100	99.13	
Sb	121	103	He	41.520	ppb	1.3	86,093	40	103.8	
Ba	138	159	He	104.494	ppb	0.4	468,269	100	104.49	
Hg	201	159	NoGas	726.990	ppt	2.9	737	800	90.87	
Tl	205	159	He	40.276	ppb	0.6	306,312	40	100.69	
Pb	208	159	NoGas	94.298	ppb	0.6	2,139,758	100	94.3	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.6	1,049,817	1152921.90333333	91.1	
Sc	45	H2	Analog	0.3	2,333,651	2718830.82666667	85.8	
Sc	45	He	Pulse	1.2	344,209	416019.95	82.7	
Sc	45	NoGas	Analog	0.7	3,068,195	3735081.11333333	82.1	
Ge	74	H2	Pulse	0.4	691,886	835241.986666667	82.8	
Ge	74	He	Pulse	0.6	197,443	244427.376666667	80.8	
Ge	74	NoGas	Pulse	0.7	757,845	957882.84	79.1	
Rh	103	He	Pulse	0.2	437,336	540467.566666667	80.9	
Rh	103	NoGas	Pulse	0.3	753,769	961648.273333333	78.4	
Tb	159	He	Pulse	0.8	596,744	691118.286666667	86.3	
Tb	159	NoGas	Analog	0.4	1,462,858	1636278.29333333	89.4	
Bi	209	He	Pulse	0.9	333,546	387813.86	86.0	
Bi	209	NoGas	Pulse	0.5	764,926	890232.166666667	85.9	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9K06041-CCBC**	Total Dilution:	1.0000
File Name:	158_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 23:03:29
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.001	ppb	430.0	24	
Na	23	45	He	6.624	ppb	3.7	11,499	
Mg	24	45	He	0.144	ppb	58.2	559	
Al	27	45	He	0.326	ppb	51.9	206	
K	39	45	He	1.204	ppb	17.0	28,840	
Ca	44	45	H2	1.045	ppb	11.4	657	
[Ca]	44	45	He	-1.529	ppb	N/A	150	
Ti	47	45	NoGas	0.010	ppb	48.9	42	
V	51	74	He	0.161	ppb	11.8	2,019	
Cr	52	74	He	-0.001	ppb	N/A	254	
Mn	55	74	He	-0.050	ppb	N/A	120	
Fe	56	74	H2	0.764	ppb	12.8	27,085	
Co	59	74	He	-0.002	ppb	N/A	61	
Ni	60	74	He	-0.008	ppb	N/A	57	
Cu	65	74	He	0.023	ppb	28.8	80	
Zn	66	74	He	0.095	ppb	75.8	96	
As	75	74	He	0.047	ppb	65.9	50	
Se	78	74	H2	0.041	ppb	28.0	15	
Mo	95	103	He	0.028	ppb	67.1	57	
Ag	107	103	He	0.008	ppb	55.0	47	
Cd	111	103	He	0.031	ppb	23.5	28	
[Cd]	111	103	NoGas	0.026	ppb	17.3	60	
Sb	121	103	He	0.175	ppb	8.9	404	
Ba	138	159	He	0.016	ppb	17.0	143	
Hg	201	159	NoGas	9.271	ppt	33.9	8	
Tl	205	159	He	0.004	ppb	83.7	48	
Pb	208	159	NoGas	0.030	ppb	10.2	1,314	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Analog	1.4	1,063,292	1152921.90333333	92.2	
Sc	45	H2	Analog	0.5	2,334,044	2718830.82666667	85.8	
Sc	45	He	Pulse	0.8	341,675	416019.95	82.1	
Sc	45	NoGas	Analog	1.0	3,071,408	3735081.11333333	82.2	
Ge	74	H2	Pulse	0.2	686,858	835241.986666667	82.2	
Ge	74	He	Pulse	0.8	197,637	244427.376666667	80.9	
Ge	74	NoGas	Pulse	1.1	769,353	957882.84	80.3	
Rh	103	He	Pulse	0.7	451,551	540467.566666667	83.5	
Rh	103	NoGas	Pulse	0.7	781,288	961648.273333333	81.2	
Tb	159	He	Pulse	1.3	597,231	691118.286666667	86.4	
Tb	159	NoGas	Analog	1.3	1,477,524	1636278.29333333	90.3	
Bi	209	He	Pulse	0.7	341,050	387813.86	87.9	
Bi	209	NoGas	Pulse	1.0	788,519	890232.166666667	88.6	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRLE**	Total Dilution:	1.0000
File Name:	159CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 23:08:12
Comment:	A19J368 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.160	ppb	3.4	461	88.89		
Na	23	45	He	14.826	ppb	2.0	21,211	164.73	R-11	<MRL
Mg	24	45	He	9.092	ppb	2.3	6,401	101.02		
Al	27	45	He	9.011	ppb	4.6	3,167	100.12		
K	39	45	He	8.558	ppb	18.9	33,267	95.09		
Ca	44	45	H2	8.938	ppb	1.8	2,501	99.31		
[Ca]	44	45	He	8.668	ppb	38.1	439	96.31		
Ti	47	45	NoGas	0.175	ppb	27.9	228	97.22		
V	51	74	He	0.345	ppb	8.6	2,748	191.67	R-11	<MRL
Cr	52	74	He	0.174	ppb	2.9	1,042	96.67		
Mn	55	74	He	0.131	ppb	4.2	673	72.78		
Fe	56	74	H2	8.558	ppb	1.6	120,021	95.09		
Co	59	74	He	0.172	ppb	2.1	1,145	95.56		
Ni	60	74	He	0.168	ppb	3.6	327	93.33		
Cu	65	74	He	0.211	ppb	19.2	434	117.22		
Zn	66	74	He	0.239	ppb	24.1	200	132.78	R-11	<MRL
As	75	74	He	0.199	ppb	10.4	117	110.56		
Se	78	74	H2	0.181	ppb	22.5	59	100.56		
Mo	95	103	He	0.177	ppb	5.2	327	98.33		
Ag	107	103	He	0.184	ppb	8.5	951	102.22		
Cd	111	103	He	0.192	ppb	4.3	164	106.67		
[Cd]	111	103	NoGas	0.178	ppb	9.7	364	98.89		
Sb	121	103	He	0.212	ppb	26.6	490	117.78		
Ba	138	159	He	0.193	ppb	2.0	948	107.22		
Hg	201	159	NoGas	10.253	ppt	27.4	9	142.4	R-11	<MRL
Tl	205	159	He	0.184	ppb	7.0	1,426	102.22		
Pb	208	159	NoGas	0.186	ppb	2.8	4,882	103.33		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,081,910	1152921.90333333	93.8	
Sc	45	H2	Analog	1.1	2,330,674	2718830.82666667	85.7	
Sc	45	He	Pulse	0.1	345,869	416019.95	83.1	
Sc	45	NoGas	Analog	0.8	3,115,298	3735081.11333333	83.4	
Ge	74	H2	Pulse	0.3	699,035	835241.986666667	83.7	
Ge	74	He	Pulse	1.1	198,929	244427.376666667	81.4	
Ge	74	NoGas	Pulse	0.9	774,354	957882.84	80.8	
Rh	103	He	Pulse	1.0	457,049	540467.566666667	84.6	
Rh	103	NoGas	Pulse	0.3	792,005	961648.273333333	82.4	
Tb	159	He	Pulse	0.7	602,534	691118.286666667	87.2	
Tb	159	NoGas	Analog	0.7	1,475,364	1636278.29333333	90.2	
Bi	209	He	Pulse	0.4	343,886	387813.86	88.7	
Bi	209	NoGas	Pulse	0.4	796,144	890232.166666667	89.4	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRLF**	Total Dilution:	1.0000
File Name:	160_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 23:12:53
Comment:	A19J369 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.836	ppb	0.5	2,304	92.89	
Na	23	45	He	51.158	ppb	0.8	63,264	113.68	
Mg	24	45	He	46.430	ppb	1.2	30,588	103.18	
Al	27	45	He	44.967	ppb	2.2	15,336	99.93	
K	39	45	He	44.997	ppb	2.0	53,164	99.99	
Ca	44	45	H2	43.832	ppb	1.2	10,720	97.4	
[Ca]	44	45	He	45.268	ppb	3.4	1,461	100.6	
Ti	47	45	NoGas	0.951	ppb	3.3	1,110	105.67	
V	51	74	He	1.028	ppb	0.9	5,432	114.22	
Cr	52	74	He	0.894	ppb	5.4	4,306	99.33	
Mn	55	74	He	0.883	ppb	1.3	2,980	98.11	
Fe	56	74	H2	44.242	ppb	0.2	542,383	98.32	
Co	59	74	He	0.910	ppb	4.3	5,771	101.11	
Ni	60	74	He	0.905	ppb	5.7	1,463	100.56	
Cu	65	74	He	0.935	ppb	4.9	1,808	103.89	
Zn	66	74	He	0.967	ppb	5.2	730	107.44	
As	75	74	He	0.912	ppb	3.5	429	101.33	
Se	78	74	H2	0.953	ppb	4.6	297	105.89	
Mo	95	103	He	0.902	ppb	4.1	1,638	100.22	
Ag	107	103	He	0.899	ppb	1.1	4,625	99.89	
Cd	111	103	He	0.926	ppb	2.6	781	102.89	
[Cd]	111	103	NoGas	0.918	ppb	2.0	1,843	102	
Sb	121	103	He	0.918	ppb	3.3	2,016	102	
Ba	138	159	He	0.927	ppb	0.4	4,261	103	
Hg	201	159	NoGas	39.117	ppt	8.9	39	108.66	
Tl	205	159	He	0.899	ppb	1.0	6,913	99.89	
Pb	208	159	NoGas	0.869	ppb	2.8	20,826	96.56	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.7	1,073,148	1152921.90333333	93.1	
Sc	45	H2	Analog	0.4	2,343,420	2718830.82666667	86.2	
Sc	45	He	Pulse	0.6	344,045	416019.95	82.7	
Sc	45	NoGas	Analog	1.0	3,122,466	3735081.11333333	83.6	
Ge	74	H2	Pulse	0.3	697,846	835241.986666667	83.6	
Ge	74	He	Pulse	0.8	199,810	244427.376666667	81.7	
Ge	74	NoGas	Pulse	0.7	776,734	957882.84	81.1	
Rh	103	He	Pulse	0.8	456,455	540467.566666667	84.5	
Rh	103	NoGas	Pulse	0.7	791,040	961648.273333333	82.3	
Tb	159	He	Pulse	1.1	601,939	691118.286666667	87.1	
Tb	159	NoGas	Analog	0.9	1,498,321	1636278.29333333	91.6	
Bi	209	He	Pulse	0.9	342,523	387813.86	88.3	
Bi	209	NoGas	Pulse	0.5	796,218	890232.166666667	89.4	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRLG**	Total Dilution:	1.0000
File Name:	161CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 23:17:34
Comment:	A19J370 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.691	ppb	4.1	4,633	93.94	
Na	23	45	He	98.330	ppb	1.0	117,911	109.26	
Mg	24	45	He	91.841	ppb	0.7	60,004	102.05	
Al	27	45	He	91.223	ppb	0.7	30,989	101.36	
K	39	45	He	92.995	ppb	1.1	79,539	103.33	
Ca	44	45	H2	88.214	ppb	2.2	21,356	98.02	
[Ca]	44	45	He	86.971	ppb	1.8	2,627	96.63	
Ti	47	45	NoGas	1.757	ppb	5.1	2,024	97.61	
V	51	74	He	1.891	ppb	0.3	8,789	105.06	
Cr	52	74	He	1.845	ppb	1.9	8,586	102.5	
Mn	55	74	He	1.780	ppb	7.3	5,717	98.89	
Fe	56	74	H2	89.504	ppb	0.4	1,085,731	99.45	
Co	59	74	He	1.780	ppb	3.5	11,185	98.89	
Ni	60	74	He	1.813	ppb	3.1	2,855	100.72	
Cu	65	74	He	2.052	ppb	8.5	3,914	114	
Zn	66	74	He	1.983	ppb	11.1	1,465	110.17	
As	75	74	He	1.808	ppb	8.1	819	100.44	
Se	78	74	H2	1.827	ppb	8.3	570	101.5	
Mo	95	103	He	1.757	ppb	1.0	3,176	97.61	
Ag	107	103	He	1.784	ppb	0.6	9,143	99.11	
Cd	111	103	He	1.794	ppb	4.5	1,507	99.67	
[Cd]	111	103	NoGas	1.767	ppb	3.8	3,539	98.17	
Sb	121	103	He	1.742	ppb	2.0	3,788	96.78	
Ba	138	159	He	1.915	ppb	0.9	8,728	106.39	
Hg	201	159	NoGas	70.643	ppt	6.8	72	98.12	
Tl	205	159	He	1.786	ppb	2.1	13,716	99.22	
Pb	208	159	NoGas	1.713	ppb	1.4	40,714	95.17	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	0.8	1,072,107	1152921.90333333	93.0	
Sc	45	H2	Analog	1.2	2,365,726	2718830.82666667	87.0	
Sc	45	He	Pulse	0.7	343,778	416019.95	82.6	
Sc	45	NoGas	Analog	0.8	3,122,578	3735081.11333333	83.6	
Ge	74	H2	Pulse	0.6	702,605	835241.986666667	84.1	
Ge	74	He	Pulse	0.7	199,279	244427.376666667	81.5	
Ge	74	NoGas	Pulse	1.3	775,249	957882.84	80.9	
Rh	103	He	Pulse	0.7	455,102	540467.566666667	84.2	
Rh	103	NoGas	Pulse	0.7	790,399	961648.273333333	82.2	
Tb	159	He	Pulse	1.1	602,072	691118.286666667	87.1	
Tb	159	NoGas	Analog	0.4	1,508,742	1636278.29333333	92.2	
Bi	209	He	Pulse	1.3	344,859	387813.86	88.9	
Bi	209	NoGas	Pulse	1.1	795,582	890232.166666667	89.4	

CRL Verification Report - ICPMS5

Sample Name:	**9K06041-CRLH**	Total Dilution:	1.0000
File Name:	162CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9K06041.b	Acq Time:	11/6/2019 23:22:16
Comment:	A19J371 - ESS 11/6		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.165	ppb	3.4	8,650	87.92	
Na	23	45	He	183.698	ppb	0.4	218,688	102.05	
Mg	24	45	He	176.865	ppb	0.6	116,059	98.26	
Al	27	45	He	173.689	ppb	0.2	59,398	96.49	
K	39	45	He	177.284	ppb	0.6	126,968	98.49	
Ca	44	45	H2	169.918	ppb	0.6	40,667	94.4	
[Ca]	44	45	He	175.976	ppb	0.9	5,159	97.76	
Ti	47	45	NoGas	3.224	ppb	5.8	3,717	89.56	
V	51	74	He	3.582	ppb	1.5	15,394	99.5	
Cr	52	74	He	3.485	ppb	1.3	15,995	96.81	
Mn	55	74	He	3.507	ppb	3.4	11,000	97.42	
Fe	56	74	H2	184.466	ppb	1.0	2,208,568	102.48	
Co	59	74	He	3.447	ppb	1.1	21,597	95.75	
Ni	60	74	He	3.440	ppb	0.7	5,355	95.56	
Cu	65	74	He	3.716	ppb	0.6	7,062	103.22	
Zn	66	74	He	3.486	ppb	2.8	2,556	96.83	
As	75	74	He	3.552	ppb	1.9	1,581	98.67	
Se	78	74	H2	3.473	ppb	2.5	1,077	96.47	
Mo	95	103	He	3.486	ppb	3.1	6,244	96.83	
Ag	107	103	He	3.445	ppb	0.7	17,508	95.69	
Cd	111	103	He	3.511	ppb	1.5	2,924	97.53	
[Cd]	111	103	NoGas	3.517	ppb	4.5	6,959	97.69	
Sb	121	103	He	3.544	ppb	1.5	7,612	98.44	
Ba	138	159	He	3.718	ppb	2.1	16,923	103.28	
Hg	201	159	NoGas	136.365	ppt	7.0	139	94.7	
Tl	205	159	He	3.388	ppb	0.6	26,079	94.11	
Pb	208	159	NoGas	3.309	ppb	0.7	76,945	91.92	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Analog	1.1	1,072,049	1152921.90333333	93.0	
Sc	45	H2	Analog	0.5	2,360,702	2718830.82666667	86.8	
Sc	45	He	Pulse	0.4	346,600	416019.95	83.3	
Sc	45	NoGas	Analog	0.6	3,146,079	3735081.11333333	84.2	
Ge	74	H2	Pulse	0.3	699,642	835241.986666667	83.8	
Ge	74	He	Pulse	0.7	199,326	244427.376666667	81.5	
Ge	74	NoGas	Pulse	0.9	775,500	957882.84	81.0	
Rh	103	He	Pulse	0.4	451,388	540467.566666667	83.5	
Rh	103	NoGas	Pulse	0.4	782,134	961648.273333333	81.3	
Tb	159	He	Pulse	0.6	603,591	691118.286666667	87.3	
Tb	159	NoGas	Analog	1.2	1,487,590	1636278.29333333	90.9	
Bi	209	He	Pulse	0.4	339,190	387813.86	87.5	
Bi	209	NoGas	Pulse	0.3	791,582	890232.166666667	88.9	

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
A9J0954 (I.S Tables)

		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-CAL4	99.91278865	100.0619252	101.0434679	100.2482965	100.6925593	101.4203387	100.7610971	99.99118887	99.23174134	99.86052002	101.4077356	99.67217087	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	92.02386232	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	82.15711767	82.63211794
11/1/2019 12:51 PM	9110362-BS1	76.84681058	78.45420925	76.78882398	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	79.49419688	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	77.9480946	78.3899693	79.20953875	76.13905855	77.57872093	73.77079793	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	81.14653251	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	84.09382021	82.1845264	78.28158817	84.66151249	85.47182244	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	89.5740726	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	88.36302035	83.36962247	84.35255847	81.17259902	81.33883283	77.76275725	80.56524882	77.79310514	86.68927821	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	80.1455437	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	81.94027592	92.15004093	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	90.36981839	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 5:24 PM	9110393-DUP1	95.23913196	86.78960248	86.66023679	88.43213303	84.72230067	85.84651964	83.53720574	82.1065256	80.46279536	89.90335445	88.21330672	89.47445396	88.6728165
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	92.90426022	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	96.87607981	89.81798241	87.8566228	88.90715985	87.44304387	87.74977723	85.73820691	86.22491317	83.45120387	91.61766175	88.65213851	91.92.34737389	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	87.50674301	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	90.47845478	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	96.9430479	102.9284274	93.25496573	94.11546265
11/1/2019 7:10 PM	9110369-BS1	106.0174431	102.5792724	99.7583204	100.0301173	95.28446265	95.43535301	94.09731833	92.38200263	90.97772534	96.11216597	101.9513638	93.81228507	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	88.25486605	85.21461697	85.06590592	93.47469171	100.7680737	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	84.85147697	84.60677598	92.2892321	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	84.82956516	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
11/4/2019 11:27 AM	Rinse													
11/4/2019 11:31 AM	Rinse													
11/4/2019 11:36 AM	9K04033-CAL0	100	100	100	100	100	100	100	100	100	100	100	100	100
11/4/2019 11:41 AM	9K04033-CAL1	102.4342456	105.6991136	100.3629196	108.1897807	99.64257806	100.9061679	100.6722635	100.5086777	99.68318857	100.3910728	113.1099088	99.91144729	99.54683892
11/4/2019 11:46 AM	9K04033-CAL2	100.9494861	106.8290493	101.1452042	108.326195	99.46599199	101.2644944	100.5290188	100.5449855	99.85412043	100.7752254	112.0113552	100.8702704	99.79181514
11/4/2019 11:51 AM	9K04033-CAL3	102.9838757	106.4136279	100.3991869	107.6222904	99.83663797	100.8841114	99.66135568	99.65766485	98.41449736	99.73656791	111.5835715	99.89693409	97.97922066
11/4/2019 11:56 AM	9K04033-CAL4	103.5815511	107.0132016	100.3210139	108.3586338	99.79064499	100.6191739	100.2801408	99.68683815	98.36796405	99.64160077	113.2466315	99.57914785	98.59454418
11/4/2019 12:01 PM	9K04033-CAL5	102.9587393	107.3199154	99.16465136	106.7545256	99.72280319	99.16468268	98.6895393	98.15831974	97.40963281	99.36133824	112.1840815	99.40120405	98.05063523
11/4/2019 12:06 PM	9K04033-CAL6	99.71918343	104.7737177	96.03326946	102.9163874	97.00326257	95.92942949	94.87019042	94.02329301	92.46983946	96.96413609	108.9943383	96.92029575	95.41884904
11/4/2019 12:10 PM	9K04033-CAL7	92.28429416	100.1058507	89.55844388	95.00097596	92.20666086	90.23954434	87.96056915	89.40405798	85.99833915	93.88195001	106.1375337	93.65722813	90.94133971
11/4/2019 12:15 PM	9K04033-CAL8	89.48391989	93.71065478	84.51495167	89.46825059	85.72477557	85.26724212	82.17149774	83.43891033	80.62655059	89.94098788	104.1919946	89.71300478	86.44778927
11/4/2019 12:20 PM	9K04033-CAL9	81.29522034	88.64577931	81.57392003	81.55839169	77.95073912	79.39509382	71.28863137	75.28644769	67.83845257	84.04386755	89.2000332	79.96365924	73.85011999
11/4/2019 12:26 PM	9K04033-ICV1	90.60772405	94.76950545	85.90063719	91.89369678	87.57173461	86.42506021	84.9421616	86.04291612	82.53089371	92.4308285	103.8779922	91.45095502	90.32569859
11/4/2019 12:31 PM	9K04033-ICB1	94.80854061	94.84316647	87.21221018	94.19039731	88.48104105	88.59209659	87.20412371	89.35232568	87.27320205	94.07362198	106.5310506	94.48816055	93.50567076
11/4/2019 12:35 PM	9K04033-ICB2	94.08881277	95.62975668	87.88455984	94.84735049	88.81742138	88.72441644	87.84478506	89.71087158	87.35555226	93.61266604	106.9242177	94.81513757	93.41611977
11/4/2019 12:40 PM	9K04033-CRL1	95.20882453	96.1365646	88.61248112	95.54317283	89.61408172	89.34696519	88.16234808	89.73488949	87.77079998	94.183944	106.5716843	95.09929082	93.00495162
11/4/2019 12:45 PM	9K04033-CRL2	95.71143056	97.51243055	89.35325644	96.91034786	90.06762111	90.41842675	89.13943703	90.22876725	88.63866166	94.41698971	107.9248812	95.32688795	93.53737328
11/4/2019 12:49 PM	9K04033-CRL3	96.74947731	98.52524479	89.97623875	97.81204429	90.81487189	91.16987238	89.92290378	90.87469893	89.04111624	95.24747401	108.4184228	96.01381966	93.81472212
11/4/2019 12:54 PM	9K04033-IFA1	81.37288818	81.92436489	74.81271549	80.40414648	66.78974321	70.17726355	68.83449602	62.93982711	62.32361742	74.48026495	83.51381974	66.17732857	68.11853142
11/4/2019 1:01 PM	9K04033-IFB1	81.87136948	79.80685727	72.60403858	79.23885981	65.40862104	68.14001879	67.34371298	61.41892715	61.53519689	72.8826658	82.56788235	65.0569257	66.78934463
11/4/2019 1:11 PM	Rinse	78.37952202	81.04718594	74.3860494	79.35458479	76.39084677	76.52648241	74.43125595	78.97175648	74.94604552	87.98823839	98.03520311	90.75874422	87.60483106
11/4/2019 1:16 PM	A8J1115-01RE1	86.72134364	83.51853588	78.43810737	87.91034958	77.64292842	80.67981176	82.28668688	81.05242138	81.15725114	90.34297041	103.3841706	91.69099332	90.55659936
11/4/2019 1:21 PM	A8J1115-02RE1	84.24061081	86.590152	77.5685284	85.18429176	79.88313968	79.77962092	79.72038409	79.71579753	78.30361899	89.77087163	101.6755329	89.16294234	87.18778996
11/4/2019 1:25 PM	9101831-DUP2	84.77849756	86.36392369	79.04492665	86.03532687	80.09452337	80.52597723	79.7296412	79.60522873	77.69859408	89.99388544	101.5925076	89.10011333	86.91754345
11/4/2019 1:30 PM	9101831-MS3	86.35206762	87.89403916	80.105801	87.52411658	80.24070357	81.39691858	80.49958755	80.44043802	78.89894665	89.66551607	101.5607269	89.114634	87.59198975
11/4/2019 1:35 PM	A8J1115-03RE1	81.6596854	83.44358805	74.81327691	82.66314211	76.82692604	76.54069614	76.79120458	77.89778533	75.74688026	87.63577533	100.9337448	89.31585286	86.95563575
11/4/2019 1:39 PM	A8J1115-04RE1	88.03032271	83.15974362	78.38768882	87.81513154	77.91609399	80.09505411	81.32470349	80.04777865	78.99224634	89.52268075	105.0937964	89.38765969	87.64945154
11/4/2019 1:44 PM	A8J1115-05RE1	89.99509892	91.21326667	82.26617983	89.99124249	84.26867242	84.39979293	83.86753397	83.79848039	82.02612807	92.41024166	105.3809615	91.64936585	90.11318431
11/4/2019 1:48 PM	A8J1116-01RE1	83.58290656	84.28473046	77.53830002	84.93016377	77.33983099	78.62187788	78.27796775	78.14995746	75.98255441	87.67987663	101.0618998	87.76231134	85.84729177
11/4/2019 1:53 PM	A8J1116-02RE1	86.57789797	86.1844297	78.39100078	87.48161335	80.66056971	80.65216294	81.05166985	80.15439683	79.20691227	89.1948588	102.421575	90.13749887	88.78496847
11/4/2019 1:58 PM	A8J1117-01RE1	85.3989954	85.2305213	77.08526412	84.84446796	77.84654901	78.2835498	77.59004718	77.12939165	74.95380524	87.25171291	100.917602	85.88152755	83.95195432
11/4/2019 2:02 PM	9K04033-CCV1	83.25662859	85.09142041	75.34723978	82.8354923	78.66509072	76.98080466	76.72242301	77.50208918	75.4127168	87.6974289	100.6457195	87.88065112	85.71908161
11/4/2019 2:07 PM	9K04033-CCB1	85.01603444	82.9940101	75.16762781	83.43136196	77.94393806	77.24031753	77.43666006	79.41758381	77.48311722	87.55579566	101.1558366	89.69067121	87.78544584
11/4/2019 2:12 PM	A8J1117-02RE1	84.54700207	82.61373419	76.58793747	83.98116068	75.43384861	77.46261039	77.00145751	76.58008673	74.2795477	86.60918108	100.3715962	85.77646368	83.52288991
11/4/2019 2:16 PM	9101831-MS4	82.67494635	83.40503612	72.11445732	80.85879772	74.97503656	72.94707305	74.44319357	75.8504417	71.49466519	83.10734361	97.56636888	81.11830409	81.52702882
11/4/2019 2:21 PM	A8J1133-01RE1	85.12353072	85.05191629	76.22426797	84.01304039	76.46962743	76.93678795	76.39896518	76.27808245	74.19228504	86.12302249	101.4342054	90.7097335	89.4984736
11/4/2019 2:25 PM	A8J1076-01RE1	87.12072245	88.25946545	77.34272602	84.58690674	80.38976692	78.87274712	78.22616253	80.42254342	78.00660779	88.31706535	101.8323383	90.73644651	88.27792828
11/4/2019 2:37 PM	9110369-BLK2	83.52971201	82.25197347	75.38001944	81.75418232	75.56385504	76.88878538	75.50996608	78.86513938	76.42879084	88.24065669	101.8924296	89.29271155	85.83164746
11/4/2019 2:42 PM	9110369-BS2	82.30589999	81.17965408	73.39557846	80.7480838	74.86991363	74.98738196	74.09489039	76.6381343	73.75190807	86.87826247	98.79085369	87.04329039	84.68618689
11/4/2019 2:47 PM	A8J0954-01RE1	87.08978533	89.29881234	82.59143865	92.71812656	74.73896695	77.39882157	78.72341644	77.70689815	77.8552763	88.69540382	105.3248647	85.20305807	85.33005683
11/4/2019 2:51 PM	A8J0954-02RE1	87.28644664	96.04518271	86.59275563	95.38803571	78.53322697	78.95963764	79.2191496	78.8256908	77.88980742	89.24385644	104.9112071	86.56739373	85.85455244
11/4/2019 2:56 PM	A8J1007-01RE1	87.65231304	95.59263317	86.17672416	95.48058616	77.9178944	78.42851203	79.57228414	77.70520998	78.22954589	88.77327461	106.9072592	85.35065439	85.65426573
11/4/2019 3:00 PM	A8J1137-06RE1	86.10764823	91.17326704	81.41882129	90.75438816	78.28633836	78.52051959	79.0322396	79.18616138	78.48749731	89.32057925	105.5726403	86.72295165	86.21892922
11/4/2019 3:05 PM	9K04033-CCV2	91.74161301	93.44343917	83.46009472	93.46564258	85.04129541	84.40996805	85.1130949	83.86197588	83.28335882	91.44128242	106.9482022	90.6824653	90.17160914
11/4/2019 3:10 PM	9K04033-CCB2	96.01667121	97.04967838	87.1544454	98.49196443	87.65639399	88.19513377	89.29607537	88.34981345	88.40672997	92.95275894	109.7370738	92.56628803	92.72137989
11/4/2019 3:14 PM	9110369-DUP2	85.0487961	91.963717	81.1922737	89.79195746	78.75167735	78.59114146	78.31153051	79.14634892	77.49996235	88.4167217	104.1529258	86.43517514	84.8437146
11/4/2019 3:20 PM	9110369-MS2	85.63439223	89.14070435	80.60300043	89.52857088	77.12811944	78.17164936	78.14249962	77.93861097	77.38120725	88.2998826	104.3363728	85.6341329	84.09900573
11/4/2019 3:25 PM	A8J1137-12RE1	86.87078251	90.55181797	80.58094021	90.0157911	77.37342795	77.64733729	78.19064211	78.19435521	77.42601663	88.44734087	105.2803381	85.93086032	84.89337894
11/4/2019 3:30 PM	A8J1137-18RE1	85.33983024	91.05564979	81.47862979	91.33620786	77.53884337	77.99010503	78.17019032	78.28540666	78.01065337	88.44384912	105.5115661	85.80971923	84.57472406
11/4/2019 3:34 PM	A8J1137-24RE1	86.67378109	90.80596029	80.53657003	91.11724586	77.58297329	77.60855413	79.11449283	78.3632854	78.48347448	88.29354922	106.8173971	85.42979291	85.39377252
11/4/2019 3:39 PM	A8J1006-01RE1	87.36137503	94.14627475	84.50525678	94.8734699	78.48746354	79.04374226	80.16024843	78.8690581	79.03477009	89.25637934	106.7452935	85.51234173	85.71904899
11/4/2019 3:43 PM	A8J1006-02RE1	87.80329131	94.89188009	84.52101821	95.01180721	78.9878194	79.17712805	80.31736212	79.1605787	79.40288038	89.00520884	107.3425585	85.89545941	85.91188122
11/4/2019 3:48 PM	A8J1029-02RE2	97.62107949	93.76668901	84.60550756	98.65019338	81.35542222	83.07681014	86.2097512	79.52149399	82.20438853	86.97511662	105.8023171	82.2771341	83.84389207
11/4/2019 3:52 PM	A8J1061-02RE2	97.51026671	99.69250633	88.9018092	99.14055835	88.57845645	88.03206902	89.3108672	86.65511198	86.58950873	91.44108403	109.8286986	89.60832638	88.87756851
11/4/2019 3:57 PM	A19K028	97.83420307	98.40693021	87.16582993	98.82767764	87.68254833	86.98923076	88.51650443	87.4136437	88.07452328	91.30260783	109.9162189	90.13712153	89.69110441
11/4/2019 4:02 PM	9K04033-CCV3	94.11142512	99.41004684	85.53046562	94.01921349	88.43665078	85.34211838	85.28848557	84.65136746	82.95720576	90.35853961	108.0986207	89.06873319	88.20003072
11/4/2019 4:06 PM	9K04033-CCV4	91.05504838	94.24993089	77.79304032	91.05780025	84.09473846	77.80447049	82.11015979	77.66769831	80.18999513	84.16823206	105.5777779	83.80480771	85.79212438
11/4/2019 4:11 PM	9K04033-CCB3	94.52132422	93.71124912	82.7054307	94.14179489	83.68185784	82.97639115	84.68025027	84.21381881	84.01330847	89.06222729	106.5295498	89.33381895	88.74027358
11/4/2019 4:16 PM	9101835-BLK1	92.78579979	93.57115859	83.18188594	93.57758526	83.4269015	83.52418794	84.45943779	84.21469588	84.14851373	89.53262248	106.359835	88.07113397	88.28190301
11/4/2019 4:20 PM	9101835-BS1	91.56733414	93.39928216	82.43534296	92.44699119	83.25572823	82.02947241	82.65124711	82.11458662	81.61431233	88.7199249	105.4499142	87.74512087	86.79498551
11/4/2019 4:25 PM	A8J1115-01	96.79730566	92.10905546	84.23481428	94.69063618	82.89576697	83.90676022	85.22912654	83.49414498	83.22939378	88.50860387	108.012513	88.53912731	88.45357742
11/4/2019 4:29 PM	9110416-BLK1	94.35763642	93.97083806	83.97775897	93.8319967	84.19262153	83.67040022	84.761996	84.92299314	83.78051602	89.44277825	106.8773089	88.6223561	87.35342611
11/4/2019 4:34 PM	9110416-BS1	91.67299909	93.49789473	81.97287335	91.26283801	82.90291131	82.28128095	82.24171557	81.74964272	80.81623974	88.62063974	104.9158718	87.61238819	86.52121554
11/4/2019 4:39 PM	A8K0017-04	90.6736063	93.27236074	83.12761286	93.93708289	79.47539463	79.52784404	81.15781901	79.1041188	79.58625035	87.58260389	106.4016287	84.61938654	85.34674333
11/4/2019 4:43 PM	9110416-DUP1	90.99391391	93.94737467	83.58064203	94.61426837	79.58465039	79.65266126	81.40042797	79.26653274	79.78469553	86.96929997	107.9016468	84.29631	84.87525783
11/4/2019 4:48 PM	9110416-MS1	89.85948228	95.28175594	83.83225482	94.84611469	80.11584747	79.99371692	81.91860838	78.96796213	79.99573651	87.23083415	107.02486	83.98405465	84.30567018
11/4/2019 4:52 PM	A8K0052-05	92.18488846	87.07735257	87.60457593	99.45233704	71.58953182	82.00624801	83.55151031	81.61257672	81.90953523	87.92850833	107.5802171	85.1549171	86.36259526
11/4/2019 4:57 PM	A8K0052-10	96.85208086	101.7529862	91.59536533	106.6518313	83.02254925	85.00106154	88.96888834	83.17868825	86.6358461	89.46802746	111.0080155	86.69402986	87.97212295
11/4/2019 5:02 PM	9K04033-CCV5	96.62165657	100.3583143	88.77834912	100.9377697	89.51216215	87.8926917	89.58629218	85.89384035	87.50999314	91.51171986	111.3492396	89.85416308	89.10074027
11/4/2019 5:06 PM	9K04033-CCB4	100.5750834	101.2562856	90.86375039	105.6128213	90.59922718	90.94087546	95.02434825	90.27950189	93.85861116	92.71619548	114.1186727	91.57420477	92.70694184
11/4/2019 5:11 PM	9K04033-CRL4	102.2788484	104.4668025	94.15159149	107.4220429	92.93696417	93.40622195	96.00042484	91.76994539	94.60488156	93.74057472	112.9537987	92.34810509	92.26391315
11/4/2019 5:16 PM	9K04033-CRL5	104.4728935	106.0331519	94.82088433	108.881562	93.92472449	94.3031364	97.42455175	92.57948645	95.31954672	93.99759374	114.5787873	92.87017529	93.73512427
11/4/2019 5:21 PM	9K04033-CRL6	104.0747707	106.350166	94.54827559	108.9671126	94.53707852	93.32853953	97.70142477	92.28940217	96.01442708	94.21604836	115.791018	92.46445279	93.33466519
11/4/2019 5:26 PM	A8J0573-19	90.3768769	95.53409612	82.43627529	92.00023444	82.60665412	81.30904754	83.82603715	81.77113877	80.7755405	89.6188137	98.33909363	106.2229191	85.0370985
11/4/2019 5:31 PM	A8K0017-01	94.2183574	99.48766642	87.47074106	100.3477323	84.97974753	85.72212842	87.84680829	84.45287644	85.82700766	90.52324858	110.803246	87.52852875	87.44264838
11/4/2019 5:35 PM	A8K0017-03	99.35231076	105.1481485	91.86076313	104.702769	88.15859241	87.18968999	89.03417143	85.68909842	87.70167433	91.85108311	110.3874463	87.60598603	88.63832052
11/4/2019 5:40 PM	A9J1115-02	98.34549756	99.12174346	87.42590438	101.2295408	85.55462299	83.4387062	86.06060108	78.16495967	80.67488815	85.02964422	104.8137167	77.43275538	79.15329716
11/4/2019 5:44 PM	A9J1115-03	93.60722046	95.63203372	83.37540141	94.65101075	85.10265389	83.16715135	84.44472188	83.5715558	83.34305336	89.2494152	107.7932151	88.39758196	88.05900142
11/4/2019 5:49 PM	A9J1115-04	92.91810118	96.42060437	83.81127637	94.87703511	84.52204199	83.37254041	84.30368123	82.17271098	81.65453689	88.86317001	106.6552203	87.28685331	86.63825806
11/4/2019 5:53 PM	9101835-DUP1	92.66102196	94.07129649	82.38188845	93.50723213	83.13012313	81.85205581	83.42659287	80.25016784	80.46315672	88.51017349	105.4624358	86.44393851	86.19610079
11/4/2019 5:58 PM	9101835-MS1	88.12766416	91.86491152	80.0691594	89.6207742	80.81768585	79.55962177	80.30676531	78.12298442	77.57877097	87.10539046	103.9226659	84.96972381	84.1426581
11/4/2019 6:03 PM	A9J1115-05	90.8476689	92.84426446	81.3760842	92.69680047	79.39621096	79.76949154	81.50925438	76.08739698	77.12222796	86.09455919	104.0480356	79.83695138	80.430948
11/4/2019 6:07 PM	A9J1116-01	85.27252255	88.13967057	76.71491348	86.74376665	77.49937504	76.92574624	78.11781113	76.78729605	76.32458715	85.67446026	103.9979154	85.07029999	84.92908691
11/4/2019 6:12 PM	9K04033-CCV6	90.07396755	92.11262104	79.84040251	90.5897238	81.56604203	80.44064677	82.15598778	80.22351599	80.14808568	88.39162894	106.8625452	87.0543507	87.02938472
11/4/2019 6:16 PM	9K04033-CCB5	90.33797671	91.00337533	81.29123606	92.56950204	81.87826484	81.77335086	83.22078639	82.14360906	82.70925678	88.88560401	107.3916206	89.34757896	88.75279504
11/4/2019 6:21 PM	A9J1116-02	83.32322319	88.89121435	76.59255402	85.80395013	76.05111686	75.88335359	78.08217673	72.03870214	70.53820816	83.83178658	99.8593434	78.86658673	77.59856686
11/4/2019 6:26 PM	A8J1117-01	86.67409435	89.98056086	78.60880599	87.2396893	78.68788143	78.05453764	78.1948797	76.55757207	75.24201901	86.05666839	104.0657349	83.80806632	82.93953464
11/4/2019 6:30 PM	A8J1117-02	86.81887711	88.58340777	78.11655431	87.77159078	78.15155826	77.87826205	78.05819776	76.33649448	75.61053033	86.27450476	103.662775	83.56012397	83.38742099
11/4/2019 6:35 PM	9110409-BLK1	89.67683096	90.71458199	80.54518988	90.67541824	80.96695351	80.5396492	80.7699906	81.41970126	80.66071539	89.35513644	106.2235644	88.33191352	87.5542591
11/4/2019 6:40 PM	9110409-BS1	84.46880963	86.36333131	76.95944056	86.46208285	77.28214953	77.26602913	77.98939137	77.28202871	76.54681109	86.79146246	103.6798969	86.14127967	85.97616
11/4/2019 6:44 PM	A9J1113-01	90.01059492	90.58231318	79.59618505	90.75233136	80.86609718	80.7261257	81.14954412	81.35030849	81.01757881	88.46336474	106.8825032	89.10127301	89.41855242
11/4/2019 6:49 PM	A9J1123-01	85.68332751	88.18432067	77.42134942	86.33778346	74.58377981	75.61822254	75.28797759	73.46919024	72.40317875	84.21528487	101.2595947	80.92000086	80.89860001
11/4/2019 6:54 PM	9110409-DUP1	86.3505626	88.52271718	77.92695867	87.91371224	75.8365656	76.04486314	77.00778302	74.04652978	73.94013949	84.02268387	103.0466212	80.37900515	81.47024358
11/4/2019 6:58 PM	9110409-MS1	84.06762612	88.45579214	75.92187447	85.45412134	74.6436984	73.88898104	74.65812838	72.28720016	71.45162514	83.45571135	98.44668727	79.41877949	80.25181689
11/4/2019 7:03 PM	A9K0045-01	86.91692312	88.63201828	77.60671356	88.11450447	78.4888019	77.79617514	78.61874194	79.62878917	78.38055596	87.21082696	105.0883717	87.27676363	87.82620401
11/4/2019 7:07 PM	9K04033-CCV7	88.06827159	92.8399099	80.02791404	89.41580146	82.10425942	80.42812048	80.09895421	79.78100013	78.86211793	88.40736634	106.5522929	87.68272748	86.96329956
11/4/2019 7:12 PM	9K04033-CCB6	87.15713642	88.73439189	77.44377382	86.82173477	79.5951011	78.06769559	78.71638402	79.6875647	78.83548258	87.06885642	105.9209729	87.76196239	87.3411485
11/4/2019 7:17 PM	A8K0046-01	82.5840868	86.07077393	75.22721484	85.0983909	75.43453659	74.88204485	75.57219881	74.92630337	74.03550058	84.91044415	101.7828351	83.30106675	83.1671992
11/4/2019 7:21 PM	A8K0048-01	84.45738699	89.80888463	77.85312078	88.06000104	78.43817662	76.46914904	77.38684942	78.50105147	77.26745614	88.29897118	106.7486166	87.05674403	86.95771068
11/4/2019 7:26 PM	A8K0051-01	97.0702051	95.28096754	85.16741947	97.95634814	83.14446476	83.4843576	87.01606577	83.14872439	86.77542223	88.84352143	113.2561504	117.2609549	116.9012788
11/4/2019 7:31 PM	9110442-BLK1	87.95050403	91.62255049	80.4104496	91.62262833	81.69482852	80.6619886	82.17354578	82.26958616	82.07098526	88.85152079	106.8361573	88.58677735	88.92484662
11/4/2019 7:35 PM	9110442-BS1	88.28000312	92.39468766	79.97777755	90.17966122	81.66231514	79.76039057	80.74864048	80.56345243	79.79150703	86.87826247	106.3752496	86.77473006	86.70058891
11/4/2019 7:40 PM	A9J0579-08	95.40966144	99.14728533	83.15086391	99.04273118	76.33602476	77.86479061	81.44178229	77.24552636	73.29371783	82.42673265	102.9774409	74.55240881	75.250762
11/4/2019 7:44 PM	A8J1131-01RE1	85.28899863	89.46969555	77.17286751	86.51274521	79.13018375	77.03002796	77.31646143	76.04924041	74.71626124	85.62335576	104.3512898	83.2086726	82.92084033
11/4/2019 7:49 PM	A9K0022-01	95.24779801	83.97989454	80.23209376	94.07303145	67.83790103	72.87678421	75.88650883	65.31492436	68.80190824	73.03709919	91.19164187	64.02733138	67.43858713
11/4/2019 7:54 PM	A9K0022-02	98.12464836	98.41782357	84.09111421	95.81602351	85.32523283	82.24866595	83.33635631	82.2486975	82.43264455	86.78094988	108.3578988	86.32938637	87.81099198
11/4/2019 7:58 PM	A9K0044-01	95.42753318	90.45172024	80.00982548	94.93585532	72.61550856	74.85778383	78.7409316	68.70931668	72.13437141	77.94725416	96.86219983	70.31154608	72.82702861
11/4/2019 8:03 PM	9K04033-CCV8	94.10653492	97.36904155	82.41645717	94.12561055	84.08963581	81.65170117	82.39662502	80.24156501	80.513374	86.63667424	106.5312718	84.7138602	85.57716432
11/4/2019 8:08 PM	9K04033-CCB7	91.27116272	90.85902593	79.66968505	91.40003105	80.69801206	79.61220589	81.58496291	80.46655724	81.25538108	86.17356999	106.0533971	86.61377574	86.8935098
11/4/2019 8:12 PM	9K04033-CCB8	91.06463424	90.81398123	79.49972086	91.2256252	80.45085361	79.40763886	81.56210504	80.3901165	81.27814139	86.55241513	107.4407025	86.94755617	87.22533092
11/4/2019 8:17 PM	A9K0050-01	88.38034731	90.7074514	77.69810821	89.29823232	77.95765155	76.81915792	78.23824136	76.58205888	77.04205846	85.9025521	106.1864664	84.61876934	84.90695022
11/4/2019 8:22 PM	9110442-DUP1	87.48442571	86.48768026	77.36200742	89.37144841	77.08598705	76.71728014	77.65137035	76.40144131	76.40044561	85.91115165	106.0717062	84.75341563	84.64648392
11/4/2019 8:26 PM	9110442-MS1	86.49717367	89.85135825	77.35049836	89.43986917	77.3245725	76.88138946	78.56847135	76.9411741	77.40021464	85.84978372	106.231011	84.35390326	84.70948076
11/4/2019 8:31 PM	9K04033-CCV9	85.97863875	89.84591348	77.26517564	87.77564375	79.0476902	77.33413684	78.60865592	76.7052299	77.09647181	86.01075055	105.5161336	84.37344896	84.62922705
11/4/2019 8:35 PM	9K04033-CCB9	86.05680056	86.54728122	75.75300349	86.64395024	76.72297381	76.18653021	77.55376964	77.64069357	77.23077375	85.25584485	104.6758555	85.59920647	85.30455089
11/4/2019 8:40 PM	9K04033-CRL7	87.73284708	86.61905923	76.18385801	88.07419866	77.00522011	76.6653445	78.96576101	77.93554229	79.09818905	85.63475752	106.8246351	85.81200795	86.02420987
11/4/2019 8:45 PM	9K04033-CRL8	89.48483655	89.05120465	77.7223589	89.86880236	78.7342225	78.26454696	80.67488724	78.62237823	80.31614316	86.11390536	106.5125727	86.26869814	87.0173253
11/4/2019 8:50 PM	9K04033-CRL9	91.02902319	89.81254741	79.2238567	91.4203909	79.91422862	79.61034841	82.28679353	80.18049226	81.70981392	86.64282601	108.8877177	86.13411685	87.45391513
11/4/2019 8:54 PM	9K04033-CRLA	91.17827833	91.33107798	79.26883542	91.29164904	80.59498147	79.60247052	81.54475973	79.63337516	80.97550272	86.5760768	108.1967207	86.92391646	87.56608036

		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
11/6/2019 10:29 AM	Rinse													
11/6/2019 10:33 AM	Rinse													
11/6/2019 10:38 AM	9K06041-CAL0	100	100	100	100	100	100	100	100	100	100	100	100	100
11/6/2019 10:43 AM	9K06041-CAL1	98.63815465	96.59591092	99.55434429	98.36547012	99.50470083	100.1240914	100.4695042	100.8160274	100.5255581	99.59150505	96.67424259	100.5899944	100.2036619
11/6/2019 10:48 AM	9K06041-CAL2	92.11378819	97.6074109	99.61058118	91.69343144	99.65390908	99.4917536	93.32670928	100.1845754	93.17231794	99.30982967	88.99647364	99.48153563	93.2783639
11/6/2019 10:53 AM	9K06041-CAL3	98.80043826	95.34421014	98.95110719	98.4626731	98.94360754	99.30825397	99.86208891	99.16474667	99.70952581	98.5643051	96.57169055	99.40394171	99.3829501
11/6/2019 10:58 AM	9K06041-CAL4	98.64455722	96.89957699	99.11360821	98.30466065	98.99587543	99.20502495	99.00538915	99.41566151	98.93899912	98.39549994	96.65846634	99.27606937	99.13532818
11/6/2019 11:03 AM	9K06041-CAL2	98.81109669	97.46691325	98.82208053	97.54932203	98.69788035	98.60639724	98.20353012	99.36428994	99.00267833	97.74607613	96.48010813	99.08375116	98.49654313
11/6/2019 11:08 AM	9K06041-CAL5	96.21799853	96.26897492	97.03695941	95.69348585	97.47406576	97.01800179	96.22364046	96.40195492	96.04098736	96.64373903	94.63733785	97.11719518	96.94713682
11/6/2019 11:12 AM	9K06041-CAL6	93.06848772	93.19239917	94.16779892	91.5319806	94.23918927	93.00389606	91.43044606	92.07339176	90.71044555	94.6189906	93.22047312	94.54313383	93.07351696
11/6/2019 11:17 AM	9K06041-CAL7	89.0503364	87.83925379	87.28089763	85.07124665	89.7984802	87.37084729	86.02241759	87.64704598	85.88043531	91.57264136	89.07264345	92.01608387	90.53801658
11/6/2019 11:22 AM	9K06041-CAL8	86.32402974	83.20503215	82.0357982	80.06136304	83.26579935	81.72551266	80.3212475	81.89422652	80.26453206	87.27432457	86.4744817	88.38340899	86.17820932
11/6/2019 11:27 AM	9K06041-CAL9	82.91449698	77.0047453	77.62613067	78.04206562	73.72342146	74.98703944	73.87636154	73.69864192	72.61639826	81.27068465	78.65367229	78.85427303	79.06911998
11/6/2019 11:43 AM	9K06041-ICV1	88.23496114	83.34186278	84.99713936	82.06848688	84.95296948	85.51837749	82.71495499	86.57760099	82.55107493	92.02746316	88.9495896	92.57848082	91.10020139
11/6/2019 11:48 AM	9K06041-ICB1	91.33464984	84.27544348	85.43306156	83.99416188	85.42988236	86.10205324	84.85006162	88.6459206	86.56365185	91.91015956	91.21057256	94.07093221	93.50744534
11/6/2019 11:53 AM	9K06041-CRL1	90.7568547	86.51230547	86.13089428	84.546349	86.30953762	86.57633181	85.58890807	89.14847373	87.29077043	92.16101001	92.04112321	94.45930581	93.29127589
11/6/2019 11:57 AM	9K06041-CRL2	92.54145578	85.43496138	86.49927806	86.2944623	87.46385259	87.35488481	86.88757872	89.58518633	87.64786149	92.13484854	91.01836483	94.71556965	93.92433659
11/6/2019 12:02 PM	9K06041-CRL3	94.26793438	86.25972545	87.36480947	86.70395631	87.81830715	87.69061371	87.15018599	89.37836665	88.35786294	92.6544827	91.97602467	94.61612761	94.49763049
11/6/2019 12:07 PM	9K06041-IFA1	78.96403599	69.35295697	70.10954403	71.62553062	62.70479434	65.79519673	65.80108203	60.79731334	61.58322501	70.64581796	70.71502434	64.42967768	67.09384275
11/6/2019 12:11 PM	9K06041-IFB1	77.75209729	69.43483886	67.70696934	69.44464091	61.81347421	62.82499889	64.04090748	58.56998511	59.77295781	67.59935296	68.68025127	61.55493171	65.27421704
11/6/2019 12:19 PM	Rinse	74.8636429	72.15527391	71.85063601	70.23922097	74.01775173	73.32815406	70.72595886	76.88029939	72.41535698	84.02420317	77.1041543	86.77799791	84.14236885
11/6/2019 12:24 PM	9110504-BLK1	75.88097952	70.87713701	70.97412195	69.2950056	71.86758084	72.2429292	70.28147026	76.8650046	73.05618934	83.61849983	77.53364257	86.74648967	84.37043857
11/6/2019 12:28 PM	9110504-BS1	79.08755173	73.54994717	74.61667964	73.64647692	74.16358691	75.03433365	74.11199056	78.15724743	75.85310904	85.52999316	82.49705234	87.30739106	85.99435016
11/6/2019 12:33 PM	A9K0109-01	76.83274563	78.30288431	78.56954777	79.00046578	71.70998939	72.35786586	72.38507095	73.73062781	73.57815911	82.69938123	79.69761635	82.94461764	82.78529215
11/6/2019 12:38 PM	A9K0109-02	75.61028902	77.69307549	77.62444806	77.39225055	71.8812228	72.54997882	72.30586015	74.75455912	73.91860757	83.6450592	79.79088675	84.13922855	83.15552703
11/6/2019 12:42 PM	A9K0109-03	75.98817701	75.0109579	76.46746268	76.40928135	71.51513568	72.43653408	72.34932058	74.19461186	73.40045866	82.93248701	78.84431652	84.06967542	83.10093116
11/6/2019 12:47 PM	9110504-DUP1	78.01535566	76.1346371	76.12636606	76.94213172	72.04648588	72.78991375	72.78448584	75.04356999	74.1395345	83.25306841	79.13076697	84.02343588	83.67587706
11/6/2019 12:51 PM	9110504-MS1	79.22707607	75.25848623	75.83982771	76.43936531	72.33472969	72.96043748	72.46950264	74.64767266	73.53986306	83.41661736	79.8571375	83.20872201	82.92395935
11/6/2019 12:56 PM	A9K0121-02	81.28381671	74.7502587	76.5212069	77.25264314	75.24888196	76.66135543	77.62210112	79.73310085	79.84273231	86.57372573	85.70167327	87.16829426	87.44235371
11/6/2019 1:01 PM	A9K0121-04	83.20508358	78.42783642	79.86899426	79.73265925	78.22179286	79.13522453	79.50854129	81.33153288	80.84357087	87.52894186	88.59517536	87.38452085	88.06115408
11/6/2019 1:05 PM	9110512-BLK1	86.03065716	80.32350543	81.90910636	82.03367541	80.93056513	81.79574347	81.97662427	85.84067672	84.91090308	89.35981851	90.72838808	90.15500116	89.59594211
11/6/2019 1:10 PM	9K06041-CCV1	84.7433569	82.35828779	80.71160209	79.96716642	82.71719426	81.62492246	80.1983981	83.07909688	80.78101993	88.85010885	88.3540933	89.96767418	88.83490018
11/6/2019 1:15 PM	9K06041-CCB1	87.18047919	82.99968187	83.12895812	83.03125294	83.47616193	83.72668512	83.57518615	86.58792723	85.84273477	89.93866732	91.05001165	91.80184793	91.80813507
11/6/2019 1:19 PM	9110512-BS1	84.57340523	80.21627748	80.52013131	79.68731887	80.46402568	80.42178527	79.35108327	83.29421186	81.40344605	87.81355691	87.44474962	88.59909752	88.13983206
11/6/2019 1:25 PM	A9K0087-04	81.68556436	82.05462074	80.33596626	79.61110223	76.64082269	76.84368498	75.44035135	77.98741238	76.64774053	86.94535435	87.16089387	85.53677272	85.36752491
11/6/2019 1:29 PM	9110512-DUP1	81.07002107	78.49942308	78.70069693	79.26463657	74.65838683	75.04134459	74.93040172	77.51734779	76.02458615	85.625097	86.46220669	84.58052101	84.80823223
11/6/2019 1:34 PM	9110512-MS1	82.51571339	79.58815	80.08887795	80.77780585	75.50201579	75.96242254	75.90618702	77.57533585	76.62069252	85.48518993	87.10162685	84.80847229	84.47270515
11/6/2019 1:38 PM	9110503-BLK1	84.49521896	80.62222268	81.22582343	81.4448093	81.39341582	81.57946656	81.3997082	84.9011982	83.85532171	88.85544802	90.31088412	91.35330113	90.33729853
11/6/2019 1:44 PM	9110503-BS1	86.07687567	82.62195357	82.59815345	81.61120435	82.17152206	82.71365893	81.80379067	84.4015771	83.20476126	89.43097662	89.44320531	89.95226215	90.14836954
11/6/2019 1:48 PM	9110519-BLK1	93.70985698	87.35013877	87.29652668	88.36633163	85.99039098	86.41434914	87.08275534	86.60185406	86.95551099	90.63183328	92.69220357	90.45069629	91.51064076
11/6/2019 1:53 PM	9110519-BS1	92.96592194	86.69092208	86.44531911	86.65762211	85.97313251	85.60511082	85.32587834	85.87189722	85.10736958	89.9024714	90.80293795	89.81302181	90.18831155
11/6/2019 1:58 PM	A9K0046-01	93.00075344	88.0086619	86.5798423	87.73871394	86.629231	85.1510823	84.65081144	83.89669328	83.37983324	88.83078124	89.83535091	86.61363126	87.75577682
11/6/2019 2:02 PM	A9K0067-01	87.29734516	83.67810939	82.32187022	82.46423089	82.06831125	81.7770058	80.44553758	81.1868859	79.51561028	87.08299263	88.27124432	86.31382162	86.16696506
11/6/2019 2:07 PM	9K06041-CCV2	86.52479384	83.45424258	82.37112427	81.42346206	83.39015093	81.71070936	79.33430599	82.12747518	79.43147904	87.1144489	87.78626936	86.6044112	86.48725754
11/6/2019 2:12 PM	9K06041-CCB2	88.84202972	80.98668559	82.10471237	82.32807017	82.22335614	81.89295026	81.17957759	85.08628917	82.97268646	87.4832343	89.34259997	89.30281226	88.97743379
11/6/2019 2:16 PM	9110519-MS1	84.6539461	80.7613348	79.19411317	78.93815379	79.33632016	79.31322287	77.95786696	80.18803595	77.8755602	85.34177647	86.14502694	86.35070787	86.06707314
11/6/2019 2:21 PM	9110517-BLK1	87.24589819	80.92569124	80.72846667	80.52752507	79.90844338	80.36168289	79.70489411	81.16347962	79.8196778	86.21221598	87.26428215	86.88482923	86.65799652
11/6/2019 2:26 PM	9110517-BS1	88.11046644	82.03580959	81.26689838	81.0826501	81.09014044	80.66815292	79.63863723	81.10776737	80.05304725	85.89366897	85.9310888	86.55151813	86.50639824
11/6/2019 2:30 PM	A9J0954-01	88.46424669	82.46630897	82.05702475	82.36044332	81.62740749	81.79679082	80.65934869	82.3899732	80.60881837	86.8228037	88.03130693	87.44307987	87.20378111
11/6/2019 2:35 PM	A9J0954-02	91.55246107	83.93325767	83.17045212	84.00304486	82.27004201	82.68216628	82.40908321	83.39470324	81.61529308	87.43865486	89.06228905	88.0715128	87.87025107
11/6/2019 2:40 PM	9110517-MS1	88.53801809	83.91365414	83.61940896	83.58902753	82.50686959	82.66355134	81.32857354	82.110995	81.04990687	87.20532625	87.64770959	86.35790462	86.37717876
11/6/2019 2:44 PM	A9K0048-01	90.7946017	84.92099646	84.74881473	84.63208564	84.29773502	84.08353276	83.21361723	82.98518005	81.68050715	88.02452225	88.48548151	86.71386147	86.94925238
11/6/2019 2:49 PM	9110517-MS2	90.34928012	85.19298065	84.90350523	85.21830085	84.35951911	84.10343097	83.64474268	83.9652771	82.91472209	88.13808602	90.20153291	87.6486871	88.40193597
11/6/2019 2:53 PM	9K06041-CCV3	89.99673702	86.19685517	84.51824085	83.49339828	84.95793291	83.72127656	82.26550894	84.60479806	82.86176718	88.48857064	89.96235864	88.81315296	89.06212218
11/6/2019 2:58 PM	9K06041-CCB3	92.22887693	85.3910029	84.83831444	84.45001026	84.58561446	84.1277013	84.17346879	87.10376454	86.20922462	89.46579313	91.46382227	91.17162892	91.39229898
11/6/2019 3:03 PM	9K06041-CRL4	92.66326802	85.87655426	84.89146975	84.44256205	85.18147212	84.91124146	84.20875111	87.03240287	86.03284794	89.56776169	91.4880272	91.56495163	91.55061049
11/6/2019 3:07 PM	9K06041-CRL5	92.56931745	86.48042326	85.68053447	84.95829034	85.6864156	85.31129349	84.6083908	87.41417663	86.31441519	89.68878439	90.92521116	91.55975068	91.62500007
11/6/2019 3:12 PM	9K06041-CRL6	92.78214482	85.52684609	86.54320063	85.47495239	85.91885283	85.94083153	85.45201067	88.23982222	86.68628816	90.08036135	91.56408374	92.02468249	92.04306742
11/6/2019 3:17 PM	9110518-BLK1	93.63483484	85.77407638	86.38101049	86.38557251	84.99720576	85.23799155	85.10966157	86.04159719	84.63526938	89.09304025	90.68227632	89.42378955	89.7701944
11/6/2019 3:21 PM	9110518-BS1	90.68101638	86.41477826	85.2474655	83.29004527	85.24905613	83.62058407	82.66801606	84.7427496	82.46923316	88.78191792	90.16971009	88.70946833	88.34876445
11/6/2019 3:26 PM	A9K0045-01	91.44913461	84.77257567	84.39095128	84.16291948	84.42449948	83.99789723	82.85306235	84.21762527	82.26020524	87.89372119	88.34253883	88.33574953	88.64667475
11/6/2019 3:31 PM	9110518-MS1	86.45542198	85.34555603	84.14548309	79.12632391	84.19761353	83.24396232	77.84685199	83.946362	76.89055696	88.12821072	82.05861775	88.50143726	83.69916986
11/6/2019 3:35 PM	A9J1131-01RE2	92.06029569	83.14740676	83.89332531	84.32250406	80.89121286	82.44018984	82.51163646	80.84634064	79.94535993	86.75283159	88.67948437	83.79140962	84.50483535
11/6/2019 3:40 PM	A9K0022-02RE1	88.95124614	85.56932195	82.67605756	81.39337534	79.81691541	79.9046337	78.66310004	79.568288	77.42833223	87.28797009	86.95377486	83.37725991	84.10634829
11/6/2019 3:45 PM	A9K0059-02	91.02536986	85.691204	85.08830165	85.12726034	82.34015423	83.0642675	82.07172184	82.17801167	80.72581263	89.18485859	89.97213571	87.13836667	86.93515081
11/6/2019 3:52 PM	A9K0059-03	90.68714111	86.5568609	85.91992844	84.71224454	83.36288299	84.28347899	81.88269107	82.45286874	80.55989542	89.42040968	88.61167846	87.72047583	86.74119017
11/6/2019 3:57 PM	9110503-DUP1	88.61448092	84.51692988	83.12481088	81.48642482	81.56462529	81.24376357	79.86903318	81.29187339	79.07509406	88.41879581	88.58387247	86.3390442	86.28191148
11/6/2019 4:02 PM	9110503-MS1	87.32379766	83.66187043	82.22019641	80.90458801	79.97844345	80.01432682	78.48766313	79.92365931	77.3027229	88.17612244	86.07867434	85.89406526	85.33094906
11/6/2019 4:07 PM	9K06041-CCV4	89.03449896	83.64107595	79.93592214	82.18438182	83.20707465	78.79856148	81.67777944	79.22758609	81.27633096	85.61589742	88.52607811	85.02270135	89.10320622
11/6/2019 4:12 PM	9K06041-CCV5	89.39254749	83.05730676	83.01066812	81.72043937	83.21854438	81.82562692	80.81888177	82.41204915	80.32123471	89.04187294	88.24333851	89.14316093	88.34675674
11/6/2019 4:16 PM	9K06041-CCB4	89.867523	84.0828656	84.04100172	82.08273431	84.22567726	83.79631043	82.45677206	85.85112816	83.9251019	90.76745985	90.63717601	91.01457505	90.74717737
11/6/2019 4:21 PM	9110538-BLK1	89.68023538	82.50898259	83.59200643	81.93854708	82.73262532	82.63942556	81.22569423	85.43204782	82.95289059	89.74823586	89.15474664	89.88461114	89.37825545
11/6/2019 4:26 PM	9110538-BS1	88.57999636	82.70730104	82.68364133	80.45088613	82.20170174	81.70370796	79.242024	82.79212006	79.9199227	89.40640629	89.00603762	88.87300899	87.66305868
11/6/2019 4:30 PM	A9K0140-01	85.8528553	80.32241807	79.87296202	78.81280435	79.53584797	79.06943948	78.41187759	81.20555739	78.4408341	87.61576492	85.73798025	88.97833443	88.37237739
11/6/2019 4:37 PM	9110540-BLK1	88.95582696	81.91184589	83.35652573	80.74270184	81.97924365	82.27744893	79.92872524	86.35344878	82.57203339	89.8841822	87.49186487	90.14140272	89.23283795
11/6/2019 4:41 PM	9110540-BS1	90.86752048	84.15138133	84.58460065	82.49116909	83.19499312	82.90953306	82.24449001	85.76649897	83.64562377	90.57818544	89.16638402	91.00054255	90.21734592
11/6/2019 4:46 PM	A9K0141-01	92.13091829	86.32448135	86.36133275	83.8543385	85.71957605	84.1073176	82.59642867	87.58122211	84.741982	91.90154791	90.49228093	92.62366659	92.14490752
11/6/2019 4:50 PM	9110540-DUP1	91.9847621	86.31646063	85.42861386	83.21884744	84.5642494	83.79469032	82.480506	88.54826873	84.93578328	91.31985974	90.31361104	93.13447952	92.80968242
11/6/2019 4:55 PM	9110540-MS1	90.16443036	84.45910674	85.34108681	83.53114909	84.5092769	83.80481875	82.44401024	85.67396613	83.55343829	91.58615279	89.71602117	89.76958602	90.5802887
11/6/2019 5:00 PM	9110541-BLK1	92.96950414	86.92152046	86.32453564	84.44277802	86.44507838	85.83998085	84.85450127	88.97901983	87.08539424	92.41953112	91.82296207	92.77516968	93.08411832
11/6/2019 5:04 PM	9110541-BS1	84.67948296	86.63943512	85.06675782	77.30378839	85.57726001	83.87883392	76.49871077	85.39391725	76.76565439	90.88782708	83.97737693	89.90159695	84.17504909
11/6/2019 5:09 PM	9K06041-CCV6	88.10673852	85.56199662	84.26471936	81.83554834	85.55107	83.39027435	81.98449579	84.80646911	81.34515654	91.33944924	89.19342608	90.27391302	89.52640856
11/6/2019 5:14 PM	9K06041-CCB5	89.26244935	85.78080746	85.43363525	82.84243392	86.08133549	84.93568362	83.37942665	87.76378441	84.30494383	91.52094302	90.23229683	92.01786049	91.87904541
11/6/2019 5:18 PM	A9K0141-02	89.78539804	85.74714483	85.15601475	82.60592117	86.14867525	84.23979322	81.96312436	86.43692403	83.11119171	91.60230246	89.49338381	91.56547422	90.71150054
11/6/2019 5:23 PM	9110541-DUP1	84.50934192	85.7146707	85.23427703	77.73600524	85.81121018	84.68764949	77.01050197	87.04836559	77.7723714	91.85759403	82.14822618	91.67722629	84.74257708
11/6/2019 5:28 PM	9110541-MS1	88.93475962	86.34477856	85.34188004	82.52111007	85.63198507	84.00419904	82.0270163	84.70255107	81.76555938	91.30120446	90.92301491	89.56059487	89.29438631
11/6/2019 5:32 PM	9110541-MSD1	90.80641545	87.82242168	86.06921375	84.75966226	87.24776911	85.55303673	84.22037083	87.36373635	84.65002842	92.17224301	91.669248	91.90627517	92.40080144
11/6/2019 5:38 PM	9K06041-CCV7	88.32207169	85.81477133	84.45598823	81.79851246	85.81424163	83.88090407	81.68461813	84.86693034	81.39725009	90.9594646	90.45133333	90.44969237	90.10750042
11/6/2019 5:42 PM	9K06041-CCB6	93.11583669	87.09904542	85.33373379	83.86644792	86.47922297	85.09442334	83.76152383	87.14420298	84.69576205	91.75055446	91.58976865	91.99358252	92.38032026
11/6/2019 5:47 PM	9K06041-CRL7	92.66630321	86.95350173	85.96744139	83.60986813	86.64742293	85.38828432	84.03640296	88.11205877	85.36413878	91.72937574	89.0332561	92.2635935	92.59031155
11/6/2019 5:52 PM	9K06041-CRL8	90.79407232	86.40903645	85.7176609	83.69460819	86.91667304	85.37999146	83.81683262	87.86418204	84.70790336	91.80391822	88.28878066	92.14167333	92.1624726
11/6/2019 5:56 PM	9K06041-CRL9	90.47643068	86.49448421	85.45447881	83.15259042	86.78798379	85.32026275	83.48226421	87.36497047	84.44818296	91.39031946	92.05120707	92.51157501	92.20839732
11/6/2019 6:01 PM	A9K0059-04	97.44953612	85.22327811	87.38216761	90.32087375	81.47071637	83.52605838	85.38698532	80.46042849	81.43979995	88.25913573	88.28733979	83.064022	84.98853202
11/6/2019 6:06 PM	A9K0059-05	92.91040763	90.19790085	87.13558569	85.99103819	86.2030575	84.06141849	82.45405322	82.91670108	80.8155582	90.28641532	89.83038558	87.95286825	88.12413316
11/6/2019 6:11 PM	A9K0059-06	88.35972877	86.52993069	82.84596368	81.72437806	82.3706412	80.53020193	78.76209509	80.76410814	77.99574101	88.38048109	88.06462787	86.27665946	86.773478
11/6/2019 6:15 PM	A9K0059-07	97.34314615	85.39832896	85.80447084	88.36454488	80.66977763	81.96859782	82.51647456	79.0470159	79.39654978	86.7891534	88.98529258	81.77684779	83.78042095
11/6/2019 6:20 PM	A9K0090-02	93.57308015	87.34756413	84.30573902	83.92690212	86.03980501	83.87209572	82.87484581	81.12191623	79.5489877	87.70448924	88.75799628	85.57190297	86.7852768
11/6/2019 6:24 PM	A9K0108-01	92.29004991	87.82964942	86.15969018	83.80720985	83.12558848	82.63258918	79.6901731	80.12008244	77.23327478	87.94124948	88.91129131	83.89081384	84.92254099
11/6/2019 6:29 PM	A9K0111-01	89.15806327	83.24295641	78.34223735	82.16869327	81.04878157	76.76499221	79.63456784	75.29485981	76.70811499	82.98607263	87.85627293	80.3480644	84.48537114
11/6/2019 6:34 PM	9110503-MS2	90.32006392	84.71683456	82.82292071	82.47791315	82.32157558	80.4174977	79.55451212	78.74818884	76.5734067	86.79576201	86.26087256	83.70494288	84.56979256
11/6/2019 6:38 PM	A9K0136-01	86.77110194	82.02353017	79.05483699	78.3176267	80.7766744	78.81140783	77.37673117	79.89090249	76.77942069	86.28360945	86.16131655	87.1351366	86.97528079
11/6/2019 6:43 PM	A9K0136-02	87.72722163	81.78738724	80.6051104	80.80236837	79.14983648	78.18331943	77.29146639	76.95074024	74.81529369	85.05439633	85.51859988	82.79833354	82.70033154
11/6/2019 6:47 PM	9K06041-CCV8	87.94674474	83.16602187	81.26649696	80.57623147	82.20347847	80.33514195	79.01980267	81.42753062	78.43738585	87.49035271	87.80268955	87.46125181	87.08381465
11/6/2019 6:52 PM	9K06041-CCB7	86.28438525	82.25640515	80.25564479	78.54046693	81.28140038	79.53116217	77.78669362	82.57188914	78.95710636	86.72072662	86.82141779	88.488835	87.30814864
11/6/2019 6:57 PM	A9K0136-03	82.59962367	78.57714558	76.21472079	75.66777573	77.81850933	76.41713156	74.73305086	76.86935146	73.9012464	83.71417038	82.46600057	83.80186825	83.83912249
11/6/2019 7:02 PM	A9K0136-04	83.39309748	79.43686132	77.036312	77.42748976	75.99490249	75.79479129	74.36310826	74.12878059	72.10928527	82.59107223	78.60823239	79.83899544	80.19264675
11/6/2019 7:06 PM	A9K0136-05	84.59806432	80.59737156	78.2573528	78.24076617	77.19018563	76.50907844	75.63061679	75.11357974	72.64396378	83.04555063	78.27467238	80.28059647	80.15805053
11/6/2019 7:11 PM	A9K0136-06	87.43604695	80.39974396	79.2625602	80.80931413	78.7976172	78.48134796	77.97211957	77.89401547	75.27203657	83.97624708	84.79687934	82.49665703	81.97449355
11/6/2019 7:15 PM	A9K0136-07	88.92999954	82.48016996	80.70727938	81.57302704	80.26339161	79.69335623	79.00283365	77.80826009	76.34932096	85.15970537	86.97203582	81.71761662	82.89248591
11/6/2019 7:20 PM	A9K0136-08	89.24887167	83.1622569	81.05396949	81.50712468	80.88373599	79.48570218	79.38800811	78.67364597	76.85105256	85.02750706	87.33826325	83.80753162	84.41979686
11/6/2019 7:25 PM	A9K0136-09	88.19841978	82.14749203	80.91516204	80.38684575	79.95116034	79.13091514	78.21999052	77.4275564	75.4499294	84.47120383	84.80539093	81.67808907	82.16815539
11/6/2019 7:29 PM	A9J0990-62RE1	91.96684444	83.78484179	82.99299188	83.58394187	81.50342147	81.38273327	81.19492811	82.67165214	81.97179972	87.59440195	90.20186925	88.63171282	89.28414404
11/6/2019 7:34 PM	9110360-DUP3	91.58724486	85.18634557	83.82787893	84.85141707	83.02876704	82.49788932	82.76959772	84.07707413	83.01995391	88.21007177	90.48547463	88.68958594	90.32839186
11/6/2019 7:39 PM	9110360-DUP4	93.53400523	85.52744132	84.9063192	85.71075093	84.16479989	83.68178698	83.76302471	84.98109816	84.21921325	89.34545628	92.29781691	89.52319548	90.84321449
11/6/2019 7:43 PM	9K06041-CCV9	90.37432113	86.89824918	83.3019995	82.72153053	83.82080577	81.59304659	80.69650529	82.37174146	80.65027843	87.95965781	90.38906255	87.37047115	87.69876697
11/6/2019 7:48 PM	9K06041-CCB8	91.19162281	85.04990836	83.49668648	83.80413245	83.72089221	83.06863826	82.41632	84.93145842	83.09002839	88.54723209	89.91730681	89.17119328	89.73457448
11/6/2019 7:53 PM	9110360-MS2	93.47726476	86.85161713	85.49584461	85.89569738	84.26675836	83.64323838	83.77395716	84.71992183	84.24942838	88.80405451	90.2099891	89.31810998	90.75552576
11/6/2019 7:57 PM	A9J1043-02RE1	86.80492846	86.14408322	83.02207542	83.41783598	79.51154563	77.31478333	76.51685844	78.40474177	76.98112992	85.37496374	87.48953173	83.7193381	85.06497799
11/6/2019 8:02 PM	9110520-BLK1	90.75424366	83.46364907	82.63283287	82.90919892	82.11957384	81.75802811	81.40426965	84.62018042	82.77893683	88.06278439	90.184371	87.78766012	88.4047345
11/6/2019 8:07 PM	9110520-BS1	90.4876448	84.85356882	83.22608487	83.78443194	82.91083914	81.57697775	81.1520015	83.16009712	81.96515384	88.15354165	91.49848344	87.68931312	88.47546361
11/6/2019 8:11 PM	A9K0080-02	90.15533839	84.48287026	83.55591761	84.28583605	81.76166998	81.48852339	80.76840622	82.0052705	80.73266857	88.01799563	90.51597555	87.07592864	86.92930964
11/6/2019 8:16 PM	A9K0080-04	89.40166404	83.96692337	81.85640456	82.06891676	81.61932041	79.74564579	79.96776133	81.35250114	79.87072522	86.74998114	88.95855853	86.68224493	87.72933053
11/6/2019 8:20 PM	A9K0080-06	90.52897254	83.13829721	81.69804918	82.66272172	81.47581669	79.94960957	80.17628892	81.89550875	80.80060263	87.21384433	88.5207084	88.16457033	88.93111591
11/6/2019 8:25 PM	9110520-DUP1	89.28771588	84.71099442	81.25143277	81.82465978	81.4532404	79.73904669	79.42406854	81.50972427	79.79195595	87.34757831	88.98308879	87.55324182	87.89342443
11/6/2019 8:30 PM	A9K0080-08	88.1889106	83.34582551	80.54488813	80.56391348	80.10194818	78.87039604	78.02109668	79.32550192	77.00702678	86.45806874	87.45033058	85.83415937	85.77955414
11/6/2019 8:34 PM	9110520-MS1	89.02131738	82.0019454	79.86270049	81.20083923	78.458458	77.5868696	77.74431266	78.13926916	76.38372439	85.5909205	86.80971583	83.97883459	84.10326407
11/6/2019 8:39 PM	9K06041-CCVA	91.5278254	84.49306852	81.26940867	82.16275382	82.48530258	80.12378128	80.03126284	81.36723283	80.00413228	86.4560985	90.16711477	87.57391669	87.81240399
11/6/2019 8:44 PM	9K06041-CCB9	92.5779422	85.40337991	82.65630771	83.36403964	83.15646696	81.304661	81.75128042	83.55026669	83.14931861	87.51918473	90.2831533	88.31247719	89.78350367
11/6/2019 8:48 PM	A9K0080-10	90.96196718	83.01809763	81.07269215	82.02228235	80.54920898	79.41705875	79.70963443	81.45539291	80.31923779	86.49462205	89.80884788	87.54761369	88.6001603
11/6/2019 8:53 PM	A9K0080-12	91.19115877	84.53485082	81.21075524	82.62798352	81.28849693	79.85723994	79.46482369	81.86449486	80.15921982	87.58561185	90.45976833	87.46896514	89.10983296
11/6/2019 8:58 PM	A9K0080-14	91.02622421	84.20078798	82.07669208	82.38215146	81.65614407	80.32566674	80.04355035	83.8330342	82.08255054	88.15934963	90.19199868	90.3389743	90.30903025
11/6/2019 9:02 PM	A9K0080-16	90.46198073	82.17541273	79.68179731	80.60882817	80.12448217	78.29721283	77.79099303	79.83103087	77.82131514	85.45080315	88.66903667	86.00326542	86.25826334
11/6/2019 9:07 PM	9110466-BLK1	91.18178172	83.65483995	80.79889438	81.15993651	81.12680526	79.66976094	78.67370537	82.54264224	79.96147185	87.25035955	88.60148317	86.85002903	87.23826388
11/6/2019 9:12 PM	9110466-BS1	90.95986701	84.20722335	81.32740189	80.77829856	81.50668639	79.69054421	79.21741591	81.40669372	79.96419772	86.43695995	90.02338249	86.39215731	87.66904663
11/6/2019 9:16 PM	A9K0066-02	89.2818583	84.81297539	81.14858194	80.65302427	80.80888782	79.06827622	78.14538328	82.00009782	79.43351027	87.42316209	90.8347237	88.2714515	88.36952308
11/6/2019 9:21 PM	9110466-DUP1	87.42498086	81.21886517	79.86804078	78.48444762	79.82082526	77.85661162	76.374056	80.65881906	77.72411155	86.62552053	90.03351321	87.87886797	87.65462792
11/6/2019 9:25 PM	9110466-MS1	86.32879068	81.06183284	78.22955606	78.71044253	77.83416428	76.37504408	75.51600361	78.45361982	76.29214516	85.8792778	88.11551082	85.26400097	85.53904085
11/6/2019 9:30 PM	A9K0098-01	88.08124358	84.80218068	81.23553931	81.88274526	79.17195981	78.09232989	77.87930968	79.58762003	78.40998255	86.27214687	89.96272024	86.38407783	87.65929562
11/6/2019 9:35 PM	9K06041-CCVB	89.83725324	81.82590392	79.96518516	80.59098759	79.94966537	78.50834303	78.4535424	80.22664388	78.43428076	86.13000237	89.52931902	86.72986314	87.19264432
11/6/2019 9:39 PM	9K06041-CCVC	88.46272938	82.81750209	80.07038044	81.04897881	80.70181146	78.63972357	78.60042849	80.01359502	78.39601729	85.20764651	89.33511265	85.65225252	86.89686454
11/6/2019 9:44 PM	9K06041-CCBA	91.9682221	84.14375906	81.75828507	82.91270844	82.26625948	80.69449886	80.57563804	83.80520028	81.93404718	86.72122195	90.54306426	88.44067959	88.8728562
11/6/2019 9:49 PM	9K06041-CCVD	87.95148573	72.12423789	79.48330282	79.70594193	69.50322373	78.19048856	77.94155459	79.81891235	77.78708398	85.27785591	88.79770122	85.86522582	86.15439044
11/6/2019 9:53 PM	9K06041-CCVE	88.20790119	83.07007769	79.70829764	79.82391376	80.21215337	78.39069936	78.03069737	79.47329864	77.70682838	84.9881795	89.48483718	85.59278155	86.50892117
11/6/2019 9:58 PM	9K06041-CCBB	89.85455306	83.77919905	80.92737059	81.57632184	81.27425076	80.13321012	79.57856412	82.95782905	81.1376368	86.01148527	90.04329883	87.36986003	88.20564186
11/6/2019 10:02 PM	9K06041-CRLA	90.26092172	84.0602896	81.35270756	81.30076209	81.94501645	80.29468139	79.56904416	83.56817649	80.86284229	85.91001253	90.41074855	87.73168052	88.16365356
11/6/2019 10:07 PM	9K06041-CRLB	91.43138926	83.94890275	81.18162042	82.33744998	82.05595954	80.47428212	79.57658058	83.44334261	81.07473404	86.13649716	89.86370468	87.60129924	88.33855813
11/6/2019 10:12 PM	9K06041-CRLC	91.2558593	84.73960721	80.91353552	81.10621978	81.79032435	79.9489918	79.58547693	82.97253545	80.62052813	85.99764056	90.00386646	87.48184761	88.01795075
11/6/2019 10:17 PM	9K06041-CRLD	92.04344922	84.78188568	81.13897422	82.33737894	82.06579941	80.61950453	79.98852344	83.31653944	81.3536905	86.21224782	90.04524165	88.44323494	88.93162888
11/6/2019 10:21 PM	A9K0133-03	92.21233779	84.29475006	81.12383393	81.99585427	81.58694896	79.56485589	79.23198694	81.8273807	79.6879498	86.17363214	90.53272984	87.11115259	87.71071292
11/6/2019 10:26 PM	A9K0133-04	93.31926504	84.48732671	81.80809037	81.90444787	81.22474814	79.65376164	79.08628227	81.77201876	79.28709881	85.90031376	89.77004784	86.05819899	87.05137068
11/6/2019 10:31 PM	A9K0133-05	92.13797687	84.05722076	81.42414725	82.76909058	80.51717116	79.55113539	79.86185694	80.48669279	79.02866683	85.42183271	89.07094162	85.14590565	85.93293884
11/6/2019 10:35 PM	A9K0133-06	92.82321727	85.20981166	81.24950017	81.41271843	81.93662606	79.98494795	78.77114352	80.78841302	78.00717242	86.02673399	88.75129713	86.39616095	87.02798427
11/6/2019 10:40 PM	9110538-DUP1	90.35321158	84.42366258	80.99333938	81.10815218	81.02498128	79.47222988	78.22479661	80.25587289	77.59963984	85.14115958	88.50214065	85.91411612	86.37766216
11/6/2019 10:44 PM	9110538-MS1	89.9895914	84.29732421	80.62390277	80.96553493	81.20209442	79.23104713	78.74754182	80.50409685	78.08944089	85.5523439	89.77524907	86.11728403	86.91156408
11/6/2019 10:49 PM	A9K0133-07	91.86985464	83.6510789	81.47679697	83.31590539	81.08310256	79.83179544	79.6872827	80.83500786	78.67321532	85.34722127	90.3953618	85.2348882	86.23802854

11/6/2019 10:54 PM	A9K0133-08	90.22904474	84.82079763	80.68544069	81.25377213	81.05849851	79.60531235	78.09564198	80.41656894	77.30954625	85.27606075	89.51899335	85.83263889	86.25774288
11/6/2019 10:58 PM	9K06041-CCVF	91.05707741	85.83289076	82.73855777	82.14533902	82.83660038	80.77789786	79.11663915	80.91799588	78.38305587	86.34474274	89.40151171	86.00662613	85.92436892
11/6/2019 11:03 PM	9K06041-CCBC	92.22587904	85.84734758	82.12946759	82.23136759	82.23466903	80.85706657	80.31802755	83.54816357	81.24466727	86.41517593	90.29782501	87.94178389	88.57451792
11/6/2019 11:08 PM	9K06041-CRLE	93.84071377	85.72338119	83.13752181	83.40644283	83.69247569	81.38589713	80.840161	84.56546915	82.35913919	87.18252793	90.16583096	88.67287776	89.43108811
11/6/2019 11:12 PM	9K06041-CRLF	93.08073139	86.19220329	82.69911735	83.59834326	83.55019078	81.74627275	81.088595	84.45558528	82.25875391	87.0963806	91.56885697	88.32144369	89.43932042
11/6/2019 11:17 PM	9K06041-CRLG	92.99043271	87.0126079	82.63502267	83.6013489	84.11992507	81.52902076	80.93359901	84.20520824	82.19211936	87.11561078	92.2057307	88.92387446	89.36786902
11/6/2019 11:22 PM	9K06041-CRLH	92.98540664	86.82785471	83.3132121	84.23053461	83.76513049	81.5483462	80.9598249	83.51804829	81.33265717	87.33541686	90.91300622	87.46207523	88.91865624

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

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Total Solids by SM 2540G
Benchsheet Data

Batch 9101617 (A9J0954-01,02)

APEX LABORATORIES

Apex Laboratories

PREPARATION BENCH SHEET

NOV 0 5 2019

Percent Solids + Dry Weight Worksheet

BATCH #: 9101617 (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
A9J0954-01	Dry Weight		10/25/19 17:25		1.269	27.991	21.563	75.9	Use Results from TS. Make NR once completed.
A9J0954-01	Solids, Total (SM 254		10/25/19 17:25		1.269	27.991	21.563	75.9	Use Result for Dry Weight.
9101617-DUP1	QC	A9J0954-01	10/25/19 17:25		1.255	28.972	22.324	76.0	
A9J0954-02	Dry Weight		10/25/19 17:25		1.248	27.71	15.811	55.0	Use Results from TS. Make NR once completed.
A9J0954-02	Solids, Total (SM 254		10/25/19 17:25		1.248	27.71	15.811	55.0	Use Result for Dry Weight.

NRP — Prepared By: 10/28/19 — Date

James J. Johnson — Reviewed By: 11/01/19 — Date

Batch #: 9101617

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	
A9J0954-01	1.269	954-01	27.991	21.571	21.563		Strong smell
9101617-DUP1	1.255	954-01 DUP	28.972	22.337	22.324		source: A9J0954-01
A9J0954-02	1.248	954-02	27.710	15.822	15.811		
Date/time first in oven:		**Oven temp. (°C; in/out):**		**103.3/103.6**	**104.4/104.5**	/	
10/25/19@18:30		**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 9110443 (A9J0954-01,02) (ZHE)
Batch 9110477 (A9J0954-01,02)

PREPARATION BENCH SHEET

BATCH #: 9110443 (Solid)

Apex Laboratories

Prep Method: EPA 1311 TCLP/ZHE

Lab Number	Cont.	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surr.	ClientID / Sample	Extraction Comments	pH*
A9J0954-01	C	TCLP/ZHE Extraction	11/04/19 15:35	25.1	500					PDI-019SC-C-00-3.2-191025		
A9J0954-02	C	TCLP/ZHE Extraction	11/04/19 15:35	24.9	500					PDI-095SC-C-00-8.8-191025		
A9J1007-01	C	TCLP/ZHE Extraction	11/04/19 15:35	20.3	400					PDI-083SC-C-00-08-191028		
A9K0045-01	A	TCLP/ZHE Extraction	11/04/19 15:35	20.3	400					BF-110419-108		
A9K0046-01	A	TCLP/ZHE Extraction	11/04/19 15:35	19.9	400					FC-110419-1210		
A9K0048-01	A	TCLP/ZHE Extraction	11/04/19 15:35	19.9	400					Vapor Carbon-T125-110119		

*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: A19K009
Start: 11/04/19 1535
Stop: 11/05/19 0935
Temp:21.4 to 23.0 C
A19F218 Metals Balance

Prepared By: _____ Date 11/5/19

Reviewed By: _____ Date 11/5/19

APEX LABS ZHE WORKSHEET

Batch # 9110443

Analyst [signature]

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
A9J0954-01	1	Solid	NA	NA	25.1	500	10	10	
A9J0954-02	2	↓	↓	↓	24.9	500	10	10	
A9J1007-01	12	↓	↓	↓	20.3	400	10	10	
A9K0045-01	13	↓	↓	↓	20.3	400	10	12	
↓ 46-01	24	↓	↓	↓	19.9	400	10	10	
↓ 48-01	26	↓	↓	↓	19.9	400	10	10	

*Re-extract if pressure reads 0 PSI

Start

Date/Initals 11/4/19

Time (18+/- 2h) 1535

RPM (30) 30

Stop

Date/Initials 11/5/19 EM

Time 0935

Temp (23+/- 2°C) Min: 21.4 **Max:** 23.0 **(For thermometer SN _EU6200919)** _____ **C.F.** 0

Comments: TCLP Fluid # 1 Lot # A19K009 **Temp before C.F.** NA

PREPARATION BENCH SHEET 9110477

NOV 1 1 2019

Apex Laboratories

BATCH #: 9110477 (Matrix: Solid)

TCLP Leachate Bench Sheet

#	Lab Number	Analysis	Initial (g)	Final (mL)	Start Time	Stop Time ESS 11/6/19	Sample pH	TCLP Fluid	Client / Sample
	9110477-BLK1	QC	50	1000	11/05/19 16:45	11/06/19 0905	4.91	#1	
	A9J0954-01	TCLP Extraction - Metals	50.5	1010	11/05/19 16:45	11/06/19 0905	4.5	#1	Anchor QEA, LLC / PDI-019SC-C-00-3.2-191025
	A9J0954-01	TCLP Extraction - Organics	50.5	1010	11/05/19 16:45	11/06/19 0905	4.5	#1	Anchor QEA, LLC / PDI-019SC-C-00-3.2-191025
	A9J0954-02	TCLP Extraction - Metals	100.1	2002	11/05/19 16:45	11/06/19 0905	4.5	#1	Anchor QEA, LLC / PDI-095SC-C-00-8.8-191025
	A9J0954-02	TCLP Extraction - Organics	100.1	2002	11/05/19 16:45	11/06/19 0905	4.5	#1	Anchor QEA, LLC / PDI-095SC-C-00-8.8-191025
	A9K0048-01	TCLP Extraction - Metals	100.6	2012	11/05/19 16:45	11/06/19 0905	4.5	#1	Sevenson Environmental Services, Inc. / Vapor Carbon
	A9K0048-01	TCLP Extraction - Organics	100.6	2012	11/05/19 16:45	11/06/19 0905	4.5	#1	Sevenson Environmental Services, Inc. / Vapor Carbon

Fluid ID: A19K039
Syringe Filter Lot: A19G155
% Solids Filter Lot: A19C193

CEL 11/6/19
Prepared By: Date

ESS 11/6/19
Reviewed By: Date

TCLP / SPLP* (circle one) Batch # 9110477/9110478/9110479 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")
A9J0954-01	5	96.5	4.5	NA			1	100	N
A9J0954-02	5	96.5	4.5	NA			1	100	N
A9K0045-01	5	96.5	5	3.5	✓	2	1	54.632	N
A9K0046-01	5	96.5	5.5	3.5	✓	4	1	100	N
A9K0048-01	5	96.5	4.5	NA			1	100	N
A9K0067-01	5	96.5	4.5	NA			1	100	N

**pH<5, FD is done, use fluid #1

Extraction

Weight*20

Sample ID	Tare Weight	Weight 100±0.1	Fluid 2000±1%	Fluid #	Fluid ID	Extract pH (to nearest 0.5)
	(g)	(g)	(g)	("1" or "2")		(s.u.)
9110477-BLK1		50	1000	1	A9K039	4.91
9110478-BLK1		43.15	863	1		
9110479-BLK1		50	1000	1		
A9J0954-01	1133.3	50.5	1010	1		4.5
A9J0954-02	1150	100.1	2002	1		4.5
A9K0045-01	~~75.6~~	43.15	863	1		5
A9K0046-01	110.7	100.1	2002	1		7
A9K0048-01	1181.8	100.6	2012	1		4.5
A9K0067-01	111.6	100	2000	1		5.5

EA 11/5/19 109.7

Extraction Start/Stop

	Date	Time	Intl.
START	11/5/19	1645	CRL
STOP	11/6/19	0905	CRL

Stop time window:

RPM 31

Reset Min/Max Temp ☒

	Min Temp	Max Temp
As read:	21.7	23.1
Corr factor:	-0	-0
Actual:	21.7	23.1

Thermometer ID: S/N RC-5-001

APEX LABORATORIES, LLC
6700 SW Sandburg St. Tigard OR 97223 phone 503-718-2323

Balance Checksheets

Extractions November 2019
Extractions November 2019
Dry Weight October 2019
Wet Chem October 2019
Metals November 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 0635	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		0.498		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 0~~0.498~~ 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	0.50g	0.498	100.00g	99.999
17	0803	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
~~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

KT 10/22/19

Balance Challenge Log

Metals Prep Balance 2
Sartorius LC 620 P
40020073

Weight ID	weight (g)	acceptance range (g)	
	=/<1g	± 0.02g	
	>1g	± 2%	
03-J68049-19	0.100g	0.080	0.120
03-J68814-10	10g	9.800	10.200
15477 (100g + 500g)	600g	588.000	612.000

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: November
Year: 2019

~~WHICH~~ ICT 11/4/19

Alternate Weight/ID used:	

Date Range:	

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1 750	ICT		599.990		9.998		0.097
2 ~~8~~							
3							
4 800	ICT		599.985		10.000		0.099
5 805	MJG		599.980		9.999		0.100
6 748	MJG		599.985		9.998		0.099
7 757	MJG		599.985		10.000		0.100
8 805	MJG		599.980		9.997		0.098
9							
10							
11 748	MJG		599.990		9.999		0.099
12 813	MJG		599.990		10.004		0.103
13 750	ICT		599.995		10.001		0.100
14 813	MJG		599.990		9.999		0.099
15 720	ICT		599.990		10.000		0.099
16		600.000g		10.000g		0.100g	
17							
18 800	ICT		600.000		9.999		0.098
19 942	MJG		600.000		10.000		0.101
20 810	MJG		600.000		10.001		0.101
21 800	ICT		599.995		10.001		0.101
22 815	MJG		599.990		9.999		0.100
23							
24							
25 800	ICT		599.990		10.000		0.100
26 737	MJG		599.990		10.001		0.101
27 834	MJG		599.985		10.000		0.100
28							
29							
30							
31							

Balance Challenge Log

Dredd
Intelli-lab PC-6001
ID# 190408014

Weight ID	weight (g) =/<1g >1g	acceptance range (g) ± 0.02g ± 2%	
03-J68814-10	10.0	9.8	10.2
15477	200.0	196.0	204.0
15477 + 1000139353	1 kg + 2kg	2940.0	3060.0

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: November
Year: 2019

RT 11/4/19

Alternate Weight/ID used:		Date Range:	

	Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed
1	750	IGT		9.9		200.0		3002.1
2	~~800~~	~~IGT~~						~~3002.3~~
3								
4	800	IGT		9.9		200.1		3002.3
5	807	MJG		10.0		200.1		3002.1
6	750	MJG		10.0		200.1		3002.2
7	759	MJG		10.0		200.0		3002.2
8	806	MJG		10.0		200.1		3002.1
9								
10								
11	750	MJG		10.0		200.1		3002.2
12	815	MJG		10.0		200.1		3002.3
13	750	IGT		10.0		200.1		3002.3
14	815	MJG		10.0		200.1		3002.2
15	720	IGT		10.0		200.1		3002.3
16			10.0 g		200.0 g		3000.0 g	
17								
18	800	IGT		9.9		200.1		3002.3
19	945	MJG		9.9		200.1	11/19/19 MJG	~~3002.4~~ 3002.4
20	812	MJG		9.9		200.1		3002.3
21	800	~~IGT~~		10.0		200.1		3002.3
22	817	MJG		10.0		200.1		3002.1
23								
24								
25	800	IGT		10.0		200.1		3002.3
26	740	MJG		9.9		200.2		3002.2
27	835	MJG		9.9		199.9		2999.9
28								
29								
30								
31								

Balance Challenge Log

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		499.80	TAEJ 10-1-19 14:26
2 7:40	[illegible]		0.09		49.98	ONLY		
3 9:00	[illegible]		0.09		49.98	NEEDED		
4 7:53	[illegible]		0.10		49.98	WHEN		
5 9:10	[illegible]		0.09		49.98	WEIGHING		
6								
7 7:00	[illegible]		0.10		49.98	OVER	499.76	TAEJ 10-7-19
8 8:07	[illegible]		0.09		49.97	50 g		
9 8:10	[illegible]		0.09		49.97	KEPT		
10 8:20	[illegible]		0.09		49.98	IN METALS		
11 7:37	TAEJ		0.10		49.98	DEPT.		
12 11:05	[illegible]		0.10		49.98			
13								
14 8:20	[illegible]		0.10		49.97			
15 9:00	[illegible]		0.10		49.98	500.00g		
16 7:45	[illegible]	0.10g	0.10	50.00g	49.98		499.81	
17 10:00	JS		0.10		49.98		499.76	KJ 10/17 10:23
18 7:31	[illegible]		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	[illegible]		0.10		49.98			
23 8:46	[illegible]		0.10		49.97			
24 8:47	[illegible]		0.09		49.98			
25 7:38	[illegible]		0.09		49.98			
26 8:51	[illegible]		0.10		49.97			
27								
28 7:45	[illegible]		0.09		49.98			
29 8:07	[illegible]		0.09		49.97			
30 8:20	[illegible]		0.09		49.98		499.57	KMS 10/30/19 10:00
31 7:46	[illegible]		0.10		49.97			