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 - 4a-b. DOC-CAP Testing Cores

Apex Laboratories Work Order #:

A9J0058

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

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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: 11/25/2019
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Apex Work Order Number: A9J0058

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

Wednesday, November 20, 2019

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

RE: A9J0058 - Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores - [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 A9J0058, which was received by the laboratory on 10/2/2019 at 11:23:00AM.

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	Cooler #2	5.8 degC
Cooler #3	5.0 degC	Cooler #4	5.4 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.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

Apex Laboratories

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

Darwin Thomas, Business Development Director

Apex Laboratories, LLC

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PDI-039SC-A-12-13-190930	A9J0058-01	Sediment	09/30/19 09:09	10/02/19 11:23
PDI-039SC-A-13-13.7-190930	A9J0058-02	Sediment	09/30/19 09:48	10/02/19 11:23
PDI-1039SC-A-12-13-190930	A9J0058-03	Sediment	09/30/19 09:48	10/02/19 11:23
PDI-039SC-B-11.8-13.7-190930	A9J0058-04	Sediment	09/30/19 10:39	10/02/19 11:23
PDI-039SC-B-3.8-5.8-190930	A9J0058-05	Sediment	09/30/19 09:15	10/02/19 11:23
PDI-039SC-B-5.8-7.8-190930	A9J0058-06	Sediment	09/30/19 09:16	10/02/19 11:23
PDI-039SC-B-7.8-9.8-190930	A9J0058-07	Sediment	09/30/19 09:17	10/02/19 11:23
PDI-039SC-B-9.8-11.8-190930	A9J0058-08	Sediment	09/30/19 09:18	10/02/19 11:23
PDI-040SC-A-09-10-190930	A9J0058-09	Sediment	09/30/19 13:44	10/02/19 11:23
PDI-040SC-A-10-11.3-190930	A9J0058-10	Sediment	09/30/19 13:59	10/02/19 11:23
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	Sediment	09/30/19 13:45	10/02/19 11:23
PDI-040SC-B-7.3-9.3-190930	A9J0058-12	Sediment	09/30/19 13:46	10/02/19 11:23
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	Sediment	09/30/19 14:02	10/02/19 11:23
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	Sediment	09/30/19 13:45	10/02/19 11:23
PDI-042SC-A-12-13-190930	A9J0058-15	Sediment	09/30/19 11:22	10/02/19 11:23
PDI-042SC-A-13-13.8-190930	A9J0058-16	Sediment	09/30/19 12:42	10/02/19 11:23
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	Sediment	09/30/19 12:29	10/02/19 11:23
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	Sediment	09/30/19 12:05	10/02/19 11:23
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	Sediment	09/30/19 12:06	10/02/19 11:23
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	Sediment	09/30/19 12:06	10/02/19 11:23
PDI-042SC-B-9.9-11.9-190930	A9J0058-21	Sediment	09/30/19 12:07	10/02/19 11:23
PDI-044SC-A-11-12-190930	A9J0058-22	Sediment	09/30/19 15:05	10/02/19 11:23
PDI-044SC-A-12-12.8-190930	A9J0058-23	Sediment	09/30/19 15:05	10/02/19 11:23
PDI-044SC-B-11.1-12.8-190930	A9J0058-24	Sediment	09/30/19 15:15	10/02/19 11:23
PDI-044SC-B-7.1-9.1-190930	A9J0058-25	Sediment	09/30/19 15:06	10/02/19 11:23
PDI-044SC-B-9.1-11.1-190930	A9J0058-26	Sediment	09/30/19 15:07	10/02/19 11:23

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC

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

AMENDED REPORT

Anchor QEA, LLC	Project:	**Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**
6720 SW Macadam Ave. Suite 125	Project Number:	**[none]**
Portland, OR 97219	Project Manager:	**Ryan Barth**

Report ID:
A9J0058 - 11 20 19 1333

ANALYTICAL CASE NARRATIVE

Work Order: A9J0058

Amended Report Revision 1:

This report supersedes all previous reports.

Total Organic Carbon - Soil (SM 5310B): Corrected QC Results

This report has been amended to include missing batch QC for preparation batch 9100677. The Duplicate results for batch 9100674 have also been amended to correct transcription errors. Affected batch QC have been flagged with the AMEND qualifier.

Autumn R. Fetty
Technical Compliance Officer
11/20/19

Apex Laboratories, LLC
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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-039SC-B-11.8-13.7-190930 (A9J0058-04)				**Matrix: Sediment**		**Batch: 9100546**		
Benzene	ND	7.18	14.4	ug/kg dry	50	10/02/19 18:43	5035A/8260C	
Toluene	ND	35.9	71.8	ug/kg dry	50	10/02/19 18:43	5035A/8260C	
Ethylbenzene	ND	18.0	35.9	ug/kg dry	50	10/02/19 18:43	5035A/8260C	
m,p-Xylene	ND	35.9	71.8	ug/kg dry	50	10/02/19 18:43	5035A/8260C	
o-Xylene	ND	18.0	35.9	ug/kg dry	50	10/02/19 18:43	5035A/8260C	
Chlorobenzene	ND	18.0	35.9	ug/kg dry	50	10/02/19 18:43	5035A/8260C	
1,1-Dichloroethene	ND	18.0	35.9	ug/kg dry	50	10/02/19 18:43	5035A/8260C	
cis-1,2-Dichloroethene	ND	18.0	35.9	ug/kg dry	50	10/02/19 18:43	5035A/8260C	
Tetrachloroethene (PCE)	ND	18.0	35.9	ug/kg dry	50	10/02/19 18:43	5035A/8260C	
Trichloroethene (TCE)	ND	18.0	35.9	ug/kg dry	50	10/02/19 18:43	5035A/8260C	
Vinyl chloride	ND	18.0	35.9	ug/kg dry	50	10/02/19 18:43	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*89 %*	*Limits:*	*80-120 %*	*1*	*10/02/19 18:43*	*5035A/8260C*
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*10/02/19 18:43*	*5035A/8260C*
4-Bromofluorobenzene (Surr)			*107 %*		*80-120 %*	*1*	*10/02/19 18:43*	*5035A/8260C*
PDI-039SC-B-3.8-5.8-190930 (A9J0058-05)				**Matrix: Sediment**		**Batch: 9100546**		
Benzene	ND	6.03	12.1	ug/kg dry	50	10/02/19 19:10	5035A/8260C	
Toluene	ND	30.1	60.3	ug/kg dry	50	10/02/19 19:10	5035A/8260C	
Ethylbenzene	ND	15.1	30.1	ug/kg dry	50	10/02/19 19:10	5035A/8260C	
m,p-Xylene	ND	30.1	60.3	ug/kg dry	50	10/02/19 19:10	5035A/8260C	
o-Xylene	ND	15.1	30.1	ug/kg dry	50	10/02/19 19:10	5035A/8260C	
Chlorobenzene	ND	15.1	30.1	ug/kg dry	50	10/02/19 19:10	5035A/8260C	
1,1-Dichloroethene	ND	15.1	30.1	ug/kg dry	50	10/02/19 19:10	5035A/8260C	
cis-1,2-Dichloroethene	ND	15.1	30.1	ug/kg dry	50	10/02/19 19:10	5035A/8260C	
Tetrachloroethene (PCE)	ND	15.1	30.1	ug/kg dry	50	10/02/19 19:10	5035A/8260C	
Trichloroethene (TCE)	ND	15.1	30.1	ug/kg dry	50	10/02/19 19:10	5035A/8260C	
Vinyl chloride	ND	15.1	30.1	ug/kg dry	50	10/02/19 19:10	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*91 %*	*Limits:*	*80-120 %*	*1*	*10/02/19 19:10*	*5035A/8260C*
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*10/02/19 19:10*	*5035A/8260C*
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*	*1*	*10/02/19 19:10*	*5035A/8260C*
PDI-039SC-B-5.8-7.8-190930 (A9J0058-06)				**Matrix: Sediment**		**Batch: 9100546**		
Benzene	ND	6.33	12.7	ug/kg dry	50	10/02/19 19:37	5035A/8260C	
Toluene	ND	31.7	63.3	ug/kg dry	50	10/02/19 19:37	5035A/8260C	

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-039SC-B-5.8-7.8-190930 (A9J0058-06)				**Matrix: Sediment**		**Batch: 9100546**		
Ethylbenzene	ND	15.8	31.7	ug/kg dry	50	10/02/19 19:37	5035A/8260C	
m,p-Xylene	ND	31.7	63.3	ug/kg dry	50	10/02/19 19:37	5035A/8260C	
o-Xylene	ND	15.8	31.7	ug/kg dry	50	10/02/19 19:37	5035A/8260C	
Chlorobenzene	ND	15.8	31.7	ug/kg dry	50	10/02/19 19:37	5035A/8260C	
1,1-Dichloroethene	ND	15.8	31.7	ug/kg dry	50	10/02/19 19:37	5035A/8260C	
cis-1,2-Dichloroethene	ND	15.8	31.7	ug/kg dry	50	10/02/19 19:37	5035A/8260C	
Tetrachloroethene (PCE)	ND	15.8	31.7	ug/kg dry	50	10/02/19 19:37	5035A/8260C	
Trichloroethene (TCE)	ND	15.8	31.7	ug/kg dry	50	10/02/19 19:37	5035A/8260C	
Vinyl chloride	ND	15.8	31.7	ug/kg dry	50	10/02/19 19:37	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*88 %*	*Limits:*	*80-120 %*	*1*	*10/02/19 19:37*	*5035A/8260C*
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*10/02/19 19:37*	*5035A/8260C*
4-Bromofluorobenzene (Surr)			*106 %*		*80-120 %*	*1*	*10/02/19 19:37*	*5035A/8260C*
PDI-039SC-B-7.8-9.8-190930 (A9J0058-07)				**Matrix: Sediment**		**Batch: 9100546**		
Benzene	ND	7.53	15.1	ug/kg dry	50	10/02/19 20:04	5035A/8260C	
Toluene	ND	37.7	75.3	ug/kg dry	50	10/02/19 20:04	5035A/8260C	
Ethylbenzene	ND	18.8	37.7	ug/kg dry	50	10/02/19 20:04	5035A/8260C	
m,p-Xylene	ND	37.7	75.3	ug/kg dry	50	10/02/19 20:04	5035A/8260C	
o-Xylene	ND	18.8	37.7	ug/kg dry	50	10/02/19 20:04	5035A/8260C	
Chlorobenzene	ND	18.8	37.7	ug/kg dry	50	10/02/19 20:04	5035A/8260C	
1,1-Dichloroethene	ND	18.8	37.7	ug/kg dry	50	10/02/19 20:04	5035A/8260C	
cis-1,2-Dichloroethene	ND	18.8	37.7	ug/kg dry	50	10/02/19 20:04	5035A/8260C	
Tetrachloroethene (PCE)	ND	18.8	37.7	ug/kg dry	50	10/02/19 20:04	5035A/8260C	
Trichloroethene (TCE)	ND	18.8	37.7	ug/kg dry	50	10/02/19 20:04	5035A/8260C	
Vinyl chloride	ND	18.8	37.7	ug/kg dry	50	10/02/19 20:04	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*90 %*	*Limits:*	*80-120 %*	*1*	*10/02/19 20:04*	*5035A/8260C*
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*10/02/19 20:04*	*5035A/8260C*
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*	*1*	*10/02/19 20:04*	*5035A/8260C*
PDI-039SC-B-9.8-11.8-190930 (A9J0058-08)				**Matrix: Sediment**		**Batch: 9100546**		
Benzene	ND	9.02	18.0	ug/kg dry	50	10/02/19 20:31	5035A/8260C	
Toluene	ND	45.1	90.2	ug/kg dry	50	10/02/19 20:31	5035A/8260C	
Ethylbenzene	ND	22.6	45.1	ug/kg dry	50	10/02/19 20:31	5035A/8260C	
m,p-Xylene	ND	45.1	90.2	ug/kg dry	50	10/02/19 20:31	5035A/8260C	

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-039SC-B-9.8-11.8-190930 (A9J0058-08)				**Matrix: Sediment**		**Batch: 9100546**		
o-Xylene	ND	22.6	45.1	ug/kg dry	50	10/02/19 20:31	5035A/8260C	
Chlorobenzene	ND	22.6	45.1	ug/kg dry	50	10/02/19 20:31	5035A/8260C	
1,1-Dichloroethene	ND	22.6	45.1	ug/kg dry	50	10/02/19 20:31	5035A/8260C	
cis-1,2-Dichloroethene	ND	22.6	45.1	ug/kg dry	50	10/02/19 20:31	5035A/8260C	
Tetrachloroethene (PCE)	ND	22.6	45.1	ug/kg dry	50	10/02/19 20:31	5035A/8260C	
Trichloroethene (TCE)	ND	22.6	45.1	ug/kg dry	50	10/02/19 20:31	5035A/8260C	
Vinyl chloride	ND	22.6	45.1	ug/kg dry	50	10/02/19 20:31	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 88 %*	*Limits: 80-120 %*	*1*	*10/02/19 20:31*	*5035A/8260C*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*10/02/19 20:31*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*104 %*	*80-120 %*	*1*	*10/02/19 20:31*	*5035A/8260C*	
PDI-040SC-B-5.3-7.3-190930 (A9J0058-11)				**Matrix: Sediment**		**Batch: 9100546**		
Benzene	ND	6.61	13.2	ug/kg dry	50	10/02/19 20:59	5035A/8260C	
Toluene	ND	33.0	66.1	ug/kg dry	50	10/02/19 20:59	5035A/8260C	
Ethylbenzene	ND	16.5	33.0	ug/kg dry	50	10/02/19 20:59	5035A/8260C	
m,p-Xylene	ND	33.0	66.1	ug/kg dry	50	10/02/19 20:59	5035A/8260C	
o-Xylene	ND	16.5	33.0	ug/kg dry	50	10/02/19 20:59	5035A/8260C	
Chlorobenzene	ND	16.5	33.0	ug/kg dry	50	10/02/19 20:59	5035A/8260C	
1,1-Dichloroethene	ND	16.5	33.0	ug/kg dry	50	10/02/19 20:59	5035A/8260C	
cis-1,2-Dichloroethene	ND	16.5	33.0	ug/kg dry	50	10/02/19 20:59	5035A/8260C	
Tetrachloroethene (PCE)	ND	16.5	33.0	ug/kg dry	50	10/02/19 20:59	5035A/8260C	
Trichloroethene (TCE)	ND	16.5	33.0	ug/kg dry	50	10/02/19 20:59	5035A/8260C	
Vinyl chloride	ND	16.5	33.0	ug/kg dry	50	10/02/19 20:59	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 89 %*	*Limits: 80-120 %*	*1*	*10/02/19 20:59*	*5035A/8260C*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*10/02/19 20:59*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*104 %*	*80-120 %*	*1*	*10/02/19 20:59*	*5035A/8260C*	
PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)				**Matrix: Sediment**		**Batch: 9100546**		
Benzene	ND	6.56	13.1	ug/kg dry	50	10/02/19 22:20	5035A/8260C	
Toluene	ND	32.8	65.6	ug/kg dry	50	10/02/19 22:20	5035A/8260C	
Ethylbenzene	ND	16.4	32.8	ug/kg dry	50	10/02/19 22:20	5035A/8260C	
m,p-Xylene	ND	32.8	65.6	ug/kg dry	50	10/02/19 22:20	5035A/8260C	
o-Xylene	ND	16.4	32.8	ug/kg dry	50	10/02/19 22:20	5035A/8260C	
Chlorobenzene	ND	16.4	32.8	ug/kg dry	50	10/02/19 22:20	5035A/8260C	

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)				**Matrix: Sediment**		**Batch: 9100546**		
1,1-Dichloroethene	ND	16.4	32.8	ug/kg dry	50	10/02/19 22:20	5035A/8260C	
cis-1,2-Dichloroethene	ND	16.4	32.8	ug/kg dry	50	10/02/19 22:20	5035A/8260C	
Tetrachloroethene (PCE)	ND	16.4	32.8	ug/kg dry	50	10/02/19 22:20	5035A/8260C	
Trichloroethene (TCE)	ND	16.4	32.8	ug/kg dry	50	10/02/19 22:20	5035A/8260C	
Vinyl chloride	ND	16.4	32.8	ug/kg dry	50	10/02/19 22:20	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*87 %*	*Limits: 80-120 %*	*1*	*10/02/19 22:20*	*5035A/8260C*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*10/02/19 22:20*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*104 %*	*80-120 %*	*1*	*10/02/19 22:20*	*5035A/8260C*	
PDI-040SC-B-9.3-11.3-190930 (A9J0058-13)				**Matrix: Sediment**		**Batch: 9100546**		
Benzene	ND	6.58	13.2	ug/kg dry	50	10/02/19 21:26	5035A/8260C	
Toluene	ND	32.9	65.8	ug/kg dry	50	10/02/19 21:26	5035A/8260C	
Ethylbenzene	ND	16.4	32.9	ug/kg dry	50	10/02/19 21:26	5035A/8260C	
m,p-Xylene	ND	32.9	65.8	ug/kg dry	50	10/02/19 21:26	5035A/8260C	
o-Xylene	ND	16.4	32.9	ug/kg dry	50	10/02/19 21:26	5035A/8260C	
Chlorobenzene	ND	16.4	32.9	ug/kg dry	50	10/02/19 21:26	5035A/8260C	
1,1-Dichloroethene	ND	16.4	32.9	ug/kg dry	50	10/02/19 21:26	5035A/8260C	
cis-1,2-Dichloroethene	ND	16.4	32.9	ug/kg dry	50	10/02/19 21:26	5035A/8260C	
Tetrachloroethene (PCE)	ND	16.4	32.9	ug/kg dry	50	10/02/19 21:26	5035A/8260C	
Trichloroethene (TCE)	ND	16.4	32.9	ug/kg dry	50	10/02/19 21:26	5035A/8260C	
Vinyl chloride	ND	16.4	32.9	ug/kg dry	50	10/02/19 21:26	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*90 %*	*Limits: 80-120 %*	*1*	*10/02/19 21:26*	*5035A/8260C*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*10/02/19 21:26*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*105 %*	*80-120 %*	*1*	*10/02/19 21:26*	*5035A/8260C*	
PDI-1040SC-B-5.3-7.3-190930 (A9J0058-14)				**Matrix: Sediment**		**Batch: 9100546**		
Benzene	ND	6.20	12.4	ug/kg dry	50	10/02/19 21:53	5035A/8260C	
Toluene	ND	31.0	62.0	ug/kg dry	50	10/02/19 21:53	5035A/8260C	
Ethylbenzene	ND	15.5	31.0	ug/kg dry	50	10/02/19 21:53	5035A/8260C	
m,p-Xylene	ND	31.0	62.0	ug/kg dry	50	10/02/19 21:53	5035A/8260C	
o-Xylene	ND	15.5	31.0	ug/kg dry	50	10/02/19 21:53	5035A/8260C	
Chlorobenzene	ND	15.5	31.0	ug/kg dry	50	10/02/19 21:53	5035A/8260C	
1,1-Dichloroethene	ND	15.5	31.0	ug/kg dry	50	10/02/19 21:53	5035A/8260C	
cis-1,2-Dichloroethene	ND	15.5	31.0	ug/kg dry	50	10/02/19 21:53	5035A/8260C	

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-1040SC-B-5.3-7.3-190930 (A9J0058-14)				**Matrix: Sediment**		**Batch: 9100546**		
Tetrachloroethene (PCE)	ND	15.5	31.0	ug/kg dry	50	10/02/19 21:53	5035A/8260C	
Trichloroethene (TCE)	ND	15.5	31.0	ug/kg dry	50	10/02/19 21:53	5035A/8260C	
Vinyl chloride	ND	15.5	31.0	ug/kg dry	50	10/02/19 21:53	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*89 %*	*Limits: 80-120 %*	*1*	*10/02/19 21:53*	*5035A/8260C*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*10/02/19 21:53*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*10/02/19 21:53*	*5035A/8260C*	
PDI-042SC-B-11.9-13.8-190930 (A9J0058-17)				**Matrix: Sediment**		**Batch: 9100596**		
Benzene	ND	6.76	13.5	ug/kg dry	50	10/03/19 13:45	5035A/8260C	
Toluene	ND	33.8	67.6	ug/kg dry	50	10/03/19 13:45	5035A/8260C	
Ethylbenzene	ND	16.9	33.8	ug/kg dry	50	10/03/19 13:45	5035A/8260C	
m,p-Xylene	ND	33.8	67.6	ug/kg dry	50	10/03/19 13:45	5035A/8260C	
o-Xylene	ND	33.8	33.8	ug/kg dry	50	10/03/19 13:45	5035A/8260C	
Chlorobenzene	ND	16.9	33.8	ug/kg dry	50	10/03/19 13:45	5035A/8260C	
1,1-Dichloroethene	ND	16.9	33.8	ug/kg dry	50	10/03/19 13:45	5035A/8260C	
cis-1,2-Dichloroethene	ND	16.9	33.8	ug/kg dry	50	10/03/19 13:45	5035A/8260C	
Tetrachloroethene (PCE)	ND	16.9	33.8	ug/kg dry	50	10/03/19 13:45	5035A/8260C	
Trichloroethene (TCE)	ND	16.9	33.8	ug/kg dry	50	10/03/19 13:45	5035A/8260C	
Vinyl chloride	ND	16.9	33.8	ug/kg dry	50	10/03/19 13:45	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*86 %*	*Limits: 80-120 %*	*1*	*10/03/19 13:45*	*5035A/8260C*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*10/03/19 13:45*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*10/03/19 13:45*	*5035A/8260C*	
PDI-042SC-B-3.9-5.9-190930 (A9J0058-18)				**Matrix: Sediment**		**Batch: 9100596**		
Benzene	ND	5.90	11.8	ug/kg dry	50	10/03/19 14:12	5035A/8260C	
Toluene	ND	29.5	59.0	ug/kg dry	50	10/03/19 14:12	5035A/8260C	
Ethylbenzene	ND	29.5	29.5	ug/kg dry	50	10/03/19 14:12	5035A/8260C	
m,p-Xylene	ND	29.5	59.0	ug/kg dry	50	10/03/19 14:12	5035A/8260C	
o-Xylene	ND	29.5	29.5	ug/kg dry	50	10/03/19 14:12	5035A/8260C	
Chlorobenzene	ND	14.8	29.5	ug/kg dry	50	10/03/19 14:12	5035A/8260C	
1,1-Dichloroethene	ND	14.8	29.5	ug/kg dry	50	10/03/19 14:12	5035A/8260C	
cis-1,2-Dichloroethene	ND	14.8	29.5	ug/kg dry	50	10/03/19 14:12	5035A/8260C	
Tetrachloroethene (PCE)	ND	14.8	29.5	ug/kg dry	50	10/03/19 14:12	5035A/8260C	
Trichloroethene (TCE)	ND	14.8	29.5	ug/kg dry	50	10/03/19 14:12	5035A/8260C	

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-042SC-B-3.9-5.9-190930 (A9J0058-18)				**Matrix: Sediment**		**Batch: 9100596**		
Vinyl chloride	ND	14.8	29.5	ug/kg dry	50	10/03/19 14:12	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 83 %*		*Limits: 80-120 %*	*1*	*10/03/19 14:12*	*5035A/8260C*	
Toluene-d8 (Surr)		*104 %*		*80-120 %*	*1*	*10/03/19 14:12*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)		*98 %*		*80-120 %*	*1*	*10/03/19 14:12*	*5035A/8260C*	
PDI-042SC-B-5.9-7.9-190930 (A9J0058-19)				**Matrix: Sediment**		**Batch: 9100596**		
Benzene	ND	6.06	12.1	ug/kg dry	50	10/03/19 14:38	5035A/8260C	
Toluene	ND	30.3	60.6	ug/kg dry	50	10/03/19 14:38	5035A/8260C	
Ethylbenzene	ND	15.1	30.3	ug/kg dry	50	10/03/19 14:38	5035A/8260C	
m,p-Xylene	ND	30.3	60.6	ug/kg dry	50	10/03/19 14:38	5035A/8260C	
o-Xylene	ND	15.1	30.3	ug/kg dry	50	10/03/19 14:38	5035A/8260C	
Chlorobenzene	ND	15.1	30.3	ug/kg dry	50	10/03/19 14:38	5035A/8260C	
1,1-Dichloroethene	ND	15.1	30.3	ug/kg dry	50	10/03/19 14:38	5035A/8260C	
cis-1,2-Dichloroethene	ND	15.1	30.3	ug/kg dry	50	10/03/19 14:38	5035A/8260C	
Tetrachloroethene (PCE)	ND	15.1	30.3	ug/kg dry	50	10/03/19 14:38	5035A/8260C	
Trichloroethene (TCE)	ND	15.1	30.3	ug/kg dry	50	10/03/19 14:38	5035A/8260C	
Vinyl chloride	ND	15.1	30.3	ug/kg dry	50	10/03/19 14:38	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 85 %*		*Limits: 80-120 %*	*1*	*10/03/19 14:38*	*5035A/8260C*	
Toluene-d8 (Surr)		*101 %*		*80-120 %*	*1*	*10/03/19 14:38*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)		*98 %*		*80-120 %*	*1*	*10/03/19 14:38*	*5035A/8260C*	
PDI-042SC-B-7.9-9.9-190930 (A9J0058-20)				**Matrix: Sediment**		**Batch: 9100596**		
Benzene	ND	6.59	13.2	ug/kg dry	50	10/03/19 15:05	5035A/8260C	
Toluene	ND	32.9	65.9	ug/kg dry	50	10/03/19 15:05	5035A/8260C	
Ethylbenzene	ND	16.5	32.9	ug/kg dry	50	10/03/19 15:05	5035A/8260C	
m,p-Xylene	ND	32.9	65.9	ug/kg dry	50	10/03/19 15:05	5035A/8260C	
o-Xylene	ND	32.9	32.9	ug/kg dry	50	10/03/19 15:05	5035A/8260C	
Chlorobenzene	ND	16.5	32.9	ug/kg dry	50	10/03/19 15:05	5035A/8260C	
1,1-Dichloroethene	ND	16.5	32.9	ug/kg dry	50	10/03/19 15:05	5035A/8260C	
cis-1,2-Dichloroethene	ND	16.5	32.9	ug/kg dry	50	10/03/19 15:05	5035A/8260C	
Tetrachloroethene (PCE)	ND	16.5	32.9	ug/kg dry	50	10/03/19 15:05	5035A/8260C	
Trichloroethene (TCE)	ND	16.5	32.9	ug/kg dry	50	10/03/19 15:05	5035A/8260C	
Vinyl chloride	ND	16.5	32.9	ug/kg dry	50	10/03/19 15:05	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 82 %*		*Limits: 80-120 %*	*1*	*10/03/19 15:05*	*5035A/8260C*	

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-042SC-B-7.9-9.9-190930 (A9J0058-20)				**Matrix: Sediment**		**Batch: 9100596**		
Surrogate: Toluene-d8 (Surr)			*Recovery: 102 %*	*Limits: 80-120 %*	*1*	*10/03/19 15:05*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*10/03/19 15:05*	*5035A/8260C*	
PDI-042SC-B-9.9-11.9-190930 (A9J0058-21)				**Matrix: Sediment**		**Batch: 9100596**		
Benzene	ND	6.90	13.8	ug/kg dry	50	10/03/19 15:32	5035A/8260C	
Toluene	ND	34.5	69.0	ug/kg dry	50	10/03/19 15:32	5035A/8260C	
Ethylbenzene	ND	17.3	34.5	ug/kg dry	50	10/03/19 15:32	5035A/8260C	
m,p-Xylene	ND	34.5	69.0	ug/kg dry	50	10/03/19 15:32	5035A/8260C	
o-Xylene	ND	34.5	34.5	ug/kg dry	50	10/03/19 15:32	5035A/8260C	
Chlorobenzene	ND	17.3	34.5	ug/kg dry	50	10/03/19 15:32	5035A/8260C	
1,1-Dichloroethene	ND	17.3	34.5	ug/kg dry	50	10/03/19 15:32	5035A/8260C	
cis-1,2-Dichloroethene	ND	17.3	34.5	ug/kg dry	50	10/03/19 15:32	5035A/8260C	
Tetrachloroethene (PCE)	ND	17.3	34.5	ug/kg dry	50	10/03/19 15:32	5035A/8260C	
Trichloroethene (TCE)	ND	17.3	34.5	ug/kg dry	50	10/03/19 15:32	5035A/8260C	
Vinyl chloride	ND	17.3	34.5	ug/kg dry	50	10/03/19 15:32	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 82 %*	*Limits: 80-120 %*	*1*	*10/03/19 15:32*	*5035A/8260C*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*10/03/19 15:32*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/03/19 15:32*	*5035A/8260C*	
PDI-044SC-B-11.1-12.8-190930 (A9J0058-24)				**Matrix: Sediment**		**Batch: 9100596**		
Benzene	ND	6.65	13.3	ug/kg dry	50	10/03/19 16:25	5035A/8260C	
Toluene	ND	33.3	66.5	ug/kg dry	50	10/03/19 16:25	5035A/8260C	
Ethylbenzene	ND	16.6	33.3	ug/kg dry	50	10/03/19 16:25	5035A/8260C	
m,p-Xylene	ND	33.3	66.5	ug/kg dry	50	10/03/19 16:25	5035A/8260C	
o-Xylene	ND	16.6	33.3	ug/kg dry	50	10/03/19 16:25	5035A/8260C	
Chlorobenzene	ND	16.6	33.3	ug/kg dry	50	10/03/19 16:25	5035A/8260C	
1,1-Dichloroethene	ND	16.6	33.3	ug/kg dry	50	10/03/19 16:25	5035A/8260C	
cis-1,2-Dichloroethene	ND	16.6	33.3	ug/kg dry	50	10/03/19 16:25	5035A/8260C	
Tetrachloroethene (PCE)	ND	16.6	33.3	ug/kg dry	50	10/03/19 16:25	5035A/8260C	
Trichloroethene (TCE)	ND	16.6	33.3	ug/kg dry	50	10/03/19 16:25	5035A/8260C	
Vinyl chloride	ND	16.6	33.3	ug/kg dry	50	10/03/19 16:25	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 82 %*	*Limits: 80-120 %*	*1*	*10/03/19 16:25*	*5035A/8260C*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*10/03/19 16:25*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*10/03/19 16:25*	*5035A/8260C*	

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Darwin Thomas, Business Development Director

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6700 S.W. Sandburg Street
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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-044SC-B-7.1-9.1-190930 (A9J0058-25)				**Matrix: Sediment**		**Batch: 9100596**		
Benzene	ND	6.26	12.5	ug/kg dry	50	10/03/19 16:52	5035A/8260C	
Toluene	ND	31.3	62.6	ug/kg dry	50	10/03/19 16:52	5035A/8260C	
Ethylbenzene	ND	15.6	31.3	ug/kg dry	50	10/03/19 16:52	5035A/8260C	
m,p-Xylene	ND	31.3	62.6	ug/kg dry	50	10/03/19 16:52	5035A/8260C	
o-Xylene	ND	15.6	31.3	ug/kg dry	50	10/03/19 16:52	5035A/8260C	
Chlorobenzene	ND	15.6	31.3	ug/kg dry	50	10/03/19 16:52	5035A/8260C	
1,1-Dichloroethene	ND	15.6	31.3	ug/kg dry	50	10/03/19 16:52	5035A/8260C	
cis-1,2-Dichloroethene	ND	15.6	31.3	ug/kg dry	50	10/03/19 16:52	5035A/8260C	
Tetrachloroethene (PCE)	ND	15.6	31.3	ug/kg dry	50	10/03/19 16:52	5035A/8260C	
Trichloroethene (TCE)	ND	15.6	31.3	ug/kg dry	50	10/03/19 16:52	5035A/8260C	
Vinyl chloride	ND	15.6	31.3	ug/kg dry	50	10/03/19 16:52	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*81 %*	*Limits:*	*80-120 %*	*1*	*10/03/19 16:52*	*5035A/8260C*
Toluene-d8 (Surr)			*101 %*		*80-120 %*	*1*	*10/03/19 16:52*	*5035A/8260C*
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*10/03/19 16:52*	*5035A/8260C*
PDI-044SC-B-9.1-11.1-190930 (A9J0058-26)				**Matrix: Sediment**		**Batch: 9100596**		
Benzene	ND	5.92	11.8	ug/kg dry	50	10/03/19 17:19	5035A/8260C	
Toluene	ND	29.6	59.2	ug/kg dry	50	10/03/19 17:19	5035A/8260C	
Ethylbenzene	ND	14.8	29.6	ug/kg dry	50	10/03/19 17:19	5035A/8260C	
m,p-Xylene	ND	29.6	59.2	ug/kg dry	50	10/03/19 17:19	5035A/8260C	
o-Xylene	ND	14.8	29.6	ug/kg dry	50	10/03/19 17:19	5035A/8260C	
Chlorobenzene	ND	14.8	29.6	ug/kg dry	50	10/03/19 17:19	5035A/8260C	
1,1-Dichloroethene	ND	14.8	29.6	ug/kg dry	50	10/03/19 17:19	5035A/8260C	
cis-1,2-Dichloroethene	ND	14.8	29.6	ug/kg dry	50	10/03/19 17:19	5035A/8260C	
Tetrachloroethene (PCE)	ND	14.8	29.6	ug/kg dry	50	10/03/19 17:19	5035A/8260C	
Trichloroethene (TCE)	ND	14.8	29.6	ug/kg dry	50	10/03/19 17:19	5035A/8260C	
Vinyl chloride	ND	14.8	29.6	ug/kg dry	50	10/03/19 17:19	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*81 %*	*Limits:*	*80-120 %*	*1*	*10/03/19 17:19*	*5035A/8260C*
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*10/03/19 17:19*	*5035A/8260C*
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*	*1*	*10/03/19 17:19*	*5035A/8260C*

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-039SC-A-12-13-190930 (A9J0058-01RE1)				**Matrix: Sediment**		**Batch: 9100797**		**C-07**
Aroclor 1016	ND	1.63	1.63	ug/kg dry	1	10/18/19 08:36	EPA 8082A	
Aroclor 1221	ND	6.74	6.74	ug/kg dry	1	10/18/19 08:36	EPA 8082A	R-02
Aroclor 1232	ND	2.82	2.82	ug/kg dry	1	10/18/19 08:36	EPA 8082A	R-02
Aroclor 1242	ND	1.63	1.63	ug/kg dry	1	10/18/19 08:36	EPA 8082A	
Aroclor 1248	ND	0.821	1.63	ug/kg dry	1	10/18/19 08:36	EPA 8082A	
Aroclor 1254	ND	0.821	1.63	ug/kg dry	1	10/18/19 08:36	EPA 8082A	
Aroclor 1260	ND	0.821	1.63	ug/kg dry	1	10/18/19 08:36	EPA 8082A	
Aroclor 1262	ND	0.821	1.63	ug/kg dry	1	10/18/19 08:36	EPA 8082A	
Aroclor 1268	ND	0.821	1.63	ug/kg dry	1	10/18/19 08:36	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		*Recovery: 83 %*		*Limits: 43-120 %*	*1*	*10/18/19 08:36*	*EPA 8082A*	
PDI-039SC-A-13-13.7-190930 (A9J0058-02)				**Matrix: Sediment**		**Batch: 9100797**		**C-07**
Aroclor 1016	ND	0.824	1.64	ug/kg dry	1	10/09/19 10:11	EPA 8082A	
Aroclor 1221	ND	0.824	1.64	ug/kg dry	1	10/09/19 10:11	EPA 8082A	
Aroclor 1232	ND	0.824	1.64	ug/kg dry	1	10/09/19 10:11	EPA 8082A	
Aroclor 1242	ND	0.824	1.64	ug/kg dry	1	10/09/19 10:11	EPA 8082A	
Aroclor 1248	ND	0.824	1.64	ug/kg dry	1	10/09/19 10:11	EPA 8082A	
Aroclor 1254	ND	0.824	1.64	ug/kg dry	1	10/09/19 10:11	EPA 8082A	
Aroclor 1260	ND	0.824	1.64	ug/kg dry	1	10/09/19 10:11	EPA 8082A	
Aroclor 1262	ND	0.824	1.64	ug/kg dry	1	10/09/19 10:11	EPA 8082A	
Aroclor 1268	ND	0.824	1.64	ug/kg dry	1	10/09/19 10:11	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		*Recovery: 76 %*		*Limits: 43-120 %*	*1*	*10/09/19 10:11*	*EPA 8082A*	
PDI-1039SC-A-12-13-190930 (A9J0058-03RE1)				**Matrix: Sediment**		**Batch: 9100797**		**C-07**
Aroclor 1016	ND	0.763	1.51	ug/kg dry	1	10/18/19 09:11	EPA 8082A	
Aroclor 1221	ND	2.73	2.73	ug/kg dry	1	10/18/19 09:11	EPA 8082A	R-02
Aroclor 1232	ND	1.51	1.51	ug/kg dry	1	10/18/19 09:11	EPA 8082A	
Aroclor 1242	ND	0.763	1.51	ug/kg dry	1	10/18/19 09:11	EPA 8082A	
Aroclor 1248	ND	0.763	1.51	ug/kg dry	1	10/18/19 09:11	EPA 8082A	
Aroclor 1254	ND	0.763	1.51	ug/kg dry	1	10/18/19 09:11	EPA 8082A	
Aroclor 1260	ND	0.763	1.51	ug/kg dry	1	10/18/19 09:11	EPA 8082A	
Aroclor 1262	ND	0.763	1.51	ug/kg dry	1	10/18/19 09:11	EPA 8082A	
Aroclor 1268	ND	0.763	1.51	ug/kg dry	1	10/18/19 09:11	EPA 8082A	

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-1039SC-A-12-13-190930 (A9J0058-03RE1)				**Matrix: Sediment**		**Batch: 9100797**		**C-07**
Surrogate: Decachlorobiphenyl (Surr)		*Recovery: 67 %*	*Limits: 43-120 %*		*1*	*10/18/19 09:11*	*EPA 8082A*	
PDI-040SC-A-09-10-190930 (A9J0058-09)				**Matrix: Sediment**		**Batch: 9100797**		**C-07**
Aroclor 1016	ND	0.672	1.33	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1221	ND	0.672	1.33	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1232	ND	0.672	1.33	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1242	ND	0.672	1.33	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1248	ND	0.672	1.33	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1254	ND	0.672	1.33	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1260	ND	0.672	1.33	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1262	ND	0.672	1.33	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1268	ND	0.672	1.33	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		*Recovery: 89 %*	*Limits: 43-120 %*		*1*	*10/09/19 11:22*	*EPA 8082A*	
PDI-040SC-A-10-11.3-190930 (A9J0058-10)				**Matrix: Sediment**		**Batch: 9100797**		**C-07**
Aroclor 1016	ND	0.801	1.59	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1221	ND	0.801	1.59	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1232	ND	0.801	1.59	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1242	ND	0.801	1.59	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1248	ND	0.801	1.59	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1254	ND	0.801	1.59	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1260	ND	0.801	1.59	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1262	ND	0.801	1.59	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1268	ND	0.801	1.59	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		*Recovery: 96 %*	*Limits: 43-120 %*		*1*	*10/09/19 11:57*	*EPA 8082A*	
PDI-042SC-A-12-13-190930 (A9J0058-15)				**Matrix: Sediment**		**Batch: 9100797**		**C-07**
Aroclor 1016	ND	0.792	1.57	ug/kg dry	1	10/09/19 09:01	EPA 8082A	
Aroclor 1221	ND	0.792	1.57	ug/kg dry	1	10/09/19 09:01	EPA 8082A	
Aroclor 1232	ND	0.792	1.57	ug/kg dry	1	10/09/19 09:01	EPA 8082A	
Aroclor 1242	ND	0.792	1.57	ug/kg dry	1	10/09/19 09:01	EPA 8082A	
Aroclor 1248	ND	0.792	1.57	ug/kg dry	1	10/09/19 09:01	EPA 8082A	
Aroclor 1254	ND	0.792	1.57	ug/kg dry	1	10/09/19 09:01	EPA 8082A	
Aroclor 1260	ND	0.792	1.57	ug/kg dry	1	10/09/19 09:01	EPA 8082A	

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-042SC-A-12-13-190930 (A9J0058-15)				**Matrix: Sediment**		**Batch: 9100797**		**C-07**
Aroclor 1262	ND	0.792	1.57	ug/kg dry	1	10/09/19 09:01	EPA 8082A	
Aroclor 1268	ND	0.792	1.57	ug/kg dry	1	10/09/19 09:01	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		*Recovery: 82 %*		*Limits: 43-120 %*	*1*	*10/09/19 09:01*	*EPA 8082A*	
PDI-042SC-A-13-13.8-190930 (A9J0058-16)				**Matrix: Sediment**		**Batch: 9100797**		**C-07**
Aroclor 1016	ND	0.799	1.59	ug/kg dry	1	10/09/19 10:47	EPA 8082A	
Aroclor 1221	ND	0.799	1.59	ug/kg dry	1	10/09/19 10:47	EPA 8082A	
Aroclor 1232	ND	0.799	1.59	ug/kg dry	1	10/09/19 10:47	EPA 8082A	
Aroclor 1242	ND	0.799	1.59	ug/kg dry	1	10/09/19 10:47	EPA 8082A	
Aroclor 1248	ND	0.799	1.59	ug/kg dry	1	10/09/19 10:47	EPA 8082A	
Aroclor 1254	ND	0.799	1.59	ug/kg dry	1	10/09/19 10:47	EPA 8082A	
Aroclor 1260	ND	0.799	1.59	ug/kg dry	1	10/09/19 10:47	EPA 8082A	
Aroclor 1262	ND	0.799	1.59	ug/kg dry	1	10/09/19 10:47	EPA 8082A	
Aroclor 1268	ND	0.799	1.59	ug/kg dry	1	10/09/19 10:47	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		*Recovery: 72 %*		*Limits: 43-120 %*	*1*	*10/09/19 10:47*	*EPA 8082A*	
PDI-044SC-A-11-12-190930 (A9J0058-22)				**Matrix: Sediment**		**Batch: 9100797**		**C-07**
Aroclor 1016	ND	0.747	1.48	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1221	ND	0.747	1.48	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1232	ND	0.747	1.48	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1242	ND	0.747	1.48	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1248	ND	0.747	1.48	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1254	ND	0.747	1.48	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1260	ND	0.747	1.48	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1262	ND	0.747	1.48	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Aroclor 1268	ND	0.747	1.48	ug/kg dry	1	10/09/19 11:22	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		*Recovery: 78 %*		*Limits: 43-120 %*	*1*	*10/09/19 11:22*	*EPA 8082A*	
PDI-044SC-A-12-12.8-190930 (A9J0058-23)				**Matrix: Sediment**		**Batch: 9100797**		**C-07**
Aroclor 1016	ND	0.779	1.55	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1221	ND	0.779	1.55	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1232	ND	0.779	1.55	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1242	ND	0.779	1.55	ug/kg dry	1	10/09/19 11:57	EPA 8082A	

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-044SC-A-12-12.8-190930 (A9J0058-23)				**Matrix: Sediment**		**Batch: 9100797**		**C-07**
Aroclor 1248	ND	0.779	1.55	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1254	ND	0.779	1.55	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1260	ND	0.779	1.55	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1262	ND	0.779	1.55	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Aroclor 1268	ND	0.779	1.55	ug/kg dry	1	10/09/19 11:57	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		*Recovery: 80 %*		*Limits: 43-120 %*	*1*	*10/09/19 11:57*	*EPA 8082A*	

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-039SC-A-12-13-190930 (A9J0058-01RE1)				**Matrix: Sediment**		**Batch: 9100817**		**C-05**
2,4'-DDD	ND	1.34	2.67	ug/kg dry	1	10/10/19 15:22	EPA 8081B	
2,4'-DDE	ND	1.34	2.67	ug/kg dry	1	10/10/19 15:22	EPA 8081B	
2,4'-DDT	ND	1.34	2.67	ug/kg dry	1	10/10/19 15:22	EPA 8081B	
4,4'-DDD	ND	1.34	2.67	ug/kg dry	1	10/10/19 15:22	EPA 8081B	
4,4'-DDE	ND	1.34	2.67	ug/kg dry	1	10/10/19 15:22	EPA 8081B	
4,4'-DDT	ND	1.34	2.67	ug/kg dry	1	10/10/19 15:22	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 61 %*	*Limits: 42-129 %*	*1*	*10/10/19 15:22*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*108 %*	*55-130 %*	*1*	*10/10/19 15:22*	*EPA 8081B*	
PDI-039SC-A-13-13.7-190930 (A9J0058-02RE1)				**Matrix: Sediment**		**Batch: 9100817**		**C-05**
2,4'-DDD	ND	1.35	2.70	ug/kg dry	1	10/10/19 15:40	EPA 8081B	
2,4'-DDE	ND	1.35	2.70	ug/kg dry	1	10/10/19 15:40	EPA 8081B	
2,4'-DDT	ND	1.35	2.70	ug/kg dry	1	10/10/19 15:40	EPA 8081B	
4,4'-DDD	ND	1.35	2.70	ug/kg dry	1	10/10/19 15:40	EPA 8081B	
4,4'-DDE	ND	1.35	2.70	ug/kg dry	1	10/10/19 15:40	EPA 8081B	
4,4'-DDT	ND	1.35	2.70	ug/kg dry	1	10/10/19 15:40	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 51 %*	*Limits: 42-129 %*	*1*	*10/10/19 15:40*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*96 %*	*55-130 %*	*1*	*10/10/19 15:40*	*EPA 8081B*	
PDI-1039SC-A-12-13-190930 (A9J0058-03RE1)				**Matrix: Sediment**		**Batch: 9100817**		**C-05**
2,4'-DDD	ND	1.26	2.53	ug/kg dry	1	10/10/19 15:57	EPA 8081B	
2,4'-DDE	ND	1.26	2.53	ug/kg dry	1	10/10/19 15:57	EPA 8081B	
2,4'-DDT	ND	1.26	2.53	ug/kg dry	1	10/10/19 15:57	EPA 8081B	
4,4'-DDD	ND	1.26	2.53	ug/kg dry	1	10/10/19 15:57	EPA 8081B	
4,4'-DDE	ND	1.26	2.53	ug/kg dry	1	10/10/19 15:57	EPA 8081B	
4,4'-DDT	ND	1.26	2.53	ug/kg dry	1	10/10/19 15:57	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 59 %*	*Limits: 42-129 %*	*1*	*10/10/19 15:57*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*94 %*	*55-130 %*	*1*	*10/10/19 15:57*	*EPA 8081B*	
PDI-040SC-A-09-10-190930 (A9J0058-09RE1)				**Matrix: Sediment**		**Batch: 9100817**		**C-05**
2,4'-DDD	ND	1.17	2.33	ug/kg dry	1	10/10/19 17:06	EPA 8081B	
2,4'-DDE	ND	1.17	2.33	ug/kg dry	1	10/10/19 17:06	EPA 8081B	
2,4'-DDT	ND	1.17	2.33	ug/kg dry	1	10/10/19 17:06	EPA 8081B	
4,4'-DDD	ND	1.17	2.33	ug/kg dry	1	10/10/19 17:06	EPA 8081B	

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-040SC-A-09-10-190930 (A9J0058-09RE1)				**Matrix: Sediment**		**Batch: 9100817**		**C-05**
4,4'-DDE	ND	1.17	2.33	ug/kg dry	1	10/10/19 17:06	EPA 8081B	
4,4'-DDT	ND	1.17	2.33	ug/kg dry	1	10/10/19 17:06	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 40 %*	*Limits: 42-129 %*	*1*	*10/10/19 17:06*	*EPA 8081B*	*S-06*
Decachlorobiphenyl (Surr)			*104 %*	*55-130 %*	*1*	*10/10/19 17:06*	*EPA 8081B*	
PDI-040SC-A-10-11.3-190930 (A9J0058-10RE1)				**Matrix: Sediment**		**Batch: 9100817**		**C-05**
2,4'-DDD	ND	1.20	2.41	ug/kg dry	1	10/10/19 17:23	EPA 8081B	
2,4'-DDE	ND	1.20	2.41	ug/kg dry	1	10/10/19 17:23	EPA 8081B	
2,4'-DDT	ND	1.20	2.41	ug/kg dry	1	10/10/19 17:23	EPA 8081B	
4,4'-DDD	ND	1.20	2.41	ug/kg dry	1	10/10/19 17:23	EPA 8081B	
4,4'-DDE	ND	1.20	2.41	ug/kg dry	1	10/10/19 17:23	EPA 8081B	
4,4'-DDT	ND	1.20	2.41	ug/kg dry	1	10/10/19 17:23	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 42 %*	*Limits: 42-129 %*	*1*	*10/10/19 17:23*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*97 %*	*55-130 %*	*1*	*10/10/19 17:23*	*EPA 8081B*	
PDI-042SC-A-12-13-190930 (A9J0058-15RE1)				**Matrix: Sediment**		**Batch: 9100817**		**C-05**
2,4'-DDD	ND	1.11	2.23	ug/kg dry	1	10/10/19 17:40	EPA 8081B	
2,4'-DDE	ND	1.11	2.23	ug/kg dry	1	10/10/19 17:40	EPA 8081B	
2,4'-DDT	ND	1.11	2.23	ug/kg dry	1	10/10/19 17:40	EPA 8081B	
4,4'-DDD	ND	1.11	2.23	ug/kg dry	1	10/10/19 17:40	EPA 8081B	
4,4'-DDE	ND	1.11	2.23	ug/kg dry	1	10/10/19 17:40	EPA 8081B	
4,4'-DDT	ND	1.11	2.23	ug/kg dry	1	10/10/19 17:40	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 46 %*	*Limits: 42-129 %*	*1*	*10/10/19 17:40*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*106 %*	*55-130 %*	*1*	*10/10/19 17:40*	*EPA 8081B*	
PDI-042SC-A-13-13.8-190930 (A9J0058-16RE1)				**Matrix: Sediment**		**Batch: 9100817**		**C-05**
2,4'-DDD	ND	1.24	2.49	ug/kg dry	1	10/10/19 18:32	EPA 8081B	
2,4'-DDE	ND	1.24	2.49	ug/kg dry	1	10/10/19 18:32	EPA 8081B	
2,4'-DDT	ND	1.24	2.49	ug/kg dry	1	10/10/19 18:32	EPA 8081B	
4,4'-DDD	ND	1.24	2.49	ug/kg dry	1	10/10/19 18:32	EPA 8081B	
4,4'-DDE	ND	1.24	2.49	ug/kg dry	1	10/10/19 18:32	EPA 8081B	
4,4'-DDT	ND	1.24	2.49	ug/kg dry	1	10/10/19 18:32	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 49 %*	*Limits: 42-129 %*	*1*	*10/10/19 18:32*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*93 %*	*55-130 %*	*1*	*10/10/19 18:32*	*EPA 8081B*	

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-044SC-A-11-12-190930 (A9J0058-22RE1)				**Matrix: Sediment**		**Batch: 9100817**		**C-05**
2,4'-DDD	ND	1.25	2.50	ug/kg dry	1	10/10/19 19:40	EPA 8081B	
2,4'-DDE	ND	1.25	2.50	ug/kg dry	1	10/10/19 19:40	EPA 8081B	
2,4'-DDT	ND	1.25	2.50	ug/kg dry	1	10/10/19 19:40	EPA 8081B	
4,4'-DDD	ND	1.25	2.50	ug/kg dry	1	10/10/19 19:40	EPA 8081B	
4,4'-DDE	ND	1.25	2.50	ug/kg dry	1	10/10/19 19:40	EPA 8081B	
4,4'-DDT	ND	1.25	2.50	ug/kg dry	1	10/10/19 19:40	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery: 52 %*	*Limits: 42-129 %*		*1*	*10/10/19 19:40*	*EPA 8081B*	
Decachlorobiphenyl (Surr)		*102 %*	*55-130 %*		*1*	*10/10/19 19:40*	*EPA 8081B*	
PDI-044SC-A-12-12.8-190930 (A9J0058-23RE1)				**Matrix: Sediment**		**Batch: 9100817**		**C-05**
2,4'-DDD	ND	1.24	2.48	ug/kg dry	1	10/10/19 19:58	EPA 8081B	
2,4'-DDE	ND	1.24	2.48	ug/kg dry	1	10/10/19 19:58	EPA 8081B	
2,4'-DDT	ND	1.24	2.48	ug/kg dry	1	10/10/19 19:58	EPA 8081B	
4,4'-DDD	ND	1.24	2.48	ug/kg dry	1	10/10/19 19:58	EPA 8081B	
4,4'-DDE	ND	1.24	2.48	ug/kg dry	1	10/10/19 19:58	EPA 8081B	
4,4'-DDT	ND	1.24	2.48	ug/kg dry	1	10/10/19 19:58	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery: 49 %*	*Limits: 42-129 %*		*1*	*10/10/19 19:58*	*EPA 8081B*	
Decachlorobiphenyl (Surr)		*101 %*	*55-130 %*		*1*	*10/10/19 19:58*	*EPA 8081B*	

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-039SC-A-12-13-190930 (A9J0058-01)				**Matrix: Sediment**		**Batch: 9100706**		
Acenaphthene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Acenaphthylene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Anthracene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Benz(a)anthracene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Benzo(a)pyrene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Benzo(b)fluoranthene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Benzo(k)fluoranthene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Chrysene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Fluoranthene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Fluorene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
2-Methylnaphthalene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Naphthalene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Phenanthrene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Pyrene	ND	1.59	3.18	ug/kg dry	1	10/07/19 20:16	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 78 %*	*Limits: 44-115 %*	*1*	*10/07/19 20:16*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*80 %*	*54-127 %*	*1*	*10/07/19 20:16*	*EPA 8270D*	
PDI-039SC-A-13-13.7-190930 (A9J0058-02)				**Matrix: Sediment**		**Batch: 9100706**		
Acenaphthene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Acenaphthylene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Anthracene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Benz(a)anthracene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Benzo(a)pyrene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Benzo(b)fluoranthene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Benzo(k)fluoranthene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Chrysene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Fluoranthene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Fluorene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	

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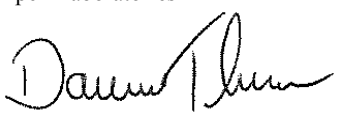

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-039SC-A-13-13.7-190930 (A9J0058-02)				**Matrix: Sediment**		**Batch: 9100706**		
Indeno(1,2,3-cd)pyrene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
2-Methylnaphthalene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Naphthalene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Phenanthrene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Pyrene	ND	1.67	3.34	ug/kg dry	1	10/07/19 20:47	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*84 %*	*Limits: 44-115 %*	*1*	*10/07/19 20:47*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*87 %*	*54-127 %*	*1*	*10/07/19 20:47*	*EPA 8270D*	
PDI-1039SC-A-12-13-190930 (A9J0058-03)				**Matrix: Sediment**		**Batch: 9100706**		
Acenaphthene	ND	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	
Acenaphthylene	ND	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	
Anthracene	ND	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	
Benz(a)anthracene	ND	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	
Benzo(a)pyrene	ND	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	
Benzo(b)fluoranthene	**1.99**	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	**J**
Benzo(k)fluoranthene	ND	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	
Benzo(g,h,i)perylene	**2.43**	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	**J**
Chrysene	ND	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	
Fluoranthene	ND	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	
Fluorene	ND	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	
Indeno(1,2,3-cd)pyrene	**1.92**	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	**J**
2-Methylnaphthalene	ND	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	
Naphthalene	ND	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	
Phenanthrene	**1.63**	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	**J**
Pyrene	**2.26**	1.62	3.24	ug/kg dry	1	10/07/19 21:19	EPA 8270D	**J**
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*77 %*	*Limits: 44-115 %*	*1*	*10/07/19 21:19*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*70 %*	*54-127 %*	*1*	*10/07/19 21:19*	*EPA 8270D*	
PDI-039SC-B-11.8-13.7-190930 (A9J0058-04)				**Matrix: Sediment**		**Batch: 9100706**		
Acenaphthene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Acenaphthylene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Anthracene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Benz(a)anthracene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-039SC-B-11.8-13.7-190930 (A9J0058-04)				**Matrix: Sediment**		**Batch: 9100706**		
Benzo(a)pyrene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Benzo(b)fluoranthene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Benzo(k)fluoranthene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Chrysene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Fluoranthene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Fluorene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
2-Methylnaphthalene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Naphthalene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Phenanthrene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Pyrene	ND	1.54	3.08	ug/kg dry	1	10/07/19 21:50	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*83 %*	*Limits: 44-115 %*	*1*	*10/07/19 21:50*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*88 %*	*54-127 %*	*1*	*10/07/19 21:50*	*EPA 8270D*	
PDI-039SC-B-3.8-5.8-190930 (A9J0058-05)				**Matrix: Sediment**		**Batch: 9100706**		
Acenaphthene	**1.83**	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	**J**
Acenaphthylene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Anthracene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Benz(a)anthracene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Benzo(a)pyrene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Benzo(b)fluoranthene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Benzo(k)fluoranthene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Chrysene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Fluoranthene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Fluorene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
2-Methylnaphthalene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Naphthalene	**3.82**	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Phenanthrene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	

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Darwin Thomas, Business Development Director

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-039SC-B-3.8-5.8-190930 (A9J0058-05)				**Matrix: Sediment**		**Batch: 9100706**		
Pyrene	ND	1.40	2.79	ug/kg dry	1	10/07/19 22:22	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 82 %*	*Limits: 44-115 %*	*1*	*10/07/19 22:22*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*85 %*	*54-127 %*	*1*	*10/07/19 22:22*	*EPA 8270D*	
PDI-039SC-B-5.8-7.8-190930 (A9J0058-06)				**Matrix: Sediment**		**Batch: 9100706**		
Acenaphthene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Acenaphthylene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Anthracene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Benz(a)anthracene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Benzo(a)pyrene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Benzo(b)fluoranthene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Benzo(k)fluoranthene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Chrysene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Fluoranthene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Fluorene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
2-Methylnaphthalene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Naphthalene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Phenanthrene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Pyrene	ND	1.37	2.75	ug/kg dry	1	10/07/19 22:55	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 85 %*	*Limits: 44-115 %*	*1*	*10/07/19 22:55*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*89 %*	*54-127 %*	*1*	*10/07/19 22:55*	*EPA 8270D*	
PDI-039SC-B-7.8-9.8-190930 (A9J0058-07)				**Matrix: Sediment**		**Batch: 9100706**		
Acenaphthene	ND	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	
Acenaphthylene	ND	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	
Anthracene	ND	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	
Benz(a)anthracene	ND	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	
Benzo(a)pyrene	**2.50**	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	**J**
Benzo(b)fluoranthene	**2.89**	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	**J**
Benzo(k)fluoranthene	ND	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	
Benzo(g,h,i)perylene	**2.64**	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	**J**

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-039SC-B-7.8-9.8-190930 (A9J0058-07)				**Matrix: Sediment**		**Batch: 9100706**		
Chrysene	**2.41**	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	**J**
Dibenz(a,h)anthracene	ND	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	
Fluoranthene	**3.18**	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	**J**
Fluorene	ND	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	
Indeno(1,2,3-cd)pyrene	**2.33**	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	**J**
2-Methylnaphthalene	ND	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	
Naphthalene	**1.91**	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	**J**
Phenanthrene	ND	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	
Pyrene	**3.87**	1.69	3.38	ug/kg dry	1	10/07/19 23:27	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 75 %*	*Limits: 44-115 %*	*1*	*10/07/19 23:27*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*72 %*	*54-127 %*	*1*	*10/07/19 23:27*	*EPA 8270D*	
PDI-039SC-B-9.8-11.8-190930 (A9J0058-08)				**Matrix: Sediment**		**Batch: 9100706**		
Acenaphthene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Acenaphthylene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Anthracene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Benz(a)anthracene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Benzo(a)pyrene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Benzo(b)fluoranthene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Benzo(k)fluoranthene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Chrysene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Fluoranthene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Fluorene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
2-Methylnaphthalene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Naphthalene	**1.71**	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	**J**
Phenanthrene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Pyrene	ND	1.60	3.20	ug/kg dry	1	10/08/19 16:26	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 79 %*	*Limits: 44-115 %*	*1*	*10/08/19 16:26*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*81 %*	*54-127 %*	*1*	*10/08/19 16:26*	*EPA 8270D*	
PDI-040SC-A-09-10-190930 (A9J0058-09)				**Matrix: Sediment**		**Batch: 9100706**		

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-040SC-A-09-10-190930 (A9J0058-09)				**Matrix: Sediment**		**Batch: 9100706**		
Acenaphthene	**4.09**	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Acenaphthylene	ND	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Anthracene	ND	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Benz(a)anthracene	ND	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Benzo(a)pyrene	ND	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Benzo(b)fluoranthene	ND	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Benzo(k)fluoranthene	ND	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Chrysene	ND	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Fluoranthene	ND	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Fluorene	**2.73**	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	**J**
Indeno(1,2,3-cd)pyrene	ND	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
2-Methylnaphthalene	**2.49**	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	**J**
Naphthalene	**4.64**	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Phenanthrene	**3.37**	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Pyrene	ND	1.40	2.81	ug/kg dry	1	10/08/19 16:58	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*85 %*	*Limits: 44-115 %*	*1*	*10/08/19 16:58*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*94 %*	*54-127 %*	*1*	*10/08/19 16:58*	*EPA 8270D*	
PDI-040SC-A-10-11.3-190930 (A9J0058-10)				**Matrix: Sediment**		**Batch: 9100706**		
Acenaphthene	**3.08**	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
Acenaphthylene	ND	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
Anthracene	ND	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
Benz(a)anthracene	ND	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
Benzo(a)pyrene	ND	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
Benzo(b)fluoranthene	ND	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
Benzo(k)fluoranthene	ND	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
Chrysene	ND	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
Fluoranthene	ND	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
Fluorene	**2.87**	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	**J**

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-040SC-A-10-11.3-190930 (A9J0058-10)				**Matrix: Sediment**		**Batch: 9100706**		
Indeno(1,2,3-cd)pyrene	ND	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
2-Methylnaphthalene	ND	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
Naphthalene	**2.08**	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	**J**
Phenanthrene	**1.82**	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	**J**
Pyrene	ND	1.51	3.02	ug/kg dry	1	10/08/19 17:31	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*79 %*	*Limits: 44-115 %*	*1*	*10/08/19 17:31*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*94 %*	*54-127 %*	*1*	*10/08/19 17:31*	*EPA 8270D*	
PDI-040SC-B-5.3-7.3-190930 (A9J0058-11)				**Matrix: Sediment**		**Batch: 9100706**		
Acenaphthene	**1.81**	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	**J**
Acenaphthylene	ND	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	
Anthracene	ND	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	
Benz(a)anthracene	ND	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	
Benzo(a)pyrene	ND	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	
Benzo(b)fluoranthene	ND	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	
Benzo(k)fluoranthene	ND	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	
Chrysene	ND	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	
Fluoranthene	ND	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	
Fluorene	ND	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	
2-Methylnaphthalene	ND	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	
Naphthalene	**1.45**	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	**J**
Phenanthrene	**2.00**	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	**J**
Pyrene	**2.68**	1.41	2.82	ug/kg dry	1	10/08/19 18:03	EPA 8270D	**J**
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*81 %*	*Limits: 44-115 %*	*1*	*10/08/19 18:03*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*92 %*	*54-127 %*	*1*	*10/08/19 18:03*	*EPA 8270D*	
PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)				**Matrix: Sediment**		**Batch: 9100706**		
Acenaphthene	**3.08**	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	
Acenaphthylene	ND	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	
Anthracene	ND	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	
Benz(a)anthracene	ND	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)				**Matrix: Sediment**		**Batch: 9100706**		
Benzo(a)pyrene	ND	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	
Benzo(b)fluoranthene	ND	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	
Benzo(k)fluoranthene	ND	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	
Chrysene	ND	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	
Fluoranthene	**2.06**	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	**J**
Fluorene	**1.52**	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	**J**
Indeno(1,2,3-cd)pyrene	ND	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	
2-Methylnaphthalene	**1.60**	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	**J**
Naphthalene	**4.98**	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	
Phenanthrene	**4.29**	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	
Pyrene	**2.60**	1.39	2.77	ug/kg dry	1	10/07/19 14:26	EPA 8270D	**J**
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 81 %*	*Limits: 44-115 %*	*1*	*10/07/19 14:26*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*94 %*	*54-127 %*	*1*	*10/07/19 14:26*	*EPA 8270D*	
PDI-040SC-B-9.3-11.3-190930 (A9J0058-13)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	**2.91**	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	**J**
Acenaphthylene	ND	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	
Anthracene	ND	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	
Benz(a)anthracene	**1.59**	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	**J**
Benzo(a)pyrene	**2.14**	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	**J**
Benzo(b)fluoranthene	**1.95**	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	**J**
Benzo(k)fluoranthene	ND	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	
Benzo(g,h,i)perylene	**1.76**	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	**J**
Chrysene	**2.07**	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	**J**
Dibenz(a,h)anthracene	ND	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	
Fluoranthene	**3.64**	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	
Fluorene	**2.65**	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	**J**
Indeno(1,2,3-cd)pyrene	**1.62**	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	**J**
2-Methylnaphthalene	ND	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	
Naphthalene	**1.90**	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	**J**
Phenanthrene	**3.12**	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-040SC-B-9.3-11.3-190930 (A9J0058-13)				**Matrix: Sediment**		**Batch: 9100712**		
Pyrene	**4.59**	1.48	2.95	ug/kg dry	1	10/08/19 18:35	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*86 %*	*Limits: 44-115 %*	*1*	*10/08/19 18:35*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*95 %*	*54-127 %*	*1*	*10/08/19 18:35*	*EPA 8270D*	
PDI-1040SC-B-5.3-7.3-190930 (A9J0058-14)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	**2.48**	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	**J**
Acenaphthylene	ND	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
Anthracene	ND	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
Benz(a)anthracene	ND	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
Benzo(a)pyrene	ND	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
Benzo(b)fluoranthene	ND	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
Benzo(k)fluoranthene	ND	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
Chrysene	ND	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
Fluoranthene	ND	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
Fluorene	ND	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
2-Methylnaphthalene	ND	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
Naphthalene	**1.80**	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	**J**
Phenanthrene	**2.18**	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	**J**
Pyrene	**3.19**	1.39	2.77	ug/kg dry	1	10/08/19 19:08	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*85 %*	*Limits: 44-115 %*	*1*	*10/08/19 19:08*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*92 %*	*54-127 %*	*1*	*10/08/19 19:08*	*EPA 8270D*	
PDI-042SC-A-12-13-190930 (A9J0058-15)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
Acenaphthylene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
Anthracene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
Benz(a)anthracene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
Benzo(a)pyrene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
Benzo(b)fluoranthene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
Benzo(k)fluoranthene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-042SC-A-12-13-190930 (A9J0058-15)				**Matrix: Sediment**		**Batch: 9100712**		
Chrysene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
Fluoranthene	**2.16**	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	**J**
Fluorene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
2-Methylnaphthalene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
Naphthalene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
Phenanthrene	ND	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	
Pyrene	**2.77**	1.48	2.97	ug/kg dry	1	10/08/19 10:55	EPA 8270D	**J**
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*91 %*	*Limits: 44-115 %*	*1*	*10/08/19 10:55*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*97 %*	*54-127 %*	*1*	*10/08/19 10:55*	*EPA 8270D*	
PDI-042SC-A-13-13.8-190930 (A9J0058-16)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Acenaphthylene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Anthracene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Benz(a)anthracene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Benzo(a)pyrene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Benzo(b)fluoranthene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Benzo(k)fluoranthene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Chrysene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Fluoranthene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Fluorene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
2-Methylnaphthalene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Naphthalene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Phenanthrene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Pyrene	ND	1.61	3.22	ug/kg dry	1	10/08/19 19:40	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*89 %*	*Limits: 44-115 %*	*1*	*10/08/19 19:40*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*95 %*	*54-127 %*	*1*	*10/08/19 19:40*	*EPA 8270D*	
PDI-042SC-B-11.9-13.8-190930 (A9J0058-17)				**Matrix: Sediment**		**Batch: 9100712**		

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-042SC-B-11.9-13.8-190930 (A9J0058-17)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Acenaphthylene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Anthracene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Benz(a)anthracene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Benzo(a)pyrene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Benzo(b)fluoranthene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Benzo(k)fluoranthene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Chrysene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Fluoranthene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Fluorene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
2-Methylnaphthalene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Naphthalene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Phenanthrene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Pyrene	ND	1.54	3.08	ug/kg dry	1	10/08/19 20:12	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*90 %*	*Limits: 44-115 %*	*1*	*10/08/19 20:12*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*97 %*	*54-127 %*	*1*	*10/08/19 20:12*	*EPA 8270D*	
PDI-042SC-B-3.9-5.9-190930 (A9J0058-18)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	**2.97**	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
Acenaphthylene	ND	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
Anthracene	ND	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
Benz(a)anthracene	ND	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
Benzo(a)pyrene	ND	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
Benzo(b)fluoranthene	ND	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
Benzo(k)fluoranthene	ND	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
Chrysene	ND	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
Fluoranthene	**2.27**	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	**J**
Fluorene	**1.48**	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	**J**

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC
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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-042SC-B-3.9-5.9-190930 (A9J0058-18)				**Matrix: Sediment**		**Batch: 9100712**		
Indeno(1,2,3-cd)pyrene	ND	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
2-Methylnaphthalene	ND	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
Naphthalene	ND	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
Phenanthrene	**3.88**	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	
Pyrene	**2.58**	1.32	2.64	ug/kg dry	1	10/09/19 11:37	EPA 8270D	**J**
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*87 %*	*Limits: 44-115 %*	*1*	*10/09/19 11:37*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*93 %*	*54-127 %*	*1*	*10/09/19 11:37*	*EPA 8270D*	
PDI-042SC-B-5.9-7.9-190930 (A9J0058-19)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	**6.37**	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Acenaphthylene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Anthracene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Benz(a)anthracene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Benzo(a)pyrene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Benzo(b)fluoranthene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Benzo(k)fluoranthene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Chrysene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Fluoranthene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Fluorene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
2-Methylnaphthalene	**2.17**	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	**J**
Naphthalene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Phenanthrene	**3.42**	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Pyrene	ND	1.39	2.78	ug/kg dry	1	10/09/19 12:10	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*85 %*	*Limits: 44-115 %*	*1*	*10/09/19 12:10*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*88 %*	*54-127 %*	*1*	*10/09/19 12:10*	*EPA 8270D*	
PDI-042SC-B-7.9-9.9-190930 (A9J0058-20)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Acenaphthylene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Anthracene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Benz(a)anthracene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	

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Darwin Thomas, Business Development Director

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-042SC-B-7.9-9.9-190930 (A9J0058-20)				**Matrix: Sediment**		**Batch: 9100712**		
Benzo(a)pyrene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Benzo(b)fluoranthene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Benzo(k)fluoranthene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Chrysene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Fluoranthene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Fluorene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
2-Methylnaphthalene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Naphthalene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Phenanthrene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Pyrene	ND	1.48	2.97	ug/kg dry	1	10/09/19 12:42	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*85 %*	*Limits: 44-115 %*	*1*	*10/09/19 12:42*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*90 %*	*54-127 %*	*1*	*10/09/19 12:42*	*EPA 8270D*	
PDI-042SC-B-9.9-11.9-190930 (A9J0058-21)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Acenaphthylene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Anthracene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Benz(a)anthracene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Benzo(a)pyrene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Benzo(b)fluoranthene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Benzo(k)fluoranthene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Chrysene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Fluoranthene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Fluorene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
2-Methylnaphthalene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Naphthalene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Phenanthrene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-042SC-B-9.9-11.9-190930 (A9J0058-21)				**Matrix: Sediment**		**Batch: 9100712**		
Pyrene	ND	1.35	2.71	ug/kg dry	1	10/09/19 13:14	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 93 %*	*Limits: 44-115 %*	*1*	*10/09/19 13:14*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*100 %*	*54-127 %*	*1*	*10/09/19 13:14*	*EPA 8270D*	
PDI-044SC-A-11-12-190930 (A9J0058-22)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Acenaphthylene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Anthracene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Benz(a)anthracene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Benzo(a)pyrene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Benzo(b)fluoranthene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Benzo(k)fluoranthene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Chrysene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Fluoranthene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Fluorene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
2-Methylnaphthalene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Naphthalene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Phenanthrene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Pyrene	ND	1.55	3.09	ug/kg dry	1	10/09/19 13:46	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 82 %*	*Limits: 44-115 %*	*1*	*10/09/19 13:46*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*87 %*	*54-127 %*	*1*	*10/09/19 13:46*	*EPA 8270D*	
PDI-044SC-A-12-12.8-190930 (A9J0058-23)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	ND	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	
Acenaphthylene	ND	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	
Anthracene	ND	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	
Benz(a)anthracene	**1.81**	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	**J**
Benzo(a)pyrene	**1.52**	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	**J**
Benzo(b)fluoranthene	**1.54**	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	**J**
Benzo(k)fluoranthene	ND	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-044SC-A-12-12.8-190930 (A9J0058-23)				**Matrix: Sediment**		**Batch: 9100712**		
Chrysene	**2.23**	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	**J**
Dibenz(a,h)anthracene	ND	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	
Fluoranthene	**6.46**	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	
Fluorene	ND	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	
2-Methylnaphthalene	ND	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	
Naphthalene	ND	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	
Phenanthrene	ND	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	
Pyrene	**8.19**	1.51	3.02	ug/kg dry	1	10/09/19 14:18	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*89 %*	*Limits: 44-115 %*	*1*	*10/09/19 14:18*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*90 %*	*54-127 %*	*1*	*10/09/19 14:18*	*EPA 8270D*	
PDI-044SC-B-11.1-12.8-190930 (A9J0058-24)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Acenaphthylene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Anthracene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Benz(a)anthracene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Benzo(a)pyrene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Benzo(b)fluoranthene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Benzo(k)fluoranthene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Chrysene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Fluoranthene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Fluorene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
2-Methylnaphthalene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Naphthalene	**2.87**	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	**J**
Phenanthrene	**2.00**	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	**J**
Pyrene	ND	1.59	3.19	ug/kg dry	1	10/09/19 14:50	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*82 %*	*Limits: 44-115 %*	*1*	*10/09/19 14:50*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*88 %*	*54-127 %*	*1*	*10/09/19 14:50*	*EPA 8270D*	
PDI-044SC-B-7.1-9.1-190930 (A9J0058-25)				**Matrix: Sediment**		**Batch: 9100712**		

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-044SC-B-7.1-9.1-190930 (A9J0058-25)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Acenaphthylene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Anthracene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Benz(a)anthracene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Benzo(a)pyrene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Benzo(b)fluoranthene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Benzo(k)fluoranthene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Chrysene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Fluoranthene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Fluorene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Indeno(1,2,3-cd)pyrene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
2-Methylnaphthalene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Naphthalene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Phenanthrene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Pyrene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:22	EPA 8270D	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 87 %*	*Limits: 44-115 %*	*1*	*10/09/19 15:22*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*100 %*	*54-127 %*	*1*	*10/09/19 15:22*	*EPA 8270D*	
PDI-044SC-B-9.1-11.1-190930 (A9J0058-26)				**Matrix: Sediment**		**Batch: 9100712**		
Acenaphthene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	
Acenaphthylene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	
Anthracene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	
Benz(a)anthracene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	
Benzo(a)pyrene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	
Benzo(b)fluoranthene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	
Benzo(k)fluoranthene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	
Benzo(g,h,i)perylene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	
Chrysene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	
Dibenz(a,h)anthracene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	
Fluoranthene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	
Fluorene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-044SC-B-9.1-11.1-190930 (A9J0058-26)				**Matrix: Sediment**		**Batch: 9100712**		
Indeno(1,2,3-cd)pyrene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	
2-Methylnaphthalene	ND	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	
Naphthalene	**2.10**	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	**J**
Phenanthrene	**1.51**	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	**J**
Pyrene	**1.39**	1.36	2.73	ug/kg dry	1	10/09/19 15:54	EPA 8270D	**J**
Surrogate: 2-Fluorobiphenyl (Surr)		*Recovery:*	*89 %*	*Limits: 44-115 %*	*1*	*10/09/19 15:54*	*EPA 8270D*	
p-Terphenyl-d14 (Surr)			*91 %*	*54-127 %*	*1*	*10/09/19 15:54*	*EPA 8270D*	

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-039SC-B-11.8-13.7-190930 (A9J0058-04)				**Matrix: Sediment**				
Batch: 9100666								
Arsenic	**2.40**	0.344	0.688	mg/kg dry	5	10/07/19 23:42	EPA 6020A	
PDI-039SC-B-3.8-5.8-190930 (A9J0058-05)				**Matrix: Sediment**				
Batch: 9100666								
Arsenic	**1.82**	0.297	0.594	mg/kg dry	5	10/07/19 23:47	EPA 6020A	
PDI-039SC-B-5.8-7.8-190930 (A9J0058-06)				**Matrix: Sediment**				
Batch: 9100666								
Arsenic	**1.64**	0.280	0.561	mg/kg dry	5	10/07/19 23:51	EPA 6020A	
PDI-039SC-B-7.8-9.8-190930 (A9J0058-07)				**Matrix: Sediment**				
Batch: 9100666								
Arsenic	**2.36**	0.346	0.693	mg/kg dry	5	10/07/19 23:56	EPA 6020A	
PDI-039SC-B-9.8-11.8-190930 (A9J0058-08)				**Matrix: Sediment**				
Batch: 9100666								
Arsenic	**2.45**	0.332	0.664	mg/kg dry	5	10/08/19 00:01	EPA 6020A	
PDI-040SC-B-5.3-7.3-190930 (A9J0058-11)				**Matrix: Sediment**				
Batch: 9100666								
Arsenic	**1.89**	0.290	0.581	mg/kg dry	5	10/08/19 00:05	EPA 6020A	
PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)				**Matrix: Sediment**				
Batch: 9100666								
Arsenic	**1.93**	0.282	0.565	mg/kg dry	5	10/08/19 00:10	EPA 6020A	
PDI-040SC-B-9.3-11.3-190930 (A9J0058-13)				**Matrix: Sediment**				
Batch: 9100666								
Arsenic	**2.09**	0.313	0.627	mg/kg dry	5	10/08/19 00:33	EPA 6020A	
PDI-1040SC-B-5.3-7.3-190930 (A9J0058-14)				**Matrix: Sediment**				
Batch: 9100666								
Arsenic	**2.27**	0.291	0.583	mg/kg dry	5	10/08/19 00:37	EPA 6020A	
PDI-042SC-B-11.9-13.8-190930 (A9J0058-17)				**Matrix: Sediment**				
Batch: 9100666								

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-042SC-B-11.9-13.8-190930 (A9J0058-17)				**Matrix: Sediment**				
Arsenic	**3.03**	0.323	0.646	mg/kg dry	5	10/08/19 00:42	EPA 6020A	
PDI-042SC-B-3.9-5.9-190930 (A9J0058-18)				**Matrix: Sediment**				
Batch: 9100841								
Arsenic	**1.84**	0.289	0.577	mg/kg dry	5	10/10/19 20:20	EPA 6020A	
PDI-042SC-B-5.9-7.9-190930 (A9J0058-19)				**Matrix: Sediment**				
Batch: 9100841								
Arsenic	**2.17**	0.302	0.604	mg/kg dry	5	10/10/19 20:25	EPA 6020A	
PDI-042SC-B-7.9-9.9-190930 (A9J0058-20)				**Matrix: Sediment**				
Batch: 9100841								
Arsenic	**2.23**	0.291	0.582	mg/kg dry	5	10/10/19 20:29	EPA 6020A	
PDI-042SC-B-9.9-11.9-190930 (A9J0058-21)				**Matrix: Sediment**				
Batch: 9100841								
Arsenic	**1.84**	0.296	0.592	mg/kg dry	5	10/10/19 20:34	EPA 6020A	
PDI-044SC-B-11.1-12.8-190930 (A9J0058-24)				**Matrix: Sediment**				
Batch: 9100841								
Arsenic	**1.84**	0.320	0.640	mg/kg dry	5	10/10/19 20:48	EPA 6020A	
PDI-044SC-B-7.1-9.1-190930 (A9J0058-25)				**Matrix: Sediment**				
Batch: 9100841								
Arsenic	**1.53**	0.294	0.588	mg/kg dry	5	10/10/19 20:52	EPA 6020A	
PDI-044SC-B-9.1-11.1-190930 (A9J0058-26)				**Matrix: Sediment**				
Batch: 9100841								
Arsenic	**1.63**	0.287	0.575	mg/kg dry	5	10/10/19 21:06	EPA 6020A	

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Demand Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-039SC-A-12-13-190930 (A9J0058-01RE1)				**Matrix: Sediment**				
Batch: 9100674								
Total Organic Carbon	**0.086**	0.020	0.020	% by Weight	1	10/15/19 21:01	SM 5310 B MOD	
PDI-039SC-A-13-13.7-190930 (A9J0058-02RE1)				**Matrix: Sediment**				
Batch: 9100674								
Total Organic Carbon	**0.052**	0.020	0.020	% by Weight	1	10/15/19 21:12	SM 5310 B MOD	
PDI-1039SC-A-12-13-190930 (A9J0058-03RE1)				**Matrix: Sediment**				
Batch: 9100674								
Total Organic Carbon	**0.13**	0.020	0.020	% by Weight	1	10/15/19 21:22	SM 5310 B MOD	
PDI-039SC-B-11.8-13.7-190930 (A9J0058-04RE1)				**Matrix: Sediment**				
Batch: 9100674								
Total Organic Carbon	**0.23**	0.020	0.020	% by Weight	1	10/15/19 21:33	SM 5310 B MOD	
PDI-039SC-B-3.8-5.8-190930 (A9J0058-05RE1)				**Matrix: Sediment**				
Batch: 9100674								
Total Organic Carbon	**0.020**	0.020	0.020	% by Weight	1	10/15/19 22:06	SM 5310 B MOD	
PDI-039SC-B-5.8-7.8-190930 (A9J0058-06RE1)				**Matrix: Sediment**				
Batch: 9100674								
Total Organic Carbon	ND	0.020	0.020	% by Weight	1	10/15/19 22:16	SM 5310 B MOD	
PDI-039SC-B-7.8-9.8-190930 (A9J0058-07RE1)				**Matrix: Sediment**				
Batch: 9100674								
Total Organic Carbon	**0.070**	0.020	0.020	% by Weight	1	10/15/19 22:27	SM 5310 B MOD	
PDI-039SC-B-9.8-11.8-190930 (A9J0058-08RE1)				**Matrix: Sediment**				
Batch: 9100674								
Total Organic Carbon	**0.19**	0.020	0.020	% by Weight	1	10/15/19 22:38	SM 5310 B MOD	
PDI-040SC-A-09-10-190930 (A9J0058-09RE1)				**Matrix: Sediment**				
Batch: 9100674								
Total Organic Carbon	**0.032**	0.020	0.020	% by Weight	1	10/15/19 22:49	SM 5310 B MOD	
PDI-040SC-A-10-11.3-190930 (A9J0058-10)				**Matrix: Sediment**				
Batch: 9100676								

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Demand Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-040SC-A-10-11.3-190930 (A9J0058-10)				**Matrix: Sediment**				
Total Organic Carbon	**0.038**	0.020	0.020	% by Weight	1	10/14/19 15:40	SM 5310 B MOD	
PDI-040SC-B-5.3-7.3-190930 (A9J0058-11)				**Matrix: Sediment**				
Batch: 9100676								
Total Organic Carbon	**0.022**	0.020	0.020	% by Weight	1	10/14/19 15:51	SM 5310 B MOD	
PDI-040SC-B-7.3-9.3-190930 (A9J0058-12RE1)				**Matrix: Sediment**				
Batch: 9100674								
Total Organic Carbon	**0.021**	0.020	0.020	% by Weight	1	10/15/19 23:00	SM 5310 B MOD	
PDI-040SC-B-9.3-11.3-190930 (A9J0058-13)				**Matrix: Sediment**				
Batch: 9100676								
Total Organic Carbon	**0.095**	0.020	0.020	% by Weight	1	10/14/19 16:02	SM 5310 B MOD	
PDI-1040SC-B-5.3-7.3-190930 (A9J0058-14)				**Matrix: Sediment**				
Batch: 9100676								
Total Organic Carbon	**0.023**	0.020	0.020	% by Weight	1	10/14/19 16:34	SM 5310 B MOD	
PDI-042SC-A-12-13-190930 (A9J0058-15)				**Matrix: Sediment**				
Batch: 9100676								
Total Organic Carbon	**0.022**	0.020	0.020	% by Weight	1	10/14/19 16:45	SM 5310 B MOD	
PDI-042SC-A-13-13.8-190930 (A9J0058-16)				**Matrix: Sediment**				
Batch: 9100676								
Total Organic Carbon	**0.075**	0.020	0.020	% by Weight	1	10/14/19 17:17	SM 5310 B MOD	
PDI-042SC-B-11.9-13.8-190930 (A9J0058-17)				**Matrix: Sediment**				
Batch: 9100676								
Total Organic Carbon	**0.080**	0.020	0.020	% by Weight	1	10/14/19 17:28	SM 5310 B MOD	
PDI-042SC-B-3.9-5.9-190930 (A9J0058-18)				**Matrix: Sediment**				
Batch: 9100676								
Total Organic Carbon	ND	0.020	0.020	% by Weight	1	10/14/19 17:39	SM 5310 B MOD	
PDI-042SC-B-5.9-7.9-190930 (A9J0058-19)				**Matrix: Sediment**				
Batch: 9100676								

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Demand Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-042SC-B-5.9-7.9-190930 (A9J0058-19)				**Matrix: Sediment**				
Total Organic Carbon	**0.043**	0.020	0.020	% by Weight	1	10/14/19 17:50	SM 5310 B MOD	
PDI-042SC-B-7.9-9.9-190930 (A9J0058-20)				**Matrix: Sediment**				
Batch: 9100676								
Total Organic Carbon	**0.13**	0.020	0.020	% by Weight	1	10/14/19 18:00	SM 5310 B MOD	
PDI-042SC-B-9.9-11.9-190930 (A9J0058-21RE1)				**Matrix: Sediment**				
Batch: 9100677								
Total Organic Carbon	**0.026**	0.020	0.020	% by Weight	1	10/15/19 23:32	SM 5310 B MOD	
PDI-044SC-A-11-12-190930 (A9J0058-22RE1)				**Matrix: Sediment**				
Batch: 9100677								
Total Organic Carbon	**0.051**	0.020	0.020	% by Weight	1	10/16/19 00:26	SM 5310 B MOD	
PDI-044SC-A-12-12.8-190930 (A9J0058-23RE1)				**Matrix: Sediment**				
Batch: 9100677								
Total Organic Carbon	**0.053**	0.020	0.020	% by Weight	1	10/16/19 00:37	SM 5310 B MOD	
PDI-044SC-B-11.1-12.8-190930 (A9J0058-24RE1)				**Matrix: Sediment**				
Batch: 9100677								
Total Organic Carbon	**0.062**	0.020	0.020	% by Weight	1	10/16/19 00:48	SM 5310 B MOD	
PDI-044SC-B-7.1-9.1-190930 (A9J0058-25RE1)				**Matrix: Sediment**				
Batch: 9100677								
Total Organic Carbon	**0.023**	0.020	0.020	% by Weight	1	10/16/19 00:59	SM 5310 B MOD	
PDI-044SC-B-9.1-11.1-190930 (A9J0058-26RE1)				**Matrix: Sediment**				
Batch: 9100677								
Total Organic Carbon	**0.027**	0.020	0.020	% by Weight	1	10/16/19 01:10	SM 5310 B MOD	

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-039SC-A-12-13-190930 (A9J0058-01)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**74.1**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-039SC-A-13-13.7-190930 (A9J0058-02)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**73.2**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-1039SC-A-12-13-190930 (A9J0058-03)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**74.2**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-039SC-B-11.8-13.7-190930 (A9J0058-04)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**74.9**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-039SC-B-3.8-5.8-190930 (A9J0058-05)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**83.5**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-039SC-B-5.8-7.8-190930 (A9J0058-06)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**86.7**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-039SC-B-7.8-9.8-190930 (A9J0058-07)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**72.6**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-039SC-B-9.8-11.8-190930 (A9J0058-08)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**77.5**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-040SC-A-09-10-190930 (A9J0058-09)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**83.9**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-040SC-A-10-11.3-190930 (A9J0058-10)				**Matrix: Sediment**				
Batch: 9100574								

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-040SC-A-10-11.3-190930 (A9J0058-10)				**Matrix: Sediment**				
Total Solids	**76.3**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-040SC-B-5.3-7.3-190930 (A9J0058-11)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**86.9**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**87.0**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-040SC-B-9.3-11.3-190930 (A9J0058-13)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**79.3**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-1040SC-B-5.3-7.3-190930 (A9J0058-14)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**87.0**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-042SC-A-12-13-190930 (A9J0058-15)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**82.2**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-042SC-A-13-13.8-190930 (A9J0058-16)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**75.1**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-042SC-B-11.9-13.8-190930 (A9J0058-17)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**79.8**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-042SC-B-3.9-5.9-190930 (A9J0058-18)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**92.0**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-042SC-B-5.9-7.9-190930 (A9J0058-19)				**Matrix: Sediment**				
Batch: 9100574								

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

ANALYTICAL SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-042SC-B-5.9-7.9-190930 (A9J0058-19)				**Matrix: Sediment**				
Total Solids	**85.7**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-042SC-B-7.9-9.9-190930 (A9J0058-20)				**Matrix: Sediment**				
Batch: 9100574								
Total Solids	**82.7**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-042SC-B-9.9-11.9-190930 (A9J0058-21)				**Matrix: Sediment**				
Batch: 9100575								
Total Solids	**87.6**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-044SC-A-11-12-190930 (A9J0058-22)				**Matrix: Sediment**				
Batch: 9100575								
Total Solids	**78.0**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-044SC-A-12-12.8-190930 (A9J0058-23)				**Matrix: Sediment**				
Batch: 9100575								
Total Solids	**76.3**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-044SC-B-11.1-12.8-190930 (A9J0058-24)				**Matrix: Sediment**				
Batch: 9100575								
Total Solids	**76.8**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-044SC-B-7.1-9.1-190930 (A9J0058-25)				**Matrix: Sediment**				
Batch: 9100575								
Total Solids	**83.5**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	
PDI-044SC-B-9.1-11.1-190930 (A9J0058-26)				**Matrix: Sediment**				
Batch: 9100575								
Total Solids	**88.6**	1.00	1.00	% by Weight	1	10/03/19 16:15	SM 2540 G	

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project:	**Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**
6720 SW Macadam Ave. Suite 125	Project Number:	**[none]**
Portland, OR 97219	Project Manager:	**Ryan Barth**

Report ID:
A9J0058 - 11 20 19 1333

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected 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 9100546 - EPA 5035A							**Soil**					
Blank (9100546-BLK1)			Prepared: 10/02/19 10:42 Analyzed: 10/02/19 12:58									
5035A/8260C												
Benzene	ND	3.33	6.67	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	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	---	---	---	---	---	---	
Chlorobenzene	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	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 96 %*	*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*99 %*	*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*			*"*					
LCS (9100546-BS1)			Prepared: 10/02/19 10:42 Analyzed: 10/02/19 12:03									
5035A/8260C												
Benzene	976	5.00	10.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
Toluene	978	25.0	50.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
Ethylbenzene	990	12.5	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
m,p-Xylene	2040	25.0	50.0	ug/kg wet	50	2000	---	102	80-120%	---	---	
o-Xylene	963	12.5	25.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
Chlorobenzene	974	12.5	25.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
1,1-Dichloroethene	1040	12.5	25.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
cis-1,2-Dichloroethene	968	12.5	25.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
Tetrachloroethene (PCE)	1070	12.5	25.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
Trichloroethene (TCE)	999	12.5	25.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
Vinyl chloride	902	12.5	25.0	ug/kg wet	50	1000	---	90	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*	*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*98 %*	*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*			*"*					
Duplicate (9100546-DUP1)			Prepared: 09/26/19 14:40 Analyzed: 10/02/19 14:46									

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected 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 9100546 - EPA 5035A							**Soil**					
Duplicate (9100546-DUP1)			Prepared: 09/26/19 14:40 Analyzed: 10/02/19 14:46									
QC Source Sample: Non-SDG (A9J0042-03)												
Benzene	ND	6.65	13.3	ug/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	33.2	66.5	ug/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	16.6	33.2	ug/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	33.2	66.5	ug/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	16.6	33.2	ug/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	16.6	33.2	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	16.6	33.2	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	16.6	33.2	ug/kg dry	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	16.6	33.2	ug/kg dry	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	16.6	33.2	ug/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	16.6	33.2	ug/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 93 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*97 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*				*"*			
Matrix Spike (9100546-MS1)			Prepared: 09/26/19 14:50 Analyzed: 10/02/19 17:29									
QC Source Sample: Non-SDG (A9J0042-05)												
5035A/8260C												
Benzene	1180	6.76	13.5	ug/kg dry	50	1350	ND	87	77-121%	---	---	
Toluene	1250	33.8	67.6	ug/kg dry	50	1350	ND	92	77-121%	---	---	
Ethylbenzene	1300	16.9	33.8	ug/kg dry	50	1350	ND	96	76-122%	---	---	
m,p-Xylene	2710	33.8	67.6	ug/kg dry	50	2710	ND	100	77-124%	---	---	
o-Xylene	1300	16.9	33.8	ug/kg dry	50	1350	ND	96	77-123%	---	---	
Chlorobenzene	1270	16.9	33.8	ug/kg dry	50	1350	ND	94	79-120%	---	---	
1,1-Dichloroethene	1360	16.9	33.8	ug/kg dry	50	1350	ND	101	70-131%	---	---	
cis-1,2-Dichloroethene	1240	16.9	33.8	ug/kg dry	50	1350	ND	91	77-123%	---	---	
Tetrachloroethene (PCE)	1340	16.9	33.8	ug/kg dry	50	1350	ND	99	73-128%	---	---	
Trichloroethene (TCE)	1230	16.9	33.8	ug/kg dry	50	1350	ND	91	77-123%	---	---	
Vinyl chloride	1180	16.9	33.8	ug/kg dry	50	1350	ND	87	56-135%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 89 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*96 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*				*"*			

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected 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 9100546 - EPA 5035A							**Soil**					
Matrix Spike (9100546-MS2)			Prepared: 09/30/19 13:46 Analyzed: 10/02/19 22:47									
QC Source Sample: PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)												
5035A/8260C												
Benzene	1110	6.56	13.1	ug/kg dry	50	1310	ND	85	77-121%	---	---	
Toluene	1250	32.8	65.6	ug/kg dry	50	1310	ND	95	77-121%	---	---	
Ethylbenzene	1320	16.4	32.8	ug/kg dry	50	1310	ND	101	76-122%	---	---	
m,p-Xylene	2700	32.8	65.6	ug/kg dry	50	2620	ND	103	77-124%	---	---	
o-Xylene	1290	16.4	32.8	ug/kg dry	50	1310	ND	98	77-123%	---	---	
Chlorobenzene	1250	16.4	32.8	ug/kg dry	50	1310	ND	95	79-120%	---	---	
1,1-Dichloroethene	1360	16.4	32.8	ug/kg dry	50	1310	ND	104	70-131%	---	---	
cis-1,2-Dichloroethene	1190	16.4	32.8	ug/kg dry	50	1310	ND	91	77-123%	---	---	
Tetrachloroethene (PCE)	1370	16.4	32.8	ug/kg dry	50	1310	ND	104	73-128%	---	---	
Trichloroethene (TCE)	1160	16.4	32.8	ug/kg dry	50	1310	ND	89	77-123%	---	---	
Vinyl chloride	1120	16.4	32.8	ug/kg dry	50	1310	ND	85	56-135%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 87 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
Matrix Spike Dup (9100546-MSD2)			Prepared: 09/30/19 13:46 Analyzed: 10/02/19 23:14									
QC Source Sample: PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)												
5035A/8260C												
Benzene	1100	6.56	13.1	ug/kg dry	50	1310	ND	84	77-121%	1	35%	
Toluene	1200	32.8	65.6	ug/kg dry	50	1310	ND	91	77-121%	4	35%	
Ethylbenzene	1290	16.4	32.8	ug/kg dry	50	1310	ND	98	76-122%	2	35%	
m,p-Xylene	2680	32.8	65.6	ug/kg dry	50	2620	ND	102	77-124%	0.7	35%	
o-Xylene	1290	16.4	32.8	ug/kg dry	50	1310	ND	98	77-123%	0.1	35%	
Chlorobenzene	1240	16.4	32.8	ug/kg dry	50	1310	ND	94	79-120%	0.8	35%	
1,1-Dichloroethene	1310	16.4	32.8	ug/kg dry	50	1310	ND	100	70-131%	4	35%	
cis-1,2-Dichloroethene	1190	16.4	32.8	ug/kg dry	50	1310	ND	91	77-123%	0.2	35%	
Tetrachloroethene (PCE)	1360	16.4	32.8	ug/kg dry	50	1310	ND	103	73-128%	0.8	35%	
Trichloroethene (TCE)	1120	16.4	32.8	ug/kg dry	50	1310	ND	86	77-123%	3	35%	
Vinyl chloride	1180	16.4	32.8	ug/kg dry	50	1310	ND	90	56-135%	5	35%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 87 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				

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Darwin Thomas, Business Development Director

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected 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 9100546 - EPA 5035A							**Soil**					
Matrix Spike Dup (9100546-MSD2)			Prepared: 09/30/19 13:46 Analyzed: 10/02/19 23:14									
QC Source Sample: PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)												
Surr: 4-Bromofluorobenzene (Surr)			*Recovery: 99 %*	*Limits: 80-120 %*			*Dilution: 1x*					

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AMENDED REPORT

Anchor QEA, LLC	Project:	**Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**
6720 SW Macadam Ave. Suite 125	Project Number:	**[none]**
Portland, OR 97219	Project Manager:	**Ryan Barth**

Report ID:
A9J0058 - 11 20 19 1333

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected 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 9100596 - EPA 5035A							**Soil**					
Blank (9100596-BLK1)			Prepared: 10/03/19 11:00 Analyzed: 10/03/19 13:19									
5035A/8260C												
Benzene	ND	3.33	6.67	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	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	---	---	---	---	---	---	
Chlorobenzene	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	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 85 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*105 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
LCS (9100596-BS1)			Prepared: 10/03/19 11:00 Analyzed: 10/03/19 12:25									
5035A/8260C												
Benzene	848	5.00	10.0	ug/kg wet	50	1000	---	85	80-120%	---	---	
Toluene	1020	25.0	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Ethylbenzene	1070	12.5	25.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
m,p-Xylene	2200	25.0	50.0	ug/kg wet	50	2000	---	110	80-120%	---	---	
o-Xylene	1070	12.5	25.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
Chlorobenzene	1060	12.5	25.0	ug/kg wet	50	1000	---	106	80-120%	---	---	
1,1-Dichloroethene	1020	12.5	25.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
cis-1,2-Dichloroethene	984	12.5	25.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
Tetrachloroethene (PCE)	1060	12.5	25.0	ug/kg wet	50	1000	---	106	80-120%	---	---	
Trichloroethene (TCE)	930	12.5	25.0	ug/kg wet	50	1000	---	93	80-120%	---	---	
Vinyl chloride	971	12.5	25.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 84 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*			*"*				
Duplicate (9100596-DUP1)			Prepared: 09/30/19 12:07 Analyzed: 10/03/19 15:59									

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected 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 9100596 - EPA 5035A							**Soil**					
Duplicate (9100596-DUP1)			Prepared: 09/30/19 12:07 Analyzed: 10/03/19 15:59									
QC Source Sample: PDI-042SC-B-9.9-11.9-190930 (A9J0058-21)												
5035A/8260C												
Benzene	ND	7.11	14.2	ug/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	35.6	71.1	ug/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	17.8	35.6	ug/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	35.6	71.1	ug/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	35.6	35.6	ug/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	17.8	35.6	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	17.8	35.6	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	17.8	35.6	ug/kg dry	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	17.8	35.6	ug/kg dry	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	17.8	35.6	ug/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	17.8	35.6	ug/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 81 %*		*Limits: 80-120 %*		*Dilution: 1x*					
Toluene-d8 (Surr)			*104 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*		*"*					
Matrix Spike (9100596-MS1)			Prepared: 09/30/19 15:07 Analyzed: 10/03/19 17:46									
QC Source Sample: PDI-044SC-B-9.1-11.1-190930 (A9J0058-26)												
5035A/8260C												
Benzene	1000	5.92	11.8	ug/kg dry	50	1180	ND	85	77-121%	---	---	
Toluene	1270	29.6	59.2	ug/kg dry	50	1180	ND	107	77-121%	---	---	
Ethylbenzene	1350	14.8	29.6	ug/kg dry	50	1180	ND	114	76-122%	---	---	
m,p-Xylene	2770	29.6	59.2	ug/kg dry	50	2360	ND	117	77-124%	---	---	
o-Xylene	1340	14.8	29.6	ug/kg dry	50	1180	ND	114	77-123%	---	---	
Chlorobenzene	1320	14.8	29.6	ug/kg dry	50	1180	ND	112	79-120%	---	---	
1,1-Dichloroethene	1220	14.8	29.6	ug/kg dry	50	1180	ND	103	70-131%	---	---	
cis-1,2-Dichloroethene	1200	14.8	29.6	ug/kg dry	50	1180	ND	102	77-123%	---	---	
Tetrachloroethene (PCE)	1290	14.8	29.6	ug/kg dry	50	1180	ND	109	73-128%	---	---	
Trichloroethene (TCE)	1080	14.8	29.6	ug/kg dry	50	1180	ND	92	77-123%	---	---	
Vinyl chloride	1140	14.8	29.6	ug/kg dry	50	1180	ND	97	56-135%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 79 %*		*Limits: 80-120 %*		*Dilution: 1x*					S-06
Toluene-d8 (Surr)			*104 %*		*80-120 %*		*"*					

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected 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 9100596 - EPA 5035A							**Soil**					
Matrix Spike (9100596-MS1)				Prepared: 09/30/19 15:07 Analyzed: 10/03/19 17:46								
QC Source Sample: PDI-044SC-B-9.1-11.1-190930 (A9J0058-26)												
Surr: 4-Bromofluorobenzene (Surr)				*Recovery: 93 %*	*Limits: 80-120 %*		*Dilution: 1x*					

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9100797 - EPA 3546							**Sediment**					
Blank (9100797-BLK1)			Prepared: 10/08/19 11:10		Analyzed: 10/09/19 09:01							**C-07**
EPA 8082A												
Aroclor 1016	ND	0.558	1.11	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.558	1.11	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1232	ND	0.558	1.11	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1242	ND	0.558	1.11	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1248	ND	0.558	1.11	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1254	ND	0.558	1.11	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1260	ND	0.558	1.11	ug/kg wet	1	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 102 %*		*Limits: 43-120 %*			*Dilution: 1x*				
LCS (9100797-BS1)			Prepared: 10/08/19 11:10		Analyzed: 10/09/19 09:19							**C-07**
EPA 8082A												
Aroclor 1016	50.3	0.670	1.33	ug/kg wet	1	83.3	---	60	47-134%	---	---	
Aroclor 1260	72.0	0.670	1.33	ug/kg wet	1	83.3	---	86	53-140%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 121 %*		*Limits: 43-120 %*			*Dilution: 1x*				S-06
Matrix Spike (9100797-MS1)			Prepared: 10/08/19 11:10		Analyzed: 10/09/19 09:36							**C-07**
QC Source Sample: PDI-042SC-A-12-13-190930 (A9J0058-15)												
EPA 8082A												
Aroclor 1016	50.8	0.793	1.58	ug/kg dry	1	98.7	ND	51	47-134%	---	---	
Aroclor 1260	75.4	0.793	1.58	ug/kg dry	1	98.7	ND	76	53-140%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 88 %*		*Limits: 43-120 %*			*Dilution: 1x*				
Matrix Spike Dup (9100797-MSD1)			Prepared: 10/08/19 11:10		Analyzed: 10/09/19 10:11							**C-07**
QC Source Sample: PDI-042SC-A-12-13-190930 (A9J0058-15)												
EPA 8082A												
Aroclor 1016	61.4	0.794	1.58	ug/kg dry	1	98.8	ND	62	47-134%	19	30%	
Aroclor 1260	75.1	0.794	1.58	ug/kg dry	1	98.8	ND	76	53-140%	0.3	30%	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 86 %*		*Limits: 43-120 %*			*Dilution: 1x*				

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

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 9100817 - EPA 3546/3640A (GPC)							**Sediment**					
Blank (9100817-BLK1)			Prepared: 10/06/19 08:54	Analyzed: 10/10/19 13:22								**C-05**
EPA 8081B												
2,4'-DDD	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
2,4'-DDE	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
2,4'-DDT	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
4,4'-DDD	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
4,4'-DDE	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
4,4'-DDT	ND	0.909	1.82	ug/kg wet	1	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 46 %*	*Limits: 42-129 %*				*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*87 %*	*55-130 %*				*"*				
LCS (9100817-BS1)			Prepared: 10/06/19 08:54	Analyzed: 10/10/19 13:39								**C-05**
EPA 8081B												
2,4'-DDD	38.3	1.00	2.00	ug/kg wet	1	50.0	---	77	50-150%	---	---	
2,4'-DDE	33.7	1.00	2.00	ug/kg wet	1	50.0	---	67	50-150%	---	---	
2,4'-DDT	45.1	1.00	2.00	ug/kg wet	1	50.0	---	90	50-150%	---	---	
4,4'-DDD	42.0	1.00	2.00	ug/kg wet	1	50.0	---	84	50-150%	---	---	
4,4'-DDE	37.4	1.00	2.00	ug/kg wet	1	50.0	---	75	50-150%	---	---	
4,4'-DDT	54.7	1.00	2.00	ug/kg wet	1	50.0	---	109	50-150%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 52 %*	*Limits: 42-129 %*				*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*91 %*	*55-130 %*				*"*				
Matrix Spike (9100817-MS1)			Prepared: 10/06/19 08:54	Analyzed: 10/10/19 17:57								**C-05**
QC Source Sample: PDI-042SC-A-12-13-190930 (A9J0058-15RE1)												
EPA 8081B												
2,4'-DDD	45.2	1.16	2.32	ug/kg dry	1	58.0	ND	78	50-150%	---	---	
2,4'-DDE	37.5	1.16	2.32	ug/kg dry	1	58.0	ND	65	50-150%	---	---	
2,4'-DDT	54.4	1.16	2.32	ug/kg dry	1	58.0	ND	94	50-150%	---	---	
4,4'-DDD	49.3	1.16	2.32	ug/kg dry	1	58.0	ND	85	50-150%	---	---	
4,4'-DDE	44.1	1.16	2.32	ug/kg dry	1	58.0	ND	76	50-150%	---	---	
4,4'-DDT	64.1	1.16	2.32	ug/kg dry	1	58.0	ND	111	50-150%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 49 %*	*Limits: 42-129 %*				*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*103 %*	*55-130 %*				*"*				

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Darwin Thomas, Business Development Director

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

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 9100817 - EPA 3546/3640A (GPC)							**Sediment**					
Matrix Spike Dup (9100817-MSD1)			Prepared: 10/06/19 08:54		Analyzed: 10/10/19 18:14							**C-05**
QC Source Sample: PDI-042SC-A-12-13-190930 (A9J0058-15RE1)												
EPA 8081B												
2,4'-DDD	47.9	1.20	2.40	ug/kg dry	1	59.9	ND	80	50-150%	6	35%	
2,4'-DDE	42.0	1.20	2.40	ug/kg dry	1	59.9	ND	70	50-150%	11	35%	
2,4'-DDT	57.5	1.20	2.40	ug/kg dry	1	59.9	ND	96	50-150%	6	35%	
4,4'-DDD	54.0	1.20	2.40	ug/kg dry	1	59.9	ND	90	50-150%	9	30%	
4,4'-DDE	48.4	1.20	2.40	ug/kg dry	1	59.9	ND	81	50-150%	9	30%	
4,4'-DDT	68.0	1.20	2.40	ug/kg dry	1	59.9	ND	114	50-150%	6	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 57 %*		*Limits: 42-129 %*							
Decachlorobiphenyl (Surr)			*105 %*		*55-130 %*							

Dilution: 1x
"

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9100706 - EPA 3546							**Sediment**					
Blank (9100706-BLK1)			Prepared: 10/06/19 07:51		Analyzed: 10/07/19 13:22							
EPA 8270D												
Acenaphthene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 86 %*		*Limits: 44-115 %*				*Dilution: 1x*			
p-Terphenyl-d14 (Surr)			*96 %*		*54-127 %*				*"*			
LCS (9100706-BS1)			Prepared: 10/06/19 07:51		Analyzed: 10/07/19 13:54							
EPA 8270D												
Acenaphthene	17.9	1.25	2.50	ug/kg wet	1	20.0	---	89	40-122%	---	---	
Acenaphthylene	17.0	1.25	2.50	ug/kg wet	1	20.0	---	85	32-132%	---	---	
Anthracene	17.4	1.25	2.50	ug/kg wet	1	20.0	---	87	47-123%	---	---	
Benz(a)anthracene	16.5	1.25	2.50	ug/kg wet	1	20.0	---	82	49-126%	---	---	
Benzo(a)pyrene	17.7	1.25	2.50	ug/kg wet	1	20.0	---	89	45-129%	---	---	
Benzo(b)fluoranthene	18.1	1.25	2.50	ug/kg wet	1	20.0	---	90	45-132%	---	---	
Benzo(k)fluoranthene	18.0	1.25	2.50	ug/kg wet	1	20.0	---	90	47-132%	---	---	
Benzo(g,h,i)perylene	16.8	1.25	2.50	ug/kg wet	1	20.0	---	84	43-134%	---	---	
Chrysene	18.0	1.25	2.50	ug/kg wet	1	20.0	---	90	50-124%	---	---	
Dibenz(a,h)anthracene	16.9	1.25	2.50	ug/kg wet	1	20.0	---	85	45-134%	---	---	
Fluoranthene	17.0	1.25	2.50	ug/kg wet	1	20.0	---	85	50-127%	---	---	

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Darwin Thomas, Business Development Director

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9100706 - EPA 3546							**Sediment**					
LCS (9100706-BS1)			Prepared: 10/06/19 07:51		Analyzed: 10/07/19 13:54							
Fluorene	17.9	1.25	2.50	ug/kg wet	1	20.0	---	90	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	16.9	1.25	2.50	ug/kg wet	1	20.0	---	84	45-133%	---	---	
2-Methylnaphthalene	15.5	1.25	2.50	ug/kg wet	1	20.0	---	78	38-122%	---	---	
Naphthalene	18.0	1.25	2.50	ug/kg wet	1	20.0	---	90	35-123%	---	---	
Phenanthrene	17.7	1.25	2.50	ug/kg wet	1	20.0	---	89	50-121%	---	---	
Pyrene	18.1	1.25	2.50	ug/kg wet	1	20.0	---	91	47-127%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 89 %*		*Limits: 44-115 %*				*Dilution: 1x*			
p-Terphenyl-d14 (Surr)			*93 %*		*54-127 %*				*"*			
Matrix Spike (9100706-MS1)			Prepared: 10/06/19 07:51		Analyzed: 10/07/19 14:58							
QC Source Sample: PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)												
EPA 8270D												
Acenaphthene	19.9	1.38	2.76	ug/kg dry	1	22.1	3.08	76	40-122%	---	---	
Acenaphthylene	18.0	1.38	2.76	ug/kg dry	1	22.1	ND	81	32-132%	---	---	
Anthracene	19.3	1.38	2.76	ug/kg dry	1	22.1	ND	87	47-123%	---	---	
Benz(a)anthracene	18.1	1.38	2.76	ug/kg dry	1	22.1	ND	82	49-126%	---	---	
Benzo(a)pyrene	19.2	1.38	2.76	ug/kg dry	1	22.1	ND	87	45-129%	---	---	
Benzo(b)fluoranthene	19.2	1.38	2.76	ug/kg dry	1	22.1	ND	87	45-132%	---	---	
Benzo(k)fluoranthene	18.8	1.38	2.76	ug/kg dry	1	22.1	ND	85	47-132%	---	---	
Benzo(g,h,i)perylene	18.1	1.38	2.76	ug/kg dry	1	22.1	ND	82	43-134%	---	---	
Chrysene	19.4	1.38	2.76	ug/kg dry	1	22.1	ND	88	50-124%	---	---	
Dibenz(a,h)anthracene	18.0	1.38	2.76	ug/kg dry	1	22.1	ND	81	45-134%	---	---	
Fluoranthene	19.5	1.38	2.76	ug/kg dry	1	22.1	2.06	79	50-127%	---	---	
Fluorene	19.8	1.38	2.76	ug/kg dry	1	22.1	1.52	83	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	17.9	1.38	2.76	ug/kg dry	1	22.1	ND	81	45-133%	---	---	
2-Methylnaphthalene	16.9	1.38	2.76	ug/kg dry	1	22.1	1.60	69	38-122%	---	---	
Naphthalene	19.8	1.38	2.76	ug/kg dry	1	22.1	4.98	67	35-123%	---	---	
Phenanthrene	19.9	1.38	2.76	ug/kg dry	1	22.1	4.29	70	50-121%	---	---	
Pyrene	19.2	1.38	2.76	ug/kg dry	1	22.1	2.60	75	47-127%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 85 %*		*Limits: 44-115 %*				*Dilution: 1x*			
p-Terphenyl-d14 (Surr)			*88 %*		*54-127 %*				*"*			
Matrix Spike Dup (9100706-MSD1)			Prepared: 10/06/19 07:51		Analyzed: 10/07/19 15:31							

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Darwin Thomas, Business Development Director

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9100706 - EPA 3546							**Sediment**					
Matrix Spike Dup (9100706-MSD1)			Prepared: 10/06/19 07:51		Analyzed: 10/07/19 15:31							
QC Source Sample: PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)												
EPA 8270D												
Acenaphthene	19.9	1.36	2.71	ug/kg dry	1	21.7	3.08	77	40-122%	0.3	30%	
Acenaphthylene	18.2	1.36	2.71	ug/kg dry	1	21.7	ND	84	32-132%	1	30%	
Anthracene	19.1	1.36	2.71	ug/kg dry	1	21.7	ND	88	47-123%	0.9	30%	
Benz(a)anthracene	18.9	1.36	2.71	ug/kg dry	1	21.7	ND	87	49-126%	5	30%	
Benzo(a)pyrene	19.9	1.36	2.71	ug/kg dry	1	21.7	ND	92	45-129%	4	30%	
Benzo(b)fluoranthene	20.6	1.36	2.71	ug/kg dry	1	21.7	ND	95	45-132%	7	30%	
Benzo(k)fluoranthene	18.9	1.36	2.71	ug/kg dry	1	21.7	ND	87	47-132%	0.6	30%	
Benzo(g,h,i)perylene	18.5	1.36	2.71	ug/kg dry	1	21.7	ND	85	43-134%	2	30%	
Chrysene	20.3	1.36	2.71	ug/kg dry	1	21.7	ND	93	50-124%	4	30%	
Dibenz(a,h)anthracene	17.3	1.36	2.71	ug/kg dry	1	21.7	ND	80	45-134%	4	30%	
Fluoranthene	20.5	1.36	2.71	ug/kg dry	1	21.7	2.06	85	50-127%	5	30%	
Fluorene	19.9	1.36	2.71	ug/kg dry	1	21.7	1.52	85	43-125%	0.3	30%	
Indeno(1,2,3-cd)pyrene	18.3	1.36	2.71	ug/kg dry	1	21.7	ND	84	45-133%	2	30%	
2-Methylnaphthalene	17.8	1.36	2.71	ug/kg dry	1	21.7	1.60	75	38-122%	5	30%	
Naphthalene	19.7	1.36	2.71	ug/kg dry	1	21.7	4.98	68	35-123%	0.2	30%	
Phenanthrene	19.9	1.36	2.71	ug/kg dry	1	21.7	4.29	72	50-121%	0.4	30%	
Pyrene	20.2	1.36	2.71	ug/kg dry	1	21.7	2.60	81	47-127%	5	30%	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 84 %*		*Limits: 44-115 %*			*Dilution: 1x*				
p-Terphenyl-d14 (Surr)			*87 %*		*54-127 %*			*"*				

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9100712 - EPA 3546							**Sediment**					
Blank (9100712-BLK1)			Prepared: 10/07/19 06:54 Analyzed: 10/08/19 09:51									
EPA 8270D												
Acenaphthene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	1.14	2.27	ug/kg wet	1	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 96 %*	*Limits: 44-115 %*				*Dilution: 1x*				
p-Terphenyl-d14 (Surr)			*102 %*	*54-127 %*				*"*				
LCS (9100712-BS1)			Prepared: 10/07/19 06:54 Analyzed: 10/08/19 10:23									
EPA 8270D												
Acenaphthene	18.1	1.25	2.50	ug/kg wet	1	20.0	---	90	40-122%	---	---	
Acenaphthylene	16.8	1.25	2.50	ug/kg wet	1	20.0	---	84	32-132%	---	---	
Anthracene	17.4	1.25	2.50	ug/kg wet	1	20.0	---	87	47-123%	---	---	
Benz(a)anthracene	16.6	1.25	2.50	ug/kg wet	1	20.0	---	83	49-126%	---	---	
Benzo(a)pyrene	18.0	1.25	2.50	ug/kg wet	1	20.0	---	90	45-129%	---	---	
Benzo(b)fluoranthene	18.0	1.25	2.50	ug/kg wet	1	20.0	---	90	45-132%	---	---	
Benzo(k)fluoranthene	17.8	1.25	2.50	ug/kg wet	1	20.0	---	89	47-132%	---	---	
Benzo(g,h,i)perylene	17.0	1.25	2.50	ug/kg wet	1	20.0	---	85	43-134%	---	---	
Chrysene	18.0	1.25	2.50	ug/kg wet	1	20.0	---	90	50-124%	---	---	
Dibenz(a,h)anthracene	16.9	1.25	2.50	ug/kg wet	1	20.0	---	84	45-134%	---	---	
Fluoranthene	17.3	1.25	2.50	ug/kg wet	1	20.0	---	87	50-127%	---	---	

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9100712 - EPA 3546							**Sediment**					
LCS (9100712-BS1)			Prepared: 10/07/19 06:54 Analyzed: 10/08/19 10:23									
Fluorene	17.8	1.25	2.50	ug/kg wet	1	20.0	---	89	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	16.8	1.25	2.50	ug/kg wet	1	20.0	---	84	45-133%	---	---	
2-Methylnaphthalene	15.7	1.25	2.50	ug/kg wet	1	20.0	---	78	38-122%	---	---	
Naphthalene	18.2	1.25	2.50	ug/kg wet	1	20.0	---	91	35-123%	---	---	
Phenanthrene	17.4	1.25	2.50	ug/kg wet	1	20.0	---	87	50-121%	---	---	
Pyrene	18.1	1.25	2.50	ug/kg wet	1	20.0	---	91	47-127%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 94 %*		*Limits: 44-115 %*			*Dilution: 1x*				
p-Terphenyl-d14 (Surr)			*99 %*		*54-127 %*			*"*				
Matrix Spike (9100712-MS1)			Prepared: 10/07/19 06:54 Analyzed: 10/08/19 11:37									
QC Source Sample: PDI-042SC-A-12-13-190930 (A9J0058-15)												
EPA 8270D												
Acenaphthene	22.3	1.49	2.98	ug/kg dry	1	23.8	ND	93	40-122%	---	---	
Acenaphthylene	21.7	1.49	2.98	ug/kg dry	1	23.8	ND	91	32-132%	---	---	
Anthracene	22.6	1.49	2.98	ug/kg dry	1	23.8	ND	95	47-123%	---	---	
Benz(a)anthracene	21.1	1.49	2.98	ug/kg dry	1	23.8	ND	89	49-126%	---	---	
Benzo(a)pyrene	22.0	1.49	2.98	ug/kg dry	1	23.8	ND	92	45-129%	---	---	
Benzo(b)fluoranthene	22.9	1.49	2.98	ug/kg dry	1	23.8	ND	96	45-132%	---	---	
Benzo(k)fluoranthene	21.4	1.49	2.98	ug/kg dry	1	23.8	ND	90	47-132%	---	---	
Benzo(g,h,i)perylene	20.5	1.49	2.98	ug/kg dry	1	23.8	ND	86	43-134%	---	---	
Chrysene	22.1	1.49	2.98	ug/kg dry	1	23.8	ND	93	50-124%	---	---	
Dibenz(a,h)anthracene	20.6	1.49	2.98	ug/kg dry	1	23.8	ND	86	45-134%	---	---	
Fluoranthene	23.8	1.49	2.98	ug/kg dry	1	23.8	2.16	91	50-127%	---	---	
Fluorene	22.8	1.49	2.98	ug/kg dry	1	23.8	ND	96	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	20.8	1.49	2.98	ug/kg dry	1	23.8	ND	87	45-133%	---	---	
2-Methylnaphthalene	19.2	1.49	2.98	ug/kg dry	1	23.8	ND	80	38-122%	---	---	
Naphthalene	22.6	1.49	2.98	ug/kg dry	1	23.8	ND	95	35-123%	---	---	
Phenanthrene	22.7	1.49	2.98	ug/kg dry	1	23.8	ND	95	50-121%	---	---	
Pyrene	21.6	1.49	2.98	ug/kg dry	1	23.8	2.77	79	47-127%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 96 %*		*Limits: 44-115 %*			*Dilution: 1x*				
p-Terphenyl-d14 (Surr)			*93 %*		*54-127 %*			*"*				
Matrix Spike Dup (9100712-MSD1)			Prepared: 10/07/19 06:55 Analyzed: 10/08/19 12:09									

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9100712 - EPA 3546							**Sediment**					
Matrix Spike Dup (9100712-MSD1)				Prepared: 10/07/19 06:55 Analyzed: 10/08/19 12:09								
QC Source Sample: PDI-042SC-A-12-13-190930 (A9J0058-15)												
EPA 8270D												
Acenaphthene	22.3	1.49	2.98	ug/kg dry	1	23.8	ND	94	40-122%	0.1	30%	
Acenaphthylene	21.2	1.49	2.98	ug/kg dry	1	23.8	ND	89	32-132%	3	30%	
Anthracene	21.6	1.49	2.98	ug/kg dry	1	23.8	ND	91	47-123%	5	30%	
Benz(a)anthracene	20.8	1.49	2.98	ug/kg dry	1	23.8	ND	87	49-126%	2	30%	
Benzo(a)pyrene	21.6	1.49	2.98	ug/kg dry	1	23.8	ND	91	45-129%	2	30%	
Benzo(b)fluoranthene	22.2	1.49	2.98	ug/kg dry	1	23.8	ND	93	45-132%	3	30%	
Benzo(k)fluoranthene	21.3	1.49	2.98	ug/kg dry	1	23.8	ND	90	47-132%	0.4	30%	
Benzo(g,h,i)perylene	19.9	1.49	2.98	ug/kg dry	1	23.8	ND	84	43-134%	3	30%	
Chrysene	21.9	1.49	2.98	ug/kg dry	1	23.8	ND	92	50-124%	1	30%	
Dibenz(a,h)anthracene	20.6	1.49	2.98	ug/kg dry	1	23.8	ND	87	45-134%	0.06	30%	
Fluoranthene	22.2	1.49	2.98	ug/kg dry	1	23.8	2.16	84	50-127%	7	30%	
Fluorene	21.8	1.49	2.98	ug/kg dry	1	23.8	ND	92	43-125%	5	30%	
Indeno(1,2,3-cd)pyrene	20.1	1.49	2.98	ug/kg dry	1	23.8	ND	85	45-133%	3	30%	
2-Methylnaphthalene	17.7	1.49	2.98	ug/kg dry	1	23.8	ND	74	38-122%	8	30%	
Naphthalene	21.7	1.49	2.98	ug/kg dry	1	23.8	ND	91	35-123%	4	30%	
Phenanthrene	21.6	1.49	2.98	ug/kg dry	1	23.8	ND	91	50-121%	5	30%	
Pyrene	22.5	1.49	2.98	ug/kg dry	1	23.8	2.77	83	47-127%	4	30%	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 96 %*	*Limits: 44-115 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*98 %*	*54-127 %*			*"*					

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

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 9100666 - EPA 3051A							**Sediment**					
Blank (9100666-BLK1)			Prepared: 10/04/19 10:27		Analyzed: 10/07/19 22:19							
EPA 6020A												
Arsenic	ND	0.240	0.481	mg/kg wet	5	---	---	---	---	---	---	
LCS (9100666-BS1)			Prepared: 10/04/19 10:27		Analyzed: 10/07/19 22:33							
EPA 6020A												
Arsenic	23.3	0.250	0.500	mg/kg wet	5	25.0	---	93	80-120%	---	---	
Matrix Spike (9100666-MS1)			Prepared: 10/04/19 10:27		Analyzed: 10/07/19 23:28							
QC Source Sample: Non-SDG (A9I0936-22)												
EPA 6020A												
Arsenic	45.5	0.420	0.841	mg/kg dry	5	42.0	6.64	92	75-125%	---	---	
Matrix Spike (9100666-MS2)			Prepared: 10/04/19 10:27		Analyzed: 10/08/19 00:24							
QC Source Sample: PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)												
EPA 6020A												
Arsenic	29.2	0.288	0.576	mg/kg dry	5	28.8	1.93	95	75-125%	---	---	
Matrix Spike Dup (9100666-MSD1)			Prepared: 10/04/19 10:27		Analyzed: 10/07/19 23:33							
QC Source Sample: Non-SDG (A9I0936-22)												
Arsenic	45.7	0.425	0.849	mg/kg dry	5	42.5	6.64	92	75-125%	0.3	40%	
Matrix Spike Dup (9100666-MSD2)			Prepared: 10/04/19 10:27		Analyzed: 10/08/19 00:28							
QC Source Sample: PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)												
EPA 6020A												
Arsenic	29.0	0.282	0.565	mg/kg dry	5	28.2	1.93	96	75-125%	0.7	40%	

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

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 9100841 - EPA 3051A							**Sediment**					
Blank (9100841-BLK1)			Prepared: 10/09/19 07:37		Analyzed: 10/10/19 20:08							
EPA 6020A												
Arsenic	ND	0.240	0.481	mg/kg wet	5	---	---	---	---	---	---	
LCS (9100841-BS1)			Prepared: 10/09/19 07:37		Analyzed: 10/10/19 20:15							
EPA 6020A												
Arsenic	22.6	0.250	0.500	mg/kg wet	5	25.0	---	90	80-120%	---	---	
Duplicate (9100841-DUP1)			Prepared: 10/09/19 07:37		Analyzed: 10/10/19 20:38							
QC Source Sample: PDI-042SC-B-9.9-11.9-190930 (A9J0058-21)												
EPA 6020A												
Arsenic	**2.20**	0.278	0.555	mg/kg dry	5	---	1.84	---	---	18	40%	
Matrix Spike (9100841-MS1)			Prepared: 10/09/19 07:37		Analyzed: 10/10/19 20:43							
QC Source Sample: PDI-042SC-B-9.9-11.9-190930 (A9J0058-21)												
EPA 6020A												
Arsenic	27.4	0.285	0.570	mg/kg dry	5	28.5	1.84	90	75-125%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Demand Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9100674 - PSEP-5310B TOC							**Sediment**					
Blank (9100674-BLK2)			Prepared: 10/03/19 15:25		Analyzed: 10/15/19 20:39							
SM 5310 B MOD												
Total Organic Carbon	ND	0.020	0.020	% by Weight	1	---	---	---	---	---	---	Q-16
LCS (9100674-BS2)			Prepared: 10/03/19 15:25		Analyzed: 10/15/19 20:50							
SM 5310 B MOD												
Total Organic Carbon	10000			mg/kg	1	10000	---	100	90-110%	---	---	Q-16
Duplicate (9100674-DUP3)			Prepared: 10/03/19 15:25		Analyzed: 10/15/19 23:21							
QC Source Sample: PDI-040SC-B-7.3-9.3-190930 (A9J0058-12RE1)												
SM 5310 B MOD												
Total Organic Carbon	**0.023**	0.020	0.020	% by Weight	1	---	0.021	---	---	9	20%	AMEND, Q-16
Duplicate (9100674-DUP4)			Prepared: 10/03/19 15:25		Analyzed: 10/15/19 23:32							
QC Source Sample: PDI-040SC-B-7.3-9.3-190930 (A9J0058-12RE1)												
SM 5310 B MOD												
Total Organic Carbon	**0.026**	0.020	0.020	% by Weight	1	---	0.021	---	---	18	20%	AMEND, Q-16

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Demand Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9100676 - PSEP-5310B TOC							**Sediment**					
Blank (9100676-BLK1)			Prepared: 10/03/19 15:25		Analyzed: 10/14/19 15:19							
SM 5310 B MOD												
Total Organic Carbon	ND	0.020	0.020	% by Weight	1	---	---	---	---	---	---	
LCS (9100676-BS1)			Prepared: 10/03/19 15:25		Analyzed: 10/14/19 15:29							
SM 5310 B MOD												
Total Organic Carbon	10000			mg/kg	1	10000	---	100	90-110%	---	---	
Duplicate (9100676-DUP1)			Prepared: 10/03/19 15:25		Analyzed: 10/14/19 16:56							
QC Source Sample: PDI-042SC-A-12-13-190930 (A9J0058-15)												
SM 5310 B MOD												
Total Organic Carbon	**0.027**	0.020	0.020	% by Weight	1	---	0.022	---	---	19	20%	
Duplicate (9100676-DUP2)			Prepared: 10/03/19 15:25		Analyzed: 10/14/19 17:06							
QC Source Sample: PDI-042SC-A-12-13-190930 (A9J0058-15)												
SM 5310 B MOD												
Total Organic Carbon	**0.025**	0.020	0.020	% by Weight	1	---	0.022	---	---	11	20%	

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AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALITY CONTROL (QC) SAMPLE RESULTS

Demand Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9100677 - PSEP-5310B TOC							**Sediment**					
Blank (9100677-BLK1)			Prepared: 10/04/19 12:01		Analyzed: 10/14/19 18:33							
SM 5310 B MOD												
Total Organic Carbon	ND	0.020	0.020	% by Weight	1	---	---	---	---	---	---	AMEND
LCS (9100677-BS1)			Prepared: 10/04/19 12:01		Analyzed: 10/14/19 18:43							
SM 5310 B MOD												
Total Organic Carbon	9900			mg/kg	1	10000	---	99	90-110%	---	---	A-01, AMEND
Duplicate (9100677-DUP3)			Prepared: 10/04/19 12:01		Analyzed: 10/15/19 23:43							
QC Source Sample: PDI-042SC-B-9.9-11.9-190930 (A9J0058-21RE1)												
SM 5310 B MOD												
Total Organic Carbon	**0.025**	0.020	0.020	% by Weight	1	---	0.026	---	---	2	20%	AMEND, Q-16
Duplicate (9100677-DUP4)			Prepared: 10/04/19 12:01		Analyzed: 10/16/19 00:15							
QC Source Sample: PDI-042SC-B-9.9-11.9-190930 (A9J0058-21RE1)												
SM 5310 B MOD												
Total Organic Carbon	**0.031**	0.020	0.020	% by Weight	1	---	0.026	---	---	18	20%	AMEND, Q-16

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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 9100574 - Total Solids (SM2540G/PSEP)								**Sediment**				
Duplicate (9100574-DUP1)			Prepared: 10/02/19 17:09		Analyzed: 10/03/19 16:15							
QC Source Sample: PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)												
SM 2540 G												
Total Solids	**86.5**	1.00	1.00	% by Weight	1	---	87.0	---	---	0.5	10%	
Duplicate (9100574-DUP2)			Prepared: 10/02/19 17:09		Analyzed: 10/03/19 16:15							
QC Source Sample: PDI-042SC-A-12-13-190930 (A9J0058-15)												
SM 2540 G												
Total Solids	**81.7**	1.00	1.00	% by Weight	1	---	82.2	---	---	0.6	10%	

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

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 9100575 - Total Solids (SM2540G/PSEP)							**Sediment**					
Duplicate (9100575-DUP1)			Prepared: 10/02/19 17:15		Analyzed: 10/03/19 16:15							
QC Source Sample: PDI-042SC-B-9.9-11.9-190930 (A9J0058-21)												
SM 2540 G												
Total Solids	**86.5**	1.00	1.00	% by Weight	1	---	87.6	---	---	1	10%	

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

SAMPLE PREPARATION INFORMATION

Selected Volatile Organic Compounds by EPA 8260C

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9100546							
A9J0058-04	Sediment	5035A/8260C	09/30/19 10:39	09/30/19 10:39	6.05g/5mL	5g/5mL	0.83
A9J0058-05	Sediment	5035A/8260C	09/30/19 09:15	09/30/19 09:15	5.94g/5mL	5g/5mL	0.84
A9J0058-06	Sediment	5035A/8260C	09/30/19 09:16	09/30/19 09:16	5.18g/5mL	5g/5mL	0.97
A9J0058-07	Sediment	5035A/8260C	09/30/19 09:17	09/30/19 09:17	6.1g/5mL	5g/5mL	0.82
A9J0058-08	Sediment	5035A/8260C	09/30/19 09:18	09/30/19 09:18	4.26g/5mL	5g/5mL	1.17
A9J0058-11	Sediment	5035A/8260C	09/30/19 13:45	09/30/19 13:45	4.91g/5mL	5g/5mL	1.02
A9J0058-12	Sediment	5035A/8260C	09/30/19 13:46	09/30/19 13:46	4.95g/5mL	5g/5mL	1.01
A9J0058-13	Sediment	5035A/8260C	09/30/19 14:02	09/30/19 14:02	5.98g/5mL	5g/5mL	0.84
A9J0058-14	Sediment	5035A/8260C	09/30/19 13:45	09/30/19 13:45	5.27g/5mL	5g/5mL	0.95
Batch: 9100596							
A9J0058-17	Sediment	5035A/8260C	09/30/19 12:29	09/30/19 12:29	5.71g/5mL	5g/5mL	0.88
A9J0058-18	Sediment	5035A/8260C	09/30/19 12:05	09/30/19 12:05	4.97g/5mL	5g/5mL	1.01
A9J0058-19	Sediment	5035A/8260C	09/30/19 12:06	09/30/19 12:06	5.59g/5mL	5g/5mL	0.89
A9J0058-20	Sediment	5035A/8260C	09/30/19 12:06	09/30/19 12:06	5.45g/5mL	5g/5mL	0.92
A9J0058-21	Sediment	5035A/8260C	09/30/19 12:07	09/30/19 12:07	4.61g/5mL	5g/5mL	1.08
A9J0058-24	Sediment	5035A/8260C	09/30/19 15:15	09/30/19 15:15	6.32g/5mL	5g/5mL	0.79
A9J0058-25	Sediment	5035A/8260C	09/30/19 15:06	09/30/19 15:06	5.68g/5mL	5g/5mL	0.88
A9J0058-26	Sediment	5035A/8260C	09/30/19 15:07	09/30/19 15:07	5.35g/5mL	5g/5mL	0.94

Polychlorinated Biphenyls by EPA 8082A

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9100797							
A9J0058-01RE1	Sediment	EPA 8082A	09/30/19 09:09	10/08/19 11:10	33.05g/2mL	30g/2mL	0.91
A9J0058-02	Sediment	EPA 8082A	09/30/19 09:48	10/08/19 11:10	33.33g/2mL	30g/2mL	0.90
A9J0058-03RE1	Sediment	EPA 8082A	09/30/19 09:48	10/08/19 11:10	35.51g/2mL	30g/2mL	0.85
A9J0058-09	Sediment	EPA 8082A	09/30/19 13:44	10/08/19 11:10	35.62g/2mL	30g/2mL	0.84
A9J0058-10	Sediment	EPA 8082A	09/30/19 13:59	10/08/19 11:10	32.88g/2mL	30g/2mL	0.91
A9J0058-15	Sediment	EPA 8082A	09/30/19 11:22	10/08/19 11:10	30.87g/2mL	30g/2mL	0.97
A9J0058-16	Sediment	EPA 8082A	09/30/19 12:42	10/08/19 11:10	33.49g/2mL	30g/2mL	0.90
A9J0058-22	Sediment	EPA 8082A	09/30/19 15:05	10/08/19 11:10	34.49g/2mL	30g/2mL	0.87
A9J0058-23	Sediment	EPA 8082A	09/30/19 15:05	10/08/19 11:10	33.82g/2mL	30g/2mL	0.89

Organochlorine Pesticides by EPA 8081B

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

SAMPLE PREPARATION INFORMATION

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: 9100817							
A9J0058-01RE1	Sediment	EPA 8081B	09/30/19 09:09	10/06/19 08:54	10.1g/10mL	10g/5mL	1.98
A9J0058-02RE1	Sediment	EPA 8081B	09/30/19 09:48	10/06/19 08:54	10.13g/10mL	10g/5mL	1.97
A9J0058-03RE1	Sediment	EPA 8081B	09/30/19 09:48	10/06/19 08:54	10.67g/10mL	10g/5mL	1.87
A9J0058-09RE1	Sediment	EPA 8081B	09/30/19 13:44	10/06/19 08:54	10.21g/10mL	10g/5mL	1.96
A9J0058-10RE1	Sediment	EPA 8081B	09/30/19 13:59	10/06/19 08:54	10.89g/10mL	10g/5mL	1.84
A9J0058-15RE1	Sediment	EPA 8081B	09/30/19 11:22	10/06/19 08:54	10.91g/10mL	10g/5mL	1.83
A9J0058-16RE1	Sediment	EPA 8081B	09/30/19 12:42	10/06/19 08:54	10.71g/10mL	10g/5mL	1.87
A9J0058-22RE1	Sediment	EPA 8081B	09/30/19 15:05	10/06/19 08:54	10.26g/10mL	10g/5mL	1.95
A9J0058-23RE1	Sediment	EPA 8081B	09/30/19 15:05	10/06/19 08:54	10.56g/10mL	10g/5mL	1.89

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9100706							
A9J0058-01	Sediment	EPA 8270D	09/30/19 09:09	10/06/19 07:51	10.61g/5mL	10g/5mL	0.94
A9J0058-02	Sediment	EPA 8270D	09/30/19 09:48	10/06/19 07:51	10.23g/5mL	10g/5mL	0.98
A9J0058-03	Sediment	EPA 8270D	09/30/19 09:48	10/06/19 07:51	10.41g/5mL	10g/5mL	0.96
A9J0058-04	Sediment	EPA 8270D	09/30/19 10:39	10/06/19 07:51	10.83g/5mL	10g/5mL	0.92
A9J0058-05	Sediment	EPA 8270D	09/30/19 09:15	10/06/19 07:51	10.73g/5mL	10g/5mL	0.93
A9J0058-06	Sediment	EPA 8270D	09/30/19 09:16	10/06/19 07:51	10.49g/5mL	10g/5mL	0.95
A9J0058-07	Sediment	EPA 8270D	09/30/19 09:17	10/06/19 07:51	10.19g/5mL	10g/5mL	0.98
A9J0058-08	Sediment	EPA 8270D	09/30/19 09:18	10/06/19 07:51	10.09g/5mL	10g/5mL	0.99
A9J0058-09	Sediment	EPA 8270D	09/30/19 13:44	10/06/19 07:51	10.61g/5mL	10g/5mL	0.94
A9J0058-10	Sediment	EPA 8270D	09/30/19 13:59	10/06/19 07:51	10.86g/5mL	10g/5mL	0.92
A9J0058-11	Sediment	EPA 8270D	09/30/19 13:45	10/06/19 07:51	10.21g/5mL	10g/5mL	0.98
A9J0058-12	Sediment	EPA 8270D	09/30/19 13:46	10/06/19 07:51	10.36g/5mL	10g/5mL	0.97
Batch: 9100712							
A9J0058-13	Sediment	EPA 8270D	09/30/19 14:02	10/07/19 06:54	10.67g/5mL	10g/5mL	0.94
A9J0058-14	Sediment	EPA 8270D	09/30/19 13:45	10/07/19 06:54	10.36g/5mL	10g/5mL	0.97
A9J0058-15	Sediment	EPA 8270D	09/30/19 11:22	10/07/19 06:54	10.24g/5mL	10g/5mL	0.98
A9J0058-16	Sediment	EPA 8270D	09/30/19 12:42	10/07/19 06:54	10.33g/5mL	10g/5mL	0.97
A9J0058-17	Sediment	EPA 8270D	09/30/19 12:29	10/07/19 06:54	10.17g/5mL	10g/5mL	0.98
A9J0058-18	Sediment	EPA 8270D	09/30/19 12:05	10/07/19 06:54	10.29g/5mL	10g/5mL	0.97
A9J0058-19	Sediment	EPA 8270D	09/30/19 12:06	10/07/19 06:54	10.51g/5mL	10g/5mL	0.95
A9J0058-20	Sediment	EPA 8270D	09/30/19 12:06	10/07/19 06:54	10.19g/5mL	10g/5mL	0.98

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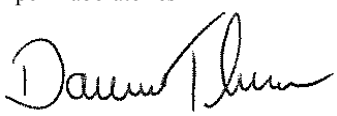

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

SAMPLE PREPARATION INFORMATION

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A9J0058-21	Sediment	EPA 8270D	09/30/19 12:07	10/07/19 06:54	10.54g/5mL	10g/5mL	0.95
A9J0058-22	Sediment	EPA 8270D	09/30/19 15:05	10/07/19 06:54	10.37g/5mL	10g/5mL	0.96
A9J0058-23	Sediment	EPA 8270D	09/30/19 15:05	10/07/19 06:54	10.85g/5mL	10g/5mL	0.92
A9J0058-24	Sediment	EPA 8270D	09/30/19 15:15	10/07/19 06:54	10.21g/5mL	10g/5mL	0.98
A9J0058-25	Sediment	EPA 8270D	09/30/19 15:06	10/07/19 06:54	10.97g/5mL	10g/5mL	0.91
A9J0058-26	Sediment	EPA 8270D	09/30/19 15:07	10/07/19 06:54	10.34g/5mL	10g/5mL	0.97

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: 9100666							
A9J0058-04	Sediment	EPA 6020A	09/30/19 10:39	10/04/19 10:27	0.485g/50mL	0.5g/50mL	1.03
A9J0058-05	Sediment	EPA 6020A	09/30/19 09:15	10/04/19 10:27	0.504g/50mL	0.5g/50mL	0.99
A9J0058-06	Sediment	EPA 6020A	09/30/19 09:16	10/04/19 10:27	0.514g/50mL	0.5g/50mL	0.97
A9J0058-07	Sediment	EPA 6020A	09/30/19 09:17	10/04/19 10:27	0.497g/50mL	0.5g/50mL	1.01
A9J0058-08	Sediment	EPA 6020A	09/30/19 09:18	10/04/19 10:27	0.486g/50mL	0.5g/50mL	1.03
A9J0058-11	Sediment	EPA 6020A	09/30/19 13:45	10/04/19 10:27	0.495g/50mL	0.5g/50mL	1.01
A9J0058-12	Sediment	EPA 6020A	09/30/19 13:46	10/04/19 10:27	0.509g/50mL	0.5g/50mL	0.98
A9J0058-13	Sediment	EPA 6020A	09/30/19 14:02	10/04/19 10:27	0.503g/50mL	0.5g/50mL	0.99
A9J0058-14	Sediment	EPA 6020A	09/30/19 13:45	10/04/19 10:27	0.493g/50mL	0.5g/50mL	1.01
A9J0058-17	Sediment	EPA 6020A	09/30/19 12:29	10/04/19 10:27	0.485g/50mL	0.5g/50mL	1.03
Batch: 9100841							
A9J0058-18	Sediment	EPA 6020A	09/30/19 12:05	10/09/19 07:37	0.471g/50mL	0.5g/50mL	1.06
A9J0058-19	Sediment	EPA 6020A	09/30/19 12:06	10/09/19 07:37	0.483g/50mL	0.5g/50mL	1.04
A9J0058-20	Sediment	EPA 6020A	09/30/19 12:06	10/09/19 07:37	0.519g/50mL	0.5g/50mL	0.96
A9J0058-21	Sediment	EPA 6020A	09/30/19 12:07	10/09/19 07:37	0.482g/50mL	0.5g/50mL	1.04
A9J0058-24	Sediment	EPA 6020A	09/30/19 15:15	10/09/19 07:37	0.508g/50mL	0.5g/50mL	0.98
A9J0058-25	Sediment	EPA 6020A	09/30/19 15:06	10/09/19 07:37	0.509g/50mL	0.5g/50mL	0.98
A9J0058-26	Sediment	EPA 6020A	09/30/19 15:07	10/09/19 07:37	0.491g/50mL	0.5g/50mL	1.02

Demand Parameters

Prep: PSEP-5310B TOC

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9100674							
A9J0058-01RE1	Sediment	SM 5310 B MOD	09/30/19 09:09	10/03/19 15:25			NA

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Darwin Thomas, Business Development Director

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

SAMPLE PREPARATION INFORMATION

Demand Parameters

Prep: PSEP-5310B TOC

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A9J0058-02RE1	Sediment	SM 5310 B MOD	09/30/19 09:48	10/03/19 15:25			NA
A9J0058-03RE1	Sediment	SM 5310 B MOD	09/30/19 09:48	10/03/19 15:25			NA
A9J0058-04RE1	Sediment	SM 5310 B MOD	09/30/19 10:39	10/03/19 15:25			NA
A9J0058-05RE1	Sediment	SM 5310 B MOD	09/30/19 09:15	10/03/19 15:25			NA
A9J0058-06RE1	Sediment	SM 5310 B MOD	09/30/19 09:16	10/03/19 15:25			NA
A9J0058-07RE1	Sediment	SM 5310 B MOD	09/30/19 09:17	10/03/19 15:25			NA
A9J0058-08RE1	Sediment	SM 5310 B MOD	09/30/19 09:18	10/03/19 15:25			NA
A9J0058-09RE1	Sediment	SM 5310 B MOD	09/30/19 13:44	10/03/19 15:25			NA
A9J0058-12RE1	Sediment	SM 5310 B MOD	09/30/19 13:46	10/03/19 15:25			NA
Batch: 9100676							
A9J0058-10	Sediment	SM 5310 B MOD	09/30/19 13:59	10/03/19 15:25			NA
A9J0058-11	Sediment	SM 5310 B MOD	09/30/19 13:45	10/03/19 15:25			NA
A9J0058-13	Sediment	SM 5310 B MOD	09/30/19 14:02	10/03/19 15:25			NA
A9J0058-14	Sediment	SM 5310 B MOD	09/30/19 13:45	10/03/19 15:25			NA
A9J0058-15	Sediment	SM 5310 B MOD	09/30/19 11:22	10/03/19 15:25			NA
A9J0058-16	Sediment	SM 5310 B MOD	09/30/19 12:42	10/03/19 15:25			NA
A9J0058-17	Sediment	SM 5310 B MOD	09/30/19 12:29	10/03/19 15:25			NA
A9J0058-18	Sediment	SM 5310 B MOD	09/30/19 12:05	10/03/19 15:25			NA
A9J0058-19	Sediment	SM 5310 B MOD	09/30/19 12:06	10/03/19 15:25			NA
A9J0058-20	Sediment	SM 5310 B MOD	09/30/19 12:06	10/03/19 15:25			NA
Batch: 9100677							
A9J0058-21RE1	Sediment	SM 5310 B MOD	09/30/19 12:07	10/04/19 12:01			NA
A9J0058-22RE1	Sediment	SM 5310 B MOD	09/30/19 15:05	10/04/19 12:01			NA
A9J0058-23RE1	Sediment	SM 5310 B MOD	09/30/19 15:05	10/04/19 12:01			NA
A9J0058-24RE1	Sediment	SM 5310 B MOD	09/30/19 15:15	10/04/19 12:01			NA
A9J0058-25RE1	Sediment	SM 5310 B MOD	09/30/19 15:06	10/04/19 12:01			NA
A9J0058-26RE1	Sediment	SM 5310 B MOD	09/30/19 15:07	10/04/19 12:01			NA

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: 9100574							
A9J0058-01	Sediment	SM 2540 G	09/30/19 09:09	10/02/19 17:09			NA
A9J0058-02	Sediment	SM 2540 G	09/30/19 09:48	10/02/19 17:09			NA
A9J0058-03	Sediment	SM 2540 G	09/30/19 09:48	10/02/19 17:09			NA

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

SAMPLE PREPARATION INFORMATION

Solid and Moisture Determinations

Prep: Total Solids (SM2540G/PSEP)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A9J0058-04	Sediment	SM 2540 G	09/30/19 10:39	10/02/19 17:09			NA
A9J0058-05	Sediment	SM 2540 G	09/30/19 09:15	10/02/19 17:09			NA
A9J0058-06	Sediment	SM 2540 G	09/30/19 09:16	10/02/19 17:09			NA
A9J0058-07	Sediment	SM 2540 G	09/30/19 09:17	10/02/19 17:09			NA
A9J0058-08	Sediment	SM 2540 G	09/30/19 09:18	10/02/19 17:09			NA
A9J0058-09	Sediment	SM 2540 G	09/30/19 13:44	10/02/19 17:09			NA
A9J0058-10	Sediment	SM 2540 G	09/30/19 13:59	10/02/19 17:09			NA
A9J0058-11	Sediment	SM 2540 G	09/30/19 13:45	10/02/19 17:09			NA
A9J0058-12	Sediment	SM 2540 G	09/30/19 13:46	10/02/19 17:09			NA
A9J0058-13	Sediment	SM 2540 G	09/30/19 14:02	10/02/19 17:09			NA
A9J0058-14	Sediment	SM 2540 G	09/30/19 13:45	10/02/19 17:09			NA
A9J0058-15	Sediment	SM 2540 G	09/30/19 11:22	10/02/19 17:09			NA
A9J0058-16	Sediment	SM 2540 G	09/30/19 12:42	10/02/19 17:09			NA
A9J0058-17	Sediment	SM 2540 G	09/30/19 12:29	10/02/19 17:09			NA
A9J0058-18	Sediment	SM 2540 G	09/30/19 12:05	10/02/19 17:09			NA
A9J0058-19	Sediment	SM 2540 G	09/30/19 12:06	10/02/19 17:09			NA
A9J0058-20	Sediment	SM 2540 G	09/30/19 12:06	10/02/19 17:09			NA
Batch: 9100575							
A9J0058-21	Sediment	SM 2540 G	09/30/19 12:07	10/02/19 17:15			NA
A9J0058-22	Sediment	SM 2540 G	09/30/19 15:05	10/02/19 17:15			NA
A9J0058-23	Sediment	SM 2540 G	09/30/19 15:05	10/02/19 17:15			NA
A9J0058-24	Sediment	SM 2540 G	09/30/19 15:15	10/02/19 17:15			NA
A9J0058-25	Sediment	SM 2540 G	09/30/19 15:06	10/02/19 17:15			NA
A9J0058-26	Sediment	SM 2540 G	09/30/19 15:07	10/02/19 17:15			NA

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

QUALIFIER DEFINITIONS

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

Apex Laboratories

A-01	Closing CCB failed method criteria (high). BS passes method limits.
AMEND	Result for this sample or analyte has been amended from the original report. See Case Narrative for details.
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.
C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
J	Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
Q-16	Reanalysis of an original Batch QC sample.
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
S-06	Surrogate recovery is outside of established control limits.

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6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

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

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

NR Result Not Reported

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

Detection Limits: Limit of Detection (LOD)

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

Reporting Limits: Limit of Quantitation (LOQ)

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

Reporting Conventions:

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

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

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

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

QC Source:

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

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

Miscellaneous Notes:

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

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

Blanks:

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

Apex Laboratories

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Darwin Thomas, Business Development Director

Apex Laboratories, LLC

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

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

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

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

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

Soil and Sediment Samples:

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

Sampling and Preservation Notes:

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

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

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

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

Apex Laboratories

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Apex Laboratories, LLC

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EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

LABORATORY ACCREDITATION INFORMATION

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

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

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

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

Secondary Accreditations

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

Subcontract Laboratory Accreditations

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

Field Testing Parameters

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

Apex Laboratories

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503-718-2323
EPA ID: OR01039

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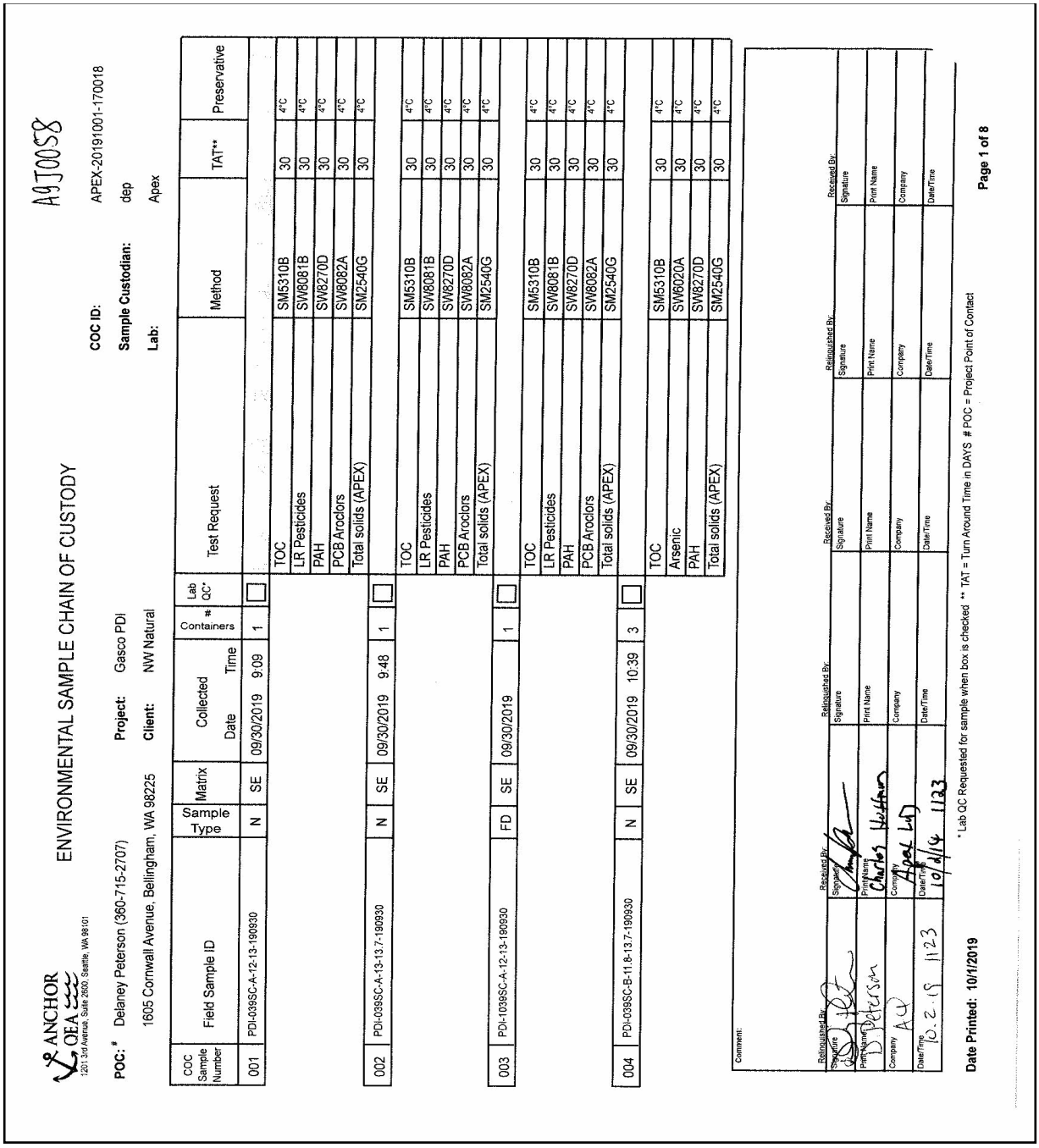
Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**



A9J0058

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

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

COC ID: APEX-20191001-170018
Sample Custodian: dep
Lab: Apex

POC: # Delaney Peterson (360-715-2707) Project: Gasco PDI
1605 Cornwall Avenue, Bellingham, WA 98225 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-039SC-A-12-13-190930	N	SE	09/30/2019	9:09	1	☐	TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
002	PDI-039SC-A-13-13.7-190930	N	SE	09/30/2019	9:48	1	☐	TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
003	PDI-039SC-A-12-13-180930	FD	SE	09/30/2019		1	☐	TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
004	PDI-039SC-B-11.8-13.7-190930	N	SE	09/30/2019	10:39	3	☐	TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C

Comment:

Relinquished By: Signature / Print Name / Company / Date/Time — Received By: Signature / Print Name / Company / Date/Time: 10.2.19 1123

Relinquished By: Signature / Print Name: D Peterson / Company: AQ / Date/Time — Received By: Signature / Print Name: Charles Hudson / Company: Apex LD / Date/Time: 10/4/19 1123

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

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

Date Printed: 10/1/2019

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

Page 1 of 8

Apex Laboratories

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Darwin Thomas, Business Development Director

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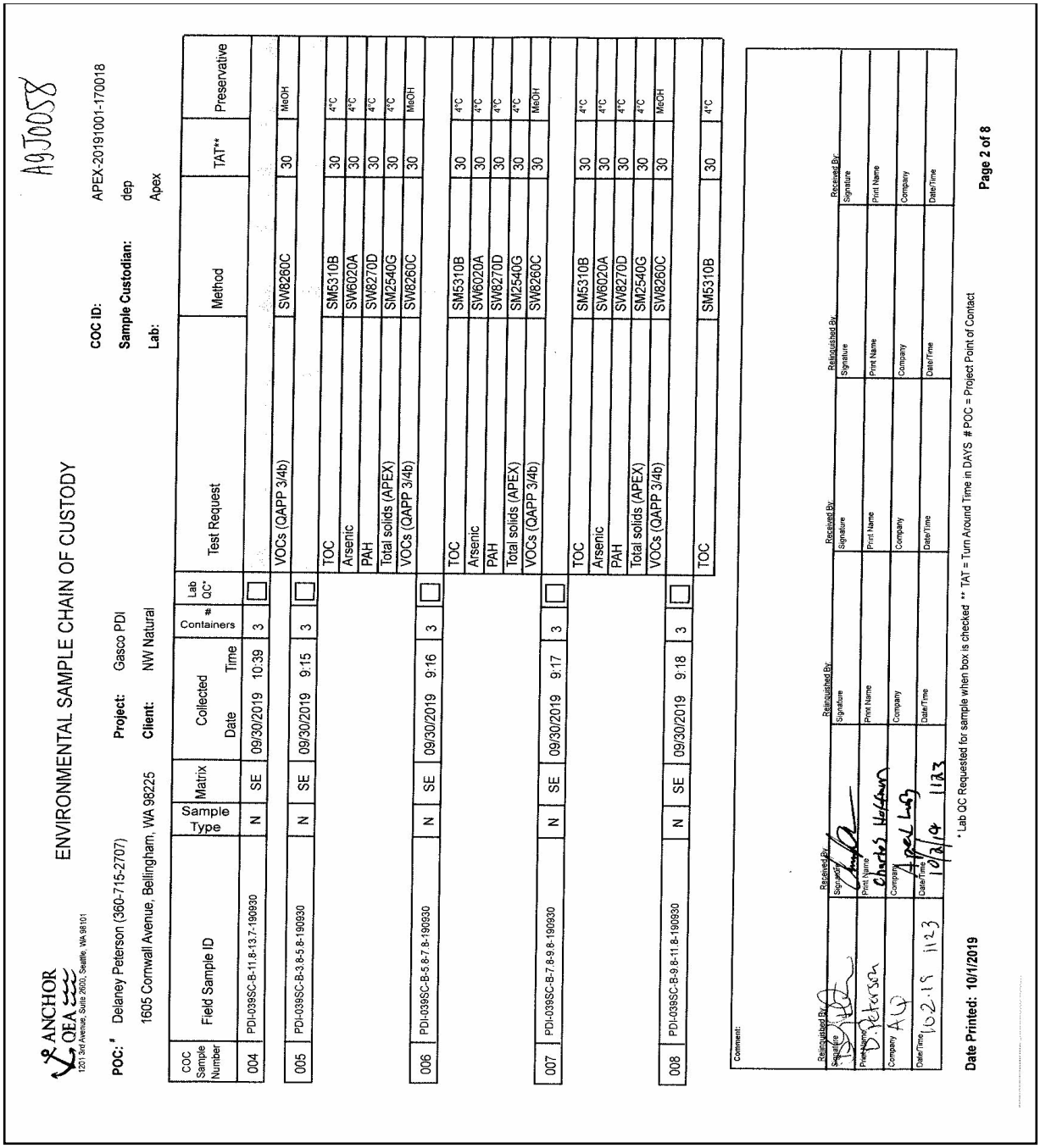
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

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

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225
Project: Gasco PDI
Client: NW Natural
COC ID: APEX-20191001-170018
Sample Custodian: dep
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
004	PDI-039SC-B-11.8-13.7-190930	N	SE	09/30/2019	10:39	3	☐	VOCs (QAPP 3/4b)	SW8260C	30	MeOH
005	PDI-039SC-B-3.8-5.8-190930	N	SE	09/30/2019	9:15	3	☐	TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
006	PDI-039SC-B-5.8-7.8-190930	N	SE	09/30/2019	9:16	3	☐	TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
007	PDI-039SC-B-7.8-9.8-190930	N	SE	09/30/2019	9:17	3	☐	TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
008	PDI-039SC-B-9.8-11.8-190930	N	SE	09/30/2019	9:18	3	☐	TOC	SM5310B	30	4°C

Comment:

Relinquished By: Signature / Print Name: D Peterson / Company: AQ / Date/Time: 10.2.19 1123
Received By: Signature / Print Name: Charles Hutchison / Company: / Date/Time:
Relinquished By: Signature / Print Name: Angel Lugo / Company: / Date/Time: 10/3/19 1133
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: 10/1/2019

Page 2 of 8

Apex Laboratories

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

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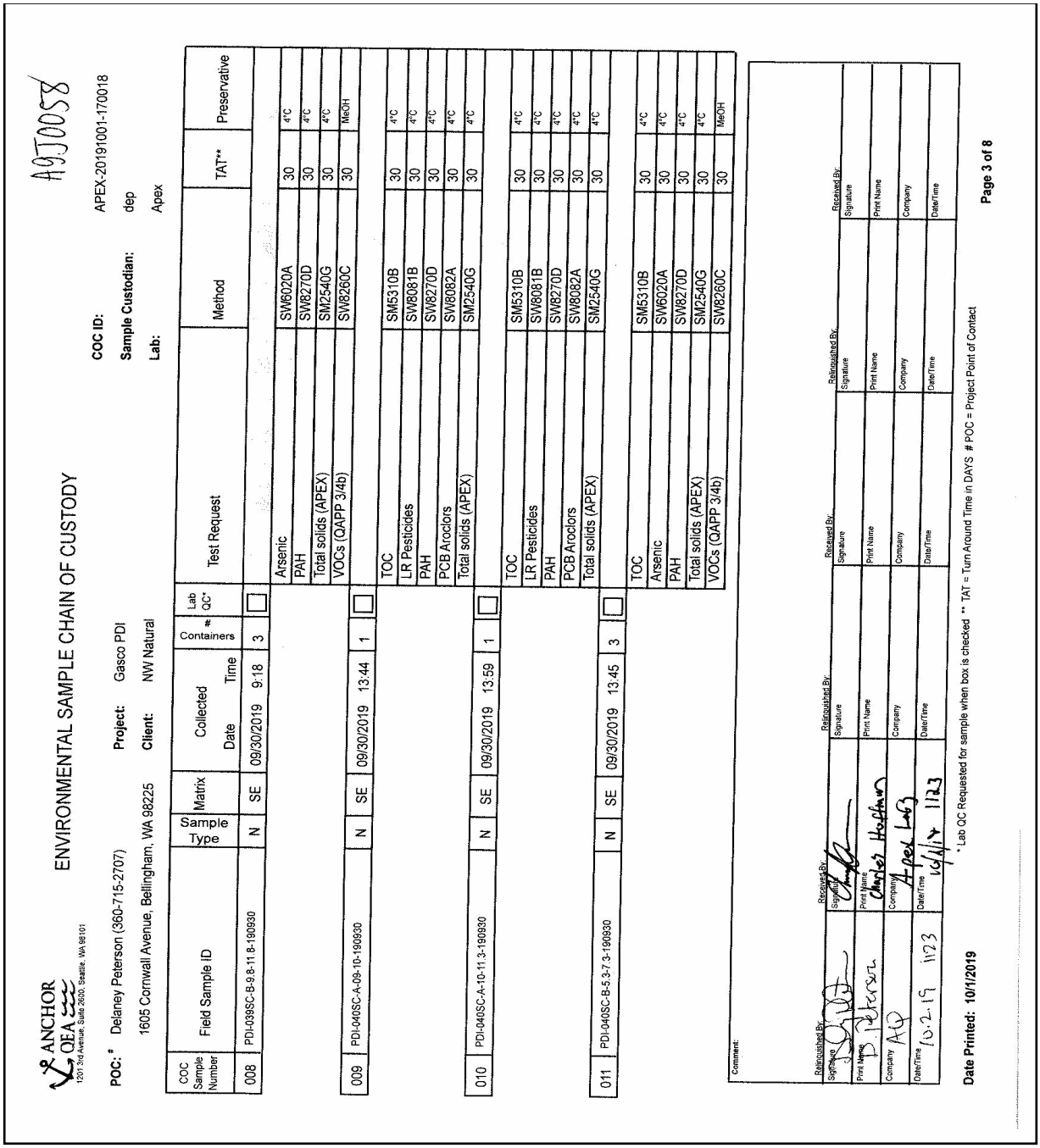
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

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

POC: # Delaney Peterson (360-715-2707) Project: Gasco PDI COC ID: APEX-20191001-170018
1605 Cornwall Avenue, Bellingham, WA 98225 Client: NW Natural Sample Custodian: dep
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
008	PDI-039SC-B-9.8-11.8-190930	N	SE	09/30/2019	9:18	3		Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
009	PDI-040SC-A-09-10-190930	N	SE	09/30/2019	13:44	1		TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
010	PDI-040SC-A-10-11.3-190930	N	SE	09/30/2019	13:59	1		TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
011	PDI-040SC-B-5.3-7.3-190930	N	SE	09/30/2019	13:45	3		TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH

Comment:

Relinquished By: Signature / Print Name: Delaney Peterson / Company: AQ / Date/Time: 10.2.19 1123
Received By: Signature / Print Name: Chester Hoffman / Company: Apex Labs / Date/Time: 10/4/19 1123
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

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Apex Laboratories

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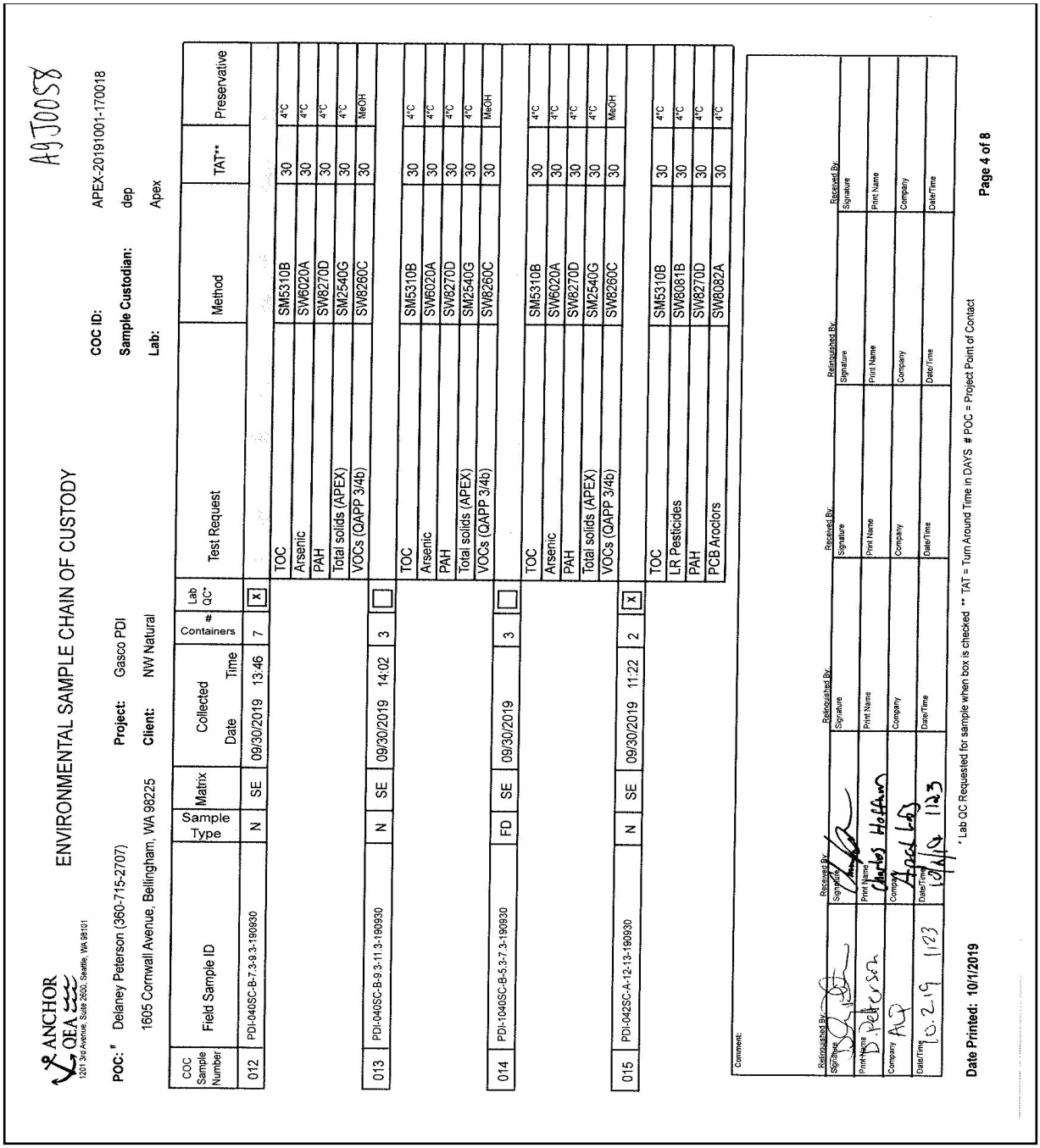
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

AMENDED REPORT

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

Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**
Project Number: **[none]**
Project Manager: **Ryan Barth**

Report ID:
A9J0058 - 11 20 19 1333



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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225
Project: Gasco PDI
Client: NW Natural
COC ID: APEX-20191001-170018
Sample Custodian: dep
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
012	PDI-040SC-B-7.3-9.3-190930	N	SE	09/30/2019	13:46	7	X	TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
013	PDI-040SC-B-9.3-11.3-190930	N	SE	09/30/2019	14:02	3		TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
014	PDI-1040SC-B-5.3-7.3-190930	FD	SE	09/30/2019		3		TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
015	PDI-042SC-A-12-13-190930	N	SE	09/30/2019	11:22	2	X	TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C

Comment:

Relinquished By: Signature / Print Name: B. Peterson / Company: AQ / Date/Time: 10.2.19 1123
Received By: Signature / Print Name: Charles Hoffman / Company: Apex Lab / Date/Time: 10/2/19 1123
Relinquished By: Signature / Print Name / Company / Date/Time
Received By: Signature / Print Name / Company / Date/Time
Relinquished By: Signature / Print Name / Company / Date/Time
Received By: Signature / Print Name / Company / Date/Time

Date Printed: 10/1/2019

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

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Apex Laboratories

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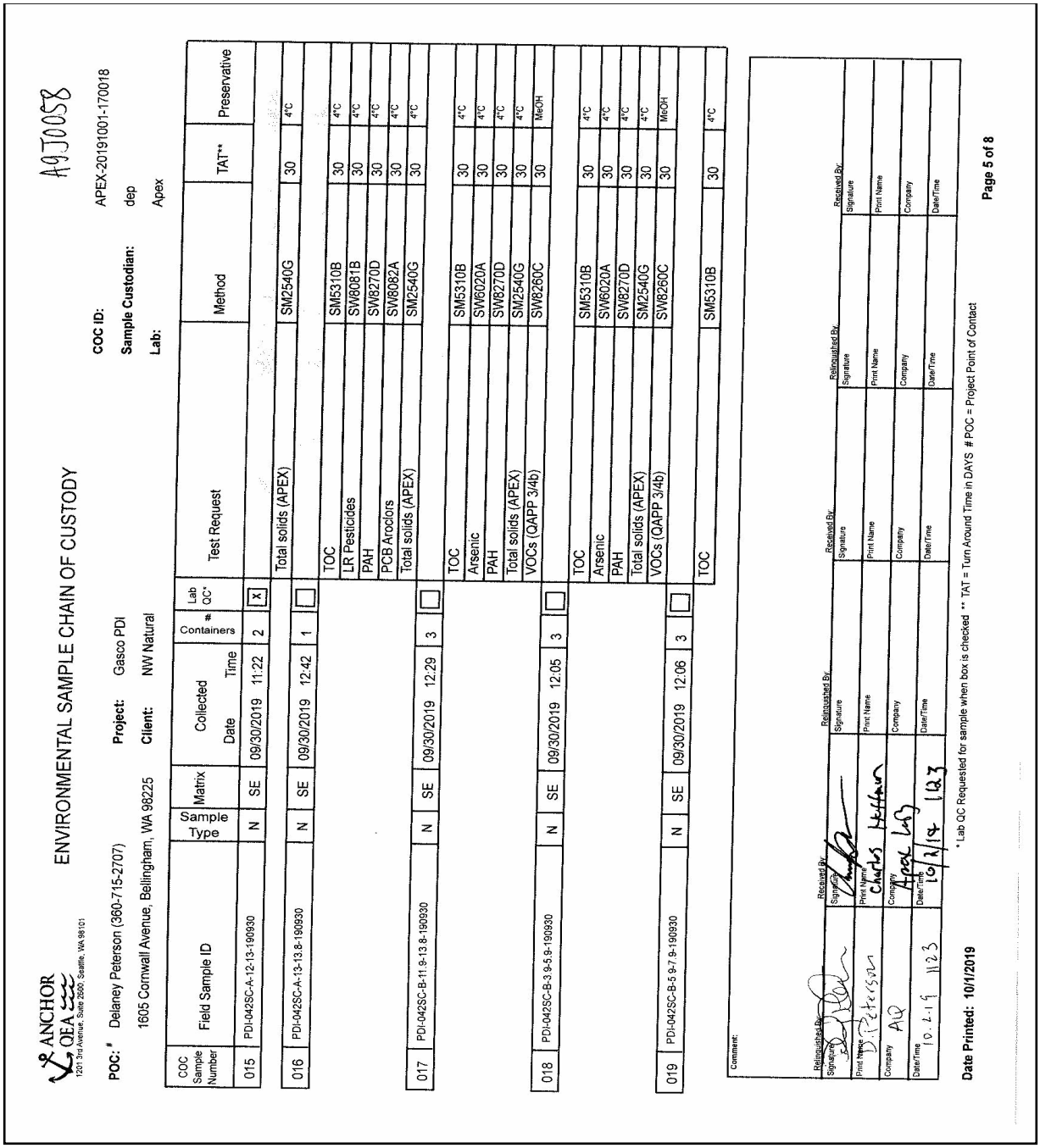
503-718-2323
EPA ID: OR01039

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

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

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

COC ID: APEX-20191001-170018 | Sample Custodian: dep | Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
015	PDI-042SC-A-12-13-190930	N	SE	09/30/2019	11:22	2	X	Total solids (APEX)	SM2540G	30	4°C
016	PDI-042SC-A-13-13.8-190930	N	SE	09/30/2019	12:42	1		TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
017	PDI-042SC-B-11.9-13.8-190930	N	SE	09/30/2019	12:29	3		TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
018	PDI-042SC-B-3.9-5.9-190930	N	SE	09/30/2019	12:05	3		TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
019	PDI-042SC-B-5.9-7.9-190930	N	SE	09/30/2019	12:06	3		TOC	SM5310B	30	4°C

Comment:

Relinquished By: Signature, Print Name: D. Peterson, Company: AQ, Date/Time: 10.4.19 1123
Received By: Signature, Print Name: Charles Heffron, Company: Apex Lab, Date/Time: 10/4/19 1123
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

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EPA ID: OR01039

AMENDED REPORT

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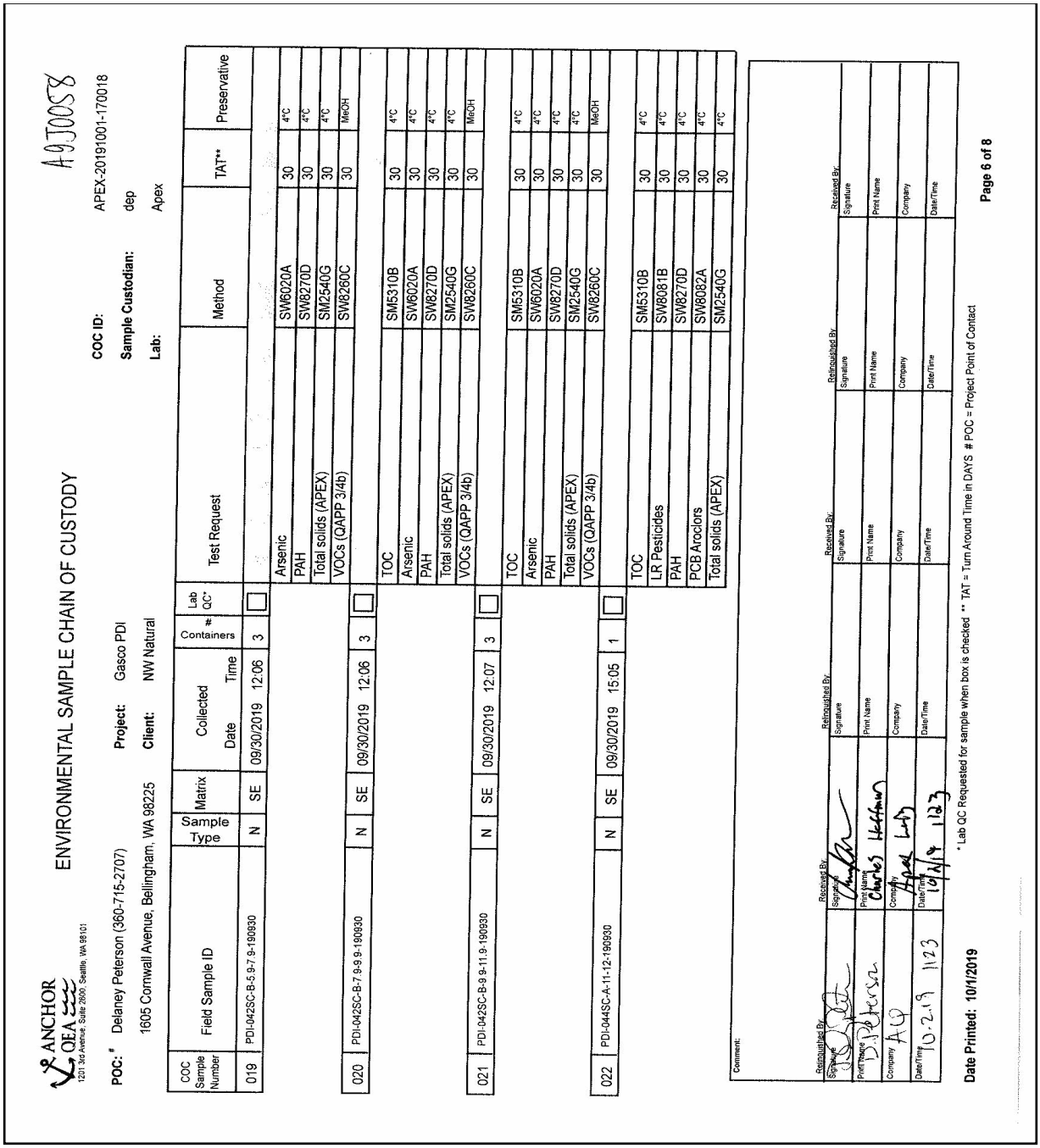
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

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

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225
Project: Gasco PDI
Client: NW Natural
COC ID: APEX-20191001-170018
Sample Custodian: dep
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
019	PDI-042SC-B-5.9-7.9-190930	N	SE	09/30/2019	12:06	3		Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
020	PDI-042SC-B-7.9-9.9-190930	N	SE	09/30/2019	12:06	3		TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
021	PDI-042SC-B-9.9-11.9-190930	N	SE	09/30/2019	12:07	3		TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
022	PDI-044SC-A-11-12-190930	N	SE	09/30/2019	15:05	1		TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C

Comment:

Relinquished By: Signature / Print Name: Delaney Peterson / Company: AQ / Date/Time: 10.2.19 1123
Received By: Signature / Print Name: Charles Heffner / Company: Apex Lab / Date/Time: 10/1/19 1123
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: 10/1/2019

Page 6 of 8

Apex Laboratories

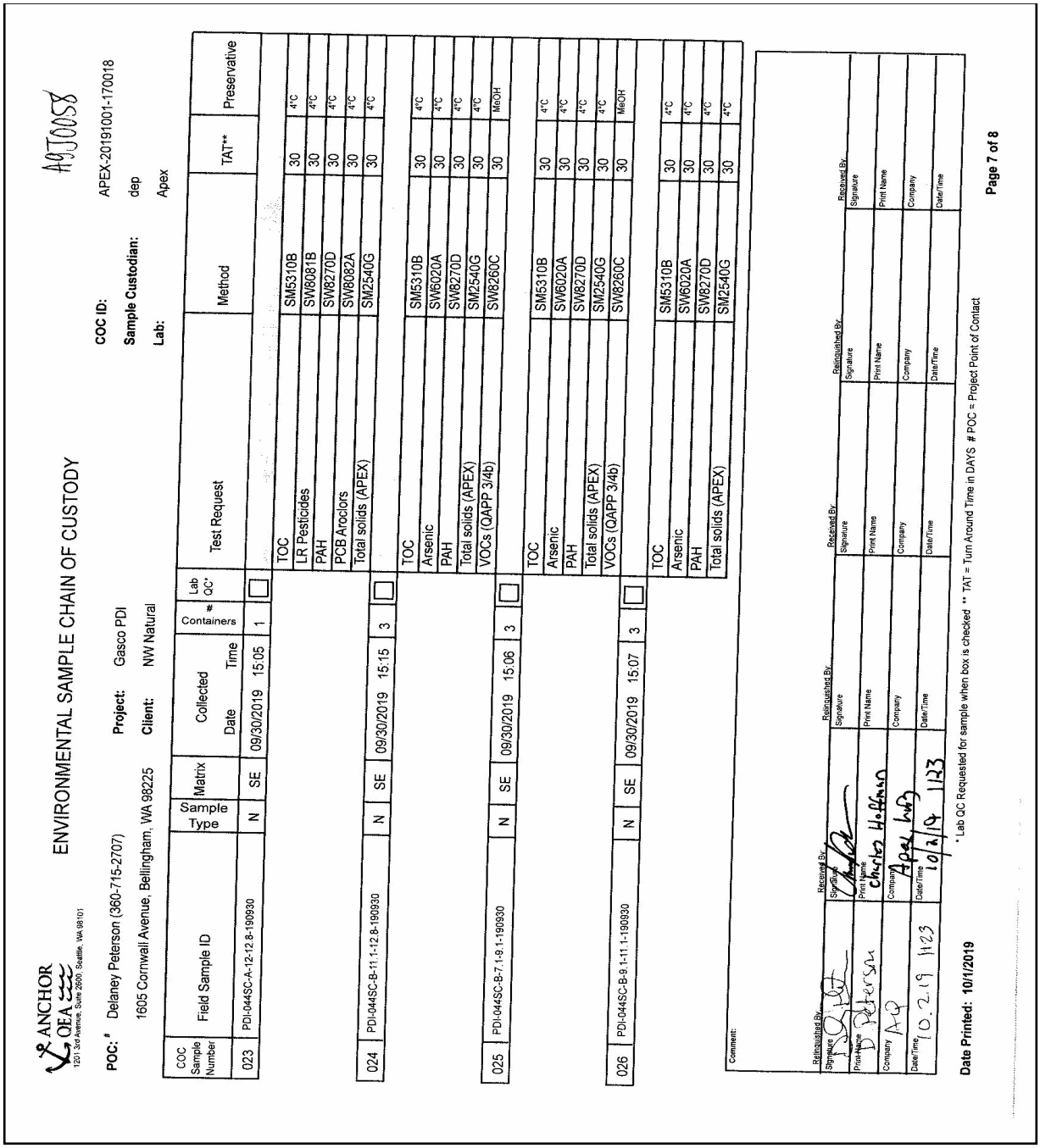
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

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

POC: Delaney Peterson (360-715-2707) | Project: Gasco PDI | COC ID: APEX-20191001-170018
1605 Cornwall Avenue, Bellingham, WA 98225 | Client: NW Natural | Sample Custodian: dep | Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
023	PDI-044SC-A-12-12.8-190930	N	SE	09/30/2019	15:05	1		TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
024	PDI-044SC-B-11.1-12.8-190930	N	SE	09/30/2019	15:15	3		TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
025	PDI-044SC-B-7.1-9.1-190930	N	SE	09/30/2019	15:06	3		TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
026	PDI-044SC-B-9.1-11.1-190930	N	SE	09/30/2019	15:07	3		TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C

Comment:

Relinquished By: Signature / Print Name: D Peterson / Company: Apex / Date/Time: 10.2.19 1123
Received By: Signature / Print Name: Charles Hallinan / Company: Apex LWG / Date/Time: 10/2/19 1123
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: 10/1/2019

Page 7 of 8

Apex Laboratories

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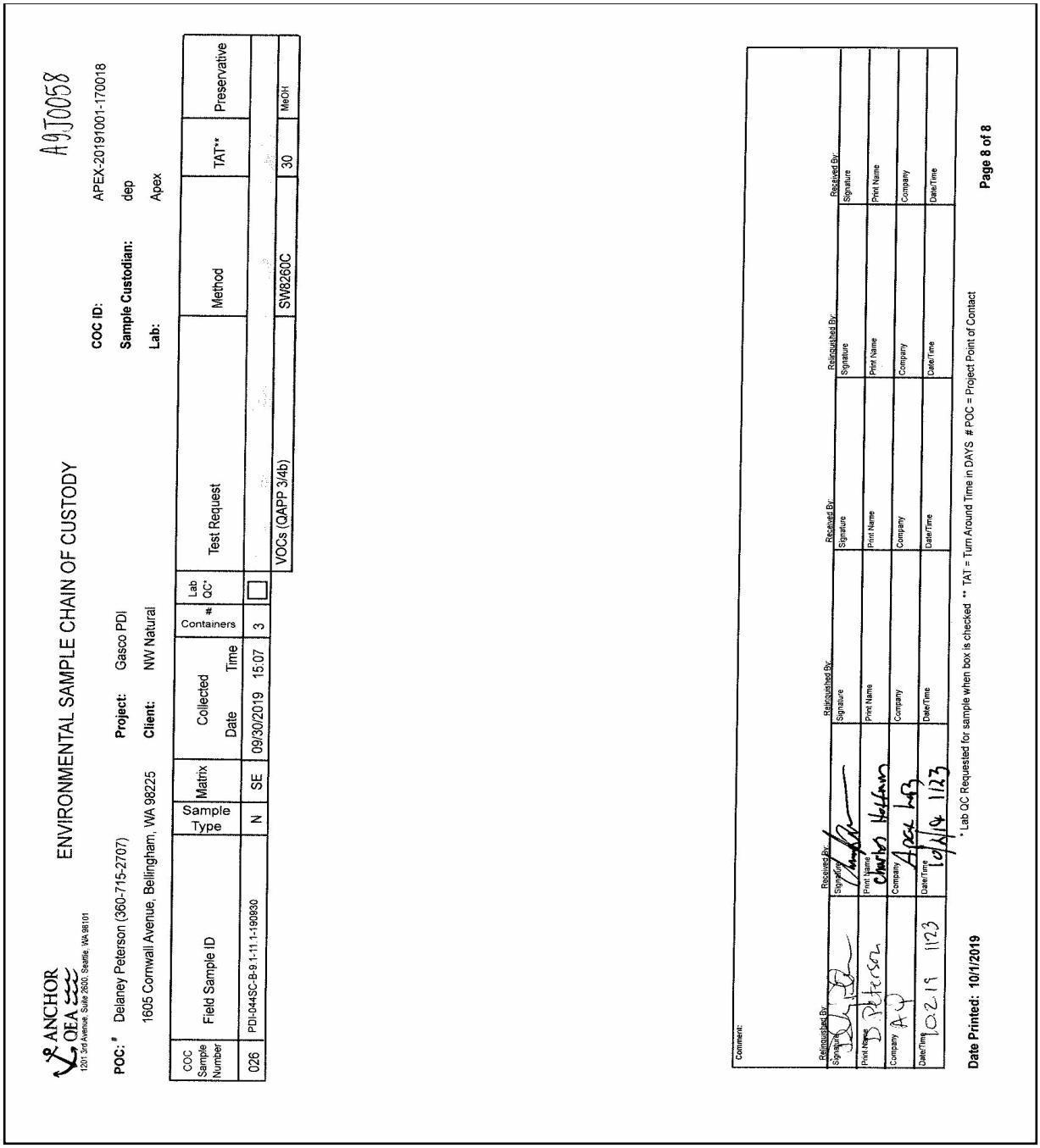
Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

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

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

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20191001-170018
Sample Custodian: dep
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
026	PDI-044SC-B-9.1-11.1-190830	N	SE	09/30/2019	15:07	3	☐	VOCs (QAPP 3/4b)	SW8260C	30	MeOH

Comment:

Relinquished By: Signature / Print Name: D Peterson / Company: AQ / Date/Time: 10.2.19 1123
Received By: Signature / Print Name: Chris Hoffman / Company: Apex Lab / Date/Time: 10/4/19 1123
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: 10/1/2019

Page 8 of 8

Apex Laboratories

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Darwin Thomas, Business Development Director

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

AMENDED REPORT

Anchor QEA, LLC	Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**	
6720 SW Macadam Ave. Suite 125	Project Number: **[none]**	**Report ID:**
Portland, OR 97219	Project Manager: **Ryan Barth**	**A9J0058 - 11 20 19 1333**

APEX LABS COOLER RECEIPT FORM

Client: Anchor Element WO#: A9 J0058

Project/Project #: Gasco PDI

Delivery Info:

Date/time received: 10/2/19 @ 1123 By: CFH

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

Cooler Inspection Date/time inspected: 10/2/19 @ 1246 By: CFH

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

Signed/dated by client? Yes X No

Signed/dated by Apex? Yes X No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.6	5.8	5.0	5.4			
Received on ice? (Y/N)	Y	Y	Y	Y			
Temp. blanks? (Y/N)	Y	Y	Y	N			
Ice type: (Gel/Real/Other)	Real	Real	Real	Real			
Condition:	Good	Good	Good	Good			

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

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

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

Samples Inspection: Date/time inspected: 10/2/19 @ 1400 By:

All samples intact? Yes X No Comments:

Bottle labels/COCs agree? Yes X No Comments:

COC/container discrepancies form initiated? Yes No NA X

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

Do VOA vials have visible headspace? Yes No NA X

Comments

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

Comments:

Additional information:

Labeled by: Witness: Cooler Inspected by: See Project Contact Form: Y

Apex Laboratories

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Darwin Thomas, Business Development Director

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

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

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**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:	10/16/19 17:00 (10 day TAT)		
Received By:	Charles F. Hoffman	Date Received:	10/02/19 11:23
Logged In By:	Susan L. Treat	Date Logged In:	10/02/19 12:49

Cooler #1 received at 2.6°C

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

Cooler #2 received at 5.8°C

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

Cooler #3 received at 5.0°C

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

Cooler #4 received at 5.4°C

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

Analysis	Due	TAT	Expires	Comments
A9J0058-01 PDI-039SC-A-12-13-190930 [Sediment] Sampled 09/30/19 09:09 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 09:09	Use Results from TS. Make NR once completed.
Project Mgmt				
Data Package	11/27/19 17:00	10	01/07/20 09:09	
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 09:09	3 months
Semivols (ECD)				
8081B 2,4+4,4-DDx Only (+Add)	10/15/19 17:00	10	10/14/19 09:09	MDL. Use Custom Spike.
8082 PCBs - Low Level (30g/2mL)	10/15/19 17:00	10	09/29/20 09:09	+1262,1268
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 09:09	
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 09:09	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 09:09	

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A9J0058-02 PDI-039SC-A-13-13.7-190930 [Sediment] Sampled 09/30/19 09:48 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 09:48	Use Results from TS. Make NR once completed.
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 09:48	3 months
Semivols (ECD)				
8081B 2,4+4,4-DDx Only (+Add)	10/15/19 17:00	10	10/14/19 09:48	MDL. Use Custom Spike.
8082 PCBs - Low Level (30g/2mL)	10/15/19 17:00	10	09/29/20 09:48	+1262,1268
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 09:48	
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 09:48	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 09:48	
A9J0058-03 PDI-1039SC-A-12-13-190930 [Sediment] Sampled 09/30/19 09:48 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				**No T on CoC, container reads T of 0948**
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 09:48	Use Results from TS. Make NR once completed.
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 09:48	3 months
Semivols (ECD)				
8081B 2,4+4,4-DDx Only (+Add)	10/15/19 17:00	10	10/14/19 09:48	MDL. Use Custom Spike.
8082 PCBs - Low Level (30g/2mL)	10/15/19 17:00	10	09/29/20 09:48	+1262,1268
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 09:48	
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 09:48	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 09:48	

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A9J0058-04 PDI-039SC-B-11.8-13.7-190930 [Sediment] Sampled 09/30/19 10:39 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 10:39	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 10:39	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 10:39	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 10:39	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 10:39	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 10:39	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 10:39	
A9J0058-05 PDI-039SC-B-3.8-5.8-190930 [Sediment] Sampled 09/30/19 09:15 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 09:15	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 09:15	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 09:15	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 09:15	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 09:15	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 09:15	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 09:15	

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A9J0058-06 PDI-039SC-B-5.8-7.8-190930 [Sediment] Sampled 09/30/19 09:16 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 09:16	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 09:16	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 09:16	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 09:16	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 09:16	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 09:16	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 09:16	
A9J0058-07 PDI-039SC-B-7.8-9.8-190930 [Sediment] Sampled 09/30/19 09:17 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 09:17	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 09:17	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 09:17	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 09:17	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 09:17	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 09:17	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 09:17	

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A9J0058-08 PDI-039SC-B-9.8-11.8-190930 [Sediment] Sampled 09/30/19 09:18 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 09:18	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 09:18	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 09:18	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 09:18	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 09:18	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 09:18	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 09:18	
A9J0058-09 PDI-040SC-A-09-10-190930 [Sediment] Sampled 09/30/19 13:44 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 13:44	Use Results from TS. Make NR once completed.
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 13:44	3 months
Semivols (ECD)				
8081B 2,4+4,4-DDx Only (+Add)	10/15/19 17:00	10	10/14/19 13:44	MDL. Use Custom Spike.
8082 PCBs - Low Level (30g/2mL)	10/15/19 17:00	10	09/29/20 13:44	+1262,1268
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 13:44	
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 13:44	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 13:44	

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments

Analysis	Due	TAT	Expires	Comments

A9J0058-10 PDI-040SC-A-10-11.3-190930 [Sediment] Sampled 09/30/19 13:59 (GMT-08:00) Pacific Time (US & Canada) 6 Containers

Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 13:59	Use Results from TS. Make NR once completed.
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 13:59	3 months
Semivols (ECD)				
8081B 2,4+4,4-DDx Only (+Add)	10/15/19 17:00	10	10/14/19 13:59	MDL. Use Custom Spike.
8082 PCBs - Low Level (30g/2mL)	10/15/19 17:00	10	09/29/20 13:59	+1262,1268
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 13:59	
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 13:59	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 13:59	

A9J0058-11 PDI-040SC-B-5.3-7.3-190930 [Sediment] Sampled 09/30/19 13:45 (GMT-08:00) Pacific Time (US & Canada) 6 Containers

Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 13:45	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 13:45	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 13:45	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 13:45	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 13:45	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 13:45	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 13:45	

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments

Analysis	Due	TAT	Expires	Comments

A9J0058-12 PDI-040SC-B-7.3-9.3-190930 [Sediment] Sampled 09/30/19 13:46 (GMT-08:00) Pacific Time (US & Canada) 16 Containers

Analysis	Due	TAT	Expires	Comments
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 13:46	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 13:46	MS/MSD, CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 13:46	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 13:46	MS/MSD
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 13:46	MS/MSD/ CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 13:46	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 13:46	MS/MSD

A9J0058-13 PDI-040SC-B-9.3-11.3-190930 [Sediment] Sampled 09/30/19 14:02 (GMT-08:00) Pacific Time (US & Canada) 6 Containers

Analysis	Due	TAT	Expires	Comments
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 14:02	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 14:02	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 14:02	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 14:02	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 14:02	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 14:02	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 14:02	

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A9J0058-14 PDI-1040SC-B-5.3-7.3-190930 [Sediment] Sampled 09/30/19 13:45 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				**No T on CoC, containers read T of 1345**
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 13:45	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 13:45	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 13:45	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 13:45	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 13:45	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 13:45	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 13:45	
A9J0058-15 PDI-042SC-A-12-13-190930 [Sediment] Sampled 09/30/19 11:22 (GMT-08:00) Pacific Time (US & Canada) 14 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 11:22	Use Results from TS. Make NR once completed.
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 11:22	3 months
Semivols (ECD)				
8081B 2,4+4,4-DDx Only (+Add)	10/15/19 17:00	10	10/14/19 11:22	MS/MSD. MDL. Use Custom Spike.
8082 PCBs - Low Level (30g/2mL)	10/15/19 17:00	10	09/29/20 11:22	MS/MSD, +1262,1268
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 11:22	MS/MSD
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 11:22	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 11:22	MS/MSD

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A9J0058-16 PDI-042SC-A-13-13.8-190930 [Sediment] Sampled 09/30/19 12:42 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 12:42	Use Results from TS. Make NR once completed.
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 12:42	3 months
Semivols (ECD)				
8081B 2,4+4,4-DDx Only (+Add)	10/15/19 17:00	10	10/14/19 12:42	MDL. Use Custom Spike..
8082 PCBs - Low Level (30g/2mL)	10/15/19 17:00	10	09/29/20 12:42	+1262,1268
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 12:42	
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 12:42	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 12:42	
A9J0058-17 PDI-042SC-B-11.9-13.8-190930 [Sediment] Sampled 09/30/19 12:29 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 12:29	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 12:29	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 12:29	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 12:29	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 12:29	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 12:29	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 12:29	

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A9J0058-18 PDI-042SC-B-3.9-5.9-190930 [Sediment] Sampled 09/30/19 12:05 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 12:05	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 12:05	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 12:05	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 12:05	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 12:05	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 12:05	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 12:05	
A9J0058-19 PDI-042SC-B-5.9-7.9-190930 [Sediment] Sampled 09/30/19 12:06 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 12:06	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 12:06	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 12:06	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 12:06	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 12:06	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 12:06	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 12:06	

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A9J0058-20 PDI-042SC-B-7.9-9.9-190930 [Sediment] Sampled 09/30/19 12:06 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 12:06	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 12:06	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 12:06	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 12:06	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 12:06	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 12:06	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 12:06	
A9J0058-21 PDI-042SC-B-9.9-11.9-190930 [Sediment] Sampled 09/30/19 12:07 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 12:07	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 12:07	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 12:07	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 12:07	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 12:07	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 12:07	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 12:07	

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A9J0058-22 PDI-044SC-A-11-12-190930 [Sediment] Sampled 09/30/19 15:05 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 15:05	Use Results from TS. Make NR once completed.
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 15:05	3 months
Semivols (ECD)				
8081B 2,4+4,4-DDx Only (+Add)	10/15/19 17:00	10	10/14/19 15:05	MDL. Use Custom Spike..
8082 PCBs - Low Level (30g/2mL)	10/15/19 17:00	10	09/29/20 15:05	+1262,1268
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 15:05	
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 15:05	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 15:05	
A9J0058-23 PDI-044SC-A-12-12.8-190930 [Sediment] Sampled 09/30/19 15:05 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 15:05	Use Results from TS. Make NR once completed.
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 15:05	3 months
Semivols (ECD)				
8081B 2,4+4,4-DDx Only (+Add)	10/15/19 17:00	10	10/14/19 15:05	MDL. Use Custom Spike..
8082 PCBs - Low Level (30g/2mL)	10/15/19 17:00	10	09/29/20 15:05	+1262,1268
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 15:05	
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 15:05	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 15:05	

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A9J0058-24 PDI-044SC-B-11.1-12.8-190930 [Sediment] Sampled 09/30/19 15:15 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 15:15	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 15:15	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 15:15	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 15:15	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 15:15	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 15:15	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 15:15	
A9J0058-25 PDI-044SC-B-7.1-9.1-190930 [Sediment] Sampled 09/30/19 15:06 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 15:06	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 15:06	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 15:06	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 15:06	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 15:06	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 15:06	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 15:06	

A9J0058

Apex Laboratories

Client:	**Anchor QEA, LLC**	**Project Manager:**	**Darwin Thomas**
Project:	**Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires	Comments
Analysis	**Due**	**TAT**	**Expires**	**Comments**
A9J0058-26 PDI-044SC-B-9.1-11.1-190930 [Sediment] Sampled 09/30/19 15:07 (GMT-08:00) Pacific Time (US & Canada) 6 Containers				
Dry Weight				
Dry Weight	10/07/19 17:00	3	03/28/20 15:07	Use Results from TS. Make NR once completed.
Metals				
As (Arsenic) - 6020 - Total	10/15/19 17:00	10	03/28/20 15:07	CAP TESTING/Waters
Sample Control				
Archive Samples - Frozen	01/03/20 17:00	1	10/01/19 15:07	3 months
Semivols (Scan)				
8270D LL PAH Only (Scan)	10/15/19 17:00	10	10/14/19 15:07	
Volatiles				
8260C BTEX+Halo6	10/15/19 17:00	10	10/02/19 15:07	CAP TESTING/Waters
Wet Chem				
Solids, Total (SM 2540 G,B)	10/15/19 17:00	10	03/28/20 15:07	Use Result for Dry Weight.
Total Organic Carbon - Soil (5310 B)	10/15/19 17:00	10	10/28/19 15:07	

Reviewed By

Date

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

COC ID: APEX-20191001-170018

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

Project: Gasco PDI
Client: NW Natural

Sample Custodian: dep
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-039SC-A-12-13-190930	N	SE	09/30/2019	9:09	1	☐				
								TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
002	PDI-039SC-A-13-13.7-190930	N	SE	09/30/2019	9:48	1	☐				
								TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
003	PDI-1039SC-A-12-13-190930	FD	SE	09/30/2019		1	☐				
								TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
004	PDI-039SC-B-11.8-13.7-190930	N	SE	09/30/2019	10:39	3	☐				
								TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name: D. Peterson	Print Name: Charles Huffman	Print Name	Print Name	Print Name	Print Name
Company: AQ	Company: Apex LVJ	Company	Company	Company	Company
Date/Time: 10.2.19 1123	Date/Time: 10/2/19 1123	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 10/1/2019

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

A9J0058

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: APEX-20191001-170018

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

Project: Gasco PDI
Client: NW Natural

Sample Custodian: dep
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
004	PDI-039SC-B-11.8-13.7-190930	N	SE	09/30/2019	10:39	3	☐				
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
005	PDI-039SC-B-3.8-5.8-190930	N	SE	09/30/2019	9:15	3	☐				
								TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
006	PDI-039SC-B-5.8-7.8-190930	N	SE	09/30/2019	9:16	3	☐				
								TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
007	PDI-039SC-B-7.8-9.8-190930	N	SE	09/30/2019	9:17	3	☐				
								TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
008	PDI-039SC-B-9.8-11.8-190930	N	SE	09/30/2019	9:18	3	☐				
								TOC	SM5310B	30	4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name: D. Peterson	Print Name: Charles Hoffman	Print Name	Print Name	Print Name	Print Name
Company: AQ	Company: Apex Labs	Company	Company	Company	Company
Date/Time: 10.2.19 1123	Date/Time: 10/2/19 1123	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 10/1/2019

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

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

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

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20191001-170018
Sample Custodian: dep
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
008	PDI-039SC-B-9.8-11.8-190930	N	SE	09/30/2019	9:18	3	☐				
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
009	PDI-040SC-A-09-10-190930	N	SE	09/30/2019	13:44	1	☐				
								TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
010	PDI-040SC-A-10-11.3-190930	N	SE	09/30/2019	13:59	1	☐				
								TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
011	PDI-040SC-B-5.3-7.3-190930	N	SE	09/30/2019	13:45	3	☐				
								TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name: D. Peterson	Print Name: Charles Hoffman	Print Name	Print Name	Print Name	Print Name
Company: AP	Company: Apex Labs	Company	Company	Company	Company
Date/Time: 10.2.19 1123	Date/Time: 10/2/19 1123	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 10/1/2019

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

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

COC ID: APEX-20191001-170018

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

Project: Gasco PDI
Client: NW Natural

Sample Custodian: dep
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
012	PDI-040SC-B-7.3-9.3-190930	N	SE	09/30/2019	13:46	7	X				
								TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
013	PDI-040SC-B-9.3-11.3-190930	N	SE	09/30/2019	14:02	3					
								TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
014	PDI-1040SC-B-5.3-7.3-190930	FD	SE	09/30/2019		3					
								TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
015	PDI-042SC-A-12-13-190930	N	SE	09/30/2019	11:22	2	X				
								TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name D. Peterson	Print Name Charles Hoffman	Print Name	Print Name	Print Name	Print Name
Company AQP	Company Apex Labs	Company	Company	Company	Company
Date/Time 10.2.19 1123	Date/Time 10/2/19 1123	Date/Time	Date/Time	Date/Time	Date/Time

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

Date Printed: 10/1/2019

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

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

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20191001-170018
Sample Custodian: dep
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
015	PDI-042SC-A-12-13-190930	N	SE	09/30/2019	11:22	2	X	Total solids (APEX)	SM2540G	30	4°C
016	PDI-042SC-A-13-13.8-190930	N	SE	09/30/2019	12:42	1		TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
017	PDI-042SC-B-11.9-13.8-190930	N	SE	09/30/2019	12:29	3		TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
018	PDI-042SC-B-3.9-5.9-190930	N	SE	09/30/2019	12:05	3		TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
019	PDI-042SC-B-5.9-7.9-190930	N	SE	09/30/2019	12:06	3		TOC	SM5310B	30	4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name D. Peterson	Print Name Charles Huffman	Print Name	Print Name	Print Name	Print Name
Company AQ	Company Apex Labs	Company	Company	Company	Company
Date/Time 10.2.19 1123	Date/Time 10/2/19 1123	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 10/1/2019

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

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

COC ID: APEX-20191001-170018

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

Project: Gasco PDI
Client: NW Natural

Sample Custodian: dep
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
019	PDI-042SC-B-5.9-7.9-190930	N	SE	09/30/2019	12:06	3	☐				
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
020	PDI-042SC-B-7.9-9.9-190930	N	SE	09/30/2019	12:06	3	☐				
								TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
021	PDI-042SC-B-9.9-11.9-190930	N	SE	09/30/2019	12:07	3	☐				
								TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
022	PDI-044SC-A-11-12-190930	N	SE	09/30/2019	15:05	1	☐				
								TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name D. Peterson	Print Name Charles Hoffman	Print Name	Print Name	Print Name	Print Name
Company AQ	Company Apex Labs	Company	Company	Company	Company
Date/Time 10.2.19 1123	Date/Time 10/2/19 1123	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 10/1/2019

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

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

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

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20191001-170018
Sample Custodian: dep
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
023	PDI-044SC-A-12-12.8-190930	N	SE	09/30/2019	15:05	1	☐				
								TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
024	PDI-044SC-B-11.1-12.8-190930	N	SE	09/30/2019	15:15	3	☐				
								TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
025	PDI-044SC-B-7.1-9.1-190930	N	SE	09/30/2019	15:06	3	☐				
								TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
026	PDI-044SC-B-9.1-11.1-190930	N	SE	09/30/2019	15:07	3	☐				
								TOC	SM5310B	30	4°C
								Arsenic	SW6020A	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: D Peterson	Signature:	Signature:	Signature:	Signature:	Signature:
Print Name: D Peterson	Print Name: Charles Hoffman	Print Name:	Print Name:	Print Name:	Print Name:
Company: AQ	Company: Apex, LLC	Company:	Company:	Company:	Company:
Date/Time: 10.2.19 1123	Date/Time: 10/2/19 1123	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Date Printed: 10/1/2019

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

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A9J0058

COC ID: APEX-20191001-170018

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

Project: Gasco PDI
Client: NW Natural

Sample Custodian: dep
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
026	PDI-044SC-B-9.1-11.1-190930	N	SE	09/30/2019	15:07	3	☐	VOCs (QAPP 3/4b)	SW8260C	30	MeOH

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name: D. Peterson	Print Name: Charles Hoffman	Print Name	Print Name	Print Name	Print Name
Company: AQ	Company: Apex Labs	Company	Company	Company	Company
Date/Time: 10.2.19 1123	Date/Time: 10/2/19 1123	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 10/1/2019

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

APEX LABS COOLER RECEIPT FORM

Client: Anchor Element WO#: A9 J0058

Project/Project #: Gasco PDI

Delivery Info:

Date/time received: 10/2/19 @ 1123 By: CFH

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

Cooler Inspection Date/time inspected: 10/2/19 @ 1246 By: CFH

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

Signed/dated by client? Yes X No ___

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.6	5.8	5.0	5.4			
Received on ice? (Y/N)	Y	Y	Y	Y			
Temp. blanks? (Y/N)	Y	Y	Y	N			
Ice type: (Gel/Real/Other)	Real	Real	Real	Real			
Condition:	Good	Good	Good	Good			

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

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

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

Samples Inspection: Date/time inspected: 10/2/19 @ 1400 By: ___

All samples intact? Yes X No ___ Comments: ___

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

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

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

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

Comments ___

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

Comments: ___

Additional information: ___

Labeled by: ___ Witness: ___ 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: A9J0058

CLASS: GCMS

METHOD: 5035A/8260C

ANALYSES DATA PACKAGE COVER PAGE

5035A/8260C

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

Client Sample Id:	Lab Sample Id:	Matrix
PDI-039SC-B-11.8-13.7-190930	A9J0058-04	Sediment
PDI-039SC-B-3.8-5.8-190930	A9J0058-05	Sediment
PDI-039SC-B-5.8-7.8-190930	A9J0058-06	Sediment
PDI-039SC-B-7.8-9.8-190930	A9J0058-07	Sediment
PDI-039SC-B-9.8-11.8-190930	A9J0058-08	Sediment
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	Sediment
PDI-040SC-B-7.3-9.3-190930	A9J0058-12	Sediment
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	Sediment
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	Sediment
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	Sediment
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	Sediment
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	Sediment
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	Sediment
PDI-042SC-B-9.9-11.9-190930	A9J0058-21	Sediment
PDI-044SC-B-11.1-12.8-190930	A9J0058-24	Sediment
PDI-044SC-B-7.1-9.1-190930	A9J0058-25	Sediment
PDI-044SC-B-9.1-11.1-190930	A9J0058-26	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: 11/19/2019 4:10PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

5035A/8260C

Laboratory: Apex Laboratories **SDG:** A9J0058

Client: Anchor QEA, LLC **Project:** Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP

Batch Matrix: Soil

Analyte	MDL	MRL	Units
Benzene	5.00	10.0	ug/kg
Toluene	25.0	50.0	ug/kg
Ethylbenzene	12.5	25.0	ug/kg
m,p-Xylene	25.0	50.0	ug/kg
o-Xylene	12.5	25.0	ug/kg
Chlorobenzene	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
Tetrachloroethene (PCE)	12.5	25.0	ug/kg
Trichloroethene (TCE)	12.5	25.0	ug/kg
Vinyl chloride	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-039SC-B-11.8-13.7-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-04	File ID:	VC19100217.D
Sampled:	09/30/19 10:39	Prepared:	09/30/19 10:39	Analyzed:	10/02/19 18:43
Solids:	74.95	Preparation:	EPA 5035A	Initial/Final:	6.05 g / 5 mL
Batch:	9100546	Sequence:	9J02042	Calibration:	A9H2203
Instrument:	VOA-GCMS3				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	7.18	U
108-88-3	Toluene	50	35.9	U
100-41-4	Ethylbenzene	50	18.0	U
179601-23-1	m,p-Xylene	50	35.9	U
95-47-6	o-Xylene	50	18.0	U
108-90-7	Chlorobenzene	50	18.0	U
127-18-4	Tetrachloroethene (PCE)	50	18.0	U
75-35-4	1,1-Dichloroethene	50	18.0	U
79-01-6	Trichloroethene (TCE)	50	18.0	U
156-59-2	cis-1,2-Dichloroethene	50	18.0	U
75-01-4	Vinyl chloride	50	18.0	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	44.5	89	80 - 120	
Toluene-d8 (Surr)	50.0	48.2	96	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	53.6	107	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	108440	5.717	125409	5.714	
Chlorobenzene-d5 (ISTD)	289366	9.458	356514	9.462	
1,4-Dichlorobenzene-d4 (ISTD)	131058	11.478	162538	11.482	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-039SC-B-3.8-5.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-05	File ID:	VC19100218.D
Sampled:	09/30/19 09:15	Prepared:	09/30/19 09:15	Analyzed:	10/02/19 19:10
Solids:	83.50	Preparation:	EPA 5035A	Initial/Final:	5.94 g / 5 mL
Batch:	9100546	Sequence:	9J02042	Calibration:	A9H2203
Instrument:	VOA-GCMS3				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	6.03	U
108-88-3	Toluene	50	30.1	U
100-41-4	Ethylbenzene	50	15.1	U
179601-23-1	m,p-Xylene	50	30.1	U
95-47-6	o-Xylene	50	15.1	U
108-90-7	Chlorobenzene	50	15.1	U
127-18-4	Tetrachloroethene (PCE)	50	15.1	U
75-35-4	1,1-Dichloroethene	50	15.1	U
79-01-6	Trichloroethene (TCE)	50	15.1	U
156-59-2	cis-1,2-Dichloroethene	50	15.1	U
75-01-4	Vinyl chloride	50	15.1	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	45.5	91	80 - 120	
Toluene-d8 (Surr)	50.0	49.4	99	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	52.6	105	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	100579	5.714	125409	5.714	
Chlorobenzene-d5 (ISTD)	266439	9.461	356514	9.462	
1,4-Dichlorobenzene-d4 (ISTD)	118635	11.481	162538	11.482	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-039SC-B-5.8-7.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-06	File ID:	VC19100219.D
Sampled:	09/30/19 09:16	Prepared:	09/30/19 09:16	Analyzed:	10/02/19 19:37
Solids:	86.72	Preparation:	EPA 5035A	Initial/Final:	5.18 g / 5 mL
Batch:	9100546	Sequence:	9J02042	Calibration:	A9H2203
Instrument:	VOA-GCMS3				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	6.33	U
108-88-3	Toluene	50	31.7	U
100-41-4	Ethylbenzene	50	15.8	U
179601-23-1	m,p-Xylene	50	31.7	U
95-47-6	o-Xylene	50	15.8	U
108-90-7	Chlorobenzene	50	15.8	U
127-18-4	Tetrachloroethene (PCE)	50	15.8	U
75-35-4	1,1-Dichloroethene	50	15.8	U
79-01-6	Trichloroethene (TCE)	50	15.8	U
156-59-2	cis-1,2-Dichloroethene	50	15.8	U
75-01-4	Vinyl chloride	50	15.8	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	44.2	88	80 - 120	
Toluene-d8 (Surr)	50.0	49.0	98	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	52.8	106	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	106449	5.713	125409	5.714	
Chlorobenzene-d5 (ISTD)	278462	9.461	356514	9.462	
1,4-Dichlorobenzene-d4 (ISTD)	121725	11.48	162538	11.482	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-039SC-B-7.8-9.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-07	File ID:	VC19100220.D
Sampled:	09/30/19 09:17	Prepared:	09/30/19 09:17	Analyzed:	10/02/19 20:04
Solids:	72.59	Preparation:	EPA 5035A	Initial/Final:	6.1 g / 5 mL
Batch:	9100546	Sequence:	9J02042	Calibration:	A9H2203
Instrument:	VOA-GCMS3				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	7.53	U
108-88-3	Toluene	50	37.7	U
100-41-4	Ethylbenzene	50	18.8	U
179601-23-1	m,p-Xylene	50	37.7	U
95-47-6	o-Xylene	50	18.8	U
108-90-7	Chlorobenzene	50	18.8	U
127-18-4	Tetrachloroethene (PCE)	50	18.8	U
75-35-4	1,1-Dichloroethene	50	18.8	U
79-01-6	Trichloroethene (TCE)	50	18.8	U
156-59-2	cis-1,2-Dichloroethene	50	18.8	U
75-01-4	Vinyl chloride	50	18.8	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	45.2	90	80 - 120	
Toluene-d8 (Surr)	50.0	48.8	98	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	52.3	105	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	101798	5.716	125409	5.714	
Chlorobenzene-d5 (ISTD)	271348	9.463	356514	9.462	
1,4-Dichlorobenzene-d4 (ISTD)	123871	11.477	162538	11.482	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-039SC-B-9.8-11.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-08	File ID:	VC19100221.D
Sampled:	09/30/19 09:18	Prepared:	09/30/19 09:18	Analyzed:	10/02/19 20:31
Solids:	77.51	Preparation:	EPA 5035A	Initial/Final:	4.26 g / 5 mL
Batch:	9100546	Sequence:	9J02042	Calibration:	A9H2203
Instrument:	VOA-GCMS3				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	9.02	U
108-88-3	Toluene	50	45.1	U
100-41-4	Ethylbenzene	50	22.6	U
179601-23-1	m,p-Xylene	50	45.1	U
95-47-6	o-Xylene	50	22.6	U
108-90-7	Chlorobenzene	50	22.6	U
127-18-4	Tetrachloroethene (PCE)	50	22.6	U
75-35-4	1,1-Dichloroethene	50	22.6	U
79-01-6	Trichloroethene (TCE)	50	22.6	U
156-59-2	cis-1,2-Dichloroethene	50	22.6	U
75-01-4	Vinyl chloride	50	22.6	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	44.2	88	80 - 120	
Toluene-d8 (Surr)	50.0	50.0	100	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	52.0	104	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	102486	5.715	125409	5.714	
Chlorobenzene-d5 (ISTD)	263847	9.462	356514	9.462	
1,4-Dichlorobenzene-d4 (ISTD)	117048	11.482	162538	11.482	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-040SC-B-5.3-7.3-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-11	File ID:	VC19100222.D
Sampled:	09/30/19 13:45	Prepared:	09/30/19 13:45	Analyzed:	10/02/19 20:59
Solids:	86.95	Preparation:	EPA 5035A	Initial/Final:	4.91 g / 5 mL
Batch:	9100546	Sequence:	9J02042	Calibration:	A9H2203
Instrument:	VOA-GCMS3				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	6.61	U
108-88-3	Toluene	50	33.0	U
100-41-4	Ethylbenzene	50	16.5	U
179601-23-1	m,p-Xylene	50	33.0	U
95-47-6	o-Xylene	50	16.5	U
108-90-7	Chlorobenzene	50	16.5	U
127-18-4	Tetrachloroethene (PCE)	50	16.5	U
75-35-4	1,1-Dichloroethene	50	16.5	U
79-01-6	Trichloroethene (TCE)	50	16.5	U
156-59-2	cis-1,2-Dichloroethene	50	16.5	U
75-01-4	Vinyl chloride	50	16.5	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	44.6	89	80 - 120	
Toluene-d8 (Surr)	50.0	49.3	99	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	52.1	104	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	101495	5.717	125409	5.714	
Chlorobenzene-d5 (ISTD)	266114	9.458	356514	9.462	
1,4-Dichlorobenzene-d4 (ISTD)	118774	11.478	162538	11.482	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-040SC-B-7.3-9.3-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-12	File ID:	VC19100225.D
Sampled:	09/30/19 13:46	Prepared:	09/30/19 13:46	Analyzed:	10/02/19 22:20
Solids:	86.97	Preparation:	EPA 5035A	Initial/Final:	4.95 g / 5 mL
Batch:	9100546	Sequence:	9J02042	Calibration:	A9H2203
Instrument:	VOA-GCMS3				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	6.56	U
108-88-3	Toluene	50	32.8	U
100-41-4	Ethylbenzene	50	16.4	U
179601-23-1	m,p-Xylene	50	32.8	U
95-47-6	o-Xylene	50	16.4	U
108-90-7	Chlorobenzene	50	16.4	U
127-18-4	Tetrachloroethene (PCE)	50	16.4	U
75-35-4	1,1-Dichloroethene	50	16.4	U
79-01-6	Trichloroethene (TCE)	50	16.4	U
156-59-2	cis-1,2-Dichloroethene	50	16.4	U
75-01-4	Vinyl chloride	50	16.4	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	43.6	87	80 - 120	
Toluene-d8 (Surr)	50.0	49.7	99	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	52.2	104	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	94953	5.717	125409	5.714	
Chlorobenzene-d5 (ISTD)	240349	9.465	356514	9.462	
1,4-Dichlorobenzene-d4 (ISTD)	100065	11.478	162538	11.482	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-040SC-B-9.3-11.3-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-13	File ID:	VC19100223.D
Sampled:	09/30/19 14:02	Prepared:	09/30/19 14:02	Analyzed:	10/02/19 21:26
Solids:	79.30	Preparation:	EPA 5035A	Initial/Final:	5.98 g / 5 mL
Batch:	9100546	Sequence:	9J02042	Calibration:	A9H2203
Instrument:	VOA-GCMS3				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	6.58	U
108-88-3	Toluene	50	32.9	U
100-41-4	Ethylbenzene	50	16.4	U
179601-23-1	m,p-Xylene	50	32.9	U
95-47-6	o-Xylene	50	16.4	U
108-90-7	Chlorobenzene	50	16.4	U
127-18-4	Tetrachloroethene (PCE)	50	16.4	U
75-35-4	1,1-Dichloroethene	50	16.4	U
79-01-6	Trichloroethene (TCE)	50	16.4	U
156-59-2	cis-1,2-Dichloroethene	50	16.4	U
75-01-4	Vinyl chloride	50	16.4	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	45.2	90	80 - 120	
Toluene-d8 (Surr)	50.0	48.9	98	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	52.3	105	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	100413	5.715	125409	5.714	
Chlorobenzene-d5 (ISTD)	265613	9.462	356514	9.462	
1,4-Dichlorobenzene-d4 (ISTD)	121200	11.482	162538	11.482	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-1040SC-B-5.3-7.3-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-14	File ID:	VC19100224.D
Sampled:	09/30/19 13:45	Prepared:	09/30/19 13:45	Analyzed:	10/02/19 21:53
Solids:	87.03	Preparation:	EPA 5035A	Initial/Final:	5.27 g / 5 mL
Batch:	9100546	Sequence:	9J02042	Calibration:	A9H2203
Instrument:	VOA-GCMS3				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	6.20	U
108-88-3	Toluene	50	31.0	U
100-41-4	Ethylbenzene	50	15.5	U
179601-23-1	m,p-Xylene	50	31.0	U
95-47-6	o-Xylene	50	15.5	U
108-90-7	Chlorobenzene	50	15.5	U
127-18-4	Tetrachloroethene (PCE)	50	15.5	U
75-35-4	1,1-Dichloroethene	50	15.5	U
79-01-6	Trichloroethene (TCE)	50	15.5	U
156-59-2	cis-1,2-Dichloroethene	50	15.5	U
75-01-4	Vinyl chloride	50	15.5	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	44.3	89	80 - 120	
Toluene-d8 (Surr)	50.0	49.4	99	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	51.4	103	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	96975	5.714	125409	5.714	
Chlorobenzene-d5 (ISTD)	251604	9.462	356514	9.462	
1,4-Dichlorobenzene-d4 (ISTD)	110331	11.481	162538	11.482	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-042SC-B-11.9-13.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-17	File ID:	VJ19100310.D
Sampled:	09/30/19 12:29	Prepared:	09/30/19 12:29	Analyzed:	10/03/19 13:45
Solids:	79.77	Preparation:	EPA 5035A	Initial/Final:	5.71 g / 5 mL
Batch:	9100596	Sequence:	9J03035	Calibration:	A9I2702
Instrument:	VOA-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	6.76	U
108-88-3	Toluene	50	33.8	U
100-41-4	Ethylbenzene	50	16.9	U
179601-23-1	m,p-Xylene	50	33.8	U
95-47-6	o-Xylene	50	33.8	U
108-90-7	Chlorobenzene	50	16.9	U
75-35-4	1,1-Dichloroethene	50	16.9	U
156-59-2	cis-1,2-Dichloroethene	50	16.9	U
127-18-4	Tetrachloroethene (PCE)	50	16.9	U
79-01-6	Trichloroethene (TCE)	50	16.9	U
75-01-4	Vinyl chloride	50	16.9	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	43.0	86	80 - 120	
Toluene-d8 (Surr)	50.0	51.4	103	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	48.5	97	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	74460	6.095	76035	6.095	
Chlorobenzene-d5 (ISTD)	151015	9.812	145451	9.812	
1,4-Dichlorobenzene-d4 (ISTD)	62311	11.771	67970	11.771	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-042SC-B-3.9-5.9-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-18	File ID:	VJ19100311.D
Sampled:	09/30/19 12:05	Prepared:	09/30/19 12:05	Analyzed:	10/03/19 14:12
Solids:	91.98	Preparation:	EPA 5035A	Initial/Final:	4.97 g / 5 mL
Batch:	9100596	Sequence:	9J03035	Calibration:	A9I2702
Instrument:	VOA-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	5.90	U
108-88-3	Toluene	50	29.5	U
100-41-4	Ethylbenzene	50	29.5	U
179601-23-1	m,p-Xylene	50	29.5	U
95-47-6	o-Xylene	50	29.5	U
108-90-7	Chlorobenzene	50	14.8	U
75-35-4	1,1-Dichloroethene	50	14.8	U
156-59-2	cis-1,2-Dichloroethene	50	14.8	U
127-18-4	Tetrachloroethene (PCE)	50	14.8	U
79-01-6	Trichloroethene (TCE)	50	14.8	U
75-01-4	Vinyl chloride	50	14.8	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	41.4	83	80 - 120	
Toluene-d8 (Surr)	50.0	52.2	104	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	48.8	98	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	74805	6.101	76035	6.095	
Chlorobenzene-d5 (ISTD)	143296	9.812	145451	9.812	
1,4-Dichlorobenzene-d4 (ISTD)	61869	11.771	67970	11.771	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-042SC-B-5.9-7.9-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-19	File ID:	VJ19100312.D
Sampled:	09/30/19 12:06	Prepared:	09/30/19 12:06	Analyzed:	10/03/19 14:38
Solids:	85.67	Preparation:	EPA 5035A	Initial/Final:	5.59 g / 5 mL
Batch:	9100596	Sequence:	9J03035	Calibration:	A9I2702
Instrument:	VOA-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	6.06	U
108-88-3	Toluene	50	30.3	U
100-41-4	Ethylbenzene	50	15.1	U
179601-23-1	m,p-Xylene	50	30.3	U
95-47-6	o-Xylene	50	15.1	U
108-90-7	Chlorobenzene	50	15.1	U
75-35-4	1,1-Dichloroethene	50	15.1	U
156-59-2	cis-1,2-Dichloroethene	50	15.1	U
127-18-4	Tetrachloroethene (PCE)	50	15.1	U
79-01-6	Trichloroethene (TCE)	50	15.1	U
75-01-4	Vinyl chloride	50	15.1	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	42.3	85	80 - 120	
Toluene-d8 (Surr)	50.0	50.3	101	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	48.9	98	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	72613	6.095	76035	6.095	
Chlorobenzene-d5 (ISTD)	147274	9.812	145451	9.812	
1,4-Dichlorobenzene-d4 (ISTD)	59432	11.771	67970	11.771	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-042SC-B-7.9-9.9-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-20	File ID:	VJ19100313.D
Sampled:	09/30/19 12:06	Prepared:	09/30/19 12:06	Analyzed:	10/03/19 15:05
Solids:	82.74	Preparation:	EPA 5035A	Initial/Final:	5.45 g / 5 mL
Batch:	9100596	Sequence:	9J03035	Calibration:	A9I2702
Instrument:	VOA-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	6.59	U
108-88-3	Toluene	50	32.9	U
100-41-4	Ethylbenzene	50	16.5	U
179601-23-1	m,p-Xylene	50	32.9	U
95-47-6	o-Xylene	50	32.9	U
108-90-7	Chlorobenzene	50	16.5	U
75-35-4	1,1-Dichloroethene	50	16.5	U
156-59-2	cis-1,2-Dichloroethene	50	16.5	U
127-18-4	Tetrachloroethene (PCE)	50	16.5	U
79-01-6	Trichloroethene (TCE)	50	16.5	U
75-01-4	Vinyl chloride	50	16.5	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	41.1	82	80 - 120	
Toluene-d8 (Surr)	50.0	51.0	102	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	49.7	99	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	73889	6.095	76035	6.095	
Chlorobenzene-d5 (ISTD)	144198	9.812	145451	9.812	
1,4-Dichlorobenzene-d4 (ISTD)	59266	11.771	67970	11.771	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-042SC-B-9.9-11.9-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-21	File ID:	VJ19100314.D
Sampled:	09/30/19 12:07	Prepared:	09/30/19 12:07	Analyzed:	10/03/19 15:32
Solids:	87.57	Preparation:	EPA 5035A	Initial/Final:	4.61 g / 5 mL
Batch:	9100596	Sequence:	9J03035	Calibration:	A9I2702
Instrument:	VOA-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	6.90	U
108-88-3	Toluene	50	34.5	U
100-41-4	Ethylbenzene	50	17.3	U
179601-23-1	m,p-Xylene	50	34.5	U
95-47-6	o-Xylene	50	34.5	U
108-90-7	Chlorobenzene	50	17.3	U
75-35-4	1,1-Dichloroethene	50	17.3	U
156-59-2	cis-1,2-Dichloroethene	50	17.3	U
127-18-4	Tetrachloroethene (PCE)	50	17.3	U
79-01-6	Trichloroethene (TCE)	50	17.3	U
75-01-4	Vinyl chloride	50	17.3	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	41.2	82	80 - 120	
Toluene-d8 (Surr)	50.0	51.0	102	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	49.2	98	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	71700	6.095	76035	6.095	
Chlorobenzene-d5 (ISTD)	138180	9.813	145451	9.812	
1,4-Dichlorobenzene-d4 (ISTD)	59426	11.771	67970	11.771	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-044SC-B-11.1-12.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-24	File ID:	VJ19100316.D
Sampled:	09/30/19 15:15	Prepared:	09/30/19 15:15	Analyzed:	10/03/19 16:25
Solids:	76.85	Preparation:	EPA 5035A	Initial/Final:	6.32 g / 5 mL
Batch:	9100596	Sequence:	9J03035	Calibration:	A9I2702
Instrument:	VOA-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	6.65	U
108-88-3	Toluene	50	33.3	U
100-41-4	Ethylbenzene	50	16.6	U
179601-23-1	m,p-Xylene	50	33.3	U
95-47-6	o-Xylene	50	16.6	U
108-90-7	Chlorobenzene	50	16.6	U
75-35-4	1,1-Dichloroethene	50	16.6	U
156-59-2	cis-1,2-Dichloroethene	50	16.6	U
127-18-4	Tetrachloroethene (PCE)	50	16.6	U
79-01-6	Trichloroethene (TCE)	50	16.6	U
75-01-4	Vinyl chloride	50	16.6	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	41.2	82	80 - 120	
Toluene-d8 (Surr)	50.0	49.8	100	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	49.8	100	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	70431	6.095	76035	6.095	
Chlorobenzene-d5 (ISTD)	139686	9.812	145451	9.812	
1,4-Dichlorobenzene-d4 (ISTD)	59066	11.765	67970	11.771	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-044SC-B-7.1-9.1-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-25	File ID:	VJ19100317.D
Sampled:	09/30/19 15:06	Prepared:	09/30/19 15:06	Analyzed:	10/03/19 16:52
Solids:	83.51	Preparation:	EPA 5035A	Initial/Final:	5.68 g / 5 mL
Batch:	9100596	Sequence:	9J03035	Calibration:	A9I2702
Instrument:	VOA-GCMS10				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	6.26	U
108-88-3	Toluene	50	31.3	U
100-41-4	Ethylbenzene	50	15.6	U
179601-23-1	m,p-Xylene	50	31.3	U
95-47-6	o-Xylene	50	15.6	U
108-90-7	Chlorobenzene	50	15.6	U
75-35-4	1,1-Dichloroethene	50	15.6	U
156-59-2	cis-1,2-Dichloroethene	50	15.6	U
127-18-4	Tetrachloroethene (PCE)	50	15.6	U
79-01-6	Trichloroethene (TCE)	50	15.6	U
75-01-4	Vinyl chloride	50	15.6	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	40.5	81	80 - 120	
Toluene-d8 (Surr)	50.0	50.7	101	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	49.5	99	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	74378	6.095	76035	6.095	
Chlorobenzene-d5 (ISTD)	143549	9.812	145451	9.812	
1,4-Dichlorobenzene-d4 (ISTD)	62216	11.771	67970	11.771	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

5035A/8260C

PDI-044SC-B-9.1-11.1-190930

Laboratory: Apex Laboratories | SDG: A9J0058

Client: Anchor QEA, LLC | Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co

Matrix: Sediment | Laboratory ID: A9J0058-26 | File ID: VJ19100318.D

Sampled: 09/30/19 15:07 | Prepared: 09/30/19 15:07 | Analyzed: 10/03/19 17:19

Solids: 88.61 | Preparation: EPA 5035A | Initial/Final: 5.35 g / 5 mL

Batch: 9100596 | Sequence: 9J03035 | Calibration: A9I2702 | Instrument: VOA-GCMS10

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
71-43-2	Benzene	50	5.92	U
108-88-3	Toluene	50	29.6	U
100-41-4	Ethylbenzene	50	14.8	U
179601-23-1	m,p-Xylene	50	29.6	U
95-47-6	o-Xylene	50	14.8	U
108-90-7	Chlorobenzene	50	14.8	U
75-35-4	1,1-Dichloroethene	50	14.8	U
156-59-2	cis-1,2-Dichloroethene	50	14.8	U
127-18-4	Tetrachloroethene (PCE)	50	14.8	U
79-01-6	Trichloroethene (TCE)	50	14.8	U
75-01-4	Vinyl chloride	50	14.8	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	40.4	81	80 - 120	
Toluene-d8 (Surr)	50.0	50.8	102	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	48.6	97	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	71057	6.095	76035	6.095	
Chlorobenzene-d5 (ISTD)	137017	9.812	145451	9.812	
1,4-Dichlorobenzene-d4 (ISTD)	58301	11.771	67970	11.771	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

5035A/8260C

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Batch: 9100546 Batch Matrix: Soil
Preparation: EPA 5035A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9100546-BLK1	VC19100205.D	10/02/19 10:42	
LCS	9100546-BS1	VC19100203.D	10/02/19 10:42	
PDI-040SC-B-7.3-9.3-190930 (MS)	9100546-MS2	VC19100226.D	09/30/19 13:46	
PDI-040SC-B-7.3-9.3-190930 (MSD	9100546-MSD2	VC19100227.D	09/30/19 13:46	
PDI-039SC-B-11.8-13.7-190930	A9J0058-04	VC19100217.D	09/30/19 10:39	
PDI-039SC-B-3.8-5.8-190930	A9J0058-05	VC19100218.D	09/30/19 09:15	
PDI-039SC-B-5.8-7.8-190930	A9J0058-06	VC19100219.D	09/30/19 09:16	
PDI-039SC-B-7.8-9.8-190930	A9J0058-07	VC19100220.D	09/30/19 09:17	
PDI-039SC-B-9.8-11.8-190930	A9J0058-08	VC19100221.D	09/30/19 09:18	
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	VC19100222.D	09/30/19 13:45	
PDI-040SC-B-7.3-9.3-190930	A9J0058-12	VC19100225.D	09/30/19 13:46	
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	VC19100223.D	09/30/19 14:02	
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	VC19100224.D	09/30/19 13:45	

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.

PREPARATION BATCH SUMMARY

5035A/8260C

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Batch: 9100596 Batch Matrix: Soil Preparation: EPA 5035A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9100596-BLK1	VJ19100309.D	10/03/19 11:00	
LCS	9100596-BS1	VJ19100307.D	10/03/19 11:00	
PDI-042SC-B-9.9-11.9-190930 (Dup	9100596-DUP1	VJ19100315.D	09/30/19 12:07	
PDI-044SC-B-9.1-11.1-190930 (MS	9100596-MS1	VJ19100319.D	09/30/19 15:07	
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	VJ19100310.D	09/30/19 12:29	
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	VJ19100311.D	09/30/19 12:05	
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	VJ19100312.D	09/30/19 12:06	
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	VJ19100313.D	09/30/19 12:06	
PDI-042SC-B-9.9-11.9-190930	A9J0058-21	VJ19100314.D	09/30/19 12:07	
PDI-044SC-B-11.1-12.8-190930	A9J0058-24	VJ19100316.D	09/30/19 15:15	
PDI-044SC-B-7.1-9.1-190930	A9J0058-25	VJ19100317.D	09/30/19 15:06	
PDI-044SC-B-9.1-11.1-190930	A9J0058-26	VJ19100318.D	09/30/19 15:07	

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:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Matrix:	Soil	Laboratory ID:	9100546-BLK1	File ID:	VC19100205.D
Prepared:	10/02/19 10:42	Preparation:	EPA 5035A	Initial/Final:	7.5 g / 5 mL
Analyzed:	10/02/19 12:58	Instrument:	VOA-GCMS3		
Batch:	9100546	Sequence:	9J02042	Calibration:	A9H2203

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
71-43-2	Benzene	3.33	U
108-88-3	Toluene	16.7	U
100-41-4	Ethylbenzene	8.33	U
179601-23-1	m,p-Xylene	16.7	U
95-47-6	o-Xylene	8.33	U
108-90-7	Chlorobenzene	8.33	U
127-18-4	Tetrachloroethene (PCE)	8.33	U
75-35-4	1,1-Dichloroethene	8.33	U
79-01-6	Trichloroethene (TCE)	8.33	U
156-59-2	cis-1,2-Dichloroethene	8.33	U
75-01-4	Vinyl chloride	8.33	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	47.9	96	80 - 120	
Toluene-d8 (Surr)	50.0	49.6	99	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	51.3	103	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	124226	5.715	125409	5.714	
Chlorobenzene-d5 (ISTD)	345234	9.463	356514	9.462	
1,4-Dichlorobenzene-d4 (ISTD)	148407	11.482	162538	11.482	

METHOD BLANK DATA SHEET

5035A/8260C

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Matrix:	Soil	Laboratory ID:	9100596-BLK1	File ID:	VJ19100309.D
Prepared:	10/03/19 11:00	Preparation:	EPA 5035A	Initial/Final:	7.5 g / 5 mL
Analyzed:	10/03/19 13:19	Instrument:	VOA-GCMS10		
Batch:	9100596	Sequence:	9J03035	Calibration:	A9I2702

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
71-43-2	Benzene	3.33	U
108-88-3	Toluene	16.7	U
100-41-4	Ethylbenzene	8.33	U
179601-23-1	m,p-Xylene	16.7	U
95-47-6	o-Xylene	8.33	U
108-90-7	Chlorobenzene	8.33	U
75-35-4	1,1-Dichloroethene	8.33	U
156-59-2	cis-1,2-Dichloroethene	8.33	U
127-18-4	Tetrachloroethene (PCE)	8.33	U
79-01-6	Trichloroethene (TCE)	8.33	U
75-01-4	Vinyl chloride	8.33	U

SYSTEM MONITORING COMPOUND	ADDED (ng/mL)	CONC (ng/mL)	% REC	QC LIMITS	Q
1,4-Difluorobenzene (Surr)	50.0	42.7	85	80 - 120	
Toluene-d8 (Surr)	50.0	52.7	105	80 - 120	
4-Bromofluorobenzene (Surr)	50.0	48.3	97	80 - 120	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (ISTD)	75101	6.101	76035	6.095	
Chlorobenzene-d5 (ISTD)	146296	9.812	145451	9.812	
1,4-Dichlorobenzene-d4 (ISTD)	60317	11.771	67970	11.771	

LCS / LCS DUPLICATE RECOVERY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Soil		
Batch:	9100546	Laboratory ID:	9100546-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.
Benzene	1000	976	98	80 - 120
Toluene	1000	978	98	80 - 120
Ethylbenzene	1000	990	99	80 - 120
m,p-Xylene	2000	2040	102	80 - 120
o-Xylene	1000	963	96	80 - 120
Chlorobenzene	1000	974	97	80 - 120
Tetrachloroethene (PCE)	1000	1070	107	80 - 120
1,1-Dichloroethene	1000	1040	104	80 - 120
Trichloroethene (TCE)	1000	999	100	80 - 120
cis-1,2-Dichloroethene	1000	968	97	80 - 120
Vinyl chloride	1000	902	90	80 - 120

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Soil		
Batch:	9100596	Laboratory ID:	9100596-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.
Benzene	1000	848	85	80 - 120
Toluene	1000	1020	102	80 - 120
Ethylbenzene	1000	1070	107	80 - 120
m,p-Xylene	2000	2200	110	80 - 120
o-Xylene	1000	1070	107	80 - 120
Chlorobenzene	1000	1060	106	80 - 120
1,1-Dichloroethene	1000	1020	102	80 - 120
cis-1,2-Dichloroethene	1000	984	98	80 - 120
Tetrachloroethene (PCE)	1000	1060	106	80 - 120
Trichloroethene (TCE)	1000	930	93	80 - 120
Vinyl chloride	1000	971	97	80 - 120

* = Values outside of QC limits

PDI-042SC-B-9.9-11.9-190930

DUPLICATES

5035A/8260C

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP T
Matrix: Soil
Laboratory ID: 9100596-DUP1
Batch: 9100596
Lab Source ID: A9J0058-21
Preparation: EPA 5035A
Initial/Final: 4.46 g / 5 mL
Source Sample Name: PDI-042SC-B-9.9-11.9-190930
% Solids: 87.57

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (ug/kg dry)	C	DUPLICATE CONCENTRATION (ug/kg dry)	C	RPD %	Q	METHOD
Benzene	30	0.00		ND				5035A/8260C
Toluene	30	0.00		ND				5035A/8260C
Ethylbenzene	30	15.3		ND				5035A/8260C
m,p-Xylene	30	17.5		ND				5035A/8260C
o-Xylene	30	19.7		ND				5035A/8260C
Chlorobenzene	30	0.00		ND				5035A/8260C
1,1-Dichloroethene	30	0.00		ND				5035A/8260C
cis-1,2-Dichloroethene	30	0.00		ND				5035A/8260C
Tetrachloroethene (PCE)	30	0.00		ND				5035A/8260C
Trichloroethene (TCE)	30	0.00		ND				5035A/8260C
Vinyl chloride	30	0.00		ND				5035A/8260C

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

5035A/8260C

PDI-040SC-B-7.3-9.3-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Matrix:	Soil		
Batch:	9100546	Laboratory ID:	9100546-MS2
Preparation:	EPA 5035A	Initial/Final:	4.95 g / 5 mL

Source Sample Name: PDI-040SC-B-7.3-9.3-190930

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	MS CONCENTRATION (ug/kg dry)	MS % REC. (*=Out)	QC LIMITS REC.
Benzene	1310	ND	1110	85	77 - 121
Toluene	1310	ND	1250	95	77 - 121
Ethylbenzene	1310	ND	1320	101	76 - 122
m,p-Xylene	2620	ND	2700	103	77 - 124
o-Xylene	1310	ND	1290	98	77 - 123
Chlorobenzene	1310	ND	1250	95	79 - 120
Tetrachloroethene (PCE)	1310	ND	1370	104	73 - 128
1,1-Dichloroethene	1310	ND	1360	104	70 - 131
Trichloroethene (TCE)	1310	ND	1160	89	77 - 123
cis-1,2-Dichloroethene	1310	ND	1190	91	77 - 123
Vinyl chloride	1310	ND	1120	85	56 - 135

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

5035A/8260C

PDI-040SC-B-7.3-9.3-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Soil		
Batch:	9100546	Laboratory ID:	9100546-MSD2
Preparation:	EPA 5035A	Initial/Final:	4.95 g / 5 mL

Source Sample Name: PDI-040SC-B-7.3-9.3-190930

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	MSD % RECOVERY	% RPD	QC LIMITS RPD	QC LIMITS REC.
Benzene	1310	1100	84	1	35	77 - 121
Toluene	1310	1200	91	4	35	77 - 121
Ethylbenzene	1310	1290	98	2	35	76 - 122
m,p-Xylene	2620	2680	102	0.7	35	77 - 124
o-Xylene	1310	1290	98	0.1	35	77 - 123
Chlorobenzene	1310	1240	94	0.8	35	79 - 120
Tetrachloroethene (PCE)	1310	1360	103	0.8	35	73 - 128
1,1-Dichloroethene	1310	1310	100	4	35	70 - 131
Trichloroethene (TCE)	1310	1120	86	3	35	77 - 123
cis-1,2-Dichloroethene	1310	1190	91	0.2	35	77 - 123
Vinyl chloride	1310	1180	90	5	35	56 - 135

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

5035A/8260C

PDI-044SC-B-9.1-11.1-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Matrix:	Soil		
Batch:	9100596	Laboratory ID:	9100596-MS1
Preparation:	EPA 5035A	Initial/Final:	5.35 g / 5 mL

Source Sample Name: PDI-044SC-B-9.1-11.1-190930

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	MS CONCENTRATION (ug/kg dry)	MS % REC. (*=Out)	QC LIMITS REC.
Benzene	1180	ND	1000	85	77 - 121
Toluene	1180	ND	1270	107	77 - 121
Ethylbenzene	1180	ND	1350	114	76 - 122
m,p-Xylene	2360	ND	2770	117	77 - 124
o-Xylene	1180	ND	1340	114	77 - 123
Chlorobenzene	1180	ND	1320	112	79 - 120
1,1-Dichloroethene	1180	ND	1220	103	70 - 131
cis-1,2-Dichloroethene	1180	ND	1200	102	77 - 123
Tetrachloroethene (PCE)	1180	ND	1290	109	73 - 128
Trichloroethene (TCE)	1180	ND	1080	92	77 - 123
Vinyl chloride	1180	ND	1140	97	56 - 135

ANALYSIS BATCH (SEQUENCE) SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9H21053	Instrument:	VOA-GCMS3
Matrix:	Soil	Calibration:	A9H2203

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9H21053-TUN1	VC19092124.D	08/21/19 19:47
Initial Cal Blank	9H21053-ICB1	VC19092125.D	08/21/19 20:14
Cal Standard	9H21053-CAL1	VC19092126.D	08/21/19 20:41
Cal Standard	9H21053-CAL2	VC19092127.D	08/21/19 21:08
Cal Standard	9H21053-CAL3	VC19092128.D	08/21/19 21:35
Cal Standard	9H21053-CAL4	VC19092129.D	08/21/19 22:02
Cal Standard	9H21053-CAL5	VC19092130.D	08/21/19 22:29
Cal Standard	9H21053-CAL6	VC19092131.D	08/21/19 22:56
Cal Standard	9H21053-CAL7	VC19092132.D	08/21/19 23:23
Cal Standard	9H21053-CAL8	VC19092133.D	08/21/19 23:50
Cal Standard	9H21053-CAL9	VC19092134.D	08/22/19 00:17
Cal Standard	9H21053-CALA	VC19092136.D	08/22/19 01:12
Cal Standard	9H21053-CALB	VC19092138.D	08/22/19 02:06
Initial Cal Check	9H21053-ICV1	VC19092141.D	08/22/19 03:28

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:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9I26051	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9I2702

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9I26051-TUN1	VJ19092626.D	09/26/19 20:35
Initial Cal Blank	9I26051-ICB1	VJ19092627.D	09/26/19 21:02
Cal Standard	9I26051-CAL1	VJ19092628.D	09/26/19 21:28
Cal Standard	9I26051-CAL2	VJ19092629.D	09/26/19 21:55
Cal Standard	9I26051-CAL3	VJ19092630.D	09/26/19 22:22
Cal Standard	9I26051-CAL4	VJ19092631.D	09/26/19 22:49
Cal Standard	9I26051-CAL5	VJ19092632.D	09/26/19 23:15
Cal Standard	9I26051-CAL6	VJ19092633.D	09/26/19 23:42
Cal Standard	9I26051-CAL7	VJ19092634.D	09/27/19 00:09
Cal Standard	9I26051-CAL8	VJ19092635.D	09/27/19 00:35
Cal Standard	9I26051-CAL9	VJ19092636.D	09/27/19 01:02
Cal Standard	9I26051-CALA	VJ19092638.D	09/27/19 01:56
Cal Standard	9I26051-CALB	VJ19092640.D	09/27/19 02:49
Initial Cal Check	9I26051-ICV1	VJ19092643.D	09/27/19 04:10

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

ANALYSIS BATCH (SEQUENCE) SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J02042	Instrument:	VOA-GCMS3
Matrix:	Soil	Calibration:	A9H2203

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J02042-TUN1	VC19100202.D	10/02/19 11:36
Calibration Check	9J02042-CCV1	VC19100203.D	10/02/19 12:03
Blank	9100546-BLK1	VC19100205.D	10/02/19 12:58
PDI-039SC-B-11.8-13.7-190930	A9J0058-04	VC19100217.D	10/02/19 18:43
PDI-039SC-B-3.8-5.8-190930	A9J0058-05	VC19100218.D	10/02/19 19:10
PDI-039SC-B-5.8-7.8-190930	A9J0058-06	VC19100219.D	10/02/19 19:37
PDI-039SC-B-7.8-9.8-190930	A9J0058-07	VC19100220.D	10/02/19 20:04
PDI-039SC-B-9.8-11.8-190930	A9J0058-08	VC19100221.D	10/02/19 20:31
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	VC19100222.D	10/02/19 20:59
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	VC19100223.D	10/02/19 21:26
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	VC19100224.D	10/02/19 21:53
PDI-040SC-B-7.3-9.3-190930	A9J0058-12	VC19100225.D	10/02/19 22:20
PDI-040SC-B-7.3-9.3-190930 (MS)	9100546-MS2	VC19100226.D	10/02/19 22:47
PDI-040SC-B-7.3-9.3-190930 (MSD)	9100546-MSD2	VC19100227.D	10/02/19 23:14

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:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J03035	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9I2702

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J03035-TUN1	VJ19100306.D	10/03/19 11:58
Calibration Check	9J03035-CCV1	VJ19100307.D	10/03/19 12:25
Blank	9100596-BLK1	VJ19100309.D	10/03/19 13:19
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	VJ19100310.D	10/03/19 13:45
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	VJ19100311.D	10/03/19 14:12
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	VJ19100312.D	10/03/19 14:38
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	VJ19100313.D	10/03/19 15:05
PDI-042SC-B-9.9-11.9-190930	A9J0058-21	VJ19100314.D	10/03/19 15:32
PDI-042SC-B-9.9-11.9-190930 (Dup)	9100596-DUP1	VJ19100315.D	10/03/19 15:59
PDI-044SC-B-11.1-12.8-190930	A9J0058-24	VJ19100316.D	10/03/19 16:25
PDI-044SC-B-7.1-9.1-190930	A9J0058-25	VJ19100317.D	10/03/19 16:52
PDI-044SC-B-9.1-11.1-190930	A9J0058-26	VJ19100318.D	10/03/19 17:19
PDI-044SC-B-9.1-11.1-190930 (MS)	9100596-MS1	VJ19100319.D	10/03/19 17:46

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:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Lab File ID:	VC19092124.D	Injection Date:	08/21/19
Instrument ID:	VOA-GCMS3	Injection Time:	19:47
Sequence:	9H21053	Lab Sample ID:	9H21053-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	115.50	PASS
m/z 96	5 - 9% of m/z 95	6.84	PASS
m/z 173	Less than 2% of m/z 174	0.22	PASS
m/z 174	50 - 200% of m/z 95	86.58	PASS
m/z 175	5 - 9% of m/z 174	7.32	PASS
m/z 176	95 - 105% of m/z 174	96.86	PASS
m/z 177	5 - 10% of m/z 176	6.88	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Lab File ID:	VJ19092626.D	Injection Date:	09/26/19
Instrument ID:	VOA-GCMS10	Injection Time:	20:35
Sequence:	9I26051	Lab Sample ID:	9I26051-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	139.73	PASS
m/z 96	5 - 9% of m/z 95	6.75	PASS
m/z 173	Less than 2% of m/z 174	0.00	PASS
m/z 174	50 - 200% of m/z 95	71.57	PASS
m/z 175	5 - 9% of m/z 174	7.10	PASS
m/z 176	95 - 105% of m/z 174	97.44	PASS
m/z 177	5 - 10% of m/z 176	6.70	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Lab File ID:	VC19100202.D	Injection Date:	10/02/19
Instrument ID:	VOA-GCMS3	Injection Time:	11:36
Sequence:	9J02042	Lab Sample ID:	9J02042-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	113.60	PASS
m/z 96	5 - 9% of m/z 95	6.87	PASS
m/z 173	Less than 2% of m/z 174	0.00	PASS
m/z 174	50 - 200% of m/z 95	88.03	PASS
m/z 175	5 - 9% of m/z 174	7.58	PASS
m/z 176	95 - 105% of m/z 174	96.86	PASS
m/z 177	5 - 10% of m/z 176	6.49	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Lab File ID:	VJ19100306.D	Injection Date:	10/03/19
Instrument ID:	VOA-GCMS10	Injection Time:	11:58
Sequence:	9J03035	Lab Sample ID:	9J03035-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 95	50 - 200% of m/z 174	149.90	PASS
m/z 96	5 - 9% of m/z 95	6.45	PASS
m/z 173	Less than 2% of m/z 174	0.49	PASS
m/z 174	50 - 200% of m/z 95	66.71	PASS
m/z 175	5 - 9% of m/z 174	6.76	PASS
m/z 176	95 - 105% of m/z 174	95.07	PASS
m/z 177	5 - 10% of m/z 176	6.76	PASS

INITIAL CALIBRATION DATA (Summary)

5035A/8260C

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing

Calibration: A9H2203 Date: 08/22/19 13:45 Instrument: VOA-GCMS3

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Benzene	3.579376	Ave	3.52784	5.610091	8.992497E-02			20	
Toluene	1.366602	Ave	9.420835	7.8087	1.588818E-02			20	
Ethylbenzene	1.514748	Ave	7.033796	9.515818	2.513959E-02			20	
m,p-Xylene	1.105357	Ave	6.415053	9.659636	1.849742E-02			20	
o-Xylene	1.116927	Ave	9.671356	10.05609	1.812385E-02			20	
Chlorobenzene	0.8522444	Ave	5.832731	9.480909	2.689941E-02			20	
Tetrachloroethene (PCE)	0.3289974	Ave	4.373771	8.251333	4.168025E-02			20	
1,1-Dichloroethene	1.182464	Ave	2.214184	2.836222	0.1052447			20	
Trichloroethene (TCE)	1.002723	Ave	6.108	6.218778	7.431169E-02			20	
cis-1,2-Dichloroethene	1.153823	Ave	7.277987	4.7622	7.259229E-02			20	
Vinyl chloride	0.8439217	Ave	3.889673	1.773111	0.1814311			20	
1,4-Difluorobenzene (Surr)	3.226267	Ave	1.345359	6.261545	4.006889E-02			20	
Toluene-d8 (Surr)	1.346662	Ave	1.148714	7.750545	0.0282638			20	
4-Bromofluorobenzene (Surr)	0.805532	Ave	2.2767	10.57982	2.500223E-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

5035A/8260C

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Calibration: A9H2203

SDG: A9J0058
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
Instrument: VOA-GCMS3
Calibration Date: 08/22/19 13:45

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	3.43839	0.2	3.823529	0.4	3.629888	1	3.403596	2	3.496054	5	3.503536
Toluene	0.1	~~2.082453~~	0.2	1.72423	0.4	1.367627	1	1.384755	2	1.312501	5	1.307146
Ethylbenzene	0.1	1.707922	0.2	1.72423	0.4	1.524006	1	1.411472	2	1.435151	5	1.423048
m,p-Xylene	0.2	1.241701	0.4	1.174402	0.8	1.06511	2	1.016704	4	1.025478	10	1.030466
o-Xylene	0.1	1.355148	0.2	1.218623	0.4	1.09032	1	0.9944144	2	0.9900982	5	1.022411
Xylenes, total	0.3	1.279517	0.6	1.189142	1.2	1.073514	3	1.009274	6	1.013685	15	1.027781
Chlorobenzene	0.1	0.9806176	0.2	0.9125973	0.4	0.8224669	1	0.8303873	2	0.8483463	5	0.8186357
Tetrachloroethene (PCE)	0.1	~~0~~	0.2	~~0~~	0.4	0.3013349	1	0.3114341	2	0.3270425	5	0.3347244
1,1-Dichloroethene	0.1	~~0~~	0.2	~~0~~	0.4	1.13195	1	1.187259	2	1.170023	5	1.151119
Trichloroethene (TCE)	0.1	~~0~~	0.2	~~0~~	0.4	1.093717	1	0.9210633	2	0.9286776	5	0.9505845
cis-1,2-Dichloroethene	0.1	~~0~~	0.2	0.9230769	0.4	1.151647	1	1.181383	2	1.135767	5	1.199844
Vinyl chloride	0.1	~~0~~	0.2	~~0~~	0.4	0.8202875	1	0.784576	2	0.8697316	5	0.8260459
1,4-Difluorobenzene (Surr)	50	3.228077	50	3.219873	50	3.215703	50	3.193649	50	3.167149	50	3.21647
Toluene-d8 (Surr)	50	1.347711	50	1.357926	50	1.349539	50	1.345557	50	1.361997	50	1.35757
4-Bromofluorobenzene (Surr)	50	0.8195617	50	0.8344177	50	0.8187072	50	0.8177153	50	0.8205504	50	0.807034

INITIAL CALIBRATION DATA (Continued)

5035A/8260C

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
Calibration: A9H2203
Instrument: VOA-GCMS3
Matrix:
Calibration Date: 08/22/19 13:45

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Benzene	10	3.494498	20	3.570846	50	3.641185	100	3.679896	200	3.691714		
Toluene	10	1.302964	20	1.326063	50	1.326871	100	1.300059	200	1.313801		
Ethylbenzene	10	1.43831	20	1.500587	50	1.499884	100	1.493841	200	1.503779		
m,p-Xylene	20	1.075797	40	1.103913	100	1.130434	200	1.13322	400	1.161702		
o-Xylene	10	1.05264	20	1.106291	50	1.132205	100	1.149513	200	1.174537		
Xylenes, total	30	1.068078	60	1.104706	150	1.131024	300	1.138651	600	1.16598		
Chlorobenzene	10	0.8259266	20	0.8322064	50	0.8344116	100	0.8300736	200	0.8390191		
Tetrachloroethene (PCE)	10	0.3267387	20	0.3424824	50	0.3395366	100	0.3336287	200	0.3440544		
1,1-Dichloroethene	10	1.201525	20	1.205721	50	1.192977	100	1.194289	200	1.207315		
Trichloroethene (TCE)	10	0.9953021	20	0.99071	50	1.030621	100	1.054855	200	1.058973		
cis-1,2-Dichloroethene	10	1.173838	20	1.185172	50	1.181967	100	1.207662	200	1.197871		
Vinyl chloride	10	0.8355215	20	0.8545845	50	0.8753044	100	0.8369822	200	0.892262		
1,4-Difluorobenzene (Surr)	50	3.200141	50	3.195896	50	3.246682	50	3.289615	50	3.31568		
Toluene-d8 (Surr)	50	1.354367	50	1.36088	50	1.338018	50	1.311857	50	1.327857		
4-Bromofluorobenzene (Surr)	50	0.8018336	50	0.7931817	50	0.7877759	50	0.7793713	50	0.780703		

INITIAL CALIBRATION DATA (Summary)

5035A/8260C

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing

Calibration: A9I2702 Date: 09/26/19 16:31 Instrument: VOA-GCMS10

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Benzene	4.872994	Ave	6.847168	6.008909	3.861406E-02			20	
Toluene	2.202659	Ave	8.345349	8.236455	1.514599E-02			20	
Ethylbenzene	2.358714	Ave	5.533353	9.863727	2.800224E-02			20	
m,p-Xylene	1.771148	Ave	4.86118	10.001	1.759164E-02			20	
o-Xylene	1.817022	Ave	6.614811	10.38236	2.823074E-02			20	
Chlorobenzene	1.210267	Ave	8.806745	8.935546	33.16626			20	
1,1-Dichloroethene	1.460673	Ave	2.694645	3.1402	0.1216155			20	
cis-1,2-Dichloroethene	1.609055	Ave	6.80961	5.1328	4.801776E-02			20	
Tetrachloroethene (PCE)	0.4501427	Ave	8.277839	8.683	3.429615E-02			20	
Trichloroethene (TCE)	1.055428	Ave	14.69479	6.6279	4.925179E-02			20	
Vinyl chloride	1.009179	Ave	4.987165	2.002333	0.3602026			20	
1,4-Difluorobenzene (Surr)	2.670681	Ave	0.880413	6.658818	4.813163E-02			20	
Toluene-d8 (Surr)	1.402095	Ave	0.7276725	8.176	9.356301E-03			20	
4-Bromofluorobenzene (Surr)	0.7724614	Ave	1.813051	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: A9I2702

SDG: A9J0058

Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te

Instrument: VOA-GCMS10

Calibration Date: 09/26/19 16:31

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	5.459375	0.2	5.508033	0.4	5.013614	1	4.78508	2	4.781894	5	4.495854
Toluene	0.1	2.586923	0.2	2.508904	0.4	2.250426	1	2.190351	2	2.153369	5	2.033906
Ethylbenzene	0.1	2.591898	0.2	2.59455	0.4	2.365379	1	2.240469	2	2.318171	5	2.202601
m,p-Xylene	0.2	1.933974	0.4	1.916944	0.8	1.706925	2	1.739427	4	1.715308	10	1.669822
o-Xylene	0.1	2.064564	0.2	2.016444	0.4	1.79314	1	1.717745	2	1.757062	5	1.683339
Xylenes, total	0.3	1.977504	0.6	1.950111	1.2	1.735664	3	1.7322	6	1.729226	15	1.674327
Chlorobenzene	0.1	0.9004482	0.2	1.224224	0.4	1.254377	1	1.216833	2	1.267868	5	1.202983
1,1-Dichloroethene	0.1	~~0~~	0.2	1.518528	0.4	1.417663	1	1.422839	2	1.414476	5	1.443738
cis-1,2-Dichloroethene	0.1	~~0~~	0.2	1.82403	0.4	1.380668	1	1.605191	2	1.605505	5	1.58126
Tetrachloroethene (PCE)	0.1	~~0~~	0.2	~~0~~	0.4	0.3574911	1	0.4448218	2	0.4435973	5	0.4561974
Trichloroethene (TCE)	0.1	~~0~~	0.2	0.6798931	0.4	0.9115663	1	1.012393	2	1.11526	5	1.09957
Vinyl chloride	0.1	~~0~~	0.2	~~0~~	0.4	1.047709	1	0.9623829	2	0.9365959	5	0.9664064
1,4-Difluorobenzene (Surr)	50	2.705241	50	2.701698	50	2.677767	50	2.651151	50	2.665669	50	2.650154
Toluene-d8 (Surr)	50	1.398784	50	1.394931	50	1.399405	50	1.396554	50	1.381783	50	1.406007
4-Bromofluorobenzene (Surr)	50	0.7771705	50	0.772438	50	0.7871283	50	0.7843952	50	0.7836227	50	0.7871103

INITIAL CALIBRATION DATA (Continued)

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
Calibration:	A9I2702	Instrument:	VOA-GCMS10
Matrix:		Calibration Date:	09/26/19 16:31

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	4.726498	20	4.771181	50	4.501578	100	4.802749	200	4.757073		
Toluene	10	2.143989	20	2.138558	50	2.010956	100	2.112947	200	2.098918		
Ethylbenzene	10	2.379118	20	2.373609	50	2.22904	100	2.34354	200	2.307474		
m,p-Xylene	20	1.785198	40	1.782803	100	1.686867	200	1.786886	400	1.758473		
o-Xylene	10	1.815583	20	1.808421	50	1.711986	100	1.82176	200	1.797196		
Xylenes, total	30	1.795326	60	1.791342	150	1.69524	300	1.798511	600	1.77138		
Chlorobenzene	10	1.285523	20	1.267988	50	1.19846	100	1.2574	200	1.236834		
1,1-Dichloroethene	10	1.473437	20	1.471487	50	1.436707	100	1.491725	200	1.516126		
cis-1,2-Dichloroethene	10	1.686967	20	1.593302	50	1.563861	100	1.627508	200	1.62226		
Tetrachloroethene (PCE)	10	0.4801167	20	0.4679024	50	0.4519387	100	0.4738116	200	0.4754074		
Trichloroethene (TCE)	10	1.133204	20	1.133765	50	1.100413	100	1.178923	200	1.189297		
Vinyl chloride	10	1.020764	20	1.016106	50	0.9853973	100	1.058839	200	1.088413		
1,4-Difluorobenzene (Surr)	50	2.640342	50	2.647354	50	2.661561	50	2.675492	50	2.701062		
Toluene-d8 (Surr)	50	1.410707	50	1.421584	50	1.400038	50	1.404027	50	1.40922		
4-Bromofluorobenzene (Surr)	50	0.7731114	50	0.7711176	50	0.7643448	50	0.7503997	50	0.7462366		

SECOND-SOURCE CALIBRATION VERIFICATION

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP T
Instrument ID:	VOA-GCMS3	Calibration:	A9H2203
Lab File ID:	VC19092141.D		
Sequence:	9H21053	Inject Date:	08/22/19
Lab Sample ID:	9H21053-ICV1	Inject Time:	03:28

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Benzene	20.0	20.6	2.8	70 - 130
Toluene	20.0	18.7	-6.7	70 - 130
Ethylbenzene	20.0	19.1	-4.6	70 - 130
Xylenes, total	60.0	56.9	-5.1	70 - 130
Chlorobenzene	20.0	19.5	-2.7	70 - 130
Tetrachloroethene (PCE)	20.0	20.2	0.8	70 - 130
1,1-Dichloroethene	20.0	19.5	-2.6	70 - 130
Trichloroethene (TCE)	20.0	20.1	0.4	70 - 130
cis-1,2-Dichloroethene	20.0	20.3	1.3	70 - 130
Vinyl chloride	20.0	20.9	4.6	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP T
Instrument ID:	VOA-GCMS10	Calibration:	A9I2702
Lab File ID:	VJ19092643.D		
Sequence:	9I26051	Inject Date:	09/27/19
Lab Sample ID:	9I26051-ICV1	Inject Time:	04:10

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Benzene	20.0	19.2	-3.9	70 - 130
Toluene	20.0	19.3	-3.5	70 - 130
Ethylbenzene	20.0	19.8	-1.0	70 - 130
m,p-Xylene	40.0	39.7	-0.8	70 - 130
o-Xylene	20.0	19.8	-1.2	70 - 130
Xylenes, total	60.0	59.4	-0.9	70 - 130
Chlorobenzene	20.0	20.8	4.2	70 - 130
1,1-Dichloroethene	20.0	20.1	0.7	70 - 130
cis-1,2-Dichloroethene	20.0	20.2	1.1	70 - 130
Tetrachloroethene (PCE)	20.0	21.0	4.8	70 - 130
Trichloroethene (TCE)	20.0	22.9	14.3	70 - 130
Vinyl chloride	20.0	19.1	-4.4	70 - 130

SURROGATE STANDARD RECOVERY AND RT SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9H21053	Instrument:	VOA-GCMS3
Matrix:	Soil	Calibration:	A9H2203

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9H21053-ICV1)				Lab File ID: VC19092141.D		Analyzed: 08/22/19 03:28		
1,4-Difluorobenzene (Surr)	50.0	104	70 - 130	6.261	6.261545	-0.0005	+/-1.0	
Toluene-d8 (Surr)	50.0	101	70 - 130	7.751	7.750545	0.0005	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	100	70 - 130	10.58	10.57982	0.0002	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9I26051	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9I2702

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9I26051-ICV1)				Lab File ID: VJ19092643.D		Analyzed: 09/27/19 04:10		
1,4-Difluorobenzene (Surr)	50.0	99	70 - 130	6.661	6.658818	0.0022	+/-1.0	
Toluene-d8 (Surr)	50.0	101	70 - 130	8.176	8.176	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	99	70 - 130	10.883	10.883	0.0000	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

5035A/8260C

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence: 9J02042
Instrument: VOA-GCMS3
Matrix: Soil
Calibration: A9H2203

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (9100546-BS1)			Lab File ID: VC19100203.D		Analyzed: 10/02/19 12:03			
1,4-Difluorobenzene (Surr)	50.0	97	80 - 120	6.262	6.261545	0.0005	+/-1.0	
Toluene-d8 (Surr)	50.0	98	80 - 120	7.752	7.750545	0.0015	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	100	80 - 120	10.581	10.57982	0.0012	+/-1.0	
Blank (9100546-BLK1)			Lab File ID: VC19100205.D		Analyzed: 10/02/19 12:58			
1,4-Difluorobenzene (Surr)	50.0	96	80 - 120	6.263	6.261545	0.0015	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	7.747	7.750545	-0.0035	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	103	80 - 120	10.576	10.57982	-0.0038	+/-1.0	
PDI-039SC-B-11.8-13.7-190930 (A9J0058-04)			Lab File ID: VC19100217.D		Analyzed: 10/02/19 18:43			
1,4-Difluorobenzene (Surr)	50.0	89	80 - 120	6.264	6.261545	0.0025	+/-1.0	
Toluene-d8 (Surr)	50.0	96	80 - 120	7.749	7.750545	-0.0015	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	107	80 - 120	10.578	10.57982	-0.0018	+/-1.0	
PDI-039SC-B-3.8-5.8-190930 (A9J0058-05)			Lab File ID: VC19100218.D		Analyzed: 10/02/19 19:10			
1,4-Difluorobenzene (Surr)	50.0	91	80 - 120	6.261	6.261545	-0.0005	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	7.752	7.750545	0.0015	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	105	80 - 120	10.581	10.57982	0.0012	+/-1.0	
PDI-039SC-B-5.8-7.8-190930 (A9J0058-06)			Lab File ID: VC19100219.D		Analyzed: 10/02/19 19:37			
1,4-Difluorobenzene (Surr)	50.0	88	80 - 120	6.261	6.261545	-0.0005	+/-1.0	
Toluene-d8 (Surr)	50.0	98	80 - 120	7.745	7.750545	-0.0055	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	106	80 - 120	10.58	10.57982	0.0002	+/-1.0	
PDI-039SC-B-7.8-9.8-190930 (A9J0058-07)			Lab File ID: VC19100220.D		Analyzed: 10/02/19 20:04			
1,4-Difluorobenzene (Surr)	50.0	90	80 - 120	6.263	6.261545	0.0015	+/-1.0	
Toluene-d8 (Surr)	50.0	98	80 - 120	7.748	7.750545	-0.0025	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	105	80 - 120	10.577	10.57982	-0.0028	+/-1.0	
PDI-039SC-B-9.8-11.8-190930 (A9J0058-08)			Lab File ID: VC19100221.D		Analyzed: 10/02/19 20:31			
1,4-Difluorobenzene (Surr)	50.0	88	80 - 120	6.262	6.261545	0.0005	+/-1.0	
Toluene-d8 (Surr)	50.0	100	80 - 120	7.747	7.750545	-0.0035	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	104	80 - 120	10.575	10.57982	-0.0048	+/-1.0	
PDI-040SC-B-5.3-7.3-190930 (A9J0058-11)			Lab File ID: VC19100222.D		Analyzed: 10/02/19 20:59			
1,4-Difluorobenzene (Surr)	50.0	89	80 - 120	6.258	6.261545	-0.0035	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	7.749	7.750545	-0.0015	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	104	80 - 120	10.578	10.57982	-0.0018	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Sequence:	9J02042	Instrument:	VOA-GCMS3
Matrix:	Soil	Calibration:	A9H2203

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
PDI-040SC-B-9.3-11.3-190930 (A9J0058-13)			Lab File ID: VC19100223.D		Analyzed: 10/02/19 21:26			
1,4-Difluorobenzene (Surr)	50.0	90	80 - 120	6.262	6.261545	0.0005	+/-1.0	
Toluene-d8 (Surr)	50.0	98	80 - 120	7.747	7.750545	-0.0035	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	105	80 - 120	10.576	10.57982	-0.0038	+/-1.0	
PDI-1040SC-B-5.3-7.3-190930 (A9J0058-14)			Lab File ID: VC19100224.D		Analyzed: 10/02/19 21:53			
1,4-Difluorobenzene (Surr)	50.0	89	80 - 120	6.262	6.261545	0.0005	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	7.752	7.750545	0.0015	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	103	80 - 120	10.581	10.57982	0.0012	+/-1.0	
PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)			Lab File ID: VC19100225.D		Analyzed: 10/02/19 22:20			
1,4-Difluorobenzene (Surr)	50.0	87	80 - 120	6.259	6.261545	-0.0025	+/-1.0	
Toluene-d8 (Surr)	50.0	99	80 - 120	7.749	7.750545	-0.0015	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	104	80 - 120	10.578	10.57982	-0.0018	+/-1.0	
Matrix Spike (9100546-MS2)			Lab File ID: VC19100226.D		Analyzed: 10/02/19 22:47			
1,4-Difluorobenzene (Surr)	50.0	87	80 - 120	6.264	6.261545	0.0025	+/-1.0	
Toluene-d8 (Surr)	50.0	98	80 - 120	7.748	7.750545	-0.0025	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	99	80 - 120	10.577	10.57982	-0.0028	+/-1.0	
Matrix Spike Dup (9100546-MSD2)			Lab File ID: VC19100227.D		Analyzed: 10/02/19 23:14			
1,4-Difluorobenzene (Surr)	50.0	87	80 - 120	6.262	6.261545	0.0005	+/-1.0	
Toluene-d8 (Surr)	50.0	97	80 - 120	7.753	7.750545	0.0025	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	99	80 - 120	10.576	10.57982	-0.0038	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

5035A/8260C

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence: 9J03035
Instrument: VOA-GCMS10
Matrix: Soil
Calibration: A9I2702

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (9100596-BS1)			Lab File ID: VJ19100307.D		Analyzed: 10/03/19 12:25			
1,4-Difluorobenzene (Surr)	50.0	84	80 - 120	6.661	6.658818	0.0022	+/-1.0	
Toluene-d8 (Surr)	50.0	103	80 - 120	8.176	8.176	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	96	80 - 120	10.883	10.883	0.0000	+/-1.0	
Blank (9100596-BLK1)			Lab File ID: VJ19100309.D		Analyzed: 10/03/19 13:19			
1,4-Difluorobenzene (Surr)	50.0	85	80 - 120	6.661	6.658818	0.0022	+/-1.0	
Toluene-d8 (Surr)	50.0	105	80 - 120	8.176	8.176	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	97	80 - 120	10.883	10.883	0.0000	+/-1.0	
PDI-042SC-B-11.9-13.8-190930 (A9J0058-17)			Lab File ID: VJ19100310.D		Analyzed: 10/03/19 13:45			
1,4-Difluorobenzene (Surr)	50.0	86	80 - 120	6.661	6.658818	0.0022	+/-1.0	
Toluene-d8 (Surr)	50.0	103	80 - 120	8.176	8.176	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	97	80 - 120	10.883	10.883	0.0000	+/-1.0	
PDI-042SC-B-3.9-5.9-190930 (A9J0058-18)			Lab File ID: VJ19100311.D		Analyzed: 10/03/19 14:12			
1,4-Difluorobenzene (Surr)	50.0	83	80 - 120	6.661	6.658818	0.0022	+/-1.0	
Toluene-d8 (Surr)	50.0	104	80 - 120	8.176	8.176	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	98	80 - 120	10.883	10.883	0.0000	+/-1.0	
PDI-042SC-B-5.9-7.9-190930 (A9J0058-19)			Lab File ID: VJ19100312.D		Analyzed: 10/03/19 14:38			
1,4-Difluorobenzene (Surr)	50.0	85	80 - 120	6.661	6.658818	0.0022	+/-1.0	
Toluene-d8 (Surr)	50.0	101	80 - 120	8.176	8.176	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	98	80 - 120	10.883	10.883	0.0000	+/-1.0	
PDI-042SC-B-7.9-9.9-190930 (A9J0058-20)			Lab File ID: VJ19100313.D		Analyzed: 10/03/19 15:05			
1,4-Difluorobenzene (Surr)	50.0	82	80 - 120	6.661	6.658818	0.0022	+/-1.0	
Toluene-d8 (Surr)	50.0	102	80 - 120	8.176	8.176	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	99	80 - 120	10.883	10.883	0.0000	+/-1.0	
PDI-042SC-B-9.9-11.9-190930 (A9J0058-21)			Lab File ID: VJ19100314.D		Analyzed: 10/03/19 15:32			
1,4-Difluorobenzene (Surr)	50.0	82	80 - 120	6.661	6.658818	0.0022	+/-1.0	
Toluene-d8 (Surr)	50.0	102	80 - 120	8.176	8.176	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	98	80 - 120	10.883	10.883	0.0000	+/-1.0	
Duplicate (9100596-DUP1)			Lab File ID: VJ19100315.D		Analyzed: 10/03/19 15:59			
1,4-Difluorobenzene (Surr)	50.0	81	80 - 120	6.661	6.658818	0.0022	+/-1.0	
Toluene-d8 (Surr)	50.0	104	80 - 120	8.176	8.176	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	99	80 - 120	10.883	10.883	0.0000	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J03035	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9I2702

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
PDI-044SC-B-11.1-12.8-190930 (A9J0058-24)			Lab File ID: VJ19100316.D		Analyzed: 10/03/19 16:25			
1,4-Difluorobenzene (Surr)	50.0	82	80 - 120	6.655	6.658818	-0.0038	+/-1.0	
Toluene-d8 (Surr)	50.0	100	80 - 120	8.176	8.176	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	100	80 - 120	10.883	10.883	0.0000	+/-1.0	
PDI-044SC-B-7.1-9.1-190930 (A9J0058-25)			Lab File ID: VJ19100317.D		Analyzed: 10/03/19 16:52			
1,4-Difluorobenzene (Surr)	50.0	81	80 - 120	6.661	6.658818	0.0022	+/-1.0	
Toluene-d8 (Surr)	50.0	101	80 - 120	8.176	8.176	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	99	80 - 120	10.883	10.883	0.0000	+/-1.0	
PDI-044SC-B-9.1-11.1-190930 (A9J0058-26)			Lab File ID: VJ19100318.D		Analyzed: 10/03/19 17:19			
1,4-Difluorobenzene (Surr)	50.0	81	80 - 120	6.655	6.658818	-0.0038	+/-1.0	
Toluene-d8 (Surr)	50.0	102	80 - 120	8.176	8.176	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	97	80 - 120	10.883	10.883	0.0000	+/-1.0	
Matrix Spike (9100596-MS1)			Lab File ID: VJ19100319.D		Analyzed: 10/03/19 17:46			
1,4-Difluorobenzene (Surr)	50.0	79	80 - 120	6.661	6.658818	0.0022	+/-1.0	*
Toluene-d8 (Surr)	50.0	104	80 - 120	8.176	8.176	0.0000	+/-1.0	
4-Bromofluorobenzene (Surr)	50.0	93	80 - 120	10.883	10.883	0.0000	+/-1.0	

INTERNAL STANDARD AREA AND RT SUMMARY
5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J02042	Instrument:	VOA-GCMS3
Matrix:	Soil	Calibration:	A9H2203

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (9100546-BS1)			Lab File ID: VC19100203.D			Analyzed: 10/02/19 12:03			
Pentafluorobenzene (ISTD)	125409	5.714	125409	5.714	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	356514	9.462	356514	9.462	100	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	162538	11.482	162538	11.482	100	50 - 200	0.0000	+/-0.50	
Calibration Check (9J02042-CCV1)			Lab File ID: VC19100203.D			Analyzed: 10/02/19 12:03			
Pentafluorobenzene (ISTD)	125409	5.714	113994	5.714	110	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	356514	9.462	329068	9.462	108	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	162538	11.482	156959	11.481	104	50 - 200	0.0010	+/-0.50	
Blank (9100546-BLK1)			Lab File ID: VC19100205.D			Analyzed: 10/02/19 12:58			
Pentafluorobenzene (ISTD)	124226	5.715	125409	5.714	99	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5 (ISTD)	345234	9.463	356514	9.462	97	50 - 200	0.0010	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	148407	11.482	162538	11.482	91	50 - 200	0.0000	+/-0.50	
Duplicate (9100546-DUP1)			Lab File ID: VC19100209.D			Analyzed: 10/02/19 14:46			
Pentafluorobenzene (ISTD)	107418	5.714	125409	5.714	86	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	298840	9.461	356514	9.462	84	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	134943	11.481	162538	11.482	83	50 - 200	-0.0010	+/-0.50	
Matrix Spike (9100546-MS1)			Lab File ID: VC19100215.D			Analyzed: 10/02/19 17:29			
Pentafluorobenzene (ISTD)	103495	5.715	125409	5.714	83	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5 (ISTD)	279495	9.462	356514	9.462	78	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	133247	11.482	162538	11.482	82	50 - 200	0.0000	+/-0.50	
PDI-039SC-B-11.8-13.7-190930 (A9J0058-04)			Lab File ID: VC19100217.D			Analyzed: 10/02/19 18:43			
Pentafluorobenzene (ISTD)	108440	5.717	125409	5.714	86	50 - 200	0.0030	+/-0.50	
Chlorobenzene-d5 (ISTD)	289366	9.458	356514	9.462	81	50 - 200	-0.0040	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	131058	11.478	162538	11.482	81	50 - 200	-0.0040	+/-0.50	
PDI-039SC-B-3.8-5.8-190930 (A9J0058-05)			Lab File ID: VC19100218.D			Analyzed: 10/02/19 19:10			
Pentafluorobenzene (ISTD)	100579	5.714	125409	5.714	80	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	266439	9.461	356514	9.462	75	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	118635	11.481	162538	11.482	73	50 - 200	-0.0010	+/-0.50	
PDI-039SC-B-5.8-7.8-190930 (A9J0058-06)			Lab File ID: VC19100219.D			Analyzed: 10/02/19 19:37			
Pentafluorobenzene (ISTD)	106449	5.713	125409	5.714	85	50 - 200	-0.0010	+/-0.50	
Chlorobenzene-d5 (ISTD)	278462	9.461	356514	9.462	78	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	121725	11.48	162538	11.482	75	50 - 200	-0.0020	+/-0.50	
PDI-039SC-B-7.8-9.8-190930 (A9J0058-07)			Lab File ID: VC19100220.D			Analyzed: 10/02/19 20:04			
Pentafluorobenzene (ISTD)	101798	5.716	125409	5.714	81	50 - 200	0.0020	+/-0.50	
Chlorobenzene-d5 (ISTD)	271348	9.463	356514	9.462	76	50 - 200	0.0010	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	123871	11.477	162538	11.482	76	50 - 200	-0.0050	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Sequence:	9J02042	Instrument:	VOA-GCMS3
Matrix:	Soil	Calibration:	A9H2203

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PDI-039SC-B-9.8-11.8-190930 (A9J0058-08)			Lab File ID: VC19100221.D			Analyzed: 10/02/19 20:31			
Pentafluorobenzene (ISTD)	102486	5.715	125409	5.714	82	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5 (ISTD)	263847	9.462	356514	9.462	74	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	117048	11.482	162538	11.482	72	50 - 200	0.0000	+/-0.50	
PDI-040SC-B-5.3-7.3-190930 (A9J0058-11)			Lab File ID: VC19100222.D			Analyzed: 10/02/19 20:59			
Pentafluorobenzene (ISTD)	101495	5.717	125409	5.714	81	50 - 200	0.0030	+/-0.50	
Chlorobenzene-d5 (ISTD)	266114	9.458	356514	9.462	75	50 - 200	-0.0040	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	118774	11.478	162538	11.482	73	50 - 200	-0.0040	+/-0.50	
PDI-040SC-B-9.3-11.3-190930 (A9J0058-13)			Lab File ID: VC19100223.D			Analyzed: 10/02/19 21:26			
Pentafluorobenzene (ISTD)	100413	5.715	125409	5.714	80	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5 (ISTD)	265613	9.462	356514	9.462	75	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	121200	11.482	162538	11.482	75	50 - 200	0.0000	+/-0.50	
PDI-1040SC-B-5.3-7.3-190930 (A9J0058-14)			Lab File ID: VC19100224.D			Analyzed: 10/02/19 21:53			
Pentafluorobenzene (ISTD)	96975	5.714	125409	5.714	77	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	251604	9.462	356514	9.462	71	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	110331	11.481	162538	11.482	68	50 - 200	-0.0010	+/-0.50	
PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)			Lab File ID: VC19100225.D			Analyzed: 10/02/19 22:20			
Pentafluorobenzene (ISTD)	94953	5.717	125409	5.714	76	50 - 200	0.0030	+/-0.50	
Chlorobenzene-d5 (ISTD)	240349	9.465	356514	9.462	67	50 - 200	0.0030	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	100065	11.478	162538	11.482	62	50 - 200	-0.0040	+/-0.50	
Matrix Spike (9100546-MS2)			Lab File ID: VC19100226.D			Analyzed: 10/02/19 22:47			
Pentafluorobenzene (ISTD)	101388	5.716	125409	5.714	81	50 - 200	0.0020	+/-0.50	
Chlorobenzene-d5 (ISTD)	259362	9.463	356514	9.462	73	50 - 200	0.0010	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	121532	11.477	162538	11.482	75	50 - 200	-0.0050	+/-0.50	
Matrix Spike Dup (9100546-MSD2)			Lab File ID: VC19100227.D			Analyzed: 10/02/19 23:14			
Pentafluorobenzene (ISTD)	101078	5.715	125409	5.714	81	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5 (ISTD)	259741	9.462	356514	9.462	73	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	125396	11.482	162538	11.482	77	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
5035A/8260C

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence: 9J03035
Instrument: VOA-GCMS10
Matrix: Soil
Calibration: A9I2702

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (9100596-BS1)			Lab File ID: VJ19100307.D			Analyzed: 10/03/19 12:25			
Pentafluorobenzene (ISTD)	76035	6.095	76035	6.095	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	145451	9.812	145451	9.812	100	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	67970	11.771	67970	11.771	100	50 - 200	0.0000	+/-0.50	
Calibration Check (9J03035-CCV1)			Lab File ID: VJ19100307.D			Analyzed: 10/03/19 12:25			
Pentafluorobenzene (ISTD)	76035	6.095	84226	6.095	90	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	145451	9.812	194298	9.813	75	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	67970	11.771	90055	11.771	75	50 - 200	0.0000	+/-0.50	
Blank (9100596-BLK1)			Lab File ID: VJ19100309.D			Analyzed: 10/03/19 13:19			
Pentafluorobenzene (ISTD)	75101	6.101	76035	6.095	99	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	146296	9.812	145451	9.812	101	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	60317	11.771	67970	11.771	89	50 - 200	0.0000	+/-0.50	
PDI-042SC-B-11.9-13.8-190930 (A9J0058-17)			Lab File ID: VJ19100310.D			Analyzed: 10/03/19 13:45			
Pentafluorobenzene (ISTD)	74460	6.095	76035	6.095	98	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	151015	9.812	145451	9.812	104	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	62311	11.771	67970	11.771	92	50 - 200	0.0000	+/-0.50	
PDI-042SC-B-3.9-5.9-190930 (A9J0058-18)			Lab File ID: VJ19100311.D			Analyzed: 10/03/19 14:12			
Pentafluorobenzene (ISTD)	74805	6.101	76035	6.095	98	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5 (ISTD)	143296	9.812	145451	9.812	99	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	61869	11.771	67970	11.771	91	50 - 200	0.0000	+/-0.50	
PDI-042SC-B-5.9-7.9-190930 (A9J0058-19)			Lab File ID: VJ19100312.D			Analyzed: 10/03/19 14:38			
Pentafluorobenzene (ISTD)	72613	6.095	76035	6.095	95	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	147274	9.812	145451	9.812	101	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	59432	11.771	67970	11.771	87	50 - 200	0.0000	+/-0.50	
PDI-042SC-B-7.9-9.9-190930 (A9J0058-20)			Lab File ID: VJ19100313.D			Analyzed: 10/03/19 15:05			
Pentafluorobenzene (ISTD)	73889	6.095	76035	6.095	97	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	144198	9.812	145451	9.812	99	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	59266	11.771	67970	11.771	87	50 - 200	0.0000	+/-0.50	
PDI-042SC-B-9.9-11.9-190930 (A9J0058-21)			Lab File ID: VJ19100314.D			Analyzed: 10/03/19 15:32			
Pentafluorobenzene (ISTD)	71700	6.095	76035	6.095	94	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	138180	9.813	145451	9.812	95	50 - 200	0.0010	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	59426	11.771	67970	11.771	87	50 - 200	0.0000	+/-0.50	
Duplicate (9100596-DUP1)			Lab File ID: VJ19100315.D			Analyzed: 10/03/19 15:59			
Pentafluorobenzene (ISTD)	69212	6.095	76035	6.095	91	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	129438	9.812	145451	9.812	89	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	53444	11.771	67970	11.771	79	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
5035A/8260C

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Sequence:	9J03035	Instrument:	VOA-GCMS10
Matrix:	Soil	Calibration:	A9I2702

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PDI-044SC-B-11.1-12.8-190930 (A9J0058-24)			Lab File ID: VJ19100316.D			Analyzed: 10/03/19 16:25			
Pentafluorobenzene (ISTD)	70431	6.095	76035	6.095	93	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	139686	9.812	145451	9.812	96	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	59066	11.765	67970	11.771	87	50 - 200	-0.0060	+/-0.50	
PDI-044SC-B-7.1-9.1-190930 (A9J0058-25)			Lab File ID: VJ19100317.D			Analyzed: 10/03/19 16:52			
Pentafluorobenzene (ISTD)	74378	6.095	76035	6.095	98	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	143549	9.812	145451	9.812	99	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	62216	11.771	67970	11.771	92	50 - 200	0.0000	+/-0.50	
PDI-044SC-B-9.1-11.1-190930 (A9J0058-26)			Lab File ID: VJ19100318.D			Analyzed: 10/03/19 17:19			
Pentafluorobenzene (ISTD)	71057	6.095	76035	6.095	93	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	137017	9.812	145451	9.812	94	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	58301	11.771	67970	11.771	86	50 - 200	0.0000	+/-0.50	
Matrix Spike (9100596-MS1)			Lab File ID: VJ19100319.D			Analyzed: 10/03/19 17:46			
Pentafluorobenzene (ISTD)	66566	6.095	76035	6.095	88	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (ISTD)	120125	9.812	145451	9.812	83	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4 (ISTD)	56315	11.771	67970	11.771	83	50 - 200	0.0000	+/-0.50	

HOLDING TIME SUMMARY

5035A/8260C

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

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-039SC-B-11.8-13.7-190930	09/30/19 10:39	10/02/19 11:23	09/30/19 10:39	0.00	2.00	10/02/19 18:43	2.34	14.00	
PDI-039SC-B-3.8-5.8-190930	09/30/19 09:15	10/02/19 11:23	09/30/19 09:15	0.00	2.00	10/02/19 19:10	2.41	14.00	
PDI-039SC-B-5.8-7.8-190930	09/30/19 09:16	10/02/19 11:23	09/30/19 09:16	0.00	2.00	10/02/19 19:37	2.43	14.00	
PDI-039SC-B-7.8-9.8-190930	09/30/19 09:17	10/02/19 11:23	09/30/19 09:17	0.00	2.00	10/02/19 20:04	2.45	14.00	
PDI-039SC-B-9.8-11.8-190930	09/30/19 09:18	10/02/19 11:23	09/30/19 09:18	0.00	2.00	10/02/19 20:31	2.47	14.00	
PDI-040SC-B-5.3-7.3-190930	09/30/19 13:45	10/02/19 11:23	09/30/19 13:45	0.00	2.00	10/02/19 20:59	2.30	14.00	
PDI-040SC-B-7.3-9.3-190930	09/30/19 13:46	10/02/19 11:23	09/30/19 13:46	0.00	2.00	10/02/19 22:20	2.36	14.00	
PDI-040SC-B-9.3-11.3-190930	09/30/19 14:02	10/02/19 11:23	09/30/19 14:02	0.00	2.00	10/02/19 21:26	2.31	14.00	
PDI-1040SC-B-5.3-7.3-190930	09/30/19 13:45	10/02/19 11:23	09/30/19 13:45	0.00	2.00	10/02/19 21:53	2.34	14.00	
PDI-042SC-B-11.9-13.8-190930	09/30/19 12:29	10/02/19 11:23	09/30/19 12:29	0.00	2.00	10/03/19 13:45	3.05	14.00	
PDI-042SC-B-3.9-5.9-190930	09/30/19 12:05	10/02/19 11:23	09/30/19 12:05	0.00	2.00	10/03/19 14:12	3.09	14.00	
PDI-042SC-B-5.9-7.9-190930	09/30/19 12:06	10/02/19 11:23	09/30/19 12:06	0.00	2.00	10/03/19 14:38	3.11	14.00	
PDI-042SC-B-7.9-9.9-190930	09/30/19 12:06	10/02/19 11:23	09/30/19 12:06	0.00	2.00	10/03/19 15:05	3.12	14.00	
PDI-042SC-B-9.9-11.9-190930	09/30/19 12:07	10/02/19 11:23	09/30/19 12:07	0.00	2.00	10/03/19 15:32	3.14	14.00	
PDI-044SC-B-11.1-12.8-190930	09/30/19 15:15	10/02/19 11:23	09/30/19 15:15	0.00	2.00	10/03/19 16:25	3.05	14.00	
PDI-044SC-B-7.1-9.1-190930	09/30/19 15:06	10/02/19 11:23	09/30/19 15:06	0.00	2.00	10/03/19 16:52	3.07	14.00	
PDI-044SC-B-9.1-11.1-190930	09/30/19 15:07	10/02/19 11:23	09/30/19 15:07	0.00	2.00	10/03/19 17:19	3.09	14.00	

Apex Laboratories

SDG: A9J0058

CLASS: GC

METHOD: EPA 8082A

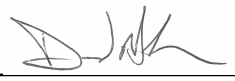
ANALYSES DATA PACKAGE COVER PAGE

EPA 8082A

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

Client Sample Id:	Lab Sample Id:	Matrix
PDI-039SC-A-12-13-190930	A9J0058-01	Sediment
PDI-039SC-A-13-13.7-190930	A9J0058-02	Sediment
PDI-1039SC-A-12-13-190930	A9J0058-03	Sediment
PDI-040SC-A-09-10-190930	A9J0058-09	Sediment
PDI-040SC-A-10-11.3-190930	A9J0058-10	Sediment
PDI-042SC-A-12-13-190930	A9J0058-15	Sediment
PDI-042SC-A-13-13.8-190930	A9J0058-16	Sediment
PDI-044SC-A-11-12-190930	A9J0058-22	Sediment
PDI-044SC-A-12-12.8-190930	A9J0058-23	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: 11/19/2019 4:10PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 8082A

Laboratory: Apex Laboratories **SDG:** A9J0058

Client: Anchor QEA, LLC **Project:** Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
Aroclor 1016	0.670	1.33	ug/kg
Aroclor 1221	0.670	1.33	ug/kg
Aroclor 1232	0.670	1.33	ug/kg
Aroclor 1242	0.670	1.33	ug/kg
Aroclor 1248	0.670	1.33	ug/kg
Aroclor 1254	0.670	1.33	ug/kg
Aroclor 1260	0.670	1.33	ug/kg
Aroclor 1262	0.670	1.33	ug/kg
Aroclor 1268	0.670	1.33	ug/kg

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

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

PDI-039SC-A-12-13-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-01RE1	File ID:	ECD2F004.D
Sampled:	09/30/19 09:09	Prepared:	10/08/19 11:10	Analyzed:	10/18/19 08:36
Solids:	74.07	Preparation:	EPA 3546	Initial/Final:	33.05 g / 2 mL
Batch:	9100797	Sequence:	9J18010	Calibration:	A9J0303
Instrument:	DUALECD2F				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
12674-11-2	Aroclor 1016	1	1.63	U
11104-28-2	Aroclor 1221	1	6.74	U
11141-16-5	Aroclor 1232	1	2.82	U
53469-21-9	Aroclor 1242	1	1.63	U
12672-29-6	Aroclor 1248	1	0.821	U
11097-69-1	Aroclor 1254	1	0.821	U
11096-82-5	Aroclor 1260	1	0.821	U
37324-23-5	Aroclor 1262	1	0.821	U
11100-14-4	Aroclor 1268	1	0.821	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl (Surr)	20.4	16.9	83	43 - 120	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

PDI-039SC-A-13-13.7-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-02	File ID:	ECD2F008.D
Sampled:	09/30/19 09:48	Prepared:	10/08/19 11:10	Analyzed:	10/09/19 10:11
Solids:	73.21	Preparation:	EPA 3546	Initial/Final:	33.33 g / 2 mL
Batch:	9100797	Sequence:	9J09024	Calibration:	A9J0303
Instrument:	DUALECD2F				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.824	U
11104-28-2	Aroclor 1221	1	0.824	U
11141-16-5	Aroclor 1232	1	0.824	U
53469-21-9	Aroclor 1242	1	0.824	U
12672-29-6	Aroclor 1248	1	0.824	U
11097-69-1	Aroclor 1254	1	0.824	U
11096-82-5	Aroclor 1260	1	0.824	U
37324-23-5	Aroclor 1262	1	0.824	U
11100-14-4	Aroclor 1268	1	0.824	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl (Surr)	20.5	15.5	76	43 - 120	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

PDI-1039SC-A-12-13-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-03RE1	File ID:	ECD2F006.D
Sampled:	09/30/19 09:48	Prepared:	10/08/19 11:10	Analyzed:	10/18/19 09:11
Solids:	74.18	Preparation:	EPA 3546	Initial/Final:	35.51 g / 2 mL
Batch:	9100797	Sequence:	9J18010	Calibration:	A9J0303
Instrument:	DUALECD2F				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.763	U
11104-28-2	Aroclor 1221	1	2.73	U
11141-16-5	Aroclor 1232	1	1.51	U
53469-21-9	Aroclor 1242	1	0.763	U
12672-29-6	Aroclor 1248	1	0.763	U
11097-69-1	Aroclor 1254	1	0.763	U
11096-82-5	Aroclor 1260	1	0.763	U
37324-23-5	Aroclor 1262	1	0.763	U
11100-14-4	Aroclor 1268	1	0.763	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl (Surr)	19.0	12.8	67	43 - 120	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

PDI-040SC-A-09-10-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-09	File ID:	ECD2F012.D
Sampled:	09/30/19 13:44	Prepared:	10/08/19 11:10	Analyzed:	10/09/19 11:22
Solids:	83.92	Preparation:	EPA 3546	Initial/Final:	35.62 g / 2 mL
Batch:	9100797	Sequence:	9J09024	Calibration:	A9J0303
Instrument:	DUALECD2F				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.672	U
11104-28-2	Aroclor 1221	1	0.672	U
11141-16-5	Aroclor 1232	1	0.672	U
53469-21-9	Aroclor 1242	1	0.672	U
12672-29-6	Aroclor 1248	1	0.672	U
11097-69-1	Aroclor 1254	1	0.672	U
11096-82-5	Aroclor 1260	1	0.672	U
37324-23-5	Aroclor 1262	1	0.672	U
11100-14-4	Aroclor 1268	1	0.672	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl (Surr)	16.7	14.9	89	43 - 120	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

PDI-040SC-A-10-11.3-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-10	File ID:	ECD2F014.D
Sampled:	09/30/19 13:59	Prepared:	10/08/19 11:10	Analyzed:	10/09/19 11:57
Solids:	76.30	Preparation:	EPA 3546	Initial/Final:	32.88 g / 2 mL
Batch:	9100797	Sequence:	9J09024	Calibration:	A9J0303
Instrument:	DUALECD2F				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.801	U
11104-28-2	Aroclor 1221	1	0.801	U
11141-16-5	Aroclor 1232	1	0.801	U
53469-21-9	Aroclor 1242	1	0.801	U
12672-29-6	Aroclor 1248	1	0.801	U
11097-69-1	Aroclor 1254	1	0.801	U
11096-82-5	Aroclor 1260	1	0.801	U
37324-23-5	Aroclor 1262	1	0.801	U
11100-14-4	Aroclor 1268	1	0.801	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl (Surr)	19.9	19.2	96	43 - 120	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

PDI-042SC-A-12-13-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-15	File ID:	ECD2R004.D
Sampled:	09/30/19 11:22	Prepared:	10/08/19 11:10	Analyzed:	10/09/19 09:01
Solids:	82.22	Preparation:	EPA 3546	Initial/Final:	30.87 g / 2 mL
Batch:	9100797	Sequence:	9J09025	Calibration:	A9G1705
Instrument:	DUALECD2R				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.792	U
11104-28-2	Aroclor 1221	1	0.792	U
11141-16-5	Aroclor 1232	1	0.792	U
53469-21-9	Aroclor 1242	1	0.792	U
12672-29-6	Aroclor 1248	1	0.792	U
11097-69-1	Aroclor 1254	1	0.792	U
11096-82-5	Aroclor 1260	1	0.792	U
37324-23-5	Aroclor 1262	1	0.792	U
11100-14-4	Aroclor 1268	1	0.792	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl (Surr)	19.7	16.3	82	43 - 120	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

PDI-042SC-A-13-13.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-16	File ID:	ECD2R010.D
Sampled:	09/30/19 12:42	Prepared:	10/08/19 11:10	Analyzed:	10/09/19 10:47
Solids:	75.12	Preparation:	EPA 3546	Initial/Final:	33.49 g / 2 mL
Batch:	9100797	Sequence:	9J09025	Calibration:	A9G1705
Instrument:	DUALECD2R				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.799	U
11104-28-2	Aroclor 1221	1	0.799	U
11141-16-5	Aroclor 1232	1	0.799	U
53469-21-9	Aroclor 1242	1	0.799	U
12672-29-6	Aroclor 1248	1	0.799	U
11097-69-1	Aroclor 1254	1	0.799	U
11096-82-5	Aroclor 1260	1	0.799	U
37324-23-5	Aroclor 1262	1	0.799	U
11100-14-4	Aroclor 1268	1	0.799	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl (Surr)	19.9	14.2	72	43 - 120	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

PDI-044SC-A-11-12-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-22	File ID:	ECD2R012.D
Sampled:	09/30/19 15:05	Prepared:	10/08/19 11:10	Analyzed:	10/09/19 11:22
Solids:	77.98	Preparation:	EPA 3546	Initial/Final:	34.49 g / 2 mL
Batch:	9100797	Sequence:	9J09025	Calibration:	A9G1705
Instrument:	DUALECD2R				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.747	U
11104-28-2	Aroclor 1221	1	0.747	U
11141-16-5	Aroclor 1232	1	0.747	U
53469-21-9	Aroclor 1242	1	0.747	U
12672-29-6	Aroclor 1248	1	0.747	U
11097-69-1	Aroclor 1254	1	0.747	U
11096-82-5	Aroclor 1260	1	0.747	U
37324-23-5	Aroclor 1262	1	0.747	U
11100-14-4	Aroclor 1268	1	0.747	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl (Surr)	18.6	14.5	78	43 - 120	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

PDI-044SC-A-12-12.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-23	File ID:	ECD2R014.D
Sampled:	09/30/19 15:05	Prepared:	10/08/19 11:10	Analyzed:	10/09/19 11:57
Solids:	76.30	Preparation:	EPA 3546	Initial/Final:	33.82 g / 2 mL
Batch:	9100797	Sequence:	9J09025	Calibration:	A9G1705
Instrument:	DUALECD2R				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
12674-11-2	Aroclor 1016	1	0.779	U
11104-28-2	Aroclor 1221	1	0.779	U
11141-16-5	Aroclor 1232	1	0.779	U
53469-21-9	Aroclor 1242	1	0.779	U
12672-29-6	Aroclor 1248	1	0.779	U
11097-69-1	Aroclor 1254	1	0.779	U
11096-82-5	Aroclor 1260	1	0.779	U
37324-23-5	Aroclor 1262	1	0.779	U
11100-14-4	Aroclor 1268	1	0.779	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
Decachlorobiphenyl (Surr)	19.4	15.4	80	43 - 120	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

EPA 8082A

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cc

Batch: 9100797 Batch Matrix: Sediment Preparation: EPA 3546

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9100797-BLK1	ECD2F004.D	10/08/19 11:10	
LCS	9100797-BS1	ECD2F005.D	10/08/19 11:10	
PDI-042SC-A-12-13-190930 (MS)	9100797-MS1	ECD2R006.D	10/08/19 11:10	
PDI-042SC-A-12-13-190930 (MSD)	9100797-MSD1	ECD2R008.D	10/08/19 11:10	
PDI-039SC-A-12-13-190930	A9J0058-01RE1	ECD2F004.D	10/08/19 11:10	
PDI-039SC-A-13-13.7-190930	A9J0058-02	ECD2F008.D	10/08/19 11:10	
PDI-1039SC-A-12-13-190930	A9J0058-03RE1	ECD2F006.D	10/08/19 11:10	
PDI-040SC-A-09-10-190930	A9J0058-09	ECD2F012.D	10/08/19 11:10	
PDI-040SC-A-10-11.3-190930	A9J0058-10	ECD2F014.D	10/08/19 11:10	
PDI-042SC-A-12-13-190930	A9J0058-15	ECD2R004.D	10/08/19 11:10	
PDI-042SC-A-13-13.8-190930	A9J0058-16	ECD2R010.D	10/08/19 11:10	
PDI-044SC-A-11-12-190930	A9J0058-22	ECD2R012.D	10/08/19 11:10	
PDI-044SC-A-12-12.8-190930	A9J0058-23	ECD2R014.D	10/08/19 11:10	

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

METHOD BLANK DATA SHEET

EPA 8082A

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Matrix:	Sediment	Laboratory ID:	9100797-BLK1	File ID:	ECD2F004.D
Prepared:	10/08/19 11:10	Preparation:	EPA 3546	Initial/Final:	36 g / 2 mL
Analyzed:	10/09/19 09:01	Instrument:	DUALECD2F		
Batch:	9100797	Sequence:	9J09024	Calibration:	A9J0303

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
12674-11-2	Aroclor 1016	0.558	U
11104-28-2	Aroclor 1221	0.558	U
11141-16-5	Aroclor 1232	0.558	U
53469-21-9	Aroclor 1242	0.558	U
12672-29-6	Aroclor 1248	0.558	U
11097-69-1	Aroclor 1254	0.558	U
11096-82-5	Aroclor 1260	0.558	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg wet)	CONC (ug/kg wet)	% REC	QC LIMITS	Q
Decachlorobiphenyl (Surr)	13.9	14.2	102	43 - 120	

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100797	Laboratory ID:	9100797-BS1
Preparation:	EPA 3546	Initial/Final:	30 g / 2 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
Aroclor 1016	83.3	50.3	60	47 - 134
Aroclor 1260	83.3	72.0	86	53 - 140

* = Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8082A

PDI-042SC-A-12-13-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Matrix:	Sediment		
Batch:	9100797	Laboratory ID:	9100797-MS1
Preparation:	EPA 3546	Initial/Final:	30.81 g / 2 mL

Source Sample Name: PDI-042SC-A-12-13-190930

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	MS CONCENTRATION (ug/kg dry)	MS % REC. (*=Out)	QC LIMITS REC.
Aroclor 1016	98.7	ND	50.8	51	47 - 134
Aroclor 1260	98.7	ND	75.4	76	53 - 140

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8082A

PDI-042SC-A-12-13-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100797	Laboratory ID:	9100797-MSD1
Preparation:	EPA 3546	Initial/Final:	30.78 g / 2 mL

Source Sample Name: PDI-042SC-A-12-13-190930

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	MSD % RECOVERY	% RPD	QC LIMITS RPD	QC LIMITS REC.
Aroclor 1016	98.8	61.4	62	19	30	47 - 134
Aroclor 1260	98.8	75.1	76	0.3	30	53 - 140

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9G16029	Instrument:	DUALECD2R
Matrix:	Sediment	Calibration:	A9G1705

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Blank	9G16029-ICB1	ECD2R007.D	07/16/19 09:44
Cal Standard	9G16029-CAL1	ECD2R008.D	07/16/19 10:02
Cal Standard	9G16029-CAL2	ECD2R009.D	07/16/19 10:20
Cal Standard	9G16029-CAL3	ECD2R010.D	07/16/19 10:37
Cal Standard	9G16029-CAL4	ECD2R011.D	07/16/19 10:55
Cal Standard	9G16029-CAL5	ECD2R012.D	07/16/19 11:13
Cal Standard	9G16029-CAL6	ECD2R013.D	07/16/19 11:31
Cal Standard	9G16029-CAL7	ECD2R014.D	07/16/19 11:49
Initial Cal Check	9G16029-ICV1	ECD2R016.D	07/16/19 12:24
Cal Standard	9G16029-CAL8	ECD2R017.D	07/16/19 12:42
Cal Standard	9G16029-CAL9	ECD2R018.D	07/16/19 13:00
Cal Standard	9G16029-CALA	ECD2R019.D	07/16/19 13:18
Cal Standard	9G16029-CALB	ECD2R020.D	07/16/19 13:35
Cal Standard	9G16029-CALC	ECD2R021.D	07/16/19 13:53
Cal Standard	9G16029-CALD	ECD2R022.D	07/16/19 14:11
Cal Standard	9G16029-CALE	ECD2R023.D	07/16/19 14:29
Initial Cal Check	9G16029-ICV2	ECD2R024.D	07/16/19 14:47
Initial Cal Check	9G16029-ICV3	ECD2R025.D	07/16/19 15:05
Initial Cal Check	9G16029-ICV4	ECD2R026.D	07/16/19 15:22
Initial Cal Check	9G16029-ICV5	ECD2R027.D	07/16/19 15:40

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

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J01027	Instrument:	DUALECD2F
Matrix:	Sediment	Calibration:	A9J0303

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Blank	9J01027-ICB1	ECD2F009.D	10/01/19 12:25
Cal Standard	9J01027-CAL1	ECD2F010.D	10/01/19 12:43
Cal Standard	9J01027-CAL2	ECD2F011.D	10/01/19 13:01
Cal Standard	9J01027-CAL3	ECD2F012.D	10/01/19 13:18
Cal Standard	9J01027-CAL4	ECD2F013.D	10/01/19 13:36
Cal Standard	9J01027-CAL5	ECD2F014.D	10/01/19 13:53
Cal Standard	9J01027-CAL6	ECD2F015.D	10/01/19 14:11
Cal Standard	9J01027-CAL7	ECD2F016.D	10/01/19 14:29
Initial Cal Check	9J01027-ICV1	ECD2F018.D	10/01/19 15:04
Cal Standard	9J01027-CAL8	ECD2F019.D	10/01/19 15:22
Cal Standard	9J01027-CAL9	ECD2F020.D	10/01/19 15:39
Cal Standard	9J01027-CALA	ECD2F021.D	10/01/19 15:57
Cal Standard	9J01027-CALB	ECD2F022.D	10/01/19 16:15
Cal Standard	9J01027-CALC	ECD2F023.D	10/01/19 16:32
Cal Standard	9J01027-CALD	ECD2F024.D	10/01/19 16:50
Cal Standard	9J01027-CALE	ECD2F025.D	10/01/19 17:07
Initial Cal Check	9J01027-ICV2	ECD2F026.D	10/01/19 17:25
Initial Cal Check	9J01027-ICV3	ECD2F027.D	10/01/19 17:43
Initial Cal Check	9J01027-ICV4	ECD2F028.D	10/01/19 18:00
Initial Cal Check	9J01027-ICV5	ECD2F029.D	10/01/19 18:18

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

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J09024	Instrument:	DUALECD2F
Matrix:	Sediment	Calibration:	A9J0303

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	9J09024-CCV1	ECD2F002.D	10/09/19 08:05
Calibration Blank	9J09024-CCB1	ECD2F003.D	10/09/19 08:23
Blank	9100797-BLK1	ECD2F004.D	10/09/19 09:01
LCS	9100797-BS1	ECD2F005.D	10/09/19 09:19
PDI-039SC-A-13-13.7-190930	A9J0058-02	ECD2F008.D	10/09/19 10:11
PDI-040SC-A-09-10-190930	A9J0058-09	ECD2F012.D	10/09/19 11:22
PDI-040SC-A-10-11.3-190930	A9J0058-10	ECD2F014.D	10/09/19 11:57
Calibration Check	9J09024-CCV2	ECD2F016.D	10/09/19 12:33
Calibration Blank	9J09024-CCB2	ECD2F017.D	10/09/19 12:50
Calibration Check	9J09024-CCV3	ECD2F030.D	10/09/19 16:39
Calibration Blank	9J09024-CCB3	ECD2F031.D	10/09/19 16:57

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 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J09025	Instrument:	DUALECD2R
Matrix:	Sediment	Calibration:	A9G1705

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	9J09025-CCV1	ECD2R002.D	10/09/19 08:05
Calibration Blank	9J09025-CCB1	ECD2R003.D	10/09/19 08:23
PDI-042SC-A-12-13-190930	A9J0058-15	ECD2R004.D	10/09/19 09:01
PDI-042SC-A-12-13-190930 (MS)	9100797-MS1	ECD2R006.D	10/09/19 09:36
PDI-042SC-A-12-13-190930 (MSD)	9100797-MSD1	ECD2R008.D	10/09/19 10:11
PDI-042SC-A-13-13.8-190930	A9J0058-16	ECD2R010.D	10/09/19 10:47
PDI-044SC-A-11-12-190930	A9J0058-22	ECD2R012.D	10/09/19 11:22
PDI-044SC-A-12-12.8-190930	A9J0058-23	ECD2R014.D	10/09/19 11:57
Calibration Check	9J09025-CCV2	ECD2R016.D	10/09/19 12:33
Calibration Blank	9J09025-CCB2	ECD2R017.D	10/09/19 12:50
Calibration Check	9J09025-CCV3	ECD2R028.D	10/09/19 16:04
Calibration Blank	9J09025-CCB3	ECD2R029.D	10/09/19 16:22

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

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J18010	Instrument:	DUALECD2F
Matrix:	Sediment	Calibration:	A9J0303

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	9J18010-CCV1	ECD2F002.D	10/18/19 08:00
Calibration Blank	9J18010-CCB1	ECD2F003.D	10/18/19 08:18
PDI-039SC-A-12-13-190930	A9J0058-01RE1	ECD2F004.D	10/18/19 08:36
PDI-1039SC-A-12-13-190930	A9J0058-03RE1	ECD2F006.D	10/18/19 09:11
Calibration Check	9J18010-CCV2	ECD2F014.D	10/18/19 11:32
Calibration Blank	9J18010-CCB2	ECD2F015.D	10/18/19 11:50

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.

INITIAL CALIBRATION DATA (Summary)

EPA 8082A

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing

Calibration: A9G1705 Date: 07/17/19 17:50 Instrument: DUALECD2R

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aroclor 1016		Ave						20	
Aroclor 1221		Ave						20	
Aroclor 1232		Ave						20	
Aroclor 1242		Ave						20	
Aroclor 1248		Ave						20	
Aroclor 1254		Ave						20	
Aroclor 1260		Ave						20	
Aroclor 1262		Ave						20	
Aroclor 1268		Ave						20	
Decachlorobiphenyl (Surr)	125199.7	Ave	8.707077	10.79743	1.745386E-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 8082A

Laboratory: Apex Laboratories

Client: Anchor QEA, LLC

Calibration: A9G1705

SDG: A9J0058

Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te

Instrument: DUALECD2R

Calibration Date: 07/17/19 17:50

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
1016 (1)	20	9081.8	50	8549.04	100	7751.98	200	7604.365	500	7253.33	1000	6951.076
1016 (2)	20	14880.75	50	14784.02	100	13983.87	200	13894.79	500	13547.02	1000	13634.07
1016 (3)	20	7529.55	50	6935.74	100	6529.89	200	6292.865	500	6056.834	1000	5943.053
1016 (4)	20	7499.6	50	7065.52	100	6215.48	200	6091.34	500	5836.01	1000	5545.937
1016 (5)	20	8453.25	50	7772.66	100	6836.06	200	6592.37	500	6635.59	1000	6306.248
1016 (6)	20	8245.95	50	7584.62	100	6948.25	200	6499.03	500	6660.1	1000	6516.844
Aroclor 1016	20	~~0~~	50	~~0~~	100	~~0~~	200	~~0~~	500	~~0~~	1000	~~0~~
1260 (1)	20	14765.3	50	14070.48	100	13095.48	200	12934.25	500	13008.77	1000	12578.23
1260 (2)	20	18221.55	50	17304.38	100	16464.18	200	16604.66	500	16656.33	1000	16152.34
1260 (3)	20	17837.8	50	17523.68	100	16531.14	200	16358.25	500	17042.97	1000	15985.17
1260 (4)	20	26677.15	50	26727.98	100	24348.35	200	24475.09	500	26571.6	1000	25750.69
1260 (5)	20	15683.25	50	15102.26	100	14953.29	200	14931.43	500	14938.26	1000	15048.61
1260 (6)	20	6450.4	50	6382.78	100	5524.8	200	5699.125	500	5715.65	1000	5656.013
Aroclor 1260	20	~~0~~	50	~~0~~	100	~~0~~	200	~~0~~	500	~~0~~	1000	~~0~~
Decachlorobiphenyl (Surr)	10	119394.5	25	119672	50	111203.5	100	118297.4	250	131268.7	500	134664.4

INITIAL CALIBRATION DATA (Continued)

EPA 8082A

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
Calibration: A9G1705
Instrument: DUALECD2R
Matrix:
Calibration Date: 07/17/19 17:50

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
1016 (1)	1500	6927.053										
1016 (2)	1500	13199.51										
1016 (3)	1500	5778.746										
1016 (4)	1500	5599.947										
1016 (5)	1500	6357.059										
1016 (6)	1500	6419.845										
Aroclor 1016	1500	0										
1254 (1)											500	12246.14
1254 (2)											500	19538.34
1254 (3)											500	20840.74
1254 (4)											500	15321.34
1254 (5)											500	15571.16
1254 (6)											500	4778.966
Aroclor 1254											500	0
1260 (1)	1500	12511.88										
1260 (2)	1500	15351.23										
1260 (3)	1500	16602.38										
1260 (4)	1500	26812.54										
1260 (5)	1500	15358.07										
1260 (6)	1500	5551.007										
Aroclor 1260	1500	0										
Decachlorobiphenyl (Surr)	800	141897.5	200	0	200	0	200	0	200	0	200	0

INITIAL CALIBRATION DATA (Continued)

EPA 8082A

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
Calibration: A9G1705
Instrument: DUALECD2R
Matrix:
Calibration Date: 07/17/19 17:50

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
1262 (1)	500	13297										
1262 (2)	500	17704.08										
1262 (3)	500	14945.33										
1262 (4)	500	32067.38										
1262 (5)	500	18813.72										
1262 (6)	500	8157.76										
Aroclor 1262	500	~~0~~										
Decachlorobiphenyl (Surr)	200	~~0~~	200	~~0~~								

INITIAL CALIBRATION DATA (Summary)

EPA 8082A

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing

Calibration: A9J0303 Date: 10/03/19 09:16 Instrument: DUALECD2F

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aroclor 1016		Ave						20	
Aroclor 1221		Ave						20	
Aroclor 1232		Ave						20	
Aroclor 1242		Ave						20	
Aroclor 1248		Ave						20	
Aroclor 1254		Ave						20	
Aroclor 1260		Ave						20	
Aroclor 1262		Ave						20	
Aroclor 1268		Ave						20	
Decachlorobiphenyl (Surr)	71955.33	Ave	4.314116	9.628857	7.412664E-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 8082A

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
Calibration: A9J0303
Instrument: DUALECD2F
Calibration Date: 10/03/19 09:16

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
1016 (1)	20	3436.5	50	3403.78	100	3143.53	200	3053.055	500	3049.124	1000	2646.872
1016 (2)	20	6456.75	50	6487.62	100	6100.72	200	6134.67	500	6455.904	1000	5554.254
1016 (3)	20	3715.95	50	3560.3	100	3274.87	200	3285.97	500	3399.052	1000	2854.613
1016 (4)	20	3100.35	50	2968.7	100	2755.9	200	2638.095	500	2603.73	1000	2303.056
1016 (5)	20	3559.2	50	3416.46	100	3269.36	200	3215.165	500	3271.85	1000	2890.325
1016 (6)	20	2797.75	50	2595.4	100	2331.37	200	2221.705	500	2243.56	1000	2014.203
Aroclor 1016	20	0	50	0	100	0	200	0	500	0	1000	0
1260 (1)	20	6896.05	50	6630.68	100	6286.62	200	6026.6	500	6032.136	1000	5414.361
1260 (2)	20	8611.3	50	8315.62	100	7858.32	200	7370.38	500	7840.654	1000	6848.896
1260 (3)	20	6268	50	6156.64	100	5681.63	200	5656.46	500	5441	1000	4967.01
1260 (4)	20	14126.9	50	14021.82	100	13168.26	200	13476.42	500	13549.97	1000	11847.73
1260 (5)	20	9583.35	50	9334.16	100	8735.2	200	8598.45	500	8445.41	1000	7742.543
1260 (6)	20	4048.3	50	3893.68	100	3589.64	200	3353.155	500	3510.316	1000	3292.23
Aroclor 1260	20	0	50	0	100	0	200	0	500	0	1000	0
Decachlorobiphenyl (Surr)	10	72625.7	25	72718.52	50	72737.06	100	70445.57	250	75463.92	500	65804.4

INITIAL CALIBRATION DATA (Continued)

EPA 8082A

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
Calibration: A9J0303
Instrument: DUALECD2F
Matrix:
Calibration Date: 10/03/19 09:16

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
1016 (1)	1500	2920.376										
1016 (2)	1500	6032.763										
1016 (3)	1500	3229.451										
1016 (4)	1500	2489.332										
1016 (5)	1500	3161.642										
1016 (6)	1500	2243.617										
Aroclor 1016	1500	0										
1254 (1)											500	4727.604
1254 (2)											500	5628.644
1254 (3)											500	8555.182
1254 (4)											500	5823.016
1254 (5)											500	5840.264
1254 (6)											500	1889.728
Aroclor 1254											500	0
1260 (1)	1500	5810.371										
1260 (2)	1500	7493.653										
1260 (3)	1500	5545.179										
1260 (4)	1500	13366.2										
1260 (5)	1500	8862.514										
1260 (6)	1500	3461.843										
Aroclor 1260	1500	0										
Decachlorobiphenyl (Surr)	800	73892.13	200	0	200	0	200	0	200	0	200	0

INITIAL CALIBRATION DATA (Continued)

EPA 8082A

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
Calibration: A9J0303
Instrument: DUALECD2F
Matrix:
Calibration Date: 10/03/19 09:16

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
1262 (1)	500	5907.926										
1262 (2)	500	8237.696										
1262 (3)	500	6884.128										
1262 (4)	500	14820.36										
1262 (5)	500	8912.804										
1262 (6)	500	4791.138										
Aroclor 1262	500	~~0~~										
Decachlorobiphenyl (Surr)	200	~~0~~	200	~~0~~								

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP
Instrument ID:	DUALECD2R	Calibration:	A9G1705
Lab File ID:	ECD2R016.D		
Sequence:	9G16029	Inject Date:	07/16/19
Lab Sample ID:	9G16029-ICV1	Inject Time:	12:24

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Aroclor 1016	500	480	-3.9	70 - 130
Aroclor 1260	500	493	-1.4	70 - 130
Decachlorobiphenyl (Surr)	200	183	-8.4	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP
Instrument ID:	DUALECD2R	Calibration:	A9G1705
Lab File ID:	ECD2R024.D		
Sequence:	9G16029	Inject Date:	07/16/19
Lab Sample ID:	9G16029-ICV2	Inject Time:	14:47

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Aroclor 1221	1000	894	-10.6	70 - 130
Aroclor 1254	500	444	-11.2	70 - 130
Decachlorobiphenyl (Surr)	80.0	87.5	9.4	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP '
Instrument ID:	DUALECD2R	Calibration:	A9G1705
Lab File ID:	ECD2R025.D		
Sequence:	9G16029	Inject Date:	07/16/19
Lab Sample ID:	9G16029-ICV3	Inject Time:	15:05

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Aroclor 1232	500	505	1.1	70 - 130
Aroclor 1262	500	489	-2.3	70 - 130
Decachlorobiphenyl (Surr)	80.0	87.5	9.4	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP
Instrument ID:	DUALECD2R	Calibration:	A9G1705
Lab File ID:	ECD2R026.D		
Sequence:	9G16029	Inject Date:	07/16/19
Lab Sample ID:	9G16029-ICV4	Inject Time:	15:22

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Aroclor 1242	500	595	19.0	70 - 130
Aroclor 1268	500	542	8.4	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP
Instrument ID:	DUALECD2R	Calibration:	A9G1705
Lab File ID:	ECD2R027.D		
Sequence:	9G16029	Inject Date:	07/16/19
Lab Sample ID:	9G16029-ICV5	Inject Time:	15:40

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Aroclor 1248	500	535	7.0	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP
Instrument ID:	DUALECD2F	Calibration:	A9J0303
Lab File ID:	ECD2F018.D		
Sequence:	9J01027	Inject Date:	10/01/19
Lab Sample ID:	9J01027-ICV1	Inject Time:	15:04

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Aroclor 1016	500	446	-10.8	70 - 130
Aroclor 1260	500	439	-12.2	70 - 130
Decachlorobiphenyl (Surr)	200	184	-7.9	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP T
Instrument ID:	DUALECD2F	Calibration:	A9J0303
Lab File ID:	ECD2F026.D		
Sequence:	9J01027	Inject Date:	10/01/19
Lab Sample ID:	9J01027-ICV2	Inject Time:	17:25

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Aroclor 1221	1000	992	-0.8	70 - 130
Aroclor 1254	500	504	0.8	70 - 130
Decachlorobiphenyl (Surr)	80.0	82.8	3.5	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP T
Instrument ID:	DUALECD2F	Calibration:	A9J0303
Lab File ID:	ECD2F027.D		
Sequence:	9J01027	Inject Date:	10/01/19
Lab Sample ID:	9J01027-ICV3	Inject Time:	17:43

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Aroclor 1232	500	581	16.1	70 - 130
Aroclor 1262	500	526	5.1	70 - 130
Decachlorobiphenyl (Surr)	80.0	94.4	18.0	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP T
Instrument ID:	DUALECD2F	Calibration:	A9J0303
Lab File ID:	ECD2F028.D		
Sequence:	9J01027	Inject Date:	10/01/19
Lab Sample ID:	9J01027-ICV4	Inject Time:	18:00

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Aroclor 1242	500	543	8.6	70 - 130
Aroclor 1268	500	506	1.2	70 - 130

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP T
Instrument ID:	DUALECD2F	Calibration:	A9J0303
Lab File ID:	ECD2F029.D		
Sequence:	9J01027	Inject Date:	10/01/19
Lab Sample ID:	9J01027-ICV5	Inject Time:	18:18

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Aroclor 1248	500	560	11.9	70 - 130

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD2F	Calibration:	A9J0303
Lab File ID:	ECD2F002.D	Calibration Date:	10/03/19 09:16
Sequence:	9J09024	Injection Date:	10/09/19
Lab Sample ID:	9J09024-CCV1	Injection Time:	08:05

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aroclor 1016	Ave	500	492				-1.6	20
Aroclor 1260	Ave	500	531				6.2	20

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

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD2F	Calibration:	A9J0303
Lab File ID:	ECD2F016.D	Calibration Date:	10/03/19 09:16
Sequence:	9J09024	Injection Date:	10/09/19
Lab Sample ID:	9J09024-CCV2	Injection Time:	12:33

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aroclor 1016	Ave	500	488				-2.4	20
Aroclor 1260	Ave	500	516				3.1	20

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

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD2F	Calibration:	A9J0303
Lab File ID:	ECD2F030.D	Calibration Date:	10/03/19 09:16
Sequence:	9J09024	Injection Date:	10/09/19
Lab Sample ID:	9J09024-CCV3	Injection Time:	16:39

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aroclor 1016	Ave	500	514				2.7	20
Aroclor 1260	Ave	500	541				8.1	20

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

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD2R	Calibration:	A9G1705
Lab File ID:	ECD2R002.D	Calibration Date:	07/17/19 17:50
Sequence:	9J09025	Injection Date:	10/09/19
Lab Sample ID:	9J09025-CCV1	Injection Time:	08:05

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aroclor 1016	Ave	500	465				-7.0	20
Aroclor 1260	Ave	500	491				-1.8	20

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

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD2R	Calibration:	A9G1705
Lab File ID:	ECD2R016.D	Calibration Date:	07/17/19 17:50
Sequence:	9J09025	Injection Date:	10/09/19
Lab Sample ID:	9J09025-CCV2	Injection Time:	12:33

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aroclor 1016	Ave	500	477				-4.6	20
Aroclor 1260	Ave	500	511				2.3	20

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

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD2R	Calibration:	A9G1705
Lab File ID:	ECD2R028.D	Calibration Date:	07/17/19 17:50
Sequence:	9J09025	Injection Date:	10/09/19
Lab Sample ID:	9J09025-CCV3	Injection Time:	16:04

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aroclor 1016	Ave	500	497				-0.6	20
Aroclor 1260	Ave	500	539				7.8	20

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

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD2F	Calibration:	A9J0303
Lab File ID:	ECD2F002.D	Calibration Date:	10/03/19 09:16
Sequence:	9J18010	Injection Date:	10/18/19
Lab Sample ID:	9J18010-CCV1	Injection Time:	08:00

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aroclor 1016	Ave	500	475				-5.0	20
Aroclor 1260	Ave	500	527				5.3	20

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

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD2F	Calibration:	A9J0303
Lab File ID:	ECD2F014.D	Calibration Date:	10/03/19 09:16
Sequence:	9J18010	Injection Date:	10/18/19
Lab Sample ID:	9J18010-CCV2	Injection Time:	11:32

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Aroclor 1016	Ave	500	488				-2.4	20
Aroclor 1260	Ave	500	545				9.0	20

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

* = Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9G16029	Instrument:	DUALECD2R
Matrix:	Sediment	Calibration:	A9G1705

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9G16029-ICV1)			Lab File ID: ECD2R016.D		Analyzed: 07/16/19 12:24			
Decachlorobiphenyl (Surr)	200	92	70 - 130	10.797	10.79743	-0.0004	+/-1.0	
Initial Cal Check (9G16029-ICV2)			Lab File ID: ECD2R024.D		Analyzed: 07/16/19 14:47			
Decachlorobiphenyl (Surr)	80.0	109	70 - 130	10.797	10.79743	-0.0004	+/-1.0	
Initial Cal Check (9G16029-ICV3)			Lab File ID: ECD2R025.D		Analyzed: 07/16/19 15:05			
Decachlorobiphenyl (Surr)	80.0	109	70 - 130	10.796	10.79743	-0.0014	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J01027	Instrument:	DUALECD2F
Matrix:	Sediment	Calibration:	A9J0303

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9J01027-ICV1)			Lab File ID: ECD2F018.D		Analyzed: 10/01/19 15:04			
Decachlorobiphenyl (Surr)	200	92	70 - 130	9.626	9.628857	-0.0029	+/-1.0	
Initial Cal Check (9J01027-ICV2)			Lab File ID: ECD2F026.D		Analyzed: 10/01/19 17:25			
Decachlorobiphenyl (Surr)	80.0	103	70 - 130	9.628	9.628857	-0.0009	+/-1.0	
Initial Cal Check (9J01027-ICV3)			Lab File ID: ECD2F027.D		Analyzed: 10/01/19 17:43			
Decachlorobiphenyl (Surr)	80.0	118	70 - 130	9.627	9.628857	-0.0019	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J09024	Instrument:	DUALECD2F
Matrix:	Sediment	Calibration:	A9J0303

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9J09024-CCV1)			Lab File ID: ECD2F002.D		Analyzed: 10/09/19 08:05			
Decachlorobiphenyl (Surr)	250	111	80 - 120	9.632	9.628857	0.0031	+/-1.0	
Calibration Blank (9J09024-CCB1)			Lab File ID: ECD2F003.D		Analyzed: 10/09/19 08:23			
Decachlorobiphenyl (Surr)	100	105	43 - 120	9.625	9.628857	-0.0039	+/-1.0	
Blank (9100797-BLK1)			Lab File ID: ECD2F004.D		Analyzed: 10/09/19 09:01			
Decachlorobiphenyl (Surr)	13.9	102	43 - 120	9.632	9.628857	0.0031	+/-1.0	
LCS (9100797-BS1)			Lab File ID: ECD2F005.D		Analyzed: 10/09/19 09:19			
Decachlorobiphenyl (Surr)	16.7	121	43 - 120	9.623	9.628857	-0.0059	+/-1.0	*
PDI-039SC-A-13-13.7-190930 (A9J0058-02)			Lab File ID: ECD2F008.D		Analyzed: 10/09/19 10:11			
Decachlorobiphenyl (Surr)	20.5	76	43 - 120	9.622	9.628857	-0.0069	+/-1.0	
PDI-040SC-A-09-10-190930 (A9J0058-09)			Lab File ID: ECD2F012.D		Analyzed: 10/09/19 11:22			
Decachlorobiphenyl (Surr)	16.7	89	43 - 120	9.622	9.628857	-0.0069	+/-1.0	
PDI-040SC-A-10-11.3-190930 (A9J0058-10)			Lab File ID: ECD2F014.D		Analyzed: 10/09/19 11:57			
Decachlorobiphenyl (Surr)	19.9	96	43 - 120	9.621	9.628857	-0.0079	+/-1.0	
Calibration Check (9J09024-CCV2)			Lab File ID: ECD2F016.D		Analyzed: 10/09/19 12:33			
Decachlorobiphenyl (Surr)	250	107	80 - 120	9.623	9.628857	-0.0059	+/-1.0	
Calibration Blank (9J09024-CCB2)			Lab File ID: ECD2F017.D		Analyzed: 10/09/19 12:50			
Decachlorobiphenyl (Surr)	100	110	43 - 120	9.621	9.628857	-0.0079	+/-1.0	
Calibration Check (9J09024-CCV3)			Lab File ID: ECD2F030.D		Analyzed: 10/09/19 16:39			
Decachlorobiphenyl (Surr)	250	113	80 - 120	9.622	9.628857	-0.0069	+/-1.0	
Calibration Blank (9J09024-CCB3)			Lab File ID: ECD2F031.D		Analyzed: 10/09/19 16:57			
Decachlorobiphenyl (Surr)	100	98	43 - 120	9.622	9.628857	-0.0069	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J09025	Instrument:	DUALECD2R
Matrix:	Sediment	Calibration:	A9G1705

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9J09025-CCV1)			Lab File ID: ECD2R002.D		Analyzed: 10/09/19 08:05			
Decachlorobiphenyl (Surr)	250	100	80 - 120	10.718	10.79743	-0.0794	+/-1.0	
Calibration Blank (9J09025-CCB1)			Lab File ID: ECD2R003.D		Analyzed: 10/09/19 08:23			
Decachlorobiphenyl (Surr)	100	92	43 - 120	10.717	10.79743	-0.0804	+/-1.0	
PDI-042SC-A-12-13-190930 (A9J0058-15)			Lab File ID: ECD2R004.D		Analyzed: 10/09/19 09:01			
Decachlorobiphenyl (Surr)	19.7	82	43 - 120	10.717	10.79743	-0.0804	+/-1.0	
Matrix Spike (9100797-MS1)			Lab File ID: ECD2R006.D		Analyzed: 10/09/19 09:36			
Decachlorobiphenyl (Surr)	19.7	88	43 - 120	10.715	10.79743	-0.0824	+/-1.0	
Matrix Spike Dup (9100797-MSD1)			Lab File ID: ECD2R008.D		Analyzed: 10/09/19 10:11			
Decachlorobiphenyl (Surr)	19.8	86	43 - 120	10.715	10.79743	-0.0824	+/-1.0	
PDI-042SC-A-13-13.8-190930 (A9J0058-16)			Lab File ID: ECD2R010.D		Analyzed: 10/09/19 10:47			
Decachlorobiphenyl (Surr)	19.9	72	43 - 120	10.713	10.79743	-0.0844	+/-1.0	
PDI-044SC-A-11-12-190930 (A9J0058-22)			Lab File ID: ECD2R012.D		Analyzed: 10/09/19 11:22			
Decachlorobiphenyl (Surr)	18.6	78	43 - 120	10.713	10.79743	-0.0844	+/-1.0	
PDI-044SC-A-12-12.8-190930 (A9J0058-23)			Lab File ID: ECD2R014.D		Analyzed: 10/09/19 11:57			
Decachlorobiphenyl (Surr)	19.4	80	43 - 120	10.714	10.79743	-0.0834	+/-1.0	
Calibration Check (9J09025-CCV2)			Lab File ID: ECD2R016.D		Analyzed: 10/09/19 12:33			
Decachlorobiphenyl (Surr)	250	99	80 - 120	10.713	10.79743	-0.0844	+/-1.0	
Calibration Blank (9J09025-CCB2)			Lab File ID: ECD2R017.D		Analyzed: 10/09/19 12:50			
Decachlorobiphenyl (Surr)	100	94	43 - 120	10.713	10.79743	-0.0844	+/-1.0	
Calibration Check (9J09025-CCV3)			Lab File ID: ECD2R028.D		Analyzed: 10/09/19 16:04			
Decachlorobiphenyl (Surr)	250	104	80 - 120	10.713	10.79743	-0.0844	+/-1.0	
Calibration Blank (9J09025-CCB3)			Lab File ID: ECD2R029.D		Analyzed: 10/09/19 16:22			
Decachlorobiphenyl (Surr)	100	99	43 - 120	10.712	10.79743	-0.0854	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J18010	Instrument:	DUALECD2F
Matrix:	Sediment	Calibration:	A9J0303

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9J18010-CCV1)			Lab File ID: ECD2F002.D		Analyzed: 10/18/19 08:00			
Decachlorobiphenyl (Surr)	250	108	80 - 120	9.629	9.628857	0.0001	+/-1.0	
Calibration Blank (9J18010-CCB1)			Lab File ID: ECD2F003.D		Analyzed: 10/18/19 08:18			
Decachlorobiphenyl (Surr)	100	119	43 - 120	9.624	9.628857	-0.0049	+/-1.0	
PDI-039SC-A-12-13-190930 (A9J0058-01RE1)			Lab File ID: ECD2F004.D		Analyzed: 10/18/19 08:36			
Decachlorobiphenyl (Surr)	20.4	83	43 - 120	9.624	9.628857	-0.0049	+/-1.0	
PDI-1039SC-A-12-13-190930 (A9J0058-03RE1)			Lab File ID: ECD2F006.D		Analyzed: 10/18/19 09:11			
Decachlorobiphenyl (Surr)	19.0	67	43 - 120	9.623	9.628857	-0.0059	+/-1.0	
Calibration Check (9J18010-CCV2)			Lab File ID: ECD2F014.D		Analyzed: 10/18/19 11:32			
Decachlorobiphenyl (Surr)	250	115	80 - 120	9.624	9.628857	-0.0049	+/-1.0	
Calibration Blank (9J18010-CCB2)			Lab File ID: ECD2F015.D		Analyzed: 10/18/19 11:50			
Decachlorobiphenyl (Surr)	100	116	43 - 120	9.623	9.628857	-0.0059	+/-1.0	

HOLDING TIME SUMMARY

EPA 8082A

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

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-039SC-A-12-13-190930	09/30/19 09:09	10/02/19 11:23	10/08/19 11:10	8.08	365.00	10/18/19 08:36	9.89	40.00	
PDI-039SC-A-13-13.7-190930	09/30/19 09:48	10/02/19 11:23	10/08/19 11:10	8.06	365.00	10/09/19 10:11	0.96	40.00	
PDI-1039SC-A-12-13-190930	09/30/19 09:48	10/02/19 11:23	10/08/19 11:10	8.06	365.00	10/18/19 09:11	9.92	40.00	
PDI-040SC-A-09-10-190930	09/30/19 13:44	10/02/19 11:23	10/08/19 11:10	7.89	365.00	10/09/19 11:22	1.01	40.00	
PDI-040SC-A-10-11.3-190930	09/30/19 13:59	10/02/19 11:23	10/08/19 11:10	7.88	365.00	10/09/19 11:57	1.03	40.00	
PDI-042SC-A-12-13-190930	09/30/19 11:22	10/02/19 11:23	10/08/19 11:10	7.99	365.00	10/09/19 09:01	0.91	40.00	
PDI-042SC-A-13-13.8-190930	09/30/19 12:42	10/02/19 11:23	10/08/19 11:10	7.94	365.00	10/09/19 10:47	0.98	40.00	
PDI-044SC-A-11-12-190930	09/30/19 15:05	10/02/19 11:23	10/08/19 11:10	7.84	365.00	10/09/19 11:22	1.01	40.00	
PDI-044SC-A-12-12.8-190930	09/30/19 15:05	10/02/19 11:23	10/08/19 11:10	7.84	365.00	10/09/19 11:57	1.03	40.00	

Apex Laboratories

SDG: A9J0058

CLASS: GC

METHOD: EPA 8081B

ANALYSES DATA PACKAGE COVER PAGE

EPA 8081B

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

Client Sample Id:	Lab Sample Id:	Matrix
PDI-039SC-A-12-13-190930	A9J0058-01	Sediment
PDI-039SC-A-13-13.7-190930	A9J0058-02	Sediment
PDI-1039SC-A-12-13-190930	A9J0058-03	Sediment
PDI-040SC-A-09-10-190930	A9J0058-09	Sediment
PDI-040SC-A-10-11.3-190930	A9J0058-10	Sediment
PDI-042SC-A-12-13-190930	A9J0058-15	Sediment
PDI-042SC-A-13-13.8-190930	A9J0058-16	Sediment
PDI-044SC-A-11-12-190930	A9J0058-22	Sediment
PDI-044SC-A-12-12.8-190930	A9J0058-23	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: 11/19/2019 4:10PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 8081B

Laboratory: Apex Laboratories **SDG:** A9J0058

Client: Anchor QEA, LLC **Project:** Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
2,4'-DDD [2C]	0.500	1.00	ug/kg
2,4'-DDE [2C]	0.500	1.00	ug/kg
2,4'-DDT [2C]	0.500	1.00	ug/kg
4,4'-DDD [2C]	0.500	1.00	ug/kg
4,4'-DDE [2C]	0.500	1.00	ug/kg
4,4'-DDT [2C]	0.500	1.00	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-039SC-A-12-13-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-01RE1	File ID:	ECD5-10101914.D
Sampled:	09/30/19 09:09	Prepared:	10/06/19 08:54	Analyzed:	10/10/19 15:22
Solids:	74.07	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.1 g / 10 mL
Batch:	9100817	Sequence:	9J10029	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
53-19-0	2,4'-DDD [2C]	1	1.34	U
3424-82-6	2,4'-DDE [2C]	1	1.34	U
789-02-6	2,4'-DDT [2C]	1	1.34	U
72-54-8	4,4'-DDD [2C]	1	1.34	U
72-55-9	4,4'-DDE [2C]	1	1.34	U
50-29-3	4,4'-DDT [2C]	1	1.34	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	66.8	40.5	61	42 - 129	
Decachlorobiphenyl (Surr) [2C]	66.8	72.1	108	55 - 130	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-039SC-A-13-13.7-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-02RE1	File ID:	ECD5-10101915.D
Sampled:	09/30/19 09:48	Prepared:	10/06/19 08:54	Analyzed:	10/10/19 15:40
Solids:	73.21	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.13 g / 10 mL
Batch:	9100817	Sequence:	9J10029	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
53-19-0	2,4'-DDD [2C]	1	1.35	U
3424-82-6	2,4'-DDE [2C]	1	1.35	U
789-02-6	2,4'-DDT [2C]	1	1.35	U
72-54-8	4,4'-DDD [2C]	1	1.35	U
72-55-9	4,4'-DDE [2C]	1	1.35	U
50-29-3	4,4'-DDT [2C]	1	1.35	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	67.4	34.6	51	42 - 129	
Decachlorobiphenyl (Surr) [2C]	67.4	64.8	96	55 - 130	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-1039SC-A-12-13-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-03RE1	File ID:	ECD5-10101916.D
Sampled:	09/30/19 09:48	Prepared:	10/06/19 08:54	Analyzed:	10/10/19 15:57
Solids:	74.18	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.67 g / 10 mL
Batch:	9100817	Sequence:	9J10029	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
53-19-0	2,4'-DDD [2C]	1	1.26	U
3424-82-6	2,4'-DDE [2C]	1	1.26	U
789-02-6	2,4'-DDT [2C]	1	1.26	U
72-54-8	4,4'-DDD [2C]	1	1.26	U
72-55-9	4,4'-DDE [2C]	1	1.26	U
50-29-3	4,4'-DDT [2C]	1	1.26	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	63.2	37.1	59	42 - 129	
Decachlorobiphenyl (Surr) [2C]	63.2	59.5	94	55 - 130	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-040SC-A-09-10-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-09RE1	File ID:	ECD5-10101920.D
Sampled:	09/30/19 13:44	Prepared:	10/06/19 08:54	Analyzed:	10/10/19 17:06
Solids:	83.92	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.21 g / 10 mL
Batch:	9100817	Sequence:	9J10029	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
53-19-0	2,4'-DDD [2C]	1	1.17	U
3424-82-6	2,4'-DDE [2C]	1	1.17	U
789-02-6	2,4'-DDT [2C]	1	1.17	U
72-54-8	4,4'-DDD [2C]	1	1.17	U
72-55-9	4,4'-DDE [2C]	1	1.17	U
50-29-3	4,4'-DDT [2C]	1	1.17	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	58.4	23.3	40	42 - 129	*
Decachlorobiphenyl (Surr) [2C]	58.4	60.8	104	55 - 130	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-040SC-A-10-11.3-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-10RE1	File ID:	ECD5-10101921.D
Sampled:	09/30/19 13:59	Prepared:	10/06/19 08:54	Analyzed:	10/10/19 17:23
Solids:	76.30	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.89 g / 10 mL
Batch:	9100817	Sequence:	9J10029	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
53-19-0	2,4'-DDD [2C]	1	1.20	U
3424-82-6	2,4'-DDE [2C]	1	1.20	U
789-02-6	2,4'-DDT [2C]	1	1.20	U
72-54-8	4,4'-DDD [2C]	1	1.20	U
72-55-9	4,4'-DDE [2C]	1	1.20	U
50-29-3	4,4'-DDT [2C]	1	1.20	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	60.2	25.3	42	42 - 129	
Decachlorobiphenyl (Surr) [2C]	60.2	58.2	97	55 - 130	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-042SC-A-12-13-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-15RE1	File ID:	ECD5-10101922.D
Sampled:	09/30/19 11:22	Prepared:	10/06/19 08:54	Analyzed:	10/10/19 17:40
Solids:	82.22	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.91 g / 10 mL
Batch:	9100817	Sequence:	9J10029	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
53-19-0	2,4'-DDD [2C]	1	1.11	U
3424-82-6	2,4'-DDE [2C]	1	1.11	U
789-02-6	2,4'-DDT [2C]	1	1.11	U
72-54-8	4,4'-DDD [2C]	1	1.11	U
72-55-9	4,4'-DDE [2C]	1	1.11	U
50-29-3	4,4'-DDT [2C]	1	1.11	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	55.7	25.6	46	42 - 129	
Decachlorobiphenyl (Surr) [2C]	55.7	58.9	106	55 - 130	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-042SC-A-13-13.8-190930

Laboratory:	Apex Laboratories		SDG:	A9J0058	
Client:	Anchor QEA, LLC		Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co	
Matrix:	Sediment	Laboratory ID:	A9J0058-16RE1	File ID:	ECD5-10101925.D
Sampled:	09/30/19 12:42	Prepared:	10/06/19 08:54	Analyzed:	10/10/19 18:32
Solids:	75.12	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.71 g / 10 mL
Batch:	9100817	Sequence:	9J10029	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
53-19-0	2,4'-DDD [2C]	1	1.24	U
3424-82-6	2,4'-DDE [2C]	1	1.24	U
789-02-6	2,4'-DDT [2C]	1	1.24	U
72-54-8	4,4'-DDD [2C]	1	1.24	U
72-55-9	4,4'-DDE [2C]	1	1.24	U
50-29-3	4,4'-DDT [2C]	1	1.24	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	62.1	30.5	49	42 - 129	
Decachlorobiphenyl (Surr) [2C]	62.1	58.0	93	55 - 130	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-044SC-A-11-12-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-22RE1	File ID:	ECD5-10101929.D
Sampled:	09/30/19 15:05	Prepared:	10/06/19 08:54	Analyzed:	10/10/19 19:40
Solids:	77.98	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.26 g / 10 mL
Batch:	9100817	Sequence:	9J10029	Calibration:	A9H2608
Instrument:	DUALECD5				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
53-19-0	2,4'-DDD [2C]	1	1.25	U
3424-82-6	2,4'-DDE [2C]	1	1.25	U
789-02-6	2,4'-DDT [2C]	1	1.25	U
72-54-8	4,4'-DDD [2C]	1	1.25	U
72-55-9	4,4'-DDE [2C]	1	1.25	U
50-29-3	4,4'-DDT [2C]	1	1.25	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	62.5	32.7	52	42 - 129	
Decachlorobiphenyl (Surr) [2C]	62.5	63.5	102	55 - 130	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8081B

PDI-044SC-A-12-12.8-190930

Laboratory:	Apex Laboratories		SDG:	A9J0058	
Client:	Anchor QEA, LLC		Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co	
Matrix:	Sediment	Laboratory ID:	A9J0058-23RE1	File ID:	ECD5-10101930.D
Sampled:	09/30/19 15:05	Prepared:	10/06/19 08:54	Analyzed:	10/10/19 19:58
Solids:	76.30	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.56 g / 10 mL
Batch:	9100817	Sequence:	9J10029	Calibration:	A9H2608	Instrument:	DUALECD5

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
53-19-0	2,4'-DDD [2C]	1	1.24	U
3424-82-6	2,4'-DDE [2C]	1	1.24	U
789-02-6	2,4'-DDT [2C]	1	1.24	U
72-54-8	4,4'-DDD [2C]	1	1.24	U
72-55-9	4,4'-DDE [2C]	1	1.24	U
50-29-3	4,4'-DDT [2C]	1	1.24	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2,4,5,6-TCMX (Surr) [2C]	62.1	30.3	49	42 - 129	
Decachlorobiphenyl (Surr) [2C]	62.1	62.4	101	55 - 130	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

EPA 8081B

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cc

Batch: 9100817 Batch Matrix: Sediment Preparation: EPA 3546/3640A (GPC)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9100817-BLK1	ECD5-10101907.D	10/06/19 08:54	
LCS	9100817-BS1	ECD5-10101908.D	10/06/19 08:54	
PDI-042SC-A-12-13-190930 (MS)	9100817-MS1	ECD5-10101923.D	10/06/19 08:54	
PDI-042SC-A-12-13-190930 (MSD)	9100817-MSD1	ECD5-10101924.D	10/06/19 08:54	
PDI-039SC-A-12-13-190930	A9J0058-01RE1	ECD5-10101914.D	10/06/19 08:54	
PDI-039SC-A-13-13.7-190930	A9J0058-02RE1	ECD5-10101915.D	10/06/19 08:54	
PDI-1039SC-A-12-13-190930	A9J0058-03RE1	ECD5-10101916.D	10/06/19 08:54	
PDI-040SC-A-09-10-190930	A9J0058-09RE1	ECD5-10101920.D	10/06/19 08:54	
PDI-040SC-A-10-11.3-190930	A9J0058-10RE1	ECD5-10101921.D	10/06/19 08:54	
PDI-042SC-A-12-13-190930	A9J0058-15RE1	ECD5-10101922.D	10/06/19 08:54	
PDI-042SC-A-13-13.8-190930	A9J0058-16RE1	ECD5-10101925.D	10/06/19 08:54	
PDI-044SC-A-11-12-190930	A9J0058-22RE1	ECD5-10101929.D	10/06/19 08:54	
PDI-044SC-A-12-12.8-190930	A9J0058-23RE1	ECD5-10101930.D	10/06/19 08:54	

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

EPA 8081B

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Matrix:	Sediment	Laboratory ID:	9100817-BLK1	File ID:	ECD5-10101907.D
Prepared:	10/06/19 08:54	Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	11 g / 10 mL
Analyzed:	10/10/19 13:22	Instrument:	DUALECD5		
Batch:	9100817	Sequence:	9J10029	Calibration:	A9H2608

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
53-19-0	2,4'-DDD [2C]	0.909	U
3424-82-6	2,4'-DDE [2C]	0.909	U
789-02-6	2,4'-DDT [2C]	0.909	U
72-54-8	4,4'-DDD [2C]	0.909	U
72-55-9	4,4'-DDE [2C]	0.909	U
50-29-3	4,4'-DDT [2C]	0.909	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	20.8	46	42 - 129	
Decachlorobiphenyl (Surr) [2C]	45.5	39.4	87	55 - 130	

LCS / LCS DUPLICATE RECOVERY

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100817	Laboratory ID:	9100817-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.
2,4'-DDD [2C]	50.0	38.3	77	50 - 150
2,4'-DDE [2C]	50.0	33.7	67	50 - 150
2,4'-DDT [2C]	50.0	45.1	90	50 - 150
4,4'-DDD [2C]	50.0	42.0	84	50 - 150
4,4'-DDE [2C]	50.0	37.4	75	50 - 150
4,4'-DDT [2C]	50.0	54.7	109	50 - 150

* = Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8081B

PDI-042SC-A-12-13-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Matrix:	Sediment		
Batch:	9100817	Laboratory ID:	9100817-MS1
Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.48 g / 10 mL

Source Sample Name: PDI-042SC-A-12-13-190930

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	MS CONCENTRATION (ug/kg dry)	MS % REC. (*=Out)	QC LIMITS REC.
2,4'-DDD [2C]	58.0	ND	45.2	78	50 - 150
2,4'-DDE [2C]	58.0	ND	37.5	65	50 - 150
2,4'-DDT [2C]	58.0	ND	54.4	94	50 - 150
4,4'-DDD [2C]	58.0	ND	49.3	85	50 - 150
4,4'-DDE [2C]	58.0	ND	44.1	76	50 - 150
4,4'-DDT [2C]	58.0	ND	64.1	111	50 - 150

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8081B

PDI-042SC-A-12-13-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100817	Laboratory ID:	9100817-MSD1
Preparation:	EPA 3546/3640A (GPC)	Initial/Final:	10.15 g / 10 mL

Source Sample Name: PDI-042SC-A-12-13-190930

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	MSD % RECOVERY	% RPD	QC LIMITS RPD	QC LIMITS REC.
2,4'-DDD [2C]	59.9	47.9	80	6	35	50 - 150
2,4'-DDE [2C]	59.9	42.0	70	11	35	50 - 150
2,4'-DDT [2C]	59.9	57.5	96	6	35	50 - 150
4,4'-DDD [2C]	59.9	54.0	90	9	30	50 - 150
4,4'-DDE [2C]	59.9	48.4	81	9	30	50 - 150
4,4'-DDT [2C]	59.9	68.0	114	6	30	50 - 150

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
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-CAL9	ECD5-08231918.D	08/23/19 16:44
Cal Standard	9H23034-CALA	ECD5-08231919.D	08/23/19 17:01
Cal Standard	9H23034-CALB	ECD5-08231920.D	08/23/19 17:18
Cal Standard	9H23034-CALC	ECD5-08231921.D	08/23/19 17:35
Cal Standard	9H23034-CALD	ECD5-08231922.D	08/23/19 17:53
Cal Standard	9H23034-CALE	ECD5-08231923.D	08/23/19 18:10
Cal Standard	9H23034-CALF	ECD5-08231924.D	08/23/19 18:27
Cal Standard	9H23034-CALG	ECD5-08231925.D	08/23/19 18:45
Initial Cal Check	9H23034-ICV2	ECD5-08231927.D	08/23/19 19:19

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

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J10029	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	9J10029-CCV1	ECD5-10101904.D	10/10/19 12:04
Calibration Check	9J10029-CCV2	ECD5-10101905.D	10/10/19 12:47
Calibration Blank	9J10029-CCB1	ECD5-10101906.D	10/10/19 13:05
Blank	9100817-BLK1	ECD5-10101907.D	10/10/19 13:22
LCS	9100817-BS1	ECD5-10101908.D	10/10/19 13:39
PDI-039SC-A-12-13-190930	A9J0058-01RE1	ECD5-10101914.D	10/10/19 15:22
PDI-039SC-A-13-13.7-190930	A9J0058-02RE1	ECD5-10101915.D	10/10/19 15:40
PDI-1039SC-A-12-13-190930	A9J0058-03RE1	ECD5-10101916.D	10/10/19 15:57
Calibration Check	9J10029-CCV3	ECD5-10101917.D	10/10/19 16:14
Calibration Check	9J10029-CCV4	ECD5-10101918.D	10/10/19 16:31
Calibration Blank	9J10029-CCB2	ECD5-10101919.D	10/10/19 16:48
PDI-040SC-A-09-10-190930	A9J0058-09RE1	ECD5-10101920.D	10/10/19 17:06
PDI-040SC-A-10-11.3-190930	A9J0058-10RE1	ECD5-10101921.D	10/10/19 17:23
PDI-042SC-A-12-13-190930	A9J0058-15RE1	ECD5-10101922.D	10/10/19 17:40
PDI-042SC-A-12-13-190930 (MS)	9100817-MS1	ECD5-10101923.D	10/10/19 17:57
PDI-042SC-A-12-13-190930 (MSD)	9100817-MSD1	ECD5-10101924.D	10/10/19 18:14
PDI-042SC-A-13-13.8-190930	A9J0058-16RE1	ECD5-10101925.D	10/10/19 18:32
Calibration Check	9J10029-CCV5	ECD5-10101926.D	10/10/19 18:49
Calibration Check	9J10029-CCV6	ECD5-10101927.D	10/10/19 19:06
Calibration Blank	9J10029-CCB3	ECD5-10101928.D	10/10/19 19:23
PDI-044SC-A-11-12-190930	A9J0058-22RE1	ECD5-10101929.D	10/10/19 19:40
PDI-044SC-A-12-12.8-190930	A9J0058-23RE1	ECD5-10101930.D	10/10/19 19:58
Calibration Check	9J10029-CCV7	ECD5-10101935.D	10/10/19 21:24
Calibration Check	9J10029-CCV8	ECD5-10101936.D	10/10/19 21:41
Calibration Blank	9J10029-CCB4	ECD5-10101937.D	10/10/19 21:58

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.

INITIAL CALIBRATION DATA (Summary)

EPA 8081B

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing

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
2,4'-DDD [2C]	188863.5	Ave	5.468165	8.495	9.988916E-03			20	
2,4'-DDE [2C]	212138.1	Ave	4.517808	8.1225	1.164674E-02			20	
2,4'-DDT [2C]	178339.3	Ave	6.244514	8.719	1.272704E-02			20	
4,4'-DDD [2C]	256213.9	Ave	7.371719	8.758875	1.283137E-02			20	
4,4'-DDE [2C]	310677.4	Ave	5.82371	8.344625	1.944609E-02			20	
4,4'-DDT [2C]	189158.9	XXX	11.87705	8.98525	9.169041E-03				
2,4,5,6-TCMX (Surr) [2C]	293366.8	Ave	3.539338	5.98975	1.128579E-02			20	
Decachlorobiphenyl (Surr) [2C]	179763.1	Ave	6.182408	10.54062	6.517156E-03			20	

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

INITIAL CALIBRATION DATA

EPA 8081B

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Calibration: A9H2608

SDG: A9J0058
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
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'-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
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
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: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
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
2,4'-DDD					1	120240	2	116544.5	5	112188.4	10	110358.7
2,4'-DDD [2C]					1	192040	2	186798	5	179739.4	10	177879
2,4'-DDE					1	137947	2	132606	5	126633.6	10	124526.5
2,4'-DDE [2C]					1	219164	2	205906	5	205937.4	10	201833.1
2,4'-DDT					1	107110	2	102104.5	5	107393.4	10	105156.5
2,4'-DDT [2C]					1	173338	2	166085	5	174614.8	10	170256.8
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								
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								
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: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
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
2,4'-DDD	25	109807.1	50	118401.9	100	115875.5	200	109584.8				
2,4'-DDD [2C]	25	175567.4	50	198498.7	100	201189.2	200	199196.5				
2,4'-DDE	25	122376.8	50	130211.8	100	127690.7	200	124096				
2,4'-DDE [2C]	25	199969.3	50	220128	100	221644	200	222523				
2,4'-DDT	25	109151.8	50	113746.5	100	117713.5	200	115124.8				
2,4'-DDT [2C]	25	176222.2	50	176211.8	100	189989.7	200	199996.2				

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP
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
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
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:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP T
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-08231927.D		
Sequence:	9H23034	Inject Date:	08/23/19
Lab Sample ID:	9H23034-ICV2	Inject Time:	19:19

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
2,4'-DDD	50.0	47.7	-4.7	70 - 130
2,4'-DDD [2C]	50.0	48.8	-2.4	70 - 130
2,4'-DDE	50.0	47.1	-5.7	70 - 130
2,4'-DDE [2C]	50.0	47.9	-4.3	70 - 130
2,4'-DDT	50.0	48.6	-2.8	70 - 130
2,4'-DDT [2C]	50.0	47.1	-5.8	70 - 130

CONTINUING CALIBRATION CHECK

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-10101904.D	Calibration Date:	08/26/19 15:54
Sequence:	9J10029	Injection Date:	10/10/19
Lab Sample ID:	9J10029-CCV1	Injection Time:	12:04

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
4,4'-DDD	Ave	50.0	42.6		157140.6	133848	-14.8	20
4,4'-DDD [2C]	Ave	50.0	48.6		256213.9	249088.6	-2.8	20
4,4'-DDE	Ave	50.0	41.9		188529.8	157978.4	-16.2	20
4,4'-DDE [2C]	Ave	50.0	48.3		310677.4	300390	-3.3	20
4,4'-DDT	Ave	50.0	49.1		119560.1	117450.8	-1.8	20
4,4'-DDT [2C]	XXX	50.0	53.3	6.6				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:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-10101905.D	Calibration Date:	08/26/19 15:54
Sequence:	9J10029	Injection Date:	10/10/19
Lab Sample ID:	9J10029-CCV2	Injection Time:	12:47

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
2,4'-DDD	Ave	50.0	50.0		114125.1	114137.2	0.01	20
2,4'-DDD [2C]	Ave	50.0	52.7		188863.5	199054.6	5.4	20
2,4'-DDE	Ave	50.0	49.1		128261.1	126051.7	-1.7	20
2,4'-DDE [2C]	Ave	50.0	53.0		212138.1	224832.2	6.0	20
2,4'-DDT	Ave	50.0	53.6		109687.6	117638.9	7.2	20
2,4'-DDT [2C]	Ave	50.0	55.5		178339.3	197954.3	11.0	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:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-10101917.D	Calibration Date:	08/26/19 15:54
Sequence:	9J10029	Injection Date:	10/10/19
Lab Sample ID:	9J10029-CCV3	Injection Time:	16:14

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
4,4'-DDD	Ave	100	80.6		157140.6	126705.5	-19.4	20
4,4'-DDD [2C]	Ave	100	98.1		256213.9	251322.1	-1.9	20
4,4'-DDE	Ave	100	83.4		188529.8	157295.1	-16.6	20
4,4'-DDE [2C]	Ave	100	100		310677.4	310868.2	0.06	20
4,4'-DDT	Ave	100	108		119560.1	129004.2	7.9	20
4,4'-DDT [2C]	XXX	100	112	12.4				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:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-10101918.D	Calibration Date:	08/26/19 15:54
Sequence:	9J10029	Injection Date:	10/10/19
Lab Sample ID:	9J10029-CCV4	Injection Time:	16:31

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
2,4'-DDD	Ave	100	85.1		114125.1	97156.97	-14.9	20
2,4'-DDD [2C]	Ave	100	98.7		188863.5	186330.2	-1.3	20
2,4'-DDE	Ave	100	86.9		128261.1	111465.2	-13.1	20
2,4'-DDE [2C]	Ave	100	100		212138.1	212156.2	0.009	20
2,4'-DDT	Ave	100	98.8		109687.6	108372.1	-1.2	20
2,4'-DDT [2C]	Ave	100	106		178339.3	188909.4	5.9	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:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-10101926.D	Calibration Date:	08/26/19 15:54
Sequence:	9J10029	Injection Date:	10/10/19
Lab Sample ID:	9J10029-CCV5	Injection Time:	18:49

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
4,4'-DDD	Ave	50.0	36.0		157140.6	113254.6	-27.9*	20
4,4'-DDD [2C]	Ave	50.0	45.0		256213.9	230533.2	-10.0	20
4,4'-DDE	Ave	50.0	36.9		188529.8	139231.7	-26.1*	20
4,4'-DDE [2C]	Ave	50.0	43.9		310677.4	273078.4	-12.1	20
4,4'-DDT	Ave	50.0	47.1		119560.1	112647.7	-5.8	20
4,4'-DDT [2C]	XXX	50.0	51.5	3.1				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:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-10101927.D	Calibration Date:	08/26/19 15:54
Sequence:	9J10029	Injection Date:	10/10/19
Lab Sample ID:	9J10029-CCV6	Injection Time:	19:06

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
2,4'-DDD	Ave	50.0	42.4		114125.1	96674.02	-15.3	20
2,4'-DDD [2C]	Ave	50.0	45.9		188863.5	173198.4	-8.3	20
2,4'-DDE	Ave	50.0	42.9		128261.1	110077.4	-14.2	20
2,4'-DDE [2C]	Ave	50.0	47.4		212138.1	201116.4	-5.2	20
2,4'-DDT	Ave	50.0	50.3		109687.6	110391.5	0.6	20
2,4'-DDT [2C]	Ave	50.0	53.0		178339.3	189141	6.1	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:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-10101935.D	Calibration Date:	08/26/19 15:54
Sequence:	9J10029	Injection Date:	10/10/19
Lab Sample ID:	9J10029-CCV7	Injection Time:	21:24

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
4,4'-DDD	Ave	100	73.8		157140.6	115939.2	-26.2*	20
4,4'-DDD [2C]	Ave	100	95.0		256213.9	243368.1	-5.0	20
4,4'-DDE	Ave	100	76.0		188529.8	143346.6	-24.0*	20
4,4'-DDE [2C]	Ave	100	98.5		310677.4	306114.1	-1.5	20
4,4'-DDT	Ave	100	98.3		119560.1	117486.4	-1.7	20
4,4'-DDT [2C]	XXX	100	104	4.4				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:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	DUALECD5	Calibration:	A9H2608
Lab File ID:	ECD5-10101936.D	Calibration Date:	08/26/19 15:54
Sequence:	9J10029	Injection Date:	10/10/19
Lab Sample ID:	9J10029-CCV8	Injection Time:	21:41

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
2,4'-DDD	Ave	100	85.4		114125.1	97507.86	-14.6	20
2,4'-DDD [2C]	Ave	100	104		188863.5	196352.2	4.0	20
2,4'-DDE	Ave	100	87.2		128261.1	111841.1	-12.8	20
2,4'-DDE [2C]	Ave	100	102		212138.1	215460.4	1.6	20
2,4'-DDT	Ave	100	104		109687.6	113789.5	3.7	20
2,4'-DDT [2C]	Ave	100	110		178339.3	196870	10.4	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:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
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: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence: 9J10029
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 (9J10029-CCV1)			Lab File ID: ECD5-10101904.D		Analyzed: 10/10/19 12:04			
2,4,5,6-TCMX (Surr)	50.0	92	80 - 120	5.262	5.39525	-0.1333	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	94	80 - 120	5.853	5.98975	-0.1368	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	96	80 - 120	9.447	9.5925	-0.1455	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	105	80 - 120	10.376	10.54062	-0.1646	+/-1.0	
Calibration Blank (9J10029-CCB1)			Lab File ID: ECD5-10101906.D		Analyzed: 10/10/19 13:05			
2,4,5,6-TCMX (Surr) [2C]	100	79	42 - 129	5.851	5.98975	-0.1388	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	87	55 - 130	10.373	10.54062	-0.1676	+/-1.0	
Blank (9100817-BLK1)			Lab File ID: ECD5-10101907.D		Analyzed: 10/10/19 13:22			
2,4,5,6-TCMX (Surr) [2C]	45.5	46	42 - 129	5.851	5.98975	-0.1388	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	45.5	87	55 - 130	10.372	10.54062	-0.1686	+/-1.0	
LCS (9100817-BS1)			Lab File ID: ECD5-10101908.D		Analyzed: 10/10/19 13:39			
2,4,5,6-TCMX (Surr) [2C]	50.0	52	42 - 129	5.85	5.98975	-0.1398	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	91	55 - 130	10.373	10.54062	-0.1676	+/-1.0	
PDI-039SC-A-12-13-190930 (A9J0058-01RE1)			Lab File ID: ECD5-10101914.D		Analyzed: 10/10/19 15:22			
2,4,5,6-TCMX (Surr) [2C]	66.8	61	42 - 129	5.851	5.98975	-0.1388	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	66.8	108	55 - 130	10.372	10.54062	-0.1686	+/-1.0	
PDI-039SC-A-13-13.7-190930 (A9J0058-02RE1)			Lab File ID: ECD5-10101915.D		Analyzed: 10/10/19 15:40			
2,4,5,6-TCMX (Surr) [2C]	67.4	51	42 - 129	5.851	5.98975	-0.1388	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	67.4	96	55 - 130	10.372	10.54062	-0.1686	+/-1.0	
PDI-1039SC-A-12-13-190930 (A9J0058-03RE1)			Lab File ID: ECD5-10101916.D		Analyzed: 10/10/19 15:57			
2,4,5,6-TCMX (Surr) [2C]	63.2	59	42 - 129	5.851	5.98975	-0.1388	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	63.2	94	55 - 130	10.372	10.54062	-0.1686	+/-1.0	
Calibration Check (9J10029-CCV3)			Lab File ID: ECD5-10101917.D		Analyzed: 10/10/19 16:14			
2,4,5,6-TCMX (Surr)	100	95	80 - 120	5.259	5.39525	-0.1363	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	100	97	80 - 120	5.851	5.98975	-0.1388	+/-1.0	
Decachlorobiphenyl (Surr)	100	96	80 - 120	9.446	9.5925	-0.1465	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	112	80 - 120	10.373	10.54062	-0.1676	+/-1.0	
Calibration Blank (9J10029-CCB2)			Lab File ID: ECD5-10101919.D		Analyzed: 10/10/19 16:48			
2,4,5,6-TCMX (Surr) [2C]	100	80	42 - 129	5.851	5.98975	-0.1388	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	90	55 - 130	10.373	10.54062	-0.1676	+/-1.0	
PDI-040SC-A-09-10-190930 (A9J0058-09RE1)			Lab File ID: ECD5-10101920.D		Analyzed: 10/10/19 17:06			
2,4,5,6-TCMX (Surr) [2C]	58.4	40	42 - 129	5.85	5.98975	-0.1398	+/-1.0	*
Decachlorobiphenyl (Surr) [2C]	58.4	104	55 - 130	10.371	10.54062	-0.1696	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J10029	Instrument:	DUALECD5
Matrix:	Sediment	Calibration:	A9H2608

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
PDI-040SC-A-10-11.3-190930 (A9J0058-10RE1)			Lab File ID: ECD5-10101921.D		Analyzed: 10/10/19 17:23			
2,4,5,6-TCMX (Surr) [2C]	60.2	42	42 - 129	5.851	5.98975	-0.1388	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	60.2	97	55 - 130	10.372	10.54062	-0.1686	+/-1.0	
PDI-042SC-A-12-13-190930 (A9J0058-15RE1)			Lab File ID: ECD5-10101922.D		Analyzed: 10/10/19 17:40			
2,4,5,6-TCMX (Surr) [2C]	55.7	46	42 - 129	5.851	5.98975	-0.1388	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	55.7	106	55 - 130	10.372	10.54062	-0.1686	+/-1.0	
Matrix Spike (9100817-MS1)			Lab File ID: ECD5-10101923.D		Analyzed: 10/10/19 17:57			
2,4,5,6-TCMX (Surr) [2C]	58.0	49	42 - 129	5.851	5.98975	-0.1388	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	58.0	103	55 - 130	10.372	10.54062	-0.1686	+/-1.0	
Matrix Spike Dup (9100817-MSD1)			Lab File ID: ECD5-10101924.D		Analyzed: 10/10/19 18:14			
2,4,5,6-TCMX (Surr) [2C]	59.9	57	42 - 129	5.85	5.98975	-0.1398	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	59.9	105	55 - 130	10.372	10.54062	-0.1686	+/-1.0	
PDI-042SC-A-13-13.8-190930 (A9J0058-16RE1)			Lab File ID: ECD5-10101925.D		Analyzed: 10/10/19 18:32			
2,4,5,6-TCMX (Surr) [2C]	62.1	49	42 - 129	5.85	5.98975	-0.1398	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	62.1	93	55 - 130	10.372	10.54062	-0.1686	+/-1.0	
Calibration Check (9J10029-CCV5)			Lab File ID: ECD5-10101926.D		Analyzed: 10/10/19 18:49			
2,4,5,6-TCMX (Surr)	50.0	88	80 - 120	5.261	5.39525	-0.1343	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	50.0	90	80 - 120	5.854	5.98975	-0.1358	+/-1.0	
Decachlorobiphenyl (Surr)	50.0	93	80 - 120	9.448	9.5925	-0.1445	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	50.0	100	80 - 120	10.375	10.54062	-0.1656	+/-1.0	
Calibration Blank (9J10029-CCB3)			Lab File ID: ECD5-10101928.D		Analyzed: 10/10/19 19:23			
2,4,5,6-TCMX (Surr) [2C]	100	79	42 - 129	5.852	5.98975	-0.1378	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	90	55 - 130	10.374	10.54062	-0.1666	+/-1.0	
PDI-044SC-A-11-12-190930 (A9J0058-22RE1)			Lab File ID: ECD5-10101929.D		Analyzed: 10/10/19 19:40			
2,4,5,6-TCMX (Surr) [2C]	62.5	52	42 - 129	5.851	5.98975	-0.1388	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	62.5	102	55 - 130	10.372	10.54062	-0.1686	+/-1.0	
PDI-044SC-A-12-12.8-190930 (A9J0058-23RE1)			Lab File ID: ECD5-10101930.D		Analyzed: 10/10/19 19:58			
2,4,5,6-TCMX (Surr) [2C]	62.1	49	42 - 129	5.852	5.98975	-0.1378	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	62.1	101	55 - 130	10.374	10.54062	-0.1666	+/-1.0	
Calibration Check (9J10029-CCV7)			Lab File ID: ECD5-10101935.D		Analyzed: 10/10/19 21:24			
2,4,5,6-TCMX (Surr)	100	93	80 - 120	5.258	5.39525	-0.1373	+/-1.0	
2,4,5,6-TCMX (Surr) [2C]	100	97	80 - 120	5.85	5.98975	-0.1398	+/-1.0	
Decachlorobiphenyl (Surr)	100	94	80 - 120	9.446	9.5925	-0.1465	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	109	80 - 120	10.372	10.54062	-0.1686	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8081B

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J10029	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 (9J10029-CCB4)				Lab File ID: ECD5-10101937.D		Analyzed: 10/10/19 21:58		
2,4,5,6-TCMX (Surr) [2C]	100	78	42 - 129	5.851	5.98975	-0.1388	+/-1.0	
Decachlorobiphenyl (Surr) [2C]	100	90	55 - 130	10.373	10.54062	-0.1676	+/-1.0	

HOLDING TIME SUMMARY

EPA 8081B

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

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-039SC-A-12-13-190930	09/30/19 09:09	10/02/19 11:23	10/06/19 08:54	5.99	14.00	10/10/19 15:22	4.27	40.00	
PDI-039SC-A-13-13.7-190930	09/30/19 09:48	10/02/19 11:23	10/06/19 08:54	5.96	14.00	10/10/19 15:40	4.28	40.00	
PDI-1039SC-A-12-13-190930	09/30/19 09:48	10/02/19 11:23	10/06/19 08:54	5.96	14.00	10/10/19 15:57	4.29	40.00	
PDI-040SC-A-09-10-190930	09/30/19 13:44	10/02/19 11:23	10/06/19 08:54	5.80	14.00	10/10/19 17:06	4.34	40.00	
PDI-040SC-A-10-11.3-190930	09/30/19 13:59	10/02/19 11:23	10/06/19 08:54	5.79	14.00	10/10/19 17:23	4.35	40.00	
PDI-042SC-A-12-13-190930	09/30/19 11:22	10/02/19 11:23	10/06/19 08:54	5.90	14.00	10/10/19 17:40	4.37	40.00	
PDI-042SC-A-13-13.8-190930	09/30/19 12:42	10/02/19 11:23	10/06/19 08:54	5.84	14.00	10/10/19 18:32	4.40	40.00	
PDI-044SC-A-11-12-190930	09/30/19 15:05	10/02/19 11:23	10/06/19 08:54	5.74	14.00	10/10/19 19:40	4.45	40.00	
PDI-044SC-A-12-12.8-190930	09/30/19 15:05	10/02/19 11:23	10/06/19 08:54	5.74	14.00	10/10/19 19:58	4.46	40.00	

Apex Laboratories

SDG: A9J0058

CLASS: GCMS

METHOD: EPA 8270D

ANALYSES DATA PACKAGE COVER PAGE

EPA 8270D

Laboratory: Apex Laboratories

SDG: A9J0058

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

Client Sample Id:	Lab Sample Id:	Matrix
PDI-039SC-A-12-13-190930	A9J0058-01	Sediment
PDI-039SC-A-13-13.7-190930	A9J0058-02	Sediment
PDI-1039SC-A-12-13-190930	A9J0058-03	Sediment
PDI-039SC-B-11.8-13.7-190930	A9J0058-04	Sediment
PDI-039SC-B-3.8-5.8-190930	A9J0058-05	Sediment
PDI-039SC-B-5.8-7.8-190930	A9J0058-06	Sediment
PDI-039SC-B-7.8-9.8-190930	A9J0058-07	Sediment
PDI-039SC-B-9.8-11.8-190930	A9J0058-08	Sediment
PDI-040SC-A-09-10-190930	A9J0058-09	Sediment
PDI-040SC-A-10-11.3-190930	A9J0058-10	Sediment
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	Sediment
PDI-040SC-B-7.3-9.3-190930	A9J0058-12	Sediment
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	Sediment
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	Sediment
PDI-042SC-A-12-13-190930	A9J0058-15	Sediment
PDI-042SC-A-13-13.8-190930	A9J0058-16	Sediment
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	Sediment
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	Sediment
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	Sediment
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	Sediment
PDI-042SC-B-9.9-11.9-190930	A9J0058-21	Sediment
PDI-044SC-A-11-12-190930	A9J0058-22	Sediment
PDI-044SC-A-12-12.8-190930	A9J0058-23	Sediment
PDI-044SC-B-11.1-12.8-190930	A9J0058-24	Sediment
PDI-044SC-B-7.1-9.1-190930	A9J0058-25	Sediment
PDI-044SC-B-9.1-11.1-190930	A9J0058-26	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:	11/19/2019 4:10PM	Title:	Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D

Laboratory: Apex Laboratories **SDG:** A9J0058

Client: Anchor QEA, LLC **Project:** Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
Acenaphthene	1.25	2.50	ug/kg
Acenaphthylene	1.25	2.50	ug/kg
Anthracene	1.25	2.50	ug/kg
Benz(a)anthracene	1.25	2.50	ug/kg
Benzo(a)pyrene	1.25	2.50	ug/kg
Benzo(b)fluoranthene	1.25	2.50	ug/kg
Benzo(k)fluoranthene	1.25	2.50	ug/kg
Benzo(g,h,i)perylene	1.25	2.50	ug/kg
Chrysene	1.25	2.50	ug/kg
Dibenz(a,h)anthracene	1.25	2.50	ug/kg
Fluoranthene	1.25	2.50	ug/kg
Fluorene	1.25	2.50	ug/kg
Indeno(1,2,3-cd)pyrene	1.25	2.50	ug/kg
2-Methylnaphthalene	1.25	2.50	ug/kg
Naphthalene	1.25	2.50	ug/kg
Phenanthrene	1.25	2.50	ug/kg
Pyrene	1.25	2.50	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-039SC-A-12-13-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-01	File ID:	N10071925.D
Sampled:	09/30/19 09:09	Prepared:	10/06/19 07:51	Analyzed:	10/07/19 20:16
Solids:	74.07	Preparation:	EPA 3546	Initial/Final:	10.61 g / 5 mL
Batch:	9100706	Sequence:	9J07048	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.59	U
208-96-8	Acenaphthylene	1	1.59	U
120-12-7	Anthracene	1	1.59	U
56-55-3	Benz(a)anthracene	1	1.59	U
50-32-8	Benzo(a)pyrene	1	1.59	U
205-99-2	Benzo(b)fluoranthene	1	1.59	U
207-08-9	Benzo(k)fluoranthene	1	1.59	U
191-24-2	Benzo(g,h,i)perylene	1	1.59	U
218-01-9	Chrysene	1	1.59	U
53-70-3	Dibenz(a,h)anthracene	1	1.59	U
206-44-0	Fluoranthene	1	1.59	U
86-73-7	Fluorene	1	1.59	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.59	U
91-57-6	2-Methylnaphthalene	1	1.59	U
91-20-3	Naphthalene	1	1.59	U
85-01-8	Phenanthrene	1	1.59	U
129-00-0	Pyrene	1	1.59	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	63.6	49.8	78	44 - 115	
p-Terphenyl-d14 (Surr)	63.6	50.9	80	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	226303	7.889	229540	7.883	
Acenaphthene-d10 (ISTD)	132665	9.643	132113	9.638	
Phenanthrene-d10 (ISTD)	243754	11.153	245549	11.141	
Chrysene-d12 (ISTD)	193656	14.924	188539	14.907	
Perylene-d12 (ISTD)	164812	18.398	157182	18.38	
Dibenz(a,h)anthracene-d14 (ISTD)	134811	20.782	122824	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-039SC-A-13-13.7-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-02	File ID:	N10071926.D
Sampled:	09/30/19 09:48	Prepared:	10/06/19 07:51	Analyzed:	10/07/19 20:47
Solids:	73.21	Preparation:	EPA 3546	Initial/Final:	10.23 g / 5 mL
Batch:	9100706	Sequence:	9J07048	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.67	U
208-96-8	Acenaphthylene	1	1.67	U
120-12-7	Anthracene	1	1.67	U
56-55-3	Benz(a)anthracene	1	1.67	U
50-32-8	Benzo(a)pyrene	1	1.67	U
205-99-2	Benzo(b)fluoranthene	1	1.67	U
207-08-9	Benzo(k)fluoranthene	1	1.67	U
191-24-2	Benzo(g,h,i)perylene	1	1.67	U
218-01-9	Chrysene	1	1.67	U
53-70-3	Dibenz(a,h)anthracene	1	1.67	U
206-44-0	Fluoranthene	1	1.67	U
86-73-7	Fluorene	1	1.67	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.67	U
91-57-6	2-Methylnaphthalene	1	1.67	U
91-20-3	Naphthalene	1	1.67	U
85-01-8	Phenanthrene	1	1.67	U
129-00-0	Pyrene	1	1.67	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	66.8	56.0	84	44 - 115	
p-Terphenyl-d14 (Surr)	66.8	57.8	87	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	229541	7.889	229540	7.883	
Acenaphthene-d10 (ISTD)	131099	9.643	132113	9.638	
Phenanthrene-d10 (ISTD)	238409	11.153	245549	11.141	
Chrysene-d12 (ISTD)	196449	14.918	188539	14.907	
Perylene-d12 (ISTD)	171789	18.392	157182	18.38	
Dibenz(a,h)anthracene-d14 (ISTD)	145893	20.782	122824	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-1039SC-A-12-13-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-03	File ID:	N10071927.D
Sampled:	09/30/19 09:48	Prepared:	10/06/19 07:51	Analyzed:	10/07/19 21:19
Solids:	74.18	Preparation:	EPA 3546	Initial/Final:	10.41 g / 5 mL
Batch:	9100706	Sequence:	9J07048	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.62	U
208-96-8	Acenaphthylene	1	1.62	U
120-12-7	Anthracene	1	1.62	U
56-55-3	Benz(a)anthracene	1	1.62	U
50-32-8	Benzo(a)pyrene	1	1.62	U
205-99-2	Benzo(b)fluoranthene	1	1.99	J
207-08-9	Benzo(k)fluoranthene	1	1.62	U
191-24-2	Benzo(g,h,i)perylene	1	2.43	J
218-01-9	Chrysene	1	1.62	U
53-70-3	Dibenz(a,h)anthracene	1	1.62	U
206-44-0	Fluoranthene	1	1.62	U
86-73-7	Fluorene	1	1.62	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.92	J
91-57-6	2-Methylnaphthalene	1	1.62	U
91-20-3	Naphthalene	1	1.62	U
85-01-8	Phenanthrene	1	1.63	J
129-00-0	Pyrene	1	2.26	J

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	64.7	49.8	77	44 - 115	
p-Terphenyl-d14 (Surr)	64.7	45.3	70	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	237095	7.883	229540	7.883	
Acenaphthene-d10 (ISTD)	134040	9.643	132113	9.638	
Phenanthrene-d10 (ISTD)	245582	11.147	245549	11.141	
Chrysene-d12 (ISTD)	197889	14.913	188539	14.907	
Perylene-d12 (ISTD)	171299	18.386	157182	18.38	
Dibenz(a,h)anthracene-d14 (ISTD)	142483	20.776	122824	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-039SC-B-11.8-13.7-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-04	File ID:	N10071928.D
Sampled:	09/30/19 10:39	Prepared:	10/06/19 07:51	Analyzed:	10/07/19 21:50
Solids:	74.95	Preparation:	EPA 3546	Initial/Final:	10.83 g / 5 mL
Batch:	9100706	Sequence:	9J07048	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.54	U
208-96-8	Acenaphthylene	1	1.54	U
120-12-7	Anthracene	1	1.54	U
56-55-3	Benz(a)anthracene	1	1.54	U
50-32-8	Benzo(a)pyrene	1	1.54	U
205-99-2	Benzo(b)fluoranthene	1	1.54	U
207-08-9	Benzo(k)fluoranthene	1	1.54	U
191-24-2	Benzo(g,h,i)perylene	1	1.54	U
218-01-9	Chrysene	1	1.54	U
53-70-3	Dibenz(a,h)anthracene	1	1.54	U
206-44-0	Fluoranthene	1	1.54	U
86-73-7	Fluorene	1	1.54	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.54	U
91-57-6	2-Methylnaphthalene	1	1.54	U
91-20-3	Naphthalene	1	1.54	U
85-01-8	Phenanthrene	1	1.54	U
129-00-0	Pyrene	1	1.54	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	61.6	50.8	83	44 - 115	
p-Terphenyl-d14 (Surr)	61.6	54.4	88	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	227551	7.889	229540	7.883	
Acenaphthene-d10 (ISTD)	131792	9.643	132113	9.638	
Phenanthrene-d10 (ISTD)	240955	11.147	245549	11.141	
Chrysene-d12 (ISTD)	196779	14.918	188539	14.907	
Perylene-d12 (ISTD)	171679	18.392	157182	18.38	
Dibenz(a,h)anthracene-d14 (ISTD)	141233	20.782	122824	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-039SC-B-3.8-5.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-05	File ID:	N10071929.D
Sampled:	09/30/19 09:15	Prepared:	10/06/19 07:51	Analyzed:	10/07/19 22:22
Solids:	83.50	Preparation:	EPA 3546	Initial/Final:	10.73 g / 5 mL
Batch:	9100706	Sequence:	9J07048	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.83	J
208-96-8	Acenaphthylene	1	1.40	U
120-12-7	Anthracene	1	1.40	U
56-55-3	Benz(a)anthracene	1	1.40	U
50-32-8	Benzo(a)pyrene	1	1.40	U
205-99-2	Benzo(b)fluoranthene	1	1.40	U
207-08-9	Benzo(k)fluoranthene	1	1.40	U
191-24-2	Benzo(g,h,i)perylene	1	1.40	U
218-01-9	Chrysene	1	1.40	U
53-70-3	Dibenz(a,h)anthracene	1	1.40	U
206-44-0	Fluoranthene	1	1.40	U
86-73-7	Fluorene	1	1.40	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.40	U
91-57-6	2-Methylnaphthalene	1	1.40	U
91-20-3	Naphthalene	1	3.82	
85-01-8	Phenanthrene	1	1.40	U
129-00-0	Pyrene	1	1.40	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	55.8	45.5	82	44 - 115	
p-Terphenyl-d14 (Surr)	55.8	47.3	85	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	240982	7.883	229540	7.883	
Acenaphthene-d10 (ISTD)	140368	9.638	132113	9.638	
Phenanthrene-d10 (ISTD)	264413	11.147	245549	11.141	
Chrysene-d12 (ISTD)	233329	14.913	188539	14.907	
Perylene-d12 (ISTD)	209420	18.386	157182	18.38	
Dibenz(a,h)anthracene-d14 (ISTD)	173068	20.776	122824	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-039SC-B-5.8-7.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-06	File ID:	N10071930.D
Sampled:	09/30/19 09:16	Prepared:	10/06/19 07:51	Analyzed:	10/07/19 22:55
Solids:	86.72	Preparation:	EPA 3546	Initial/Final:	10.49 g / 5 mL
Batch:	9100706	Sequence:	9J07048	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.37	U
208-96-8	Acenaphthylene	1	1.37	U
120-12-7	Anthracene	1	1.37	U
56-55-3	Benz(a)anthracene	1	1.37	U
50-32-8	Benzo(a)pyrene	1	1.37	U
205-99-2	Benzo(b)fluoranthene	1	1.37	U
207-08-9	Benzo(k)fluoranthene	1	1.37	U
191-24-2	Benzo(g,h,i)perylene	1	1.37	U
218-01-9	Chrysene	1	1.37	U
53-70-3	Dibenz(a,h)anthracene	1	1.37	U
206-44-0	Fluoranthene	1	1.37	U
86-73-7	Fluorene	1	1.37	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.37	U
91-57-6	2-Methylnaphthalene	1	1.37	U
91-20-3	Naphthalene	1	1.37	U
85-01-8	Phenanthrene	1	1.37	U
129-00-0	Pyrene	1	1.37	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	55.0	46.7	85	44 - 115	
p-Terphenyl-d14 (Surr)	55.0	49.2	89	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	243594	7.883	229540	7.883	
Acenaphthene-d10 (ISTD)	135458	9.637	132113	9.638	
Phenanthrene-d10 (ISTD)	245546	11.147	245549	11.141	
Chrysene-d12 (ISTD)	197870	14.912	188539	14.907	
Perylene-d12 (ISTD)	171922	18.386	157182	18.38	
Dibenz(a,h)anthracene-d14 (ISTD)	142312	20.776	122824	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-039SC-B-7.8-9.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-07	File ID:	N10071931.D
Sampled:	09/30/19 09:17	Prepared:	10/06/19 07:51	Analyzed:	10/07/19 23:27
Solids:	72.59	Preparation:	EPA 3546	Initial/Final:	10.19 g / 5 mL
Batch:	9100706	Sequence:	9J07048	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.69	U
208-96-8	Acenaphthylene	1	1.69	U
120-12-7	Anthracene	1	1.69	U
56-55-3	Benz(a)anthracene	1	1.69	U
50-32-8	Benzo(a)pyrene	1	2.50	J
205-99-2	Benzo(b)fluoranthene	1	2.89	J
207-08-9	Benzo(k)fluoranthene	1	1.69	U
191-24-2	Benzo(g,h,i)perylene	1	2.64	J
218-01-9	Chrysene	1	2.41	J
53-70-3	Dibenz(a,h)anthracene	1	1.69	U
206-44-0	Fluoranthene	1	3.18	J
86-73-7	Fluorene	1	1.69	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	2.33	J
91-57-6	2-Methylnaphthalene	1	1.69	U
91-20-3	Naphthalene	1	1.91	J
85-01-8	Phenanthrene	1	1.69	U
129-00-0	Pyrene	1	3.87	

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	67.6	50.7	75	44 - 115	
p-Terphenyl-d14 (Surr)	67.6	48.6	72	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	245060	7.889	229540	7.883	
Acenaphthene-d10 (ISTD)	149199	9.643	132113	9.638	
Phenanthrene-d10 (ISTD)	253658	11.153	245549	11.141	
Chrysene-d12 (ISTD)	215922	14.924	188539	14.907	
Perylene-d12 (ISTD)	189213	18.398	157182	18.38	
Dibenz(a,h)anthracene-d14 (ISTD)	150175	20.782	122824	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-039SC-B-9.8-11.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-08	File ID:	N10081916.D
Sampled:	09/30/19 09:18	Prepared:	10/06/19 07:51	Analyzed:	10/08/19 16:26
Solids:	77.51	Preparation:	EPA 3546	Initial/Final:	10.09 g / 5 mL
Batch:	9100706	Sequence:	9J08040	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.60	U
208-96-8	Acenaphthylene	1	1.60	U
120-12-7	Anthracene	1	1.60	U
56-55-3	Benz(a)anthracene	1	1.60	U
50-32-8	Benzo(a)pyrene	1	1.60	U
205-99-2	Benzo(b)fluoranthene	1	1.60	U
207-08-9	Benzo(k)fluoranthene	1	1.60	U
191-24-2	Benzo(g,h,i)perylene	1	1.60	U
218-01-9	Chrysene	1	1.60	U
53-70-3	Dibenz(a,h)anthracene	1	1.60	U
206-44-0	Fluoranthene	1	1.60	U
86-73-7	Fluorene	1	1.60	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.60	U
91-57-6	2-Methylnaphthalene	1	1.60	U
91-20-3	Naphthalene	1	1.71	J
85-01-8	Phenanthrene	1	1.60	U
129-00-0	Pyrene	1	1.60	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	63.9	50.4	79	44 - 115	
p-Terphenyl-d14 (Surr)	63.9	51.6	81	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	233583	7.901	216725	7.877	
Acenaphthene-d10 (ISTD)	130198	9.655	120632	9.638	
Phenanthrene-d10 (ISTD)	237626	11.159	215468	11.141	
Chrysene-d12 (ISTD)	195102	14.936	161629	14.907	
Perylene-d12 (ISTD)	160482	18.415	137691	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	131532	20.805	110477	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-040SC-A-09-10-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-09	File ID:	N10081917.D
Sampled:	09/30/19 13:44	Prepared:	10/06/19 07:51	Analyzed:	10/08/19 16:58
Solids:	83.92	Preparation:	EPA 3546	Initial/Final:	10.61 g / 5 mL
Batch:	9100706	Sequence:	9J08040	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	4.09	
208-96-8	Acenaphthylene	1	1.40	U
120-12-7	Anthracene	1	1.40	U
56-55-3	Benz(a)anthracene	1	1.40	U
50-32-8	Benzo(a)pyrene	1	1.40	U
205-99-2	Benzo(b)fluoranthene	1	1.40	U
207-08-9	Benzo(k)fluoranthene	1	1.40	U
191-24-2	Benzo(g,h,i)perylene	1	1.40	U
218-01-9	Chrysene	1	1.40	U
53-70-3	Dibenz(a,h)anthracene	1	1.40	U
206-44-0	Fluoranthene	1	1.40	U
86-73-7	Fluorene	1	2.73	J
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.40	U
91-57-6	2-Methylnaphthalene	1	2.49	J
91-20-3	Naphthalene	1	4.64	
85-01-8	Phenanthrene	1	3.37	
129-00-0	Pyrene	1	1.40	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	56.2	47.6	85	44 - 115	
p-Terphenyl-d14 (Surr)	56.2	52.9	94	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	219346	7.901	216725	7.877	
Acenaphthene-d10 (ISTD)	123588	9.649	120632	9.638	
Phenanthrene-d10 (ISTD)	224671	11.159	215468	11.141	
Chrysene-d12 (ISTD)	167658	14.936	161629	14.907	
Perylene-d12 (ISTD)	145174	18.41	137691	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	122301	20.8	110477	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-040SC-A-10-11.3-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-10	File ID:	N10081918.D
Sampled:	09/30/19 13:59	Prepared:	10/06/19 07:51	Analyzed:	10/08/19 17:31
Solids:	76.30	Preparation:	EPA 3546	Initial/Final:	10.86 g / 5 mL
Batch:	9100706	Sequence:	9J08040	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	3.08	
208-96-8	Acenaphthylene	1	1.51	U
120-12-7	Anthracene	1	1.51	U
56-55-3	Benz(a)anthracene	1	1.51	U
50-32-8	Benzo(a)pyrene	1	1.51	U
205-99-2	Benzo(b)fluoranthene	1	1.51	U
207-08-9	Benzo(k)fluoranthene	1	1.51	U
191-24-2	Benzo(g,h,i)perylene	1	1.51	U
218-01-9	Chrysene	1	1.51	U
53-70-3	Dibenz(a,h)anthracene	1	1.51	U
206-44-0	Fluoranthene	1	1.51	U
86-73-7	Fluorene	1	2.87	J
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.51	U
91-57-6	2-Methylnaphthalene	1	1.51	U
91-20-3	Naphthalene	1	2.08	J
85-01-8	Phenanthrene	1	1.82	J
129-00-0	Pyrene	1	1.51	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	60.3	47.9	79	44 - 115	
p-Terphenyl-d14 (Surr)	60.3	56.8	94	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	215101	7.895	216725	7.877	
Acenaphthene-d10 (ISTD)	122209	9.649	120632	9.638	
Phenanthrene-d10 (ISTD)	220580	11.159	215468	11.141	
Chrysene-d12 (ISTD)	161163	14.93	161629	14.907	
Perylene-d12 (ISTD)	135758	18.404	137691	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	114709	20.794	110477	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-040SC-B-5.3-7.3-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-11	File ID:	N10081919.D
Sampled:	09/30/19 13:45	Prepared:	10/06/19 07:51	Analyzed:	10/08/19 18:03
Solids:	86.95	Preparation:	EPA 3546	Initial/Final:	10.21 g / 5 mL
Batch:	9100706	Sequence:	9J08040	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.81	J
208-96-8	Acenaphthylene	1	1.41	U
120-12-7	Anthracene	1	1.41	U
56-55-3	Benz(a)anthracene	1	1.41	U
50-32-8	Benzo(a)pyrene	1	1.41	U
205-99-2	Benzo(b)fluoranthene	1	1.41	U
207-08-9	Benzo(k)fluoranthene	1	1.41	U
191-24-2	Benzo(g,h,i)perylene	1	1.41	U
218-01-9	Chrysene	1	1.41	U
53-70-3	Dibenz(a,h)anthracene	1	1.41	U
206-44-0	Fluoranthene	1	1.41	U
86-73-7	Fluorene	1	1.41	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.41	U
91-57-6	2-Methylnaphthalene	1	1.41	U
91-20-3	Naphthalene	1	1.45	J
85-01-8	Phenanthrene	1	2.00	J
129-00-0	Pyrene	1	2.68	J

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	56.3	45.8	81	44 - 115	
p-Terphenyl-d14 (Surr)	56.3	51.8	92	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	229305	7.889	216725	7.877	
Acenaphthene-d10 (ISTD)	129106	9.649	120632	9.638	
Phenanthrene-d10 (ISTD)	230894	11.153	215468	11.141	
Chrysene-d12 (ISTD)	171638	14.924	161629	14.907	
Perylene-d12 (ISTD)	148671	18.404	137691	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	125509	20.793	110477	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-040SC-B-7.3-9.3-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-12	File ID:	N10071914.D
Sampled:	09/30/19 13:46	Prepared:	10/06/19 07:51	Analyzed:	10/07/19 14:26
Solids:	86.97	Preparation:	EPA 3546	Initial/Final:	10.36 g / 5 mL
Batch:	9100706	Sequence:	9J07048	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	3.08	
208-96-8	Acenaphthylene	1	1.39	U
120-12-7	Anthracene	1	1.39	U
56-55-3	Benz(a)anthracene	1	1.39	U
50-32-8	Benzo(a)pyrene	1	1.39	U
205-99-2	Benzo(b)fluoranthene	1	1.39	U
207-08-9	Benzo(k)fluoranthene	1	1.39	U
191-24-2	Benzo(g,h,i)perylene	1	1.39	U
218-01-9	Chrysene	1	1.39	U
53-70-3	Dibenz(a,h)anthracene	1	1.39	U
206-44-0	Fluoranthene	1	2.06	J
86-73-7	Fluorene	1	1.52	J
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.39	U
91-57-6	2-Methylnaphthalene	1	1.60	J
91-20-3	Naphthalene	1	4.98	
85-01-8	Phenanthrene	1	4.29	
129-00-0	Pyrene	1	2.60	J

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	55.5	44.9	81	44 - 115	
p-Terphenyl-d14 (Surr)	55.5	52.1	94	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	230136	7.877	229540	7.883	
Acenaphthene-d10 (ISTD)	138041	9.637	132113	9.638	
Phenanthrene-d10 (ISTD)	250301	11.141	245549	11.141	
Chrysene-d12 (ISTD)	183060	14.907	188539	14.907	
Perylene-d12 (ISTD)	151532	18.375	157182	18.38	
Dibenz(a,h)anthracene-d14 (ISTD)	119164	20.764	122824	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-040SC-B-9.3-11.3-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-13	File ID:	N10081920.D
Sampled:	09/30/19 14:02	Prepared:	10/07/19 06:54	Analyzed:	10/08/19 18:35
Solids:	79.30	Preparation:	EPA 3546	Initial/Final:	10.67 g / 5 mL
Batch:	9100712	Sequence:	9J08040	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	2.91	J
208-96-8	Acenaphthylene	1	1.48	U
120-12-7	Anthracene	1	1.48	U
56-55-3	Benz(a)anthracene	1	1.59	J
50-32-8	Benzo(a)pyrene	1	2.14	J
205-99-2	Benzo(b)fluoranthene	1	1.95	J
207-08-9	Benzo(k)fluoranthene	1	1.48	U
191-24-2	Benzo(g,h,i)perylene	1	1.76	J
218-01-9	Chrysene	1	2.07	J
53-70-3	Dibenz(a,h)anthracene	1	1.48	U
206-44-0	Fluoranthene	1	3.64	
86-73-7	Fluorene	1	2.65	J
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.62	J
91-57-6	2-Methylnaphthalene	1	1.48	U
91-20-3	Naphthalene	1	1.90	J
85-01-8	Phenanthrene	1	3.12	
129-00-0	Pyrene	1	4.59	

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	59.1	50.9	86	44 - 115	
p-Terphenyl-d14 (Surr)	59.1	56.0	95	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	226588	7.889	216725	7.877	
Acenaphthene-d10 (ISTD)	126163	9.649	120632	9.638	
Phenanthrene-d10 (ISTD)	223353	11.153	215468	11.141	
Chrysene-d12 (ISTD)	162274	14.924	161629	14.907	
Perylene-d12 (ISTD)	138222	18.404	137691	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	114138	20.794	110477	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-1040SC-B-5.3-7.3-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-14	File ID:	N10081921.D
Sampled:	09/30/19 13:45	Prepared:	10/07/19 06:54	Analyzed:	10/08/19 19:08
Solids:	87.03	Preparation:	EPA 3546	Initial/Final:	10.36 g / 5 mL
Batch:	9100712	Sequence:	9J08040	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	2.48	J
208-96-8	Acenaphthylene	1	1.39	U
120-12-7	Anthracene	1	1.39	U
56-55-3	Benz(a)anthracene	1	1.39	U
50-32-8	Benzo(a)pyrene	1	1.39	U
205-99-2	Benzo(b)fluoranthene	1	1.39	U
207-08-9	Benzo(k)fluoranthene	1	1.39	U
191-24-2	Benzo(g,h,i)perylene	1	1.39	U
218-01-9	Chrysene	1	1.39	U
53-70-3	Dibenz(a,h)anthracene	1	1.39	U
206-44-0	Fluoranthene	1	1.39	U
86-73-7	Fluorene	1	1.39	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.39	U
91-57-6	2-Methylnaphthalene	1	1.39	U
91-20-3	Naphthalene	1	1.80	J
85-01-8	Phenanthrene	1	2.18	J
129-00-0	Pyrene	1	3.19	

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	55.5	47.4	85	44 - 115	
p-Terphenyl-d14 (Surr)	55.5	51.1	92	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	229825	7.889	216725	7.877	
Acenaphthene-d10 (ISTD)	128435	9.643	120632	9.638	
Phenanthrene-d10 (ISTD)	228998	11.153	215468	11.141	
Chrysene-d12 (ISTD)	168170	14.924	161629	14.907	
Perylene-d12 (ISTD)	146716	18.398	137691	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	123690	20.788	110477	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-042SC-A-12-13-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-15	File ID:	N10081906.D
Sampled:	09/30/19 11:22	Prepared:	10/07/19 06:54	Analyzed:	10/08/19 10:55
Solids:	82.22	Preparation:	EPA 3546	Initial/Final:	10.24 g / 5 mL
Batch:	9100712	Sequence:	9J08040	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.48	U
208-96-8	Acenaphthylene	1	1.48	U
120-12-7	Anthracene	1	1.48	U
56-55-3	Benz(a)anthracene	1	1.48	U
50-32-8	Benzo(a)pyrene	1	1.48	U
205-99-2	Benzo(b)fluoranthene	1	1.48	U
207-08-9	Benzo(k)fluoranthene	1	1.48	U
191-24-2	Benzo(g,h,i)perylene	1	1.48	U
218-01-9	Chrysene	1	1.48	U
53-70-3	Dibenz(a,h)anthracene	1	1.48	U
206-44-0	Fluoranthene	1	2.16	J
86-73-7	Fluorene	1	1.48	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.48	U
91-57-6	2-Methylnaphthalene	1	1.48	U
91-20-3	Naphthalene	1	1.48	U
85-01-8	Phenanthrene	1	1.48	U
129-00-0	Pyrene	1	2.77	J

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	59.4	54.3	91	44 - 115	
p-Terphenyl-d14 (Surr)	59.4	57.4	97	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	206425	7.877	216725	7.877	
Acenaphthene-d10 (ISTD)	115766	9.638	120632	9.638	
Phenanthrene-d10 (ISTD)	203856	11.141	215468	11.141	
Chrysene-d12 (ISTD)	151383	14.907	161629	14.907	
Perylene-d12 (ISTD)	126518	18.381	137691	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	104937	20.77	110477	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-042SC-A-13-13.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-16	File ID:	N10081922.D
Sampled:	09/30/19 12:42	Prepared:	10/07/19 06:54	Analyzed:	10/08/19 19:40
Solids:	75.12	Preparation:	EPA 3546	Initial/Final:	10.33 g / 5 mL
Batch:	9100712	Sequence:	9J08040	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.61	U
208-96-8	Acenaphthylene	1	1.61	U
120-12-7	Anthracene	1	1.61	U
56-55-3	Benz(a)anthracene	1	1.61	U
50-32-8	Benzo(a)pyrene	1	1.61	U
205-99-2	Benzo(b)fluoranthene	1	1.61	U
207-08-9	Benzo(k)fluoranthene	1	1.61	U
191-24-2	Benzo(g,h,i)perylene	1	1.61	U
218-01-9	Chrysene	1	1.61	U
53-70-3	Dibenz(a,h)anthracene	1	1.61	U
206-44-0	Fluoranthene	1	1.61	U
86-73-7	Fluorene	1	1.61	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.61	U
91-57-6	2-Methylnaphthalene	1	1.61	U
91-20-3	Naphthalene	1	1.61	U
85-01-8	Phenanthrene	1	1.61	U
129-00-0	Pyrene	1	1.61	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	64.4	57.2	89	44 - 115	
p-Terphenyl-d14 (Surr)	64.4	61.1	95	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	230668	7.901	216725	7.877	
Acenaphthene-d10 (ISTD)	127369	9.655	120632	9.638	
Phenanthrene-d10 (ISTD)	232562	11.159	215468	11.141	
Chrysene-d12 (ISTD)	185939	14.936	161629	14.907	
Perylene-d12 (ISTD)	160223	18.41	137691	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	135688	20.799	110477	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-042SC-B-11.9-13.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-17	File ID:	N10081923.D
Sampled:	09/30/19 12:29	Prepared:	10/07/19 06:54	Analyzed:	10/08/19 20:12
Solids:	79.77	Preparation:	EPA 3546	Initial/Final:	10.17 g / 5 mL
Batch:	9100712	Sequence:	9J08040	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.54	U
208-96-8	Acenaphthylene	1	1.54	U
120-12-7	Anthracene	1	1.54	U
56-55-3	Benz(a)anthracene	1	1.54	U
50-32-8	Benzo(a)pyrene	1	1.54	U
205-99-2	Benzo(b)fluoranthene	1	1.54	U
207-08-9	Benzo(k)fluoranthene	1	1.54	U
191-24-2	Benzo(g,h,i)perylene	1	1.54	U
218-01-9	Chrysene	1	1.54	U
53-70-3	Dibenz(a,h)anthracene	1	1.54	U
206-44-0	Fluoranthene	1	1.54	U
86-73-7	Fluorene	1	1.54	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.54	U
91-57-6	2-Methylnaphthalene	1	1.54	U
91-20-3	Naphthalene	1	1.54	U
85-01-8	Phenanthrene	1	1.54	U
129-00-0	Pyrene	1	1.54	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	61.6	55.6	90	44 - 115	
p-Terphenyl-d14 (Surr)	61.6	59.6	97	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	228134	7.901	216725	7.877	
Acenaphthene-d10 (ISTD)	127135	9.655	120632	9.638	
Phenanthrene-d10 (ISTD)	226445	11.159	215468	11.141	
Chrysene-d12 (ISTD)	176094	14.942	161629	14.907	
Perylene-d12 (ISTD)	148455	18.416	137691	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	120554	20.805	110477	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-042SC-B-3.9-5.9-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-18	File ID:	N10091907.D
Sampled:	09/30/19 12:05	Prepared:	10/07/19 06:54	Analyzed:	10/09/19 11:37
Solids:	91.98	Preparation:	EPA 3546	Initial/Final:	10.29 g / 5 mL
Batch:	9100712	Sequence:	9J09031	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	2.97	
208-96-8	Acenaphthylene	1	1.32	U
120-12-7	Anthracene	1	1.32	U
56-55-3	Benz(a)anthracene	1	1.32	U
50-32-8	Benzo(a)pyrene	1	1.32	U
205-99-2	Benzo(b)fluoranthene	1	1.32	U
207-08-9	Benzo(k)fluoranthene	1	1.32	U
191-24-2	Benzo(g,h,i)perylene	1	1.32	U
218-01-9	Chrysene	1	1.32	U
53-70-3	Dibenz(a,h)anthracene	1	1.32	U
206-44-0	Fluoranthene	1	2.27	J
86-73-7	Fluorene	1	1.48	J
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.32	U
91-57-6	2-Methylnaphthalene	1	1.32	U
91-20-3	Naphthalene	1	1.32	U
85-01-8	Phenanthrene	1	3.88	
129-00-0	Pyrene	1	2.58	J

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	52.8	45.8	87	44 - 115	
p-Terphenyl-d14 (Surr)	52.8	49.2	93	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	215788	7.877	206747	7.877	
Acenaphthene-d10 (ISTD)	128102	9.632	125621	9.632	
Phenanthrene-d10 (ISTD)	230265	11.141	235020	11.141	
Chrysene-d12 (ISTD)	183910	14.907	190734	14.907	
Perylene-d12 (ISTD)	164415	18.381	167849	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	136934	20.77	138526	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-042SC-B-5.9-7.9-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-19	File ID:	N10091908.D
Sampled:	09/30/19 12:06	Prepared:	10/07/19 06:54	Analyzed:	10/09/19 12:10
Solids:	85.67	Preparation:	EPA 3546	Initial/Final:	10.51 g / 5 mL
Batch:	9100712	Sequence:	9J09031	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	6.37	
208-96-8	Acenaphthylene	1	1.39	U
120-12-7	Anthracene	1	1.39	U
56-55-3	Benz(a)anthracene	1	1.39	U
50-32-8	Benzo(a)pyrene	1	1.39	U
205-99-2	Benzo(b)fluoranthene	1	1.39	U
207-08-9	Benzo(k)fluoranthene	1	1.39	U
191-24-2	Benzo(g,h,i)perylene	1	1.39	U
218-01-9	Chrysene	1	1.39	U
53-70-3	Dibenz(a,h)anthracene	1	1.39	U
206-44-0	Fluoranthene	1	1.39	U
86-73-7	Fluorene	1	1.39	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.39	U
91-57-6	2-Methylnaphthalene	1	2.17	J
91-20-3	Naphthalene	1	1.39	U
85-01-8	Phenanthrene	1	3.42	
129-00-0	Pyrene	1	1.39	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	55.5	47.0	85	44 - 115	
p-Terphenyl-d14 (Surr)	55.5	48.9	88	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	214668	7.877	206747	7.877	
Acenaphthene-d10 (ISTD)	129732	9.632	125621	9.632	
Phenanthrene-d10 (ISTD)	243122	11.141	235020	11.141	
Chrysene-d12 (ISTD)	194730	14.907	190734	14.907	
Perylene-d12 (ISTD)	177014	18.381	167849	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	147320	20.77	138526	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-042SC-B-7.9-9.9-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-20	File ID:	N10091909.D
Sampled:	09/30/19 12:06	Prepared:	10/07/19 06:54	Analyzed:	10/09/19 12:42
Solids:	82.74	Preparation:	EPA 3546	Initial/Final:	10.19 g / 5 mL
Batch:	9100712	Sequence:	9J09031	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.48	U
208-96-8	Acenaphthylene	1	1.48	U
120-12-7	Anthracene	1	1.48	U
56-55-3	Benz(a)anthracene	1	1.48	U
50-32-8	Benzo(a)pyrene	1	1.48	U
205-99-2	Benzo(b)fluoranthene	1	1.48	U
207-08-9	Benzo(k)fluoranthene	1	1.48	U
191-24-2	Benzo(g,h,i)perylene	1	1.48	U
218-01-9	Chrysene	1	1.48	U
53-70-3	Dibenz(a,h)anthracene	1	1.48	U
206-44-0	Fluoranthene	1	1.48	U
86-73-7	Fluorene	1	1.48	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.48	U
91-57-6	2-Methylnaphthalene	1	1.48	U
91-20-3	Naphthalene	1	1.48	U
85-01-8	Phenanthrene	1	1.48	U
129-00-0	Pyrene	1	1.48	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	59.3	50.6	85	44 - 115	
p-Terphenyl-d14 (Surr)	59.3	53.3	90	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	228977	7.883	206747	7.877	
Acenaphthene-d10 (ISTD)	126831	9.637	125621	9.632	
Phenanthrene-d10 (ISTD)	230185	11.147	235020	11.141	
Chrysene-d12 (ISTD)	186611	14.912	190734	14.907	
Perylene-d12 (ISTD)	160229	18.392	167849	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	131579	20.782	138526	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-042SC-B-9.9-11.9-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-21	File ID:	N10091910.D
Sampled:	09/30/19 12:07	Prepared:	10/07/19 06:54	Analyzed:	10/09/19 13:14
Solids:	87.57	Preparation:	EPA 3546	Initial/Final:	10.54 g / 5 mL
Batch:	9100712	Sequence:	9J09031	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.35	U
208-96-8	Acenaphthylene	1	1.35	U
120-12-7	Anthracene	1	1.35	U
56-55-3	Benz(a)anthracene	1	1.35	U
50-32-8	Benzo(a)pyrene	1	1.35	U
205-99-2	Benzo(b)fluoranthene	1	1.35	U
207-08-9	Benzo(k)fluoranthene	1	1.35	U
191-24-2	Benzo(g,h,i)perylene	1	1.35	U
218-01-9	Chrysene	1	1.35	U
53-70-3	Dibenz(a,h)anthracene	1	1.35	U
206-44-0	Fluoranthene	1	1.35	U
86-73-7	Fluorene	1	1.35	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.35	U
91-57-6	2-Methylnaphthalene	1	1.35	U
91-20-3	Naphthalene	1	1.35	U
85-01-8	Phenanthrene	1	1.35	U
129-00-0	Pyrene	1	1.35	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	54.2	50.6	93	44 - 115	
p-Terphenyl-d14 (Surr)	54.2	54.2	100	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	205906	7.889	206747	7.877	
Acenaphthene-d10 (ISTD)	127316	9.643	125621	9.632	
Phenanthrene-d10 (ISTD)	238206	11.153	235020	11.141	
Chrysene-d12 (ISTD)	188722	14.924	190734	14.907	
Perylene-d12 (ISTD)	166921	18.398	167849	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	137005	20.788	138526	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-044SC-A-11-12-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-22	File ID:	N10091911.D
Sampled:	09/30/19 15:05	Prepared:	10/07/19 06:54	Analyzed:	10/09/19 13:46
Solids:	77.98	Preparation:	EPA 3546	Initial/Final:	10.37 g / 5 mL
Batch:	9100712	Sequence:	9J09031	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.55	U
208-96-8	Acenaphthylene	1	1.55	U
120-12-7	Anthracene	1	1.55	U
56-55-3	Benz(a)anthracene	1	1.55	U
50-32-8	Benzo(a)pyrene	1	1.55	U
205-99-2	Benzo(b)fluoranthene	1	1.55	U
207-08-9	Benzo(k)fluoranthene	1	1.55	U
191-24-2	Benzo(g,h,i)perylene	1	1.55	U
218-01-9	Chrysene	1	1.55	U
53-70-3	Dibenz(a,h)anthracene	1	1.55	U
206-44-0	Fluoranthene	1	1.55	U
86-73-7	Fluorene	1	1.55	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.55	U
91-57-6	2-Methylnaphthalene	1	1.55	U
91-20-3	Naphthalene	1	1.55	U
85-01-8	Phenanthrene	1	1.55	U
129-00-0	Pyrene	1	1.55	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	61.8	50.7	82	44 - 115	
p-Terphenyl-d14 (Surr)	61.8	53.6	87	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	210180	7.889	206747	7.877	
Acenaphthene-d10 (ISTD)	130041	9.643	125621	9.632	
Phenanthrene-d10 (ISTD)	245301	11.153	235020	11.141	
Chrysene-d12 (ISTD)	198082	14.924	190734	14.907	
Perylene-d12 (ISTD)	174296	18.398	167849	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	143681	20.788	138526	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-044SC-A-12-12.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-23	File ID:	N10091912.D
Sampled:	09/30/19 15:05	Prepared:	10/07/19 06:54	Analyzed:	10/09/19 14:18
Solids:	76.30	Preparation:	EPA 3546	Initial/Final:	10.85 g / 5 mL
Batch:	9100712	Sequence:	9J09031	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.51	U
208-96-8	Acenaphthylene	1	1.51	U
120-12-7	Anthracene	1	1.51	U
56-55-3	Benz(a)anthracene	1	1.81	J
50-32-8	Benzo(a)pyrene	1	1.52	J
205-99-2	Benzo(b)fluoranthene	1	1.54	J
207-08-9	Benzo(k)fluoranthene	1	1.51	U
191-24-2	Benzo(g,h,i)perylene	1	1.51	U
218-01-9	Chrysene	1	2.23	J
53-70-3	Dibenz(a,h)anthracene	1	1.51	U
206-44-0	Fluoranthene	1	6.46	
86-73-7	Fluorene	1	1.51	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.51	U
91-57-6	2-Methylnaphthalene	1	1.51	U
91-20-3	Naphthalene	1	1.51	U
85-01-8	Phenanthrene	1	1.51	U
129-00-0	Pyrene	1	8.19	

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	60.4	53.7	89	44 - 115	
p-Terphenyl-d14 (Surr)	60.4	54.6	90	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	212723	7.877	206747	7.877	
Acenaphthene-d10 (ISTD)	131017	9.637	125621	9.632	
Phenanthrene-d10 (ISTD)	238593	11.141	235020	11.141	
Chrysene-d12 (ISTD)	186663	14.907	190734	14.907	
Perylene-d12 (ISTD)	161732	18.386	167849	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	131833	20.776	138526	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-044SC-B-11.1-12.8-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-24	File ID:	N10091913.D
Sampled:	09/30/19 15:15	Prepared:	10/07/19 06:54	Analyzed:	10/09/19 14:50
Solids:	76.85	Preparation:	EPA 3546	Initial/Final:	10.21 g / 5 mL
Batch:	9100712	Sequence:	9J09031	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.59	U
208-96-8	Acenaphthylene	1	1.59	U
120-12-7	Anthracene	1	1.59	U
56-55-3	Benz(a)anthracene	1	1.59	U
50-32-8	Benzo(a)pyrene	1	1.59	U
205-99-2	Benzo(b)fluoranthene	1	1.59	U
207-08-9	Benzo(k)fluoranthene	1	1.59	U
191-24-2	Benzo(g,h,i)perylene	1	1.59	U
218-01-9	Chrysene	1	1.59	U
53-70-3	Dibenz(a,h)anthracene	1	1.59	U
206-44-0	Fluoranthene	1	1.59	U
86-73-7	Fluorene	1	1.59	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.59	U
91-57-6	2-Methylnaphthalene	1	1.59	U
91-20-3	Naphthalene	1	2.87	J
85-01-8	Phenanthrene	1	2.00	J
129-00-0	Pyrene	1	1.59	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	63.7	52.5	82	44 - 115	
p-Terphenyl-d14 (Surr)	63.7	56.3	88	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	208871	7.877	206747	7.877	
Acenaphthene-d10 (ISTD)	130073	9.638	125621	9.632	
Phenanthrene-d10 (ISTD)	238130	11.141	235020	11.141	
Chrysene-d12 (ISTD)	191760	14.912	190734	14.907	
Perylene-d12 (ISTD)	171384	18.386	167849	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	140830	20.776	138526	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-044SC-B-7.1-9.1-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-25	File ID:	N10091914.D
Sampled:	09/30/19 15:06	Prepared:	10/07/19 06:54	Analyzed:	10/09/19 15:22
Solids:	83.51	Preparation:	EPA 3546	Initial/Final:	10.97 g / 5 mL
Batch:	9100712	Sequence:	9J09031	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.36	U
208-96-8	Acenaphthylene	1	1.36	U
120-12-7	Anthracene	1	1.36	U
56-55-3	Benz(a)anthracene	1	1.36	U
50-32-8	Benzo(a)pyrene	1	1.36	U
205-99-2	Benzo(b)fluoranthene	1	1.36	U
207-08-9	Benzo(k)fluoranthene	1	1.36	U
191-24-2	Benzo(g,h,i)perylene	1	1.36	U
218-01-9	Chrysene	1	1.36	U
53-70-3	Dibenz(a,h)anthracene	1	1.36	U
206-44-0	Fluoranthene	1	1.36	U
86-73-7	Fluorene	1	1.36	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.36	U
91-57-6	2-Methylnaphthalene	1	1.36	U
91-20-3	Naphthalene	1	1.36	U
85-01-8	Phenanthrene	1	1.36	U
129-00-0	Pyrene	1	1.36	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	54.6	47.6	87	44 - 115	
p-Terphenyl-d14 (Surr)	54.6	54.6	100	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	212133	7.883	206747	7.877	
Acenaphthene-d10 (ISTD)	123307	9.638	125621	9.632	
Phenanthrene-d10 (ISTD)	222428	11.147	235020	11.141	
Chrysene-d12 (ISTD)	161009	14.912	190734	14.907	
Perylene-d12 (ISTD)	135131	18.386	167849	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	113570	20.776	138526	20.77	

* Values outside of QC limits

ORGANIC ANALYSIS DATA SHEET

EPA 8270D

PDI-044SC-B-9.1-11.1-190930

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment	Laboratory ID:	A9J0058-26	File ID:	N10091915.D
Sampled:	09/30/19 15:07	Prepared:	10/07/19 06:54	Analyzed:	10/09/19 15:54
Solids:	88.61	Preparation:	EPA 3546	Initial/Final:	10.34 g / 5 mL
Batch:	9100712	Sequence:	9J09031	Calibration:	A9I1001
Instrument:	SV-GCMS14				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg dry)	Q
83-32-9	Acenaphthene	1	1.36	U
208-96-8	Acenaphthylene	1	1.36	U
120-12-7	Anthracene	1	1.36	U
56-55-3	Benz(a)anthracene	1	1.36	U
50-32-8	Benzo(a)pyrene	1	1.36	U
205-99-2	Benzo(b)fluoranthene	1	1.36	U
207-08-9	Benzo(k)fluoranthene	1	1.36	U
191-24-2	Benzo(g,h,i)perylene	1	1.36	U
218-01-9	Chrysene	1	1.36	U
53-70-3	Dibenz(a,h)anthracene	1	1.36	U
206-44-0	Fluoranthene	1	1.36	U
86-73-7	Fluorene	1	1.36	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	1.36	U
91-57-6	2-Methylnaphthalene	1	1.36	U
91-20-3	Naphthalene	1	2.10	J
85-01-8	Phenanthrene	1	1.51	J
129-00-0	Pyrene	1	1.39	J

SYSTEM MONITORING COMPOUND	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	54.6	48.4	89	44 - 115	
p-Terphenyl-d14 (Surr)	54.6	49.5	91	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	212369	7.877	206747	7.877	
Acenaphthene-d10 (ISTD)	130303	9.638	125621	9.632	
Phenanthrene-d10 (ISTD)	241392	11.141	235020	11.141	
Chrysene-d12 (ISTD)	198011	14.913	190734	14.907	
Perylene-d12 (ISTD)	180743	18.386	167849	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	153316	20.776	138526	20.77	

* Values outside of QC limits

PREPARATION BATCH SUMMARY

EPA 8270D

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cc

Batch: 9100706 Batch Matrix: Sediment Preparation: EPA 3546

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9100706-BLK1	N10071912.D	10/06/19 07:51	
LCS	9100706-BS1	N10071913.D	10/06/19 07:51	
PDI-040SC-B-7.3-9.3-190930 (MS)	9100706-MS1	N10071915.D	10/06/19 07:51	
PDI-040SC-B-7.3-9.3-190930 (MSD	9100706-MSD1	N10071916.D	10/06/19 07:51	
PDI-039SC-A-12-13-190930	A9J0058-01	N10071925.D	10/06/19 07:51	
PDI-039SC-A-13-13.7-190930	A9J0058-02	N10071926.D	10/06/19 07:51	
PDI-1039SC-A-12-13-190930	A9J0058-03	N10071927.D	10/06/19 07:51	
PDI-039SC-B-11.8-13.7-190930	A9J0058-04	N10071928.D	10/06/19 07:51	
PDI-039SC-B-3.8-5.8-190930	A9J0058-05	N10071929.D	10/06/19 07:51	
PDI-039SC-B-5.8-7.8-190930	A9J0058-06	N10071930.D	10/06/19 07:51	
PDI-039SC-B-7.8-9.8-190930	A9J0058-07	N10071931.D	10/06/19 07:51	
PDI-039SC-B-9.8-11.8-190930	A9J0058-08	N10081916.D	10/06/19 07:51	
PDI-040SC-A-09-10-190930	A9J0058-09	N10081917.D	10/06/19 07:51	
PDI-040SC-A-10-11.3-190930	A9J0058-10	N10081918.D	10/06/19 07:51	
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	N10081919.D	10/06/19 07:51	
PDI-040SC-B-7.3-9.3-190930	A9J0058-12	N10071914.D	10/06/19 07:51	

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.

PREPARATION BATCH SUMMARY

EPA 8270D

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cc

Batch: 9100712 Batch Matrix: Sediment Preparation: EPA 3546

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9100712-BLK1	N10081904.D	10/07/19 06:54	
LCS	9100712-BS1	N10081905.D	10/07/19 06:54	
PDI-042SC-A-12-13-190930 (MS)	9100712-MS1	N10081907.D	10/07/19 06:54	
PDI-042SC-A-12-13-190930 (MSD)	9100712-MSD1	N10081908.D	10/07/19 06:55	
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	N10081920.D	10/07/19 06:54	
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	N10081921.D	10/07/19 06:54	
PDI-042SC-A-12-13-190930	A9J0058-15	N10081906.D	10/07/19 06:54	
PDI-042SC-A-13-13.8-190930	A9J0058-16	N10081922.D	10/07/19 06:54	
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	N10081923.D	10/07/19 06:54	
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	N10091907.D	10/07/19 06:54	
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	N10091908.D	10/07/19 06:54	
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	N10091909.D	10/07/19 06:54	
PDI-042SC-B-9.9-11.9-190930	A9J0058-21	N10091910.D	10/07/19 06:54	
PDI-044SC-A-11-12-190930	A9J0058-22	N10091911.D	10/07/19 06:54	
PDI-044SC-A-12-12.8-190930	A9J0058-23	N10091912.D	10/07/19 06:54	
PDI-044SC-B-11.1-12.8-190930	A9J0058-24	N10091913.D	10/07/19 06:54	
PDI-044SC-B-7.1-9.1-190930	A9J0058-25	N10091914.D	10/07/19 06:54	
PDI-044SC-B-9.1-11.1-190930	A9J0058-26	N10091915.D	10/07/19 06:54	

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

EPA 8270D

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Matrix:	Sediment	Laboratory ID:	9100706-BLK1	File ID:	N10071912.D
Prepared:	10/06/19 07:51	Preparation:	EPA 3546	Initial/Final:	11 g / 5 mL
Analyzed:	10/07/19 13:22	Instrument:	SV-GCMS14		
Batch:	9100706	Sequence:	9J07048	Calibration:	A9I1001

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
83-32-9	Acenaphthene	1.14	U
208-96-8	Acenaphthylene	1.14	U
120-12-7	Anthracene	1.14	U
56-55-3	Benz(a)anthracene	1.14	U
50-32-8	Benzo(a)pyrene	1.14	U
205-99-2	Benzo(b)fluoranthene	1.14	U
207-08-9	Benzo(k)fluoranthene	1.14	U
191-24-2	Benzo(g,h,i)perylene	1.14	U
218-01-9	Chrysene	1.14	U
53-70-3	Dibenz(a,h)anthracene	1.14	U
206-44-0	Fluoranthene	1.14	U
86-73-7	Fluorene	1.14	U
193-39-5	Indeno(1,2,3-cd)pyrene	1.14	U
91-57-6	2-Methylnaphthalene	1.14	U
91-20-3	Naphthalene	1.14	U
85-01-8	Phenanthrene	1.14	U
129-00-0	Pyrene	1.14	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg wet)	CONC (ug/kg wet)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	45.5	39.3	86	44 - 115	
p-Terphenyl-d14 (Surr)	45.5	43.5	96	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	228641	7.883	229540	7.883	
Acenaphthene-d10 (ISTD)	133662	9.638	132113	9.638	
Phenanthrene-d10 (ISTD)	240732	11.141	245549	11.141	
Chrysene-d12 (ISTD)	171761	14.907	188539	14.907	
Perylene-d12 (ISTD)	142801	18.38	157182	18.38	
Dibenz(a,h)anthracene-d14 (ISTD)	113855	20.764	122824	20.77	

METHOD BLANK DATA SHEET

EPA 8270D

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Matrix:	Sediment	Laboratory ID:	9100712-BLK1	File ID:	N10081904.D
Prepared:	10/07/19 06:54	Preparation:	EPA 3546	Initial/Final:	11 g / 5 mL
Analyzed:	10/08/19 09:51	Instrument:	SV-GCMS14		
Batch:	9100712	Sequence:	9J08040	Calibration:	A9I1001

CAS NO.	COMPOUND	CONC. (ug/kg wet)	Q
83-32-9	Acenaphthene	1.14	U
208-96-8	Acenaphthylene	1.14	U
120-12-7	Anthracene	1.14	U
56-55-3	Benz(a)anthracene	1.14	U
50-32-8	Benzo(a)pyrene	1.14	U
205-99-2	Benzo(b)fluoranthene	1.14	U
207-08-9	Benzo(k)fluoranthene	1.14	U
191-24-2	Benzo(g,h,i)perylene	1.14	U
218-01-9	Chrysene	1.14	U
53-70-3	Dibenz(a,h)anthracene	1.14	U
206-44-0	Fluoranthene	1.14	U
86-73-7	Fluorene	1.14	U
193-39-5	Indeno(1,2,3-cd)pyrene	1.14	U
91-57-6	2-Methylnaphthalene	1.14	U
91-20-3	Naphthalene	1.14	U
85-01-8	Phenanthrene	1.14	U
129-00-0	Pyrene	1.14	U

SYSTEM MONITORING COMPOUND	ADDED (ug/kg wet)	CONC (ug/kg wet)	% REC	QC LIMITS	Q
2-Fluorobiphenyl (Surr)	45.5	43.8	96	44 - 115	
p-Terphenyl-d14 (Surr)	45.5	46.5	102	54 - 127	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Naphthalene-d8 (ISTD)	204209	7.883	216725	7.877	
Acenaphthene-d10 (ISTD)	109271	9.638	120632	9.638	
Phenanthrene-d10 (ISTD)	185110	11.141	215468	11.141	
Chrysene-d12 (ISTD)	132747	14.907	161629	14.907	
Perylene-d12 (ISTD)	115576	18.381	137691	18.381	
Dibenz(a,h)anthracene-d14 (ISTD)	99534	20.77	110477	20.77	

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100706	Laboratory ID:	9100706-BS1
Preparation:	EPA 3546	Initial/Final:	10 g / 5 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
Acenaphthene	20.0	17.9	89	40 - 122
Acenaphthylene	20.0	17.0	85	32 - 132
Anthracene	20.0	17.4	87	47 - 123
Benz(a)anthracene	20.0	16.5	82	49 - 126
Benzo(a)pyrene	20.0	17.7	89	45 - 129
Benzo(b)fluoranthene	20.0	18.1	90	45 - 132
Benzo(k)fluoranthene	20.0	18.0	90	47 - 132
Benzo(g,h,i)perylene	20.0	16.8	84	43 - 134
Chrysene	20.0	18.0	90	50 - 124
Dibenz(a,h)anthracene	20.0	16.9	85	45 - 134
Fluoranthene	20.0	17.0	85	50 - 127
Fluorene	20.0	17.9	90	43 - 125
Indeno(1,2,3-cd)pyrene	20.0	16.9	84	45 - 133
2-Methylnaphthalene	20.0	15.5	78	38 - 122
Naphthalene	20.0	18.0	90	35 - 123
Phenanthrene	20.0	17.7	89	50 - 121
Pyrene	20.0	18.1	91	47 - 127

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100712	Laboratory ID:	9100712-BS1
Preparation:	EPA 3546	Initial/Final:	10 g / 5 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	LCS % REC. (*=Out)	QC LIMITS REC.
Acenaphthene	20.0	18.1	90	40 - 122
Acenaphthylene	20.0	16.8	84	32 - 132
Anthracene	20.0	17.4	87	47 - 123
Benz(a)anthracene	20.0	16.6	83	49 - 126
Benzo(a)pyrene	20.0	18.0	90	45 - 129
Benzo(b)fluoranthene	20.0	18.0	90	45 - 132
Benzo(k)fluoranthene	20.0	17.8	89	47 - 132
Benzo(g,h,i)perylene	20.0	17.0	85	43 - 134
Chrysene	20.0	18.0	90	50 - 124
Dibenz(a,h)anthracene	20.0	16.9	84	45 - 134
Fluoranthene	20.0	17.3	87	50 - 127
Fluorene	20.0	17.8	89	43 - 125
Indeno(1,2,3-cd)pyrene	20.0	16.8	84	45 - 133
2-Methylnaphthalene	20.0	15.7	78	38 - 122
Naphthalene	20.0	18.2	91	35 - 123
Phenanthrene	20.0	17.4	87	50 - 121
Pyrene	20.0	18.1	91	47 - 127

* = Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8270D

PDI-040SC-B-7.3-9.3-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Matrix:	Sediment		
Batch:	9100706	Laboratory ID:	9100706-MS1
Preparation:	EPA 3546	Initial/Final:	10.4 g / 5 mL

Source Sample Name: PDI-040SC-B-7.3-9.3-190930

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	MS CONCENTRATION (ug/kg dry)	MS % REC. (*=Out)	QC LIMITS REC.
Acenaphthene	22.1	3.08	19.9	76	40 - 122
Acenaphthylene	22.1	ND	18.0	81	32 - 132
Anthracene	22.1	ND	19.3	87	47 - 123
Benz(a)anthracene	22.1	ND	18.1	82	49 - 126
Benzo(a)pyrene	22.1	ND	19.2	87	45 - 129
Benzo(b)fluoranthene	22.1	ND	19.2	87	45 - 132
Benzo(k)fluoranthene	22.1	ND	18.8	85	47 - 132
Benzo(g,h,i)perylene	22.1	ND	18.1	82	43 - 134
Chrysene	22.1	ND	19.4	88	50 - 124
Dibenz(a,h)anthracene	22.1	ND	18.0	81	45 - 134
Fluoranthene	22.1	2.06	19.5	79	50 - 127
Fluorene	22.1	1.52	19.8	83	43 - 125
Indeno(1,2,3-cd)pyrene	22.1	ND	17.9	81	45 - 133
2-Methylnaphthalene	22.1	1.60	16.9	69	38 - 122
Naphthalene	22.1	4.98	19.8	67	35 - 123
Phenanthrene	22.1	4.29	19.9	70	50 - 121
Pyrene	22.1	2.60	19.2	75	47 - 127

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8270D

PDI-040SC-B-7.3-9.3-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100706	Laboratory ID:	9100706-MSD1
Preparation:	EPA 3546	Initial/Final:	10.6 g / 5 mL

Source Sample Name: PDI-040SC-B-7.3-9.3-190930

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	MSD % RECOVERY	% RPD	QC LIMITS RPD	QC LIMITS REC.
Acenaphthene	21.7	19.9	77	0.3	30	40 - 122
Acenaphthylene	21.7	18.2	84	1	30	32 - 132
Anthracene	21.7	19.1	88	0.9	30	47 - 123
Benz(a)anthracene	21.7	18.9	87	5	30	49 - 126
Benzo(a)pyrene	21.7	19.9	92	4	30	45 - 129
Benzo(b)fluoranthene	21.7	20.6	95	7	30	45 - 132
Benzo(k)fluoranthene	21.7	18.9	87	0.6	30	47 - 132
Benzo(g,h,i)perylene	21.7	18.5	85	2	30	43 - 134
Chrysene	21.7	20.3	93	4	30	50 - 124
Dibenz(a,h)anthracene	21.7	17.3	80	4	30	45 - 134
Fluoranthene	21.7	20.5	85	5	30	50 - 127
Fluorene	21.7	19.9	85	0.3	30	43 - 125
Indeno(1,2,3-cd)pyrene	21.7	18.3	84	2	30	45 - 133
2-Methylnaphthalene	21.7	17.8	75	5	30	38 - 122
Naphthalene	21.7	19.7	68	0.2	30	35 - 123
Phenanthrene	21.7	19.9	72	0.4	30	50 - 121
Pyrene	21.7	20.2	81	5	30	47 - 127

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8270D

PDI-042SC-A-12-13-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Matrix:	Sediment		
Batch:	9100712	Laboratory ID:	9100712-MS1
Preparation:	EPA 3546	Initial/Final:	10.2 g / 5 mL

Source Sample Name: PDI-042SC-A-12-13-190930

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	MS CONCENTRATION (ug/kg dry)	MS % REC. (*=Out)	QC LIMITS REC.
Acenaphthene	23.8	ND	22.3	93	40 - 122
Acenaphthylene	23.8	ND	21.7	91	32 - 132
Anthracene	23.8	ND	22.6	95	47 - 123
Benz(a)anthracene	23.8	ND	21.1	89	49 - 126
Benzo(a)pyrene	23.8	ND	22.0	92	45 - 129
Benzo(b)fluoranthene	23.8	ND	22.9	96	45 - 132
Benzo(k)fluoranthene	23.8	ND	21.4	90	47 - 132
Benzo(g,h,i)perylene	23.8	ND	20.5	86	43 - 134
Chrysene	23.8	ND	22.1	93	50 - 124
Dibenz(a,h)anthracene	23.8	ND	20.6	86	45 - 134
Fluoranthene	23.8	2.16	23.8	91	50 - 127
Fluorene	23.8	ND	22.8	96	43 - 125
Indeno(1,2,3-cd)pyrene	23.8	ND	20.8	87	45 - 133
2-Methylnaphthalene	23.8	ND	19.2	80	38 - 122
Naphthalene	23.8	ND	22.6	95	35 - 123
Phenanthrene	23.8	ND	22.7	95	50 - 121
Pyrene	23.8	2.77	21.6	79	47 - 127

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8270D

PDI-042SC-A-12-13-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100712	Laboratory ID:	9100712-MSD1
Preparation:	EPA 3546	Initial/Final:	10.22 g / 5 mL

Source Sample Name: PDI-042SC-A-12-13-190930

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	MSD % RECOVERY	% RPD	QC LIMITS RPD	QC LIMITS REC.
Acenaphthene	23.8	22.3	94	0.1	30	40 - 122
Acenaphthylene	23.8	21.2	89	3	30	32 - 132
Anthracene	23.8	21.6	91	5	30	47 - 123
Benz(a)anthracene	23.8	20.8	87	2	30	49 - 126
Benzo(a)pyrene	23.8	21.6	91	2	30	45 - 129
Benzo(b)fluoranthene	23.8	22.2	93	3	30	45 - 132
Benzo(k)fluoranthene	23.8	21.3	90	0.4	30	47 - 132
Benzo(g,h,i)perylene	23.8	19.9	84	3	30	43 - 134
Chrysene	23.8	21.9	92	1	30	50 - 124
Dibenz(a,h)anthracene	23.8	20.6	87	0.06	30	45 - 134
Fluoranthene	23.8	22.2	84	7	30	50 - 127
Fluorene	23.8	21.8	92	5	30	43 - 125
Indeno(1,2,3-cd)pyrene	23.8	20.1	85	3	30	45 - 133
2-Methylnaphthalene	23.8	17.7	74	8	30	38 - 122
Naphthalene	23.8	21.7	91	4	30	35 - 123
Phenanthrene	23.8	21.6	91	5	30	50 - 121
Pyrene	23.8	22.5	83	4	30	47 - 127

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9I06028	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9I06028-TUN1	N09061911.D	09/06/19 15:51
Initial Cal Blank	9I06028-ICB1	N09061912.D	09/06/19 16:18
Cal Standard	9I06028-CAL1	N09061913.D	09/06/19 16:51
Cal Standard	9I06028-CAL2	N09061914.D	09/06/19 17:23
Cal Standard	9I06028-CAL3	N09061915.D	09/06/19 17:55
Cal Standard	9I06028-CAL4	N09061916.D	09/06/19 18:27
Cal Standard	9I06028-CAL5	N09061917.D	09/06/19 19:00
Cal Standard	9I06028-CAL6	N09061918.D	09/06/19 19:32
Cal Standard	9I06028-CAL7	N09061919.D	09/06/19 20:04
Cal Standard	9I06028-CAL8	N09061920.D	09/06/19 20:37
Cal Standard	9I06028-CAL9	N09061921.D	09/06/19 21:09
Cal Standard	9I06028-CALA	N09061922.D	09/06/19 21:41
Initial Cal Check	9I06028-ICV1	N09061924.D	09/06/19 22:45

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.

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J07048	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J07048-TUN1	N10071909.D	10/07/19 11:51
Calibration Check	9J07048-CCV1	N10071910.D	10/07/19 12:19
Calibration Blank	9J07048-CCB1	N10071911.D	10/07/19 12:51
Blank	9100706-BLK1	N10071912.D	10/07/19 13:22
LCS	9100706-BS1	N10071913.D	10/07/19 13:54
PDI-040SC-B-7.3-9.3-190930	A9J0058-12	N10071914.D	10/07/19 14:26
PDI-040SC-B-7.3-9.3-190930 (MS)	9100706-MS1	N10071915.D	10/07/19 14:58
PDI-040SC-B-7.3-9.3-190930 (MSD)	9100706-MSD1	N10071916.D	10/07/19 15:31
PDI-039SC-A-12-13-190930	A9J0058-01	N10071925.D	10/07/19 20:16
PDI-039SC-A-13-13.7-190930	A9J0058-02	N10071926.D	10/07/19 20:47
PDI-1039SC-A-12-13-190930	A9J0058-03	N10071927.D	10/07/19 21:19
PDI-039SC-B-11.8-13.7-190930	A9J0058-04	N10071928.D	10/07/19 21:50
PDI-039SC-B-3.8-5.8-190930	A9J0058-05	N10071929.D	10/07/19 22:22
PDI-039SC-B-5.8-7.8-190930	A9J0058-06	N10071930.D	10/07/19 22:55
PDI-039SC-B-7.8-9.8-190930	A9J0058-07	N10071931.D	10/07/19 23:27

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

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J08040	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J08040-TUN1	N10081901.D	10/08/19 08:19
Calibration Check	9J08040-CCV1	N10081902.D	10/08/19 08:47
Calibration Blank	9J08040-CCB1	N10081903.D	10/08/19 09:19
Blank	9100712-BLK1	N10081904.D	10/08/19 09:51
LCS	9100712-BS1	N10081905.D	10/08/19 10:23
PDI-042SC-A-12-13-190930	A9J0058-15	N10081906.D	10/08/19 10:55
PDI-042SC-A-12-13-190930 (MS)	9100712-MS1	N10081907.D	10/08/19 11:37
PDI-042SC-A-12-13-190930 (MSD)	9100712-MSD1	N10081908.D	10/08/19 12:09
PDI-039SC-B-9.8-11.8-190930	A9J0058-08	N10081916.D	10/08/19 16:26
PDI-040SC-A-09-10-190930	A9J0058-09	N10081917.D	10/08/19 16:58
PDI-040SC-A-10-11.3-190930	A9J0058-10	N10081918.D	10/08/19 17:31
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	N10081919.D	10/08/19 18:03
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	N10081920.D	10/08/19 18:35
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	N10081921.D	10/08/19 19:08
PDI-042SC-A-13-13.8-190930	A9J0058-16	N10081922.D	10/08/19 19:40
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	N10081923.D	10/08/19 20:12

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.

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J09031	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	9J09031-TUN2	N10091904.D	10/09/19 10:05
Calibration Check	9J09031-CCV2	N10091905.D	10/09/19 10:33
Calibration Blank	9J09031-CCB1	N10091906.D	10/09/19 11:05
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	N10091907.D	10/09/19 11:37
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	N10091908.D	10/09/19 12:10
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	N10091909.D	10/09/19 12:42
PDI-042SC-B-9.9-11.9-190930	A9J0058-21	N10091910.D	10/09/19 13:14
PDI-044SC-A-11-12-190930	A9J0058-22	N10091911.D	10/09/19 13:46
PDI-044SC-A-12-12.8-190930	A9J0058-23	N10091912.D	10/09/19 14:18
PDI-044SC-B-11.1-12.8-190930	A9J0058-24	N10091913.D	10/09/19 14:50
PDI-044SC-B-7.1-9.1-190930	A9J0058-25	N10091914.D	10/09/19 15:22
PDI-044SC-B-9.1-11.1-190930	A9J0058-26	N10091915.D	10/09/19 15:54

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.

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Lab File ID:	N09061911.D	Injection Date:	09/06/19
Instrument ID:	SV-GCMS14	Injection Time:	15:51
Sequence:	9I06028	Lab Sample ID:	9I06028-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	1.53	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.47	PASS
m/z 197	Less than 2% of m/z 198	0.48	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.86	PASS
m/z 365	1 - 100% of m/z 198	3.62	PASS
m/z 441	Less than 150% of m/z 443	78.02	PASS
m/z 442	0.1 - 200% of m/z 198	93.14	PASS
m/z 443	15 - 24% of m/z 442	19.59	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Lab File ID:	N10071909.D	Injection Date:	10/07/19
Instrument ID:	SV-GCMS14	Injection Time:	11:51
Sequence:	9J07048	Lab Sample ID:	9J07048-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	1.65	PASS
m/z 69	Base peak, 100% relative abundance	100.00	PASS
m/z 70	Less than 2% of m/z 69	0.50	PASS
m/z 197	Less than 2% of m/z 198	0.48	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.70	PASS
m/z 365	1 - 100% of m/z 198	3.81	PASS
m/z 441	Less than 150% of m/z 443	76.72	PASS
m/z 442	0.1 - 200% of m/z 198	110.73	PASS
m/z 443	15 - 24% of m/z 442	19.51	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Lab File ID:	N10081901.D	Injection Date:	10/08/19
Instrument ID:	SV-GCMS14	Injection Time:	08:19
Sequence:	9J08040	Lab Sample ID:	9J08040-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
m/z 68	Less than 2% of m/z 69	1.70	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	0.52	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.84	PASS
m/z 365	1 - 100% of m/z 198	3.74	PASS
m/z 441	Less than 150% of m/z 443	76.80	PASS
m/z 442	0.1 - 200% of m/z 198	111.34	PASS
m/z 443	15 - 24% of m/z 442	19.31	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Lab File ID:	N10091904.D	Injection Date:	10/09/19
Instrument ID:	SV-GCMS14	Injection Time:	10:05
Sequence:	9J09031	Lab Sample ID:	9J09031-TUN2

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	0.47	PASS
m/z 197	Less than 2% of m/z 198	0.54	PASS
m/z 198	Base peak, 100% relative abundance	100.00	PASS
m/z 199	5 - 9% of m/z 198	6.79	PASS
m/z 365	1 - 100% of m/z 198	3.73	PASS
m/z 441	Less than 150% of m/z 443	76.89	PASS
m/z 442	0.1 - 200% of m/z 198	110.76	PASS
m/z 443	15 - 24% of m/z 442	19.53	PASS

INITIAL CALIBRATION DATA (Summary)

EPA 8270D

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing

Calibration: A9I1001 Date: 09/10/19 10:37 Instrument: SV-GCMS14

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Acenaphthene	1.421956	Ave	2.101464	9.6727	1.195025E-02			20	
Acenaphthylene	2.170985	Ave	2.552096	9.498	1.184114E-02			20	
Anthracene	1.088444	Ave	2.157422	11.223	6.057048E-03			20	
Benz(a)anthracene	1.161023	Ave	7.869327	14.886	2.183092E-02			20	
Benzo(a)pyrene	0.9876419	Ave	9.000056	18.2396	6.304434E-02			20	
Benzo(b)fluoranthene	1.153887	Ave	5.67895	17.4697	5.010002E-02			20	
Benzo(k)fluoranthene	1.136093	Ave	6.126	17.5355	5.121218E-02			20	
Benzo(g,h,i)perylene	1.308305	Ave	5.850826	21.3008	4.687611E-02			20	
Chrysene	1.098706	Ave	1.523471	14.9673	0.0413593			20	
Dibenz(a,h)anthracene	1.158853	Ave	3.005339	20.8333	3.856247E-02			20	
Fluoranthene	1.178979	Ave	4.301023	12.435	3.109609E-02			20	
Fluorene	1.455085	Ave	3.852542	10.1928	3.089686E-02			20	
Indeno(1,2,3-cd)pyrene	1.233305	Ave	3.076119	20.7652	4.855178E-02			20	
2-Methylnaphthalene	0.9346173	Ave	5.160882	8.5884	7.334806E-03			20	
Naphthalene	1.102926	Ave	2.419226	7.9059	1.784269E-02			20	
Phenanthrene	1.170171	Ave	3.845982	11.1707	1.240085E-02			20	
Pyrene	1.562337	Ave	6.478501	12.7234	2.554012E-02			20	
2-Fluorobiphenyl (Surr)	1.491847	Ave	2.25656	8.9523	3.166423E-02			20	
p-Terphenyl-d14 (Surr)	1.051726	Ave	4.2222	12.9315	1.002441E-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 8270D

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
Calibration: A9I1001
Instrument: SV-GCMS14
Calibration Date: 09/10/19 10:37

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	1	1.438843	2.5	1.487282	5	1.404065	10	1.417353	25	1.419193	50	1.394003
Acenaphthylene	1	2.050122	2.5	2.174081	5	2.138587	10	2.170914	25	2.195113	50	2.171664
Anthracene	1	1.097223	2.5	1.089279	5	1.048542	10	1.062312	25	1.06872	50	1.076085
Benz(a)anthracene	1	1.393885	2.5	1.220902	5	1.088043	10	1.09326	25	1.113653	50	1.097579
Benzo(a)pyrene	1	0.9831077	2.5	0.860229	5	0.8587498	10	0.9020412	25	0.976879	50	1.004382
Benzo(b)fluoranthene	1	1.117055	2.5	1.085157	5	1.064599	10	1.091936	25	1.128411	50	1.163732
Benzo(k)fluoranthene	1	1.067445	2.5	1.081921	5	1.086293	10	1.035921	25	1.12827	50	1.118386
Benzo(b+k)fluoranthene(s)	2	1.112094	5	1.118006	10	1.116503	20	1.114938	50	1.172148	100	1.178575
Benzo(g,h,i)perylene	1	1.244973	2.5	1.184733	5	1.240673	10	1.251188	25	1.288531	50	1.327508
Chrysene	1	1.134167	2.5	1.107207	5	1.086845	10	1.086606	25	1.097682	50	1.081788
Dibenz(a,h)anthracene	1	1.172765	2.5	1.143563	5	1.121188	10	1.116162	25	1.120297	50	1.14373
Fluoranthene	1	1.194051	2.5	1.126776	5	1.104079	10	1.123912	25	1.161779	50	1.170777
Fluorene	1	1.368696	2.5	1.404786	5	1.408744	10	1.421664	25	1.460973	50	1.446685
Indeno(1,2,3-cd)pyrene	1	1.207624	2.5	1.279667	5	1.185249	10	1.191109	25	1.192038	50	1.22331
1-Methylnaphthalene	1	0.8213813	2.5	0.8752222	5	0.8374479	10	0.9164978	25	0.9229373	50	0.9636201
2-Methylnaphthalene	1	0.8933817	2.5	0.9068991	5	0.8805457	10	0.8856102	25	0.8950085	50	0.9411598
Naphthalene	1	1.158343	2.5	1.134973	5	1.097604	10	1.122705	25	1.090082	50	1.082918
Phenanthrene	1	1.287154	2.5	1.193603	5	1.137078	10	1.164716	25	1.154027	50	1.151784
Pyrene	1	1.63414	2.5	1.742266	5	1.585271	10	1.635519	25	1.580246	50	1.570799
Carbazole	1	0.8723786	2.5	0.8303246	5	0.809563	10	0.8178062	25	0.8662439	50	0.8707417
Dibenzofuran	1	1.760349	2.5	1.772666	5	1.736411	10	1.780314	25	1.790475	50	1.776721
2-Fluorobiphenyl (Surr)	1	1.423811	2.5	1.562065	5	1.481173	10	1.49926	25	1.499776	50	1.48226
p-Terphenyl-d14 (Surr)	1	1.150274	2.5	1.092469	5	1.036656	10	1.057709	25	1.06012	50	1.045507

INITIAL CALIBRATION DATA (Continued)

EPA 8270D

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
Calibration: A9I1001
Instrument: SV-GCMS14
Matrix:
Calibration Date: 09/10/19 10:37

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	100	1.443403	200	1.431066	300	1.387896	400	1.396451				
Acenaphthylene	100	2.247844	200	2.243032	300	2.16069	400	2.157799				
Anthracene	100	1.109829	200	1.115327	300	1.102277	400	1.114841				
Benz(a)anthracene	100	1.142091	200	1.148716	300	1.139155	400	1.17295				
Benzo(a)pyrene	100	1.043258	200	1.084563	300	1.067927	400	1.095282				
Benzo(b)fluoranthene	100	1.194311	200	1.23063	300	1.216813	400	1.246224				
Benzo(k)fluoranthene	100	1.195543	200	1.221498	300	1.197767	400	1.227883				
Benzo(b+k)fluoranthene(s)	200	1.228745	400	1.259094	600	1.236491	800	1.266041				
Benzo(g,h,i)perylene	100	1.387838	200	1.395223	300	1.36793	400	1.394456				
Chrysene	100	1.095048	200	1.103107	300	1.080265	400	1.114348				
Dibenz(a,h)anthracene	100	1.178156	200	1.193501	300	1.181668	400	1.217496				
Fluoranthene	100	1.201514	200	1.227472	300	1.217957	400	1.261473				
Fluorene	100	1.525529	200	1.545124	300	1.492702	400	1.475951				
Indeno(1,2,3-cd)pyrene	100	1.260309	200	1.262162	300	1.248776	400	1.282806				
1-Methylnaphthalene	100	0.9858109	200	1.024788	300	1.01574	400	0.9810225				
2-Methylnaphthalene	100	0.9654102	200	1.001432	300	1.001474	400	0.9752517				
Naphthalene	100	1.082489	200	1.091885	300	1.077863	400	1.090395				
Phenanthrene	100	1.157739	200	1.178493	300	1.133633	400	1.143483				
Pyrene	100	1.559688	200	1.478103	300	1.415905	400	1.421434				
Carbazole	100	0.9049028	200	0.9454096	300	0.9401746	400	0.949796				
Dibenzofuran	100	1.831193	200	1.826652	300	1.770993	400	1.764878				
2-Fluorobiphenyl (Surr)	100	1.499049	200	1.496115	300	1.47728	400	1.49768				
p-Terphenyl-d14 (Surr)	100	1.048827	200	1.020622	300	0.9928344	400	1.012238				

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP
Instrument ID:	SV-GCMS14	Calibration:	A9I1001
Lab File ID:	N09061924.D		
Sequence:	9I06028	Inject Date:	09/06/19
Lab Sample ID:	9I06028-ICV1	Inject Time:	22:45

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Acenaphthene	50.0	50.3	0.7	70 - 130
Acenaphthylene	50.0	51.9	3.9	70 - 130
Anthracene	50.0	51.8	3.6	70 - 130
Benz(a)anthracene	50.0	48.5	-3.0	70 - 130
Benzo(a)pyrene	50.0	51.2	2.4	70 - 130
Benzo(b)fluoranthene	50.0	50.6	1.2	70 - 130
Benzo(k)fluoranthene	50.0	50.0	-0.06	70 - 130
Benzo(g,h,i)perylene	50.0	53.6	7.2	70 - 130
Chrysene	50.0	52.4	4.8	70 - 130
Dibenz(a,h)anthracene	50.0	49.3	-1.3	70 - 130
Fluoranthene	50.0	50.6	1.1	70 - 130
Fluorene	50.0	50.9	1.7	70 - 130
Indeno(1,2,3-cd)pyrene	50.0	50.0	-0.05	70 - 130
2-Methylnaphthalene	50.0	46.8	-6.3	70 - 130
Naphthalene	50.0	49.9	-0.1	70 - 130
Phenanthrene	50.0	50.4	0.8	70 - 130
Pyrene	50.0	50.6	1.2	70 - 130
2-Fluorobiphenyl (Surr)	50.0	49.7	-0.7	70 - 130
p-Terphenyl-d14 (Surr)	50.0	48.7	-2.6	70 - 130

CONTINUING CALIBRATION CHECK

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	SV-GCMS14	Calibration:	A9I1001
Lab File ID:	N10071910.D	Calibration Date:	09/10/19 10:37
Sequence:	9J07048	Injection Date:	10/07/19
Lab Sample ID:	9J07048-CCV1	Injection Time:	12:19

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Acenaphthene	Ave	50.0	49.3		1.421956	1.401119	-1.5	20
Acenaphthylene	Ave	50.0	49.0		2.170985	2.126679	-2.0	20
Anthracene	Ave	50.0	48.7		1.088444	1.060106	-2.6	20
Benz(a)anthracene	Ave	50.0	44.8		1.161023	1.039212	-10.5	20
Benzo(a)pyrene	Ave	50.0	50.4		0.9876419	0.9947831	0.7	20
Benzo(b)fluoranthene	Ave	50.0	48.5		1.153887	1.120026	-2.9	20
Benzo(k)fluoranthene	Ave	50.0	49.7		1.136093	1.130168	-0.5	20
Benzo(g,h,i)perylene	Ave	50.0	46.5		1.308305	1.217547	-6.9	20
Chrysene	Ave	50.0	47.9		1.098706	1.052578	-4.2	20
Dibenz(a,h)anthracene	Ave	50.0	47.8		1.158853	1.108334	-4.4	20
Fluoranthene	Ave	50.0	48.1		1.178979	1.13491	-3.7	20
Fluorene	Ave	50.0	50.1		1.455085	1.458403	0.2	20
Indeno(1,2,3-cd)pyrene	Ave	50.0	46.1		1.233305	1.136586	-7.8	20
2-Methylnaphthalene	Ave	50.0	41.5		0.9346173	0.7754465	-17.0	20
Naphthalene	Ave	50.0	48.6		1.102926	1.071874	-2.8	20
Phenanthrene	Ave	50.0	48.5		1.170171	1.134185	-3.1	20
Pyrene	Ave	50.0	48.9		1.562337	1.527249	-2.2	20

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

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	SV-GCMS14	Calibration:	A9I1001
Lab File ID:	N10081902.D	Calibration Date:	09/10/19 10:37
Sequence:	9J08040	Injection Date:	10/08/19
Lab Sample ID:	9J08040-CCV1	Injection Time:	08:47

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Acenaphthene	Ave	50.0	49.5		1.421956	1.406625	-1.1	20
Acenaphthylene	Ave	50.0	49.2		2.170985	2.136647	-1.6	20
Anthracene	Ave	50.0	48.3		1.088444	1.052221	-3.3	20
Benz(a)anthracene	Ave	50.0	45.7		1.161023	1.060156	-8.7	20
Benzo(a)pyrene	Ave	50.0	50.6		0.9876419	0.9996151	1.2	20
Benzo(b)fluoranthene	Ave	50.0	49.4		1.153887	1.140438	-1.2	20
Benzo(k)fluoranthene	Ave	50.0	49.0		1.136093	1.112288	-2.1	20
Benzo(g,h,i)perylene	Ave	50.0	46.2		1.308305	1.208921	-7.6	20
Chrysene	Ave	50.0	48.0		1.098706	1.055256	-4.0	20
Dibenz(a,h)anthracene	Ave	50.0	47.8		1.158853	1.107633	-4.4	20
Fluoranthene	Ave	50.0	48.6		1.178979	1.146917	-2.7	20
Fluorene	Ave	50.0	48.5		1.455085	1.410936	-3.0	20
Indeno(1,2,3-cd)pyrene	Ave	50.0	46.1		1.233305	1.137305	-7.8	20
2-Methylnaphthalene	Ave	50.0	40.0		0.9346173	0.7487092	-19.9	20
Naphthalene	Ave	50.0	48.9		1.102926	1.079552	-2.1	20
Phenanthrene	Ave	50.0	49.0		1.170171	1.147103	-2.0	20
Pyrene	Ave	50.0	50.0		1.562337	1.563358	0.07	20

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

* = Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Instrument ID:	SV-GCMS14	Calibration:	A9I1001
Lab File ID:	N10091905.D	Calibration Date:	09/10/19 10:37
Sequence:	9J09031	Injection Date:	10/09/19
Lab Sample ID:	9J09031-CCV2	Injection Time:	10:33

COMPOUND	Curve Fit	Calculated Concentration (ng/mL) [L/Q Fits]			Response Factors [Ave RF]			Limit
		STD	CCV	% DIFF	ICAL	CCV	% Drift	
Acenaphthene	Ave	50.0	49.8		1.421956	1.415241	-0.5	20
Acenaphthylene	Ave	50.0	48.2		2.170985	2.091354	-3.7	20
Anthracene	Ave	50.0	49.3		1.088444	1.073909	-1.3	20
Benz(a)anthracene	Ave	50.0	46.3		1.161023	1.075508	-7.4	20
Benzo(a)pyrene	Ave	50.0	51.2		0.9876419	1.010551	2.3	20
Benzo(b)fluoranthene	Ave	50.0	48.9		1.153887	1.128729	-2.2	20
Benzo(k)fluoranthene	Ave	50.0	48.6		1.136093	1.103873	-2.8	20
Benzo(g,h,i)perylene	Ave	50.0	46.1		1.308305	1.206907	-7.8	20
Chrysene	Ave	50.0	47.7		1.098706	1.047606	-4.7	20
Dibenz(a,h)anthracene	Ave	50.0	48.1		1.158853	1.11413	-3.9	20
Fluoranthene	Ave	50.0	49.1		1.178979	1.157867	-1.8	20
Fluorene	Ave	50.0	51.0		1.455085	1.484863	2.0	20
Indeno(1,2,3-cd)pyrene	Ave	50.0	47.2		1.233305	1.164561	-5.6	20
2-Methylnaphthalene	Ave	50.0	42.9		0.9346173	0.8016852	-14.2	20
Naphthalene	Ave	50.0	49.0		1.102926	1.08167	-1.9	20
Phenanthrene	Ave	50.0	48.7		1.170171	1.138797	-2.7	20
Pyrene	Ave	50.0	47.1		1.562337	1.472564	-5.7	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:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9I06028	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (9I06028-ICV1)				Lab File ID: N09061924.D		Analyzed: 09/06/19 22:45		
2-Fluorobiphenyl (Surr)	50.0	99	70 - 130	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	50.0	97	70 - 130	12.925	12.9315	-0.0065	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J07048	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9J07048-CCV1)			Lab File ID: N10071910.D		Analyzed: 10/07/19 12:19			
2-Fluorobiphenyl (Surr)	50.0	105	80 - 120	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	50.0	99	80 - 120	12.931	12.9315	-0.0005	+/-1.0	
Calibration Blank (9J07048-CCB1)			Lab File ID: N10071911.D		Analyzed: 10/07/19 12:51			
2-Fluorobiphenyl (Surr)			44 - 120	0	8.9523	-8.9523	+/-1.0	
p-Terphenyl-d14 (Surr)			50 - 133	12.931	12.9315	-0.0005	+/-1.0	
Blank (9100706-BLK1)			Lab File ID: N10071912.D		Analyzed: 10/07/19 13:22			
2-Fluorobiphenyl (Surr)	45.5	86	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	45.5	96	54 - 127	12.931	12.9315	-0.0005	+/-1.0	
LCS (9100706-BS1)			Lab File ID: N10071913.D		Analyzed: 10/07/19 13:54			
2-Fluorobiphenyl (Surr)	50.0	89	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	50.0	93	54 - 127	12.925	12.9315	-0.0065	+/-1.0	
PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)			Lab File ID: N10071914.D		Analyzed: 10/07/19 14:26			
2-Fluorobiphenyl (Surr)	55.5	81	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	55.5	94	54 - 127	12.925	12.9315	-0.0065	+/-1.0	
Matrix Spike (9100706-MS1)			Lab File ID: N10071915.D		Analyzed: 10/07/19 14:58			
2-Fluorobiphenyl (Surr)	55.3	85	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	55.3	88	54 - 127	12.925	12.9315	-0.0065	+/-1.0	
Matrix Spike Dup (9100706-MSD1)			Lab File ID: N10071916.D		Analyzed: 10/07/19 15:31			
2-Fluorobiphenyl (Surr)	54.2	84	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	54.2	87	54 - 127	12.925	12.9315	-0.0065	+/-1.0	
PDI-039SC-A-12-13-190930 (A9J0058-01)			Lab File ID: N10071925.D		Analyzed: 10/07/19 20:16			
2-Fluorobiphenyl (Surr)	63.6	78	44 - 115	8.956	8.9523	0.0037	+/-1.0	
p-Terphenyl-d14 (Surr)	63.6	80	54 - 127	12.942	12.9315	0.0105	+/-1.0	
PDI-039SC-A-13-13.7-190930 (A9J0058-02)			Lab File ID: N10071926.D		Analyzed: 10/07/19 20:47			
2-Fluorobiphenyl (Surr)	66.8	84	44 - 115	8.956	8.9523	0.0037	+/-1.0	
p-Terphenyl-d14 (Surr)	66.8	87	54 - 127	12.936	12.9315	0.0045	+/-1.0	
PDI-1039SC-A-12-13-190930 (A9J0058-03)			Lab File ID: N10071927.D		Analyzed: 10/07/19 21:19			
2-Fluorobiphenyl (Surr)	64.7	77	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	64.7	70	54 - 127	12.931	12.9315	-0.0005	+/-1.0	
PDI-039SC-B-11.8-13.7-190930 (A9J0058-04)			Lab File ID: N10071928.D		Analyzed: 10/07/19 21:50			
2-Fluorobiphenyl (Surr)	61.6	83	44 - 115	8.956	8.9523	0.0037	+/-1.0	
p-Terphenyl-d14 (Surr)	61.6	88	54 - 127	12.937	12.9315	0.0055	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J07048	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
PDI-039SC-B-3.8-5.8-190930 (A9J0058-05)			Lab File ID: N10071929.D		Analyzed: 10/07/19 22:22			
2-Fluorobiphenyl (Surr)	55.8	82	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	55.8	85	54 - 127	12.931	12.9315	-0.0005	+/-1.0	
PDI-039SC-B-5.8-7.8-190930 (A9J0058-06)			Lab File ID: N10071930.D		Analyzed: 10/07/19 22:55			
2-Fluorobiphenyl (Surr)	55.0	85	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	55.0	89	54 - 127	12.931	12.9315	-0.0005	+/-1.0	
PDI-039SC-B-7.8-9.8-190930 (A9J0058-07)			Lab File ID: N10071931.D		Analyzed: 10/07/19 23:27			
2-Fluorobiphenyl (Surr)	67.6	75	44 - 115	8.956	8.9523	0.0037	+/-1.0	
p-Terphenyl-d14 (Surr)	67.6	72	54 - 127	12.937	12.9315	0.0055	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence: 9J08040
Instrument: SV-GCMS14
Matrix: Sediment
Calibration: A9I1001

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9J08040-CCV1)			Lab File ID: N10081902.D		Analyzed: 10/08/19 08:47			
2-Fluorobiphenyl (Surr)	50.0	105	80 - 120	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	50.0	101	80 - 120	12.931	12.9315	-0.0005	+/-1.0	
Calibration Blank (9J08040-CCB1)			Lab File ID: N10081903.D		Analyzed: 10/08/19 09:19			
2-Fluorobiphenyl (Surr)			44 - 120	0	8.9523	-8.9523	+/-1.0	
p-Terphenyl-d14 (Surr)			50 - 133	12.936	12.9315	0.0045	+/-1.0	
Blank (9100712-BLK1)			Lab File ID: N10081904.D		Analyzed: 10/08/19 09:51			
2-Fluorobiphenyl (Surr)	45.5	96	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	45.5	102	54 - 127	12.931	12.9315	-0.0005	+/-1.0	
LCS (9100712-BS1)			Lab File ID: N10081905.D		Analyzed: 10/08/19 10:23			
2-Fluorobiphenyl (Surr)	50.0	94	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	50.0	99	54 - 127	12.931	12.9315	-0.0005	+/-1.0	
PDI-042SC-A-12-13-190930 (A9J0058-15)			Lab File ID: N10081906.D		Analyzed: 10/08/19 10:55			
2-Fluorobiphenyl (Surr)	59.4	91	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	59.4	97	54 - 127	12.925	12.9315	-0.0065	+/-1.0	
Matrix Spike (9100712-MS1)			Lab File ID: N10081907.D		Analyzed: 10/08/19 11:37			
2-Fluorobiphenyl (Surr)	59.6	96	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	59.6	93	54 - 127	12.931	12.9315	-0.0005	+/-1.0	
Matrix Spike Dup (9100712-MSD1)			Lab File ID: N10081908.D		Analyzed: 10/08/19 12:09			
2-Fluorobiphenyl (Surr)	59.5	96	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	59.5	98	54 - 127	12.931	12.9315	-0.0005	+/-1.0	
PDI-039SC-B-9.8-11.8-190930 (A9J0058-08)			Lab File ID: N10081916.D		Analyzed: 10/08/19 16:26			
2-Fluorobiphenyl (Surr)	63.9	79	44 - 115	8.967	8.9523	0.0147	+/-1.0	
p-Terphenyl-d14 (Surr)	63.9	81	54 - 127	12.948	12.9315	0.0165	+/-1.0	
PDI-040SC-A-09-10-190930 (A9J0058-09)			Lab File ID: N10081917.D		Analyzed: 10/08/19 16:58			
2-Fluorobiphenyl (Surr)	56.2	85	44 - 115	8.962	8.9523	0.0097	+/-1.0	
p-Terphenyl-d14 (Surr)	56.2	94	54 - 127	12.948	12.9315	0.0165	+/-1.0	
PDI-040SC-A-10-11.3-190930 (A9J0058-10)			Lab File ID: N10081918.D		Analyzed: 10/08/19 17:31			
2-Fluorobiphenyl (Surr)	60.3	79	44 - 115	8.961	8.9523	0.0087	+/-1.0	
p-Terphenyl-d14 (Surr)	60.3	94	54 - 127	12.942	12.9315	0.0105	+/-1.0	
PDI-040SC-B-5.3-7.3-190930 (A9J0058-11)			Lab File ID: N10081919.D		Analyzed: 10/08/19 18:03			
2-Fluorobiphenyl (Surr)	56.3	81	44 - 115	8.956	8.9523	0.0037	+/-1.0	
p-Terphenyl-d14 (Surr)	56.3	92	54 - 127	12.942	12.9315	0.0105	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J08040	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
PDI-040SC-B-9.3-11.3-190930 (A9J0058-13)			Lab File ID: N10081920.D		Analyzed: 10/08/19 18:35			
2-Fluorobiphenyl (Surr)	59.1	86	44 - 115	8.962	8.9523	0.0097	+/-1.0	
p-Terphenyl-d14 (Surr)	59.1	95	54 - 127	12.943	12.9315	0.0115	+/-1.0	
PDI-1040SC-B-5.3-7.3-190930 (A9J0058-14)			Lab File ID: N10081921.D		Analyzed: 10/08/19 19:08			
2-Fluorobiphenyl (Surr)	55.5	85	44 - 115	8.956	8.9523	0.0037	+/-1.0	
p-Terphenyl-d14 (Surr)	55.5	92	54 - 127	12.937	12.9315	0.0055	+/-1.0	
PDI-042SC-A-13-13.8-190930 (A9J0058-16)			Lab File ID: N10081922.D		Analyzed: 10/08/19 19:40			
2-Fluorobiphenyl (Surr)	64.4	89	44 - 115	8.967	8.9523	0.0147	+/-1.0	
p-Terphenyl-d14 (Surr)	64.4	95	54 - 127	12.948	12.9315	0.0165	+/-1.0	
PDI-042SC-B-11.9-13.8-190930 (A9J0058-17)			Lab File ID: N10081923.D		Analyzed: 10/08/19 20:12			
2-Fluorobiphenyl (Surr)	61.6	90	44 - 115	8.967	8.9523	0.0147	+/-1.0	
p-Terphenyl-d14 (Surr)	61.6	97	54 - 127	12.948	12.9315	0.0165	+/-1.0	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J09031	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (9J09031-CCV2)			Lab File ID: N10091905.D		Analyzed: 10/09/19 10:33			
2-Fluorobiphenyl (Surr)	50.0	104	80 - 120	8.944	8.9523	-0.0083	+/-1.0	
p-Terphenyl-d14 (Surr)	50.0	100	80 - 120	12.925	12.9315	-0.0065	+/-1.0	
Calibration Blank (9J09031-CCB1)			Lab File ID: N10091906.D		Analyzed: 10/09/19 11:05			
2-Fluorobiphenyl (Surr)			44 - 115	0	8.9523	-8.9523	+/-1.0	
p-Terphenyl-d14 (Surr)			54 - 127	12.931	12.9315	-0.0005	+/-1.0	
PDI-042SC-B-3.9-5.9-190930 (A9J0058-18)			Lab File ID: N10091907.D		Analyzed: 10/09/19 11:37			
2-Fluorobiphenyl (Surr)	52.8	87	44 - 115	8.944	8.9523	-0.0083	+/-1.0	
p-Terphenyl-d14 (Surr)	52.8	93	54 - 127	12.925	12.9315	-0.0065	+/-1.0	
PDI-042SC-B-5.9-7.9-190930 (A9J0058-19)			Lab File ID: N10091908.D		Analyzed: 10/09/19 12:10			
2-Fluorobiphenyl (Surr)	55.5	85	44 - 115	8.944	8.9523	-0.0083	+/-1.0	
p-Terphenyl-d14 (Surr)	55.5	88	54 - 127	12.925	12.9315	-0.0065	+/-1.0	
PDI-042SC-B-7.9-9.9-190930 (A9J0058-20)			Lab File ID: N10091909.D		Analyzed: 10/09/19 12:42			
2-Fluorobiphenyl (Surr)	59.3	85	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	59.3	90	54 - 127	12.931	12.9315	-0.0005	+/-1.0	
PDI-042SC-B-9.9-11.9-190930 (A9J0058-21)			Lab File ID: N10091910.D		Analyzed: 10/09/19 13:14			
2-Fluorobiphenyl (Surr)	54.2	93	44 - 115	8.956	8.9523	0.0037	+/-1.0	
p-Terphenyl-d14 (Surr)	54.2	100	54 - 127	12.937	12.9315	0.0055	+/-1.0	
PDI-044SC-A-11-12-190930 (A9J0058-22)			Lab File ID: N10091911.D		Analyzed: 10/09/19 13:46			
2-Fluorobiphenyl (Surr)	61.8	82	44 - 115	8.956	8.9523	0.0037	+/-1.0	
p-Terphenyl-d14 (Surr)	61.8	87	54 - 127	12.937	12.9315	0.0055	+/-1.0	
PDI-044SC-A-12-12.8-190930 (A9J0058-23)			Lab File ID: N10091912.D		Analyzed: 10/09/19 14:18			
2-Fluorobiphenyl (Surr)	60.4	89	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	60.4	90	54 - 127	12.931	12.9315	-0.0005	+/-1.0	
PDI-044SC-B-11.1-12.8-190930 (A9J0058-24)			Lab File ID: N10091913.D		Analyzed: 10/09/19 14:50			
2-Fluorobiphenyl (Surr)	63.7	82	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	63.7	88	54 - 127	12.925	12.9315	-0.0065	+/-1.0	
PDI-044SC-B-7.1-9.1-190930 (A9J0058-25)			Lab File ID: N10091914.D		Analyzed: 10/09/19 15:22			
2-Fluorobiphenyl (Surr)	54.6	87	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	54.6	100	54 - 127	12.931	12.9315	-0.0005	+/-1.0	
PDI-044SC-B-9.1-11.1-190930 (A9J0058-26)			Lab File ID: N10091915.D		Analyzed: 10/09/19 15:54			
2-Fluorobiphenyl (Surr)	54.6	89	44 - 115	8.95	8.9523	-0.0023	+/-1.0	
p-Terphenyl-d14 (Surr)	54.6	91	54 - 127	12.931	12.9315	-0.0005	+/-1.0	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J07048	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (9J07048-CCV1)			Lab File ID: N10071910.D			Analyzed: 10/07/19 12:19			
Naphthalene-d8 (ISTD)	229540	7.883	148351	7.883	155	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	132113	9.638	117951	9.638	112	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	245549	11.141	219661	11.147	112	50 - 200	-0.0060	+/-0.50	
Chrysene-d12 (ISTD)	188539	14.907	169841	14.907	111	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	157182	18.38	142416	18.375	110	50 - 200	0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	122824	20.77	93265	20.765	132	50 - 200	0.0050	+/-0.50	
Calibration Blank (9J07048-CCB1)			Lab File ID: N10071911.D			Analyzed: 10/07/19 12:51			
Naphthalene-d8 (ISTD)	220954	7.883	229540	7.883	96	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	130308	9.638	132113	9.638	99	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	224511	11.147	245549	11.141	91	50 - 200	0.0060	+/-0.50	
Chrysene-d12 (ISTD)	151035	14.907	188539	14.907	80	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	129496	18.381	157182	18.38	82	50 - 200	0.0010	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	103251	20.77	122824	20.77	84	50 - 200	0.0000	+/-0.50	
Blank (9100706-BLK1)			Lab File ID: N10071912.D			Analyzed: 10/07/19 13:22			
Naphthalene-d8 (ISTD)	228641	7.883	229540	7.883	100	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	133662	9.638	132113	9.638	101	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	240732	11.141	245549	11.141	98	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	171761	14.907	188539	14.907	91	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	142801	18.38	157182	18.38	91	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	113855	20.764	122824	20.77	93	50 - 200	-0.0060	+/-0.50	
LCS (9100706-BS1)			Lab File ID: N10071913.D			Analyzed: 10/07/19 13:54			
Naphthalene-d8 (ISTD)	224354	7.877	229540	7.883	98	50 - 200	-0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	133653	9.637	132113	9.638	101	50 - 200	-0.0010	+/-0.50	
Phenanthrene-d10 (ISTD)	244445	11.141	245549	11.141	100	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	177788	14.907	188539	14.907	94	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	147208	18.375	157182	18.38	94	50 - 200	-0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	114528	20.764	122824	20.77	93	50 - 200	-0.0060	+/-0.50	
PDI-040SC-B-7.3-9.3-190930 (A9J0058-12)			Lab File ID: N10071914.D			Analyzed: 10/07/19 14:26			
Naphthalene-d8 (ISTD)	230136	7.877	229540	7.883	100	50 - 200	-0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	138041	9.637	132113	9.638	104	50 - 200	-0.0010	+/-0.50	
Phenanthrene-d10 (ISTD)	250301	11.141	245549	11.141	102	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	183060	14.907	188539	14.907	97	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	151532	18.375	157182	18.38	96	50 - 200	-0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	119164	20.764	122824	20.77	97	50 - 200	-0.0060	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J07048	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (9100706-MS1)			Lab File ID: N10071915.D			Analyzed: 10/07/19 14:58			
Naphthalene-d8 (ISTD)	237122	7.877	229540	7.883	103	50 - 200	-0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	140526	9.638	132113	9.638	106	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	261269	11.141	245549	11.141	106	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	206041	14.907	188539	14.907	109	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	177557	18.381	157182	18.38	113	50 - 200	0.0010	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	139203	20.765	122824	20.77	113	50 - 200	-0.0050	+/-0.50	
Matrix Spike Dup (9100706-MSD1)			Lab File ID: N10071916.D			Analyzed: 10/07/19 15:31			
Naphthalene-d8 (ISTD)	228465	7.877	229540	7.883	100	50 - 200	-0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	137897	9.637	132113	9.638	104	50 - 200	-0.0010	+/-0.50	
Phenanthrene-d10 (ISTD)	253618	11.141	245549	11.141	103	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	203316	14.907	188539	14.907	108	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	173910	18.38	157182	18.38	111	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	137005	20.764	122824	20.77	112	50 - 200	-0.0060	+/-0.50	
PDI-039SC-A-12-13-190930 (A9J0058-01)			Lab File ID: N10071925.D			Analyzed: 10/07/19 20:16			
Naphthalene-d8 (ISTD)	226303	7.889	229540	7.883	99	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	132665	9.643	132113	9.638	100	50 - 200	0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	243754	11.153	245549	11.141	99	50 - 200	0.0120	+/-0.50	
Chrysene-d12 (ISTD)	193656	14.924	188539	14.907	103	50 - 200	0.0170	+/-0.50	
Perylene-d12 (ISTD)	164812	18.398	157182	18.38	105	50 - 200	0.0180	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	134811	20.782	122824	20.77	110	50 - 200	0.0120	+/-0.50	
PDI-039SC-A-13-13.7-190930 (A9J0058-02)			Lab File ID: N10071926.D			Analyzed: 10/07/19 20:47			
Naphthalene-d8 (ISTD)	229541	7.889	229540	7.883	100	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	131099	9.643	132113	9.638	99	50 - 200	0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	238409	11.153	245549	11.141	97	50 - 200	0.0120	+/-0.50	
Chrysene-d12 (ISTD)	196449	14.918	188539	14.907	104	50 - 200	0.0110	+/-0.50	
Perylene-d12 (ISTD)	171789	18.392	157182	18.38	109	50 - 200	0.0120	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	145893	20.782	122824	20.77	119	50 - 200	0.0120	+/-0.50	
PDI-1039SC-A-12-13-190930 (A9J0058-03)			Lab File ID: N10071927.D			Analyzed: 10/07/19 21:19			
Naphthalene-d8 (ISTD)	237095	7.883	229540	7.883	103	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	134040	9.643	132113	9.638	101	50 - 200	0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	245582	11.147	245549	11.141	100	50 - 200	0.0060	+/-0.50	
Chrysene-d12 (ISTD)	197889	14.913	188539	14.907	105	50 - 200	0.0060	+/-0.50	
Perylene-d12 (ISTD)	171299	18.386	157182	18.38	109	50 - 200	0.0060	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	142483	20.776	122824	20.77	116	50 - 200	0.0060	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J07048	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PDI-039SC-B-11.8-13.7-190930 (A9J0058-04)			Lab File ID: N10071928.D			Analyzed: 10/07/19 21:50			
Naphthalene-d8 (ISTD)	227551	7.889	229540	7.883	99	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	131792	9.643	132113	9.638	100	50 - 200	0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	240955	11.147	245549	11.141	98	50 - 200	0.0060	+/-0.50	
Chrysene-d12 (ISTD)	196779	14.918	188539	14.907	104	50 - 200	0.0110	+/-0.50	
Perylene-d12 (ISTD)	171679	18.392	157182	18.38	109	50 - 200	0.0120	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	141233	20.782	122824	20.77	115	50 - 200	0.0120	+/-0.50	
PDI-039SC-B-3.8-5.8-190930 (A9J0058-05)			Lab File ID: N10071929.D			Analyzed: 10/07/19 22:22			
Naphthalene-d8 (ISTD)	240982	7.883	229540	7.883	105	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	140368	9.638	132113	9.638	106	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	264413	11.147	245549	11.141	108	50 - 200	0.0060	+/-0.50	
Chrysene-d12 (ISTD)	233329	14.913	188539	14.907	124	50 - 200	0.0060	+/-0.50	
Perylene-d12 (ISTD)	209420	18.386	157182	18.38	133	50 - 200	0.0060	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	173068	20.776	122824	20.77	141	50 - 200	0.0060	+/-0.50	
PDI-039SC-B-5.8-7.8-190930 (A9J0058-06)			Lab File ID: N10071930.D			Analyzed: 10/07/19 22:55			
Naphthalene-d8 (ISTD)	243594	7.883	229540	7.883	106	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	135458	9.637	132113	9.638	103	50 - 200	-0.0010	+/-0.50	
Phenanthrene-d10 (ISTD)	245546	11.147	245549	11.141	100	50 - 200	0.0060	+/-0.50	
Chrysene-d12 (ISTD)	197870	14.912	188539	14.907	105	50 - 200	0.0050	+/-0.50	
Perylene-d12 (ISTD)	171922	18.386	157182	18.38	109	50 - 200	0.0060	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	142312	20.776	122824	20.77	116	50 - 200	0.0060	+/-0.50	
PDI-039SC-B-7.8-9.8-190930 (A9J0058-07)			Lab File ID: N10071931.D			Analyzed: 10/07/19 23:27			
Naphthalene-d8 (ISTD)	245060	7.889	229540	7.883	107	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	149199	9.643	132113	9.638	113	50 - 200	0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	253658	11.153	245549	11.141	103	50 - 200	0.0120	+/-0.50	
Chrysene-d12 (ISTD)	215922	14.924	188539	14.907	115	50 - 200	0.0170	+/-0.50	
Perylene-d12 (ISTD)	189213	18.398	157182	18.38	120	50 - 200	0.0180	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	150175	20.782	122824	20.77	122	50 - 200	0.0120	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J08040	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (9J08040-CCV1)			Lab File ID: N10081902.D			Analyzed: 10/08/19 08:47			
Naphthalene-d8 (ISTD)	216725	7.877	148351	7.883	146	50 - 200	-0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	120632	9.638	117951	9.638	102	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	215468	11.141	219661	11.147	98	50 - 200	-0.0060	+/-0.50	
Chrysene-d12 (ISTD)	161629	14.907	169841	14.907	95	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	137691	18.381	142416	18.375	97	50 - 200	0.0060	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	110477	20.77	93265	20.765	118	50 - 200	0.0050	+/-0.50	
Calibration Blank (9J08040-CCB1)			Lab File ID: N10081903.D			Analyzed: 10/08/19 09:19			
Naphthalene-d8 (ISTD)	201981	7.883	216725	7.877	93	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	118531	9.637	120632	9.638	98	50 - 200	-0.0010	+/-0.50	
Phenanthrene-d10 (ISTD)	195468	11.147	215468	11.141	91	50 - 200	0.0060	+/-0.50	
Chrysene-d12 (ISTD)	142208	14.912	161629	14.907	88	50 - 200	0.0050	+/-0.50	
Perylene-d12 (ISTD)	130719	18.386	137691	18.381	95	50 - 200	0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	114295	20.77	110477	20.77	103	50 - 200	0.0000	+/-0.50	
Blank (9100712-BLK1)			Lab File ID: N10081904.D			Analyzed: 10/08/19 09:51			
Naphthalene-d8 (ISTD)	204209	7.883	216725	7.877	94	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	109271	9.638	120632	9.638	91	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	185110	11.141	215468	11.141	86	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	132747	14.907	161629	14.907	82	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	115576	18.381	137691	18.381	84	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	99534	20.77	110477	20.77	90	50 - 200	0.0000	+/-0.50	
LCS (9100712-BS1)			Lab File ID: N10081905.D			Analyzed: 10/08/19 10:23			
Naphthalene-d8 (ISTD)	200121	7.877	216725	7.877	92	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	120373	9.638	120632	9.638	100	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	217350	11.141	215468	11.141	101	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	157387	14.913	161629	14.907	97	50 - 200	0.0060	+/-0.50	
Perylene-d12 (ISTD)	133272	18.381	137691	18.381	97	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	105704	20.77	110477	20.77	96	50 - 200	0.0000	+/-0.50	
PDI-042SC-A-12-13-190930 (A9J0058-15)			Lab File ID: N10081906.D			Analyzed: 10/08/19 10:55			
Naphthalene-d8 (ISTD)	206425	7.877	216725	7.877	95	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	115766	9.638	120632	9.638	96	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	203856	11.141	215468	11.141	95	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	151383	14.907	161629	14.907	94	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	126518	18.381	137691	18.381	92	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	104937	20.77	110477	20.77	95	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J08040	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (9100712-MS1)			Lab File ID: N10081907.D			Analyzed: 10/08/19 11:37			
Naphthalene-d8 (ISTD)	205609	7.877	216725	7.877	95	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	121468	9.637	120632	9.638	101	50 - 200	-0.0010	+/-0.50	
Phenanthrene-d10 (ISTD)	227721	11.147	215468	11.141	106	50 - 200	0.0060	+/-0.50	
Chrysene-d12 (ISTD)	195085	14.912	161629	14.907	121	50 - 200	0.0050	+/-0.50	
Perylene-d12 (ISTD)	167640	18.386	137691	18.381	122	50 - 200	0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	128594	20.776	110477	20.77	116	50 - 200	0.0060	+/-0.50	
Matrix Spike Dup (9100712-MSD1)			Lab File ID: N10081908.D			Analyzed: 10/08/19 12:09			
Naphthalene-d8 (ISTD)	216641	7.877	216725	7.877	100	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	116925	9.638	120632	9.638	97	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	209534	11.141	215468	11.141	97	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	161947	14.907	161629	14.907	100	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	138641	18.381	137691	18.381	101	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	112485	20.77	110477	20.77	102	50 - 200	0.0000	+/-0.50	
PDI-039SC-B-9.8-11.8-190930 (A9J0058-08)			Lab File ID: N10081916.D			Analyzed: 10/08/19 16:26			
Naphthalene-d8 (ISTD)	233583	7.901	216725	7.877	108	50 - 200	0.0240	+/-0.50	
Acenaphthene-d10 (ISTD)	130198	9.655	120632	9.638	108	50 - 200	0.0170	+/-0.50	
Phenanthrene-d10 (ISTD)	237626	11.159	215468	11.141	110	50 - 200	0.0180	+/-0.50	
Chrysene-d12 (ISTD)	195102	14.936	161629	14.907	121	50 - 200	0.0290	+/-0.50	
Perylene-d12 (ISTD)	160482	18.415	137691	18.381	117	50 - 200	0.0340	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	131532	20.805	110477	20.77	119	50 - 200	0.0350	+/-0.50	
PDI-040SC-A-09-10-190930 (A9J0058-09)			Lab File ID: N10081917.D			Analyzed: 10/08/19 16:58			
Naphthalene-d8 (ISTD)	219346	7.901	216725	7.877	101	50 - 200	0.0240	+/-0.50	
Acenaphthene-d10 (ISTD)	123588	9.649	120632	9.638	102	50 - 200	0.0110	+/-0.50	
Phenanthrene-d10 (ISTD)	224671	11.159	215468	11.141	104	50 - 200	0.0180	+/-0.50	
Chrysene-d12 (ISTD)	167658	14.936	161629	14.907	104	50 - 200	0.0290	+/-0.50	
Perylene-d12 (ISTD)	145174	18.41	137691	18.381	105	50 - 200	0.0290	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	122301	20.8	110477	20.77	111	50 - 200	0.0300	+/-0.50	
PDI-040SC-A-10-11.3-190930 (A9J0058-10)			Lab File ID: N10081918.D			Analyzed: 10/08/19 17:31			
Naphthalene-d8 (ISTD)	215101	7.895	216725	7.877	99	50 - 200	0.0180	+/-0.50	
Acenaphthene-d10 (ISTD)	122209	9.649	120632	9.638	101	50 - 200	0.0110	+/-0.50	
Phenanthrene-d10 (ISTD)	220580	11.159	215468	11.141	102	50 - 200	0.0180	+/-0.50	
Chrysene-d12 (ISTD)	161163	14.93	161629	14.907	100	50 - 200	0.0230	+/-0.50	
Perylene-d12 (ISTD)	135758	18.404	137691	18.381	99	50 - 200	0.0230	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	114709	20.794	110477	20.77	104	50 - 200	0.0240	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J08040	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PDI-040SC-B-5.3-7.3-190930 (A9J0058-11)			Lab File ID: N10081919.D			Analyzed: 10/08/19 18:03			
Naphthalene-d8 (ISTD)	229305	7.889	216725	7.877	106	50 - 200	0.0120	+/-0.50	
Acenaphthene-d10 (ISTD)	129106	9.649	120632	9.638	107	50 - 200	0.0110	+/-0.50	
Phenanthrene-d10 (ISTD)	230894	11.153	215468	11.141	107	50 - 200	0.0120	+/-0.50	
Chrysene-d12 (ISTD)	171638	14.924	161629	14.907	106	50 - 200	0.0170	+/-0.50	
Perylene-d12 (ISTD)	148671	18.404	137691	18.381	108	50 - 200	0.0230	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	125509	20.793	110477	20.77	114	50 - 200	0.0230	+/-0.50	
PDI-040SC-B-9.3-11.3-190930 (A9J0058-13)			Lab File ID: N10081920.D			Analyzed: 10/08/19 18:35			
Naphthalene-d8 (ISTD)	226588	7.889	216725	7.877	105	50 - 200	0.0120	+/-0.50	
Acenaphthene-d10 (ISTD)	126163	9.649	120632	9.638	105	50 - 200	0.0110	+/-0.50	
Phenanthrene-d10 (ISTD)	223353	11.153	215468	11.141	104	50 - 200	0.0120	+/-0.50	
Chrysene-d12 (ISTD)	162274	14.924	161629	14.907	100	50 - 200	0.0170	+/-0.50	
Perylene-d12 (ISTD)	138222	18.404	137691	18.381	100	50 - 200	0.0230	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	114138	20.794	110477	20.77	103	50 - 200	0.0240	+/-0.50	
PDI-1040SC-B-5.3-7.3-190930 (A9J0058-14)			Lab File ID: N10081921.D			Analyzed: 10/08/19 19:08			
Naphthalene-d8 (ISTD)	229825	7.889	216725	7.877	106	50 - 200	0.0120	+/-0.50	
Acenaphthene-d10 (ISTD)	128435	9.643	120632	9.638	106	50 - 200	0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	228998	11.153	215468	11.141	106	50 - 200	0.0120	+/-0.50	
Chrysene-d12 (ISTD)	168170	14.924	161629	14.907	104	50 - 200	0.0170	+/-0.50	
Perylene-d12 (ISTD)	146716	18.398	137691	18.381	107	50 - 200	0.0170	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	123690	20.788	110477	20.77	112	50 - 200	0.0180	+/-0.50	
PDI-042SC-A-13-13.8-190930 (A9J0058-16)			Lab File ID: N10081922.D			Analyzed: 10/08/19 19:40			
Naphthalene-d8 (ISTD)	230668	7.901	216725	7.877	106	50 - 200	0.0240	+/-0.50	
Acenaphthene-d10 (ISTD)	127369	9.655	120632	9.638	106	50 - 200	0.0170	+/-0.50	
Phenanthrene-d10 (ISTD)	232562	11.159	215468	11.141	108	50 - 200	0.0180	+/-0.50	
Chrysene-d12 (ISTD)	185939	14.936	161629	14.907	115	50 - 200	0.0290	+/-0.50	
Perylene-d12 (ISTD)	160223	18.41	137691	18.381	116	50 - 200	0.0290	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	135688	20.799	110477	20.77	123	50 - 200	0.0290	+/-0.50	
PDI-042SC-B-11.9-13.8-190930 (A9J0058-17)			Lab File ID: N10081923.D			Analyzed: 10/08/19 20:12			
Naphthalene-d8 (ISTD)	228134	7.901	216725	7.877	105	50 - 200	0.0240	+/-0.50	
Acenaphthene-d10 (ISTD)	127135	9.655	120632	9.638	105	50 - 200	0.0170	+/-0.50	
Phenanthrene-d10 (ISTD)	226445	11.159	215468	11.141	105	50 - 200	0.0180	+/-0.50	
Chrysene-d12 (ISTD)	176094	14.942	161629	14.907	109	50 - 200	0.0350	+/-0.50	
Perylene-d12 (ISTD)	148455	18.416	137691	18.381	108	50 - 200	0.0350	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	120554	20.805	110477	20.77	109	50 - 200	0.0350	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J09031	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (9J09031-CCV2)			Lab File ID: N10091905.D			Analyzed: 10/09/19 10:33			
Naphthalene-d8 (ISTD)	206747	7.877	148351	7.883	139	50 - 200	-0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	125621	9.632	117951	9.638	107	50 - 200	-0.0060	+/-0.50	
Phenanthrene-d10 (ISTD)	235020	11.141	219661	11.147	107	50 - 200	-0.0060	+/-0.50	
Chrysene-d12 (ISTD)	190734	14.907	169841	14.907	112	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	167849	18.381	142416	18.375	118	50 - 200	0.0060	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	138526	20.77	93265	20.765	149	50 - 200	0.0050	+/-0.50	
Calibration Blank (9J09031-CCB1)			Lab File ID: N10091906.D			Analyzed: 10/09/19 11:05			
Naphthalene-d8 (ISTD)	205914	7.877	206747	7.877	100	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	123345	9.638	125621	9.632	98	50 - 200	0.0060	+/-0.50	
Phenanthrene-d10 (ISTD)	216729	11.141	235020	11.141	92	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	165104	14.907	190734	14.907	87	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	146553	18.381	167849	18.381	87	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	124942	20.77	138526	20.77	90	50 - 200	0.0000	+/-0.50	
PDI-042SC-B-3.9-5.9-190930 (A9J0058-18)			Lab File ID: N10091907.D			Analyzed: 10/09/19 11:37			
Naphthalene-d8 (ISTD)	215788	7.877	206747	7.877	104	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	128102	9.632	125621	9.632	102	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	230265	11.141	235020	11.141	98	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	183910	14.907	190734	14.907	96	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	164415	18.381	167849	18.381	98	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	136934	20.77	138526	20.77	99	50 - 200	0.0000	+/-0.50	
PDI-042SC-B-5.9-7.9-190930 (A9J0058-19)			Lab File ID: N10091908.D			Analyzed: 10/09/19 12:10			
Naphthalene-d8 (ISTD)	214668	7.877	206747	7.877	104	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	129732	9.632	125621	9.632	103	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10 (ISTD)	243122	11.141	235020	11.141	103	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	194730	14.907	190734	14.907	102	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	177014	18.381	167849	18.381	105	50 - 200	0.0000	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	147320	20.77	138526	20.77	106	50 - 200	0.0000	+/-0.50	
PDI-042SC-B-7.9-9.9-190930 (A9J0058-20)			Lab File ID: N10091909.D			Analyzed: 10/09/19 12:42			
Naphthalene-d8 (ISTD)	228977	7.883	206747	7.877	111	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	126831	9.637	125621	9.632	101	50 - 200	0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	230185	11.147	235020	11.141	98	50 - 200	0.0060	+/-0.50	
Chrysene-d12 (ISTD)	186611	14.912	190734	14.907	98	50 - 200	0.0050	+/-0.50	
Perylene-d12 (ISTD)	160229	18.392	167849	18.381	95	50 - 200	0.0110	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	131579	20.782	138526	20.77	95	50 - 200	0.0120	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J09031	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PDI-042SC-B-9.9-11.9-190930 (A9J0058-21)			Lab File ID: N10091910.D			Analyzed: 10/09/19 13:14			
Naphthalene-d8 (ISTD)	205906	7.889	206747	7.877	100	50 - 200	0.0120	+/-0.50	
Acenaphthene-d10 (ISTD)	127316	9.643	125621	9.632	101	50 - 200	0.0110	+/-0.50	
Phenanthrene-d10 (ISTD)	238206	11.153	235020	11.141	101	50 - 200	0.0120	+/-0.50	
Chrysene-d12 (ISTD)	188722	14.924	190734	14.907	99	50 - 200	0.0170	+/-0.50	
Perylene-d12 (ISTD)	166921	18.398	167849	18.381	99	50 - 200	0.0170	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	137005	20.788	138526	20.77	99	50 - 200	0.0180	+/-0.50	
PDI-044SC-A-11-12-190930 (A9J0058-22)			Lab File ID: N10091911.D			Analyzed: 10/09/19 13:46			
Naphthalene-d8 (ISTD)	210180	7.889	206747	7.877	102	50 - 200	0.0120	+/-0.50	
Acenaphthene-d10 (ISTD)	130041	9.643	125621	9.632	104	50 - 200	0.0110	+/-0.50	
Phenanthrene-d10 (ISTD)	245301	11.153	235020	11.141	104	50 - 200	0.0120	+/-0.50	
Chrysene-d12 (ISTD)	198082	14.924	190734	14.907	104	50 - 200	0.0170	+/-0.50	
Perylene-d12 (ISTD)	174296	18.398	167849	18.381	104	50 - 200	0.0170	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	143681	20.788	138526	20.77	104	50 - 200	0.0180	+/-0.50	
PDI-044SC-A-12-12.8-190930 (A9J0058-23)			Lab File ID: N10091912.D			Analyzed: 10/09/19 14:18			
Naphthalene-d8 (ISTD)	212723	7.877	206747	7.877	103	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	131017	9.637	125621	9.632	104	50 - 200	0.0050	+/-0.50	
Phenanthrene-d10 (ISTD)	238593	11.141	235020	11.141	102	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	186663	14.907	190734	14.907	98	50 - 200	0.0000	+/-0.50	
Perylene-d12 (ISTD)	161732	18.386	167849	18.381	96	50 - 200	0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	131833	20.776	138526	20.77	95	50 - 200	0.0060	+/-0.50	
PDI-044SC-B-11.1-12.8-190930 (A9J0058-24)			Lab File ID: N10091913.D			Analyzed: 10/09/19 14:50			
Naphthalene-d8 (ISTD)	208871	7.877	206747	7.877	101	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	130073	9.638	125621	9.632	104	50 - 200	0.0060	+/-0.50	
Phenanthrene-d10 (ISTD)	238130	11.141	235020	11.141	101	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	191760	14.912	190734	14.907	101	50 - 200	0.0050	+/-0.50	
Perylene-d12 (ISTD)	171384	18.386	167849	18.381	102	50 - 200	0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	140830	20.776	138526	20.77	102	50 - 200	0.0060	+/-0.50	
PDI-044SC-B-7.1-9.1-190930 (A9J0058-25)			Lab File ID: N10091914.D			Analyzed: 10/09/19 15:22			
Naphthalene-d8 (ISTD)	212133	7.883	206747	7.877	103	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10 (ISTD)	123307	9.638	125621	9.632	98	50 - 200	0.0060	+/-0.50	
Phenanthrene-d10 (ISTD)	222428	11.147	235020	11.141	95	50 - 200	0.0060	+/-0.50	
Chrysene-d12 (ISTD)	161009	14.912	190734	14.907	84	50 - 200	0.0050	+/-0.50	
Perylene-d12 (ISTD)	135131	18.386	167849	18.381	81	50 - 200	0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	113570	20.776	138526	20.77	82	50 - 200	0.0060	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J09031	Instrument:	SV-GCMS14
Matrix:	Sediment	Calibration:	A9I1001

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PDI-044SC-B-9.1-11.1-190930 (A9J0058-26)			Lab File ID: N10091915.D			Analyzed: 10/09/19 15:54			
Naphthalene-d8 (ISTD)	212369	7.877	206747	7.877	103	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10 (ISTD)	130303	9.638	125621	9.632	104	50 - 200	0.0060	+/-0.50	
Phenanthrene-d10 (ISTD)	241392	11.141	235020	11.141	103	50 - 200	0.0000	+/-0.50	
Chrysene-d12 (ISTD)	198011	14.913	190734	14.907	104	50 - 200	0.0060	+/-0.50	
Perylene-d12 (ISTD)	180743	18.386	167849	18.381	108	50 - 200	0.0050	+/-0.50	
Dibenz(a,h)anthracene-d14 (ISTD)	153316	20.776	138526	20.77	111	50 - 200	0.0060	+/-0.50	

HOLDING TIME SUMMARY

EPA 8270D

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

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-039SC-A-12-13-190930	09/30/19 09:09	10/02/19 11:23	10/06/19 07:51	5.95	14.00	10/07/19 20:16	1.52	40.00	
PDI-039SC-A-13-13.7-190930	09/30/19 09:48	10/02/19 11:23	10/06/19 07:51	5.92	14.00	10/07/19 20:47	1.54	40.00	
PDI-1039SC-A-12-13-190930	09/30/19 09:48	10/02/19 11:23	10/06/19 07:51	5.92	14.00	10/07/19 21:19	1.56	40.00	
PDI-039SC-B-11.8-13.7-190930	09/30/19 10:39	10/02/19 11:23	10/06/19 07:51	5.88	14.00	10/07/19 21:50	1.58	40.00	
PDI-039SC-B-3.8-5.8-190930	09/30/19 09:15	10/02/19 11:23	10/06/19 07:51	5.94	14.00	10/07/19 22:22	1.60	40.00	
PDI-039SC-B-5.8-7.8-190930	09/30/19 09:16	10/02/19 11:23	10/06/19 07:51	5.94	14.00	10/07/19 22:55	1.63	40.00	
PDI-039SC-B-7.8-9.8-190930	09/30/19 09:17	10/02/19 11:23	10/06/19 07:51	5.94	14.00	10/07/19 23:27	1.65	40.00	
PDI-039SC-B-9.8-11.8-190930	09/30/19 09:18	10/02/19 11:23	10/06/19 07:51	5.94	14.00	10/08/19 16:26	2.36	40.00	
PDI-040SC-A-09-10-190930	09/30/19 13:44	10/02/19 11:23	10/06/19 07:51	5.75	14.00	10/08/19 16:58	2.38	40.00	
PDI-040SC-A-10-11.3-190930	09/30/19 13:59	10/02/19 11:23	10/06/19 07:51	5.74	14.00	10/08/19 17:31	2.40	40.00	
PDI-040SC-B-5.3-7.3-190930	09/30/19 13:45	10/02/19 11:23	10/06/19 07:51	5.75	14.00	10/08/19 18:03	2.43	40.00	
PDI-040SC-B-7.3-9.3-190930	09/30/19 13:46	10/02/19 11:23	10/06/19 07:51	5.75	14.00	10/07/19 14:26	1.27	40.00	
PDI-040SC-B-9.3-11.3-190930	09/30/19 14:02	10/02/19 11:23	10/07/19 06:54	6.70	14.00	10/08/19 18:35	1.49	40.00	
PDI-1040SC-B-5.3-7.3-190930	09/30/19 13:45	10/02/19 11:23	10/07/19 06:54	6.71	14.00	10/08/19 19:08	1.51	40.00	
PDI-042SC-A-12-13-190930	09/30/19 11:22	10/02/19 11:23	10/07/19 06:54	6.81	14.00	10/08/19 10:55	1.17	40.00	
PDI-042SC-A-13-13.8-190930	09/30/19 12:42	10/02/19 11:23	10/07/19 06:54	6.76	14.00	10/08/19 19:40	1.53	40.00	
PDI-042SC-B-11.9-13.8-190930	09/30/19 12:29	10/02/19 11:23	10/07/19 06:54	6.77	14.00	10/08/19 20:12	1.55	40.00	
PDI-042SC-B-3.9-5.9-190930	09/30/19 12:05	10/02/19 11:23	10/07/19 06:54	6.78	14.00	10/09/19 11:37	2.20	40.00	
PDI-042SC-B-5.9-7.9-190930	09/30/19 12:06	10/02/19 11:23	10/07/19 06:54	6.78	14.00	10/09/19 12:10	2.22	40.00	
PDI-042SC-B-7.9-9.9-190930	09/30/19 12:06	10/02/19 11:23	10/07/19 06:54	6.78	14.00	10/09/19 12:42	2.24	40.00	
PDI-042SC-B-9.9-11.9-190930	09/30/19 12:07	10/02/19 11:23	10/07/19 06:54	6.78	14.00	10/09/19 13:14	2.26	40.00	
PDI-044SC-A-11-12-190930	09/30/19 15:05	10/02/19 11:23	10/07/19 06:54	6.66	14.00	10/09/19 13:46	2.29	40.00	
PDI-044SC-A-12-12.8-190930	09/30/19 15:05	10/02/19 11:23	10/07/19 06:54	6.66	14.00	10/09/19 14:18	2.31	40.00	
PDI-044SC-B-11.1-12.8-190930	09/30/19 15:15	10/02/19 11:23	10/07/19 06:54	6.65	14.00	10/09/19 14:50	2.33	40.00	

HOLDING TIME SUMMARY

EPA 8270D

Laboratory: Apex Laboratories

SDG: A9J0058

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

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-044SC-B-7.1-9.1-190930	09/30/19 15:06	10/02/19 11:23	10/07/19 06:54	6.66	14.00	10/09/19 15:22	2.35	40.00	
PDI-044SC-B-9.1-11.1-190930	09/30/19 15:07	10/02/19 11:23	10/07/19 06:54	6.66	14.00	10/09/19 15:54	2.38	40.00	

Apex Laboratories

SDG: A9J0058

CLASS: METALS

METHOD: EPA 6020A

ANALYSES DATA PACKAGE COVER PAGE

EPA 6020A

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

Client Sample Id:	Lab Sample Id:	Matrix
PDI-039SC-B-11.8-13.7-190930	A9J0058-04	Sediment
PDI-039SC-B-3.8-5.8-190930	A9J0058-05	Sediment
PDI-039SC-B-5.8-7.8-190930	A9J0058-06	Sediment
PDI-039SC-B-7.8-9.8-190930	A9J0058-07	Sediment
PDI-039SC-B-9.8-11.8-190930	A9J0058-08	Sediment
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	Sediment
PDI-040SC-B-7.3-9.3-190930	A9J0058-12	Sediment
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	Sediment
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	Sediment
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	Sediment
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	Sediment
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	Sediment
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	Sediment
PDI-042SC-B-9.9-11.9-190930	A9J0058-21	Sediment
PDI-044SC-B-11.1-12.8-190930	A9J0058-24	Sediment
PDI-044SC-B-7.1-9.1-190930	A9J0058-25	Sediment
PDI-044SC-B-9.1-11.1-190930	A9J0058-26	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: 11/19/2019 4:10PM
Title: Technical Manager

METHOD DETECTION AND REPORTING LIMITS

EPA 6020A

Laboratory: Apex Laboratories **SDG:** A9J0058

Client: Anchor QEA, LLC **Project:** Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
Arsenic	0.250	0.500	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-039SC-B-11.8-13.7-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-04
File ID: 9J07068-074
Sampled: 09/30/19 10:39
Prepared: 10/04/19 10:27
Analyzed: 10/07/19 23:42
Solids: 74.95
Preparation: EPA 3051A
Initial/Final: 0.485 g / 50 mL
Batch: 9100666
Sequence: 9J07068
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	2.40	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-039SC-B-3.8-5.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-05
File ID: 9J07068-075
Sampled: 09/30/19 09:15
Prepared: 10/04/19 10:27
Analyzed: 10/07/19 23:47
Solids: 83.50
Preparation: EPA 3051A
Initial/Final: 0.504 g / 50 mL
Batch: 9100666
Sequence: 9J07068
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	1.82	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-039SC-B-5.8-7.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-06
File ID: 9J07068-076
Sampled: 09/30/19 09:16
Prepared: 10/04/19 10:27
Analyzed: 10/07/19 23:51
Solids: 86.72
Preparation: EPA 3051A
Initial/Final: 0.514 g / 50 mL
Batch: 9100666
Sequence: 9J07068
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	1.64	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-039SC-B-7.8-9.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-07
File ID: 9J07068-077
Sampled: 09/30/19 09:17
Prepared: 10/04/19 10:27
Analyzed: 10/07/19 23:56
Solids: 72.59
Preparation: EPA 3051A
Initial/Final: 0.497 g / 50 mL
Batch: 9100666
Sequence: 9J07068
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	2.36	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-039SC-B-9.8-11.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-08
File ID: 9J07068-078
Sampled: 09/30/19 09:18
Prepared: 10/04/19 10:27
Analyzed: 10/08/19 00:01
Solids: 77.51
Preparation: EPA 3051A
Initial/Final: 0.486 g / 50 mL
Batch: 9100666
Sequence: 9J07068
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	2.45	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-040SC-B-5.3-7.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-11
File ID: 9J07068-079
Sampled: 09/30/19 13:45
Prepared: 10/04/19 10:27
Analyzed: 10/08/19 00:05
Solids: 86.95
Preparation: EPA 3051A
Initial/Final: 0.495 g / 50 mL
Batch: 9100666
Sequence: 9J07068
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	1.89	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-040SC-B-7.3-9.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-12
File ID: 9J07068-080
Sampled: 09/30/19 13:46
Prepared: 10/04/19 10:27
Analyzed: 10/08/19 00:10
Solids: 86.97
Preparation: EPA 3051A
Initial/Final: 0.509 g / 50 mL
Batch: 9100666
Sequence: 9J07068
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	1.93	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-040SC-B-9.3-11.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-13
File ID: 9J07068-085
Sampled: 09/30/19 14:02
Prepared: 10/04/19 10:27
Analyzed: 10/08/19 00:33
Solids: 79.30
Preparation: EPA 3051A
Initial/Final: 0.503 g / 50 mL
Batch: 9100666
Sequence: 9J07068
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	2.09	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-1040SC-B-5.3-7.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-14
File ID: 9J07068-086
Sampled: 09/30/19 13:45
Prepared: 10/04/19 10:27
Analyzed: 10/08/19 00:37
Solids: 87.03
Preparation: EPA 3051A
Initial/Final: 0.493 g / 50 mL
Batch: 9100666
Sequence: 9J07068
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	2.27	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-042SC-B-11.9-13.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-17
File ID: 9J07068-087
Sampled: 09/30/19 12:29
Prepared: 10/04/19 10:27
Analyzed: 10/08/19 00:42
Solids: 79.77
Preparation: EPA 3051A
Initial/Final: 0.485 g / 50 mL
Batch: 9100666
Sequence: 9J07068
Instrument: ICPMS5

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	3.03	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-042SC-B-3.9-5.9-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-18
File ID: 9J10037-022
Sampled: 09/30/19 12:05
Prepared: 10/09/19 07:37
Analyzed: 10/10/19 20:20
Solids: 91.98
Preparation: EPA 3051A
Initial/Final: 0.471 g / 50 mL
Batch: 9100841
Sequence: 9J10037
Instrument: ICPMS6

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	1.84	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-042SC-B-5.9-7.9-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-19
File ID: 9J10037-023
Sampled: 09/30/19 12:06
Prepared: 10/09/19 07:37
Analyzed: 10/10/19 20:25
Solids: 85.67
Preparation: EPA 3051A
Initial/Final: 0.483 g / 50 mL
Batch: 9100841
Sequence: 9J10037
Instrument: ICPMS6

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	2.17	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-042SC-B-7.9-9.9-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-20
File ID: 9J10037-024
Sampled: 09/30/19 12:06
Prepared: 10/09/19 07:37
Analyzed: 10/10/19 20:29
Solids: 82.74
Preparation: EPA 3051A
Initial/Final: 0.519 g / 50 mL
Batch: 9100841
Sequence: 9J10037
Instrument: ICPMS6

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	2.23	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-042SC-B-9.9-11.9-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-21
File ID: 9J10037-025
Sampled: 09/30/19 12:07
Prepared: 10/09/19 07:37
Analyzed: 10/10/19 20:34
Solids: 87.57
Preparation: EPA 3051A
Initial/Final: 0.482 g / 50 mL
Batch: 9100841
Sequence: 9J10037
Instrument: ICPMS6

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	1.84	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-044SC-B-11.1-12.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-24
File ID: 9J10037-028
Sampled: 09/30/19 15:15
Prepared: 10/09/19 07:37
Analyzed: 10/10/19 20:48
Solids: 76.85
Preparation: EPA 3051A
Initial/Final: 0.508 g / 50 mL
Batch: 9100841
Sequence: 9J10037
Instrument: ICPMS6

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	1.84	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-044SC-B-7.1-9.1-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-25
File ID: 9J10037-029
Sampled: 09/30/19 15:06
Prepared: 10/09/19 07:37
Analyzed: 10/10/19 20:52
Solids: 83.51
Preparation: EPA 3051A
Initial/Final: 0.509 g / 50 mL
Batch: 9100841
Sequence: 9J10037
Instrument: ICPMS6

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	1.53	5		EPA 6020A

INORGANIC ANALYSIS DATA SHEET

EPA 6020A

PDI-044SC-B-9.1-11.1-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-26
File ID: 9J10037-032
Sampled: 09/30/19 15:07
Prepared: 10/09/19 07:37
Analyzed: 10/10/19 21:06
Solids: 88.61
Preparation: EPA 3051A
Initial/Final: 0.491 g / 50 mL
Batch: 9100841
Sequence: 9J10037
Instrument: ICPMS6

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	Method
7440-38-2	Arsenic	1.63	5		EPA 6020A

PREPARATION BATCH SUMMARY

EPA 6020A

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Batch: 9100666 Batch Matrix: Sediment Preparation: EPA 3051A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9100666-BLK1	9J07068-056	10/04/19 10:27	
LCS	9100666-BS1	9J07068-059	10/04/19 10:27	
PDI-040SC-B-7.3-9.3-190930 (MS)	9100666-MS2	9J07068-083	10/04/19 10:27	
PDI-040SC-B-7.3-9.3-190930 (MSD	9100666-MSD2	9J07068-084	10/04/19 10:27	
PDI-039SC-B-11.8-13.7-190930	A9J0058-04	9J07068-074	10/04/19 10:27	
PDI-039SC-B-3.8-5.8-190930	A9J0058-05	9J07068-075	10/04/19 10:27	
PDI-039SC-B-5.8-7.8-190930	A9J0058-06	9J07068-076	10/04/19 10:27	
PDI-039SC-B-7.8-9.8-190930	A9J0058-07	9J07068-077	10/04/19 10:27	
PDI-039SC-B-9.8-11.8-190930	A9J0058-08	9J07068-078	10/04/19 10:27	
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	9J07068-079	10/04/19 10:27	
PDI-040SC-B-7.3-9.3-190930	A9J0058-12	9J07068-080	10/04/19 10:27	
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	9J07068-085	10/04/19 10:27	
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	9J07068-086	10/04/19 10:27	
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	9J07068-087	10/04/19 10:27	

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

PREPARATION BATCH SUMMARY

EPA 6020A

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Batch: 9100841 Batch Matrix: Sediment Preparation: EPA 3051A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9100841-BLK1	9J10037-020	10/09/19 07:37	
LCS	9100841-BS1	9J10037-021	10/09/19 07:37	
PDI-042SC-B-9.9-11.9-190930 (Dup	9100841-DUP1	9J10037-026	10/09/19 07:37	
PDI-042SC-B-9.9-11.9-190930 (MS	9100841-MS1	9J10037-027	10/09/19 07:37	
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	9J10037-022	10/09/19 07:37	
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	9J10037-023	10/09/19 07:37	
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	9J10037-024	10/09/19 07:37	
PDI-042SC-B-9.9-11.9-190930	A9J0058-21	9J10037-025	10/09/19 07:37	
PDI-044SC-B-11.1-12.8-190930	A9J0058-24	9J10037-028	10/09/19 07:37	
PDI-044SC-B-7.1-9.1-190930	A9J0058-25	9J10037-029	10/09/19 07:37	
PDI-044SC-B-9.1-11.1-190930	A9J0058-26	9J10037-032	10/09/19 07:37	

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

METHOD BLANK DATA SHEET

EPA 6020A

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Matrix:	Sediment	Laboratory ID:	9100666-BLK1	File ID:	9J07068-056
Prepared:	10/04/19 10:27	Preparation:	EPA 3051A	Initial/Final:	0.52 g / 50 mL
Analyzed:	10/07/19 22:19	Instrument:	ICPMS5		
Batch:	9100666	Sequence:	9J07068	Calibration:	UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
7440-38-2	Arsenic	0.240	U

METHOD BLANK DATA SHEET
EPA 6020A

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Matrix:	Sediment	Laboratory ID:	9100841-BLK1	File ID:	9J10037-020
Prepared:	10/09/19 07:37	Preparation:	EPA 3051A	Initial/Final:	0.52 g / 50 mL
Analyzed:	10/10/19 20:08	Instrument:	ICPMS6		
Batch:	9100841	Sequence:	9J10037	Calibration:	UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/kg wet)	Q
7440-38-2	Arsenic	0.240	U

LCS / LCS DUPLICATE RECOVERY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100666	Laboratory ID:	9100666-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	23.3	93	80 - 120

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100841	Laboratory ID:	9100841-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	22.6	90	80 - 120

* = Values outside of QC limits

PDI-042SC-B-9.9-11.9-190930

DUPLICATES

EPA 6020A

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9100841
Preparation: EPA 3051A
Source Sample Name: PDI-042SC-B-9.9-11.9-190930

SDG: A9J0058
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP
Laboratory ID: 9100841-DUP1
Lab Source ID: A9J0058-21
Initial/Final: 0.514 g / 50 mL
% Solids: 87.57

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (mg/kg dry)	C	DUPLICATE CONCENTRATION (mg/kg dry)	C	RPD %	Q	METHOD
Arsenic	40	1.84		2.20		18		EPA 6020A

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 6020A

PDI-040SC-B-7.3-9.3-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Matrix:	Sediment		
Batch:	9100666	Laboratory ID:	9100666-MS2
Preparation:	EPA 3051A	Initial/Final:	0.499 g / 50 mL

Source Sample Name: PDI-040SC-B-7.3-9.3-190930

COMPOUND	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC. (*=Out)	QC LIMITS REC.
Arsenic	28.8	1.93	29.2	95	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 6020A

PDI-040SC-B-7.3-9.3-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100666	Laboratory ID:	9100666-MSD2
Preparation:	EPA 3051A	Initial/Final:	0.509 g / 50 mL

Source Sample Name: PDI-040SC-B-7.3-9.3-190930

COMPOUND	SPIKE ADDED (mg/kg dry)	MSD CONCENTRATION (mg/kg dry)	MSD % RECOVERY	% RPD	QC LIMITS RPD	QC LIMITS REC.
Arsenic	28.2	29.0	96	0.7	40	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 6020A

PDI-042SC-B-9.9-11.9-190930

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Matrix:	Sediment		
Batch:	9100841	Laboratory ID:	9100841-MS1
Preparation:	EPA 3051A	Initial/Final:	0.501 g / 50 mL

Source Sample Name: PDI-042SC-B-9.9-11.9-190930

COMPOUND	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC. (*=Out)	QC LIMITS REC.
Arsenic	28.5	1.84	27.4	90	75 - 125

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J07068	Instrument:	ICPMS5
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	9J07068-ICV1	9J07068-013	10/07/19 19:01
Initial Cal Blank	9J07068-ICB1	9J07068-014	10/07/19 19:06
Instrument RL Check	9J07068-CRL1	9J07068-015	10/07/19 19:11
Instrument RL Check	9J07068-CRL2	9J07068-016	10/07/19 19:15
Instrument RL Check	9J07068-CRL3	9J07068-017	10/07/19 19:20
Instrument RL Check	9J07068-CRL4	9J07068-018	10/07/19 19:24
Calibration Check	9J07068-CCV2	9J07068-032	10/07/19 20:29
Calibration Blank	9J07068-CCB1	9J07068-033	10/07/19 20:34
Calibration Blank	9J07068-CCB2	9J07068-034	10/07/19 20:38
Calibration Check	9J07068-CCV3	9J07068-045	10/07/19 21:29
Calibration Blank	9J07068-CCB3	9J07068-046	10/07/19 21:33
Blank	9100666-BLK1	9J07068-056	10/07/19 22:19
Calibration Check	9J07068-CCV4	9J07068-057	10/07/19 22:24
Calibration Blank	9J07068-CCB4	9J07068-058	10/07/19 22:28
LCS	9100666-BS1	9J07068-059	10/07/19 22:33
Calibration Check	9J07068-CCV5	9J07068-069	10/07/19 23:19
Calibration Blank	9J07068-CCB5	9J07068-070	10/07/19 23:24
PDI-039SC-B-11.8-13.7-190930	A9J0058-04	9J07068-074	10/07/19 23:42
PDI-039SC-B-3.8-5.8-190930	A9J0058-05	9J07068-075	10/07/19 23:47
PDI-039SC-B-5.8-7.8-190930	A9J0058-06	9J07068-076	10/07/19 23:51
PDI-039SC-B-7.8-9.8-190930	A9J0058-07	9J07068-077	10/07/19 23:56
PDI-039SC-B-9.8-11.8-190930	A9J0058-08	9J07068-078	10/08/19 00:01
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	9J07068-079	10/08/19 00:05
PDI-040SC-B-7.3-9.3-190930	A9J0058-12	9J07068-080	10/08/19 00:10
Calibration Check	9J07068-CCV6	9J07068-081	10/08/19 00:14
Calibration Blank	9J07068-CCB6	9J07068-082	10/08/19 00:19
PDI-040SC-B-7.3-9.3-190930 (MS)	9100666-MS2	9J07068-083	10/08/19 00:24
PDI-040SC-B-7.3-9.3-190930 (MSD)	9100666-MSD2	9J07068-084	10/08/19 00:28
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	9J07068-085	10/08/19 00:33
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	9J07068-086	10/08/19 00:37
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	9J07068-087	10/08/19 00:42
Calibration Check	9J07068-CCV7	9J07068-088	10/08/19 00:47
Calibration Blank	9J07068-CCB7	9J07068-089	10/08/19 00:51

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J07068	Instrument:	ICPMS5
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Instrument RL Check	9J07068-CRL5	9J07068-090	10/08/19 00:56
Instrument RL Check	9J07068-CRL6	9J07068-091	10/08/19 01:01
Instrument RL Check	9J07068-CRL7	9J07068-092	10/08/19 01:05
Instrument RL Check	9J07068-CRL8	9J07068-093	10/08/19 01:10
Calibration Check	9J07068-CCV8	9J07068-102	10/08/19 01:52
Calibration Check	9J07068-CCV9	9J07068-103	10/08/19 01:57
Calibration Blank	9J07068-CCB8	9J07068-104	10/08/19 02:01
Instrument RL Check	9J07068-CRL9	9J07068-105	10/08/19 02:06
Instrument RL Check	9J07068-CRLA	9J07068-106	10/08/19 02:11
Instrument RL Check	9J07068-CRLB	9J07068-107	10/08/19 02:15
Instrument RL Check	9J07068-CRLC	9J07068-108	10/08/19 02:20

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

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J10037	Instrument:	ICPMS6
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	9J10037-ICV1	9J10037-013	10/10/19 19:28
Initial Cal Blank	9J10037-ICB1	9J10037-014	10/10/19 19:32
Instrument RL Check	9J10037-CRL1	9J10037-015	10/10/19 19:37
Instrument RL Check	9J10037-CRL2	9J10037-016	10/10/19 19:42
Instrument RL Check	9J10037-CRL3	9J10037-017	10/10/19 19:46
Blank	9100841-BLK1	9J10037-020	10/10/19 20:08
LCS	9100841-BS1	9J10037-021	10/10/19 20:15
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	9J10037-022	10/10/19 20:20
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	9J10037-023	10/10/19 20:25
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	9J10037-024	10/10/19 20:29
PDI-042SC-B-9.9-11.9-190930	A9J0058-21	9J10037-025	10/10/19 20:34
PDI-042SC-B-9.9-11.9-190930 (Dup)	9100841-DUP1	9J10037-026	10/10/19 20:38
PDI-042SC-B-9.9-11.9-190930 (MS)	9100841-MS1	9J10037-027	10/10/19 20:43
PDI-044SC-B-11.1-12.8-190930	A9J0058-24	9J10037-028	10/10/19 20:48
PDI-044SC-B-7.1-9.1-190930	A9J0058-25	9J10037-029	10/10/19 20:52
Calibration Check	9J10037-CCV1	9J10037-030	10/10/19 20:57
Calibration Blank	9J10037-CCB1	9J10037-031	10/10/19 21:01
PDI-044SC-B-9.1-11.1-190930	A9J0058-26	9J10037-032	10/10/19 21:06
Calibration Check	9J10037-CCV2	9J10037-042	10/10/19 21:52
Calibration Blank	9J10037-CCB2	9J10037-043	10/10/19 21:56
Calibration Check	9J10037-CCV3	9J10037-054	10/10/19 22:47
Calibration Blank	9J10037-CCB3	9J10037-055	10/10/19 22:51
Calibration Check	9J10037-CCV4	9J10037-066	10/10/19 23:42
Calibration Blank	9J10037-CCB4	9J10037-067	10/10/19 23:46
Calibration Check	9J10037-CCV5	9J10037-078	10/11/19 00:37
Calibration Blank	9J10037-CCB5	9J10037-079	10/11/19 00:41
Calibration Check	9J10037-CCV6	9J10037-090	10/11/19 01:32
Calibration Blank	9J10037-CCB6	9J10037-091	10/11/19 01:36
Calibration Check	9J10037-CCV7	9J10037-102	10/11/19 02:27
Calibration Blank	9J10037-CCB7	9J10037-103	10/11/19 02:31
Calibration Check	9J10037-CCV8	9J10037-109	10/11/19 02:59
Calibration Blank	9J10037-CCB8	9J10037-110	10/11/19 03:03
Instrument RL Check	9J10037-CRL4	9J10037-111	10/11/19 03:08

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J10037	Instrument:	ICPMS6
Matrix:	Sediment	Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Instrument RL Check	9J10037-CRL5	9J10037-112	10/11/19 03:12
Instrument RL Check	9J10037-CRL6	9J10037-113	10/11/19 03:17
Instrument RL Check	9J10037-CRL7	9J10037-114	10/11/19 03:21

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

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Control Limt: +/- 10.00%
Sequence: 9J07068

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9J07068-ICV1	Arsenic	100	98.0	98	ug/L	EPA 6020A
9J07068-CCV2	Arsenic	100	98.8	99	ug/L	EPA 6020A
9J07068-CCV3	Arsenic	100	98.7	99	ug/L	EPA 6020A
9J07068-CCV4	Arsenic	100	99.0	99	ug/L	EPA 6020A
9J07068-CCV5	Arsenic	100	99.7	100	ug/L	EPA 6020A
9J07068-CCV6	Arsenic	100	99.5	100	ug/L	EPA 6020A
9J07068-CCV7	Arsenic	100	99.8	100	ug/L	EPA 6020A
9J07068-CCV8	Arsenic	100	97.7	98	ug/L	EPA 6020A
9J07068-CCV9	Arsenic	100	98.0	98	ug/L	EPA 6020A

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Instrument ID: ICPMS6
Calibration: UNASSIGNED
Control Limt: +/- 10.00%
Sequence: 9J10037

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9J10037-ICV1	Arsenic	100	94.9	95	ug/L	EPA 6020A
9J10037-CCV1	Arsenic	100	97.4	97	ug/L	EPA 6020A
9J10037-CCV2	Arsenic	100	94.7	95	ug/L	EPA 6020A
9J10037-CCV3	Arsenic	100	97.9	98	ug/L	EPA 6020A
9J10037-CCV4	Arsenic	100	98.4	98	ug/L	EPA 6020A
9J10037-CCV5	Arsenic	100	96.6	97	ug/L	EPA 6020A
9J10037-CCV6	Arsenic	100	105	105	ug/L	EPA 6020A
9J10037-CCV7	Arsenic	100	95.5	96	ug/L	EPA 6020A
9J10037-CCV8	Arsenic	100	96.7	97	ug/L	EPA 6020A

* Values outside of QC limits

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Instrument ID: ICPMS5
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Sequence: 9J07068
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9J07068-ICB1	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J07068-CCB1	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J07068-CCB2	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J07068-CCB3	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J07068-CCB4	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J07068-CCB5	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J07068-CCB6	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J07068-CCB7	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J07068-CCB8	Arsenic	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: A9J0058
Client: Anchor QEA, LLC
Instrument ID: ICPMS6
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Sequence: 9J10037
Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9J10037-ICB1	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J10037-CCB1	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J10037-CCB2	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J10037-CCB3	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J10037-CCB4	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J10037-CCB5	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J10037-CCB6	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J10037-CCB7	Arsenic	ND	0.500 (Inst)	ug/L		EPA 6020A
9J10037-CCB8	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: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Instrument ID: ICPMS5
Calibration: UNASSIGNED
Sequence: 9J07068

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9J07068-CRL1	Arsenic	0.180	0.161	89	ug/L	70 - 130
9J07068-CRL2	Arsenic	0.900	0.912	101	ug/L	70 - 130
9J07068-CRL3	Arsenic	1.80	1.71	95	ug/L	70 - 130
9J07068-CRL4	Arsenic	3.60	3.70	103	ug/L	70 - 130
9J07068-CRL5	Arsenic	0.180	0.192	107	ug/L	70 - 130
9J07068-CRL6	Arsenic	0.900	0.904	100	ug/L	70 - 130
9J07068-CRL7	Arsenic	1.80	1.79	99	ug/L	70 - 130
9J07068-CRL8	Arsenic	3.60	3.61	100	ug/L	70 - 130
9J07068-CRL9	Arsenic	0.180	0.177	99	ug/L	70 - 130
9J07068-CRLA	Arsenic	0.900	0.881	98	ug/L	70 - 130
9J07068-CRLB	Arsenic	1.80	1.81	101	ug/L	70 - 130
9J07068-CRLC	Arsenic	3.60	3.53	98	ug/L	70 - 130

* Values outside of QC limits

CRDL STANDARD

EPA 6020A

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Instrument ID: ICPMS6
Calibration: UNASSIGNED
Sequence: 9J10037

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
9J10037-CRL1	Arsenic	0.180	0.188	104	ug/L	70 - 130
9J10037-CRL2	Arsenic	0.900	0.859	95	ug/L	70 - 130
9J10037-CRL3	Arsenic	1.80	1.79	99	ug/L	70 - 130
9J10037-CRL4	Arsenic	0.180	0.190	105	ug/L	70 - 130
9J10037-CRL5	Arsenic	0.900	0.884	98	ug/L	70 - 130
9J10037-CRL6	Arsenic	1.80	1.78	99	ug/L	70 - 130
9J10037-CRL7	Arsenic	3.60	3.52	98	ug/L	70 - 130

* Values outside of QC limits

HOLDING TIME SUMMARY

EPA 6020A

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

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-039SC-B-11.8-13.7-190930	09/30/19 10:39	10/02/19 11:23	10/04/19 10:27	3.99	180.00	10/07/19 23:42	7.54	180.00	
PDI-039SC-B-3.8-5.8-190930	09/30/19 09:15	10/02/19 11:23	10/04/19 10:27	4.05	180.00	10/07/19 23:47	7.61	180.00	
PDI-039SC-B-5.8-7.8-190930	09/30/19 09:16	10/02/19 11:23	10/04/19 10:27	4.05	180.00	10/07/19 23:51	7.61	180.00	
PDI-039SC-B-7.8-9.8-190930	09/30/19 09:17	10/02/19 11:23	10/04/19 10:27	4.05	180.00	10/07/19 23:56	7.61	180.00	
PDI-039SC-B-9.8-11.8-190930	09/30/19 09:18	10/02/19 11:23	10/04/19 10:27	4.05	180.00	10/08/19 00:01	7.61	180.00	
PDI-040SC-B-5.3-7.3-190930	09/30/19 13:45	10/02/19 11:23	10/04/19 10:27	3.86	180.00	10/08/19 00:05	7.43	180.00	
PDI-040SC-B-7.3-9.3-190930	09/30/19 13:46	10/02/19 11:23	10/04/19 10:27	3.86	180.00	10/08/19 00:10	7.43	180.00	
PDI-040SC-B-9.3-11.3-190930	09/30/19 14:02	10/02/19 11:23	10/04/19 10:27	3.85	180.00	10/08/19 00:33	7.44	180.00	
PDI-1040SC-B-5.3-7.3-190930	09/30/19 13:45	10/02/19 11:23	10/04/19 10:27	3.86	180.00	10/08/19 00:37	7.45	180.00	
PDI-042SC-B-11.9-13.8-190930	09/30/19 12:29	10/02/19 11:23	10/04/19 10:27	3.92	180.00	10/08/19 00:42	7.51	180.00	
PDI-042SC-B-3.9-5.9-190930	09/30/19 12:05	10/02/19 11:23	10/09/19 07:37	8.81	180.00	10/10/19 20:20	10.34	180.00	
PDI-042SC-B-5.9-7.9-190930	09/30/19 12:06	10/02/19 11:23	10/09/19 07:37	8.81	180.00	10/10/19 20:25	10.35	180.00	
PDI-042SC-B-7.9-9.9-190930	09/30/19 12:06	10/02/19 11:23	10/09/19 07:37	8.81	180.00	10/10/19 20:29	10.35	180.00	
PDI-042SC-B-9.9-11.9-190930	09/30/19 12:07	10/02/19 11:23	10/09/19 07:37	8.81	180.00	10/10/19 20:34	10.35	180.00	
PDI-044SC-B-11.1-12.8-190930	09/30/19 15:15	10/02/19 11:23	10/09/19 07:37	8.68	180.00	10/10/19 20:48	10.23	180.00	
PDI-044SC-B-7.1-9.1-190930	09/30/19 15:06	10/02/19 11:23	10/09/19 07:37	8.69	180.00	10/10/19 20:52	10.24	180.00	
PDI-044SC-B-9.1-11.1-190930	09/30/19 15:07	10/02/19 11:23	10/09/19 07:37	8.69	180.00	10/10/19 21:06	10.25	180.00	

Apex Laboratories

SDG: A9J0058

CLASS: WET

METHOD: SM 5310 B MOD

ANALYSES DATA PACKAGE COVER PAGE

SM 5310 B MOD

Laboratory: Apex Laboratories
SDG: A9J0058

Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

Client Sample Id:	Lab Sample Id:	Matrix
PDI-039SC-A-12-13-190930	A9J0058-01	Sediment
PDI-039SC-A-13-13.7-190930	A9J0058-02	Sediment
PDI-1039SC-A-12-13-190930	A9J0058-03	Sediment
PDI-039SC-B-11.8-13.7-190930	A9J0058-04	Sediment
PDI-039SC-B-3.8-5.8-190930	A9J0058-05	Sediment
PDI-039SC-B-5.8-7.8-190930	A9J0058-06	Sediment
PDI-039SC-B-7.8-9.8-190930	A9J0058-07	Sediment
PDI-039SC-B-9.8-11.8-190930	A9J0058-08	Sediment
PDI-040SC-A-09-10-190930	A9J0058-09	Sediment
PDI-040SC-A-10-11.3-190930	A9J0058-10	Sediment
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	Sediment
PDI-040SC-B-7.3-9.3-190930	A9J0058-12	Sediment
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	Sediment
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	Sediment
PDI-042SC-A-12-13-190930	A9J0058-15	Sediment
PDI-042SC-A-13-13.8-190930	A9J0058-16	Sediment
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	Sediment
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	Sediment
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	Sediment
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	Sediment
PDI-042SC-B-9.9-11.9-190930	A9J0058-21	Sediment
PDI-044SC-A-11-12-190930	A9J0058-22	Sediment
PDI-044SC-A-12-12.8-190930	A9J0058-23	Sediment
PDI-044SC-B-11.1-12.8-190930	A9J0058-24	Sediment
PDI-044SC-B-7.1-9.1-190930	A9J0058-25	Sediment
PDI-044SC-B-9.1-11.1-190930	A9J0058-26	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:	11/20/2019 11:35AM	Title:	Technical Manager

METHOD DETECTION AND REPORTING LIMITS

SM 5310 B MOD

Laboratory: Apex Laboratories **SDG:** A9J0058

Client: Anchor QEA, LLC **Project:** Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
Total Organic Carbon	0.020	0.020	% by Weight

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

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-039SC-A-12-13-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-01RE1
File ID: 9J15035_TCDirect.txt-022
Sampled: 09/30/19 09:09
Prepared: 10/03/19 15:25
Analyzed: 10/15/19 21:01
Solids: 74.07
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100674
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.086	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-039SC-A-13-13.7-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-02RE1
File ID: 9J15035_TCDirect.txt-023
Sampled: 09/30/19 09:48
Prepared: 10/03/19 15:25
Analyzed: 10/15/19 21:12
Solids: 73.21
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100674
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.052	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-1039SC-A-12-13-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-03RE1
File ID: 9J15035_TCDirect.txt-024
Sampled: 09/30/19 09:48
Prepared: 10/03/19 15:25
Analyzed: 10/15/19 21:22
Solids: 74.18
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100674
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.13	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-039SC-B-11.8-13.7-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-04RE1
File ID: 9J15035_TCDirect.txt-025
Sampled: 09/30/19 10:39
Prepared: 10/03/19 15:25
Analyzed: 10/15/19 21:33
Solids: 74.95
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100674
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.23	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-039SC-B-3.8-5.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-05RE1
File ID: 9J15035_TCDirect.txt-028
Sampled: 09/30/19 09:15
Prepared: 10/03/19 15:25
Analyzed: 10/15/19 22:06
Solids: 83.50
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100674
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.020	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-039SC-B-5.8-7.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-06RE1
File ID: 9J15035_TCDirect.txt-029
Sampled: 09/30/19 09:16
Prepared: 10/03/19 15:25
Analyzed: 10/15/19 22:16
Solids: 86.72
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100674
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.020	1	U	SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-039SC-B-7.8-9.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-07RE1
File ID: 9J15035_TCDirect.txt-030
Sampled: 09/30/19 09:17
Prepared: 10/03/19 15:25
Analyzed: 10/15/19 22:27
Solids: 72.59
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100674
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.070	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-039SC-B-9.8-11.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-08RE1
File ID: 9J15035_TCDirect.txt-031
Sampled: 09/30/19 09:18
Prepared: 10/03/19 15:25
Analyzed: 10/15/19 22:38
Solids: 77.51
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100674
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.19	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-040SC-A-09-10-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-09RE1
File ID: 9J15035_TCDirect.txt-032
Sampled: 09/30/19 13:44
Prepared: 10/03/19 15:25
Analyzed: 10/15/19 22:49
Solids: 83.92
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100674
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.032	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-040SC-A-10-11.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-10
File ID: 9J14031.txt-023
Sampled: 09/30/19 13:59
Prepared: 10/03/19 15:25
Analyzed: 10/14/19 15:40
Solids: 76.30
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100676
Sequence: 9J14031
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.038	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-040SC-B-5.3-7.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-11
File ID: 9J14031.txt-024
Sampled: 09/30/19 13:45
Prepared: 10/03/19 15:25
Analyzed: 10/14/19 15:51
Solids: 86.95
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100676
Sequence: 9J14031
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.022	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-040SC-B-7.3-9.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-12RE1
File ID: 9J15035_TCDirect.txt-033
Sampled: 09/30/19 13:46
Prepared: 10/03/19 15:25
Analyzed: 10/15/19 23:00
Solids: 86.97
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100674
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.021	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-040SC-B-9.3-11.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-13
File ID: 9J14031.txt-025
Sampled: 09/30/19 14:02
Prepared: 10/03/19 15:25
Analyzed: 10/14/19 16:02
Solids: 79.30
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100676
Sequence: 9J14031
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.095	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-1040SC-B-5.3-7.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-14
File ID: 9J14031.txt-028
Sampled: 09/30/19 13:45
Prepared: 10/03/19 15:25
Analyzed: 10/14/19 16:34
Solids: 87.03
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100676
Sequence: 9J14031
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.023	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-042SC-A-12-13-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-15
File ID: 9J14031.txt-029
Sampled: 09/30/19 11:22
Prepared: 10/03/19 15:25
Analyzed: 10/14/19 16:45
Solids: 82.22
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100676
Sequence: 9J14031
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.022	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-042SC-A-13-13.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-16
File ID: 9J14031.txt-032
Sampled: 09/30/19 12:42
Prepared: 10/03/19 15:25
Analyzed: 10/14/19 17:17
Solids: 75.12
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100676
Sequence: 9J14031
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.075	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-042SC-B-11.9-13.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-17
File ID: 9J14031.txt-033
Sampled: 09/30/19 12:29
Prepared: 10/03/19 15:25
Analyzed: 10/14/19 17:28
Solids: 79.77
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100676
Sequence: 9J14031
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.080	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-042SC-B-3.9-5.9-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-18
File ID: 9J14031.txt-034
Sampled: 09/30/19 12:05
Prepared: 10/03/19 15:25
Analyzed: 10/14/19 17:39
Solids: 91.98
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100676
Sequence: 9J14031
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.020	1	U	SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-042SC-B-5.9-7.9-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-19
File ID: 9J14031.txt-035
Sampled: 09/30/19 12:06
Prepared: 10/03/19 15:25
Analyzed: 10/14/19 17:50
Solids: 85.67
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100676
Sequence: 9J14031
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.043	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-042SC-B-7.9-9.9-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-20
File ID: 9J14031.txt-036
Sampled: 09/30/19 12:06
Prepared: 10/03/19 15:25
Analyzed: 10/14/19 18:00
Solids: 82.74
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100676
Sequence: 9J14031
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.13	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-042SC-B-9.9-11.9-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-21RE1
File ID: 9J15035_TCDirect.txt-036
Sampled: 09/30/19 12:07
Prepared: 10/04/19 12:01
Analyzed: 10/15/19 23:32
Solids: 87.57
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100677
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.026	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-044SC-A-11-12-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-22RE1
File ID: 9J15035_TCDirect.txt-041
Sampled: 09/30/19 15:05
Prepared: 10/04/19 12:01
Analyzed: 10/16/19 00:26
Solids: 77.98
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100677
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.051	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-044SC-A-12-12.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-23RE1
File ID: 9J15035_TCDirect.txt-042
Sampled: 09/30/19 15:05
Prepared: 10/04/19 12:01
Analyzed: 10/16/19 00:37
Solids: 76.30
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100677
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.053	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-044SC-B-11.1-12.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-24RE1
File ID: 9J15035_TCDirect.txt-043
Sampled: 09/30/19 15:15
Prepared: 10/04/19 12:01
Analyzed: 10/16/19 00:48
Solids: 76.85
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100677
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.062	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-044SC-B-7.1-9.1-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-25RE1
File ID: 9J15035_TCDirect.txt-044
Sampled: 09/30/19 15:06
Prepared: 10/04/19 12:01
Analyzed: 10/16/19 00:59
Solids: 83.51
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100677
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.023	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-044SC-B-9.1-11.1-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-26RE1
File ID: 9J15035_TCDirect.txt-045
Sampled: 09/30/19 15:07
Prepared: 10/04/19 12:01
Analyzed: 10/16/19 01:10
Solids: 88.61
Preparation: PSEP-5310B TOC
Initial/Final: 5 N/A / 5 N/A
Batch: 9100677
Sequence: 9J15035
Calibration: A9J0704
Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.027	1		SM 5310 B MOD

PREPARATION BATCH SUMMARY

SM 5310 B MOD

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cc
Batch: 9100674 Batch Matrix: Sediment Preparation: PSEP-5310B TOC

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9100674-BLK2	J15035_TCDirect.txt-02	10/03/19 15:25	
LCS	9100674-BS2	J15035_TCDirect.txt-02	10/03/19 15:25	
PDI-040SC-B-7.3-9.3-190930 (Dup)	9100674-DUP3	J15035_TCDirect.txt-03	10/03/19 15:25	
PDI-040SC-B-7.3-9.3-190930 (Dup)	9100674-DUP4	J15035_TCDirect.txt-03	10/03/19 15:25	
PDI-039SC-A-12-13-190930	A9J0058-01RE1	J15035_TCDirect.txt-02	10/03/19 15:25	
PDI-039SC-A-13-13.7-190930	A9J0058-02RE1	J15035_TCDirect.txt-02	10/03/19 15:25	
PDI-1039SC-A-12-13-190930	A9J0058-03RE1	J15035_TCDirect.txt-02	10/03/19 15:25	
PDI-039SC-B-11.8-13.7-190930	A9J0058-04RE1	J15035_TCDirect.txt-02	10/03/19 15:25	
PDI-039SC-B-3.8-5.8-190930	A9J0058-05RE1	J15035_TCDirect.txt-02	10/03/19 15:25	
PDI-039SC-B-5.8-7.8-190930	A9J0058-06RE1	J15035_TCDirect.txt-02	10/03/19 15:25	
PDI-039SC-B-7.8-9.8-190930	A9J0058-07RE1	J15035_TCDirect.txt-03	10/03/19 15:25	
PDI-039SC-B-9.8-11.8-190930	A9J0058-08RE1	J15035_TCDirect.txt-03	10/03/19 15:25	
PDI-040SC-A-09-10-190930	A9J0058-09RE1	J15035_TCDirect.txt-03	10/03/19 15:25	
PDI-040SC-B-7.3-9.3-190930	A9J0058-12RE1	J15035_TCDirect.txt-03	10/03/19 15:25	

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.

PREPARATION BATCH SUMMARY

SM 5310 B MOD

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cc
Batch: 9100676 Batch Matrix: Sediment Preparation: PSEP-5310B TOC

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9100676-BLK1	9J14031.txt-021	10/03/19 15:25	
LCS	9100676-BS1	9J14031.txt-022	10/03/19 15:25	
PDI-042SC-A-12-13-190930 (Dup)	9100676-DUP1	9J14031.txt-030	10/03/19 15:25	
PDI-042SC-A-12-13-190930 (Dup)	9100676-DUP2	9J14031.txt-031	10/03/19 15:25	
PDI-040SC-A-10-11.3-190930	A9J0058-10	9J14031.txt-023	10/03/19 15:25	
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	9J14031.txt-024	10/03/19 15:25	
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	9J14031.txt-025	10/03/19 15:25	
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	9J14031.txt-028	10/03/19 15:25	
PDI-042SC-A-12-13-190930	A9J0058-15	9J14031.txt-029	10/03/19 15:25	
PDI-042SC-A-13-13.8-190930	A9J0058-16	9J14031.txt-032	10/03/19 15:25	
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	9J14031.txt-033	10/03/19 15:25	
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	9J14031.txt-034	10/03/19 15:25	
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	9J14031.txt-035	10/03/19 15:25	
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	9J14031.txt-036	10/03/19 15:25	

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.

PREPARATION BATCH SUMMARY

SM 5310 B MOD

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Batch: 9100677 Batch Matrix: Sediment Preparation: PSEP-5310B TOC

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	9100677-BLK1	9J14031.txt-039	10/04/19 12:01	
LCS	9100677-BS1	9J14031.txt-040	10/04/19 12:01	
PDI-042SC-B-9.9-11.9-190930 (Dup	9100677-DUP3	J15035_TCDirect.txt-03	10/04/19 12:01	
PDI-042SC-B-9.9-11.9-190930 (Dup	9100677-DUP4	J15035_TCDirect.txt-04	10/04/19 12:01	
PDI-042SC-B-9.9-11.9-190930	A9J0058-21RE1	J15035_TCDirect.txt-03	10/04/19 12:01	
PDI-044SC-A-11-12-190930	A9J0058-22RE1	J15035_TCDirect.txt-04	10/04/19 12:01	
PDI-044SC-A-12-12.8-190930	A9J0058-23RE1	J15035_TCDirect.txt-04	10/04/19 12:01	
PDI-044SC-B-11.1-12.8-190930	A9J0058-24RE1	J15035_TCDirect.txt-04	10/04/19 12:01	
PDI-044SC-B-7.1-9.1-190930	A9J0058-25RE1	J15035_TCDirect.txt-04	10/04/19 12:01	
PDI-044SC-B-9.1-11.1-190930	A9J0058-26RE1	J15035_TCDirect.txt-04	10/04/19 12:01	

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
SM 5310 B MOD

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Matrix:	Sediment	Laboratory ID:	9100674-BLK2	File ID:	9J15035_TCDirect.txt-020
Prepared:	10/03/19 15:25	Preparation:	PSEP-5310B TOC	Initial/Final:	5 N/A / 5 N/A
Analyzed:	10/15/19 20:39	Instrument:	TOC6		
Batch:	9100674	Sequence:	9J15035	Calibration:	A9J0704

CAS NO.	COMPOUND	CONC. (% by Weight)	Q
TOC	Total Organic Carbon	0.020	U

METHOD BLANK DATA SHEET
SM 5310 B MOD

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Matrix:	Sediment	Laboratory ID:	9100676-BLK1	File ID:	9J14031.txt-021
Prepared:	10/03/19 15:25	Preparation:	PSEP-5310B TOC	Initial/Final:	5 N/A / 5 N/A
Analyzed:	10/14/19 15:19	Instrument:	TOC6		
Batch:	9100676	Sequence:	9J14031	Calibration:	A9J0704

CAS NO.	COMPOUND	CONC. (% by Weight)	Q
TOC	Total Organic Carbon	0.020	U

METHOD BLANK DATA SHEET
SM 5310 B MOD

Laboratory:	Apex Laboratories			SDG:	A9J0058
Client:	Anchor QEA, LLC			Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Matrix:	Sediment	Laboratory ID:	9100677-BLK1	File ID:	9J14031.txt-039
Prepared:	10/04/19 12:01	Preparation:	PSEP-5310B TOC	Initial/Final:	5 N/A / 5 N/A
Analyzed:	10/14/19 18:33	Instrument:	TOC6		
Batch:	9100677	Sequence:	9J14031	Calibration:	A9J0704

CAS NO.	COMPOUND	CONC. (% by Weight)	Q
TOC	Total Organic Carbon	0.020	U

LCS / LCS DUPLICATE RECOVERY

SM 5310 B MOD

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100674	Laboratory ID:	9100674-BS2
Preparation:	PSEP-5310B TOC	Initial/Final:	5 N/A / 5 N/A

COMPOUND	SPIKE ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS % REC. (*=Out)	QC LIMITS REC.
Total Organic Carbon	10000	10000	100	90 - 110

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 5310 B MOD

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100676	Laboratory ID:	9100676-BS1
Preparation:	PSEP-5310B TOC	Initial/Final:	5 N/A / 5 N/A

COMPOUND	SPIKE ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS % REC. (*=Out)	QC LIMITS REC.
Total Organic Carbon	10000	10000	100	90 - 110

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 5310 B MOD

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Matrix:	Sediment		
Batch:	9100677	Laboratory ID:	9100677-BS1
Preparation:	PSEP-5310B TOC	Initial/Final:	5 N/A / 5 N/A

COMPOUND	SPIKE ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS % REC. (*=Out)	QC LIMITS REC.
Total Organic Carbon	10000	9900	99	90 - 110

* = Values outside of QC limits

PDI-040SC-B-7.3-9.3-190930

DUPLICATES

SM 5310 B MOD

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9100674
Preparation: PSEP-5310B TOC
Source Sample Name: PDI-040SC-B-7.3-9.3-190930

SDG: A9J0058
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP
Laboratory ID: 9100674-DUP3
Lab Source ID: A9J0058-12RE1
Initial/Final: 5 N/A / 5 N/A
% Solids: 86.97

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Organic Carbon	20	0.021		0.023		9		SM 5310 B MOD

* Values outside of QC limits

PDI-040SC-B-7.3-9.3-190930

DUPLICATES

SM 5310 B MOD

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9100674
Preparation: PSEP-5310B TOC
Source Sample Name: PDI-040SC-B-7.3-9.3-190930

SDG: A9J0058
Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP T
Laboratory ID: 9100674-DUP4
Lab Source ID: A9J0058-12RE1
Initial/Final: 5 N/A / 5 N/A
% Solids: 86.97

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Organic Carbon	20	0.021		0.026		18		SM 5310 B MOD

* Values outside of QC limits

PDI-042SC-A-12-13-190930

DUPLICATES

SM 5310 B MOD

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9100676
Preparation: PSEP-5310B TOC
Source Sample Name: PDI-042SC-A-12-13-190930

SDG: A9J0058
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP
Laboratory ID: 9100676-DUP1
Lab Source ID: A9J0058-15
Initial/Final: 5 N/A / 5 N/A
% Solids: 82.22

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Organic Carbon	20	0.022		0.027		19		SM 5310 B MOD

* Values outside of QC limits

PDI-042SC-A-12-13-190930

DUPLICATES

SM 5310 B MOD

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9100676
Preparation: PSEP-5310B TOC
Source Sample Name: PDI-042SC-A-12-13-190930

SDG: A9J0058
Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP
Laboratory ID: 9100676-DUP2
Lab Source ID: A9J0058-15
Initial/Final: 5 N/A / 5 N/A
% Solids: 82.22

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Organic Carbon	20	0.022		0.025		11		SM 5310 B MOD

* Values outside of QC limits

PDI-042SC-B-9.9-11.9-190930

DUPLICATES

SM 5310 B MOD

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9100677
Preparation: PSEP-5310B TOC
Source Sample Name: PDI-042SC-B-9.9-11.9-190930

SDG: A9J0058
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP
Laboratory ID: 9100677-DUP3
Lab Source ID: A9J0058-21RE1
Initial/Final: 5 N/A / 5 N/A
% Solids: 87.57

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Organic Carbon	20	0.026		0.025		2		SM 5310 B MOD

* Values outside of QC limits

PDI-042SC-B-9.9-11.9-190930

DUPLICATES

SM 5310 B MOD

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9100677
Preparation: PSEP-5310B TOC
Source Sample Name: PDI-042SC-B-9.9-11.9-190930

SDG: A9J0058
Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP
Laboratory ID: 9100677-DUP4
Lab Source ID: A9J0058-21RE1
Initial/Final: 5 N/A / 5 N/A
% Solids: 87.57

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Organic Carbon	20	0.026		0.031		18		SM 5310 B MOD

* Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY
SM 5310 B MOD

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J07031	Instrument:	TOC6
Matrix:	Sediment	Calibration:	A9J0704

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	9J07031-CAL2		10/07/19 10:20
Cal Standard	9J07031-CAL3		10/07/19 10:31
Cal Standard	9J07031-CAL4		10/07/19 10:41
Cal Standard	9J07031-CAL5		10/07/19 10:52
Cal Standard	9J07031-CAL6		10/07/19 11:03
Cal Standard	9J07031-CAL7		10/07/19 11:14
Cal Standard	9J07031-CAL8		10/07/19 11:24
Cal Standard	9J07031-CAL9		10/07/19 11:35
Initial Cal Check	9J07031-ICV1		10/07/19 11:46
Initial Cal Blank	9J07031-ICB1		10/07/19 11:57

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

SM 5310 B MOD

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J14031	Instrument:	TOC6
Matrix:	Sediment	Calibration:	A9J0704

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	9J14031-CCV1	9J14031.txt-002	10/14/19 11:53
Calibration Blank	9J14031-CCB1	9J14031.txt-003	10/14/19 12:04
Calibration Check	9J14031-CCV2	9J14031.txt-014	10/14/19 14:03
Calibration Blank	9J14031-CCB2	9J14031.txt-015	10/14/19 14:14
Blank	9100676-BLK1	9J14031.txt-021	10/14/19 15:19
LCS	9100676-BS1	9J14031.txt-022	10/14/19 15:29
PDI-040SC-A-10-11.3-190930	A9J0058-10	9J14031.txt-023	10/14/19 15:40
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	9J14031.txt-024	10/14/19 15:51
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	9J14031.txt-025	10/14/19 16:02
Calibration Check	9J14031-CCV3	9J14031.txt-026	10/14/19 16:12
Calibration Blank	9J14031-CCB3	9J14031.txt-027	10/14/19 16:23
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	9J14031.txt-028	10/14/19 16:34
PDI-042SC-A-12-13-190930	A9J0058-15	9J14031.txt-029	10/14/19 16:45
PDI-042SC-A-12-13-190930 (Dup)	9100676-DUP1	9J14031.txt-030	10/14/19 16:56
PDI-042SC-A-12-13-190930 (Dup)	9100676-DUP2	9J14031.txt-031	10/14/19 17:06
PDI-042SC-A-13-13.8-190930	A9J0058-16	9J14031.txt-032	10/14/19 17:17
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	9J14031.txt-033	10/14/19 17:28
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	9J14031.txt-034	10/14/19 17:39
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	9J14031.txt-035	10/14/19 17:50
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	9J14031.txt-036	10/14/19 18:00
Calibration Check	9J14031-CCV4	9J14031.txt-037	10/14/19 18:11
Calibration Blank	9J14031-CCB4	9J14031.txt-038	10/14/19 18:22
Blank	9100677-BLK1	9J14031.txt-039	10/14/19 18:33
LCS	9100677-BS1	9J14031.txt-040	10/14/19 18:43
Calibration Check	9J14031-CCV5	9J14031.txt-049	10/14/19 20:22
Calibration Blank	9J14031-CCB5	9J14031.txt-050	10/14/19 20:32

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

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B MOD

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C
Sequence:	9J15035	Instrument:	TOC6
Matrix:	Sediment	Calibration:	A9J0704

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	9J15035-CCV1	9J15035_TCDirect.txt-002	10/15/19 17:25
Calibration Blank	9J15035-CCB1	9J15035_TCDirect.txt-003	10/15/19 17:36
Calibration Check	9J15035-CCV2	9J15035_TCDirect.txt-014	10/15/19 19:34
Calibration Blank	9J15035-CCB2	9J15035_TCDirect.txt-015	10/15/19 19:45
Blank	9100674-BLK2	9J15035_TCDirect.txt-020	10/15/19 20:39
LCS	9100674-BS2	9J15035_TCDirect.txt-021	10/15/19 20:50
PDI-039SC-A-12-13-190930	A9J0058-01RE1	9J15035_TCDirect.txt-022	10/15/19 21:01
PDI-039SC-A-13-13.7-190930	A9J0058-02RE1	9J15035_TCDirect.txt-023	10/15/19 21:12
PDI-1039SC-A-12-13-190930	A9J0058-03RE1	9J15035_TCDirect.txt-024	10/15/19 21:22
PDI-039SC-B-11.8-13.7-190930	A9J0058-04RE1	9J15035_TCDirect.txt-025	10/15/19 21:33
Calibration Check	9J15035-CCV3	9J15035_TCDirect.txt-026	10/15/19 21:44
Calibration Blank	9J15035-CCB3	9J15035_TCDirect.txt-027	10/15/19 21:55
PDI-039SC-B-3.8-5.8-190930	A9J0058-05RE1	9J15035_TCDirect.txt-028	10/15/19 22:06
PDI-039SC-B-5.8-7.8-190930	A9J0058-06RE1	9J15035_TCDirect.txt-029	10/15/19 22:16
PDI-039SC-B-7.8-9.8-190930	A9J0058-07RE1	9J15035_TCDirect.txt-030	10/15/19 22:27
PDI-039SC-B-9.8-11.8-190930	A9J0058-08RE1	9J15035_TCDirect.txt-031	10/15/19 22:38
PDI-040SC-A-09-10-190930	A9J0058-09RE1	9J15035_TCDirect.txt-032	10/15/19 22:49
PDI-040SC-B-7.3-9.3-190930	A9J0058-12RE1	9J15035_TCDirect.txt-033	10/15/19 23:00
PDI-040SC-B-7.3-9.3-190930 (Dup)	9100674-DUP3	9J15035_TCDirect.txt-034	10/15/19 23:21
PDI-040SC-B-7.3-9.3-190930 (Dup)	9100674-DUP4	9J15035_TCDirect.txt-035	10/15/19 23:32
PDI-042SC-B-9.9-11.9-190930	A9J0058-21RE1	9J15035_TCDirect.txt-036	10/15/19 23:32
PDI-042SC-B-9.9-11.9-190930 (Dup	9100677-DUP3	9J15035_TCDirect.txt-037	10/15/19 23:43
Calibration Check	9J15035-CCV4	9J15035_TCDirect.txt-038	10/15/19 23:53
Calibration Blank	9J15035-CCB4	9J15035_TCDirect.txt-039	10/16/19 00:04
PDI-042SC-B-9.9-11.9-190930 (Dup	9100677-DUP4	9J15035_TCDirect.txt-040	10/16/19 00:15
PDI-044SC-A-11-12-190930	A9J0058-22RE1	9J15035_TCDirect.txt-041	10/16/19 00:26
PDI-044SC-A-12-12.8-190930	A9J0058-23RE1	9J15035_TCDirect.txt-042	10/16/19 00:37
PDI-044SC-B-11.1-12.8-190930	A9J0058-24RE1	9J15035_TCDirect.txt-043	10/16/19 00:48
PDI-044SC-B-7.1-9.1-190930	A9J0058-25RE1	9J15035_TCDirect.txt-044	10/16/19 00:59
PDI-044SC-B-9.1-11.1-190930	A9J0058-26RE1	9J15035_TCDirect.txt-045	10/16/19 01:10
Calibration Check	9J15035-CCV5	9J15035_TCDirect.txt-046	10/16/19 01:20
Calibration Blank	9J15035-CCB5	9J15035_TCDirect.txt-047	10/16/19 01:31

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

INITIAL CALIBRATION DATA (Summary)

SM 5310 B MOD

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing

Calibration: A9J0704 Date: 10/07/19 09:43 Instrument: TOC6

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Total Organic Carbon	112.0101	Lin	4.125361			0.99991			

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

SM 5310 B MOD

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
Calibration:	A9J0704	Instrument:	TOC6
		Calibration Date:	10/07/19 09:43

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	mg/kg	RF	mg/kg	RF	mg/kg	RF	mg/kg	RF	mg/kg	RF	mg/kg	RF
Total Organic Carbon	200	121.3214	500	114.9583	1000	111.7859	2500	110.6194	5000	112.4182	12500	106.0423

INITIAL CALIBRATION DATA (Continued)

SM 5310 B MOD

Laboratory:	Apex Laboratories	SDG:	A9J0058
Client:	Anchor QEA, LLC	Project:	Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Te
Calibration:	A9J0704	Instrument:	TOC6
Matrix:		Calibration Date:	10/07/19 09:43

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	mg/kg	RF	mg/kg	RF	mg/kg	RF	mg/kg	RF	mg/kg	RF	mg/kg	RF
Total Organic Carbon	25000	110.7676	50000	108.168								

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B MOD

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Instrument ID: TOC6
Calibration: A9J0704
Control Limt: +/- 10.00%
Sequence: 9J07031

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9J07031-ICV1	Total Organic Carbon	10000	10000	102	mg/kg	SM 5310 B MOD

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B MOD

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Instrument ID: TOC6
Calibration: A9J0704
Control Limt: +/- 10.00%
Sequence: 9J14031

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9J14031-CCV1	Total Organic Carbon	10000	9600	96	mg/kg	SM 5310 B MOD
9J14031-CCV2	Total Organic Carbon	10000	9700	97	mg/kg	SM 5310 B MOD
9J14031-CCV3	Total Organic Carbon	10000	9700	97	mg/kg	SM 5310 B MOD
9J14031-CCV4	Total Organic Carbon	10000	9800	98	mg/kg	SM 5310 B MOD
9J14031-CCV5	Total Organic Carbon	10000	9700	97	mg/kg	SM 5310 B MOD

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B MOD

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co
Instrument ID: TOC6
Calibration: A9J0704
Control Limt: +/- 10.00%
Sequence: 9J15035

Lab Sample ID	Analyte	True	Found	%R	Units	Method
9J15035-CCV1	Total Organic Carbon	10000	9900	99	mg/kg	SM 5310 B MOD
9J15035-CCV2	Total Organic Carbon	10000	9900	99	mg/kg	SM 5310 B MOD
9J15035-CCV3	Total Organic Carbon	10000	9900	99	mg/kg	SM 5310 B MOD
9J15035-CCV4	Total Organic Carbon	10000	10000	101	mg/kg	SM 5310 B MOD
9J15035-CCV5	Total Organic Carbon	10000	10000	100	mg/kg	SM 5310 B MOD

* Values outside of QC limits

INSTRUMENT BLANKS
SM 5310 B MOD

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Instrument ID: TOC6
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Sequence: 9J07031
Calibration: A9J0704

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9J07031-ICB1	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD

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

INSTRUMENT BLANKS
SM 5310 B MOD

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Instrument ID: TOC6
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Sequence: 9J14031
Calibration: A9J0704

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9J14031-CCB1	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
9J14031-CCB2	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
9J14031-CCB3	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
9J14031-CCB4	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
9J14031-CCB5	Total Organic Carbon	1100	200 (Inst)	mg/kg	*	SM 5310 B MOD

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

INSTRUMENT BLANKS
SM 5310 B MOD

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Instrument ID: TOC6
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Sequence: 9J15035
Calibration: A9J0704

Lab Sample ID	Analyte	Found	RL	Units	C	Method
9J15035-CCB1	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
9J15035-CCB2	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
9J15035-CCB3	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
9J15035-CCB4	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
9J15035-CCB5	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD

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

HOLDING TIME SUMMARY

SM 5310 B MOD

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

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-039SC-A-12-13-190930	09/30/19 09:09	10/02/19 11:23	10/03/19 15:25	3.26	28.00	10/15/19 21:01	15.49	28.00	
PDI-039SC-A-13-13.7-190930	09/30/19 09:48	10/02/19 11:23	10/03/19 15:25	3.23	28.00	10/15/19 21:12	15.48	28.00	
PDI-1039SC-A-12-13-190930	09/30/19 09:48	10/02/19 11:23	10/03/19 15:25	3.23	28.00	10/15/19 21:22	15.48	28.00	
PDI-039SC-B-11.8-13.7-190930	09/30/19 10:39	10/02/19 11:23	10/03/19 15:25	3.20	28.00	10/15/19 21:33	15.45	28.00	
PDI-039SC-B-3.8-5.8-190930	09/30/19 09:15	10/02/19 11:23	10/03/19 15:25	3.26	28.00	10/15/19 22:06	15.54	28.00	
PDI-039SC-B-5.8-7.8-190930	09/30/19 09:16	10/02/19 11:23	10/03/19 15:25	3.26	28.00	10/15/19 22:16	15.54	28.00	
PDI-039SC-B-7.8-9.8-190930	09/30/19 09:17	10/02/19 11:23	10/03/19 15:25	3.26	28.00	10/15/19 22:27	15.55	28.00	
PDI-039SC-B-9.8-11.8-190930	09/30/19 09:18	10/02/19 11:23	10/03/19 15:25	3.25	28.00	10/15/19 22:38	15.56	28.00	
PDI-040SC-A-09-10-190930	09/30/19 13:44	10/02/19 11:23	10/03/19 15:25	3.07	28.00	10/15/19 22:49	15.38	28.00	
PDI-040SC-A-10-11.3-190930	09/30/19 13:59	10/02/19 11:23	10/03/19 15:25	3.06	28.00	10/14/19 15:40	14.07	28.00	
PDI-040SC-B-5.3-7.3-190930	09/30/19 13:45	10/02/19 11:23	10/03/19 15:25	3.07	28.00	10/14/19 15:51	14.09	28.00	
PDI-040SC-B-7.3-9.3-190930	09/30/19 13:46	10/02/19 11:23	10/03/19 15:25	3.07	28.00	10/15/19 23:00	15.38	28.00	
PDI-040SC-B-9.3-11.3-190930	09/30/19 14:02	10/02/19 11:23	10/03/19 15:25	3.06	28.00	10/14/19 16:02	14.08	28.00	
PDI-1040SC-B-5.3-7.3-190930	09/30/19 13:45	10/02/19 11:23	10/03/19 15:25	3.07	28.00	10/14/19 16:34	14.12	28.00	
PDI-042SC-A-12-13-190930	09/30/19 11:22	10/02/19 11:23	10/03/19 15:25	3.17	28.00	10/14/19 16:45	14.22	28.00	
PDI-042SC-A-13-13.8-190930	09/30/19 12:42	10/02/19 11:23	10/03/19 15:25	3.11	28.00	10/14/19 17:17	14.19	28.00	
PDI-042SC-B-11.9-13.8-190930	09/30/19 12:29	10/02/19 11:23	10/03/19 15:25	3.12	28.00	10/14/19 17:28	14.21	28.00	
PDI-042SC-B-3.9-5.9-190930	09/30/19 12:05	10/02/19 11:23	10/03/19 15:25	3.14	28.00	10/14/19 17:39	14.23	28.00	
PDI-042SC-B-5.9-7.9-190930	09/30/19 12:06	10/02/19 11:23	10/03/19 15:25	3.14	28.00	10/14/19 17:50	14.24	28.00	
PDI-042SC-B-7.9-9.9-190930	09/30/19 12:06	10/02/19 11:23	10/03/19 15:25	3.14	28.00	10/14/19 18:00	14.25	28.00	
PDI-042SC-B-9.9-11.9-190930	09/30/19 12:07	10/02/19 11:23	10/04/19 12:01	4.00	28.00	10/15/19 23:32	15.48	28.00	
PDI-044SC-A-11-12-190930	09/30/19 15:05	10/02/19 11:23	10/04/19 12:01	3.87	28.00	10/16/19 00:26	15.39	28.00	
PDI-044SC-A-12-12.8-190930	09/30/19 15:05	10/02/19 11:23	10/04/19 12:01	3.87	28.00	10/16/19 00:37	15.40	28.00	
PDI-044SC-B-11.1-12.8-190930	09/30/19 15:15	10/02/19 11:23	10/04/19 12:01	3.87	28.00	10/16/19 00:48	15.40	28.00	

HOLDING TIME SUMMARY

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: A9J0058

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

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-044SC-B-7.1-9.1-190930	09/30/19 15:06	10/02/19 11:23	10/04/19 12:01	3.87	28.00	10/16/19 00:59	15.41	28.00	
PDI-044SC-B-9.1-11.1-190930	09/30/19 15:07	10/02/19 11:23	10/04/19 12:01	3.87	28.00	10/16/19 01:10	15.42	28.00	

Apex Laboratories

SDG: A9J0058

CLASS: WET

METHOD: SM 2540 G

ANALYSES DATA PACKAGE COVER PAGE

SM 2540 G

Laboratory: Apex Laboratories
SDG: A9J0058

Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

Client Sample Id:	Lab Sample Id:	Matrix
PDI-039SC-A-12-13-190930	A9J0058-01	Sediment
PDI-039SC-A-13-13.7-190930	A9J0058-02	Sediment
PDI-1039SC-A-12-13-190930	A9J0058-03	Sediment
PDI-039SC-B-11.8-13.7-190930	A9J0058-04	Sediment
PDI-039SC-B-3.8-5.8-190930	A9J0058-05	Sediment
PDI-039SC-B-5.8-7.8-190930	A9J0058-06	Sediment
PDI-039SC-B-7.8-9.8-190930	A9J0058-07	Sediment
PDI-039SC-B-9.8-11.8-190930	A9J0058-08	Sediment
PDI-040SC-A-09-10-190930	A9J0058-09	Sediment
PDI-040SC-A-10-11.3-190930	A9J0058-10	Sediment
PDI-040SC-B-5.3-7.3-190930	A9J0058-11	Sediment
PDI-040SC-B-7.3-9.3-190930	A9J0058-12	Sediment
PDI-040SC-B-9.3-11.3-190930	A9J0058-13	Sediment
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14	Sediment
PDI-042SC-A-12-13-190930	A9J0058-15	Sediment
PDI-042SC-A-13-13.8-190930	A9J0058-16	Sediment
PDI-042SC-B-11.9-13.8-190930	A9J0058-17	Sediment
PDI-042SC-B-3.9-5.9-190930	A9J0058-18	Sediment
PDI-042SC-B-5.9-7.9-190930	A9J0058-19	Sediment
PDI-042SC-B-7.9-9.9-190930	A9J0058-20	Sediment
PDI-042SC-B-9.9-11.9-190930	A9J0058-21	Sediment
PDI-044SC-A-11-12-190930	A9J0058-22	Sediment
PDI-044SC-A-12-12.8-190930	A9J0058-23	Sediment
PDI-044SC-B-11.1-12.8-190930	A9J0058-24	Sediment
PDI-044SC-B-7.1-9.1-190930	A9J0058-25	Sediment
PDI-044SC-B-9.1-11.1-190930	A9J0058-26	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:	11/19/2019 4:10PM	Title:	Technical Manager

METHOD DETECTION AND REPORTING LIMITS

SM 2540 G

Laboratory: Apex Laboratories **SDG:** A9J0058

Client: Anchor QEA, LLC **Project:** Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP

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-039SC-A-12-13-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-01
Sampled: 09/30/19 09:09
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 74.07
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	74.1	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-039SC-A-13-13.7-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-02
Sampled: 09/30/19 09:48
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 73.21
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	73.2	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-1039SC-A-12-13-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-03
Sampled: 09/30/19 09:48
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 74.18
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	74.2	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-039SC-B-11.8-13.7-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-04
Sampled: 09/30/19 10:39
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 74.95
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	74.9	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-039SC-B-3.8-5.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-05
Sampled: 09/30/19 09:15
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 83.50
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	83.5	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-039SC-B-5.8-7.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-06
Sampled: 09/30/19 09:16
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 86.72
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	86.7	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-039SC-B-7.8-9.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-07
Sampled: 09/30/19 09:17
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 72.59
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	72.6	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-039SC-B-9.8-11.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-08
Sampled: 09/30/19 09:18
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 77.51
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	77.5	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-040SC-A-09-10-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-09
Sampled: 09/30/19 13:44
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 83.92
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	83.9	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-040SC-A-10-11.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-10
Sampled: 09/30/19 13:59
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 76.30
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	76.3	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-040SC-B-5.3-7.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-11
Sampled: 09/30/19 13:45
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 86.95
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	86.9	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-040SC-B-7.3-9.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-12
Sampled: 09/30/19 13:46
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 86.97
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	87.0	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-040SC-B-9.3-11.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-13
Sampled: 09/30/19 14:02
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 79.30
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	79.3	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-1040SC-B-5.3-7.3-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-14
Sampled: 09/30/19 13:45
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 87.03
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	87.0	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-042SC-A-12-13-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-15
Sampled: 09/30/19 11:22
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 82.22
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	82.2	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-042SC-A-13-13.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-16
Sampled: 09/30/19 12:42
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 75.12
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	75.1	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-042SC-B-11.9-13.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-17
Sampled: 09/30/19 12:29
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 79.77
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	79.8	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-042SC-B-3.9-5.9-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-18
Sampled: 09/30/19 12:05
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 91.98
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	92.0	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-042SC-B-5.9-7.9-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-19
Sampled: 09/30/19 12:06
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 85.67
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	85.7	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-042SC-B-7.9-9.9-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-20
Sampled: 09/30/19 12:06
Prepared: 10/02/19 17:09
Analyzed: 10/03/19 16:15
Solids: 82.74
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100574
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	82.7	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-042SC-B-9.9-11.9-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-21
Sampled: 09/30/19 12:07
Prepared: 10/02/19 17:15
Analyzed: 10/03/19 16:15
Solids: 87.57
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100575
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	87.6	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-044SC-A-11-12-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-22
Sampled: 09/30/19 15:05
Prepared: 10/02/19 17:15
Analyzed: 10/03/19 16:15
Solids: 77.98
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100575
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	78.0	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-044SC-A-12-12.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-23
Sampled: 09/30/19 15:05
Prepared: 10/02/19 17:15
Analyzed: 10/03/19 16:15
Solids: 76.30
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100575
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	76.3	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-044SC-B-11.1-12.8-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-24
Sampled: 09/30/19 15:15
Prepared: 10/02/19 17:15
Analyzed: 10/03/19 16:15
Solids: 76.85
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100575
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	76.8	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-044SC-B-7.1-9.1-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-25
Sampled: 09/30/19 15:06
Prepared: 10/02/19 17:15
Analyzed: 10/03/19 16:15
Solids: 83.51
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100575
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	83.5	1		SM 2540 G

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-044SC-B-9.1-11.1-190930

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores
Matrix: Sediment
Laboratory ID: A9J0058-26
Sampled: 09/30/19 15:07
Prepared: 10/02/19 17:15
Analyzed: 10/03/19 16:15
Solids: 88.61
Preparation: Total Solids (SM2540G/PSEP)
Initial/Final: 1 N/A / 1 N/A
Batch: 9100575
Calibration:
Instrument: Inst

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	88.6	1		SM 2540 G

PREPARATION BATCH SUMMARY

SM 2540 G

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Batch: 9100574 Batch Matrix: Sediment Preparation: Total Solids (SM2540G/PSEP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PDI-040SC-B-7.3-9.3-190930 (Dup)	9100574-DUP1		10/02/19 17:09	
PDI-042SC-A-12-13-190930 (Dup)	9100574-DUP2		10/02/19 17:09	
PDI-039SC-A-12-13-190930	A9J0058-01		10/02/19 17:09	
PDI-039SC-A-13-13.7-190930	A9J0058-02		10/02/19 17:09	
PDI-1039SC-A-12-13-190930	A9J0058-03		10/02/19 17:09	
PDI-039SC-B-11.8-13.7-190930	A9J0058-04		10/02/19 17:09	
PDI-039SC-B-3.8-5.8-190930	A9J0058-05		10/02/19 17:09	
PDI-039SC-B-5.8-7.8-190930	A9J0058-06		10/02/19 17:09	
PDI-039SC-B-7.8-9.8-190930	A9J0058-07		10/02/19 17:09	
PDI-039SC-B-9.8-11.8-190930	A9J0058-08		10/02/19 17:09	
PDI-040SC-A-09-10-190930	A9J0058-09		10/02/19 17:09	
PDI-040SC-A-10-11.3-190930	A9J0058-10		10/02/19 17:09	
PDI-040SC-B-5.3-7.3-190930	A9J0058-11		10/02/19 17:09	
PDI-040SC-B-7.3-9.3-190930	A9J0058-12		10/02/19 17:09	
PDI-040SC-B-9.3-11.3-190930	A9J0058-13		10/02/19 17:09	
PDI-1040SC-B-5.3-7.3-190930	A9J0058-14		10/02/19 17:09	
PDI-042SC-A-12-13-190930	A9J0058-15		10/02/19 17:09	
PDI-042SC-A-13-13.8-190930	A9J0058-16		10/02/19 17:09	
PDI-042SC-B-11.9-13.8-190930	A9J0058-17		10/02/19 17:09	
PDI-042SC-B-3.9-5.9-190930	A9J0058-18		10/02/19 17:09	
PDI-042SC-B-5.9-7.9-190930	A9J0058-19		10/02/19 17:09	
PDI-042SC-B-7.9-9.9-190930	A9J0058-20		10/02/19 17:09	

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.

PREPARATION BATCH SUMMARY

SM 2540 G

Laboratory: Apex Laboratories
SDG: A9J0058
Client: Anchor QEA, LLC
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cc
Batch: 9100575
Batch Matrix: Sediment
Preparation: Total Solids (SM2540G/PSEP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PDI-042SC-B-9.9-11.9-190930 (Dup	9100575-DUP1		10/02/19 17:15	
PDI-042SC-B-9.9-11.9-190930	A9J0058-21		10/02/19 17:15	
PDI-044SC-A-11-12-190930	A9J0058-22		10/02/19 17:15	
PDI-044SC-A-12-12.8-190930	A9J0058-23		10/02/19 17:15	
PDI-044SC-B-11.1-12.8-190930	A9J0058-24		10/02/19 17:15	
PDI-044SC-B-7.1-9.1-190930	A9J0058-25		10/02/19 17:15	
PDI-044SC-B-9.1-11.1-190930	A9J0058-26		10/02/19 17:15	

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

PDI-040SC-B-7.3-9.3-190930

DUPLICATES

SM 2540 G

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9100574
Preparation: Total Solids (SM2540G/PSEP)
Source Sample Name: PDI-040SC-B-7.3-9.3-190930

SDG: A9J0058
Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP
Laboratory ID: 9100574-DUP1
Lab Source ID: A9J0058-12
Initial/Final: 1 N/A / 1 N/A
% Solids: 86.97

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Solids	10	87.0		86.5		0.5		SM 2540 G

* Values outside of QC limits

PDI-042SC-A-12-13-190930

DUPLICATES

SM 2540 G

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9100574
Preparation: Total Solids (SM2540G/PSEP)
Source Sample Name: PDI-042SC-A-12-13-190930

SDG: A9J0058
Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP
Laboratory ID: 9100574-DUP2
Lab Source ID: A9J0058-15
Initial/Final: 1 N/A / 1 N/A
% Solids: 82.22

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Solids	10	82.2		81.7		0.6		SM 2540 G

* Values outside of QC limits

PDI-042SC-B-9.9-11.9-190930

DUPLICATES

SM 2540 G

Laboratory: Apex Laboratories
Client: Anchor QEA, LLC
Matrix: Sediment
Batch: 9100575
Preparation: Total Solids (SM2540G/PSEP)
Source Sample Name: PDI-042SC-B-9.9-11.9-190930

SDG: A9J0058
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP
Laboratory ID: 9100575-DUP1
Lab Source ID: A9J0058-21
Initial/Final: 1 N/A / 1 N/A
% Solids: 87.57

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Solids	10	87.6		86.5		1		SM 2540 G

* Values outside of QC limits

HOLDING TIME SUMMARY

SM 2540 G

Laboratory: Apex Laboratories SDG: A9J0058

Client: Anchor QEA, LLC Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

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-039SC-A-12-13-190930	09/30/19 09:09	10/02/19 11:23	10/02/19 17:09	2.33	180.00	10/03/19 16:15	0.96		
PDI-039SC-A-13-13.7-190930	09/30/19 09:48	10/02/19 11:23	10/02/19 17:09	2.31	180.00	10/03/19 16:15	0.96		
PDI-1039SC-A-12-13-190930	09/30/19 09:48	10/02/19 11:23	10/02/19 17:09	2.31	180.00	10/03/19 16:15	0.96		
PDI-039SC-B-11.8-13.7-190930	09/30/19 10:39	10/02/19 11:23	10/02/19 17:09	2.27	180.00	10/03/19 16:15	0.96		
PDI-039SC-B-3.8-5.8-190930	09/30/19 09:15	10/02/19 11:23	10/02/19 17:09	2.33	180.00	10/03/19 16:15	0.96		
PDI-039SC-B-5.8-7.8-190930	09/30/19 09:16	10/02/19 11:23	10/02/19 17:09	2.33	180.00	10/03/19 16:15	0.96		
PDI-039SC-B-7.8-9.8-190930	09/30/19 09:17	10/02/19 11:23	10/02/19 17:09	2.33	180.00	10/03/19 16:15	0.96		
PDI-039SC-B-9.8-11.8-190930	09/30/19 09:18	10/02/19 11:23	10/02/19 17:09	2.33	180.00	10/03/19 16:15	0.96		
PDI-040SC-A-09-10-190930	09/30/19 13:44	10/02/19 11:23	10/02/19 17:09	2.14	180.00	10/03/19 16:15	0.96		
PDI-040SC-A-10-11.3-190930	09/30/19 13:59	10/02/19 11:23	10/02/19 17:09	2.13	180.00	10/03/19 16:15	0.96		
PDI-040SC-B-5.3-7.3-190930	09/30/19 13:45	10/02/19 11:23	10/02/19 17:09	2.14	180.00	10/03/19 16:15	0.96		
PDI-040SC-B-7.3-9.3-190930	09/30/19 13:46	10/02/19 11:23	10/02/19 17:09	2.14	180.00	10/03/19 16:15	0.96		
PDI-040SC-B-9.3-11.3-190930	09/30/19 14:02	10/02/19 11:23	10/02/19 17:09	2.13	180.00	10/03/19 16:15	0.96		
PDI-1040SC-B-5.3-7.3-190930	09/30/19 13:45	10/02/19 11:23	10/02/19 17:09	2.14	180.00	10/03/19 16:15	0.96		
PDI-042SC-A-12-13-190930	09/30/19 11:22	10/02/19 11:23	10/02/19 17:09	2.24	180.00	10/03/19 16:15	0.96		
PDI-042SC-A-13-13.8-190930	09/30/19 12:42	10/02/19 11:23	10/02/19 17:09	2.19	180.00	10/03/19 16:15	0.96		
PDI-042SC-B-11.9-13.8-190930	09/30/19 12:29	10/02/19 11:23	10/02/19 17:09	2.19	180.00	10/03/19 16:15	0.96		
PDI-042SC-B-3.9-5.9-190930	09/30/19 12:05	10/02/19 11:23	10/02/19 17:09	2.21	180.00	10/03/19 16:15	0.96		
PDI-042SC-B-5.9-7.9-190930	09/30/19 12:06	10/02/19 11:23	10/02/19 17:09	2.21	180.00	10/03/19 16:15	0.96		
PDI-042SC-B-7.9-9.9-190930	09/30/19 12:06	10/02/19 11:23	10/02/19 17:09	2.21	180.00	10/03/19 16:15	0.96		
PDI-042SC-B-9.9-11.9-190930	09/30/19 12:07	10/02/19 11:23	10/02/19 17:15	2.21	180.00	10/03/19 16:15	0.96		
PDI-044SC-A-11-12-190930	09/30/19 15:05	10/02/19 11:23	10/02/19 17:15	2.09	180.00	10/03/19 16:15	0.96		
PDI-044SC-A-12-12.8-190930	09/30/19 15:05	10/02/19 11:23	10/02/19 17:15	2.09	180.00	10/03/19 16:15	0.96		
PDI-044SC-B-11.1-12.8-190930	09/30/19 15:15	10/02/19 11:23	10/02/19 17:15	2.08	180.00	10/03/19 16:15	0.96		

HOLDING TIME SUMMARY

SM 2540 G

Laboratory: Apex Laboratories

SDG: A9J0058

Client: Anchor QEA, LLC

Project: Gasco_PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

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-044SC-B-7.1-9.1-190930	09/30/19 15:06	10/02/19 11:23	10/02/19 17:15	2.09	180.00	10/03/19 16:15	0.96		
PDI-044SC-B-9.1-11.1-190930	09/30/19 15:07	10/02/19 11:23	10/02/19 17:15	2.09	180.00	10/03/19 16:15	0.96		

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

Selected Volatile Organic Compounds by EPA 8260C
Benchsheet & Analysis Sequence Data

Batch 9100546
Sequence 9J02042 (A9J0058-04,05,06,07,08,11,12,13,14)

PREPARATION BENCH SHEET

BATCH #: 9100546 (Soil)

Apex Laboratories

OCT 0 4 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*
9100546-BLK1		QC	10/02/19 10:42	7.5	5							
9100546-BS1		QC	10/02/19 10:42	5	5	A19I354		250				
9100546-BS2		QC	10/02/19 10:42	5	5	A19I278		250				
A9J0006-03	A	NWTPH-Gx	(Date Sampled)	4.42	5					SE-14-0-0.33	FP	
A9J0006-05	A	NWTPH-Gx	(Date Sampled)	4.58	5					SE-23-0-0.33	FP	
A9J0006-06	A	NWTPH-Gx	(Date Sampled)	2.87	5					SE-17-0-0.33	FP	
A9J0042-01	C	NWTPH-Gx	(Date Sampled)	6.51	5					4HF01DRUM-BOT-9.5'	FP	
A9J0042-02	C	NWTPH-Gx	(Date Sampled)	7.13	5					4HF01DRUM-SW-4'	FP	
A9J0042-03	C	8260C BTEX+Halo6	(Date Sampled)	6.53	5					4HF01DRUM-EW-8'	FP, Added for BatchQC in: 910054	
A9J0042-03	C	NWTPH-Gx	(Date Sampled)	6.53	5					4HF01DRUM-EW-8'	FP	
9100546-DUP1		QC	09/26/19 14:40	6.57	5		A9J0042-03					
A9J0042-04	C	NWTPH-Gx	(Date Sampled)	6.22	5					4HF01DRUM-NW-8'	FP	
A9J0042-05	C	8260C BTEX+Halo6	(Date Sampled)	6.61	5					4HF01DRUM-WW-8'	FP, Added for BatchQC in: 910054	
A9J0042-05	C	NWTPH-Gx	(Date Sampled)	6.61	5					4HF01DRUM-WW-8'	FP	
9100546-MS1		QC	09/26/19 14:50	6.61	5	A19I354	A9J0042-05	334			DW=74.6% @50X	
A9J0058-04	B	8260C BTEX+Halo6	(Date Sampled)	6.05	5			√		PDI-039SC-B-11.8-13.7-190930	FP, CAP TESTING/Waters	
A9J0058-05	B	8260C BTEX+Halo6	(Date Sampled)	5.94	5					PDI-039SC-B-3.8-5.8-190930	FP, CAP TESTING/Waters	
A9J0058-06	B	8260C BTEX+Halo6	(Date Sampled)	5.18	5					PDI-039SC-B-5.8-7.8-190930	FP, CAP TESTING/Waters	
A9J0058-07	B	8260C BTEX+Halo6	(Date Sampled)	6.1	5					PDI-039SC-B-7.8-9.8-190930	FP, CAP TESTING/Waters	
A9J0058-08	B	8260C BTEX+Halo6	(Date Sampled)	4.26	5					PDI-039SC-B-9.8-11.8-190930	FP, CAP TESTING/Waters	
A9J0058-11	B	8260C BTEX+Halo6	(Date Sampled)	4.91	5					PDI-040SC-B-5.3-7.3-190930	FP, CAP TESTING/Waters	
A9J0058-12	C	8260C BTEX+Halo6	(Date Sampled)	4.95	5					PDI-040SC-B-7.3-9.3-190930	FP, MS/MSD/ CAP TESTING/Wat	

Prepared By: [signature] 10/3/19 Date

Reviewed By: [signature] 10/4/19 Date

PREPARATION BENCH SHEET

Apex Laboratories

BATCH #: 9100546 (Soil)

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*
A9J0058-12	C	NWTPH-Gx	(Date Sampled)	4.95	5					PDI-040SC-B-7.3-9.3-190930	FP, Added for BatchQC in: 910054	
9100546-MS2		QC	09/30/19 13:46	4.95	5	A19I354	A9J0058-12	282			DW=87.0% @50X	
9100546-MSD2		QC	09/30/19 13:46	4.95	5	A19I354	A9J0058-12	282			DW=87.0% @50X	
A9J0058-13	B	8260C BTEX+Halo6	(Date Sampled)	5.98	5			√		PDI-040SC-B-9.3-11.3-190930	FP, CAP TESTING/Waters	
A9J0058-14	B	8260C BTEX+Halo6	(Date Sampled)	5.27	5			√		PDI-1040SC-B-5.3-7.3-190930	FP, CAP TESTING/Waters	

*pH <2 verified N/A

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
A19I278	02/17/20	Prim NWTPH-Gx Spike (500 ug/mL)
A19I354	02/24/20	8260 Cal. Std. B VOC+OXY Spike (20-40ug/ml

Surrogate(s)

Std ID	Exp. Date	Description

SOIL MS3

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
A9J0006-03	A	38.04	33.62	4.42	
A9J0006-05	A	38.56	33.98	4.58	
A9J0006-06	A	37.07	34.2	2.87	
A9J0042-01	C	39.4	32.89	6.51	
A9J0042-02	C	40.97	33.84	7.13	
A9J0042-03	C	39.45	32.92	6.53	
A9J0042-03	D DUP	39.72	33.15	6.57	
A9J0042-04	C	39.59	33.37	6.22	
A9J0042-05	C	40.12	33.51	6.61	
A9J0058-04	B	39.97	33.92	6.05	
A9J0058-05	B	39.49	33.55	5.94	
A9J0058-06	B	38.72	33.54	5.18	
A9J0058-07	B	40	33.9	6.1	
A9J0058-08	B	37.55	33.29	4.26	
A9J0058-11	B	38.67	33.76	4.91	
A9J0058-12	C	38.92	33.97	4.95	
A9J0058-13	B	39.38	33.4	5.98	
A9J0058-14	B	38.79	33.52	5.27	

10/3/19

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: 9100546

Matrix Spike

Sample Weight	Final Volume	Dilution	Dry Weight
g	mL		%
6.610	5	50	74.6
			0.746

Final Spike Level	**Spike Amount**
ug/kg	**ul**
1354.46	**334**

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

A9J0042-05

10/3/19

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: 9100546

Matrix Spike

Sample Weight	Final Volume	Dilution	Dry Weight
g	mL		%
4.950	5	50	87
			0.870

Final Spike Level	**Spike Amount**
ug/kg	**ul**
1310.46	**282**

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

A9J0058-12

10/3/19

A9J0006

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0006-01 — **SE-24-0-0.33** — Sampled: **09/27/19 13:13**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
A Sediment	40 mL VOA - 5035 (MeOH)	37.59	33.86	(5) 10 15 Other	
B Sediment	40 mL VOA - 5035 (MeOH)	37.05	34.22	(5) 10 15 Other	

Due: TAT:

6x7

A9J0006-03 — **SE-14-0-0.33** — Sampled: **09/27/19 14:02**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
A Sediment	40 mL VOA - 5035 (MeOH)	38.04	33.62	(5) 10 15 Other	
B Sediment	40 mL VOA - 5035 (MeOH)	37.35	33.28	(5) 10 15 Other	

Due: TAT:

A9J0006-05 — **SE-23-0-0.33** — Sampled: **09/27/19 10:23**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
A Sediment	40 mL VOA - 5035 (MeOH)	38.56	33.98	(5) 10 15 Other	
B Sediment	40 mL VOA - 5035 (MeOH)	38.24	33.44	(5) 10 15 Other	.19 extra label weight added

Due: TAT:

A9J0006-06 — **SE-17-0-0.33** — Sampled: **09/27/19 09:47**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
A Sediment	40 mL VOA - 5035 (MeOH)	37.07	34.20	(5) 10 15 Other	
B Sediment	40 mL VOA - 5035 (MeOH)	38.18	33.59	(5) 10 15 Other	

Due: TAT:

A9J0006-07 — **SE-15-0-0.33** — Sampled: **09/27/19 11:44**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
A Sediment	40 mL VOA - 5035 (MeOH)	38.05	33.80	(5) 10 15 Other	
B Sediment	40 mL VOA - 5035 (MeOH)	38.84	34.04	(5) 10 15 Other	

Due: TAT:

Weighed by: (8) @ 10/1/19 1335

Methanol Reagent ID: A19I219~ Balance ID: A18J327~

A9J0042

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0042-01 | **4HF01DRUM-BOT-9.5'** | Sampled: **09/26/19 14:10**

Container	Type	Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
C Soil	40 mL VOA - 5035 (MeOH)	39.40	32.89	(5) 10 15 Other	
D Soil	40 mL VOA - 5035 (MeOH)	39.90	33.48	(5) 10 15 Other	

6X Due: TAT:

A9J0042-02 | **4HF01DRUM-SW-4'** | Sampled: **09/26/19 14:20**

Container	Type	Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
C Soil	40 mL VOA - 5035 (MeOH)	40.97	33.84	(5) 10 15 Other	
D Soil	40 mL VOA - 5035 (MeOH)	40.79	33.18	(5) 10 15 Other	

Due: TAT:

A9J0042-03 | **4HF01DRUM-EW-8'** | Sampled: **09/26/19 14:40**

Container	Type	Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
C Soil	40 mL VOA - 5035 (MeOH)	39.45	32.92	(5) 10 15 Other	DUP
D Soil	40 mL VOA - 5035 (MeOH)	39.72	33.15	(5) 10 15 Other	

Due: TAT:

A9J0042-04 | **4HF01DRUM-NW-8'** | Sampled: **09/26/19 14:45**

Container	Type	Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
C Soil	40 mL VOA - 5035 (MeOH)	39.59	33.37	(5) 10 15 Other	
D Soil	40 mL VOA - 5035 (MeOH)	40.26	33.32	(5) 10 15 Other	

Due: TAT:

A9J0042-05 | **4HF01DRUM-WW-8'** | Sampled: **09/26/19 14:50**

Container	Type	Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
C Soil	40 mL VOA - 5035 (MeOH)	40.12	33.51	(5) 10 15 Other	MS
D Soil	40 mL VOA - 5035 (MeOH)	40.26	33.60	(5) 10 15 Other	

Due: TAT:

Weighed by: AKF @ 1935 10/1/19

Methanol Reagent ID: A19I219 Balance ID: A18J327

Print Date: 10/1/2019 7:30:25PM

A9J0058

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0058-04 PDI-039SC-B-11.8-13.7-190930 Sampled: **09/30/19 10:39**

B Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.97	Tare Weight (g): 33.92	Volume MeOH (mL): (5) 10 15 Other	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.30	Tare Weight (g): 33.56	Volume MeOH (mL): (5) 10 15 Other	Notes:

Hex+Halo Due: TAT:

A9J0058-05 PDI-039SC-B-3.8-5.8-190930 Sampled: **09/30/19 09:15**

B Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.49	Tare Weight (g): 33.55	Volume MeOH (mL): (5) 10 15 Other	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.64	Tare Weight (g): 33.68	Volume MeOH (mL): (5) 10 15 Other	Notes:

Due: TAT:

A9J0058-06 PDI-039SC-B-5.8-7.8-190930 Sampled: **09/30/19 09:16**

B Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.72	Tare Weight (g): 33.54	Volume MeOH (mL): (5) 10 15 Other	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.96	Tare Weight (g): 33.66	Volume MeOH (mL): (5) 10 15 Other	Notes:

Due: TAT:

A9J0058-07 PDI-039SC-B-7.8-9.8-190930 Sampled: **09/30/19 09:17**

B Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 40.00	Tare Weight (g): 33.90	Volume MeOH (mL): (5) 10 15 Other	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.37	Tare Weight (g): 33.70	Volume MeOH (mL): (5) 10 15 Other	Notes:

Due: TAT:

A9J0058-08 PDI-039SC-B-9.8-11.8-190930 Sampled: **09/30/19 09:18**

B Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 37.55	Tare Weight (g): 33.29	Volume MeOH (mL): (5) 10 15 Other	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 37.87	Tare Weight (g): 33.62	Volume MeOH (mL): (5) 10 15 Other	Notes:

Due: TAT:

Weighed by: @ 10/02/19 1648

Methanol Reagent ID: A19I219~ Balance ID: A18J327~

Print Date: 10/2/2019 1:53:26PM

A9J0058

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0058-11 — **PDI-040SC-B-5.3-7.3-190930** — Sampled: **09/30/19 13:45**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Sediment	40 mL VOA - 5035 (MeOH)	38.67	33.76	(5) 10 15 Other	
C Sediment	40 mL VOA - 5035 (MeOH)	38.81	37.69	(5) 10 15 Other	

Due: TAT:

A9J0058-12 — **PDI-040SC-B-7.3-9.3-190930** — Sampled: **09/30/19 13:46**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	38.92	33.97	(5) 10 15 Other	MS/MSD
D Sediment	40 mL VOA - 5035 (MeOH)	38.17	33.46	(5) 10 15 Other	DW = 87.0%
E Sediment	40 mL VOA - 5035 (MeOH)	38.56	33.62	(5) 10 15 Other	
F Sediment	40 mL VOA - 5035 (MeOH)	38.47	33.64	(5) 10 15 Other	
G Sediment	40 mL VOA - 5035 (MeOH)	38.44	33.69	(5) 10 15 Other	

Due: TAT:

A9J0058-13 — **PDI-040SC-B-9.3-11.3-190930** — Sampled: **09/30/19 14:02**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Sediment	40 mL VOA - 5035 (MeOH)	39.38	33.40	(5) 10 15 Other	
C Sediment	40 mL VOA - 5035 (MeOH)	38.84	33.38	(5) 10 15 Other	

Due: TAT:

A9J0058-14 — **PDI-1040SC-B-5.3-7.3-190930** — Sampled: **09/30/19 13:45**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Sediment	40 mL VOA - 5035 (MeOH)	38.79	33.52	(5) 10 15 Other	
C Sediment	40 mL VOA - 5035 (MeOH)	38.50	33.46	(5) 10 15 Other	

Due: TAT:

Weighed by: (8) @ 10/02/19 1648

Methanol Reagent ID: A19I219~ Balance ID: A18J327~

Print Date: 10/2/2019 1:53:26PM

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9J02042	Instrument:	VOA-GCMS3
Date:	10/02/19 10:48	Calibration:	A9H2203

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J02042-IBL1	Soil	QC	QC			A19G090	
2	9J02042-TUN1	Soil	QC	QC			A19G090	
3	9J02042-CCV1	Soil	QC	QC			A19G090	
4	9100546-BS1	Soil	QC	QC		9100546	A19G090	
5	9J02042-CCV2	Soil	QC	QC			A19G090	
6	9100546-BS2	Soil	QC	QC		9100546	A19G090	
7	9100546-BLK1	Soil	QC	QC		9100546	A19G090	
8	A9J0042-01	Soil	NWTPH-Gx		10/04/19	9100546	A19G090	
9	A9J0042-02	Soil	NWTPH-Gx		10/04/19	9100546	A19G090	
10	A9J0042-03	Soil	NWTPH-Gx		10/04/19	9100546	A19G090	
"	"	Soil	8260C BTEX+Halo6	(QC Source)		9100546	A19G090	
11	9100546-DUP1	Soil	QC	QC		9100546	A19G090	
12	A9J0042-04	Soil	NWTPH-Gx		10/04/19	9100546	A19G090	
13	A9J0006-03	Soil	NWTPH-Gx		10/07/19	9100546	A19G090	
14	A9J0006-05	Soil	NWTPH-Gx		10/07/19	9100546	A19G090	
15	A9J0006-06	Soil	NWTPH-Gx		10/07/19	9100546	A19G090	
16	A9J0042-05	Soil	NWTPH-Gx		10/04/19	9100546	A19G090	
"	"	Soil	8260C BTEX+Halo6	(QC Source)		9100546	A19G090	
17	9100546-MS1	Soil	QC	QC		9100546	A19G090	
18	9J02042-IBL2	Soil	QC	QC			A19G090	
19	A9J0058-04	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100546	A19G090	
20	A9J0058-05	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100546	A19G090	
21	A9J0058-06	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100546	A19G090	
22	A9J0058-07	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100546	A19G090	
23	A9J0058-08	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100546	A19G090	
24	A9J0058-11	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100546	A19G090	
25	A9J0058-13	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100546	A19G090	
26	A9J0058-14	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100546	A19G090	
27	A9J0058-12	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100546	A19G090	
"	"	Soil	NWTPH-Gx	(QC Source)		9100546	A19G090	
28	9100546-MS2	Soil	QC	QC		9100546	A19G090	
29	9100546-MSD2	Soil	QC	QC		9100546	A19G090	
30	9J02042-IBL3	Soil	QC	QC			A19G090	
31	9J02042-IBL4	Soil	QC	QC			A19G090	

Comments: TMDL = MRL for DCM (Q55) MC

Data Entered By: 10/3/19

Data Reviewed By: 10/4/19

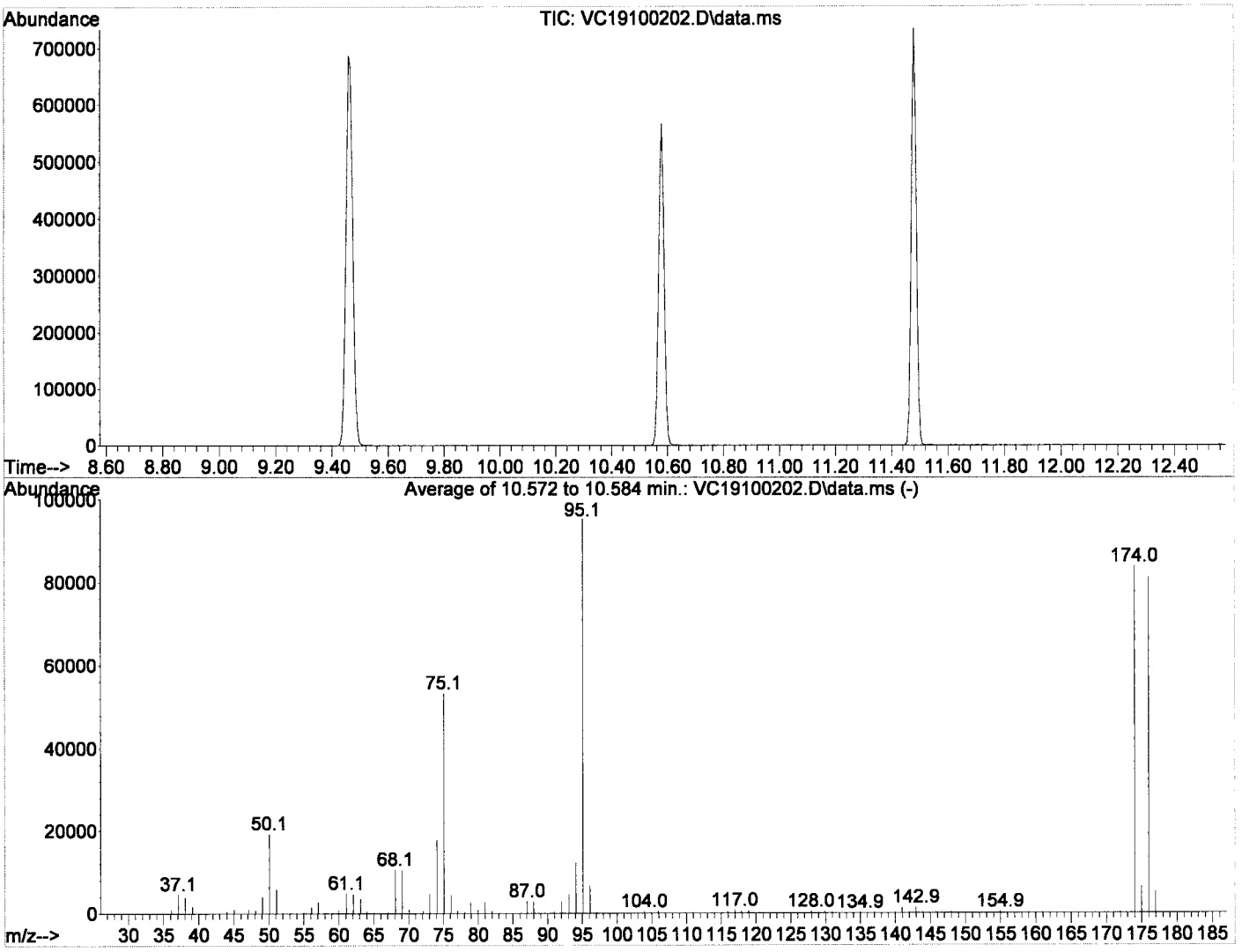
BFB

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100202.D
Acq On : 2 Oct 2019 11:36 am
Operator : TB/IMA
Sample : 9J02042-TUN1
Misc : A19G090 5mL BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\VC190822S+.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Thu Aug 22 09:46:59 2019

10/2/19



AutoFind: Scans 1501, 1502, 1503; Background Corrected with Scan 1494

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	113.6	95360	PASS
96	95	5	9	6.9	6551	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	88.0	83944	PASS
175	174	5	9	7.6	6364	PASS
176	174	95	105	96.9	81312	PASS
177	176	5	10	6.5	5275	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100202.D
Acq On : 2 Oct 2019 11:36 am
Operator : TB/IMA
Sample : 9J02042-TUN1
Misc : A19G090 5mL BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

TB 10/2/19

Quant Time: Oct 02 14:51:58 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

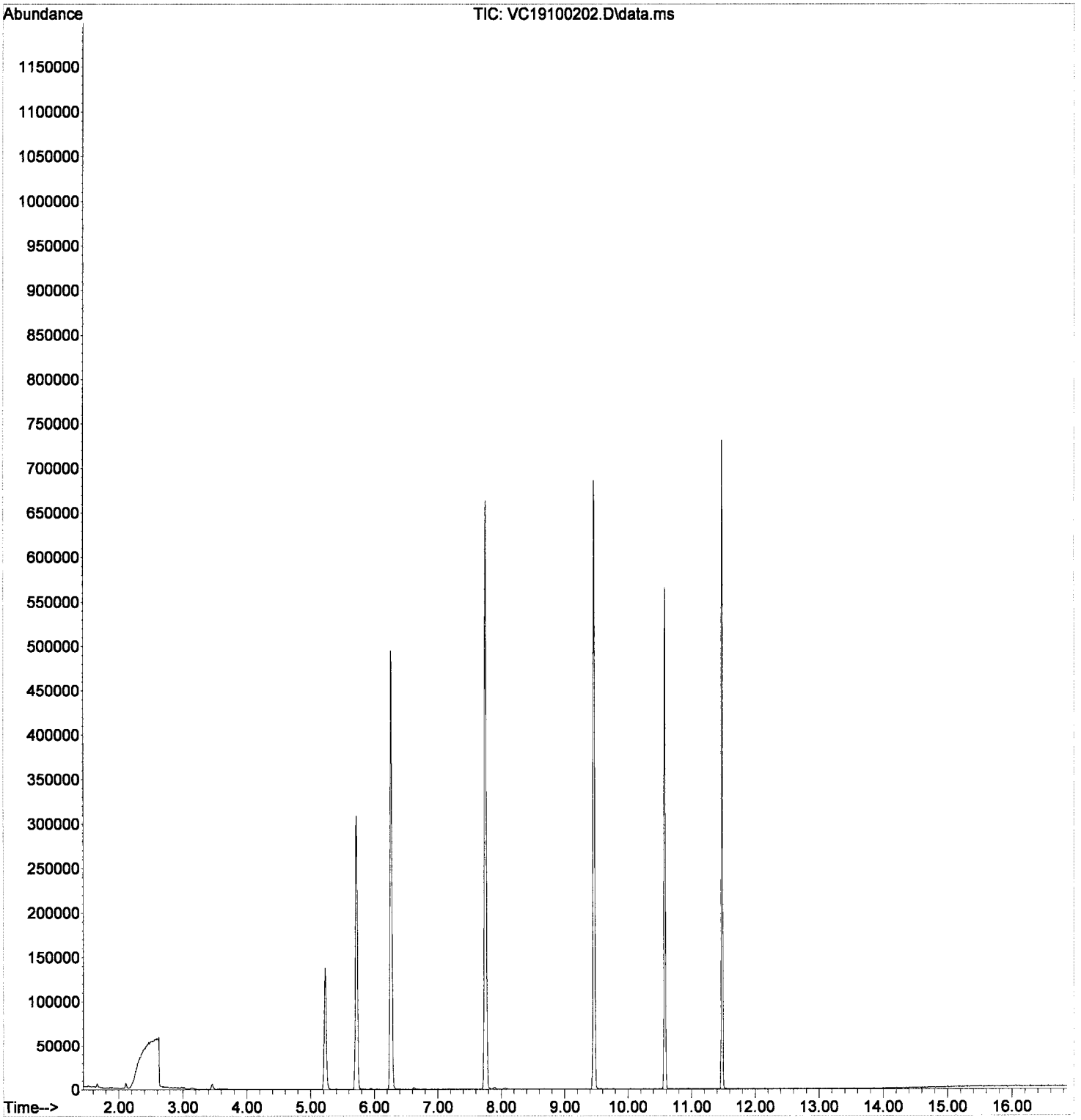
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.717	99	127937	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.459	117	361985	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.479	152	154511	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.225	111	93733	46.73	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.259	114	410683	49.75	ug/L		0.00
45) Toluene-d8 (S)	7.749	98	491831	50.45	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.578	174	130505	52.43	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.702	50	357	0.15	ug/L	#	50
5) Bromomethane	2.110	96	2974	Below Cal			94
6) Chloroethane	2.250	64	132	0.12	ug/L	#	1
8) Ethanol	3.156	45	3947	54.05	ug/L		92
12) Iodomethane	2.986	142	447	3.91	ug/L	#	47
13) Methylene Chloride	3.460	84	3111	Below Cal			90
14) Acetone	3.576	43	1333	0.96	ug/L		97
32) 2-Butanone (MEK)	5.395	43	410	0.18	ug/L		52
36) iso-Butyl Alcohol	5.943	43	412	1.62	ug/L		68

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100202.D
Acq On : 2 Oct 2019 11:36 am
Operator : TB/IMA
Sample : 9J02042-TUN1
Misc : A19G090 5mL BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 02 14:51:58 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100203.D
Acq On : 2 Oct 2019 12:03 pm
Operator : TB/IMA
Sample : 9100546-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19I354
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 02 12:24:53 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

10/2/19

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	110	0.00	
2		Dichlorodifluoromethane	20.000	22.991	-15.0	124	0.01	
3	P	Chloromethane	20.000	18.716	6.4	107	0.01	
4	C	Vinyl Chloride	20.000	18.027	9.9	98	0.01	
5		Bromomethane	20.000	18.790	6.1	102	0.01	
6		Chloroethane	20.000	21.414	-7.1	122	0.01	
7		Trichlorofluoromethane	20.000	21.109	-5.5	115	0.00	
8		Ethanol	1250.000	1001.589	19.9	102	-0.03	
9	C	1,1-Dichloroethene	20.000	20.812	-4.1	112	0.00	
10		Carbon Disulfide	20.000	17.298	13.5	97	0.00	
11		Freon 113	20.000	23.445	-17.2	132	0.00	
12		Iodomethane	20.000	22.973	-14.9	143	0.01	
13		Methylene Chloride	20.000	15.186	24.1#	88	0.00	-Q55
14		Acetone	40.000	35.458	11.4	103	0.00	
15		t-1,2-Dichloroethene	20.000	18.688	6.6	104	0.00	
16		n-Hexane	20.000	18.091	9.5	97	0.00	
17		Methyl-tert-butyl-ether	20.000	19.015	4.9	105	0.00	
18		tert-Butanol (TBA)	1250.000	1078.550	13.7	97	-0.01	
19		Diisopropyl ether (DIPE)	5.000	3.955	20.9#	94	0.00	-NR
20	P	1,1-Dichloroethane	20.000	19.779	1.1	110	0.00	
21		Acrylonitrile	20.000	18.451	7.7	101	0.00	
22		Ethyl-tert-butyl ether (ETB	5.000	3.824	23.5#	93	0.00	-NR
23		c-1,2-Dichloroethene	20.000	19.373	3.1	104	0.00	
24		2,2-Dichloropropane	20.000	21.396	-7.0	118	0.00	
25		Bromochloromethane	20.000	19.011	4.9	103	0.00	
26	C	Chloroform	20.000	20.930	-4.6	113	0.00	
27		Carbon Tetrachloride	20.000	21.802	-9.0	111	0.00	
28		Tetrahydrofuran	20.000	16.870	15.6	92	0.00	
29		1,1,1-Trichloroethane	20.000	20.747	-3.7	111	0.00	
30	S	Dibromofluoromethane (S)	50.000	48.640	2.7	106	0.00	
31		1,1-Dichloropropene	20.000	20.165	-0.8	108	0.00	
32		2-Butanone (MEK)	40.000	34.313	14.2	96	0.00	
33		Benzene	20.000	19.520	2.4	108	0.00	
34		tert-Amyl methyl ether (TAM	5.000	4.204	15.9	97	0.00	
35		1,2-Dichloroethane (EDC)	20.000	20.512	-2.6	110	0.00	
36		iso-Butyl Alcohol	500.000	391.708	21.7#	86	0.00	-NR
37	S	1,4-Difluorobenzene (S)	50.000	48.522	3.0	108	0.00	
38		Trichloroethene (TCE)	20.000	19.976	0.1	111	0.00	
39		tert-Amyl ethyl ether (TAEE	5.000	3.988	20.2#	90	0.00	-NR
40		Dibromomethane	20.000	19.675	1.6	110	0.00	
41	C	1,2-Dichloropropane	20.000	18.394	8.0	102	0.00	
42		Bromodichloromethane	20.000	21.656	-8.3	107	0.00	
43		Chlorobenzene-d5 (I)	50.000	50.000	0.0	108	0.00	
44		c-1,3-Dichloropropene	20.000	18.346	8.3	98	0.00	
45	S	Toluene-d8 (S)	50.000	48.831	2.3	105	0.00	
46	C	Toluene	20.000	19.549	2.3	109	0.00	
47		Tetrachloroethene (PCE)	20.000	21.451	-7.3	112	0.00	
48		4-Methyl-2-Pentanone (MIBK)	40.000	34.792	13.0	90	0.00	
49		t-1,3-Dichloropropene	20.000	18.672	6.6	99	0.00	
50		1,1,2-Trichloroethane	20.000	19.929	0.4	104	0.00	

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100203.D
Acq On : 2 Oct 2019 12:03 pm
Operator : TB/IMA
Sample : 9100546-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19I354
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 02 12:24:53 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 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	18.733	6.3	109	0.00
52		1,3-Dichloropropane	20.000	19.117	4.4	101	0.00
53		1,2-Dibromoethane (EDB)	20.000	20.742	-3.7	104	0.00
54		2-Hexanone	40.000	35.605	11.0	89	0.00
55	P	Chlorobenzene	20.000	19.483	2.6	108	0.00
56	C	Ethylbenzene	20.000	19.794	1.0	108	0.00
57		1,1,1,2-Tetrachloroethane	20.000	20.633	-3.2	109	0.00
58		m,p-Xylenes (2)	40.000	40.837	-2.1	111	0.00
59		o-Xylene	20.000	19.258	3.7	105	0.00
60		Styrene	20.000	19.943	0.3	105	0.00
61	P	Bromoform	20.000	18.482	7.6	111	0.00
62		Isopropylbenzene	20.000	20.953	-4.8	106	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	49.812	0.4	105	0.00
65		Bromobenzene	20.000	20.716	-3.6	105	0.00
66		n-Propylbenzene	20.000	21.194	-6.0	107	0.00
67	P	1,1,2,2-Tetrachloroethane	20.000	18.104	9.5	92	0.00
68		2-Chlorotoluene	20.000	19.966	0.2	104	0.00
69		1,3,5-Trimethylbenzene	20.000	21.135	-5.7	104	0.00
70		1,2,3-Trichloropropane	20.000	21.682	-8.4	106	0.00
71		t-1,4-Dichloro-2-butene	20.000	16.062	19.7	89	0.00
72		4-Chlorotoluene	20.000	21.316	-6.6	105	0.00
73		tert-Butylbenzene	20.000	21.553	-7.8	106	0.00
74		1,2,4-Trimethylbenzene	20.000	21.047	-5.2	102	0.00
75		sec-Butylbenzene	20.000	21.911	-9.6	105	0.00
76		4-Isopropyltoluene	20.000	21.642	-8.2	104	0.00
77		1,3-Dichlorobenzene	20.000	21.114	-5.6	105	0.00
78		1,4-Dichlorobenzene	20.000	19.965	0.2	105	0.00
79		n-Butylbenzene	20.000	21.147	-5.7	101	0.00
80		1,2-Dichlorobenzene	20.000	19.867	0.7	102	0.00
81		1,2-Dibromo-3-Chloropropane	20.000	16.401	18.0	90	0.00
82		Hexachlorobutadiene	20.000	20.411	-2.1	101	0.00
83		1,2,4-Trichlorobenzene	20.000	20.032	-0.2	98	0.00
84		Naphthalene	20.000	17.052	14.7	92	0.00
85		1,2,3-Trichlorobenzene	20.000	20.320	-1.6	98	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\9J02042\
Data File : VC19100203.D
Acq On : 2 Oct 2019 12:03 pm
Operator : TB/IMA
Sample : 9100546-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19I354
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 02 12:24:53 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

10/2/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.714	99	125409	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.462	117	356514	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.482	152	162538	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.228	111	95630	48.64	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.262	114	392642	48.52	ug/L		0.00
45) Toluene-d8 (S)	7.752	98	468881	48.83	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.581	174	130437	49.81	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.523	85	40594	22.99	ug/L		99
3) Chloromethane	1.705	50	43015	18.72	ug/L		98
4) Vinyl Chloride	1.791	62	38157	18.03	ug/L		95
5) Bromomethane	2.107	96	26538	18.79	ug/L		97
6) Chloroethane	2.247	64	22363	21.41	ug/L		85
7) Trichlorofluoromethane	2.356	101	50540	21.11	ug/L		98
8) Ethanol	3.141	45	71698	1001.59	ug/L		87
9) 1,1-Dichloroethene	2.843	61	61726	20.81	ug/L		97
10) Carbon Disulfide	2.849	76	67499	17.30	ug/L		97
11) Freon 113	2.886	101	49011	23.44	ug/L		92
12) Iodomethane	2.989	142	10005	22.97	ug/L		89
13) Methylene Chloride	3.458	84	33917	15.19	ug/L		93
14) Acetone	3.573	43	48334	35.46	ug/L		87
15) t-1,2-Dichloroethene	3.610	61	51758	18.69	ug/L		95
16) n-Hexane	3.689	86	9024	18.09	ug/L		98
17) Methyl-tert-butyl-ether	3.774	73	149071	19.02	ug/L		95
18) tert-Butanol (TBA)	4.054	59	751278	1078.55	ug/L	#	96
19) Diisopropyl ether (DIPE)	4.151	45	33491	3.95	ug/L		97
20) 1,1-Dichloroethane	4.230	63	55141	19.78	ug/L		99
21) Acrylonitrile	4.309	53	23592	18.45	ug/L		99
22) Ethyl-tert-butyl ether...	4.510	59	31563	3.82	ug/L		98
23) c-1,2-Dichloroethene	4.765	61	56065	19.37	ug/L		92
24) 2,2-Dichloropropane	4.863	77	68577	21.40	ug/L		90
25) Bromochloromethane	4.960	49	31198	19.01	ug/L		96
26) Chloroform	5.045	83	71435	20.93	ug/L		95
27) Carbon Tetrachloride	5.161	117	52040	21.80	ug/L		95
28) Tetrahydrofuran	5.234	42	24843	16.87	ug/L		87
29) 1,1,1-Trichloroethane	5.234	97	74801	20.75	ug/L		96
31) 1,1-Dichloropropene	5.362	75	62161	20.16	ug/L		96
32) 2-Butanone (MEK)	5.386	43	74997	34.31	ug/L		92
33) Benzene	5.611	78	175247	19.52	ug/L		98
34) tert-Amyl methyl ether...	5.763	73	30541	4.20	ug/L		98
35) 1,2-Dichloroethane (EDC)	5.824	62	76526	20.51	ug/L		97
36) iso-Butyl Alcohol	5.976	43	97705	391.71	ug/L		88
38) Trichloroethene (TCE)	6.219	130	50240	19.98	ug/L		93
39) tert-Amyl ethyl ether ...	6.499	59	22539	3.99	ug/L		91
40) Dibromomethane	6.663	93	23649	19.68	ug/L		92
41) 1,2-Dichloropropane	6.773	63	41311	18.39	ug/L		76
42) Bromodichloromethane	6.852	83	47319	21.66	ug/L		96
44) c-1,3-Dichloropropene	7.546	75	55243	18.35	ug/L		92
46) Toluene	7.807	91	190492	19.55	ug/L		98
47) Tetrachloroethene (PCE)	8.245	166	50321	21.45	ug/L		95
48) 4-Methyl-2-Pentanone (...	8.282	43	115704	34.79	ug/L		96

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100203.D
Acq On : 2 Oct 2019 12:03 pm
Operator : TB/IMA
Sample : 9100546-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19I354
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 02 12:24:53 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

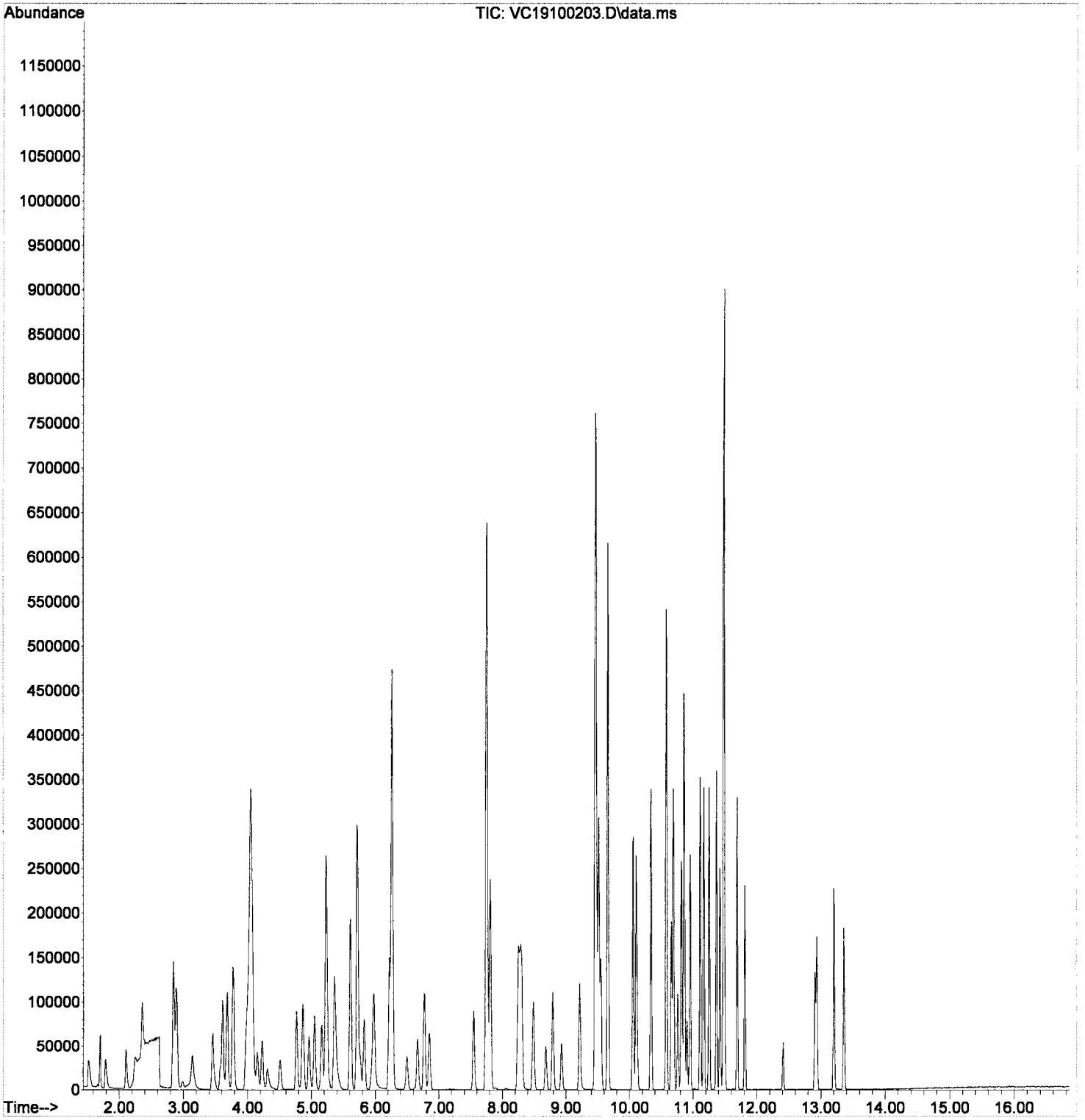
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.306	75	55904	18.67	ug/L		96
50) 1,1,2-Trichloroethane	8.489	97	36491	19.93	ug/L		94
51) Dibromochloromethane	8.683	129	28917	18.73	ug/L		99
52) 1,3-Dichloropropane	8.793	76	67424	19.12	ug/L		91
53) 1,2-Dibromoethane (EDB)	8.927	107	38665	20.74	ug/L		97
54) 2-Hexanone	9.212	43	86465	35.60	ug/L		93
55) Chlorobenzene	9.480	112	118396	19.48	ug/L		98
56) Ethylbenzene	9.517	91	213786	19.79	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.547	131	37223	20.63	ug/L		94
58) m,p-Xylenes (2)	9.657	91	321854	40.84	ug/L		95
59) o-Xylene	10.058	91	153372	19.26	ug/L		95
60) Styrene	10.107	104	104895	19.94	ug/L		95
61) Bromoform	10.119	173	16717	18.48	ug/L		97
62) Isopropylbenzene	10.338	105	195938	20.95	ug/L		97
65) Bromobenzene	10.660	156	44497	20.72	ug/L		91
66) n-Propylbenzene	10.691	91	220594	21.19	ug/L		96
67) 1,1,2,2-Tetrachloroethane	10.758	83	39016	18.10	ug/L		99
68) 2-Chlorotoluene	10.818	126	40636	19.97	ug/L		91
69) 1,3,5-Trimethylbenzene	10.855	105	157130	21.14	ug/L		93
70) 1,2,3-Trichloropropane	10.861	110	20782	21.68	ug/L	#	84
71) t-1,4-Dichloro-2-butene	10.904	88	6763	16.06	ug/L	#	69
72) 4-Chlorotoluene	10.952	91	127561	21.32	ug/L		92
73) tert-Butylbenzene	11.111	91	91916	21.55	ug/L		93
74) 1,2,4-Trimethylbenzene	11.165	105	156129	21.05	ug/L		94
75) sec-Butylbenzene	11.250	105	188226	21.91	ug/L		97
76) 4-Isopropyltoluene	11.366	119	160257	21.64	ug/L		98
77) 1,3-Dichlorobenzene	11.421	146	80442	21.11	ug/L		98
78) 1,4-Dichlorobenzene	11.488	146	81386	19.97	ug/L		94
79) n-Butylbenzene	11.688	91	134643	21.15	ug/L		97
80) 1,2-Dichlorobenzene	11.810	146	73265	19.87	ug/L		97
81) 1,2-Dibromo-3-Chloropr...	12.406	157	10894	16.40	ug/L	#	65
82) Hexachlorobutadiene	12.905	223	13959	20.41	ug/L		94
83) 1,2,4-Trichlorobenzene	12.936	180	47645	20.03	ug/L		96
84) Naphthalene	13.197	128	148247	17.05	ug/L		95
85) 1,2,3-Trichlorobenzene	13.355	180	48951	20.32	ug/L		95

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100203.D
Acq On : 2 Oct 2019 12:03 pm
Operator : TB/IMA
Sample : 9100546-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19I354
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 02 12:24:53 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100204.D
Acq On : 2 Oct 2019 12:30 pm
Operator : TB/IMA
Sample : 9100546-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19I278
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 02 14:52:26 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration

10/2/19

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 (IS)	50.000	50.000	0.0	99	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	48.883	2.2	98	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	49.213	1.6	98	0.00
4	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	99	0.00
5	H	CA-LUFT (C5-C12)	500.000	520.095	-4.0	103	0.00
6	H	TPHg (C5-C9)	500.000	531.362	-6.3	104	0.00
7	H	TPHg (C6-C10)	500.000	495.810	0.8	101	0.00
8	H	NWTPH-Gx	500.000	483.174	3.4	100	0.00
9		Benzene (NR)	-1.000	0.000	0.0	100	0.00
10	S	Toluene-d8 (NR)	-1.000	0.000	0.0	99	0.00
11	C	Toluene (NR)	-1.000	0.000	0.0	101	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	96	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	84	0.00

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100204.D
Acq On : 2 Oct 2019 12:30 pm
Operator : TB/IMA
Sample : 9100546-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19I278
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 02 14:52:26 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration

10/2/19

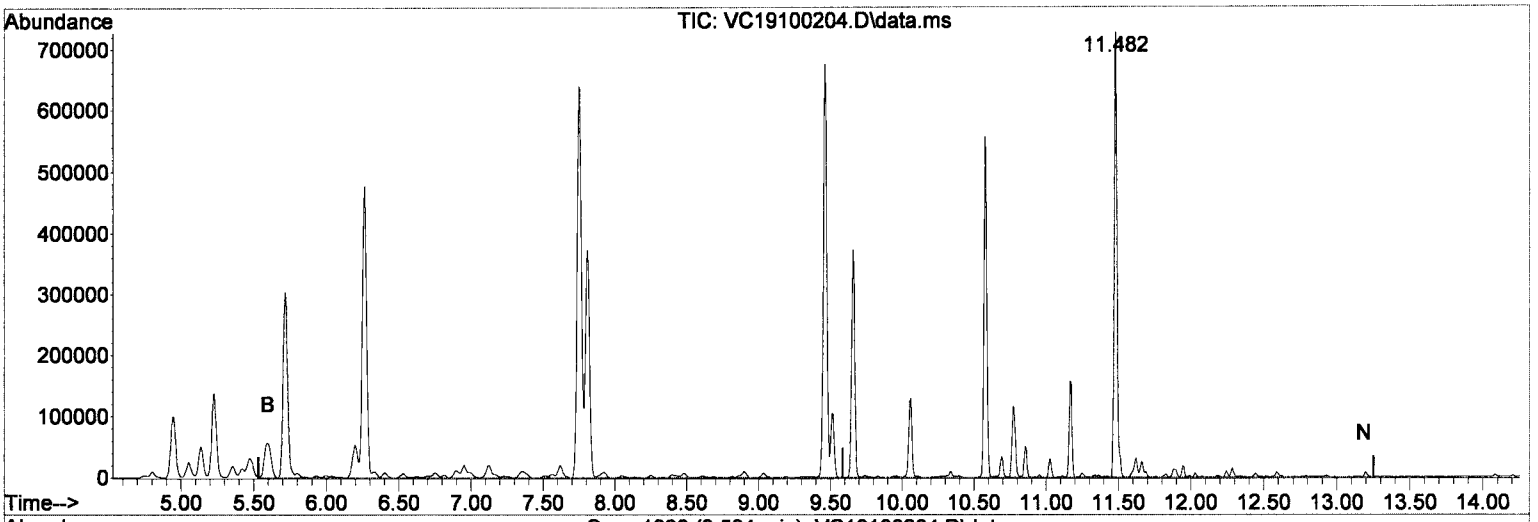
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.715	168	213829	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.262	TIC	961932	48.88	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.575	TIC	764381	49.21	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.462	TIC	1135255	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.747	TIC	1342828	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.482	TIC	985425	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	6348401m	520.09	ug/L	
6) TPHg (C5-C9)	9.586	TIC	5586231m	531.36	ug/L	
7) TPHg (C6-C10)	9.586	TIC	3881485m	495.81	ug/L	
8) NWTPH-Gx	9.586	TIC	3277981m	483.17	ug/L	

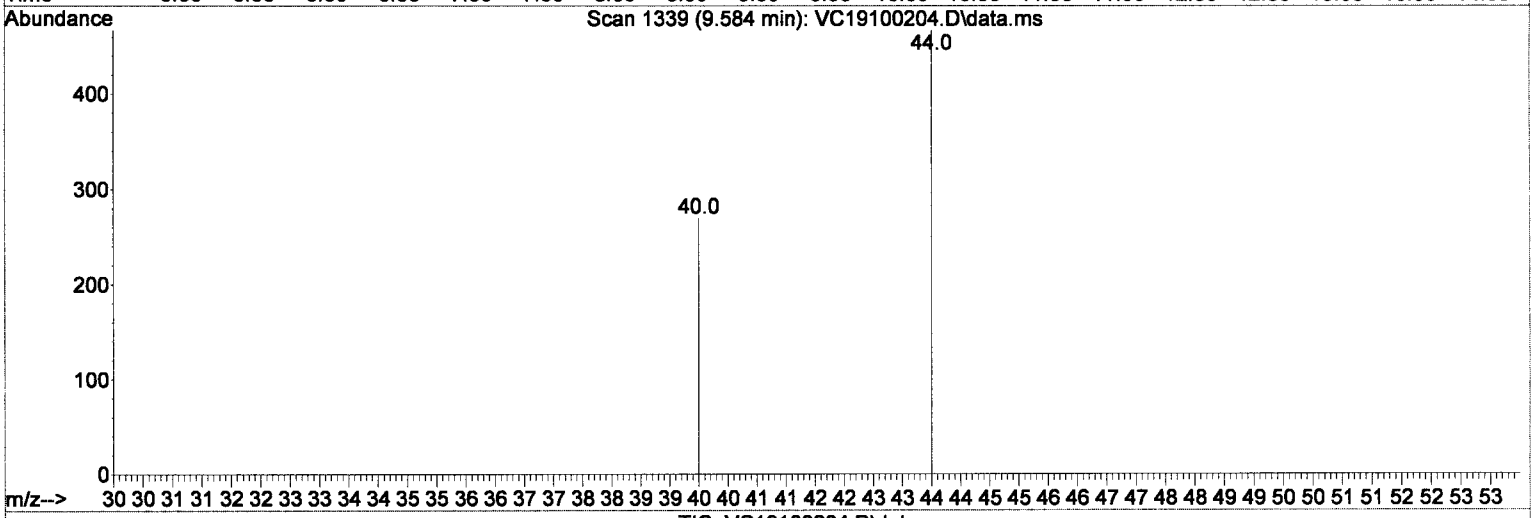
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100204.D
Acq On : 2 Oct 2019 12:30 pm
Operator : TB/IMA
Sample : 9100546-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19I278
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 02 14:52:26 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration





TIC: VC19100204.D\data.ms

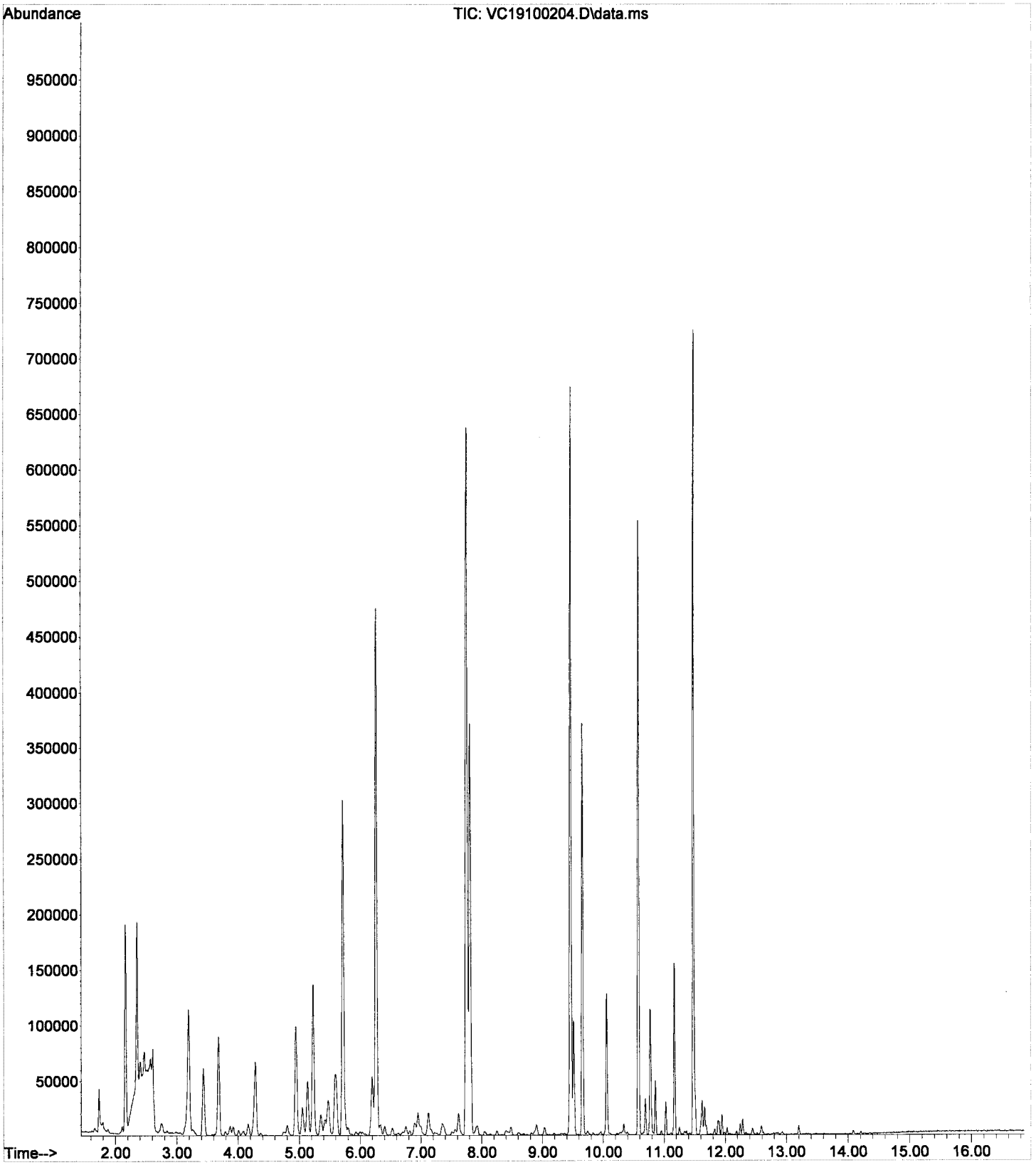
(8) NWTPH-Gx (H)

9.586min (0.000) 483.17 ug/L m

response 3277981

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.01#
0.00	0.00	0.01#
0.00	0.00	0.00

File :C:\msdchem\1\DATA\2019-10\9J02042\VC19100204.D
Operator : TB/IMA
Acquired : 2 Oct 2019 12:30 pm using AcqMethod VC1908RUN.M
Instrument : VOA-GCMS3
Sample Name: 9100546-BS2
Misc Info : 50X 5g/5mLx1000uL/50mL GX+MeOH A19I278
Vial Number: 4



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100205.D
Acq On : 2 Oct 2019 12:58 pm
Operator : TB/IMA
Sample : 9100546-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

10/2/19

Quant Time: Oct 02 14:52:52 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.715	168	208964	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.263	TIC	934668	48.60	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.576	TIC	733333	48.31	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.463	TIC	1087532	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.747	TIC	1264812	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.476	TIC	897780	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	956231m	52.85	ug/L	NR
6) TPHg (C5-C9)	9.586	TIC	956364m	54.77	ug/L	↓
7) TPHg (C6-C10)	9.586	TIC	291068m	6.56	ug/L	↓
8) NWTPH-Gx	9.586	TIC	-3149m	32.00	ug/L	LMDL ✓

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100205.D
Acq On : 2 Oct 2019 12:58 pm
Operator : TB/IMA
Sample : 9100546-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

10/2/19

Quant Time: Oct 02 14:53:06 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

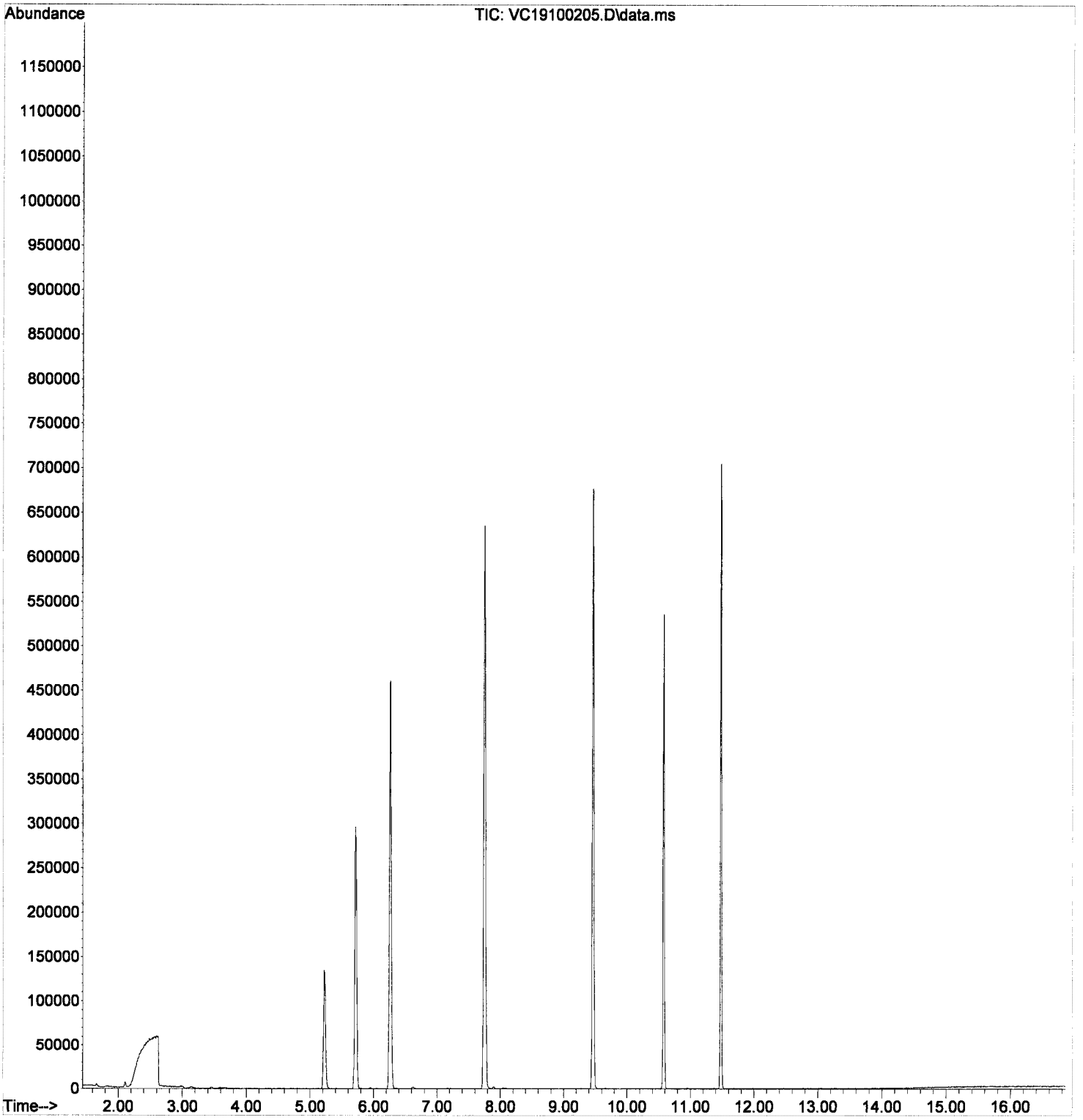
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	5.715	99	124226	50.00	ug/L	0.00
43) Chlorobenzene-d5 (I)	9.463	117	345234	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.482	152	148407	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.222	111	89244	45.82	ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.263	114	383760	47.88	ug/L	0.00
45) Toluene-d8 (S)	7.747	98	461002	49.58	ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.576	174	122686	51.31	ug/L	0.00
Target Compounds						Qvalue
3) Chloromethane	1.700	50	535	0.24	ug/L	91
5) Bromomethane	2.108	96	3136	Below Cal		94
8) Ethanol	3.148	45	2516	35.48	ug/L	81
12) Iodomethane	2.990	142	729	4.62	ug/L	69
13) Methylene Chloride	3.458	84	1028	Below Cal		94
14) Acetone	3.586	43	1218	0.90	ug/L	99
32) 2-Butanone (MEK)	5.411	43	549	0.25	ug/L	52
36) iso-Butyl Alcohol	5.946	43	398	1.61	ug/L	86

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100205.D
Acq On : 2 Oct 2019 12:58 pm
Operator : TB/IMA
Sample : 9100546-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 02 14:53:06 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100217.D
Acq On : 2 Oct 2019 6:43 pm
Operator : TB/IMA
Sample : A9J0058-04
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:00 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

TB 10/3/19

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	5.717	99	108440	50.00 ug/L		0.00
43) Chlorobenzene-d5 (I)	9.458	117	289366	50.00 ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.478	152	131058	50.00 ug/L		0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.224	111	93555	55.03 ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.264	114	311214	44.48 ug/L		0.00
45) Toluene-d8 (S)	7.749	98	376077	48.25 ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.578	174	113103	53.57 ug/L		0.00
Target Compounds						Qvalue
3) Chloromethane	1.696	50	202	0.10 ug/L	#	50
5) Bromomethane	2.109	96	1802	Below Cal		84
8) Ethanol	3.144	45	150	2.42 ug/L	#	29
12) Iodomethane	3.004	142	62	3.02 ug/L	#	47
13) Methylene Chloride	3.472	84	484	Below Cal	#	40
14) Acetone	3.576	43	1058	0.90 ug/L		96
56) Ethylbenzene	9.519	91	1192	0.14 ug/L	#	49
58) m,p-Xylenes (2)	9.659	91	915	0.14 ug/L		77
59) o-Xylene	10.054	91	990	0.15 ug/L		78

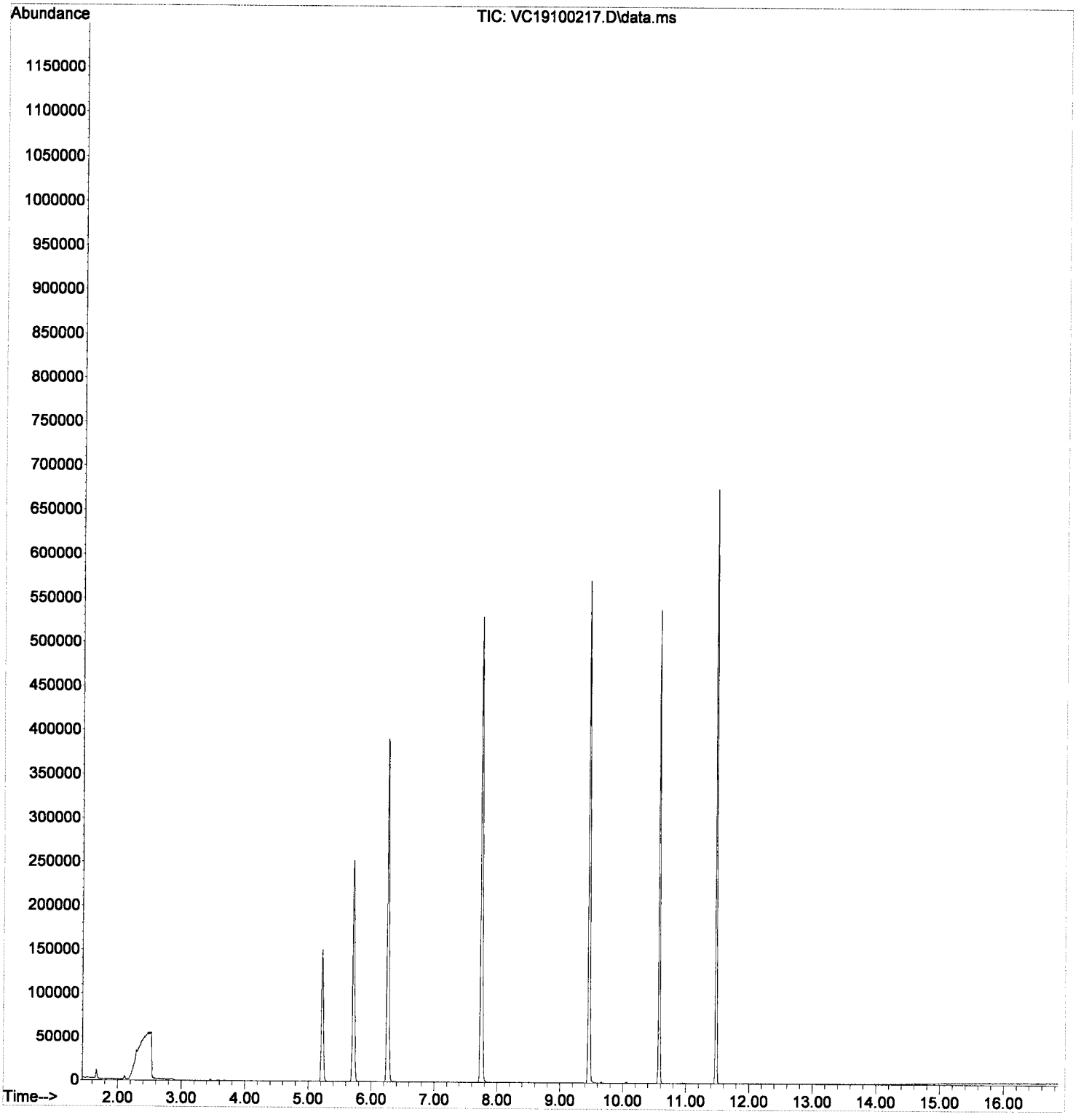
NR ↓ MDL ↓

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100217.D
Acq On : 2 Oct 2019 6:43 pm
Operator : TB/IMA
Sample : A9J0058-04
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:00 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100218.D
Acq On : 2 Oct 2019 7:10 pm
Operator : TB/IMA
Sample : A9J0058-05
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:03 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

10/3/19

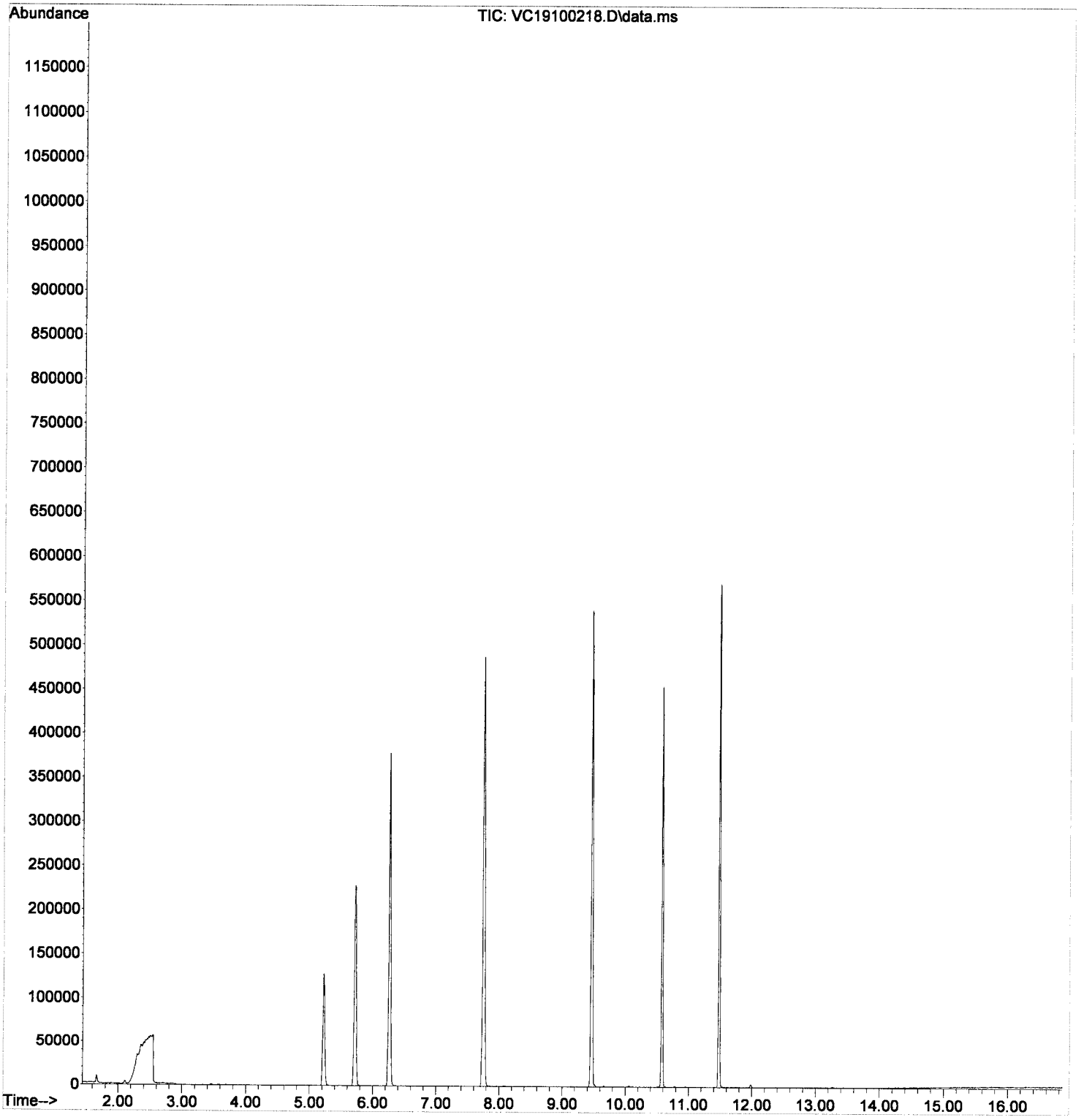
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.714	99	100579	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.461	117	266439	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.481	152	118635	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.221	111	81183	51.49	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.261	114	295162	45.48	ug/L		0.00
45) Toluene-d8 (S)	7.752	98	354676	49.42	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.581	174	100457	52.56	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.699	50	245	0.13	ug/L	#	50
5) Bromomethane	2.106	96	1511	Below Cal			89
6) Chloroethane	2.271	64	359	0.43	ug/L	#	1
8) Ethanol	3.141	45	53	0.92	ug/L	#	29
10) Carbon Disulfide	2.855	76	289	0.09	ug/L		78
12) Iodomethane	2.989	142	53	3.00	ug/L	#	47
13) Methylene Chloride	3.451	84	570	Below Cal		#	66
14) Acetone	3.567	43	1132	1.04	ug/L	#	42
56) Ethylbenzene	9.516	91	1257	0.16	ug/L		87
58) m,p-Xylenes (2)	9.662	91	1130	0.19	ug/L		94
59) o-Xylene	10.051	91	987	0.17	ug/L		90
60) Styrene	10.112	104	440	0.11	ug/L		78

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100218.D
Acq On : 2 Oct 2019 7:10 pm
Operator : TB/IMA
Sample : A9J0058-05
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:03 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100219.D
Acq On : 2 Oct 2019 7:37 pm
Operator : TB/IMA
Sample : A9J0058-06
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:06 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

10/3/19

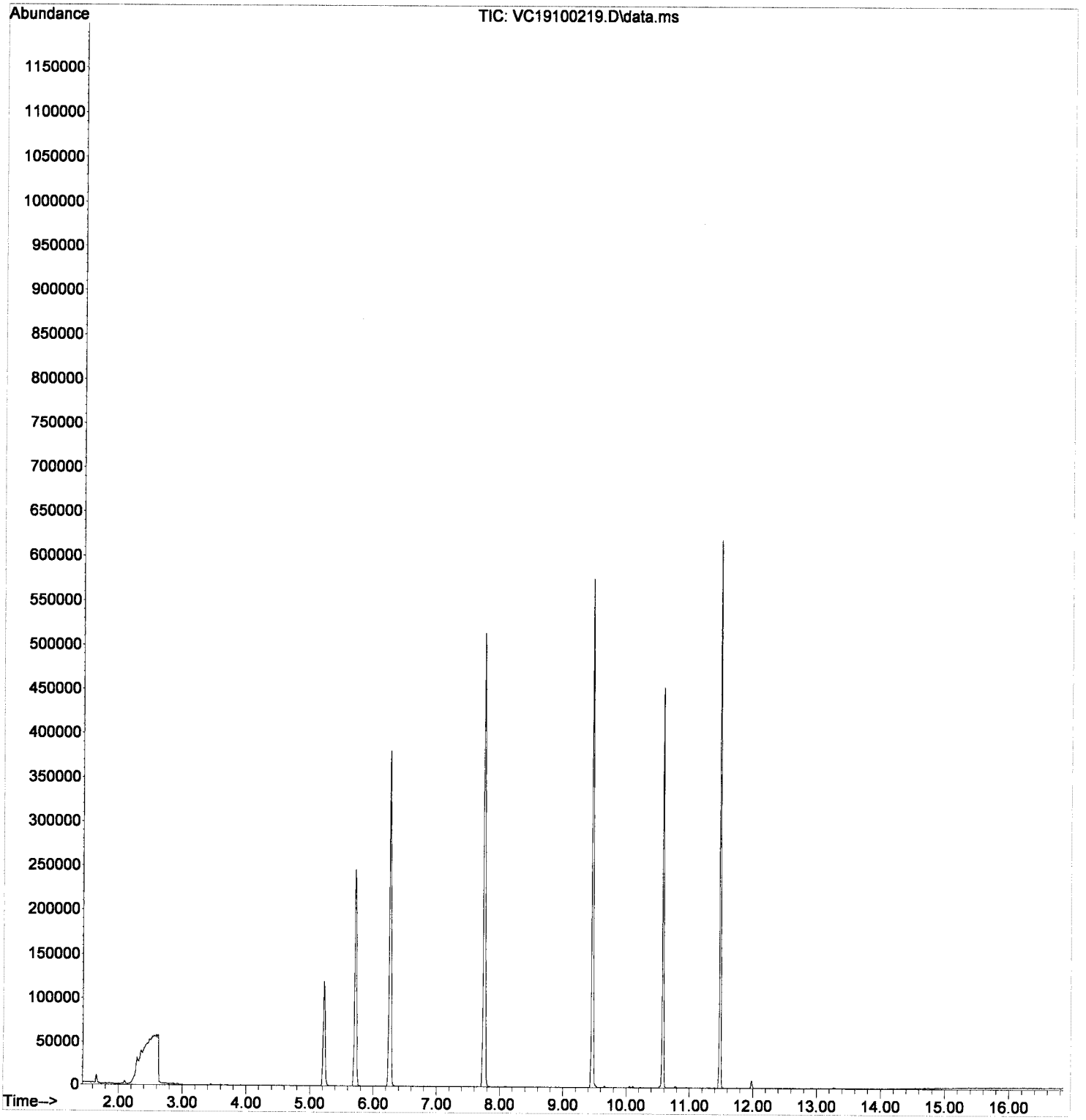
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	5.713	99	106449	50.00 ug/L	0.00
43) Chlorobenzene-d5 (I)	9.461	117	278462	50.00 ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.480	152	121725	50.00 ug/L	0.00
System Monitoring Compounds					
30) Dibromofluoromethane (S)	5.220	111	75655	45.33 ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.261	114	303721	44.22 ug/L	0.00
45) Toluene-d8 (S)	7.745	98	367627	49.02 ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.580	174	103460	52.76 ug/L	0.00
Target Compounds					Qvalue
5) Bromomethane	2.094	96	1786	Below Cal	80
8) Ethanol	3.134	45	57	0.94 ug/L #	29
12) Iodomethane	2.976	142	68	3.04 ug/L #	47
13) Methylene Chloride	3.450	84	546	Below Cal	72
14) Acetone	3.572	43	1141	0.99 ug/L #	42
56) Ethylbenzene	9.515	91	1469	0.17 ug/L	82
58) m,p-Xylenes (2)	9.655	91	1033	0.17 ug/L	93
59) o-Xylene	10.057	91	1098	0.18 ug/L	94
60) Styrene	10.112	104	862	0.21 ug/L	66

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100219.D
Acq On : 2 Oct 2019 7:37 pm
Operator : TB/IMA
Sample : A9J0058-06
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:06 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100220.D
Acq On : 2 Oct 2019 8:04 pm
Operator : TB/IMA
Sample : A9J0058-07
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

10/3/19

Quant Time: Oct 03 17:06:09 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	5.716	99	101798	50.00 ug/L	0.00
43) Chlorobenzene-d5 (I)	9.463	117	271348	50.00 ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.477	152	123871	50.00 ug/L	0.00
System Monitoring Compounds					
30) Dibromofluoromethane (S)	5.223	111	81715	51.20 ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.263	114	296936	45.21 ug/L	0.00
45) Toluene-d8 (S)	7.748	98	356531	48.78 ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.577	174	104312	52.27 ug/L	0.00
Target Compounds					Qvalue
3) Chloromethane	1.695	50	270	0.14 ug/L #	50
5) Bromomethane	2.108	96	1644	Below Cal #	69
6) Chloroethane	2.285	64	266	0.31 ug/L #	1
8) Ethanol	3.136	45	70	1.20 ug/L #	29
12) Iodomethane	2.990	142	109	3.17 ug/L #	47
13) Methylene Chloride	3.453	84	463	Below Cal #	42
14) Acetone	3.581	43	1030	0.93 ug/L #	42
56) Ethylbenzene	9.518	91	1164	0.14 ug/L	90
58) m,p-Xylenes (2)	9.658	91	816	0.14 ug/L	89
59) o-Xylene	10.053	91	922	0.15 ug/L	79

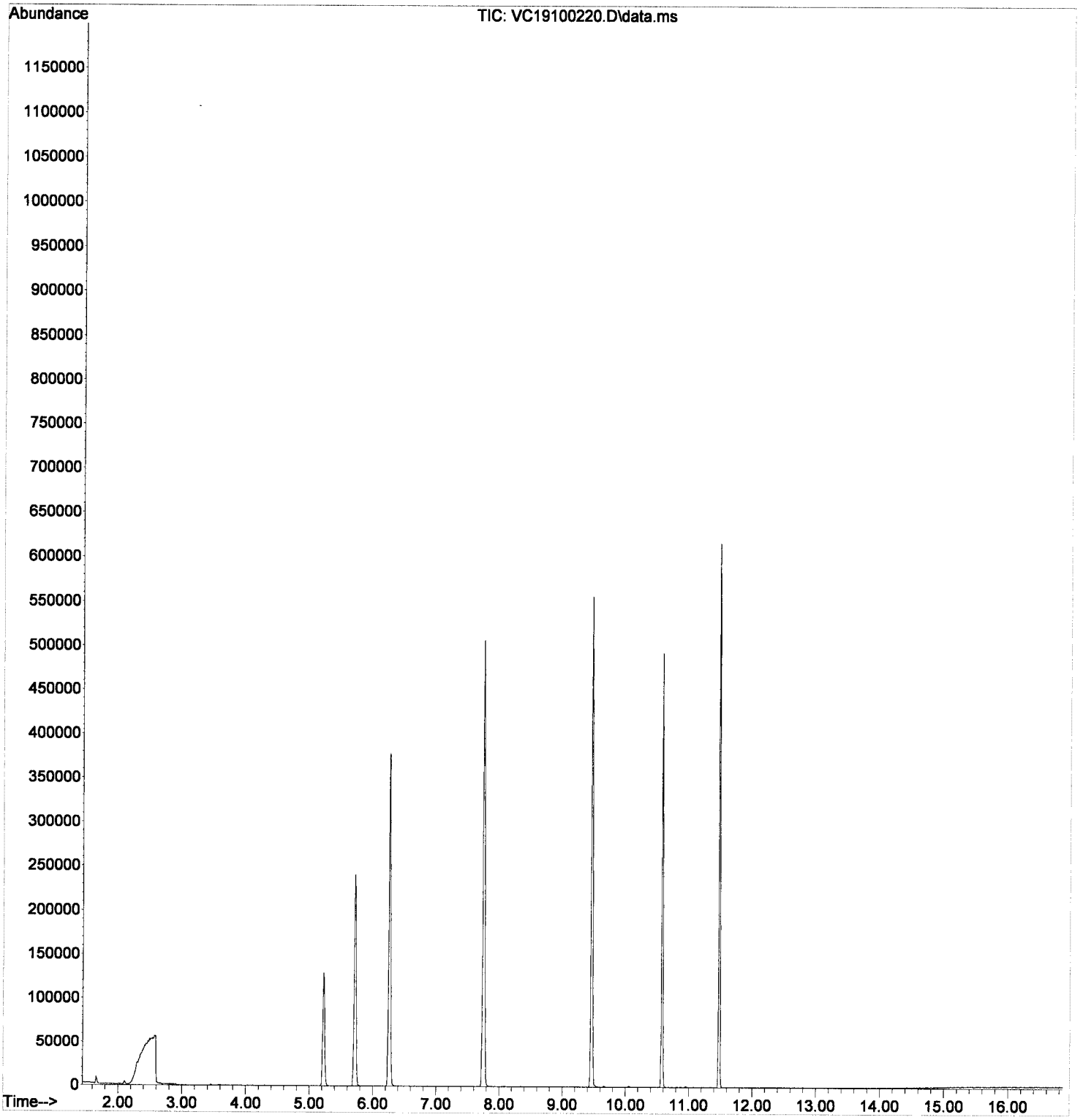
< MDL

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100220.D
Acq On : 2 Oct 2019 8:04 pm
Operator : TB/IMA
Sample : A9J0058-07
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:09 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100221.D
Acq On : 2 Oct 2019 8:31 pm
Operator : TB/IMA
Sample : A9J0058-08
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:12 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

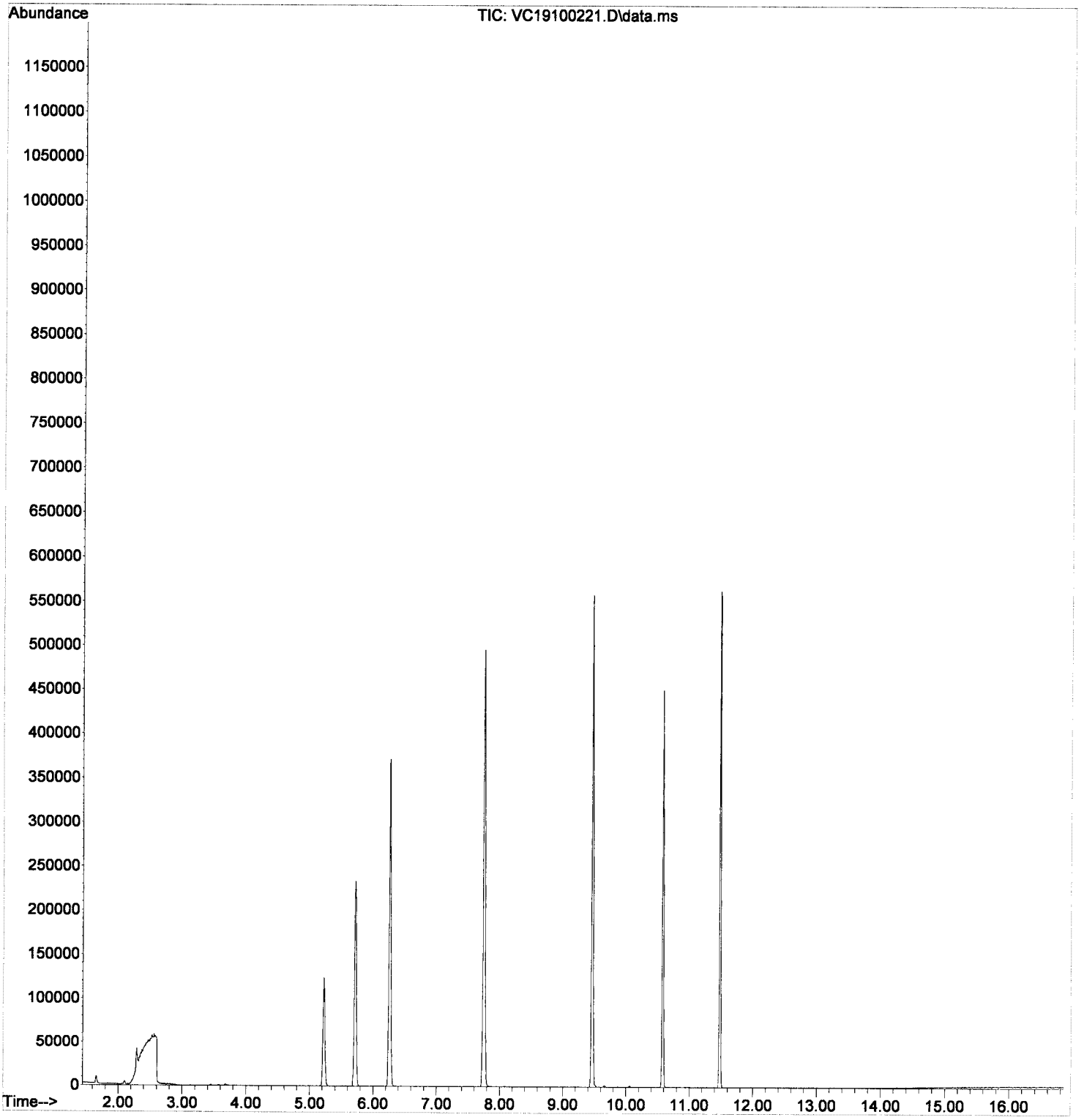
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.715	99	102486	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.462	117	263847	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.482	152	117048	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.222	111	76989	47.92	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.262	114	292413	44.22	ug/L		0.00
45) Toluene-d8 (S)	7.747	98	354970	49.95	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.575	174	98040	51.99	ug/L		0.00
Target Compounds							Qvalue
5) Bromomethane	2.101	96	1556	Below Cal			90
8) Ethanol	3.129	45	169	2.89	ug/L	#	29
12) Iodomethane	2.983	142	61	3.02	ug/L	#	47
13) Methylene Chloride	3.458	84	449	Below Cal			75
14) Acetone	3.567	43	1290	1.16	ug/L		96
56) Ethylbenzene	9.517	91	1315	0.16	ug/L		81
58) m,p-Xylenes (2)	9.657	91	1180	0.20	ug/L		85
59) o-Xylene	10.058	91	1093	0.19	ug/L		95

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100221.D
Acq On : 2 Oct 2019 8:31 pm
Operator : TB/IMA
Sample : A9J0058-08
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:12 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100222.D
Acq On : 2 Oct 2019 8:59 pm
Operator : TB/IMA
Sample : A9J0058-11
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:15 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

10/3/19

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	5.717	99	101495	50.00 ug/L		0.00
43) Chlorobenzene-d5 (I)	9.458	117	266114	50.00 ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.478	152	118774	50.00 ug/L		0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.224	111	74717	46.96 ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.258	114	291824	44.56 ug/L		0.00
45) Toluene-d8 (S)	7.749	98	353117	49.27 ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.578	174	99717	52.11 ug/L		0.00
Target Compounds						Qvalue
5) Bromomethane	2.097	96	1701	Below Cal		93
6) Chloroethane	2.286	64	122	0.14 ug/L	#	1
8) Ethanol	3.144	45	148	2.55 ug/L	#	29
12) Iodomethane	2.986	142	165	3.34 ug/L	#	47
13) Methylene Chloride	3.448	84	443	Below Cal	#	46
14) Acetone	3.588	43	1274	1.15 ug/L	#	42
56) Ethylbenzene	9.513	91	1404	0.17 ug/L		75
58) m,p-Xylenes (2)	9.659	91	1056	0.18 ug/L		90
59) o-Xylene	10.055	91	1178	0.20 ug/L		90
84) Naphthalene	13.206	128	294	0.21 ug/L		79

NR

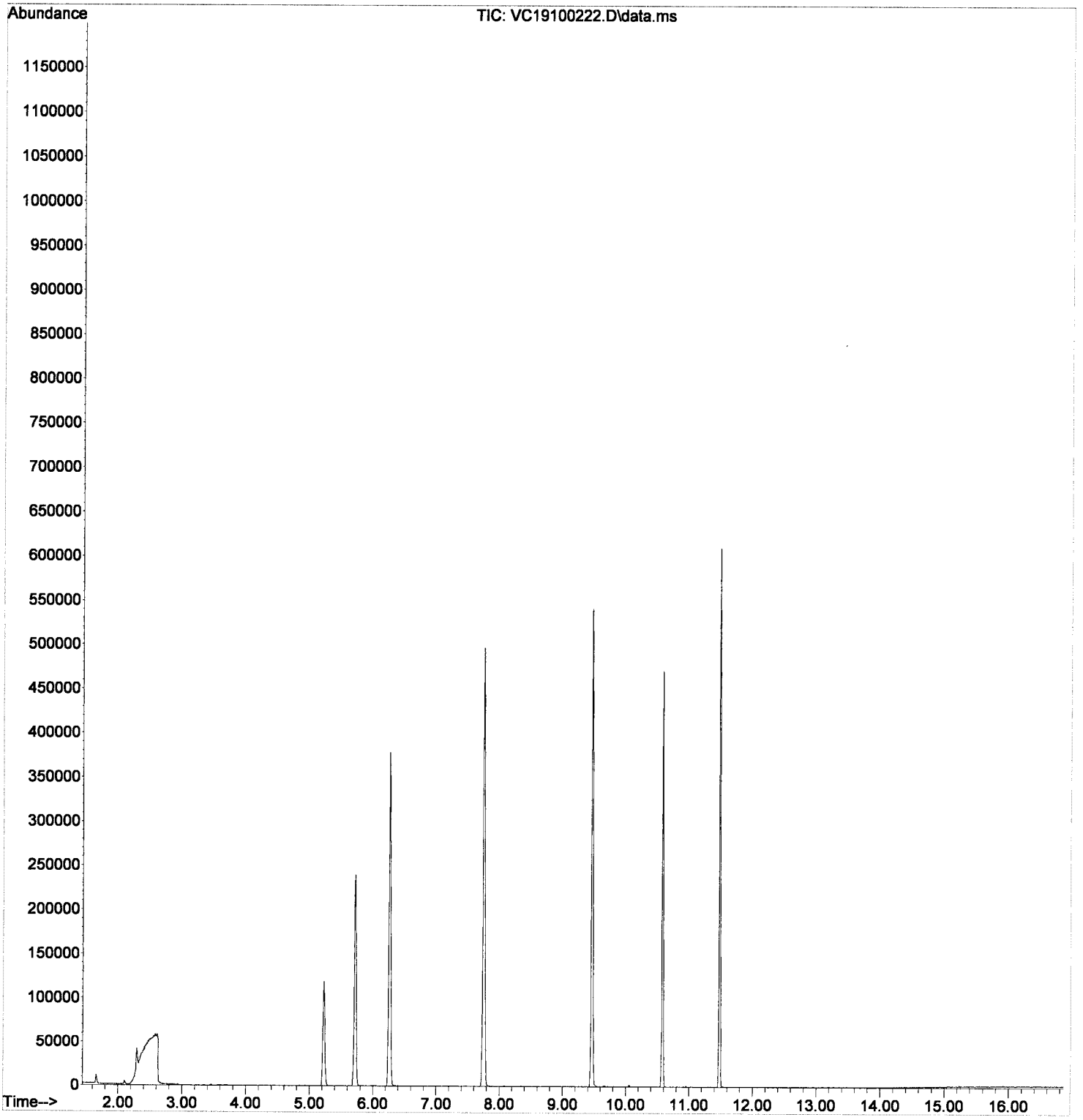
<MDL

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100222.D
Acq On : 2 Oct 2019 8:59 pm
Operator : TB/IMA
Sample : A9J0058-11
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:15 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100223.D
Acq On : 2 Oct 2019 9:26 pm
Operator : TB/IMA
Sample : A9J0058-13
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:18 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

10/3/19

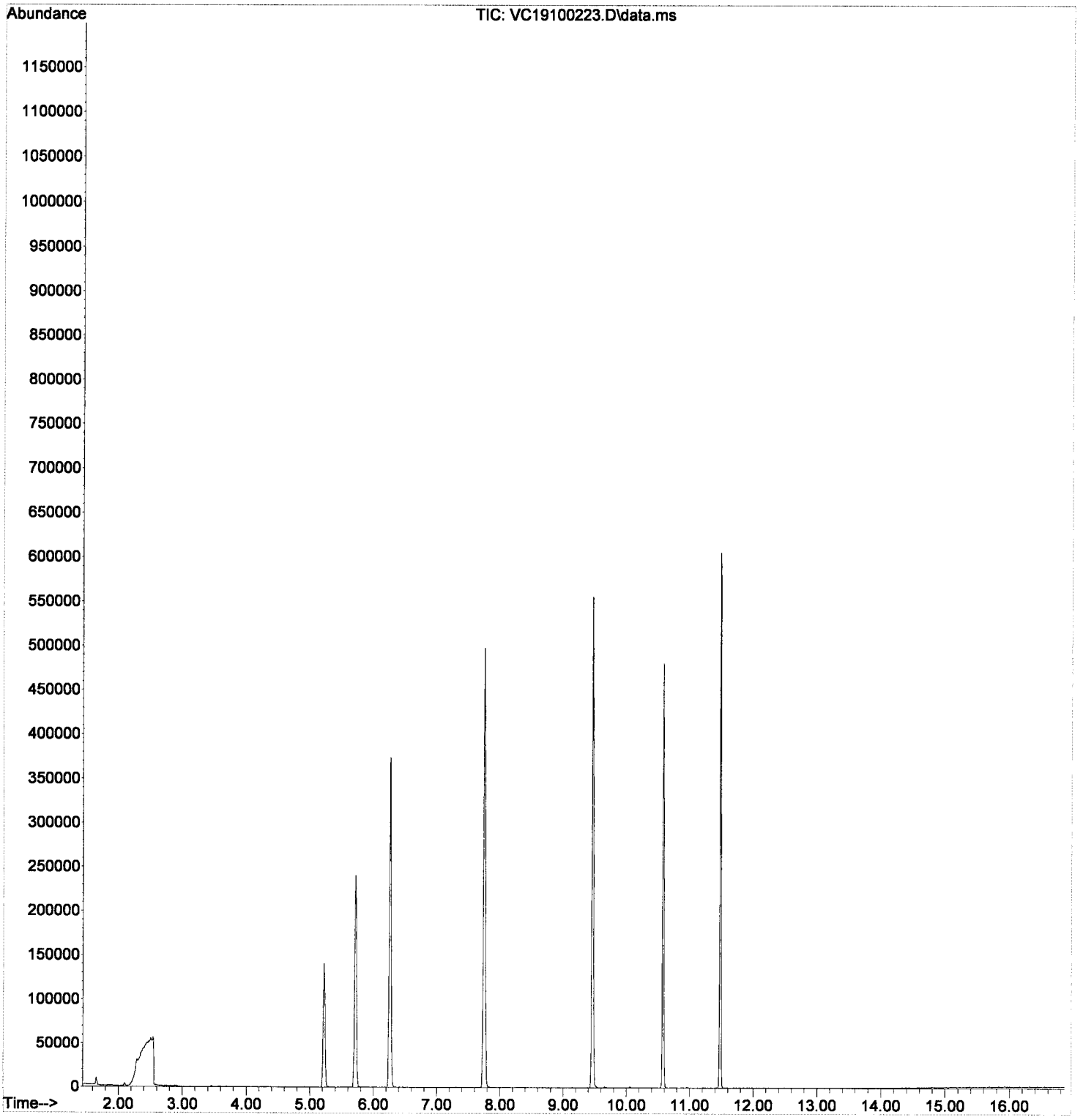
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	5.715	99	100413	50.00 ug/L	0.00
43) Chlorobenzene-d5 (I)	9.462	117	265613	50.00 ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.482	152	121200	50.00 ug/L	0.00
System Monitoring Compounds					
30) Dibromofluoromethane (S)	5.222	111	85673	54.42 ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.262	114	292911	45.21 ug/L	0.00
45) Toluene-d8 (S)	7.747	98	350053	48.93 ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.576	174	102050	52.26 ug/L	0.00
Target Compounds					Qvalue
5) Bromomethane	2.095	96	1203	Below Cal	76
6) Chloroethane	2.259	64	108	0.13 ug/L #	1
8) Ethanol	3.129	45	121	2.11 ug/L #	29
12) Iodomethane	2.990	142	49	2.99 ug/L #	47
13) Methylene Chloride	3.452	84	484	Below Cal #	47
14) Acetone	3.567	43	1264	1.16 ug/L #	42
56) Ethylbenzene	9.517	91	1248	0.16 ug/L	78
58) m,p-Xylenes (2)	9.663	91	980	0.17 ug/L	85
59) o-Xylene	10.052	91	1027	0.17 ug/L	84
84) Naphthalene	13.204	128	54	0.17 ug/L	79

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100223.D
Acq On : 2 Oct 2019 9:26 pm
Operator : TB/IMA
Sample : A9J0058-13
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:18 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100224.D
Acq On : 2 Oct 2019 9:53 pm
Operator : TB/IMA
Sample : A9J0058-14
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:21 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

10/3/19

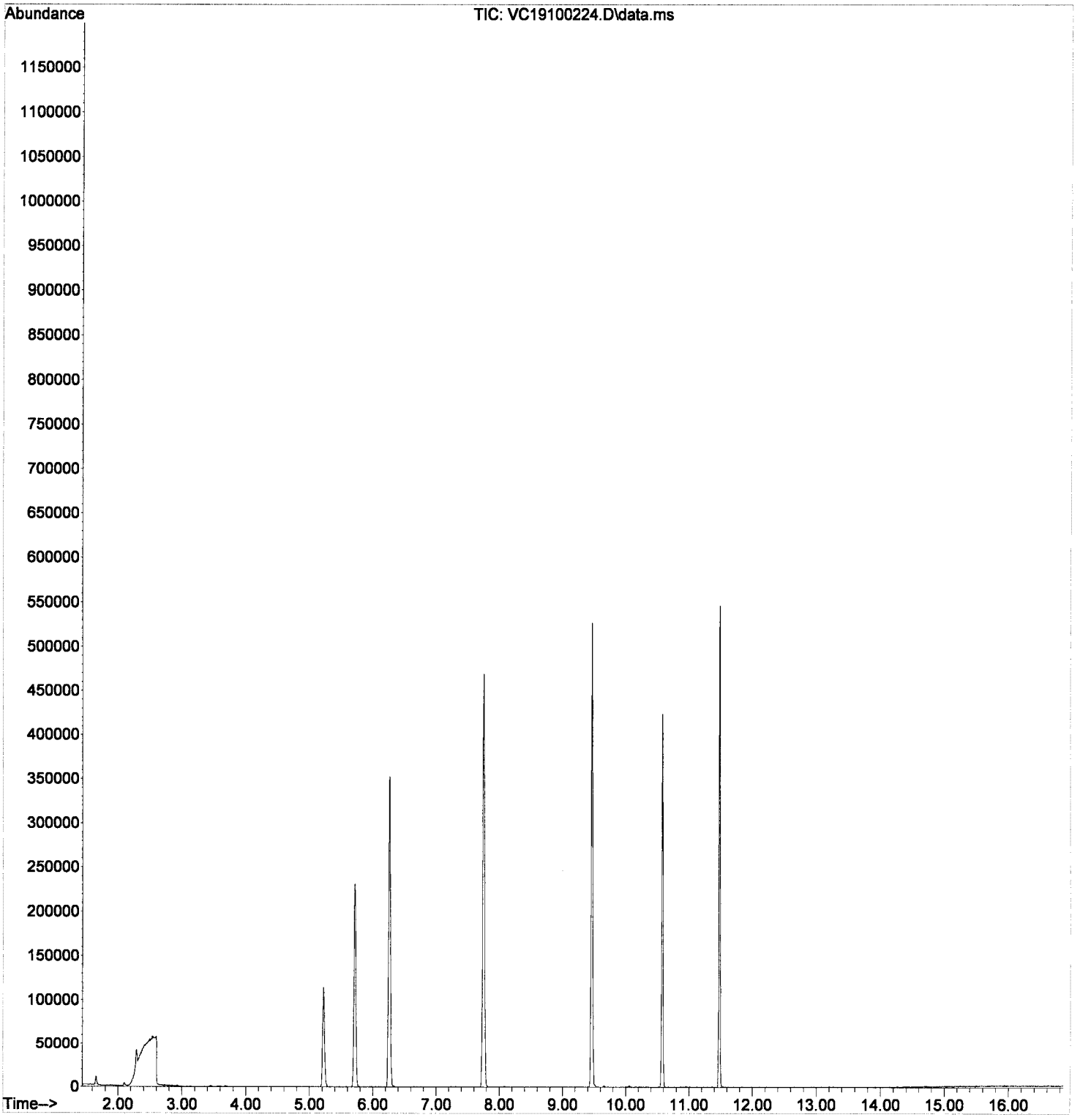
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	5.714	99	96975	50.00 ug/L	0.00
43) Chlorobenzene-d5 (I)	9.462	117	251604	50.00 ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.481	152	110331	50.00 ug/L	0.00
System Monitoring Compounds					
30) Dibromofluoromethane (S)	5.221	111	71893	47.29 ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.262	114	277282	44.31 ug/L	0.00
45) Toluene-d8 (S)	7.752	98	334908	49.42 ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.581	174	91268	51.35 ug/L	0.00
Target Compounds					Qvalue
3) Chloromethane	1.693	50	194	0.11 ug/L #	50
5) Bromomethane	2.101	96	1575	Below Cal	90
6) Chloroethane	2.271	64	177	0.22 ug/L #	1
8) Ethanol	3.129	45	112	2.02 ug/L #	29
12) Iodomethane	2.971	142	49	3.00 ug/L #	47
13) Methylene Chloride	3.445	84	488	Below Cal	84
14) Acetone	3.579	43	1265	1.20 ug/L #	42
56) Ethylbenzene	9.510	91	1352	0.18 ug/L	91
58) m,p-Xylenes (2)	9.650	91	1026	0.18 ug/L	83
59) o-Xylene	10.064	91	1208	0.21 ug/L	70
84) Naphthalene	13.203	128	395	0.23 ug/L	79

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100224.D
Acq On : 2 Oct 2019 9:53 pm
Operator : TB/IMA
Sample : A9J0058-14
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:21 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100225.D
Acq On : 2 Oct 2019 10:20 pm
Operator : TB/IMA
Sample : A9J0058-12
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

QC

Quant Time: Oct 03 17:06:24 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

TB 10/3/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	5.717	99	94953	50.00 ug/L	0.00
43) Chlorobenzene-d5 (I)	9.465	117	240349	50.00 ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.478	152	100065	50.00 ug/L	0.00
System Monitoring Compounds					
30) Dibromofluoromethane (S)	5.224	111	69219	46.50 ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.259	114	267158	43.60 ug/L	0.00
45) Toluene-d8 (S)	7.749	98	321882	49.72 ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.578	174	84120	52.18 ug/L	0.00
Target Compounds					Qvalue
5) Bromomethane	2.104	96	1735	Below Cal	93
6) Chloroethane	2.262	64	161	0.20 ug/L #	1
8) Ethanol	3.132	45	295	5.44 ug/L #	29
13) Methylene Chloride	3.466	84	488	Below Cal	84
14) Acetone	3.588	43	1178	1.14 ug/L #	42
56) Ethylbenzene	9.513	91	1255	0.17 ug/L	94
58) m,p-Xylenes (2)	9.659	91	899	0.17 ug/L	94
59) o-Xylene	10.049	91	979	0.18 ug/L	89
84) Naphthalene	13.200	128	1778	0.49 ug/L	77

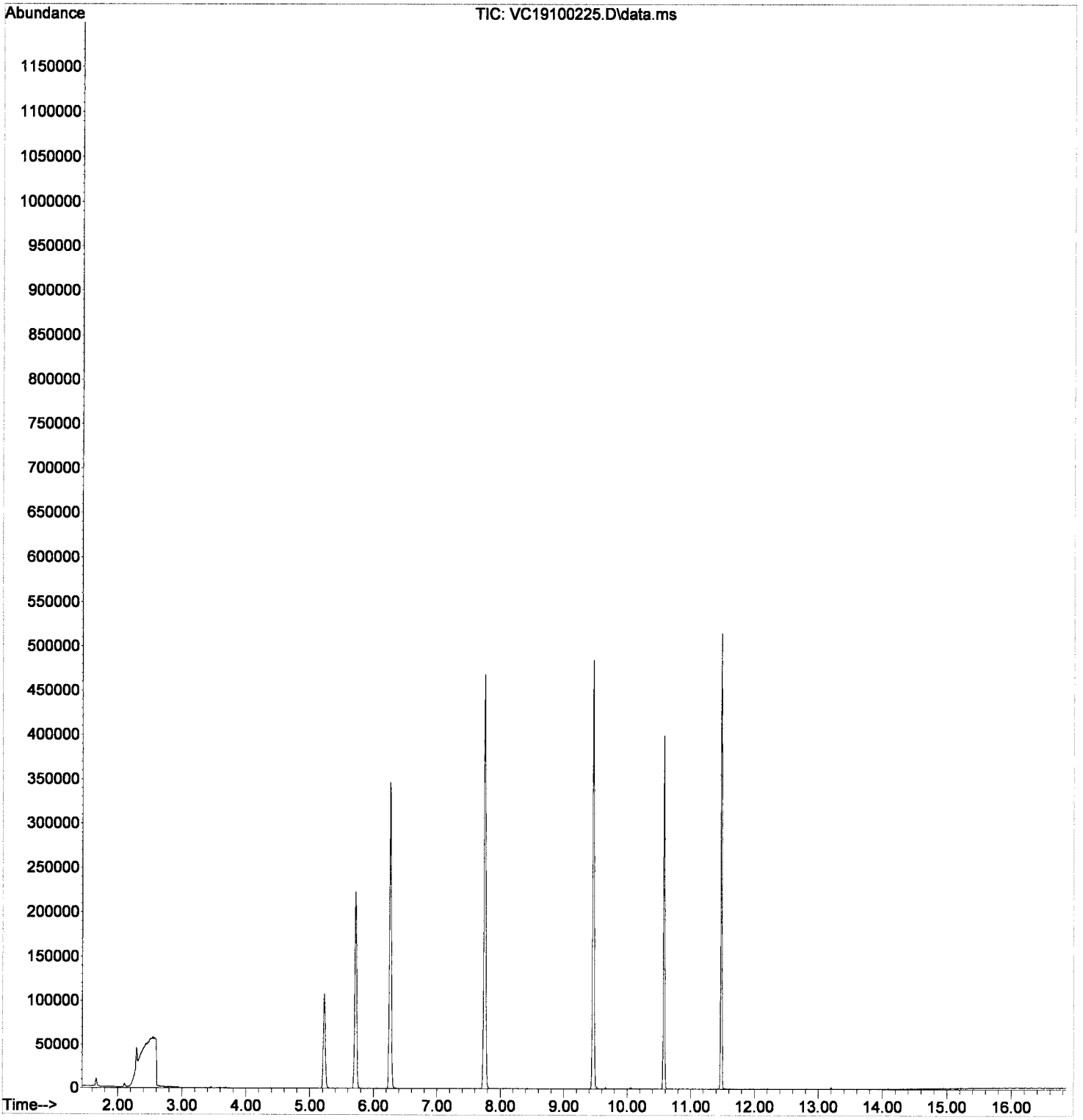
< MDL

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100225.D
Acq On : 2 Oct 2019 10:20 pm
Operator : TB/IMA
Sample : A9J0058-12
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:24 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100226.D
Acq On : 2 Oct 2019 10:47 pm
Operator : TB/IMA
Sample : 9100546-MS2
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:27 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

10/3/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.716	99	101388	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.463	117	259362	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.477	152	121532	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.223	111	77726	48.90	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.264	114	283712	43.37	ug/L		0.00
45) Toluene-d8 (S)	7.748	98	340718	48.78	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.577	174	97214	49.65	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.518	85	34720	24.32	ug/L		98
3) Chloromethane	1.695	50	30076	16.19	ug/L		96
4) Vinyl Chloride	1.780	62	29172	17.05	ug/L		98
5) Bromomethane	2.102	96	20520	17.85	ug/L		96
6) Chloroethane	2.242	64	21519	25.49	ug/L		91
7) Trichlorofluoromethane	2.358	101	56581	29.23	ug/L		99
8) Ethanol	3.124	45	48443	837.06	ug/L		90
9) 1,1-Dichloroethene	2.845	61	49819	20.78	ug/L		99
10) Carbon Disulfide	2.851	76	51400	16.29	ug/L		96
11) Freon 113	2.893	101	38925	23.03	ug/L		90
12) Iodomethane	2.985	142	4962	16.03	ug/L		83
13) Methylene Chloride	3.453	84	25489	13.81	ug/L		86
14) Acetone	3.569	43	42340	38.42	ug/L		85
15) t-1,2-Dichloroethene	3.611	61	39854	17.80	ug/L		95
16) n-Hexane	3.684	86	6752	16.60	ug/L	#	94
17) Methyl-tert-butyl-ether	3.763	73	109582	17.29	ug/L		93
18) tert-Butanol (TBA)	4.037	59	600301	1065.98	ug/L	#	98
19) Diisopropyl ether (DIPE)	4.147	45	23297	3.40	ug/L		97
20) 1,1-Dichloroethane	4.226	63	41702	18.50	ug/L		97
21) Acrylonitrile	4.305	53	16814	16.27	ug/L		92
22) Ethyl-tert-butyl ether...	4.499	59	24226	3.63	ug/L		94
23) c-1,2-Dichloroethene	4.767	61	42543	18.18	ug/L		90
24) 2,2-Dichloropropane	4.864	77	49661	19.17	ug/L		89
25) Bromochloromethane	4.956	49	23678	17.85	ug/L		92
26) Chloroform	5.047	83	58278	21.12	ug/L		95
27) Carbon Tetrachloride	5.162	117	43434	22.51	ug/L		97
28) Tetrahydrofuran	5.223	42	18994	15.95	ug/L		92
29) 1,1,1-Trichloroethane	5.229	97	61034	20.94	ug/L		99
31) 1,1-Dichloropropene	5.357	75	46085	18.49	ug/L		93
32) 2-Butanone (MEK)	5.381	43	57810	32.72	ug/L		95
33) Benzene	5.607	78	123359	17.00	ug/L		95
34) tert-Amyl methyl ether...	5.759	73	21321	3.63	ug/L		93
35) 1,2-Dichloroethane (EDC)	5.819	62	66650	22.10	ug/L		95
36) iso-Butyl Alcohol	5.972	43	72417	359.11	ug/L		84
38) Trichloroethene (TCE)	6.221	130	35970	17.69	ug/L		87
39) tert-Amyl ethyl ether ...	6.495	59	16324	3.57	ug/L		85
40) Dibromomethane	6.659	93	18923	19.47	ug/L		85
41) 1,2-Dichloropropane	6.768	63	28831	15.88	ug/L		58
42) Bromodichloromethane	6.848	83	36990	20.94	ug/L		93
44) c-1,3-Dichloropropene	7.547	75	39869	18.20	ug/L		86
46) Toluene	7.809	91	134650	18.99	ug/L		98
47) Tetrachloroethene (PCE)	8.247	166	35564	20.84	ug/L		84
48) 4-Methyl-2-Pentanone (...	8.277	43	89776	37.11	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100226.D
Acq On : 2 Oct 2019 10:47 pm
Operator : TB/IMA
Sample : 9100546-MS2
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:27 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

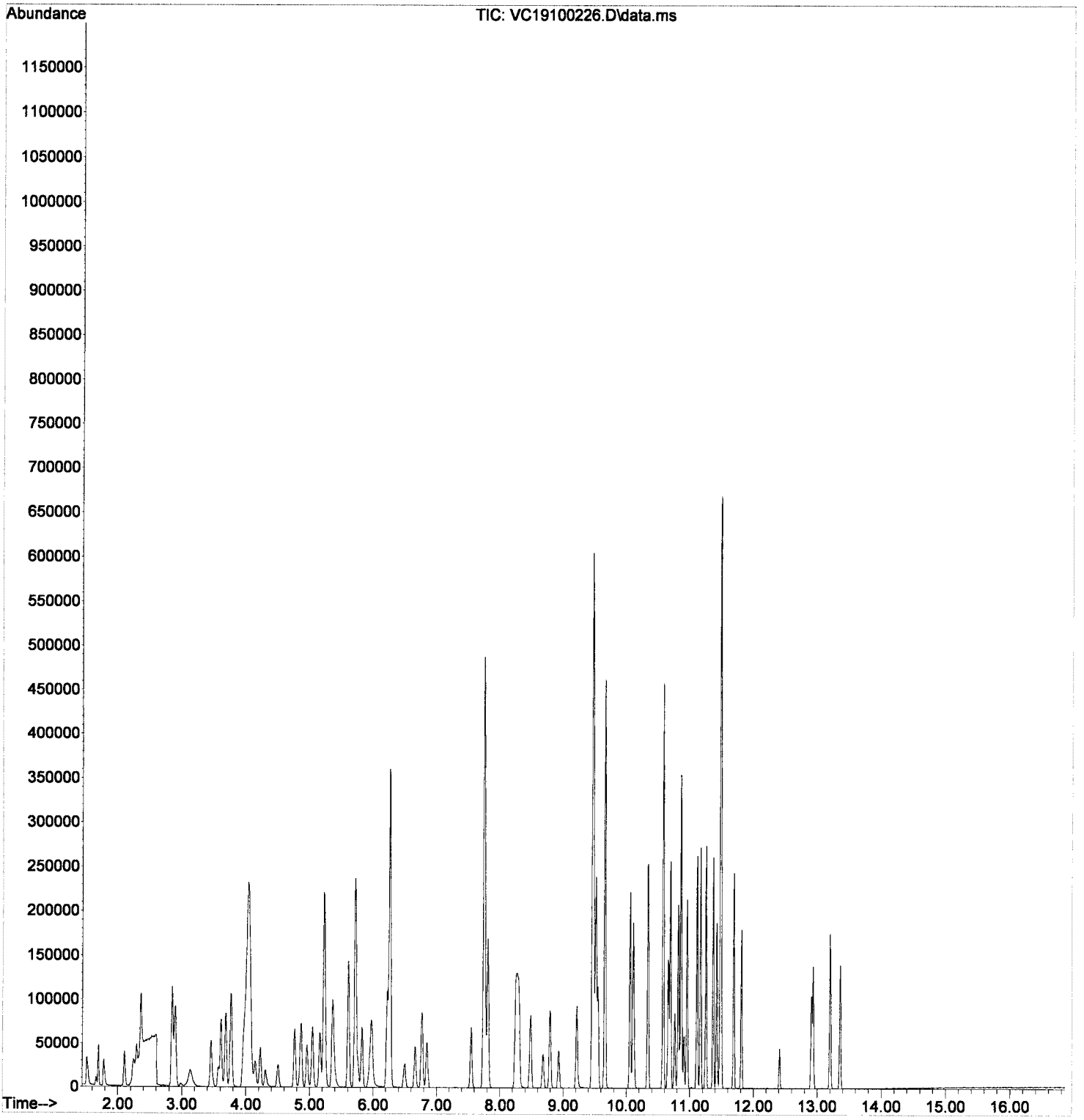
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.302	75	43268	19.86	ug/L		91
50) 1,1,2-Trichloroethane	8.484	97	27104	20.35	ug/L		85
51) Dibromochloromethane	8.685	129	23184	20.54	ug/L		93
52) 1,3-Dichloropropane	8.794	76	51300	19.99	ug/L		87
53) 1,2-Dibromoethane (EDB)	8.928	107	29042	21.42	ug/L		98
54) 2-Hexanone	9.214	43	66477	37.63	ug/L		91
55) Chlorobenzene	9.476	112	84095	19.02	ug/L		91
56) Ethylbenzene	9.512	91	158062	20.12	ug/L		97
57) 1,1,1,2-Tetrachloroethane	9.549	131	27966	21.25	ug/L		94
58) m,p-Xylenes (2)	9.658	91	236393	41.23	ug/L		91
59) o-Xylene	10.054	91	113889	19.66	ug/L		91
60) Styrene	10.102	104	74638	19.51	ug/L		91
61) Bromoform	10.120	173	12964	19.59	ug/L		94
62) Isopropylbenzene	10.339	105	143503	21.09	ug/L		94
65) Bromobenzene	10.662	156	32692	20.36	ug/L		93
66) n-Propylbenzene	10.692	91	163316	20.99	ug/L		95
67) 1,1,2,2-Tetrachloroethane	10.759	83	29091	18.05	ug/L		99
68) 2-Chlorotoluene	10.814	126	30389	19.97	ug/L	#	82
69) 1,3,5-Trimethylbenzene	10.857	105	116972	21.04	ug/L		93
70) 1,2,3-Trichloropropane	10.863	110	16514	23.04	ug/L	#	76
71) t-1,4-Dichloro-2-butene	10.905	88	5474	17.39	ug/L	#	66
72) 4-Chlorotoluene	10.954	91	98420	22.00	ug/L		92
73) tert-Butylbenzene	11.112	91	73801	23.14	ug/L		82
74) 1,2,4-Trimethylbenzene	11.167	105	116327	20.97	ug/L		91
75) sec-Butylbenzene	11.252	105	141245	21.99	ug/L		97
76) 4-Isopropyltoluene	11.368	119	119691	21.62	ug/L		95
77) 1,3-Dichlorobenzene	11.422	146	60281	21.16	ug/L		97
78) 1,4-Dichlorobenzene	11.489	146	60127	19.73	ug/L		92
79) n-Butylbenzene	11.690	91	100573	21.13	ug/L		96
80) 1,2-Dichlorobenzene	11.812	146	53961	19.57	ug/L		96
81) 1,2-Dibromo-3-Chloropr...	12.408	157	7756	15.67	ug/L	#	36
82) Hexachlorobutadiene	12.907	223	10225	20.00	ug/L		91
83) 1,2,4-Trichlorobenzene	12.931	180	33998	19.12	ug/L		95
84) Naphthalene	13.199	128	111554	17.16	ug/L		92
85) 1,2,3-Trichlorobenzene	13.357	180	35727	19.83	ug/L		94

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100226.D
Acq On : 2 Oct 2019 10:47 pm
Operator : TB/IMA
Sample : 9100546-MS2
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:27 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100227.D
Acq On : 2 Oct 2019 11:14 pm
Operator : TB/IMA
Sample : 9100546-MSD2
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:30 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

10/3/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.715	99	101078	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.462	117	259741	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.482	152	125396	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.222	111	79625	50.25	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.262	114	283323	43.44	ug/L		0.00
45) Toluene-d8 (S)	7.753	98	339720	48.56	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.576	174	99815	49.41	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.517	85	34712	24.39	ug/L		98
3) Chloromethane	1.694	50	31248	16.87	ug/L		97
4) Vinyl Chloride	1.779	62	30619	17.95	ug/L		98
5) Bromomethane	2.101	96	20752	18.15	ug/L		98
6) Chloroethane	2.235	64	21089	25.06	ug/L		96
7) Trichlorofluoromethane	2.357	101	57884	30.00	ug/L		95
8) Ethanol	3.136	45	45624	790.77	ug/L		84
9) 1,1-Dichloroethene	2.844	61	47671	19.94	ug/L		96
10) Carbon Disulfide	2.856	76	51274	16.30	ug/L		96
11) Freon 113	2.892	101	35321	20.96	ug/L		91
12) Iodomethane	2.990	142	5609	17.57	ug/L		68
13) Methylene Chloride	3.458	84	25348	13.77	ug/L		85
14) Acetone	3.567	43	41023	37.34	ug/L		77
15) t-1,2-Dichloroethene	3.610	61	39844	17.85	ug/L		90
16) n-Hexane	3.689	86	6125	14.93	ug/L	#	91
17) Methyl-tert-butyl-ether	3.768	73	110803	17.54	ug/L		91
18) tert-Butanol (TBA)	4.036	59	576530	1026.91	ug/L	#	99
19) Diisopropyl ether (DIPE)	4.145	45	23517	3.45	ug/L		93
20) 1,1-Dichloroethane	4.225	63	41740	18.58	ug/L		97
21) Acrylonitrile	4.304	53	16699	16.20	ug/L		90
22) Ethyl-tert-butyl ether...	4.504	59	24289	3.65	ug/L		99
23) c-1,2-Dichloroethene	4.760	61	42313	18.14	ug/L		87
24) 2,2-Dichloropropane	4.863	77	48952	18.95	ug/L		87
25) Bromochloromethane	4.955	49	23875	18.05	ug/L		86
26) Chloroform	5.046	83	58741	21.35	ug/L		97
27) Carbon Tetrachloride	5.161	117	43704	22.72	ug/L		95
28) Tetrahydrofuran	5.222	42	17506	14.75	ug/L		81
29) 1,1,1-Trichloroethane	5.234	97	59937	20.63	ug/L		98
31) 1,1-Dichloropropene	5.356	75	45043	18.13	ug/L		92
32) 2-Butanone (MEK)	5.380	43	56183	31.89	ug/L		93
33) Benzene	5.612	78	121414	16.78	ug/L		95
34) tert-Amyl methyl ether...	5.758	73	22138	3.78	ug/L		95
35) 1,2-Dichloroethane (EDC)	5.824	62	65673	21.84	ug/L		93
36) iso-Butyl Alcohol	5.964	43	71133	353.82	ug/L		86
38) Trichloroethene (TCE)	6.220	130	34657	17.10	ug/L		88
39) tert-Amyl ethyl ether ...	6.494	59	16239	3.57	ug/L		88
40) Dibromomethane	6.658	93	20213	20.86	ug/L		87
41) 1,2-Dichloropropane	6.767	63	28804	15.91	ug/L		70
42) Bromodichloromethane	6.853	83	38151	21.66	ug/L		99
44) c-1,3-Dichloropropene	7.546	75	40396	18.41	ug/L		87
46) Toluene	7.808	91	129800	18.28	ug/L		97
47) Tetrachloroethene (PCE)	8.252	166	35348	20.68	ug/L		89
48) 4-Methyl-2-Pentanone (...	8.276	43	89609	36.98	ug/L		96

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100227.D
Acq On : 2 Oct 2019 11:14 pm
Operator : TB/IMA
Sample : 9100546-MSD2
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:30 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

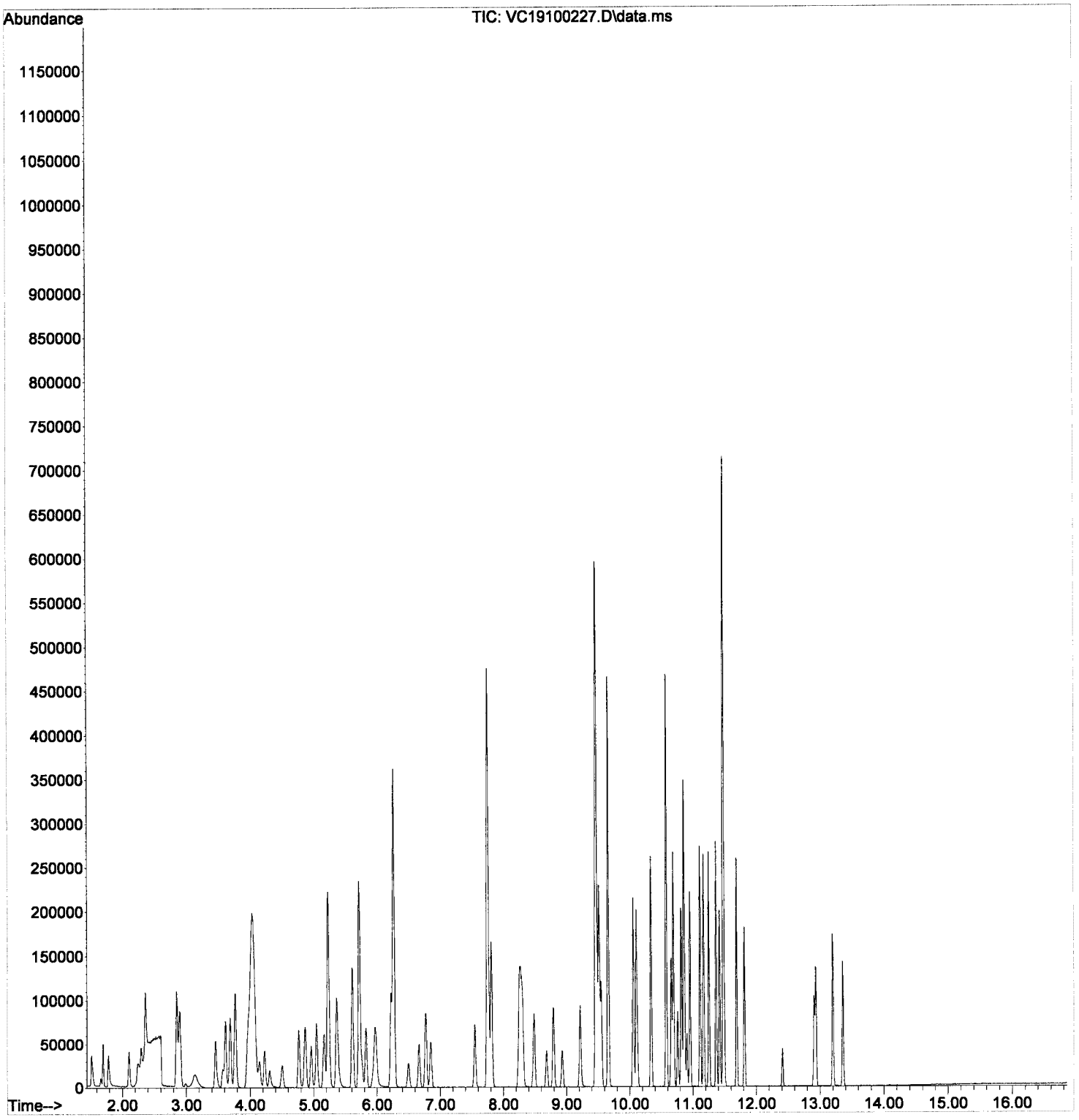
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
49) t-1,3-Dichloropropene	8.300	75	43797	20.08 ug/L		94
50) 1,1,2-Trichloroethane	8.483	97	28173	21.12 ug/L		88
51) Dibromochloromethane	8.684	129	24070	21.25 ug/L		98
52) 1,3-Dichloropropane	8.793	76	52249	20.33 ug/L		93
53) 1,2-Dibromoethane (EDB)	8.927	107	29218	21.51 ug/L		99
54) 2-Hexanone	9.213	43	67548	38.18 ug/L		90
55) Chlorobenzene	9.481	112	83531	18.87 ug/L		90
56) Ethylbenzene	9.511	91	154817	19.67 ug/L		94
57) 1,1,1,2-Tetrachloroethane	9.548	131	28689	21.71 ug/L		96
58) m,p-Xylenes (2)	9.657	91	235016	40.93 ug/L		91
59) o-Xylene	10.059	91	113958	19.64 ug/L		92
60) Styrene	10.107	104	76743	20.03 ug/L		96
61) Bromoform	10.119	173	14197	21.26 ug/L		93
62) Isopropylbenzene	10.338	105	140097	20.56 ug/L		95
65) Bromobenzene	10.661	156	33833	20.42 ug/L		92
66) n-Propylbenzene	10.691	91	161791	20.15 ug/L		93
67) 1,1,2,2-Tetrachloroethane	10.758	83	29620	17.81 ug/L		96
68) 2-Chlorotoluene	10.819	126	31040	19.77 ug/L		89
69) 1,3,5-Trimethylbenzene	10.855	105	117513	20.49 ug/L		93
70) 1,2,3-Trichloropropane	10.862	110	16084	21.75 ug/L	#	82
71) t-1,4-Dichloro-2-butene	10.904	88	5897	18.15 ug/L	#	67
72) 4-Chlorotoluene	10.953	91	98551	21.35 ug/L		93
73) tert-Butylbenzene	11.111	91	73741	22.41 ug/L		85
74) 1,2,4-Trimethylbenzene	11.166	105	118608	20.72 ug/L		90
75) sec-Butylbenzene	11.251	105	140172	21.15 ug/L		96
76) 4-Isopropyltoluene	11.367	119	118094	20.67 ug/L		94
77) 1,3-Dichlorobenzene	11.421	146	60739	20.66 ug/L		96
78) 1,4-Dichlorobenzene	11.488	146	62008	19.72 ug/L		95
79) n-Butylbenzene	11.689	91	101839	20.73 ug/L		95
80) 1,2-Dichlorobenzene	11.811	146	55492	19.50 ug/L		98
81) 1,2-Dibromo-3-Chloropr...	12.413	157	8200	16.03 ug/L	#	54
82) Hexachlorobutadiene	12.906	223	10849	20.56 ug/L		93
83) 1,2,4-Trichlorobenzene	12.936	180	35912	19.57 ug/L		96
84) Naphthalene	13.198	128	115108	17.16 ug/L		94
85) 1,2,3-Trichlorobenzene	13.356	180	36366	19.57 ug/L		96

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-10\9J02042\
Data File : VC19100227.D
Acq On : 2 Oct 2019 11:14 pm
Operator : TB/IMA
Sample : 9100546-MSD2
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Oct 03 17:06:30 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



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

Selected Volatile Organic Compounds by EPA 8260C
Benchsheet & Analysis Sequence Data

Batch 9100596
Sequence 9J03035 (A9J0058-17,18,19,20,21,24,25,26)

PREPARATION BENCH SHEET

BATCH #: 9100596 (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*
9100596-BLK1		QC	10/03/19 11:00	7.5	5							
9100596-BS1		QC	10/03/19 11:00	5	5	A19I354		250				
9100596-BS2		QC	10/03/19 11:00	5	5	A19I278		250				
A9J0044-03RE1	C	NWTPH-Gx	(Date Sampled)	6.43	5					4HF01-WALL-15-12'	50X (RR01) FP	
A9J0053-04RE1	B	8260C Full List	(Date Sampled)	6.31	5					SB2-S1-15	200X (RR01) FP	
A9J0053-04RE1	B	NWTPH-Gx	(Date Sampled)	6.31	5					SB2-S1-15	200X (RR01) FP	
A9J0053-05RE1	B	NWTPH-Gx	(Date Sampled)	6.49	5					SB2-S1-DUP	200X (RR01) FP	
A9J0053-05RE1	B	8260C Full List	(Date Sampled)	6.49	5					SB2-S1-DUP	200X (RR01) FP	
A9J0058-17	B	8260C BTEX+Halo6	(Date Sampled)	5.71	5					PDI-042SC-B-11.9-13.8-190930	FP	
A9J0058-18	B	8260C BTEX+Halo6	(Date Sampled)	4.97	5					PDI-042SC-B-3.9-5.9-190930	FP	
A9J0058-19	B	8260C BTEX+Halo6	(Date Sampled)	5.59	5					PDI-042SC-B-5.9-7.9-190930	FP	
A9J0058-20	B	8260C BTEX+Halo6	(Date Sampled)	5.45	5					PDI-042SC-B-7.9-9.9-190930	FP	
A9J0058-21	B	8260C BTEX	(Date Sampled)	4.61	5					PDI-042SC-B-9.9-11.9-190930	Added for BatchQC in: 9100596	
A9J0058-21	B	8260C BTEX+Halo6	(Date Sampled)	4.61	5					PDI-042SC-B-9.9-11.9-190930	FP	
A9J0058-21	B	8260C Full List	(Date Sampled)	4.61	5					PDI-042SC-B-9.9-11.9-190930	Added for BatchQC in: 9100596	
A9J0058-21	B	NWTPH-Gx	(Date Sampled)	4.61	5					PDI-042SC-B-9.9-11.9-190930	Added for BatchQC in: 9100596	
9100596-DUP1		QC 9/30/19 1207	~~10/03/19 12:56~~ 10/04/19	4.46	5		A9J0058-21					
A9J0058-24	B	8260C BTEX+Halo6	(Date Sampled)	6.32	5					PDI-044SC-B-11.1-12.8-190930	FP	
A9J0058-25	B	8260C BTEX+Halo6	(Date Sampled)	5.68	5					PDI-044SC-B-7.1-9.1-190930	FP	
A9J0058-26	B	8260C BTEX+Halo6	(Date Sampled)	5.35	5					PDI-044SC-B-9.1-11.1-190930	FP	
A9J0058-26	B	8260C BTEX	(Date Sampled)	5.35	5					PDI-044SC-B-9.1-11.1-190930	Added for BatchQC in: 9100596	
A9J0058-26	B	8260C Full List	(Date Sampled)	5.35	5					PDI-044SC-B-9.1-11.1-190930	Added for BatchQC in: 9100596	

IMA 10/4/19
Prepared By: Date

Reviewed By: 10/4/19
Date

PREPARATION BENCH SHEET

BATCH #: 9100596 (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*
A9J0058-26	B	NWTPH-Gx	(Date Sampled)	5.35	5					PDI-044SC-B-9.1-11.1-190930	Added for BatchQC in: 9100596	
9100596-MS1		QC 9/30/19 1507	~~10/03/19 12:56~~ 10/4/19	5.35	5	A19I354	A9J0058-26	280			DW = 88.6% @50X	
A9J0073-01	B	NWTPH-Gx	10/02/19 16:32	1.5	5					Tank 104 #1	MOD	
A9J0073-01	B	8260C Full List	10/02/19 16:32	1.5	5					Tank 104 #1	MOD	
A9J0074-07	E	8260C Full List	10/02/19 17:23	5.55	5					NW DRUMS	MOD	
A9J0075-01	B	8260C BTEX	(Date Sampled)	4.29	5					GP-1-2.0-2.5	FP	
A9J0075-01	B	NWTPH-Gx	(Date Sampled)	4.29	5					GP-1-2.0-2.5	FP	
A9J0075-02	B	NWTPH-Gx	(Date Sampled)	5.53	5					GP-2-2.5-3.5	FP	
A9J0075-02	B	8260C BTEX	(Date Sampled)	5.53	5					GP-2-2.5-3.5	FP	
A9J0075-03	B	8260C BTEX	(Date Sampled)	5.96	5					GP-3-2.0-2.5	FP	
A9J0075-03	B	NWTPH-Gx	(Date Sampled)	5.96	5					GP-3-2.0-2.5	FP	
A9J0123-02	B	NWTPH-Gx	(Date Sampled)	6.5	5					GP-2-11.0-12.0	FP	
A9J0123-02	B	8260C BTEX	(Date Sampled)	6.5	5					GP-2-11.0-12.0	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
A19I278	02/17/20	Prim NWTPH-Gx Spike (500 ug/mL)
A19I354	02/24/20	8260 Cal. Std. B VOC+OXY Spike (20-40ug/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: 9100596

Matrix Spike

Sample Weight	Final Volume	Dilution	Dry Weight
g	mL		%
5.350 ✓	5	50	88.6 ✓
			0.886

Final Spike Level	**Spike Amount**
ug/kg	**ul**
1183.5	**280** ✓

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

A9J0058-26

IMA
10/4/19

Worksheet

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

A9J0058-17	B	39.48	33.77	5.71	
19	B	39.36	33.77	5.59	
21	B	38.21	33.6	4.61	
24	B	39.84	33.52	6.32	
26	B	38.88	33.53	5.35	
2	B	39.48	33.95	5.53	
A9J00123-02	B	39.66	33.16	6.5	
				0	
				0	
				0	
				0	
				0	
				0	
				0	

IMA
10/4/19

A9J0073

5035 Container Prep Worksheet
~Soil Jar Extraction~

A9J0073-01	Tank 104 #1						Sampled: 10/02/19 00:00
B Solid	40 mL VOA - In House Prep - 5035 (MeOH)	Container Used: A	Sample Weight (g): 1.50	Volume MeOH (mL): (5) 10 15	Prepared By: KMS @	Prepared date/time: 10/2/19 16:32	Within 48 hours? (Y) N
Notes: MOD, ODOR							
NWTPH-Gx/8260C Full List	Expires: 10/04/19 00:00	Due: 10/04/19 17:00					
Comments: Strong Odor							

A9J0073-02	Tank 104 #2						Sampled: 10/02/19 00:00
B Solid	40 mL VOA - In House Prep - 5035 (MeOH)	Container Used:	Sample Weight (g): 1.29	Volume MeOH (mL): (5) 10 15	Prepared By: _____ @	Prepared date/time: _____	Within 48 hours? (Y) N
Notes:							
NWTPH-Gx/8260C Full List	Expires: 10/04/19 00:00	Due: 10/04/19 17:00					
Comments: Strong Odor	Cancelled 2, 3, 4						

A9J0073-03	Tank 104 #3						Sampled: 10/02/19 00:00
B Solid	40 mL VOA - In House Prep - 5035 (MeOH)	Container Used:	Sample Weight (g): 1.68	Volume MeOH (mL): (5) 10 15	Prepared By: _____ @	Prepared date/time: _____	Within 48 hours? (Y) N
Notes:							
NWTPH-Gx/8260C Full List	Expires: 10/04/19 00:00	Due: 10/04/19 17:00					
Comments: Strong Odor							

A9J0073-04	Tank 104 #4						Sampled: 10/02/19 00:00
B Solid	40 mL VOA - In House Prep - 5035 (MeOH)	Container Used:	Sample Weight (g): 1.71	Volume MeOH (mL): (5) 10 15	Prepared By: _____ @	Prepared date/time: _____	Within 48 hours? (Y) N
Notes:							
NWTPH-Gx/8260C Full List	Expires: 10/04/19 00:00	Due: 10/04/19 17:00					
Comments: Strong Odor							

16:32

Methanol Reagent ID: A19I219~ Balance ID: A18J327~

Print Date: 10/2/2019 4:21:47PM

A9J0074

5035 Container Prep Worksheet
~Soil Jar Extraction~

A9J0074-07		NW DRUMS						Sampled: 10/02/19 12:30
E Soil	40 mL VOA - In House Prep - 5035 (MeOH)	Container Used: A	Sample Weight (g): 5.55	Volume MeOH (mL): 5 10 15	Prepared By: MJ	Prepared date/time: @ 10/2/19 17:23	Within 48 hours? Y N	Notes: MOD
F Soil	40 mL VOA - In House Prep - 5035 (MeOH)	Container Used:	Sample Weight (g): 5.63	Volume MeOH (mL): 5 10 15	Prepared By:	Prepared date/time: @	Within 48 hours? Y N	Notes:
8260C Full List		Expires: 10/04/19 12:30		Due: 10/15/19 17:00				

A9J0058

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0058-17 **PDI-042SC-B-11.9-13.8-190930** Sampled: **09/30/19 12:29**

B Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.48	Tare Weight (g): 33.77	Volume MeOH (mL): (5) 10 15 Other	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.13	Tare Weight (g): 33.46	Volume MeOH (mL): (5) 10 15 Other	Notes:

Due: TAT:

A9J0058-18 **PDI-042SC-B-3.9-5.9-190930** Sampled: **09/30/19 12:05**

B Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.52	Tare Weight (g): 33.55	Volume MeOH (mL): (5) 10 15 Other	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.57	Tare Weight (g): 33.67	Volume MeOH (mL): (5) 10 15 Other	Notes:

Due: TAT:

A9J0058-19 **PDI-042SC-B-5.9-7.9-190930** Sampled: **09/30/19 12:06**

B Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.36	Tare Weight (g): 33.77	Volume MeOH (mL): (5) 10 15 Other	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.47	Tare Weight (g): 34.04	Volume MeOH (mL): (5) 10 15 Other	Notes:

Due: TAT:

A9J0058-20 **PDI-042SC-B-7.9-9.9-190930** Sampled: **09/30/19 12:06**

B Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.23	Tare Weight (g): 33.78	Volume MeOH (mL): (5) 10 15 Other	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.99	Tare Weight (g): 33.44	Volume MeOH (mL): (5) 10 15 Other	Notes:

Due: TAT:

A9J0058-21 **PDI-042SC-B-9.9-11.9-190930** Sampled: **09/30/19 12:07**

B Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.21	Tare Weight (g): 33.60	Volume MeOH (mL): (5) 10 15 Other	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.09	Tare Weight (g): 33.63	Volume MeOH (mL): (5) 10 15 Other	Notes: DUP

Due: TAT:

Weighed by: (8) @ 10/02/19 1648

Methanol Reagent ID: A19I219~ Balance ID: A18J327~

Print Date: 10/2/2019 1:53:26PM

A9J0058

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0058-24 — **PDI-044SC-B-11.1-12.8-190930** — Sampled: **09/30/19 15:15**

B Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 34.84	Tare Weight (g): 33.52	Volume MeOH (mL): (5) 10 15 Other	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.90	Tare Weight (g): 33.64	Volume MeOH (mL): (5) 10 15 Other	Notes:

Due: TAT:

A9J0058-25 — **PDI-044SC-B-7.1-9.1-190930** — Sampled: **09/30/19 15:06**

B Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 39.20	Tare Weight (g): 33.52	Volume MeOH (mL): (5) 10 15 Other	Notes:
C Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.77	Tare Weight (g): 33.80	Volume MeOH (mL): (5) 10 15 Other	Notes:

Due: TAT:

A9J0058-26 — **PDI-044SC-B-9.1-11.1-190930** — Sampled: **09/30/19 15:07**

B Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.88	Tare Weight (g): 33.53	Volume MeOH (mL): (5) 10 15 Other	Notes: MS
C Sediment	40 mL VOA - 5035 (MeOH)	Container Weight (g): 38.91	Tare Weight (g): 33.61	Volume MeOH (mL): (5) 10 15 Other	Notes:

Due: TAT:

Weighed by: [illegible] @ 10/02/19 1648

Methanol Reagent ID: A19I219~ Balance ID: A18J327~

Print Date: 10/2/2019 1:53:26PM

A9J0075

5035 Container Prep Worksheet
~Field MeOH Preserved~

(Prepared = Sampled Date/Time)

A9J0075-01 — **GP-1-2.0-2.5** — Sampled: **10/01/19 10:50**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	37.72	33.43	(5) 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	38.47	33.79	(5) 10 15 Other	

8260C BTEX — Due: 10/07/19 17:00 — TAT: 3
NWTPH-Gx — Due: 10/07/19 17:00 — TAT: 3

A9J0075-02 — **GP-2-2.5-3.5** — Sampled: **10/01/19 11:45**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	39.48	33.95	(5) 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	38.88	33.44	(5) 10 15 Other	

Gx + BTEX — Due: — TAT:

A9J0075-03 — **GP-3-2.0-2.5** — Sampled: **10/01/19 13:30**

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	39.61	33.65	(5) 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	41.04	33.98	(5) 10 15 Other	

Gx + BTEX — Due: — TAT:

Weighed by: AB @ 10/2/19 1755

Methanol Reagent ID: A190218 — Balance ID: A186327

A9J0123

5035 Container Prep Worksheet ~Field MeOH Preserved~

GCMS10

(Prepared = Sampled Date/Time)

A9J0123-01 GP-1-11.0-12.0 Sampled: 10/01/19 17:00

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	40.57	33.54	(5) 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	41.50	33.46	(5) 10 15 Other	

8260C BTEX Due: 10/08/19 17:00 TAT: 3
NWTPH-Gx Due: 10/08/19 17:00 TAT: 3

A9J0123-02 GP-2-11.0-12.0 Sampled: 10/02/19 09:20

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	39.66	33.16	(5) 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	40.09	33.98	(5) 10 15 Other	

8260C BTEX Due: 10/08/19 17:00 TAT: 3
NWTPH-Gx Due: 10/08/19 17:00 TAT: 3

A9J0123-03 GP-2-14.7-15.0 Sampled: 10/02/19 09:25

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	38.67	33.75	(5) 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	37.91	34.02	(5) 10 15 Other	

Due: TAT:

A9J0123-04 GP-2-19.0-20.0 Sampled: 10/02/19 09:30

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	38.86	33.46	(5) 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	38.23	33.29	(5) 10 15 Other	

Due: TAT:

A9J0123-05 GP-3-8.0-9.0 Sampled: 10/02/19 11:20

		Container Weight (g)	Tare Weight (g)	Volume MeOH (mL)	Notes:
B Soil	40 mL VOA - 5035 (MeOH)	38.77	33.48	(5) 10 15 Other	
C Soil	40 mL VOA - 5035 (MeOH)	39.58	33.90	(5) 10 15 Other	

8260C BTEX Due: 10/08/19 17:00 TAT: 3
NWTPH-Gx Due: 10/08/19 17:00 TAT: 3

Weighed by: [signature] 10/3/19 1700

Methanol Reagent ID: A19I219~ Balance ID: A18J327~

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9J03035	Instrument:	VOA-GCMS10
Date:	10/03/19 11:42	Calibration:	A9I2702

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J03035-TUN1	Soil	QC	QC			A19G118	
2	9J03035-CCV1	Soil	QC	QC			A19G118	
3	9100596-BS1	Soil	QC	QC		9100596	A19G118	
4	9J03035-CCV2	Soil	QC	QC			A19G118	
5	9100596-BS2	Soil	QC	QC		9100596	A19G118	
6	9100596-BLK1	Soil	QC	QC		9100596	A19G118	
7	A9J0058-17	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100596	A19G118	
8	A9J0058-18	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100596	A19G118	
9	A9J0058-19	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100596	A19G118	
10	A9J0058-20	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100596	A19G118	
11	A9J0058-21	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100596	A19G118	
"	"	Soil	8260C Full List	(QC Source)		9100596	A19G118	
"	"	Soil	8260C BTEX	(QC Source)		9100596	A19G118	
"	"	Soil	NWTPH-Gx	(QC Source)		9100596	A19G118	
12	9100596-DUP1	Soil	QC	QC		9100596	A19G118	
13	A9J0058-24	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100596	A19G118	
14	A9J0058-25	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100596	A19G118	
15	A9J0058-26	Soil	8260C BTEX+Halo6	Anchor QEA, LLC	10/15/19	9100596	A19G118	
"	"	Soil	8260C Full List	(QC Source)		9100596	A19G118	
"	"	Soil	8260C BTEX	(QC Source)		9100596	A19G118	
"	"	Soil	NWTPH-Gx	(QC Source)		9100596	A19G118	
16	9100596-MS1	Soil	QC	QC		9100596	A19G118	
17	9J03035-IBL1	Soil	QC	QC			A19G118	
18	A9J0044-03RE1	Soil	NWTPH-Gx		10/04/19	9100596	A19G118	
19	A9J0053-05RE1	Soil	8260C Full List		10/07/19	9100596	A19G118	
"	"	Soil	NWTPH-Gx		10/07/19	9100596	A19G118	
20	A9J0053-04RE1	Soil	8260C Full List		10/07/19	9100596	A19G118	
"	"	Soil	NWTPH-Gx		10/07/19	9100596	A19G118	
21	9J03035-IBL2	Soil	QC	QC			A19G118	
22	A9J0075-01	Soil	8260C BTEX		10/07/19	9100596	A19G118	
"	"	Soil	NWTPH-Gx		10/07/19	9100596	A19G118	
23	A9J0075-02	Soil	8260C BTEX		10/07/19	9100596	A19G118	
"	"	Soil	NWTPH-Gx		10/07/19	9100596	A19G118	
24	A9J0075-03	Soil	8260C BTEX		10/07/19	9100596	A19G118	
"	"	Soil	NWTPH-Gx		10/07/19	9100596	A19G118	
25	A9J0074-07	Soil	8260C Full List		10/15/19	9100596	A19G118	
26	9J03035-IBL3	Soil	QC	QC			A19G118	
27	A9J0073-01	Soil	8260C Full List		10/04/19	9100596	A19G118	
"	"	Soil	NWTPH-Gx		10/04/19	9100596	A19G118	
28	9J03035-IBL4	Soil	QC	QC			A19G118	
29	A9J0123-02	Soil	8260C BTEX		10/08/19	9100596	A19G118	
"	"	Soil	NWTPH-Gx		10/08/19	9100596	A19G118	
30	9J03035-IBL5	Soil	QC	QC			A19G118	

Data Entered By: 10/4/19

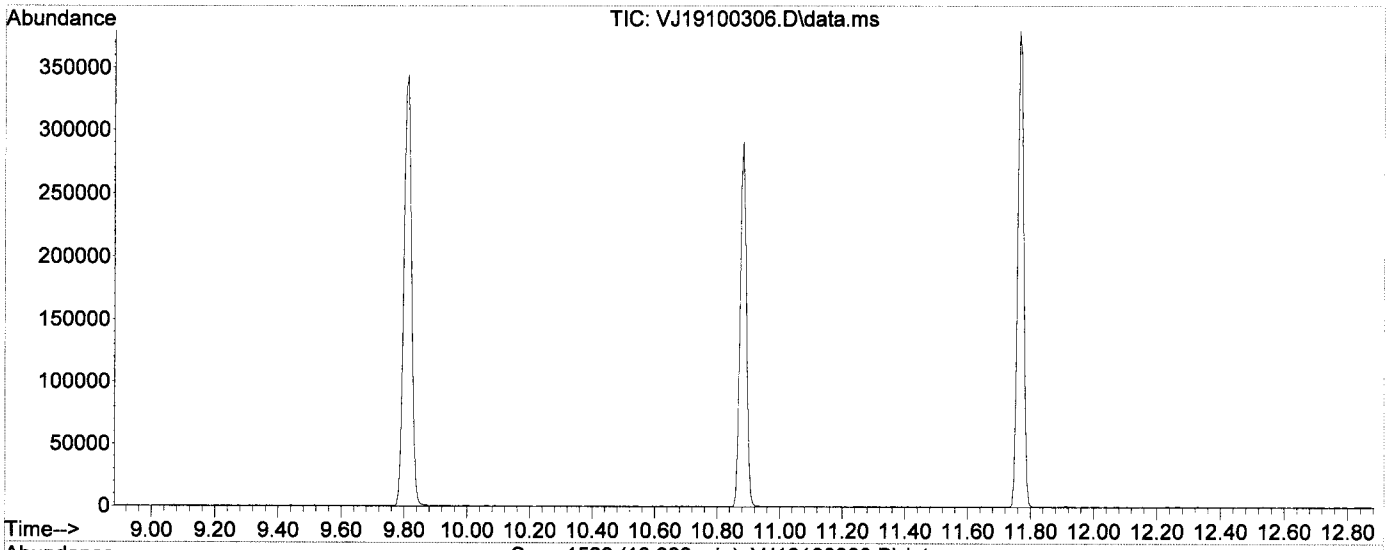
Data Reviewed By: 10/7/19

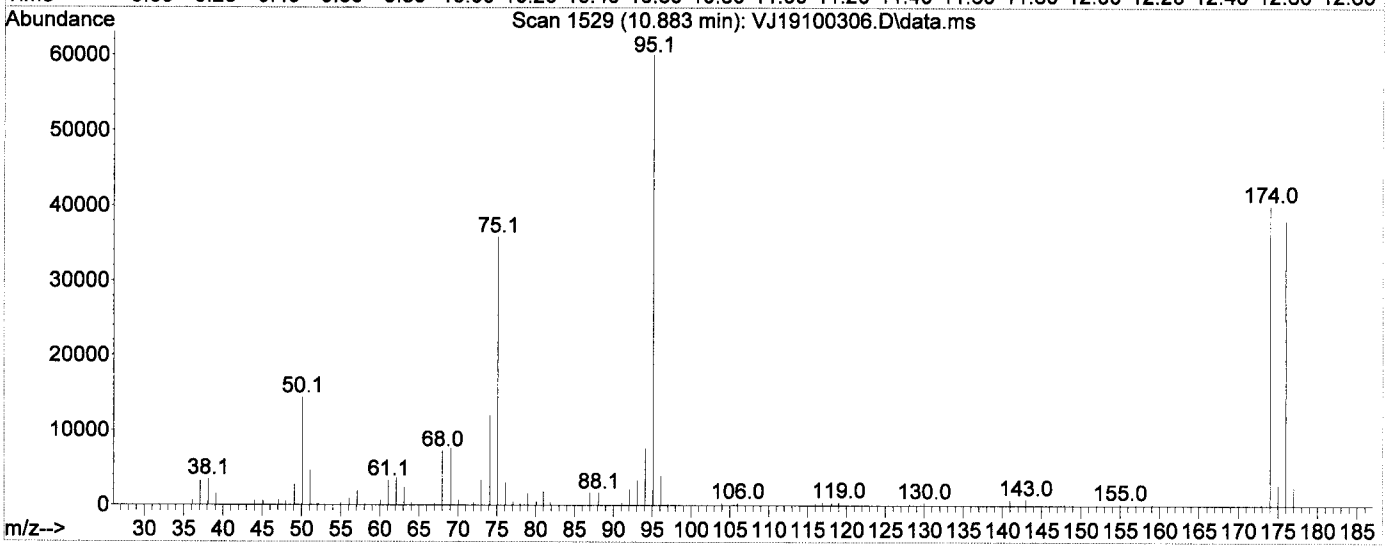
Comments: ↑MDL/MRL for 12 DCP to 1/2 ppb on col

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100306.D
Acq On : 3 Oct 2019 11:58 am
Operator : TB/IMA
Sample : 9J03035-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\methods\VJ190926S+.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Fri Sep 27 13:24:27 2019





Spectrum Information: Scan 1529 @ apex

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	149.9	60056	PASS
96	95	5	9	6.4	3871	PASS
173	174	0.00	2	0.5	198	PASS
174	95	50	200	66.7	40064	PASS
175	174	5	9	6.8	2708	PASS
176	174	95	105	95.1	38088	PASS
177	176	5	10	6.8	2573	PASS

IMA
10/4/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100306.D
Acq On : 3 Oct 2019 11:58 am
Operator : TB/IMA
Sample : 9J03035-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 17:14:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

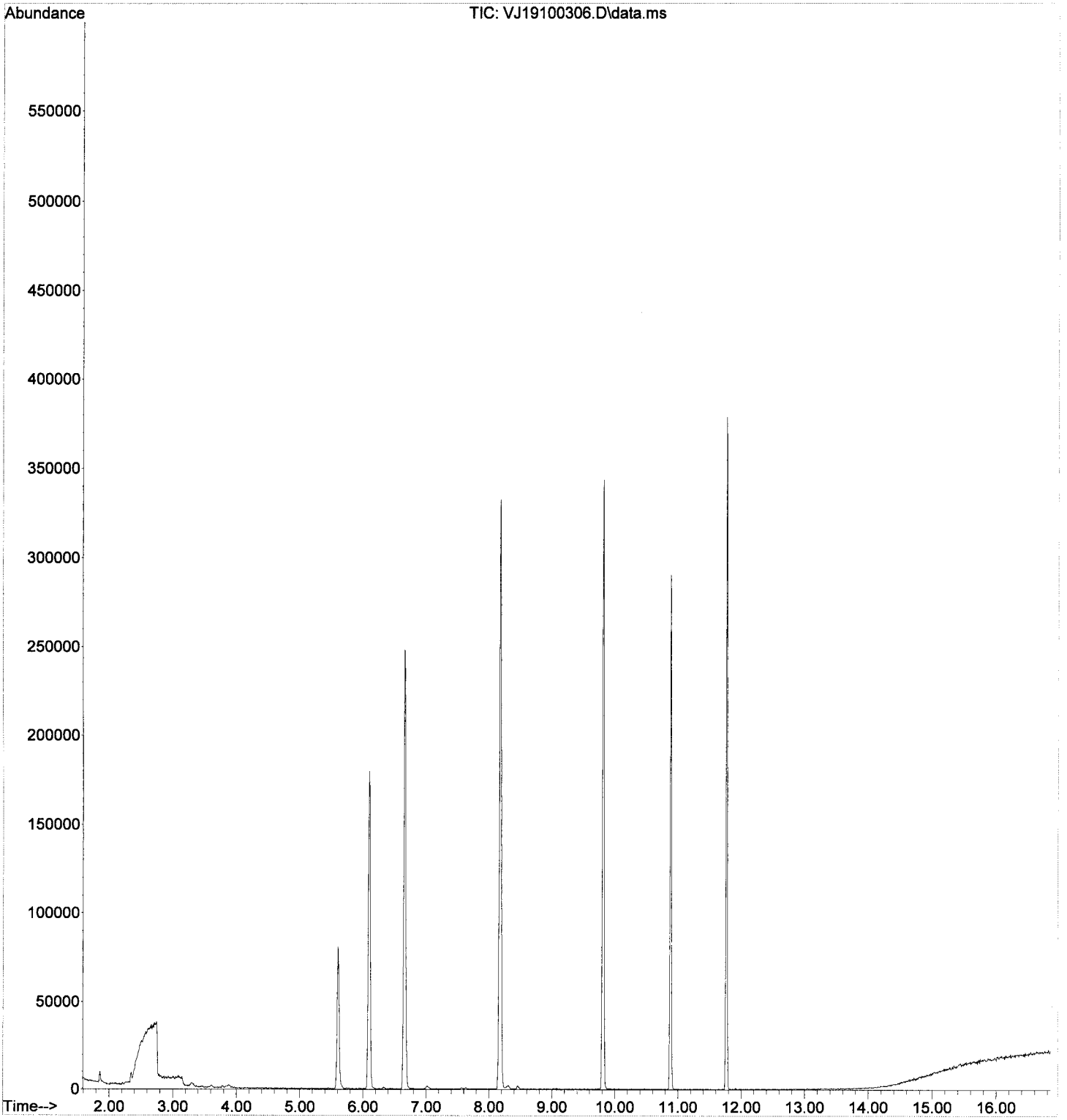
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	87265	50.00	ug/L	#	0.00
43) Chlorobenzene-d5 (I)	9.812	117	169650	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	73663	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	56333	45.20	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	196129	42.08	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	247086	51.94	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	57080	50.16	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.898	50	560	0.24	ug/L		76
5) Bromomethane	2.348	96	2442	0.33	ug/L		90
6) Chloroethane	2.463	64	150	0.54	ug/L	#	47
8) Ethanol	3.309	45	3116	2.47	ug/L		76
10) Carbon Disulfide	3.157	76	296	0.08	ug/L		78
12) Iodomethane	3.297	142	662	0.32	ug/L		63
13) Methylene Chloride	3.790	84	584	Below Cal		#	69
14) Acetone	3.881	43	1783	Below Cal		#	42
18) tert-Butanol (TBA)	4.319	59	60	0.08	ug/L	#	46
32) 2-Butanone (MEK)	5.761	43	434	0.19	ug/L		52
34) tert-Amyl methyl ether...	6.144	73	177	Below Cal		#	46
36) iso-Butyl Alcohol	6.326	43	473	1.75	ug/L		81

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100306.D
Acq On : 3 Oct 2019 11:58 am
Operator : TB/IMA
Sample : 9J03035-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 17:14:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100307.D
Acq On : 3 Oct 2019 12:25 pm
Operator : TB/IMA
Sample : 9100596-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19I354
ALS Vial : 2 Sample Multiplier: 1

IMA 10/4/19

Quant Time: Oct 03 17:14:48 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 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	90	0.00	
2		Dichlorodifluoromethane	20.000	21.740	-8.7	93	-0.01	
3	P	Chloromethane	20.000	18.595	7.0	86	0.00	
4	C	Vinyl Chloride	20.000	19.417	2.9	87	-0.01	
5		Bromomethane	20.000	25.461	-27.3#	110	-0.01	
6		Chloroethane	20.000	29.741	H -48.7#	139	-0.01	Q56
7		Trichlorofluoromethane	20.000	29.855	-49.3#	134	0.00	
8		Ethanol	1250.000	875.913	VR 29.9#	72	-0.02	
9	C	1,1-Dichloroethene	20.000	20.386	-1.9	91	0.00	
10		Carbon Disulfide	20.000	17.426	12.9	80	0.00	
11		Freon 113	20.000	19.592	2.0	85	0.00	
12		Iodomethane	20.000	11.074	NR 44.6#	56	0.00	
13		Methylene Chloride	20.000	16.011	19.9	74	0.00	
14		Acetone	40.000	39.882	0.3	91	-0.01	
15		t-1,2-Dichloroethene	20.000	20.752	-3.8	89	0.00	
16		n-Hexane	20.000	16.694	16.5	71	0.00	
17		Methyl-tert-butyl-ether	20.000	17.841	10.8	84	0.00	
18		tert-Butanol (TBA)	1250.000	1103.907	11.7	80	0.01	
19		Diisopropyl ether (DIPE)	5.000	4.411	11.8	85	0.00	
20	P	1,1-Dichloroethane	20.000	19.902	0.5	92	0.00	
21		Acrylonitrile	20.000	18.557	7.2	80	0.00	
22		Ethyl-tert-butyl ether (ETB	5.000	4.360	12.8	82	0.00	
23		c-1,2-Dichloroethene	20.000	19.677	1.6	90	0.00	
24		2,2-Dichloropropane	20.000	22.600	-13.0	105	0.00	
25		Bromochloromethane	20.000	19.197	4.0	85	0.00	
26	C	Chloroform	20.000	20.720	-3.6	93	0.00	
27		Carbon Tetrachloride	20.000	24.530	H -22.7#	110	0.00	Q56
28		Tetrahydrofuran	20.000	16.319	18.4	77	0.00	
29		1,1,1-Trichloroethane	20.000	22.459	-12.3	96	0.00	
30	S	Dibromofluoromethane (S)	50.000	46.923	6.2	85	0.00	
31		1,1-Dichloropropene	20.000	19.435	2.8	87	0.00	
32		2-Butanone (MEK)	40.000	34.277	14.3	85	0.00	
33		Benzene	20.000	16.965	15.2	78	0.00	
34		tert-Amyl methyl ether (TAM	5.000	4.161	16.8	80	0.00	
35		1,2-Dichloroethane (EDC)	20.000	22.379	-11.9	97	0.00	
36		iso-Butyl Alcohol	500.000	416.866	16.6	74	-0.02	
37	S	1,4-Difluorobenzene (S)	50.000	41.782	16.4	76	0.00	
38		Trichloroethene (TCE)	20.000	18.604	7.0	78	0.00	
39		tert-Amyl ethyl ether (TAEE	5.000	4.242	15.2	81	0.00	
40		Dibromomethane	20.000	19.180	4.1	84	0.00	
41	C	1,2-Dichloropropane	20.000	17.665	11.7	78	0.00	
42		Bromodichloromethane	20.000	21.600	-8.0	95	0.00	
43		Chlorobenzene-d5 (I)	50.000	50.000	0.0	75	0.00	
44		c-1,3-Dichloropropene	20.000	23.090	-15.4	81	0.00	
45	S	Toluene-d8 (S)	50.000	51.511	-3.0	76	0.00	
46	C	Toluene	20.000	20.326	-1.6	78	0.00	
47		Tetrachloroethene (PCE)	20.000	21.208	-6.0	76	0.00	
48		4-Methyl-2-Pentanone (MIBK)	40.000	42.286	-5.7	79	0.00	
49		t-1,3-Dichloropropene	20.000	24.003	-20.0#	88	0.00	
50		1,1,2-Trichloroethane	20.000	21.046	-5.2	77	0.00	

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100307.D
Acq On : 3 Oct 2019 12:25 pm
Operator : TB/IMA
Sample : 9100596-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19I354
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 03 17:14:48 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 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	25.773	H -28.9#	98	0.00	Q56
52		1,3-Dichloropropane	20.000	21.687	-8.4	79	0.00	
53		1,2-Dibromoethane (EDB)	20.000	21.617	-8.1	78	0.00	
54		2-Hexanone	40.000	41.816	-4.5	80	0.00	
55	P	Chlorobenzene	20.000	21.121	-5.6	75	0.00	
56	C	Ethylbenzene	20.000	21.439	-7.2	80	0.00	
57		1,1,1,2-Tetrachloroethane	20.000	24.030	-20.2#	85	0.00	
58		m,p-Xylenes (2)	40.000	44.054	-10.1	82	0.00	
59		o-Xylene	20.000	21.400	-7.0	80	0.00	
60		Styrene	20.000	19.186	-4.1	71	0.00	
61	P	Bromoform	20.000	26.916	H -34.6#	104	0.00	Q56
62		Isopropylbenzene	20.000	21.050	-5.3	77	0.00	
63	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	75	0.00	
64	S	4-Bromofluorobenzene (S)	50.000	48.062	3.9	73	0.00	
65		Bromobenzene	20.000	21.143	-5.7	76	0.00	
66		n-Propylbenzene	20.000	21.510	-7.6	81	0.00	
67	P	1,1,2,2-Tetrachloroethane	20.000	20.960	-4.8	77	0.00	
68		2-Chlorotoluene	20.000	21.208	-6.0	76	0.00	
69		1,3,5-Trimethylbenzene	20.000	21.708	-8.5	82	0.00	
70		1,2,3-Trichloropropane	20.000	22.254	-11.3	82	0.00	
71		t-1,4-Dichloro-2-butene	20.000	27.498	NR -37.5#	107	0.00	
72		4-Chlorotoluene	20.000	21.988	-9.9	84	0.00	
73		tert-Butylbenzene	20.000	21.995	-10.0	84	0.00	
74		1,2,4-Trimethylbenzene	20.000	22.086	-10.4	82	0.00	
75		sec-Butylbenzene	20.000	21.028	-5.1	78	0.00	
76		4-Isopropyltoluene	20.000	21.362	-6.8	79	0.00	
77		1,3-Dichlorobenzene	20.000	20.246	-1.2	77	0.00	
78		1,4-Dichlorobenzene	20.000	20.743	-3.7	77	0.00	
79		n-Butylbenzene	20.000	21.340	-6.7	82	0.00	
80		1,2-Dichlorobenzene	20.000	20.766	-3.8	77	0.00	
81		1,2-Dibromo-3-Chloropropane	20.000	20.829	-4.1	82	0.00	
82		Hexachlorobutadiene	20.000	19.844	0.8	73	0.00	
83		1,2,4-Trichlorobenzene	20.000	20.079	-0.4	73	0.00	
84		Naphthalene	20.000	21.013	-5.1	76	0.00	
85		1,2,3-Trichlorobenzene	20.000	20.716	-3.6	76	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\9J03035\
Data File : VJ19100307.D
Acq On : 3 Oct 2019 12:25 pm
Operator : TB/IMA
Sample : 9100596-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19I354
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 03 17:14:48 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	76035	50.00	ug/L	#	0.00
43) Chlorobenzene-d5 (I)	9.812	117	145451	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	67970	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	50959	46.92	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	169689	41.78	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	210097	51.51	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	50469	48.06	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	30320	21.74	ug/L		96
3) Chloromethane	1.892	50	37593	18.60	ug/L		97
4) Vinyl Chloride	1.995	62	29798	19.42	ug/L		94
5) Bromomethane	2.336	96	16566	25.46	ug/L		95
6) Chloroethane	2.457	64	7001	29.74	ug/L		87
7) Trichlorofluoromethane	2.591	101	20402	29.85	ug/L		97
8) Ethanol	3.303	45	60185	875.91	ug/L		89
9) 1,1-Dichloroethene	3.139	61	45283	20.39	ug/L		76
10) Carbon Disulfide	3.145	76	55208	17.43	ug/L		98
11) Freon 113	3.193	101	23341	19.59	ug/L		86
12) Iodomethane	3.291	142	5834	11.07	ug/L		65
13) Methylene Chloride	3.778	84	24601	16.01	ug/L	#	80
14) Acetone	3.869	43	48383	39.88	ug/L		83
15) t-1,2-Dichloroethene	3.948	61	45893	20.75	ug/L		84
16) n-Hexane	4.039	86	5872	16.69	ug/L	#	62
17) Methyl-tert-butyl-ether	4.106	73	119345	17.84	ug/L		95
18) tert-Butanol (TBA)	4.289	59	712792	1103.91	ug/L	#	90
19) Diisopropyl ether (DIPE)	4.508	45	28181	4.41	ug/L		96
20) 1,1-Dichloroethane	4.581	63	49593	19.90	ug/L		99
21) Acrylonitrile	4.635	53	20369	18.56	ug/L		99
22) Ethyl-tert-butyl ether...	4.873	59	28737	4.36	ug/L		92
23) c-1,2-Dichloroethene	5.134	61	48148	19.68	ug/L		84
24) 2,2-Dichloropropane	5.244	77	63251	22.60	ug/L		91
25) Bromochloromethane	5.329	49	26866	19.20	ug/L		78
26) Chloroform	5.420	83	61805	20.72	ug/L		95
27) Carbon Tetrachloride	5.560	117	50208	24.53	ug/L		98
28) Tetrahydrofuran	5.590	42	23879	16.32	ug/L		90
29) 1,1,1-Trichloroethane	5.621	97	61751	22.46	ug/L		97
31) 1,1-Dichloropropene	5.755	75	49348	19.43	ug/L		92
32) 2-Butanone (MEK)	5.742	43	68088	34.28	ug/L		95
33) Benzene	6.004	78	125715	16.96	ug/L		95
34) tert-Amyl methyl ether...	6.156	73	26291	4.16	ug/L		94
35) 1,2-Dichloroethane (EDC)	6.211	62	63369	22.38	ug/L		94
36) iso-Butyl Alcohol	6.290	43	97979	416.87	ug/L		91
38) Trichloroethene (TCE)	6.625	130	29860	18.60	ug/L		86
39) tert-Amyl ethyl ether ...	6.911	59	20657	4.24	ug/L		90
40) Dibromomethane	7.069	93	19979	19.18	ug/L	#	79
41) 1,2-Dichloropropane	7.178	63	32536	17.66	ug/L		75
42) Bromodichloromethane	7.251	83	40979	21.60	ug/L		96
44) c-1,3-Dichloropropene	7.957	75	50582	23.09	ug/L		84
46) Toluene	8.231	91	130242	20.33	ug/L		97
47) Tetrachloroethene (PCE)	8.681	166	27771	21.21	ug/L		73
48) 4-Methyl-2-Pentanone (...	8.675	43	108681	42.29	ug/L		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100307.D
Acq On : 3 Oct 2019 12:25 pm
Operator : TB/IMA
Sample : 9100596-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19I354
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 03 17:14:48 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

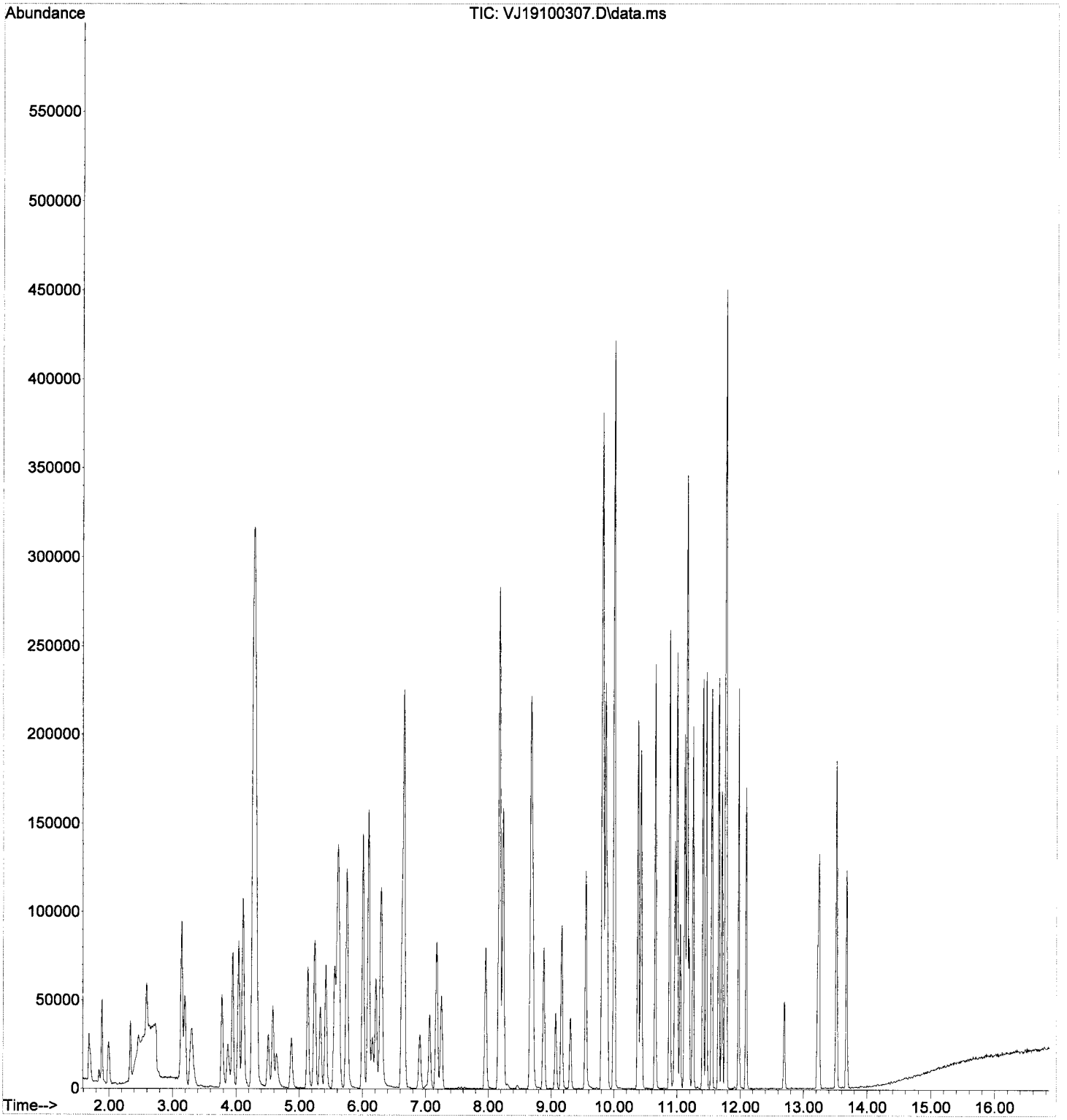
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	52761	24.00	ug/L		94
50) 1,1,2-Trichloroethane	8.882	97	26159	21.05	ug/L		89
51) Dibromochloromethane	9.070	129	24416	25.77	ug/L		99
52) 1,3-Dichloropropane	9.168	76	52448	21.69	ug/L		85
53) 1,2-Dibromoethane (EDB)	9.307	107	29161	21.62	ug/L		100
54) 2-Hexanone	9.551	43	85777	41.82	ug/L		94
55) Chlorobenzene	9.825	112	74361	21.12	ug/L		89
56) Ethylbenzene	9.861	91	147106	21.44	ug/L		94
57) 1,1,1,2-Tetrachloroethane	9.892	131	27249	24.03	ug/L		96
58) m,p-Xylenes (2)	10.001	91	226980	44.05	ug/L		92
59) o-Xylene	10.378	91	113114	21.40	ug/L		91
60) Styrene	10.427	104	70215	19.19	ug/L		86
61) Bromoform	10.439	173	15223	26.92	ug/L		94
62) Isopropylbenzene	10.658	105	131461	21.05	ug/L		93
65) Bromobenzene	10.968	156	27941	21.14	ug/L	#	72
66) n-Propylbenzene	10.999	91	156674	21.51	ug/L		92
67) 1,1,2,2-Tetrachloroethane	11.047	83	37280	20.96	ug/L		96
68) 2-Chlorotoluene	11.120	126	26869	21.21	ug/L	#	63
69) 1,3,5-Trimethylbenzene	11.157	105	107319	21.71	ug/L		88
70) 1,2,3-Trichloropropane	11.157	110	15573	22.25	ug/L		88
71) t-1,4-Dichloro-2-butene	11.193	88	8752	27.50	ug/L	#	65
72) 4-Chlorotoluene	11.254	91	98351	21.99	ug/L		88
73) tert-Butylbenzene	11.412	91	68062	21.99	ug/L	#	77
74) 1,2,4-Trimethylbenzene	11.467	105	110169	22.09	ug/L		92
75) sec-Butylbenzene	11.552	105	124880	21.03	ug/L		93
76) 4-Isopropyltoluene	11.662	119	105463	21.36	ug/L		94
77) 1,3-Dichlorobenzene	11.711	146	50954	20.25	ug/L		93
78) 1,4-Dichlorobenzene	11.777	146	51319	20.74	ug/L		91
79) n-Butylbenzene	11.978	91	95984	21.34	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	48395	20.77	ug/L		93
81) 1,2-Dibromo-3-Chloropr...	12.696	157	9445	20.83	ug/L	#	26
82) Hexachlorobutadiene	13.219	223	6847	19.84	ug/L	#	91
83) 1,2,4-Trichlorobenzene	13.244	180	30662	20.08	ug/L		93
84) Naphthalene	13.517	128	124060	21.01	ug/L		95
85) 1,2,3-Trichlorobenzene	13.682	180	31020	20.72	ug/L		96

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100307.D
Acq On : 3 Oct 2019 12:25 pm
Operator : TB/IMA
Sample : 9100596-BS1
Misc : 50X 5g/5mLx1000uL/50mL VOC+MeOH A19I354
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 03 17:14:48 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100308.D
Acq On : 3 Oct 2019 12:52 pm
Operator : TB/IMA
Sample : 9100596-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19I278
ALS Vial : 3 Sample Multiplier: 1

IMA 10/4/19

Quant Time: Oct 03 17:15:20 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 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	86	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	50.373	-0.7	86	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	47.767	4.5	82	0.00
4	H	NWTPH-Gx (TPH)	500.000	590.471	-18.1	100	0.00
5	H	TPHg (C5-C9)	500.000	657.929	-31.6#	102	0.00
6	H	TPHg (C6-C10)	500.000	610.060	-22.0	101	0.00
7	H	CA-LUFT (C5-C12)	500.000	644.191	-28.8	101	0.00
8		Benzene (NR)	-1.000	0.000	0.0	97	0.00
9	S	Toluene-d8 (NR)	-1.000	0.000	0.0	88	-0.01
10		Toluene (NR)	-1.000	0.000	0.0	94	0.00
11	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	85	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	82	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	86	-0.01

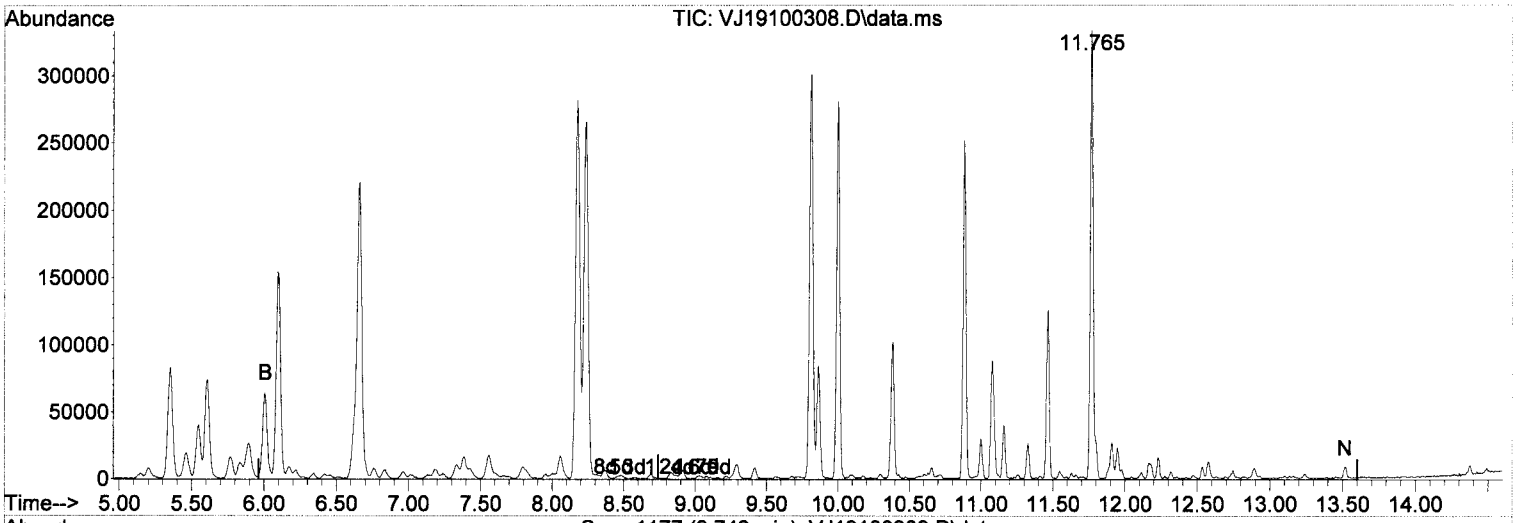
If Q56

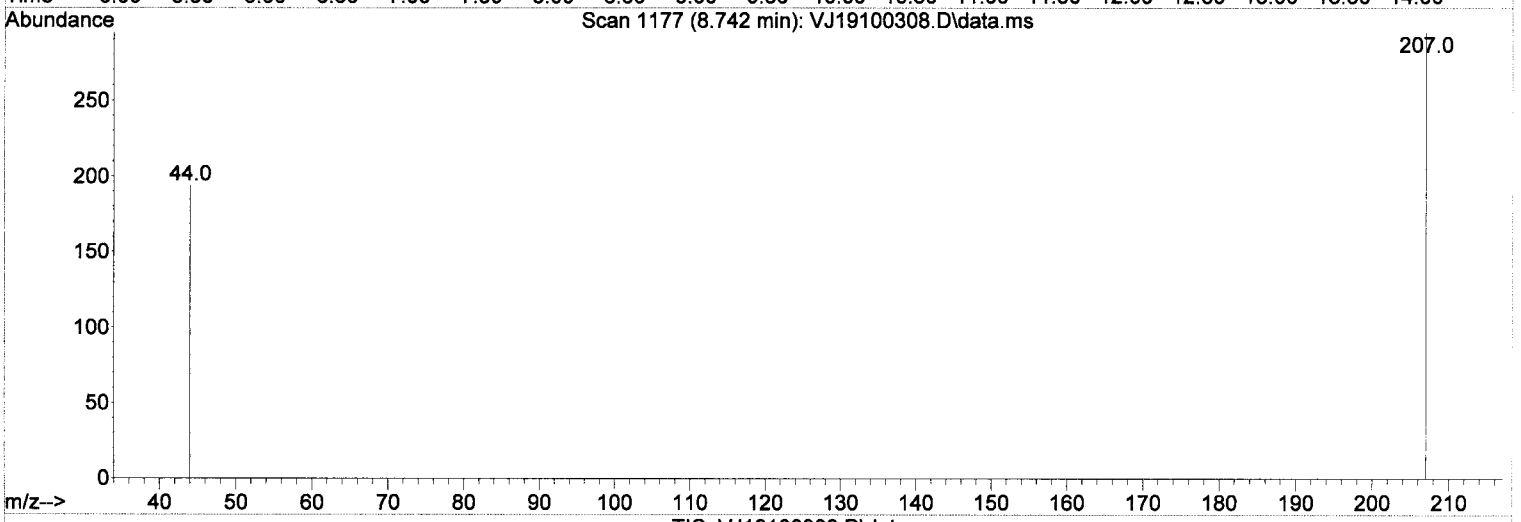
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100308.D
Acq On : 3 Oct 2019 12:52 pm
Operator : TB/IMA
Sample : 9100596-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19I278
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 03 17:15:20 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration





TIC: VJ19100308.D\data.ms

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

8.739min (0.000) 590.47 ug/L m

response 2781869

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)

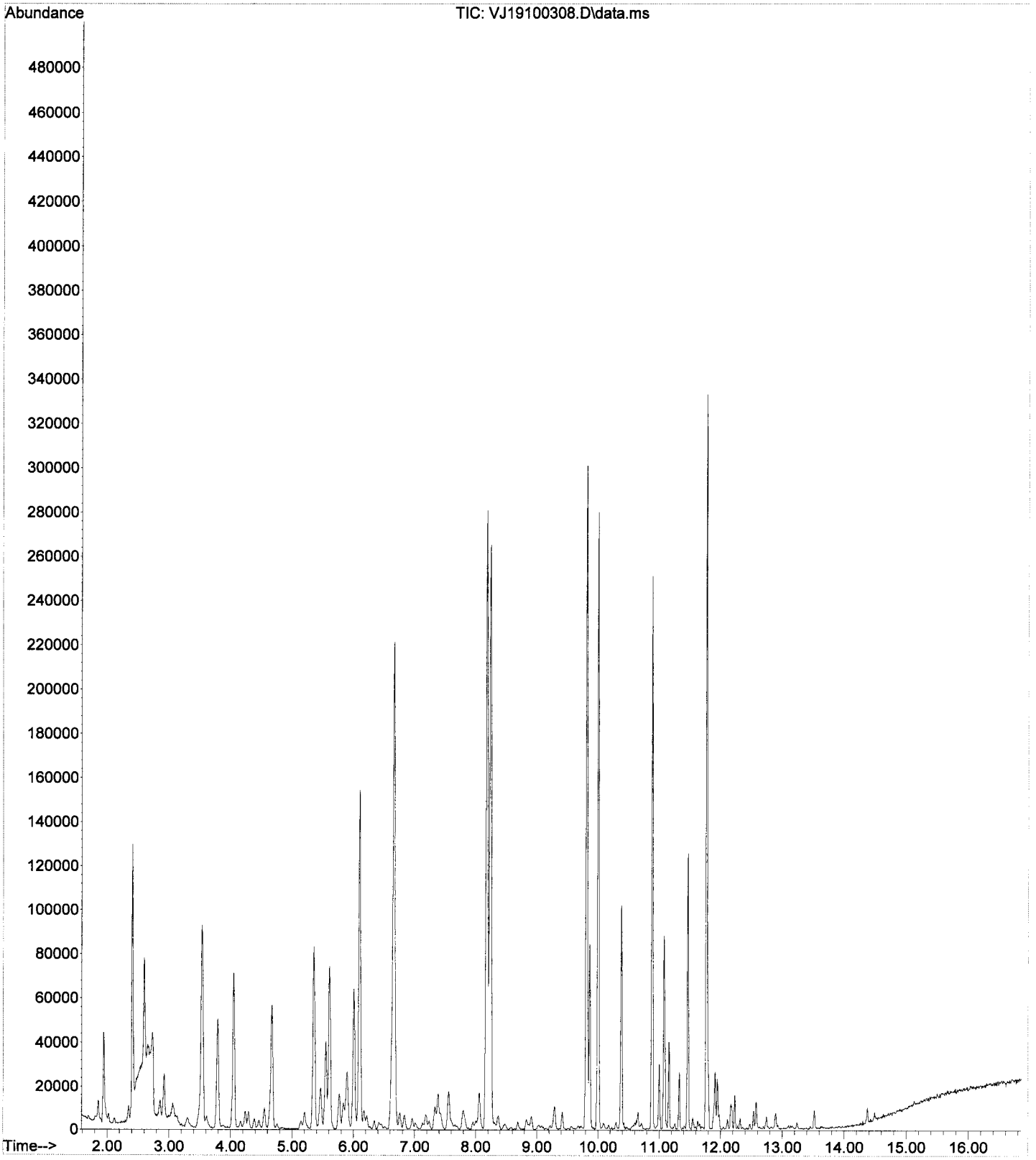
Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100308.D
Acq On : 3 Oct 2019 12:52 pm
Operator : TB/IMA
Sample : 9100596-BS2
Misc : 50X 5g/5mLx1000uL/50mL GX+MeOH A19I278
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 03 17:15:20 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.101	168	93950	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.661	114	167617	50.37	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	48860	47.77	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	210351	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	144972	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	100343	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	2781869m	590.47	ug/L	
5) TPHg (C5-C9)	9.239	TIC	3943960m	657.93	ug/L	
6) TPHg (C6-C10)	9.239	TIC	3132865m	610.06	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	4650578m	644.19	ug/L	

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

File :C:\msdchem\1\data\2019-10\9J03035\VJ19100308.D
Operator : TB/IMA
Acquired : 3 Oct 2019 12:52 pm using AcqMethod VJ1907RUN.M
Instrument : VOA-GCMS10
Sample Name: 9100596-BS2
Misc Info : 50X 5g/5mLx1000uL/50mL GX+MeOH A19I278
Vial Number: 3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100309.D
Acq On : 3 Oct 2019 1:19 pm
Operator : TB/IMA
Sample : 9100596-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 4 Sample Multiplier: 1

IMA 10/4/19

Quant Time: Oct 03 17:16:14 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration

~~MR~~ IMA 10/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.101	168	94320	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.661	114	171243	51.26	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	45042	43.86	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	216356	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	146296	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	93634	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	83212m	14.97	ug/L	<MDL
5) TPHg (C5-C9)	9.239	TIC	270133m	12.97	ug/L	
6) TPHg (C6-C10)	9.239	TIC	249850m	19.66	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	288310m	13.02	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100309.D
Acq On : 3 Oct 2019 1:19 pm
Operator : TB/IMA
Sample : 9100596-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 4 Sample Multiplier: 1

IMA
10/4/19

Quant Time: Oct 03 17:16:23 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

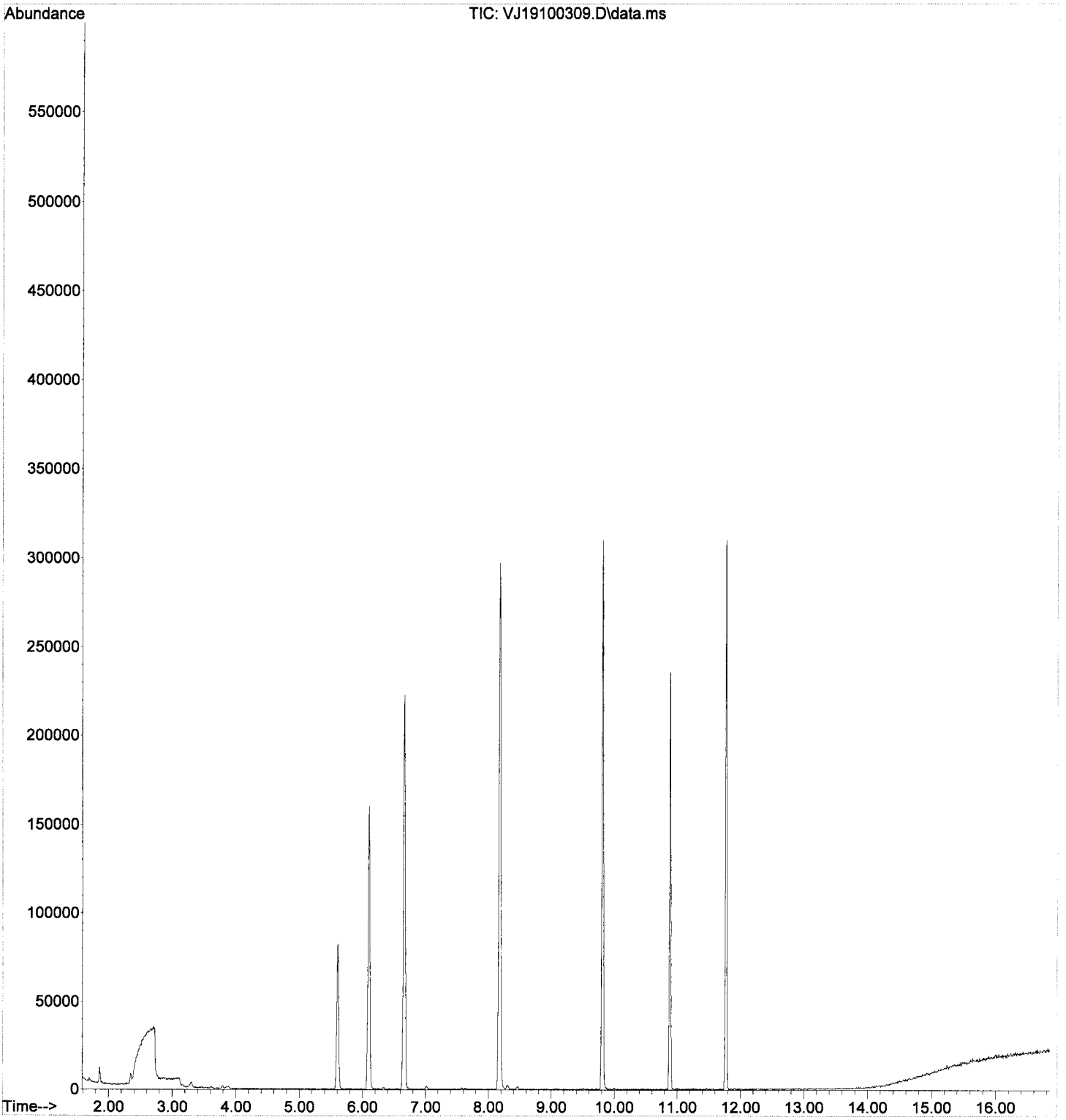
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.101	99	75101	50.00	ug/L	#	0.00
43) Chlorobenzene-d5 (I)	9.812	117	146296	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	60317	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.609	111	54215	50.54	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	171243	42.69	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	216356	52.74	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	45042	48.34	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.904	50	601	0.30	ug/L	#< MDL	50
5) Bromomethane	2.348	96	2513	1.06	ug/L		97
6) Chloroethane	2.482	64	218	0.95	ug/L	#	1
8) Ethanol	3.309	45	2877	5.48	ug/L		68
10) Carbon Disulfide	3.169	76	261	0.08	ug/L		78
12) Iodomethane	3.303	142	941	1.12	ug/L	#	52
13) Methylene Chloride	3.796	84	629	Below Cal		#	63
14) Acetone	3.887	43	1360	Below Cal		#	42
32) 2-Butanone (MEK)	5.742	43	616	0.31	ug/L		52
34) tert-Amyl methyl ether...	6.150	73	188	Below Cal		#	46
36) iso-Butyl Alcohol	6.326	43	477	2.05	ug/L		90
46) Toluene	8.243	91	535	0.08	ug/L		86
58) m,p-Xylenes (2)	10.001	91	618	0.12	ug/L		90

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100309.D
Acq On : 3 Oct 2019 1:19 pm
Operator : TB/IMA
Sample : 9100596-BLK1
Misc : 50X 7.5g/5mLx1000uL/50mL DI+MeOH
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 17:16:23 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100310.D
Acq On : 3 Oct 2019 1:45 pm
Operator : TB/IMA
Sample : A9J0058-17
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 5 Sample Multiplier: 1

IMA 10/4/19

Quant Time: Oct 03 17:17:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

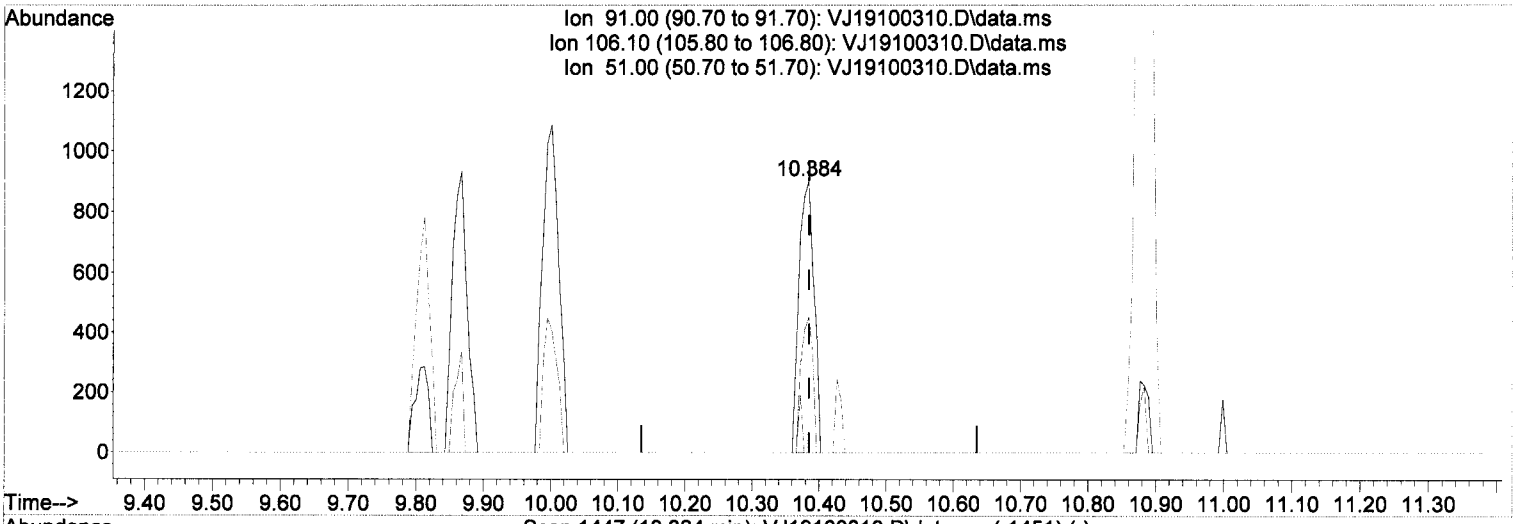
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.095	99	74460	50.00	ug/L	# 0.00
43) Chlorobenzene-d5 (I)	9.812	117	151015	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	62311	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.603	111	55734	52.40	ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.661	114	171111	43.02	ug/L	0.00
45) Toluene-d8 (S)	8.176	98	217875	51.45	ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.883	174	46691	48.50	ug/L	0.00
Target Compounds						Qvalue
3) Chloromethane	1.898	50	437	0.22	ug/L	# <MDL 50
5) Bromomethane	2.348	96	2132	0.42	ug/L	97
6) Chloroethane	2.476	64	232	1.03	ug/L	# 1
12) Iodomethane	3.303	142	889	1.02	ug/L	56
13) Methylene Chloride	3.796	84	726	Below Cal		76
14) Acetone	3.875	43	2072	Below Cal		85
18) tert-Butanol (TBA)	4.252	59	383	0.61	ug/L	# 46
34) tert-Amyl methyl ether...	6.150	73	130	Below Cal		# 46
56) Ethylbenzene	9.867	91	1428	0.20	ug/L	88
58) m,p-Xylenes (2)	10.001	91	1835	0.34	ug/L	79
59) o-Xylene	10.384	91	1396	0.25	ug/L	96 ↑MDL
60) Styrene	10.427	104	787	0.21	ug/L	<MDL 88

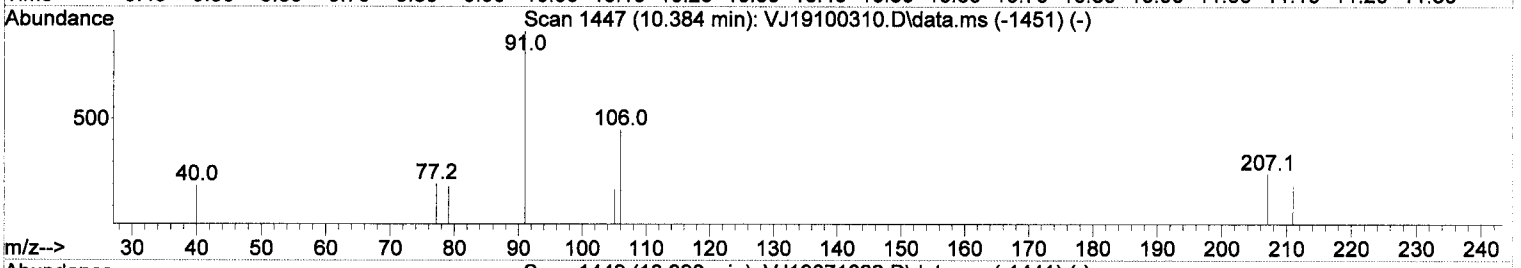
(#) = qualifier out of range (m) = manual integration (+) = signals summed

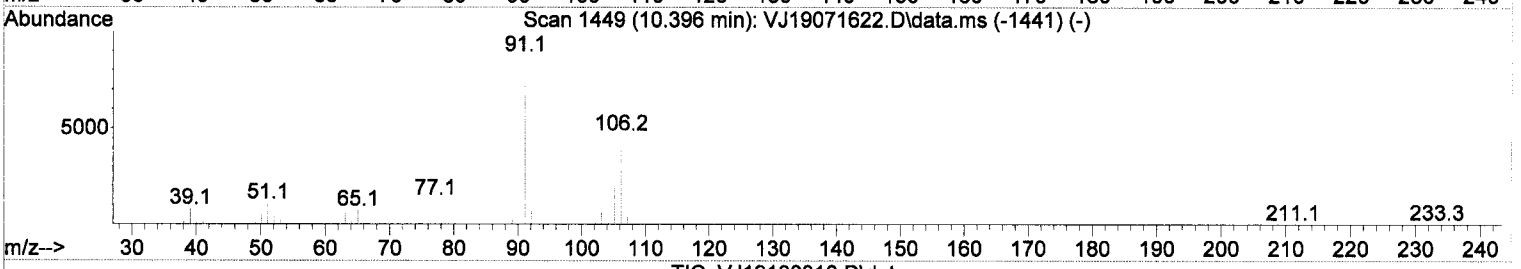
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100310.D
Acq On : 3 Oct 2019 1:45 pm
Operator : TB/IMA
Sample : A9J0058-17
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 03 17:17:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration







TIC: VJ19100310.D\data.ms

(59) o-Xylene

10.384min (-0.000) 0.25 ug/L

response 1396

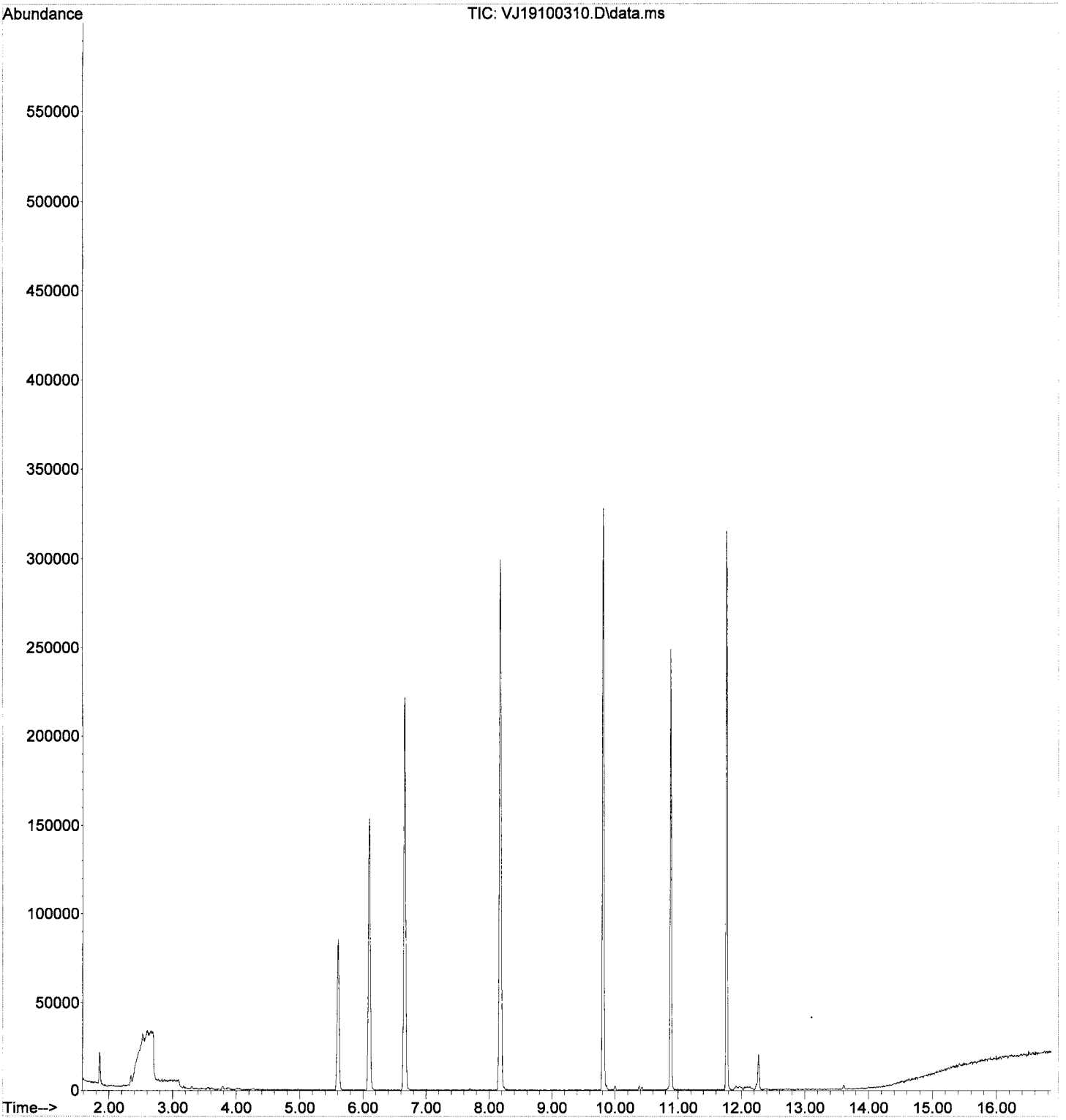
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	49.80	49.94
51.00	9.70	0.00
0.00	0.00	0.00

↑ MDL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100310.D
Acq On : 3 Oct 2019 1:45 pm
Operator : TB/IMA
Sample : A9J0058-17
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 03 17:17:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100311.D
Acq On : 3 Oct 2019 2:12 pm
Operator : TB/IMA
Sample : A9J0058-18
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 6 Sample Multiplier: 1

IMA 10/4/19

Quant Time: Oct 03 17:17:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

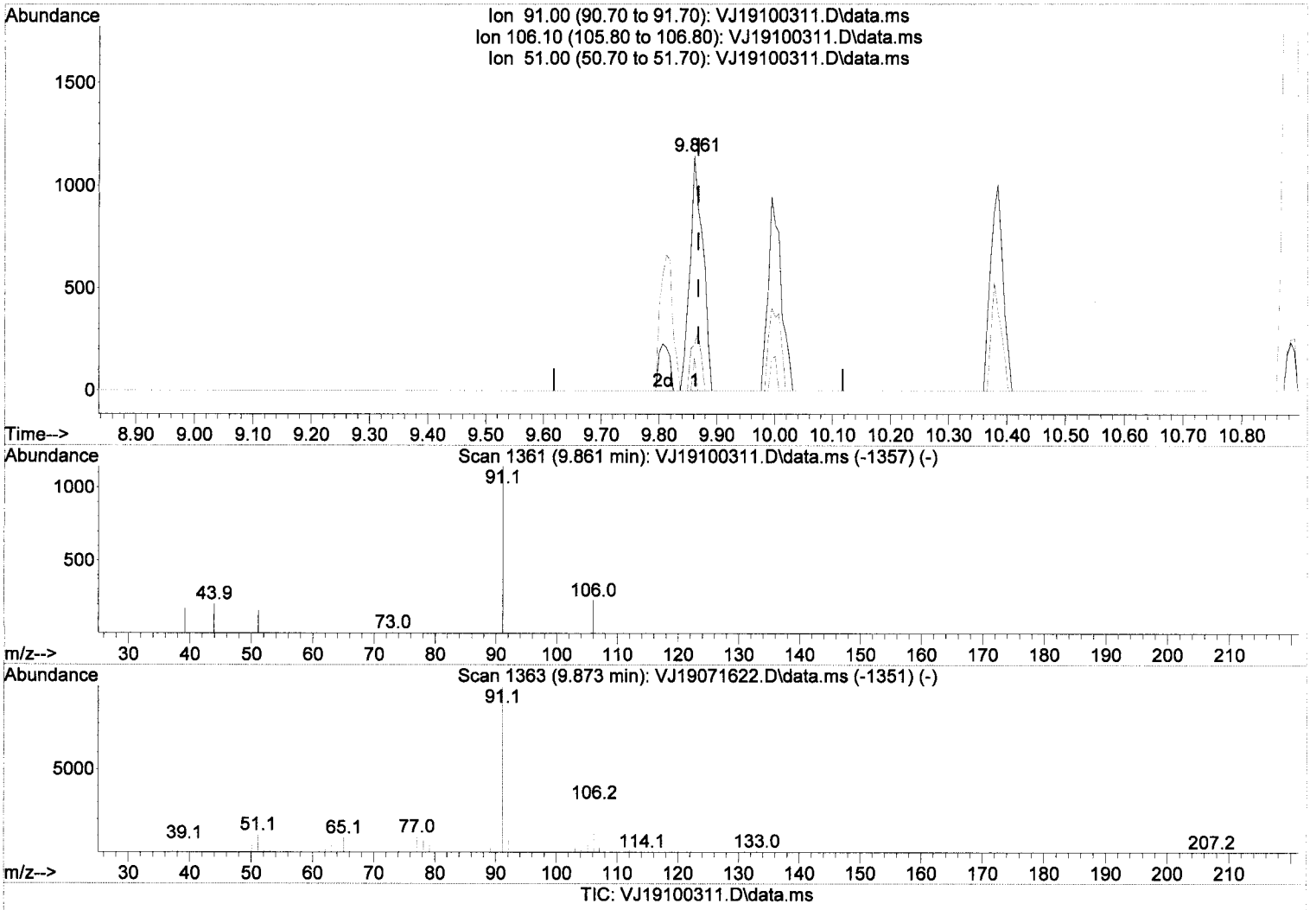
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.101	99	74805	50.00	ug/L	#	0.00
43) Chlorobenzene-d5 (I)	9.812	117	143296	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	61869	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.609	111	51774	48.46	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	165326	41.38	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	209686	52.18	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	46618	48.77	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.898	50	504	0.25	ug/L	#<MDL	50
5) Bromomethane	2.348	96	2231	0.58	ug/L		100
6) Chloroethane	2.469	64	133	0.56	ug/L	#	1
12) Iodomethane	3.303	142	750	0.72	ug/L		57
13) Methylene Chloride	3.790	84	553	Below Cal			90
14) Acetone	3.887	43	1471	Below Cal		#	42
18) tert-Butanol (TBA)	4.288	59	70	0.11	ug/L	#	46
34) tert-Amyl methyl ether...	6.168	73	62	Below Cal		#	46
56) Ethylbenzene	9.861	91	1779	0.26	ug/L		81 ↑MDL
58) m,p-Xylenes (2)	9.995	91	1482	0.29	ug/L	<MDL	86
59) o-Xylene	10.384	91	1509	0.29	ug/L		82 ↑MDL

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100311.D
Acq On : 3 Oct 2019 2:12 pm
Operator : TB/IMA
Sample : A9J0058-18
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 03 17:17:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



TIC: VJ19100311.D\data.ms

(56) Ethylbenzene (C)

9.861min (-0.006) 0.26 ug/L

response 1779

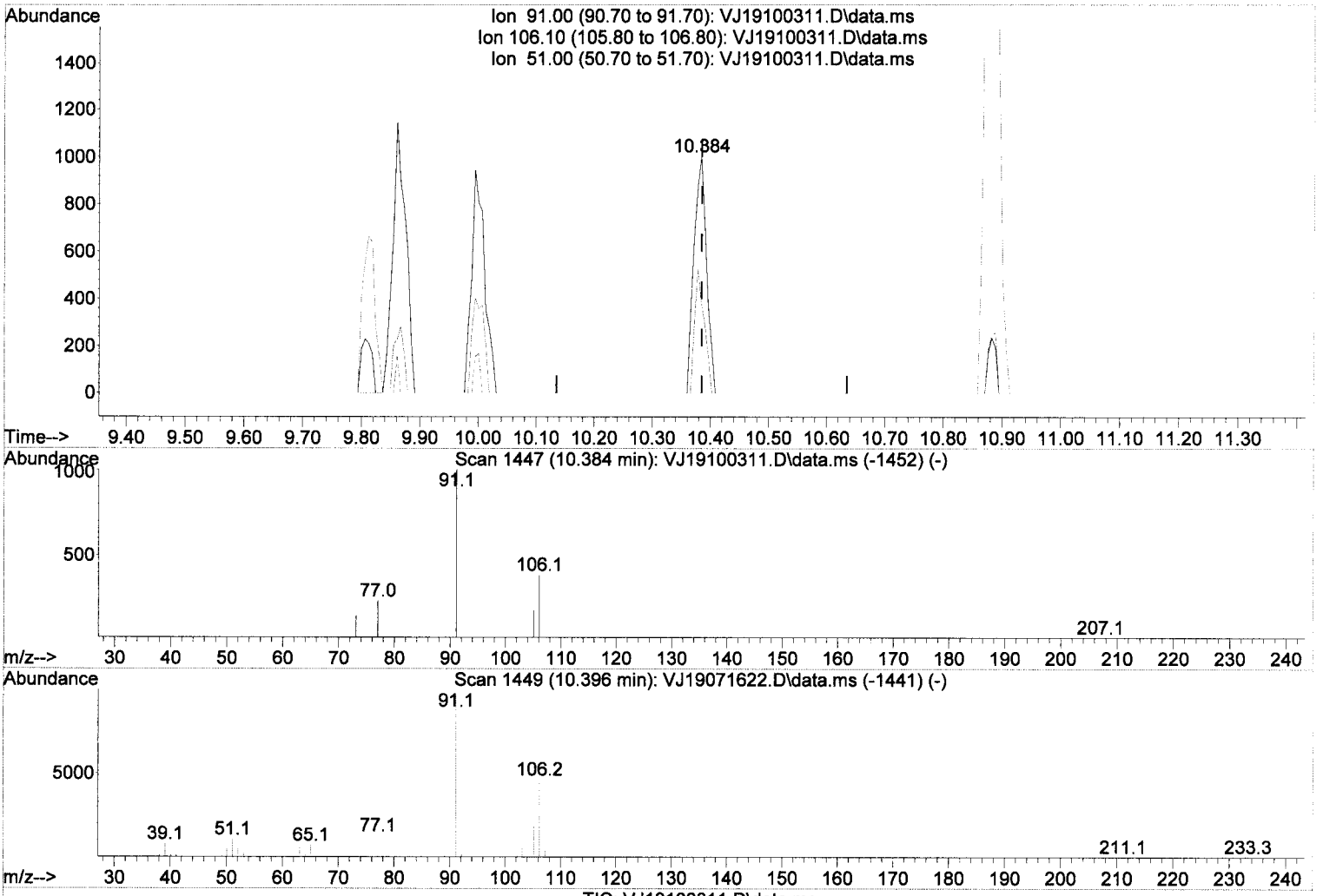
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	31.80	20.02
51.00	9.80	13.81
0.00	0.00	0.00

↑MDL

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100311.D
Acq On : 3 Oct 2019 2:12 pm
Operator : TB/IMA
Sample : A9J0058-18
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 03 17:17:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



TIC: VJ19100311.D\data.ms

(59) o-Xylene

10.384min (-0.000) 0.29 ug/L

response 1509

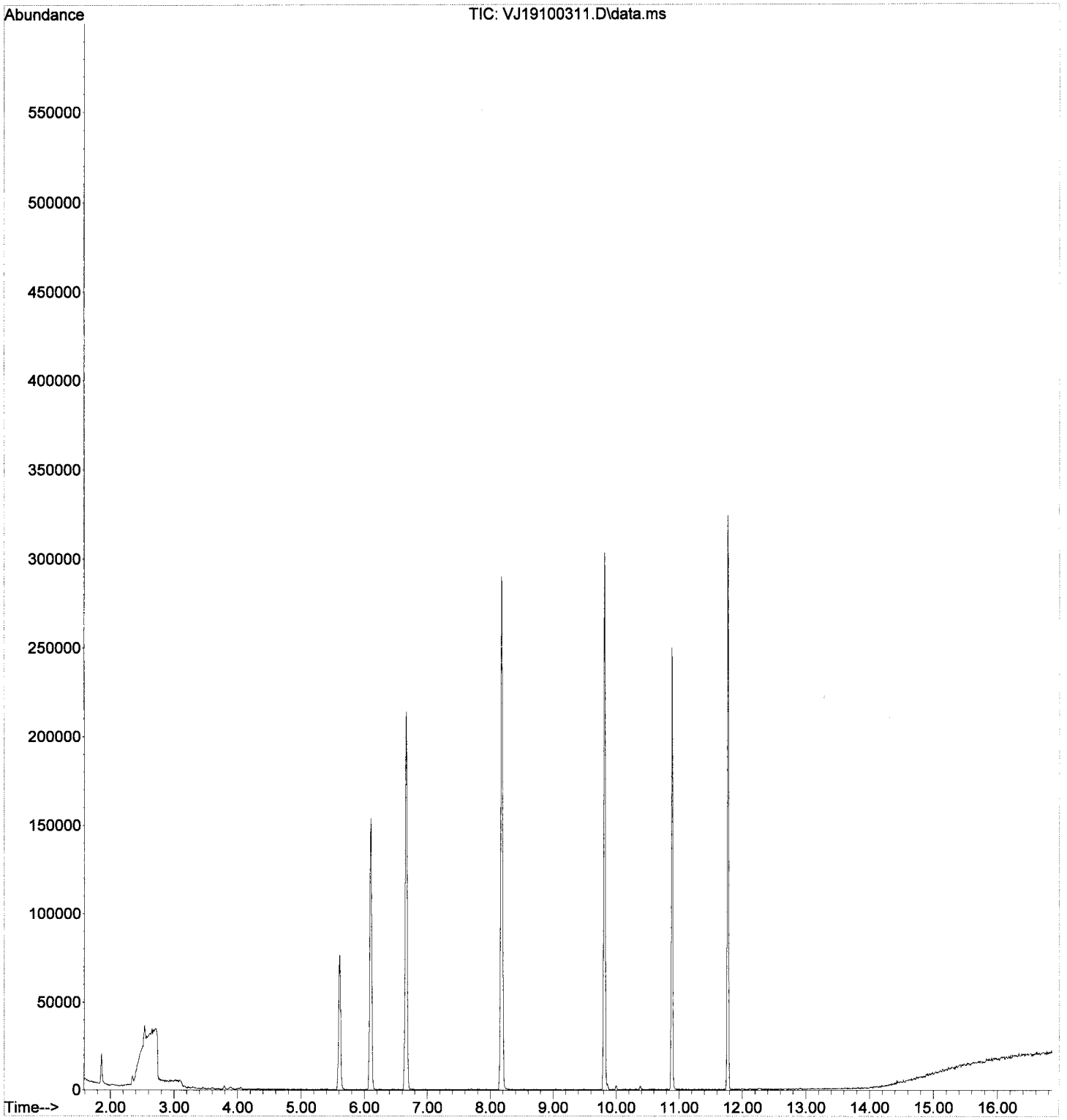
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	49.80	38.62
51.00	9.70	0.00
0.00	0.00	0.00

↑ MDL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100311.D
Acq On : 3 Oct 2019 2:12 pm
Operator : TB/IMA
Sample : A9J0058-18
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 03 17:17:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100312.D
Acq On : 3 Oct 2019 2:38 pm
Operator : TB/IMA
Sample : A9J0058-19
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 7 Sample Multiplier: 1

IMA 10/4/19

Quant Time: Oct 03 17:17:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

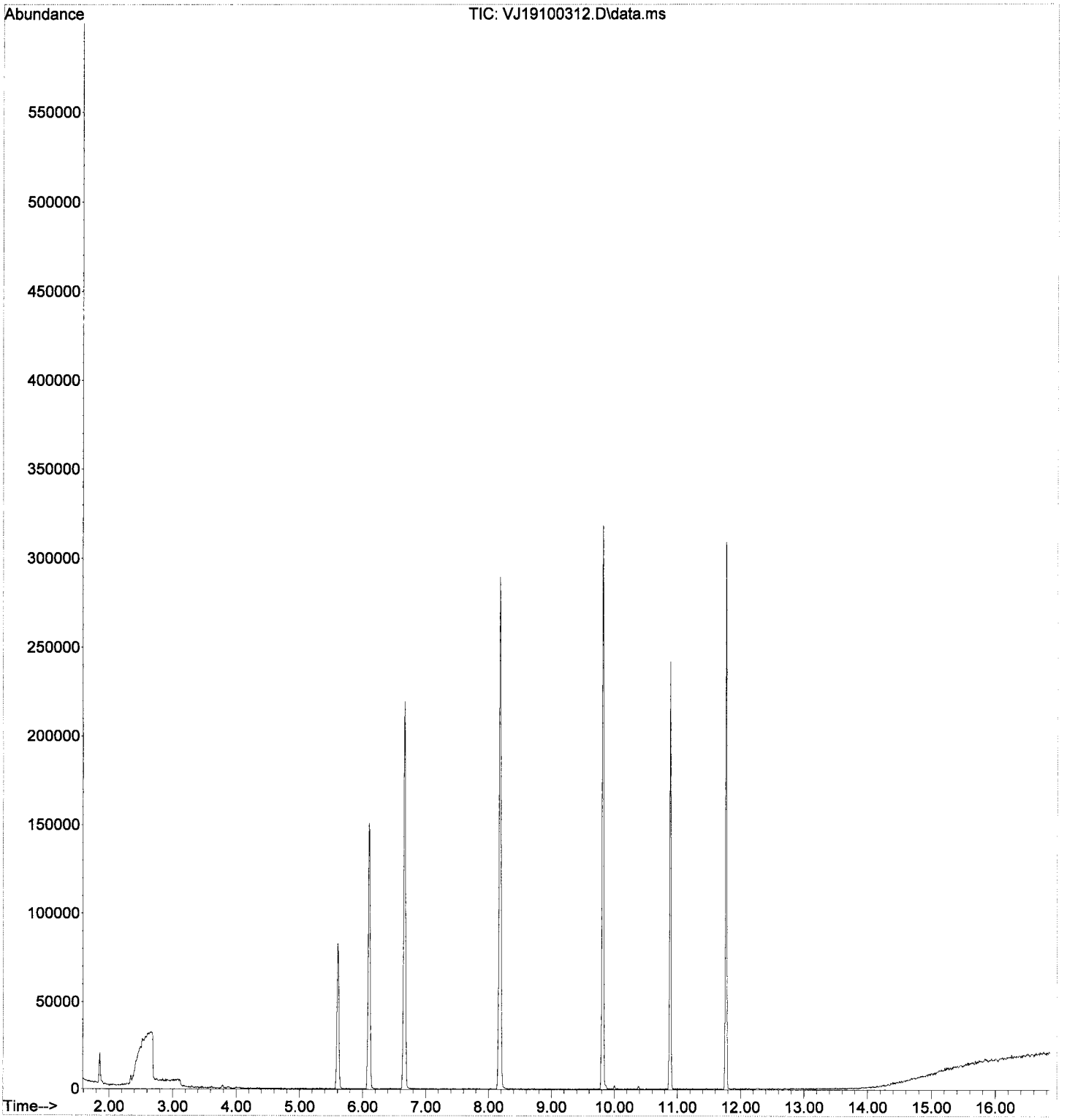
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.095	99	72613	50.00 ug/L	#	0.00
43) Chlorobenzene-d5 (I)	9.812	117	147274	50.00 ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	59432	50.00 ug/L		0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.603	111	53784	51.86 ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	163989	42.28 ug/L		0.00
45) Toluene-d8 (S)	8.176	98	207587	50.27 ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	44889	48.89 ug/L		0.00
Target Compounds						Qvalue
3) Chloromethane	1.892	50	446	0.23 ug/L	#	<MDL 50
5) Bromomethane	2.348	96	1817	Below Cal		91
6) Chloroethane	2.457	64	199	0.90 ug/L	#	31
8) Ethanol	3.443	45	464	Below Cal	#	29
12) Iodomethane	3.309	142	606	0.45 ug/L		64
13) Methylene Chloride	3.784	84	671	Below Cal	#	65
14) Acetone	3.869	43	1414	Below Cal		99
34) tert-Amyl methyl ether...	6.089	73	190	Below Cal	#	1
56) Ethylbenzene	9.867	91	1342	0.19 ug/L		87
58) m,p-Xylenes (2)	10.001	91	1202	0.23 ug/L		83
59) o-Xylene	10.378	91	1118	0.21 ug/L		86

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100312.D
Acq On : 3 Oct 2019 2:38 pm
Operator : TB/IMA
Sample : A9J0058-19
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 03 17:17:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100313.D
Acq On : 3 Oct 2019 3:05 pm
Operator : TB/IMA
Sample : A9J0058-20
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 8 Sample Multiplier: 1

IMA 10/4/19

Quant Time: Oct 03 17:17:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	73889	50.00	ug/L	#	0.00
43) Chlorobenzene-d5 (I)	9.812	117	144198	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	59266	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	52056	49.32	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	162261	41.11	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	206321	51.02	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	45521	49.72	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.898	50	360	0.18	ug/L	#	50
5) Bromomethane	2.342	96	1705	Below Cal			90
6) Chloroethane	2.482	64	123	0.52	ug/L	#	20
12) Iodomethane	3.297	142	492	0.17	ug/L	#	44
13) Methylene Chloride	3.790	84	630	Below Cal			90
14) Acetone	3.875	43	1540	Below Cal		#	42
34) tert-Amyl methyl ether...	6.132	73	65	Below Cal		#	46
56) Ethylbenzene	9.867	91	1305	0.19	ug/L		85
58) m,p-Xylenes (2)	10.001	91	1156	0.23	ug/L		87
59) o-Xylene	10.378	91	1362	0.26	ug/L		88

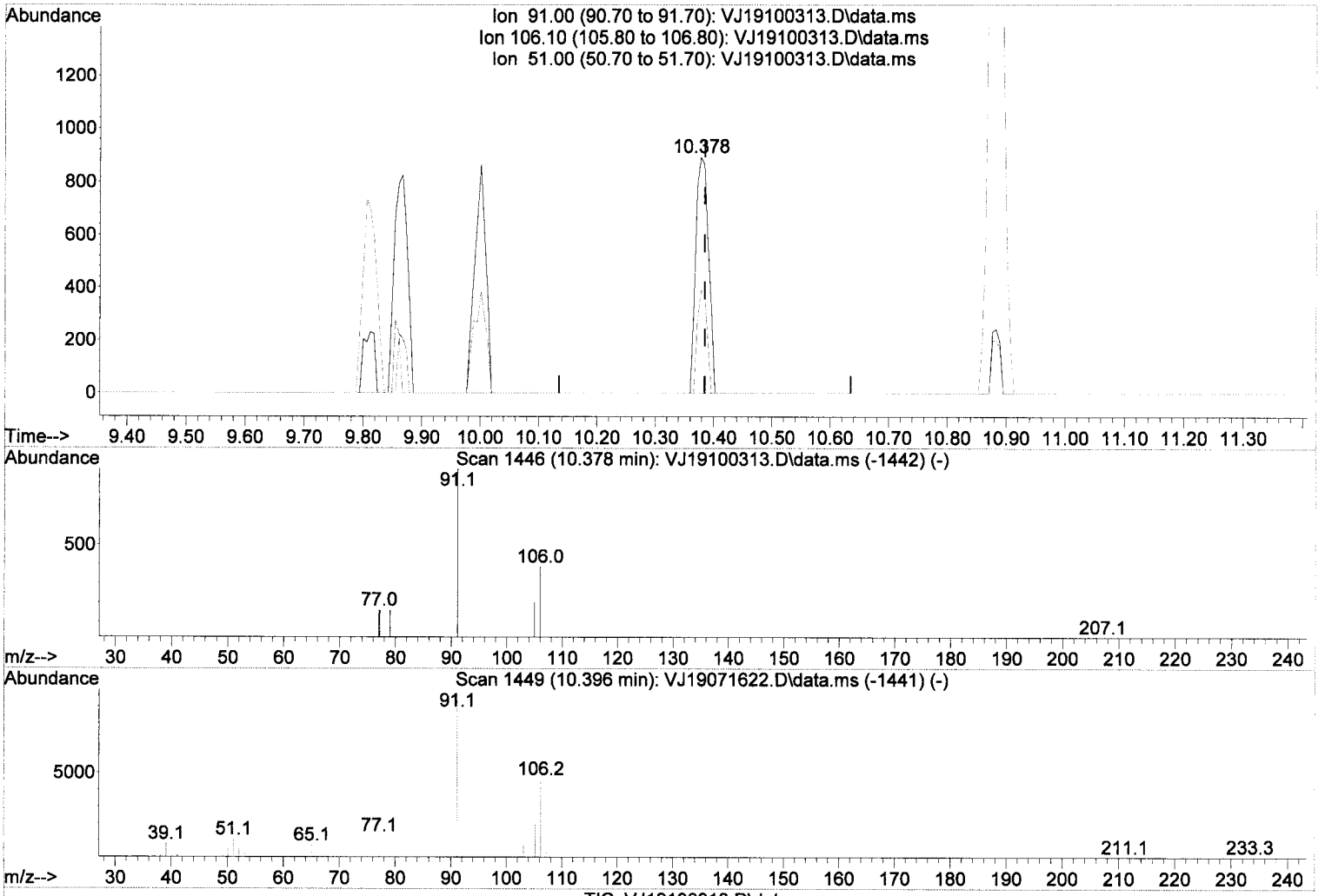
↑ MDL

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100313.D
Acq On : 3 Oct 2019 3:05 pm
Operator : TB/IMA
Sample : A9J0058-20
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 03 17:17:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



TIC: VJ19100313.D\data.ms

(59) o-Xylene

10.378min (-0.006) 0.26 ug/L

response 1362

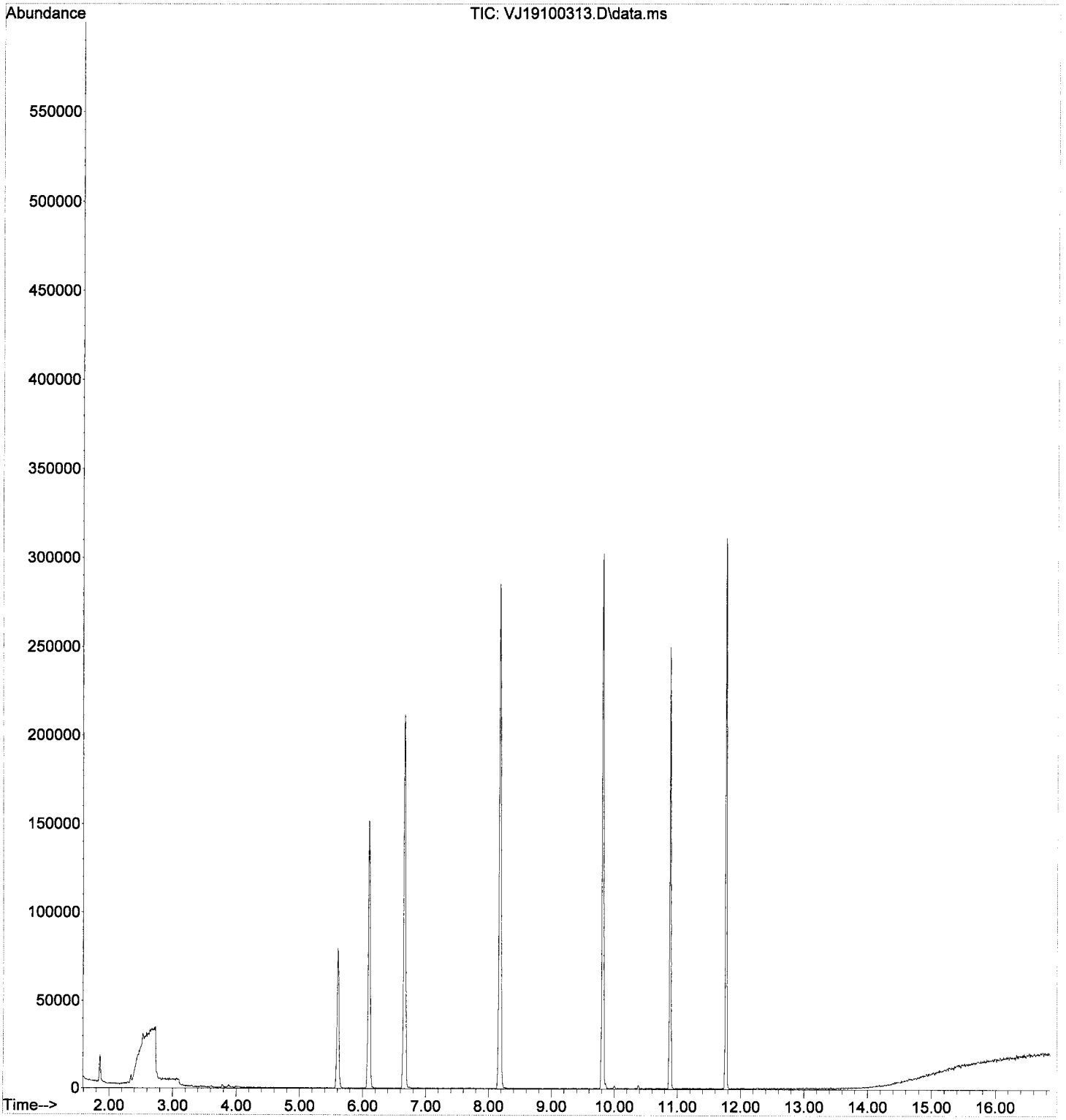
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	49.80	43.45
51.00	9.70	0.00
0.00	0.00	0.00

↑ MDL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100313.D
Acq On : 3 Oct 2019 3:05 pm
Operator : TB/IMA
Sample : A9J0058-20
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 03 17:17:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100314.D
Acq On : 3 Oct 2019 3:32 pm
Operator : TB/IMA
Sample : A9J0058-21
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6 (QC)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 04 15:55:38 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration

10/4/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	85720	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.661	114	157633	51.92	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	45130	48.36	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	197661	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.813	117	138180	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.765	150	94027	0.00	ug/L	-0.01
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	17452m	1.34	ug/L	<MDL
5) TPHg (C5-C9)	9.239	TIC	754070m	110.59	ug/L	NR
6) TPHg (C6-C10)	9.239	TIC	186479m	10.56	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	737188m	88.24	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100314.D
Acq On : 3 Oct 2019 3:32 pm
Operator : TB/IMA
Sample : A9J0058-21
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6 (QC)
ALS Vial : 9 Sample Multiplier: 1

IMA
10/4/19

Quant Time: Oct 03 17:17:13 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	71700	50.00	ug/L	#	0.00
43) Chlorobenzene-d5 (I)	9.813	117	138180	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	59426	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	49197	48.04	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	157633	41.16	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	197438	50.95	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	45130	49.16	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.892	50	421	0.22	ug/L	#	50
5) Bromomethane	2.348	96	1787	Below Cal			84
6) Chloroethane	2.476	64	298	1.39	ug/L	#	1
12) Iodomethane	3.297	142	519	0.27	ug/L		70
13) Methylene Chloride	3.790	84	535	Below Cal		#	68
14) Acetone	3.869	43	1794	Below Cal		#	42
34) tert-Amyl methyl ether...	6.168	73	62	Below Cal		#	46
56) Ethylbenzene	9.861	91	1442	0.22	ug/L		93
58) m,p-Xylenes (2)	10.001	91	1242	0.25	ug/L		85
59) o-Xylene	10.378	91	1433	0.29	ug/L		84

< MDL

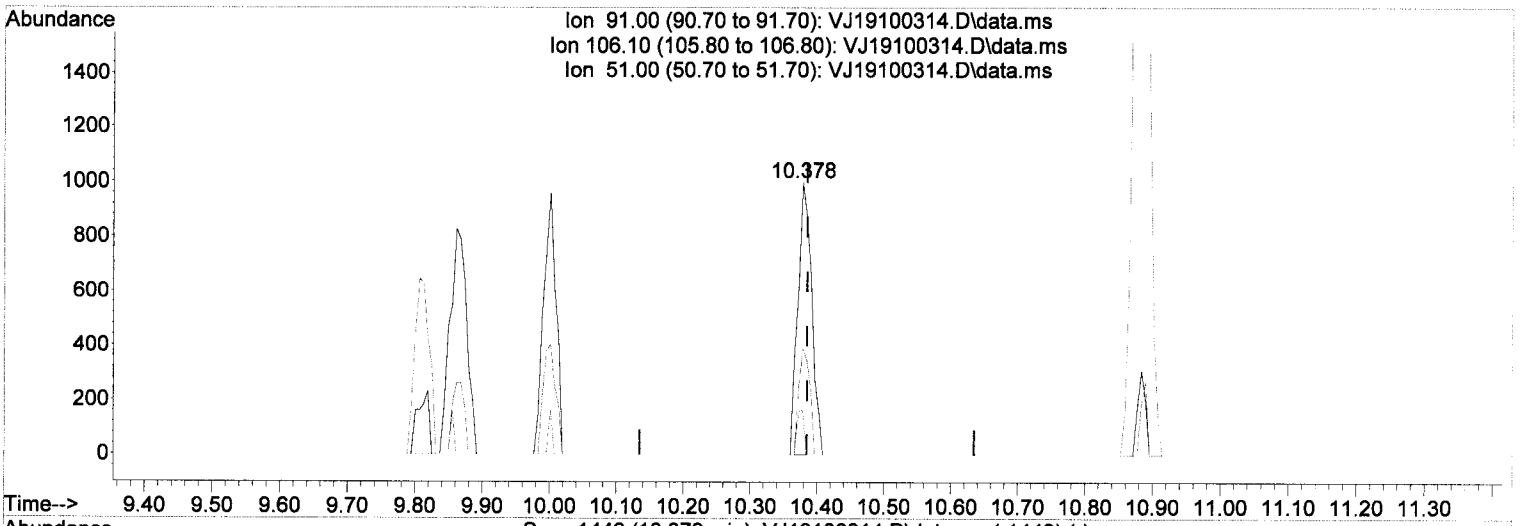
↑ MDL

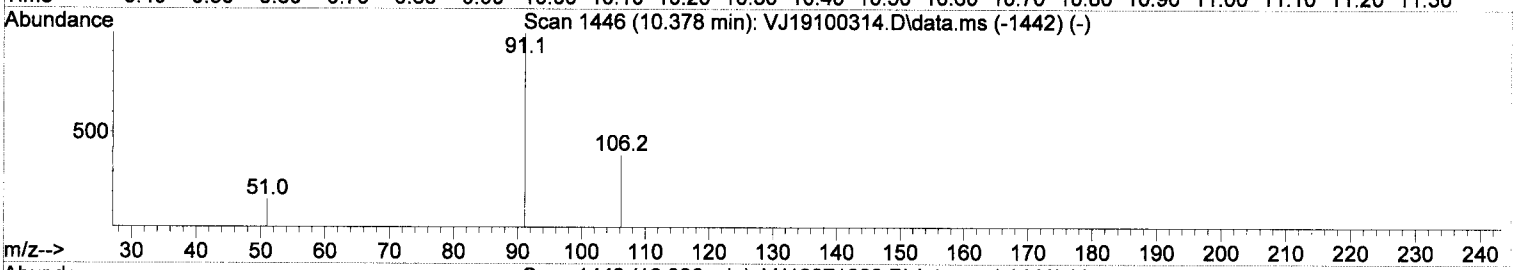
(#) = qualifier out of range (m) = manual integration (+) = signals summed

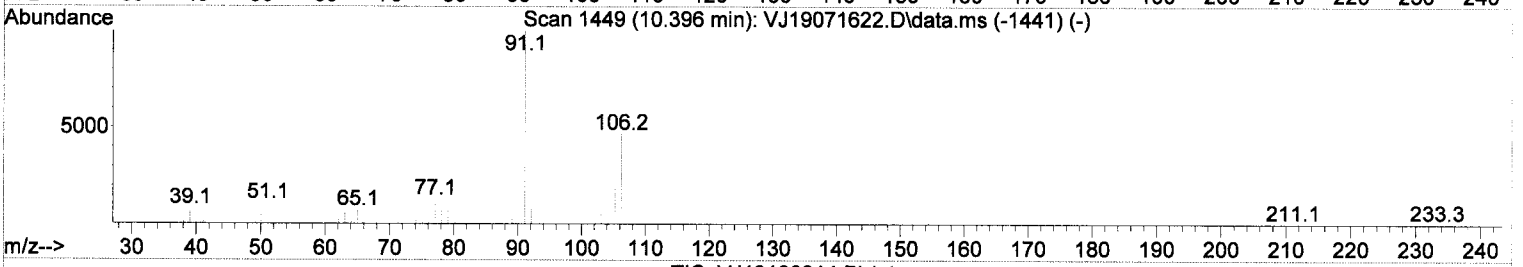
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100314.D
Acq On : 3 Oct 2019 3:32 pm
Operator : TB/IMA
Sample : A9J0058-21
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6 (QC)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 03 17:17:13 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration







TIC: VJ19100314.D\data.ms

(59) o-Xylene

10.378min (-0.006) 0.29 ug/L

response 1433

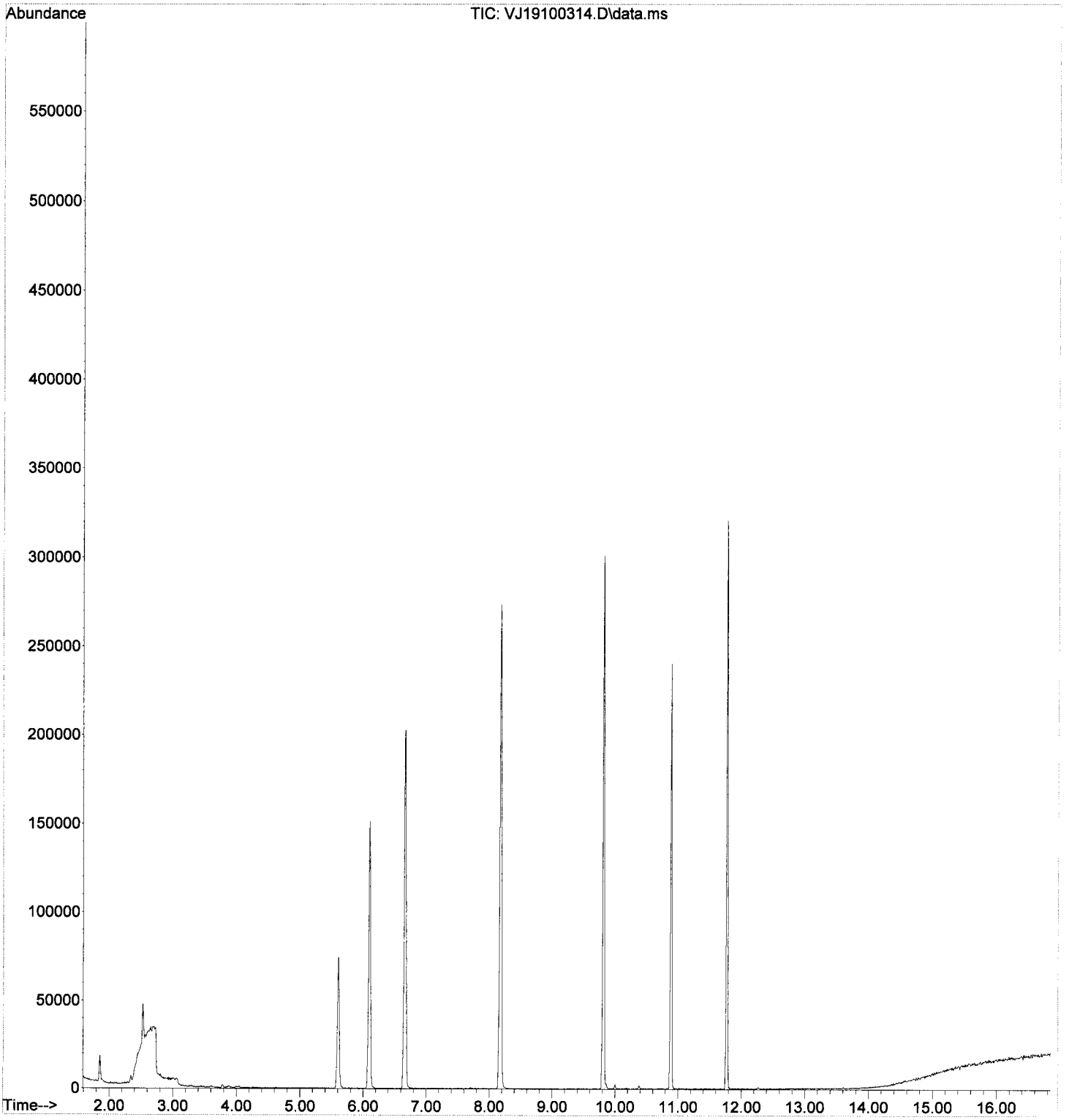
Ion	Exp%	Act%
91.00	100.00	100.00
106.10	49.80	39.06
51.00	9.70	16.37
0.00	0.00	0.00

↑MDL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100314.D
Acq On : 3 Oct 2019 3:32 pm
Operator : TB/IMA
Sample : A9J0058-21
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6 (QC)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 03 17:17:13 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100315.D
Acq On : 3 Oct 2019 3:59 pm
Operator : TB/IMA
Sample : 9100596-DUP1
Misc : 50X 5g/5mLx1000uL/50mL (A9J0058-26)
ALS Vial : 10 Sample Multiplier: 1

10/4/19

Quant Time: Oct 04 15:23:14 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	83187	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.661	114	150552	51.10	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	40761	45.00	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	189190	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	129438	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	84345	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	41986m	7.39	ug/L	
5) TPHg (C5-C9)	9.239	TIC	765447m	117.26	ug/L	
6) TPHg (C6-C10)	9.239	TIC	169295m	7.87	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	793785m	101.02	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100315.D
Acq On : 3 Oct 2019 3:59 pm
Operator : TB/IMA
Sample : 9100596-DUP1
Misc : 50X 5g/5mLx1000uL/50mL (A9J0058-26)
ALS Vial : 10 Sample Multiplier: 1

IMA
10/4/19

Quant Time: Oct 03 17:17:16 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

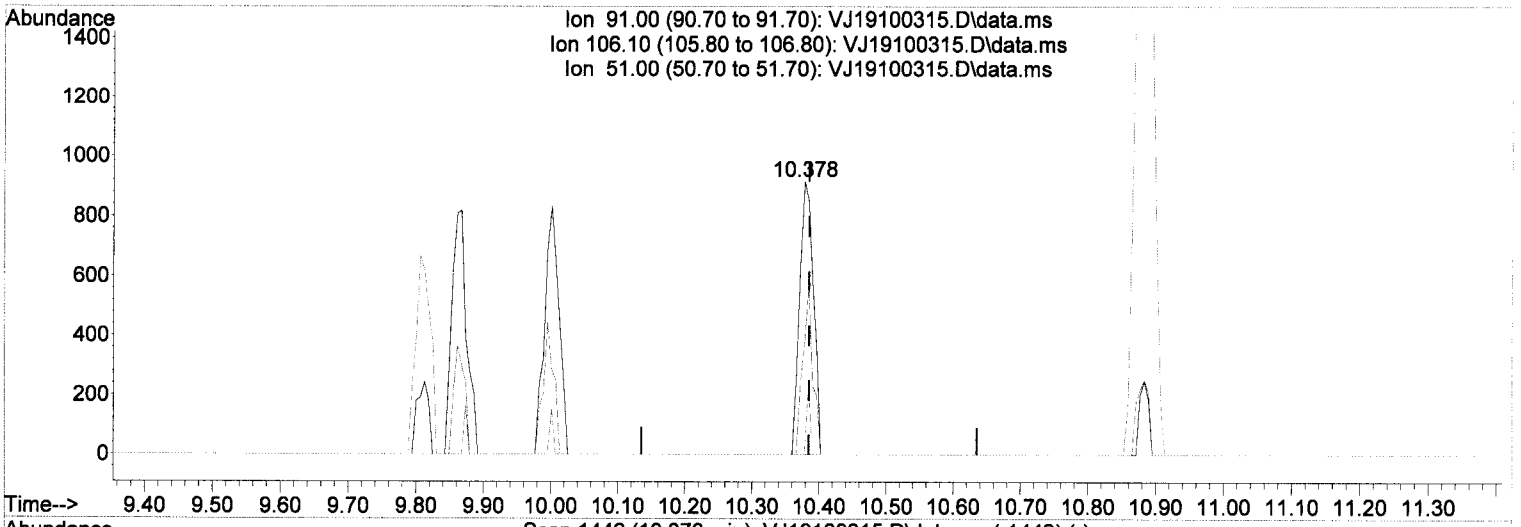
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	69212	50.00	ug/L	#	0.00
43) Chlorobenzene-d5 (I)	9.812	117	129438	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	53444	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	47172	47.72	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	150552	40.72	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	189190	52.12	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	40761	49.37	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.898	50	331	0.18	ug/L	#	LMDL50
6) Chloroethane	2.463	64	122	0.55	ug/L	#	1
12) Iodomethane	3.297	142	311	Below Cal		#	47
13) Methylene Chloride	3.796	84	551	Below Cal		#	57
14) Acetone	3.881	43	1552	Below Cal		#	42
34) tert-Amyl methyl ether...	6.187	73	117	Below Cal		#	46
56) Ethylbenzene	9.867	91	1256	0.21	ug/L		88
58) m,p-Xylenes (2)	10.001	91	1243	0.27	ug/L		75
59) o-Xylene	10.378	91	1314	0.28	ug/L		85

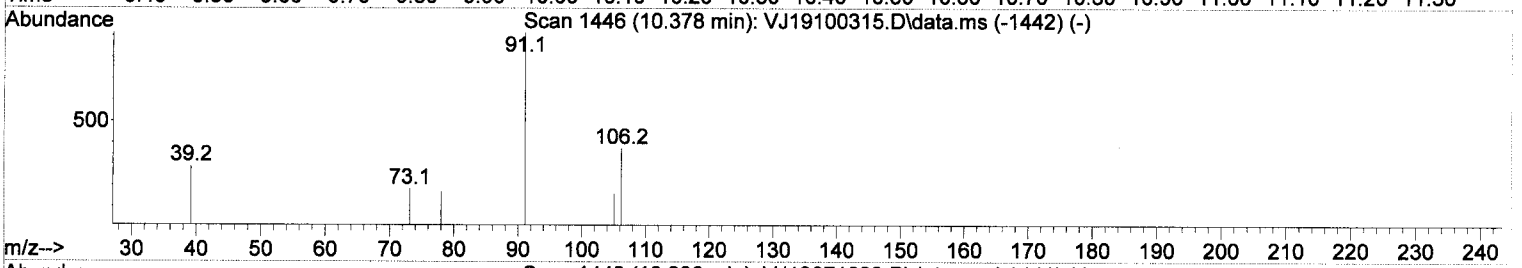
(#) = qualifier out of range (m) = manual integration (+) = signals summed

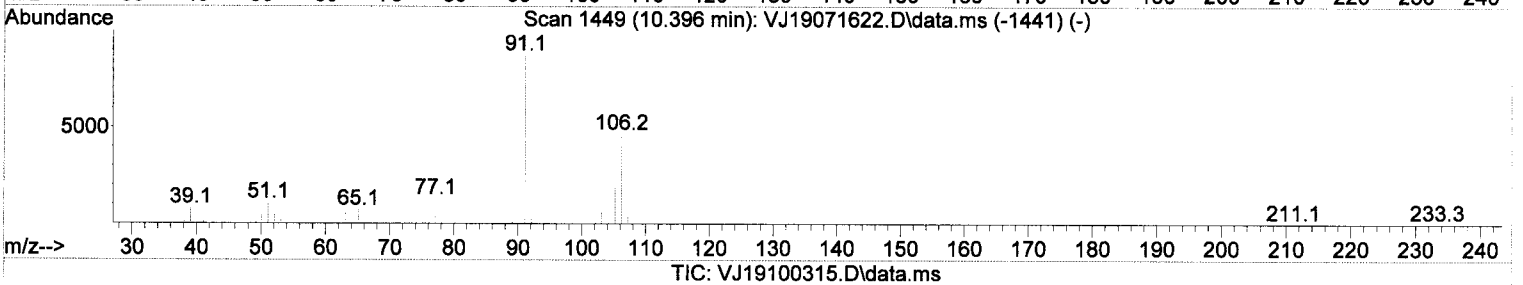
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100315.D
Acq On : 3 Oct 2019 3:59 pm
Operator : TB/IMA
Sample : 9100596-DUP1
Misc : 50X 5g/5mLx1000uL/50mL (A9J0058-26)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 03 17:17:16 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration







TIC: VJ19100315.D\data.ms

(59) o-Xylene

10.378min (-0.006) 0.28 ug/L

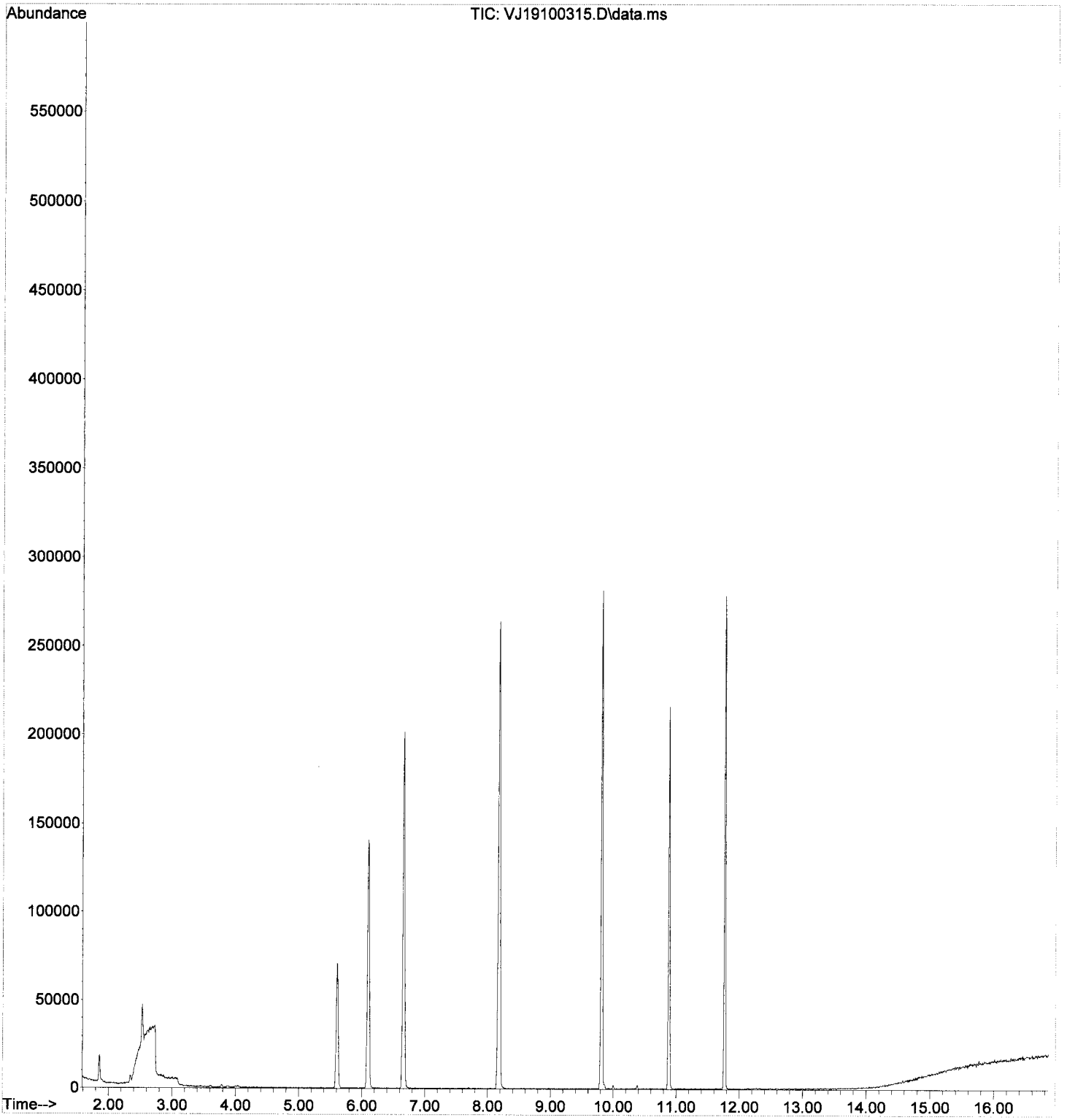
response 1314

Ion	Exp%	Act%
91.00	100.00	100.00
106.10	49.80	40.94
51.00	9.70	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100315.D
Acq On : 3 Oct 2019 3:59 pm
Operator : TB/IMA
Sample : 9100596-DUP1
Misc : 50X 5g/5mLx1000uL/50mL (A9J0058-26)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 03 17:17:16 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

IMA 10/4/19

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100316.D
Acq On : 3 Oct 2019 4:25 pm
Operator : TB/IMA
Sample : A9J0058-24
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 03 17:17:19 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

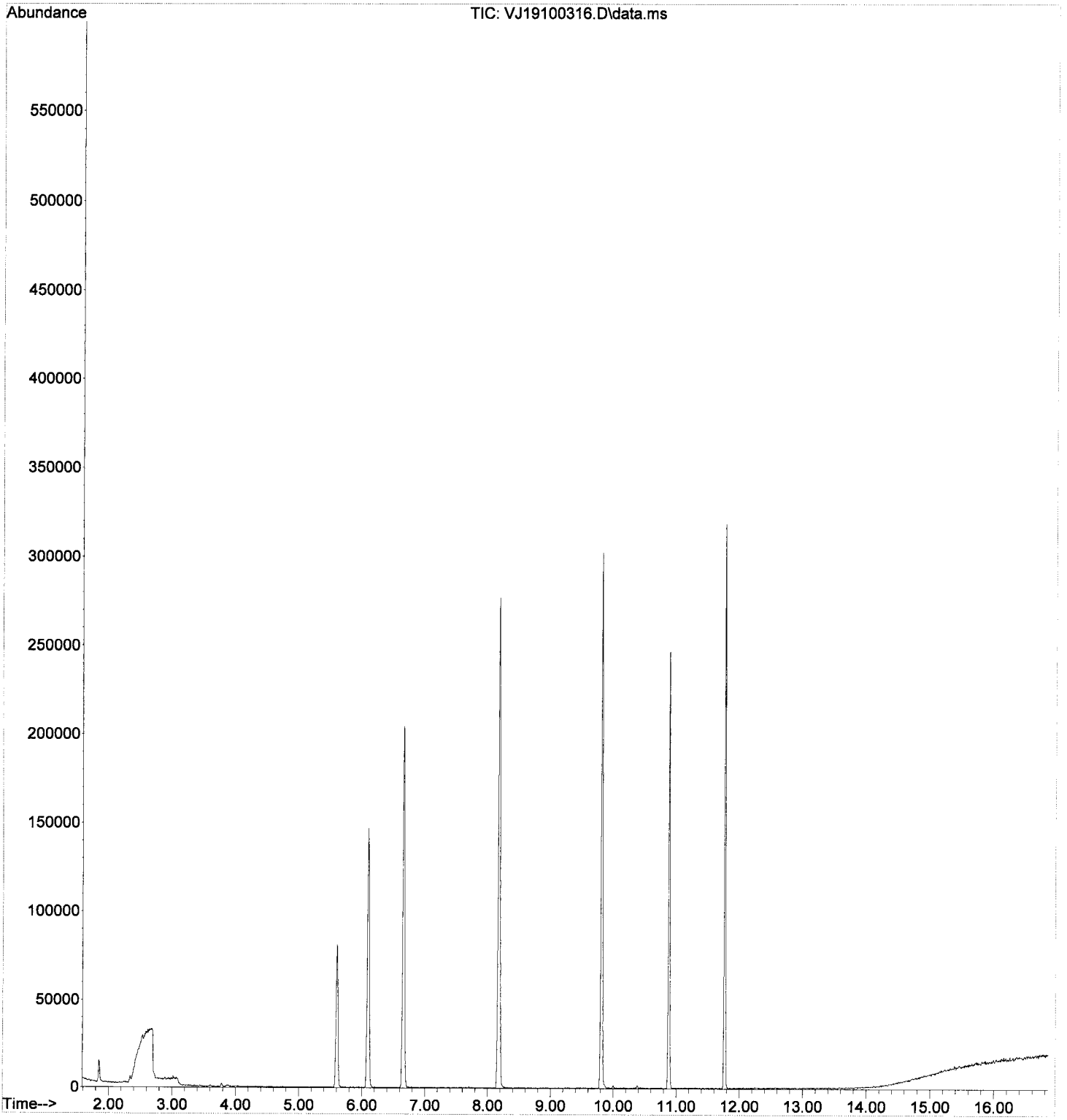
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	70431	50.00	ug/L	#	0.00
43) Chlorobenzene-d5 (I)	9.812	117	139686	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.765	152	59066	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	52107	51.80	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	155119	41.23	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	195185	49.83	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	45457	49.81	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.892	50	227	0.12	ug/L	#	11
5) Bromomethane	2.342	96	1305	Below Cal			82
6) Chloroethane	2.470	64	350	1.68	ug/L	#	47
8) Ethanol	3.267	45	57	Below Cal		#	29
12) Iodomethane	3.297	142	153	Below Cal		#	49
13) Methylene Chloride	3.784	84	592	Below Cal			80
14) Acetone	3.881	43	1619	Below Cal		#	42
34) tert-Amyl methyl ether...	6.193	73	57	Below Cal		#	46
56) Ethylbenzene	9.861	91	1256	0.19	ug/L		93
58) m,p-Xylenes (2)	10.001	91	1140	0.23	ug/L		94
59) o-Xylene	10.384	91	1138	0.22	ug/L		93

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100316.D
Acq On : 3 Oct 2019 4:25 pm
Operator : TB/IMA
Sample : A9J0058-24
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 03 17:17:19 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100317.D
Acq On : 3 Oct 2019 4:52 pm
Operator : TB/IMA
Sample : A9J0058-25
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 12 Sample Multiplier: 1

IMA
10/4/19

Quant Time: Oct 03 17:17:22 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

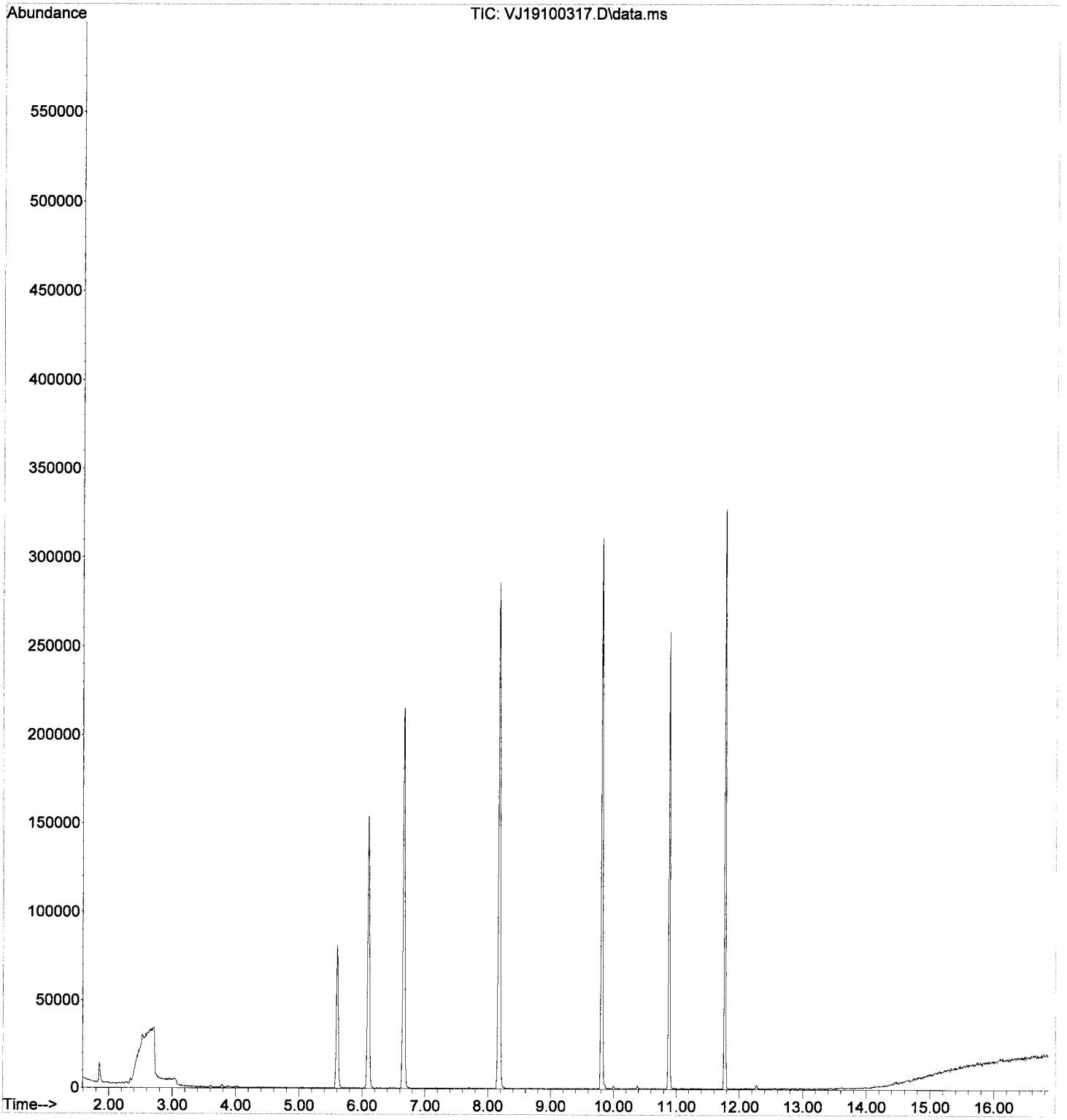
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	74378	50.00	ug/L	#	0.00
43) Chlorobenzene-d5 (I)	9.812	117	143549	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	62216	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	53528	50.39	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	161088	40.55	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	204117	50.71	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	47614	49.54	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.897	50	237	0.12	ug/L	#	<MDL 50
5) Bromomethane	2.342	96	1137	Below Cal		#	71
6) Chloroethane	2.463	64	121	0.51	ug/L	#	47
12) Iodomethane	3.291	142	65	Below Cal		#	47
13) Methylene Chloride	3.789	84	569	Below Cal			86
14) Acetone	3.881	43	1526	Below Cal		#	42
34) tert-Amyl methyl ether...	6.132	73	131	Below Cal		#	46
56) Ethylbenzene	9.861	91	1419	0.21	ug/L		86
58) m,p-Xylenes (2)	10.007	91	1228	0.24	ug/L		73
59) o-Xylene	10.384	91	1133	0.22	ug/L		91

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100317.D
Acq On : 3 Oct 2019 4:52 pm
Operator : TB/IMA
Sample : A9J0058-25
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 03 17:17:22 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100318.D
Acq On : 3 Oct 2019 5:19 pm
Operator : TB/IMA
Sample : A9J0058-26
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6 (QC)
ALS Vial : 13 Sample Multiplier: 1

IMA
10/4/19

Quant Time: Oct 04 10:15:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

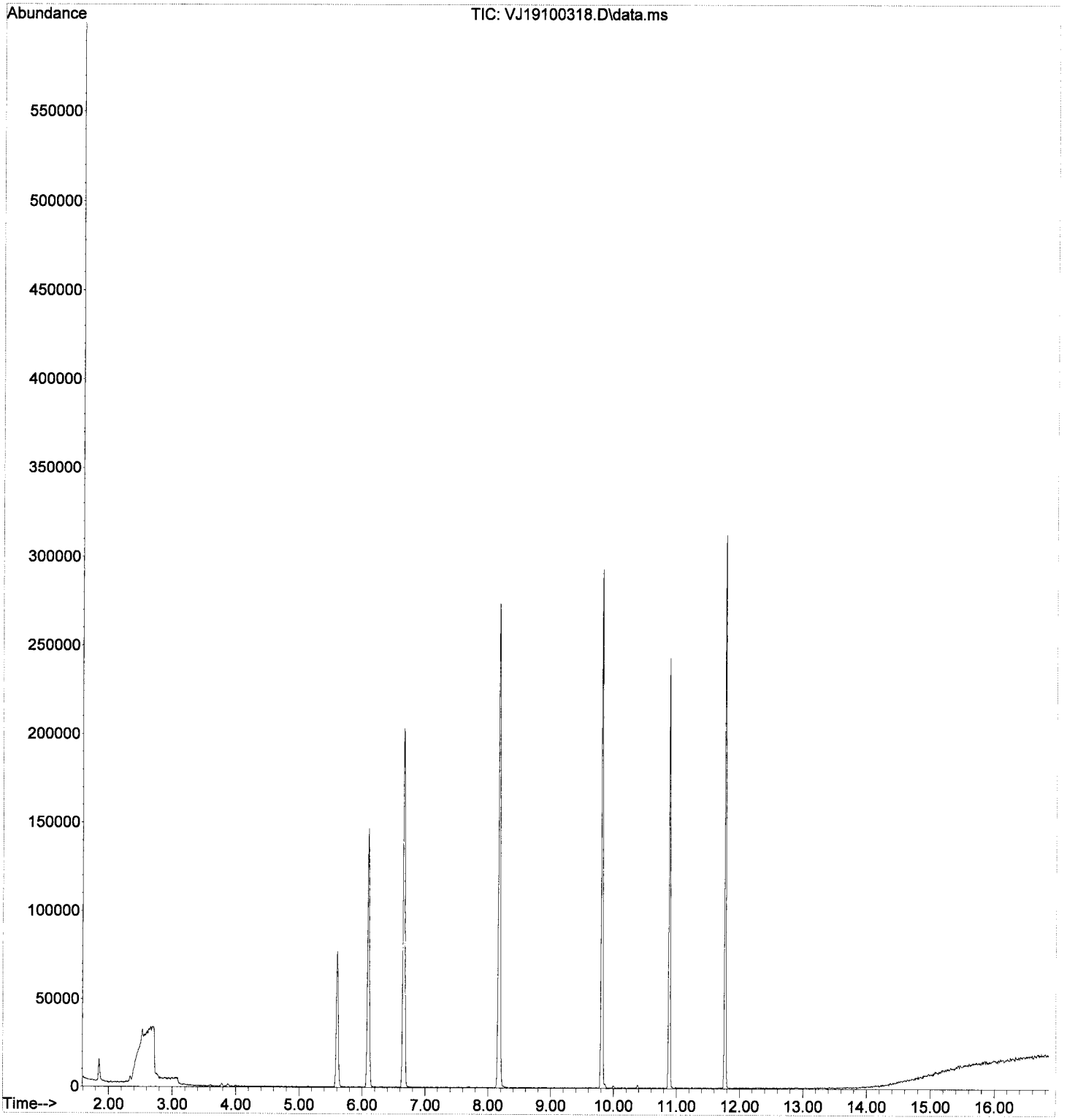
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	71057	50.00	ug/L	#	0.00
43) Chlorobenzene-d5 (I)	9.812	117	137017	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	58301	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	50490	49.75	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	153402	40.42	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	195131	50.79	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	43747	48.57	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.892	50	180	0.10	ug/L	#	50
5) Bromomethane	2.336	96	1283	Below Cal			94
6) Chloroethane	2.457	64	121	0.53	ug/L	#	47
12) Iodomethane	3.297	142	66	Below Cal		#	47
13) Methylene Chloride	3.784	84	676	Below Cal			91
14) Acetone	3.875	43	1304	Below Cal		#	42
34) tert-Amyl methyl ether...	6.126	73	60	Below Cal		#	18
56) Ethylbenzene	9.867	91	1167	0.18	ug/L		94
58) m,p-Xylenes (2)	10.001	91	985	0.20	ug/L		90
59) o-Xylene	10.378	91	1209	0.24	ug/L		66

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100318.D
Acq On : 3 Oct 2019 5:19 pm
Operator : TB/IMA
Sample : A9J0058-26
Misc : 50X 5g/5mLx1000uL/50mL BTEX+HALO6 (QC)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 04 10:15:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100319.D
Acq On : 3 Oct 2019 5:46 pm
Operator : TB/IMA
Sample : 9100596-MS1
Misc : 50X 5g/5mLx1000uL/50mL (A9J0058-26)
ALS Vial : 14 Sample Multiplier: 1

IMA
10/4/19

Quant Time: Oct 04 10:15:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.095	99	66566	50.00 ug/L	#	0.00
43) Chlorobenzene-d5 (I)	9.812	117	120125	50.00 ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	56315	50.00 ug/L		0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.602	111	44583	46.89 ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	139814	39.32 ug/L		0.00
45) Toluene-d8 (S)	8.176	98	175925	52.23 ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	40555	46.61 ug/L		0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.691	85	28354	23.22 ug/L		95
3) Chloromethane	1.898	50	32422	18.32 ug/L		96
4) Vinyl Chloride	2.001	62	25981	19.34 ug/L		93
5) Bromomethane	2.342	96	14345	25.15 ug/L		96
6) Chloroethane	2.463	64	7017	33.69 ug/L		92
7) Trichlorofluoromethane	2.597	101	20467	34.21 ug/L		96
8) Ethanol	3.303	45	52826	878.28 ug/L		86
9) 1,1-Dichloroethene	3.145	61	40168	20.66 ug/L		72
10) Carbon Disulfide	3.157	76	46239	16.67 ug/L		96
11) Freon 113	3.199	101	20511	19.67 ug/L		81
12) Iodomethane	3.297	142	4649	10.04 ug/L		62
13) Methylene Chloride	3.783	84	21636	16.10 ug/L	#	78
14) Acetone	3.869	43	47803	45.30 ug/L		82
15) t-1,2-Dichloroethene	3.948	61	41356	21.36 ug/L		80
16) n-Hexane	4.045	86	4911	15.95 ug/L	#	68
17) Methyl-tert-butyl-ether	4.112	73	109531	18.70 ug/L		92
18) tert-Butanol (TBA)	4.282	59	665446	1177.18 ug/L	#	91
19) Diisopropyl ether (DIPE)	4.507	45	24584	4.40 ug/L		97
20) 1,1-Dichloroethane	4.586	63	45141	20.69 ug/L		98
21) Acrylonitrile	4.641	53	18912	19.68 ug/L		97
22) Ethyl-tert-butyl ether...	4.872	59	26068	4.52 ug/L		93
23) c-1,2-Dichloroethene	5.134	61	43428	20.27 ug/L		83
24) 2,2-Dichloropropane	5.250	77	50629	20.66 ug/L		93
25) Bromochloromethane	5.335	49	24666	20.13 ug/L		76
26) Chloroform	5.420	83	58066	22.24 ug/L		92
27) Carbon Tetrachloride	5.560	117	44859	25.03 ug/L		93
28) Tetrahydrofuran	5.596	42	22774	17.78 ug/L		91
29) 1,1,1-Trichloroethane	5.627	97	55547	23.08 ug/L		97
31) 1,1-Dichloropropene	5.755	75	43452	19.55 ug/L		87
32) 2-Butanone (MEK)	5.736	43	62755	36.09 ug/L		88
33) Benzene	6.010	78	110150	16.98 ug/L		94
34) tert-Amyl methyl ether...	6.156	73	23414	4.23 ug/L		96
35) 1,2-Dichloroethane (EDC)	6.211	62	61092	24.64 ug/L		96
36) iso-Butyl Alcohol	6.296	43	90161	438.17 ug/L		87
38) Trichloroethene (TCE)	6.624	130	25714	18.30 ug/L	#	80
39) tert-Amyl ethyl ether ...	6.910	59	18307	4.29 ug/L		88
40) Dibromomethane	7.069	93	18733	20.54 ug/L	#	75
41) 1,2-Dichloropropane	7.178	63	28759	17.84 ug/L		75
42) Bromodichloromethane	7.251	83	38723	23.23 ug/L		99
44) c-1,3-Dichloropropene	7.957	75	44134	24.39 ug/L		81
46) Toluene	8.237	91	113473	21.44 ug/L		96
47) Tetrachloroethene (PCE)	8.681	166	23509	21.74 ug/L	#	65
48) 4-Methyl-2-Pentanone (...	8.675	43	96550	45.49 ug/L		97

SO6

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100319.D
Acq On : 3 Oct 2019 5:46 pm
Operator : TB/IMA
Sample : 9100596-MS1
Misc : 50X 5g/5mLx1000uL/50mL (A9J0058-26)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 04 10:15:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

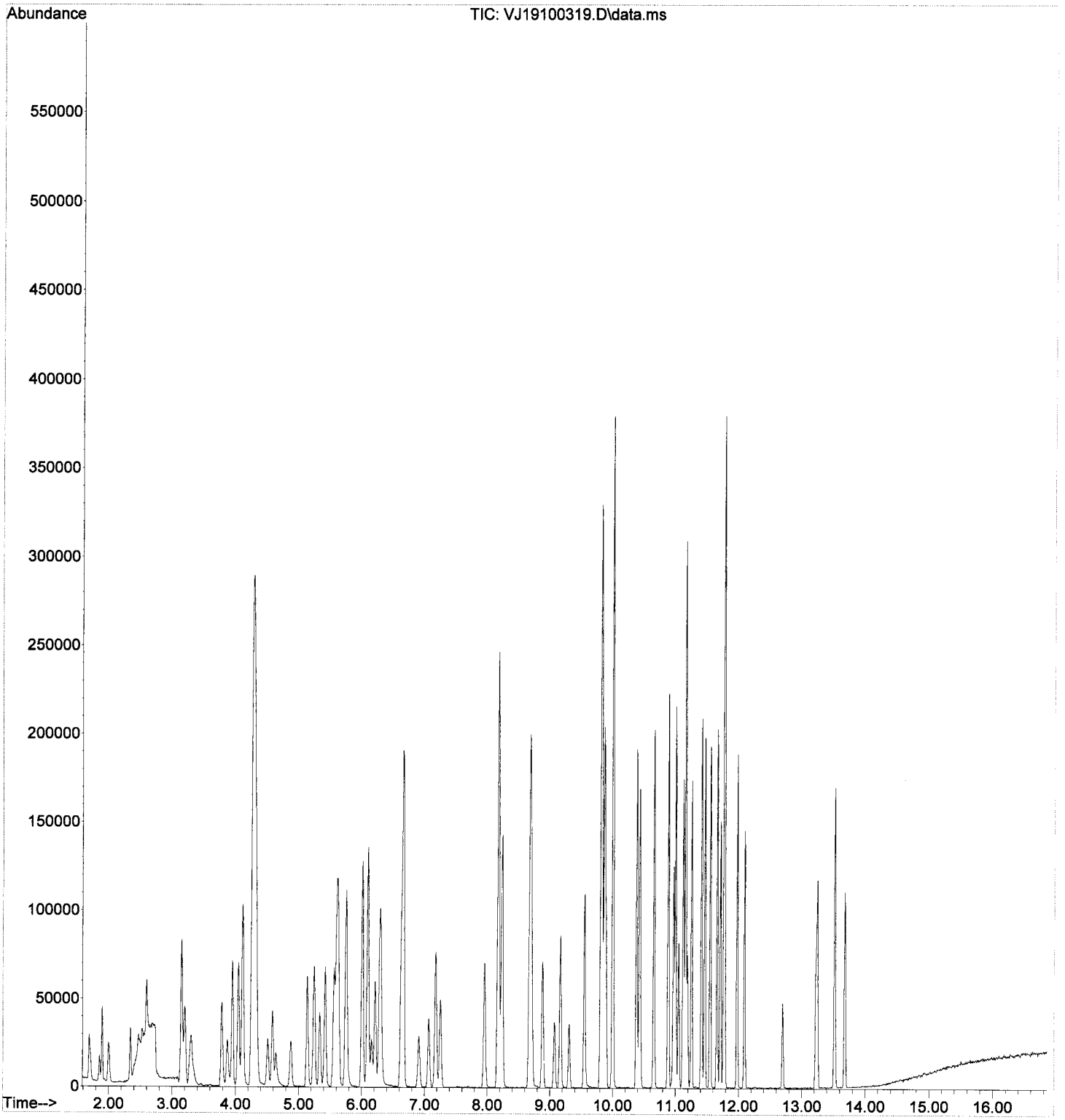
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	47346	26.08 ug/L	92
50) 1,1,2-Trichloroethane	8.881	97	22970	22.38 ug/L	80
51) Dibromochloromethane	9.070	129	21422	27.25 ug/L	97
52) 1,3-Dichloropropane	9.167	76	47422	23.74 ug/L	79
53) 1,2-Dibromoethane (EDB)	9.307	107	25165	22.59 ug/L	95
54) 2-Hexanone	9.551	43	75359	44.48 ug/L	93
55) Chlorobenzene	9.824	112	64940	22.33 ug/L	86
56) Ethylbenzene	9.861	91	129493	22.85 ug/L	93
57) 1,1,1,2-Tetrachloroethane	9.891	131	23969	25.59 ug/L	97
58) m,p-Xylenes (2)	10.001	91	199541	46.89 ug/L	90
59) o-Xylene	10.378	91	99225	22.73 ug/L	87
60) Styrene	10.427	104	60584	20.04 ug/L	86
61) Bromoform	10.439	173	13032	27.81 ug/L	93
62) Isopropylbenzene	10.658	105	115033	22.30 ug/L	93
65) Bromobenzene	10.968	156	23604	21.56 ug/L #	67
66) n-Propylbenzene	10.999	91	133828	22.18 ug/L	91
67) 1,1,2,2-Tetrachloroethane	11.047	83	32625	22.14 ug/L	96
68) 2-Chlorotoluene	11.120	126	22121	21.07 ug/L #	59
69) 1,3,5-Trimethylbenzene	11.157	105	94543	23.08 ug/L	86
70) 1,2,3-Trichloropropane	11.157	110	14111	24.34 ug/L	89
71) t-1,4-Dichloro-2-butene	11.187	88	7421	28.14 ug/L #	71
72) 4-Chlorotoluene	11.254	91	86439	23.32 ug/L	87
73) tert-Butylbenzene	11.412	91	59637	23.26 ug/L #	77
74) 1,2,4-Trimethylbenzene	11.467	105	94534	22.87 ug/L	90
75) sec-Butylbenzene	11.552	105	106656	21.68 ug/L	94
76) 4-Isopropyltoluene	11.662	119	87973	21.51 ug/L	92
77) 1,3-Dichlorobenzene	11.710	146	43936	21.07 ug/L	91
78) 1,4-Dichlorobenzene	11.783	146	45009	21.96 ug/L	90
79) n-Butylbenzene	11.978	91	82198	22.06 ug/L	95
80) 1,2-Dichlorobenzene	12.094	146	41830	21.66 ug/L	93
81) 1,2-Dibromo-3-Chloropr...	12.702	157	8190	21.80 ug/L #	45
82) Hexachlorobutadiene	13.219	223	6017	21.05 ug/L	95
83) 1,2,4-Trichlorobenzene	13.243	180	26398	20.86 ug/L	92
84) Naphthalene	13.517	128	108750	22.23 ug/L	93
85) 1,2,3-Trichlorobenzene	13.681	180	26887	21.67 ug/L	97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-10\9J03035\
Data File : VJ19100319.D
Acq On : 3 Oct 2019 5:46 pm
Operator : TB/IMA
Sample : 9100596-MS1
Misc : 50X 5g/5mLx1000uL/50mL (A9J0058-26)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 04 10:15:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



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

Selected Volatile Organic Compounds by EPA 8260C
Calibration Data

Sequence 9H21053 (Cal ID A9H2203) VOA-GCMS3

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9H21053	Instrument:	VOA-GCMS3
Date:	08/21/19 16:44	Calibration:	A9H2203

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9H21053-IBL1	Soil	QC	QC			A19G090	
2	9H21053-TUN1	Soil	QC	QC			A19G090	
3	9H21053-ICB1	Soil	QC	QC			A19G090	
4	9H21053-CAL1	Soil	QC	QC			A19G090	A19H354
5	9H21053-CAL2	Soil	QC	QC			A19G090	A19H355
6	9H21053-CAL3	Soil	QC	QC			A19G090	A19H356
7	9H21053-CAL4	Soil	QC	QC			A19G090	A19H357
8	9H21053-CAL5	Soil	QC	QC			A19G090	A19H358
9	9H21053-CAL6	Soil	QC	QC			A19G090	A19H359
10	9H21053-CAL7	Soil	QC	QC			A19G090	A19H360
11	9H21053-CAL8	Soil	QC	QC			A19G090	A19H361
12	9H21053-CAL9	Soil	QC	QC			A19G090	A19H362
13	9H21053-IBL2	Soil	QC	QC			A19G090	
14	9H21053-CALA	Soil	QC	QC			A19G090	A19H363
15	9H21053-IBL3	Soil	QC	QC			A19G090	
16	9H21053-CALB	Soil	QC	QC			A19G090	A19H364
17	9H21053-IBL4	Soil	QC	QC			A19G090	
18	9H21053-IBL5	Soil	QC	QC			A19G090	
19	9H21053-ICV1	Soil	QC	QC			A19G090	A19H365
20	9H21053-IBL6	Soil	QC	QC			A19G090	
21	9H21053-TUN2	Soil	QC	QC			A19G090	
22	9H21053-IBL7	Soil	QC	QC			A19G090	
23	9H21053-ICB2	Soil	QC	QC			A19G090	
24	9H21053-CALC	Soil	QC	QC			A19G090	A19H366
25	9H21053-CALD	Soil	QC	QC			A19G090	A19H367
26	9H21053-CALE	Soil	QC	QC			A19G090	A19H368
27	9H21053-CALF	Soil	QC	QC			A19G090	A19H369
28	9H21053-CALG	Soil	QC	QC			A19G090	A19H370
29	9H21053-CALH	Soil	QC	QC			A19G090	A19H371
30	9H21053-CALI	Soil	QC	QC			A19G090	A19H372
31	9H21053-CALJ	Soil	QC	QC			A19G090	A19H373
32	9H21053-IBL8	Soil	QC	QC			A19G090	
33	9H21053-IBL9	Soil	QC	QC			A19G090	
34	9H21053-ICV3	Soil	QC	QC			A19G090	A19G350

Comments: Iodomethane EOS, ICV High

Data Entered By: MS 8/22/19

Data Reviewed By: MS 8/22/19

Calibration Status Report VOA-GCMS3

Method Path : C:\msdchem\1\METHODS\
Method File : VC190822S+.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Thu Aug 22 09:46:59 2019
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	1	-1	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092126.D
2	2	0	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092127.D
3	3	0	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092128.D
4	4	1	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092129.D
5	5	2	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092130.D
6	6	5	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092131.D
7	7	10	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092132.D
8	8	20	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092133.D
9	9	50	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092134.D
10	10	100	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092136.D
11	1a	200	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092138.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Aug 22 09:20 2019	Aug 22 09:01 2019	21 Aug 2019 8:41 pm
2	2	Aug 22 09:20 2019	Aug 22 09:04 2019	21 Aug 2019 9:08 pm
3	3	Aug 22 09:20 2019	Aug 22 09:06 2019	21 Aug 2019 9:35 pm
4	4	Aug 22 09:20 2019	Aug 22 09:07 2019	21 Aug 2019 10:02 pm
5	5	Aug 22 09:20 2019	Aug 22 09:09 2019	21 Aug 2019 10:29 pm
6	6	Aug 22 09:20 2019	Aug 22 09:10 2019	21 Aug 2019 10:56 pm
7	7	Aug 22 09:20 2019	Aug 22 08:57 2019	21 Aug 2019 11:23 pm
8	8	Aug 22 09:20 2019	Aug 22 08:57 2019	21 Aug 2019 11:50 pm
9	9	Aug 22 09:20 2019	Aug 22 08:57 2019	22 Aug 2019 12:17 am
10	10	Aug 22 09:20 2019	Aug 22 08:57 2019	22 Aug 2019 1:12 am
11	1a	Aug 22 09:20 2019	Aug 22 09:18 2019	22 Aug 2019 2:06 am

VC190822S+.M Thu Aug 22 09:54:45 2019

Compound List Report VOA-GCMS3

Method Path : C:\msdchem\1\METHODS\
Method File : VC190822S+.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Thu Aug 22 09:46:59 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	5.714	1.000	A	2	A	R
2		Dichlorodifluoromethane	85	1.510	0.264	A	2	A	R
3	P	Chloromethane	50	1.692	0.296	A	2	A	R
4	C	Vinyl Chloride	62	1.778	0.311	A	2	A	R
5		Bromomethane	96	2.094	0.366	Q	2	A	R
6		Chloroethane	64	2.234	0.391	A	2	A	R
7		Trichlorofluoromethane	101	2.356	0.412	A	2	A	R
8		Ethanol	45	3.171	0.555	A	1	A	R
9	C	1,1-Dichloroethene	61	2.837	0.496	A	2	A	R
10		Carbon Disulfide	76	2.843	0.497	A	2	A	R
11		Freon 113	101	2.885	0.505	A	2	A	R
12		Iodomethane	142	2.976	0.521	Q	2	A	R
13		Methylene Chloride	84	3.451	0.604	Q	2	A	R
14		Acetone	43	3.572	0.625	A	1	A	R
15		t-1,2-Dichloroethene	61	3.609	0.632	A	2	A	R
16		n-Hexane	86	3.682	0.644	Q	3	A	R
17		Methyl-tert-butyl-ether	73	3.767	0.659	A	3	A	R
18		tert-Butanol (TBA)	59	4.065	0.711	A	1	A	R
19		Diisopropyl ether (DIPE)	45	4.144	0.725	A	2	A	R
20	P	1,1-Dichloroethane	63	4.224	0.739	A	2	A	R
21		Acrylonitrile	53	4.303	0.753	A	2	A	R
22		Ethyl-tert-butyl ether (ETBE)	59	4.504	0.788	A	2	A	R
23		c-1,2-Dichloroethene	61	4.765	0.834	A	2	A	R
24		2,2-Dichloropropane	77	4.862	0.851	A	2	A	R
25		Bromochloromethane	49	4.954	0.867	A	2	A	R
26	C	Chloroform	83	5.045	0.883	A	2	A	R
27		Carbon Tetrachloride	117	5.160	0.903	A	2	A	R
28		Tetrahydrofuran	42	5.227	0.915	A	2	A	R
29		1,1,1-Trichloroethane	97	5.234	0.916	A	2	A	R
30	S	Dibromofluoromethane (S)	111	5.221	0.914	A	2	A	R
31		1,1-Dichloropropene	75	5.355	0.937	A	2	A	R
32		2-Butanone (MEK)	43	5.386	0.943	A	2	A	R
33		Benzene	78	5.611	0.982	A	2	A	R
34		tert-Amyl methyl ether (TAME)	73	5.756	1.007	A	2	A	R
35		1,2-Dichloroethane (EDC)	62	5.824	1.019	A	2	A	R
36		iso-Butyl Alcohol	43	5.981	1.047	A	2	A	R
37	S	1,4-Difluorobenzene (S)	114	6.262	1.096	A	2	A	R
38		Trichloroethene (TCE)	130	6.219	1.088	A	2	A	R
39		tert-Amyl ethyl ether (TAEE)	59	6.492	1.136	A	2	A	R
40		Dibromomethane	93	6.663	1.166	A	2	A	R
41	C	1,2-Dichloropropane	63	6.767	1.184	A	2	A	R
42		Bromodichloromethane	83	6.845	1.198	A	2	A	R
43	I	Chlorobenzene-d5 (I)	117	9.462	1.000	A	2	A	R
44		c-1,3-Dichloropropene	75	7.545	0.797	A	2	A	R
45	S	Toluene-d8 (S)	98	7.752	0.819	A	2	A	R
46	C	Toluene	91	7.806	0.825	A	2	A	R
47		Tetrachloroethene (PCE)	166	8.251	0.872	A	2	A	R
48		4-Methyl-2-Pentanone (MIBK)	43	8.281	0.875	A	2	A	R
49		t-1,3-Dichloropropene	75	8.305	0.878	A	2	A	R
50		1,1,2-Trichloroethane	97	8.482	0.896	A	2	A	R
51		Dibromochloromethane	129	8.682	0.918	Q	2	A	R
52		1,3-Dichloropropane	76	8.792	0.929	A	2	A	R
53		1,2-Dibromoethane (EDB)	107	8.932	0.944	A	2	A	R
54		2-Hexanone	43	9.218	0.974	A	2	A	R
55	P	Chlorobenzene	112	9.480	1.002	A	2	A	R

56	C	Ethylbenzene	91	9.516	1.006	A	2	A	R
57		1,1,1,2-Tetrachloroethane	131	9.546	1.009	Q	2	A	R
58		m,p-Xylenes (2)	91	9.662	1.021	A	2	A	R
59		o-Xylene	91	10.058	1.063	A	2	A	R
60		Styrene	104	10.106	1.068	A	2	A	R
61	P	Bromoform	173	10.124	1.070	Q	2	A	R
62		Isopropylbenzene	105	10.338	1.093	A	2	A	R
63	I	1,4-Dichlorobenzene-d4 (I)	152	11.481	1.000	A	2	A	R
64	S	4-Bromofluorobenzene (S)	174	10.581	0.922	A	2	A	R
65		Bromobenzene	156	10.660	0.928	A	2	A	R
66		n-Propylbenzene	91	10.690	0.931	A	2	A	R
67	P	1,1,2,2-Tetrachloroethane	83	10.763	0.937	A	2	A	R
68		2-Chlorotoluene	126	10.818	0.942	A	2	A	R
69		1,3,5-Trimethylbenzene	105	10.861	0.946	A	2	A	R
70		1,2,3-Trichloropropane	110	10.867	0.946	A	2	A	R
71		t-1,4-Dichloro-2-butene	88	10.903	0.950	A	3	A	R
72		4-Chlorotoluene	91	10.952	0.954	A	2	A	R
73		tert-Butylbenzene	91	11.110	0.968	A	2	A	R
74		1,2,4-Trimethylbenzene	105	11.171	0.973	A	2	A	R
75		sec-Butylbenzene	105	11.256	0.980	A	2	A	R
76		4-Isopropyltoluene	119	11.366	0.990	A	2	A	R
77		1,3-Dichlorobenzene	146	11.420	0.995	A	2	A	R
78		1,4-Dichlorobenzene	146	11.493	1.001	A	2	A	R
79		n-Butylbenzene	91	11.688	1.018	A	2	A	R
80		1,2-Dichlorobenzene	146	11.816	1.029	A	2	A	R
81		1,2-Dibromo-3-Chloropropane	157	12.412	1.081	Q	2	A	R
82		Hexachlorobutadiene	223	12.910	1.124	A	3	A	R
83		1,2,4-Trichlorobenzene	180	12.935	1.127	A	2	A	R
84		Naphthalene	128	13.202	1.150	Q	2	A	R
85		1,2,3-Trichlorobenzene	180	13.361	1.164	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

VC190822S+.M Thu Aug 22 09:54:53 2019

Response Factor Report VOA-GCMS3

Method Path : C:\msdchem\1\METHODS\
Method File : VC190822S+.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Thu Aug 22 09:46:59 2019
Response Via : Initial Calibration

Calibration Files
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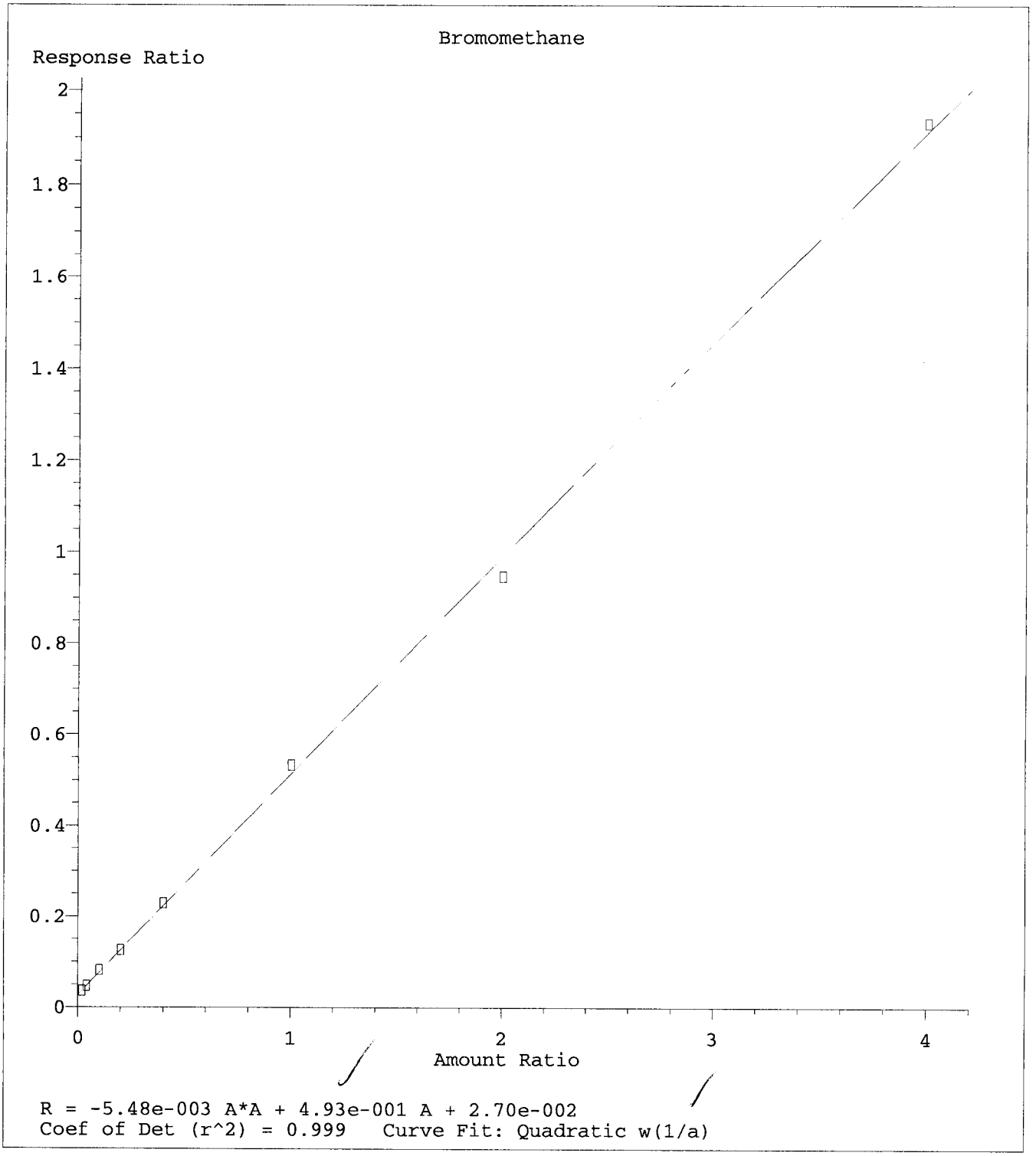
7 =VC19092132.D 8 =VC19092133.D 9 =VC19092134.D 10 =VC19092136.D 1a =VC19092138.D

		Compound	1	2	3	4	5	6	7	8	9	10	1a	Avg	%RSD
1)	I	Pentafluorobenzene...	ISTD												
2)		Dichlorodifluo...			0.620	0.703	0.722	0.706	0.720	0.704	0.681	0.775	0.704	6.18	
3)	P	Chloromethane		1.039	0.948	0.922	0.879	0.880	0.884	0.912	0.880	0.904	0.916	5.66	
4)	C	Vinyl Chloride		0.820	0.785	0.870	0.826	0.836	0.855	0.875	0.837	0.892	0.844	3.89	
5)		Bromomethane			1.786	1.164	0.813	0.627	0.572	0.534	0.473	0.482	0.806	56.72	
6)		Chloroethane					0.370	0.402	0.401	0.424	0.444	0.456	0.416	7.57	
7)		Trichlorofluor...			0.908	0.931	1.016	0.958	0.961	0.977	0.888	0.996	0.955	4.54	
8)		Ethanol				0.031	0.025	0.026	0.025	0.032	0.034		0.029	13.36	
9)	C	1,1-Dichloroet...		1.132	1.187	1.170	1.151	1.202	1.206	1.193	1.194	1.207	1.182	2.21	
10)		Carbon Disulfide			1.402	1.413	1.420	1.465	1.528	1.649	1.737	1.832	1.556	10.57	
11)		Freon 113		0.740	0.856	0.831	0.830	0.848	0.817	0.848	0.868	0.864	0.833	4.64	
12)		Iodomethane					0.087	0.113	0.154	0.246	0.323	0.512	0.239	66.89	
13)		Methylene Chlo...	3.121	1.554	0.805	0.364	0.203	0.128	0.099	0.084	0.076	0.074	0.072	0.598	E1 159.37
14)		Acetone					0.663	0.604	0.548	0.517	0.531	0.520	0.421	0.543	13.91
15)		t-1,2-Dichloro...		1.184	1.084	1.046	1.045	1.099	1.095	1.127	1.129	1.128	1.104	3.98	
16)		n-Hexane	3.887	1.907	1.112	0.471	0.340	0.251	0.222	0.205	0.185	0.185	0.187	0.814	141.69
17)		Methyl-tert-bu...		3.009	2.993	3.056	3.094	3.099	3.117	3.213	3.307	3.243	3.126	3.43	
18)		tert-Butanol (...			0.257	0.258	0.262	0.267	0.272	0.350			0.278	12.88	
19)		Diisopropyl et...		3.360	3.296	3.162	3.080	3.109	3.125	3.968	3.912		3.377	10.70	
20)	P	1,1-Dichloroet...		0.938	1.054	1.129	1.094	1.105	1.103	1.145	1.198	1.236	1.111	7.67	
21)		Acrylonitrile			0.442	0.466	0.513	0.513	0.514	0.539	0.555	0.536	0.510	7.44	
22)		Ethyl-tert-but...			3.232	2.983	3.111	3.028	2.985	3.785	3.910		3.291	11.89	
23)		c-1,2-Dichloro...	0.923	1.152	1.181	1.136	1.200	1.174	1.185	1.182	1.208	1.198	1.154	7.28	
24)		2,2-Dichloropr...		1.148	1.327	1.243	1.291	1.268	1.271	1.322	1.323	1.309	1.278	4.43	
25)		Bromochloromet...		0.592	0.650	0.647	0.685	0.659	0.664	0.675	0.672	0.644	0.654	4.14	
26)	C	Chloroform	1.258	1.203	1.273	1.315	1.384	1.362	1.391	1.457	1.486	1.478	1.361	7.17	
27)		Carbon Tetrach...			0.781	0.844	0.930	0.979	1.025	1.150			0.952	13.86	
28)		Tetrahydrofuran			0.540	0.575	0.588	0.606	0.592	0.611	0.616	0.569	0.587	4.35	
29)		1,1,1-Trichlor...	1.380	1.227	1.355	1.359	1.368	1.466	1.478	1.555	1.585	1.600	1.437	8.36	
30)	S	Dibromofluorom...	0.743	0.758	0.759	0.743	0.744	0.778	0.769	0.790	0.833	0.855	0.851	0.784	5.50
31)		1,1-Dichloropr...		1.018	1.203	1.164	1.237	1.237	1.257	1.300	1.317	1.329	1.229	7.77	
32)		2-Butanone (MEK)			0.889	0.889	0.863	0.853	0.858	0.874	0.895	0.851	0.871	2.04	
33)		Benzene	3.438	3.824	3.630	3.404	3.496	3.504	3.494	3.571	3.641	3.680	3.692	3.579	3.53
34)		tert-Amyl meth...			2.903	2.632	2.713	2.763	2.773	3.593			2.896	12.18	
35)		1,2-Dichloroet...	1.172	1.476	1.542	1.568	1.530	1.534	1.525	1.551	1.533	1.443	1.487	7.85	
36)		iso-Butyl Alcohol			0.092	0.092	0.090	0.095	0.099	0.106	0.113	0.108	0.099	8.62	
37)	S	1,4-Difluorobe...	3.228	3.220	3.216	3.194	3.167	3.216	3.200	3.196	3.247	3.290	3.316	3.226	1.35
38)		Trichloroethen...		1.094	0.921	0.929	0.951	0.995	0.991	1.031	1.055	1.059	1.003	6.11	
39)		tert-Amyl ethy...			2.083	2.116	2.112	2.134	2.190	2.885			2.253	13.83	
40)		Dibromomethane			0.434	0.462	0.489	0.499	0.473	0.506	0.496	0.474	0.479	4.95	
41)	C	1,2-Dichloropr...		0.876	0.860	0.864	0.900	0.887	0.886	0.918	0.936	0.932	0.895	3.14	

Method Path : C:\msdchem\1\METHODS\
Method File : VC190822S+.M
Title : EPA 8260C: Volatile Organic Compounds

42)		Bromodichlorom...		0.744	0.853	0.761	0.798	0.837	0.901	0.972	1.103			0.871	13.70
43)		Chlorobenzene-d5 (I)	----------ISTD----------												
44)		c-1,3-Dichloro...				0.356	0.369	0.386	0.401	0.429	0.470	0.477	0.490	0.422	12.27
45)	S	Toluene-d8 (S)	1.348	1.358	1.350	1.346	1.362	1.358	1.354	1.361	1.338	1.312	1.328	1.347	1.15
46)	C	Toluene		1.724	1.368	1.385	1.313	1.307	1.303	1.326	1.327	1.300	1.314	1.367	9.42
47)		Tetrachloroeth...			0.301	0.311	0.327	0.335	0.327	0.342	0.340	0.334	0.344	0.329	4.37
48)		4-Methyl-2-Pen...			0.443	0.428	0.436	0.452	0.467	0.487	0.498	0.491	0.497	0.466	5.95
49)		t-1,3-Dichloro...				0.352	0.336	0.385	0.407	0.427	0.474	0.483	0.495	0.420	14.38
50)		1,1,2-Trichlor...		0.235	0.214	0.271	0.252	0.254	0.264	0.268	0.271	0.269	0.271	0.257	7.45
51)		Dibromochlorom...			0.136	0.146	0.153	0.169	0.178	0.201	0.239	0.265	0.295	0.198	28.49
52)		1,3-Dichloropr...		0.423	0.510	0.471	0.501	0.499	0.501	0.508	0.515	0.506	0.512	0.495	5.67
53)		1,2-Dibromoeth...		0.189	0.252	0.232	0.229	0.266	0.273	0.282	0.296	0.294	0.301	0.261	13.70
54)		2-Hexanone		0.272	0.286	0.310	0.313	0.330	0.349	0.370	0.390	0.392	0.395	0.341	13.30
55)	P	Chlorobenzene	0.981	0.913	0.822	0.830	0.848	0.819	0.826	0.832	0.834	0.830	0.839	0.852	5.83
56)	C	Ethylbenzene	1.708	1.724	1.524	1.411	1.435	1.423	1.438	1.501	1.500	1.494	1.504	1.515	7.03
57)		1,1,1,2-Tetrac...			0.167	0.205	0.197	0.221	0.237	0.259	0.287			0.225	17.89
58)		m,p-Xylenes (2)	1.242	1.174	1.065	1.017	1.025	1.030	1.076	1.104	1.130	1.133	1.162	1.105	6.42
59)		o-Xylene	1.355	1.219	1.090	0.994	0.990	1.022	1.053	1.106	1.132	1.150	1.175	1.117	9.67
60)		Styrene				0.595	0.622	0.660	0.713	0.757	0.821	0.845	0.888	0.738	14.65
61)	P	Bromoform				0.084	0.089	0.096	0.101	0.115	0.146	0.172	0.207	0.126	35.10
62)		Isopropylbenzene		1.134	1.153	1.208	1.198	1.281	1.334	1.407	1.454	1.464	1.482	1.311	10.26
63)	I	1,4-Dichlorobenzen...	----------ISTD----------												
64)	S	4-Bromofluorob...	0.820	0.834	0.819	0.818	0.821	0.807	0.802	0.793	0.788	0.779	0.781	0.806	2.28
65)		Bromobenzene		0.574	0.600	0.726	0.651	0.675	0.678	0.677	0.668	0.678	0.680	0.661	6.57
66)		n-Propylbenzene	3.297	3.322	3.041	3.049	3.151	3.145	3.240	3.293	3.257	3.251	3.173	3.202	3.03
67)	P	1,1,2,2-Tetrac...		0.684	0.620	0.646	0.656	0.664	0.659	0.677	0.674	0.678	0.671	0.663	2.85
68)		2-Chlorotoluene		0.596	0.603	0.647	0.622	0.605	0.642	0.624	0.632	0.648	0.643	0.626	3.10
69)		1,3,5-Trimethy...	2.308	2.408	2.124	2.041	2.193	2.259	2.363	2.398	2.382	2.362	2.319	2.287	5.28
70)		1,2,3-Trichlor...			0.210	0.276	0.306	0.315	0.315	0.312	0.308	0.309	0.302	0.295	11.53
71)		t-1,4-Dichloro...							0.102	0.121	0.137	0.142	0.145	0.130	13.97
72)		4-Chlorotoluene	1.432	1.867	1.828	1.777	1.812	1.891	1.948	1.941	1.931	1.928	1.894	1.841	7.98
73)		tert-Butylbenzene		1.291	1.150	1.278	1.267	1.340	1.358	1.382	1.381	1.351	1.321	1.312	5.33
74)		1,2,4-Trimethy...	2.270	2.309	2.023	2.020	2.231	2.261	2.414	2.447	2.431	2.378	2.317	2.282	6.46
75)		sec-Butylbenzene	2.421	2.536	2.311	2.475	2.584	2.670	2.770	2.842	2.859	2.823	2.775	2.643	7.14
76)		4-Isopropyltol...	2.126	2.226	1.999	1.991	2.183	2.304	2.378	2.461	2.486	2.459	2.445	2.278	8.13
77)		1,3-Dichlorobe...	0.937	1.112	1.091	1.179	1.231	1.218	1.205	1.225	1.234	1.228	1.232	1.172	7.88
78)		1,4-Dichlorobe...	1.089	1.433	1.366	1.246	1.247	1.234	1.233	1.236	1.235	1.236	1.237	1.254	6.88
79)		n-Butylbenzene	1.789	1.991	1.732	1.866	1.888	1.963	2.025	2.126	2.118	2.028	2.017	1.959	6.47
80)		1,2-Dichlorobe...		1.146	1.048	1.153	1.115	1.107	1.136	1.147	1.165	1.165	1.161	1.134	3.19
81)		1,2-Dibromo-3-...				0.110	0.132	0.146	0.162	0.192	0.220	0.251	0.263	0.184	30.52
82)		Hexachlorobuta...			0.147	0.215	0.214	0.220	0.216	0.220	0.225	0.216	0.220	0.210	11.36
83)		1,2,4-Trichlor...		0.610	0.593	0.694	0.686	0.697	0.739	0.777	0.839	0.844	0.837	0.732	12.56
84)		Naphthalene		1.879	1.916	1.895	1.906	2.153	2.331	2.558	2.801	2.882	2.835	2.316	18.24
85)		1,2,3-Trichlor...		0.693	0.632	0.686	0.662	0.716	0.736	0.798	0.830	0.833	0.825	0.741	10.12

(#) = Out of Range

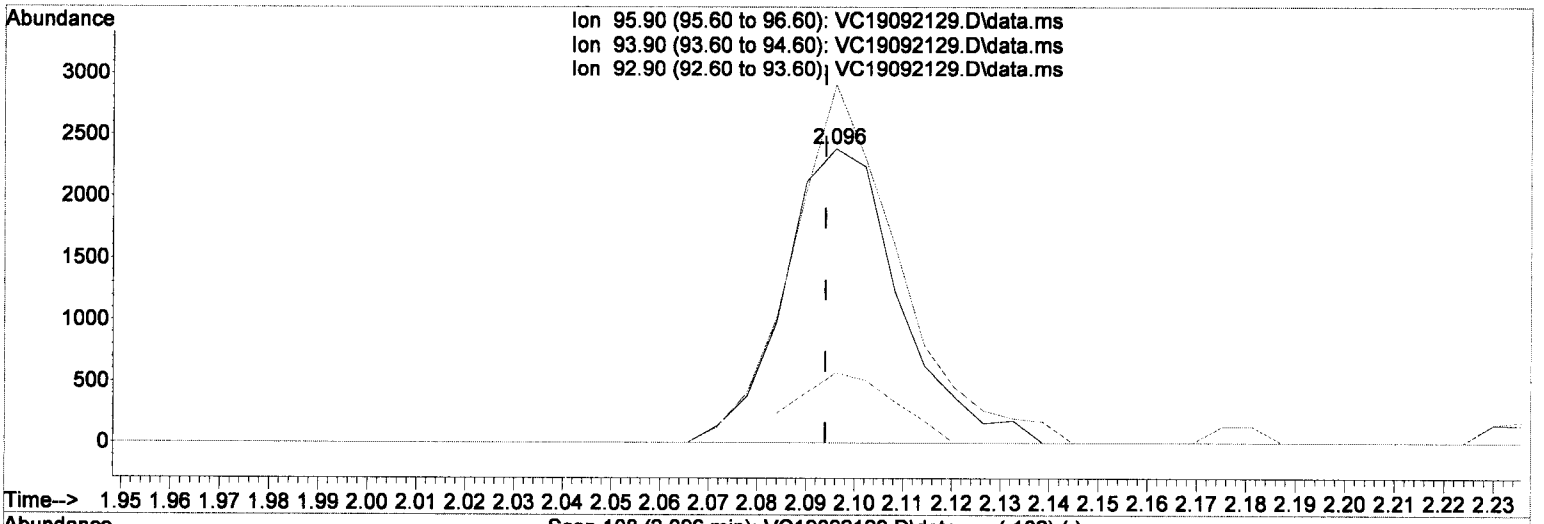


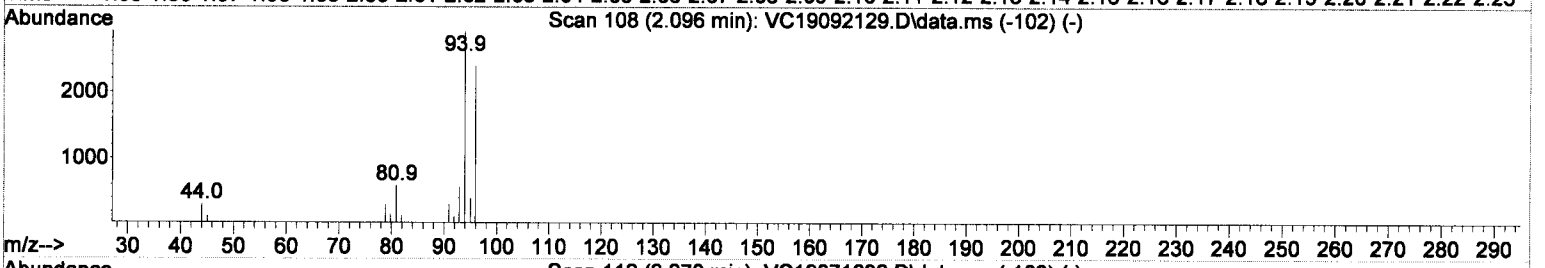
Method Name: C:\msdchem\1\METHODS\VC190822S+.M
Calibration Table Last Updated: Thu Aug 22 09:21:05 2019

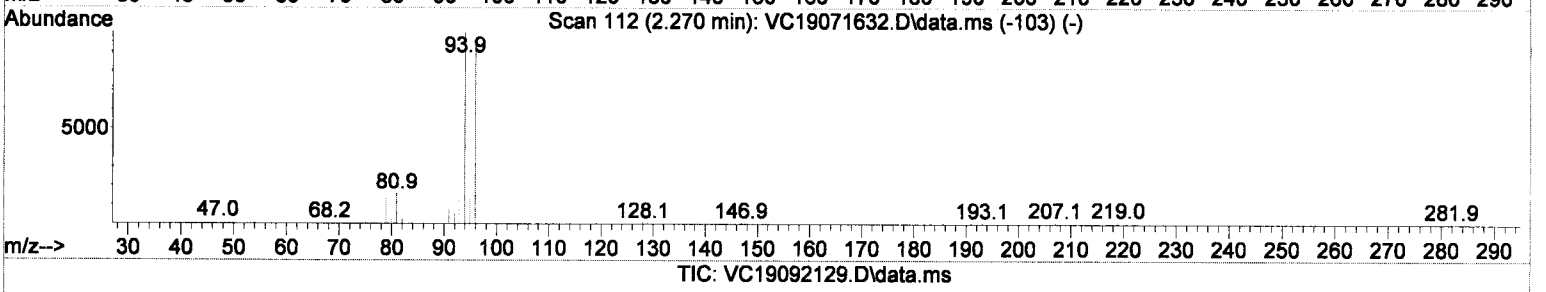
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\REQUANT\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:42:16 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:35:01 2019
Response via : Initial Calibration







TIC: VC19092129.D\data.ms

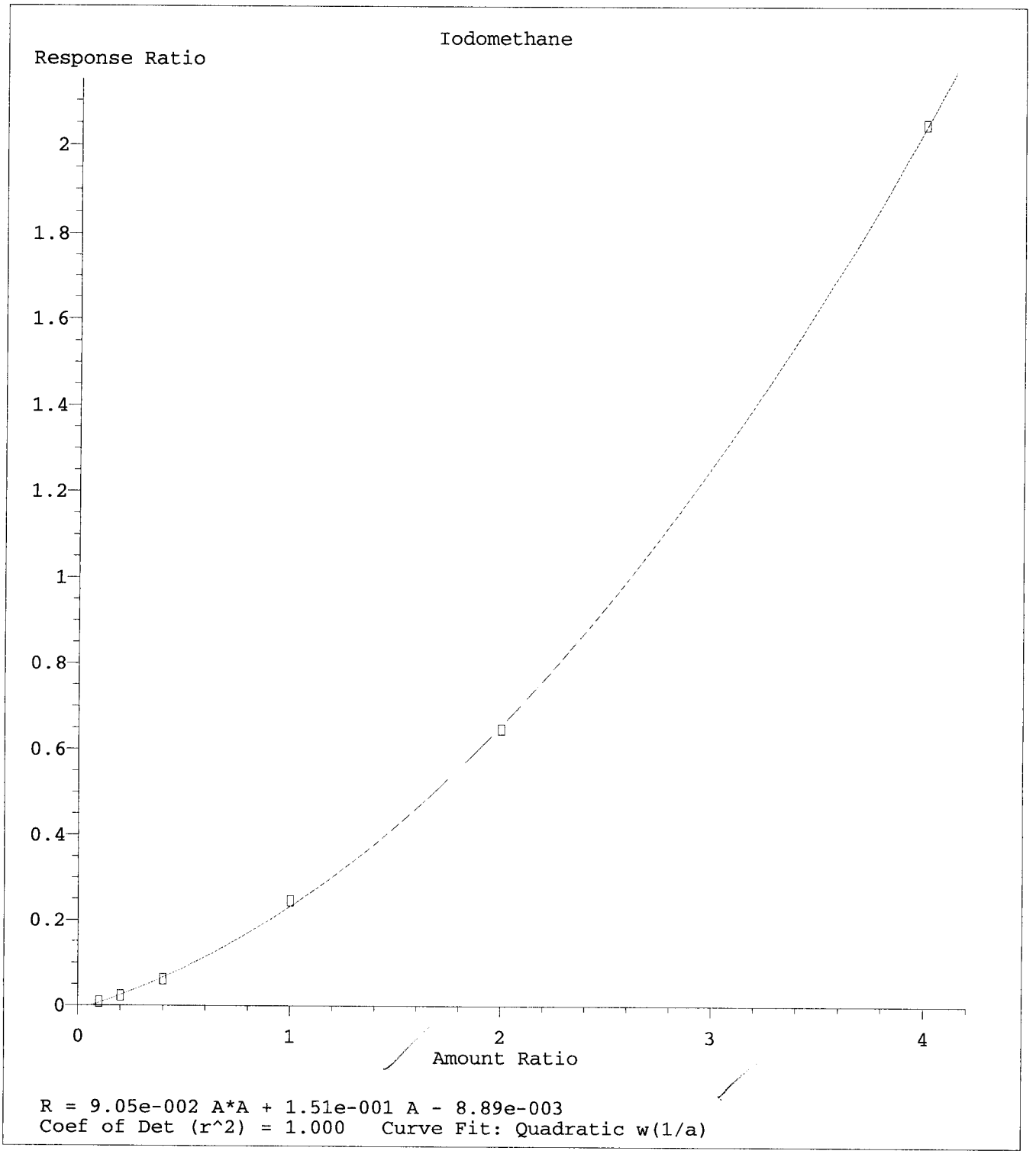
(5) Bromomethane

2.096min (+0.002) 0.88 ug/L

response 3951

Ion	Exp%	Act%
95.90	100	100
93.90	106.80	121.71
92.90	22.80	23.93
0.00	0.00	0.00

EMPC

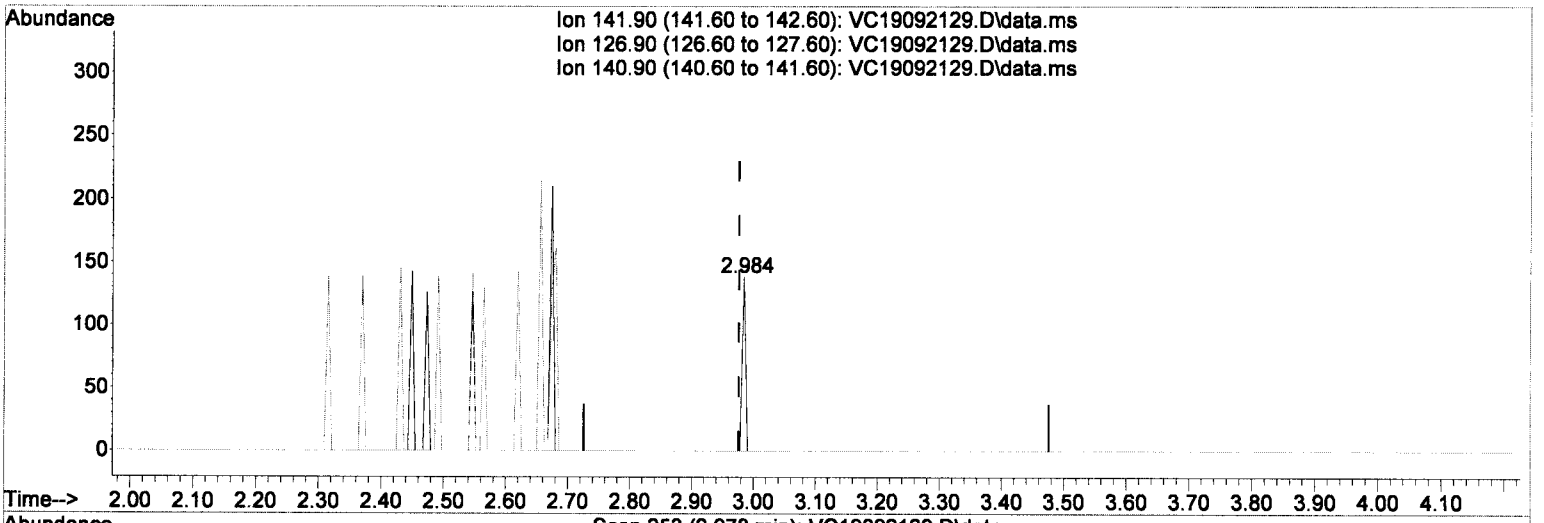


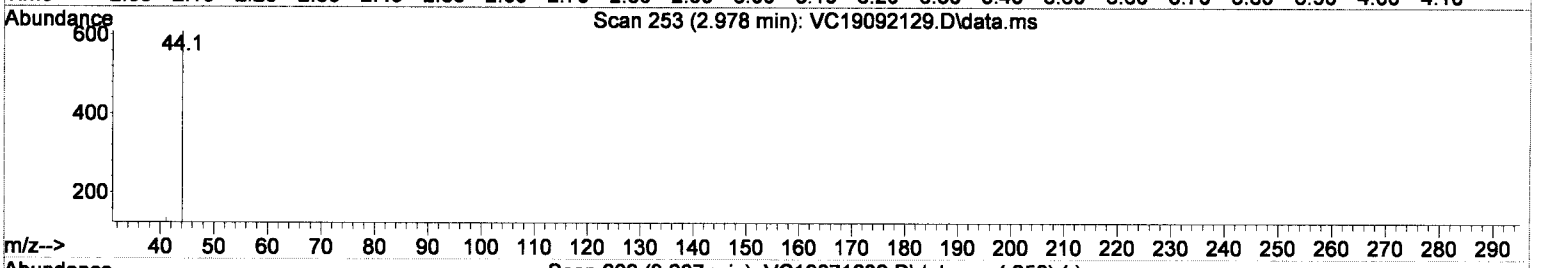
Method Name: C:\msdchem\1\METHODS\VC190822S+.M
Calibration Table Last Updated: Thu Aug 22 09:22:05 2019

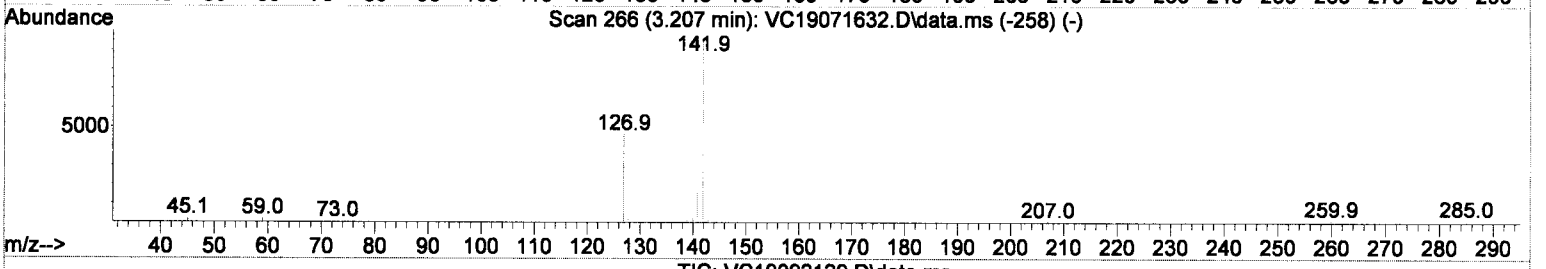
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\REQUANT\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:42:16 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:35:01 2019
Response via : Initial Calibration







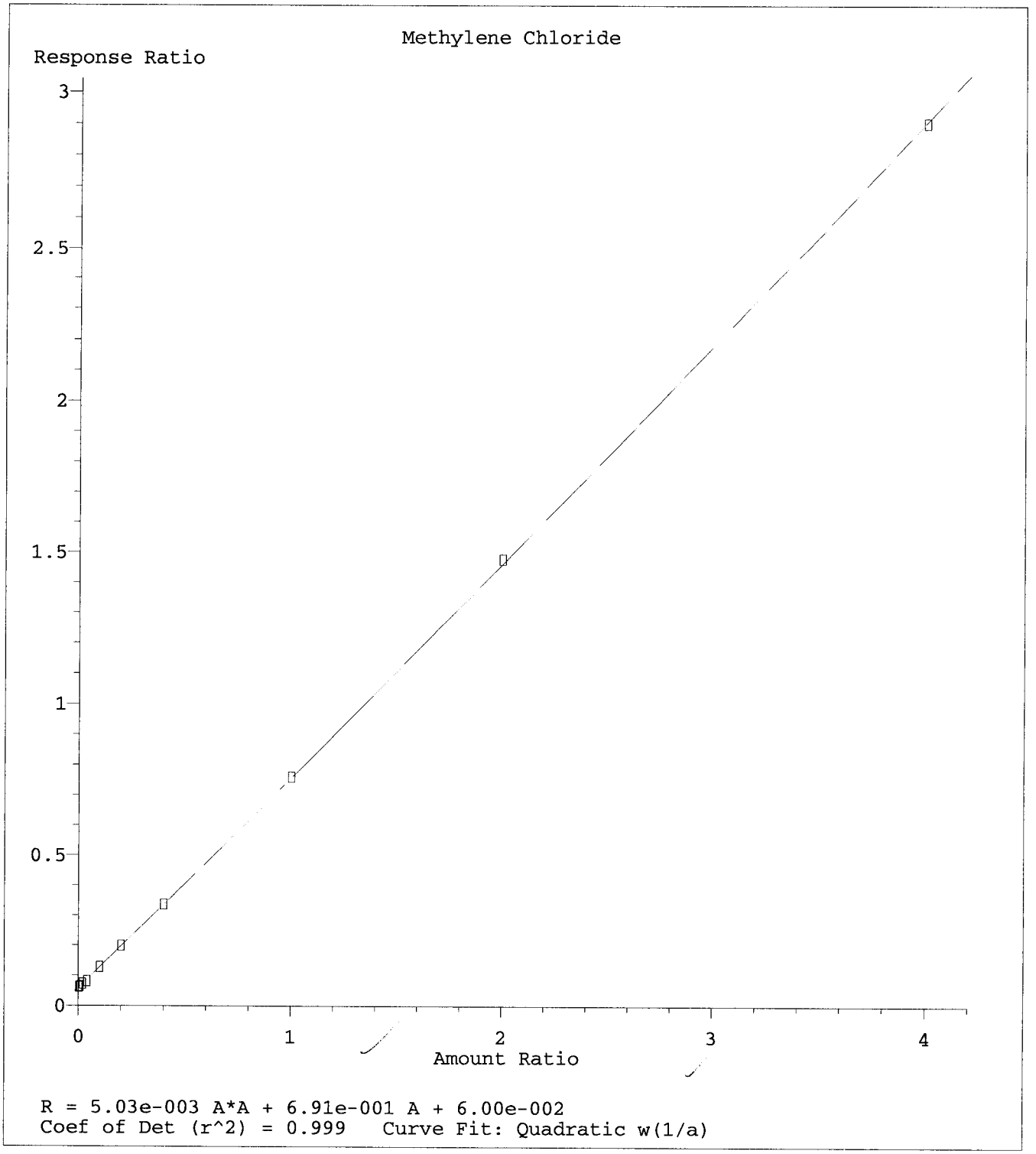
TIC: VC19092129.D\data.ms

(12) Iodomethane

0.000min (-2.976) 2.84 ug/L m

response 0

Ion	Exp%	Act%
141.90	100	0.00
126.90	34.80	0.00#
140.90	15.30	0.00
0.00	0.00	0.00

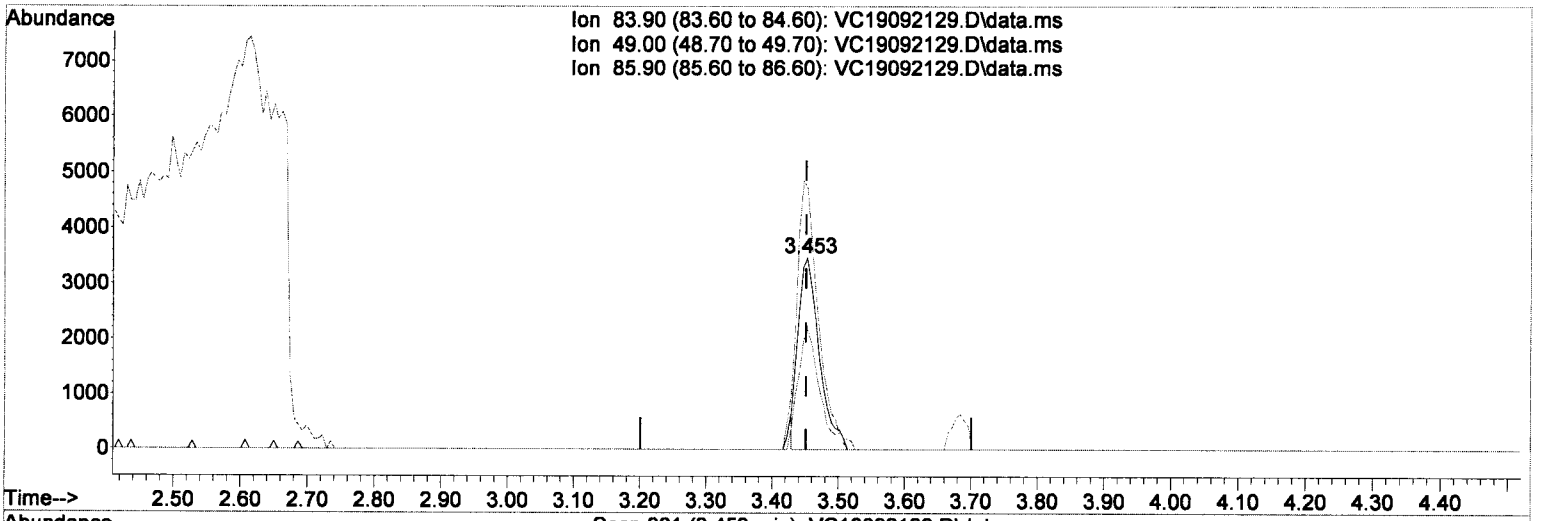


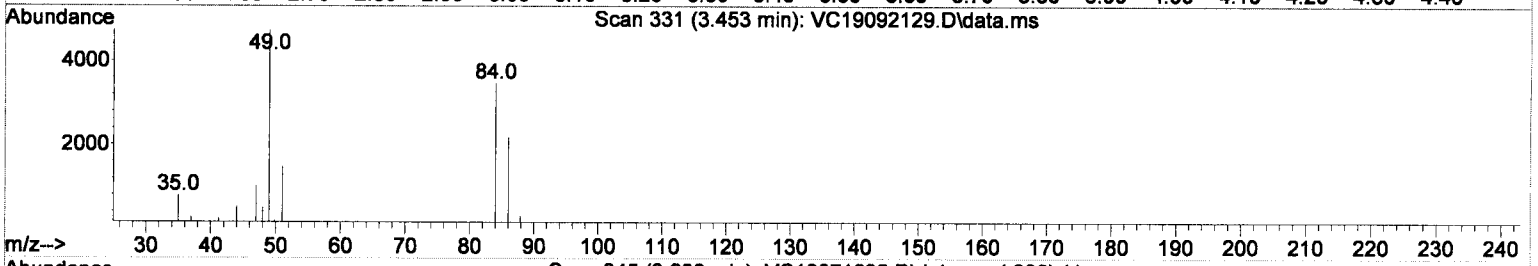
Method Name: C:\msdchem\1\METHODS\VC190822S+.M
Calibration Table Last Updated: Thu Aug 22 09:22:35 2019

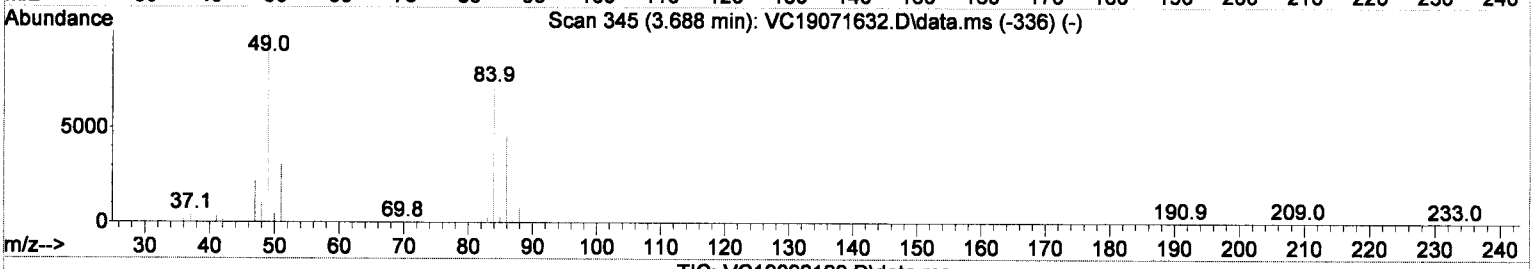
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\REQUANT\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:42:16 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:35:01 2019
Response via : Initial Calibration







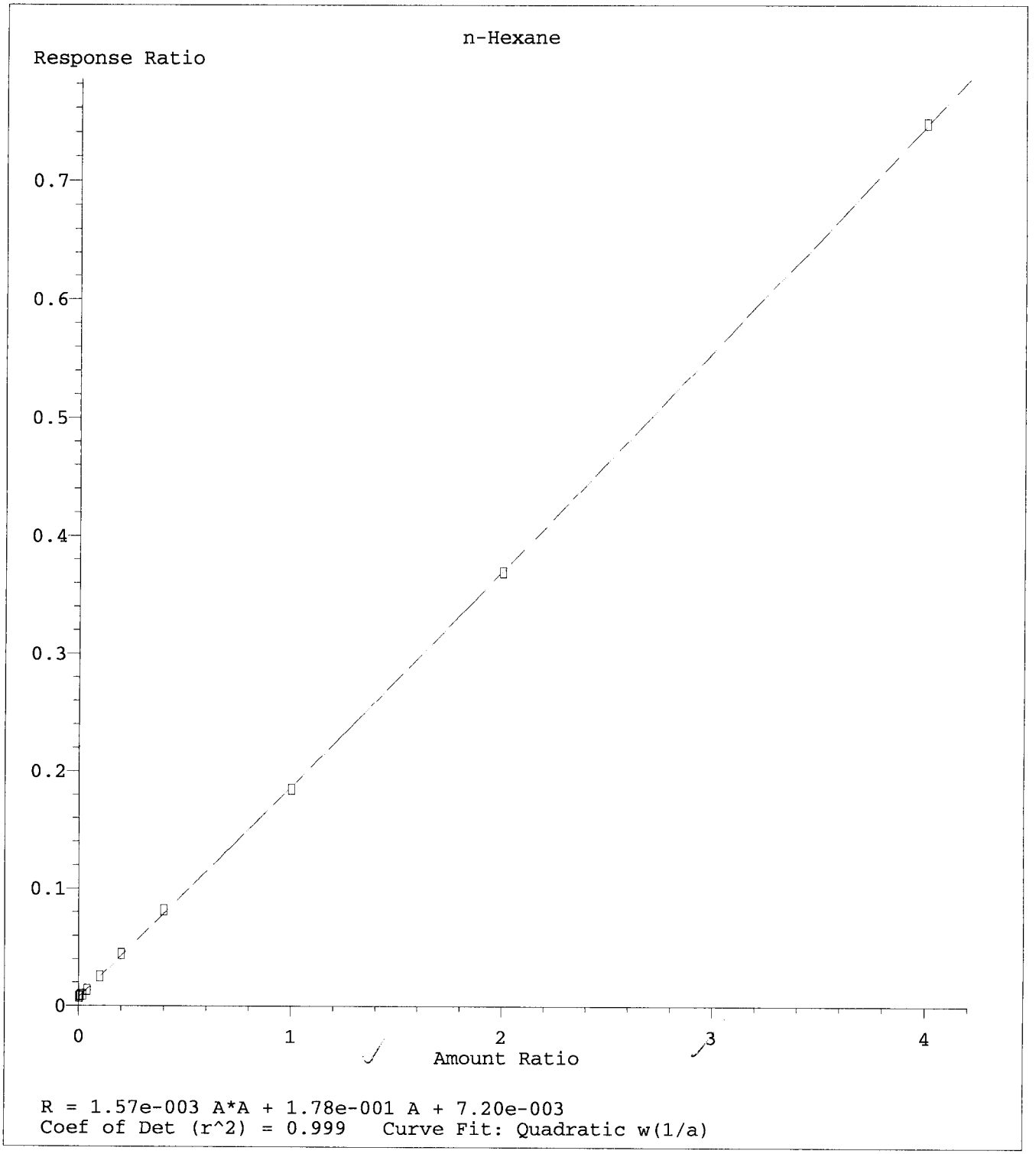
TIC: VC19092129.D\data.ms

(13) Methylene Chloride

3.453min (+0.002) 0.70 ug/L m

response 7712

Ion	Exp%	Act%
83.90	100	100
49.00	123.30	136.39
85.90	63.90	62.80
0.00	0.00	0.00

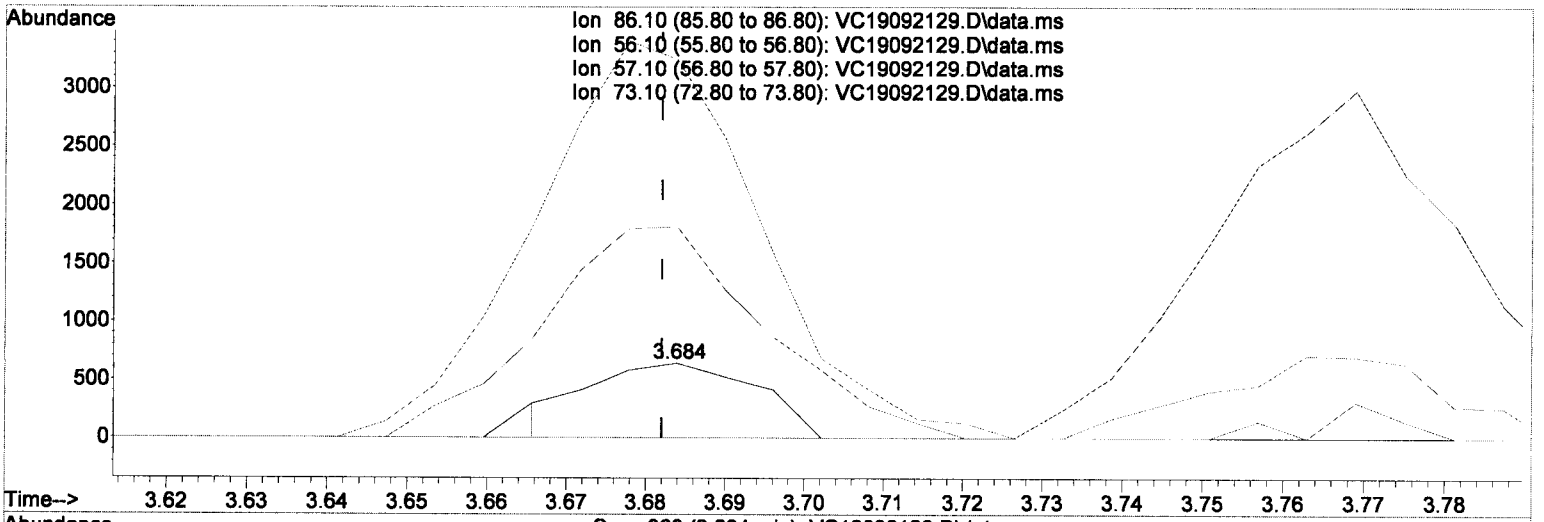


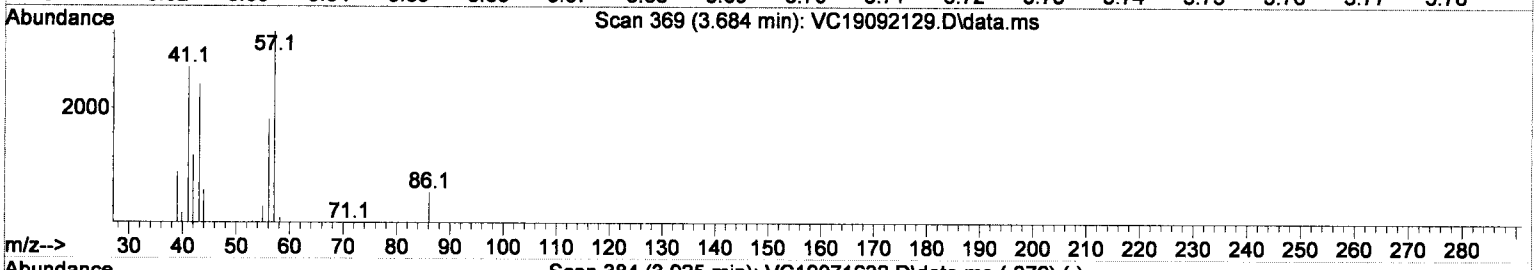
Method Name: C:\msdchem\1\METHODS\VC190822S+.M
Calibration Table Last Updated: Thu Aug 22 09:23:18 2019

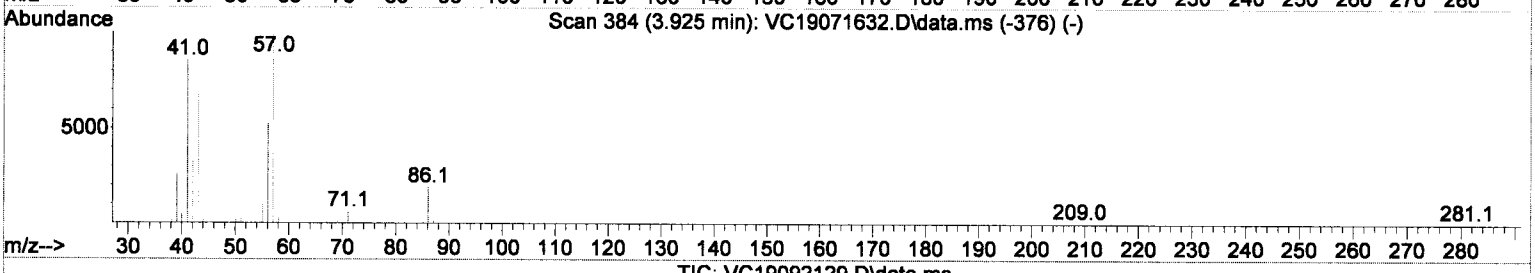
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\REQUANT\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:42:16 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:35:01 2019
Response via : Initial Calibration







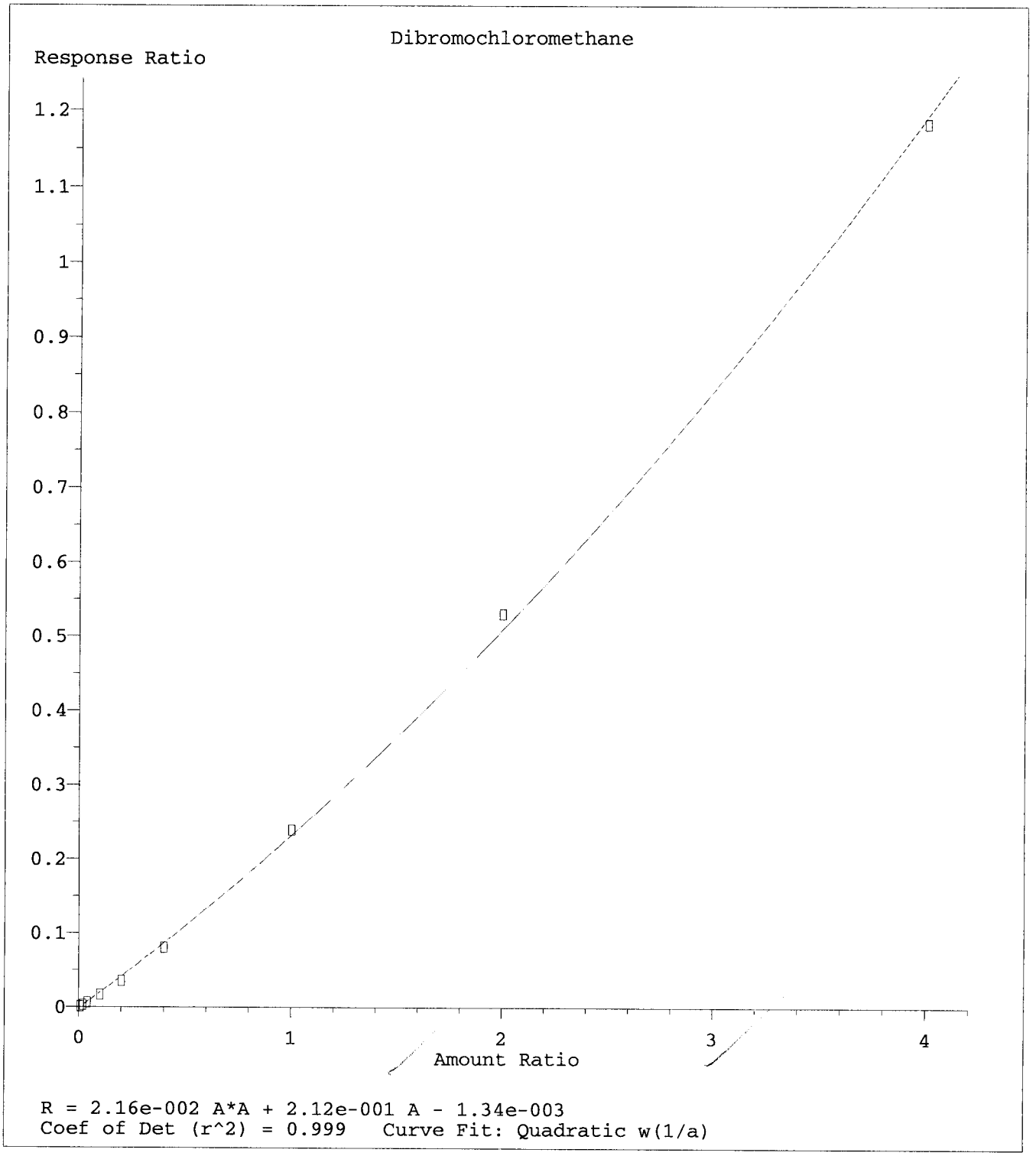
TIC: VC19092129.D\data.ms

(16) n-Hexane

3.684min (+0.002) 0.35 ug/L m

response 935

Ion	Exp%	Act%
86.10	100	100
56.10	265.50	284.04
57.10	518.00	507.98
73.10	19.00	0.00

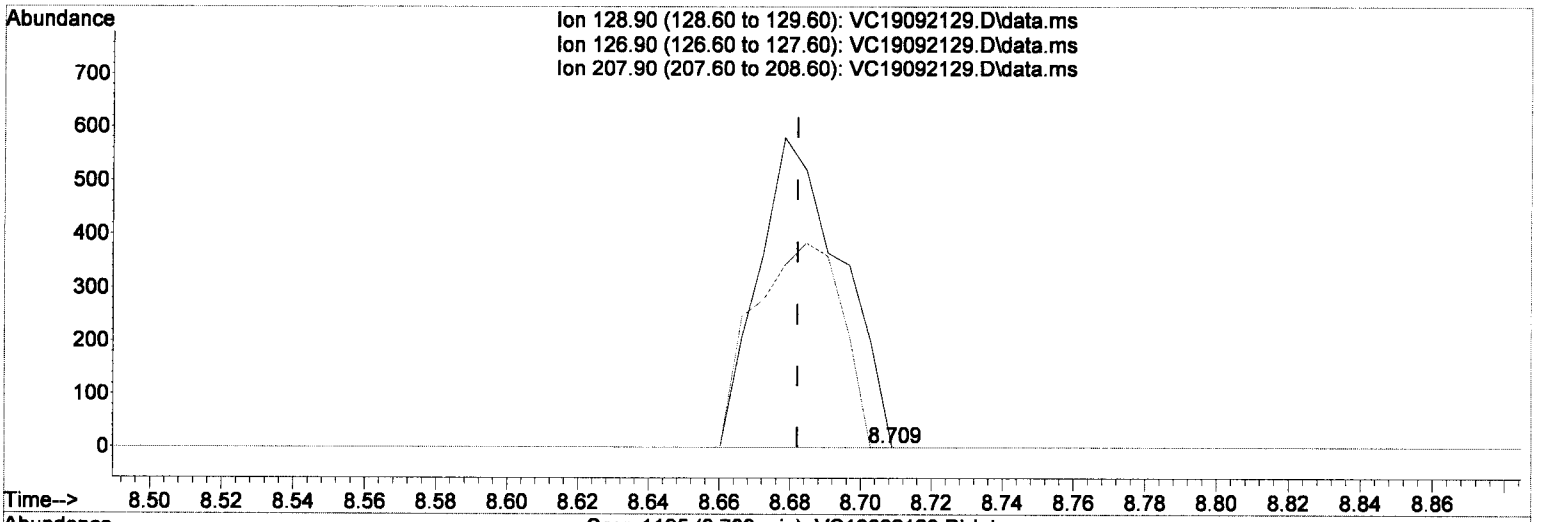


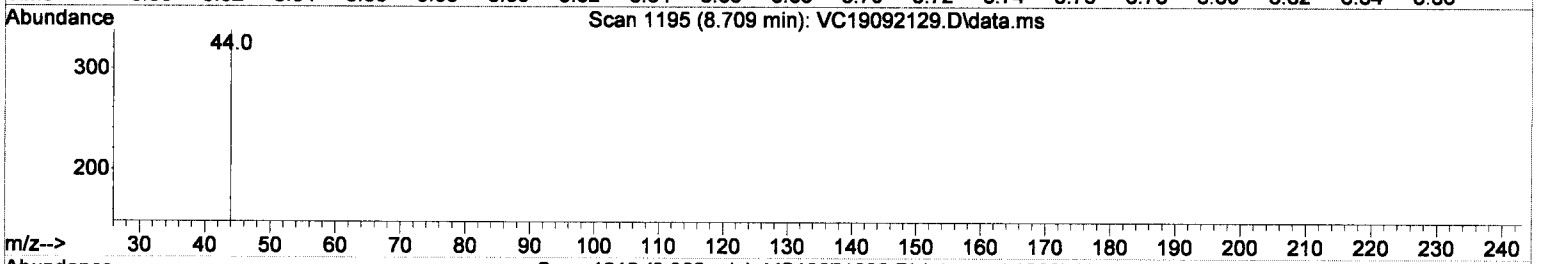
Method Name: C:\msdchem\1\METHODS\VC190822S+.M
Calibration Table Last Updated: Thu Aug 22 09:28:11 2019

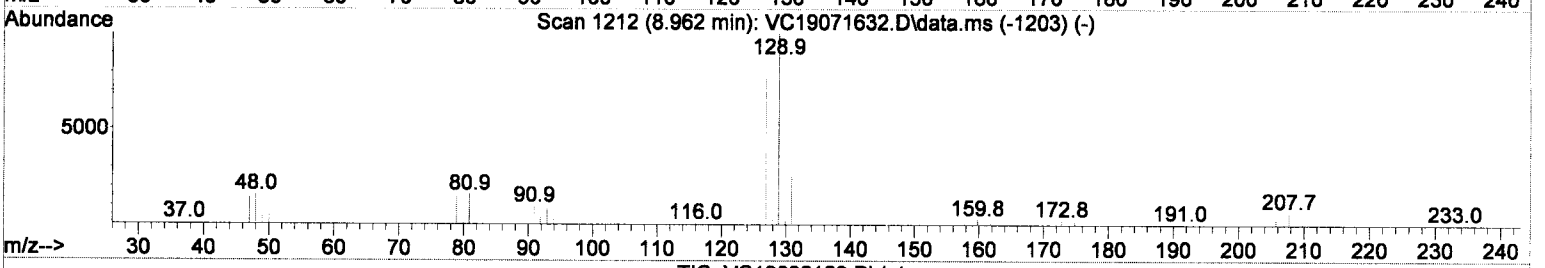
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\REQUANT\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:42:16 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:35:01 2019
Response via : Initial Calibration







TIC: VC19092129.D\data.ms

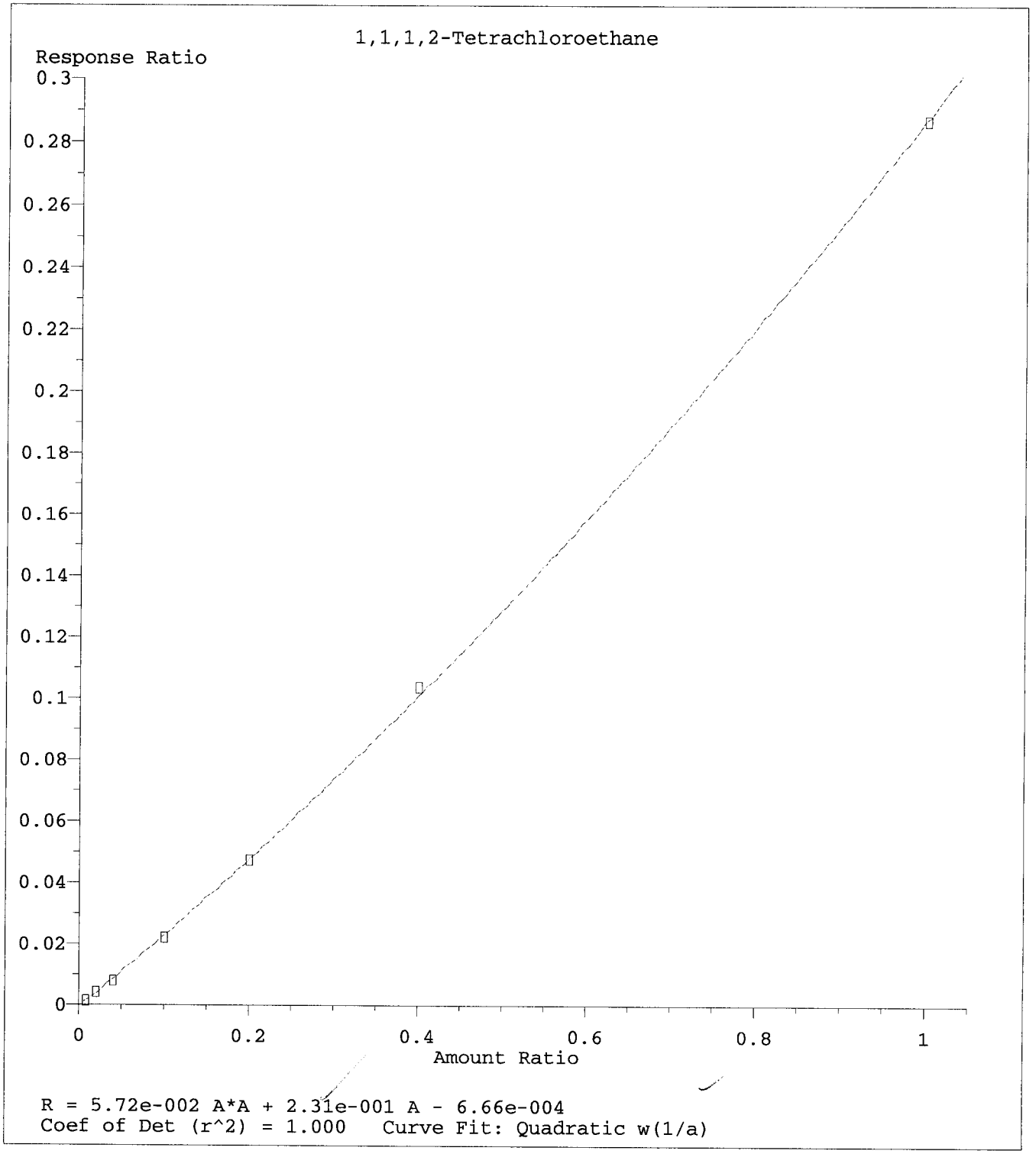
(51) Dibromochloromethane

8.709min (+0.027) 0.32 ug/L m

response 0

Ion	Exp%	Act%
128.90	100	0.00
126.90	77.40	0.00#
207.90	7.30	0.00
0.00	0.00	0.00

TMP
8/22/19

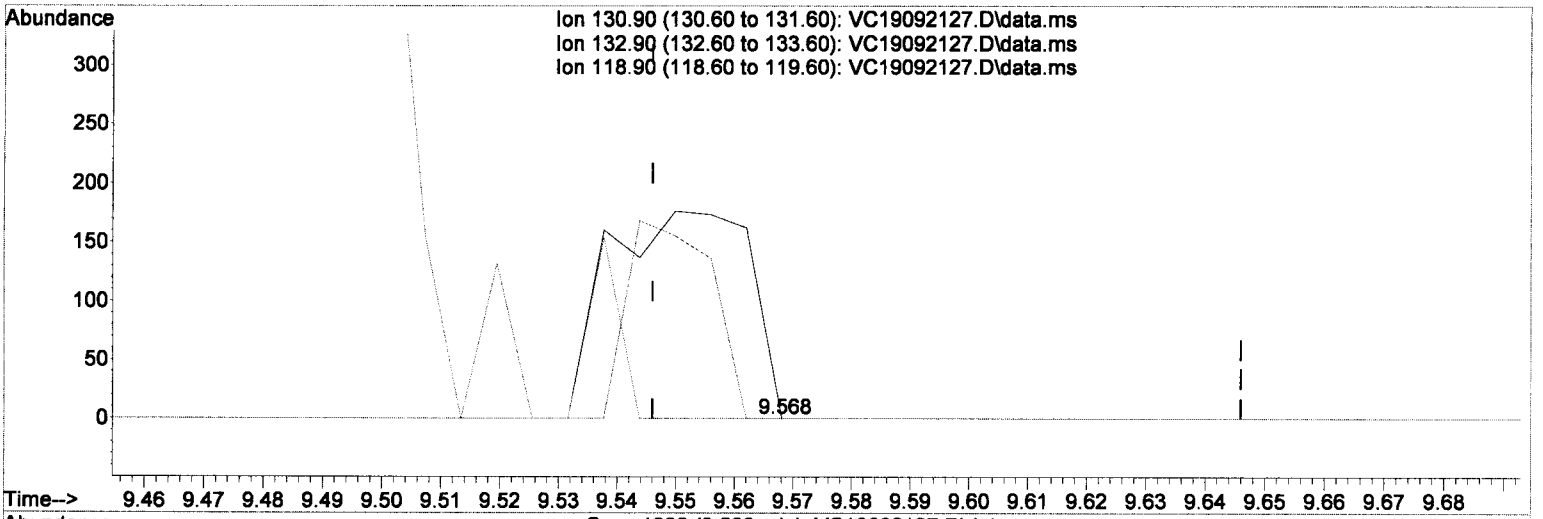


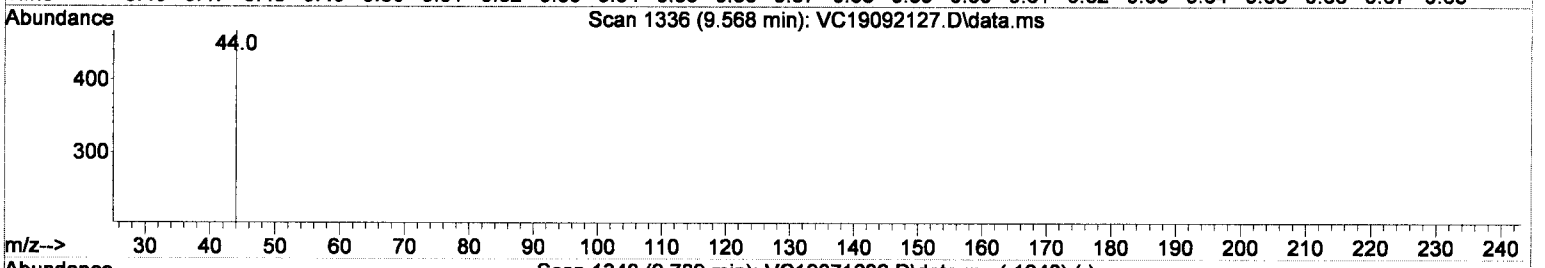
Method Name: C:\msdchem\1\METHODS\VC190822S+.M
Calibration Table Last Updated: Thu Aug 22 09:46:59 2019

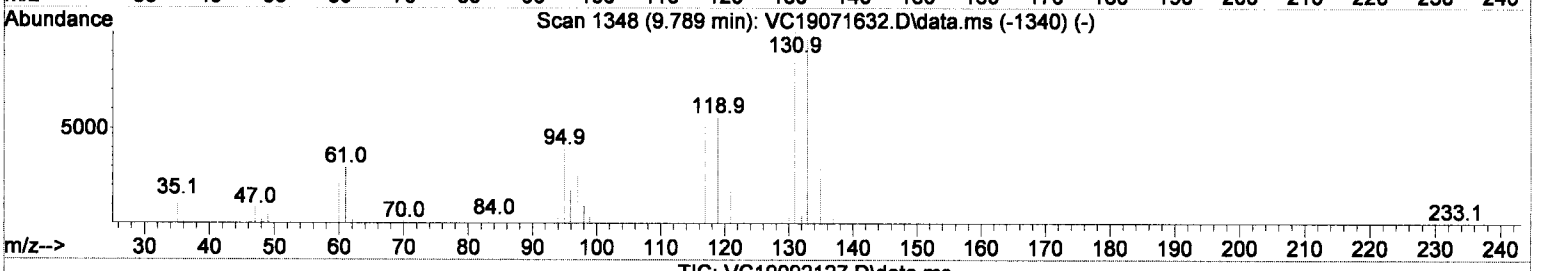
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\REQUANT\
Data File : VC19092127.D
Acq On : 21 Aug 2019 9:08 pm
Operator : MM
Sample : 9H21053-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+O+MeOH
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:47:03 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration







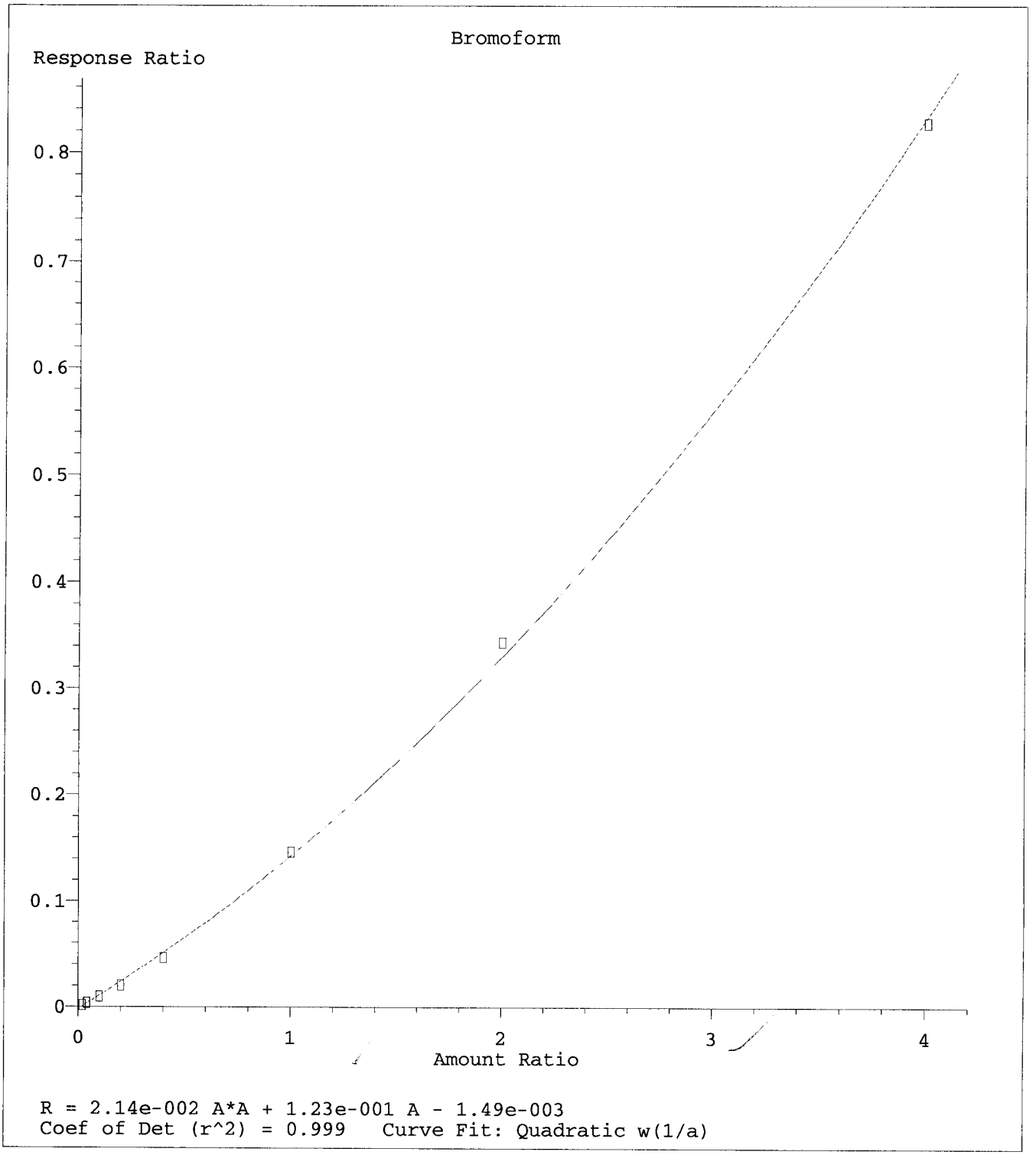
TIC: VC19092127.D\data.ms

(57) 1,1,1,2-Tetrachloroethane

9.568min (+0.022) 0.14 ug/L m

response 0

Ion	Exp%	Act%
130.90	100	0.00
132.90	94.90	0.00#
118.90	63.20	0.00#
0.00	0.00	0.00

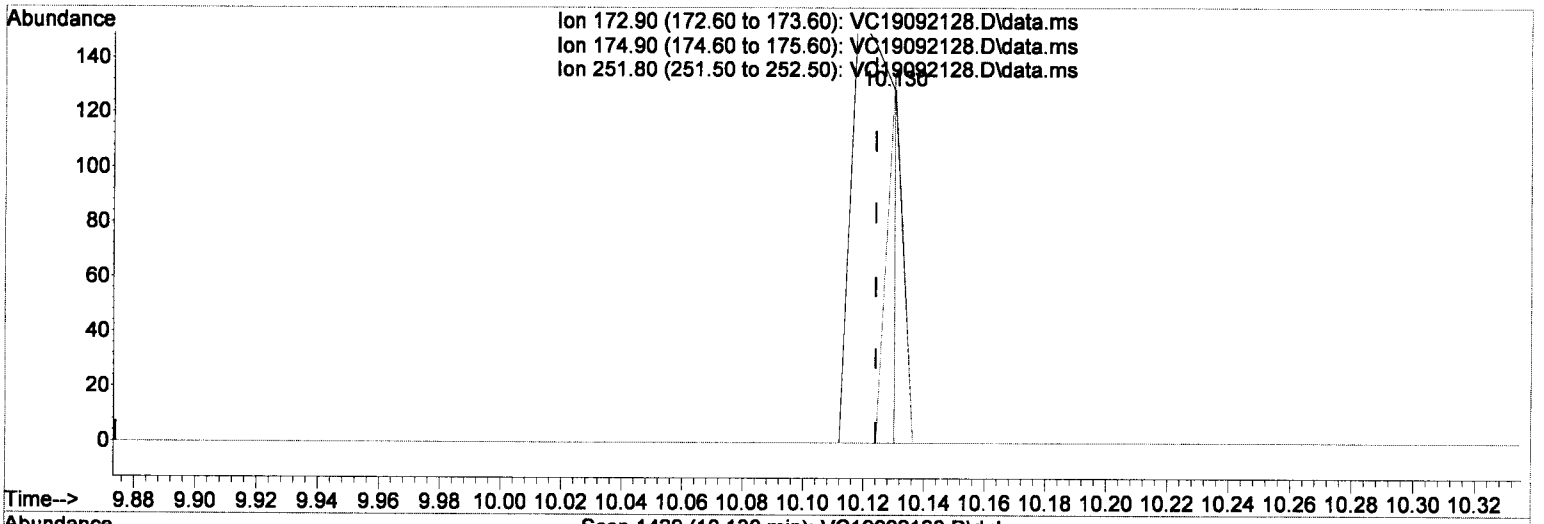


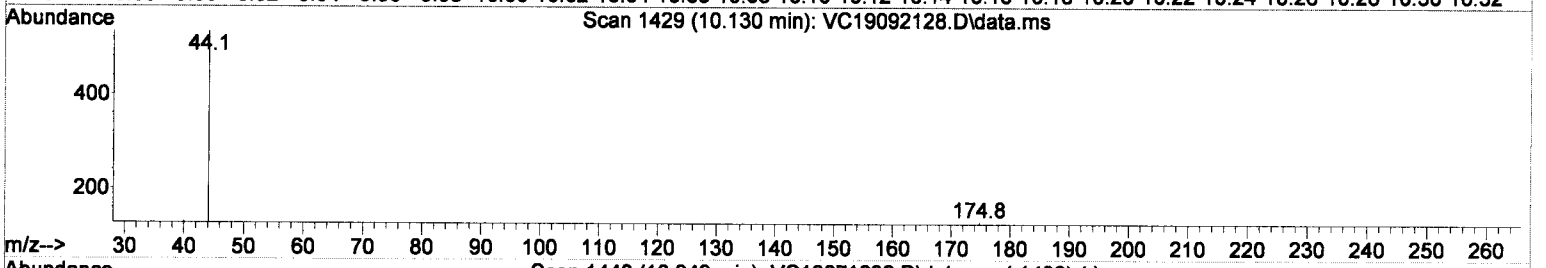
Method Name: C:\msdchem\1\METHODS\VC190822S+.M
Calibration Table Last Updated: Thu Aug 22 09:31:31 2019

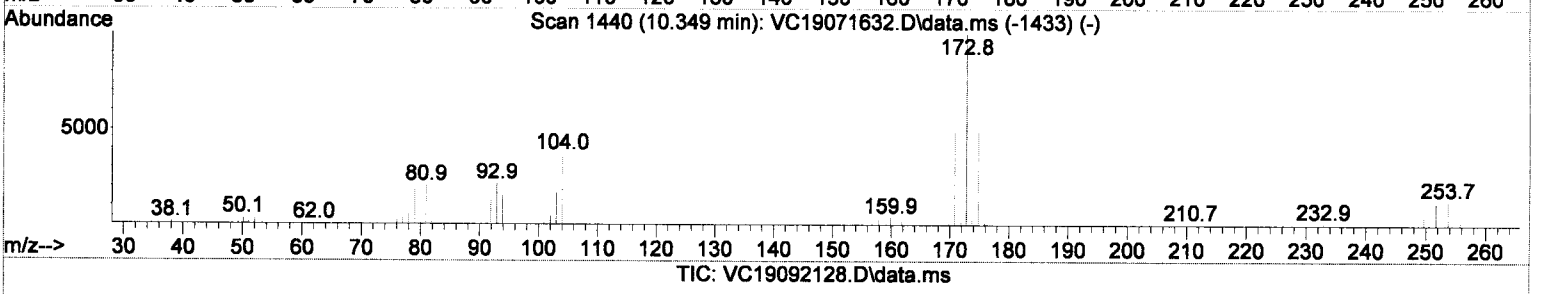
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\REQUANT\
Data File : VC19092128.D
Acq On : 21 Aug 2019 9:35 pm
Operator : MM
Sample : 9H21053-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+O+MeOH
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:42:14 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:35:01 2019
Response via : Initial Calibration







TIC: VC19092128.D\data.ms

(61) Bromoform (P)

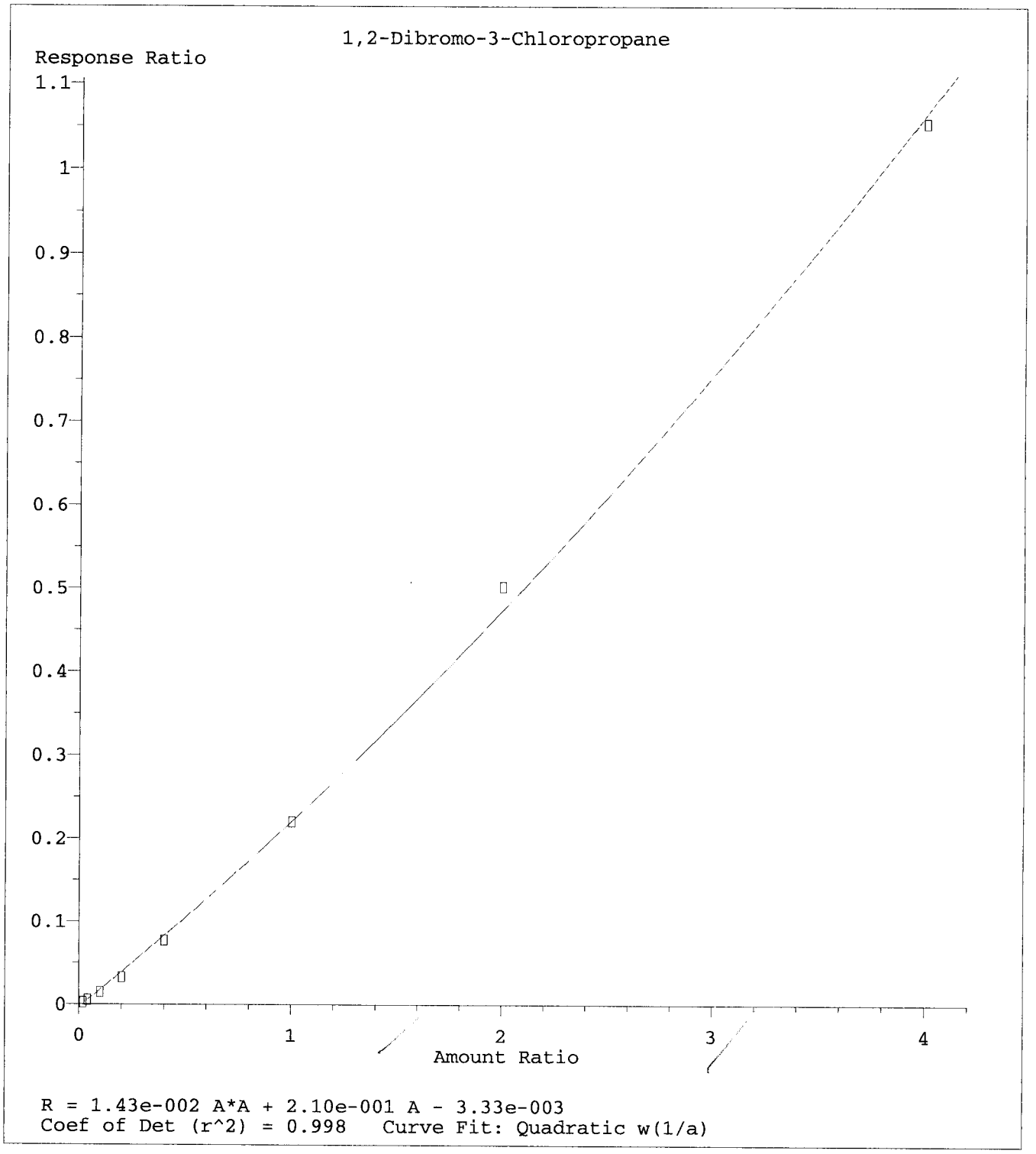
10.130min (+0.006) 0.60 ug/L m

response 0

Ion	Exp%	Act%
172.90	100	0.00
174.90	48.50	0.00#
251.80	13.90	0.00
0.00	0.00	0.00

FMPL

8/22/19

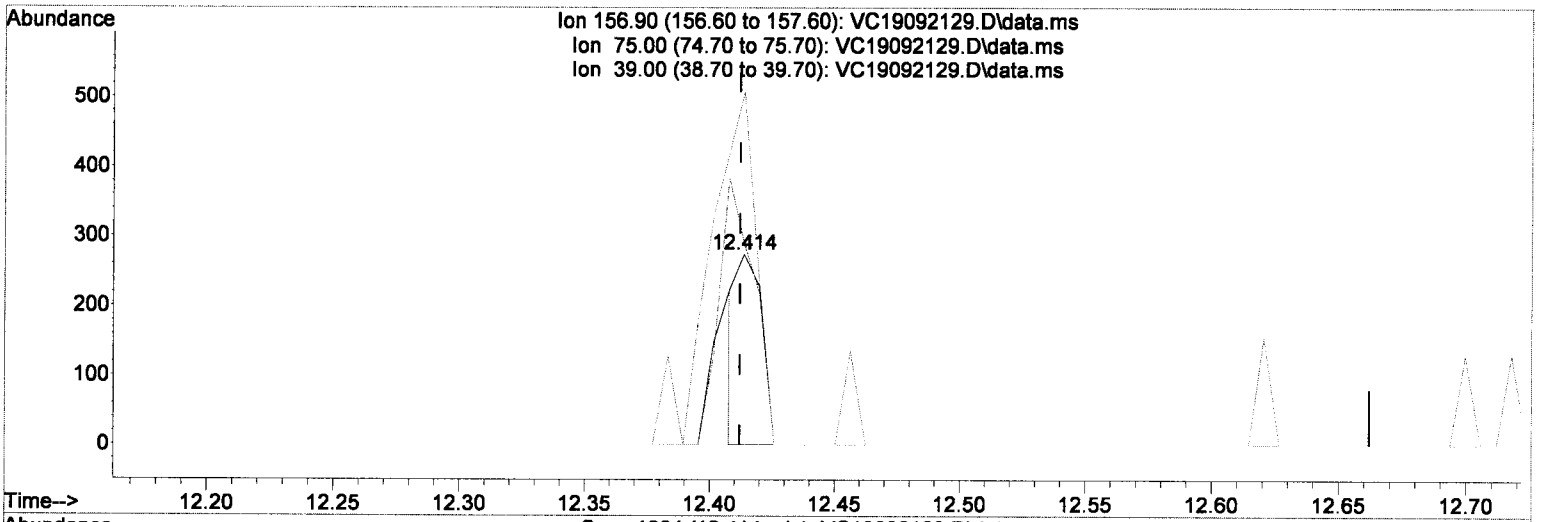


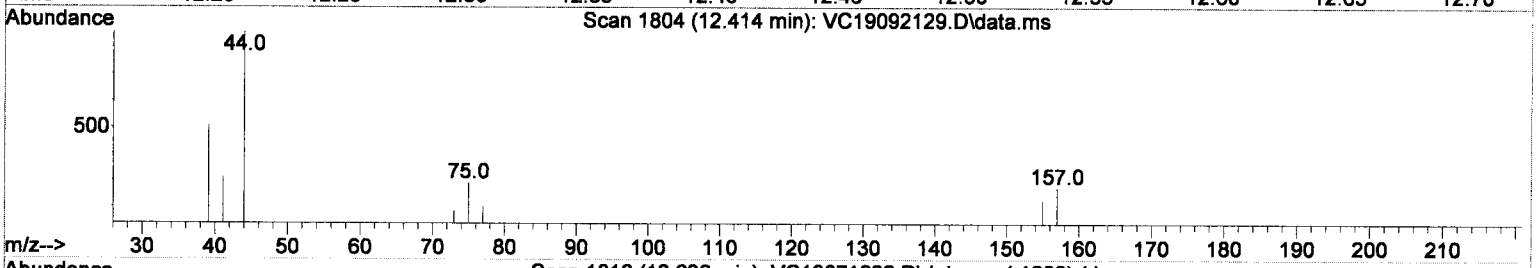
Method Name: C:\msdchem\1\METHODS\VC190822S+.M
Calibration Table Last Updated: Thu Aug 22 09:33:15 2019

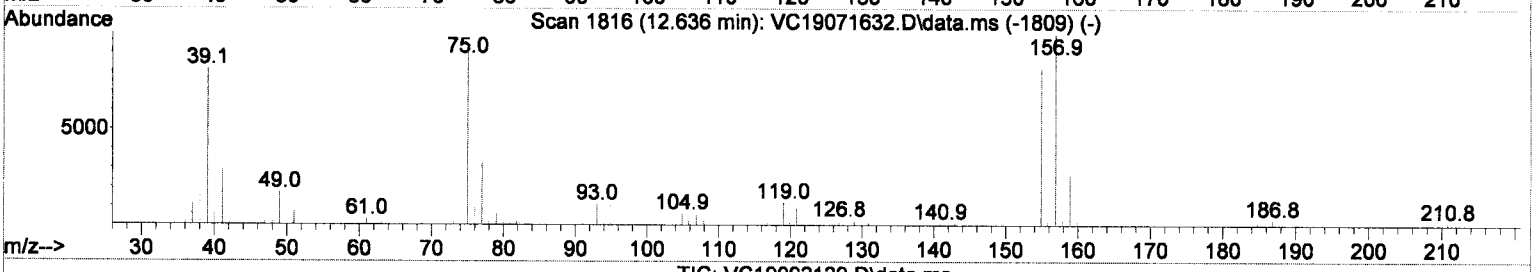
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\REQUANT\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:42:16 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:35:01 2019
Response via : Initial Calibration







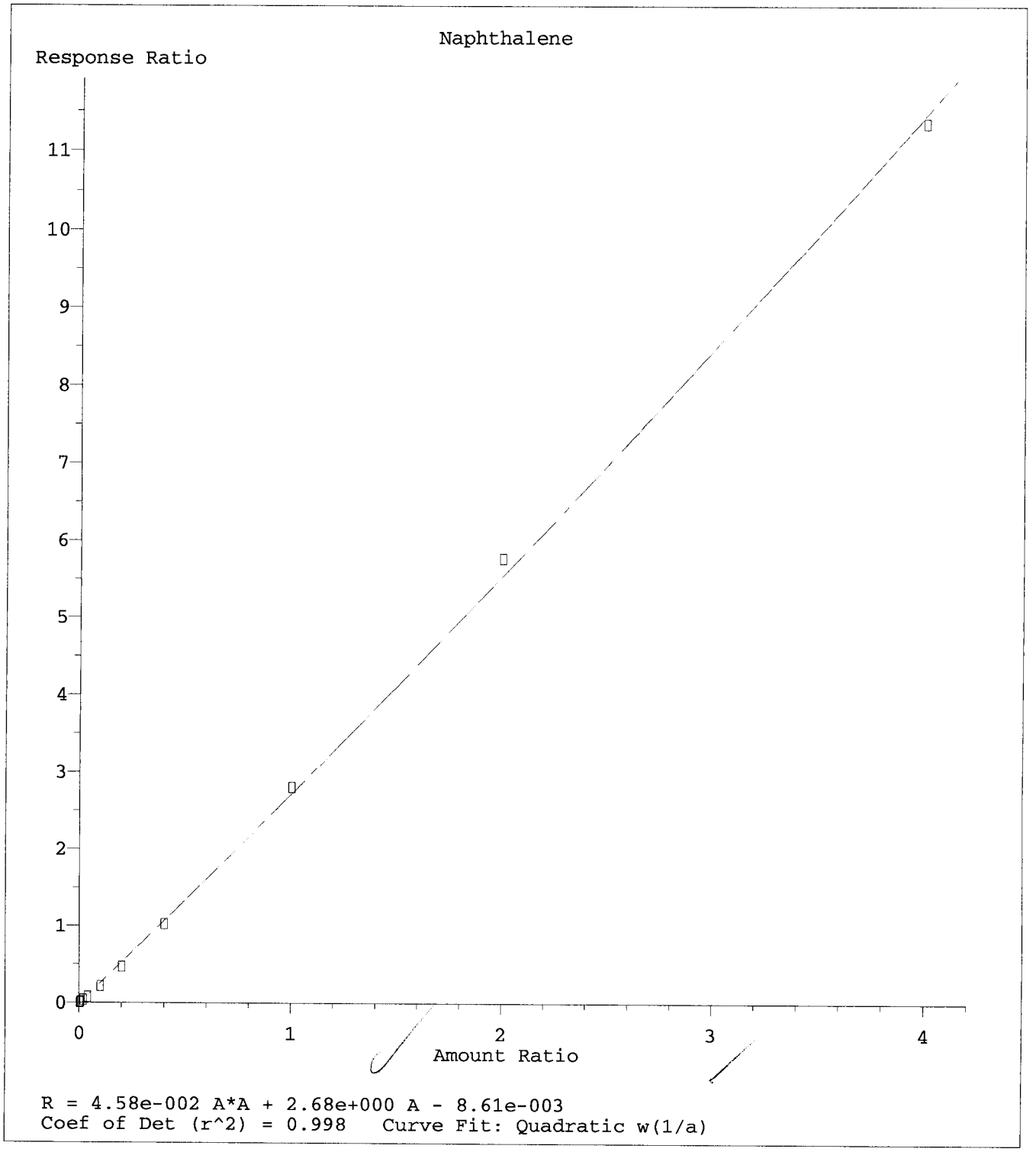
TIC: VC19092129.D\data.ms

(81) 1,2-Dibromo-3-Chloropropane

12.414min (+0.002) 1.09 ug/L m

response 183

Ion	Exp%	Act%
156.90	100	100
75.00	73.10	105.84#
39.00	54.70	185.04#
0.00	0.00	0.00

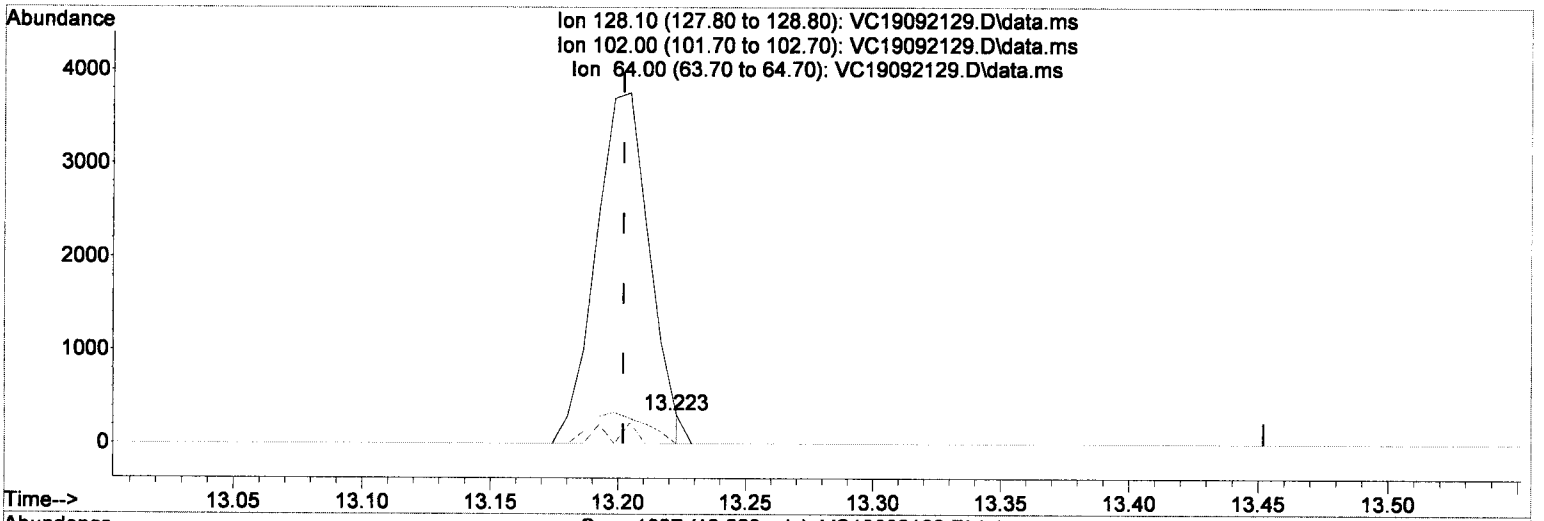


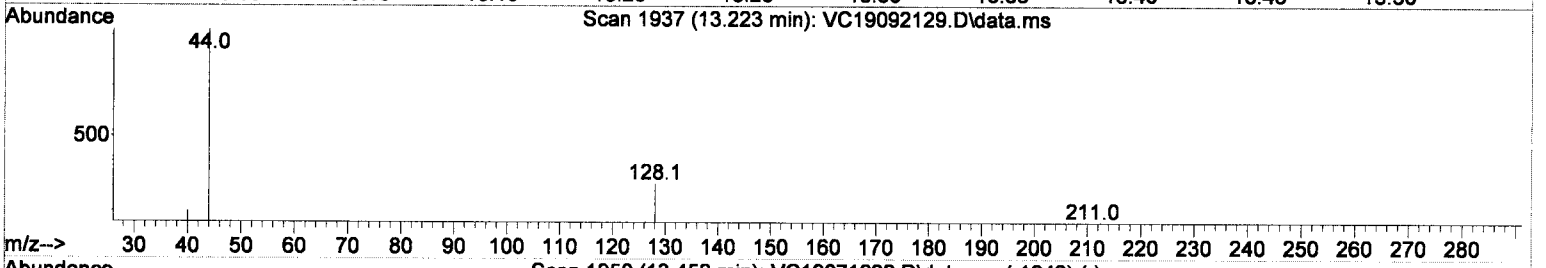
Method Name: C:\msdchem\1\METHODS\VC190822S+.M
Calibration Table Last Updated: Thu Aug 22 09:34:24 2019

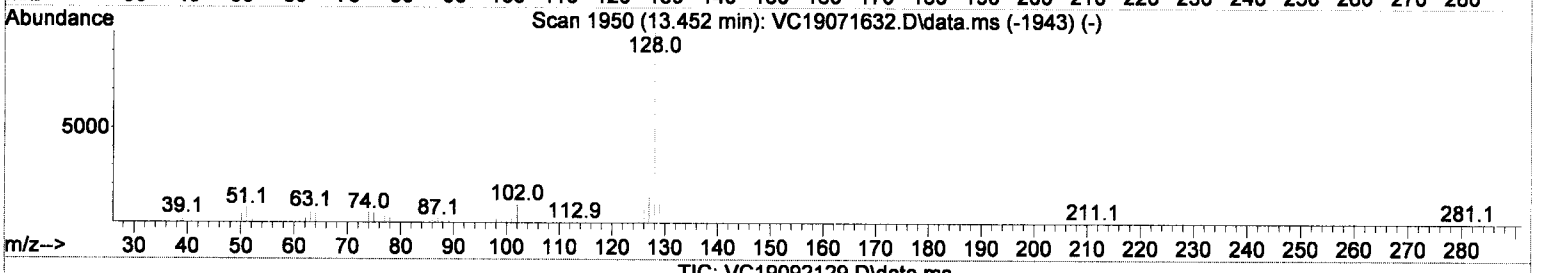
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\REQUANT\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:42:16 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:35:01 2019
Response via : Initial Calibration







TIC: VC19092129.D\data.ms

(84) Naphthalene

13.223min (+0.021) 0.16 ug/L m

response 0

Ion	Exp%	Act%
128.10	100	0.00
102.00	7.90	0.00
64.00	6.30	0.00
0.00	0.00	0.00

EMDL

M 8/22/19

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092141.D
Acq On : 22 Aug 2019 3:28 am
Operator : MM
Sample : 9H21053-ICV1
Misc : 1X 5mL 20/40PPB VOC+O+MeOH
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:28 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

M 8/22/19

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	109	0.00
2		Dichlorodifluoromethane	20.000	24.594	-23.0#	130	0.00
3	P	Chloromethane	20.000	23.211	-16.1	131	0.00
4	C	Vinyl Chloride	20.000	20.931	-4.7	112	0.00
5		Bromomethane	20.000	20.465	-2.3	108	0.00
6		Chloroethane	20.000	21.500	-7.5	121	0.00
7		Trichlorofluoromethane	20.000	17.575	12.1	95	0.00
8		Ethanol	1250.000	1316.609	-5.3	133	0.00
9	C	1,1-Dichloroethene	20.000	19.492	2.5	104	0.00
10		Carbon Disulfide	20.000	21.283	-6.4	118	0.00
11		Freon 113	20.000	20.552	-2.8	114	0.00
12		Iodomethane	20.000	27.497	-37.5#	180	0.00
13		Methylene Chloride	20.000	21.351	-6.8	115	0.00
14		Acetone	40.000	39.102	2.2	112	0.00
15		t-1,2-Dichloroethene	20.000	21.025	-5.1	115	0.00
16		n-Hexane	20.000	19.956	0.2	104	0.00
17		Methyl-tert-butyl-ether	20.000	20.325	-1.6	111	0.00
18		tert-Butanol (TBA)	1250.000	1383.831	-10.7	123	0.00
19		Diisopropyl ether (DIPE)	5.000	4.816	3.7	113	0.00
20	P	1,1-Dichloroethane	20.000	21.309	-6.5	117	0.00
21		Acrylonitrile	20.000	21.421	-7.1	115	0.00
22		Ethyl-tert-butyl ether (ETB	5.000	4.814	3.7	115	0.00
23		c-1,2-Dichloroethene	20.000	20.258	-1.3	107	0.00
24		2,2-Dichloropropane	20.000	17.886	10.6	98	0.00
25		Bromochloromethane	20.000	20.481	-2.4	110	0.00
26	C	Chloroform	20.000	20.288	-1.4	108	0.00
27		Carbon Tetrachloride	20.000	21.656	-8.3	109	0.00
28		Tetrahydrofuran	20.000	21.184	-5.9	114	0.00
29		1,1,1-Trichloroethane	20.000	20.947	-4.7	111	0.00
30	S	Dibromofluoromethane (S)	50.000	52.074	-4.1	112	0.00
31		1,1-Dichloropropene	20.000	20.505	-2.5	109	0.00
32		2-Butanone (MEK)	40.000	39.427	1.4	109	0.00
33		Benzene	20.000	20.556	-2.8	112	0.00
34		tert-Amyl methyl ether (TAM	5.000	5.078	-1.6	115	0.00
35		1,2-Dichloroethane (EDC)	20.000	20.423	-2.1	108	0.00
36		iso-Butyl Alcohol	500.000	570.141	-14.0	124	0.00
37	S	1,4-Difluorobenzene (S)	50.000	51.897	-3.8	114	0.00
38		Trichloroethene (TCE)	20.000	20.078	-0.4	110	0.00
39		tert-Amyl ethyl ether (TAEE	5.000	4.929	1.4	110	0.00
40		Dibromomethane	20.000	19.255	3.7	106	0.00
41	C	1,2-Dichloropropane	20.000	20.342	-1.7	112	0.00
42		Bromodichloromethane	20.000	22.341	-11.7	109	0.00
43		Chlorobenzene-d5 (I)	50.000	50.000	0.0	114	0.00
44		c-1,3-Dichloropropene	20.000	19.821	0.9	111	0.00
45	S	Toluene-d8 (S)	50.000	50.267	-0.5	113	0.00
46	C	Toluene	20.000	18.658	6.7	109	0.00
47		Tetrachloroethene (PCE)	20.000	20.149	-0.7	110	0.00
48		4-Methyl-2-Pentanone (MIBK)	40.000	39.049	2.4	106	0.00
49		t-1,3-Dichloropropene	20.000	19.902	0.5	111	0.00
50		1,1,2-Trichloroethane	20.000	20.427	-2.1	111	0.00

EOS

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092141.D
Acq On : 22 Aug 2019 3:28 am
Operator : MM
Sample : 9H21053-ICV1
Misc : 1X 5mL 20/40PPB VOC+O+MeOH
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:28 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 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	18.486	7.6	113	0.00
52		1,3-Dichloropropane	20.000	19.686	1.6	109	0.00
53		1,2-Dibromoethane (EDB)	20.000	20.991	-5.0	111	0.00
54		2-Hexanone	40.000	41.638	-4.1	109	0.00
55	P	Chlorobenzene	20.000	19.456	2.7	113	0.00
56	C	Ethylbenzene	20.000	19.072	4.6	110	0.00
57		1,1,1,2-Tetrachloroethane	20.000	20.022	-0.1	111	0.00
58		m,p-Xylenes (2)	40.000	38.203	4.5	109	0.00
59		o-Xylene	20.000	18.739	6.3	108	0.00
60		Styrene	20.000	19.875	0.6	110	0.00
61	P	Bromoform	20.000	18.667	6.7	118	0.00
62		Isopropylbenzene	20.000	20.543	-2.7	109	0.00
63	I	1,4-Dichlorobenzene-d4 (I)	50.000	50.000	0.0	110	0.00
64	S	4-Bromofluorobenzene (S)	50.000	49.918	0.2	111	0.00
65		Bromobenzene	20.000	20.528	-2.6	110	0.00
66		n-Propylbenzene	20.000	19.915	0.4	106	0.00
67	P	1,1,2,2-Tetrachloroethane	20.000	21.508	-7.5	116	0.00
68		2-Chlorotoluene	20.000	20.624	-3.1	114	0.00
69		1,3,5-Trimethylbenzene	20.000	20.318	-1.6	106	0.00
70		1,2,3-Trichloropropane	20.000	20.844	-4.2	108	0.00
71		t-1,4-Dichloro-2-butene	20.000	15.806	21.0#	93	0.00
72		4-Chlorotoluene	20.000	20.670	-3.4	108	0.00
73		tert-Butylbenzene	20.000	20.648	-3.2	108	0.00
74		1,2,4-Trimethylbenzene	20.000	20.708	-3.5	106	0.00
75		sec-Butylbenzene	20.000	21.477	-7.4	110	0.00
76		4-Isopropyltoluene	20.000	21.230	-6.2	108	0.00
77		1,3-Dichlorobenzene	20.000	20.892	-4.5	110	0.00
78		1,4-Dichlorobenzene	20.000	19.814	0.9	110	0.00
79		n-Butylbenzene	20.000	21.143	-5.7	107	0.00
80		1,2-Dichlorobenzene	20.000	20.229	-1.1	110	0.00
81		1,2-Dibromo-3-Chloropropane	20.000	18.901	5.5	112	0.00
82		Hexachlorobutadiene	20.000	21.616	-8.1	114	0.00
83		1,2,4-Trichlorobenzene	20.000	21.651	-8.3	112	0.00
84		Naphthalene	20.000	19.585	2.1	113	0.00
85		1,2,3-Trichlorobenzene	20.000	21.445	-7.2	109	0.00

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

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H21053

Analysis Included
8260C Full List
8260C Iodomethane Add On
8260C Oxygenates

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9H21053-TUN1	MS Tune	Soil		A19G090	8/21/2019 7:47:00PM
9H21053-ICB1	Initial Cal Blank	Soil		A19G090	8/21/2019 8:14:00PM
9H21053-CAL1	Cal Standard	Soil	A19H354	"	8/21/2019 8:41:00PM
9H21053-CAL2	Cal Standard	Soil	A19H355	"	8/21/2019 9:08:00PM
9H21053-CAL3	Cal Standard	Soil	A19H356	"	8/21/2019 9:35:00PM
9H21053-CAL4	Cal Standard	Soil	A19H357	"	8/21/2019 10:02:00PM
9H21053-CAL5	Cal Standard	Soil	A19H358	"	8/21/2019 10:29:00PM
9H21053-CAL6	Cal Standard	Soil	A19H359	"	8/21/2019 10:56:00PM
9H21053-CAL7	Cal Standard	Soil	A19H360	"	8/21/2019 11:23:00PM
9H21053-CAL8	Cal Standard	Soil	A19H361	"	8/21/2019 11:50:00PM
9H21053-CAL9	Cal Standard	Soil	A19H362	"	8/22/2019 12:17:00AM
9H21053-CALA	Cal Standard	Soil	A19H363	"	8/22/2019 1:12:00AM
9H21053-CALB	Cal Standard	Soil	A19H364	"	8/22/2019 2:06:00AM
9H21053-ICV1	Initial Cal Check	Soil	A19H365	"	8/22/2019 3:28:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9H2203** Instrument: **VOA-GCMS3**

8260C Full List Sequence: **9H21053** Matrix: **Soil**

9H21053-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H21053-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H21053-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H21053-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H21053-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H21053-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H21053-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H21053-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H21053-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H21053-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H21053-CALB	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H21053

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: **A9H2203** Instrument: **VOA-GCMS3**

8260C Full List Sequence: **9H21053** Matrix: **Soil**

9H21053-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual
Iodomethane	20	20.0	**27.50**	138	E-05

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.

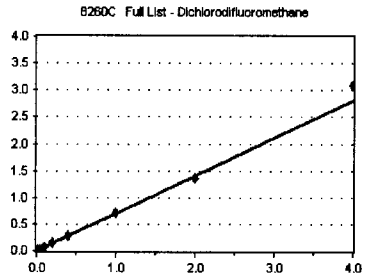
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

Dichlorodifluoromethane

Curve Fit: **AVERAGE RF**

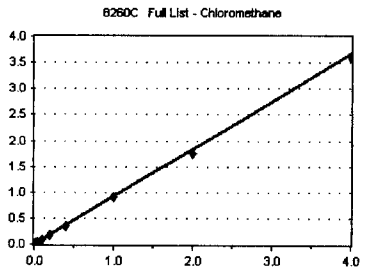


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL4	1	1372	0.620	1.51
9H21053-CAL5	2	3161	0.703	1.51
9H21053-CAL6	5	7945	0.722	1.51
9H21053-CAL7	10	15803	0.706	1.51
9H21053-CAL8	20	32845	0.720	1.51
9H21053-CAL9	50	82088	0.704	1.51
9H21053-CALA	100	161059	0.681	1.51
9H21053-CALB	200	378022	0.775	1.51

AVE RF **0.704** RF RSD **6.18** AVE RT **1.51**

Chloromethane

Curve Fit: **AVERAGE RF**

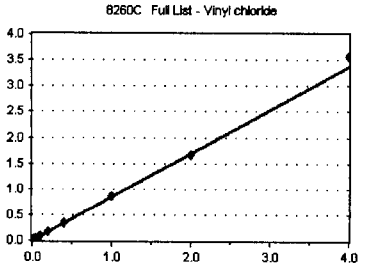


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~700~~	~~1.584~~	~~1.70~~
9H21053-CAL3	0.4	897	1.039	1.69
9H21053-CAL4	1	2098	0.948	1.69
9H21053-CAL5	2	4144	0.922	1.69
9H21053-CAL6	5	9665	0.879	1.69
9H21053-CAL7	10	19707	0.880	1.70
9H21053-CAL8	20	40295	0.884	1.69
9H21053-CAL9	50	106339	0.912	1.69
9H21053-CALA	100	208066	0.880	1.70
9H21053-CALB	200	440526	0.904	1.70

AVE RF **0.916** RF RSD **5.66** AVE RT **1.69**

Vinyl chloride

Curve Fit: **AVERAGE RF**

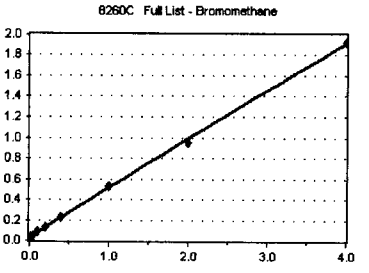


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	708	0.820	1.77
9H21053-CAL4	1	1736	0.785	1.77
9H21053-CAL5	2	3910	0.870	1.77
9H21053-CAL6	5	9087	0.826	1.77
9H21053-CAL7	10	18710	0.836	1.78
9H21053-CAL8	20	38967	0.855	1.78
9H21053-CAL9	50	102078	0.875	1.77
9H21053-CALA	100	197958	0.837	1.78
9H21053-CALB	200	435017	0.892	1.78

AVE RF **0.844** RF RSD **3.89** AVE RT **1.77**

Bromomethane

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



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~2666~~	~~11.640~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~3075~~	~~6.957~~	~~0.00~~
~~9H21053-CAL3~~	~~0.4~~	~~2914~~	~~3.376~~	~~0.00~~
9H21053-CAL4	1	3951	1.786	2.10
9H21053-CAL5	2	5235	1.164	2.10
9H21053-CAL6	5	8943	0.813	2.10
9H21053-CAL7	10	14048	0.627	2.10
9H21053-CAL8	20	26088	0.572	2.09
9H21053-CAL9	50	62250	0.534	2.09
9H21053-CALA	100	111907	0.473	2.10
9H21053-CALB	200	235173	0.482	2.10

AVE RF **0.806** RF RSD **56.72** AVE RT **2.10**

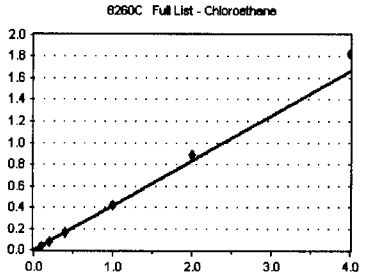
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

Chloroethane

Curve Fit: **AVERAGE RF**

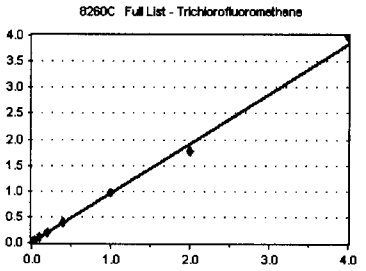


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL5~~	~~2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL6	5	4074	0.370	2.24
9H21053-CAL7	10	9003	0.402	2.23
9H21053-CAL8	20	18286	0.401	2.23
9H21053-CAL9	50	49501	0.424	2.23
9H21053-CALA	100	105128	0.444	2.24
9H21053-CALB	200	222205	0.456	2.24

AVE RF **0.416** RF RSD **7.57** AVE RT **2.23**

Trichlorofluoromethane

Curve Fit: **AVERAGE RF**

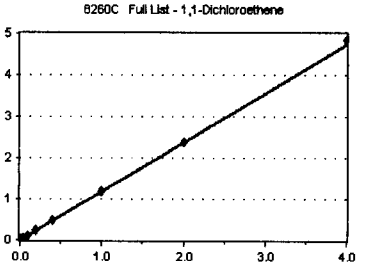


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL4	1	2010	0.908	2.36
9H21053-CAL5	2	4187	0.931	2.35
9H21053-CAL6	5	11178	1.016	2.36
9H21053-CAL7	10	21463	0.958	2.35
9H21053-CAL8	20	43816	0.961	2.36
9H21053-CAL9	50	113918	0.977	2.35
9H21053-CALA	100	210080	0.888	2.36
9H21053-CALB	200	485793	0.996	2.36

AVE RF **0.955** RF RSD **4.54** AVE RT **2.36**

1,1-Dichloroethene

Curve Fit: **AVERAGE RF**

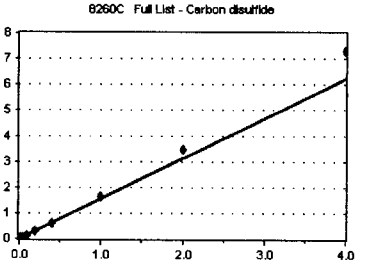


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	977	1.132	2.84
9H21053-CAL4	1	2627	1.187	2.83
9H21053-CAL5	2	5260	1.170	2.83
9H21053-CAL6	5	12663	1.151	2.84
9H21053-CAL7	10	26906	1.202	2.84
9H21053-CAL8	20	54978	1.206	2.84
9H21053-CAL9	50	139125	1.193	2.83
9H21053-CALA	100	282466	1.194	2.84
9H21053-CALB	200	588619	1.207	2.84

AVE RF **1.182** RF RSD **2.21** AVE RT **2.84**

Carbon disulfide

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL4	1	3103	1.402	2.84
9H21053-CAL5	2	6353	1.413	2.84
9H21053-CAL6	5	15622	1.420	2.85
9H21053-CAL7	10	32799	1.465	2.85
9H21053-CAL8	20	69657	1.528	2.84
9H21053-CAL9	50	192296	1.649	2.85
9H21053-CALA	100	410862	1.737	2.85
9H21053-CALB	200	893318	1.832	2.85

AVE RF **1.556** RF RSD **10.57** AVE RT **2.85**

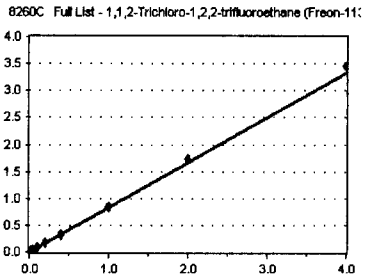
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

1,1,2-Trichloro-1,2,2-trifluoroetha

Curve Fit: **AVERAGE RF**

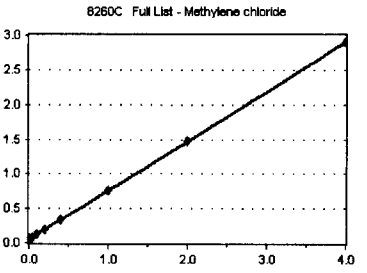


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	639	0.740	2.89
9H21053-CAL4	1	1893	0.856	2.88
9H21053-CAL5	2	3737	0.831	2.89
9H21053-CAL6	5	9132	0.830	2.89
9H21053-CAL7	10	18994	0.848	2.89
9H21053-CAL8	20	37237	0.817	2.89
9H21053-CAL9	50	98871	0.848	2.88
9H21053-CALA	100	205202	0.868	2.89
9H21053-CALB	200	421084	0.864	2.89

AVE RF **0.833** RF RSD **4.64** AVE RT **2.89**

Methylene chloride

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

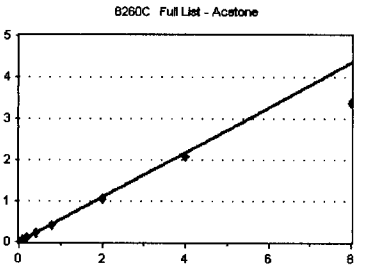


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	6880	31.209	3.46
9H21053-CAL2	0.2	6868	15.538	3.46
9H21053-CAL3	0.4	6947	8.049	3.45
9H21053-CAL4	1	8045	3.636	3.45
9H21053-CAL5	2	9138	2.033	3.45
9H21053-CAL6	5	14072	1.279	3.45
9H21053-CAL7	10	22276	0.995	3.45
9H21053-CAL8	20	38456	0.843	3.45
9H21053-CAL9	50	88516	0.759	3.45
9H21053-CALA	100	174637	0.738	3.45
9H21053-CALB	200	353275	0.725	3.45

AVE RF **5.982** RF RSD **159.37** AVE RT **3.45**

Acetone

Curve Fit: **AVERAGE RF**

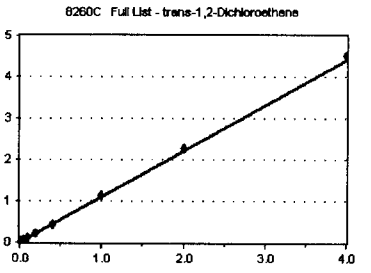


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.8~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL4~~	~~2~~	~~3772~~	~~0.852~~	~~3.57~~
9H21053-CAL5	4	5962	0.663	3.58
9H21053-CAL6	10	13281	0.604	3.57
9H21053-CAL7	20	24558	0.548	3.57
9H21053-CAL8	40	47130	0.517	3.57
9H21053-CAL9	100	123932	0.531	3.57
9H21053-CALA	200	245851	0.520	3.57
9H21053-CALB	400	410896	0.421	3.58

AVE RF **0.543** RF RSD **13.91** AVE RT **3.57**

trans-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	1022	1.184	3.61
9H21053-CAL4	1	2398	1.084	3.61
9H21053-CAL5	2	4704	1.046	3.61
9H21053-CAL6	5	11498	1.045	3.61
9H21053-CAL7	10	24610	1.099	3.61
9H21053-CAL8	20	49946	1.095	3.61
9H21053-CAL9	50	131417	1.127	3.61
9H21053-CALA	100	267057	1.129	3.61
9H21053-CALB	200	550043	1.128	3.61

AVE RF **1.104** RF RSD **3.98** AVE RT **3.61**

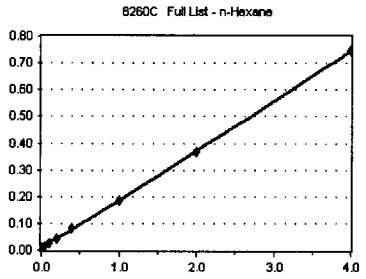
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

n-Hexane

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

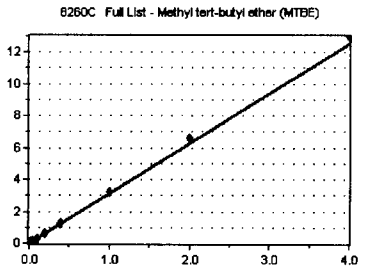


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	857	3.887	3.68
9H21053-CAL2	0.2	843	1.907	3.70
9H21053-CAL3	0.4	960	1.112	3.68
9H21053-CAL4	1	1043	0.471	3.68
9H21053-CAL5	2	1528	0.340	3.67
9H21053-CAL6	5	2764	0.251	3.68
9H21053-CAL7	10	4972	0.222	3.69
9H21053-CAL8	20	9331	0.205	3.68
9H21053-CAL9	50	21541	0.185	3.68
9H21053-CALA	100	43680	0.185	3.69
9H21053-CALB	200	91019	0.187	3.69

AVE RF **0.814** RF RSD **141.69** AVE RT **3.68**

Methyl tert-butyl ether (MTBE)

Curve Fit: **AVERAGE RF**

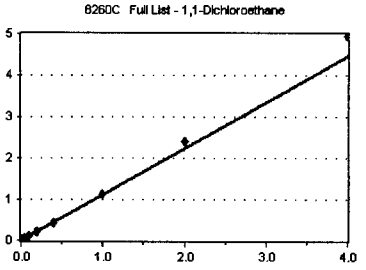


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	2597	3.009	3.77
9H21053-CAL4	1	6623	2.993	3.77
9H21053-CAL5	2	13739	3.056	3.76
9H21053-CAL6	5	34036	3.094	3.77
9H21053-CAL7	10	69389	3.099	3.77
9H21053-CAL8	20	142111	3.117	3.77
9H21053-CAL9	50	374673	3.213	3.76
9H21053-CALA	100	782140	3.307	3.77
9H21053-CALB	200	1581137	3.243	3.77

AVE RF **3.126** RF RSD **3.43** AVE RT **3.77**

1,1-Dichloroethane

Curve Fit: **AVERAGE RF**

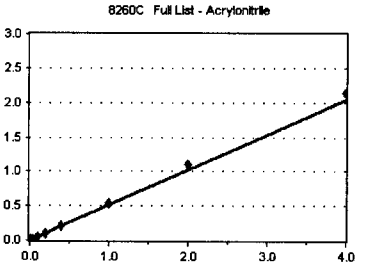


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	810	0.938	4.22
9H21053-CAL4	1	2333	1.054	4.23
9H21053-CAL5	2	5076	1.129	4.23
9H21053-CAL6	5	12032	1.094	4.22
9H21053-CAL7	10	24739	1.105	4.23
9H21053-CAL8	20	50298	1.103	4.22
9H21053-CAL9	50	133588	1.145	4.22
9H21053-CALA	100	283398	1.198	4.23
9H21053-CALB	200	602695	1.236	4.23

AVE RF **1.111** RF RSD **7.67** AVE RT **4.22**

Acrylonitrile

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL4	1	978	0.442	4.31
9H21053-CAL5	2	2097	0.466	4.31
9H21053-CAL6	5	5646	0.513	4.32
9H21053-CAL7	10	11481	0.513	4.31
9H21053-CAL8	20	23436	0.514	4.30
9H21053-CAL9	50	62866	0.539	4.30
9H21053-CALA	100	131190	0.555	4.31
9H21053-CALB	200	261354	0.536	4.31

AVE RF **0.510** RF RSD **7.44** AVE RT **4.31**

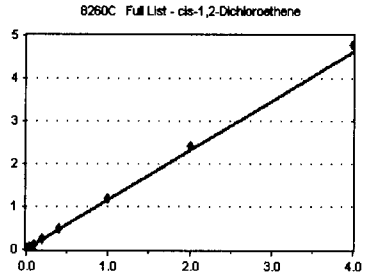
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

cis-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**

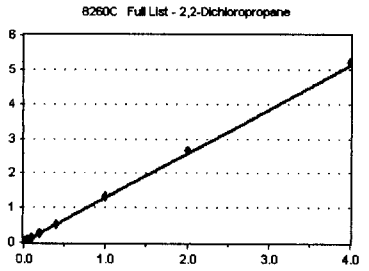


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	408	0.923	4.77
9H21053-CAL3	0.4	994	1.152	4.77
9H21053-CAL4	1	2614	1.181	4.76
9H21053-CAL5	2	5106	1.136	4.76
9H21053-CAL6	5	13199	1.200	4.76
9H21053-CAL7	10	26286	1.174	4.76
9H21053-CAL8	20	54041	1.185	4.77
9H21053-CAL9	50	137841	1.182	4.76
9H21053-CALA	100	285629	1.208	4.76
9H21053-CALB	200	584015	1.198	4.76

AVE RF **1.154** RF RSD **7.28** AVE RT **4.76**

2,2-Dichloropropane

Curve Fit: **AVERAGE RF**

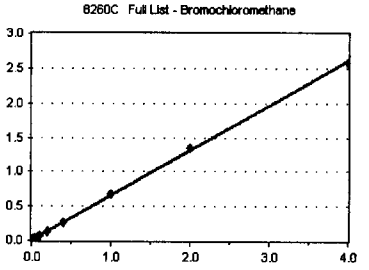


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	991	1.148	4.87
9H21053-CAL4	1	2936	1.327	4.86
9H21053-CAL5	2	5586	1.243	4.87
9H21053-CAL6	5	14200	1.291	4.86
9H21053-CAL7	10	28397	1.268	4.86
9H21053-CAL8	20	57961	1.271	4.86
9H21053-CAL9	50	154172	1.322	4.86
9H21053-CALA	100	312817	1.323	4.87
9H21053-CALB	200	637964	1.309	4.87

AVE RF **1.278** RF RSD **4.43** AVE RT **4.86**

Bromochloromethane

Curve Fit: **AVERAGE RF**

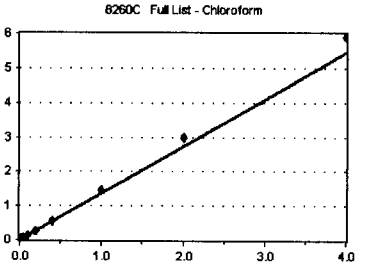


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	511	0.592	4.95
9H21053-CAL4	1	1438	0.650	4.96
9H21053-CAL5	2	2910	0.647	4.95
9H21053-CAL6	5	7532	0.685	4.95
9H21053-CAL7	10	14765	0.659	4.96
9H21053-CAL8	20	30262	0.664	4.95
9H21053-CAL9	50	78770	0.675	4.96
9H21053-CALA	100	159002	0.672	4.96
9H21053-CALB	200	313862	0.644	4.96

AVE RF **0.654** RF RSD **4.14** AVE RT **4.95**

Chloroform

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	556	1.258	5.05
9H21053-CAL3	0.4	1038	1.203	5.04
9H21053-CAL4	1	2817	1.273	5.04
9H21053-CAL5	2	5912	1.315	5.04
9H21053-CAL6	5	15226	1.384	5.05
9H21053-CAL7	10	30494	1.362	5.04
9H21053-CAL8	20	63434	1.391	5.05
9H21053-CAL9	50	169955	1.457	5.04
9H21053-CALA	100	351427	1.486	5.05
9H21053-CALB	200	720819	1.478	5.05

AVE RF **1.361** RF RSD **7.17** AVE RT **5.04**

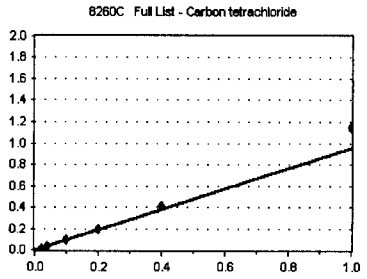
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

Carbon tetrachloride

Curve Fit: **AVERAGE RF**

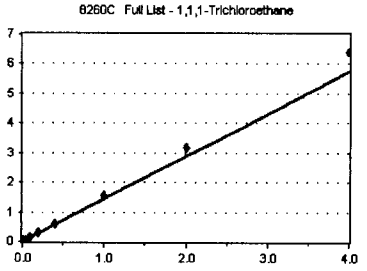


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.4~~	~~641~~	~~0.743~~	~~5.17~~
9H21053-CAL4	1	1728	0.781	5.16
9H21053-CAL5	2	3793	0.844	5.16
9H21053-CAL6	5	10235	0.930	5.16
9H21053-CAL7	10	21928	0.979	5.16
9H21053-CAL8	20	46744	1.025	5.16
9H21053-CAL9	50	134167	1.150	5.16
~~9H21053-CALA~~	~~100~~	~~292084~~	~~1.235~~	~~5.16~~
~~9H21053-CALB~~	~~200~~	~~640853~~	~~1.314~~	~~5.16~~

AVE RF **0.952** RF RSD **13.86** AVE RT **5.16**

1,1,1-Trichloroethane

Curve Fit: **AVERAGE RF**

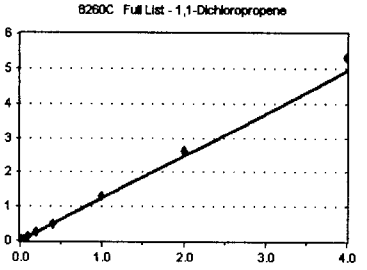


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	610	1.380	5.23
9H21053-CAL3	0.4	1059	1.227	5.23
9H21053-CAL4	1	2999	1.355	5.22
9H21053-CAL5	2	6110	1.359	5.23
9H21053-CAL6	5	15050	1.368	5.23
9H21053-CAL7	10	32835	1.466	5.23
9H21053-CAL8	20	67393	1.478	5.23
9H21053-CAL9	50	181378	1.555	5.23
9H21053-CALA	100	374926	1.585	5.23
9H21053-CALB	200	780017	1.600	5.23

AVE RF **1.437** RF RSD **8.36** AVE RT **5.23**

1,1-Dichloropropene

Curve Fit: **AVERAGE RF**

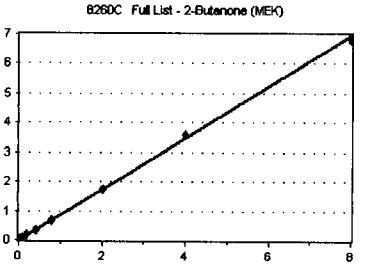


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	879	1.018	5.36
9H21053-CAL4	1	2662	1.203	5.36
9H21053-CAL5	2	5231	1.164	5.35
9H21053-CAL6	5	13603	1.237	5.36
9H21053-CAL7	10	27711	1.237	5.36
9H21053-CAL8	20	57300	1.257	5.36
9H21053-CAL9	50	151585	1.300	5.36
9H21053-CALA	100	311507	1.317	5.36
9H21053-CALB	200	647826	1.329	5.36

AVE RF **1.229** RF RSD **7.77** AVE RT **5.36**

2-Butanone (MEK)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.8~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL4	2	3933	0.889	5.39
9H21053-CAL5	4	7993	0.889	5.38
9H21053-CAL6	10	18995	0.863	5.39
9H21053-CAL7	20	38182	0.853	5.38
9H21053-CAL8	40	78204	0.858	5.39
9H21053-CAL9	100	203790	0.874	5.38
9H21053-CALA	200	423565	0.895	5.38
9H21053-CALB	400	829795	0.851	5.38

AVE RF **0.871** RF RSD **2.04** AVE RT **5.38**

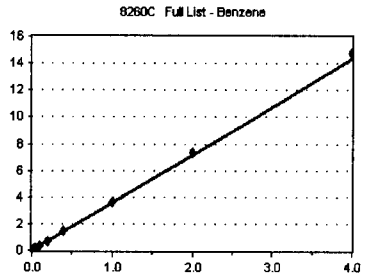
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

Benzene

Curve Fit: **AVERAGE RF**

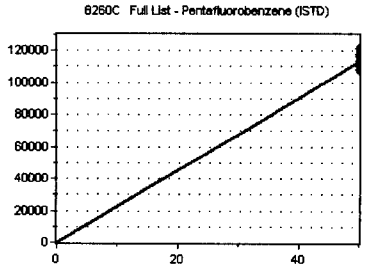


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	758	3.438	5.62
9H21053-CAL2	0.2	1690	3.824	5.61
9H21053-CAL3	0.4	3133	3.630	5.61
9H21053-CAL4	1	7531	3.404	5.61
9H21053-CAL5	2	15717	3.496	5.61
9H21053-CAL6	5	38541	3.504	5.61
9H21053-CAL7	10	78253	3.494	5.61
9H21053-CAL8	20	162822	3.571	5.61
9H21053-CAL9	50	424635	3.641	5.61
9H21053-CALA	100	870347	3.680	5.61
9H21053-CALB	200	1799873	3.692	5.61

AVE RF **3.579** RF RSD **3.53** AVE RT **5.61**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

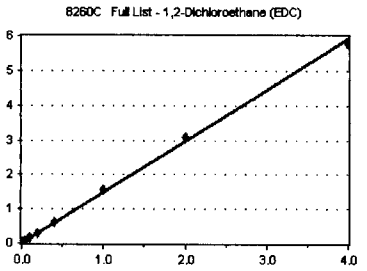


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	50	110226	2204.520	5.72
9H21053-CAL2	50	110500	2210.000	5.72
9H21053-CAL3	50	107889	2157.780	5.71
9H21053-CAL4	50	110633	2212.660	5.72
9H21053-CAL5	50	112391	2247.820	5.71
9H21053-CAL6	50	110006	2200.120	5.72
9H21053-CAL7	50	111966	2239.320	5.72
9H21053-CAL8	50	113994	2279.880	5.71
9H21053-CAL9	50	116620	2332.400	5.71
9H21053-CALA	50	118257	2365.140	5.72
9H21053-CALB	50	121886	2437.720	5.72

AVE RF **2262.487** RF RSD **3.71** AVE RT **5.72**

1,2-Dichloroethane (EDC)

Curve Fit: **AVERAGE RF**

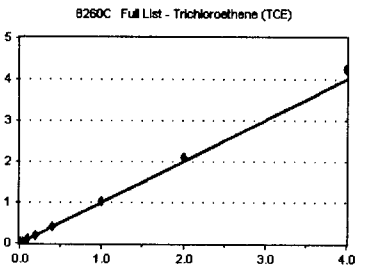


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	518	1.172	5.83
9H21053-CAL3	0.4	1274	1.476	5.83
9H21053-CAL4	1	3413	1.542	5.83
9H21053-CAL5	2	7050	1.568	5.82
9H21053-CAL6	5	16836	1.530	5.82
9H21053-CAL7	10	34349	1.534	5.82
9H21053-CAL8	20	69553	1.525	5.82
9H21053-CAL9	50	180838	1.551	5.82
9H21053-CALA	100	362593	1.533	5.83
9H21053-CALB	200	703285	1.443	5.83

AVE RF **1.487** RF RSD **7.85** AVE RT **5.82**

Trichloroethene (TCE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	944	1.094	6.21
9H21053-CAL4	1	2038	0.921	6.23
9H21053-CAL5	2	4175	0.929	6.22
9H21053-CAL6	5	10457	0.951	6.22
9H21053-CAL7	10	22288	0.995	6.22
9H21053-CAL8	20	45174	0.991	6.22
9H21053-CAL9	50	120191	1.031	6.22
9H21053-CALA	100	249488	1.055	6.22
9H21053-CALB	200	516296	1.059	6.22

AVE RF **1.003** RF RSD **6.11** AVE RT **6.22**

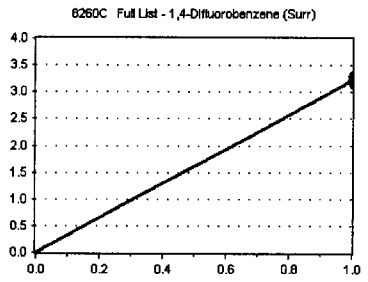
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

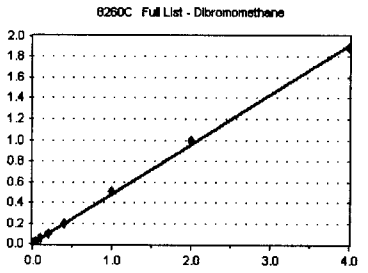


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	50	355818	3.228	6.26
9H21053-CAL2	50	355796	3.220	6.27
9H21053-CAL3	50	346939	3.216	6.26
9H21053-CAL4	50	353323	3.194	6.26
9H21053-CAL5	50	355959	3.167	6.26
9H21053-CAL6	50	353831	3.216	6.26
9H21053-CAL7	50	358307	3.200	6.26
9H21053-CAL8	50	364313	3.196	6.26
9H21053-CAL9	50	378628	3.247	6.26
9H21053-CALA	50	389020	3.290	6.26
9H21053-CALB	50	404135	3.316	6.26

AVE RF **3.226** RF RSD **1.35** AVE RT **6.26**

Dibromomethane

Curve Fit: **AVERAGE RF**

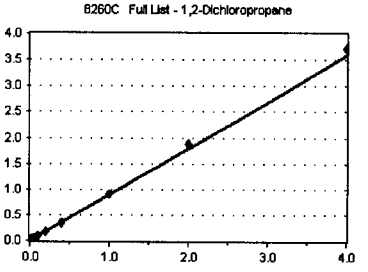


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL4	1	960	0.434	6.67
9H21053-CAL5	2	2077	0.462	6.66
9H21053-CAL6	5	5376	0.489	6.66
9H21053-CAL7	10	11182	0.499	6.66
9H21053-CAL8	20	21577	0.473	6.66
9H21053-CAL9	50	59054	0.506	6.66
9H21053-CALA	100	117351	0.496	6.66
9H21053-CALB	200	231130	0.474	6.66

AVE RF **0.479** RF RSD **4.95** AVE RT **6.66**

1,2-Dichloropropane

Curve Fit: **AVERAGE RF**

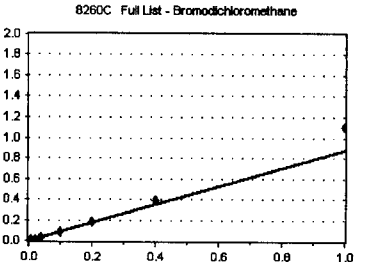


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	756	0.876	6.77
9H21053-CAL4	1	1903	0.860	6.77
9H21053-CAL5	2	3882	0.864	6.77
9H21053-CAL6	5	9904	0.900	6.77
9H21053-CAL7	10	19864	0.887	6.77
9H21053-CAL8	20	40405	0.886	6.77
9H21053-CAL9	50	107030	0.918	6.77
9H21053-CALA	100	221302	0.936	6.77
9H21053-CALB	200	454597	0.932	6.77

AVE RF **0.895** RF RSD **3.14** AVE RT **6.77**

Bromodichloromethane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	329	0.744	6.85
9H21053-CAL3	0.4	736	0.853	6.85
9H21053-CAL4	1	1684	0.761	6.85
9H21053-CAL5	2	3589	0.798	6.84
9H21053-CAL6	5	9205	0.837	6.85
9H21053-CAL7	10	20184	0.901	6.85
9H21053-CAL8	20	44311	0.972	6.85
9H21053-CAL9	50	128617	1.103	6.85
~~9H21053-CALA~~	~~100~~	~~287871~~	~~1.217~~	~~6.85~~
~~9H21053-CALB~~	~~200~~	~~607360~~	~~1.246~~	~~6.85~~

AVE RF **0.871** RF RSD **13.70** AVE RT **6.85**

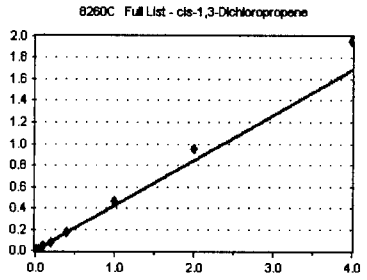
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

cis-1,3-Dichloropropene

Curve Fit: **AVERAGE RF**

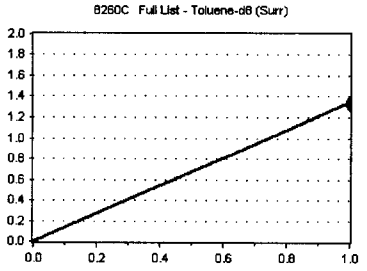


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~424~~	~~0.332~~	~~7.55~~
~~9H21053-CAL3~~	~~0.4~~	~~773~~	~~0.304~~	~~7.55~~
9H21053-CAL4	1	2294	0.356	7.54
9H21053-CAL5	2	4773	0.369	7.55
9H21053-CAL6	5	12345	0.386	7.55
9H21053-CAL7	10	26141	0.401	7.55
9H21053-CAL8	20	56455	0.429	7.55
9H21053-CAL9	50	161753	0.470	7.55
9H21053-CALA	100	345800	0.477	7.55
9H21053-CALB	200	714478	0.490	7.55

AVE RF **0.422** RF RSD **12.27** AVE RT **7.55**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**

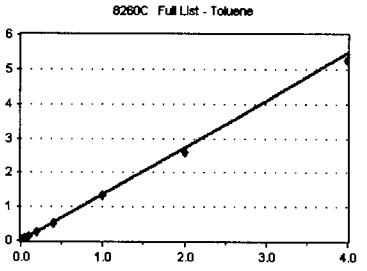


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	50	433607	1.348	7.75
9H21053-CAL2	50	433746	1.358	7.76
9H21053-CAL3	50	428260	1.350	7.75
9H21053-CAL4	50	433132	1.346	7.75
9H21053-CAL5	50	440301	1.362	7.75
9H21053-CAL6	50	433969	1.358	7.75
9H21053-CAL7	50	441143	1.354	7.75
9H21053-CAL8	50	447822	1.361	7.75
9H21053-CAL9	50	460800	1.338	7.75
9H21053-CALA	50	475291	1.312	7.75
9H21053-CALB	50	484243	1.328	7.75

AVE RF **1.347** RF RSD **1.15** AVE RT **7.75**

Toluene

Curve Fit: **AVERAGE RF**

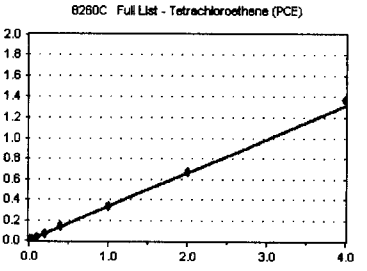


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~1340~~	~~2.082~~	~~7.81~~
9H21053-CAL2	0.2	2203	1.724	7.81
9H21053-CAL3	0.4	3472	1.368	7.81
9H21053-CAL4	1	8915	1.385	7.81
9H21053-CAL5	2	16972	1.313	7.81
9H21053-CAL6	5	41785	1.307	7.81
9H21053-CAL7	10	84880	1.303	7.81
9H21053-CAL8	20	174546	1.326	7.81
9H21053-CAL9	50	456961	1.327	7.81
9H21053-CALA	100	942033	1.300	7.81
9H21053-CALB	200	1916468	1.314	7.81

AVE RF **1.367** RF RSD **9.42** AVE RT **7.81**

Tetrachloroethene (PCE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	765	0.301	8.24
9H21053-CAL4	1	2005	0.311	8.25
9H21053-CAL5	2	4229	0.327	8.25
9H21053-CAL6	5	10700	0.335	8.25
9H21053-CAL7	10	21285	0.327	8.25
9H21053-CAL8	20	45080	0.342	8.25
9H21053-CAL9	50	116933	0.340	8.25
9H21053-CALA	100	241750	0.334	8.25
9H21053-CALB	200	501879	0.344	8.25

AVE RF **0.329** RF RSD **4.37** AVE RT **8.25**

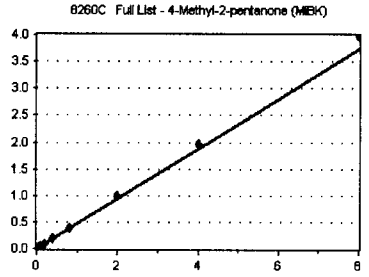
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

4-Methyl-2-pentanone (MiBK)

Curve Fit: **AVERAGE RF**

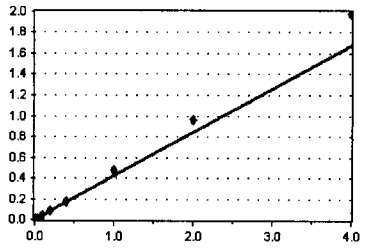


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.8	2249	0.443	8.29
9H21053-CAL4	2	5508	0.428	8.28
9H21053-CAL5	4	11269	0.436	8.28
9H21053-CAL6	10	28873	0.452	8.28
9H21053-CAL7	20	60790	0.467	8.28
9H21053-CAL8	40	128249	0.487	8.28
9H21053-CAL9	100	342833	0.498	8.28
9H21053-CALA	200	711915	0.491	8.28
9H21053-CALB	400	1449596	0.497	8.28

AVE RF **0.466** RF RSD **5.95** AVE RT **8.28**

trans-1,3-Dichloropropene

Curve Fit: **AVERAGE RF**

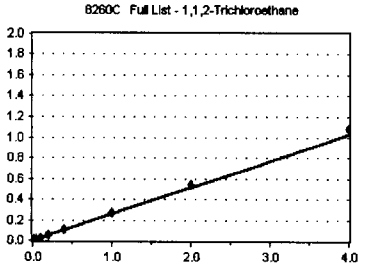


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.4~~	~~764~~	~~0.301~~	~~8.31~~
9H21053-CAL4	1	2267	0.352	8.30
9H21053-CAL5	2	4346	0.336	8.30
9H21053-CAL6	5	12317	0.385	8.31
9H21053-CAL7	10	26517	0.407	8.30
9H21053-CAL8	20	56210	0.427	8.31
9H21053-CAL9	50	163271	0.474	8.30
9H21053-CALA	100	349823	0.483	8.30
9H21053-CALB	200	721711	0.495	8.30

AVE RF **0.420** RF RSD **14.38** AVE RT **8.30**

1,1,2-Trichloroethane

Curve Fit: **AVERAGE RF**

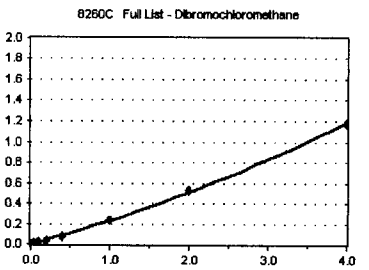


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	300	0.235	8.48
9H21053-CAL3	0.4	543	0.214	8.48
9H21053-CAL4	1	1746	0.271	8.49
9H21053-CAL5	2	3254	0.252	8.48
9H21053-CAL6	5	8110	0.254	8.49
9H21053-CAL7	10	17188	0.264	8.49
9H21053-CAL8	20	35256	0.268	8.48
9H21053-CAL9	50	93355	0.271	8.49
9H21053-CALA	100	194591	0.269	8.49
9H21053-CALB	200	395935	0.271	8.49

AVE RF **0.257** RF RSD **7.45** AVE RT **8.48**

Dibromochloromethane

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



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	346	0.136	8.68
9H21053-CAL4	1	941	0.146	8.68
9H21053-CAL5	2	1977	0.153	8.69
9H21053-CAL6	5	5394	0.169	8.68
9H21053-CAL7	10	11583	0.178	8.69
9H21053-CAL8	20	26457	0.201	8.68
9H21053-CAL9	50	82299	0.239	8.69
9H21053-CALA	100	191933	0.265	8.69
9H21053-CALB	200	431031	0.295	8.69

AVE RF **0.198** RF RSD **28.49** AVE RT **8.68**

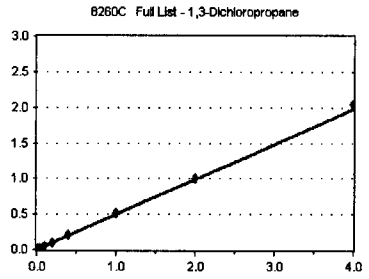
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

1,3-Dichloropropane

Curve Fit: **AVERAGE RF**

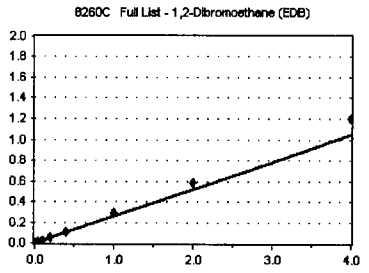


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	540	0.423	8.80
9H21053-CAL3	0.4	1295	0.510	8.79
9H21053-CAL4	1	3035	0.471	8.79
9H21053-CAL5	2	6484	0.501	8.80
9H21053-CAL6	5	15953	0.499	8.79
9H21053-CAL7	10	32616	0.501	8.80
9H21053-CAL8	20	66826	0.508	8.79
9H21053-CAL9	50	177393	0.515	8.79
9H21053-CALA	100	366654	0.506	8.80
9H21053-CALB	200	747075	0.512	8.80

AVE RF **0.495** RF RSD **5.67** AVE RT **8.79**

1,2-Dibromoethane (EDB)

Curve Fit: **AVERAGE RF**

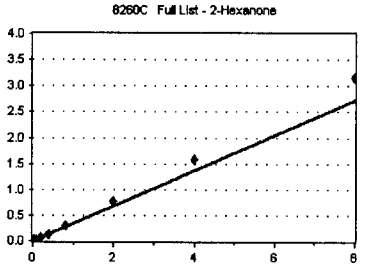


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	242	0.189	8.94
9H21053-CAL3	0.4	639	0.252	8.93
9H21053-CAL4	1	1494	0.232	8.93
9H21053-CAL5	2	2966	0.229	8.93
9H21053-CAL6	5	8505	0.266	8.93
9H21053-CAL7	10	17790	0.273	8.93
9H21053-CAL8	20	37105	0.282	8.93
9H21053-CAL9	50	102002	0.296	8.93
9H21053-CALA	100	212845	0.294	8.93
9H21053-CALB	200	438796	0.301	8.93

AVE RF **0.261** RF RSD **13.70** AVE RT **8.93**

2-Hexanone

Curve Fit: **AVERAGE RF**

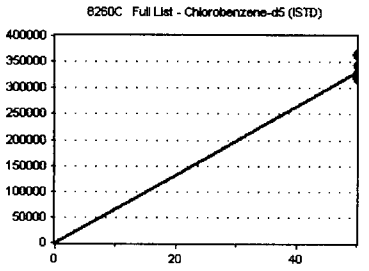


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.4	696	0.272	9.22
9H21053-CAL3	0.8	1450	0.286	9.22
9H21053-CAL4	2	3993	0.310	9.22
9H21053-CAL5	4	8091	0.313	9.21
9H21053-CAL6	10	21074	0.330	9.22
9H21053-CAL7	20	45425	0.349	9.22
9H21053-CAL8	40	97305	0.370	9.22
9H21053-CAL9	100	268367	0.390	9.22
9H21053-CALA	200	568593	0.392	9.22
9H21053-CALB	400	1152533	0.395	9.22

AVE RF **0.341** RF RSD **13.30** AVE RT **9.22**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	50	321736	6434.720	9.46
9H21053-CAL2	50	319418	6388.360	9.47
9H21053-CAL3	50	317338	6346.760	9.46
9H21053-CAL4	50	321898	6437.960	9.46
9H21053-CAL5	50	323276	6465.520	9.46
9H21053-CAL6	50	319666	6393.320	9.46
9H21053-CAL7	50	325719	6514.380	9.47
9H21053-CAL8	50	329068	6581.360	9.46
9H21053-CAL9	50	344390	6887.800	9.46
9H21053-CALA	50	362304	7246.080	9.46
9H21053-CALB	50	364680	7293.600	9.46

AVE RF **6635.442** RF RSD **5.22** AVE RT **9.46**

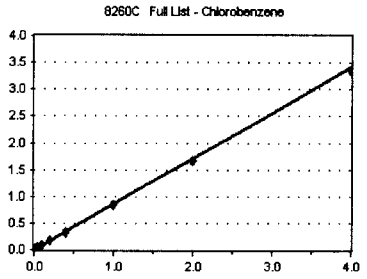
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

Chlorobenzene

Curve Fit: **AVERAGE RF**

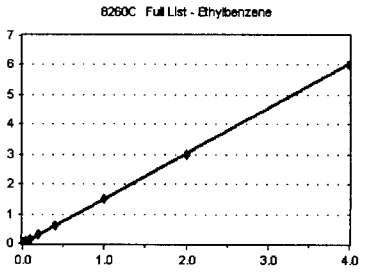


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	631	0.981	9.49
9H21053-CAL2	0.2	1166	0.913	9.48
9H21053-CAL3	0.4	2088	0.822	9.48
9H21053-CAL4	1	5346	0.830	9.48
9H21053-CAL5	2	10970	0.848	9.48
9H21053-CAL6	5	26169	0.819	9.48
9H21053-CAL7	10	53804	0.826	9.48
9H21053-CAL8	20	109541	0.832	9.48
9H21053-CAL9	50	287363	0.834	9.48
9H21053-CALA	100	601478	0.830	9.48
9H21053-CALB	200	1223894	0.839	9.48

AVE RF **0.852** RF RSD **5.83** AVE RT **9.48**

Ethylbenzene

Curve Fit: **AVERAGE RF**

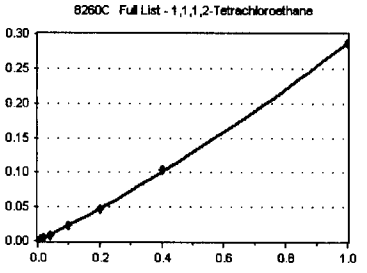


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	1099	1.708	9.52
9H21053-CAL2	0.2	2203	1.724	9.52
9H21053-CAL3	0.4	3869	1.524	9.52
9H21053-CAL4	1	9087	1.411	9.52
9H21053-CAL5	2	18558	1.435	9.52
9H21053-CAL6	5	45490	1.423	9.52
9H21053-CAL7	10	93697	1.438	9.51
9H21053-CAL8	20	197518	1.501	9.52
9H21053-CAL9	50	516545	1.500	9.51
9H21053-CALA	100	1082449	1.494	9.51
9H21053-CALB	200	2193593	1.504	9.51

AVE RF **1.515** RF RSD **7.03** AVE RT **9.52**

1,1,1,2-Tetrachloroethane

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

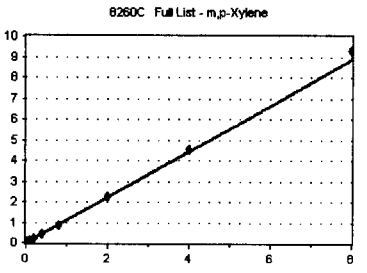


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	423	0.167	9.55
9H21053-CAL4	1	1321	0.205	9.55
9H21053-CAL5	2	2551	0.197	9.55
9H21053-CAL6	5	7065	0.221	9.55
9H21053-CAL7	10	15429	0.237	9.55
9H21053-CAL8	20	34109	0.259	9.55
9H21053-CAL9	50	98721	0.287	9.55
~~9H21053-CALA~~	~~100~~	~~218844~~	~~0.302~~	~~9.55~~
~~9H21053-CALB~~	~~200~~	~~457150~~	~~0.313~~	~~9.55~~

AVE RF **0.225** RF RSD **17.89** AVE RT **9.55**

m,p-Xylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.2	1598	1.242	9.66
9H21053-CAL2	0.4	3001	1.174	9.66
9H21053-CAL3	0.8	5408	1.065	9.66
9H21053-CAL4	2	13091	1.017	9.66
9H21053-CAL5	4	26521	1.025	9.66
9H21053-CAL6	10	65881	1.030	9.66
9H21053-CAL7	20	140163	1.076	9.66
9H21053-CAL8	40	290610	1.104	9.66
9H21053-CAL9	100	778620	1.130	9.66
9H21053-CALA	200	1642280	1.133	9.66
9H21053-CALB	400	3389195	1.162	9.66

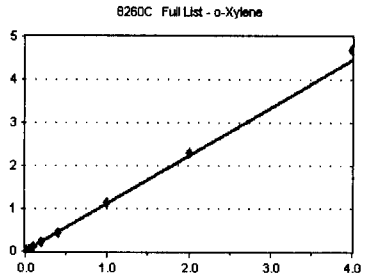
AVE RF **1.105** RF RSD **6.42** AVE RT **9.66**

Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

o-Xylene

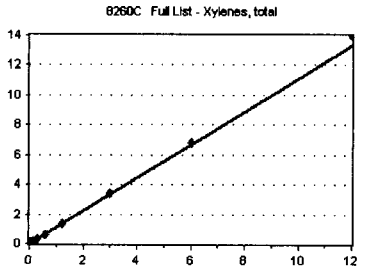


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	872	1.355	10.06
9H21053-CAL2	0.2	1557	1.219	10.06
9H21053-CAL3	0.4	2768	1.090	10.06
9H21053-CAL4	1	6402	0.994	10.06
9H21053-CAL5	2	12803	0.990	10.05
9H21053-CAL6	5	32683	1.022	10.06
9H21053-CAL7	10	68573	1.053	10.06
9H21053-CAL8	20	145618	1.106	10.06
9H21053-CAL9	50	389920	1.132	10.05
9H21053-CALA	100	832946	1.150	10.05
9H21053-CALB	200	1713321	1.175	10.05

AVE RF **1.117** RF RSD **9.67** AVE RT **10.06**

Xylenes, total

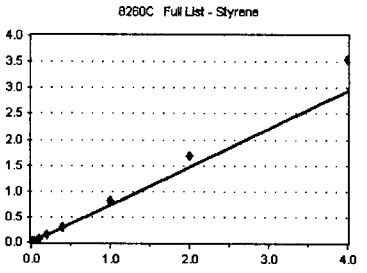


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.3	2470	1.280	10.06
9H21053-CAL2	0.6	4558	1.189	10.06
9H21053-CAL3	1.2	8176	1.074	10.06
9H21053-CAL4	3	19493	1.009	10.06
9H21053-CAL5	6	39324	1.014	10.05
9H21053-CAL6	15	98564	1.028	10.06
9H21053-CAL7	30	208736	1.068	10.06
9H21053-CAL8	60	436228	1.105	10.06
9H21053-CAL9	150	1168540	1.131	10.05
9H21053-CALA	300	2475226	1.139	10.05
9H21053-CALB	600	5102516	1.166	10.05

AVE RF **1.109** RF RSD **7.47** AVE RT **10.06**

Styrene

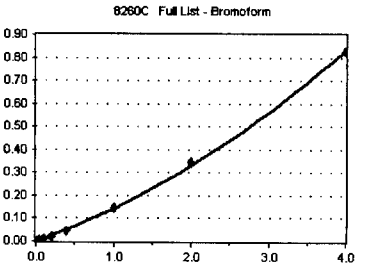


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~730~~	~~0.571~~	~~10.11~~
~~9H21053-CAL3~~	~~0.4~~	~~1322~~	~~0.521~~	~~10.11~~
9H21053-CAL4	1	3833	0.595	10.11
9H21053-CAL5	2	8038	0.622	10.11
9H21053-CAL6	5	21105	0.660	10.11
9H21053-CAL7	10	46448	0.713	10.11
9H21053-CAL8	20	99656	0.757	10.11
9H21053-CAL9	50	282721	0.821	10.11
9H21053-CALA	100	612135	0.845	10.11
9H21053-CALB	200	1295570	0.888	10.11

AVE RF **0.738** RF RSD **14.65** AVE RT **10.11**

Bromoform



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

Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL4	1	539	8.372	10.11
9H21053-CAL5	2	1157	8.947	10.12
9H21053-CAL6	5	3077	9.626	10.13
9H21053-CAL7	10	6596	0.101	10.12
9H21053-CAL8	20	15077	0.115	10.13
9H21053-CAL9	50	50268	0.146	10.12
9H21053-CALA	100	124347	0.172	10.12
9H21053-CALB	200	301394	0.207	10.12

AVE RF **0.126** RF RSD **35.10** AVE RT **10.12**

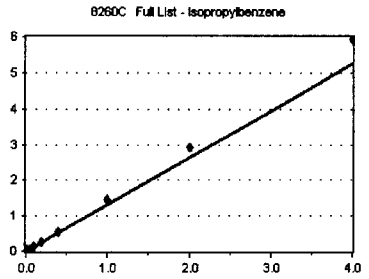
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

Isopropylbenzene

Curve Fit: **AVERAGE RF**

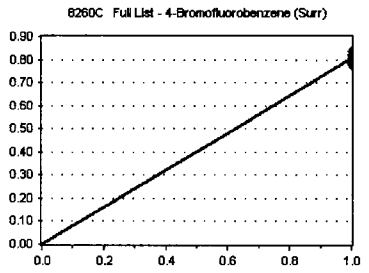


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	1449	1.134	10.34
9H21053-CAL3	0.4	2928	1.153	10.34
9H21053-CAL4	1	7780	1.208	10.34
9H21053-CAL5	2	15493	1.198	10.34
9H21053-CAL6	5	40945	1.281	10.34
9H21053-CAL7	10	86876	1.334	10.34
9H21053-CAL8	20	185242	1.407	10.34
9H21053-CAL9	50	500679	1.454	10.34
9H21053-CALA	100	1060569	1.464	10.34
9H21053-CALB	200	2161099	1.482	10.34

AVE RF **1.311** RF RSD **10.26** AVE RT **10.34**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

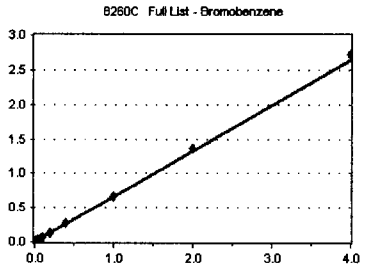


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	50	119329	0.820	10.58
9H21053-CAL2	50	115551	0.834	10.58
9H21053-CAL3	50	117437	0.819	10.58
9H21053-CAL4	50	117926	0.818	10.58
9H21053-CAL5	50	119171	0.821	10.58
9H21053-CAL6	50	118107	0.807	10.58
9H21053-CAL7	50	120692	0.802	10.58
9H21053-CAL8	50	124497	0.793	10.58
9H21053-CAL9	50	134096	0.788	10.58
9H21053-CALA	50	139774	0.779	10.58
9H21053-CALB	50	148001	0.781	10.58

AVE RF **0.806** RF RSD **2.28** AVE RT **10.58**

Bromobenzene

Curve Fit: **AVERAGE RF**

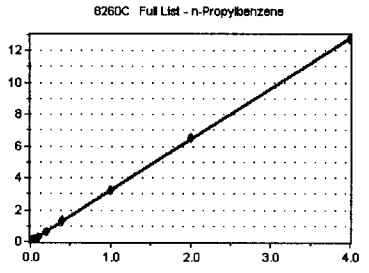


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	318	0.574	10.66
9H21053-CAL3	0.4	689	0.600	10.66
9H21053-CAL4	1	2093	0.726	10.66
9H21053-CAL5	2	3782	0.651	10.66
9H21053-CAL6	5	9879	0.675	10.66
9H21053-CAL7	10	20406	0.678	10.66
9H21053-CAL8	20	42516	0.677	10.66
9H21053-CAL9	50	113786	0.668	10.66
9H21053-CALA	100	243073	0.678	10.66
9H21053-CALB	200	515706	0.680	10.66

AVE RF **0.661** RF RSD **6.57** AVE RT **10.66**

n-Propylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	960	3.297	10.70
9H21053-CAL2	0.2	1840	3.322	10.69
9H21053-CAL3	0.4	3490	3.041	10.69
9H21053-CAL4	1	8794	3.049	10.69
9H21053-CAL5	2	18307	3.151	10.69
9H21053-CAL6	5	46023	3.145	10.69
9H21053-CAL7	10	97524	3.240	10.69
9H21053-CAL8	20	206762	3.293	10.69
9H21053-CAL9	50	554464	3.257	10.69
9H21053-CALA	100	1166080	3.251	10.69
9H21053-CALB	200	2406400	3.173	10.69

AVE RF **3.202** RF RSD **3.03** AVE RT **10.69**

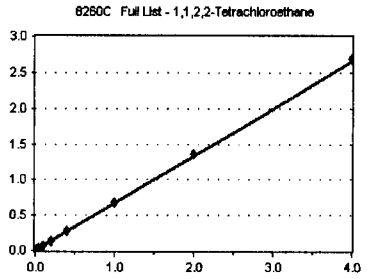
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

1,1,2,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

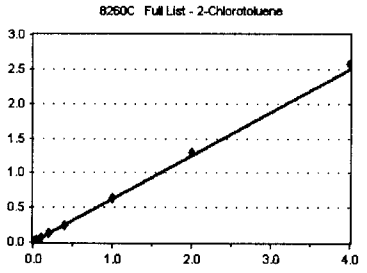


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	379	0.684	10.76
9H21053-CAL3	0.4	712	0.620	10.76
9H21053-CAL4	1	1863	0.646	10.76
9H21053-CAL5	2	3812	0.656	10.77
9H21053-CAL6	5	9724	0.664	10.76
9H21053-CAL7	10	19833	0.659	10.76
9H21053-CAL8	20	42500	0.677	10.76
9H21053-CAL9	50	114691	0.674	10.76
9H21053-CALA	100	243077	0.678	10.76
9H21053-CALB	200	508968	0.671	10.76

AVE RF **0.663** RF RSD **2.85** AVE RT **10.76**

2-Chlorotoluene

Curve Fit: **AVERAGE RF**

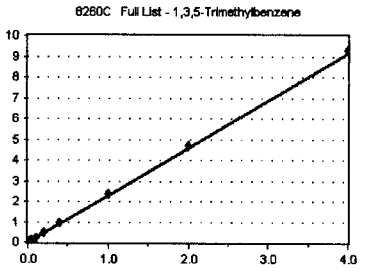


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	330	0.596	10.82
9H21053-CAL3	0.4	692	0.603	10.82
9H21053-CAL4	1	1865	0.647	10.82
9H21053-CAL5	2	3615	0.622	10.81
9H21053-CAL6	5	8852	0.605	10.82
9H21053-CAL7	10	19339	0.642	10.82
9H21053-CAL8	20	39147	0.624	10.82
9H21053-CAL9	50	107594	0.632	10.82
9H21053-CALA	100	232293	0.648	10.82
9H21053-CALB	200	487317	0.643	10.82

AVE RF **0.626** RF RSD **3.10** AVE RT **10.82**

1,3,5-Trimethylbenzene

Curve Fit: **AVERAGE RF**

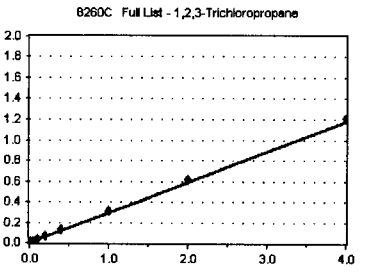


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	672	2.308	10.86
9H21053-CAL2	0.2	1334	2.408	10.85
9H21053-CAL3	0.4	2437	2.124	10.86
9H21053-CAL4	1	5886	2.041	10.86
9H21053-CAL5	2	12738	2.193	10.86
9H21053-CAL6	5	33064	2.259	10.86
9H21053-CAL7	10	71145	2.363	10.86
9H21053-CAL8	20	150533	2.398	10.86
9H21053-CAL9	50	405530	2.382	10.86
9H21053-CALA	100	847334	2.362	10.86
9H21053-CALB	200	1758587	2.319	10.86

AVE RF **2.287** RF RSD **5.28** AVE RT **10.86**

1,2,3-Trichloropropane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	241	0.210	10.86
9H21053-CAL4	1	795	0.276	10.86
9H21053-CAL5	2	1777	0.306	10.86
9H21053-CAL6	5	4606	0.315	10.87
9H21053-CAL7	10	9497	0.315	10.86
9H21053-CAL8	20	19606	0.312	10.87
9H21053-CAL9	50	52505	0.308	10.86
9H21053-CALA	100	110799	0.309	10.86
9H21053-CALB	200	229226	0.302	10.86

AVE RF **0.295** RF RSD **11.53** AVE RT **10.86**

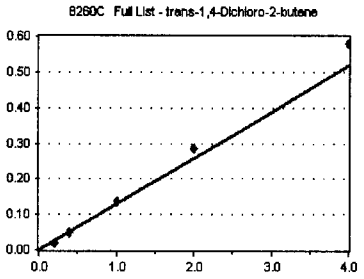
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

trans-1,4-Dichloro-2-butene

Curve Fit: **AVERAGE RF**

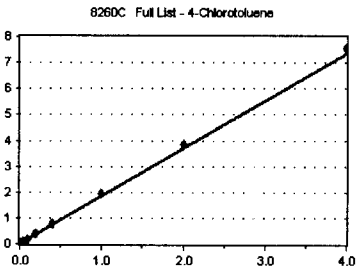


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL4~~	~~1~~	~~176~~	~~6.102~~	~~10.90~~
~~9H21053-CAL5~~	~~2~~	~~359~~	~~6.180~~	~~10.90~~
~~9H21053-CAL6~~	~~5~~	~~1430~~	~~9.771~~	~~10.90~~
9H21053-CAL7	10	3069	0.102	10.90
9H21053-CAL8	20	7579	0.121	10.90
9H21053-CAL9	50	23401	0.137	10.91
9H21053-CALA	100	51043	0.142	10.91
9H21053-CALB	200	110095	0.145	10.91

AVE RF **0.130** RF RSD **13.97** AVE RT **10.90**

4-Chlorotoluene

Curve Fit: **AVERAGE RF**

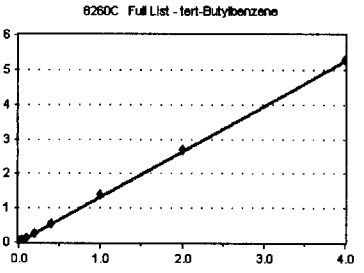


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	417	1.432	10.95
9H21053-CAL2	0.2	1034	1.867	10.96
9H21053-CAL3	0.4	2098	1.828	10.96
9H21053-CAL4	1	5125	1.777	10.96
9H21053-CAL5	2	10526	1.812	10.95
9H21053-CAL6	5	27680	1.891	10.95
9H21053-CAL7	10	58634	1.948	10.96
9H21053-CAL8	20	121894	1.941	10.95
9H21053-CAL9	50	328761	1.931	10.96
9H21053-CALA	100	691477	1.928	10.96
9H21053-CALB	200	1436374	1.894	10.96

AVE RF **1.841** RF RSD **7.98** AVE RT **10.95**

tert-Butylbenzene

Curve Fit: **AVERAGE RF**

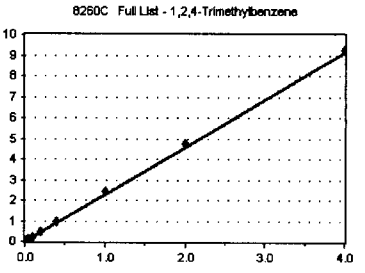


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	715	1.291	11.11
9H21053-CAL3	0.4	1320	1.150	11.11
9H21053-CAL4	1	3686	1.278	11.11
9H21053-CAL5	2	7359	1.267	11.11
9H21053-CAL6	5	19612	1.340	11.11
9H21053-CAL7	10	40883	1.358	11.11
9H21053-CAL8	20	86755	1.382	11.11
9H21053-CAL9	50	235061	1.381	11.11
9H21053-CALA	100	484674	1.351	11.11
9H21053-CALB	200	1001801	1.321	11.11

AVE RF **1.312** RF RSD **5.33** AVE RT **11.11**

1,2,4-Trimethylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	661	2.270	11.17
9H21053-CAL2	0.2	1279	2.309	11.17
9H21053-CAL3	0.4	2322	2.023	11.17
9H21053-CAL4	1	5825	2.020	11.17
9H21053-CAL5	2	12961	2.231	11.17
9H21053-CAL6	5	33091	2.261	11.17
9H21053-CAL7	10	72677	2.414	11.17
9H21053-CAL8	20	153634	2.447	11.17
9H21053-CAL9	50	413830	2.431	11.17
9H21053-CALA	100	852855	2.378	11.17
9H21053-CALB	200	1757253	2.317	11.17

AVE RF **2.282** RF RSD **6.46** AVE RT **11.17**

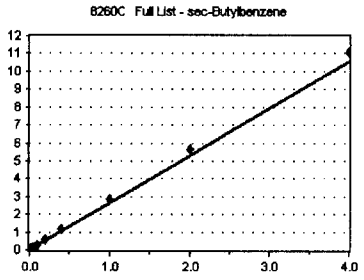
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

sec-Butylbenzene

Curve Fit: **AVERAGE RF**

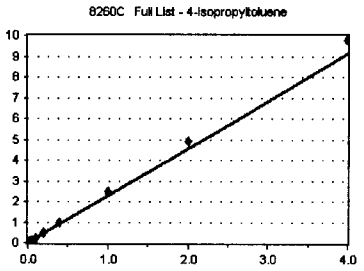


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	705	2.421	11.26
9H21053-CAL2	0.2	1405	2.536	11.25
9H21053-CAL3	0.4	2652	2.311	11.26
9H21053-CAL4	1	7139	2.475	11.25
9H21053-CAL5	2	15013	2.584	11.25
9H21053-CAL6	5	39081	2.670	11.25
9H21053-CAL7	10	83383	2.770	11.25
9H21053-CAL8	20	178456	2.842	11.26
9H21053-CAL9	50	486676	2.859	11.25
9H21053-CALA	100	1012699	2.823	11.25
9H21053-CALB	200	2104544	2.775	11.25

AVE RF **2.643** RF RSD **7.14** AVE RT **11.25**

4-Isopropyltoluene

Curve Fit: **AVERAGE RF**

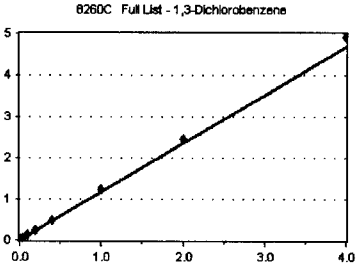


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	619	2.126	11.37
9H21053-CAL2	0.2	1233	2.226	11.37
9H21053-CAL3	0.4	2294	1.999	11.37
9H21053-CAL4	1	5742	1.991	11.37
9H21053-CAL5	2	12684	2.183	11.37
9H21053-CAL6	5	33716	2.304	11.37
9H21053-CAL7	10	71574	2.378	11.37
9H21053-CAL8	20	154497	2.461	11.37
9H21053-CAL9	50	423094	2.486	11.37
9H21053-CALA	100	882164	2.459	11.37
9H21053-CALB	200	1853839	2.445	11.37

AVE RF **2.278** RF RSD **8.13** AVE RT **11.37**

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

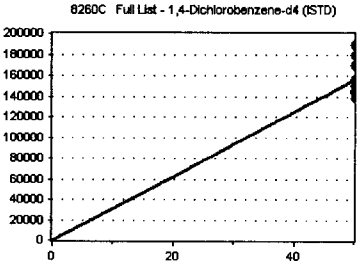


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	273	0.937	11.43
9H21053-CAL2	0.2	616	1.112	11.42
9H21053-CAL3	0.4	1252	1.091	11.42
9H21053-CAL4	1	3400	1.179	11.42
9H21053-CAL5	2	7153	1.231	11.42
9H21053-CAL6	5	17830	1.218	11.42
9H21053-CAL7	10	36282	1.205	11.42
9H21053-CAL8	20	76901	1.225	11.42
9H21053-CAL9	50	210008	1.234	11.42
9H21053-CALA	100	440338	1.228	11.42
9H21053-CALB	200	933997	1.232	11.42

AVE RF **1.172** RF RSD **7.88** AVE RT **11.42**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	50	145601	2912.020	11.48
9H21053-CAL2	50	138481	2769.620	11.48
9H21053-CAL3	50	143442	2868.840	11.48
9H21053-CAL4	50	144214	2884.280	11.48
9H21053-CAL5	50	145233	2904.660	11.48
9H21053-CAL6	50	146347	2926.940	11.48
9H21053-CAL7	50	150520	3010.400	11.49
9H21053-CAL8	50	156959	3139.180	11.48
9H21053-CAL9	50	170221	3404.420	11.48
9H21053-CALA	50	179342	3586.840	11.48
9H21053-CALB	50	189574	3791.480	11.48

AVE RF **3108.971** RF RSD **10.81** AVE RT **11.48**

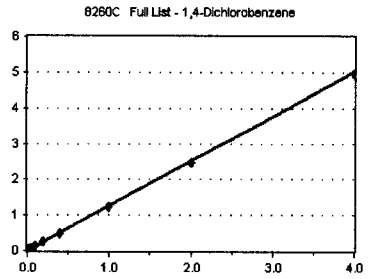
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

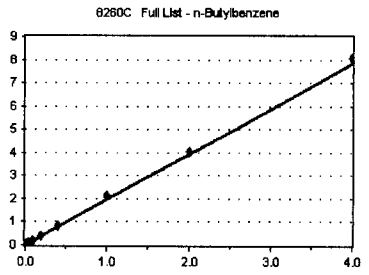


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	317	1.089	11.49
9H21053-CAL2	0.2	794	1.433	11.49
9H21053-CAL3	0.4	1568	1.366	11.49
9H21053-CAL4	1	3595	1.246	11.50
9H21053-CAL5	2	7246	1.247	11.49
9H21053-CAL6	5	18064	1.234	11.49
9H21053-CAL7	10	37129	1.233	11.49
9H21053-CAL8	20	77616	1.236	11.49
9H21053-CAL9	50	210293	1.235	11.49
9H21053-CALA	100	443252	1.236	11.49
9H21053-CALB	200	937754	1.237	11.49

AVE RF **1.254** RF RSD **6.88** AVE RT **11.49**

n-Butylbenzene

Curve Fit: **AVERAGE RF**

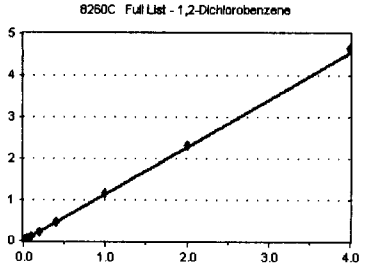


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	0.1	521	1.789	11.69
9H21053-CAL2	0.2	1103	1.991	11.69
9H21053-CAL3	0.4	1988	1.732	11.69
9H21053-CAL4	1	5382	1.866	11.69
9H21053-CAL5	2	10966	1.888	11.69
9H21053-CAL6	5	28735	1.963	11.69
9H21053-CAL7	10	60970	2.025	11.69
9H21053-CAL8	20	133464	2.126	11.69
9H21053-CAL9	50	360536	2.118	11.69
9H21053-CALA	100	727575	2.028	11.69
9H21053-CALB	200	1529734	2.017	11.69

AVE RF **1.959** RF RSD **6.47** AVE RT **11.69**

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

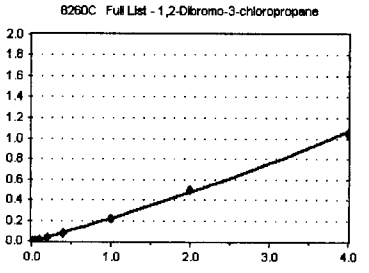


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	635	1.146	11.81
9H21053-CAL3	0.4	1203	1.048	11.81
9H21053-CAL4	1	3327	1.153	11.81
9H21053-CAL5	2	6480	1.115	11.81
9H21053-CAL6	5	16197	1.107	11.81
9H21053-CAL7	10	34193	1.136	11.81
9H21053-CAL8	20	71987	1.147	11.82
9H21053-CAL9	50	198340	1.165	11.81
9H21053-CALA	100	417856	1.165	11.81
9H21053-CALB	200	880661	1.161	11.81

AVE RF **1.134** RF RSD **3.19** AVE RT **11.81**

1,2-Dibromo-3-chloropropane

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



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL4	1	318	0.110	12.41
9H21053-CAL5	2	767	0.132	12.41
9H21053-CAL6	5	2130	0.146	12.41
9H21053-CAL7	10	4879	0.162	12.41
9H21053-CAL8	20	12047	0.192	12.41
9H21053-CAL9	50	37496	0.220	12.41
9H21053-CALA	100	89953	0.251	12.41
9H21053-CALB	200	199522	0.263	12.41

AVE RF **0.184** RF RSD **30.52** AVE RT **12.41**

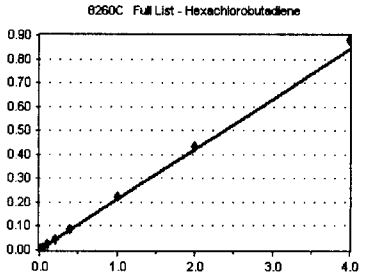
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VC190822S+.M VC190822C**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**

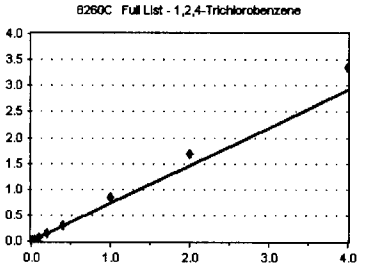


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.4	169	0.147	12.91
9H21053-CAL4	1	621	0.215	12.91
9H21053-CAL5	2	1244	0.214	12.91
9H21053-CAL6	5	3214	0.220	12.91
9H21053-CAL7	10	6492	0.216	12.91
9H21053-CAL8	20	13800	0.220	12.91
9H21053-CAL9	50	38298	0.225	12.91
9H21053-CALA	100	77627	0.216	12.91
9H21053-CALB	200	167002	0.220	12.91

AVE RF **0.210** RF RSD **11.36** AVE RT **12.91**

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**

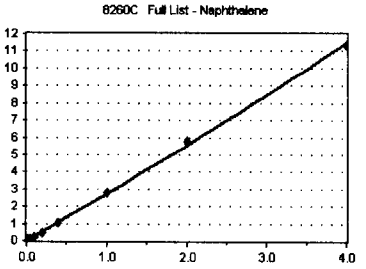


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	338	0.610	12.93
9H21053-CAL3	0.4	680	0.593	12.94
9H21053-CAL4	1	2003	0.694	12.94
9H21053-CAL5	2	3988	0.686	12.94
9H21053-CAL6	5	10198	0.697	12.94
9H21053-CAL7	10	22253	0.739	12.94
9H21053-CAL8	20	48800	0.777	12.94
9H21053-CAL9	50	142842	0.839	12.94
9H21053-CALA	100	302658	0.844	12.94
9H21053-CALB	200	634421	0.837	12.94

AVE RF **0.732** RF RSD **12.56** AVE RT **12.94**

Naphthalene

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

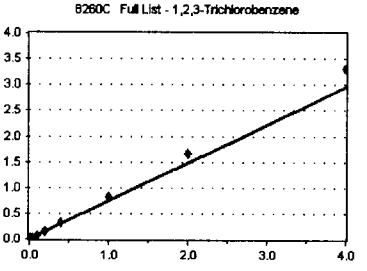


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	1041	1.879	13.20
9H21053-CAL3	0.4	2199	1.916	13.20
9H21053-CAL4	1	5466	1.895	13.20
9H21053-CAL5	2	11074	1.906	13.20
9H21053-CAL6	5	31510	2.153	13.20
9H21053-CAL7	10	70164	2.331	13.20
9H21053-CAL8	20	160585	2.558	13.20
9H21053-CAL9	50	476751	2.801	13.20
9H21053-CALA	100	1033693	2.882	13.20
9H21053-CALB	200	2149459	2.835	13.20

AVE RF **2.316** RF RSD **18.24** AVE RT **13.20**

1,2,3-Trichlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL2	0.2	384	0.693	13.36
9H21053-CAL3	0.4	725	0.632	13.36
9H21053-CAL4	1	1979	0.686	13.36
9H21053-CAL5	2	3846	0.662	13.36
9H21053-CAL6	5	10482	0.716	13.36
9H21053-CAL7	10	22152	0.736	13.36
9H21053-CAL8	20	50123	0.798	13.36
9H21053-CAL9	50	141232	0.830	13.36
9H21053-CALA	100	298643	0.833	13.36
9H21053-CALB	200	625414	0.825	13.36

AVE RF **0.741** RF RSD **10.12** AVE RT **13.36**

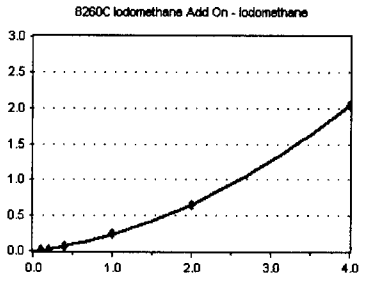
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Iodomethane Add On** Instrument Cal ID: **VC190822S+.M VC190822C**

Iodomethane

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

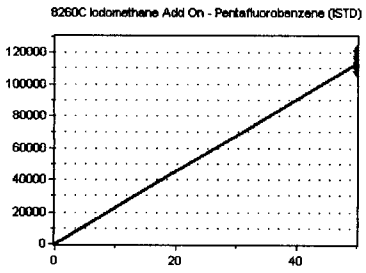


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL5~~	~~2~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL6	5	956	8.690	2.98
9H21053-CAL7	10	2524	0.113	2.99
9H21053-CAL8	20	7010	0.154	2.98
9H21053-CAL9	50	28643	0.246	2.98
9H21053-CALA	100	76509	0.323	2.99
9H21053-CALB	200	249388	0.512	2.99

AVE RF **0.239** RF RSD **66.89** AVE RT **2.98**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	50	110226	2204.520	5.72
9H21053-CAL2	50	110500	2210.000	5.72
9H21053-CAL3	50	107889	2157.780	5.71
9H21053-CAL4	50	110633	2212.660	5.72
9H21053-CAL5	50	112391	2247.820	5.71
9H21053-CAL6	50	110006	2200.120	5.72
9H21053-CAL7	50	111966	2239.320	5.72
9H21053-CAL8	50	113994	2279.880	5.71
9H21053-CAL9	50	116620	2332.400	5.71
9H21053-CALA	50	118257	2365.140	5.72
9H21053-CALB	50	121886	2437.720	5.72

AVE RF **2262.487** RF RSD **3.71** AVE RT **5.72**

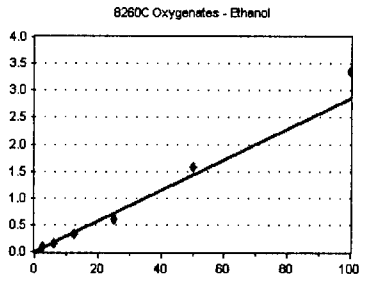
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VC190822S+.M VC190822C**

Ethanol

Curve Fit: **AVERAGE RF**

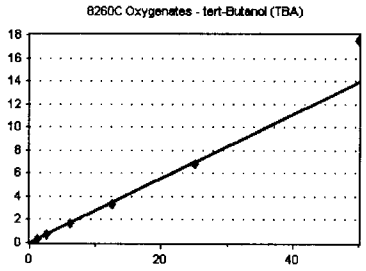


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~6.25~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~25~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL4~~	~~62.5~~	~~4949~~	~~3.579~~	~~3.16~~
9H21053-CAL5	125	8585	3.055	3.17
9H21053-CAL6	312	17372	2.531	3.17
9H21053-CAL7	625	35931	2.567	3.16
9H21053-CAL8	1250	70019	2.457	3.17
9H21053-CAL9	2500	184413	3.163	3.17
9H21053-CALA	5000	396302	3.351	3.16

AVE RF **2.854** RF RSD **13.36** AVE RT **3.17**

tert-Butanol (TBA)

Curve Fit: **AVERAGE RF**

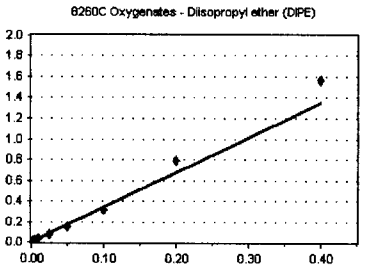


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~6.25~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~12.5~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~25~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL4	62.5	35590	0.257	4.07
9H21053-CAL5	125	72418	0.258	4.07
9H21053-CAL6	312	179914	0.262	4.06
9H21053-CAL7	625	374299	0.267	4.06
9H21053-CAL8	1250	774705	0.272	4.07
9H21053-CAL9	2500	2039865	0.350	4.06
~~9H21053-CALA~~	~~5000~~	~~4297736~~	~~0.363~~	~~4.06~~

AVE RF **0.278** RF RSD **12.88** AVE RT **4.07**

Diisopropyl ether (DIPE)

Curve Fit: **AVERAGE RF**

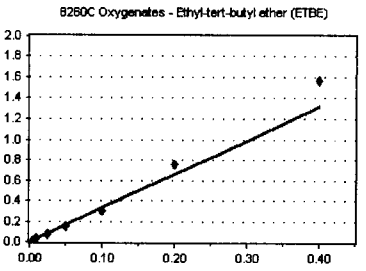


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL3	0.1	725	3.360	4.15
9H21053-CAL4	0.25	1823	3.296	4.15
9H21053-CAL5	0.5	3554	3.162	4.15
9H21053-CAL6	1.25	8470	3.080	4.15
9H21053-CAL7	2.5	17405	3.109	4.15
9H21053-CAL8	5	35623	3.125	4.15
9H21053-CAL9	10	92560	3.968	4.14
9H21053-CALA	20	185055	3.912	4.15

AVE RF **3.377** RF RSD **10.70** AVE RT **4.15**

Ethyl-tert-butyl ether (ETBE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL4	0.25	1788	3.232	4.51
9H21053-CAL5	0.5	3353	2.983	4.50
9H21053-CAL6	1.25	8556	3.111	4.50
9H21053-CAL7	2.5	16954	3.028	4.51
9H21053-CAL8	5	34030	2.985	4.50
9H21053-CAL9	10	88275	3.785	4.49
9H21053-CALA	20	184932	3.910	4.51

AVE RF **3.291** RF RSD **11.89** AVE RT **4.50**

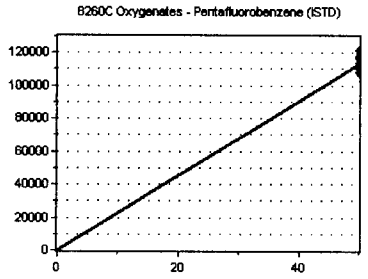
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VC190822S+.M VC190822C**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

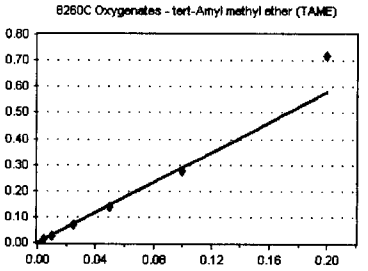


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	50	110226	2204.520	5.72
9H21053-CAL2	50	110500	2210.000	5.72
9H21053-CAL3	50	107889	2157.780	5.71
9H21053-CAL4	50	110633	2212.660	5.72
9H21053-CAL5	50	112391	2247.820	5.71
9H21053-CAL6	50	110006	2200.120	5.72
9H21053-CAL7	50	111966	2239.320	5.72
9H21053-CAL8	50	113994	2279.880	5.71
9H21053-CAL9	50	116620	2332.400	5.71
9H21053-CALA	50	118257	2365.140	5.72
9H21053-CALB	50	121886	2437.720	5.72

AVE RF **2262.487** RF RSD **3.71** AVE RT **5.72**

tert-Amyl methyl ether (TAME)

Curve Fit: **AVERAGE RF**

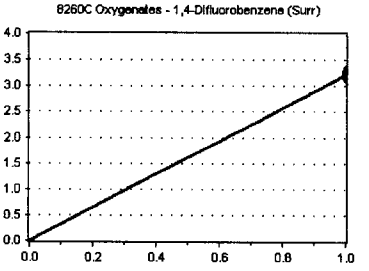


Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.025~~	~~47~~	~~0.853~~	~~0.00~~
~~9H21053-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL4	0.25	1606	2.903	5.76
9H21053-CAL5	0.5	2958	2.632	5.75
9H21053-CAL6	1.25	7461	2.713	5.75
9H21053-CAL7	2.5	15470	2.763	5.76
9H21053-CAL8	5	31615	2.773	5.76
9H21053-CAL9	10	83809	3.593	5.75
~~9H21053-CALA~~	~~20~~	~~176821~~	~~3.738~~	~~5.76~~

AVE RF **2.896** RF RSD **12.18** AVE RT **5.76**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

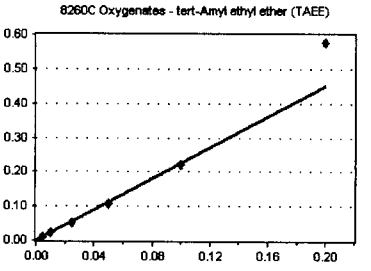


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	50	355818	3.228	6.26
9H21053-CAL2	50	355796	3.220	6.27
9H21053-CAL3	50	346939	3.216	6.26
9H21053-CAL4	50	353323	3.194	6.26
9H21053-CAL5	50	355959	3.167	6.26
9H21053-CAL6	50	353831	3.216	6.26
9H21053-CAL7	50	358307	3.200	6.26
9H21053-CAL8	50	364313	3.196	6.26
9H21053-CAL9	50	378628	3.247	6.26
9H21053-CALA	50	389020	3.290	6.26
9H21053-CALB	50	404135	3.316	6.26

AVE RF **3.226** RF RSD **1.35** AVE RT **6.26**

tert-Amyl ethyl ether (TAEE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9H21053-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9H21053-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9H21053-CAL4	0.25	1152	2.083	6.48
9H21053-CAL5	0.5	2378	2.116	6.49
9H21053-CAL6	1.25	5807	2.112	6.49
9H21053-CAL7	2.5	11948	2.134	6.50
9H21053-CAL8	5	24969	2.190	6.49
9H21053-CAL9	10	67288	2.885	6.50
~~9H21053-CALA~~	~~20~~	~~139433~~	~~2.948~~	~~6.50~~

AVE RF **2.253** RF RSD **13.83** AVE RT **6.49**

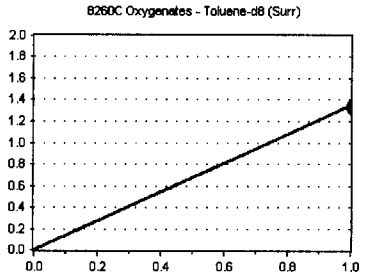
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VC190822S+.M VC190822C**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**

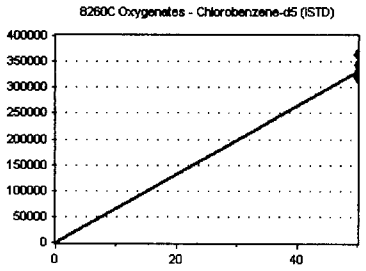


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	50	433607	1.348	7.75
9H21053-CAL2	50	433746	1.358	7.76
9H21053-CAL3	50	428260	1.350	7.75
9H21053-CAL4	50	433132	1.346	7.75
9H21053-CAL5	50	440301	1.362	7.75
9H21053-CAL6	50	433969	1.358	7.75
9H21053-CAL7	50	441143	1.354	7.75
9H21053-CAL8	50	447822	1.361	7.75
9H21053-CAL9	50	460800	1.338	7.75
9H21053-CALA	50	475291	1.312	7.75
9H21053-CALB	50	484243	1.328	7.75

AVE RF **1.347** RF RSD **1.15** AVE RT **7.75**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

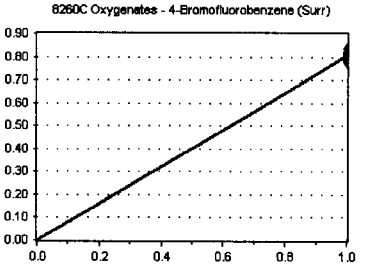


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	50	321736	6434.720	9.46
9H21053-CAL2	50	319418	6388.360	9.47
9H21053-CAL3	50	317338	6346.760	9.46
9H21053-CAL4	50	321898	6437.960	9.46
9H21053-CAL5	50	323276	6465.520	9.46
9H21053-CAL6	50	319666	6393.320	9.46
9H21053-CAL7	50	325719	6514.380	9.47
9H21053-CAL8	50	329068	6581.360	9.46
9H21053-CAL9	50	344390	6887.800	9.46
9H21053-CALA	50	362304	7246.080	9.46
9H21053-CALB	50	364680	7293.600	9.46

AVE RF **6635.442** RF RSD **5.22** AVE RT **9.46**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

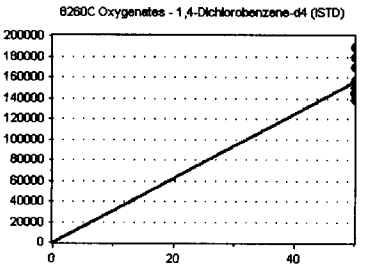


Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	50	119329	0.820	10.58
9H21053-CAL2	50	115551	0.834	10.58
9H21053-CAL3	50	117437	0.819	10.58
9H21053-CAL4	50	117926	0.818	10.58
9H21053-CAL5	50	119171	0.821	10.58
9H21053-CAL6	50	118107	0.807	10.58
9H21053-CAL7	50	120692	0.802	10.58
9H21053-CAL8	50	124497	0.793	10.58
9H21053-CAL9	50	134096	0.788	10.58
9H21053-CALA	50	139774	0.779	10.58
9H21053-CALB	50	148001	0.781	10.58

AVE RF **0.806** RF RSD **2.28** AVE RT **10.58**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H21053-CAL1	50	145601	2912.020	11.48
9H21053-CAL2	50	138481	2769.620	11.48
9H21053-CAL3	50	143442	2868.840	11.48
9H21053-CAL4	50	144214	2884.280	11.48
9H21053-CAL5	50	145233	2904.660	11.48
9H21053-CAL6	50	146347	2926.940	11.48
9H21053-CAL7	50	150520	3010.400	11.49
9H21053-CAL8	50	156959	3139.180	11.48
9H21053-CAL9	50	170221	3404.420	11.48
9H21053-CALA	50	179342	3586.840	11.48
9H21053-CALB	50	189574	3791.480	11.48

AVE RF **3108.971** RF RSD **10.81** AVE RT **11.48**

Calibration Status Report VOA-GCMS3

Method Path : C:\msdchem\1\METHODS\
Method File : VC190822G.M
Title : NWTPH-Gx by GC/MS
Last Update : Thu Aug 22 10:13:47 2019
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	1	50	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092147.D
2	2	100	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092148.D
3	3	250	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092149.D
4	4	500	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092150.D
5	5	1000	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092151.D
6	6	2500	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092152.D
7	7	5000	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092153.D
8	8	10000	50	C:\msdchem\1\DATA\2019-08\9H21053\VC19092154.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Aug 22 10:08 2019	Aug 22 09:56 2019	22 Aug 2019 6:10 am
2	2	Aug 22 10:08 2019	Aug 22 09:56 2019	22 Aug 2019 6:37 am
3	3	Aug 22 10:08 2019	Aug 22 09:56 2019	22 Aug 2019 7:04 am
4	4	Aug 22 10:08 2019	Aug 22 09:56 2019	22 Aug 2019 7:31 am
5	5	Aug 22 10:08 2019	Aug 22 09:56 2019	22 Aug 2019 7:59 am
6	6	Aug 22 10:08 2019	Aug 22 10:06 2019	22 Aug 2019 8:26 am
7	7	Aug 22 10:08 2019	Aug 22 09:56 2019	22 Aug 2019 8:53 am
8	8	Aug 22 10:08 2019	Aug 22 09:56 2019	22 Aug 2019 9:20 am

VC190822G.M Thu Aug 22 10:17:55 2019

Method Path : C:\msdchem\1\METHODS\
Method File : VC190822G.M
Title : NWTPH-Gx by GC/MS
Last Update : Thu Aug 22 10:13:47 2019
Response Via : Initial Calibration

Calibration Files
1 =VC19092147.D 2 =VC19092148.D 3 =VC19092149.D 4 =VC19092150.D 5 =VC19092151.D 6 =VC19092152.D
7 =VC19092153.D 8 =VC19092154.D

		Compound	1	2	3	4	5	6	7	8	Avg	%RSD
1)	I	Pentafluorobenzene...	----------ISTD----------									
2)	S	1,4-Difluorobe...	4.527	4.448	4.461	4.536	4.619	4.713	4.904		4.601	3.52
3)	S	4-Bromofluorob...	3.616	3.593	3.597	3.605	3.695	3.671	3.651	3.626	3.632	1.02
4)	S	Chlorobenzene-...									0.000	-1.00
5)	H	CA-LUFT (C5-C12)	5.499	3.298	2.755	2.863	2.812	2.706	2.651	2.590	3.147	30.97
6)	H	TPHg (C5-C9)	4.800	3.038	2.429	2.496	2.429	2.273	2.225	2.149	2.730	32.23
7)	H	TPHg (C6-C10)	3.248	2.107	1.780	1.776	1.802	1.737	1.744	1.721	1.989	26.32
8)	H	NWTPH-Gx	1.889	1.192	1.368	1.527	1.617	1.692	1.705	1.726	1.590	13.96
9)		Benzene (NR)									0.000	-1.00
10)	S	Toluene-d8 (NR)									0.000	-1.00
11)	C	Toluene (NR)									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-GCMS3

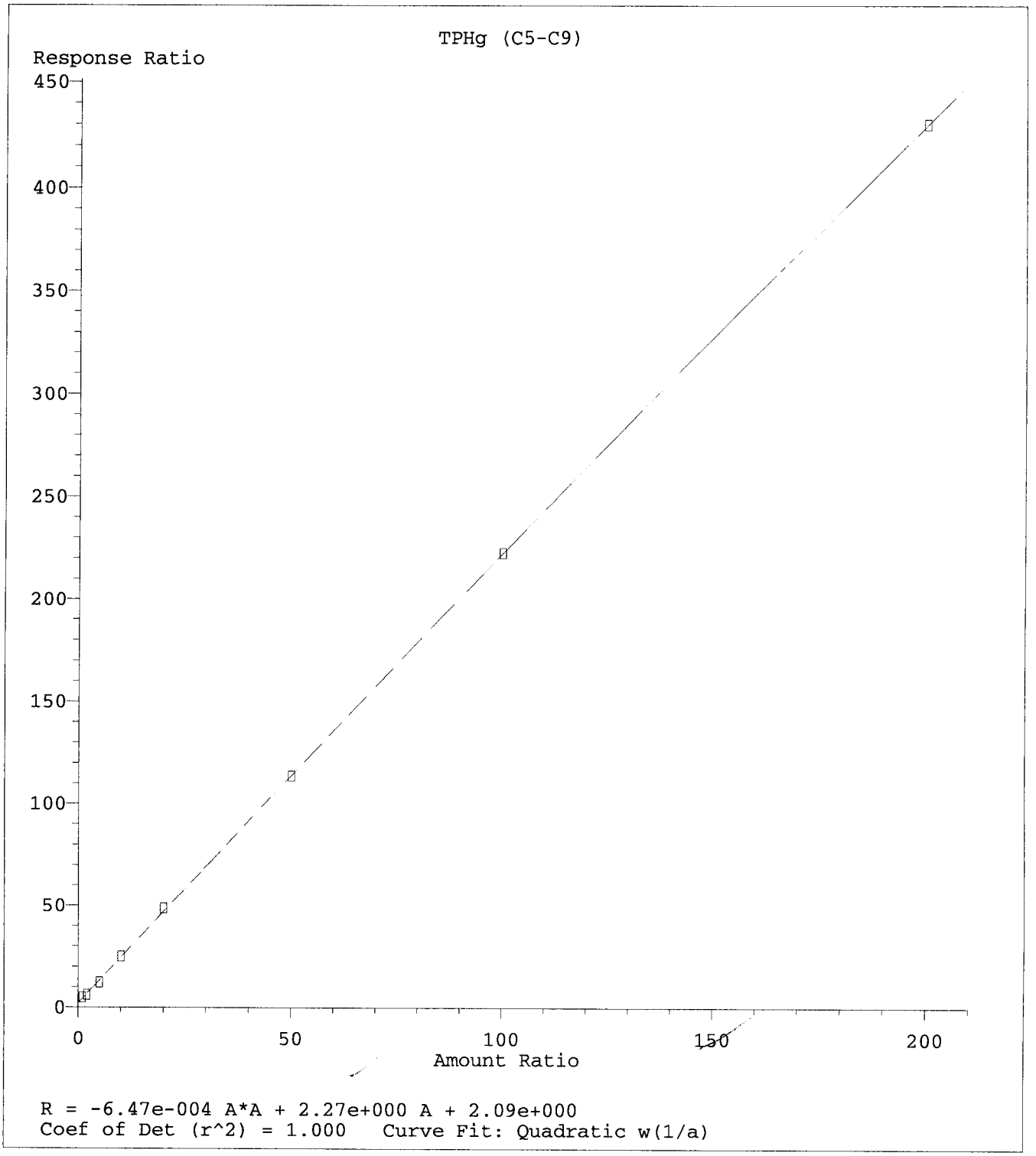
Method Path : C:\msdchem\1\METHODS\
Method File : VC190822G.M
Title : NWTPH-Gx by GC/MS
Last Update : Thu Aug 22 10:13:47 2019
Response Via : Initial Calibration

Total Cpnds : 13

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene (IS)	168	5.717	1.000	A	2	A	A
2	S	1,4-Difluorobenzene (Sur)	TIC	6.264	1.096	A	2	A	A
3	S	4-Bromofluorobenzene (Sur)	TIC	10.578	1.850	A	2	A	A
4	S	Chlorobenzene-d5 (NR)	TIC	9.464	1.655	A	2	A	A
5	H	CA-LUFT (C5-C12)	TIC	9.586	1.677	Q	0	A	A
6	H	TPHg (C5-C9)	TIC	9.586	1.677	Q	0	A	A
7	H	TPHg (C6-C10)	TIC	9.586	1.677	Q	0	A	A
8	H	NWTPH-Gx	TIC	9.586	1.677	Q	0	A	A
9		Benzene (NR)	78	5.607	0.981	A	2	A	A
10	S	Toluene-d8 (NR)	TIC	7.749	1.355	A	2	A	A
11	C	Toluene (NR)	91	7.810	1.366	A	2	A	A
12	S	1,4-Dichlorobenzene-d4 (NR)	TIC	11.478	2.008	A	2	A	A
13		Naphthalene (NR)	128	13.200	2.309	A	2	A	A

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

VC190822G.M Thu Aug 22 10:18:00 2019

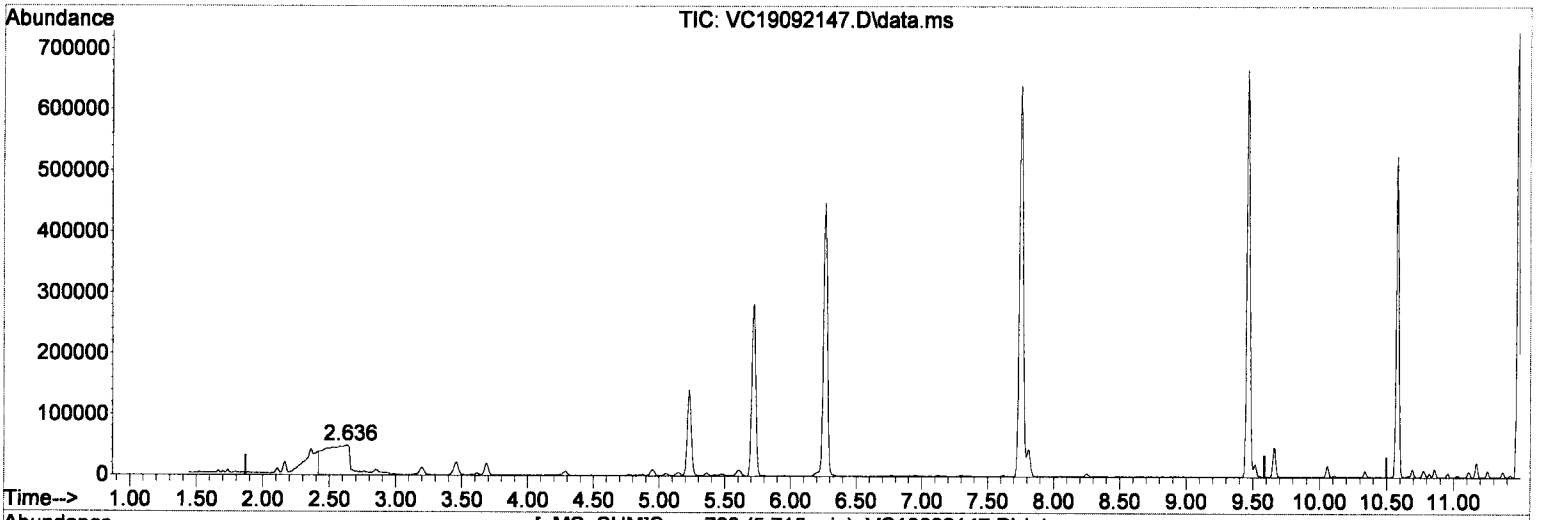


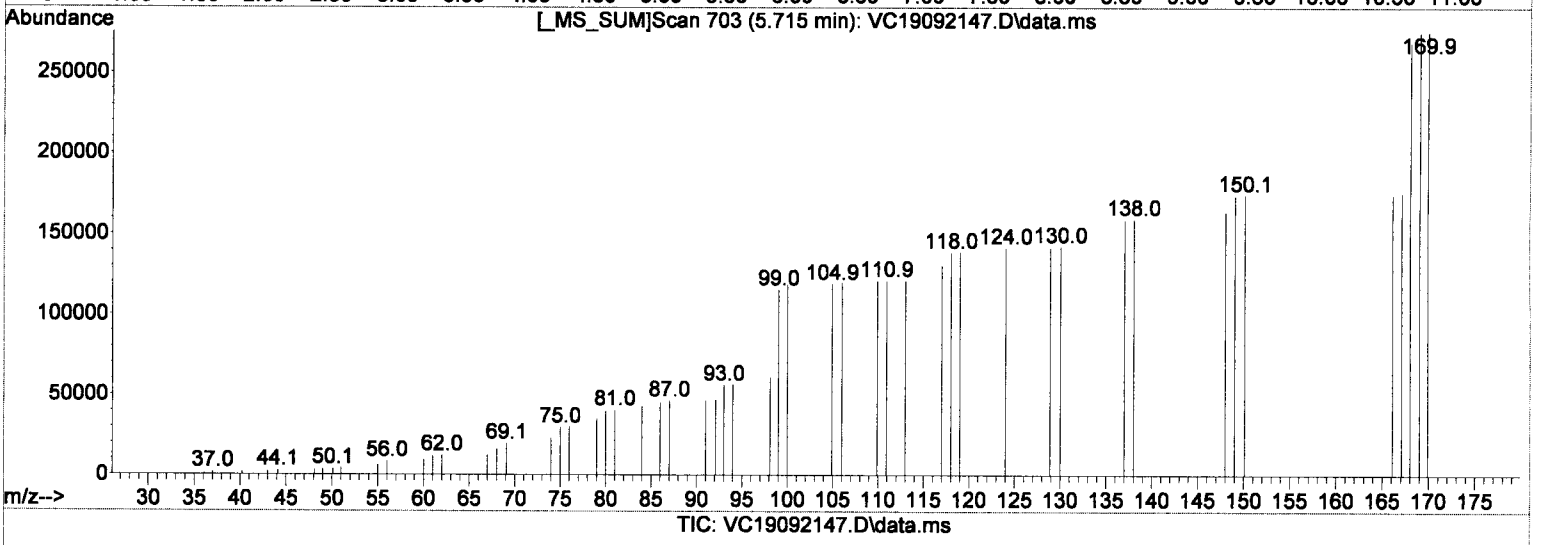
Method Name: C:\msdchem\1\METHODS\VC190822G.M
Calibration Table Last Updated: Thu Aug 22 10:08:49 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\REQUANT\
Data File : VC19092147.D
Acq On : 22 Aug 2019 6:10 am
Operator : MM
Sample : 9H21053-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 30 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:10:18 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:09:12 2019
Response via : Initial Calibration





TIC: VC19092147.D\data.ms

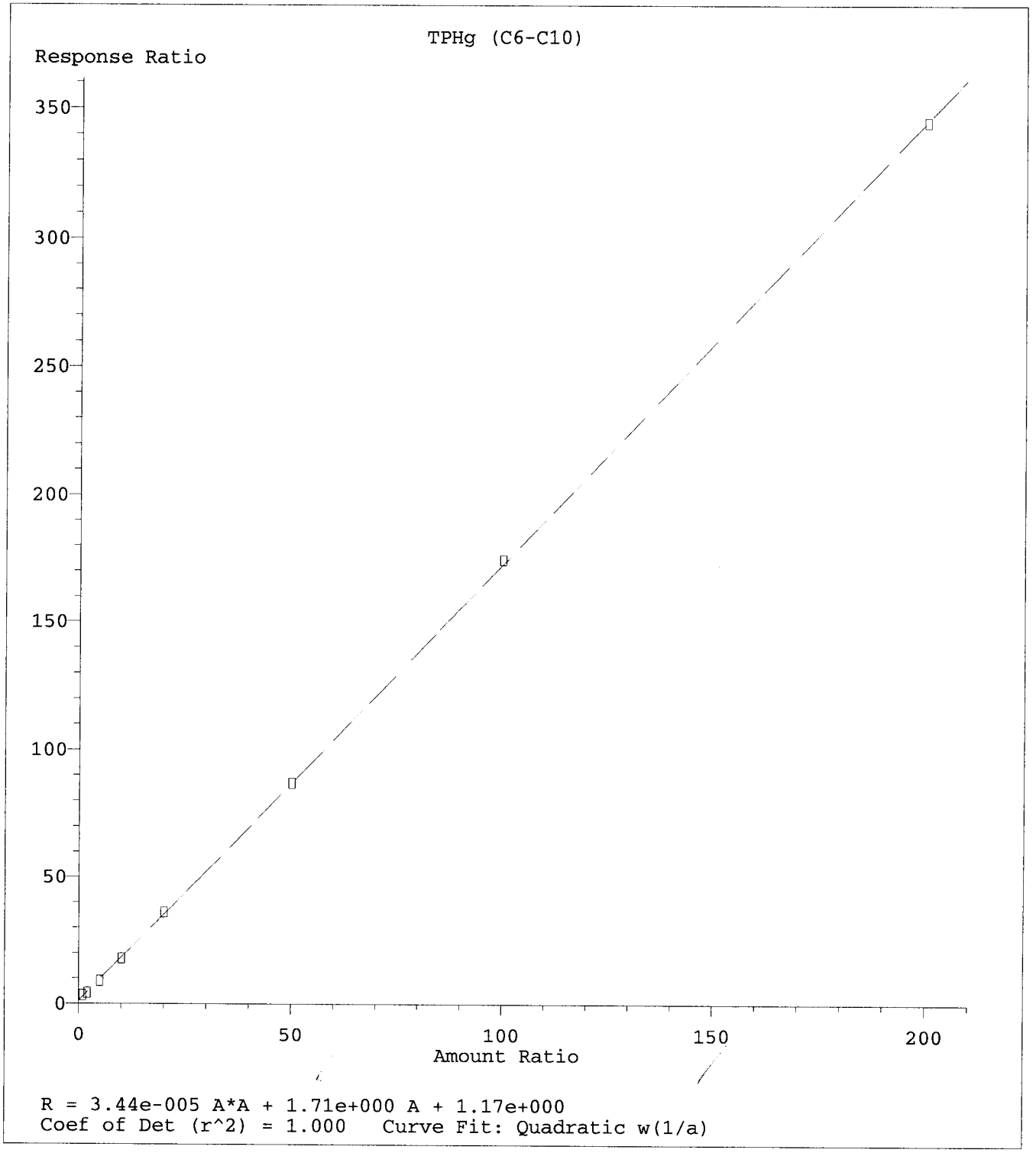
(6) TPHg (C5-C9) (H)

9.586min (0.000) 30.55 ug/L m

response 720021

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	2.77#
0.00	0.00	1.78#
0.00	0.00	0.00

8/22/19

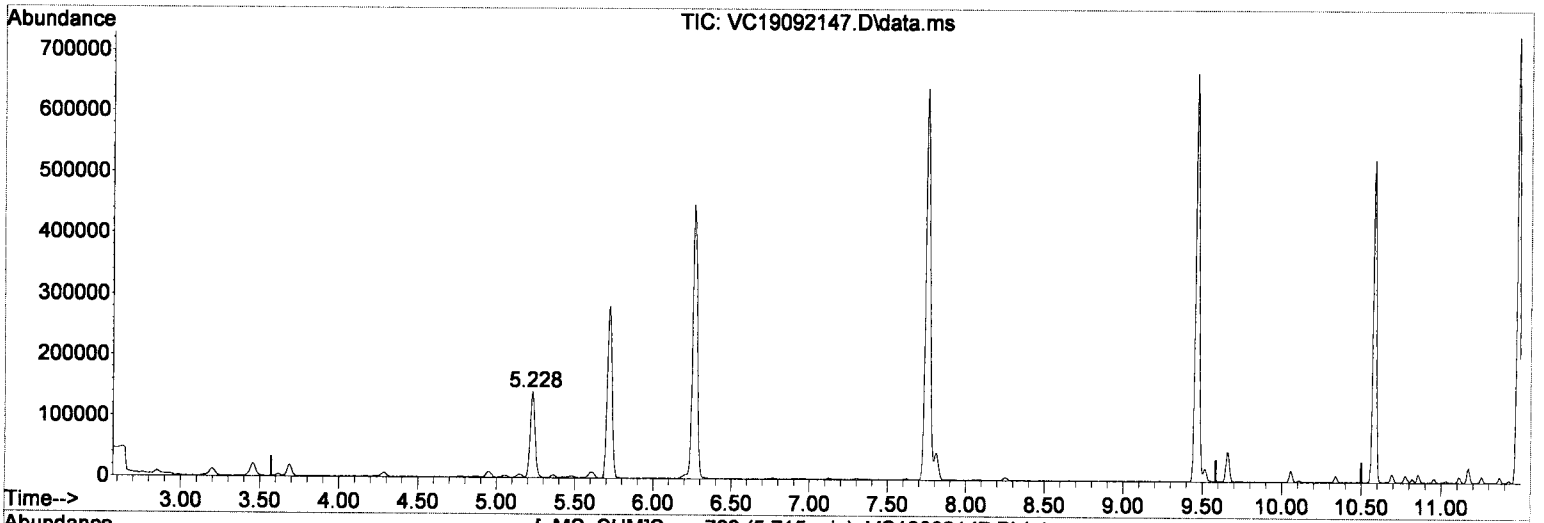


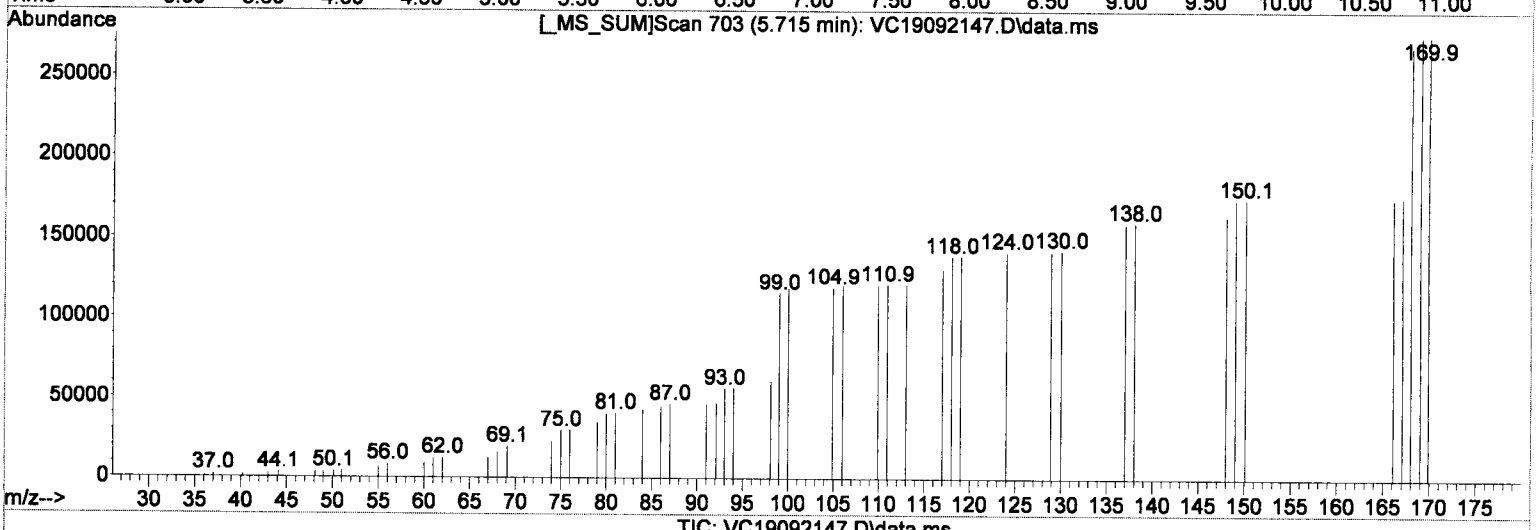
Method Name: C:\msdchem\1\METHODS\VC190822G.M
Calibration Table Last Updated: Thu Aug 22 10:08:49 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\REQUANT\
Data File : VC19092147.D
Acq On : 22 Aug 2019 6:10 am
Operator : MM
Sample : 9H21053-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 30 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:10:18 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:09:12 2019
Response via : Initial Calibration





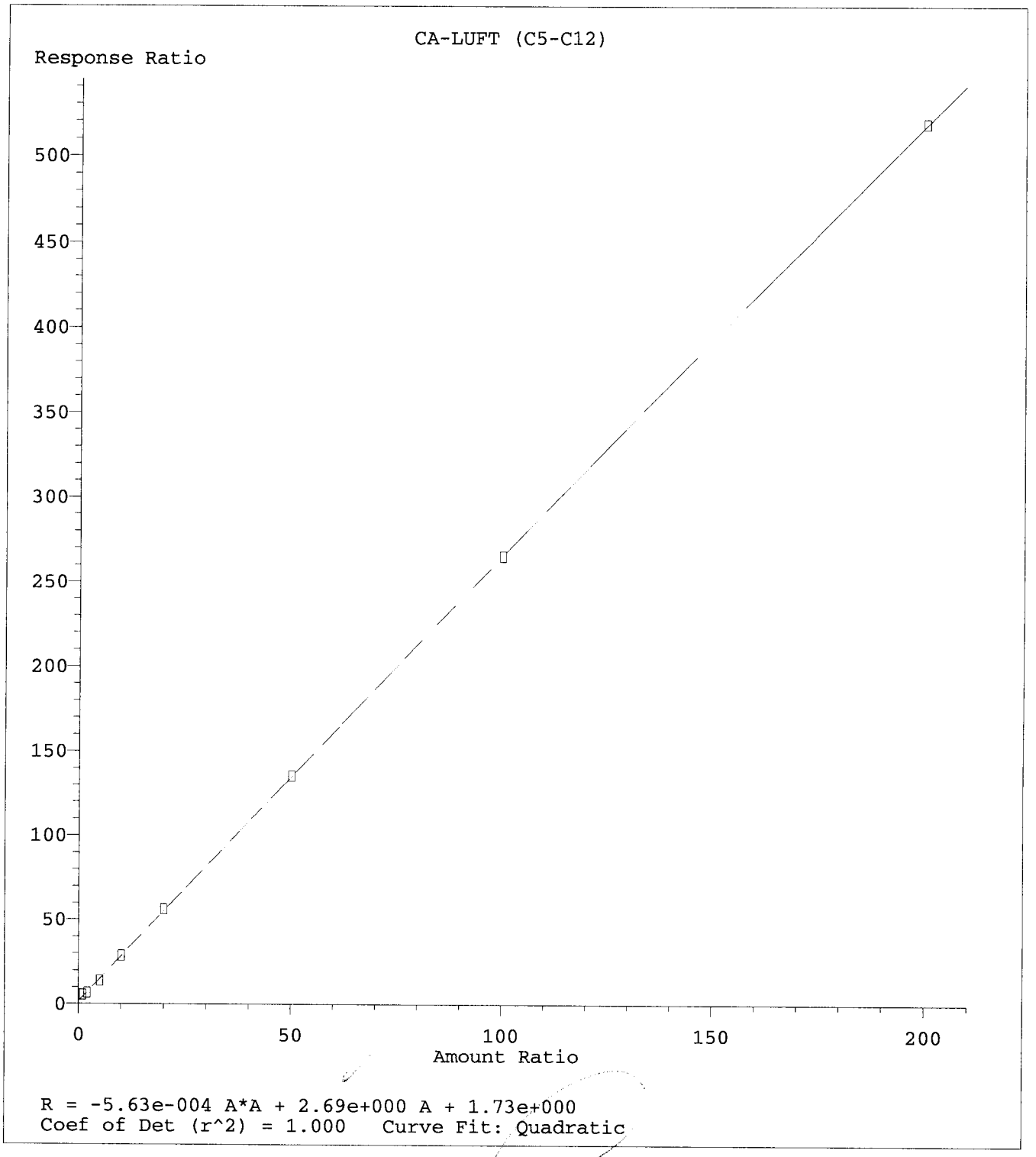
TIC: VC19092147.D\data.ms

(7) TPHg (C6-C10) (H)

9.586min (0.000) 30.45 ug/L m

response 457719

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	4.35#
0.00	0.00	2.81#
0.00	0.00	0.00

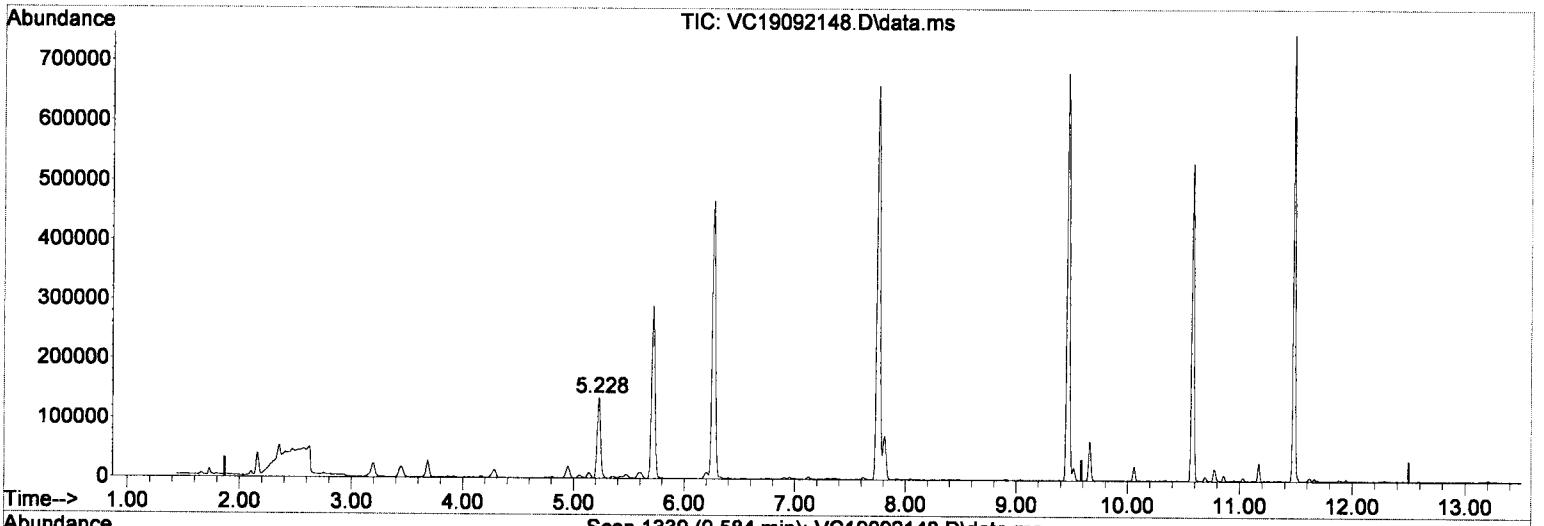


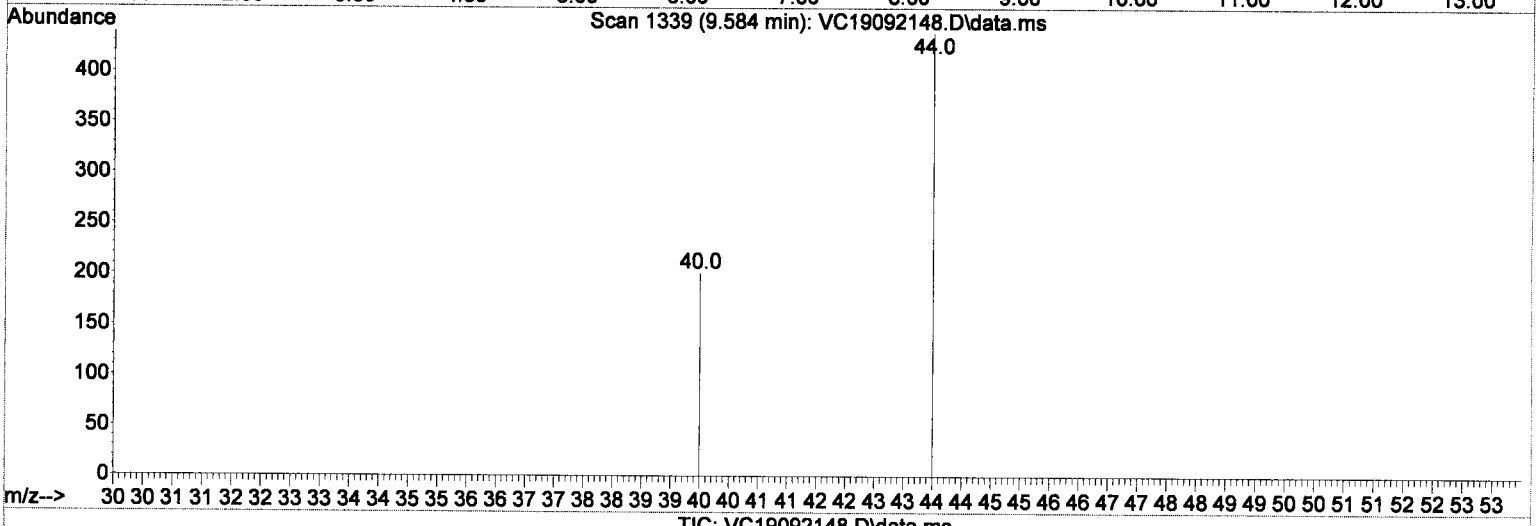
Method Name: C:\msdchem\1\METHODS\VC190822G.M
Calibration Table Last Updated: Thu Aug 22 10:13:47 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\REQUANT\
Data File : VC19092148.D
Acq On : 22 Aug 2019 6:37 am
Operator : MM
Sample : 9H21053-CALD
Misc : 1X 5mL 100PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:13:52 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration





TIC: VC19092148.D\data.ms

(5) CA-LUFT (C5-C12) (H)

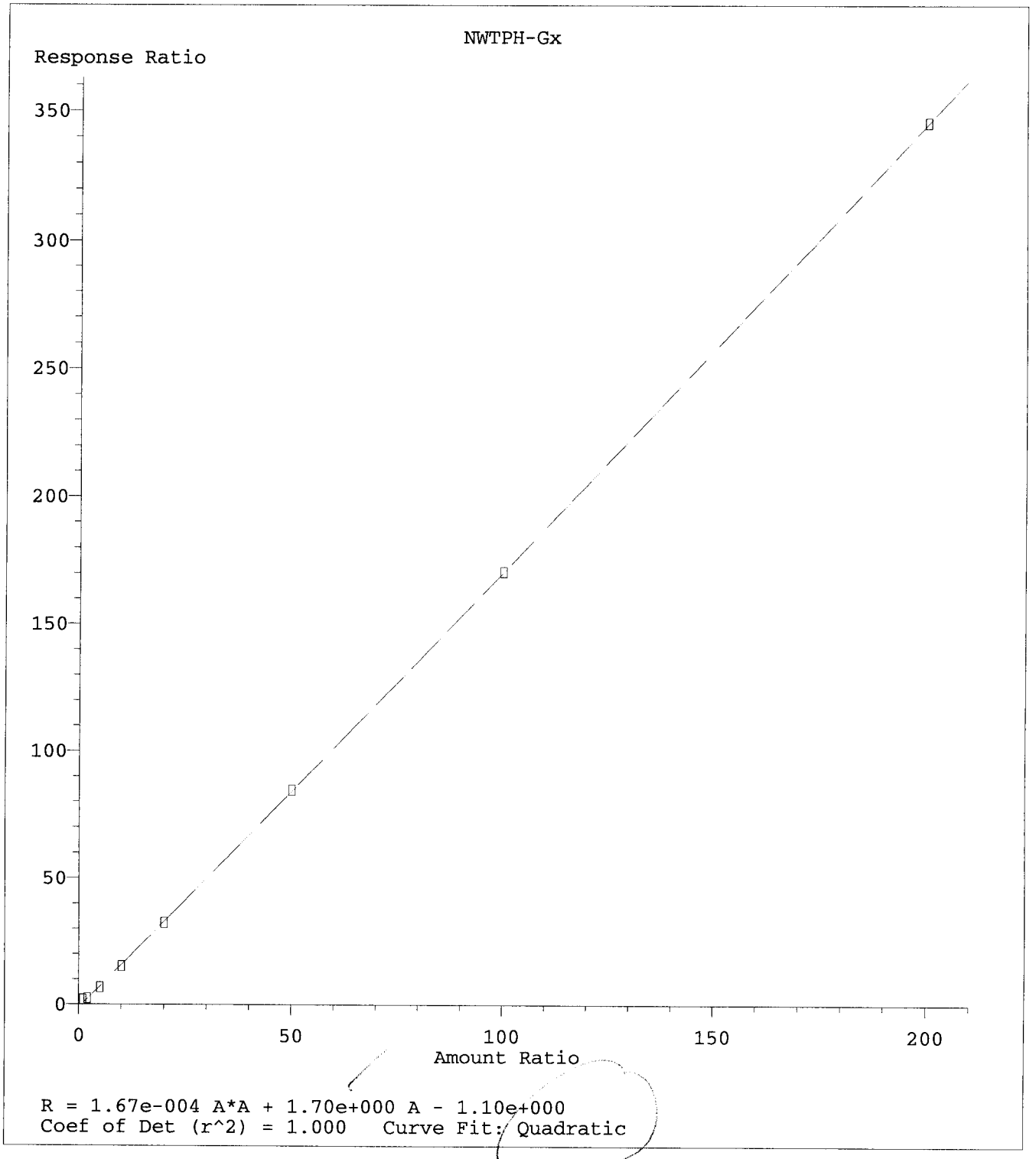
9.586min (0.000) 8.23 ug/L m

response 458845

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

2MP2

8/22/19

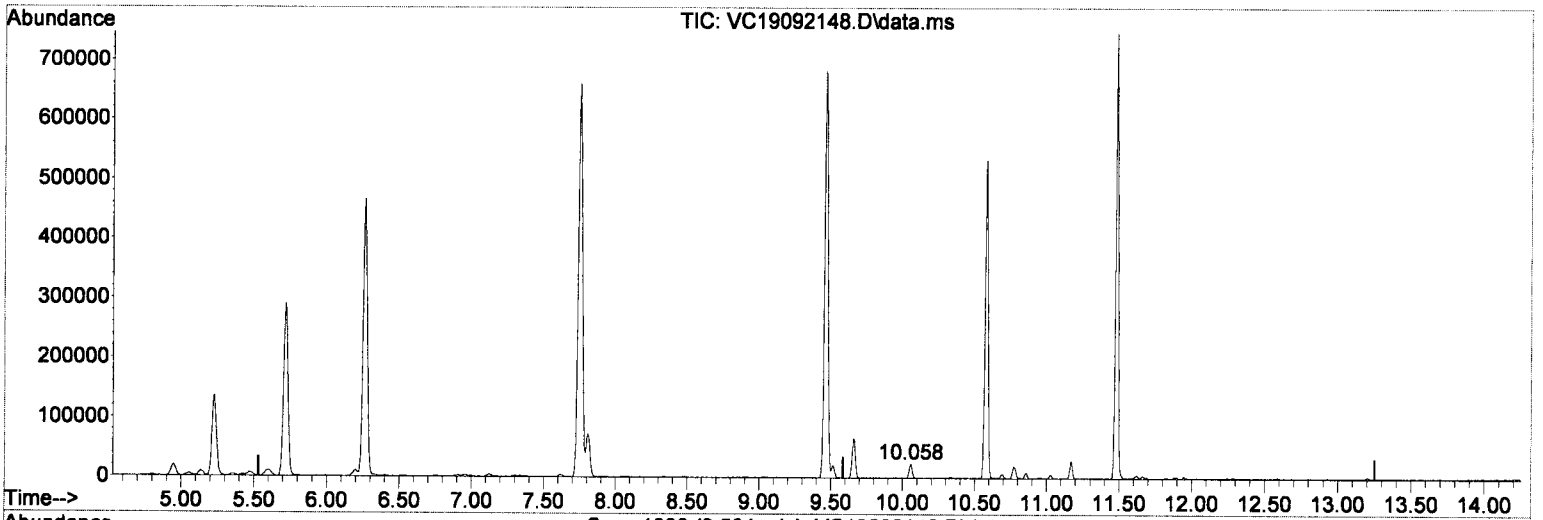


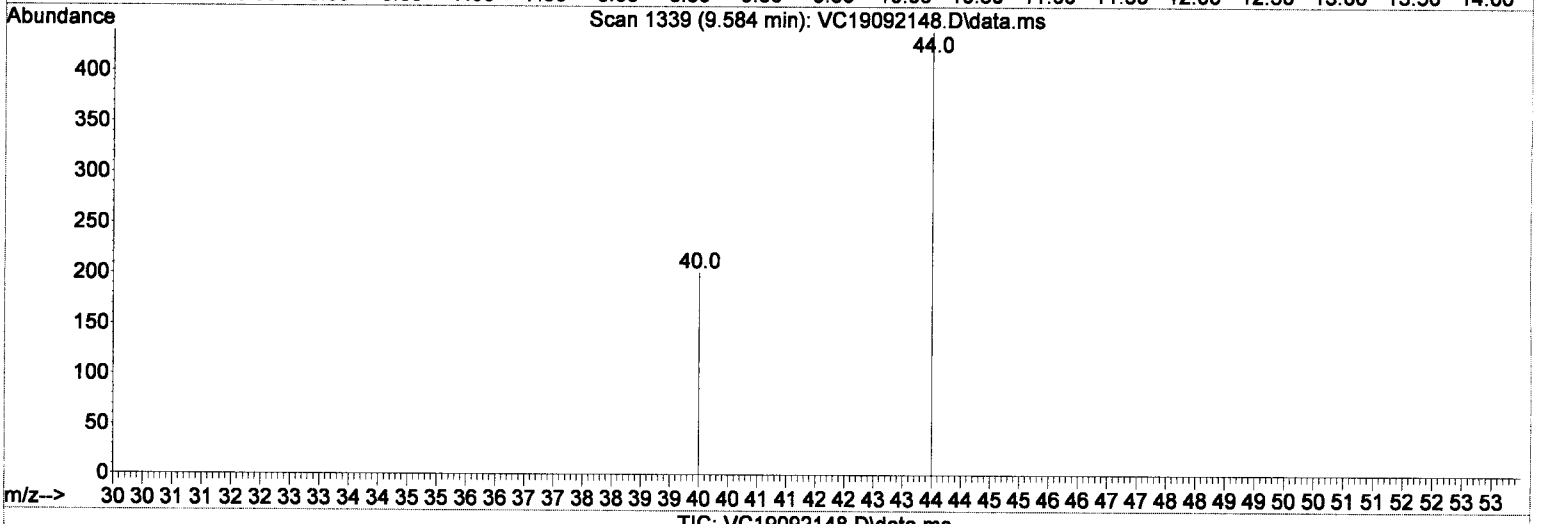
Method Name: C:\msdchem\1\METHODS\VC190822G.M
Calibration Table Last Updated: Thu Aug 22 10:13:47 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\REQUANT\
Data File : VC19092148.D
Acq On : 22 Aug 2019 6:37 am
Operator : MM
Sample : 9H21053-CALD
Misc : 1X 5mL 100PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:13:52 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration





TIC: VC19092148.D\data.ms

(8) NWTPH-Gx (H)

9.586min (0.000) 38.42 ug/L m

response 42852

Signal	Exp%	Act%
TIC	100	100
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\2019-08\9H21053\
Data File : VC19092157.D
Acq On : 22 Aug 2019 10:41 am
Operator : MM
Sample : 9H21053-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 40 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 11:17:32 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 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 (IS)	50.000	50.000	0.0	143	0.00
2	S	1,4-Difluorobenzene (Sur)	50.000	46.106	7.8	133	0.00
3	S	4-Bromofluorobenzene (Sur)	50.000	44.980	10.0	129	0.00
4	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	132	0.00
5	H	CA-LUFT (C5-C12)	500.000	460.096	8.0	132	0.00
6	H	TPHg (C5-C9)	500.000	455.017	9.0	130	0.00
7	H	TPHg (C6-C10)	500.000	469.850	6.0	139	0.00
8	H	NWTPH-Gx	500.000	483.283	3.3	143	0.00
9		Benzene (NR)	-1.000	0.000	0.0	142	0.00
10	S	Toluene-d8 (NR)	-1.000	0.000	0.0	134	0.00
11	C	Toluene (NR)	-1.000	0.000	0.0	147	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	129	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	145	0.00

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

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H21053

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	
9H21053-TUN2	MS Tune	Soil		A19G090	8/22/2019	4:22:00AM
9H21053-ICB2	Initial Cal Blank	Soil		A19G090	8/22/2019	5:43:00AM
9H21053-CALC	Cal Standard	Soil	A19H366	"	8/22/2019	6:10:00AM
9H21053-CALD	Cal Standard	Soil	A19H367	"	8/22/2019	6:37:00AM
9H21053-CALE	Cal Standard	Soil	A19H368	"	8/22/2019	7:04:00AM
9H21053-CALF	Cal Standard	Soil	A19H369	"	8/22/2019	7:31:00AM
9H21053-CALG	Cal Standard	Soil	A19H370	"	8/22/2019	7:59:00AM
9H21053-CALH	Cal Standard	Soil	A19H371	"	8/22/2019	8:26:00AM
9H21053-CALI	Cal Standard	Soil	A19H372	"	8/22/2019	8:53:00AM
9H21053-CALJ	Cal Standard	Soil	A19H373	"	8/22/2019	9:20:00AM
9H21053-ICV3	Initial Cal Check	Soil	A19G350	"	8/22/2019	10:41:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9H2203** Instrument: **VOA-GCMS3**

8015D-Mod Gasoline (C6-C10 Sequence: **9H21053** Matrix: **Soil**

9H21053-CALC	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H21053-CALD	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H21053-CALE	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H21053-CALF	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H21053-CALG	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H21053-CALH	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H21053-CALI	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H21053-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: 9H21053

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: **A9H2203** Instrument: **VOA-GCMS3**

NWTPH-Gx Sequence: **9H21053** Matrix: **Soil**

9H21053-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.

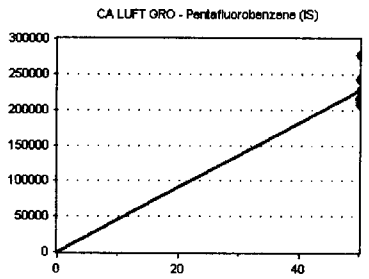
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **CA LUFT GRO** Instrument Cal ID: **VC190822S+.M VC190822C**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

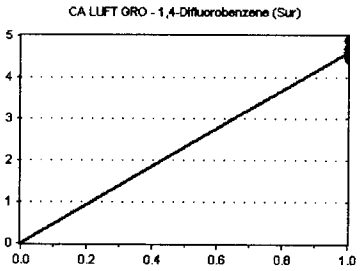


Standard	Concentration	Response	Response Factor	RT
9H21053-CALC	50	206993	4139.860	5.72
9H21053-CALD	50	211232	4224.640	5.72
9H21053-CALE	50	214281	4285.620	5.71
9H21053-CALF	50	215782	4315.640	5.72
9H21053-CALG	50	217632	4352.640	5.71
9H21053-CALH	50	227727	4554.540	5.72
9H21053-CALI	50	243552	4871.040	5.72
9H21053-CALJ	50	277161	5543.220	5.72

AVE RF **4535.900** RF RSD **10.29** AVE RT **5.72**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

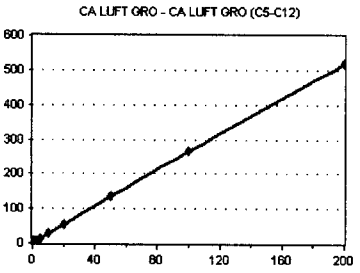


Standard	Concentration	Response	Response Factor	RT
9H21053-CALC	50	937136	4.527	6.26
9H21053-CALD	50	939517	4.448	6.26
9H21053-CALE	50	956007	4.461	6.26
9H21053-CALF	50	978848	4.536	6.26
9H21053-CALG	50	1005274	4.619	6.26
9H21053-CALH	50	1073349	4.713	6.26
9H21053-CALI	50	1194479	4.904	6.27
~~9H21053-CALJ~~	~~50~~	~~1533671~~	~~5.534~~	~~6.27~~

AVE RF **4.601** RF RSD **3.52** AVE RT **6.26**

CA LUFT GRO (C5-C12)

Curve Fit: **QUADRATIC: Weighting: None, Origin: Ignore**

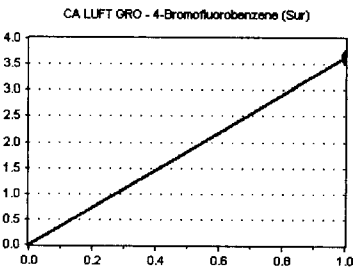


Standard	Concentration	Response	Response Factor	RT
9H21053-CALC	50	1138224	5.499	9.59
9H21053-CALD	100	1393141	3.298	9.59
9H21053-CALE	250	2952083	2.755	9.59
9H21053-CALF	500	6178674	2.863	9.59
9H21053-CALG	1000	1.223971E+07	2.812	9.59
9H21053-CALH	2500	3.081225E+07	2.706	9.59
9H21053-CALI	5000	6.456342E+07	2.651	9.59
9H21053-CALJ	10000	1.435864E+08	2.590	9.59

AVE RF **3.147** RF RSD **30.97** AVE RT **9.59**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H21053-CALC	50	748429	3.616	10.58
9H21053-CALD	50	759020	3.593	10.58
9H21053-CALE	50	770794	3.597	10.58
9H21053-CALF	50	777908	3.605	10.58
9H21053-CALG	50	804124	3.695	10.58
9H21053-CALH	50	836036	3.671	10.58
9H21053-CALI	50	889302	3.651	10.58
9H21053-CALJ	50	1005123	3.626	10.58

AVE RF **3.632** RF RSD **1.02** AVE RT **10.58**

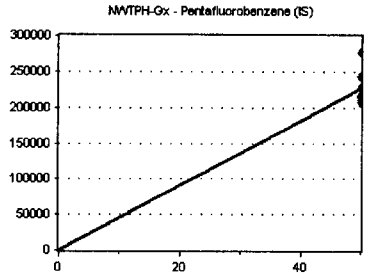
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **NWTPH-Gx** Instrument Cal ID: **VC190822S+.M VC190822C**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

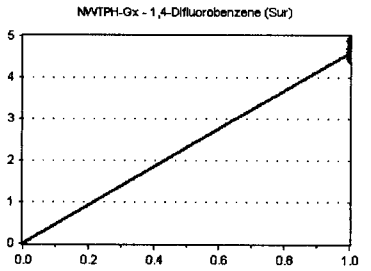


Standard	Concentration	Response	Response Factor	RT
9H21053-CALC	50	206993	4139.860	5.72
9H21053-CALD	50	211232	4224.640	5.72
9H21053-CALE	50	214281	4285.620	5.71
9H21053-CALF	50	215782	4315.640	5.72
9H21053-CALG	50	217632	4352.640	5.71
9H21053-CALH	50	227727	4554.540	5.72
9H21053-CALI	50	243552	4871.040	5.72
9H21053-CALJ	50	277161	5543.220	5.72

AVE RF **4535.900** RF RSD **10.29** AVE RT **5.72**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

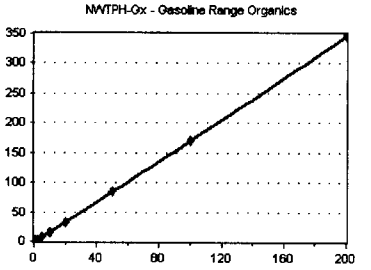


Standard	Concentration	Response	Response Factor	RT
9H21053-CALC	50	937136	4.527	6.26
9H21053-CALD	50	939517	4.448	6.26
9H21053-CALE	50	956007	4.461	6.26
9H21053-CALF	50	978848	4.536	6.26
9H21053-CALG	50	1005274	4.619	6.26
9H21053-CALH	50	1073349	4.713	6.26
9H21053-CALI	50	1194479	4.904	6.27
~~9H21053-CALJ~~	~~50~~	~~1533671~~	~~5.534~~	~~6.27~~

AVE RF **4.601** RF RSD **3.52** AVE RT **6.26**

Gasoline Range Organics

Curve Fit: **QUADRATIC: Weighting: None, Origin: Ignore**

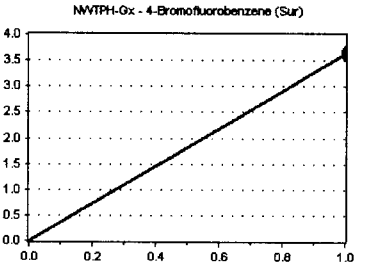


Standard	Concentration	Response	Response Factor	RT
9H21053-CALC	50	390972	1.889	9.59
9H21053-CALD	100	503369	1.192	9.59
9H21053-CALE	250	1465249	1.368	9.59
9H21053-CALF	500	3294200	1.527	9.59
9H21053-CALG	1000	7039838	1.617	9.59
9H21053-CALH	2500	1.92671E+07	1.692	9.59
9H21053-CALI	5000	4.15374E+07	1.705	9.59
9H21053-CALJ	10000	9.570331E+07	1.726	9.59

AVE RF **1.590** RF RSD **13.96** AVE RT **9.59**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H21053-CALC	50	748429	3.616	10.58
9H21053-CALD	50	759020	3.593	10.58
9H21053-CALE	50	770794	3.597	10.58
9H21053-CALF	50	777908	3.605	10.58
9H21053-CALG	50	804124	3.695	10.58
9H21053-CALH	50	836036	3.671	10.58
9H21053-CALI	50	889302	3.651	10.58
9H21053-CALJ	50	1005123	3.626	10.58

AVE RF **3.632** RF RSD **1.02** AVE RT **10.58**

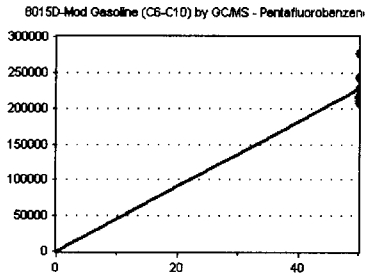
Element Calibration Review Sheet

Calibration ID: **A9H2203** Instrument: **VOA-GCMS3** Calibration Date: **08/22/2019**

Analysis: **8015D-Mod Gasoline (C6-C1** Instrument Cal ID: **VC190822S+.M VC190822C**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

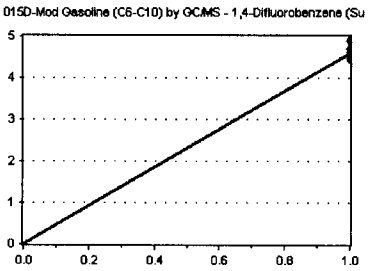


Standard	Concentration	Response	Response Factor	RT
9H21053-CALC	50	206993	4139.860	5.72
9H21053-CALD	50	211232	4224.640	5.72
9H21053-CALE	50	214281	4285.620	5.71
9H21053-CALF	50	215782	4315.640	5.72
9H21053-CALG	50	217632	4352.640	5.71
9H21053-CALH	50	227727	4554.540	5.72
9H21053-CALI	50	243552	4871.040	5.72
9H21053-CALJ	50	277161	5543.220	5.72

AVE RF **4535.900** RF RSD **10.29** AVE RT **5.72**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

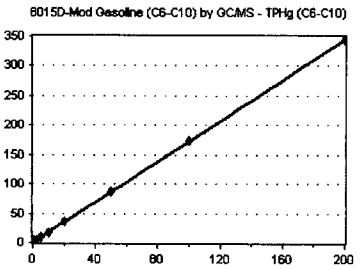


Standard	Concentration	Response	Response Factor	RT
9H21053-CALC	50	937136	4.527	6.26
9H21053-CALD	50	939517	4.448	6.26
9H21053-CALE	50	956007	4.461	6.26
9H21053-CALF	50	978848	4.536	6.26
9H21053-CALG	50	1005274	4.619	6.26
9H21053-CALH	50	1073349	4.713	6.26
9H21053-CALI	50	1194479	4.904	6.27
~~9H21053-CALJ~~	~~50~~	~~1533671~~	~~5.534~~	~~6.27~~

AVE RF **4.601** RF RSD **3.52** AVE RT **6.26**

TPHg (C6-C10)

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

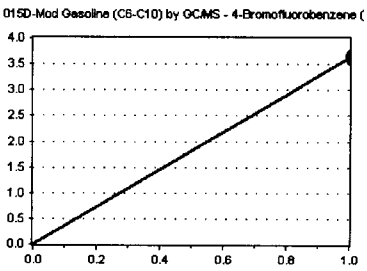


Standard	Concentration	Response	Response Factor	RT
9H21053-CALC	50	672325	3.248	9.59
9H21053-CALD	100	890161	2.107	9.59
9H21053-CALE	250	1906906	1.780	9.59
9H21053-CALF	500	3833047	1.776	9.59
9H21053-CALG	1000	7844164	1.802	9.59
9H21053-CALH	2500	1.97763E+07	1.737	9.59
9H21053-CALI	5000	4.246402E+07	1.744	9.59
9H21053-CALJ	10000	9.540538E+07	1.721	9.59

AVE RF **1.989** RF RSD **26.32** AVE RT **9.59**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H21053-CALC	50	748429	3.616	10.58
9H21053-CALD	50	759020	3.593	10.58
9H21053-CALE	50	770794	3.597	10.58
9H21053-CALF	50	777908	3.605	10.58
9H21053-CALG	50	804124	3.695	10.58
9H21053-CALH	50	836036	3.671	10.58
9H21053-CALI	50	889302	3.651	10.58
9H21053-CALJ	50	1005123	3.626	10.58

AVE RF **3.632** RF RSD **1.02** AVE RT **10.58**

Injection Log

Directory: j:\DATA\2019-08\9H21053

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	Vc19092118.d	1.	BLK	1X 5mL DI+MeOH	21 Aug 2019 17:05
2	2	Vc19092119.d	1.	BLK	1X 5mL DI+MeOH	21 Aug 2019 17:32
3	3	Vc19092120.d	1.	BLK	1X 5mL DI+MeOH	21 Aug 2019 17:59
4	4	Vc19092121.d	1.	BLK	1X 5mL DI+MeOH	21 Aug 2019 18:26
5	5	Vc19092122.d	1.	BLK	1X 5mL DI+MeOH	21 Aug 2019 18:53
6	6	Vc19092123.d	1.	9H21053-IBL1	1X 5mL DI+MeOH	21 Aug 2019 19:20
7	7	Vc19092124.d	1.	9H21053-TUN1	A19G089 BFB (IS/...	21 Aug 2019 19:47
8	8	Vc19092125.d	1.	9H21053-ICB1	1X 5mL DI+MeOH	21 Aug 2019 20:14
9	9	Vc19092126.d	1.	9H21053-CAL1	1X 5mL 0.1/0.2PP...	21 Aug 2019 20:41
10	10	Vc19092127.d	1.	9H21053-CAL2	1X 5mL 0.2/0.4PP...	21 Aug 2019 21:08
11	11	Vc19092128.d	1.	9H21053-CAL3	1X 5mL 0.4/0.8PP...	21 Aug 2019 21:35
12	12	Vc19092129.d	1.	9H21053-CAL4	1X 5mL 1/2PPB VO...	21 Aug 2019 22:02
13	13	Vc19092130.d	1.	9H21053-CAL5	1X 5mL 2/4PPB VO...	21 Aug 2019 22:29
14	14	Vc19092131.d	1.	9H21053-CAL6	1X 5mL 5/10PPB V...	21 Aug 2019 22:56
15	15	Vc19092132.d	1.	9H21053-CAL7	1X 5mL 10/20PPB ...	21 Aug 2019 23:23
16	16	Vc19092133.d	1.	9H21053-CAL8	1X 5mL 20/40PPB ...	21 Aug 2019 23:50
17	17	Vc19092134.d	1.	9H21053-CAL9	1X 5mL 50/100PPB...	22 Aug 2019 00:17
18	18	Vc19092135.d	1.	9H21053-IBL2	1X 5mL DI+MeOH	22 Aug 2019 00:45
19	19	Vc19092136.d	1.	9H21053-CALA	1X 5mL 100/200PP...	22 Aug 2019 01:12
20	20	Vc19092137.d	1.	9H21053-IBL3	1X 5mL DI+MeOH	22 Aug 2019 01:39
21	21	Vc19092138.d	1.	9H21053-CALB	1X 5mL 200/400PP...	22 Aug 2019 02:06
22	22	Vc19092139.d	1.	9H21053-IBL4	1X 5mL DI+MeOH	22 Aug 2019 02:33
23	23	Vc19092140.d	1.	9H21053-IBL5	1X 5mL DI+MeOH	22 Aug 2019 03:00
24	24	Vc19092141.d	1.	9H21053-ICV1	1X 5mL 20/40PPB ...	22 Aug 2019 03:28
25	25	Vc19092142.d	1.	9H21053-IBL6	1X 5mL DI+MeOH	22 Aug 2019 03:55
26	26	Vc19092143.d	1.	9H21053-TUN2	A19G089 BFB (IS/...	22 Aug 2019 04:22
27	27	Vc19092144.d	1.	9H21053-RT1	A18A167 VPH RT STD	22 Aug 2019 04:49
28	28	Vc19092145.d	1.	9H21053-IBL7	1X 5mL DI+MeOH	22 Aug 2019 05:16
29	29	Vc19092146.d	1.	9H21053-ICB2	1X 5mL DI+MeOH	22 Aug 2019 05:43
30	30	Vc19092147.d	1.	9H21053-CALC	1X 5mL 50PPB GX+...	22 Aug 2019 06:10
31	31	Vc19092148.d	1.	9H21053-CALD	1X 5mL 100PPB GX...	22 Aug 2019 06:37
32	32	Vc19092149.d	1.	9H21053-CALE	1X 5mL 250PPB GX...	22 Aug 2019 07:04
33	33	Vc19092150.d	1.	9H21053-CALF	1X 5mL 500PPB GX...	22 Aug 2019 07:31
34	34	Vc19092151.d	1.	9H21053-CALG	1X 5mL 1000PPB G...	22 Aug 2019 07:59
35	35	Vc19092152.d	1.	9H21053-CALH	1X 5mL 2500PPB G...	22 Aug 2019 08:26
36	36	Vc19092153.d	1.	9H21053-CALI	1X 5mL 5000PPB G...	22 Aug 2019 08:53
37	37	Vc19092154.d	1.	9H21053-CALJ	1X 5mL 10000PPB ...	22 Aug 2019 09:20
38	38	Vc19092155.d	1.	9H21053-IBL8	1X 5mL DI+MeOH	22 Aug 2019 09:47
39	39	Vc19092156.d	1.	9H21053-IBL9	1X 5mL DI+MeOH	22 Aug 2019 10:14
40	40	Vc19092157.d	1.	9H21053-ICV3	1X 5mL 500PPB GX...	22 Aug 2019 10:41
41		Vc19092158.d	1.	No MS or GC data present		

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092123.D
Acq On : 21 Aug 2019 7:20 pm
Operator : MM
Sample : 9H21053-IBL1
Misc : 1X 5mL DI+MeOH
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:52:52 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

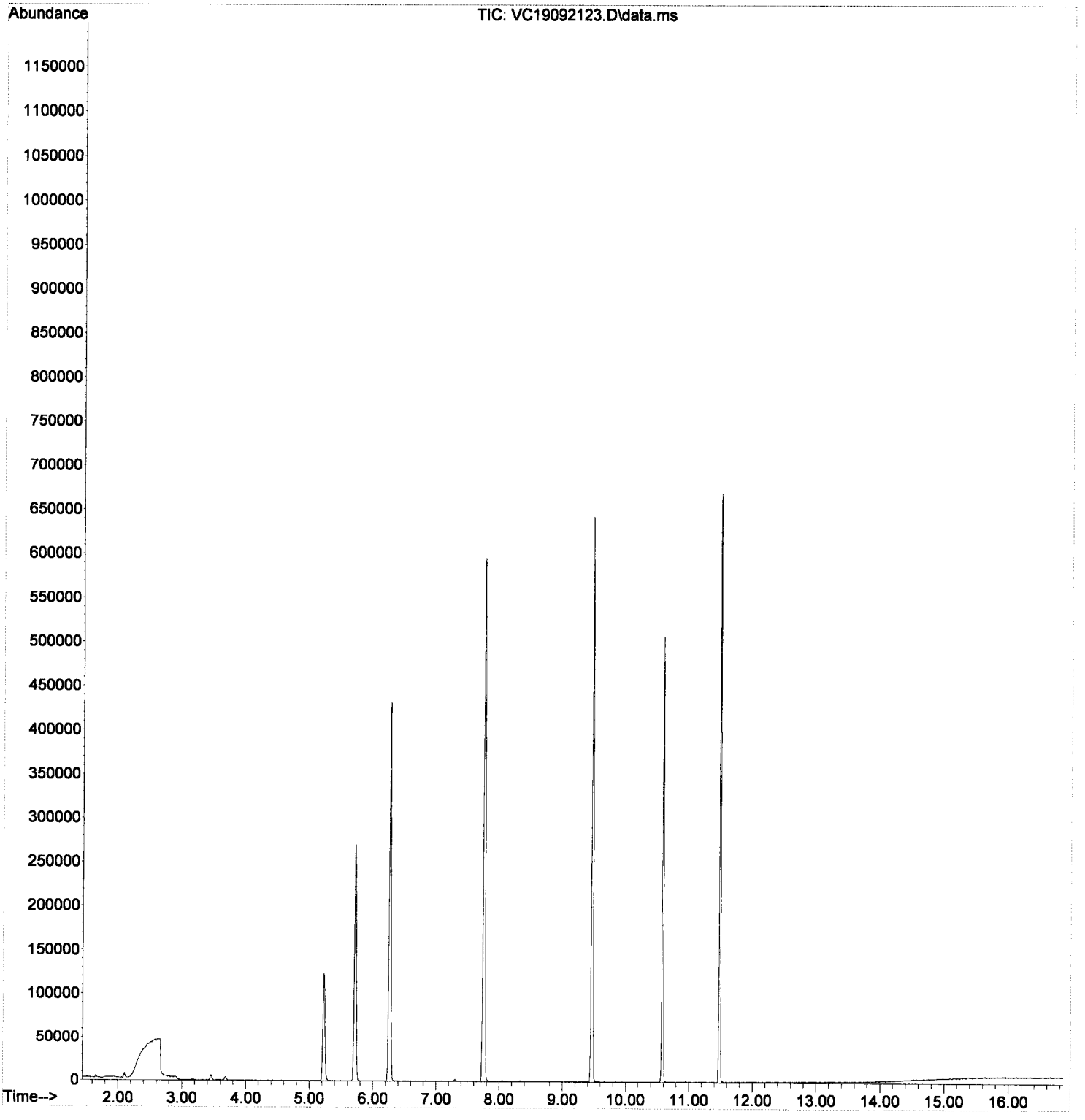
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.717	99	113846	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.464	117	334844	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.484	152	147054	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.224	111	84045	47.09	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.264	114	369709	50.33	ug/L		0.00
45) Toluene-d8 (S)	7.755	98	450057	49.90	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.583	174	122449	51.69	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.695	50	285	0.14	ug/L	#	50
5) Bromomethane	2.103	96	2731	Below Cal			97
6) Chloroethane	2.279	64	210	0.22	ug/L	#	1
8) Ethanol	3.174	45	367	5.65	ug/L		84
13) Methylene Chloride	3.454	84	2906	Below Cal			89
14) Acetone	3.581	43	1369	1.11	ug/L		93
16) n-Hexane	3.691	86	166	Below Cal		#	10

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092123.D
Acq On : 21 Aug 2019 7:20 pm
Operator : MM
Sample : 9H21053-IBL1
Misc : 1X 5mL DI+MeOH
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

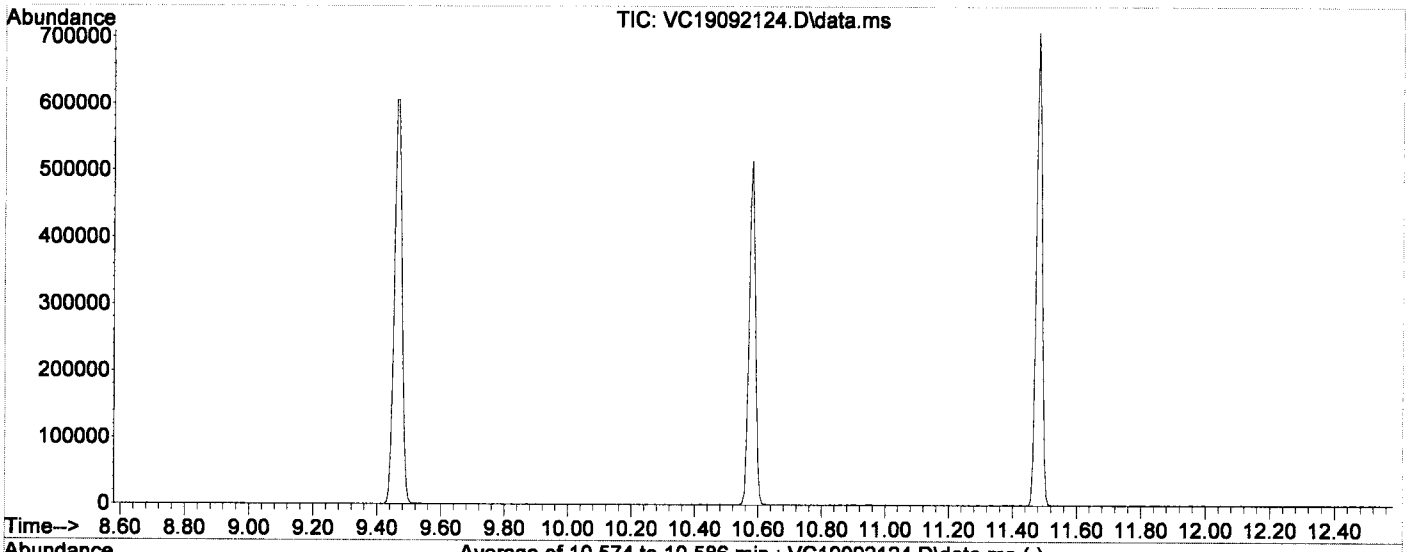
Quant Time: Aug 22 09:52:52 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

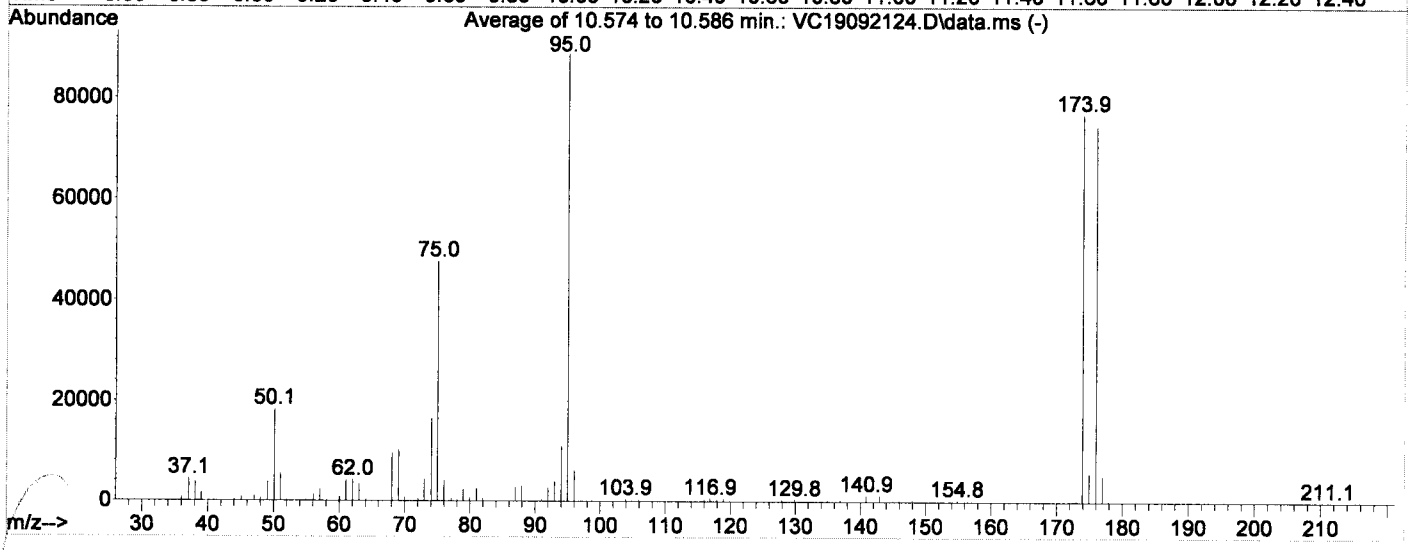


Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092124.D
Acq On : 21 Aug 2019 7:47 pm
Operator : MM
Sample : 9H21053-TUN1
Misc : A19G089 BFB (IS/SURR)
ALS Vial : 7 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\VC190822S+.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Thu Aug 22 09:46:59 2019





AutoFind: Scans 1502, 1503, 1504; Background Corrected with Scan 1495

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	115.5	88760	PASS
96	95	5	9	6.8	6067	PASS
173	174	0.00	2	0.2	169	PASS
174	95	50	200	86.6	76850	PASS
175	174	5	9	7.3	5623	PASS
176	174	95	105	96.9	74440	PASS
177	176	5	10	6.9	5120	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092124.D
Acq On : 21 Aug 2019 7:47 pm
Operator : MM
Sample : 9H21053-TUN1
Misc : A19G089 BFB (IS/SURR)
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:52:57 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

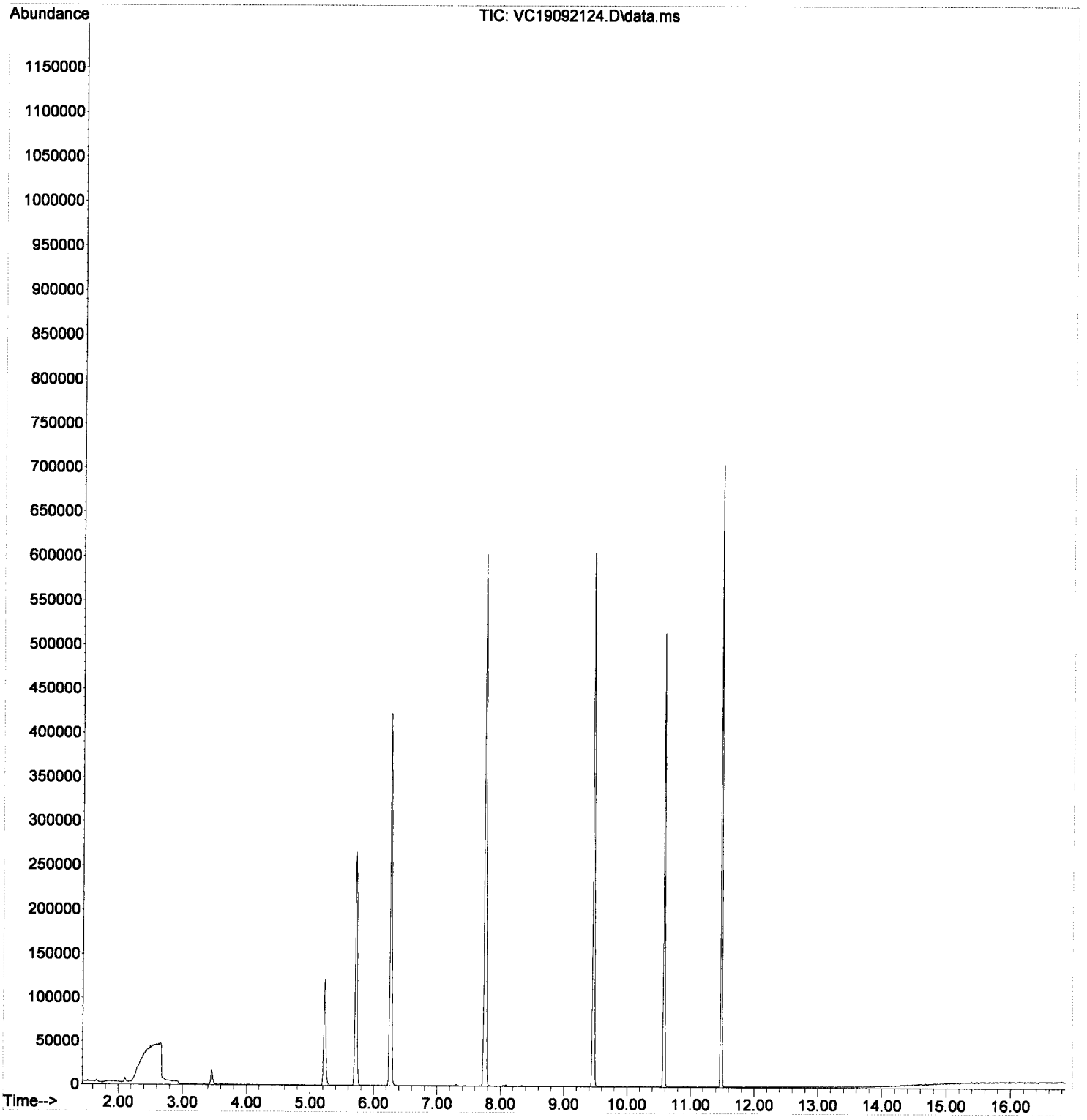
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.713	99	112154	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.467	117	327746	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.481	152	147979	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.227	111	82389	46.86	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.261	114	361311	49.93	ug/L		0.00
45) Toluene-d8 (S)	7.751	98	443329	50.22	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.580	174	121495	50.96	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.698	50	206	0.10	ug/L	#	50
5) Bromomethane	2.100	96	2651	Below Cal			93
8) Ethanol	3.152	45	926	14.46	ug/L	#	29
13) Methylene Chloride	3.456	84	8197	0.95	ug/L		95
14) Acetone	3.578	43	2070	1.70	ug/L		94

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092124.D
Acq On : 21 Aug 2019 7:47 pm
Operator : MM
Sample : 9H21053-TUN1
Misc : A19G089 BFB (IS/SURR)
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:52:57 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092125.D
Acq On : 21 Aug 2019 8:14 pm
Operator : MM
Sample : 9H21053-ICB1
Misc : 1X 5mL DI+MeOH
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 13:42:49 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

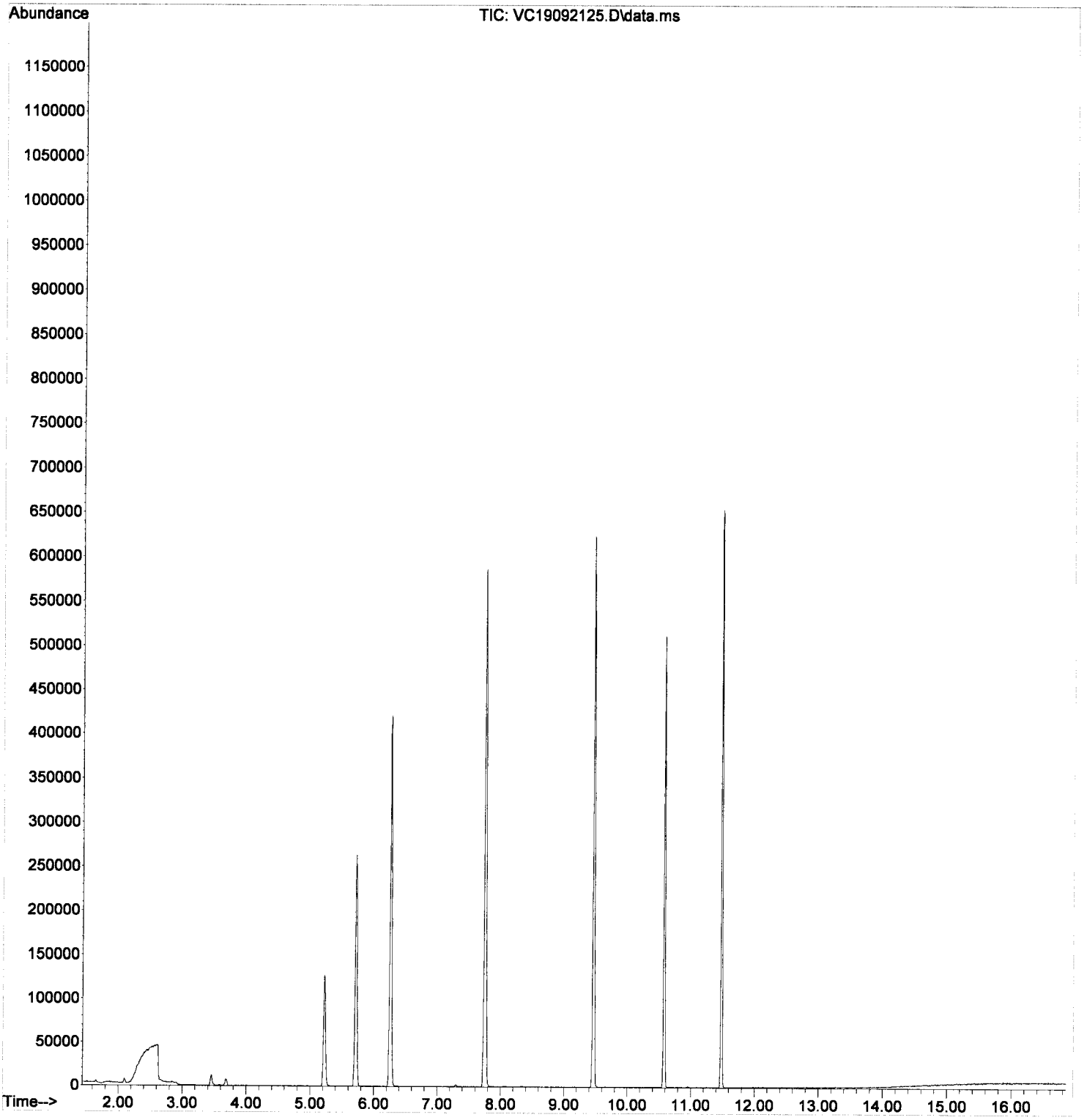
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.716	99	109405	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.463	117	322410	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.483	152	141920	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.223	111	85957	50.12	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.263	114	352072	49.87	ug/L		0.00
45) Toluene-d8 (S)	7.754	98	433058	49.87	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.583	174	119161	52.12	ug/L		0.00
Target Compounds							Qvalue
5) Bromomethane	2.096	96	2484	Below Cal			93
8) Ethanol	3.161	45	276	4.42	ug/L	#	29
12) Iodomethane	2.978	142	46	2.97	ug/L	#	47
13) Methylene Chloride	3.453	84	5802	Below Cal		#	73
14) Acetone	3.574	43	1105	0.93	ug/L	#	42
16) n-Hexane	3.690	86	468	Below Cal		#	69
84) Naphthalene	13.205	128	55	0.17	ug/L		79

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092125.D
Acq On : 21 Aug 2019 8:14 pm
Operator : MM
Sample : 9H21053-ICB1
Misc : 1X 5mL DI+MeOH
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 13:42:49 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092126.D
Acq On : 21 Aug 2019 8:41 pm
Operator : MM
Sample : 9H21053-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+O+MeOH
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:01:42 2019
Quant Method : C:\msdchem\1\METHODS\~~VC190822S~~+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	5.720	99	110226	50.00 ug/L	0.00
43) Chlorobenzene-d5 (I)	9.461	117	321736	50.00 ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.481	152	145601	50.00 ug/L	0.00
System Monitoring Compounds					
30) Dibromofluoromethane (S)	5.227	111	81908	54.47 ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.261	114	355818	56.38 ug/L	0.00
45) Toluene-d8 (S)	7.752	98	433607	48.88 ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.581	174	119329	50.92 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	0.000		0	N.D. d	
4) Vinyl Chloride	0.000		0	N.D.	
5) Bromomethane	2.106	96	2566	Below Cal	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	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) Methylene Chloride	3.463	84	6880	2.99 ug/L	96
14) Acetone	0.000		0	N.D. d	
15) t-1,2-Dichloroethene	0.000		0	N.D. d	
16) n-Hexane	3.682	86	857	2.29 ug/L #	77
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.	
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. d	
26) Chloroform	0.000		0	N.D. d	
27) Carbon Tetrachloride	0.000		0	N.D.	
28) Tetrahydrofuran	0.000		0	N.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	5.623	78	758	0.10 ug/L	56
34) tert-Amyl methyl ether...	5.720	73	47	0.01 ug/L #	1
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. 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.	
42) Bromodichloromethane	0.000		0	N.D.	
44) c-1,3-Dichloropropene	0.000		0	N.D. d	
46) Toluene	7.813	91	1340	0.15 ug/L	87
47) Tetrachloroethene (PCE)	0.000		0	N.D. d	
48) 4-Methyl-2-Pentanone (...	0.000		0	N.D. d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092126.D
Acq On : 21 Aug 2019 8:41 pm
Operator : MM
Sample : 9H21053-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+O+MeOH
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:01:42 2019
Quant Method : C:\msdchem\1\METHODS\~~VC190822S+~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 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.	d	
54) 2-Hexanone	0.000		0	N.D.	d	
55) Chlorobenzene	9.486	112	631	0.11	ug/L #	67
56) Ethylbenzene	9.516	91	1099	0.12	ug/L	83
57) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
58) m,p-Xylenes (2)	9.662	91	1598	0.25	ug/L	85
59) o-Xylene	10.058	91	872	0.13	ug/L	74
60) Styrene	0.000		0	N.D.	d	
61) Bromoform	0.000		0	N.D.		
62) Isopropylbenzene	0.000		0	N.D.	d	
65) Bromobenzene	0.000		0	N.D.	d	
66) n-Propylbenzene	10.696	91	960	0.12	ug/L	90
67) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
68) 2-Chlorotoluene	0.000		0	N.D.	d	
69) 1,3,5-Trimethylbenzene	10.861	105	672	0.12	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	10.952	91	417	0.09	ug/L	83
73) tert-Butylbenzene	0.000		0	N.D.	d	
74) 1,2,4-Trimethylbenzene	11.171	105	661	0.12	ug/L	72
75) sec-Butylbenzene	11.256	105	705	0.12	ug/L	59
76) 4-Isopropyltoluene	11.365	119	619	0.12	ug/L	77
77) 1,3-Dichlorobenzene	11.426	146	273	0.09	ug/L #	64
78) 1,4-Dichlorobenzene	11.487	146	317	0.10	ug/L #	1
79) n-Butylbenzene	11.688	91	521	0.12	ug/L	64
80) 1,2-Dichlorobenzene	0.000		0	N.D.	d	
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\2019-08\9H21053\
Data File : VC19092126.D
Acq On : 21 Aug 2019 8:41 pm
Operator : MM
Sample : 9H21053-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+O+MeOH
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:16 2019
Quant Method : C:\msdchem\1\METHODS\~~VC190822S~~+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	5.720	99	110226	50.00 ug/L	0.00
43) Chlorobenzene-d5 (I)	9.461	117	321736	50.00 ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.481	152	145601	50.00 ug/L	0.00
System Monitoring Compounds					
30) Dibromofluoromethane (S)	5.227	111	81908	54.47 ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.261	114	355818	56.38 ug/L	0.00
45) Toluene-d8 (S)	7.752	98	433607	48.88 ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.581	174	119329	50.92 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	1.705	50	406	0.20 ug/L #	50
4) Vinyl Chloride	0.000		0	N.D.	
5) Bromomethane	2.106	96	2566	Below Cal	91
6) Chloroethane	2.301	64	119	0.13 ug/L #	1
7) Trichlorofluoromethane	2.374	101	146	0.08 ug/L #	1
8) Ethanol	3.189	45	202	3.14 ug/L #	29
9) 1,1-Dichloroethene	2.849	61	105	0.04 ug/L #	30
10) Carbon Disulfide	2.849	76	332	0.11 ug/L	78
11) Freon 113	2.885	101	145	0.08 ug/L #	16
12) Iodomethane	0.000		0	N.D.	
13) Methylene Chloride	3.463	84	6880	2.99 ug/L	96
14) Acetone	3.591	43	1323	1.34 ug/L #	42
15) t-1,2-Dichloroethene	3.615	61	115	0.05 ug/L #	22
16) n-Hexane	3.682	86	857	2.29 ug/L #	77
17) Methyl-tert-butyl-ether	3.785	73	613	0.10 ug/L	57
18) tert-Butanol (TBA)	4.084	59	2887	5.12 ug/L #	74
19) Diisopropyl ether (DIPE)	0.000		0	N.D.	
20) 1,1-Dichloroethane	4.223	63	157	0.07 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	4.765	61	158	0.07 ug/L #	18
24) 2,2-Dichloropropane	4.862	77	177	0.07 ug/L #	25
25) Bromochloromethane	4.966	49	60	0.05 ug/L #	14
26) Chloroform	5.045	83	264	0.10 ug/L #	53
27) Carbon Tetrachloride	0.000		0	N.D.	
28) Tetrahydrofuran	0.000		0	N.D.	
29) 1,1,1-Trichloroethane	5.233	97	122	0.05 ug/L #	25
31) 1,1-Dichloropropene	5.355	75	72	0.03 ug/L #	39
32) 2-Butanone (MEK)	5.398	43	283	0.16 ug/L	52
33) Benzene	5.623	78	758	0.10 ug/L	56
34) tert-Amyl methyl ether...	5.720	73	47	0.01 ug/L #	1
35) 1,2-Dichloroethane (EDC)	5.823	62	127	0.04 ug/L #	49
36) iso-Butyl Alcohol	5.982	43	97	0.50 ug/L #	62
38) Trichloroethene (TCE)	6.231	130	56	0.03 ug/L #	80
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.	
42) Bromodichloromethane	0.000		0	N.D.	
44) c-1,3-Dichloropropene	7.545	75	72	0.20 ug/L #	54
46) Toluene	7.813	91	1340	0.15 ug/L	87
47) Tetrachloroethene (PCE)	8.257	166	99	0.05 ug/L #	24
48) 4-Methyl-2-Pentanone (...	8.287	43	497	0.17 ug/L #	43

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092126.D
Acq On : 21 Aug 2019 8:41 pm
Operator : MM
Sample : 9H21053-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+O+MeOH
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:16 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

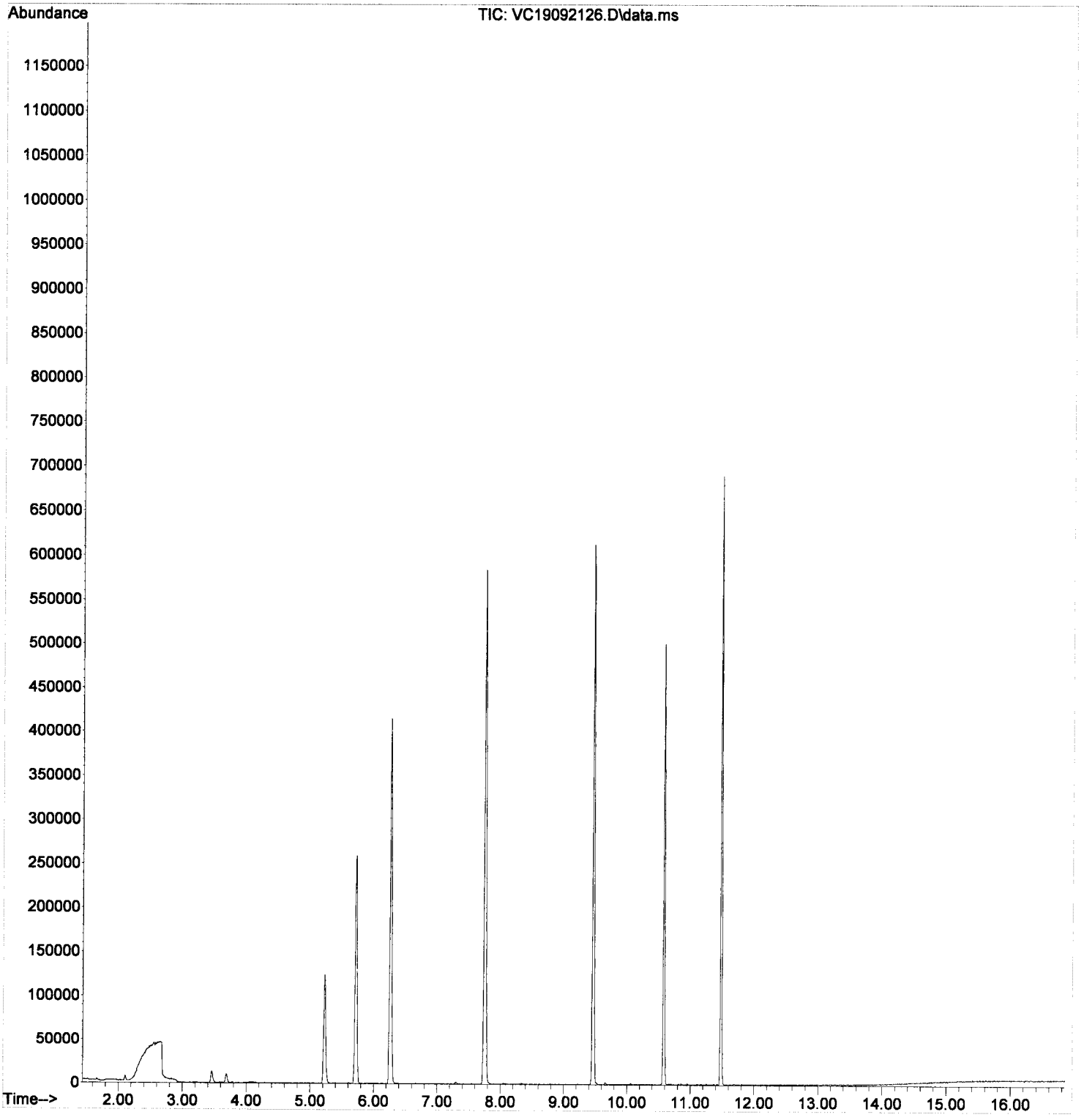
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) t-1,3-Dichloropropene	8.299	75	58	0.41 ug/L #	45
50) 1,1,2-Trichloroethane	8.494	97	49	0.03 ug/L #	12
51) Dibromochloromethane	0.000		0	N.D.	
52) 1,3-Dichloropropane	8.786	76	301	0.09 ug/L #	77
53) 1,2-Dibromoethane (EDB)	8.926	107	47	0.03 ug/L #	7
54) 2-Hexanone	9.218	43	431	0.19 ug/L #	32
55) Chlorobenzene	9.486	112	631	0.11 ug/L #	67
56) Ethylbenzene	9.516	91	1099	0.12 ug/L	83
57) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
58) m,p-Xylenes (2)	9.662	91	1598	0.25 ug/L	85
59) o-Xylene	10.058	91	872	0.13 ug/L	74
60) Styrene	10.112	104	305	0.07 ug/L #	40
61) Bromoform	0.000		0	N.D.	
62) Isopropylbenzene	10.337	105	716	0.10 ug/L	53
65) Bromobenzene	10.666	156	69	0.04 ug/L	88
66) n-Propylbenzene	10.696	91	960	0.12 ug/L	90
67) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
68) 2-Chlorotoluene	10.812	126	153	0.10 ug/L #	38
69) 1,3,5-Trimethylbenzene	10.861	105	672	0.12 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	10.952	91	417	0.09 ug/L	83
73) tert-Butylbenzene	11.116	91	288	0.09 ug/L #	60
74) 1,2,4-Trimethylbenzene	11.171	105	661	0.12 ug/L	72
75) sec-Butylbenzene	11.256	105	705	0.12 ug/L	59
76) 4-Isopropyltoluene	11.365	119	619	0.12 ug/L	77
77) 1,3-Dichlorobenzene	11.426	146	273	0.09 ug/L #	64
78) 1,4-Dichlorobenzene	11.487	146	317	0.10 ug/L #	1
79) n-Butylbenzene	11.688	91	521	0.12 ug/L	64
80) 1,2-Dichlorobenzene	11.816	146	236	0.08 ug/L #	62
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	
82) Hexachlorobutadiene	0.000		0	N.D.	
83) 1,2,4-Trichlorobenzene	12.935	180	65	0.04 ug/L #	11
84) Naphthalene	13.203	128	546	0.38 ug/L	79
85) 1,2,3-Trichlorobenzene	13.355	180	60	0.03 ug/L #	12

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092126.D
Acq On : 21 Aug 2019 8:41 pm
Operator : MM
Sample : 9H21053-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOC+O+MeOH
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:16 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092127.D
Acq On : 21 Aug 2019 9:08 pm
Operator : MM
Sample : 9H21053-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+O+MeOH
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:04:03 2019
Quant Method : C:\msdchem\1\METHODS\~~VC190822~~S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	5.717	99	110500	50.00 ug/L	0.00
43) Chlorobenzene-d5 (I)	9.465	117	319418	50.00 ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.484	152	138481	50.00 ug/L	0.00
System Monitoring Compounds					
30) Dibromofluoromethane (S)	5.224	111	83744	55.55 ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.265	114	355796	56.24 ug/L	0.00
45) Toluene-d8 (S)	7.755	98	433746	49.25 ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.578	174	115551	51.85 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D. d	
3) Chloromethane	1.702	50	700	0.34 ug/L	93
4) Vinyl Chloride	0.000		0	N.D. d	
5) Bromomethane	2.110	96	3075	Below Cal	96
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. d	
13) Methylene Chloride	3.460	84	6868	2.97 ug/L	95
14) Acetone	0.000		0	N.D. d	
15) t-1,2-Dichloroethene	0.000		0	N.D. d	
16) n-Hexane	3.698	86	843	2.25 ug/L #	66
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. d	
22) Ethyl-tert-butyl ether...	0.000		0	N.D. d	
23) c-1,2-Dichloroethene	4.768	61	408	0.18 ug/L #	60
24) 2,2-Dichloropropane	0.000		0	N.D. d	
25) Bromochloromethane	0.000		0	N.D. d	
26) Chloroform	5.048	83	556	0.21 ug/L	73
27) Carbon Tetrachloride	0.000		0	N.D. d	
28) Tetrahydrofuran	0.000		0	N.D. d	
29) 1,1,1-Trichloroethane	5.231	97	610	0.23 ug/L	85
31) 1,1-Dichloropropene	0.000		0	N.D. d	
32) 2-Butanone (MEK)	0.000		0	N.D. d	
33) Benzene	5.614	78	1690	0.23 ug/L	69
34) tert-Amyl methyl ether...	0.000		0	N.D. d	
35) 1,2-Dichloroethane (EDC)	5.833	62	518	0.17 ug/L	82
36) iso-Butyl Alcohol	0.000		0	N.D. d	
38) Trichloroethene (TCE)	0.000		0	N.D. d	
39) tert-Amyl ethyl ether ...	0.000		0	N.D. d	
40) Dibromomethane	0.000		0	N.D.	
41) 1,2-Dichloropropane	0.000		0	N.D. d	
42) Bromodichloromethane	6.849	83	329	0.47 ug/L	79
44) c-1,3-Dichloropropene	7.548	75	424	0.32 ug/L #	72
46) Toluene	7.810	91	2203	0.25 ug/L	90
47) Tetrachloroethene (PCE)	0.000		0	N.D. d	
48) 4-Methyl-2-Pentanone (...	0.000		0	N.D. d	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092127.D
Acq On : 21 Aug 2019 9:08 pm
Operator : MM
Sample : 9H21053-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+O+MeOH
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:04:03 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 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	8.479	97	300	0.17	ug/L	#	41
51) Dibromochloromethane	0.000		0	N.D.			
52) 1,3-Dichloropropane	8.795	76	540	0.17	ug/L		83
53) 1,2-Dibromoethane (EDB)	8.935	107	242	0.14	ug/L		82
54) 2-Hexanone	9.221	43	696	0.31	ug/L		72
55) Chlorobenzene	9.477	112	1166	0.21	ug/L	#	1
56) Ethylbenzene	9.519	91	2203	0.24	ug/L		74
57) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	d		
58) m,p-Xylenes (2)	9.659	91	3001	0.48	ug/L		96
59) o-Xylene	10.055	91	1557	0.24	ug/L		92
60) Styrene	10.110	104	730	0.17	ug/L		81
61) Bromoform	0.000		0	N.D.			
62) Isopropylbenzene	10.341	105	1449	0.20	ug/L		92
65) Bromobenzene	10.663	156	318	0.18	ug/L	#	56
66) n-Propylbenzene	10.694	91	1840	0.24	ug/L		95
67) 1,1,2,2-Tetrachloroethane	10.760	83	379	0.20	ug/L		83
68) 2-Chlorotoluene	10.821	126	330	0.22	ug/L		97
69) 1,3,5-Trimethylbenzene	10.852	105	1334	0.26	ug/L		81
70) 1,2,3-Trichloropropane	0.000		0	N.D.	d		
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
72) 4-Chlorotoluene	10.955	91	1034	0.22	ug/L		79
73) tert-Butylbenzene	11.107	91	715	0.24	ug/L		96
74) 1,2,4-Trimethylbenzene	11.168	105	1279	0.25	ug/L		83
75) sec-Butylbenzene	11.253	105	1405	0.24	ug/L		94
76) 4-Isopropyltoluene	11.369	119	1233	0.26	ug/L		92
77) 1,3-Dichlorobenzene	11.424	146	616	0.20	ug/L		93
78) 1,4-Dichlorobenzene	11.490	146	794	0.25	ug/L	#	30
79) n-Butylbenzene	11.691	91	1103	0.26	ug/L		92
80) 1,2-Dichlorobenzene	11.813	146	635	0.23	ug/L		81
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
82) Hexachlorobutadiene	0.000		0	N.D.			
83) 1,2,4-Trichlorobenzene	12.932	180	338	0.20	ug/L	#	65
84) Naphthalene	13.200	128	1041	0.47	ug/L		76
85) 1,2,3-Trichlorobenzene	13.364	180	384	0.23	ug/L		67

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092127.D
Acq On : 21 Aug 2019 9:08 pm
Operator : MM
Sample : 9H21053-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+O+MeOH
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:19 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.717	99	110500	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.465	117	319418	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.484	152	138481	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.224	111	83744	55.55	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.265	114	355796	56.24	ug/L		0.00
45) Toluene-d8 (S)	7.755	98	433746	49.25	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.578	174	115551	51.85	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.520	85	116	0.07	ug/L	#	51
3) Chloromethane	1.702	50	700	0.34	ug/L		93
4) Vinyl Chloride	1.781	62	268	0.15	ug/L	#	46
5) Bromomethane	2.110	96	3075	Below	Cal		96
6) Chloroethane	2.244	64	124	0.14	ug/L	#	1
7) Trichlorofluoromethane	2.365	101	340	0.19	ug/L	#	50
8) Ethanol	3.174	45	621	9.62	ug/L	#	29
9) 1,1-Dichloroethene	2.858	61	451	0.19	ug/L	#	72
10) Carbon Disulfide	2.852	76	835	0.29	ug/L		78
11) Freon 113	2.895	101	261	0.14	ug/L	#	62
12) Iodomethane	2.992	142	55	0.61	ug/L	#	47
13) Methylene Chloride	3.460	84	6868	2.97	ug/L		95
14) Acetone	3.582	43	1945	1.96	ug/L		94
15) t-1,2-Dichloroethene	3.625	61	347	0.16	ug/L	#	53
16) n-Hexane	3.698	86	843	2.25	ug/L	#	66
17) Methyl-tert-butyl-ether	3.777	73	1507	0.25	ug/L		82
18) tert-Butanol (TBA)	4.075	59	1885	3.34	ug/L	#	89
19) Diisopropyl ether (DIPE)	4.142	45	101	0.02	ug/L	#	36
20) 1,1-Dichloroethane	4.233	63	553	0.25	ug/L	#	50
21) Acrylonitrile	4.318	53	49	0.05	ug/L	#	14
22) Ethyl-tert-butyl ether...	4.519	59	46	0.01	ug/L	#	38
23) c-1,2-Dichloroethene	4.768	61	408	0.18	ug/L	#	60
24) 2,2-Dichloropropane	4.872	77	519	0.21	ug/L		61
25) Bromochloromethane	4.969	49	220	0.17	ug/L	#	64
26) Chloroform	5.048	83	556	0.21	ug/L		73
27) Carbon Tetrachloride	5.170	117	320	0.42	ug/L		66
28) Tetrahydrofuran	5.249	42	46	0.04	ug/L	#	30
29) 1,1,1-Trichloroethane	5.231	97	610	0.23	ug/L		85
31) 1,1-Dichloropropene	5.352	75	576	0.23	ug/L	#	39
32) 2-Butanone (MEK)	5.395	43	878	0.51	ug/L		52
33) Benzene	5.614	78	1690	0.23	ug/L		69
34) tert-Amyl methyl ether...	5.766	73	164	0.03	ug/L	#	46
35) 1,2-Dichloroethane (EDC)	5.833	62	518	0.17	ug/L		82
36) iso-Butyl Alcohol	5.997	43	504	2.60	ug/L		68
38) Trichloroethene (TCE)	6.234	130	428	0.23	ug/L		75
39) tert-Amyl ethyl ether ...	6.496	59	115	0.03	ug/L	#	21
40) Dibromomethane	0.000		0	N.D			
41) 1,2-Dichloropropane	6.776	63	260	0.14	ug/L	#	40
42) Bromodichloromethane	6.849	83	329	0.47	ug/L		79
44) c-1,3-Dichloropropene	7.548	75	424	0.32	ug/L	#	72
46) Toluene	7.810	91	2203	0.25	ug/L		90
47) Tetrachloroethene (PCE)	8.254	166	360	0.17	ug/L	#	74
48) 4-Methyl-2-Pentanone (...	8.291	43	1053	0.36	ug/L	#	43

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092127.D
Acq On : 21 Aug 2019 9:08 pm
Operator : MM
Sample : 9H21053-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+O+MeOH
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:19 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

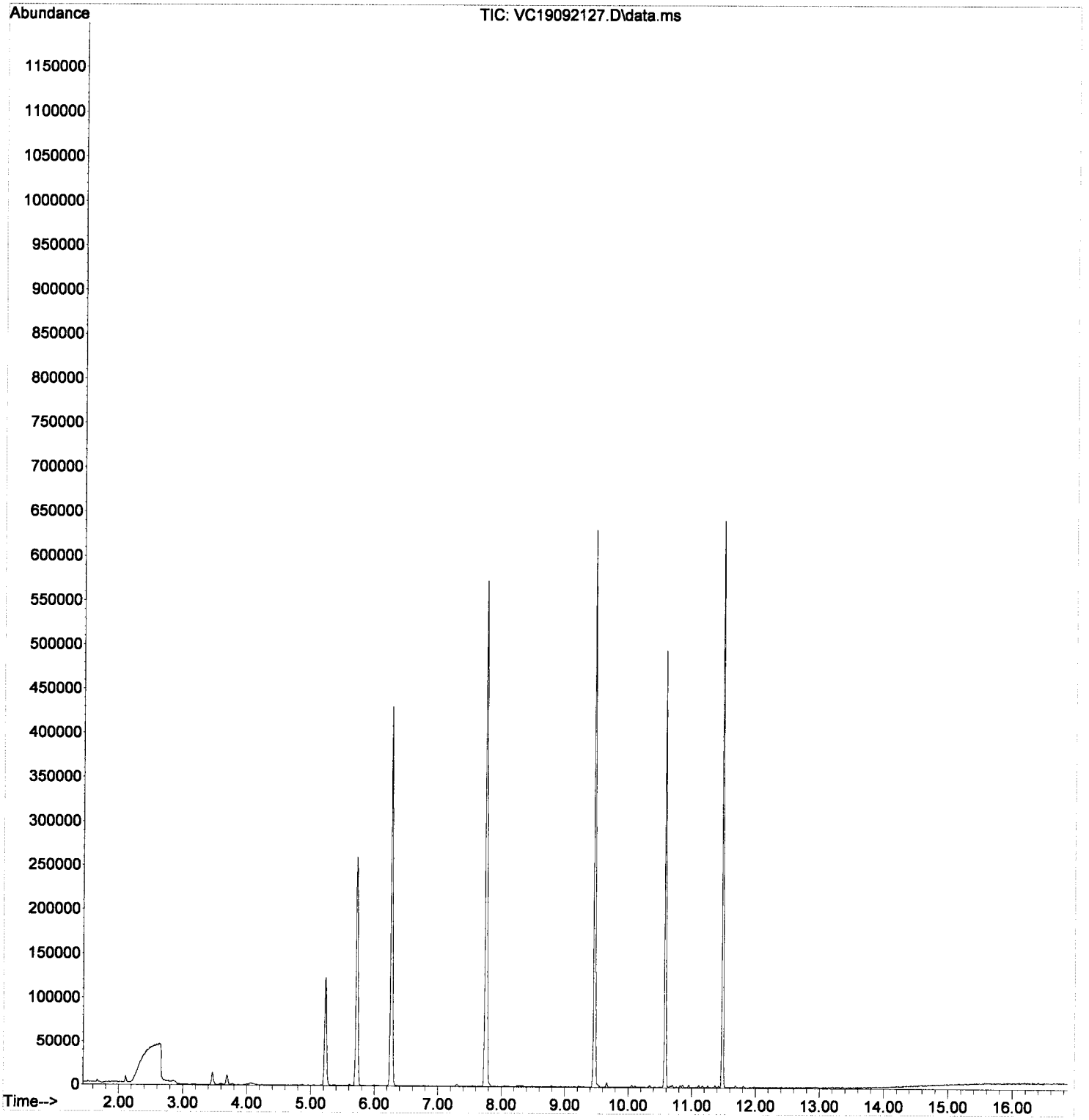
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.303	75	371	0.52	ug/L	#	45
50) 1,1,2-Trichloroethane	8.479	97	300	0.17	ug/L	#	41
51) Dibromochloromethane	0.000		0	N.D.			
52) 1,3-Dichloropropane	8.795	76	540	0.17	ug/L		83
53) 1,2-Dibromoethane (EDB)	8.935	107	242	0.14	ug/L		82
54) 2-Hexanone	9.221	43	696	0.31	ug/L		72
55) Chlorobenzene	9.477	112	1166	0.21	ug/L	#	1
56) Ethylbenzene	9.519	91	2203	0.24	ug/L		74
57) 1,1,1,2-Tetrachloroethane	9.550	131	295	0.41	ug/L	#	63
58) m,p-Xylenes (2)	9.659	91	3001	0.48	ug/L		96
59) o-Xylene	10.055	91	1557	0.24	ug/L		92
60) Styrene	10.110	104	730	0.17	ug/L		81
61) Bromoform	0.000		0	N.D.			
62) Isopropylbenzene	10.341	105	1449	0.20	ug/L		92
65) Bromobenzene	10.663	156	318	0.18	ug/L	#	56
66) n-Propylbenzene	10.694	91	1840	0.24	ug/L		95
67) 1,1,2,2-Tetrachloroethane	10.760	83	379	0.20	ug/L		83
68) 2-Chlorotoluene	10.821	126	330	0.22	ug/L		97
69) 1,3,5-Trimethylbenzene	10.852	105	1334	0.26	ug/L		81
70) 1,2,3-Trichloropropane	10.864	110	66	0.08	ug/L	#	14
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
72) 4-Chlorotoluene	10.955	91	1034	0.22	ug/L		79
73) tert-Butylbenzene	11.107	91	715	0.24	ug/L		96
74) 1,2,4-Trimethylbenzene	11.168	105	1279	0.25	ug/L		83
75) sec-Butylbenzene	11.253	105	1405	0.24	ug/L		94
76) 4-Isopropyltoluene	11.369	119	1233	0.25	ug/L		92
77) 1,3-Dichlorobenzene	11.424	146	616	0.20	ug/L		93
78) 1,4-Dichlorobenzene	11.490	146	794	0.25	ug/L	#	30
79) n-Butylbenzene	11.691	91	1103	0.26	ug/L		92
80) 1,2-Dichlorobenzene	11.813	146	635	0.23	ug/L		81
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
82) Hexachlorobutadiene	0.000		0	N.D.			
83) 1,2,4-Trichlorobenzene	12.932	180	338	0.20	ug/L	#	65
84) Naphthalene	13.200	128	1041	0.47	ug/L		76
85) 1,2,3-Trichlorobenzene	13.364	180	384	0.23	ug/L		67

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092127.D
Acq On : 21 Aug 2019 9:08 pm
Operator : MM
Sample : 9H21053-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOC+O+MeOH
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:19 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092128.D
Acq On : 21 Aug 2019 9:35 pm
Operator : MM
Sample : 9H21053-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+O+MeOH
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:06:26 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.714	99	107889	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.461	117	317338	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.481	152	143442	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.227	111	81847	55.61	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.261	114	346939	56.16	ug/L		0.00
45) Toluene-d8 (S)	7.752	98	428260	48.94	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.580	174	117437	50.87	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	d		
3) Chloromethane	1.692	50	897	0.45	ug/L		87
4) Vinyl Chloride	1.771	62	708	0.41	ug/L		90
5) Bromomethane	2.094	96	2914	Below Cal			93
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	2.836	61	977	0.41	ug/L		80
10) Carbon Disulfide	0.000		0	N.D.	d		
11) Freon 113	2.891	101	639	0.36	ug/L		94
12) Iodomethane	0.000		0	N.D.			
13) Methylene Chloride	3.451	84	6947	3.14	ug/L		93
14) Acetone	0.000		0	N.D.	d		
15) t-1,2-Dichloroethene	3.609	61	1022	0.49	ug/L		78
16) n-Hexane	3.676	86	960	2.63	ug/L	#	79
17) Methyl-tert-butyl-ether	3.767	73	2597	0.44	ug/L		89
18) tert-Butanol (TBA)	0.000		0	N.D.	d		
19) Diisopropyl ether (DIPE)	4.150	45	725	0.11	ug/L		72
20) 1,1-Dichloroethane	4.223	63	810	0.37	ug/L		87
21) Acrylonitrile	0.000		0	N.D.	d		
22) Ethyl-tert-butyl ether...	0.000		0	N.D.	d		
23) c-1,2-Dichloroethene	4.765	61	994	0.46	ug/L		90
24) 2,2-Dichloropropane	4.868	77	991	0.41	ug/L		78
25) Bromochloromethane	4.953	49	511	0.41	ug/L		78
26) Chloroform	5.044	83	1038	0.40	ug/L		84
27) Carbon Tetrachloride	5.166	117	641	0.60	ug/L		78
28) Tetrahydrofuran	0.000		0	N.D.	d		
29) 1,1,1-Trichloroethane	5.227	97	1059	0.40	ug/L		92
31) 1,1-Dichloropropene	5.361	75	879	0.36	ug/L		97
32) 2-Butanone (MEK)	0.000		0	N.D.	d		
33) Benzene	5.610	78	3133	0.44	ug/L		96
34) tert-Amyl methyl ether...	0.000		0	N.D.	d		
35) 1,2-Dichloroethane (EDC)	5.829	62	1274	0.43	ug/L		89
36) iso-Butyl Alcohol	0.000		0	N.D.	d		
38) Trichloroethene (TCE)	6.212	130	944	0.53	ug/L	#	50
39) tert-Amyl ethyl ether ...	0.000		0	N.D.	d		
40) Dibromomethane	0.000		0	N.D.	d		
41) 1,2-Dichloropropane	6.772	63	756	0.41	ug/L		94
42) Bromodichloromethane	6.851	83	736	0.69	ug/L		89
44) c-1,3-Dichloropropene	7.545	75	773	0.45	ug/L		92
46) Toluene	7.806	91	3472	0.39	ug/L		98
47) Tetrachloroethene (PCE)	8.244	166	765	0.36	ug/L		93
48) 4-Methyl-2-Pentanone (...	8.287	43	2249	0.77	ug/L		84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092128.D
Acq On : 21 Aug 2019 9:35 pm
Operator : MM
Sample : 9H21053-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+O+MeOH
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:06:26 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.305	75	764	0.66	ug/L	#	45
50) 1,1,2-Trichloroethane	8.475	97	543	0.32	ug/L		80
51) Dibromochloromethane	8.682	129	346	0.73	ug/L		77
52) 1,3-Dichloropropane	8.792	76	1295	0.40	ug/L		74
53) 1,2-Dibromoethane (EDB)	8.932	107	639	0.37	ug/L		80
54) 2-Hexanone	9.224	43	1450	0.64	ug/L		92
55) Chlorobenzene	9.479	112	2088	0.38	ug/L	#	42
56) Ethylbenzene	9.516	91	3869	0.43	ug/L		94
57) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	d		
58) m,p-Xylenes (2)	9.662	91	5408	0.86	ug/L		95
59) o-Xylene	10.057	91	2768	0.42	ug/L		96
60) Styrene	10.106	104	1322	0.31	ug/L		93
61) Bromoform	0.000		0	N.D.	d		
62) Isopropylbenzene	10.343	105	2928	0.42	ug/L		89
65) Bromobenzene	10.659	156	689	0.38	ug/L	#	56
66) n-Propylbenzene	10.690	91	3490	0.45	ug/L		99
67) 1,1,2,2-Tetrachloroethane	10.763	83	712	0.37	ug/L		95
68) 2-Chlorotoluene	10.824	126	692	0.45	ug/L	#	79
69) 1,3,5-Trimethylbenzene	10.860	105	2437	0.45	ug/L		85
70) 1,2,3-Trichloropropane	10.860	110	241	0.27	ug/L		94
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
72) 4-Chlorotoluene	10.958	91	2098	0.44	ug/L		93
73) tert-Butylbenzene	11.110	91	1320	0.42	ug/L		87
74) 1,2,4-Trimethylbenzene	11.170	105	2322	0.44	ug/L		97
75) sec-Butylbenzene	11.256	105	2652	0.44	ug/L		92
76) 4-Isopropyltoluene	11.371	119	2294	0.47	ug/L		94
77) 1,3-Dichlorobenzene	11.420	146	1252	0.40	ug/L		82
78) 1,4-Dichlorobenzene	11.493	146	1568	0.48	ug/L	#	65
79) n-Butylbenzene	11.694	91	1988	0.45	ug/L		93
80) 1,2-Dichlorobenzene	11.809	146	1203	0.42	ug/L		90
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
82) Hexachlorobutadiene	12.910	223	169	0.33	ug/L	#	82
83) 1,2,4-Trichlorobenzene	12.941	180	680	0.38	ug/L		82
84) Naphthalene	13.202	128	2199	0.67	ug/L		96
85) 1,2,3-Trichlorobenzene	13.360	180	725	0.42	ug/L		90

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092128.D
Acq On : 21 Aug 2019 9:35 pm
Operator : MM
Sample : 9H21053-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+O+MeOH
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:21 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.714	99	107889	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.461	117	317338	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.481	152	143442	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.227	111	81847	55.61	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.261	114	346939	56.16	ug/L		0.00
45) Toluene-d8 (S)	7.752	98	428260	48.94	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.580	174	117437	50.87	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.510	85	399	0.24	ug/L	#	51
3) Chloromethane	1.692	50	897	0.45	ug/L		87
4) Vinyl Chloride	1.771	62	708	0.41	ug/L		90
5) Bromomethane	2.094	96	2914	Below Cal			93
6) Chloroethane	2.222	64	334	0.38	ug/L	#	1
7) Trichlorofluoromethane	2.356	101	799	0.45	ug/L	#	57
8) Ethanol	3.183	45	555	8.81	ug/L		94
9) 1,1-Dichloroethene	2.836	61	977	0.41	ug/L		80
10) Carbon Disulfide	2.848	76	1262	0.45	ug/L		78
11) Freon 113	2.891	101	639	0.36	ug/L		94
12) Iodomethane	0.000		0	N.D.			
13) Methylene Chloride	3.451	84	6947	3.14	ug/L		93
14) Acetone	3.572	43	2268	2.34	ug/L		97
15) t-1,2-Dichloroethene	3.609	61	1022	0.49	ug/L		78
16) n-Hexane	3.676	86	960	2.63	ug/L	#	79
17) Methyl-tert-butyl-ether	3.767	73	2597	0.44	ug/L		89
18) tert-Butanol (TBA)	4.083	59	12499	22.65	ug/L	#	96
19) Diisopropyl ether (DIPE)	4.150	45	725	0.11	ug/L		72
20) 1,1-Dichloroethane	4.223	63	810	0.37	ug/L		87
21) Acrylonitrile	4.308	53	177	0.17	ug/L	#	14
22) Ethyl-tert-butyl ether...	4.509	59	627	0.10	ug/L	#	38
23) c-1,2-Dichloroethene	4.765	61	994	0.46	ug/L		90
24) 2,2-Dichloropropane	4.868	77	991	0.41	ug/L		78
25) Bromochloromethane	4.953	49	511	0.41	ug/L		78
26) Chloroform	5.044	83	1038	0.40	ug/L		84
27) Carbon Tetrachloride	5.166	117	641	0.60	ug/L		78
28) Tetrahydrofuran	5.233	42	572	0.51	ug/L	#	57
29) 1,1,1-Trichloroethane	5.227	97	1059	0.40	ug/L		92
31) 1,1-Dichloropropene	5.361	75	879	0.36	ug/L		97
32) 2-Butanone (MEK)	5.397	43	1154	0.68	ug/L		92
33) Benzene	5.610	78	3133	0.44	ug/L		96
34) tert-Amyl methyl ether...	5.756	73	617	0.11	ug/L		69
35) 1,2-Dichloroethane (EDC)	5.829	62	1274	0.43	ug/L		89
36) iso-Butyl Alcohol	5.999	43	1800	9.52	ug/L		83
38) Trichloroethene (TCE)	6.212	130	944	0.53	ug/L	#	50
39) tert-Amyl ethyl ether ...	6.486	59	441	0.11	ug/L	#	70
40) Dibromomethane	6.657	93	272	0.32	ug/L	#	69
41) 1,2-Dichloropropane	6.772	63	756	0.41	ug/L		94
42) Bromodichloromethane	6.851	83	736	0.69	ug/L		89
44) c-1,3-Dichloropropene	7.545	75	773	0.45	ug/L		92
46) Toluene	7.806	91	3472	0.39	ug/L		98
47) Tetrachloroethene (PCE)	8.244	166	765	0.36	ug/L		93
48) 4-Methyl-2-Pentanone (...	8.287	43	2249	0.77	ug/L		84

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092128.D
Acq On : 21 Aug 2019 9:35 pm
Operator : MM
Sample : 9H21053-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+O+MeOH
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:21 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

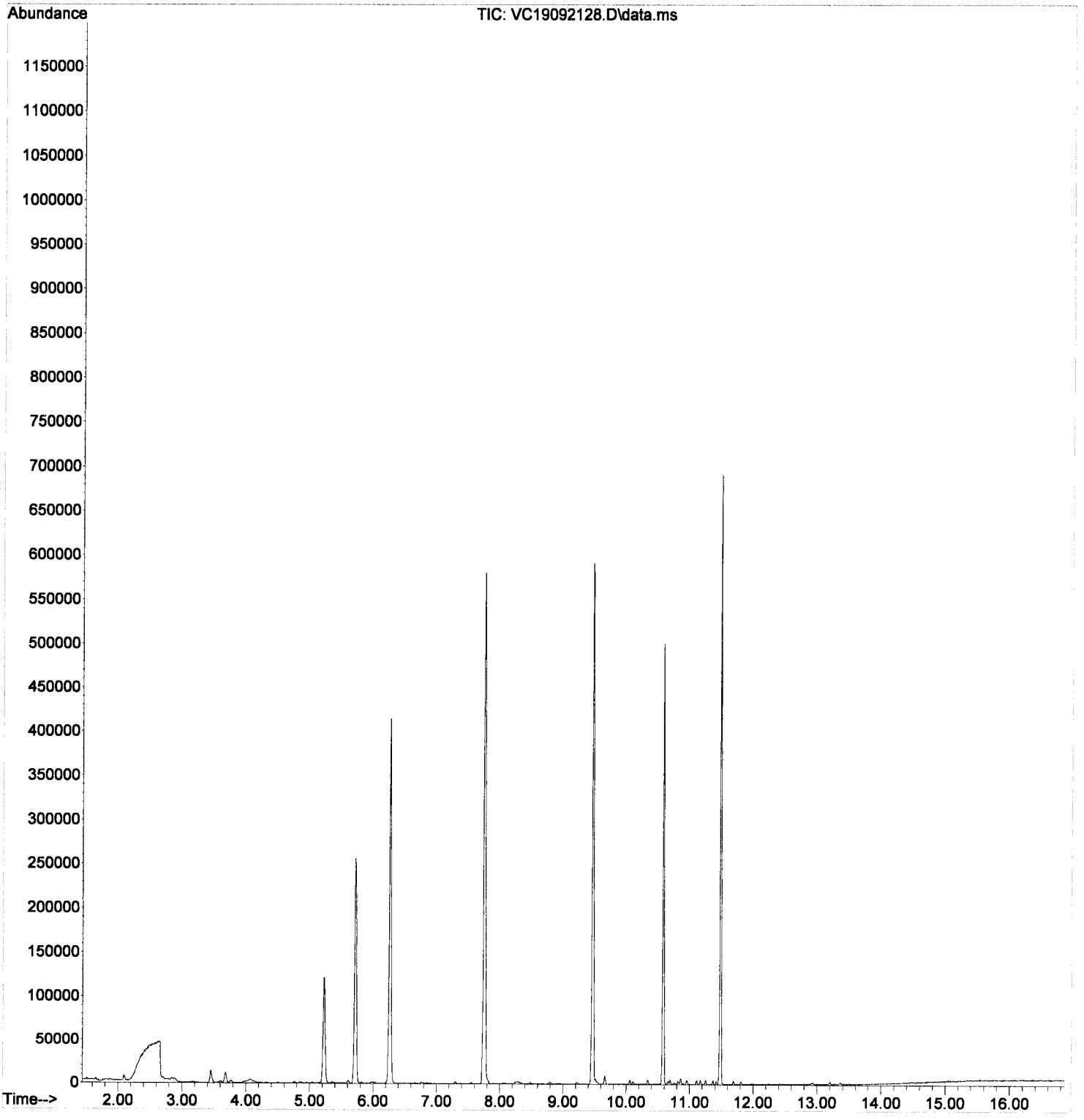
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.305	75	764	0.66	ug/L	#	45
50) 1,1,2-Trichloroethane	8.475	97	543	0.32	ug/L		80
51) Dibromochloromethane	8.682	129	346	0.73	ug/L		77
52) 1,3-Dichloropropane	8.792	76	1295	0.40	ug/L		74
53) 1,2-Dibromoethane (EDB)	8.932	107	639	0.37	ug/L		80
54) 2-Hexanone	9.224	43	1450	0.64	ug/L		92
55) Chlorobenzene	9.479	112	2088	0.38	ug/L	#	42
56) Ethylbenzene	9.516	91	3869	0.43	ug/L		94
57) 1,1,1,2-Tetrachloroethane	9.552	131	423	0.50	ug/L	#	41
58) m,p-Xylenes (2)	9.662	91	5408	0.86	ug/L		95
59) o-Xylene	10.057	91	2768	0.42	ug/L		96
60) Styrene	10.106	104	1322	0.31	ug/L		93
61) Bromoform	10.118	173	158	0.72	ug/L	#	37
62) Isopropylbenzene	10.343	105	2928	0.42	ug/L		89
65) Bromobenzene	10.659	156	689	0.38	ug/L	#	56
66) n-Propylbenzene	10.690	91	3490	0.45	ug/L		99
67) 1,1,2,2-Tetrachloroethane	10.763	83	712	0.37	ug/L		95
68) 2-Chlorotoluene	10.824	126	692	0.45	ug/L	#	79
69) 1,3,5-Trimethylbenzene	10.860	105	2437	0.45	ug/L		85
70) 1,2,3-Trichloropropane	10.860	110	241	0.27	ug/L		94
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
72) 4-Chlorotoluene	10.958	91	2098	0.44	ug/L		93
73) tert-Butylbenzene	11.110	91	1320	0.42	ug/L		87
74) 1,2,4-Trimethylbenzene	11.170	105	2322	0.44	ug/L		97
75) sec-Butylbenzene	11.256	105	2652	0.44	ug/L		92
76) 4-Isopropyltoluene	11.371	119	2294	0.47	ug/L		94
77) 1,3-Dichlorobenzene	11.420	146	1252	0.40	ug/L		82
78) 1,4-Dichlorobenzene	11.493	146	1568	0.48	ug/L	#	65
79) n-Butylbenzene	11.694	91	1988	0.45	ug/L		93
80) 1,2-Dichlorobenzene	11.809	146	1203	0.42	ug/L		90
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.			
82) Hexachlorobutadiene	12.910	223	169	0.38	ug/L	#	82
83) 1,2,4-Trichlorobenzene	12.941	180	680	0.38	ug/L		82
84) Naphthalene	13.202	128	2199	0.67	ug/L		96
85) 1,2,3-Trichlorobenzene	13.360	180	725	0.42	ug/L		90

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092128.D
Acq On : 21 Aug 2019 9:35 pm
Operator : MM
Sample : 9H21053-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOC+O+MeOH
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:21 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:07:49 2019
Quant Method : C:\msdchem\1\METHODS\~~VC190822S+~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.716	99	110633	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.463	117	321898	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.483	152	144214	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.223	111	82180	54.45	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.263	114	353323	55.78	ug/L		0.00
45) Toluene-d8 (S)	7.748	98	433132	48.80	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.583	174	117926	50.81	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.506	85	1372	0.81	ug/L		78
3) Chloromethane	1.688	50	2098	1.02	ug/L		95
4) Vinyl Chloride	1.774	62	1736	0.97	ug/L		90
5) Bromomethane	2.096	96	3951	0.21	ug/L		88
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	2.358	101	2010	1.10	ug/L		76
8) Ethanol	3.155	45	4949m	76.59	ug/L		
9) 1,1-Dichloroethene	2.832	61	2627	1.08	ug/L		89
10) Carbon Disulfide	2.844	76	3103	1.07	ug/L		93
11) Freon 113	2.881	101	1893	1.04	ug/L		97
12) Iodomethane	0.000		0	N.D.	d		
13) Methylene Chloride	3.453	84	8045	3.77	ug/L		92
14) Acetone	3.574	43	3772	3.80	ug/L		88
15) t-1,2-Dichloroethene	3.605	61	2398	1.11	ug/L		87
16) n-Hexane	3.684	86	1043	2.78	ug/L	#	78
17) Methyl-tert-butyl-ether	3.769	73	6623	1.08	ug/L		98
18) tert-Butanol (TBA)	4.073	59	35590m	62.90	ug/L		
19) Diisopropyl ether (DIPE)	4.152	45	1823	0.27	ug/L		74
20) 1,1-Dichloroethane	4.225	63	2333	1.05	ug/L		91
21) Acrylonitrile	4.310	53	978	0.92	ug/L		96
22) Ethyl-tert-butyl ether...	4.505	59	1788	0.26	ug/L		86
23) c-1,2-Dichloroethene	4.761	61	2614	1.18	ug/L		83
24) 2,2-Dichloropropane	4.858	77	2936	1.18	ug/L		71
25) Bromochloromethane	4.955	49	1438	1.12	ug/L		91
26) Chloroform	5.040	83	2817	1.05	ug/L		93
27) Carbon Tetrachloride	5.156	117	1728	1.18	ug/L		95
28) Tetrahydrofuran	5.235	42	1194	1.04	ug/L		90
29) 1,1,1-Trichloroethane	5.223	97	2999	1.11	ug/L		92
31) 1,1-Dichloropropene	5.357	75	2662	1.07	ug/L		94
32) 2-Butanone (MEK)	5.387	43	3933	2.26	ug/L		92
33) Benzene	5.612	78	7531	1.02	ug/L		98
34) tert-Amyl methyl ether...	5.764	73	1606	0.27	ug/L		71
35) 1,2-Dichloroethane (EDC)	5.825	62	3413	1.12	ug/L		94
36) iso-Butyl Alcohol	5.996	43	5088	26.23	ug/L		95
38) Trichloroethene (TCE)	6.227	130	2038	1.11	ug/L		92
39) tert-Amyl ethyl ether ...	6.482	59	1152	0.29	ug/L	#	39
40) Dibromomethane	6.665	93	960	1.09	ug/L		95
41) 1,2-Dichloropropane	6.768	63	1903	1.01	ug/L		92
42) Bromodichloromethane	6.853	83	1684	1.17	ug/L		93
44) c-1,3-Dichloropropene	7.541	75	2294	0.99	ug/L		97
46) Toluene	7.808	91	8915	1.00	ug/L		99
47) Tetrachloroethene (PCE)	8.253	166	2005	0.94	ug/L		89
48) 4-Methyl-2-Pentanone (...	8.283	43	5508	1.87	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:07:49 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.301	75	2267	1.18	ug/L		95
50) 1,1,2-Trichloroethane	8.490	97	1746	1.01	ug/L		89
51) Dibromochloromethane	8.678	129	941	1.20	ug/L		79
52) 1,3-Dichloropropane	8.794	76	3035	0.93	ug/L		86
53) 1,2-Dibromoethane (EDB)	8.934	107	1494	0.86	ug/L		96
54) 2-Hexanone	9.220	43	3993	1.75	ug/L		83
55) Chlorobenzene	9.481	112	5346	0.96	ug/L		95
56) Ethylbenzene	9.518	91	9087	1.00	ug/L		97
57) 1,1,1,2-Tetrachloroethane	9.548	131	1321	1.11	ug/L		86
58) m,p-Xylenes (2)	9.658	91	13091	2.06	ug/L		92
59) o-Xylene	10.059	91	6402	0.97	ug/L		90
60) Styrene	10.108	104	3833	0.90	ug/L		97
61) Bromoform	10.114	173	539	1.24	ug/L	#	37
62) Isopropylbenzene	10.339	105	7780	1.09	ug/L		97
65) Bromobenzene	10.662	156	2093	1.14	ug/L		98
66) n-Propylbenzene	10.692	91	8794	1.12	ug/L		93
67) 1,1,2,2-Tetrachloroethane	10.759	83	1863	0.95	ug/L		92
68) 2-Chlorotoluene	10.820	126	1865	1.21	ug/L		98
69) 1,3,5-Trimethylbenzene	10.856	105	5886	1.09	ug/L		90
70) 1,2,3-Trichloropropane	10.862	110	795	0.90	ug/L	#	74
71) t-1,4-Dichloro-2-butene	10.899	88	176	1.62	ug/L	#	53
72) 4-Chlorotoluene	10.960	91	5125	1.06	ug/L		98
73) tert-Butylbenzene	11.112	91	3686	1.17	ug/L		88
74) 1,2,4-Trimethylbenzene	11.167	105	5825	1.09	ug/L		99
75) sec-Butylbenzene	11.252	105	7139	1.18	ug/L		91
76) 4-Isopropyltoluene	11.367	119	5742	1.17	ug/L		96
77) 1,3-Dichlorobenzene	11.422	146	3400	1.08	ug/L		91
78) 1,4-Dichlorobenzene	11.495	146	3595	1.09	ug/L		88
79) n-Butylbenzene	11.690	91	5382	1.21	ug/L		89
80) 1,2-Dichlorobenzene	11.811	146	3327	1.16	ug/L		92
81) 1,2-Dibromo-3-Chloropr...	12.414	157	318	1.35	ug/L	#	1
82) Hexachlorobutadiene	12.906	223	621	1.21	ug/L	#	72
83) 1,2,4-Trichlorobenzene	12.937	180	2003	1.12	ug/L		95
84) Naphthalene	13.204	128	5466	1.22	ug/L		99
85) 1,2,3-Trichlorobenzene	13.357	180	1979	1.15	ug/L		80

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:23 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.716	99	110633	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.463	117	321898	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.483	152	144214	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.223	111	82180	54.45	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.263	114	353323	55.78	ug/L		0.00
45) Toluene-d8 (S)	7.748	98	433132	48.80	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.583	174	117926	50.81	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.506	85	1372	0.81	ug/L		78
3) Chloromethane	1.688	50	2098	1.02	ug/L		95
4) Vinyl Chloride	1.774	62	1736	0.97	ug/L		90
5) Bromomethane	2.096	96	3951	0.21	ug/L		88
6) Chloroethane	2.230	64	697	0.78	ug/L	#	30
7) Trichlorofluoromethane	2.358	101	2010	1.10	ug/L		76
8) Ethanol	3.167	45	4914	7.60	ug/L		72
9) 1,1-Dichloroethene	2.832	61	2627	1.08	ug/L		89
10) Carbon Disulfide	2.844	76	3103	1.07	ug/L		93
11) Freon 113	2.881	101	1893	1.04	ug/L		97
12) Iodomethane	2.984	142	50	0.59	ug/L	#	47
13) Methylene Chloride	3.453	84	8045	3.77	ug/L		92
14) Acetone	3.574	43	3772	3.80	ug/L		88
15) t-1,2-Dichloroethene	3.605	61	2398	1.11	ug/L		87
16) n-Hexane	3.684	86	1043	2.78	ug/L	#	78
17) Methyl-tert-butyl-ether	3.769	73	6623	1.08	ug/L		98
18) tert-Butanol (TBA)	4.073	59	30471	53.86	ug/L	#	98
19) Diisopropyl ether (DIPE)	4.152	45	1823	0.27	ug/L		74
20) 1,1-Dichloroethane	4.225	63	2333	1.05	ug/L		91
21) Acrylonitrile	4.310	53	978	0.92	ug/L		96
22) Ethyl-tert-butyl ether...	4.505	59	1788	0.26	ug/L		86
23) c-1,2-Dichloroethene	4.761	61	2614	1.18	ug/L		83
24) 2,2-Dichloropropane	4.858	77	2936	1.18	ug/L		71
25) Bromochloromethane	4.955	49	1438	1.12	ug/L		91
26) Chloroform	5.040	83	2817	1.05	ug/L		93
27) Carbon Tetrachloride	5.156	117	1728	1.18	ug/L		95
28) Tetrahydrofuran	5.235	42	1194	1.04	ug/L		90
29) 1,1,1-Trichloroethane	5.223	97	2999	1.11	ug/L		92
31) 1,1-Dichloropropene	5.357	75	2662	1.07	ug/L		94
32) 2-Butanone (MEK)	5.387	43	3933	2.26	ug/L		92
33) Benzene	5.612	78	7531	1.02	ug/L		98
34) tert-Amyl methyl ether...	5.764	73	1606	0.27	ug/L		71
35) 1,2-Dichloroethane (EDC)	5.825	62	3413	1.12	ug/L		94
36) iso-Butyl Alcohol	5.996	43	5088	26.23	ug/L		95
38) Trichloroethene (TCE)	6.227	130	2038	1.11	ug/L		92
39) tert-Amyl ethyl ether ...	6.482	59	1152	0.29	ug/L	#	39
40) Dibromomethane	6.665	93	960	1.09	ug/L		95
41) 1,2-Dichloropropane	6.768	63	1903	1.01	ug/L		92
42) Bromodichloromethane	6.853	83	1684	1.17	ug/L		93
44) c-1,3-Dichloropropene	7.541	75	2294	0.99	ug/L		97
46) Toluene	7.808	91	8915	1.00	ug/L		99
47) Tetrachloroethene (PCE)	8.253	166	2005	0.94	ug/L		89
48) 4-Methyl-2-Pentanone (...	8.283	43	5508	1.87	ug/L		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:23 2019
Quant Method : C:\msdchem\1\METHODS\~~VC190822S+~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

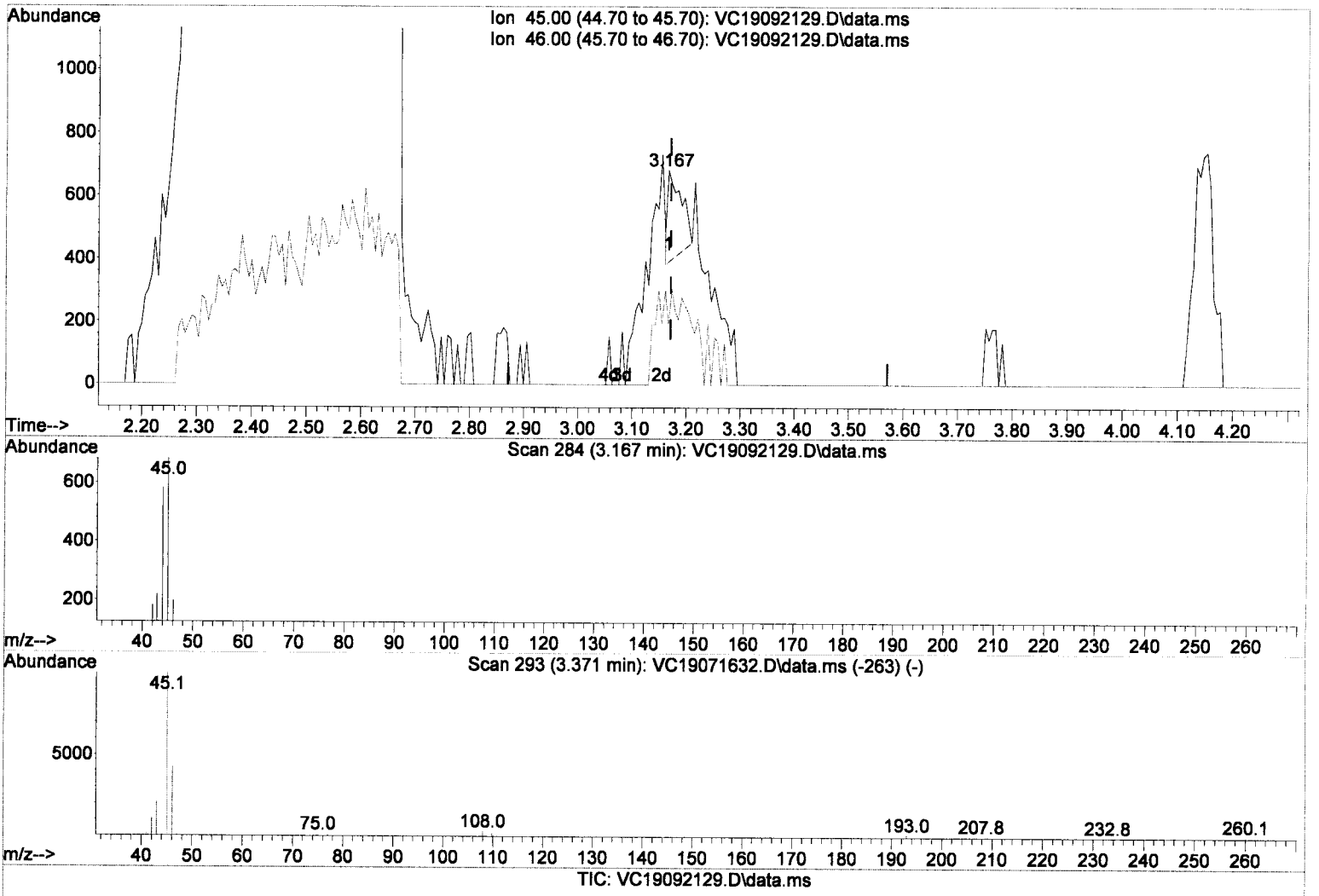
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.301	75	2267	1.18	ug/L		95
50) 1,1,2-Trichloroethane	8.490	97	1746	1.01	ug/L		89
51) Dibromochloromethane	8.678	129	941	1.20	ug/L		79
52) 1,3-Dichloropropane	8.794	76	3035	0.93	ug/L		86
53) 1,2-Dibromoethane (EDB)	8.934	107	1494	0.86	ug/L		96
54) 2-Hexanone	9.220	43	3993	1.75	ug/L		83
55) Chlorobenzene	9.481	112	5346	0.96	ug/L		95
56) Ethylbenzene	9.518	91	9087	1.00	ug/L		97
57) 1,1,1,2-Tetrachloroethane	9.548	131	1321	1.11	ug/L		86
58) m,p-Xylenes (2)	9.658	91	13091	2.06	ug/L		92
59) o-Xylene	10.059	91	6402	0.97	ug/L		90
60) Styrene	10.108	104	3833	0.90	ug/L		97
61) Bromoform	10.114	173	539	1.24	ug/L	#	37
62) Isopropylbenzene	10.339	105	7780	1.09	ug/L		97
65) Bromobenzene	10.662	156	2093	1.14	ug/L		98
66) n-Propylbenzene	10.692	91	8794	1.12	ug/L		93
67) 1,1,2,2-Tetrachloroethane	10.759	83	1863	0.95	ug/L		92
68) 2-Chlorotoluene	10.820	126	1865	1.21	ug/L		98
69) 1,3,5-Trimethylbenzene	10.856	105	5886	1.09	ug/L		90
70) 1,2,3-Trichloropropane	10.862	110	795	0.90	ug/L	#	74
71) t-1,4-Dichloro-2-butene	10.899	88	176	1.62	ug/L	#	53
72) 4-Chlorotoluene	10.960	91	5125	1.06	ug/L		98
73) tert-Butylbenzene	11.112	91	3686	1.17	ug/L		88
74) 1,2,4-Trimethylbenzene	11.167	105	5825	1.09	ug/L		99
75) sec-Butylbenzene	11.252	105	7139	1.18	ug/L		91
76) 4-Isopropyltoluene	11.367	119	5742	1.17	ug/L		96
77) 1,3-Dichlorobenzene	11.422	146	3400	1.08	ug/L		91
78) 1,4-Dichlorobenzene	11.495	146	3595	1.09	ug/L		88
79) n-Butylbenzene	11.690	91	5382	1.21	ug/L		89
80) 1,2-Dichlorobenzene	11.811	146	3327	1.16	ug/L		92
81) 1,2-Dibromo-3-Chloropr...	12.414	157	318	1.35	ug/L	#	1
82) Hexachlorobutadiene	12.906	223	621	1.21	ug/L	#	72
83) 1,2,4-Trichlorobenzene	12.937	180	2003	1.12	ug/L		95
84) Naphthalene	13.204	128	5466	1.22	ug/L		99
85) 1,2,3-Trichlorobenzene	13.357	180	1979	1.15	ug/L		80

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:23 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



TIC: VC19092129.D\data.ms

(8) Ethanol

3.167min (-0.004) 7.60 ug/L

response 491

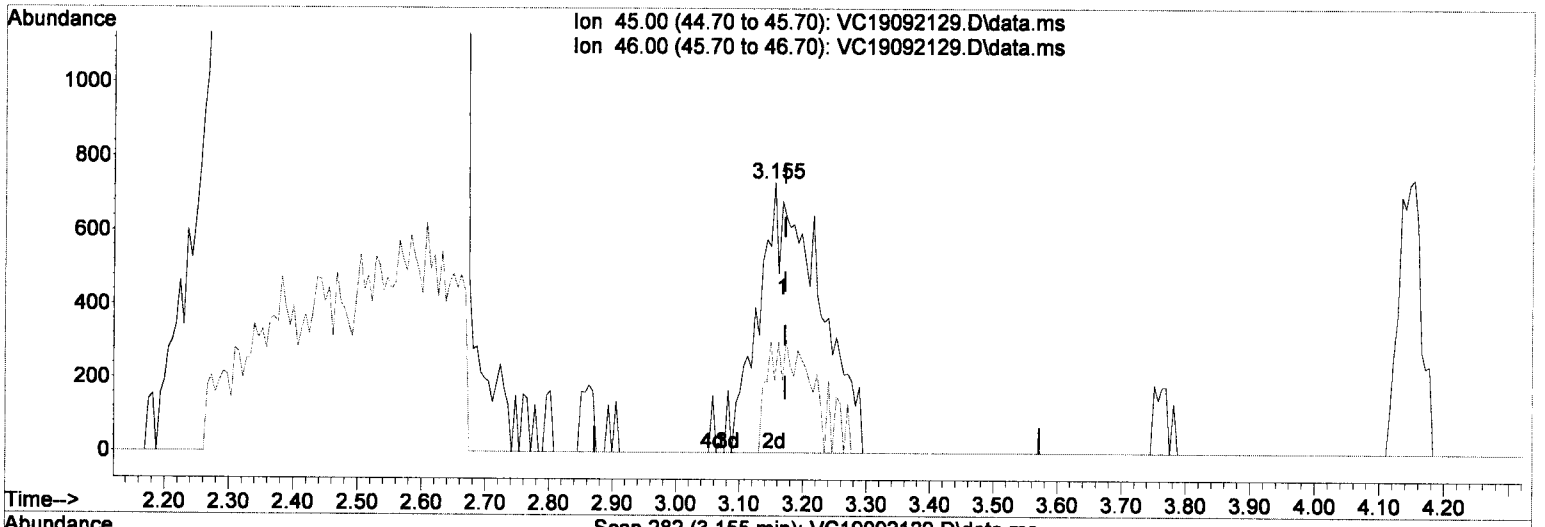
M.Z.

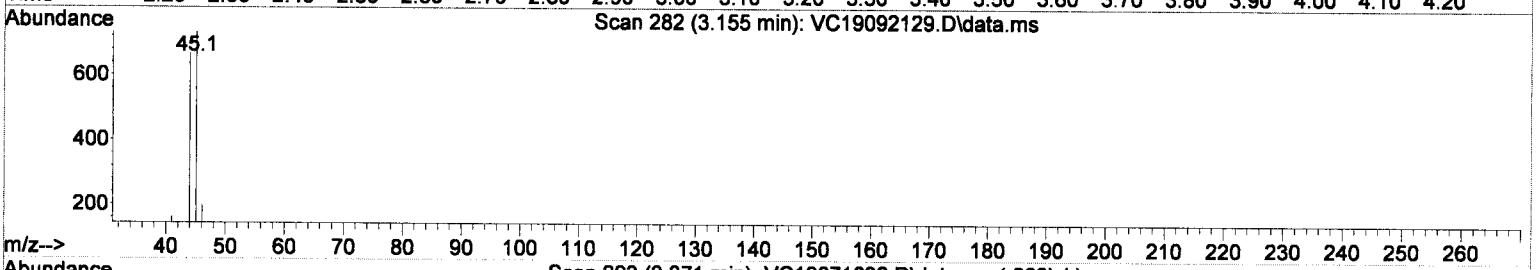
Ion	Exp%	Act%
45.00	100	100
46.00	47.50	28.89
0.00	0.00	0.00
0.00	0.00	0.00

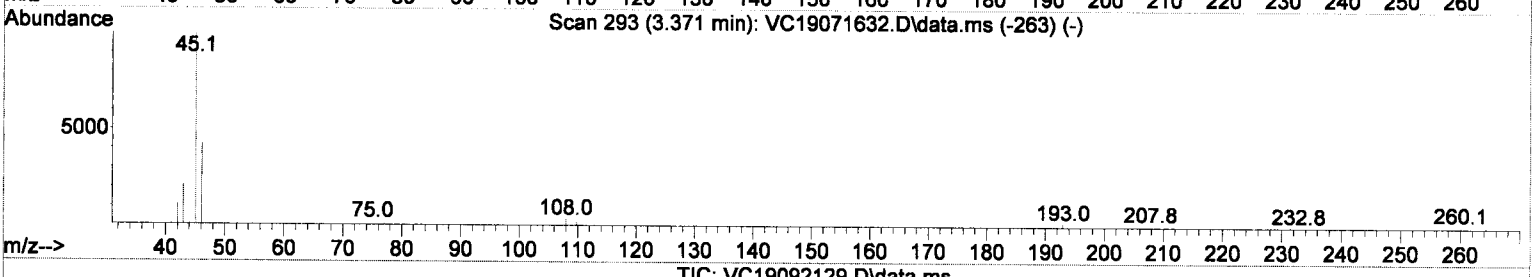
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:23 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration







TIC: VC19092129.D\data.ms

(8) Ethanol

3.155min (-0.017) 76.59 ug/L m

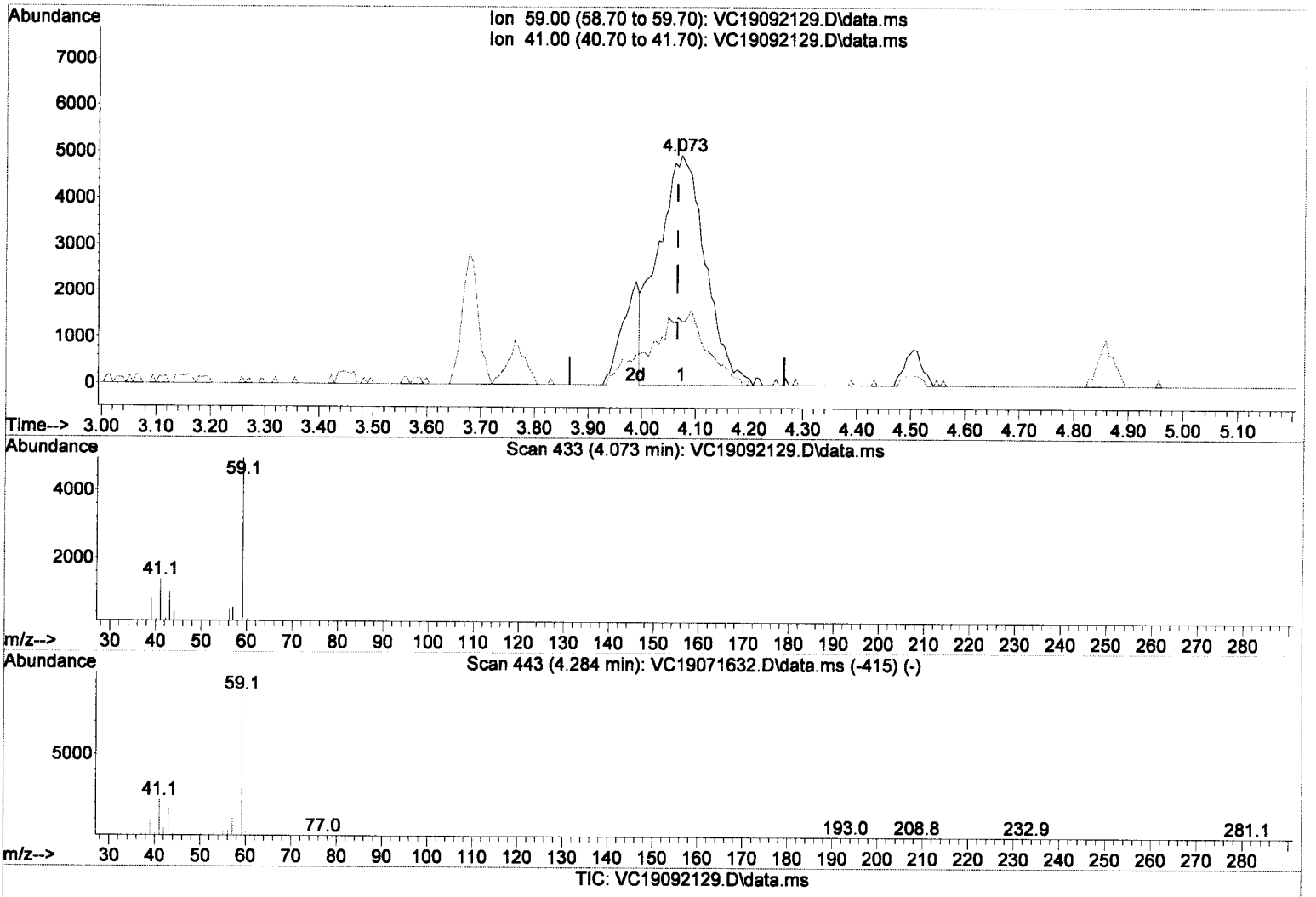
response 4949

Ion	Exp%	Act%
45.00	100	100
46.00	47.50	26.95
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:23 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



TIC: VC19092129.D\data.ms

(18) tert-Butanol (TBA)

4.073min (+0.008) 53.86 ug/L

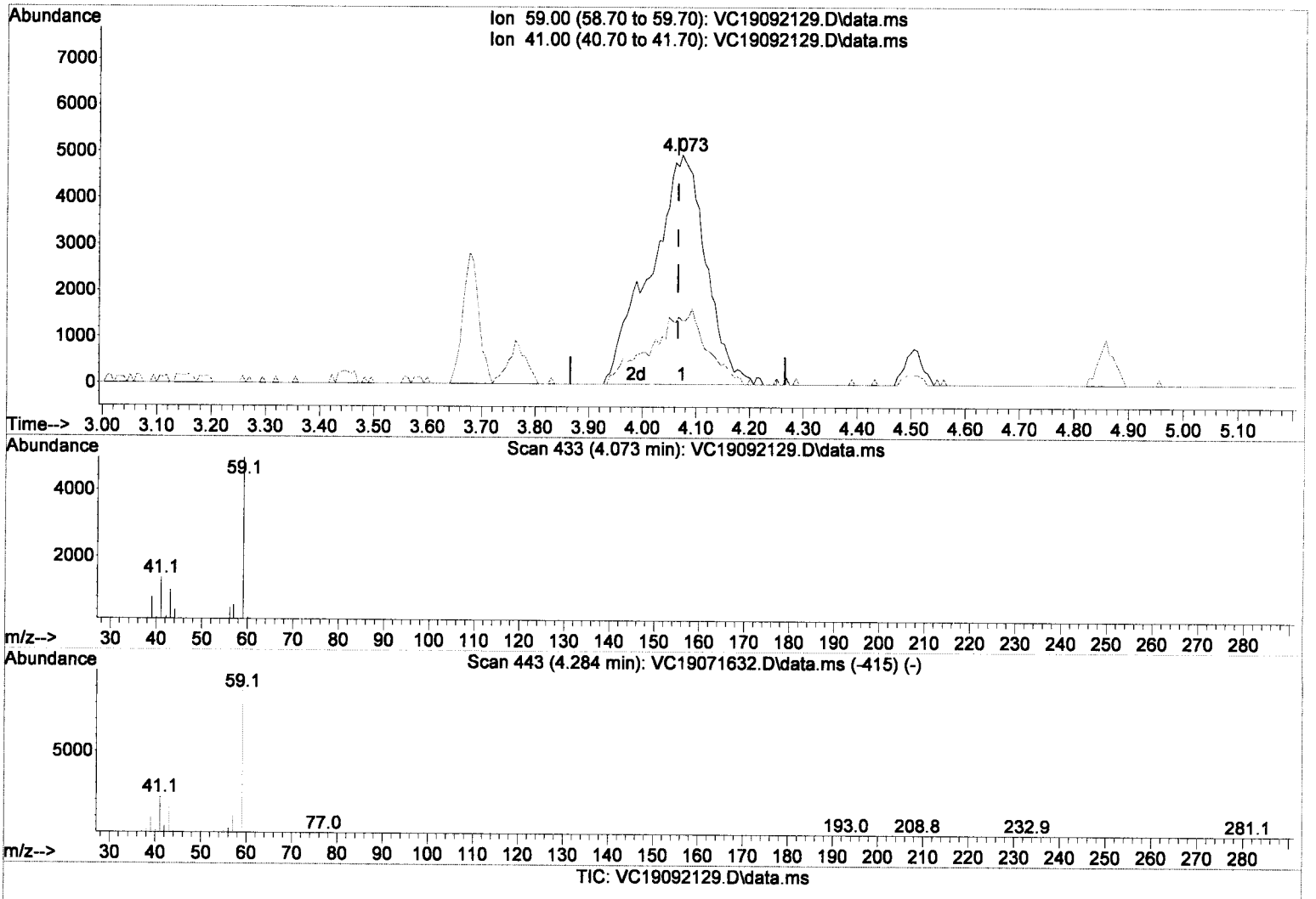
response 30471

Ion	Exp%	Act%
59.00	100	100
41.00	28.80	27.80#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:23 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



(18) tert-Butanol (TBA)

4.073min (+0.008) 62.90 ug/L m

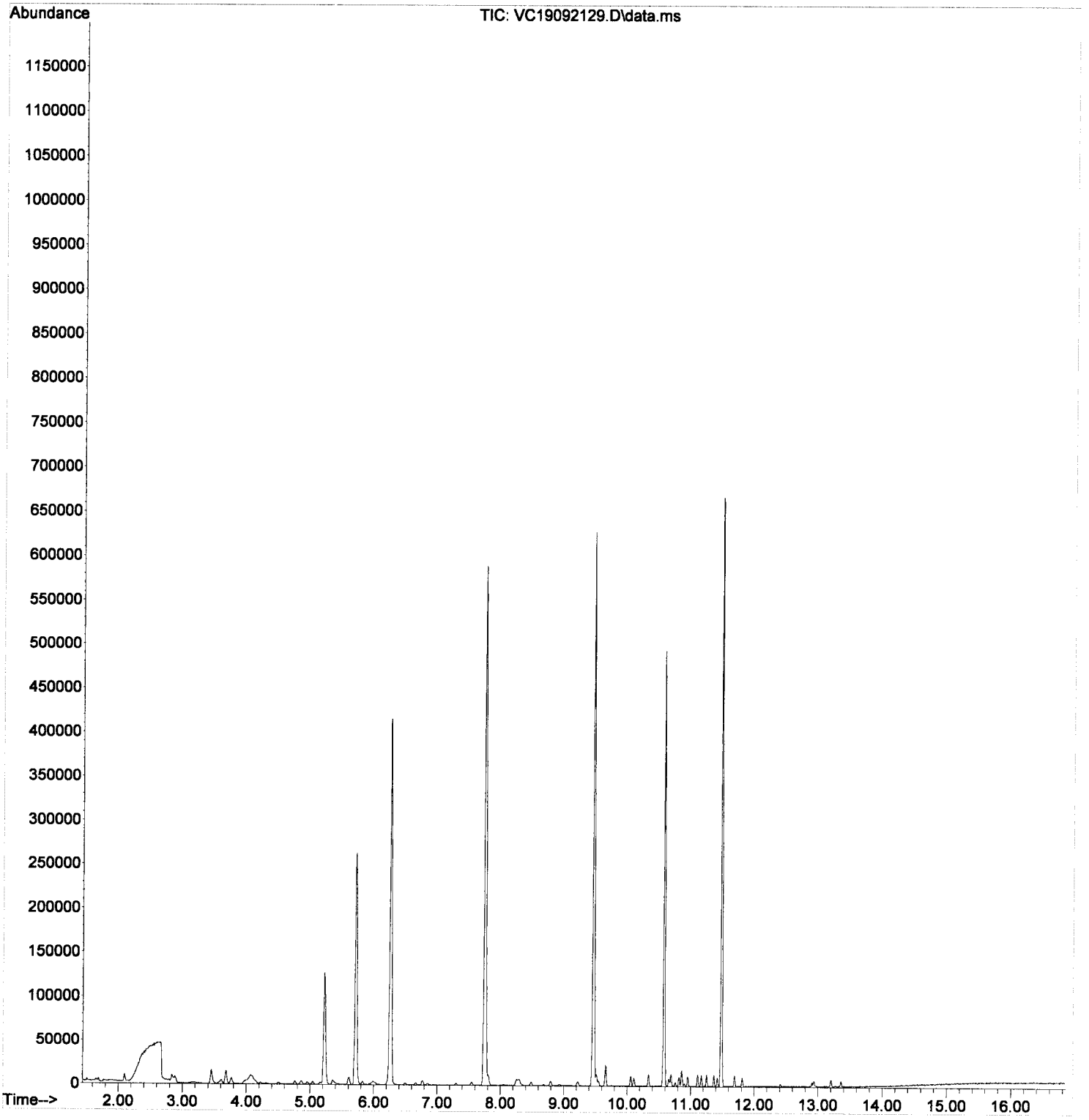
response 35590

Ion	Exp%	Act%
59.00	100	100
41.00	28.80	27.80#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092129.D
Acq On : 21 Aug 2019 10:02 pm
Operator : MM
Sample : 9H21053-CAL4
Misc : 1X 5mL 1/2PPB VOC+O+MeOH
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:23 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092130.D
Acq On : 21 Aug 2019 10:29 pm
Operator : MM
Sample : 9H21053-CAL5
Misc : 1X 5mL 2/4PPB VOC+O+MeOH
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:09:47 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.710	99	112391	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.464	117	323276	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.484	152	145233	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.224	111	83585	54.51	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.258	114	355959	55.32	ug/L		0.00
45) Toluene-d8 (S)	7.748	98	440301	49.40	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.583	174	119171	50.98	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.507	85	3161	1.84	ug/L		96
3) Chloromethane	1.689	50	4144	1.98	ug/L		96
4) Vinyl Chloride	1.768	62	3910	2.16	ug/L		90
5) Bromomethane	2.097	96	5235	1.50	ug/L		96
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	2.352	101	4187	2.26	ug/L		94
8) Ethanol	3.167	45	8585m	130.78	ug/L		
9) 1,1-Dichloroethene	2.833	61	5260	2.13	ug/L		90
10) Carbon Disulfide	2.839	76	6353	2.15	ug/L		96
11) Freon 113	2.888	101	3737	2.02	ug/L		88
12) Iodomethane	0.000		0	N.D.	d		
13) Methylene Chloride	3.447	84	9138	4.42	ug/L		94
14) Acetone	3.575	43	5962	5.91	ug/L		78
15) t-1,2-Dichloroethene	3.605	61	4704	2.15	ug/L		94
16) n-Hexane	3.672	86	1528	4.01	ug/L	#	66
17) Methyl-tert-butyl-ether	3.758	73	13739	2.21	ug/L		91
18) tert-Butanol (TBA)	4.074	59	72418	125.99	ug/L	#	99
19) Diisopropyl ether (DIPE)	4.147	45	3554	0.52	ug/L		86
20) 1,1-Dichloroethane	4.226	63	5076	2.24	ug/L		95
21) Acrylonitrile	4.311	53	2097	1.95	ug/L		89
22) Ethyl-tert-butyl ether...	4.500	59	3353	0.49	ug/L		89
23) c-1,2-Dichloroethene	4.755	61	5106	2.27	ug/L		87
24) 2,2-Dichloropropane	4.865	77	5586	2.20	ug/L		92
25) Bromochloromethane	4.950	49	2910	2.23	ug/L		87
26) Chloroform	5.041	83	5912	2.17	ug/L		88
27) Carbon Tetrachloride	5.157	117	3793	2.27	ug/L		95
28) Tetrahydrofuran	5.230	42	2585	2.22	ug/L		85
29) 1,1,1-Trichloroethane	5.230	97	6110	2.22	ug/L		98
31) 1,1-Dichloropropene	5.351	75	5231	2.08	ug/L		94
32) 2-Butanone (MEK)	5.382	43	7993	4.53	ug/L		80
33) Benzene	5.607	78	15717	2.10	ug/L		96
34) tert-Amyl methyl ether...	5.753	73	2958	0.49	ug/L		90
35) 1,2-Dichloroethane (EDC)	5.820	62	7050	2.28	ug/L		91
36) iso-Butyl Alcohol	5.990	43	10370	52.63	ug/L		92
38) Trichloroethene (TCE)	6.215	130	4175	2.23	ug/L		90
39) tert-Amyl ethyl ether ...	6.489	59	2378	0.59	ug/L		79
40) Dibromomethane	6.659	93	2077	2.33	ug/L		85
41) 1,2-Dichloropropane	6.769	63	3882	2.03	ug/L		78
42) Bromodichloromethane	6.842	83	3589	2.12	ug/L		93
44) c-1,3-Dichloropropene	7.548	75	4773	1.87	ug/L		86
46) Toluene	7.809	91	16972	1.89	ug/L		94
47) Tetrachloroethene (PCE)	8.253	166	4229	1.97	ug/L		93
48) 4-Methyl-2-Pentanone (...	8.284	43	11269	3.80	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092130.D
Acq On : 21 Aug 2019 10:29 pm
Operator : MM
Sample : 9H21053-CAL5
Misc : 1X 5mL 2/4PPB VOC+O+MeOH
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:09:47 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.302	75	4346	1.89	ug/L	97
50) 1,1,2-Trichloroethane	8.484	97	3254	1.87	ug/L	84
51) Dibromochloromethane	8.685	129	1977	2.00	ug/L	78
52) 1,3-Dichloropropane	8.795	76	6484	1.98	ug/L	96
53) 1,2-Dibromoethane (EDB)	8.929	107	2966	1.71	ug/L	95
54) 2-Hexanone	9.214	43	8091	3.53	ug/L	96
55) Chlorobenzene	9.482	112	10970	1.95	ug/L	95
56) Ethylbenzene	9.519	91	18558	2.03	ug/L	94
57) 1,1,1,2-Tetrachloroethane	9.549	131	2551	1.95	ug/L	87
58) m,p-Xylenes (2)	9.659	91	26521	4.16	ug/L	92
59) o-Xylene	10.054	91	12803	1.93	ug/L	92
60) Styrene	10.109	104	8038	1.87	ug/L	96
61) Bromoform	10.121	173	1157	2.09	ug/L	91
62) Isopropylbenzene	10.340	105	15493	2.16	ug/L	94
65) Bromobenzene	10.662	156	3782	2.04	ug/L	91
66) n-Propylbenzene	10.693	91	18307	2.32	ug/L	98
67) 1,1,2,2-Tetrachloroethane	10.766	83	3812	1.94	ug/L	97
68) 2-Chlorotoluene	10.814	126	3615	2.32	ug/L	95
69) 1,3,5-Trimethylbenzene	10.857	105	12738	2.34	ug/L	90
70) 1,2,3-Trichloropropane	10.863	110	1777	1.99	ug/L	88
71) t-1,4-Dichloro-2-butene	10.900	88	359	2.16	ug/L #	54
72) 4-Chlorotoluene	10.954	91	10526	2.16	ug/L	92
73) tert-Butylbenzene	11.112	91	7359	2.32	ug/L	86
74) 1,2,4-Trimethylbenzene	11.167	105	12961	2.40	ug/L	92
75) sec-Butylbenzene	11.252	105	15013	2.47	ug/L	97
76) 4-Isopropyltoluene	11.368	119	12684	2.56	ug/L	95
77) 1,3-Dichlorobenzene	11.423	146	7153	2.26	ug/L	96
78) 1,4-Dichlorobenzene	11.490	146	7246	2.19	ug/L	85
79) n-Butylbenzene	11.690	91	10966	2.45	ug/L	96
80) 1,2-Dichlorobenzene	11.812	146	6480	2.25	ug/L	94
81) 1,2-Dibromo-3-Chloropr...	12.414	157	767	2.17	ug/L #	61
82) Hexachlorobutadiene	12.907	223	1244	2.41	ug/L	82
83) 1,2,4-Trichlorobenzene	12.938	180	3988	2.22	ug/L	92
84) Naphthalene	13.199	128	11074	2.16	ug/L	98
85) 1,2,3-Trichlorobenzene	13.357	180	3846	2.22	ug/L	92

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092130.D
Acq On : 21 Aug 2019 10:29 pm
Operator : MM
Sample : 9H21053-CAL5
Misc : 1X 5mL 2/4PPB VOC+O+MeOH
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:25 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.710	99	112391	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.464	117	323276	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.484	152	145233	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.224	111	83585	54.51	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.258	114	355959	55.32	ug/L		0.00
45) Toluene-d8 (S)	7.748	98	440301	49.40	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.583	174	119171	50.98	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.507	85	3161	1.84	ug/L		96
3) Chloromethane	1.689	50	4144	1.98	ug/L		96
4) Vinyl Chloride	1.768	62	3910	2.16	ug/L		90
5) Bromomethane	2.097	96	5235	1.50	ug/L		96
6) Chloroethane	2.225	64	1507	1.66	ug/L	#	28
7) Trichlorofluoromethane	2.352	101	4187	2.26	ug/L		94
8) Ethanol	3.167	45	81755	124.53	ug/L		83
9) 1,1-Dichloroethene	2.833	61	5260	2.13	ug/L		90
10) Carbon Disulfide	2.839	76	6353	2.15	ug/L		96
11) Freon 113	2.888	101	3737	2.02	ug/L		88
12) Iodomethane	2.973	142	255	1.07	ug/L	#	47
13) Methylene Chloride	3.447	84	9138	4.42	ug/L		94
14) Acetone	3.575	43	5962	5.91	ug/L		78
15) t-1,2-Dichloroethene	3.605	61	4704	2.15	ug/L		94
16) n-Hexane	3.672	86	1528	4.01	ug/L	#	66
17) Methyl-tert-butyl-ether	3.758	73	13739	2.21	ug/L		91
18) tert-Butanol (TBA)	4.074	59	72418	125.99	ug/L	#	99
19) Diisopropyl ether (DIPE)	4.147	45	3554	0.52	ug/L		86
20) 1,1-Dichloroethane	4.226	63	5076	2.24	ug/L		95
21) Acrylonitrile	4.311	53	2097	1.95	ug/L		89
22) Ethyl-tert-butyl ether...	4.500	59	3353	0.49	ug/L		89
23) c-1,2-Dichloroethene	4.755	61	5106	2.27	ug/L		87
24) 2,2-Dichloropropane	4.865	77	5586	2.20	ug/L		92
25) Bromochloromethane	4.950	49	2910	2.23	ug/L		87
26) Chloroform	5.041	83	5912	2.17	ug/L		88
27) Carbon Tetrachloride	5.157	117	3793	2.27	ug/L		95
28) Tetrahydrofuran	5.230	42	2585	2.22	ug/L		85
29) 1,1,1-Trichloroethane	5.230	97	6110	2.22	ug/L		98
31) 1,1-Dichloropropene	5.351	75	5231	2.08	ug/L		94
32) 2-Butanone (MEK)	5.382	43	7993	4.53	ug/L		80
33) Benzene	5.607	78	15717	2.10	ug/L		96
34) tert-Amyl methyl ether...	5.753	73	2958	0.49	ug/L		90
35) 1,2-Dichloroethane (EDC)	5.820	62	7050	2.28	ug/L		91
36) iso-Butyl Alcohol	5.990	43	10370	52.63	ug/L		92
38) Trichloroethene (TCE)	6.215	130	4175	2.23	ug/L		90
39) tert-Amyl ethyl ether ...	6.489	59	2378	0.59	ug/L		79
40) Dibromomethane	6.659	93	2077	2.33	ug/L		85
41) 1,2-Dichloropropane	6.769	63	3882	2.03	ug/L		78
42) Bromodichloromethane	6.842	83	3589	2.12	ug/L		93
44) c-1,3-Dichloropropene	7.548	75	4773	1.87	ug/L		86
46) Toluene	7.809	91	16972	1.89	ug/L		94
47) Tetrachloroethene (PCE)	8.253	166	4229	1.97	ug/L		93
48) 4-Methyl-2-Pentanone (...	8.284	43	11269	3.80	ug/L		87

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092130.D
Acq On : 21 Aug 2019 10:29 pm
Operator : MM
Sample : 9H21053-CAL5
Misc : 1X 5mL 2/4PPB VOC+O+MeOH
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:25 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

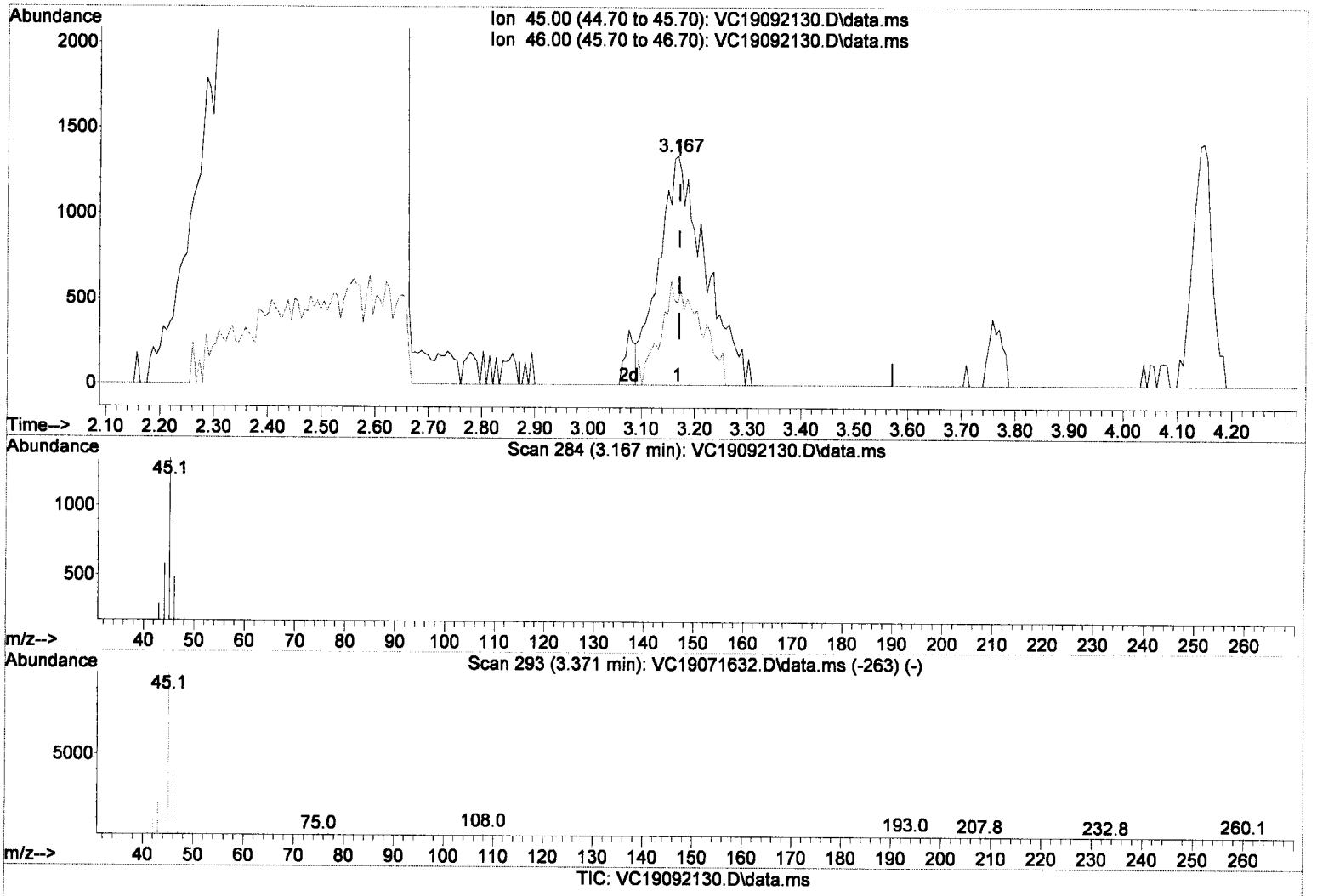
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.302	75	4346	1.89	ug/L		97
50) 1,1,2-Trichloroethane	8.484	97	3254	1.87	ug/L		84
51) Dibromochloromethane	8.685	129	1977	2.00	ug/L		78
52) 1,3-Dichloropropane	8.795	76	6484	1.98	ug/L		96
53) 1,2-Dibromoethane (EDB)	8.929	107	2966	1.71	ug/L		95
54) 2-Hexanone	9.214	43	8091	3.53	ug/L		96
55) Chlorobenzene	9.482	112	10970	1.95	ug/L		95
56) Ethylbenzene	9.519	91	18558	2.03	ug/L		94
57) 1,1,1,2-Tetrachloroethane	9.549	131	2551	1.95	ug/L		87
58) m,p-Xylenes (2)	9.659	91	26521	4.16	ug/L		92
59) o-Xylene	10.054	91	12803	1.93	ug/L		92
60) Styrene	10.109	104	8038	1.87	ug/L		96
61) Bromoform	10.121	173	1157	2.09	ug/L		91
62) Isopropylbenzene	10.340	105	15493	2.16	ug/L		94
65) Bromobenzene	10.662	156	3782	2.04	ug/L		91
66) n-Propylbenzene	10.693	91	18307	2.32	ug/L		98
67) 1,1,2,2-Tetrachloroethane	10.766	83	3812	1.94	ug/L		97
68) 2-Chlorotoluene	10.814	126	3615	2.32	ug/L		95
69) 1,3,5-Trimethylbenzene	10.857	105	12738	2.34	ug/L		90
70) 1,2,3-Trichloropropane	10.863	110	1777	1.99	ug/L		88
71) t-1,4-Dichloro-2-butene	10.900	88	359	2.16	ug/L	#	54
72) 4-Chlorotoluene	10.954	91	10526	2.16	ug/L		92
73) tert-Butylbenzene	11.112	91	7359	2.32	ug/L		86
74) 1,2,4-Trimethylbenzene	11.167	105	12961	2.40	ug/L		92
75) sec-Butylbenzene	11.252	105	15013	2.47	ug/L		97
76) 4-Isopropyltoluene	11.368	119	12684	2.56	ug/L		95
77) 1,3-Dichlorobenzene	11.423	146	7153	2.26	ug/L		96
78) 1,4-Dichlorobenzene	11.490	146	7246	2.19	ug/L		85
79) n-Butylbenzene	11.690	91	10966	2.45	ug/L		96
80) 1,2-Dichlorobenzene	11.812	146	6480	2.25	ug/L		94
81) 1,2-Dibromo-3-Chloropr...	12.414	157	767	2.17	ug/L	#	61
82) Hexachlorobutadiene	12.907	223	1244	2.41	ug/L		82
83) 1,2,4-Trichlorobenzene	12.938	180	3988	2.22	ug/L		92
84) Naphthalene	13.199	128	11074	2.16	ug/L		98
85) 1,2,3-Trichlorobenzene	13.357	180	3846	2.22	ug/L		92

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092130.D
Acq On : 21 Aug 2019 10:29 pm
Operator : MM
Sample : 9H21053-CAL5
Misc : 1X 5mL 2/4PPB VOC+O+MeOH
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:25 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



(8) Ethanol

3.167min (-0.004) 124.53 ug/L

response 8175

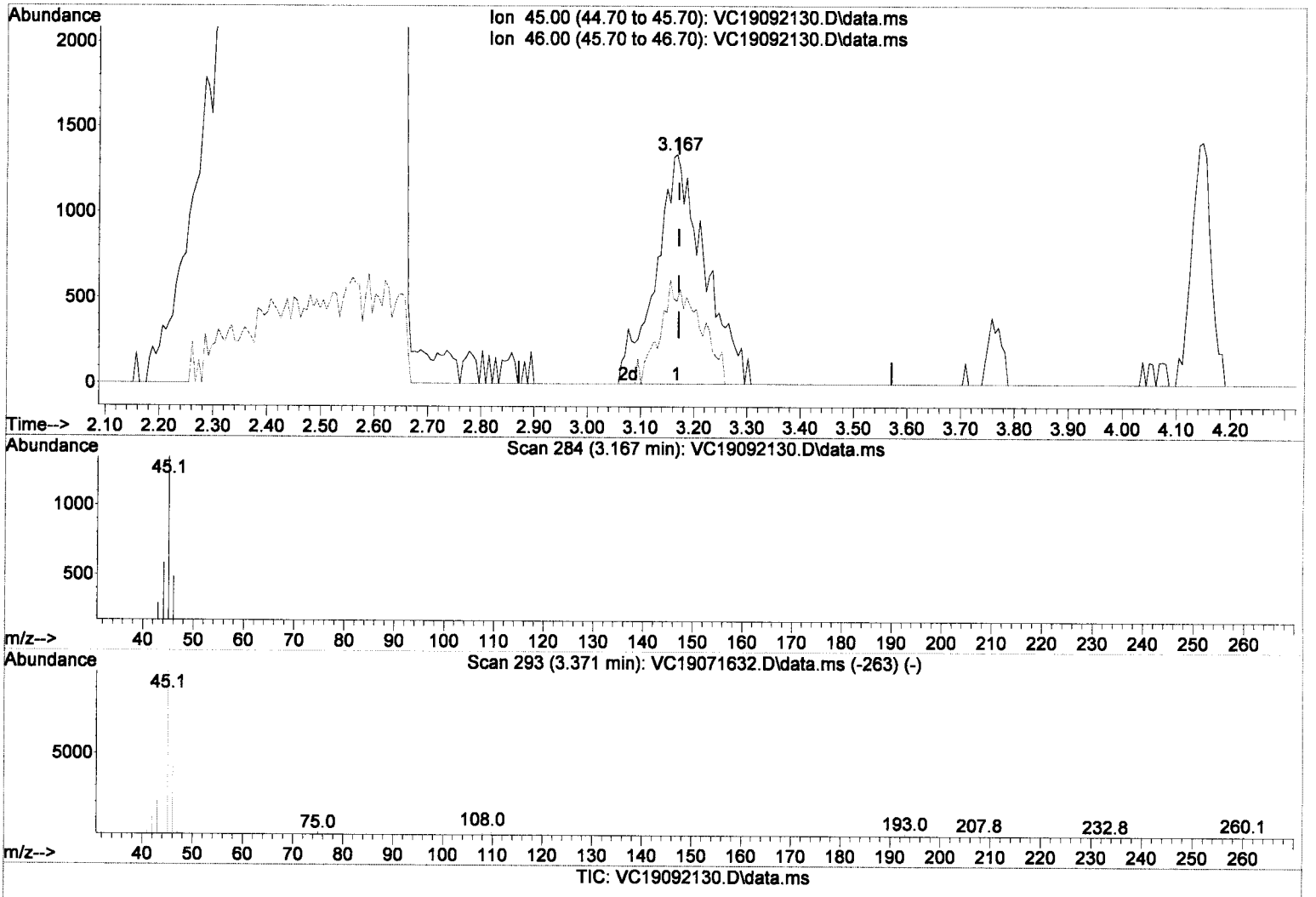
M.I.

Ion	Exp%	Act%
45.00	100	100
46.00	47.50	36.11
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092130.D
Acq On : 21 Aug 2019 10:29 pm
Operator : MM
Sample : 9H21053-CAL5
Misc : 1X 5mL 2/4PPB VOC+O+MeOH
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:25 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



(8) Ethanol

3.167min (-0.004) 130.78 ug/L m

response 8585

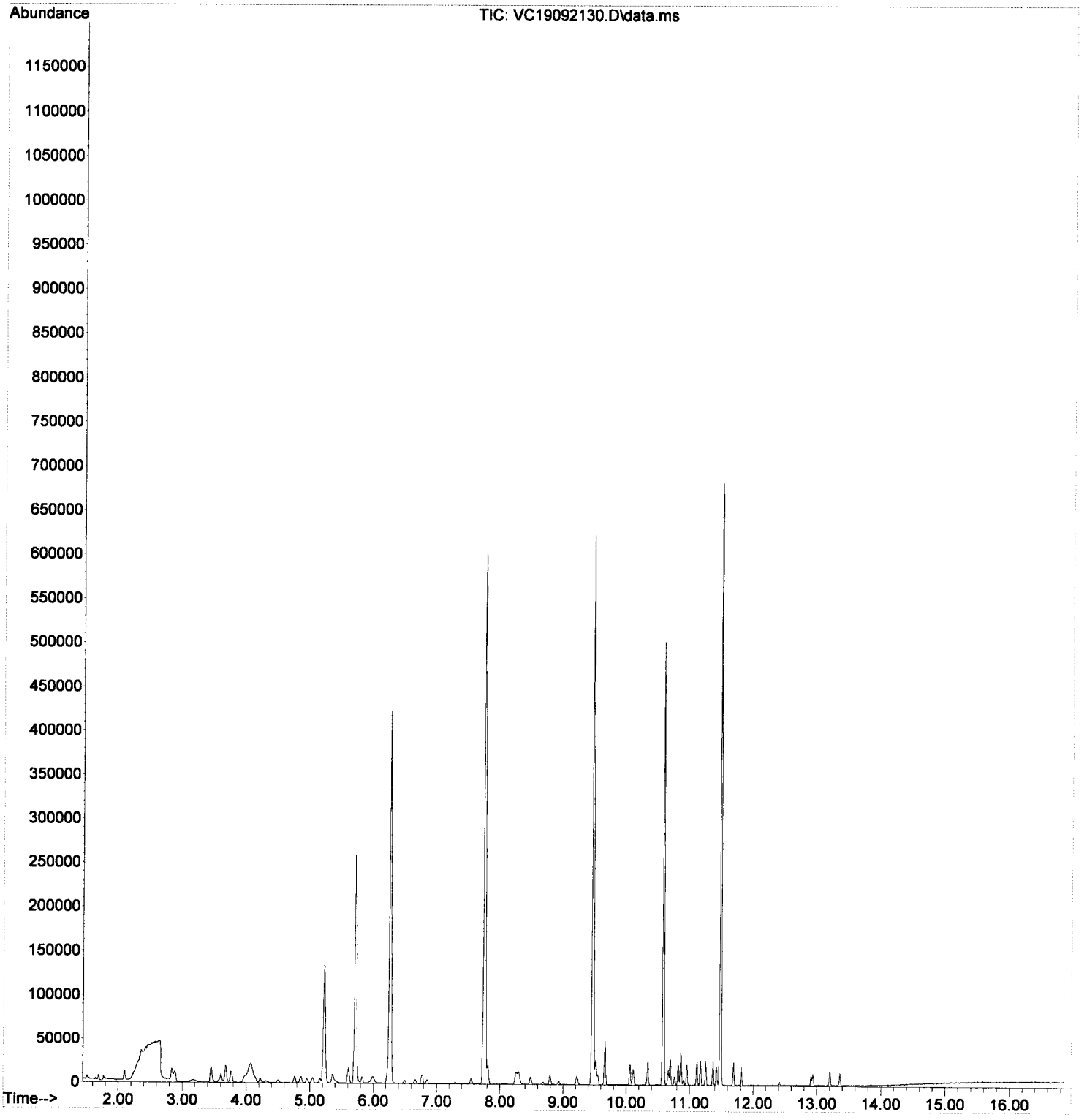
Ion	Exp%	Act%
45.00	100	100
46.00	47.50	36.11
0.00	0.00	0.00
0.00	0.00	0.00

M 8/22/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092130.D
Acq On : 21 Aug 2019 10:29 pm
Operator : MM
Sample : 9H21053-CAL5
Misc : 1X 5mL 2/4PPB VOC+O+MeOH
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:25 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092131.D
Acq On : 21 Aug 2019 10:56 pm
Operator : MM
Sample : 9H21053-CAL6
Misc : 1X 5mL 5/10PPB VOC+O+MeOH
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:27 2019
Quant Method : C:\msdchem\1\METHODS\VC~~190822S~~+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.715	99	110006	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.462	117	319666	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.482	152	146347	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.222	111	85557	57.01	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.262	114	353831	56.18	ug/L		0.00
45) Toluene-d8 (S)	7.753	98	433969	49.24	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.582	174	118107	50.14	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.511	85	7945	4.72	ug/L		99
3) Chloromethane	1.694	50	9665	4.72	ug/L		97
4) Vinyl Chloride	1.773	62	9087	5.13	ug/L		99
5) Bromomethane	2.095	96	8943	5.62	ug/L		99
6) Chloroethane	2.235	64	4074	4.59	ug/L	#	62
7) Trichlorofluoromethane	2.357	101	11178	6.16	ug/L		91
8) Ethanol	3.172	45	~~9011~~	140.24	ug/L		91
9) 1,1-Dichloroethene	2.837	61	12663	5.25	ug/L		98
10) Carbon Disulfide	2.850	76	15622	5.41	ug/L		95
11) Freon 113	2.886	101	9132	5.05	ug/L		96
12) Iodomethane	2.977	142	956	2.75	ug/L		78
13) Methylene Chloride	3.452	84	14072	7.94	ug/L		86
14) Acetone	3.567	43	13281	13.46	ug/L		80
15) t-1,2-Dichloroethene	3.610	61	11498	5.36	ug/L		96
16) n-Hexane	3.683	86	2764	7.41	ug/L		96
17) Methyl-tert-butyl-ether	3.768	73	34036	5.59	ug/L		95
18) tert-Butanol (TBA)	4.060	59	179914	319.80	ug/L	#	97
19) Diisopropyl ether (DIPE)	4.145	45	8470	1.26	ug/L		81
20) 1,1-Dichloroethane	4.224	63	12032	5.42	ug/L		97
21) Acrylonitrile	4.316	53	5646	5.35	ug/L		93
22) Ethyl-tert-butyl ether...	4.498	59	8556	1.27	ug/L		95
23) c-1,2-Dichloroethene	4.760	61	13199	6.00	ug/L		86
24) 2,2-Dichloropropane	4.863	77	14200	5.72	ug/L		90
25) Bromochloromethane	4.954	49	7532	5.91	ug/L		90
26) Chloroform	5.046	83	15226	5.72	ug/L		92
27) Carbon Tetrachloride	5.161	117	10235	5.80	ug/L		98
28) Tetrahydrofuran	5.234	42	6467	5.67	ug/L		93
29) 1,1,1-Trichloroethane	5.228	97	15050	5.58	ug/L		96
31) 1,1-Dichloropropene	5.356	75	13603	5.52	ug/L		89
32) 2-Butanone (MEK)	5.386	43	18995	10.99	ug/L		89
33) Benzene	5.605	78	38541	5.26	ug/L		95
34) tert-Amyl methyl ether...	5.751	73	7461	1.26	ug/L		95
35) 1,2-Dichloroethane (EDC)	5.824	62	16836	5.56	ug/L		93
36) iso-Butyl Alcohol	5.989	43	24783	128.52	ug/L		97
38) Trichloroethene (TCE)	6.220	130	10457	5.71	ug/L		93
39) tert-Amyl ethyl ether ...	6.494	59	5807	1.44	ug/L		85
40) Dibromomethane	6.664	93	5376	6.15	ug/L		86
41) 1,2-Dichloropropane	6.767	63	9904	5.30	ug/L		81
42) Bromodichloromethane	6.846	83	9205	5.04	ug/L		97
44) c-1,3-Dichloropropene	7.546	75	12345	4.61	ug/L		89
46) Toluene	7.808	91	41785	4.72	ug/L		99
47) Tetrachloroethene (PCE)	8.252	166	10700	5.04	ug/L		92
48) 4-Methyl-2-Pentanone (...	8.282	43	28873	9.85	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092131.D
Acq On : 21 Aug 2019 10:56 pm
Operator : MM
Sample : 9H21053-CAL6
Misc : 1X 5mL 5/10PPB VOC+O+MeOH
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:27 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

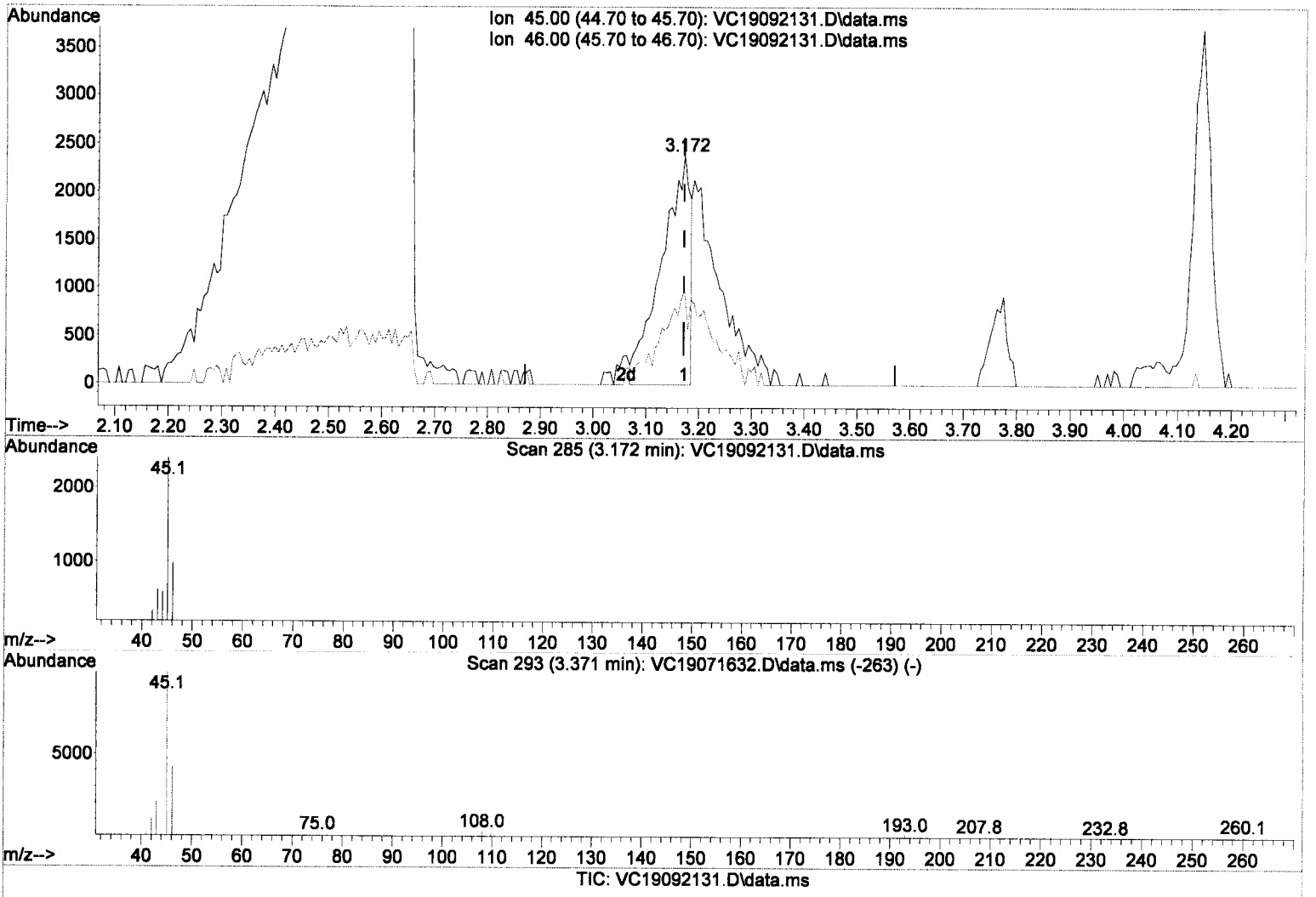
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.306	75	12317	4.70	ug/L		93
50) 1,1,2-Trichloroethane	8.489	97	8110	4.72	ug/L		93
51) Dibromochloromethane	8.684	129	5394	4.70	ug/L		98
52) 1,3-Dichloropropane	8.793	76	15953	4.94	ug/L		83
53) 1,2-Dibromoethane (EDB)	8.927	107	8505	4.95	ug/L		97
54) 2-Hexanone	9.219	43	21074	9.30	ug/L		97
55) Chlorobenzene	9.481	112	26169	4.72	ug/L		95
56) Ethylbenzene	9.517	91	45490	5.04	ug/L		99
57) 1,1,1,2-Tetrachloroethane	9.554	131	7065	5.05	ug/L		97
58) m,p-Xylenes (2)	9.657	91	65881	10.45	ug/L		96
59) o-Xylene	10.059	91	32683	4.98	ug/L		94
60) Styrene	10.107	104	21105	4.96	ug/L		97
61) Bromoform	10.125	173	3077	4.75	ug/L		89
62) Isopropylbenzene	10.338	105	40945	5.76	ug/L		98
65) Bromobenzene	10.661	156	9879	5.30	ug/L		90
66) n-Propylbenzene	10.691	91	46023	5.79	ug/L		96
67) 1,1,2,2-Tetrachloroethane	10.764	83	9724	4.90	ug/L		99
68) 2-Chlorotoluene	10.819	126	8852	5.64	ug/L		99
69) 1,3,5-Trimethylbenzene	10.855	105	33064	6.03	ug/L		95
70) 1,2,3-Trichloropropane	10.868	110	4606	5.12	ug/L	#	85
71) t-1,4-Dichloro-2-butene	10.904	88	1430	5.27	ug/L	#	67
72) 4-Chlorotoluene	10.953	91	27680	5.63	ug/L		95
73) tert-Butylbenzene	11.111	91	19612	6.13	ug/L		85
74) 1,2,4-Trimethylbenzene	11.172	105	33091	6.08	ug/L		99
75) sec-Butylbenzene	11.251	105	39081	6.38	ug/L		96
76) 4-Isopropyltoluene	11.366	119	33716	6.76	ug/L		97
77) 1,3-Dichlorobenzene	11.421	146	17830	5.59	ug/L		99
78) 1,4-Dichlorobenzene	11.494	146	18064	5.41	ug/L		97
79) n-Butylbenzene	11.689	91	28735	6.36	ug/L		95
80) 1,2-Dichlorobenzene	11.811	146	16197	5.58	ug/L		98
81) 1,2-Dibromo-3-Chloropr...	12.407	157	2130	4.65	ug/L	#	59
82) Hexachlorobutadiene	12.912	223	3214	6.18	ug/L		90
83) 1,2,4-Trichlorobenzene	12.936	180	10198	5.64	ug/L		94
84) Naphthalene	13.204	128	31510	5.58	ug/L		95
85) 1,2,3-Trichlorobenzene	13.356	180	10482	6.02	ug/L		93

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092131.D
Acq On : 21 Aug 2019 10:56 pm
Operator : MM
Sample : 9H21053-CAL6
Misc : 1X 5mL 5/10PPB VOC+O+MeOH
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:27 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



(8) Ethanol

3.172min (+0.001) 140.24 ug/L

response 9011

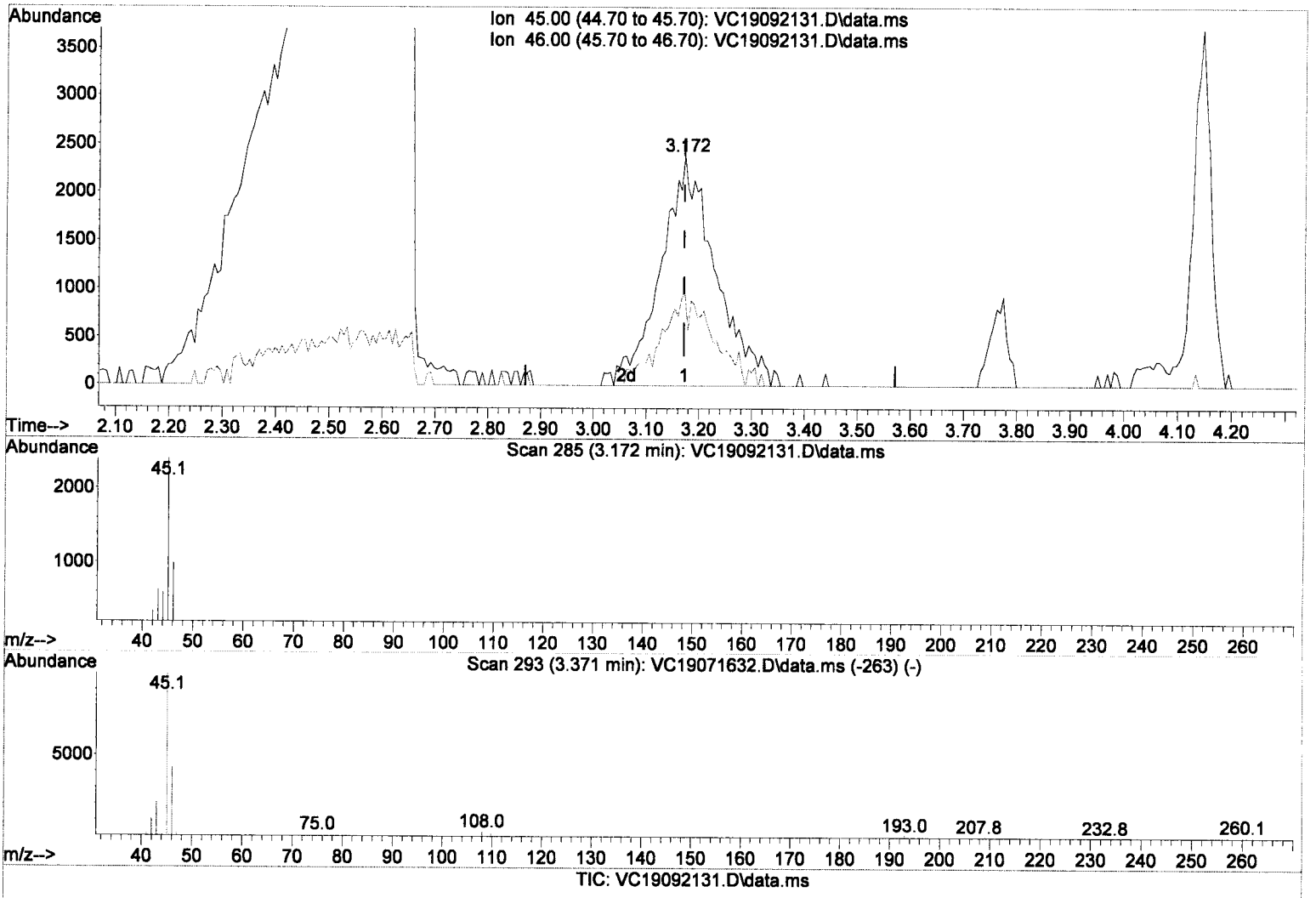
M.I.

Ion	Exp%	Act%
45.00	100	100
46.00	47.50	41.35
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092131.D
Acq On : 21 Aug 2019 10:56 pm
Operator : MM
Sample : 9H21053-CAL6
Misc : 1X 5mL 5/10PPB VOC+O+MeOH
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:27 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



(8) Ethanol

3.172min (+0.001) 270.37 ug/L m

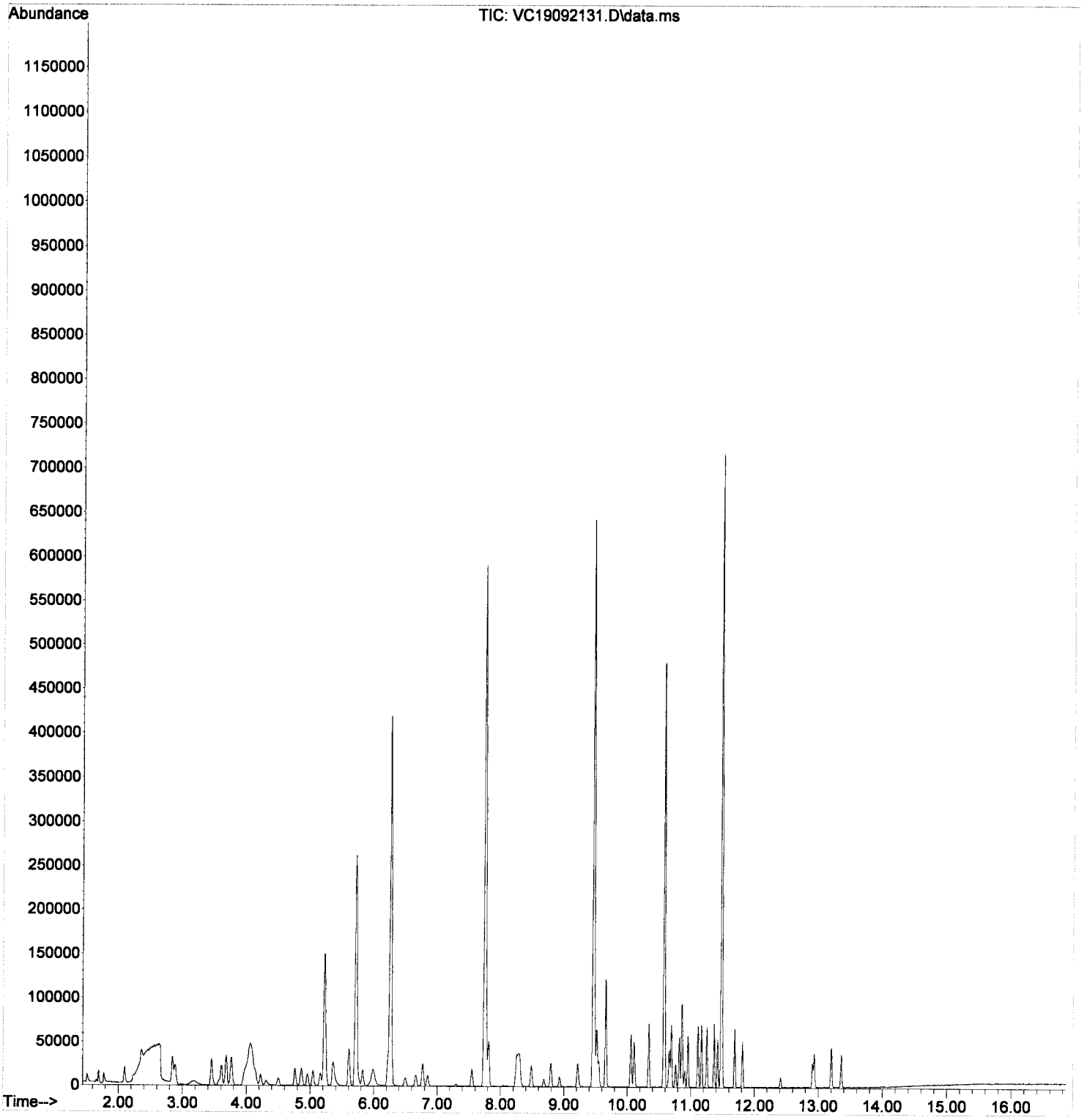
response 17372

Ion	Exp%	Act%
45.00	100	100
46.00	47.50	41.35
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092131.D
Acq On : 21 Aug 2019 10:56 pm
Operator : MM
Sample : 9H21053-CAL6
Misc : 1X 5mL 5/10PPB VOC+O+MeOH
ALS Vial : 14 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:27 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092132.D
Acq On : 21 Aug 2019 11:23 pm
Operator : MM
Sample : 9H21053-CAL7
Misc : 1X 5mL 10/20PPB VOC+O+MeOH
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:29 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

M 8/22/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	5.717	99	111966	50.00	ug/L	0.00
43) Chlorobenzene-d5 (I)	9.465	117	325719	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.485	152	150520	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.225	111	86119	56.38	ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.259	114	358307	55.89	ug/L	0.00
45) Toluene-d8 (S)	7.749	98	441143	49.12	ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.578	174	120692	49.82	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.514	85	15803	9.22	ug/L	96
3) Chloromethane	1.696	50	19707	9.45	ug/L	97
4) Vinyl Chloride	1.775	62	18710	10.38	ug/L	97
5) Bromomethane	2.098	96	14048	10.85	ug/L	94
6) Chloroethane	2.232	64	9003	9.96	ug/L	76
7) Trichlorofluoromethane	2.353	101	21463	11.63	ug/L	97
8) Ethanol	3.162	45	35931	549.43	ug/L	81
9) 1,1-Dichloroethene	2.840	61	26906	10.95	ug/L	98
10) Carbon Disulfide	2.846	76	32799	11.15	ug/L	98
11) Freon 113	2.889	101	18994	10.33	ug/L	93
12) Iodomethane	2.986	142	2524	6.27	ug/L	69
13) Methylene Chloride	3.454	84	22276	13.31	ug/L	89
14) Acetone	3.570	43	24558	24.45	ug/L	94
15) t-1,2-Dichloroethene	3.613	61	24610	11.27	ug/L	93
16) n-Hexane	3.686	86	4972	13.10	ug/L #	82
17) Methyl-tert-butyl-ether	3.765	73	69389	11.20	ug/L	94
18) tert-Butanol (TBA)	4.063	59	374299	653.68	ug/L #	95
19) Diisopropyl ether (DIPE)	4.148	45	17405	2.55	ug/L	97
20) 1,1-Dichloroethane	4.227	63	24739	10.95	ug/L	95
21) Acrylonitrile	4.306	53	11481	10.69	ug/L	95
22) Ethyl-tert-butyl ether...	4.507	59	16954	2.48	ug/L	93
23) c-1,2-Dichloroethene	4.762	61	26286	11.74	ug/L	92
24) 2,2-Dichloropropane	4.860	77	28397	11.23	ug/L	83
25) Bromochloromethane	4.957	49	14765	11.38	ug/L	95
26) Chloroform	5.042	83	30494	11.25	ug/L	96
27) Carbon Tetrachloride	5.164	117	21928	11.83	ug/L	90
28) Tetrahydrofuran	5.231	42	13573	11.70	ug/L	89
29) 1,1,1-Trichloroethane	5.231	97	32835	11.97	ug/L	96
31) 1,1-Dichloropropene	5.359	75	27711	11.05	ug/L	94
32) 2-Butanone (MEK)	5.383	43	38182	21.70	ug/L	93
33) Benzene	5.608	78	78253	10.50	ug/L	96
34) tert-Amyl methyl ether...	5.760	73	15470	2.56	ug/L	92
35) 1,2-Dichloroethane (EDC)	5.821	62	34349	11.15	ug/L	98
36) iso-Butyl Alcohol	5.979	43	53242	271.26	ug/L	96
38) Trichloroethene (TCE)	6.216	130	22288	11.95	ug/L	88
39) tert-Amyl ethyl ether ...	6.496	59	11948	2.82	ug/L	95
40) Dibromomethane	6.660	93	11182	12.58	ug/L	89
41) 1,2-Dichloropropane	6.770	63	19864	10.45	ug/L	74
42) Bromodichloromethane	6.849	83	20184	10.46	ug/L	94
44) c-1,3-Dichloropropene	7.549	75	26141	9.36	ug/L	90
46) Toluene	7.810	91	84880	9.40	ug/L	98
47) Tetrachloroethene (PCE)	8.254	166	21285	9.83	ug/L	93
48) 4-Methyl-2-Pentanone (...	8.279	43	60790	20.34	ug/L	94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092132.D
Acq On : 21 Aug 2019 11:23 pm
Operator : MM
Sample : 9H21053-CAL7
Misc : 1X 5mL 10/20PPB VOC+O+MeOH
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:29 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

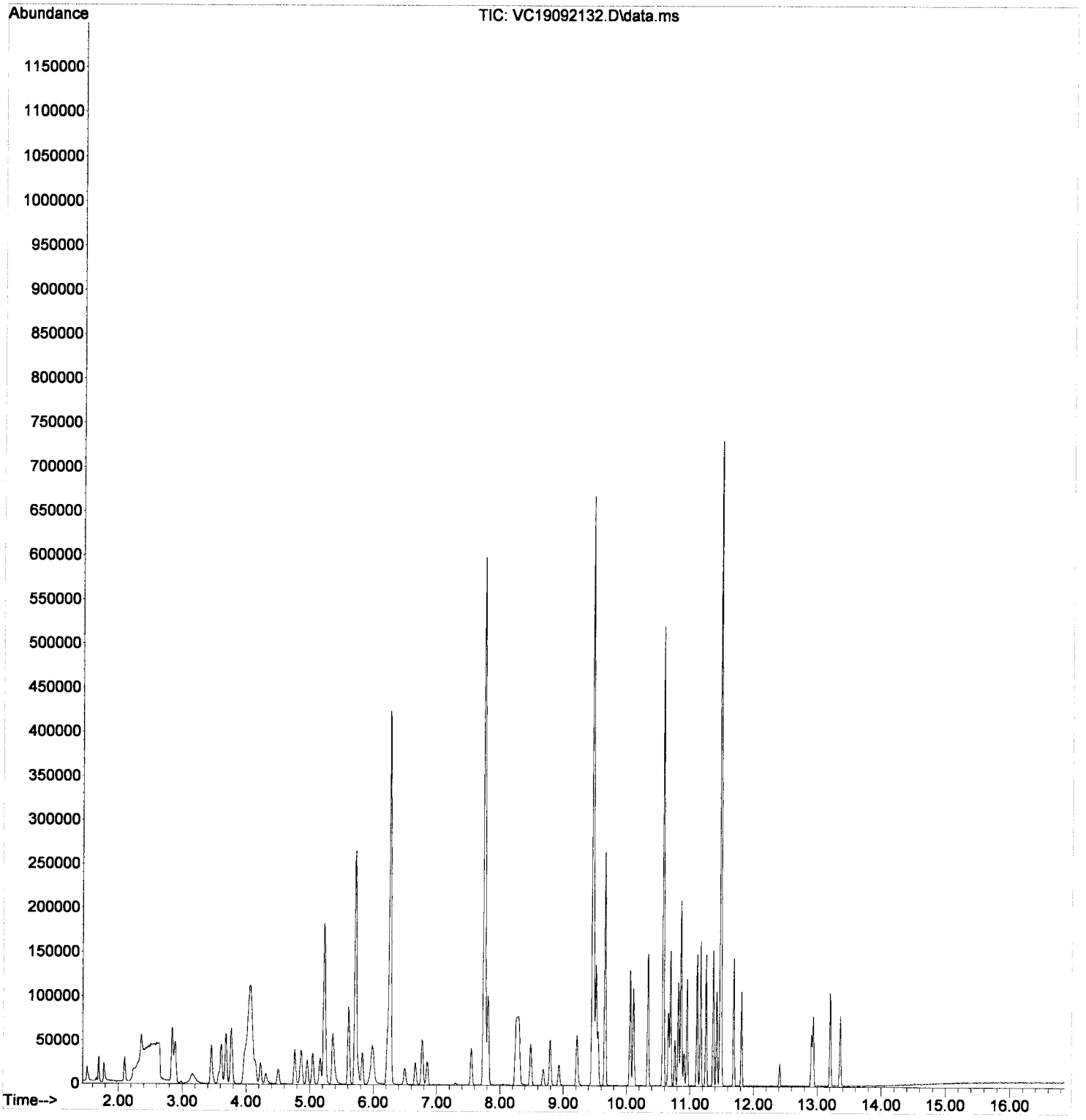
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.303	75	26517	9.49	ug/L		95
50) 1,1,2-Trichloroethane	8.485	97	17188	9.82	ug/L		93
51) Dibromochloromethane	8.686	129	11583	9.29	ug/L		99
52) 1,3-Dichloropropane	8.796	76	32616	9.90	ug/L		90
53) 1,2-Dibromoethane (EDB)	8.930	107	17790	10.17	ug/L		100
54) 2-Hexanone	9.215	43	45425	19.68	ug/L		94
55) Chlorobenzene	9.477	112	53804	9.52	ug/L		93
56) Ethylbenzene	9.514	91	93697	10.20	ug/L		99
57) 1,1,1,2-Tetrachloroethane	9.550	131	15429	10.50	ug/L		95
58) m,p-Xylenes (2)	9.660	91	140163	21.82	ug/L		97
59) o-Xylene	10.055	91	68573	10.25	ug/L		91
60) Styrene	10.110	104	46448	10.72	ug/L		97
61) Bromoform	10.122	173	6596	9.29	ug/L		96
62) Isopropylbenzene	10.341	105	86876	12.00	ug/L		97
65) Bromobenzene	10.663	156	20406	10.64	ug/L		92
66) n-Propylbenzene	10.694	91	97524	11.92	ug/L		97
67) 1,1,2,2-Tetrachloroethane	10.761	83	19833	9.72	ug/L		99
68) 2-Chlorotoluene	10.815	126	19339	11.97	ug/L		93
69) 1,3,5-Trimethylbenzene	10.858	105	71145	12.61	ug/L		95
70) 1,2,3-Trichloropropane	10.864	110	9497	10.27	ug/L		89
71) t-1,4-Dichloro-2-butene	10.901	88	3069	9.76	ug/L	#	64
72) 4-Chlorotoluene	10.955	91	58634	11.59	ug/L		94
73) tert-Butylbenzene	11.113	91	40883	12.43	ug/L		92
74) 1,2,4-Trimethylbenzene	11.168	105	72677	12.98	ug/L		95
75) sec-Butylbenzene	11.253	105	83383	13.23	ug/L		98
76) 4-Isopropyltoluene	11.369	119	71574	13.96	ug/L		98
77) 1,3-Dichlorobenzene	11.424	146	36282	11.05	ug/L		98
78) 1,4-Dichlorobenzene	11.491	146	37129	10.81	ug/L		93
79) n-Butylbenzene	11.691	91	60970	13.12	ug/L		98
80) 1,2-Dichlorobenzene	11.813	146	34193	11.46	ug/L		97
81) 1,2-Dibromo-3-Chloropr...	12.409	157	4879	9.36	ug/L	#	46
82) Hexachlorobutadiene	12.908	223	6492	12.13	ug/L		95
83) 1,2,4-Trichlorobenzene	12.939	180	22253	11.96	ug/L		94
84) Naphthalene	13.200	128	70164	11.70	ug/L		96
85) 1,2,3-Trichlorobenzene	13.358	180	22152	12.36	ug/L		93

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092132.D
Acq On : 21 Aug 2019 11:23 pm
Operator : MM
Sample : 9H21053-CAL7
Misc : 1X 5mL 10/20PPB VOC+O+MeOH
ALS Vial : 15 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:29 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092133.D
Acq On : 21 Aug 2019 11:50 pm
Operator : MM
Sample : 9H21053-CAL8
Misc : 1X 5mL 20/40PPB VOC+O+MeOH
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:31 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

M 8/22/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.714	99	113994	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.462	117	329068	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.481	152	156959	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.221	111	90082	57.92	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.262	114	364313	55.82	ug/L		0.00
45) Toluene-d8 (S)	7.752	98	447822	49.36	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.581	174	124497	49.28	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.510	85	32845	18.82	ug/L		98
3) Chloromethane	1.693	50	40295	18.98	ug/L		99
4) Vinyl Chloride	1.778	62	38967	21.23	ug/L		91
5) Bromomethane	2.094	96	26088	23.06	ug/L		96
6) Chloroethane	2.234	64	18286	19.86	ug/L		92
7) Trichlorofluoromethane	2.356	101	43816	23.32	ug/L		95
8) Ethanol	3.171	45	70019	1051.63	ug/L		97
9) 1,1-Dichloroethene	2.837	61	54978	21.98	ug/L		100
10) Carbon Disulfide	2.843	76	69657	23.27	ug/L		97
11) Freon 113	2.885	101	37237	19.88	ug/L		94
12) Iodomethane	2.977	142	7010	15.63	ug/L		89
13) Methylene Chloride	3.451	84	38456	23.79	ug/L		90
14) Acetone	3.573	43	47130	46.09	ug/L		88
15) t-1,2-Dichloroethene	3.609	61	49946	22.47	ug/L		96
16) n-Hexane	3.682	86	9331	24.15	ug/L		95
17) Methyl-tert-butyl-ether	3.767	73	142111	22.54	ug/L		96
18) tert-Butanol (TBA)	4.066	59	774705	1328.89	ug/L	#	95
19) Diisopropyl ether (DIPE)	4.145	45	35623	5.13	ug/L		90
20) 1,1-Dichloroethane	4.224	63	50298	21.88	ug/L		99
21) Acrylonitrile	4.303	53	23436	21.43	ug/L		94
22) Ethyl-tert-butyl ether...	4.504	59	34030	4.89	ug/L		97
23) c-1,2-Dichloroethene	4.765	61	54041	23.72	ug/L		93
24) 2,2-Dichloropropane	4.862	77	57961	22.52	ug/L		93
25) Bromochloromethane	4.954	49	30262	22.91	ug/L		86
26) Chloroform	5.045	83	63434	22.98	ug/L		93
27) Carbon Tetrachloride	5.161	117	46744	24.07	ug/L		98
28) Tetrahydrofuran	5.227	42	26986	22.84	ug/L		93
29) 1,1,1-Trichloroethane	5.234	97	67393	24.13	ug/L		99
31) 1,1-Dichloropropene	5.355	75	57300	22.44	ug/L		96
32) 2-Butanone (MEK)	5.386	43	78204	43.66	ug/L		91
33) Benzene	5.611	78	162822	21.46	ug/L		98
34) tert-Amyl methyl ether...	5.757	73	31615	5.14	ug/L		100
35) 1,2-Dichloroethane (EDC)	5.824	62	69553	22.18	ug/L		96
36) iso-Butyl Alcohol	5.982	43	113035	565.65	ug/L		94
38) Trichloroethene (TCE)	6.219	130	45174	23.79	ug/L		91
39) tert-Amyl ethyl ether ...	6.493	59	24969	5.47	ug/L		93
40) Dibromomethane	6.663	93	21577	23.84	ug/L		92
41) 1,2-Dichloropropane	6.767	63	40405	20.88	ug/L		82
42) Bromodichloromethane	6.846	83	44311	21.96	ug/L		98
44) c-1,3-Dichloropropene	7.545	75	56455	19.69	ug/L		91
46) Toluene	7.807	91	174546	19.14	ug/L		99
47) Tetrachloroethene (PCE)	8.251	166	45080	20.61	ug/L		93
48) 4-Methyl-2-Pentanone (...	8.281	43	128249	42.48	ug/L		95

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092133.D
Acq On : 21 Aug 2019 11:50 pm
Operator : MM
Sample : 9H21053-CAL8
Misc : 1X 5mL 20/40PPB VOC+O+MeOH
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:31 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

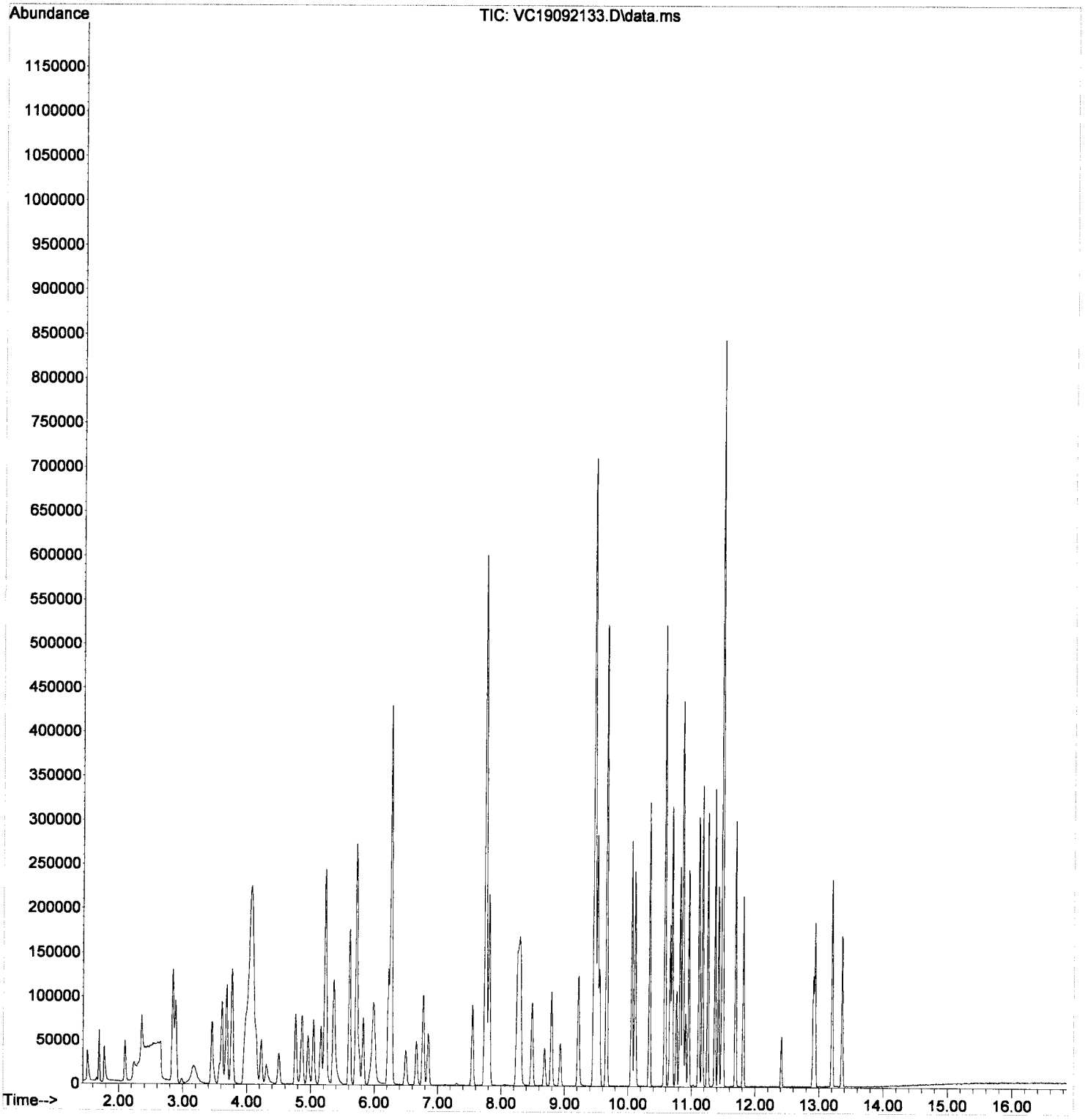
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.306	75	56210	19.41	ug/L		97
50) 1,1,2-Trichloroethane	8.482	97	35256	19.94	ug/L		90
51) Dibromochloromethane	8.683	129	26457	19.96	ug/L		98
52) 1,3-Dichloropropane	8.792	76	66826	20.09	ug/L		90
53) 1,2-Dibromoethane (EDB)	8.932	107	37105	20.99	ug/L		97
54) 2-Hexanone	9.218	43	97305	41.72	ug/L		93
55) Chlorobenzene	9.480	112	109541	19.18	ug/L		95
56) Ethylbenzene	9.516	91	197518	21.28	ug/L		97
57) 1,1,1,2-Tetrachloroethane	9.547	131	34109	22.29	ug/L		94
58) m,p-Xylenes (2)	9.662	91	290610	44.78	ug/L		98
59) o-Xylene	10.058	91	145618	21.54	ug/L		94
60) Styrene	10.106	104	99656	22.77	ug/L		94
61) Bromoform	10.125	173	15077	19.67	ug/L		96
62) Isopropylbenzene	10.338	105	185242	25.32	ug/L		97
65) Bromobenzene	10.660	156	42516	21.26	ug/L		86
66) n-Propylbenzene	10.690	91	206762	24.24	ug/L		95
67) 1,1,2,2-Tetrachloroethane	10.763	83	42500	19.97	ug/L		96
68) 2-Chlorotoluene	10.818	126	39147	23.24	ug/L		93
69) 1,3,5-Trimethylbenzene	10.861	105	150533	25.59	ug/L		96
70) 1,2,3-Trichloropropane	10.867	110	19606	20.34	ug/L		86
71) t-1,4-Dichloro-2-butene	10.903	88	7579	21.26	ug/L	#	68
72) 4-Chlorotoluene	10.952	91	121894	23.10	ug/L		94
73) tert-Butylbenzene	11.110	91	86755	25.29	ug/L		90
74) 1,2,4-Trimethylbenzene	11.171	105	153634	26.31	ug/L		96
75) sec-Butylbenzene	11.256	105	178456	27.15	ug/L		97
76) 4-Isopropyltoluene	11.366	119	154497	28.90	ug/L		97
77) 1,3-Dichlorobenzene	11.420	146	76901	22.46	ug/L		98
78) 1,4-Dichlorobenzene	11.493	146	77616	21.67	ug/L		96
79) n-Butylbenzene	11.688	91	133464	27.54	ug/L		97
80) 1,2-Dichlorobenzene	11.816	146	71987	23.13	ug/L		98
81) 1,2-Dibromo-3-Chloropr...	12.412	157	12047	20.73	ug/L	#	72
82) Hexachlorobutadiene	12.911	223	13800	24.73	ug/L		94
83) 1,2,4-Trichlorobenzene	12.935	180	48800	25.16	ug/L		97
84) Naphthalene	13.203	128	160585	25.12	ug/L		96
85) 1,2,3-Trichlorobenzene	13.361	180	50123	26.82	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092133.D
Acq On : 21 Aug 2019 11:50 pm
Operator : MM
Sample : 9H21053-CAL8
Misc : 1X 5mL 20/40PPB VOC+O+MeOH
ALS Vial : 16 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:31 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092134.D
Acq On : 22 Aug 2019 12:17 am
Operator : MM
Sample : 9H21053-CAL9
Misc : 1X 5mL 50/100PPB VOC+O+MeOH
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:33 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.711	99	116620	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.464	117	344390	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.484	152	170221	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.224	111	97119	61.04	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.258	114	378628	56.71	ug/L		0.00
45) Toluene-d8 (S)	7.749	98	460800	48.53	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.578	174	134096	48.95	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.507	85	82088	45.99	ug/L		96
3) Chloromethane	1.690	50	106339	48.97	ug/L		99
4) Vinyl Chloride	1.769	62	102078	54.35	ug/L		96
5) Bromomethane	2.091	96	62250	58.85	ug/L		99
6) Chloroethane	2.231	64	49501	52.55	ug/L		98
7) Trichlorofluoromethane	2.353	101	113918	59.26	ug/L		96
8) Ethanol	3.168	45	184413	2707.37	ug/L		92
9) 1,1-Dichloroethene	2.833	61	139125	54.37	ug/L		97
10) Carbon Disulfide	2.845	76	192296	62.78	ug/L		98
11) Freon 113	2.882	101	98871	51.60	ug/L		94
12) Iodomethane	2.979	142	28643	52.43	ug/L		76
13) Methylene Chloride	3.448	84	88516	55.88	ug/L		89
14) Acetone	3.569	43	123932	118.46	ug/L		91
15) t-1,2-Dichloroethene	3.606	61	131417	57.78	ug/L		94
16) n-Hexane	3.679	86	21541	54.50	ug/L	#	76
17) Methyl-tert-butyl-ether	3.764	73	374673	58.09	ug/L		94
18) tert-Butanol (TBA)	4.056	59	2039865	3420.29	ug/L	#	91
19) Diisopropyl ether (DIPE)	4.141	45	92560	13.03	ug/L		91
20) 1,1-Dichloroethane	4.220	63	133588	56.80	ug/L		99
21) Acrylonitrile	4.299	53	62866	56.20	ug/L		98
22) Ethyl-tert-butyl ether...	4.494	59	88275	12.41	ug/L		97
23) c-1,2-Dichloroethene	4.762	61	137841	59.13	ug/L		95
24) 2,2-Dichloropropane	4.859	77	154172	58.54	ug/L		95
25) Bromochloromethane	4.956	49	78770	58.28	ug/L		91
26) Chloroform	5.042	83	169955	60.19	ug/L		96
27) Carbon Tetrachloride	5.157	117	134167	63.47	ug/L		97
28) Tetrahydrofuran	5.224	42	71294	58.99	ug/L		95
29) 1,1,1-Trichloroethane	5.230	97	181378	63.47	ug/L		99
31) 1,1-Dichloropropene	5.358	75	151585	58.03	ug/L		93
32) 2-Butanone (MEK)	5.376	43	203790	111.20	ug/L		93
33) Benzene	5.607	78	424635	54.71	ug/L		97
34) tert-Amyl methyl ether...	5.753	73	83809	13.31	ug/L		97
35) 1,2-Dichloroethane (EDC)	5.820	62	180838	56.38	ug/L		98
36) iso-Butyl Alcohol	5.985	43	308225	1507.69	ug/L		96
38) Trichloroethene (TCE)	6.216	130	120191	61.86	ug/L		93
39) tert-Amyl ethyl ether ...	6.496	59	67288	12.52	ug/L		90
40) Dibromomethane	6.660	93	59054	63.77	ug/L		95
41) 1,2-Dichloropropane	6.769	63	107030	54.05	ug/L		83
42) Bromodichloromethane	6.848	83	128617	59.60	ug/L		97
44) c-1,3-Dichloropropene	7.548	75	161753	52.48	ug/L		95
46) Toluene	7.810	91	456961	47.88	ug/L		98
47) Tetrachloroethene (PCE)	8.248	166	116933	51.08	ug/L		88
48) 4-Methyl-2-Pentanone (...	8.278	43	342833	108.51	ug/L		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092134.D
Acq On : 22 Aug 2019 12:17 am
Operator : MM
Sample : 9H21053-CAL9
Misc : 1X 5mL 50/100PPB VOC+O+MeOH
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:33 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

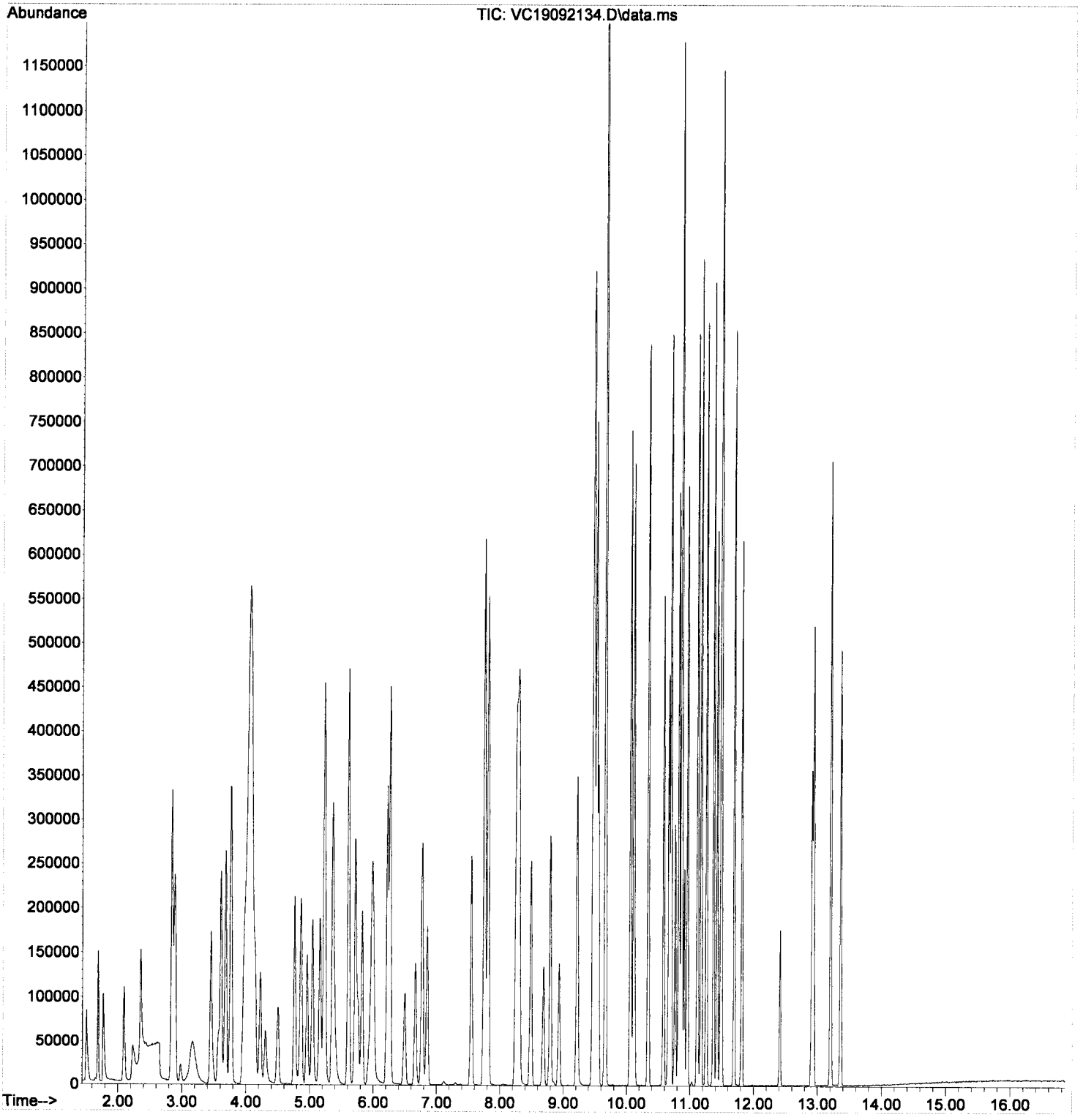
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.302	75	163271	52.47	ug/L		95
50) 1,1,2-Trichloroethane	8.485	97	93355	50.45	ug/L		91
51) Dibromochloromethane	8.686	129	82299	54.30	ug/L		98
52) 1,3-Dichloropropane	8.789	76	177393	50.95	ug/L		94
53) 1,2-Dibromoethane (EDB)	8.929	107	102002	55.14	ug/L		99
54) 2-Hexanone	9.215	43	268367	109.94	ug/L		95
55) Chlorobenzene	9.483	112	287363	48.07	ug/L		99
56) Ethylbenzene	9.513	91	516545	53.17	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.549	131	98721	57.83	ug/L		96
58) m,p-Xylenes (2)	9.659	91	778620	114.64	ug/L		97
59) o-Xylene	10.054	91	389920	55.10	ug/L		95
60) Styrene	10.109	104	282721	61.73	ug/L		97
61) Bromoform	10.121	173	50268	54.81	ug/L		98
62) Isopropylbenzene	10.340	105	500679	65.40	ug/L		98
65) Bromobenzene	10.663	156	113786	52.46	ug/L		92
66) n-Propylbenzene	10.693	91	554464	59.94	ug/L		97
67) 1,1,2,2-Tetrachloroethane	10.760	83	114691	49.68	ug/L		99
68) 2-Chlorotoluene	10.821	126	107594	58.90	ug/L		99
69) 1,3,5-Trimethylbenzene	10.857	105	405530	63.57	ug/L		96
70) 1,2,3-Trichloropropane	10.863	110	52505	50.22	ug/L	#	79
71) t-1,4-Dichloro-2-butene	10.906	88	23401	55.66	ug/L	#	71
72) 4-Chlorotoluene	10.955	91	328761	57.45	ug/L		96
73) tert-Butylbenzene	11.113	91	235061	63.18	ug/L		92
74) 1,2,4-Trimethylbenzene	11.168	105	413830	65.34	ug/L		96
75) sec-Butylbenzene	11.253	105	486676	68.27	ug/L		98
76) 4-Isopropyltoluene	11.368	119	423094	72.99	ug/L		98
77) 1,3-Dichlorobenzene	11.423	146	210008	56.57	ug/L		98
78) 1,4-Dichlorobenzene	11.490	146	210293	54.13	ug/L		97
79) n-Butylbenzene	11.691	91	360536	68.61	ug/L		97
80) 1,2-Dichlorobenzene	11.813	146	198340	58.76	ug/L		99
81) 1,2-Dibromo-3-Chloropr...	12.409	157	37496	54.89	ug/L		71
82) Hexachlorobutadiene	12.908	223	38298	63.28	ug/L		95
83) 1,2,4-Trichlorobenzene	12.938	180	142842	67.90	ug/L		96
84) Naphthalene	13.200	128	476751	66.62	ug/L		97
85) 1,2,3-Trichlorobenzene	13.358	180	141232	69.69	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092134.D
Acq On : 22 Aug 2019 12:17 am
Operator : MM
Sample : 9H21053-CAL9
Misc : 1X 5mL 50/100PPB VOC+O+MeOH
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:33 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092135.D
Acq On : 22 Aug 2019 12:45 am
Operator : MM
Sample : 9H21053-IBL2
Misc : 1X 5mL DI+MeOH
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:18 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

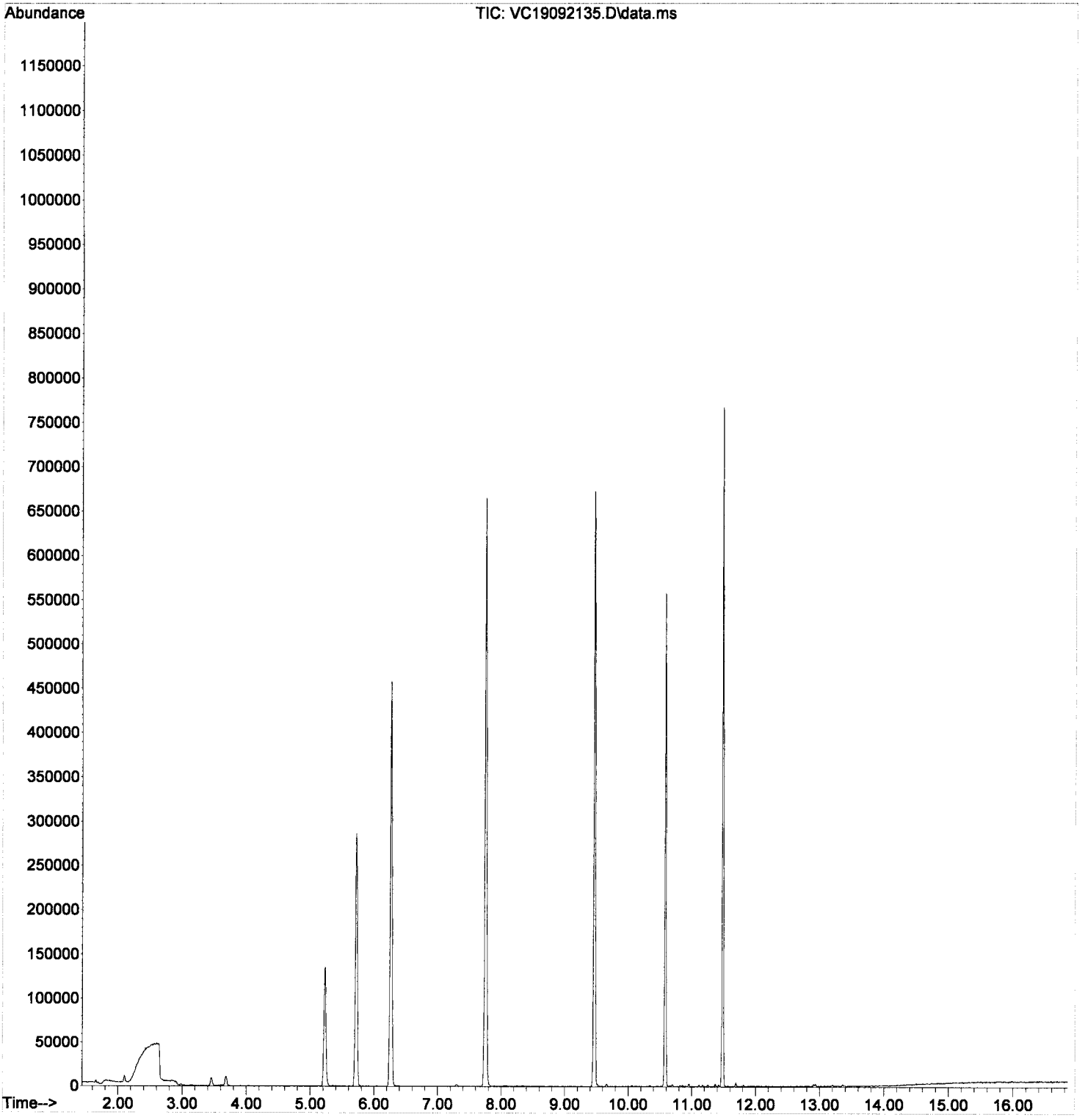
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.714	99	120000	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.461	117	357030	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.481	152	155696	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.227	111	92666	49.26	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.261	114	391528	50.57	ug/L		0.00
45) Toluene-d8 (S)	7.752	98	479668	49.88	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.580	174	131411	52.39	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.692	50	1206	0.55	ug/L		89
5) Bromomethane	2.100	96	3976	0.62	ug/L		89
6) Chloroethane	2.234	64	151	0.15	ug/L	#	1
8) Ethanol	3.159	45	1038	15.15	ug/L	#	29
10) Carbon Disulfide	2.842	76	1574	0.42	ug/L		93
12) Iodomethane	2.982	142	1504	6.56	ug/L		62
13) Methylene Chloride	3.457	84	4788	Below Cal			85
14) Acetone	3.572	43	1310	1.00	ug/L		98
15) t-1,2-Dichloroethene	3.603	61	433	0.16	ug/L	#	64
16) n-Hexane	3.688	86	924	0.14	ug/L	#	73
31) 1,1-Dichloropropene	5.355	75	367	0.12	ug/L	#	39
32) 2-Butanone (MEK)	5.391	43	578	0.28	ug/L		52
38) Trichloroethene (TCE)	6.219	130	230	0.10	ug/L	#	12
46) Toluene	7.812	91	1015	0.10	ug/L		90
47) Tetrachloroethene (PCE)	8.244	166	383	0.16	ug/L	#	24
55) Chlorobenzene	9.479	112	781	0.13	ug/L	#	1
56) Ethylbenzene	9.516	91	1253	0.12	ug/L		86
58) m,p-Xylenes (2)	9.662	91	1814	0.23	ug/L		74
59) o-Xylene	10.057	91	735	0.09	ug/L		76
62) Isopropylbenzene	10.337	105	952	0.10	ug/L		90
66) n-Propylbenzene	10.696	91	2060	0.21	ug/L		87
69) 1,3,5-Trimethylbenzene	10.860	105	854	0.12	ug/L		74
72) 4-Chlorotoluene	10.958	91	1141	0.20	ug/L		86
73) tert-Butylbenzene	11.116	91	449	0.11	ug/L	#	76
74) 1,2,4-Trimethylbenzene	11.164	105	1083	0.15	ug/L	#	57
75) sec-Butylbenzene	11.256	105	1467	0.18	ug/L		90
76) 4-Isopropyltoluene	11.365	119	1473	0.21	ug/L		92
77) 1,3-Dichlorobenzene	11.420	146	769	0.21	ug/L		96
78) 1,4-Dichlorobenzene	11.493	146	957	0.25	ug/L	#	6
79) n-Butylbenzene	11.694	91	1911	0.31	ug/L		92
80) 1,2-Dichlorobenzene	11.815	146	562	0.16	ug/L	#	60
82) Hexachlorobutadiene	12.910	223	302	0.46	ug/L	#	81
83) 1,2,4-Trichlorobenzene	12.935	180	845	0.37	ug/L		94
84) Naphthalene	13.196	128	1444	0.33	ug/L		79
85) 1,2,3-Trichlorobenzene	13.361	180	713	0.31	ug/L		77

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092135.D
Acq On : 22 Aug 2019 12:45 am
Operator : MM
Sample : 9H21053-IBL2
Misc : 1X 5mL DI+MeOH
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:18 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092136.D
Acq On : 22 Aug 2019 1:12 am
Operator : MM
Sample : 9H21053-CALA
Misc : 1X 5mL 100/200PPB VOC+O+MeOH
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:35 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.717	99	118257	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.464	117	362304	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.484	152	179342	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.224	111	101151	62.69	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.264	114	389020	57.46	ug/L		0.00
45) Toluene-d8 (S)	7.749	98	475291	47.58	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.577	174	139774	48.42	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.513	85	161059	88.98	ug/L		99
3) Chloromethane	1.696	50	208066	94.48	ug/L		99
4) Vinyl Chloride	1.775	62	197958	103.95	ug/L		94
5) Bromomethane	2.103	96	111907	106.73	ug/L		99
6) Chloroethane	2.237	64	105128	110.07	ug/L		97
7) Trichlorofluoromethane	2.359	101	210080	107.76	ug/L		96
8) Ethanol	3.156	45	396302	5737.58	ug/L		90
9) 1,1-Dichloroethene	2.839	61	282466	108.86	ug/L		99
10) Carbon Disulfide	2.845	76	410862	132.28	ug/L		98
11) Freon 113	2.888	101	205202	105.62	ug/L		92
12) Iodomethane	2.985	142	76509	111.83	ug/L		77
13) Methylene Chloride	3.454	84	174637	111.08	ug/L		91
14) Acetone	3.569	43	245851	231.74	ug/L		89
15) t-1,2-Dichloroethene	3.612	61	267057	115.80	ug/L		94
16) n-Hexane	3.685	86	43680	108.98	ug/L	#	86
17) Methyl-tert-butyl-ether	3.770	73	782140	119.58	ug/L		94
18) tert-Butanol (TBA)	4.062	59	4297736	7106.36	ug/L	#	90
19) Diisopropyl ether (DIPE)	4.147	45	185055	25.69	ug/L		99
20) 1,1-Dichloroethane	4.226	63	283398	118.82	ug/L		98
21) Acrylonitrile	4.305	53	131190	115.66	ug/L		92
22) Ethyl-tert-butyl ether...	4.506	59	184932	25.63	ug/L		97
23) c-1,2-Dichloroethene	4.762	61	285629	120.83	ug/L		93
24) 2,2-Dichloropropane	4.865	77	312817	117.13	ug/L		96
25) Bromochloromethane	4.956	49	159002	116.01	ug/L		92
26) Chloroform	5.047	83	351427	122.73	ug/L		96
27) Carbon Tetrachloride	5.163	117	292084	125.32	ug/L		96
28) Tetrahydrofuran	5.224	42	145774	118.95	ug/L		93
29) 1,1,1-Trichloroethane	5.230	97	374926	129.39	ug/L		98
31) 1,1-Dichloropropene	5.358	75	311507	117.60	ug/L		94
32) 2-Butanone (MEK)	5.382	43	423565	227.92	ug/L		93
33) Benzene	5.607	78	870347	110.59	ug/L		97
34) tert-Amyl methyl ether...	5.759	73	176821	27.70	ug/L		95
35) 1,2-Dichloroethane (EDC)	5.826	62	362593	111.47	ug/L		97
36) iso-Butyl Alcohol	5.978	43	668766	3226.01	ug/L		95
38) Trichloroethene (TCE)	6.222	130	249488	126.64	ug/L		94
39) tert-Amyl ethyl ether ...	6.495	59	139433	21.81	ug/L		92
40) Dibromomethane	6.660	93	117351	124.97	ug/L		90
41) 1,2-Dichloropropane	6.769	63	221302	110.21	ug/L		83
42) Bromodichloromethane	6.848	83	287871	123.83	ug/L		98
44) c-1,3-Dichloropropene	7.548	75	345800	103.12	ug/L		94
46) Toluene	7.809	91	942033	93.82	ug/L		98
47) Tetrachloroethene (PCE)	8.253	166	241750	100.37	ug/L		94
48) 4-Methyl-2-Pentanone (...	8.278	43	711915	214.18	ug/L		96

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092136.D
Acq On : 22 Aug 2019 1:12 am
Operator : MM
Sample : 9H21053-CALA
Misc : 1X 5mL 100/200PPB VOC+O+MeOH
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:35 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

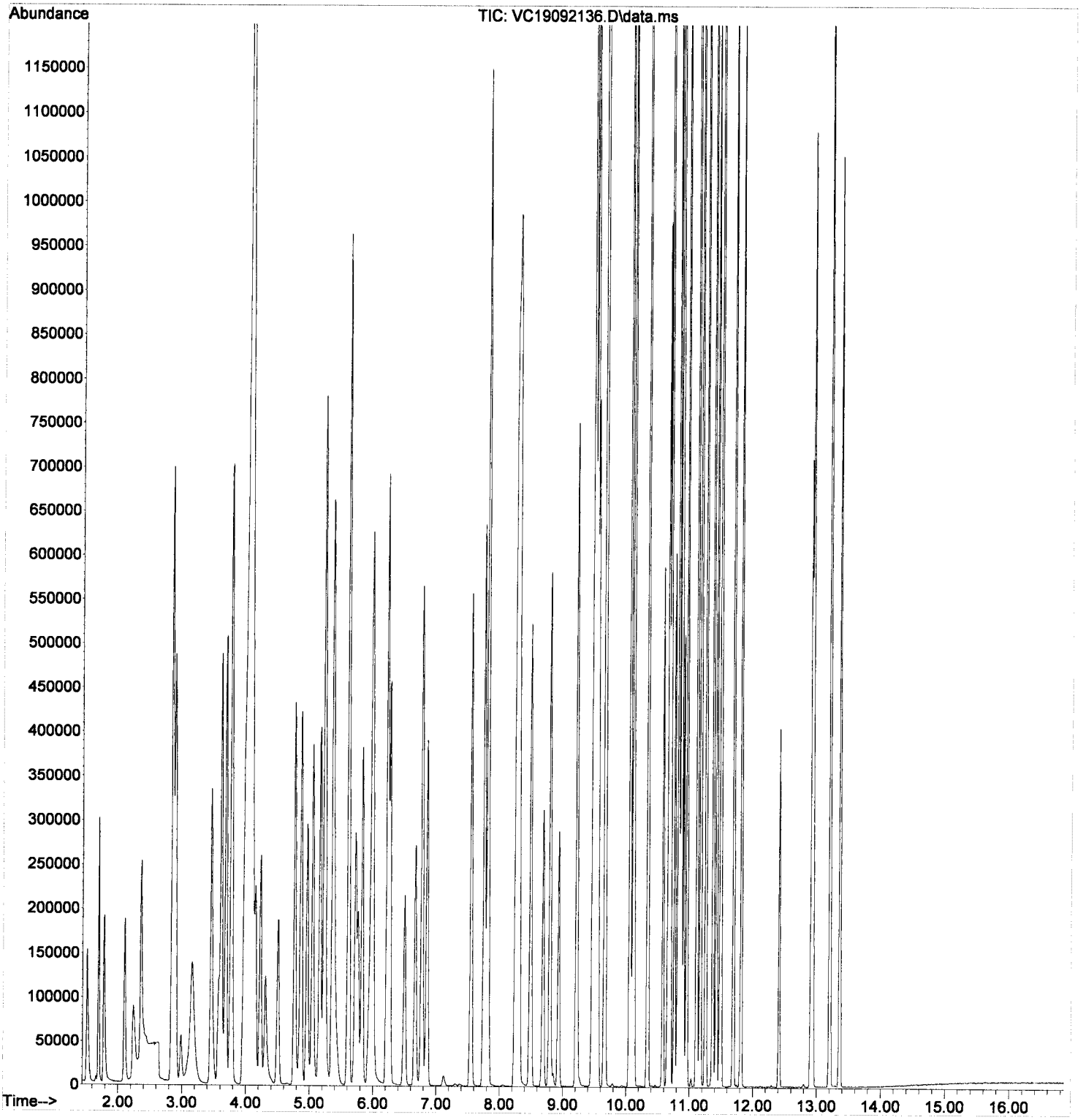
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.302	75	349823	104.27	ug/L		96
50) 1,1,2-Trichloroethane	8.485	97	194591	99.96	ug/L		94
51) Dibromochloromethane	8.685	129	191933	107.91	ug/L		96
52) 1,3-Dichloropropane	8.795	76	366654	100.10	ug/L		94
53) 1,2-Dibromoethane (EDB)	8.929	107	212845	109.38	ug/L		97
54) 2-Hexanone	9.215	43	568593	221.42	ug/L		96
55) Chlorobenzene	9.482	112	601478	95.63	ug/L		98
56) Ethylbenzene	9.513	91	1082449	105.90	ug/L		99
57) 1,1,1,2-Tetrachloroethane	9.549	131	218844	112.04	ug/L		96
58) m,p-Xylenes (2)	9.659	91	1642280	229.84	ug/L		98
59) o-Xylene	10.054	91	832946	111.89	ug/L		95
60) Styrene	10.109	104	612135	127.05	ug/L		97
61) Bromoform	10.121	173	124347	109.43	ug/L		98
62) Isopropylbenzene	10.340	105	1060569	131.68	ug/L		99
65) Bromobenzene	10.663	156	243073	106.37	ug/L		95
66) n-Propylbenzene	10.693	91	1166080	119.65	ug/L		98
67) 1,1,2,2-Tetrachloroethane	10.760	83	243077	99.94	ug/L		97
68) 2-Chlorotoluene	10.815	126	232293	120.70	ug/L		94
69) 1,3,5-Trimethylbenzene	10.857	105	847334	126.07	ug/L		97
70) 1,2,3-Trichloropropane	10.863	110	110799	100.59	ug/L		87
71) t-1,4-Dichloro-2-butene	10.906	88	51043	106.41	ug/L	#	72
72) 4-Chlorotoluene	10.955	91	691477	114.59	ug/L		96
73) tert-Butylbenzene	11.113	91	484674	123.65	ug/L		95
74) 1,2,4-Trimethylbenzene	11.167	105	852855	127.81	ug/L		97
75) sec-Butylbenzene	11.253	105	1012699	134.84	ug/L		98
76) 4-Isopropyltoluene	11.368	119	882164	144.44	ug/L		99
77) 1,3-Dichlorobenzene	11.423	146	440338	112.58	ug/L		98
78) 1,4-Dichlorobenzene	11.490	146	443252	108.29	ug/L		95
79) n-Butylbenzene	11.691	91	727575	131.41	ug/L		98
80) 1,2-Dichlorobenzene	11.812	146	417856	117.49	ug/L		99
81) 1,2-Dibromo-3-Chloropr...	12.408	157	89953	113.28	ug/L		78
82) Hexachlorobutadiene	12.907	223	77627	121.74	ug/L		95
83) 1,2,4-Trichlorobenzene	12.938	180	302658	136.56	ug/L		97
84) Naphthalene	13.199	128	1033693	131.76	ug/L		97
85) 1,2,3-Trichlorobenzene	13.358	180	298643	139.87	ug/L		99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092136.D
Acq On : 22 Aug 2019 1:12 am
Operator : MM
Sample : 9H21053-CALA
Misc : 1X 5mL 100/200PPB VOC+O+MeOH
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:35 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092137.D
Acq On : 22 Aug 2019 1:39 am
Operator : MM
Sample : 9H21053-IBL3
Misc : 1X 5mL DI+MeOH
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:21 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.717	99	126582	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.464	117	377949	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.478	152	161211	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.224	111	100370	50.58	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.258	114	421148	51.56	ug/L		0.00
45) Toluene-d8 (S)	7.748	98	511365	50.24	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.577	174	137451	52.92	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.507	85	368	0.21	ug/L	#	51
3) Chloromethane	1.689	50	1948	0.84	ug/L		93
4) Vinyl Chloride	1.775	62	339	0.16	ug/L		81
5) Bromomethane	2.103	96	5095	1.34	ug/L		93
6) Chloroethane	2.225	64	162	0.15	ug/L	#	1
7) Trichlorofluoromethane	2.352	101	304	0.13	ug/L	#	50
8) Ethanol	3.143	45	1752	24.25	ug/L		82
9) 1,1-Dichloroethene	2.827	61	613	0.20	ug/L		86
10) Carbon Disulfide	2.839	76	3426	0.87	ug/L		85
11) Freon 113	2.882	101	465	0.22	ug/L	#	73
12) Iodomethane	2.973	142	2793	9.21	ug/L		84
13) Methylene Chloride	3.447	84	4405	Below Cal			90
14) Acetone	3.581	43	1532	1.11	ug/L		96
15) t-1,2-Dichloroethene	3.600	61	925	0.33	ug/L		93
16) n-Hexane	3.679	86	1097	0.41	ug/L		93
18) tert-Butanol (TBA)	4.056	59	428	0.61	ug/L	#	22
23) c-1,2-Dichloroethene	4.755	61	414	0.14	ug/L		92
31) 1,1-Dichloropropene	5.358	75	984	0.32	ug/L	#	71
32) 2-Butanone (MEK)	5.394	43	653	0.30	ug/L		52
33) Benzene	5.607	78	1317	0.15	ug/L		94
36) iso-Butyl Alcohol	5.972	43	49	0.19	ug/L	#	22
38) Trichloroethene (TCE)	6.215	130	576	0.23	ug/L		81
46) Toluene	7.809	91	1832	0.18	ug/L		76
47) Tetrachloroethene (PCE)	8.253	166	837	0.34	ug/L	#	70
49) t-1,3-Dichloropropene	8.302	75	342	0.11	ug/L	#	45
55) Chlorobenzene	9.482	112	1470	0.23	ug/L	#	58
56) Ethylbenzene	9.519	91	2377	0.21	ug/L		96
58) m,p-Xylenes (2)	9.659	91	3570	0.43	ug/L		100
59) o-Xylene	10.054	91	1428	0.17	ug/L		86
60) Styrene	10.109	104	897	0.16	ug/L		89
62) Isopropylbenzene	10.334	105	1873	0.19	ug/L		87
65) Bromobenzene	10.656	156	464	0.22	ug/L	#	82
66) n-Propylbenzene	10.693	91	3302	0.32	ug/L		90
68) 2-Chlorotoluene	10.821	126	505	0.25	ug/L		89
69) 1,3,5-Trimethylbenzene	10.857	105	1672	0.23	ug/L		97
72) 4-Chlorotoluene	10.954	91	1986	0.33	ug/L		99
73) tert-Butylbenzene	11.113	91	1010	0.24	ug/L	#	73
74) 1,2,4-Trimethylbenzene	11.167	105	1991	0.27	ug/L		96
75) sec-Butylbenzene	11.253	105	2805	0.33	ug/L		94
76) 4-Isopropyltoluene	11.368	119	2614	0.36	ug/L		90
77) 1,3-Dichlorobenzene	11.423	146	1672	0.44	ug/L	#	75
78) 1,4-Dichlorobenzene	11.490	146	1868	0.46	ug/L	#	51
79) n-Butylbenzene	11.691	91	3377	0.53	ug/L		99

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092137.D
Acq On : 22 Aug 2019 1:39 am
Operator : MM
Sample : 9H21053-IBL3
Misc : 1X 5mL DI+MeOH
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:21 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

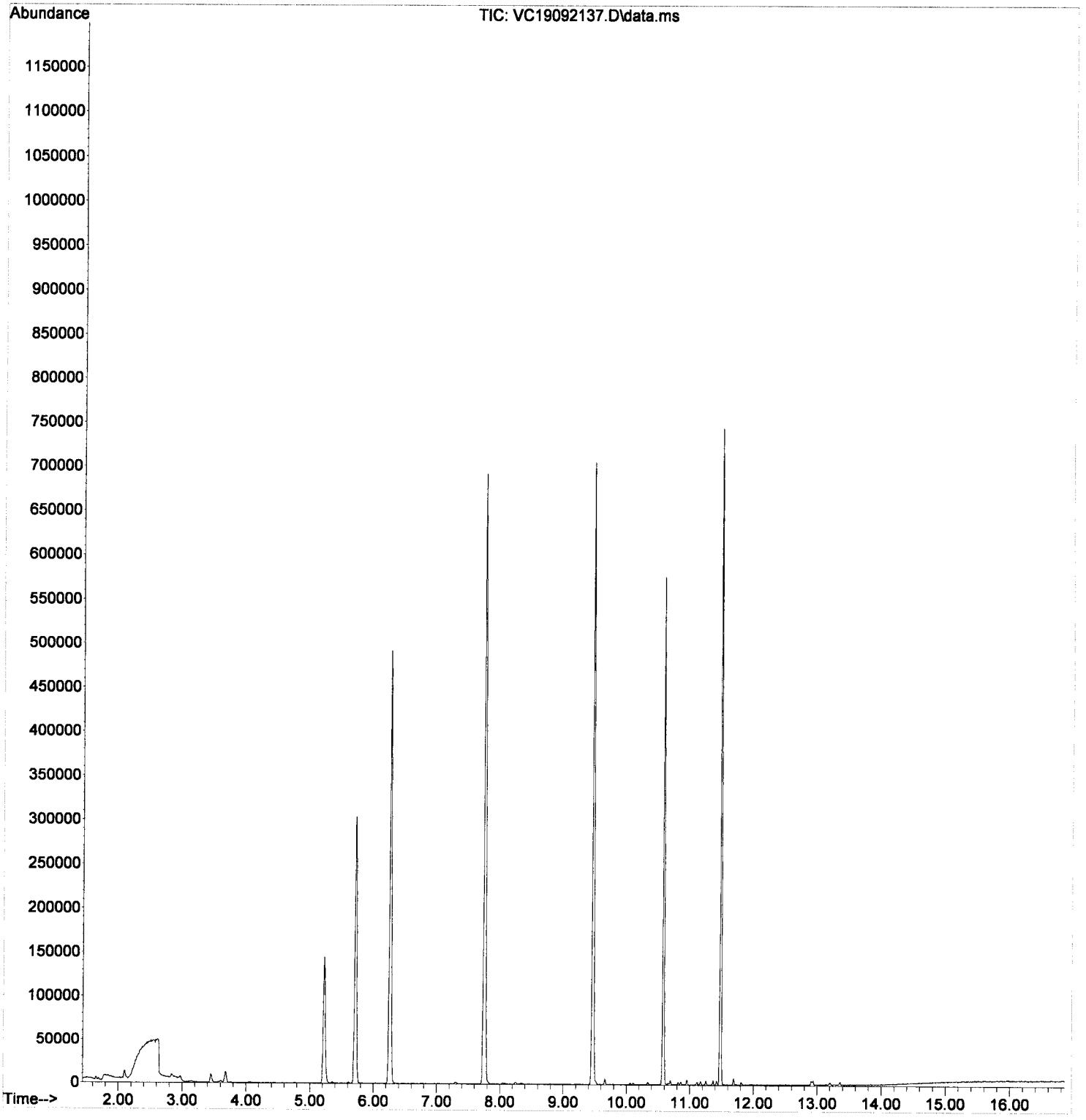
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) 1,2-Dichlorobenzene	11.812	146	1039	0.28	ug/L		97
82) Hexachlorobutadiene	12.901	223	625	0.92	ug/L	#	80
83) 1,2,4-Trichlorobenzene	12.932	180	1553	0.66	ug/L		97
84) Naphthalene	13.199	128	2817	0.49	ug/L		91
85) 1,2,3-Trichlorobenzene	13.357	180	1339	0.56	ug/L		93

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092137.D
Acq On : 22 Aug 2019 1:39 am
Operator : MM
Sample : 9H21053-IBL3
Misc : 1X 5mL DI+MeOH
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:21 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092138.D
Acq On : 22 Aug 2019 2:06 am
Operator : MM
Sample : 9H21053-CALB
Misc : 1X 5mL 200/400PPB VOC+O+MeOH
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:37 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	5.717	99	121886	50.00	ug/L	0.00
43) Chlorobenzene-d5 (I)	9.464	117	364680	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.484	152	189574	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.224	111	103736	62.38	ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.264	114	404135	57.91	ug/L	0.00
45) Toluene-d8 (S)	7.749	98	484243	48.16	ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.577	174	148001	48.51	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.513	85	378022	202.63	ug/L	98
3) Chloromethane	1.696	50	440526	194.09	ug/L	99
4) Vinyl Chloride	1.775	62	435017	221.63	ug/L	95
5) Bromomethane	2.103	96	235173	218.48	ug/L	99
6) Chloroethane	2.237	64	222205	225.72	ug/L	99
7) Trichlorofluoromethane	2.359	101	485793	241.78	ug/L	97
8) Ethanol	3.192	45	1063	14.93	ug/L	88
9) 1,1-Dichloroethene	2.839	61	588619	220.10	ug/L	98
10) Carbon Disulfide	2.851	76	893318	279.06	ug/L	98
11) Freon 113	2.888	101	421084	210.28	ug/L	92
12) Iodomethane	2.985	142	249388	247.50	ug/L	91
13) Methylene Chloride	3.454	84	353275	222.63	ug/L	89
14) Acetone	3.575	43	410896	375.77	ug/L	92
15) t-1,2-Dichloroethene	3.612	61	550043	231.40	ug/L	97
16) n-Hexane	3.685	86	91019	220.32	ug/L	94
17) Methyl-tert-butyl-ether	3.770	73	1581137	234.53	ug/L	94
18) tert-Butanol (TBA)	4.074	59	112	0.18	ug/L #	1
19) Diisopropyl ether (DIPE)	4.153	45	1170	0.16	ug/L	64
20) 1,1-Dichloroethane	4.226	63	602695	245.17	ug/L	99
21) Acrylonitrile	4.305	53	261354	223.55	ug/L	97
22) Ethyl-tert-butyl ether...	4.494	59	1288	0.17	ug/L #	56
23) c-1,2-Dichloroethene	4.762	61	584015	239.70	ug/L	94
24) 2,2-Dichloropropane	4.865	77	637964	231.77	ug/L	98
25) Bromochloromethane	4.956	49	313862	222.18	ug/L	94
26) Chloroform	5.048	83	720819	244.25	ug/L	96
27) Carbon Tetrachloride	5.163	117	640853	234.18	ug/L	95
28) Tetrahydrofuran	5.224	42	277281	219.53	ug/L	95
29) 1,1,1-Trichloroethane	5.230	97	780017	261.18	ug/L	98
31) 1,1-Dichloropropene	5.358	75	647826	237.28	ug/L	94
32) 2-Butanone (MEK)	5.382	43	829795	433.22	ug/L	94
33) Benzene	5.607	78	1799873	221.89	ug/L	98
34) tert-Amyl methyl ether...	5.759	73	727	0.11	ug/L #	46
35) 1,2-Dichloroethane (EDC)	5.826	62	703285	209.78	ug/L	98
36) iso-Butyl Alcohol	5.984	43	1318026	6168.63	ug/L	97
38) Trichloroethene (TCE)	6.222	130	516296	254.26	ug/L	94
39) tert-Amyl ethyl ether ...	6.495	59	839	0.19	ug/L #	58
40) Dibromomethane	6.660	93	231130	238.81	ug/L	93
41) 1,2-Dichloropropane	6.769	63	454597	219.66	ug/L	85
42) Bromodichloromethane	6.848	83	607360	231.41	ug/L	97
44) c-1,3-Dichloropropene	7.548	75	714478	199.53	ug/L	95
46) Toluene	7.810	91	1916468	189.63	ug/L	97
47) Tetrachloroethene (PCE)	8.254	166	501879	207.02	ug/L	95
48) 4-Methyl-2-Pentanone (...	8.278	43	1449596	433.27	ug/L	97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092138.D
Acq On : 22 Aug 2019 2:06 am
Operator : MM
Sample : 9H21053-CALB
Misc : 1X 5mL 200/400PPB VOC+O+MeOH
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:37 2019
Quant Method : C:\msdchem\1\METHODS\VC~~190822S+~~.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration

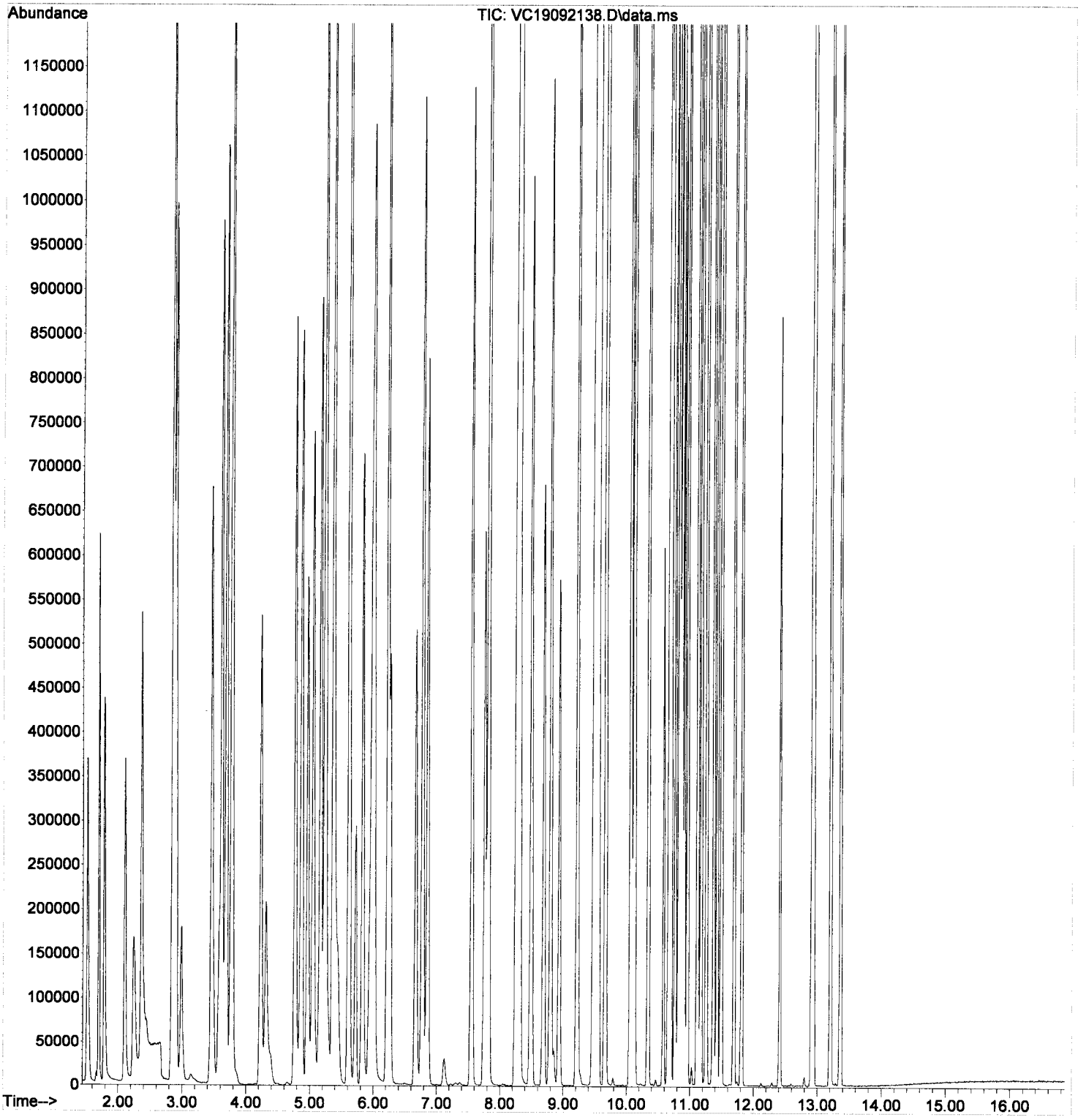
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.302	75	721711	205.08	ug/L		96
50) 1,1,2-Trichloroethane	8.485	97	395935	202.06	ug/L		95
51) Dibromochloromethane	8.686	129	431031	203.84	ug/L		99
52) 1,3-Dichloropropane	8.795	76	747075	202.62	ug/L		95
53) 1,2-Dibromoethane (EDB)	8.929	107	438796	224.02	ug/L		97
54) 2-Hexanone	9.215	43	1152533	445.89	ug/L		97
55) Chlorobenzene	9.482	112	1223894	193.33	ug/L		99
56) Ethylbenzene	9.513	91	2193593	213.22	ug/L		100
57) 1,1,1,2-Tetrachloroethane	9.549	131	457150	204.68	ug/L		97
58) m,p-Xylenes (2)	9.659	91	3389195	471.24	ug/L		98
59) o-Xylene	10.054	91	1713321	228.66	ug/L		96
60) Styrene	10.109	104	1295570	267.15	ug/L		97
61) Bromoform	10.121	173	301394	207.87	ug/L		97
62) Isopropylbenzene	10.340	105	2161099	266.58	ug/L		99
65) Bromobenzene	10.663	156	515706	213.50	ug/L		98
66) n-Propylbenzene	10.693	91	2406400	233.58	ug/L		99
67) 1,1,2,2-Tetrachloroethane	10.760	83	508968	197.97	ug/L		98
68) 2-Chlorotoluene	10.821	126	487317	239.55	ug/L		97
69) 1,3,5-Trimethylbenzene	10.857	105	1758587	247.53	ug/L		97
70) 1,2,3-Trichloropropane	10.863	110	229226	196.88	ug/L		87
71) t-1,4-Dichloro-2-butene	10.906	88	110095	193.56	ug/L	#	75
72) 4-Chlorotoluene	10.955	91	1436374	225.37	ug/L		97
73) tert-Butylbenzene	11.113	91	1001801	241.78	ug/L		97
74) 1,2,4-Trimethylbenzene	11.168	105	1757253	249.13	ug/L		97
75) sec-Butylbenzene	11.253	105	2104544	265.08	ug/L		98
76) 4-Isopropyltoluene	11.368	119	1853839	287.15	ug/L		98
77) 1,3-Dichlorobenzene	11.423	146	933997	225.90	ug/L		98
78) 1,4-Dichlorobenzene	11.490	146	937754	216.74	ug/L		96
79) n-Butylbenzene	11.691	91	1529734	261.39	ug/L		98
80) 1,2-Dichlorobenzene	11.812	146	880661	234.25	ug/L		99
81) 1,2-Dibromo-3-Chloropr...	12.409	157	199522	207.73	ug/L		82
82) Hexachlorobutadiene	12.907	223	167002	247.77	ug/L		97
83) 1,2,4-Trichlorobenzene	12.938	180	634421	270.80	ug/L		98
84) Naphthalene	13.199	128	2149459	243.54	ug/L		97
85) 1,2,3-Trichlorobenzene	13.358	180	625414	277.11	ug/L		99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092138.D
Acq On : 22 Aug 2019 2:06 am
Operator : MM
Sample : 9H21053-CALB
Misc : 1X 5mL 200/400PPB VOC+O+MeOH
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 08:57:37 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 08:56:14 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092139.D
Acq On : 22 Aug 2019 2:33 am
Operator : MM
Sample : 9H21053-IBL4
Misc : 1X 5mL DI+MeOH
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:23 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.715	99	135045	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.462	117	410804	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.482	152	178555	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.222	111	112496	53.14	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.262	114	457568	52.51	ug/L		0.00
45) Toluene-d8 (S)	7.753	98	554557	50.12	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.581	174	148141	51.50	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.511	85	838	0.44	ug/L		89
3) Chloromethane	1.693	50	2519	1.02	ug/L		88
4) Vinyl Chloride	1.773	62	603	0.26	ug/L		91
5) Bromomethane	2.101	96	6032	1.79	ug/L		91
6) Chloroethane	2.241	64	278	0.25	ug/L	#	1
7) Trichlorofluoromethane	2.350	101	734	0.28	ug/L		93
8) Ethanol	3.147	45	1863	24.17	ug/L	#	29
9) 1,1-Dichloroethene	2.837	61	1170	0.37	ug/L		78
10) Carbon Disulfide	2.843	76	6940	1.65	ug/L		95
11) Freon 113	2.892	101	983	0.44	ug/L		96
12) Iodomethane	2.983	142	2937	9.12	ug/L		75
13) Methylene Chloride	3.458	84	9350	0.67	ug/L		96
14) Acetone	3.579	43	1976	1.35	ug/L		93
15) t-1,2-Dichloroethene	3.610	61	1871	0.63	ug/L		89
16) n-Hexane	3.677	86	1202	0.48	ug/L	#	82
23) c-1,2-Dichloroethene	4.766	61	700	0.22	ug/L		85
25) Bromochloromethane	4.960	49	174	0.10	ug/L	#	14
26) Chloroform	5.045	83	422	0.11	ug/L		70
27) Carbon Tetrachloride	5.155	117	572	0.22	ug/L	#	64
29) 1,1,1-Trichloroethane	5.234	97	427	0.11	ug/L		74
31) 1,1-Dichloropropene	5.356	75	1773	0.53	ug/L		92
32) 2-Butanone (MEK)	5.404	43	714	0.30	ug/L		52
33) Benzene	5.605	78	2364	0.24	ug/L		85
35) 1,2-Dichloroethane (EDC)	5.830	62	499	0.12	ug/L	#	49
36) iso-Butyl Alcohol	5.982	43	149	0.55	ug/L	#	22
38) Trichloroethene (TCE)	6.220	130	1267	0.47	ug/L		88
41) 1,2-Dichloropropane	6.773	63	212	0.09	ug/L	#	40
44) c-1,3-Dichloropropene	7.540	75	652	0.19	ug/L	#	78
46) Toluene	7.813	91	3067	0.27	ug/L		99
47) Tetrachloroethene (PCE)	8.251	166	1685	0.62	ug/L		81
49) t-1,3-Dichloropropene	8.306	75	735	0.21	ug/L		76
52) 1,3-Dichloropropane	8.799	76	376	0.09	ug/L	#	28
53) 1,2-Dibromoethane (EDB)	8.933	107	229	0.11	ug/L		83
55) Chlorobenzene	9.480	112	2416	0.35	ug/L	#	40
56) Ethylbenzene	9.517	91	4139	0.33	ug/L		91
57) 1,1,1,2-Tetrachloroethane	9.553	131	59	0.18	ug/L	#	34
58) m,p-Xylenes (2)	9.657	91	6664	0.73	ug/L		90
59) o-Xylene	10.058	91	2311	0.25	ug/L		90
60) Styrene	10.107	104	1638	0.27	ug/L		93
62) Isopropylbenzene	10.338	105	3746	0.35	ug/L		95
65) Bromobenzene	10.660	156	964	0.41	ug/L		94
66) n-Propylbenzene	10.691	91	6609	0.58	ug/L		94
68) 2-Chlorotoluene	10.819	126	828	0.37	ug/L	#	83

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092139.D
Acq On : 22 Aug 2019 2:33 am
Operator : MM
Sample : 9H21053-IBL4
Misc : 1X 5mL DI+MeOH
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:23 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

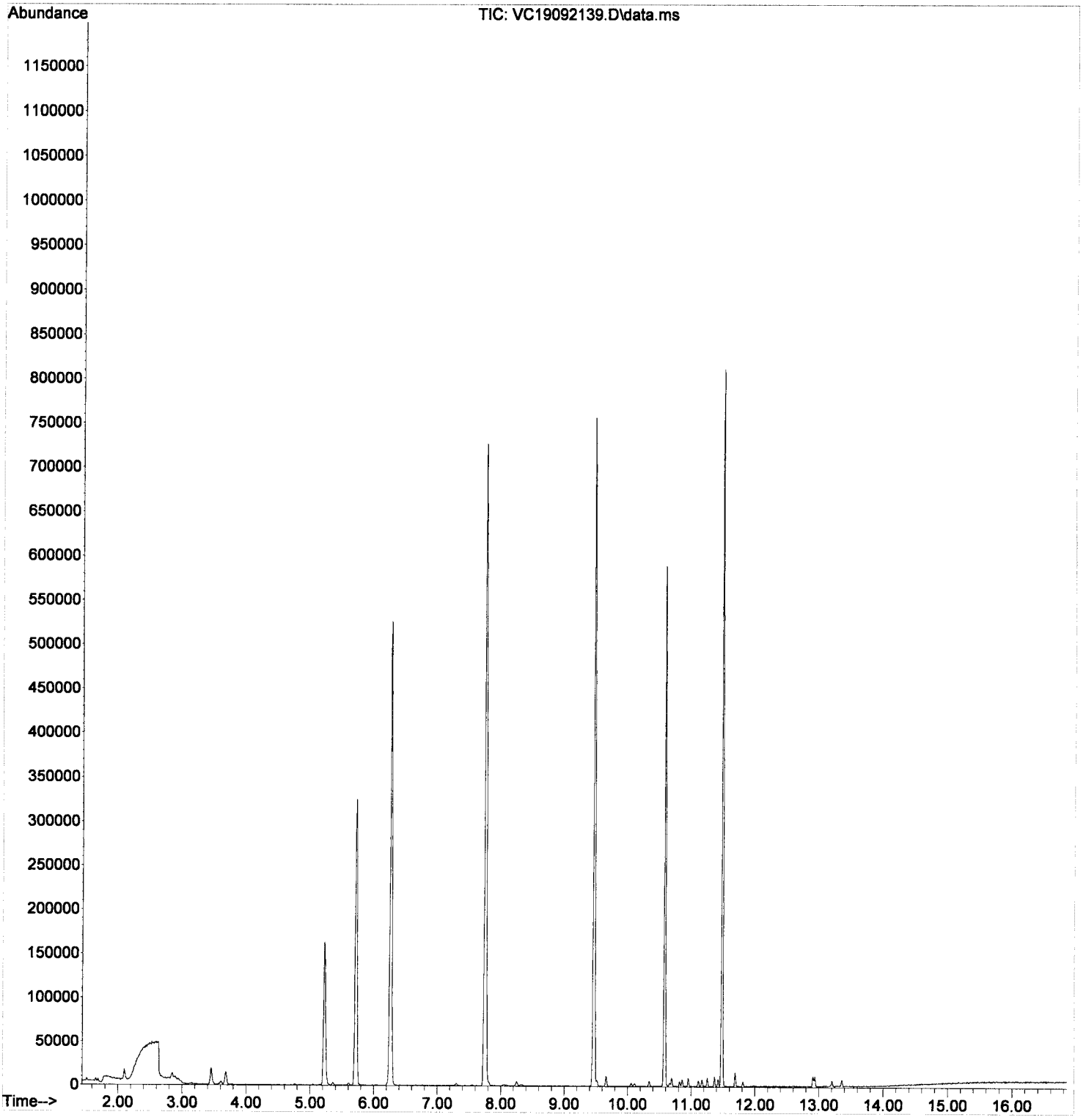
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) 1,3,5-Trimethylbenzene	10.855	105	3728	0.46	ug/L	92
72) 4-Chlorotoluene	10.952	91	3996	0.61	ug/L	96
73) tert-Butylbenzene	11.111	91	1917	0.41	ug/L	83
74) 1,2,4-Trimethylbenzene	11.165	105	3937	0.48	ug/L	96
75) sec-Butylbenzene	11.251	105	5522	0.59	ug/L	96
76) 4-Isopropyltoluene	11.366	119	5247	0.65	ug/L	95
77) 1,3-Dichlorobenzene	11.421	146	3065	0.73	ug/L	92
78) 1,4-Dichlorobenzene	11.494	146	3564	0.80	ug/L	86
79) n-Butylbenzene	11.689	91	6955	0.99	ug/L	93
80) 1,2-Dichlorobenzene	11.810	146	1995	0.49	ug/L	94
82) Hexachlorobutadiene	12.911	223	1271	1.69	ug/L	91
83) 1,2,4-Trichlorobenzene	12.936	180	3411	1.31	ug/L	93
84) Naphthalene	13.203	128	5071	0.69	ug/L	93
85) 1,2,3-Trichlorobenzene	13.355	180	2688	1.02	ug/L	90

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092139.D
Acq On : 22 Aug 2019 2:33 am
Operator : MM
Sample : 9H21053-IBL4
Misc : 1X 5mL DI+MeOH
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:23 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092140.D
Acq On : 22 Aug 2019 3:00 am
Operator : MM
Sample : 9H21053-IBL5
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:25 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.715	99	124122	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.463	117	368909	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.483	152	161490	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.223	111	98070	50.40	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.263	114	414353	51.74	ug/L		0.00
45) Toluene-d8 (S)	7.753	98	500605	50.38	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.582	174	133907	51.47	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.512	85	240	0.14	ug/L	#	51
3) Chloromethane	1.688	50	1552	0.68	ug/L		97
5) Bromomethane	2.102	96	4592	1.01	ug/L		92
7) Trichlorofluoromethane	2.357	101	214	0.09	ug/L		67
8) Ethanol	3.148	45	662	9.34	ug/L	#	29
9) 1,1-Dichloroethene	2.838	61	352	0.12	ug/L	#	50
10) Carbon Disulfide	2.838	76	2660	0.69	ug/L		75
11) Freon 113	2.881	101	368	0.18	ug/L		84
12) Iodomethane	2.978	142	1872	7.28	ug/L		99
13) Methylene Chloride	3.452	84	7593	0.08	ug/L		89
14) Acetone	3.580	43	1590	1.18	ug/L	#	42
15) t-1,2-Dichloroethene	3.598	61	591	0.22	ug/L	#	61
16) n-Hexane	3.677	86	1098	0.46	ug/L	#	87
31) 1,1-Dichloropropene	5.363	75	712	0.23	ug/L	#	39
33) Benzene	5.612	78	814	0.09	ug/L		62
38) Trichloroethene (TCE)	6.226	130	391	0.16	ug/L	#	75
46) Toluene	7.814	91	1416	0.14	ug/L		92
47) Tetrachloroethene (PCE)	8.246	166	643	0.26	ug/L		91
55) Chlorobenzene	9.475	112	916	0.15	ug/L	#	1
56) Ethylbenzene	9.518	91	1864	0.17	ug/L		77
58) m,p-Xylenes (2)	9.657	91	2727	0.33	ug/L		93
59) o-Xylene	10.059	91	1008	0.12	ug/L		95
60) Styrene	10.108	104	555	0.10	ug/L		97
62) Isopropylbenzene	10.339	105	1241	0.13	ug/L		94
65) Bromobenzene	10.661	156	331	0.16	ug/L	#	74
66) n-Propylbenzene	10.692	91	2434	0.24	ug/L		93
68) 2-Chlorotoluene	10.813	126	224	0.11	ug/L	#	37
69) 1,3,5-Trimethylbenzene	10.856	105	1367	0.19	ug/L		85
72) 4-Chlorotoluene	10.959	91	1487	0.25	ug/L		94
73) tert-Butylbenzene	11.111	91	452	0.11	ug/L	#	68
74) 1,2,4-Trimethylbenzene	11.166	105	1353	0.18	ug/L		87
75) sec-Butylbenzene	11.251	105	1639	0.19	ug/L		87
76) 4-Isopropyltoluene	11.367	119	1913	0.26	ug/L		100
77) 1,3-Dichlorobenzene	11.422	146	1222	0.32	ug/L		93
78) 1,4-Dichlorobenzene	11.495	146	1413	0.35	ug/L	#	70
79) n-Butylbenzene	11.689	91	2409	0.38	ug/L		99
80) 1,2-Dichlorobenzene	11.817	146	707	0.19	ug/L		90
82) Hexachlorobutadiene	12.906	223	364	0.54	ug/L		89
83) 1,2,4-Trichlorobenzene	12.936	180	1326	0.56	ug/L		89
84) Naphthalene	13.204	128	1387	0.32	ug/L		79
85) 1,2,3-Trichlorobenzene	13.356	180	727	0.30	ug/L		91

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092140.D
Acq On : 22 Aug 2019 3:00 am
Operator : MM
Sample : 9H21053-IBL5
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:25 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

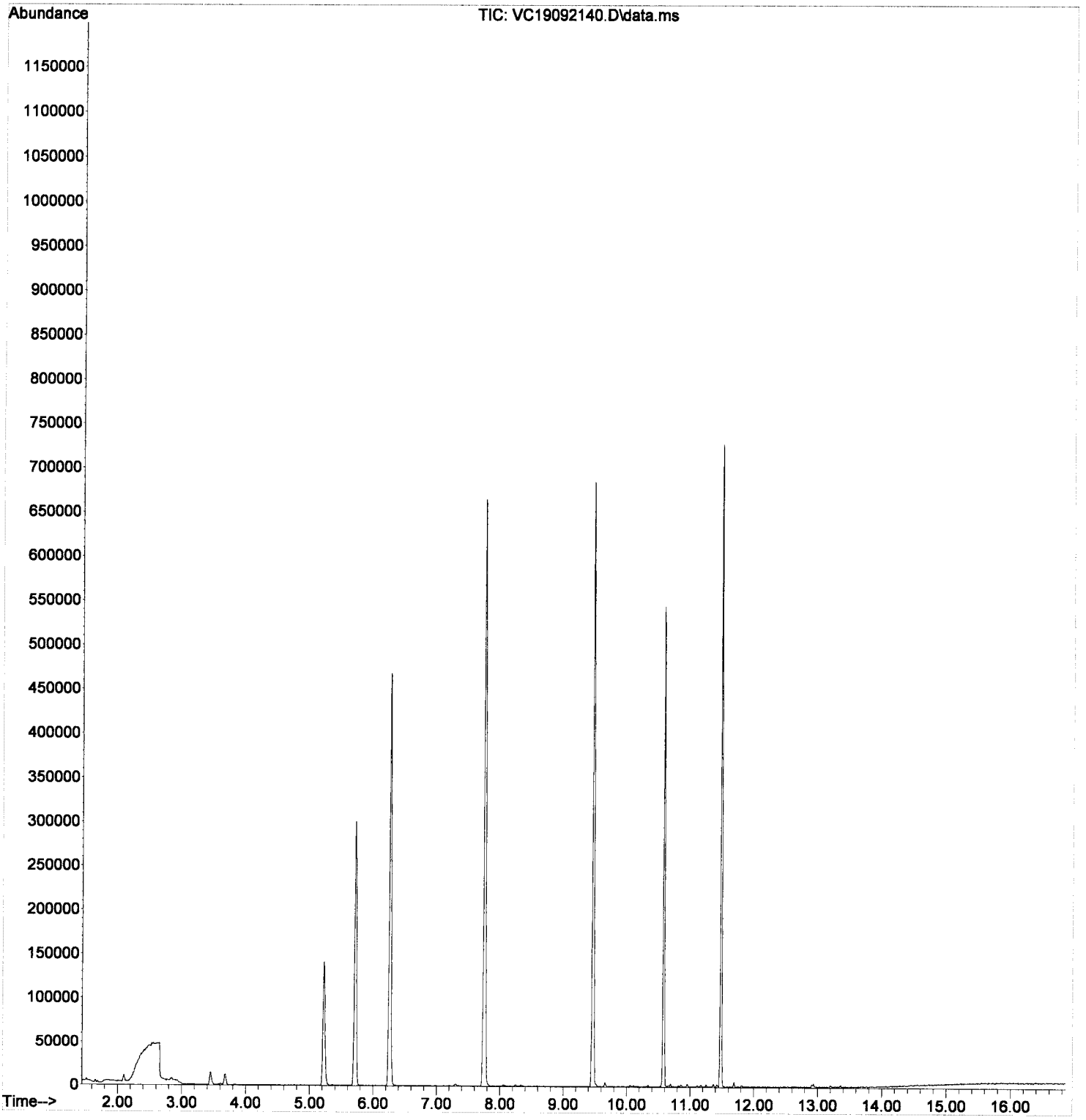
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092140.D
Acq On : 22 Aug 2019 3:00 am
Operator : MM
Sample : 9H21053-IBL5
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:25 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092141.D
Acq On : 22 Aug 2019 3:28 am
Operator : MM
Sample : 9H21053-ICV1
Misc : 1X 5mL 20/40PPB VOC+O+MeOH
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:28 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

MM 8/22/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.714	99	123765	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.461	117	374591	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.481	152	172353	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.221	111	101038	52.07	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.261	114	414445	51.90	ug/L		0.00
45) Toluene-d8 (S)	7.751	98	507145	50.27	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.580	174	138608	49.92	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.510	85	42855	24.59	ug/L		94
3) Chloromethane	1.692	50	52645	23.21	ug/L		97
4) Vinyl Chloride	1.771	62	43724	20.93	ug/L		92
5) Bromomethane	2.094	96	28218	20.47	ug/L		98
6) Chloroethane	2.234	64	22158	21.50	ug/L		96
7) Trichlorofluoromethane	2.355	101	41529	17.58	ug/L		98
8) Ethanol	3.165	45	93013	1316.61	ug/L		85
9) 1,1-Dichloroethene	2.836	61	57053	19.49	ug/L		95
10) Carbon Disulfide	2.842	76	81962	21.28	ug/L		97
11) Freon 113	2.885	101	42400	20.55	ug/L		91
12) Iodomethane	2.982	142	12592	27.50	ug/L		93
13) Methylene Chloride	3.450	84	44078	21.35	ug/L		91
14) Acetone	3.572	43	52603	39.10	ug/L		92
15) t-1,2-Dichloroethene	3.609	61	57467	21.02	ug/L		96
16) n-Hexane	3.682	86	9735	19.96	ug/L		93
17) Methyl-tert-butyl-ether	3.767	73	157249	20.32	ug/L		94
18) tert-Butanol (TBA)	4.065	59	951289	1383.83	ug/L	#	92
19) Diisopropyl ether (DIPE)	4.144	45	40253	4.82	ug/L		92
20) 1,1-Dichloroethane	4.223	63	58628	21.31	ug/L		99
21) Acrylonitrile	4.308	53	27030	21.42	ug/L		99
22) Ethyl-tert-butyl ether...	4.503	59	39212	4.81	ug/L		93
23) c-1,2-Dichloroethene	4.758	61	57858	20.26	ug/L		93
24) 2,2-Dichloropropane	4.862	77	56577	17.89	ug/L		99
25) Bromochloromethane	4.959	49	33170	20.48	ug/L		96
26) Chloroform	5.044	83	68335	20.29	ug/L		98
27) Carbon Tetrachloride	5.160	117	51013	21.66	ug/L		90
28) Tetrahydrofuran	5.233	42	30786	21.18	ug/L		95
29) 1,1,1-Trichloroethane	5.227	97	74530	20.95	ug/L		96
31) 1,1-Dichloropropene	5.355	75	62382	20.51	ug/L		96
32) 2-Butanone (MEK)	5.385	43	85045	39.43	ug/L		94
33) Benzene	5.610	78	182130	20.56	ug/L		98
34) tert-Amyl methyl ether...	5.756	73	36407	5.08	ug/L		96
35) 1,2-Dichloroethane (EDC)	5.823	62	75197	20.42	ug/L		99
36) iso-Butyl Alcohol	5.987	43	140348	570.14	ug/L		95
38) Trichloroethene (TCE)	6.218	130	49835	20.08	ug/L		91
39) tert-Amyl ethyl ether ...	6.492	59	27489	4.93	ug/L		94
40) Dibromomethane	6.663	93	22841	19.26	ug/L		93
41) 1,2-Dichloropropane	6.772	63	45086	20.34	ug/L		81
42) Bromodichloromethane	6.851	83	48175	22.34	ug/L		93
44) c-1,3-Dichloropropene	7.545	75	62713	19.82	ug/L		94
46) Toluene	7.806	91	191027	18.66	ug/L		97
47) Tetrachloroethene (PCE)	8.250	166	49664	20.15	ug/L		95
48) 4-Methyl-2-Pentanone (...	8.281	43	136446	39.05	ug/L		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092141.D
Acq On : 22 Aug 2019 3:28 am
Operator : MM
Sample : 9H21053-ICV1
Misc : 1X 5mL 20/40PPB VOC+O+MeOH
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:28 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

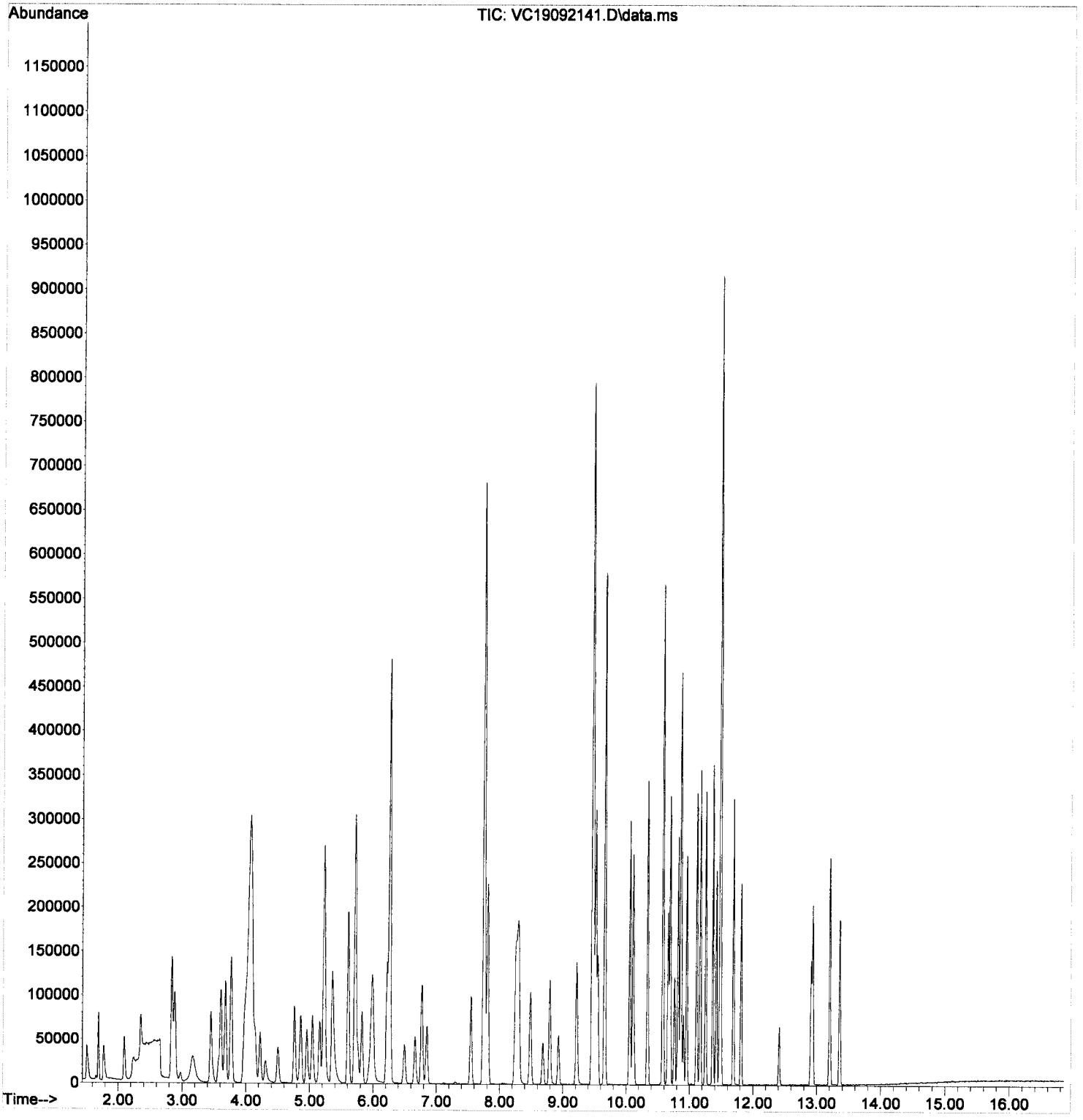
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.305	75	62609	19.90	ug/L		94
50) 1,1,2-Trichloroethane	8.482	97	39299	20.43	ug/L		93
51) Dibromochloromethane	8.682	129	29962	18.49	ug/L		99
52) 1,3-Dichloropropane	8.792	76	72948	19.69	ug/L		93
53) 1,2-Dibromoethane (EDB)	8.932	107	41113	20.99	ug/L		96
54) 2-Hexanone	9.218	43	106243	41.64	ug/L		98
55) Chlorobenzene	9.479	112	124224	19.46	ug/L		97
56) Ethylbenzene	9.516	91	216431	19.07	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.552	131	37839	20.02	ug/L		96
58) m,p-Xylenes (2)	9.662	91	316362	38.20	ug/L		98
59) o-Xylene	10.057	91	156803	18.74	ug/L		97
60) Styrene	10.106	104	109835	19.87	ug/L		96
61) Bromoform	10.124	173	17757	18.67	ug/L		95
62) Isopropylbenzene	10.337	105	201847	20.54	ug/L		98
65) Bromobenzene	10.659	156	46756	20.53	ug/L		88
66) n-Propylbenzene	10.690	91	219795	19.92	ug/L		96
67) 1,1,2,2-Tetrachloroethane	10.763	83	49152	21.51	ug/L		95
68) 2-Chlorotoluene	10.818	126	44510	20.62	ug/L		96
69) 1,3,5-Trimethylbenzene	10.860	105	160176	20.32	ug/L		97
70) 1,2,3-Trichloropropane	10.866	110	21185	20.84	ug/L	#	85
71) t-1,4-Dichloro-2-butene	10.903	88	7057	15.81	ug/L	#	76
72) 4-Chlorotoluene	10.951	91	131166	20.67	ug/L		93
73) tert-Butylbenzene	11.110	91	93376	20.65	ug/L		92
74) 1,2,4-Trimethylbenzene	11.170	105	162892	20.71	ug/L		96
75) sec-Butylbenzene	11.256	105	195635	21.48	ug/L		99
76) 4-Isopropyltoluene	11.365	119	166699	21.23	ug/L		96
77) 1,3-Dichlorobenzene	11.420	146	84405	20.89	ug/L		96
78) 1,4-Dichlorobenzene	11.493	146	85649	19.81	ug/L		94
79) n-Butylbenzene	11.687	91	142748	21.14	ug/L		97
80) 1,2-Dichlorobenzene	11.815	146	79105	20.23	ug/L		98
81) 1,2-Dibromo-3-Chloropr...	12.411	157	13447	18.90	ug/L		70
82) Hexachlorobutadiene	12.910	223	15676	21.62	ug/L		95
83) 1,2,4-Trichlorobenzene	12.935	180	54606	21.65	ug/L		99
84) Naphthalene	13.202	128	180928	19.59	ug/L		97
85) 1,2,3-Trichlorobenzene	13.360	180	54781	21.44	ug/L		99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092141.D
Acq On : 22 Aug 2019 3:28 am
Operator : MM
Sample : 9H21053-ICV1
Misc : 1X 5mL 20/40PPB VOC+O+MeOH
ALS Vial : 24 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:28 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092142.D
Acq On : 22 Aug 2019 3:55 am
Operator : MM
Sample : 9H21053-IBL6
Misc : 1X 5mL DI+MeOH
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:30 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

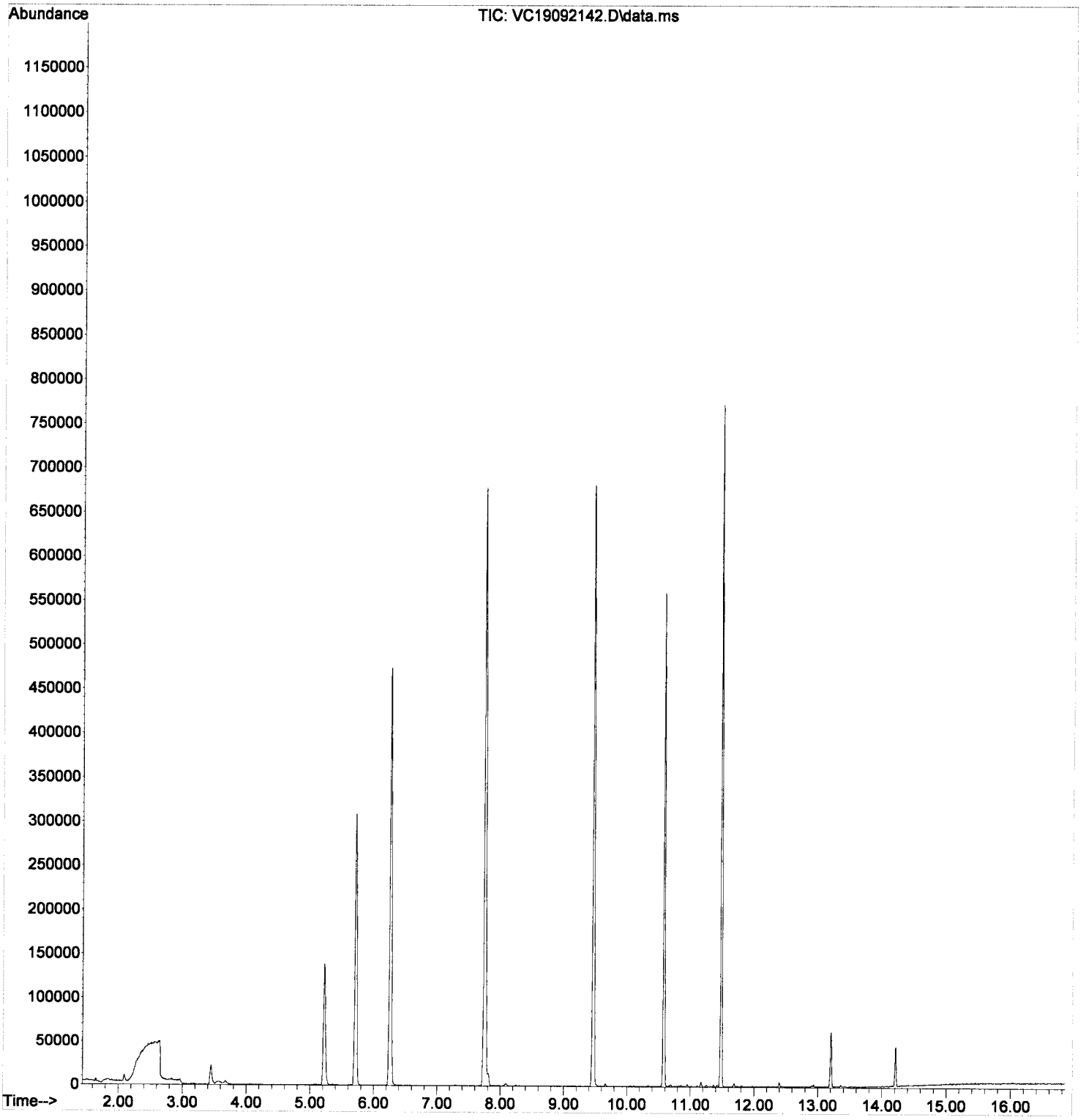
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	5.714	99	126329	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.461	117	373712	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.481	152	164798	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.221	111	96279	48.61	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.261	114	417328	51.20	ug/L		0.00
45) Toluene-d8 (S)	7.752	98	507908	50.46	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.580	174	135521	51.04	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.686	50	1313	0.57	ug/L		92
5) Bromomethane	2.094	96	3873	0.37	ug/L		99
8) Ethanol	3.171	45	2139	29.66	ug/L		88
10) Carbon Disulfide	2.836	76	1746	0.44	ug/L		94
11) Freon 113	2.879	101	203	0.10	ug/L	#	16
12) Iodomethane	2.970	142	1810	7.07	ug/L		87
13) Methylene Chloride	3.451	84	11645	2.33	ug/L		96
14) Acetone	3.572	43	6311	4.60	ug/L		91
15) t-1,2-Dichloroethene	3.609	61	396	0.14	ug/L	#	72
18) tert-Butanol (TBA)	4.065	59	318	0.45	ug/L	#	11
31) 1,1-Dichloropropene	5.361	75	481	0.15	ug/L	#	39
32) 2-Butanone (MEK)	5.409	43	814	0.37	ug/L		52
38) Trichloroethene (TCE)	6.231	130	278	0.11	ug/L	#	3
46) Toluene	7.806	91	11673	1.14	ug/L		96
47) Tetrachloroethene (PCE)	8.244	166	396	0.16	ug/L	#	73
55) Chlorobenzene	9.479	112	709	0.11	ug/L	#	1
56) Ethylbenzene	9.516	91	1198	0.11	ug/L		93
58) m,p-Xylenes (2)	9.656	91	1955	0.24	ug/L		86
60) Styrene	10.112	104	452	0.08	ug/L		70
65) Bromobenzene	10.666	156	289	0.13	ug/L	#	69
66) n-Propylbenzene	10.690	91	1672	0.16	ug/L		98
68) 2-Chlorotoluene	10.818	126	211	0.10	ug/L	#	70
69) 1,3,5-Trimethylbenzene	10.854	105	957	0.13	ug/L		89
72) 4-Chlorotoluene	10.951	91	1079	0.18	ug/L		78
73) tert-Butylbenzene	11.116	91	361	0.08	ug/L	#	80
74) 1,2,4-Trimethylbenzene	11.170	105	2967	0.39	ug/L		96
75) sec-Butylbenzene	11.256	105	1312	0.15	ug/L		69
76) 4-Isopropyltoluene	11.371	119	1140	0.15	ug/L		77
77) 1,3-Dichlorobenzene	11.426	146	783	0.20	ug/L		92
78) 1,4-Dichlorobenzene	11.499	146	1064	0.26	ug/L		84
79) n-Butylbenzene	11.688	91	1864	0.29	ug/L		90
80) 1,2-Dichlorobenzene	11.809	146	475	0.13	ug/L		94
82) Hexachlorobutadiene	12.904	223	214	0.31	ug/L		93
83) 1,2,4-Trichlorobenzene	12.935	180	863	0.36	ug/L		85
84) Naphthalene	13.202	128	44334	5.16	ug/L		97
85) 1,2,3-Trichlorobenzene	13.361	180	760	0.31	ug/L		82

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092142.D
Acq On : 22 Aug 2019 3:55 am
Operator : MM
Sample : 9H21053-IBL6
Misc : 1X 5mL DI+MeOH
ALS Vial : 25 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:53:30 2019
Quant Method : C:\msdchem\1\METHODS\VC190822S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Thu Aug 22 09:46:59 2019
Response via : Initial Calibration

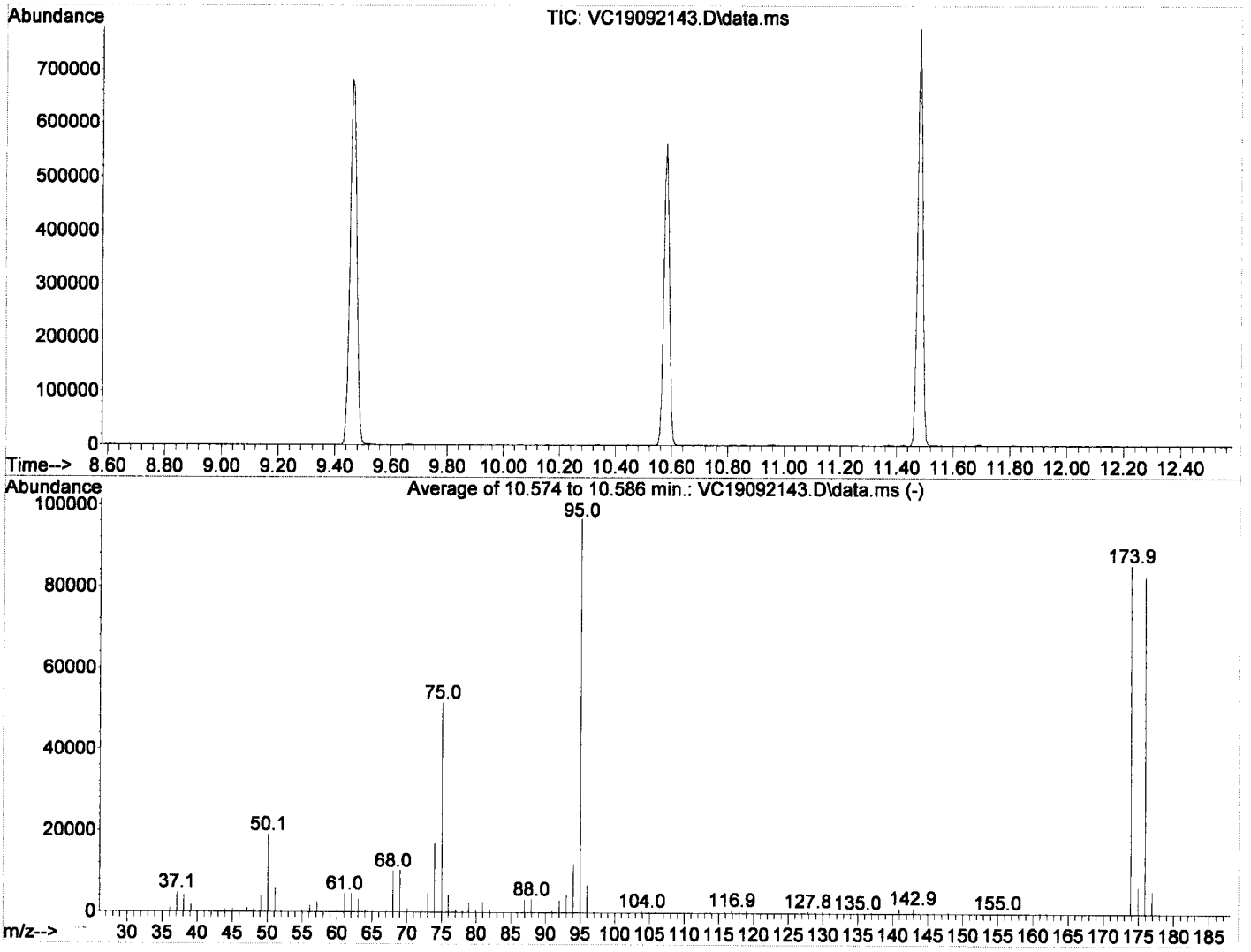


Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092143.D
Acq On : 22 Aug 2019 4:22 am
Operator : MM
Sample : 9H21053-TUN2
Misc : A19G089 BFB (IS/SURR)
ALS Vial : 26 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\VC190822G.M
Title : NWTPH-Gx by GC/MS
Last Update : Thu Aug 22 10:13:47 2019

N 8/22/19



AutoFind: Scans 1502, 1503, 1504; Background Corrected with Scan 1495

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
95	174	50	200	113.1	96626	PASS
96	95	5	9	7.0	6731	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	88.4	85442	PASS
175	174	5	9	7.4	6361	PASS
176	174	95	105	97.0	82837	PASS
177	176	5	10	6.7	5537	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092143.D
Acq On : 22 Aug 2019 4:22 am
Operator : MM
Sample : 9H21053-TUN2
Misc : A19G089 BFB (IS/SURR)
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:16:24 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration

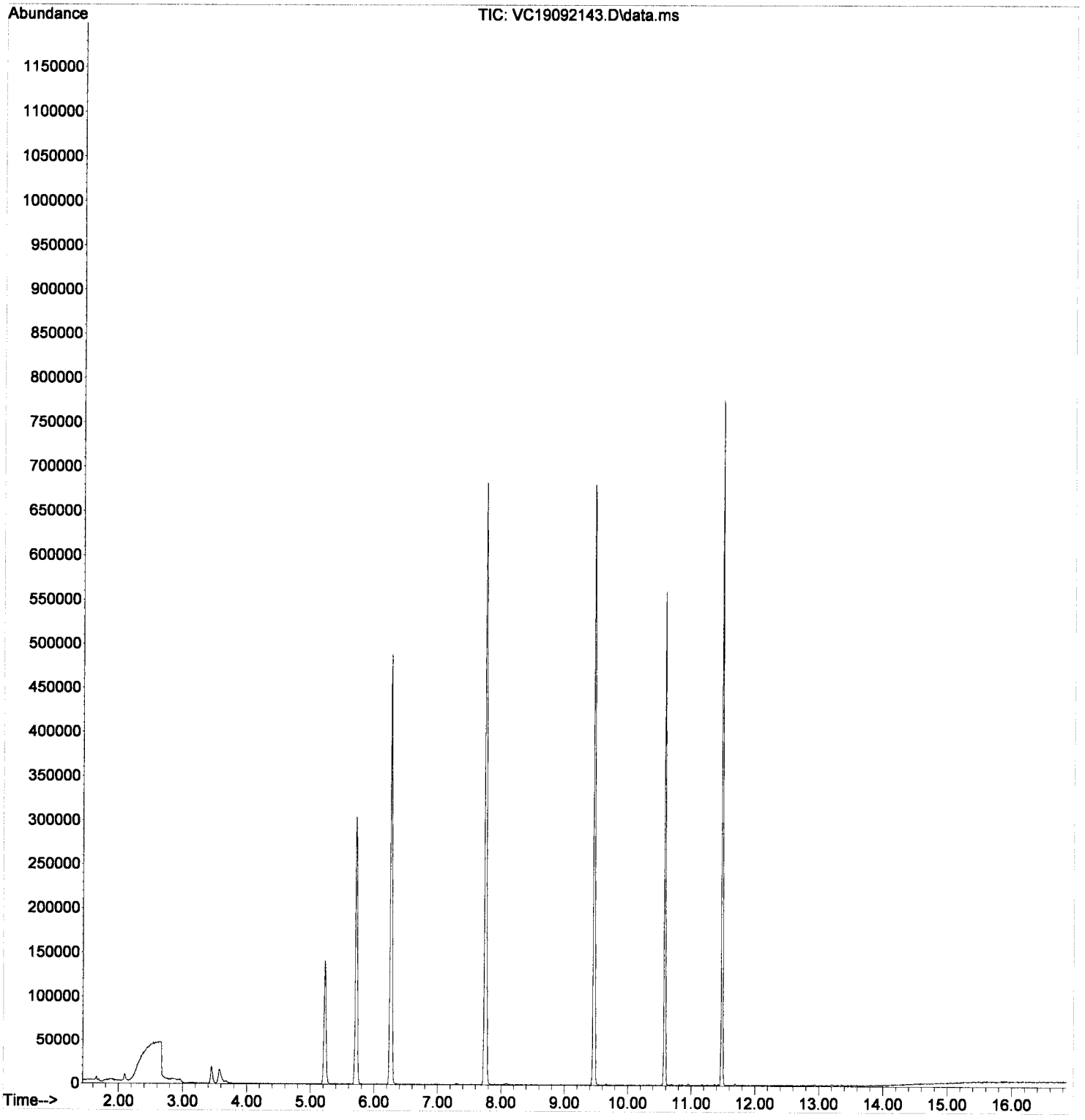
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.714	168	222033	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.261	TIC	980960	48.01	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.580	TIC	773472	47.96	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.461	TIC	1150531	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.752	TIC	1367101	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.481	TIC	970807	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	747666m	30.41	ug/L	
6) TPHg (C5-C9)	9.586	TIC	747666m	28.10	ug/L	
7) TPHg (C6-C10)	9.586	TIC	307997m	6.39	ug/L	
8) NWTPH-Gx	9.586	TIC	-4601m	31.84	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092143.D
Acq On : 22 Aug 2019 4:22 am
Operator : MM
Sample : 9H21053-TUN2
Misc : A19G089 BFB (IS/SURR)
ALS Vial : 26 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

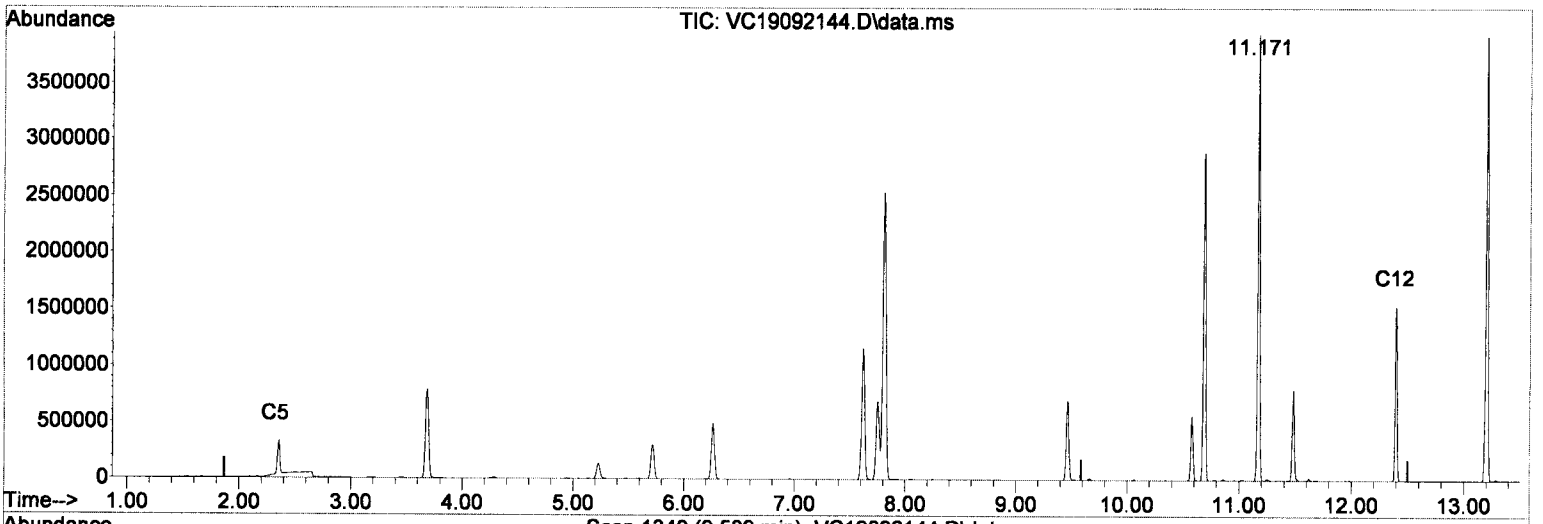
Quant Time: Aug 22 10:16:24 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092144.D
Acq On : 22 Aug 2019 4:49 am
Operator : MM
Sample : 9H21053-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:16:38 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration



TIC: VC19092144.D\data.ms

(5) CA-LUFT (C5-C12) (H)

9.586min (0.000) 1717.40 ug/L m

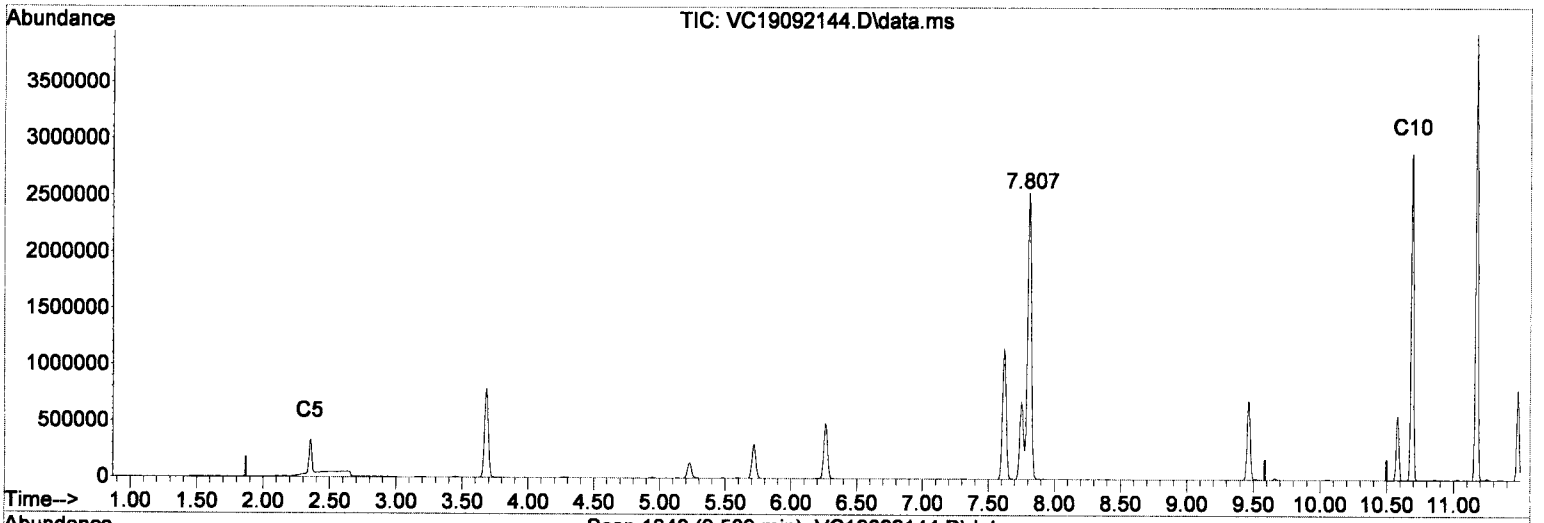
response 20767708

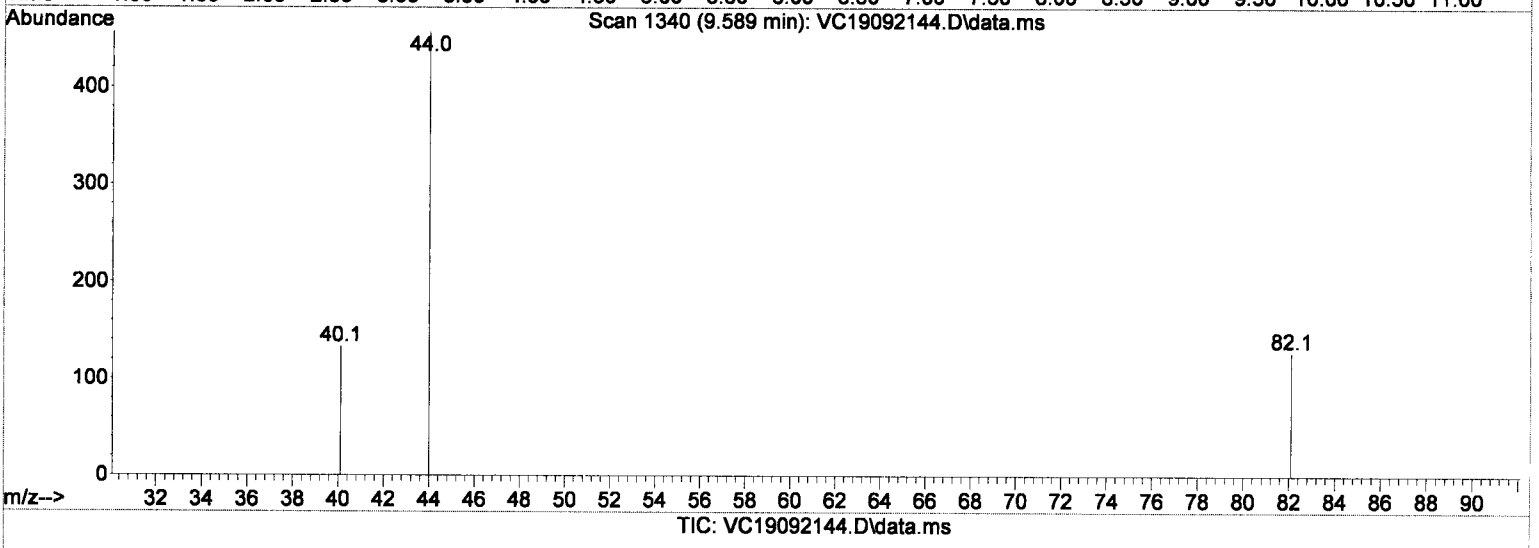
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	1.18#
0.00	0.00	0.63#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092144.D
Acq On : 22 Aug 2019 4:49 am
Operator : MM
Sample : 9H21053-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:16:38 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration





TIC: VC19092144.D\data.ms

(6) TPHg (C5-C9) (H)

9.586min (0.000) 956.31 ug/L m

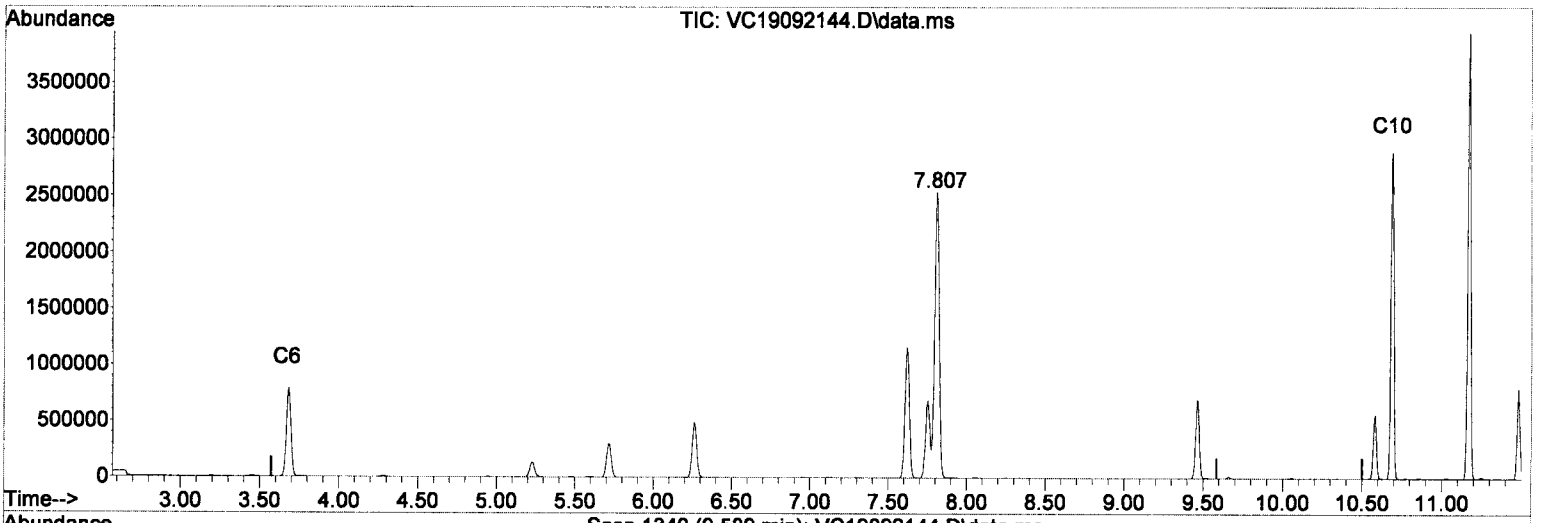
response 10038150

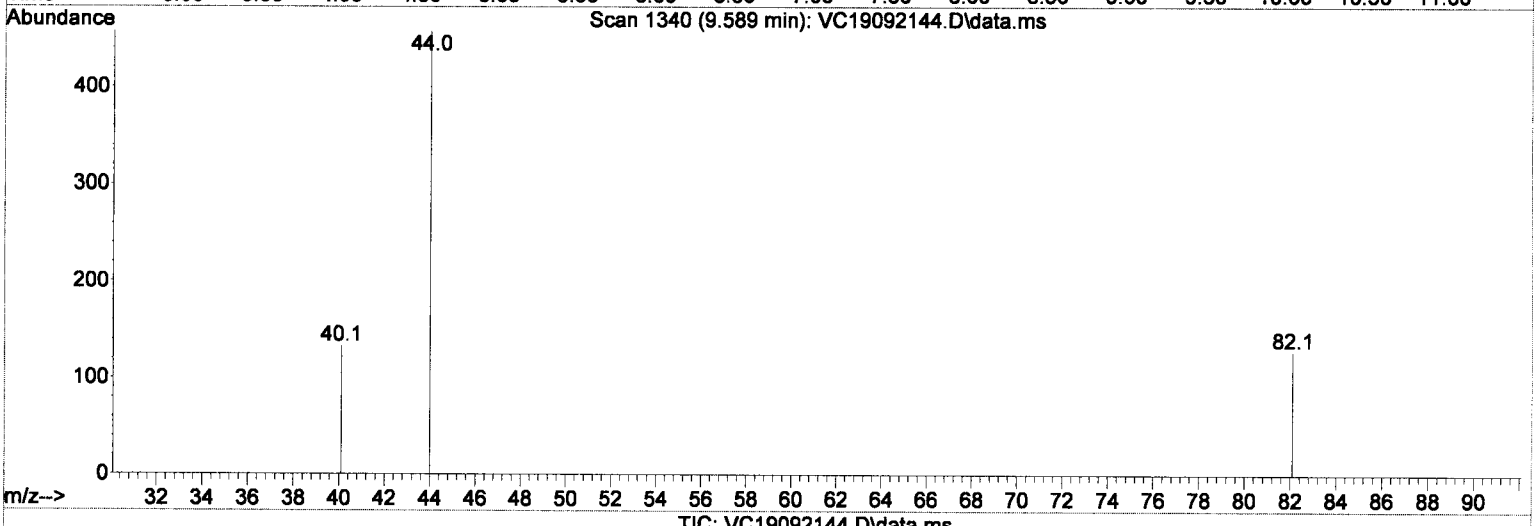
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	2.45#
0.00	0.00	1.30#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092144.D
Acq On : 22 Aug 2019 4:49 am
Operator : MM
Sample : 9H21053-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:16:38 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration





TIC: VC19092144.D\data.ms

(7) TPHg (C6-C10) (H)

9.586min (0.000) 1195.21 ug/L m

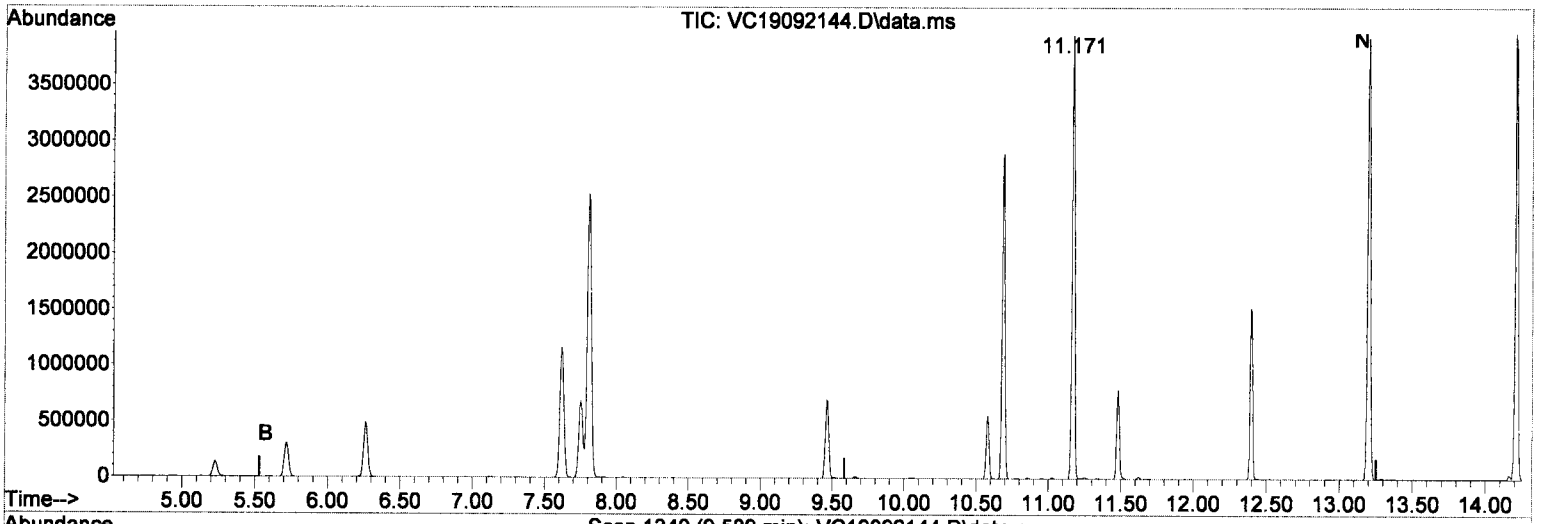
response 9346585

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	2.63#
0.00	0.00	1.40#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092144.D
Acq On : 22 Aug 2019 4:49 am
Operator : MM
Sample : 9H21053-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:16:38 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration



TIC: VC19092144.D\data.ms

(8) NWTPH-Gx (H)

9.586min (0.000) 3132.57 ug/L m

response 23518010

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	1.04#
0.00	0.00	0.55#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092144.D
Acq On : 22 Aug 2019 4:49 am
Operator : MM
Sample : 9H21053-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:16:38 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration

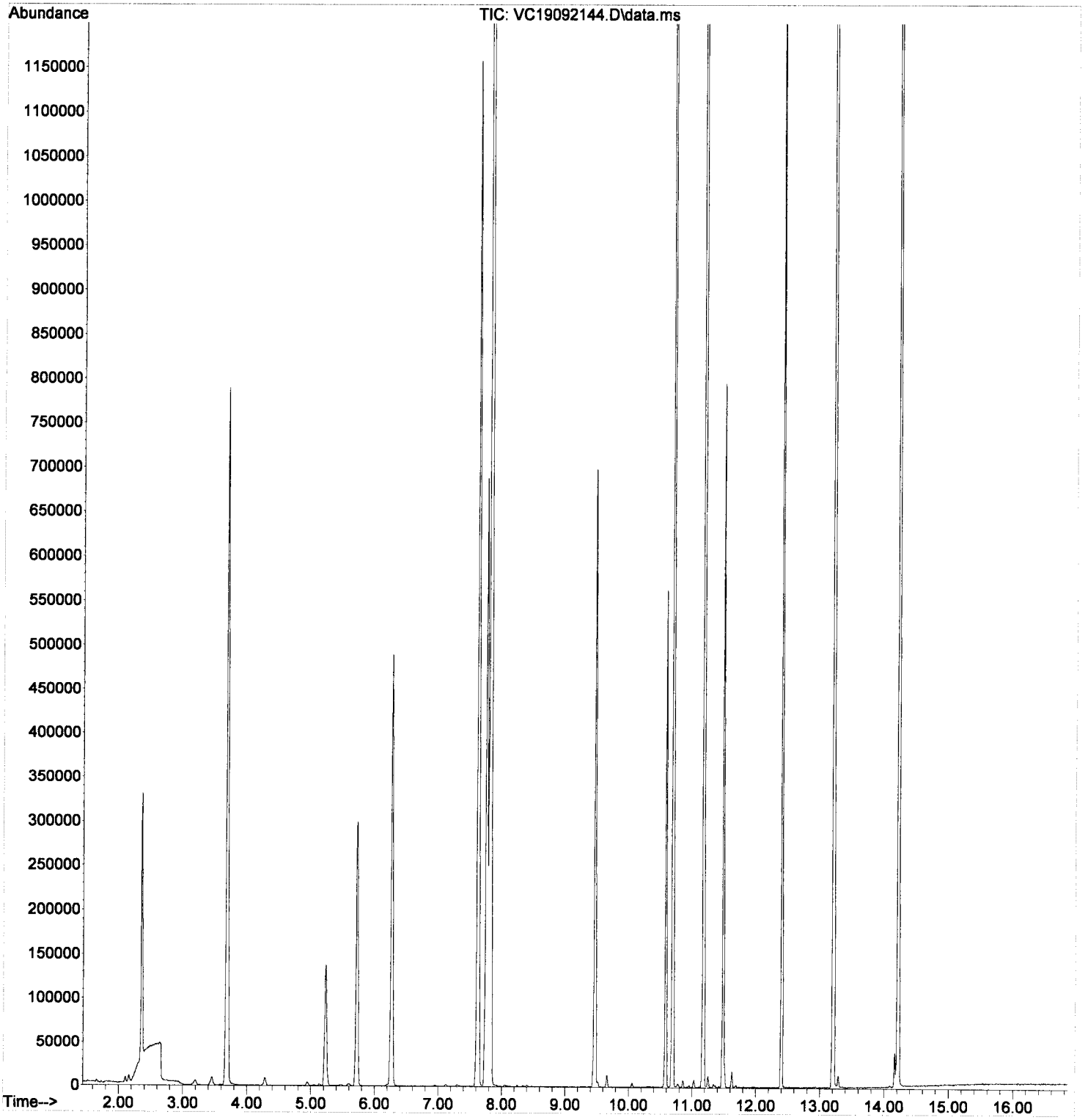
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.720	168	221894	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.261	TIC	988540	48.41	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.581	TIC	784689	48.68	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.461	TIC	1164630	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.752	TIC	1403072	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.481	TIC	1014935	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	20767708m	1717.40	ug/L	
6) TPHg (C5-C9)	9.586	TIC	10038150m	956.31	ug/L	
7) TPHg (C6-C10)	9.586	TIC	9346585m	1195.21	ug/L	
8) NWTPH-Gx	9.586	TIC	23518010m	3132.57	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092144.D
Acq On : 22 Aug 2019 4:49 am
Operator : MM
Sample : 9H21053-RT1
Misc : A18A167 VPH RT STD
ALS Vial : 27 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:16:38 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092145.D
Acq On : 22 Aug 2019 5:16 am
Operator : MM
Sample : 9H21053-IBL7
Misc : 1X 5mL DI+MeOH
ALS Vial : 28 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:17:31 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration

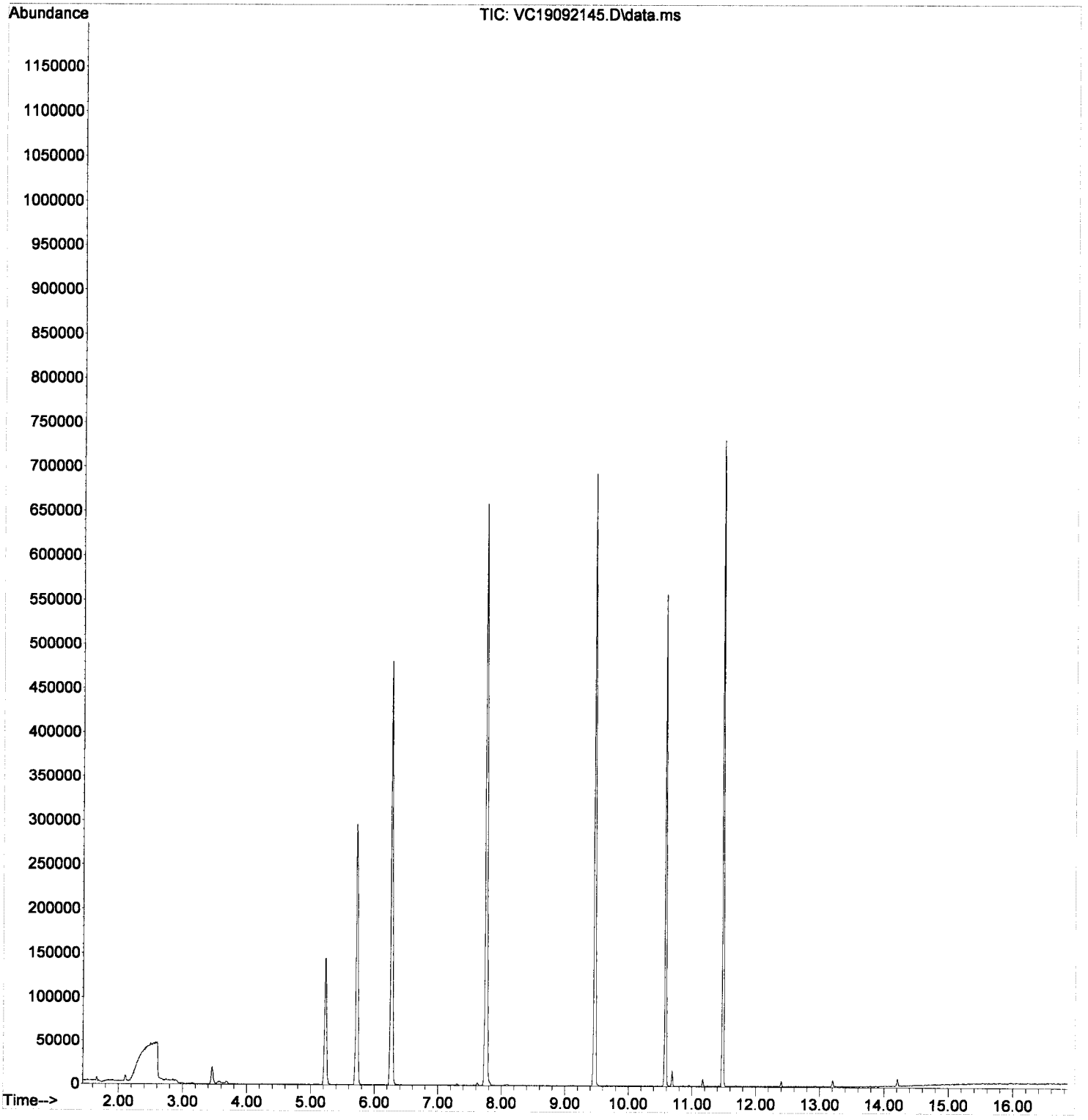
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.717	168	218301	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.264	TIC	963226	47.95	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.577	TIC	775643	48.92	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.464	TIC	1135030	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.749	TIC	1347106	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.478	TIC	954949	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	953518m	48.99	ug/L	
6) TPHg (C5-C9)	9.586	TIC	914189m	46.19	ug/L	
7) TPHg (C6-C10)	9.586	TIC	313606m	7.83	ug/L	
8) NWTPH-Gx	9.586	TIC	41899m	38.10	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092145.D
Acq On : 22 Aug 2019 5:16 am
Operator : MM
Sample : 9H21053-IBL7
Misc : 1X 5mL DI+MeOH
ALS Vial : 28 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:17:31 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092146.D
Acq On : 22 Aug 2019 5:43 am
Operator : MM
Sample : 9H21053-ICB2
Misc : 1X 5mL DI+MeOH
ALS Vial : 29 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:17:35 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration

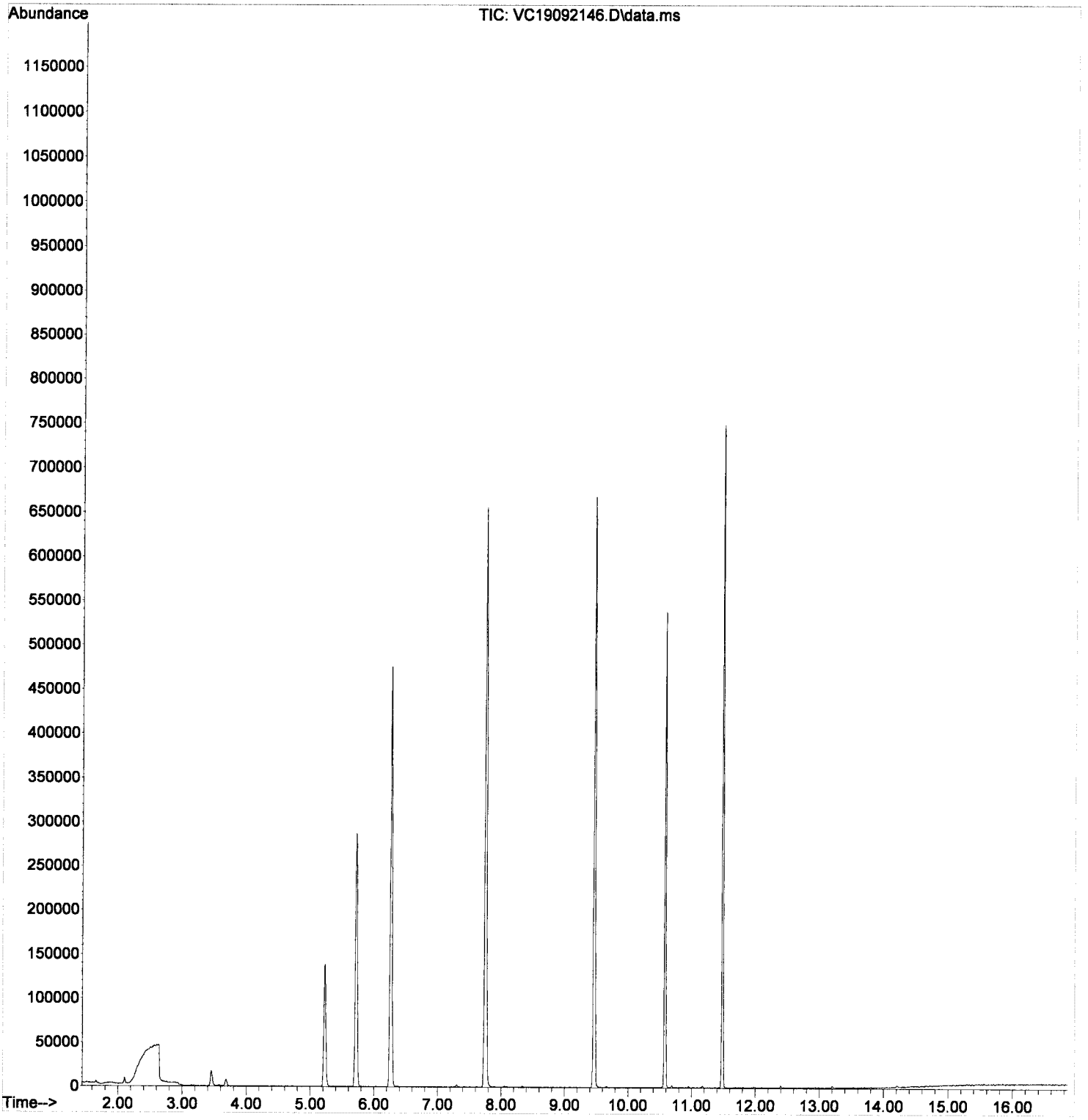
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.720	168	213608	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.262	TIC	942550	47.95	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.581	TIC	766077	49.37	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.461	TIC	1120969	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.752	TIC	1321740	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.481	TIC	945389	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	857325m	42.41	ug/L	
6) TPHg (C5-C9)	9.586	TIC	857276m	42.34	ug/L	
7) TPHg (C6-C10)	9.586	TIC	338280m	12.13	ug/L	
8) NWTPH-Gx	9.586	TIC	17564m	34.87	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092146.D
Acq On : 22 Aug 2019 5:43 am
Operator : MM
Sample : 9H21053-ICB2
Misc : 1X 5mL DI+MeOH
ALS Vial : 29 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:17:35 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092147.D
Acq On : 22 Aug 2019 6:10 am
Operator : MM
Sample : 9H21053-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 30 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:31 2019
Quant Method : C:\msdchem\1\METHODS\~~VC190822G.~~M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration

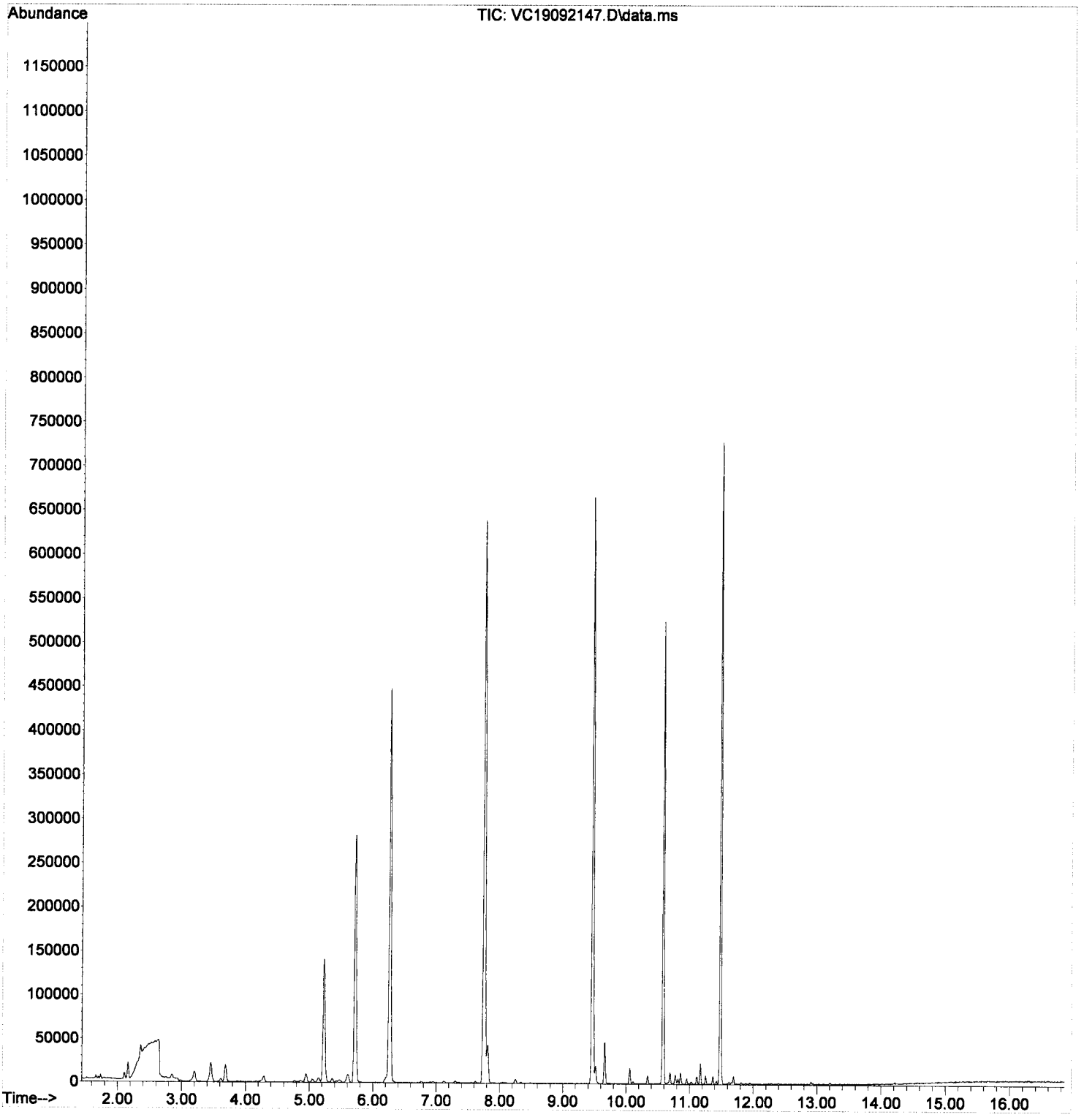
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.721	168	206993	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.262	TIC	937136	51.87	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.581	TIC	748429	55.88	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.462	TIC	1098530	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.753	TIC	1296253	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.482	TIC	942919	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	1138224m	92.81	ug/L	
6) TPHg (C5-C9)	9.586	TIC	993620m	84.78	ug/L	
7) TPHg (C6-C10)	9.586	TIC	672325m	91.89	ug/L	
8) NWTPH-Gx	9.586	TIC	390972m	100.31	ug/L	
9) Benzene (NR)	5.611	78	8026	No Calib		#
11) Toluene (NR)	7.813	91	35515	No Calib		#
13) Naphthalene (NR)	0.000		0	N.D.		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092147.D
Acq On : 22 Aug 2019 6:10 am
Operator : MM
Sample : 9H21053-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 30 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:31 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092148.D
Acq On : 22 Aug 2019 6:37 am
Operator : MM
Sample : 9H21053-CALD
Misc : 1X 5mL 100PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:34 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration

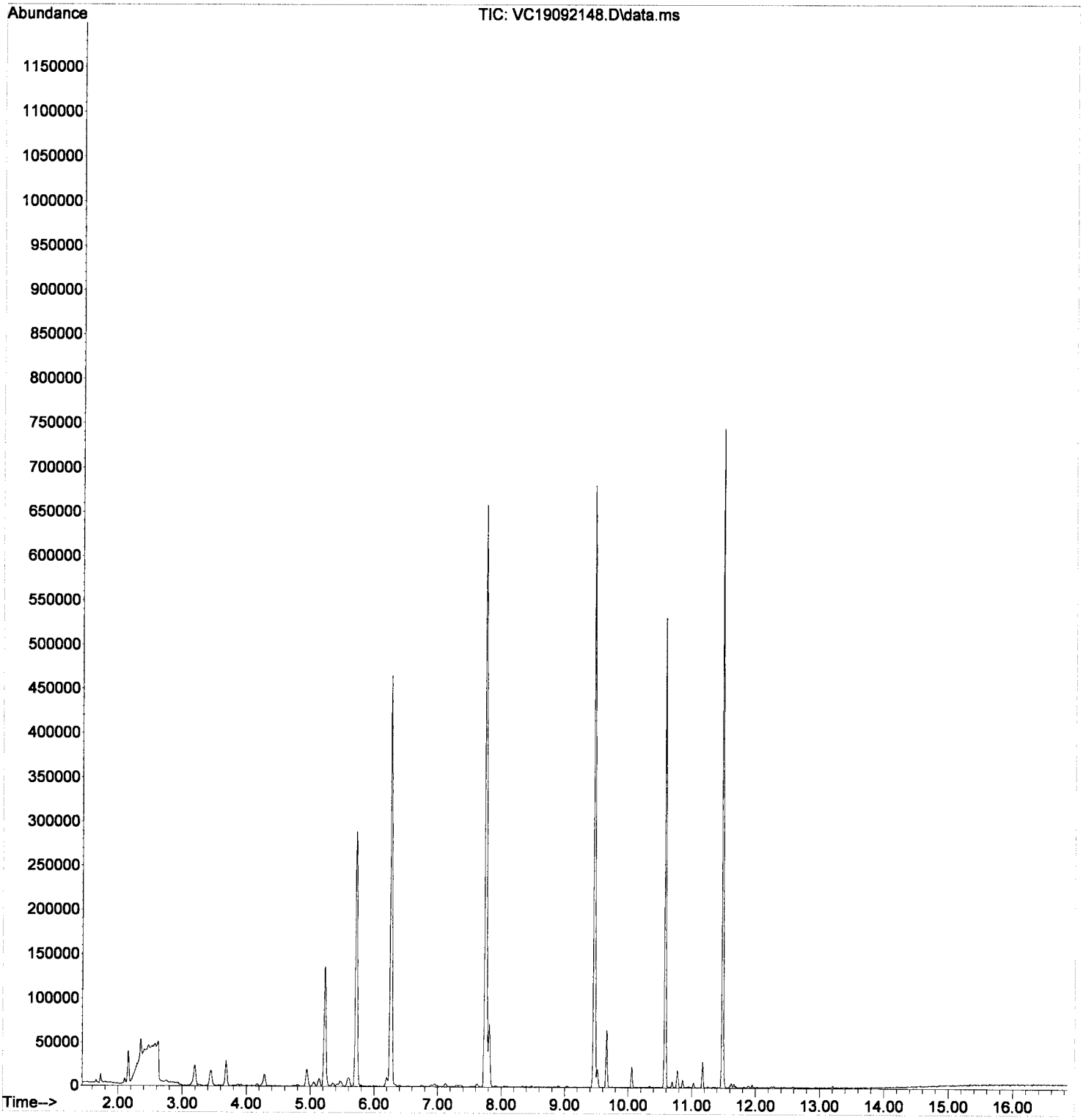
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.721	168	211232	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.262	TIC	939517	50.96	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.581	TIC	759020	55.53	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.462	TIC	1116195	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.753	TIC	1324009	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.482	TIC	953471	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	1393141m	116.98	ug/L	
6) TPHg (C5-C9)	9.586	TIC	1283634m	117.46	ug/L	
7) TPHg (C6-C10)	9.586	TIC	890161m	124.74	ug/L	
8) NWTPH-Gx	9.586	TIC	503369m	118.12	ug/L	
9) Benzene (NR)	5.611	78	6434	No Calib		#
11) Toluene (NR)	7.807	91	59732	No Calib		
13) Naphthalene (NR)	0.000		0	N.D.		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092148.D
Acq On : 22 Aug 2019 6:37 am
Operator : MM
Sample : 9H21053-CALD
Misc : 1X 5mL 100PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:34 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092149.D
Acq On : 22 Aug 2019 7:04 am
Operator : MM
Sample : 9H21053-CALE
Misc : 1X 5mL 250PPB GX+MeOH
ALS Vial : 32 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:36 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration

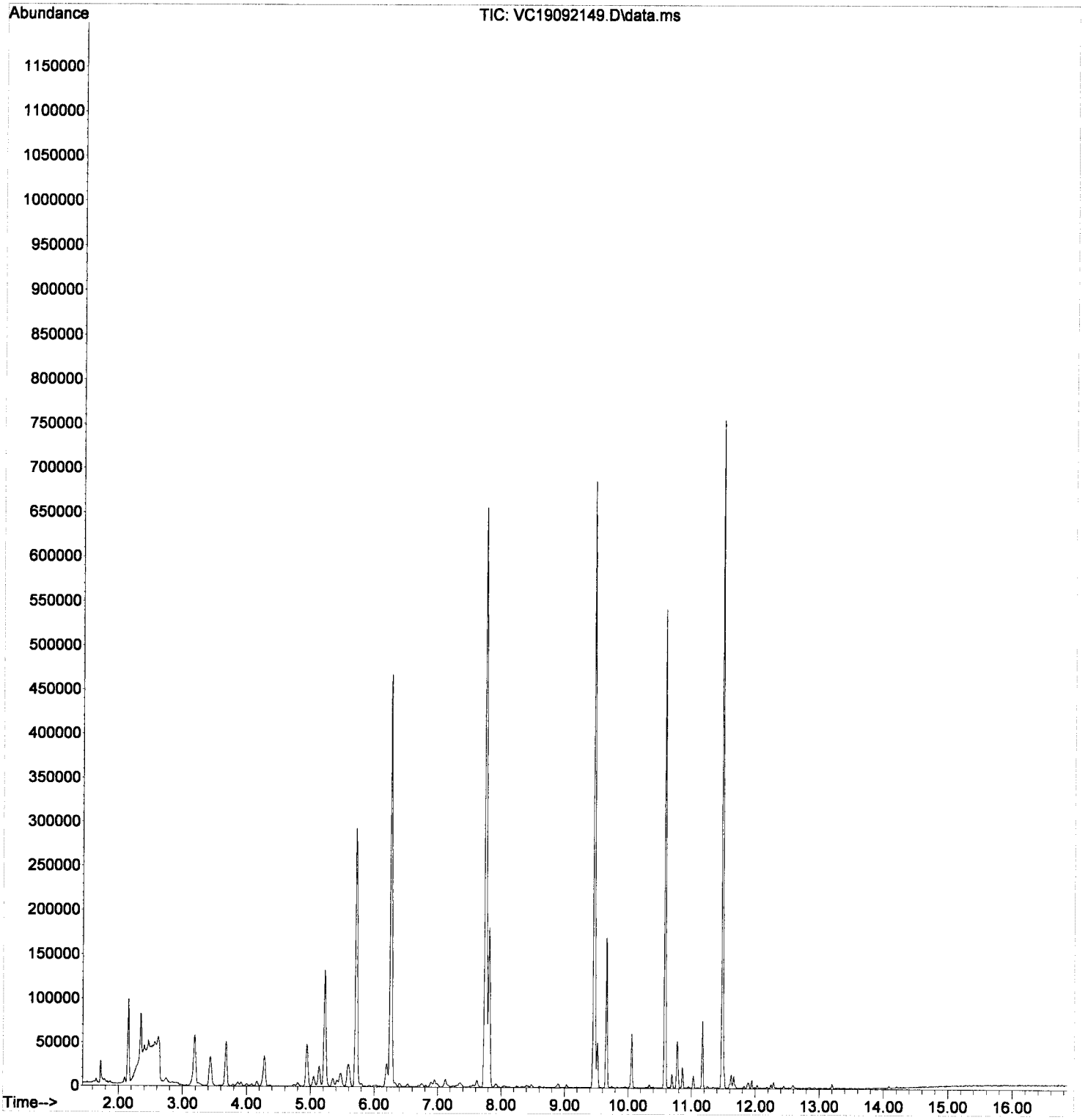
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.714	168	214281	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.262	TIC	956007	51.12	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.581	TIC	770794	55.59	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.462	TIC	1131362	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.752	TIC	1345198	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.481	TIC	970859	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	2952083m	275.55	ug/L	
6) TPHg (C5-C9)	9.586	TIC	2602796m	273.20	ug/L	
7) TPHg (C6-C10)	9.586	TIC	1906906m	284.28	ug/L	
8) NWTPH-Gx	9.586	TIC	1465249m	278.76	ug/L	
9) Benzene (NR)	5.611	78	16418	No Calib		#
11) Toluene (NR)	7.807	91	148910	No Calib		
13) Naphthalene (NR)	0.000		0	N.D.		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092149.D
Acq On : 22 Aug 2019 7:04 am
Operator : MM
Sample : 9H21053-CALE
Misc : 1X 5mL 250PPB GX+MeOH
ALS Vial : 32 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:36 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092150.D
Acq On : 22 Aug 2019 7:31 am
Operator : MM
Sample : 9H21053-CALF
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 33 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:38 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration

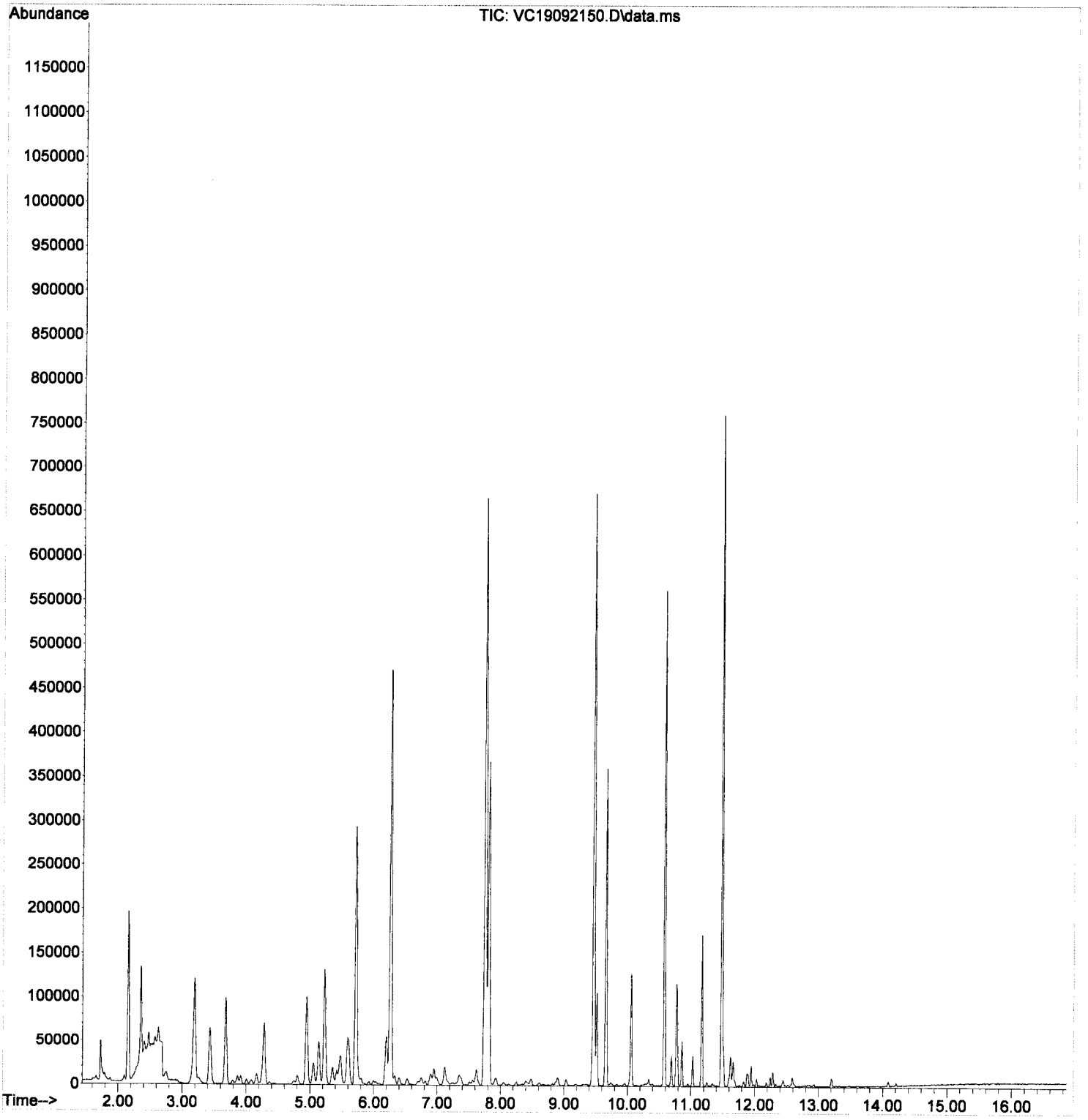
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.717	168	215782	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.264	TIC	978848	51.97	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.578	TIC	777908	55.71	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.464	TIC	1146144	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.749	TIC	1350638	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.478	TIC	1022827	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	6178674m	604.97	ug/L	
6) TPHg (C5-C9)	9.586	TIC	5385643m	603.87	ug/L	
7) TPHg (C6-C10)	9.586	TIC	3833047m	587.16	ug/L	
8) NWTPH-Gx	9.586	TIC	3294200m	583.02	ug/L	
9) Benzene (NR)	5.607	78	32681	No Calib		
11) Toluene (NR)	7.810	91	298880	No Calib		
13) Naphthalene (NR)	13.200	128	6763	No Calib	#	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092150.D
Acq On : 22 Aug 2019 7:31 am
Operator : MM
Sample : 9H21053-CALF
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 33 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:38 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092151.D
Acq On : 22 Aug 2019 7:59 am
Operator : MM
Sample : 9H21053-CALG
Misc : 1X 5mL 1000PPB GX+MeOH
ALS Vial : 34 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:40 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration

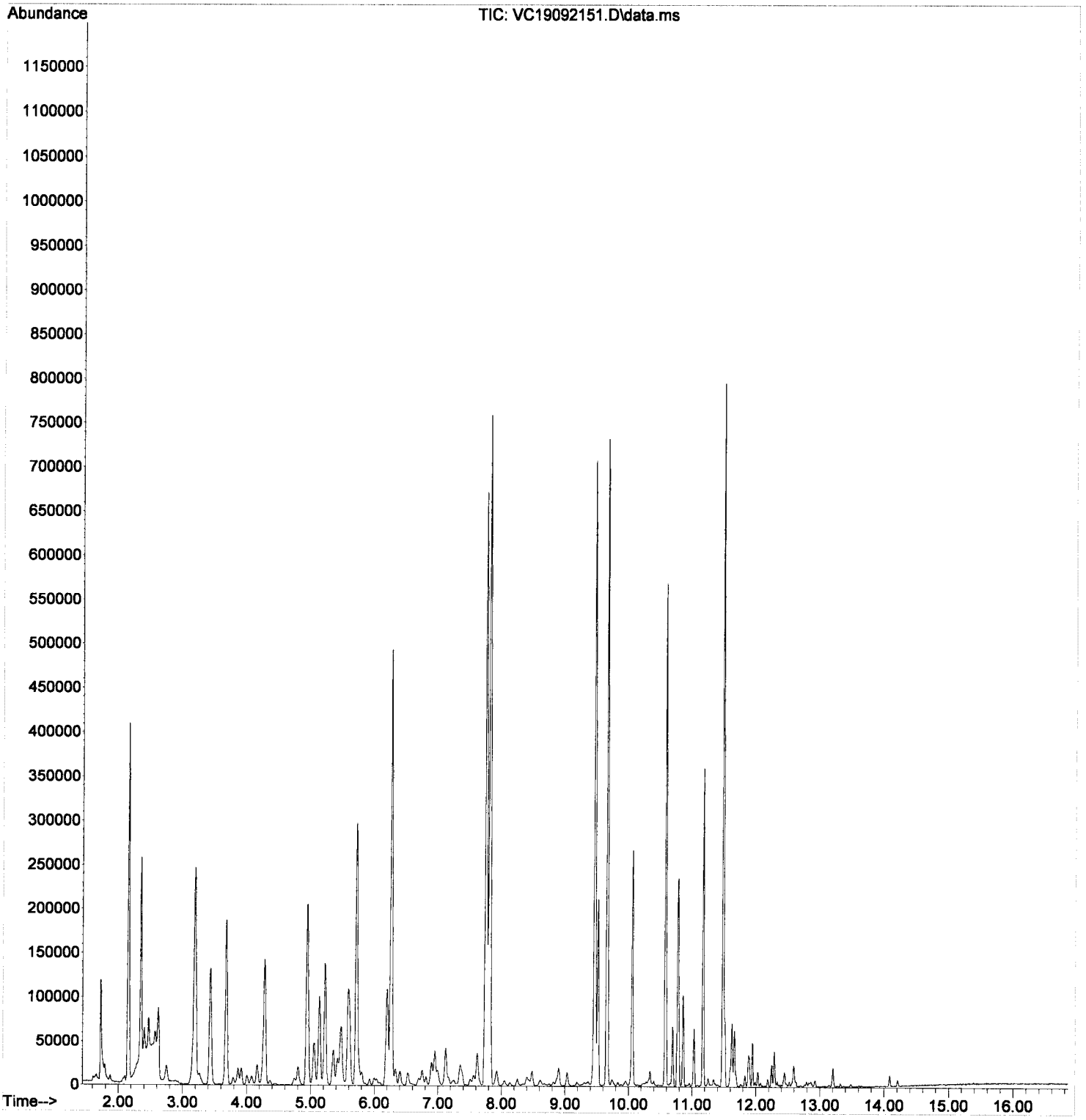
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.714	168	217632	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.262	TIC	1005274	52.92	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.581	TIC	804124	57.10	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.462	TIC	1196367	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.752	TIC	1375991	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.481	TIC	1108738	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	12239709m	1222.10	ug/L	
6) TPHg (C5-C9)	9.586	TIC	10571239m	1220.39	ug/L	
7) TPHg (C6-C10)	9.586	TIC	7844164m	1216.01	ug/L	
8) NWTPH-Gx	9.586	TIC	7039838m	1201.04	ug/L	
9) Benzene (NR)	5.611	78	65284	No Calib		
11) Toluene (NR)	7.807	91	612956	No Calib		
13) Naphthalene (NR)	13.203	128	14062	No Calib	#	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092151.D
Acq On : 22 Aug 2019 7:59 am
Operator : MM
Sample : 9H21053-CALG
Misc : 1X 5mL 1000PPB GX+MeOH
ALS Vial : 34 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:40 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092152.D
Acq On : 22 Aug 2019 8:26 am
Operator : MM
Sample : 9H21053-CALH
Misc : 1X 5mL 2500PPB GX+MeOH
ALS Vial : 35 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:06:50 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.715	168	227727	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.256	TIC	1073349	54.00	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.581	TIC	836036	56.73	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.462	TIC	1317168	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.746	TIC	1419804	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.482	TIC	1121813m	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	30812246m	3027.45	ug/L	
6) TPHg (C5-C9)	9.586	TIC	25882319m	2969.89	ug/L	
7) TPHg (C6-C10)	9.586	TIC	19776300m	2994.87	ug/L	
8) NWTPH-Gx	9.586	TIC	19267096m	3103.67	ug/L	
9) Benzene (NR)	5.605	78	171032	No Calib		
11) Toluene (NR)	7.807	91	1582865	No Calib		
13) Naphthalene (NR)	13.203	128	43132	No Calib	#	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092152.D
Acq On : 22 Aug 2019 8:26 am
Operator : MM
Sample : 9H21053-CALH
Misc : 1X 5mL 2500PPB GX+MeOH
ALS Vial : 35 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:42 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration

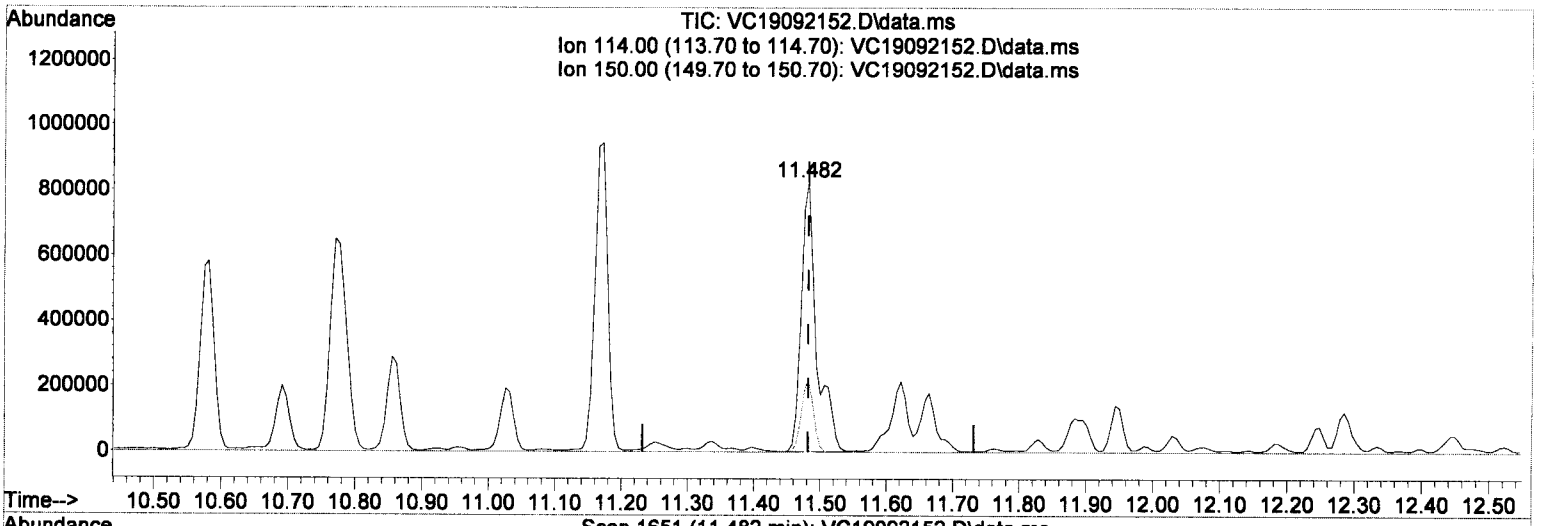
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.715	168	227727	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.256	TIC	1073349	54.00	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.581	TIC	836036	56.73	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.462	TIC	1317168	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.746	TIC	1419804	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.482	TIC	1332596	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	30601463m	3005.98	ug/L	
6) TPHg (C5-C9)	9.586	TIC	25882319m	2969.89	ug/L	
7) TPHg (C6-C10)	9.586	TIC	19776300m	2994.87	ug/L	
8) NWTPH-Gx	9.586	TIC	19056313m	3069.82	ug/L	
9) Benzene (NR)	5.605	78	171032	No Calib		
11) Toluene (NR)	7.807	91	1582865	No Calib		
13) Naphthalene (NR)	13.203	128	43132	No Calib	#	

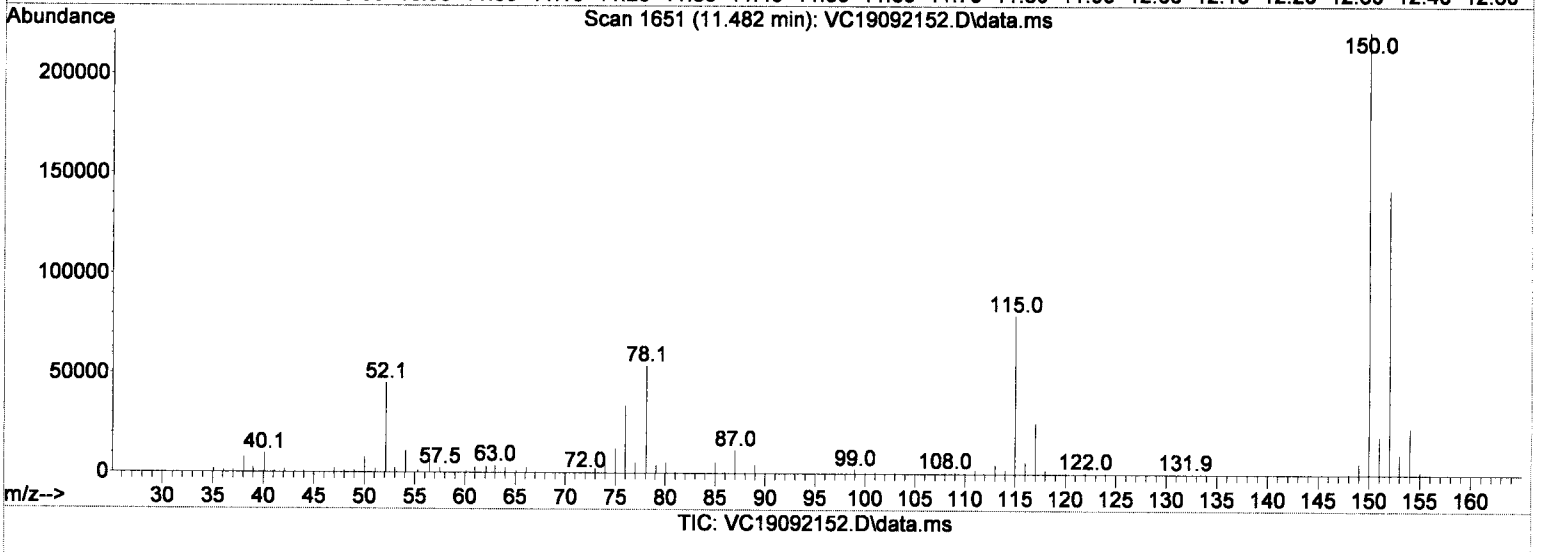
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092152.D
Acq On : 22 Aug 2019 8:26 am
Operator : MM
Sample : 9H21053-CALH
Misc : 1X 5mL 2500PPB GX+MeOH
ALS Vial : 35 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:42 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration





TIC: VC19092152.D\data.ms

(12) 1,4-Dichlorobenzene-d4 (NR) (S)

11.482min (-0.000) 0.00 ug/L

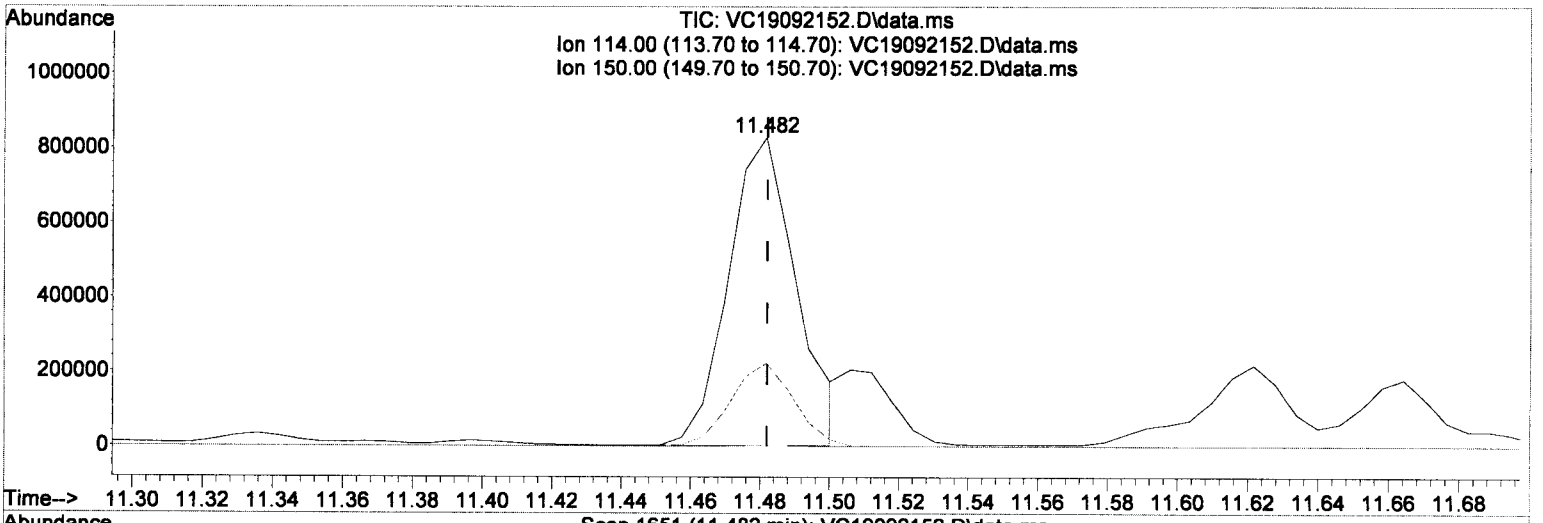
response 1332896

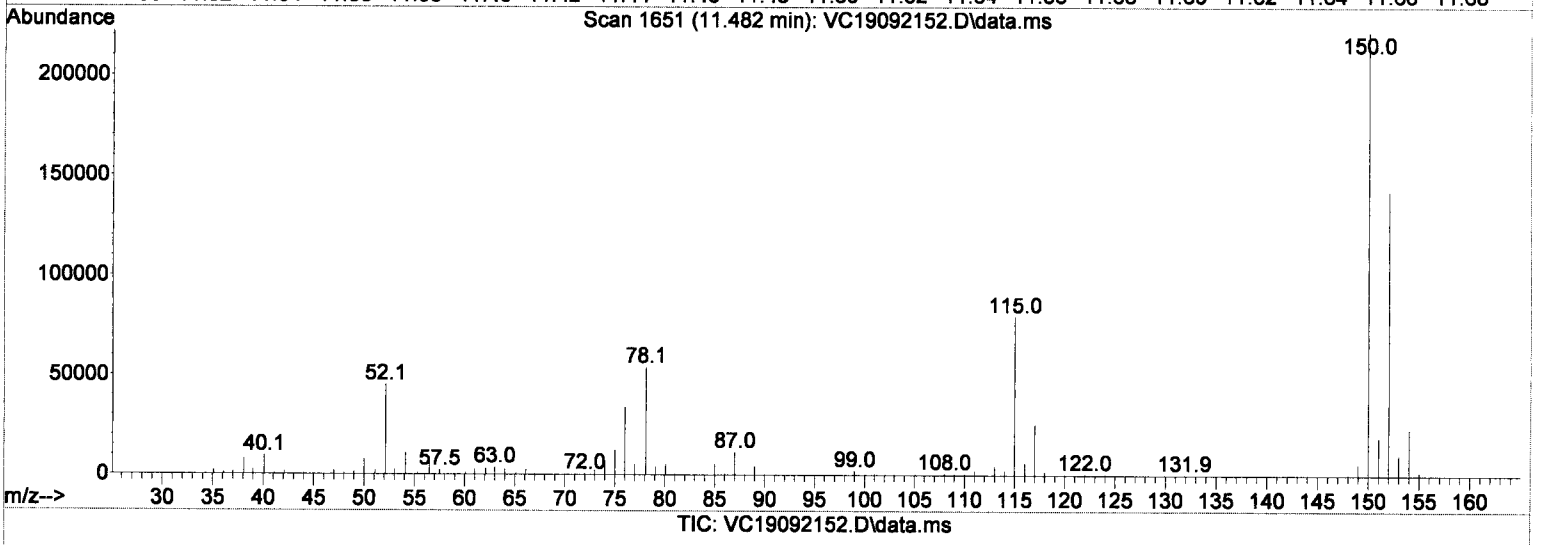
Signal	Exp%	Act%
TIC	100	100
114.00	0.20	0.00
150.00	24.00	21.14
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092152.D
Acq On : 22 Aug 2019 8:26 am
Operator : MM
Sample : 9H21053-CALH
Misc : 1X 5mL 2500PPB GX+MeOH
ALS Vial : 35 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:42 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration





TIC: VC19092152.D\data.ms

(12) 1,4-Dichlorobenzene-d4 (NR) (S)

11.482min (-0.000) 0.00 ug/L m

response 1121813

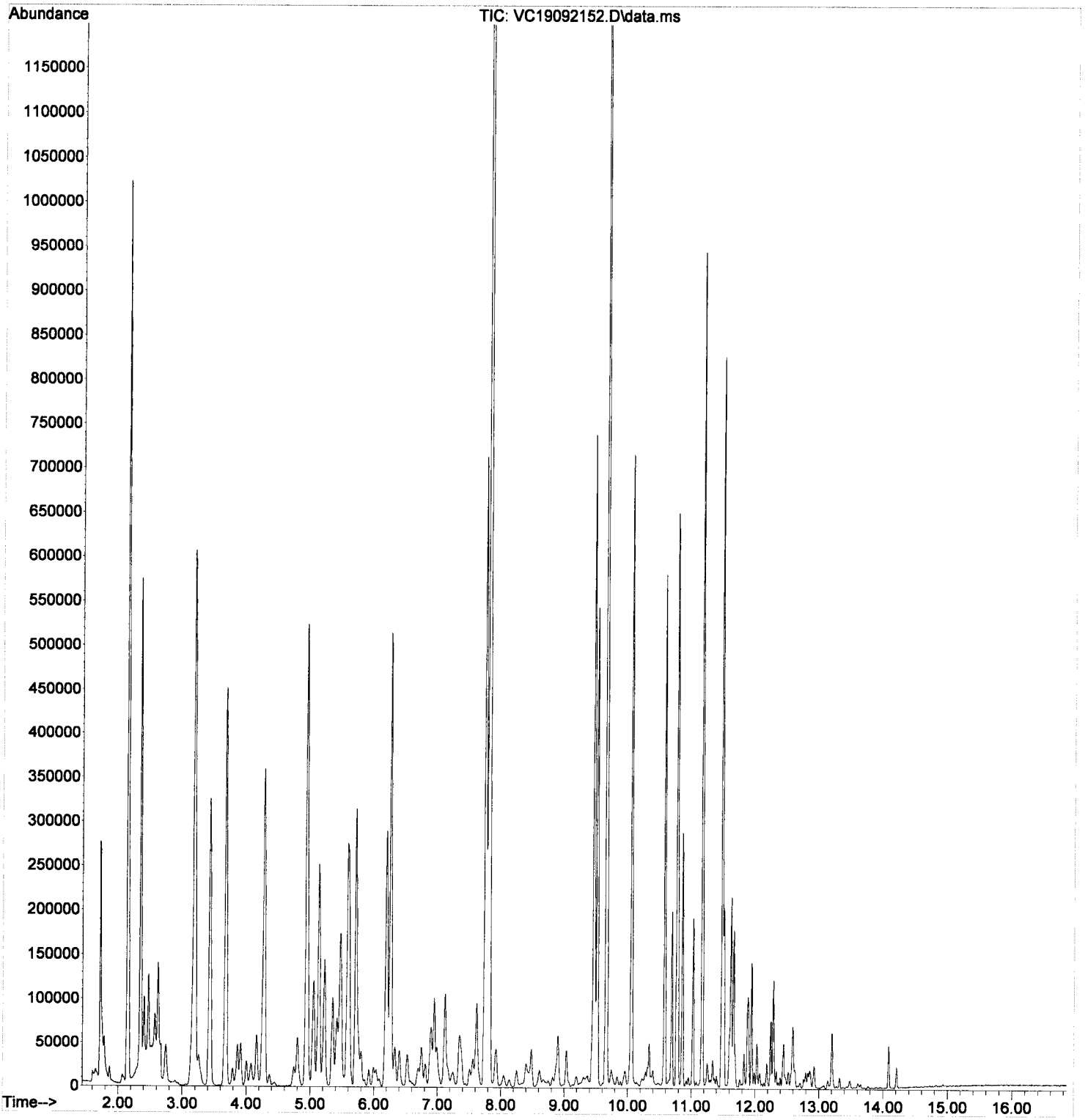
Signal	Exp%	Act%
TIC	100	100
114.00	0.20	0.00
150.00	24.00	25.12
0.00	0.00	0.00

8/22/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092152.D
Acq On : 22 Aug 2019 8:26 am
Operator : MM
Sample : 9H21053-CALH
Misc : 1X 5mL 2500PPB GX+MeOH
ALS Vial : 35 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:42 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092153.D
Acq On : 22 Aug 2019 8:53 am
Operator : MM
Sample : 9H21053-CALI
Misc : 1X 5mL 5000PPB GX+MeOH
ALS Vial : 36 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:44 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration

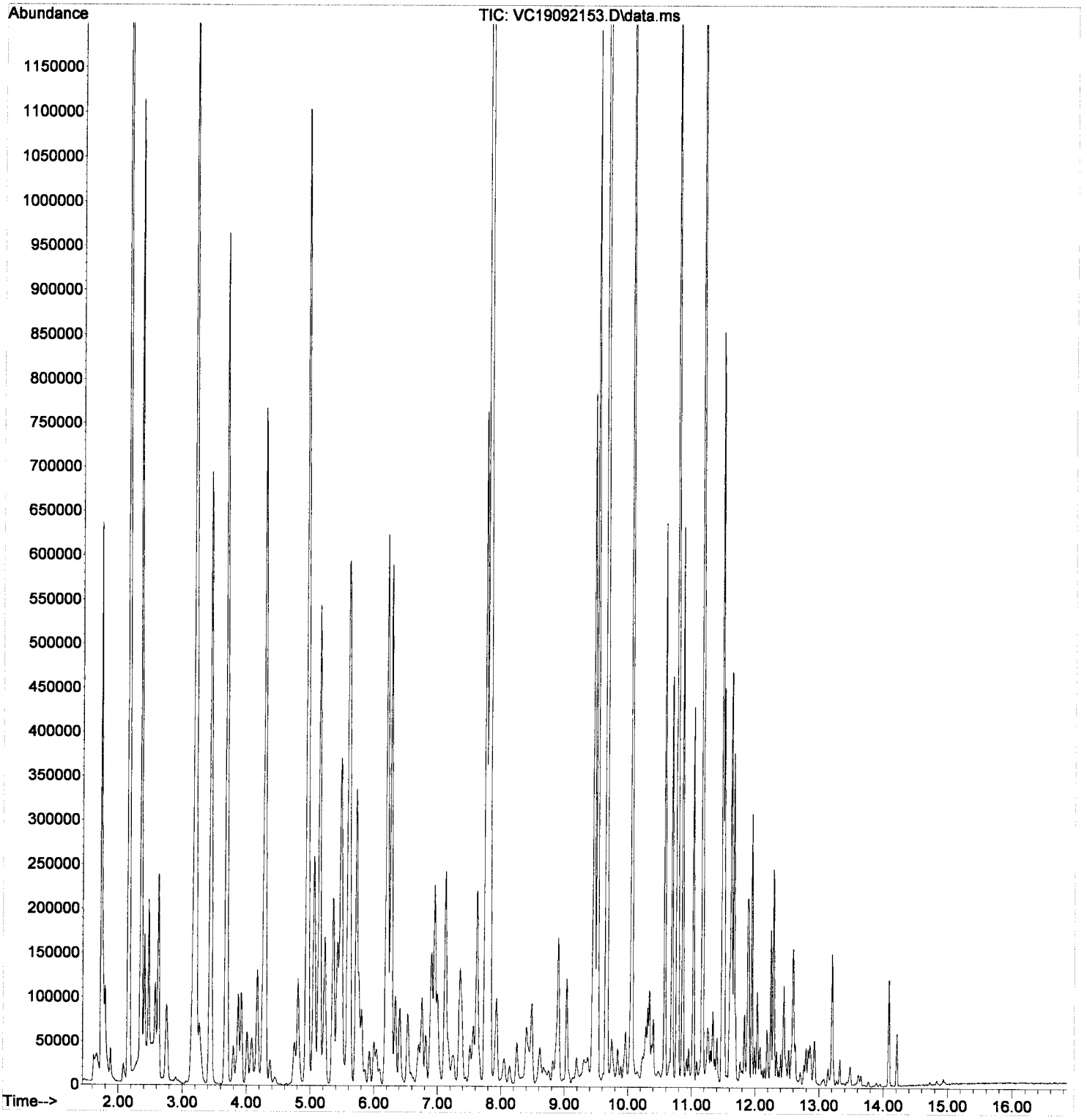
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.717	168	243552	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.265	TIC	1194479	56.19	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.578	TIC	889302	56.43	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.464	TIC	1555201	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.755	TIC	1566658	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.478	TIC	1174769	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	64563415m	6125.61	ug/L	
6) TPHg (C5-C9)	9.586	TIC	54199021m	6087.13	ug/L	
7) TPHg (C6-C10)	9.586	TIC	42464021m	6176.85	ug/L	
8) NWTPH-Gx	9.586	TIC	41537402m	6272.56	ug/L	
9) Benzene (NR)	5.608	78	358133	No Calib		
11) Toluene (NR)	7.810	91	3363955	No Calib		
13) Naphthalene (NR)	13.200	128	98708	No Calib		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092153.D
Acq On : 22 Aug 2019 8:53 am
Operator : MM
Sample : 9H21053-CALI
Misc : 1X 5mL 5000PPB GX+MeOH
ALS Vial : 36 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:44 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092154.D
Acq On : 22 Aug 2019 9:20 am
Operator : MM
Sample : 9H21053-CALJ
Misc : 1X 5mL 10000PPB GX+MeOH
ALS Vial : 37 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:46 2019
Quant Method : C:\msdchem\1\METHODS\VC~~190822G~~.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration

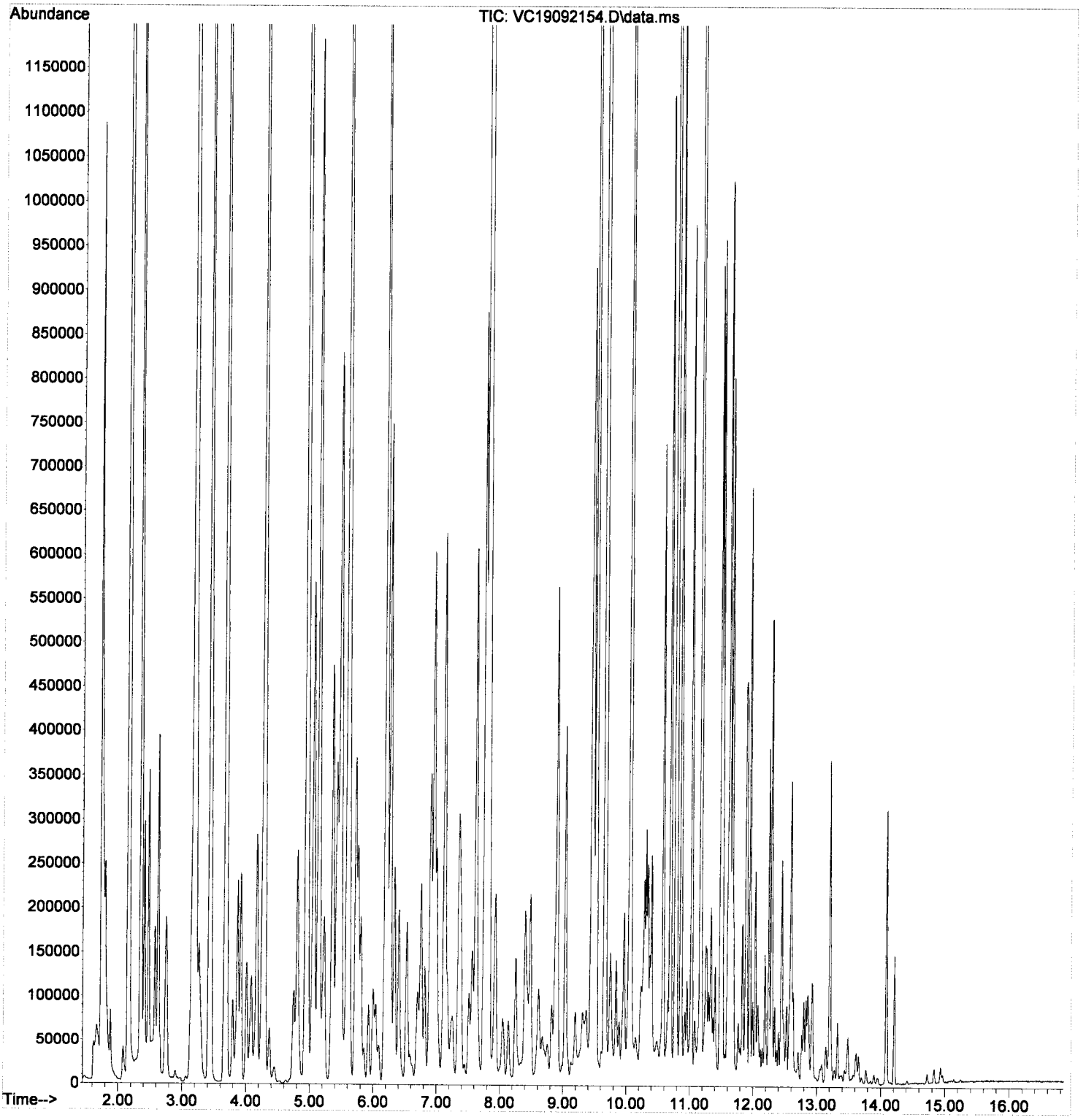
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.717	168	277161	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.265	TIC	1533671	63.40	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.578	TIC	1005123	56.04	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.464	TIC	2363403	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.749	TIC	1858854	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.478	TIC	1330217	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	143586374m	12762.53	ug/L	
6) TPHg (C5-C9)	9.586	TIC	119109849m	12930.33	ug/L	
7) TPHg (C6-C10)	9.586	TIC	95405384m	12863.69	ug/L	
8) NWTPH-Gx	9.586	TIC	95703310m	12878.34	ug/L	
9) Benzene (NR)	5.607	78	831295	No Calib		
11) Toluene (NR)	7.810	91	7532673	No Calib		
13) Naphthalene (NR)	13.200	128	231890	No Calib		

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092154.D
Acq On : 22 Aug 2019 9:20 am
Operator : MM
Sample : 9H21053-CALJ
Misc : 1X 5mL 10000PPB GX+MeOH
ALS Vial : 37 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 09:56:46 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Tue Aug 13 14:25:09 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092155.D
Acq On : 22 Aug 2019 9:47 am
Operator : MM
Sample : 9H21053-IBL8
Misc : 1X 5mL DI+MeOH
ALS Vial : 38 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:17:50 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration

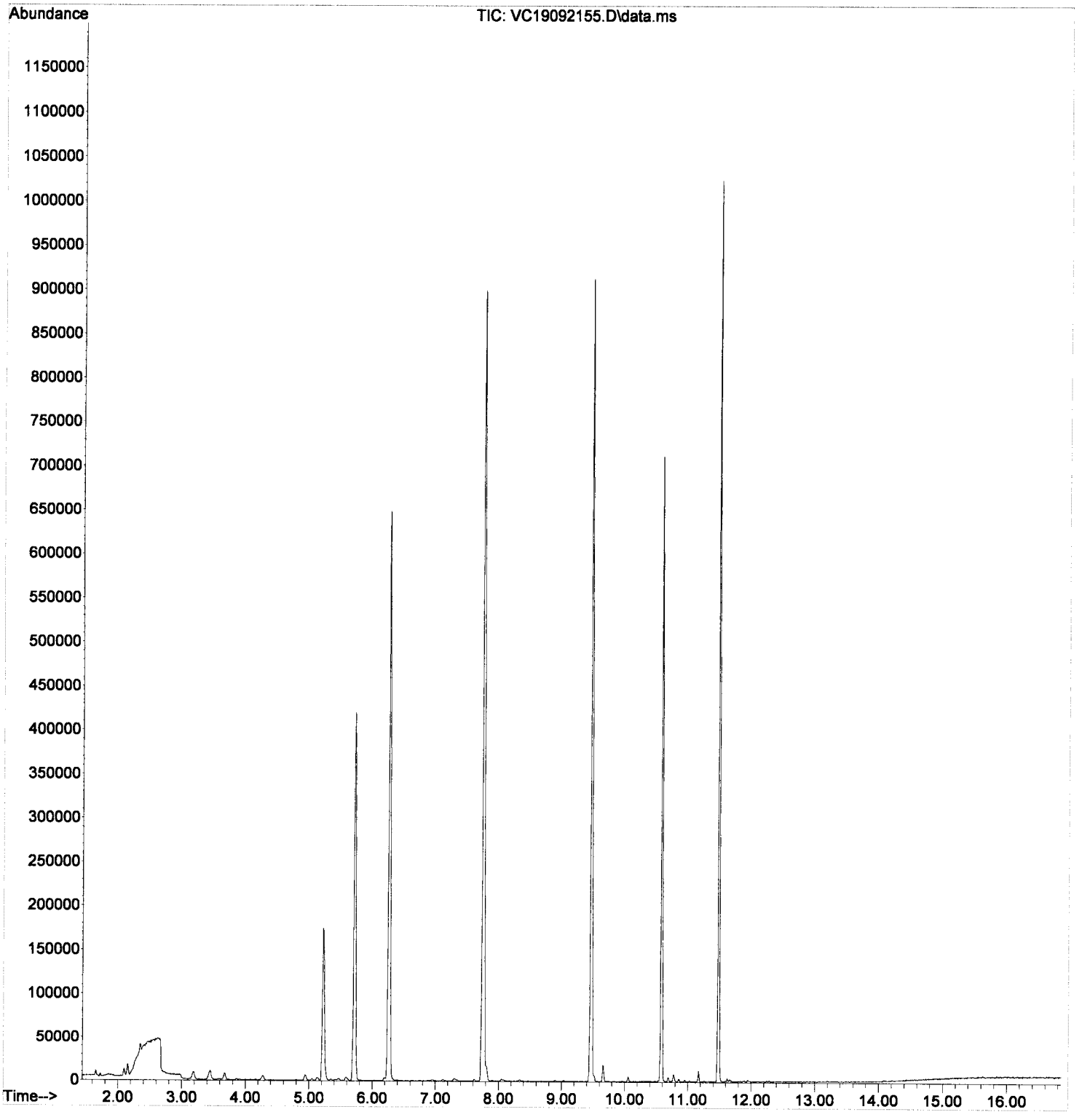
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.714	168	325458	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.261	TIC	1324161	44.21	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.581	TIC	1015657	42.96	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.461	TIC	1514362	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.752	TIC	1878167	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.481	TIC	1275484	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	828708m	15.17	ug/L	
6) TPHg (C5-C9)	9.586	TIC	793322m	7.60	ug/L	
7) TPHg (C6-C10)	9.586	TIC	514456m	12.04	ug/L	
8) NWTPH-Gx	9.586	TIC	101676m	41.64	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092155.D
Acq On : 22 Aug 2019 9:47 am
Operator : MM
Sample : 9H21053-IBL8
Misc : 1X 5mL DI+MeOH
ALS Vial : 38 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 10:17:50 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092156.D
Acq On : 22 Aug 2019 10:14 am
Operator : MM
Sample : 9H21053-IBL9
Misc : 1X 5mL DI+MeOH
ALS Vial : 39 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 11:17:30 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration

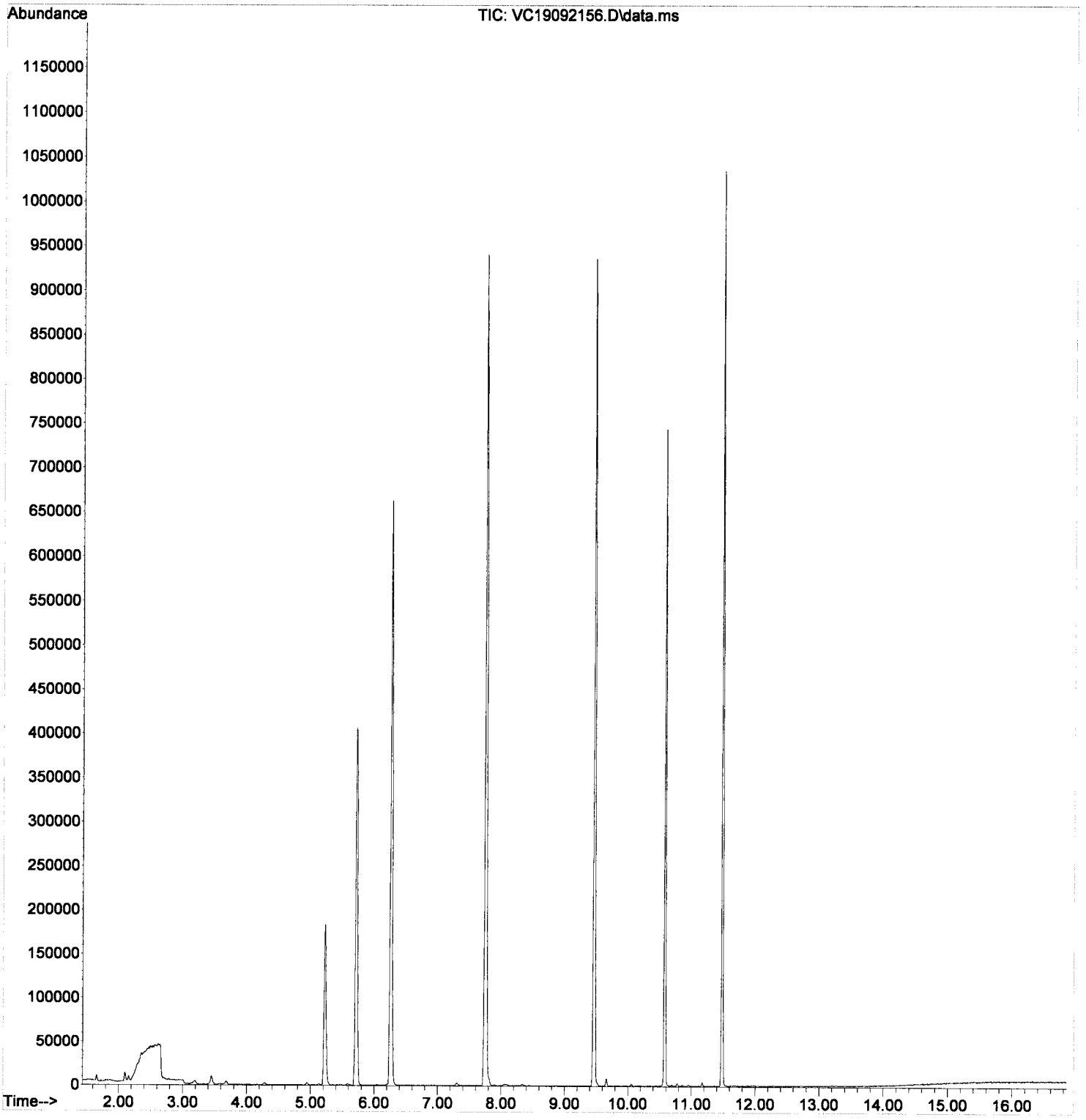
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.719	168	324577	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.261	TIC	1330327	44.54	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.580	TIC	1038772	44.06	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.461	TIC	1544635	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.751	TIC	1874337	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.480	TIC	1291632	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	680578m	6.83	ug/L	
6) TPHg (C5-C9)	9.586	TIC	675388m	Below Cal		
7) TPHg (C6-C10)	9.586	TIC	454606m	6.78	ug/L	
8) NWTPH-Gx	9.586	TIC	42963m	36.34	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092156.D
Acq On : 22 Aug 2019 10:14 am
Operator : MM
Sample : 9H21053-IBL9
Misc : 1X 5mL DI+MeOH
ALS Vial : 39 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 11:17:30 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092157.D
Acq On : 22 Aug 2019 10:41 am
Operator : MM
Sample : 9H21053-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 40 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 11:17:32 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration

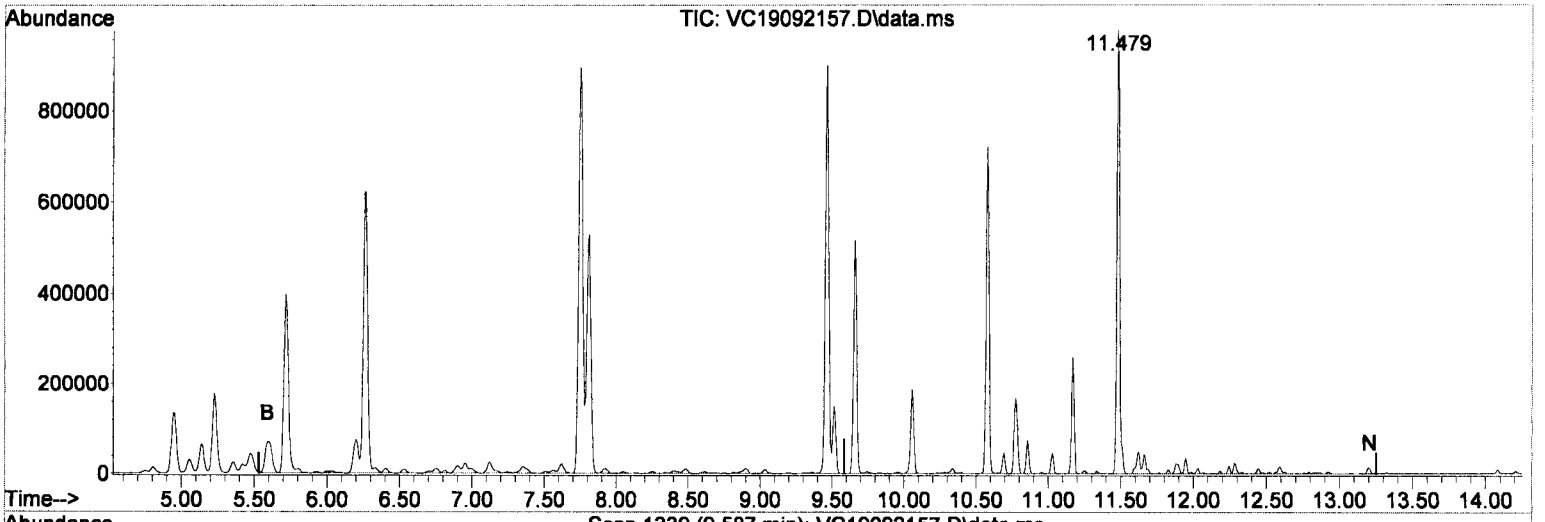
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	5.718	168	307944	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.265	TIC	1306628	46.11	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.579	TIC	1006131	44.98	ug/L	0.00
4) Chlorobenzene-d5 (NR)	9.465	TIC	1511564	0.00	ug/L	0.00
10) Toluene-d8 (NR)	7.750	TIC	1810654	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.479	TIC	1320465	0.00	ug/L	0.00
Target Compounds						Qvalue
5) CA-LUFT (C5-C12)	9.586	TIC	8151229m	460.10	ug/L	
6) TPHg (C5-C9)	9.586	TIC	6984447m	455.02	ug/L	
7) TPHg (C6-C10)	9.586	TIC	5315999m	469.85	ug/L	
8) NWTPH-Gx	9.586	TIC	4721899m	483.28	ug/L	

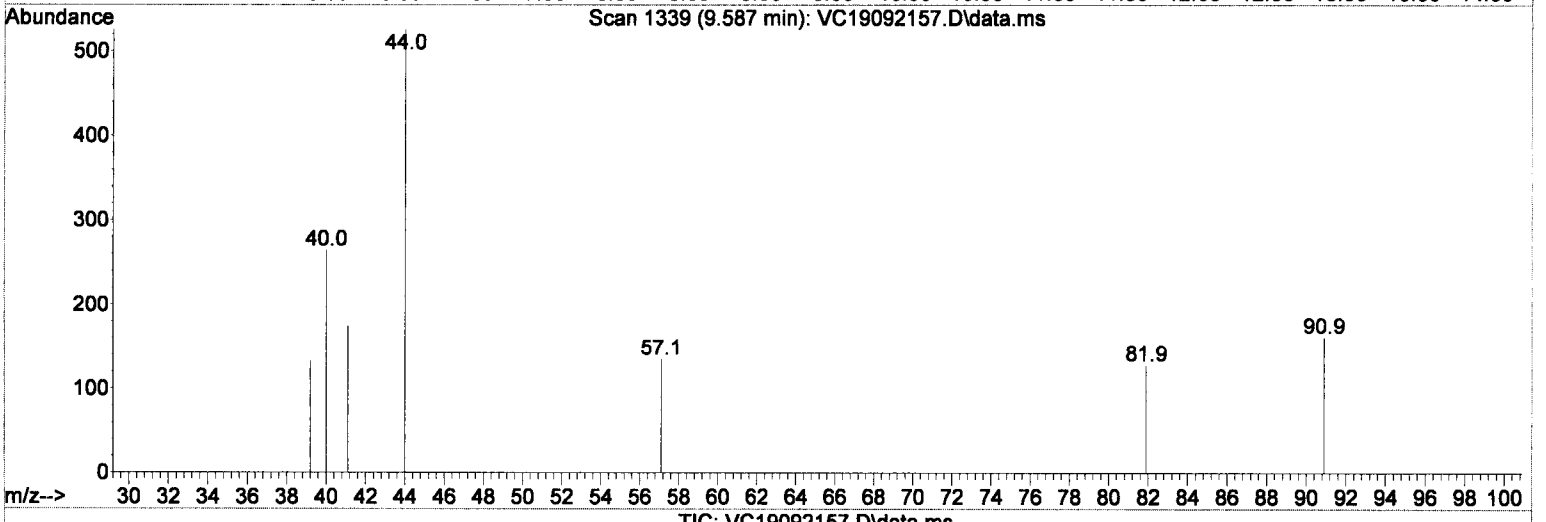
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092157.D
Acq On : 22 Aug 2019 10:41 am
Operator : MM
Sample : 9H21053-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 40 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 11:17:32 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration





TIC: VC19092157.D\data.ms

(8) NWTPH-Gx (H)

9.586min (0.000) 483.28 ug/L m

response 4721899

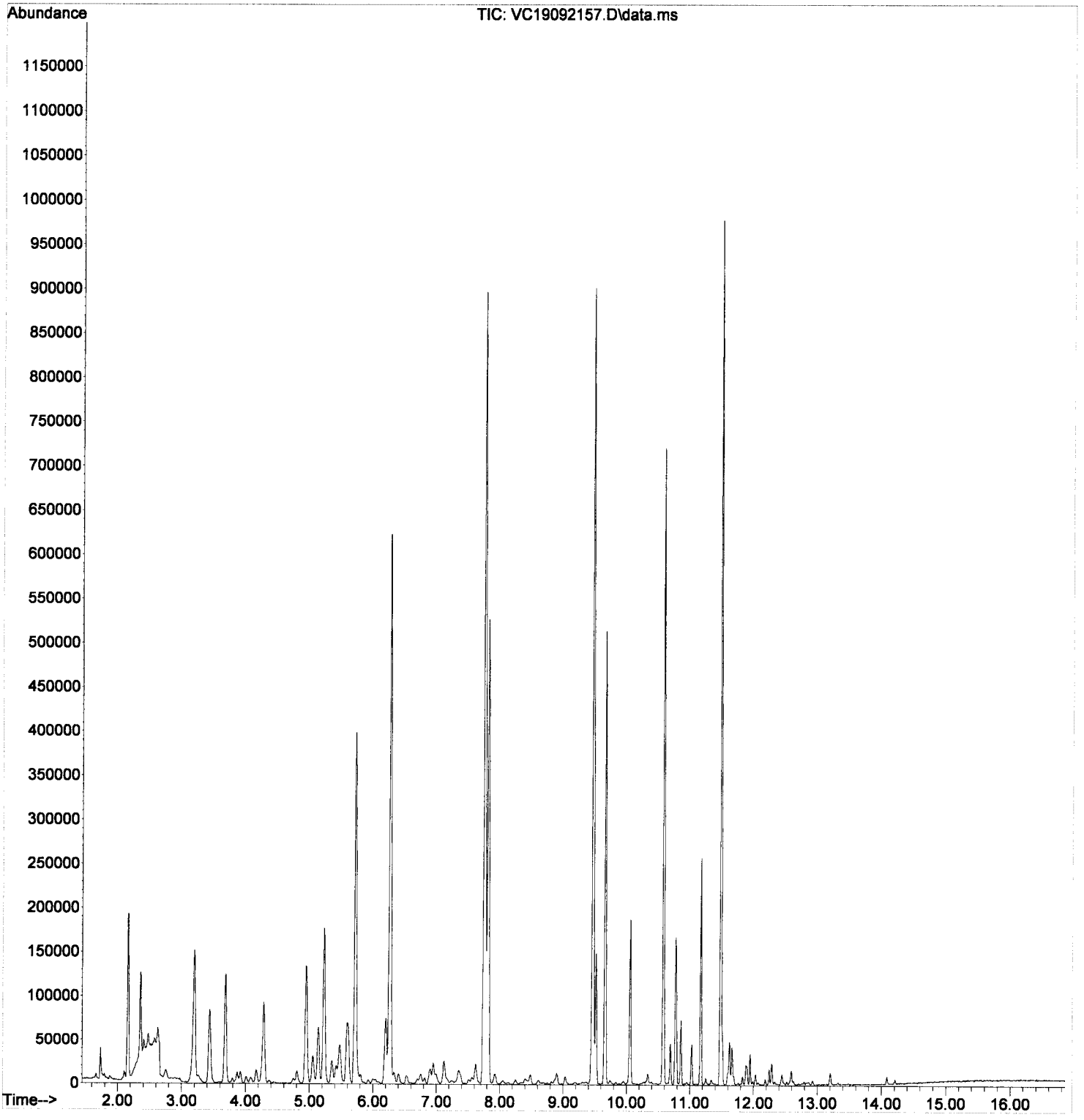
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

8/22/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2019-08\9H21053\
Data File : VC19092157.D
Acq On : 22 Aug 2019 10:41 am
Operator : MM
Sample : 9H21053-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 40 Sample Multiplier: 1
DataAcq Meth:VC1908RUN.M

Quant Time: Aug 22 11:17:32 2019
Quant Method : C:\msdchem\1\METHODS\VC190822G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Thu Aug 22 10:13:47 2019
Response via : Initial Calibration



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

Selected Volatile Organic Compounds by EPA 8260C
Calibration Data

Sequence 9I26051 (Cal ID A9I2702) VOA-GCMS10

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9I26051** Instrument: **VOA-GCMS10**

Date: **09/26/19 19:18** Calibration: **A9I2702**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9I26051-IBL1	Soil	QC	QC			A19G118	
2	9I26051-TUN1	Soil	QC	QC			A19G118	
3	9I26051-ICB1	Soil	QC	QC			A19G118	
4	9I26051-CAL1	Soil	QC	QC			A19G118	A19I319
5	9I26051-CAL2	Soil	QC	QC			A19G118	A19I320
6	9I26051-CAL3	Soil	QC	QC			A19G118	A19I321
7	9I26051-CAL4	Soil	QC	QC			A19G118	A19I322
8	9I26051-CAL5	Soil	QC	QC			A19G118	A19I323
9	9I26051-CAL6	Soil	QC	QC			A19G118	A19I324
10	9I26051-CAL7	Soil	QC	QC			A19G118	A19I325
11	9I26051-CAL8	Soil	QC	QC			A19G118	A19I326
12	9I26051-CAL9	Soil	QC	QC			A19G118	A19I327
13	9I26051-IBL2	Soil	QC	QC			A19G118	
14	9I26051-CALA	Soil	QC	QC			A19G118	A19I328
15	9I26051-IBL3	Soil	QC	QC			A19G118	
16	9I26051-CALB	Soil	QC	QC			A19G118	A19I329
17	9I26051-IBL4	Soil	QC	QC			A19G118	
18	9I26051-IBL5	Soil	QC	QC			A19G118	
19	9I26051-ICV1	Soil	QC	QC			A19G118	A19I330
20	9I26051-ICV2	Soil	QC	QC			A19G118	A19E195
21	9I26051-IBL6	Soil	QC	QC			A19G118	
22	9I26051-TUN2	Soil	QC	QC			A19G118	
23	9I26051-IBL7	Soil	QC	QC			A19G118	
24	9I26051-ICB2	Soil	QC	QC			A19G118	
25	9I26051-CALC	Soil	QC	QC			A19G118	A19I331
26	9I26051-CALD	Soil	QC	QC			A19G118	A19I332
27	9I26051-CALE	Soil	QC	QC			A19G118	A19I333
28	9I26051-CALF	Soil	QC	QC			A19G118	A19I334
29	9I26051-CALG	Soil	QC	QC			A19G118	A19H370
30	9I26051-CALH	Soil	QC	QC			A19G118	A19H371
31	9I26051-CALI	Soil	QC	QC			A19G118	A19H372
32	9I26051-CALJ	Soil	QC	QC			A19G118	A19H373
33	9I26051-IBL8	Soil	QC	QC			A19G118	
34	9I26051-IBL9	Soil	QC	QC			A19G118	
35	9I26051-ICV3	Soil	QC	QC			A19G118	A19G350
36	9I26051-IBLA	Soil	QC	QC			A19G118	

Data Entered By: 9/27/19

Data Reviewed By: MW 9/30/19

Comments: Iodomethane failed high on ICV ~~ICC~~ 9/27/19 ECS

Calibration Status Report VOA-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : VJ190926S+.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Fri Sep 27 13:24:27 2019
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	1	-1	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092628.D
2	2	0	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092629.D
3	3	0	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092630.D
4	4	1	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092631.D
5	5	2	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092632.D
6	6	5	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092633.D
7	7	10	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092634.D
8	8	20	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092635.D
9	9	50	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092636.D
10	10	100	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092638.D
11	1a	200	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092640.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Sep 27 13:24 2019	Sep 27 11:04 2019	26 Sep 2019 9:28 pm
2	2	Sep 27 13:24 2019	Sep 27 11:11 2019	26 Sep 2019 9:55 pm
3	3	Sep 27 13:24 2019	Sep 27 11:16 2019	26 Sep 2019 10:22 pm
4	4	Sep 27 13:24 2019	Sep 27 11:17 2019	26 Sep 2019 10:49 pm
5	5	Sep 27 13:24 2019	Sep 27 13:11 2019	26 Sep 2019 11:15 pm
6	6	Sep 27 13:24 2019	Sep 27 13:15 2019	26 Sep 2019 11:42 pm
7	7	Sep 27 13:24 2019	Sep 27 13:16 2019	27 Sep 2019 12:09 am
8	8	Sep 27 13:24 2019	Sep 27 13:18 2019	27 Sep 2019 12:35 am
9	9	Sep 27 13:24 2019	Sep 27 13:19 2019	27 Sep 2019 1:02 am
10	10	Sep 27 13:24 2019	Sep 27 13:20 2019	27 Sep 2019 1:56 am
11	1a	Sep 27 13:24 2019	Sep 27 13:21 2019	27 Sep 2019 2:49 am

VJ190926S+.M Fri Sep 27 14:36:39 2019

A9I2702

Iodomethane ECS

Compound List Report VOA-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : VJ190926S+.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Fri Sep 27 13:24:27 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	6.095	1.000	A	2	A	R
2		Dichlorodifluoromethane	85	1.697	0.278	A	2	A	R
3	P	Chloromethane	50	1.898	0.311	A	2	A	R
4	C	Vinyl Chloride	62	2.007	0.329	A	2	A	R
5		Bromomethane	96	2.347	0.385	Q 1/a	2	A	R
6		Chloroethane	64	2.469	0.405	Q 1/a2	2	A	R
7		Trichlorofluoromethane	101	2.597	0.426	A	2	A	R
8		Ethanol	45	3.321	0.545	L 1/a	1	A	R
9	C	1,1-Dichloroethene	61	3.139	0.515	A	2	A	R
10		Carbon Disulfide	76	3.151	0.517	A	2	A	R
11		Freon 113	101	3.194	0.524	A	2	A	R
12		Iodomethane	142	3.290	0.540	Q 1/a	2	A	R
13		Methylene Chloride	84	3.783	0.621	Q 1/a	2	A	R
14		Acetone	43	3.881	0.637	L 1/a	1	A	R
15		t-1,2-Dichloroethene	61	3.948	0.648	A	2	A	R
16		n-Hexane	86	4.039	0.663	A	3	A	R
17		Methyl-tert-butyl-ether	73	4.112	0.675	A	3	A	R
18		tert-Butanol (TBA)	59	4.276	0.702	A	1	A	R
19		Diisopropyl ether (DIPE)	45	4.514	0.741	A	2	A	R
20	P	1,1-Dichloroethane	63	4.581	0.752	A	2	A	R
21		Acrylonitrile	53	4.641	0.762	A	2	A	R
22		Ethyl-tert-butyl ether (ETBE)	59	4.879	0.800	A	2	A	R
23		c-1,2-Dichloroethene	61	5.134	0.842	A	2	A	R
24		2,2-Dichloropropane	77	5.244	0.860	A	2	A	R
25		Bromochloromethane	49	5.335	0.875	A	2	A	R
26	C	Chloroform	83	5.420	0.889	A	2	A	R
27		Carbon Tetrachloride	117	5.560	0.912	A	2	A	R
28		Tetrahydrofuran	42	5.597	0.918	A	2	A	R
29		1,1,1-Trichloroethane	97	5.627	0.923	A	2	A	R
30	S	Dibromofluoromethane (S)	111	5.603	0.919	A	2	A	R
31		1,1-Dichloropropene	75	5.755	0.944	A	2	A	R
32		2-Butanone (MEK)	43	5.743	0.942	A	2	A	R
33		Benzene	78	6.010	0.986	A	2	A	R
34		tert-Amyl methyl ether (TAME)	73	6.156	1.010	Q 1/a	2	A	R
35		1,2-Dichloroethane (EDC)	62	6.217	1.020	A	2	A	R
36		iso-Butyl Alcohol	43	6.314	1.036	A	2	A	R
37	S	1,4-Difluorobenzene (S)	114	6.661	1.093	A	2	A	R
38		Trichloroethene (TCE)	130	6.625	1.087	A	2	A	R
39		tert-Amyl ethyl ether (TAEE)	59	6.911	1.134	A	2	A	R
40		Dibromomethane	93	7.068	1.160	A	2	A	R
41	C	1,2-Dichloropropane	63	7.178	1.178	A	2	A	R
42		Bromodichloromethane	83	7.257	1.191	Q 1/a2	2	A	R
43	I	Chlorobenzene-d5 (I)	117	9.813	1.000	A	2	A	R
44		c-1,3-Dichloropropene	75	7.957	0.811	A	2	A	R
45	S	Toluene-d8 (S)	98	8.176	0.833	A	2	A	R
46	C	Toluene	91	8.237	0.839	A	2	A	R
47		Tetrachloroethene (PCE)	166	8.681	0.885	A	2	A	R
48		4-Methyl-2-Pentanone (MIBK)	43	8.681	0.885	A	2	A	R
49		t-1,3-Dichloropropene	75	8.705	0.887	A	2	A	R
50		1,1,2-Trichloroethane	97	8.882	0.905	A	2	A	R
51		Dibromochloromethane	129	9.070	0.924	Q 1/a	2	A	R
52		1,3-Dichloropropane	76	9.168	0.934	A	2	A	R
53		1,2-Dibromoethane (EDB)	107	9.308	0.949	A	2	A	R
54		2-Hexanone	43	9.551	0.973	A	2	A	R

55	P	Chlorobenzene	112	9.831	1.002	A	2	A	R
56	C	Ethylbenzene	91	9.867	1.006	A	2	A	R
57		1,1,1,2-Tetrachloroethane	131	9.892	1.008	A	2	A	R
58		m,p-Xylenes (2)	91	10.001	1.019	A	2	A	R
59		o-Xylene	91	10.384	1.058	A	2	A	R
60		Styrene	104	10.427	1.063	A	2	A	R
61	P	Bromoform	173	10.445	1.064	Q 1/a2	2	A	R
62		Isopropylbenzene	105	10.658	1.086	A	2	A	R
63	I	1,4-Dichlorobenzene-d4 (I)	152	11.771	1.000	A	2	A	R
64	S	4-Bromofluorobenzene (S)	174	10.883	0.925	A	2	A	R
65		Bromobenzene	156	10.968	0.932	A	2	A	R
66		n-Propylbenzene	91	10.999	0.934	A	2	A	R
67	P	1,1,2,2-Tetrachloroethane	83	11.054	0.939	A	2	A	R
68		2-Chlorotoluene	126	11.120	0.945	A	2	A	R
69		1,3,5-Trimethylbenzene	105	11.163	0.948	A	2	A	R
70		1,2,3-Trichloropropane	110	11.157	0.948	A	2	A	R
71		t-1,4-Dichloro-2-butene	88	11.193	0.951	A	3	A	R
72		4-Chlorotoluene	91	11.254	0.956	A	2	A	R
73		tert-Butylbenzene	91	11.413	0.970	A	2	A	R
74		1,2,4-Trimethylbenzene	105	11.467	0.974	A	2	A	R
75		sec-Butylbenzene	105	11.552	0.981	A	2	A	R
76		4-Isopropyltoluene	119	11.662	0.991	A	2	A	R
77		1,3-Dichlorobenzene	146	11.711	0.995	A	2	A	R
78		1,4-Dichlorobenzene	146	11.784	1.001	A	2	A	R
79		n-Butylbenzene	91	11.978	1.018	A	2	A	R
80		1,2-Dichlorobenzene	146	12.100	1.028	A	2	A	R
81		1,2-Dibromo-3-Chloropropane	157	12.702	1.079	A	2	A	R
82		Hexachlorobutadiene	223	13.225	1.124	A	3	A	R
83		1,2,4-Trichlorobenzene	180	13.244	1.125	A	2	A	R
84		Naphthalene	128	13.517	1.148	A	2	A	R
85		1,2,3-Trichlorobenzene	180	13.682	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

VJ190926S+.M Fri Sep 27 14:36:46 2019

Response Factor Report VOA-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : VJ190926S+.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Fri Sep 27 13:24:27 2019
Response Via : Initial Calibration

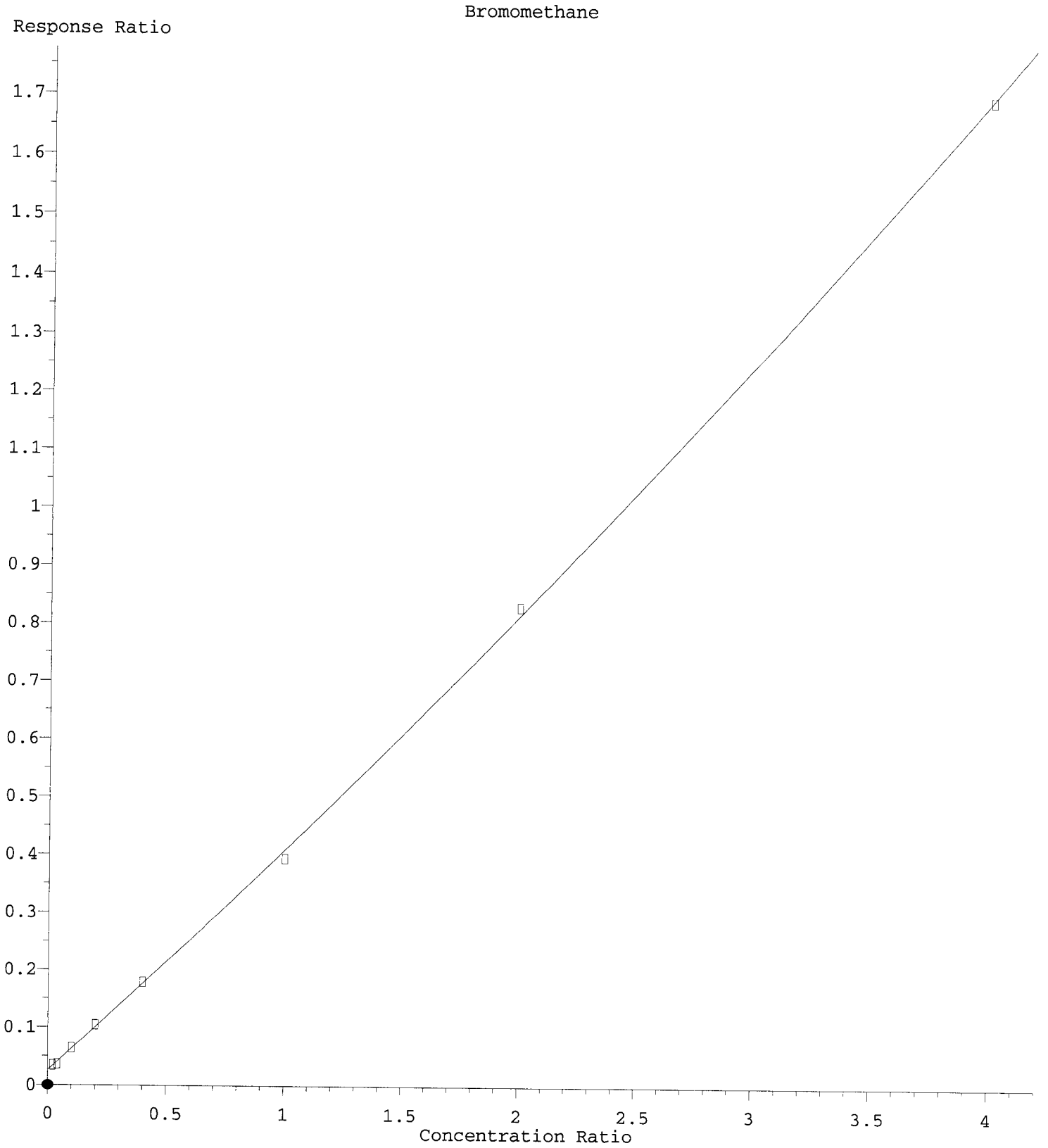
Calibration Files
1 =VJ19092628.D 2 =VJ19092629.D 3 =VJ19092630.D 4 =VJ19092631.D 5 =VJ19092632.D 6 =VJ19092633.D
7 =VJ19092634.D 8 =VJ19092635.D 9 =VJ19092636.D 10 =VJ19092638.D 1a =VJ19092640.D

		Compound	1	2	3	4	5	6	7	8	9	10	1a	Avg	%RSD
1)	I	Pentafluorobenzene...	ISTD												
2)		Dichlorodifluo...				0.851	0.744	0.941	0.942	0.967	0.913	0.949	1.031	0.917	9.40
3)	P	Chloromethane				1.585	1.239	1.250	1.324	1.294	1.260	1.329	1.354	1.329	8.36
4)	C	Vinyl Chloride			1.048	0.962	0.937	0.966	1.021	1.016	0.985	1.059	1.088	1.009	4.99
5)		Bromomethane				1.721	0.908	0.643	0.522	0.446	0.393	0.414	0.423	0.684	66.23
6)		Chloroethane						0.155	0.127	0.150	0.167	0.201	0.218	0.170	20.08
7)		Trichlorofluor...					0.422	0.419	0.462	0.453	0.446	0.473	0.471	0.449	4.86
8)		Ethanol				0.080	0.061	0.042	0.042	0.039	0.044	0.046		0.051	29.31
9)	C	1,1-Dichloroet...		1.519	1.418	1.423	1.414	1.444	1.473	1.471	1.437	1.492	1.516	1.461	2.69
10)		Carbon Disulfide		2.462	1.986	1.895	1.858	1.976	2.023	2.039	2.049	2.228	2.318	2.083	9.24
11)		Freon 113			0.624	0.794	0.755	0.760	0.807	0.818	0.789	0.845	0.859	0.783	8.80
12)		Iodomethane			1.225	0.587	0.355	0.315	0.300	0.312	0.355	0.456	0.515	0.491	59.65
13)		Methylene Chlo...					2.077	1.352	1.154	0.992	0.882	0.912	0.916	1.184	36.19
14)		Acetone					1.291	0.815	0.885	0.786	0.731	0.765	0.769	0.863	22.56
15)		t-1,2-Dichloro...		1.384	1.249	1.376	1.518	1.467	1.529	1.525	1.462	1.514	1.518	1.454	6.31
16)		n-Hexane					0.233	0.230	0.234	0.245	0.215	0.228	0.234	0.231	3.90
17)		Methyl-tert-bu...			5.142	4.920	4.516	4.110	4.306	4.209	4.019	4.153	4.214	4.399	8.82
18)		tert-Butanol (...			0.404	0.407	0.407	0.387	0.444	0.425	0.498			0.425	8.75
19)		Diisopropyl et...				3.976	3.923	3.817	4.058	3.939	4.708	4.987		4.201	10.82
20)	P	1,1-Dichloroet...		1.863	1.612	1.581	1.614	1.609	1.661	1.600	1.588	1.628	1.631	1.639	5.01
21)		Acrylonitrile				0.582	0.609	0.726	0.794	0.752	0.739	0.785	0.788	0.722	11.38
22)		Ethyl-tert-but...				4.328	4.115	3.827	4.117	4.147	4.770	5.036		4.334	9.74
23)		c-1,2-Dichloro...		1.824	1.381	1.605	1.606	1.581	1.687	1.593	1.564	1.628	1.622	1.609	6.81
24)		2,2-Dichloropr...			2.189	1.938	1.919	1.761	1.824	1.794	1.690	1.747	1.704	1.840	8.50
25)		Bromochloromet...			0.897	0.921	0.903	0.903	0.998	0.944	0.895	0.912	0.911	0.920	3.54
26)	C	Chloroform		2.189	1.863	1.847	1.877	1.932	2.031	1.963	1.907	2.014	1.991	1.962	5.21
27)		Carbon Tetrach...				1.233	1.171	1.213	1.289	1.360	1.387	1.527	1.589	1.346	11.17
28)		Tetrahydrofuran				1.103	1.097	0.933	0.962	0.922	0.871	0.915	0.893	0.962	9.29
29)		1,1,1-Trichlor...		1.339	1.780	1.867	1.801	1.796	1.834	1.908	1.854	1.955	1.945	1.808	9.72
30)	S	Dibromofluorom...	0.690	0.700	0.697	0.687	0.695	0.716	0.708	0.715	0.743	0.748	0.757	0.714	3.43
31)		1,1-Dichloropr...			1.610	1.708	1.701	1.637	1.632	1.678	1.634	1.722	1.705	1.670	2.49
32)		2-Butanone (MEK)				1.716	1.434	1.216	1.270	1.190	1.153	1.247	1.225	1.306	14.19
33)		Benzene	5.459	5.508	5.014	4.785	4.782	4.496	4.726	4.771	4.502	4.803	4.757	4.873	6.85
34)		tert-Amyl meth...				6.035	5.302	4.197	4.232	3.894	4.521	4.705		4.698	15.78
35)		1,2-Dichloroet...			1.743	1.802	1.861	1.829	1.976	1.930	1.821	1.923	1.875	1.862	3.89
36)		iso-Butyl Alcohol					0.158	0.142	0.162	0.158	0.147	0.160	0.156	0.155	4.79
37)	S	1,4-Difluorobe...	2.705	2.702	2.678	2.651	2.666	2.650	2.640	2.647	2.662	2.675	2.701	2.671	0.88
38)		Trichloroethen...		0.680	0.912	1.012	1.115	1.100	1.133	1.134	1.100	1.179	1.189	1.055	14.69
39)		tert-Amyl ethy...				2.793	3.170	2.808	3.102	3.019	3.676	3.850		3.203	12.82
40)		Dibromomethane				0.589	0.705	0.674	0.707	0.702	0.678	0.722	0.703	0.685	6.12

Method Path : C:\msdchem\1\methods\
Method File : VJ190926S+.M
Title : EPA 8260C: Volatile Organic Compounds

41)	C	1,2-Dichloropr...			1.157	1.215	1.171	1.175	1.240	1.232	1.189	1.273	1.248	1.211	3.30
42)		Bromodichlorom...			0.781	1.029	1.064	1.081	1.238	1.285	1.351	1.538	1.596	1.218	21.26
43)		Chlorobenzene-d5 (I)	----------ISTD----------												
44)		c-1,3-Dichloro...		0.534	0.678	0.753	0.745	0.709	0.789	0.799	0.788	0.866	0.869	0.753	13.01
45)	S	Toluene-d8 (S)	1.399	1.395	1.399	1.397	1.382	1.406	1.411	1.422	1.400	1.404	1.409	1.402	0.73
46)	C	Toluene	2.587	2.509	2.250	2.190	2.153	2.034	2.144	2.139	2.011	2.113	2.099	2.203	8.35
47)		Tetrachloroeth...			0.357	0.445	0.444	0.456	0.480	0.468	0.452	0.474	0.475	0.450	8.28
48)		4-Methyl-2-Pen...			0.953	0.903	0.896	0.825	0.937	0.889	0.835	0.881	0.834	0.884	5.13
49)		t-1,3-Dichloro...			0.680	0.722	0.715	0.701	0.762	0.773	0.770	0.843	0.834	0.756	7.53
50)		1,1,2-Trichlor...		0.335	0.429	0.426	0.449	0.419	0.450	0.436	0.422	0.454	0.451	0.427	8.17
51)		Dibromochlorom...				0.213	0.260	0.252	0.309	0.321	0.359	0.430	0.461	0.326	26.71
52)		1,3-Dichloropr...		0.736	0.774	0.806	0.893	0.798	0.893	0.855	0.817	0.880	0.861	0.831	6.46
53)		1,2-Dibromoeth...			0.380	0.430	0.473	0.442	0.497	0.482	0.465	0.504	0.500	0.464	8.74
54)		2-Hexanone		0.891	0.745	0.699	0.643	0.634	0.708	0.688	0.660	0.703	0.681	0.705	10.37
55)	P	Chlorobenzene	0.900	1.224	1.254	1.217	1.268	1.203	1.286	1.268	1.198	1.257	1.237	1.210	8.81
56)	C	Ethylbenzene	2.592	2.595	2.365	2.240	2.318	2.203	2.379	2.374	2.229	2.344	2.307	2.359	5.53
57)		1,1,1,2-Tetrac...			0.283	0.370	0.370	0.354	0.408	0.411	0.415	0.452	0.445	0.390	13.41
58)		m,p-Xylenes (2)	1.934	1.917	1.707	1.739	1.715	1.670	1.785	1.783	1.687	1.787	1.758	1.771	4.86
59)		o-Xylene	2.065	2.016	1.793	1.718	1.757	1.683	1.816	1.808	1.712	1.822	1.797	1.817	6.61
60)		Styrene				1.196	1.197	1.141	1.292	1.280	1.256	1.362	1.341	1.258	6.04
61)	P	Bromoform				0.134	0.145	0.151	0.190	0.188	0.213	0.265	0.287	0.197	28.51
62)		Isopropylbenzene	2.505	2.088	1.950	2.149	2.108	2.001	2.174	2.194	2.076	2.212	2.158	2.147	6.68
63)	I	1,4-Dichlorobenzen...	----------ISTD----------												
64)	S	4-Bromofluorob...	0.777	0.772	0.787	0.784	0.784	0.787	0.773	0.771	0.764	0.750	0.746	0.772	1.81
65)		Bromobenzene		0.737	0.961	0.972	0.995	0.986	1.058	1.025	0.983	1.009	0.996	0.972	8.97
66)		n-Propylbenzene	5.882	6.140	5.189	5.324	5.247	5.074	5.353	5.356	5.062	5.220	5.092	5.358	6.43
67)	P	1,1,2,2-Tetrac...		1.387	1.190	1.324	1.331	1.255	1.387	1.349	1.266	1.339	1.255	1.308	4.92
68)		2-Chlorotoluene		0.798	0.911	0.917	0.973	0.914	0.993	0.985	0.920	0.963	0.946	0.932	6.03
69)		1,3,5-Trimethy...	4.083	3.868	3.427	3.685	3.579	3.445	3.621	3.652	3.492	3.610	3.541	3.637	5.29
70)		1,2,3-Trichlor...			0.510	0.527	0.520	0.498	0.571	0.527	0.484	0.503	0.492	0.515	5.06
71)		t-1,4-Dichloro...						0.185	0.239	0.226	0.234	0.260	0.260	0.234	11.85
72)		4-Chlorotoluene	3.781	3.575	3.246	3.297	3.192	3.166	3.372	3.235	3.061	3.177	3.090	3.290	6.54
73)		tert-Butylbenzene	2.590	2.679	2.309	2.287	2.217	2.120	2.253	2.248	2.081	2.150	2.106	2.276	8.50
74)		1,2,4-Trimethy...	4.242	3.653	3.551	3.629	3.671	3.527	3.703	3.710	3.489	3.632	3.555	3.669	5.54
75)		sec-Butylbenzene	4.708	4.527	4.282	4.266	4.421	4.151	4.391	4.464	4.233	4.362	4.251	4.369	3.62
76)		4-Isopropyltol...	3.775	3.553	3.638	3.643	3.592	3.481	3.654	3.728	3.562	3.710	3.614	3.632	2.34
77)		1,3-Dichlorobe...	1.986	2.074	1.796	1.777	1.816	1.755	1.934	1.846	1.761	1.841	1.779	1.851	5.59
78)		1,4-Dichlorobe...	1.569	1.870	1.764	1.912	1.901	1.783	1.956	1.855	1.768	1.850	1.791	1.820	5.74
79)		n-Butylbenzene	4.066	3.363	3.320	3.335	3.310	3.066	3.229	3.260	3.095	3.216	3.135	3.309	8.17
80)		1,2-Dichlorobe...		1.672	1.679	1.726	1.739	1.671	1.825	1.753	1.653	1.739	1.686	1.714	3.05
81)		1,2-Dibromo-3-...						0.260	0.307	0.319	0.339	0.382	0.395	0.334	14.99
82)		Hexachlorobuta...				0.244	0.248	0.255	0.267	0.262	0.245	0.259	0.249	0.254	3.28
83)		1,2,4-Trichlor...		1.197	1.099	1.021	1.168	1.030	1.178	1.167	1.094	1.154	1.124	1.123	5.46
84)		Naphthalene			4.072	4.387	4.188	4.021	4.617	4.536	4.281	4.512	4.474	4.343	4.91
85)		1,2,3-Trichlor...		1.007	1.069	1.145	1.125	1.040	1.185	1.126	1.083	1.117	1.117	1.102	4.74

(#) = Out of Range



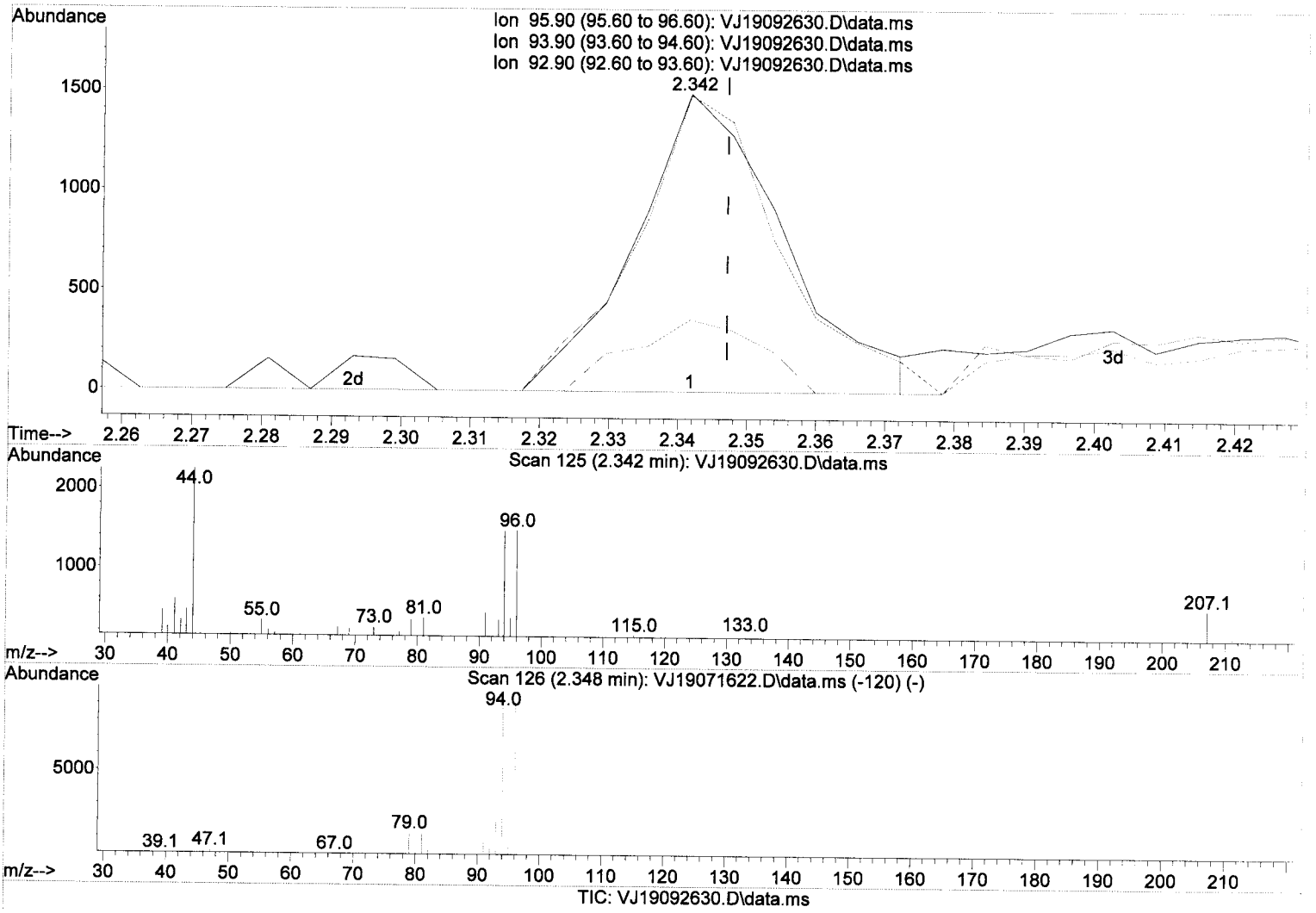
Int = (-)

R = 1.13e-002 A*A + 3.72e-001 A + 2.55e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\Vu190926s+.M
Calibration Table Last Updated: Fri Sep 27 13:56:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\REQUANT\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 13:57:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



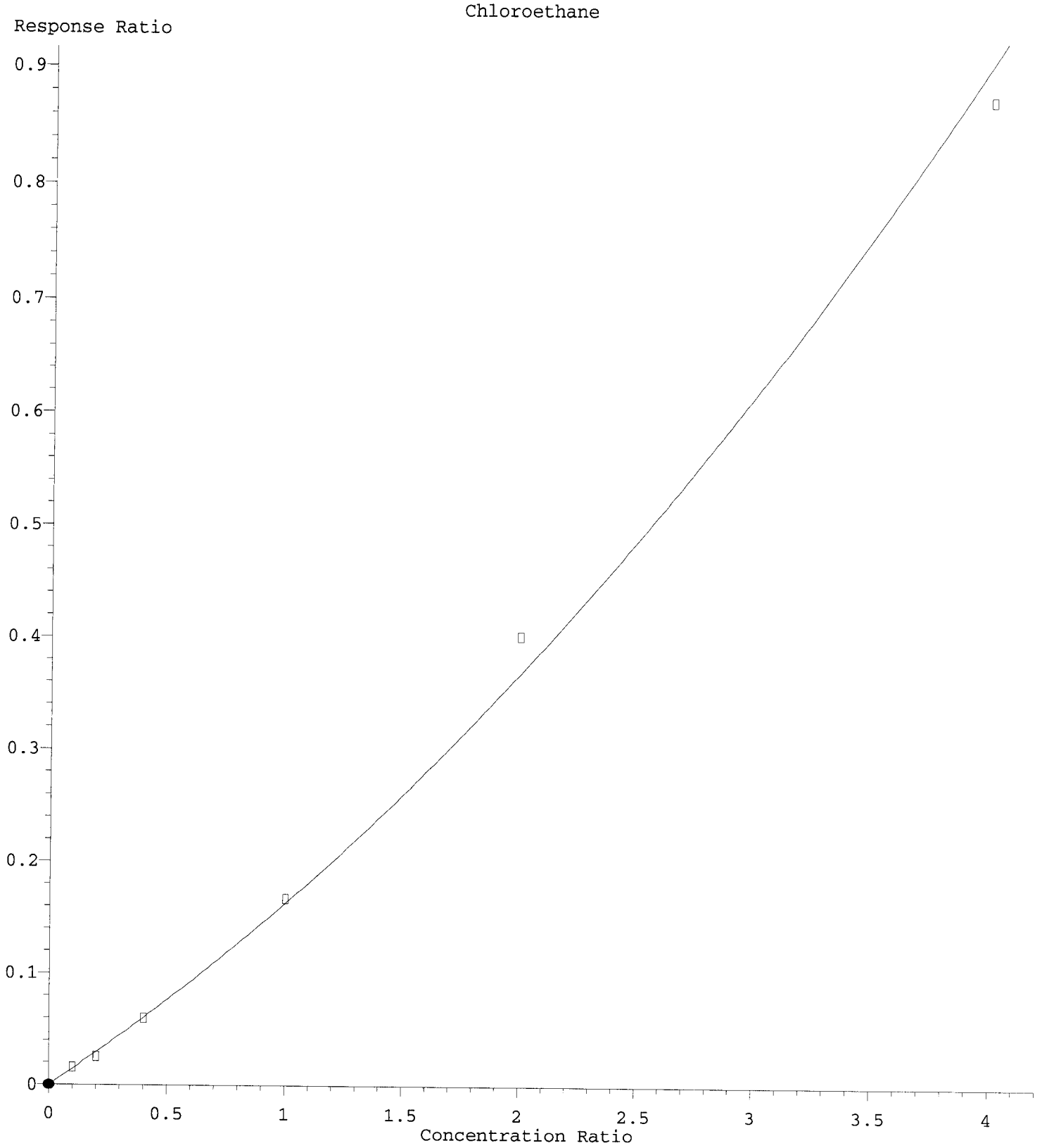
TIC: VJ19092630.D\data.ms

(5) Bromomethane

2.342min (-0.005) 0.10 ug/L m

response 2218

Ion	Exp%	Act%
95.90	100.00	100.00
93.90	106.80	99.53
92.90	22.80	24.24
0.00	0.00	0.00



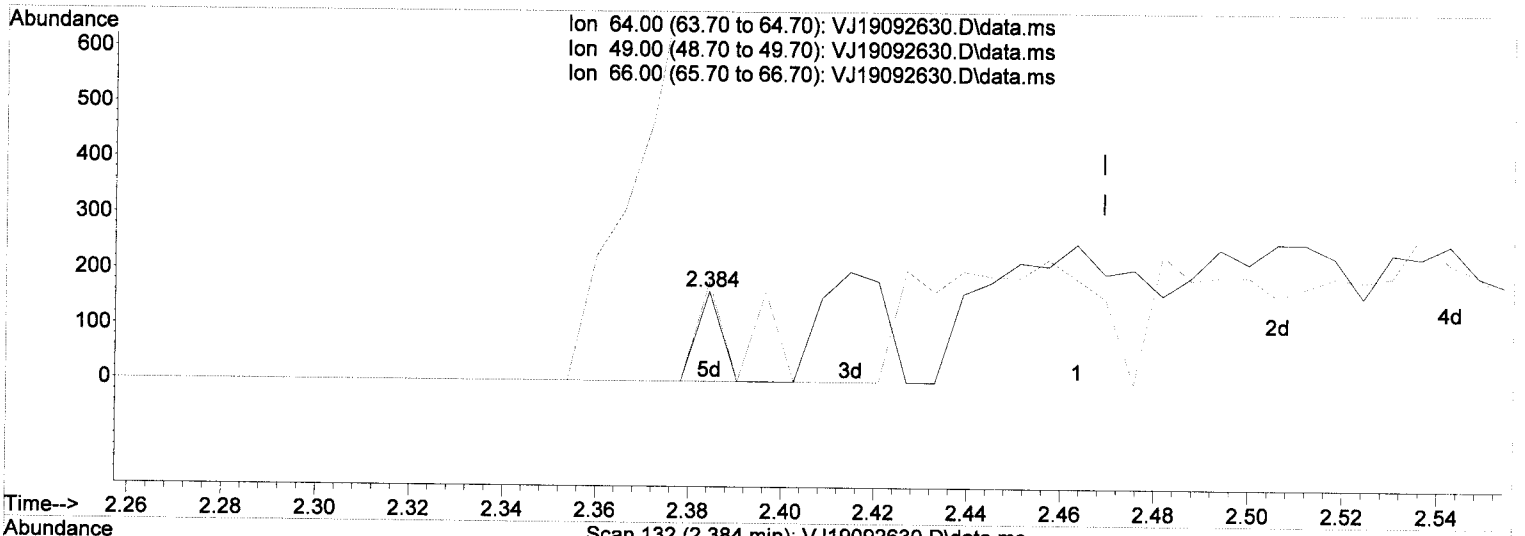
Int = 0.18

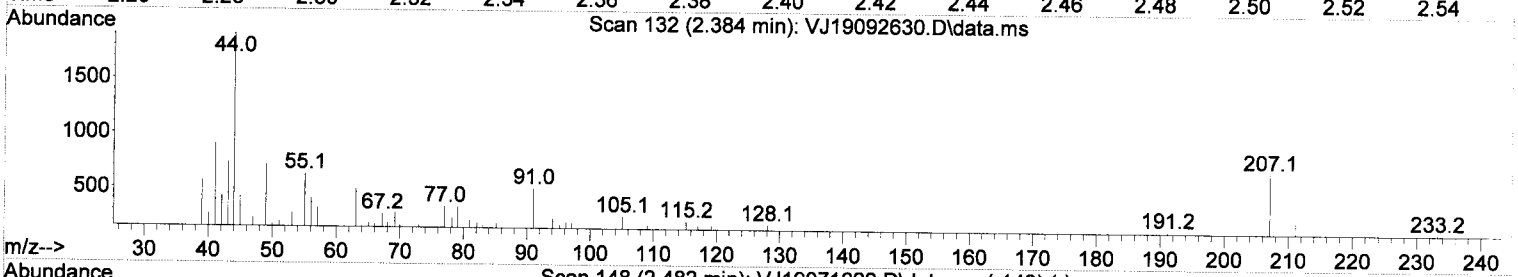
R = 2.12e-002 A*A + 1.42e-001 A + 1.87e-004
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\v0190263+.M
Calibration Table Last Updated: Fri Sep 27 13:56:57 2019

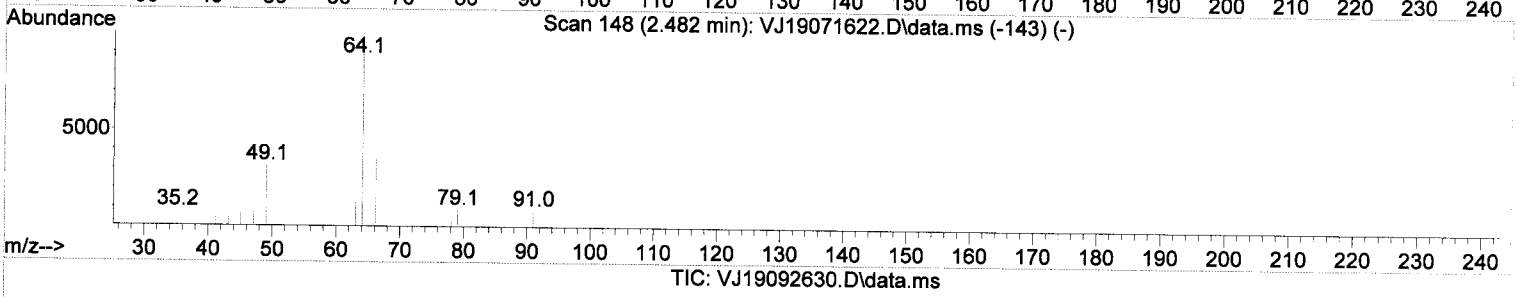
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\REQUANT\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 13:57:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration







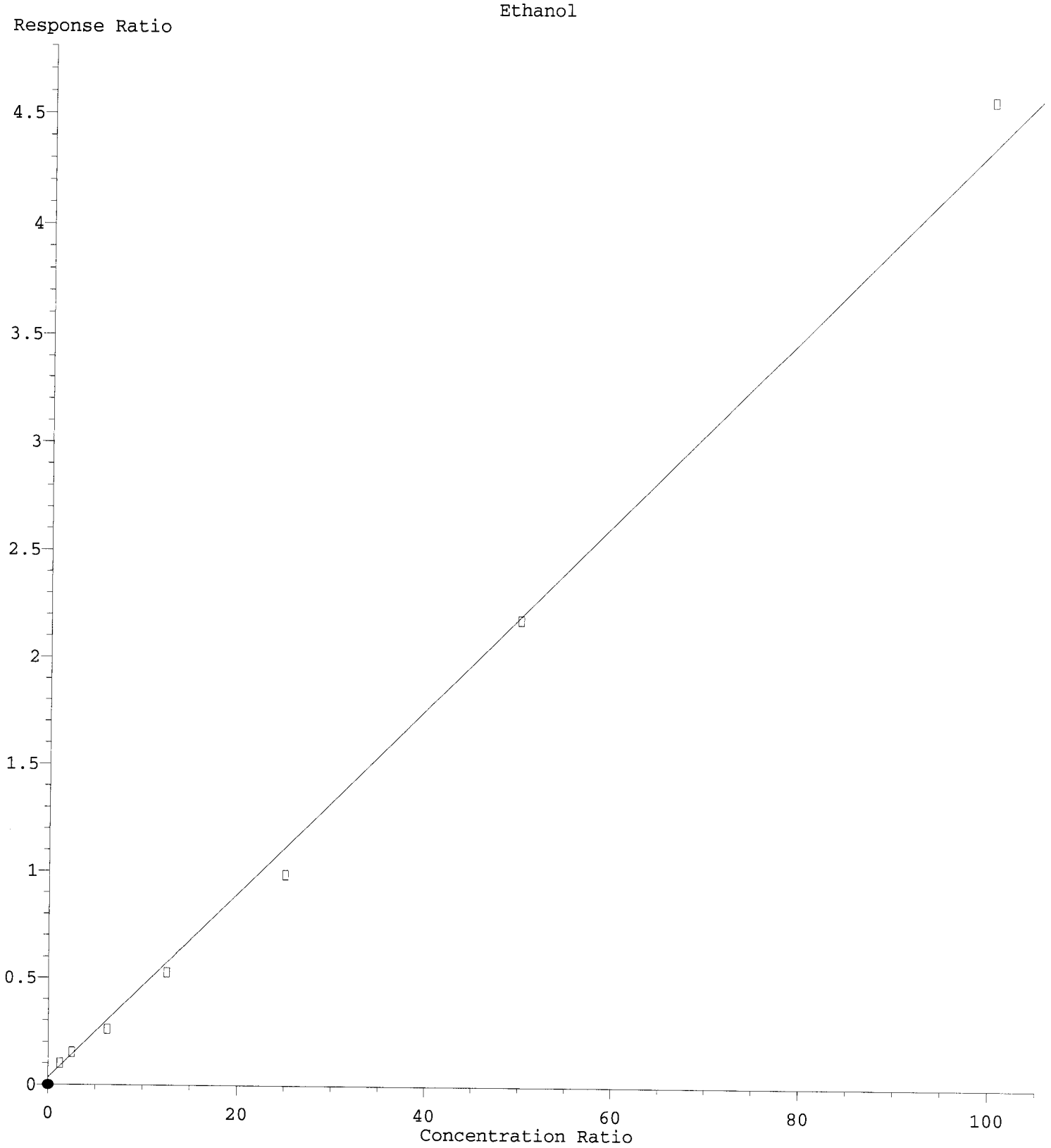
TIC: VJ19092630.D\data.ms

(6) Chloroethane

2.384min (-0.085) 0.18 ug/L m

response 59

Ion	Exp%	Act%
64.00	100.00	100.00
49.00	24.30	436.20#
66.00	31.30	110.43#
0.00	0.00	0.00



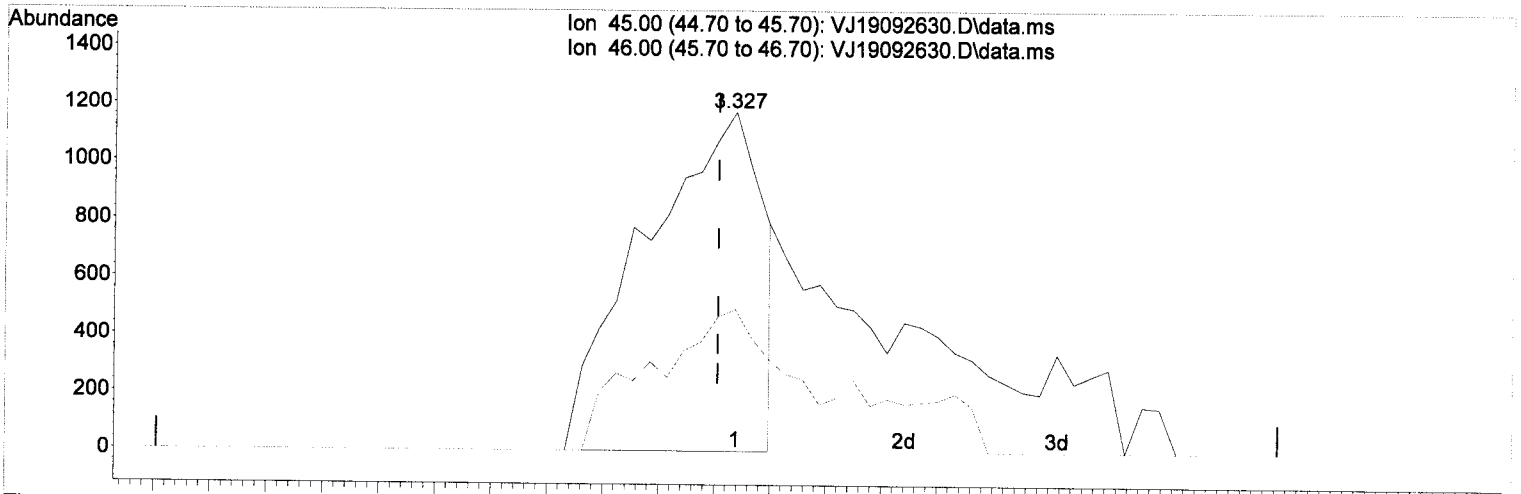
Int = (-)

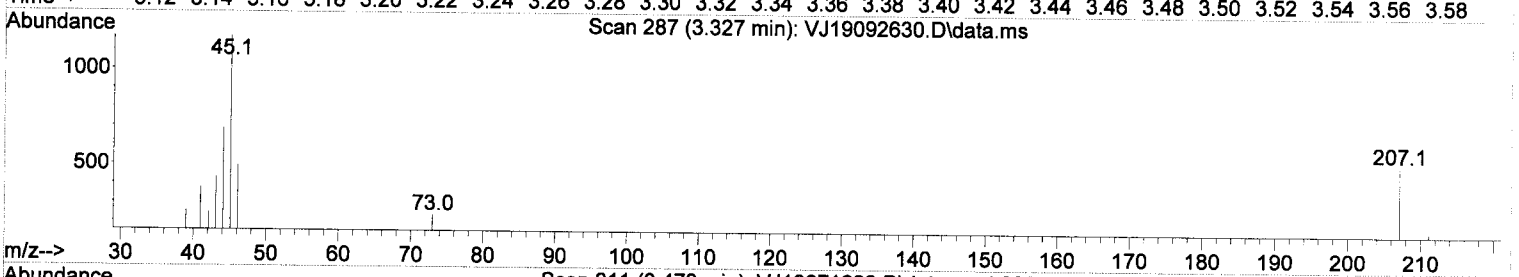
Resp Ratio = 4.33e-002 * Amt + 3.36e-002
Coef of Det (r^2) = 0.994 Curve Fit: wlr(1/a)
Method Name: C:\msdchem\1\methods\VJ190926S+.M
Calibration Table Last Updated: Fri Sep 27 13:56:57 2019

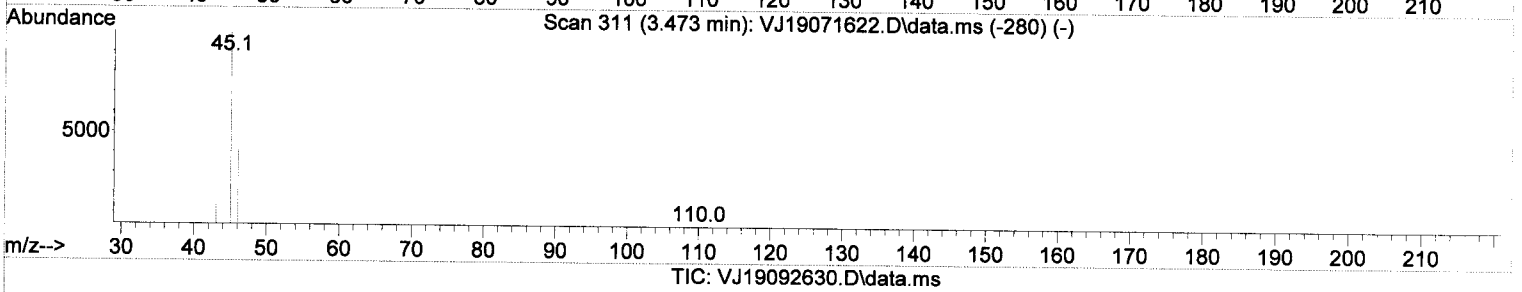
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\REQUANT\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 13:57:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration







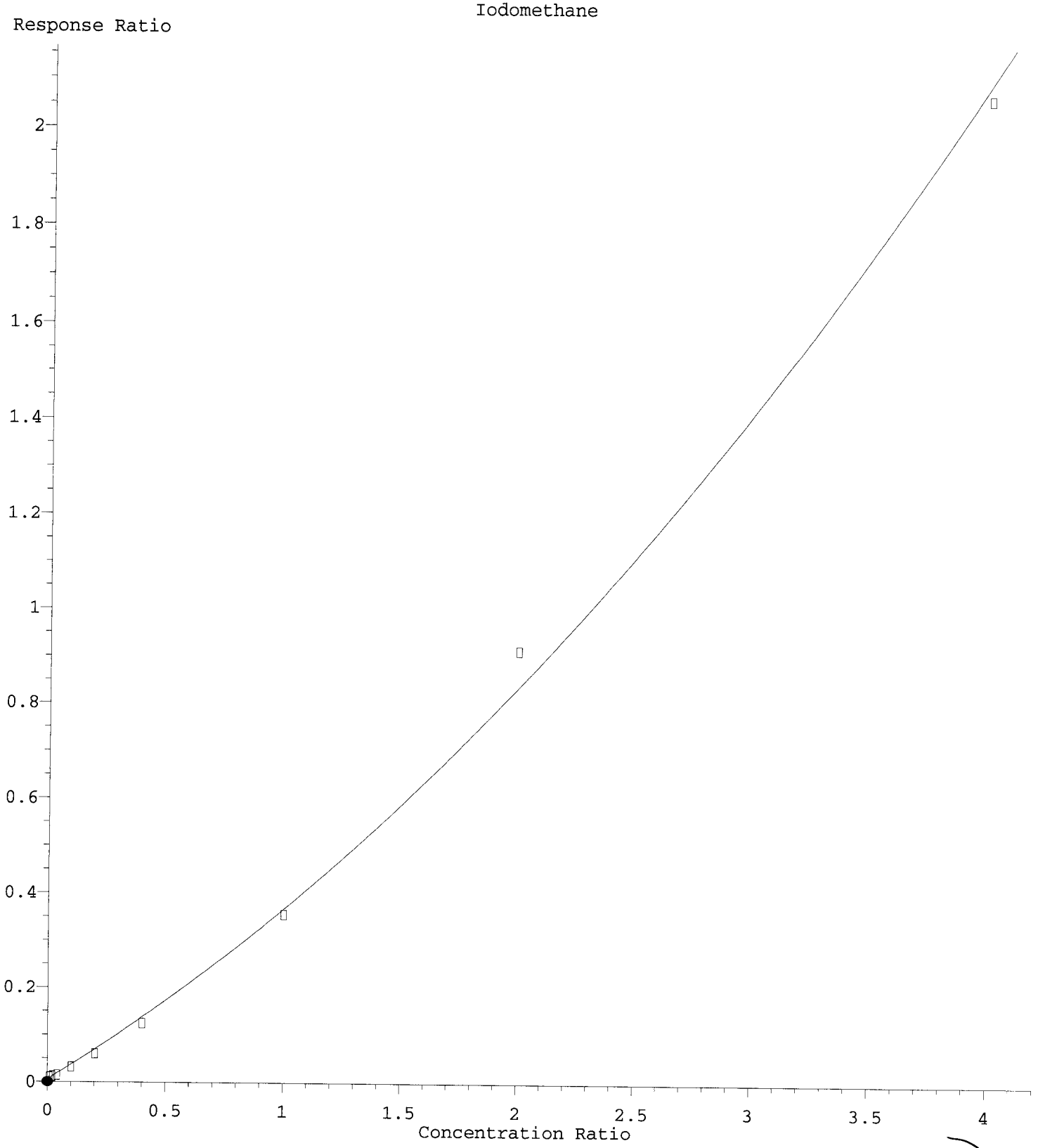
TIC: VJ19092630.D\data.ms

(8) Ethanol

3.327min (+ 0.006) 8.56 ug/L m

response 3461

Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	41.99
0.00	0.00	0.00
0.00	0.00	0.00



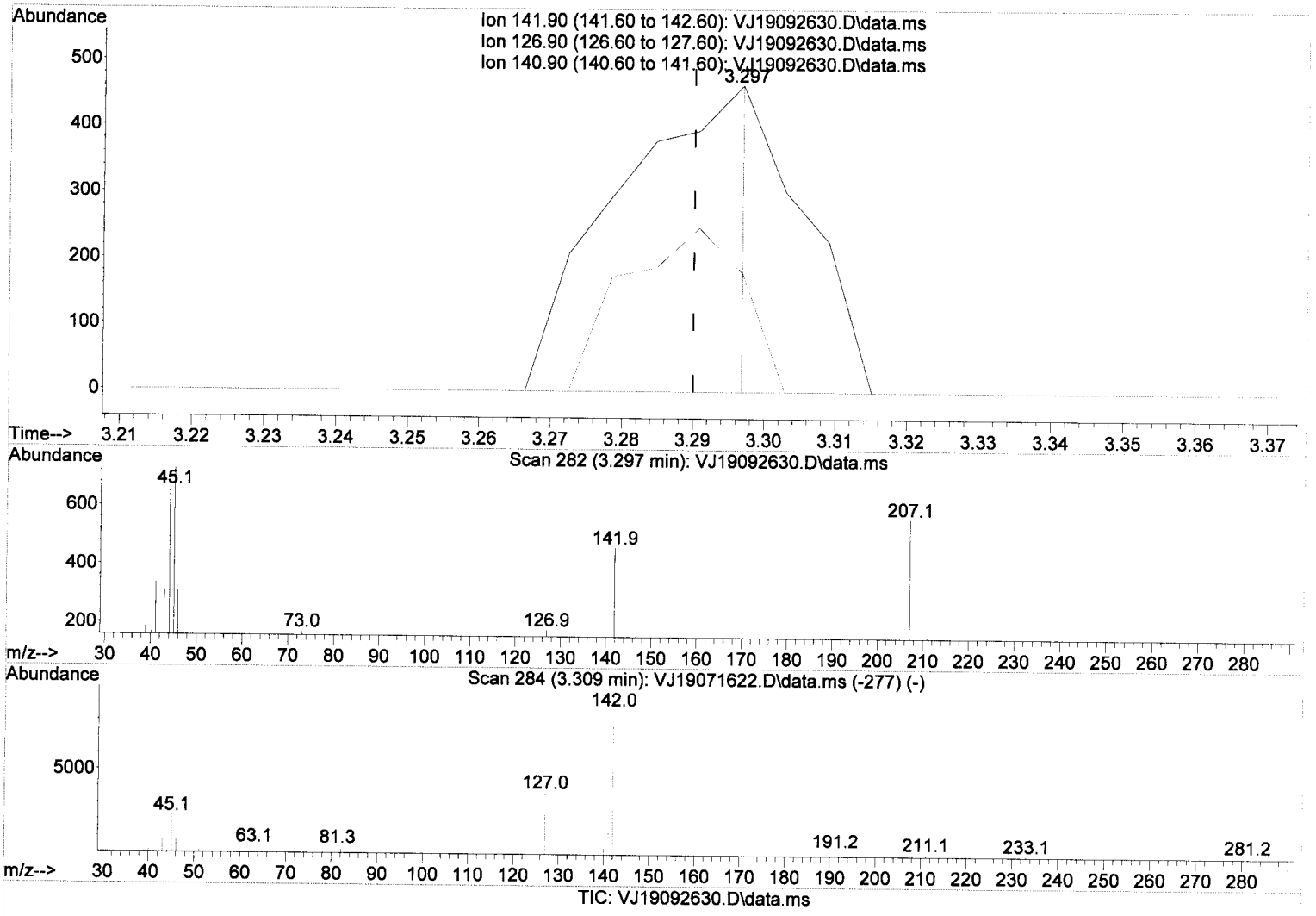
Int = 0.31 (—)

R = 5.31e-002 A*A + 3.09e-001 A + 5.58e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VJ190926S+.M
Calibration Table Last Updated: Fri Sep 27 13:56:57 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\REQUANT\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 13:57:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

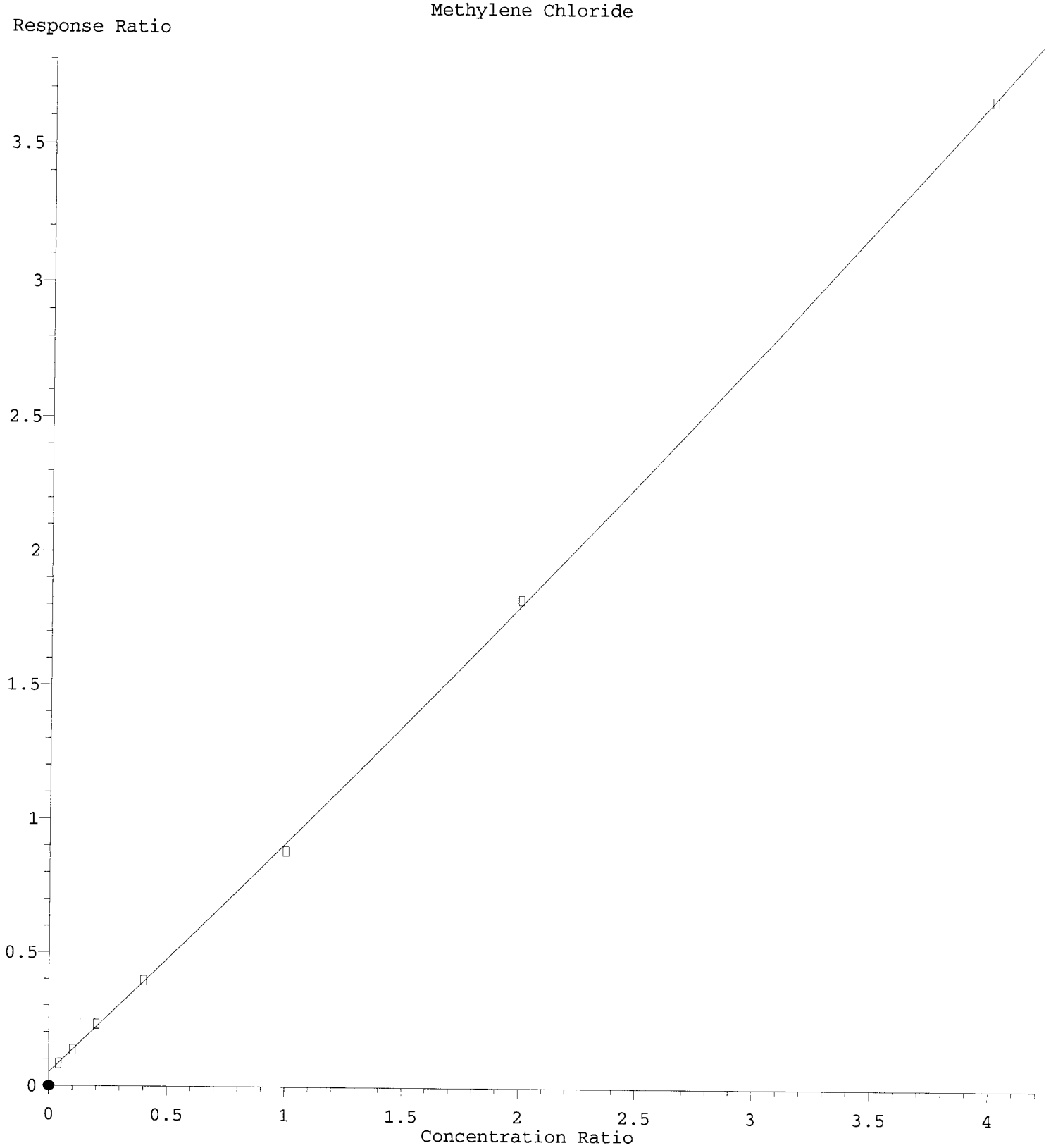


(12) Iodomethane

3.297min (+ 0.007) 0.31 ug/L m

response 635

Ion	Exp%	Act%
141.90	100.00	100.00
126.90	34.80	38.88
140.90	15.30	0.00
0.00	0.00	0.00



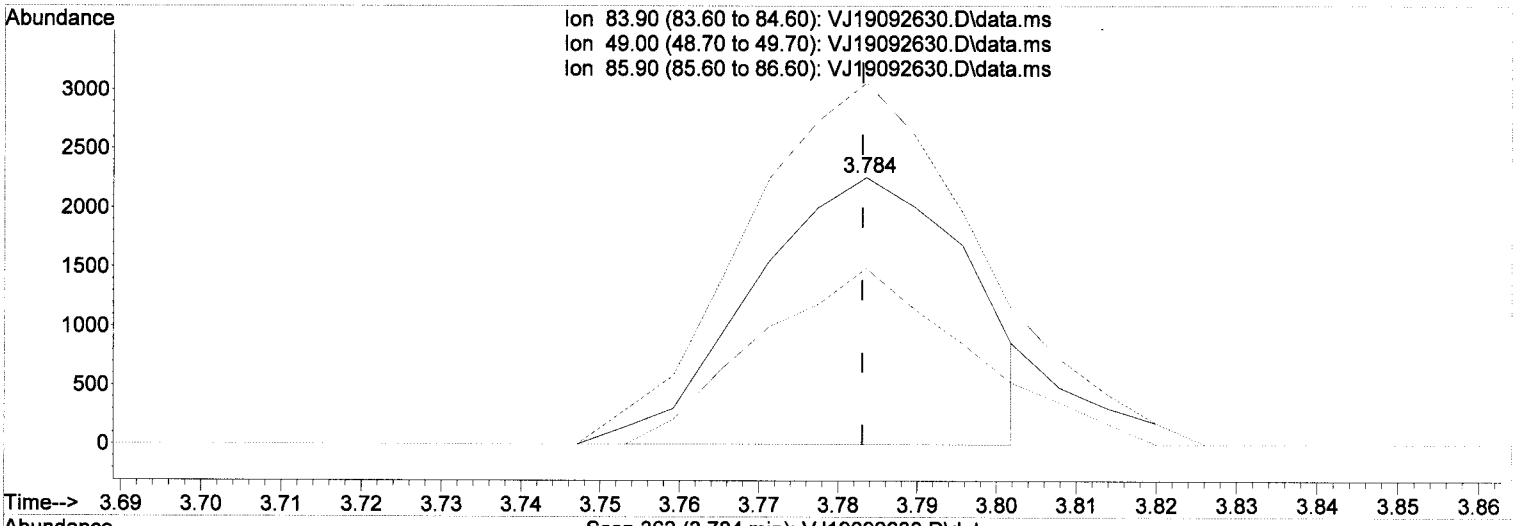
Int =(—)

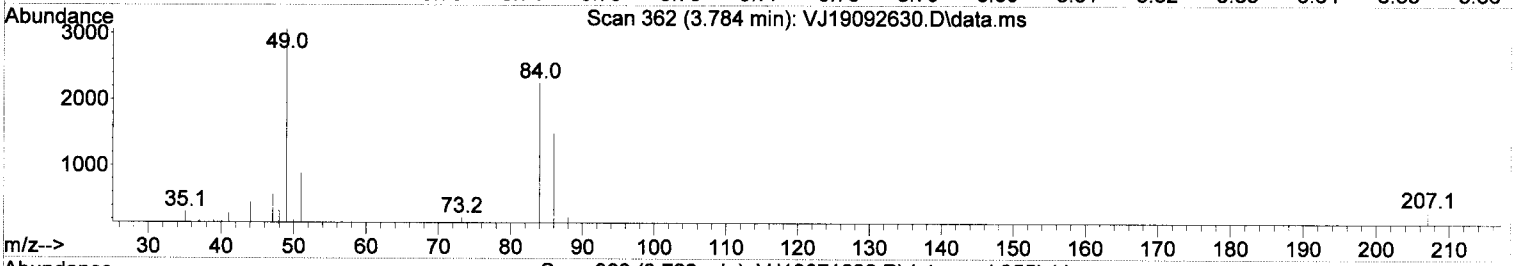
R = 1.42e-002 A*A + 8.48e-001 A + 5.07e-002
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VJ190926S+.M
Calibration Table Last Updated: Fri Sep 27 13:56:57 2019

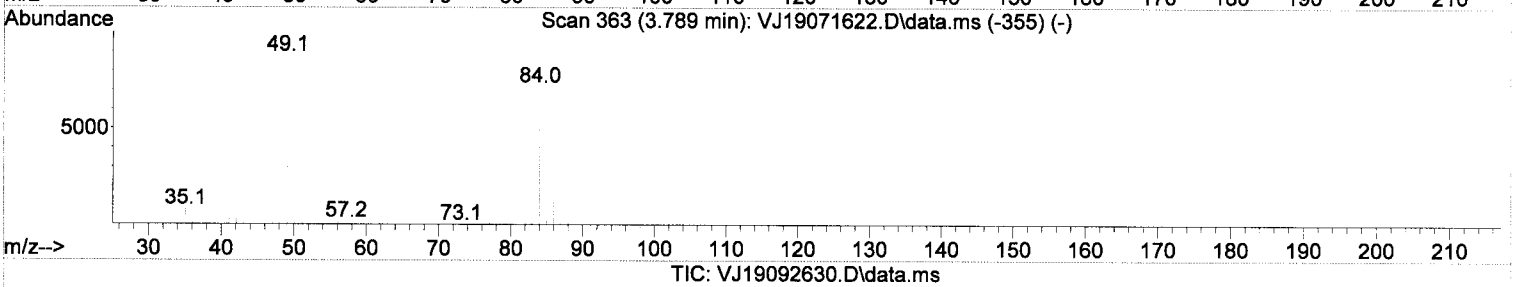
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\REQUANT\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 13:57:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration







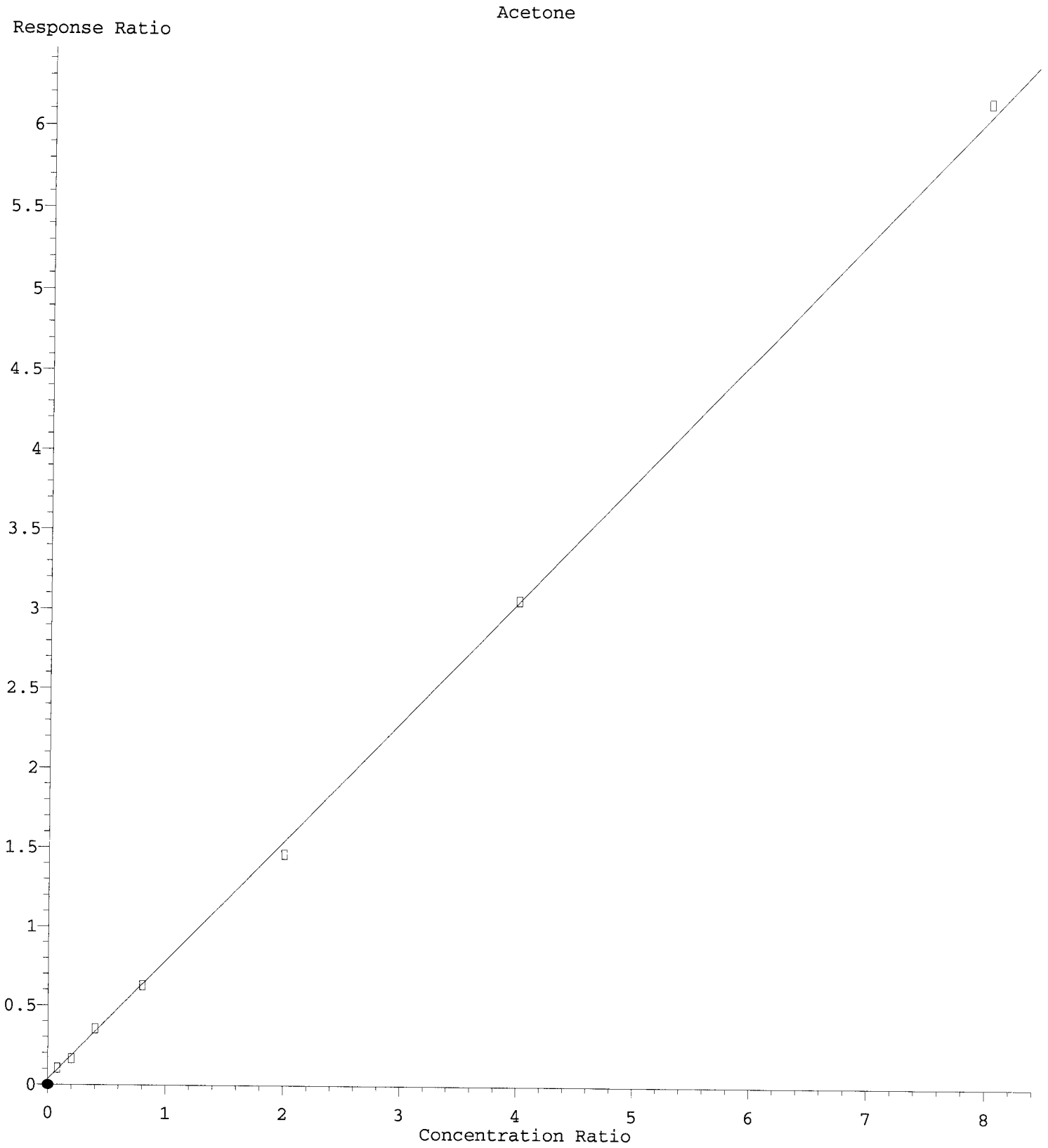
TIC: VJ19092630.D\data.ms

(13) Methylene Chloride

3.784min (+ 0.001) 0.02 ug/L m

response 4304

Ion	Exp%	Act%
83.90	100.00	100.00
49.00	123.30	135.46
85.90	63.90	66.09
0.00	0.00	0.00



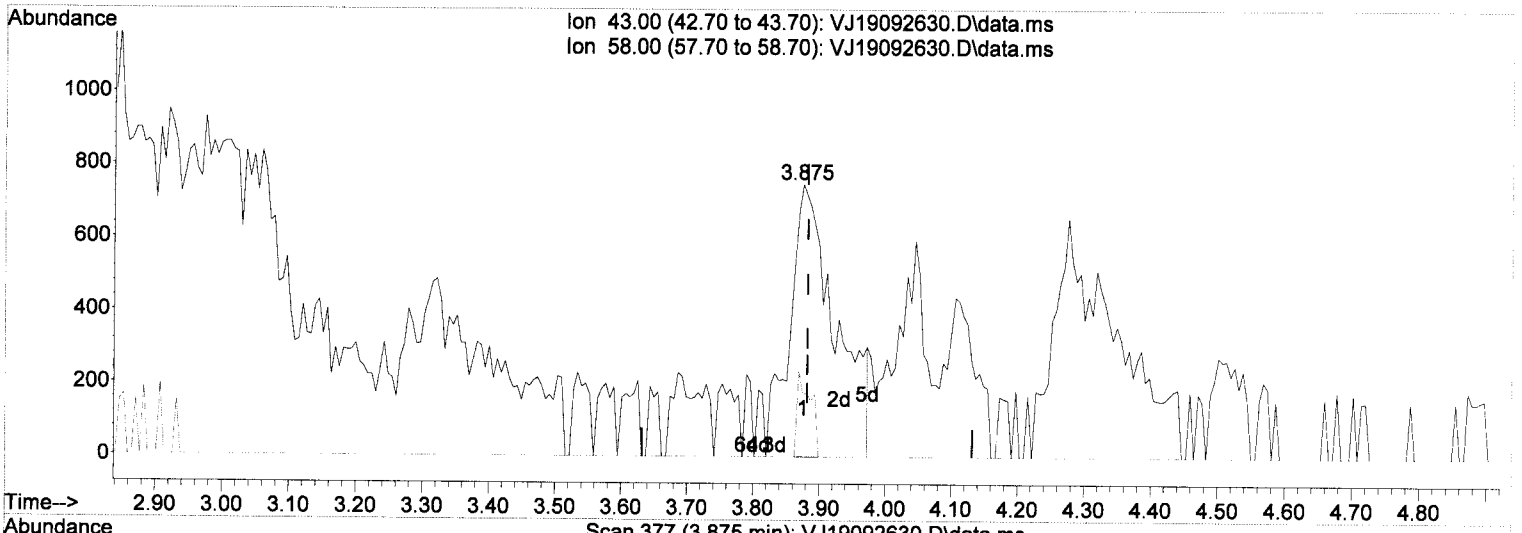
Int = (-)

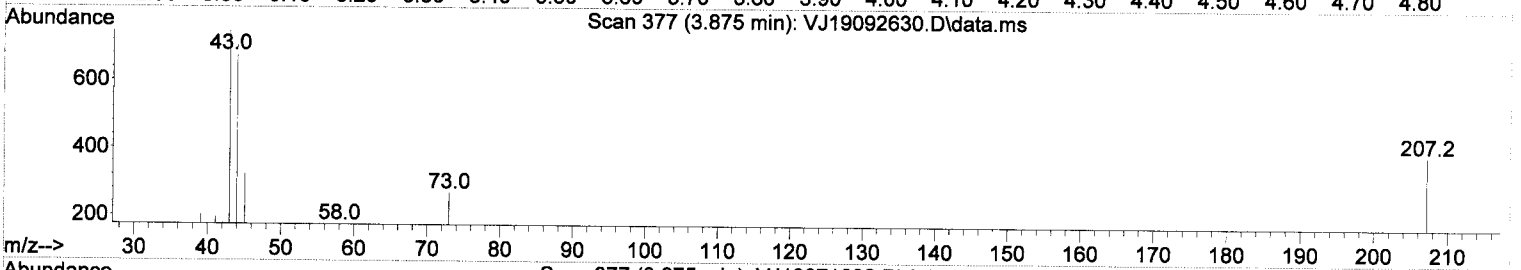
Resp Ratio = 7.55e-001 * Amt + 3.42e-002
Coef of Det (r^2) = 0.999 Curve Fit: wlr(1/a)
Method Name: C:\msdchem\1\methods\Va190926s+.M
Calibration Table Last Updated: Fri Sep 27 13:56:57 2019

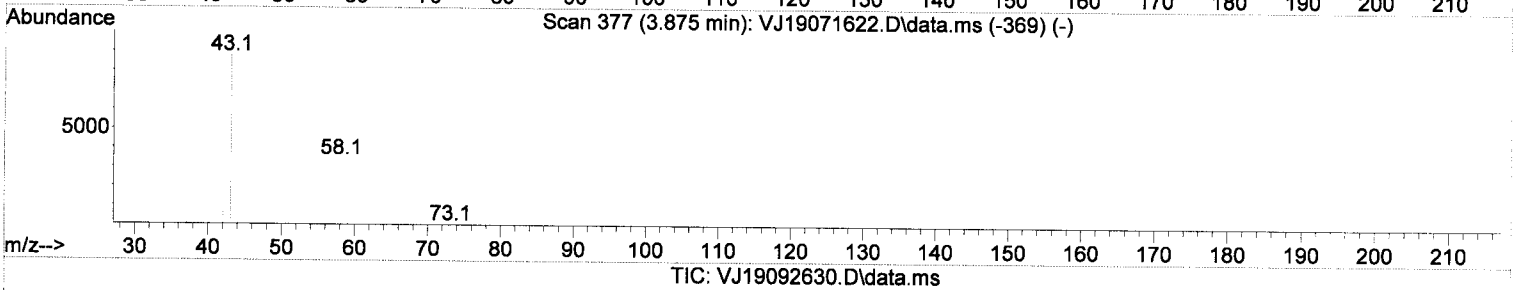
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\REQUANT\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 13:57:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration







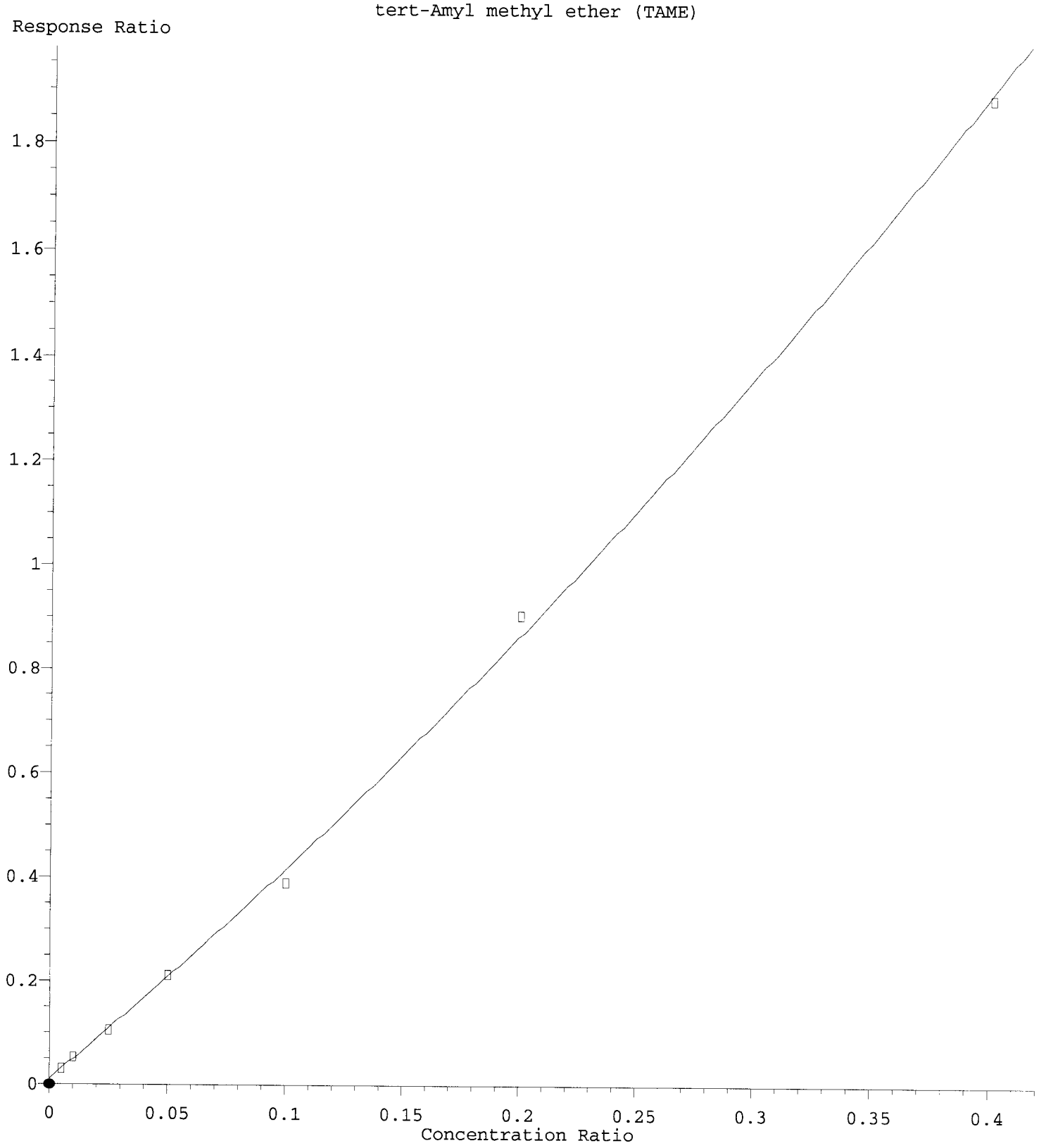
TIC: VJ19092630.D\data.ms

(14) Acetone

3.875min (-0.006) 0.58 ug/L m

response 3626

Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	23.29
0.00	0.00	0.00
0.00	0.00	0.00



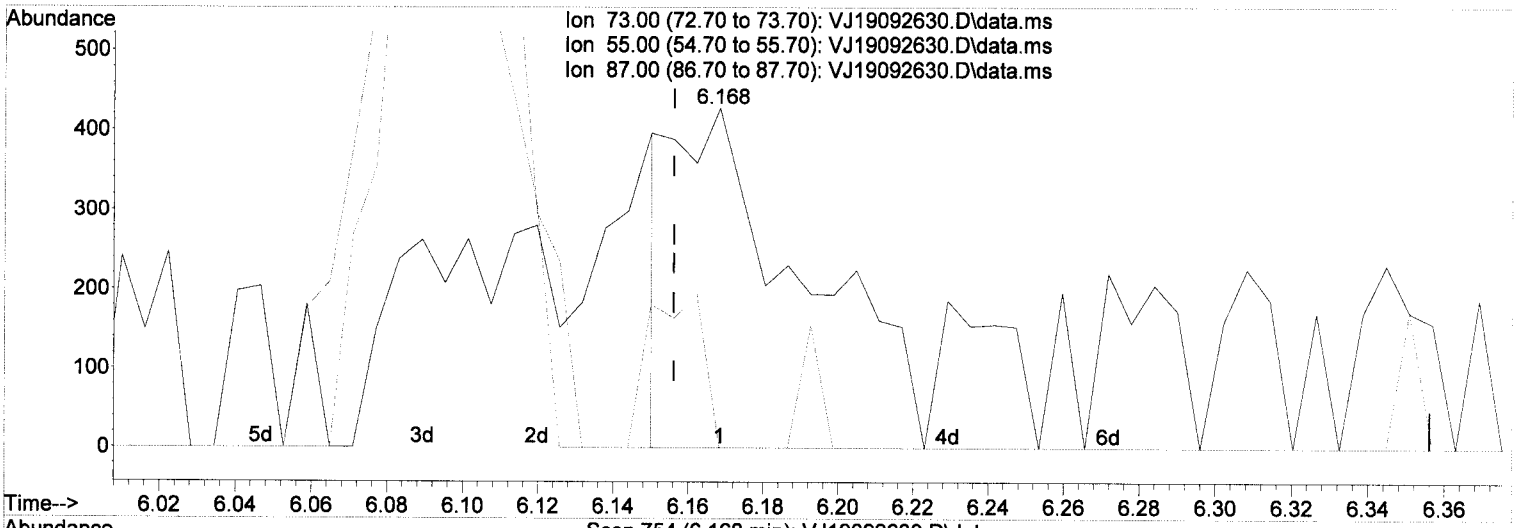
Int = (-)

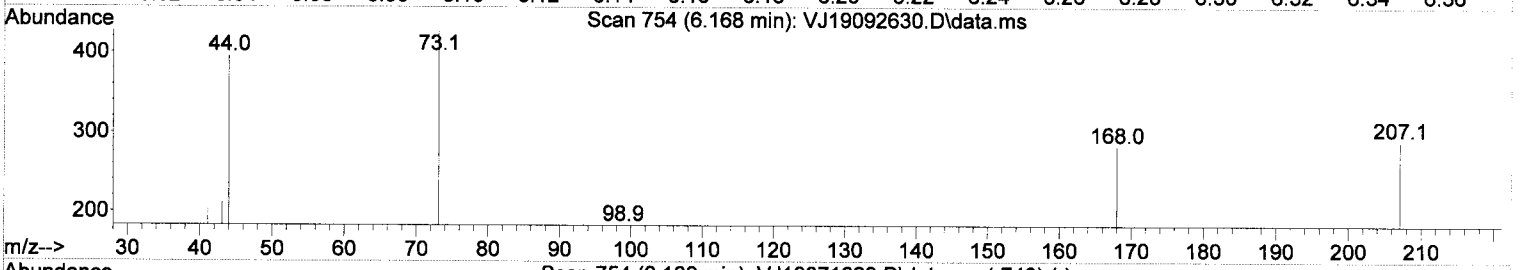
R = 2.18e+000 A*A + 3.84e+000 A + 1.14e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\V0190926s+.M
Calibration Table Last Updated: Fri Sep 27 13:56:57 2019

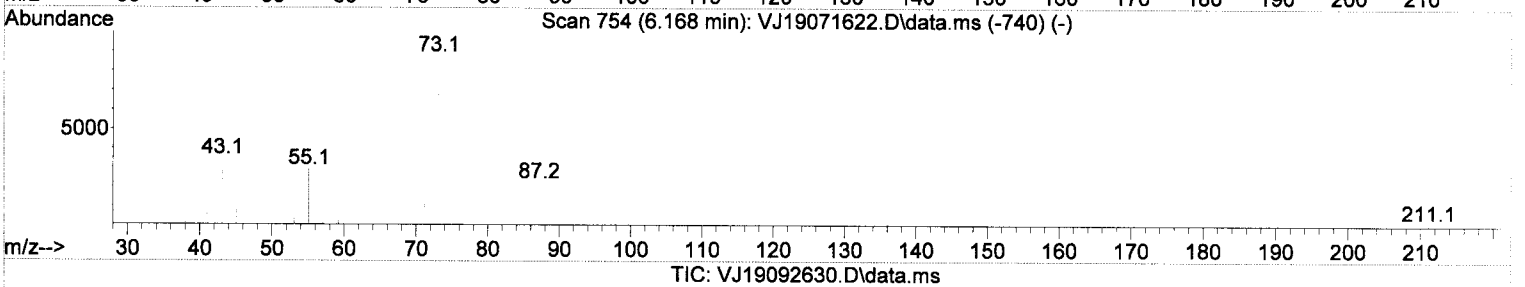
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\REQUANT\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 13:57:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration







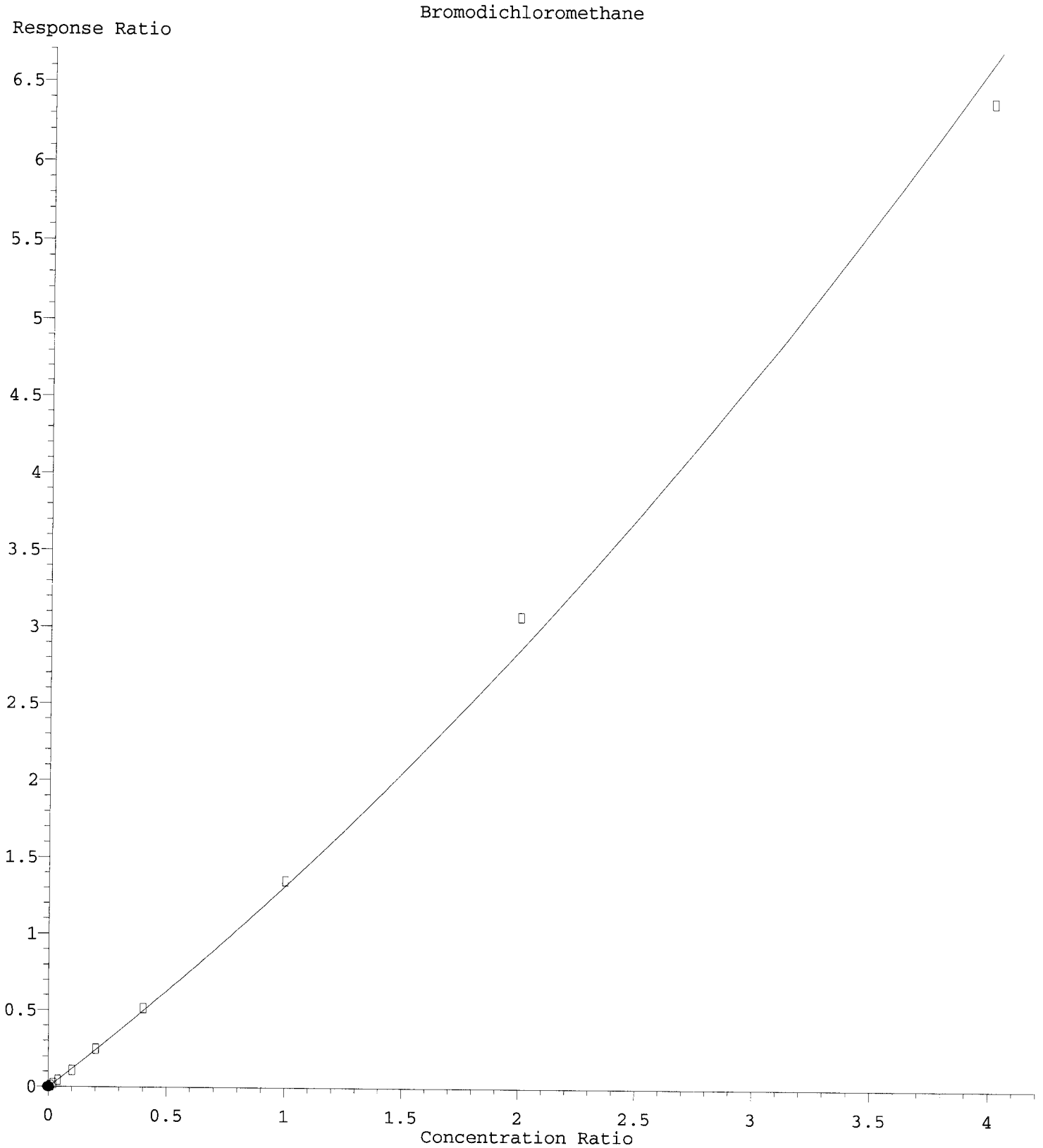
TIC: VJ19092630.D\data.ms

(34) tert-Amyl methyl ether (TAME)

6.168min (+ 0.012) 0.01 ug/L m

response 1040

Ion	Exp%	Act%
73.00	100.00	100.00
55.00	32.20	0.00#
87.00	24.60	0.00
0.00	0.00	0.00



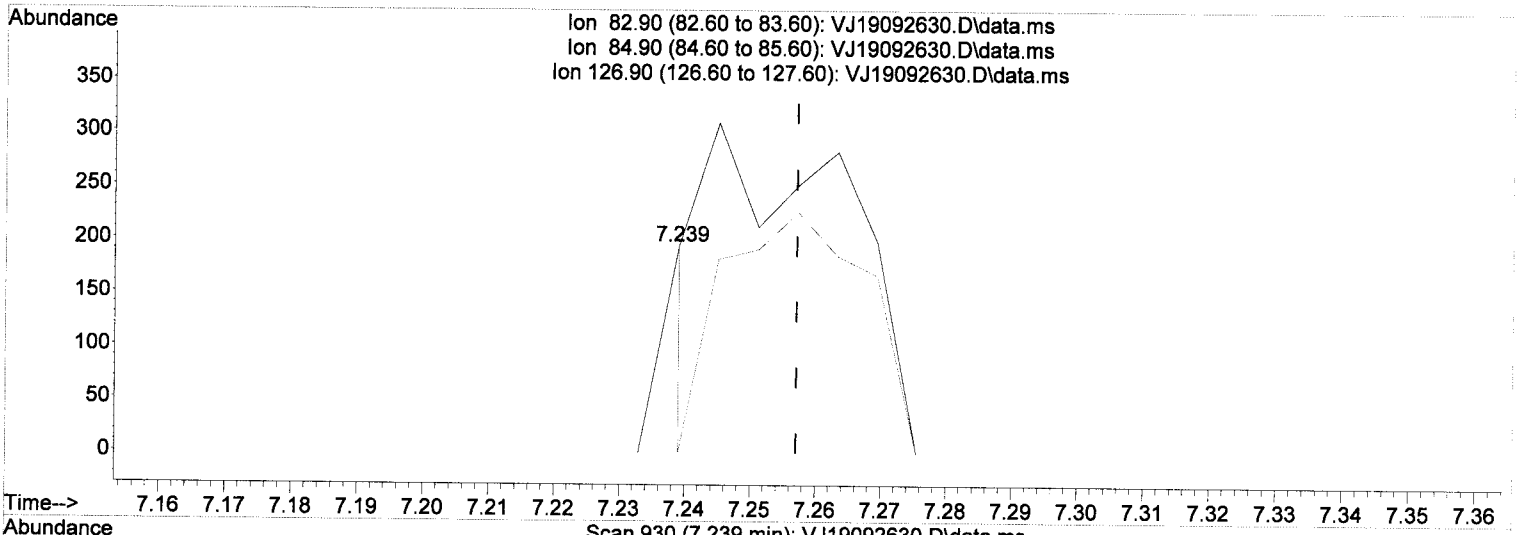
Int = 0.18

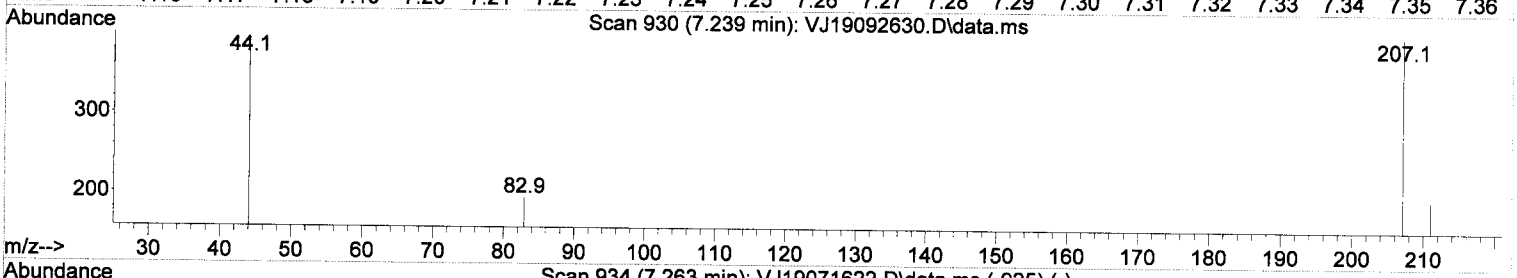
R = 1.14e-001 A*A + 1.21e+000 A - 3.56e-003
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\VOA1902b3+.M
Calibration Table Last Updated: Fri Sep 27 13:56:57 2019

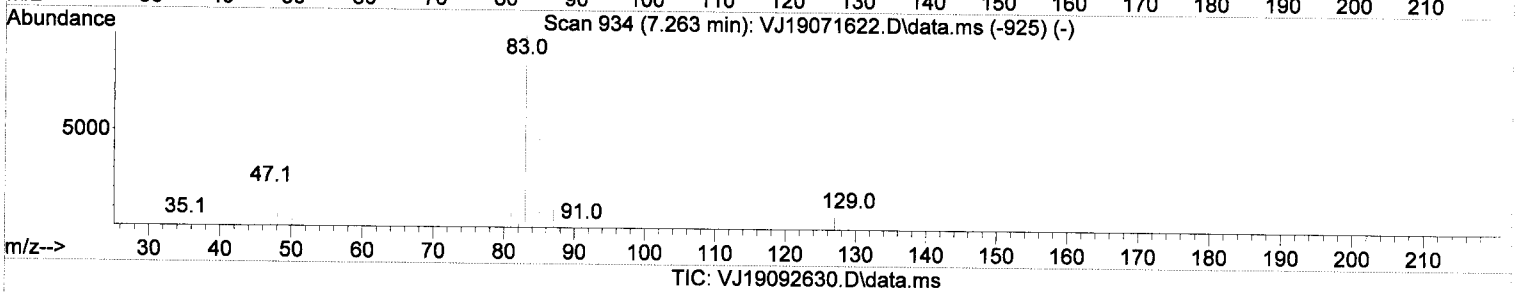
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\REQUANT\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 13:57:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration







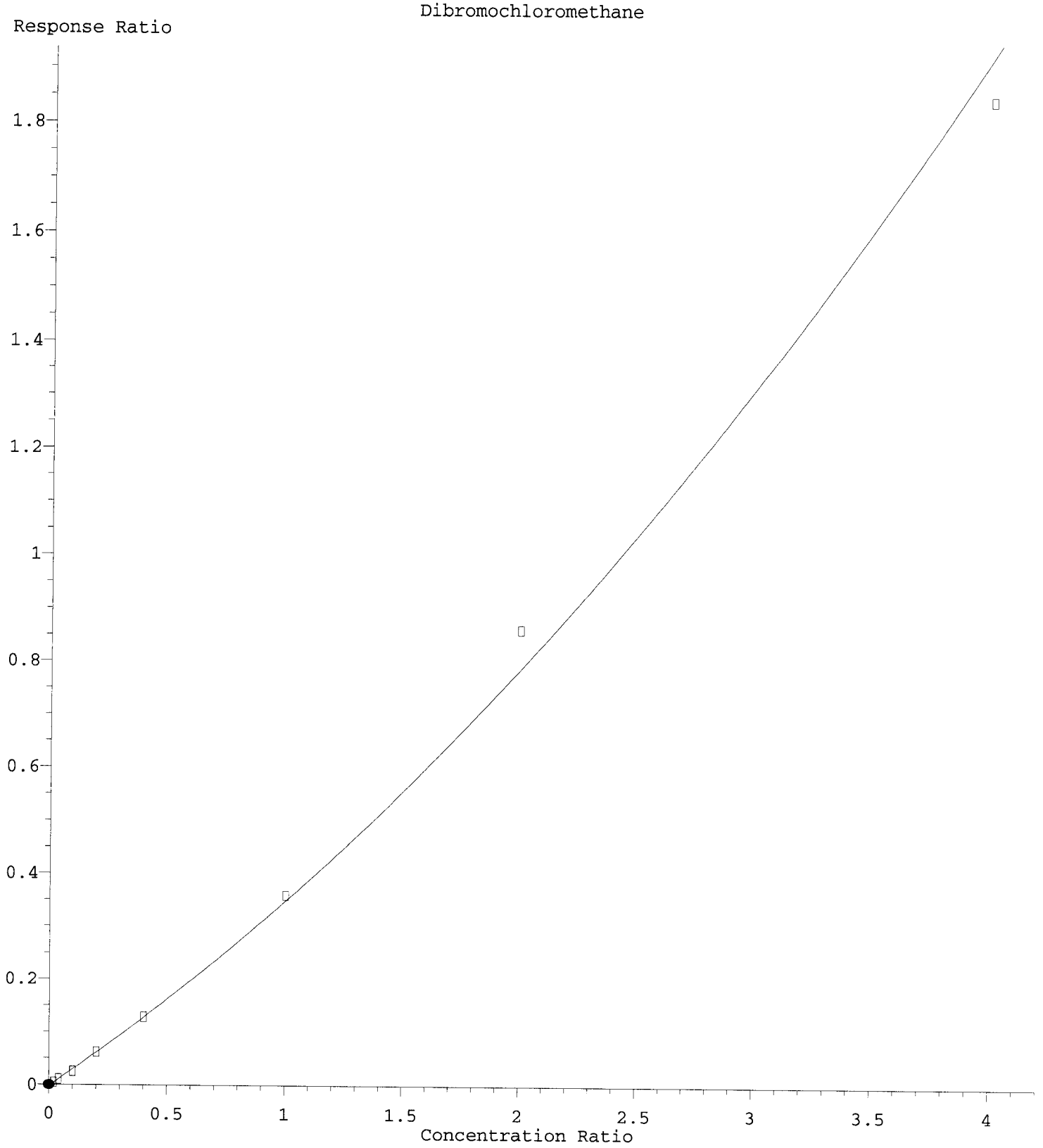
TIC: VJ19092630.D\data.ms

(42) Bromodichloromethane

7.239min (-0.018) 0.18 ug/L m

response 71

Ion	Exp%	Act%
82.90	100.00	100.00
84.90	61.80	0.00#
126.90	8.30	0.00
0.00	0.00	0.00



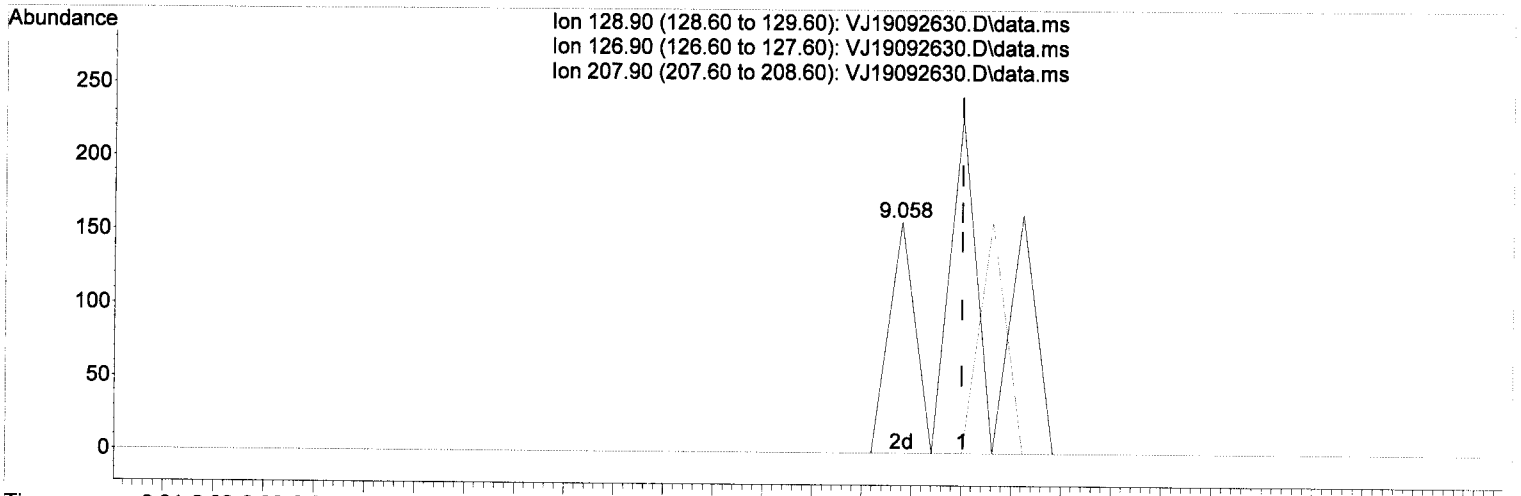
Int = 0.38

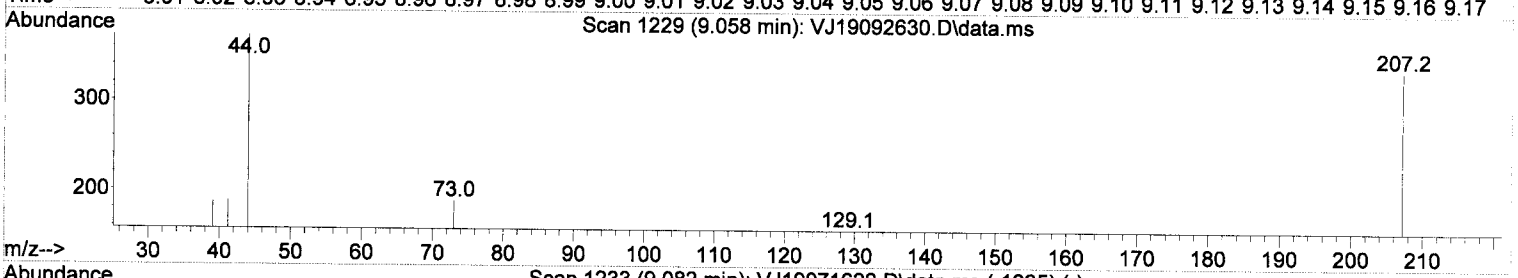
R = 4.36e-002 A*A + 3.07e-001 A - 2.02e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\V01909263+.M
Calibration Table Last Updated: Fri Sep 27 13:56:57 2019

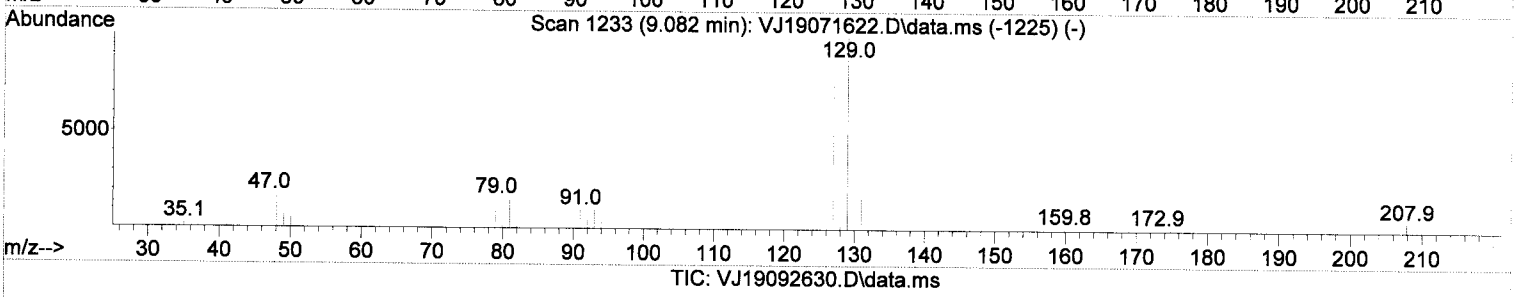
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\REQUANT\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 13:57:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration







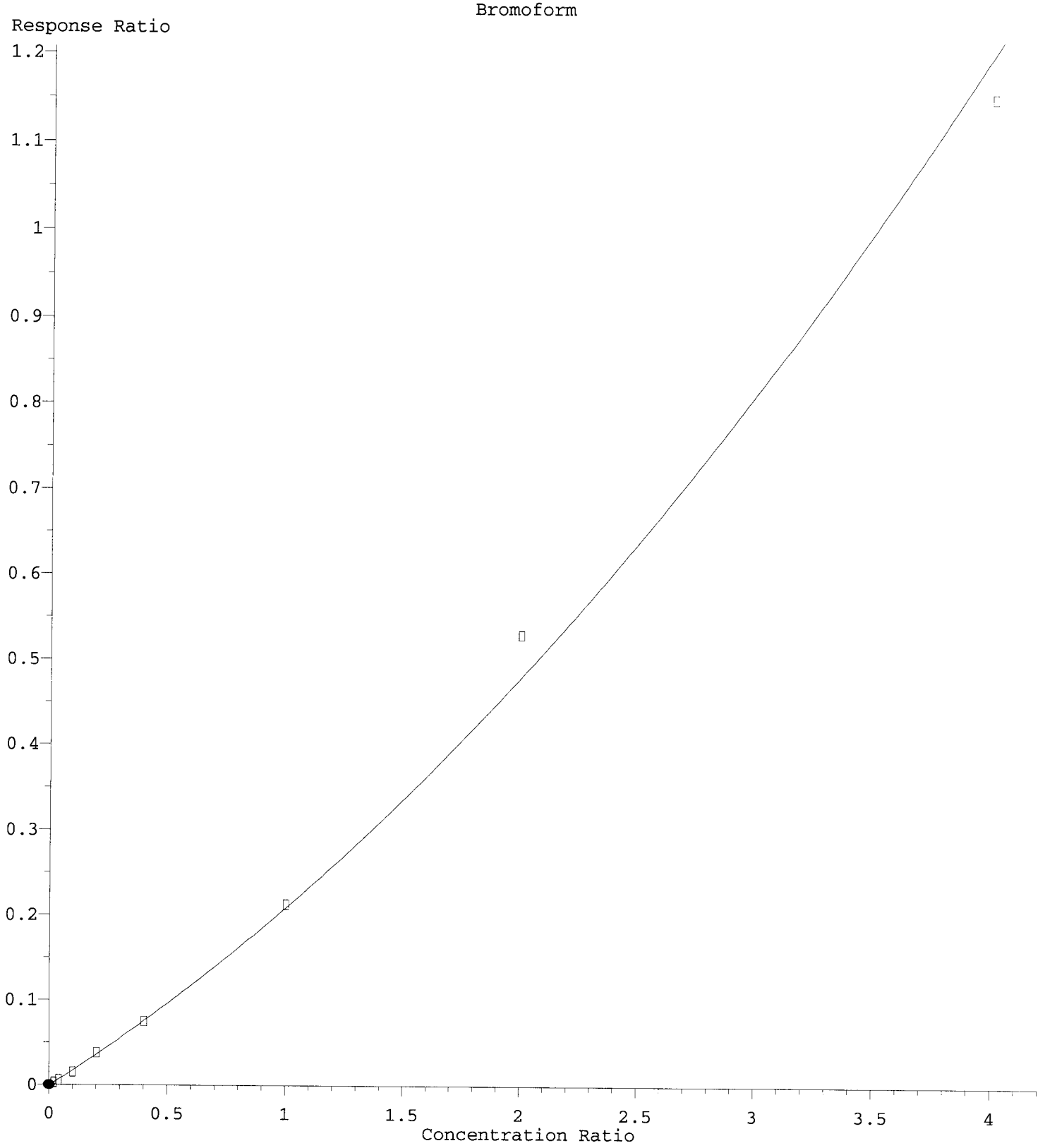
TIC: VJ19092630.D\data.ms

(51) Dibromochloromethane

9.058min (-0.012) 0.38 ug/L m

response 57

Ion	Exp%	Act%
128.90	100.00	100.00
126.90	77.40	0.00#
207.90	7.30	0.00
0.00	0.00	0.00



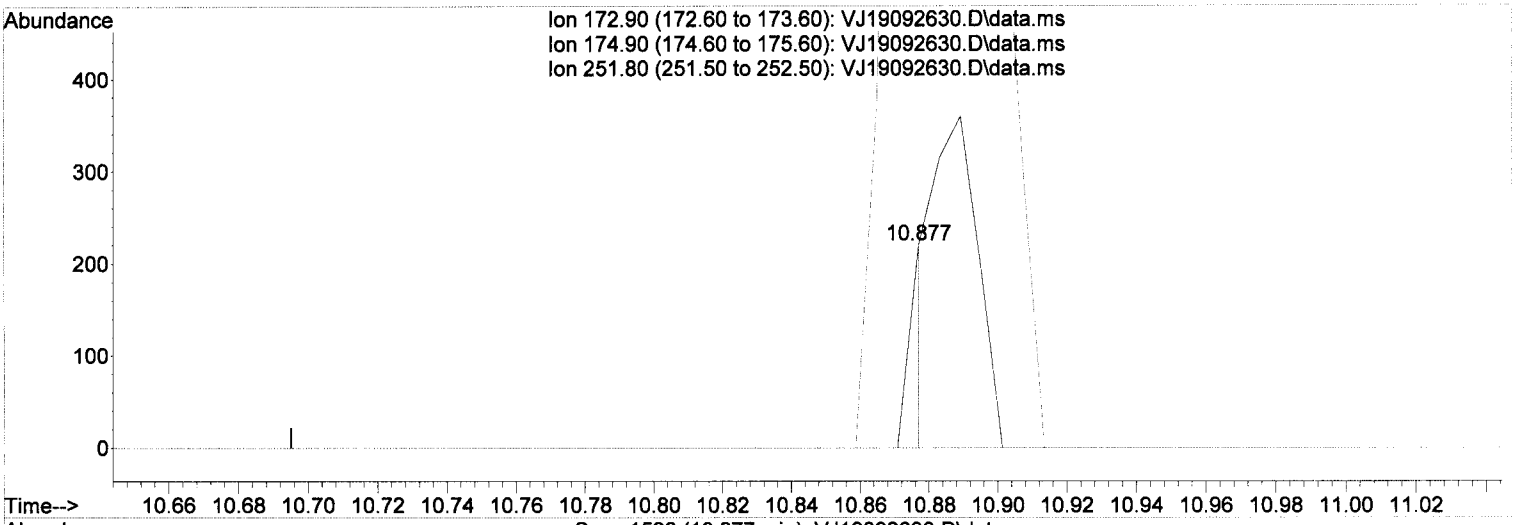
Int = 0.42

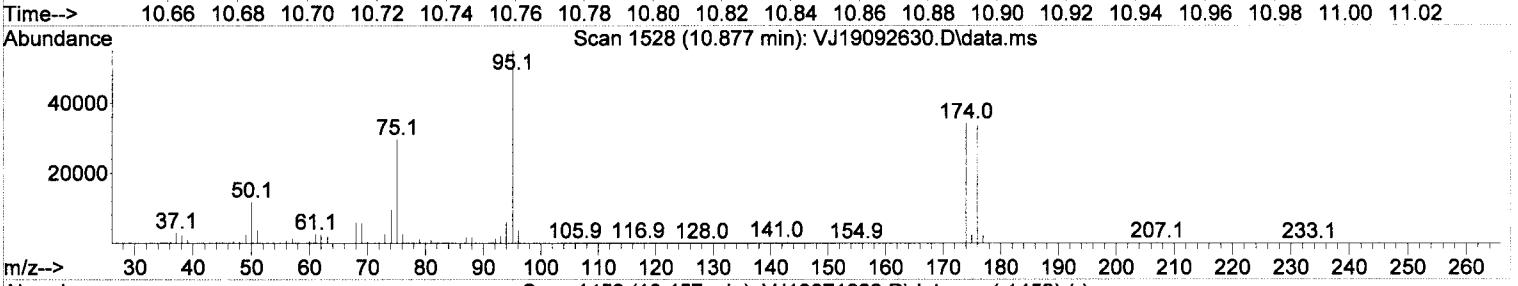
R = 3.01e-002 A*A + 1.80e-001 A - 1.10e-003
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a^2)
Method Name: C:\msdchem\1\methods\V3190925S+.M
Calibration Table Last Updated: Fri Sep 27 13:56:57 2019

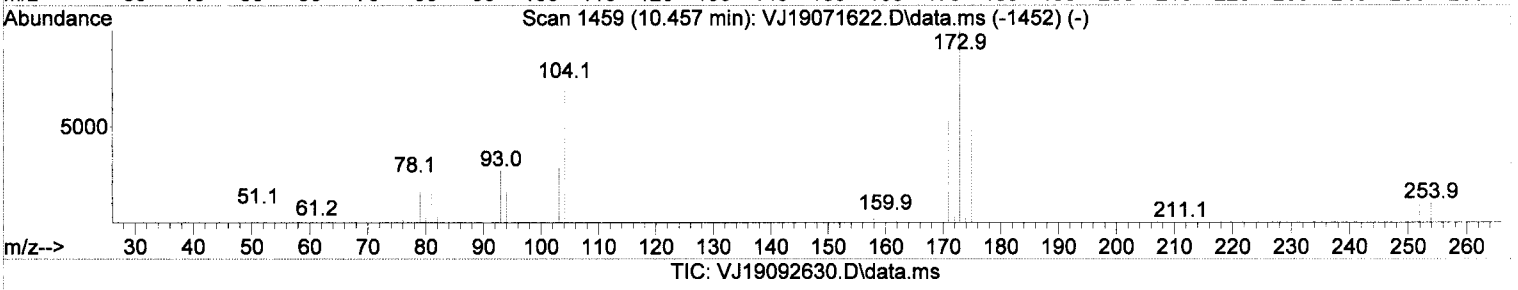
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\REQUANT\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 13:57:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration







TIC: VJ19092630.D\data.ms

(61) Bromoform (P)

10.877min (+ 0.432) 0.42 ug/L m

response 80

Ion	Exp%	Act%
172.90	100.00	100.00
174.90	48.50	1135.91#
251.80	13.90	0.00
0.00	0.00	0.00

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9I26051

Analysis Included
8260C Full List
8260C Iodomethane Add On
8260C Oxygenates

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9I26051-TUN1	MS Tune	Soil		A19G118	9/26/2019 8:35:00PM
9I26051-ICB1	Initial Cal Blank	Soil		A19G118	9/26/2019 9:02:00PM
9I26051-CAL1	Cal Standard	Soil	A19I319	"	9/26/2019 9:28:00PM
9I26051-CAL2	Cal Standard	Soil	A19I320	"	9/26/2019 9:55:00PM
9I26051-CAL3	Cal Standard	Soil	A19I321	"	9/26/2019 10:22:00PM
9I26051-CAL4	Cal Standard	Soil	A19I322	"	9/26/2019 10:49:00PM
9I26051-CAL5	Cal Standard	Soil	A19I323	"	9/26/2019 11:15:00PM
9I26051-CAL6	Cal Standard	Soil	A19I324	"	9/26/2019 11:42:00PM
9I26051-CAL7	Cal Standard	Soil	A19I325	"	9/27/2019 12:09:00AM
9I26051-CAL8	Cal Standard	Soil	A19I326	"	9/27/2019 12:35:00AM
9I26051-CAL9	Cal Standard	Soil	A19I327	"	9/27/2019 1:02:00AM
9I26051-CALA	Cal Standard	Soil	A19I328	"	9/27/2019 1:56:00AM
9I26051-CALB	Cal Standard	Soil	A19I329	"	9/27/2019 2:49:00AM
9I26051-ICV1	Initial Cal Check	Soil	A19I330	"	9/27/2019 4:10:00AM
9I26051-ICV2	Initial Cal Check	Soil	A19E195	"	9/27/2019 4:36:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: A9I2702 Instrument: VOA-GCMS10

8260C Full List Sequence: 9I26051 Matrix: Soil

9I26051-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CALB	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9I26051

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: **A9I2702** Instrument: **VOA-GCMS10**

8260C Full List Sequence: **9I26051** Matrix: **Soil**

9I26051-ICV1	Inst. MRL	ICV Level	Result	%Rec.	Qual
Iodomethane	20	20.0	**26.23**	131	E-05
9I26051-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\2019-09\9I26051\
Data File : VJ19092643.D
Acq On : 27 Sep 2019 4:10 am
Operator : TB
Sample : 9I26051-ICV1
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 27 15:46:44 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

9/27/19

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	103	0.00
2		Dichlorodifluoromethane	20.000	15.187	24.1	74	0.00
3	P	Chloromethane	20.000	17.775	11.1	94	0.00
4	C	Vinyl Chloride	20.000	19.127	4.4	98	0.00
5		Bromomethane	20.000	25.634	-28.2	126	0.00
6		Chloroethane	20.000	19.246	3.8	99	0.00
7		Trichlorofluoromethane	20.000	18.211	8.9	93	0.00
8		~~Ethanol~~	~~1250.000~~	~~47.114~~	~~96.2#~~	~~8~~	~~0.00~~
9	C	1,1-Dichloroethene	20.000	20.143	-0.7	103	0.00
10		Carbon Disulfide	20.000	21.554	-7.8	113	0.00
11		Freon 113	20.000	20.426	-2.1	100	0.00
12		Iodomethane	20.000	26.227	-31.1#	150	0.00
13		Methylene Chloride	20.000	19.453	2.7	99	0.00
14		Acetone	40.000	38.376	4.1	100	0.00
15		t-1,2-Dichloroethene	20.000	21.696	-8.5	106	0.00
16		n-Hexane	20.000	18.464	7.7	90	0.00
17		Methyl-tert-butyl-ether	20.000	18.684	6.6	100	0.00
18		~~tert-Butanol (TBA)~~	~~1250.000~~	~~0.000~~	~~100.0#~~	~~0~~	~~-4.28#~~
19		~~Diisopropyl ether (DIPE)~~	~~5.000~~	~~0.000~~	~~100.0#~~	~~0~~	~~-4.51#~~
20	P	1,1-Dichloroethane	20.000	21.397	-7.0	113	0.00
21		Acrylonitrile	20.000	20.543	-2.7	101	0.00
22		~~Ethyl-tert-butyl ether (ETB~~	~~5.000~~	~~0.000~~	~~100.0#~~	~~0~~	~~-4.88#~~
23		c-1,2-Dichloroethene	20.000	20.217	-1.1	105	0.00
24		2,2-Dichloropropane	20.000	17.138	14.3	90	0.00
25		Bromochloromethane	20.000	20.207	-1.0	101	0.00
26	C	Chloroform	20.000	20.211	-1.1	104	0.00
27		Carbon Tetrachloride	20.000	20.003	-0.0	102	0.00
28		Tetrahydrofuran	20.000	18.391	8.0	98	0.00
29		1,1,1-Trichloroethane	20.000	21.703	-8.5	106	0.00
30	S	Dibromofluoromethane (S)	50.000	51.116	-2.2	105	0.00
31		1,1-Dichloropropene	20.000	19.816	0.9	101	0.00
32		2-Butanone (MEK)	40.000	34.686	13.3	98	0.00
33		Benzene	20.000	19.220	3.9	101	0.00
34		~~tert-Amyl methyl ether (TAM~~	~~5.000~~	~~-1.000~~	~~120.0#~~	~~2~~	~~0.00~~
35		1,2-Dichloroethane (EDC)	20.000	20.431	-2.2	101	0.00
36		iso-Butyl Alcohol	500.000	526.419	-5.3	106	-0.01
37	S	1,4-Difluorobenzene (S)	50.000	49.661	0.7	103	0.00
38		Trichloroethene (TCE)	20.000	22.868	-14.3	109	0.00
39		~~tert-Amyl ethyl ether (TAEE~~	~~5.000~~	~~0.000~~	~~100.0#~~	~~0~~	~~6.91#~~
40		Dibromomethane	20.000	19.785	1.1	99	0.00
41	C	1,2-Dichloropropane	20.000	19.922	0.4	101	0.00
42		Bromodichloromethane	20.000	21.139	-5.7	105	0.00
43		Chlorobenzene-d5 (I)	50.000	50.000	0.0	102	0.00
44		c-1,3-Dichloropropene	20.000	20.608	-3.0	99	0.00
45	S	Toluene-d8 (S)	50.000	50.604	-1.2	102	0.00
46	C	Toluene	20.000	19.305	3.5	102	0.00
47		Tetrachloroethene (PCE)	20.000	20.960	-4.8	103	0.00
48		4-Methyl-2-Pentanone (MIBK)	40.000	38.504	3.7	98	0.00
49		t-1,3-Dichloropropene	20.000	20.294	-1.5	102	0.00
50		1,1,2-Trichloroethane	20.000	21.021	-5.1	105	0.00

E05

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092643.D
Acq On : 27 Sep 2019 4:10 am
Operator : TB
Sample : 9I26051-ICV1
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 27 15:46:44 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 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		Dibromochloromethane	20.000	21.231	-6.2	109	0.00
52		1,3-Dichloropropane	20.000	20.342	-1.7	101	0.00
53		1,2-Dibromoethane (EDB)	20.000	20.731	-3.7	102	0.00
54		2-Hexanone	40.000	38.194	4.5	100	0.00
55	P	Chlorobenzene	20.000	20.833	-4.2	102	0.00
56	C	Ethylbenzene	20.000	19.800	1.0	101	0.00
57		1,1,1,2-Tetrachloroethane	20.000	21.470	-7.3	104	0.00
58		m,p-Xylenes (2)	40.000	39.684	0.8	101	0.00
59		o-Xylene	20.000	19.753	1.2	102	0.00
60		Styrene	20.000	20.480	-2.4	103	0.00
61	P	Bromoform	20.000	22.425	-12.1	117	0.00
62		Isopropylbenzene	20.000	20.195	-1.0	101	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	49.460	1.1	102	0.00
65		Bromobenzene	20.000	21.268	-6.3	104	0.00
66		n-Propylbenzene	20.000	19.746	1.3	102	0.00
67	P	1,1,2,2-Tetrachloroethane	20.000	19.805	1.0	99	0.00
68		2-Chlorotoluene	20.000	21.027	-5.1	103	0.00
69		1,3,5-Trimethylbenzene	20.000	20.090	-0.4	103	0.00
70		1,2,3-Trichloropropane	20.000	20.250	-1.3	102	0.00
71		t-1,4-Dichloro-2-butene	20.000	17.675	11.6	94	0.00
72		4-Chlorotoluene	20.000	20.085	-0.4	105	0.00
73		tert-Butylbenzene	20.000	19.357	3.2	101	0.00
74		1,2,4-Trimethylbenzene	20.000	20.205	-1.0	103	0.00
75		sec-Butylbenzene	20.000	20.587	-2.9	104	0.00
76		4-Isopropyltoluene	20.000	20.944	-4.7	105	0.00
77		1,3-Dichlorobenzene	20.000	20.450	-2.2	106	0.00
78		1,4-Dichlorobenzene	20.000	20.809	-4.0	105	0.00
79		n-Butylbenzene	20.000	20.366	-1.8	107	0.00
80		1,2-Dichlorobenzene	20.000	20.804	-4.0	105	0.00
81		1,2-Dibromo-3-Chloropropane	20.000	19.792	1.0	107	0.00
82		Hexachlorobutadiene	20.000	22.969	-14.8	115	0.00
83		1,2,4-Trichlorobenzene	20.000	21.516	-7.6	107	0.00
84		Naphthalene	20.000	21.423	-7.1	106	0.00
85		1,2,3-Trichlorobenzene	20.000	21.585	-7.9	109	0.00

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

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092644.D
Acq On : 27 Sep 2019 4:36 am
Operator : TB
Sample : 9I26051-ICV2
Misc : 1X 5mL OXY ICV
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 27 15:40:16 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

9/27/19

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	102	0.00
2		Dichlorodifluoromethane	20.000	0.000	100.0#	0	-1.70#
3	P	Chloromethane	20.000	0.880	95.6#	5	0.00
4	C	Vinyl Chloride	20.000	0.158	99.2#	1	0.00
5		Bromomethane	20.000	3.726	81.4#	30	0.00
6		Chloroethane	20.000	1.803	91.0#	9	0.02
7		Trichlorofluoromethane	20.000	0.000	100.0#	0	-2.60#
8		Ethanol	1250.000	1090.118	12.8	101	0.00
9	C	1,1-Dichloroethene	20.000	0.162	99.2#	1	0.00
10		Carbon Disulfide	20.000	0.495	97.5#	3	0.00
11		Freon 113	20.000	0.041	99.8#	0	0.00
12		Iodomethane	20.000	7.510	62.5#	43	0.00
13		Methylene Chloride	20.000	-1.000	105.0#	10	0.00
14		Acetone	40.000	-0.443	101.1#	4	0.00
15		t-1,2-Dichloroethene	20.000	0.289	98.6#	1	0.00
16		n-Hexane	20.000	0.000	100.0#	0	-4.04#
17		Methyl-tert-butyl-ether	20.000	0.251	98.7#	1	0.00
18		tert-Butanol (TBA)	1250.000	1273.723	-1.9	104	0.00
19		Diisopropyl ether (DIPE)	5.000	5.069	-1.4	110	0.00
20	P	1,1-Dichloroethane	20.000	0.157	99.2#	1	0.00
21		Acrylonitrile	20.000	0.000	100.0#	0	-4.64#
22		Ethyl-tert-butyl ether (ETB	5.000	5.047	-0.9	107	0.00
23		c-1,2-Dichloroethene	20.000	0.212	98.9#	1	0.00
24		2,2-Dichloropropane	20.000	0.170	99.1#	1	0.00
25		Bromochloromethane	20.000	0.037	99.8#	0	0.00
26	C	Chloroform	20.000	0.169	99.2#	1	0.00
27		Carbon Tetrachloride	20.000	0.000	100.0#	0	-5.56#
28		Tetrahydrofuran	20.000	0.255	98.7#	1	0.00
29		1,1,1-Trichloroethane	20.000	0.134	99.3#	1	0.00
30	S	Dibromofluoromethane (S)	50.000	50.764	-1.5	103	0.00
31		1,1-Dichloropropene	20.000	0.285	98.6#	1	0.00
32		2-Butanone (MEK)	40.000	0.587	98.5#	2	0.01
33		Benzene	20.000	0.231	98.8#	1	0.00
34		tert-Amyl methyl ether (TAM	5.000	4.989	0.2	109	0.00
35		1,2-Dichloroethane (EDC)	20.000	0.058	99.7#	0	0.00
36		iso-Butyl Alcohol	500.000	2.778	99.4#	1	0.01
37	S	1,4-Difluorobenzene (S)	50.000	50.038	-0.1	103	0.00
38		Trichloroethene (TCE)	20.000	0.286	98.6#	1	0.00
39		tert-Amyl ethyl ether (TAEE	5.000	4.955	0.9	107	0.00
40		Dibromomethane	20.000	0.000	100.0#	0	-7.07#
41	C	1,2-Dichloropropane	20.000	0.092	99.5#	0	0.00
42		Bromodichloromethane	20.000	0.000	100.0#	0	-7.26#
43		Chlorobenzene-d5 (I)	50.000	50.000	0.0	102	0.00
44		c-1,3-Dichloropropene	20.000	0.152	99.2#	1	0.00
45	S	Toluene-d8 (S)	50.000	50.562	-1.1	101	0.00
46	C	Toluene	20.000	0.245	98.8#	1	0.00
47		Tetrachloroethene (PCE)	20.000	0.269	98.7#	1	0.00
48		4-Methyl-2-Pentanone (MIBK)	40.000	0.017	100.0#	0	0.00
49		t-1,3-Dichloropropene	20.000	0.114	99.4#	1	0.00
50		1,1,2-Trichloroethane	20.000	0.000	100.0#	0	-8.88#

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092644.D
Acq On : 27 Sep 2019 4:36 am
Operator : TB
Sample : 9I26051-ICV2
Misc : 1X 5mL OXY ICV
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 27 15:40:16 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 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		Dibromochloromethane	20.000	0.000	100.0#	0	-9.07#
52		1,3-Dichloropropane	20.000	0.047	99.8#	0	0.00
53		1,2-Dibromoethane (EDB)	20.000	0.000	100.0#	0	-9.31#
54		2-Hexanone	40.000	0.046	99.9#	0	0.00
55	P	Chlorobenzene	20.000	0.253	98.7#	1	0.00
56	C	Ethylbenzene	20.000	0.253	98.7#	1	0.00
57		1,1,1,2-Tetrachloroethane	20.000	0.038	99.8#	0	-0.01
58		m,p-Xylenes (2)	40.000	0.562	98.6#	1	0.00
59		o-Xylene	20.000	0.241	98.8#	1	0.00
60		Styrene	20.000	0.213	98.9#	1	0.00
61	P	Bromoform	20.000	0.000	100.0#	0	-10.45#
62		Isopropylbenzene	20.000	0.257	98.7#	1	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	51.994	-4.0	100	0.00
65		Bromobenzene	20.000	0.223	98.9#	1	0.00
66		n-Propylbenzene	20.000	0.361	98.2#	2	0.00
67	P	1,1,2,2-Tetrachloroethane	20.000	0.053	99.7#	0	0.00
68		2-Chlorotoluene	20.000	0.282	98.6#	1	0.00
69		1,3,5-Trimethylbenzene	20.000	0.298	98.5#	1	0.00
70		1,2,3-Trichloropropane	20.000	0.000	100.0#	0	-11.16#
71		t-1,4-Dichloro-2-butene	20.000	0.000	100.0#	0	-11.19#
72		4-Chlorotoluene	20.000	0.367	98.2#	2	0.00
73		tert-Butylbenzene	20.000	0.248	98.8#	1	0.00
74		1,2,4-Trimethylbenzene	20.000	0.334	98.3#	2	0.00
75		sec-Butylbenzene	20.000	0.333	98.3#	2	0.00
76		4-Isopropyltoluene	20.000	0.395	98.0#	2	0.00
77		1,3-Dichlorobenzene	20.000	0.407	98.0#	2	0.00
78		1,4-Dichlorobenzene	20.000	0.405	98.0#	2	0.00
79		n-Butylbenzene	20.000	0.498	97.5#	2	0.00
80		1,2-Dichlorobenzene	20.000	0.260	98.7#	1	0.00
81		1,2-Dibromo-3-Chloropropane	20.000	0.000	100.0#	0	-12.70#
82		Hexachlorobutadiene	20.000	0.705	96.5#	3	0.00
83		1,2,4-Trichlorobenzene	20.000	0.592	97.0#	3	0.00
84		Naphthalene	20.000	0.220	98.9#	1	0.00
85		1,2,3-Trichlorobenzene	20.000	0.462	97.7#	2	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

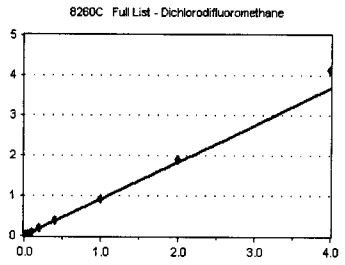
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

Dichlorodifluoromethane

Curve Fit: **AVERAGE RF**

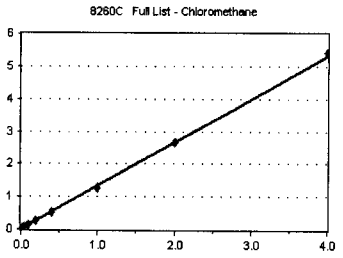


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL4	1	1395	0.851	1.70
9I26051-CAL5	2	2407	0.744	1.69
9I26051-CAL6	5	7777	0.941	1.70
9I26051-CAL7	10	15186	0.942	1.69
9I26051-CAL8	20	32574	0.967	1.70
9I26051-CAL9	50	80374	0.913	1.69
9I26051-CALA	100	165982	0.949	1.69
9I26051-CALB	200	361804	1.031	1.70

AVE RF **0.917** RF RSD **9.39** AVE RT **1.69**

Chloromethane

Curve Fit: **AVERAGE RF**

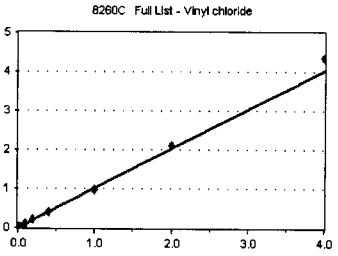


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~1044~~	~~3.127~~	~~1.89~~
~~9I26051-CAL3~~	~~0.4~~	~~1467~~	~~2.171~~	~~1.90~~
9I26051-CAL4	1	2599	1.585	1.90
9I26051-CAL5	2	4009	1.239	1.89
9I26051-CAL6	5	10328	1.250	1.90
9I26051-CAL7	10	21347	1.324	1.90
9I26051-CAL8	20	43595	1.294	1.90
9I26051-CAL9	50	110944	1.260	1.90
9I26051-CALA	100	232480	1.329	1.90
9I26051-CALB	200	475243	1.354	1.90

AVE RF **1.329** RF RSD **8.36** AVE RT **1.90**

Vinyl chloride

Curve Fit: **AVERAGE RF**

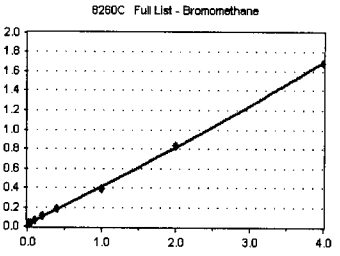


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	708	1.048	2.00
9I26051-CAL4	1	1578	0.962	2.01
9I26051-CAL5	2	3030	0.937	1.99
9I26051-CAL6	5	7983	0.966	2.01
9I26051-CAL7	10	16459	1.021	2.01
9I26051-CAL8	20	34233	1.016	2.01
9I26051-CAL9	50	86780	0.985	2.00
9I26051-CALA	100	185157	1.059	2.00
9I26051-CALB	200	382094	1.088	2.00

AVE RF **1.009** RF RSD **4.99** AVE RT **2.00**

Bromomethane

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



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~2014~~	~~11.835~~	~~2.34~~
~~9I26051-CAL2~~	~~0.2~~	~~2043~~	~~6.119~~	~~2.34~~
~~9I26051-CAL3~~	~~0.4~~	~~2374~~	~~3.513~~	~~2.34~~
9I26051-CAL4	1	2822	1.721	2.35
9I26051-CAL5	2	2937	0.908	2.34
9I26051-CAL6	5	5311	0.643	2.35
9I26051-CAL7	10	8414	0.522	2.35
9I26051-CAL8	20	15032	0.446	2.35
9I26051-CAL9	50	34647	0.393	2.34
9I26051-CALA	100	72442	0.414	2.34
9I26051-CALB	200	148437	0.423	2.35

AVE RF **0.684** RF RSD **66.23** AVE RT **2.35**

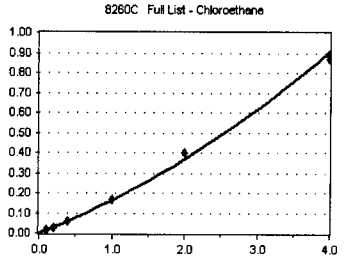
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

Chloroethane

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

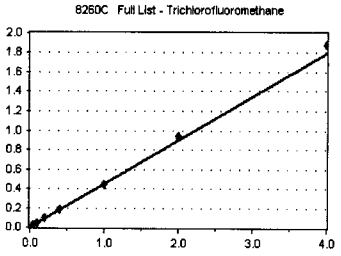


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL5~~	~~2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL6	5	1284	0.155	2.47
9I26051-CAL7	10	2040	0.127	2.46
9I26051-CAL8	20	5042	0.150	2.47
9I26051-CAL9	50	14728	0.167	2.47
9I26051-CALA	100	35122	0.201	2.47
9I26051-CALB	200	76606	0.218	2.48

AVE RF **0.170** RF RSD **20.08** AVE RT **2.47**

Trichlorofluoromethane

Curve Fit: **AVERAGE RF**

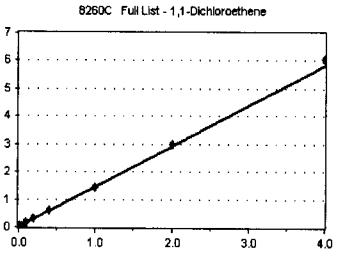


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL4~~	~~1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL5	2	1366	0.422	2.59
9I26051-CAL6	5	3460	0.419	2.60
9I26051-CAL7	10	7442	0.462	2.60
9I26051-CAL8	20	15256	0.453	2.60
9I26051-CAL9	50	39290	0.446	2.60
9I26051-CALA	100	82683	0.473	2.60
9I26051-CALB	200	165428	0.471	2.60

AVE RF **0.449** RF RSD **4.86** AVE RT **2.60**

1,1-Dichloroethene

Curve Fit: **AVERAGE RF**

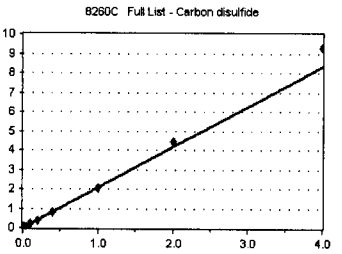


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	507	1.519	3.14
9I26051-CAL3	0.4	958	1.418	3.14
9I26051-CAL4	1	2333	1.423	3.15
9I26051-CAL5	2	4576	1.414	3.13
9I26051-CAL6	5	11926	1.444	3.15
9I26051-CAL7	10	23758	1.473	3.14
9I26051-CAL8	20	49575	1.471	3.14
9I26051-CAL9	50	126525	1.437	3.14
9I26051-CALA	100	260855	1.492	3.14
9I26051-CALB	200	532245	1.516	3.15

AVE RF **1.461** RF RSD **2.69** AVE RT **3.14**

Carbon disulfide

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	822	2.462	3.15
9I26051-CAL3	0.4	1342	1.986	3.15
9I26051-CAL4	1	3107	1.895	3.16
9I26051-CAL5	2	6011	1.858	3.15
9I26051-CAL6	5	16321	1.976	3.16
9I26051-CAL7	10	32614	2.023	3.15
9I26051-CAL8	20	68694	2.039	3.15
9I26051-CAL9	50	180413	2.049	3.15
9I26051-CALA	100	389633	2.228	3.15
9I26051-CALB	200	813775	2.318	3.15

AVE RF **2.083** RF RSD **9.24** AVE RT **3.15**

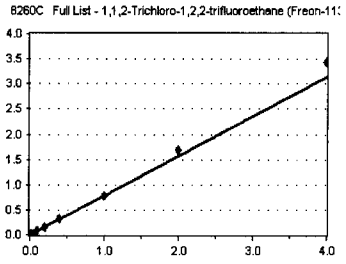
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

1,1,2-Trichloro-1,2,2-trifluoroeth

Curve Fit: **AVERAGE RF**

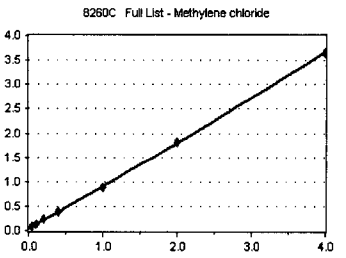


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	422	0.624	3.20
9I26051-CAL4	1	1302	0.794	3.20
9I26051-CAL5	2	2441	0.755	3.19
9I26051-CAL6	5	6278	0.760	3.20
9I26051-CAL7	10	13011	0.807	3.20
9I26051-CAL8	20	27543	0.818	3.19
9I26051-CAL9	50	69489	0.789	3.19
9I26051-CALA	100	147776	0.845	3.19
9I26051-CALB	200	301617	0.859	3.20

AVE RF **0.783** RF RSD **8.80** AVE RT **3.20**

Methylene chloride

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

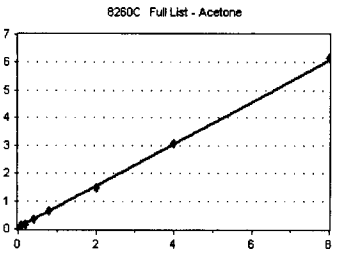


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~2577~~	~~15.144~~	~~3.78~~
~~9I26051-CAL2~~	~~0.2~~	~~4596~~	~~13.766~~	~~3.78~~
~~9I26051-CAL3~~	~~0.4~~	~~4661~~	~~6.897~~	~~3.78~~
~~9I26051-CAL4~~	~~1~~	~~3800~~	~~2.318~~	~~3.78~~
9I26051-CAL5	2	6720	2.077	3.78
9I26051-CAL6	5	11168	1.352	3.78
9I26051-CAL7	10	18608	1.154	3.78
9I26051-CAL8	20	33415	0.992	3.78
9I26051-CAL9	50	77692	0.882	3.78
9I26051-CALA	100	159473	0.912	3.78
9I26051-CALB	200	321520	0.916	3.78

AVE RF **1.184** RF RSD **36.19** AVE RT **3.78**

Acetone

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

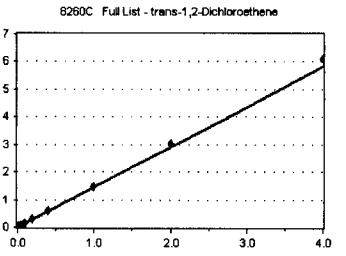


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.8~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL4~~	~~2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL5	4	8350	1.291	3.87
9I26051-CAL6	10	13465	0.815	3.88
9I26051-CAL7	20	28539	0.885	3.88
9I26051-CAL8	40	52930	0.786	3.88
9I26051-CAL9	100	128682	0.731	3.88
9I26051-CALA	200	267638	0.765	3.87
9I26051-CALB	400	540074	0.769	3.88

AVE RF **0.863** RF RSD **22.56** AVE RT **3.88**

trans-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	462	1.384	3.95
9I26051-CAL3	0.4	844	1.249	3.95
9I26051-CAL4	1	2257	1.376	3.95
9I26051-CAL5	2	4912	1.518	3.94
9I26051-CAL6	5	12117	1.467	3.95
9I26051-CAL7	10	24655	1.529	3.95
9I26051-CAL8	20	51376	1.525	3.95
9I26051-CAL9	50	128795	1.462	3.95
9I26051-CALA	100	264663	1.514	3.95
9I26051-CALB	200	533073	1.518	3.95

AVE RF **1.454** RF RSD **6.31** AVE RT **3.95**

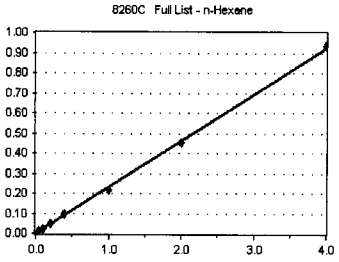
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

n-Hexane

Curve Fit: **AVERAGE RF**

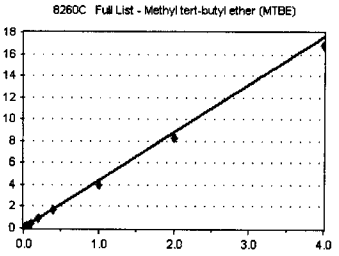


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL4~~	~~1~~	~~420~~	~~0.256~~	~~4.04~~
9I26051-CAL5	2	754	0.233	4.03
9I26051-CAL6	5	1898	0.230	4.05
9I26051-CAL7	10	3777	0.234	4.05
9I26051-CAL8	20	8248	0.245	4.04
9I26051-CAL9	50	18920	0.215	4.04
9I26051-CALA	100	39871	0.228	4.05
9I26051-CALB	200	82276	0.234	4.05

AVE RF **0.231** RF RSD **3.90** AVE RT **4.04**

Methyl tert-butyl ether (MTBE)

Curve Fit: **AVERAGE RF**

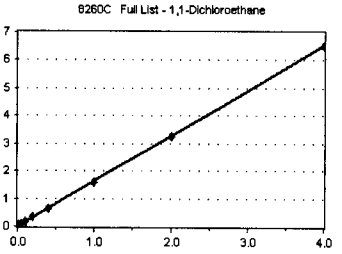


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	3475	5.142	4.11
9I26051-CAL4	1	8067	4.920	4.12
9I26051-CAL5	2	14610	4.516	4.11
9I26051-CAL6	5	33952	4.110	4.12
9I26051-CAL7	10	69438	4.306	4.12
9I26051-CAL8	20	141796	4.209	4.11
9I26051-CAL9	50	353962	4.019	4.11
9I26051-CALA	100	726160	4.153	4.11
9I26051-CALB	200	1479305	4.214	4.11

AVE RF **4.399** RF RSD **8.82** AVE RT **4.11**

1,1-Dichloroethane

Curve Fit: **AVERAGE RF**

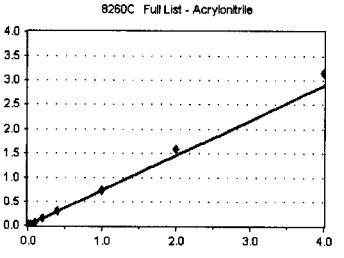


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	622	1.863	4.59
9I26051-CAL3	0.4	1089	1.612	4.59
9I26051-CAL4	1	2592	1.581	4.58
9I26051-CAL5	2	5221	1.614	4.58
9I26051-CAL6	5	13288	1.609	4.59
9I26051-CAL7	10	26789	1.661	4.59
9I26051-CAL8	20	53896	1.600	4.58
9I26051-CAL9	50	139892	1.588	4.58
9I26051-CALA	100	284678	1.628	4.58
9I26051-CALB	200	572397	1.631	4.59

AVE RF **1.639** RF RSD **5.01** AVE RT **4.58**

Acrylonitrile

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL4	1	954	0.582	4.64
9I26051-CAL5	2	1969	0.609	4.63
9I26051-CAL6	5	6000	0.726	4.65
9I26051-CAL7	10	12807	0.794	4.65
9I26051-CAL8	20	25339	0.752	4.64
9I26051-CAL9	50	65047	0.739	4.64
9I26051-CALA	100	137247	0.785	4.64
9I26051-CALB	200	276579	0.788	4.64

AVE RF **0.722** RF RSD **11.38** AVE RT **4.64**

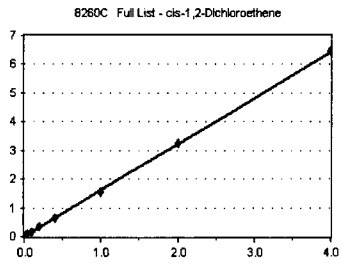
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

cis-1,2-Dichloroethene

Curve Fit: **AVERAGE RF**

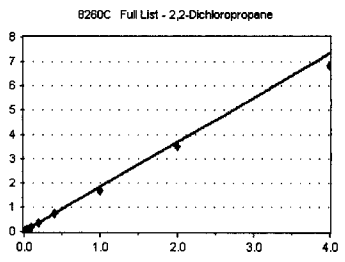


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	609	1.824	5.13
9I26051-CAL3	0.4	933	1.381	5.13
9I26051-CAL4	1	2632	1.605	5.13
9I26051-CAL5	2	5194	1.606	5.13
9I26051-CAL6	5	13062	1.581	5.13
9I26051-CAL7	10	27201	1.687	5.13
9I26051-CAL8	20	53679	1.593	5.13
9I26051-CAL9	50	137723	1.564	5.13
9I26051-CALA	100	284599	1.628	5.13
9I26051-CALB	200	569504	1.622	5.13

AVE RF **1.609** RF RSD **6.81** AVE RT **5.13**

2,2-Dichloropropane

Curve Fit: **AVERAGE RF**

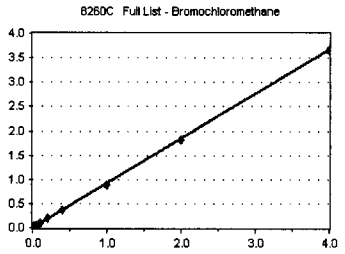


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	1479	2.189	5.24
9I26051-CAL4	1	3177	1.938	5.24
9I26051-CAL5	2	6209	1.919	5.24
9I26051-CAL6	5	14543	1.761	5.24
9I26051-CAL7	10	29404	1.824	5.24
9I26051-CAL8	20	60427	1.794	5.24
9I26051-CAL9	50	148869	1.690	5.24
9I26051-CALA	100	305440	1.747	5.24
9I26051-CALB	200	598046	1.704	5.24

AVE RF **1.840** RF RSD **8.50** AVE RT **5.24**

Bromochloromethane

Curve Fit: **AVERAGE RF**

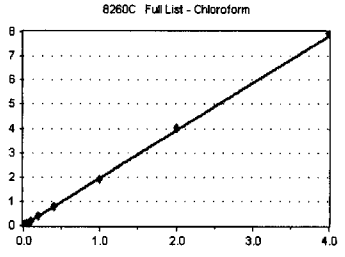


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	606	0.897	5.34
9I26051-CAL4	1	1510	0.921	5.34
9I26051-CAL5	2	2920	0.903	5.34
9I26051-CAL6	5	7462	0.903	5.34
9I26051-CAL7	10	16085	0.998	5.34
9I26051-CAL8	20	31790	0.944	5.34
9I26051-CAL9	50	78798	0.895	5.34
9I26051-CALA	100	159504	0.912	5.34
9I26051-CALB	200	319850	0.911	5.34

AVE RF **0.920** RF RSD **3.54** AVE RT **5.34**

Chloroform

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	731	2.189	5.43
9I26051-CAL3	0.4	1259	1.863	5.43
9I26051-CAL4	1	3029	1.847	5.42
9I26051-CAL5	2	6073	1.877	5.42
9I26051-CAL6	5	15960	1.932	5.42
9I26051-CAL7	10	32742	2.031	5.42
9I26051-CAL8	20	66134	1.963	5.42
9I26051-CAL9	50	167945	1.907	5.42
9I26051-CALA	100	352255	2.014	5.42
9I26051-CALB	200	699080	1.991	5.42

AVE RF **1.962** RF RSD **5.21** AVE RT **5.42**

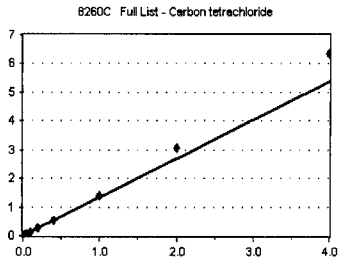
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

Carbon tetrachloride

Curve Fit: **AVERAGE RF**

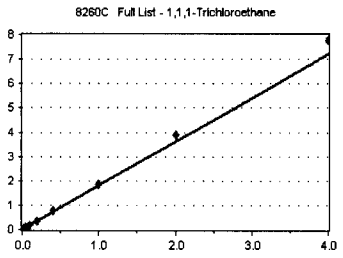


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~370~~	~~1.108~~	~~5.56~~
~~9I26051-CAL3~~	~~0.4~~	~~711~~	~~1.052~~	~~5.56~~
9I26051-CAL4	1	2021	1.233	5.57
9I26051-CAL5	2	3787	1.171	5.56
9I26051-CAL6	5	10019	1.213	5.56
9I26051-CAL7	10	20786	1.289	5.56
9I26051-CAL8	20	45804	1.360	5.56
9I26051-CAL9	50	122184	1.387	5.56
9I26051-CALA	100	267011	1.527	5.56
9I26051-CALB	200	557712	1.589	5.56

AVE RF **1.346** RF RSD **11.17** AVE RT **5.56**

1,1,1-Trichloroethane

Curve Fit: **AVERAGE RF**

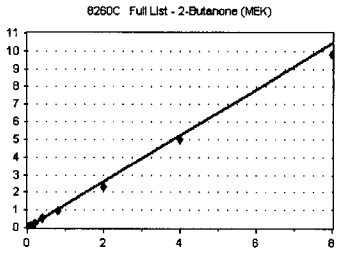


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	447	1.339	5.62
9I26051-CAL3	0.4	1203	1.780	5.63
9I26051-CAL4	1	3061	1.867	5.62
9I26051-CAL5	2	5828	1.801	5.62
9I26051-CAL6	5	14839	1.796	5.63
9I26051-CAL7	10	29578	1.834	5.63
9I26051-CAL8	20	64265	1.908	5.63
9I26051-CAL9	50	163298	1.854	5.63
9I26051-CALA	100	341926	1.955	5.63
9I26051-CALB	200	682795	1.945	5.63

AVE RF **1.808** RF RSD **9.72** AVE RT **5.63**

2-Butanone (MEK)

Curve Fit: **AVERAGE RF**

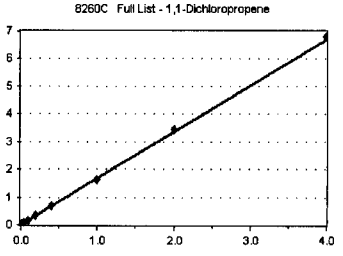


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.8~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL4	2	5626	1.716	5.75
9I26051-CAL5	4	9277	1.434	5.74
9I26051-CAL6	10	20088	1.216	5.74
9I26051-CAL7	20	40941	1.270	5.75
9I26051-CAL8	40	80216	1.190	5.74
9I26051-CAL9	100	203004	1.153	5.74
9I26051-CALA	200	436266	1.247	5.74
9I26051-CALB	400	859752	1.225	5.74

AVE RF **1.306** RF RSD **14.19** AVE RT **5.74**

1,1-Dichloropropene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	1088	1.610	5.76
9I26051-CAL4	1	2801	1.708	5.76
9I26051-CAL5	2	5503	1.701	5.75
9I26051-CAL6	5	13524	1.637	5.76
9I26051-CAL7	10	26315	1.632	5.76
9I26051-CAL8	20	56524	1.678	5.76
9I26051-CAL9	50	143921	1.634	5.76
9I26051-CALA	100	301123	1.722	5.76
9I26051-CALB	200	598593	1.705	5.76

AVE RF **1.670** RF RSD **2.49** AVE RT **5.76**

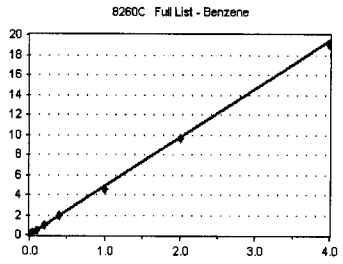
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

Benzene

Curve Fit: **AVERAGE RF**

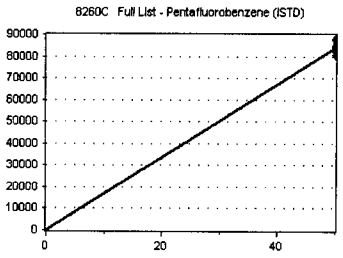


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	929	5.459	6.01
9I26051-CAL2	0.2	1839	5.508	6.01
9I26051-CAL3	0.4	3388	5.014	6.00
9I26051-CAL4	1	7846	4.785	6.01
9I26051-CAL5	2	15470	4.782	6.00
9I26051-CAL6	5	37138	4.496	6.01
9I26051-CAL7	10	76211	4.726	6.01
9I26051-CAL8	20	160743	4.771	6.01
9I26051-CAL9	50	396436	4.502	6.01
9I26051-CALA	100	839847	4.803	6.01
9I26051-CALB	200	1669999	4.757	6.01

AVE RF **4.873** RF RSD **6.85** AVE RT **6.01**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

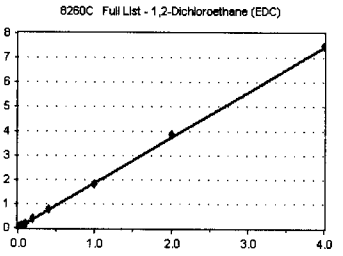


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	50	85083	1701.660	6.10
9I26051-CAL2	50	83469	1669.380	6.10
9I26051-CAL3	50	84470	1689.400	6.10
9I26051-CAL4	50	81984	1639.680	6.10
9I26051-CAL5	50	80878	1617.560	6.09
9I26051-CAL6	50	82605	1652.100	6.10
9I26051-CAL7	50	80621	1612.420	6.10
9I26051-CAL8	50	84226	1684.520	6.10
9I26051-CAL9	50	88066	1761.320	6.10
9I26051-CALA	50	87434	1748.680	6.10
9I26051-CALB	50	87764	1755.280	6.10

AVE RF **1684.727** RF RSD **3.16** AVE RT **6.10**

1,2-Dichloroethane (EDC)

Curve Fit: **AVERAGE RF**

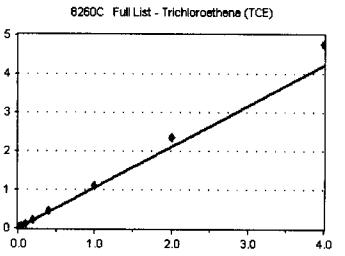


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	1178	1.743	6.21
9I26051-CAL4	1	2955	1.802	6.22
9I26051-CAL5	2	6019	1.861	6.21
9I26051-CAL6	5	15109	1.829	6.22
9I26051-CAL7	10	31858	1.976	6.22
9I26051-CAL8	20	65007	1.930	6.22
9I26051-CAL9	50	160338	1.821	6.21
9I26051-CALA	100	336326	1.923	6.21
9I26051-CALB	200	658074	1.875	6.22

AVE RF **1.862** RF RSD **3.89** AVE RT **6.21**

Trichloroethene (TCE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	227	0.680	6.63
9I26051-CAL3	0.4	616	0.912	6.63
9I26051-CAL4	1	1660	1.012	6.63
9I26051-CAL5	2	3608	1.115	6.63
9I26051-CAL6	5	9083	1.100	6.63
9I26051-CAL7	10	18272	1.133	6.62
9I26051-CAL8	20	38197	1.134	6.63
9I26051-CAL9	50	96909	1.100	6.63
9I26051-CALA	100	206156	1.179	6.63
9I26051-CALB	200	417510	1.189	6.63

AVE RF **1.055** RF RSD **14.69** AVE RT **6.63**

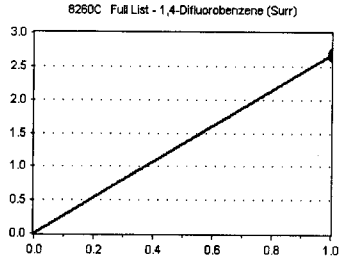
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

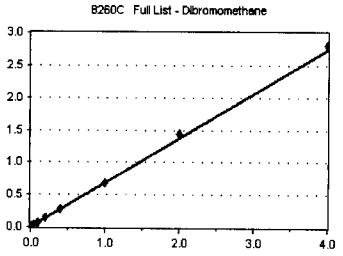


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	50	230170	2.705	6.66
9I26051-CAL2	50	225508	2.702	6.66
9I26051-CAL3	50	226191	2.678	6.66
9I26051-CAL4	50	217352	2.651	6.66
9I26051-CAL5	50	215594	2.666	6.66
9I26051-CAL6	50	218916	2.650	6.66
9I26051-CAL7	50	212867	2.640	6.66
9I26051-CAL8	50	222976	2.647	6.66
9I26051-CAL9	50	234393	2.662	6.66
9I26051-CALA	50	233929	2.675	6.66
9I26051-CALB	50	237056	2.701	6.66

AVE RF **2.671** RF RSD **0.88** AVE RT **6.66**

Dibromomethane

Curve Fit: **AVERAGE RF**

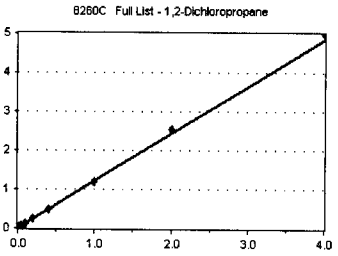


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.4~~	~~307~~	~~0.454~~	~~7.07~~
9I26051-CAL4	1	965	0.589	7.07
9I26051-CAL5	2	2282	0.705	7.06
9I26051-CAL6	5	5570	0.674	7.08
9I26051-CAL7	10	11394	0.707	7.07
9I26051-CAL8	20	23659	0.702	7.07
9I26051-CAL9	50	59717	0.678	7.07
9I26051-CALA	100	126198	0.722	7.07
9I26051-CALB	200	246771	0.703	7.07

AVE RF **0.685** RF RSD **6.12** AVE RT **7.07**

1,2-Dichloropropane

Curve Fit: **AVERAGE RF**

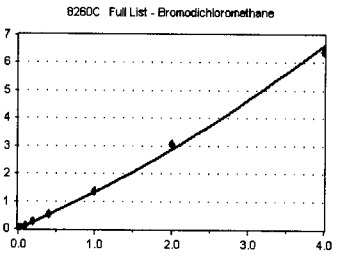


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	782	1.157	7.18
9I26051-CAL4	1	1993	1.215	7.18
9I26051-CAL5	2	3788	1.171	7.18
9I26051-CAL6	5	9704	1.175	7.18
9I26051-CAL7	10	19994	1.240	7.18
9I26051-CAL8	20	41500	1.232	7.18
9I26051-CAL9	50	104745	1.189	7.18
9I26051-CALA	100	222657	1.273	7.18
9I26051-CALB	200	438077	1.248	7.18

AVE RF **1.211** RF RSD **3.30** AVE RT **7.18**

Bromodichloromethane

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



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	528	0.781	7.25
9I26051-CAL4	1	1688	1.029	7.26
9I26051-CAL5	2	3441	1.064	7.25
9I26051-CAL6	5	8928	1.081	7.26
9I26051-CAL7	10	19966	1.238	7.26
9I26051-CAL8	20	43276	1.285	7.26
9I26051-CAL9	50	118981	1.351	7.25
9I26051-CALA	100	268967	1.538	7.25
9I26051-CALB	200	560307	1.596	7.26

AVE RF **1.218** RF RSD **21.26** AVE RT **7.25**

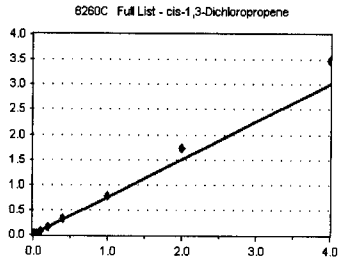
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

cis-1,3-Dichloropropene

Curve Fit: **AVERAGE RF**

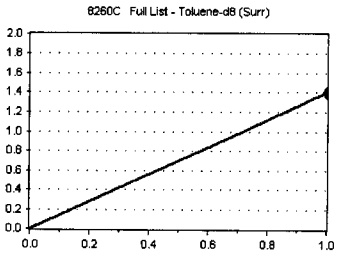


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	424	0.534	7.96
9I26051-CAL3	0.4	1074	0.678	7.96
9I26051-CAL4	1	2900	0.753	7.96
9I26051-CAL5	2	5722	0.745	7.96
9I26051-CAL6	5	13551	0.709	7.96
9I26051-CAL7	10	29366	0.789	7.96
9I26051-CAL8	20	62124	0.799	7.96
9I26051-CAL9	50	162503	0.788	7.96
9I26051-CALA	100	353925	0.866	7.96
9I26051-CALB	200	710362	0.869	7.96

AVE RF **0.753** RF RSD **13.01** AVE RT **7.96**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**

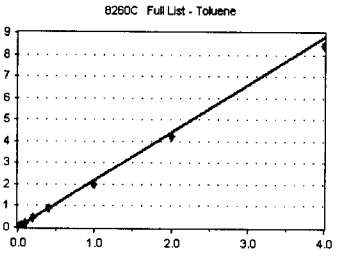


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	50	281171	1.399	8.18
9I26051-CAL2	50	276884	1.395	8.18
9I26051-CAL3	50	276952	1.399	8.18
9I26051-CAL4	50	268905	1.397	8.18
9I26051-CAL5	50	265160	1.382	8.18
9I26051-CAL6	50	268875	1.406	8.18
9I26051-CAL7	50	262548	1.411	8.18
9I26051-CAL8	50	276211	1.422	8.18
9I26051-CAL9	50	288797	1.400	8.18
9I26051-CALA	50	286934	1.404	8.18
9I26051-CALB	50	287974	1.409	8.18

AVE RF **1.402** RF RSD **0.73** AVE RT **8.18**

Toluene

Curve Fit: **AVERAGE RF**

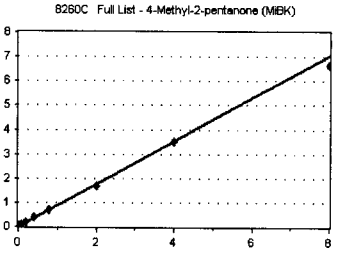


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	1040	2.587	8.24
9I26051-CAL2	0.2	1992	2.509	8.24
9I26051-CAL3	0.4	3563	2.250	8.24
9I26051-CAL4	1	8435	2.190	8.24
9I26051-CAL5	2	16529	2.153	8.23
9I26051-CAL6	5	38895	2.034	8.24
9I26051-CAL7	10	79804	2.144	8.24
9I26051-CAL8	20	166207	2.139	8.24
9I26051-CAL9	50	414816	2.011	8.24
9I26051-CALA	100	863625	2.113	8.24
9I26051-CALB	200	1715656	2.099	8.24

AVE RF **2.203** RF RSD **8.35** AVE RT **8.24**

4-Methyl-2-pentanone (MiBK)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.8	3017	0.953	8.68
9I26051-CAL4	2	6953	0.903	8.68
9I26051-CAL5	4	13755	0.896	8.68
9I26051-CAL6	10	31569	0.825	8.68
9I26051-CAL7	20	69718	0.937	8.68
9I26051-CAL8	40	138153	0.889	8.68
9I26051-CAL9	100	344303	0.835	8.68
9I26051-CALA	200	720189	0.881	8.68
9I26051-CALB	400	1363153	0.834	8.68

AVE RF **0.884** RF RSD **5.13** AVE RT **8.68**

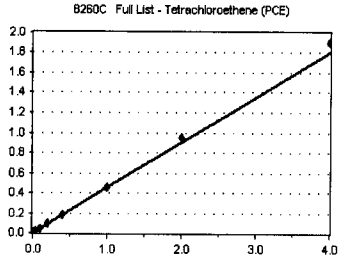
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

Tetrachloroethene (PCE)

Curve Fit: **AVERAGE RF**

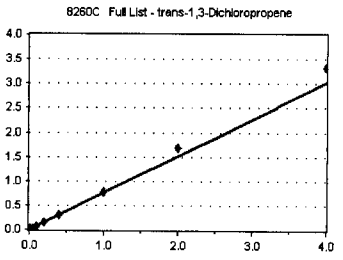


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	566	0.357	8.68
9I26051-CAL4	1	1713	0.445	8.69
9I26051-CAL5	2	3405	0.444	8.69
9I26051-CAL6	5	8724	0.456	8.69
9I26051-CAL7	10	17871	0.480	8.68
9I26051-CAL8	20	36365	0.468	8.68
9I26051-CAL9	50	93225	0.452	8.68
9I26051-CALA	100	193661	0.474	8.68
9I26051-CALB	200	388598	0.475	8.68

AVE RF **0.450** RF RSD **8.28** AVE RT **8.68**

trans-1,3-Dichloropropene

Curve Fit: **AVERAGE RF**

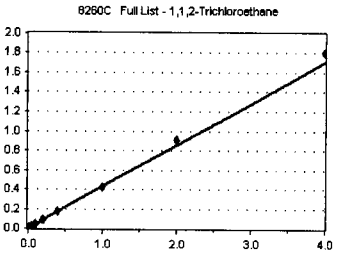


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	1076	0.680	8.71
9I26051-CAL4	1	2780	0.722	8.71
9I26051-CAL5	2	5491	0.715	8.71
9I26051-CAL6	5	13406	0.701	8.71
9I26051-CAL7	10	28378	0.762	8.71
9I26051-CAL8	20	60103	0.773	8.71
9I26051-CAL9	50	158766	0.770	8.71
9I26051-CALA	100	344644	0.843	8.71
9I26051-CALB	200	681628	0.834	8.71

AVE RF **0.756** RF RSD **7.53** AVE RT **8.71**

1,1,2-Trichloroethane

Curve Fit: **AVERAGE RF**

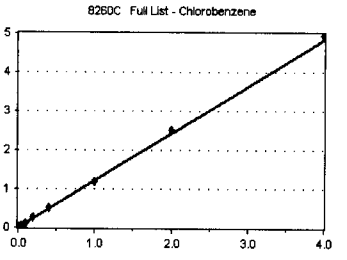


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	266	0.335	8.88
9I26051-CAL3	0.4	680	0.429	8.88
9I26051-CAL4	1	1642	0.426	8.88
9I26051-CAL5	2	3449	0.449	8.88
9I26051-CAL6	5	8022	0.419	8.88
9I26051-CAL7	10	16739	0.450	8.88
9I26051-CAL8	20	33910	0.436	8.88
9I26051-CAL9	50	86973	0.422	8.88
9I26051-CALA	100	185564	0.454	8.88
9I26051-CALB	200	368854	0.451	8.88

AVE RF **0.427** RF RSD **8.17** AVE RT **8.88**

Chlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	362	0.900	0.00
9I26051-CAL2	0.2	972	1.224	9.83
9I26051-CAL3	0.4	1986	1.254	9.83
9I26051-CAL4	1	4686	1.217	9.82
9I26051-CAL5	2	9732	1.268	9.83
9I26051-CAL6	5	23005	1.203	9.83
9I26051-CAL7	10	47850	1.286	9.83
9I26051-CAL8	20	98547	1.268	9.83
9I26051-CAL9	50	247216	1.198	9.83
9I26051-CALA	100	513937	1.257	9.83
9I26051-CALB	200	1010988	1.237	9.83

AVE RF **1.210** RF RSD **8.81** AVE RT **8.94**

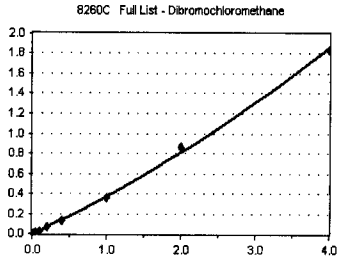
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

Dibromochloromethane

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

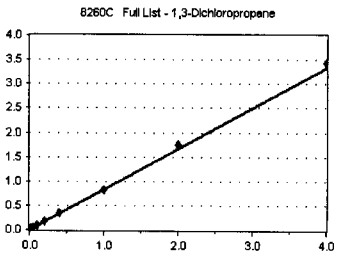


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL4	1	821	0.213	9.07
9I26051-CAL5	2	1996	0.260	9.08
9I26051-CAL6	5	4814	0.252	9.08
9I26051-CAL7	10	11509	0.309	9.08
9I26051-CAL8	20	24936	0.321	9.07
9I26051-CAL9	50	74074	0.359	9.07
9I26051-CALA	100	175802	0.430	9.07
9I26051-CALB	200	376420	0.461	9.07

AVE RF **0.326** RF RSD **26.71** AVE RT **9.07**

1,3-Dichloropropane

Curve Fit: **AVERAGE RF**

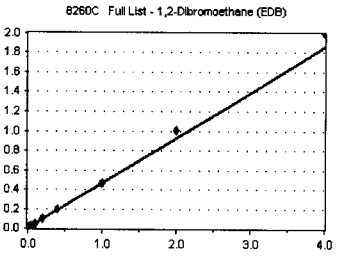


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	584	0.736	9.16
9I26051-CAL3	0.4	1225	0.774	9.17
9I26051-CAL4	1	3103	0.806	9.17
9I26051-CAL5	2	6858	0.893	9.17
9I26051-CAL6	5	15269	0.798	9.17
9I26051-CAL7	10	33253	0.893	9.17
9I26051-CAL8	20	66481	0.855	9.17
9I26051-CAL9	50	168512	0.817	9.17
9I26051-CALA	100	359607	0.880	9.17
9I26051-CALB	200	703679	0.861	9.17

AVE RF **0.831** RF RSD **6.46** AVE RT **9.17**

1,2-Dibromoethane (EDB)

Curve Fit: **AVERAGE RF**

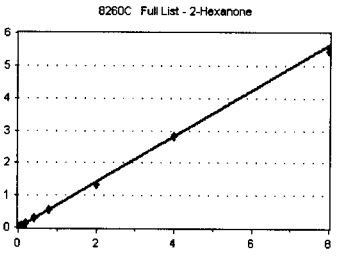


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	601	0.380	9.31
9I26051-CAL4	1	1656	0.430	9.31
9I26051-CAL5	2	3632	0.473	9.31
9I26051-CAL6	5	8459	0.442	9.31
9I26051-CAL7	10	18498	0.497	9.31
9I26051-CAL8	20	37447	0.482	9.31
9I26051-CAL9	50	96020	0.465	9.31
9I26051-CALA	100	206062	0.504	9.31
9I26051-CALB	200	408690	0.500	9.31

AVE RF **0.464** RF RSD **8.74** AVE RT **9.31**

2-Hexanone

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.4	1415	0.891	9.56
9I26051-CAL3	0.8	2359	0.745	9.55
9I26051-CAL4	2	5387	0.699	9.55
9I26051-CAL5	4	9874	0.643	9.55
9I26051-CAL6	10	24240	0.634	9.55
9I26051-CAL7	20	52678	0.708	9.55
9I26051-CAL8	40	106926	0.688	9.55
9I26051-CAL9	100	272153	0.660	9.55
9I26051-CALA	200	574722	0.703	9.55
9I26051-CALB	400	1112936	0.681	9.55

AVE RF **0.705** RF RSD **10.37** AVE RT **9.55**

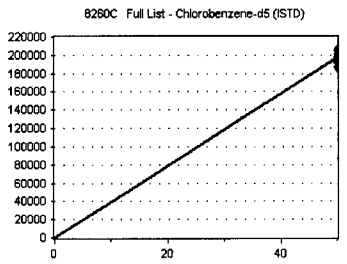
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

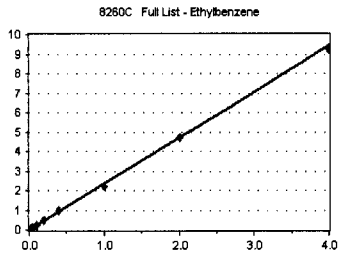


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	50	201011	4020.220	9.81
9I26051-CAL2	50	198493	3969.860	9.81
9I26051-CAL3	50	197907	3958.140	9.81
9I26051-CAL4	50	192549	3850.980	9.81
9I26051-CAL5	50	191897	3837.940	9.81
9I26051-CAL6	50	191233	3824.660	9.81
9I26051-CAL7	50	186111	3722.220	9.81
9I26051-CAL8	50	194298	3885.960	9.81
9I26051-CAL9	50	206278	4125.560	9.81
9I26051-CALA	50	204365	4087.300	9.81
9I26051-CALB	50	204350	4087.000	9.81

AVE RF **3942.713** RF RSD **3.28** AVE RT **9.81**

Ethylbenzene

Curve Fit: **AVERAGE RF**

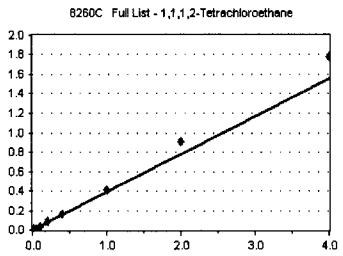


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	1042	2.592	9.86
9I26051-CAL2	0.2	2060	2.595	9.87
9I26051-CAL3	0.4	3745	2.365	9.86
9I26051-CAL4	1	8628	2.240	9.87
9I26051-CAL5	2	17794	2.318	9.86
9I26051-CAL6	5	42121	2.203	9.86
9I26051-CAL7	10	88556	2.379	9.87
9I26051-CAL8	20	184475	2.374	9.87
9I26051-CAL9	50	459802	2.229	9.86
9I26051-CALA	100	957875	2.344	9.86
9I26051-CALB	200	1886129	2.307	9.87

AVE RF **2.359** RF RSD **5.53** AVE RT **9.86**

1,1,1,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

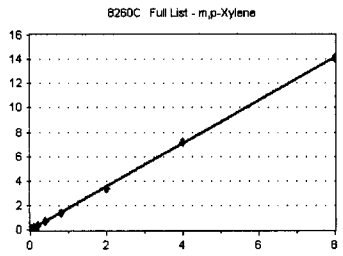


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	448	0.283	9.89
9I26051-CAL4	1	1424	0.370	9.89
9I26051-CAL5	2	2840	0.370	9.89
9I26051-CAL6	5	6772	0.354	9.89
9I26051-CAL7	10	15195	0.408	9.89
9I26051-CAL8	20	31953	0.411	9.89
9I26051-CAL9	50	85576	0.415	9.89
9I26051-CALA	100	184671	0.452	9.89
9I26051-CALB	200	364099	0.445	9.89

AVE RF **0.390** RF RSD **13.41** AVE RT **9.89**

m,p-Xylene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.2	1555	1.934	10.00
9I26051-CAL2	0.4	3044	1.917	10.00
9I26051-CAL3	0.8	5405	1.707	10.00
9I26051-CAL4	2	13397	1.739	10.00
9I26051-CAL5	4	26333	1.715	10.00
9I26051-CAL6	10	63865	1.670	10.00
9I26051-CAL7	20	132898	1.785	10.00
9I26051-CAL8	40	277116	1.783	10.00
9I26051-CAL9	100	695927	1.687	10.00
9I26051-CALA	200	1460708	1.787	10.00
9I26051-CALB	400	2874751	1.758	10.00

AVE RF **1.771** RF RSD **4.86** AVE RT **10.00**

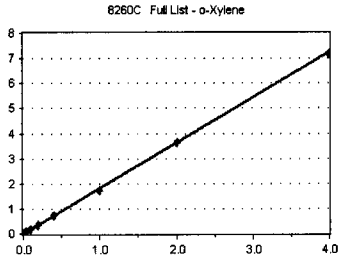
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

o-Xylene

Curve Fit: **AVERAGE RF**

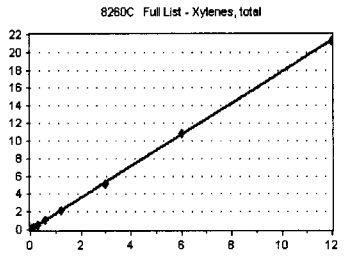


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	830	2.065	10.38
9I26051-CAL2	0.2	1601	2.016	10.38
9I26051-CAL3	0.4	2839	1.793	10.38
9I26051-CAL4	1	6615	1.718	10.38
9I26051-CAL5	2	13487	1.757	10.38
9I26051-CAL6	5	32191	1.683	10.38
9I26051-CAL7	10	67580	1.816	10.38
9I26051-CAL8	20	140549	1.808	10.38
9I26051-CAL9	50	353145	1.712	10.38
9I26051-CALA	100	744608	1.822	10.38
9I26051-CALB	200	1469028	1.797	10.38

AVE RF **1.817** RF RSD **6.61** AVE RT **10.38**

Xylenes, total

Curve Fit: **AVERAGE RF**

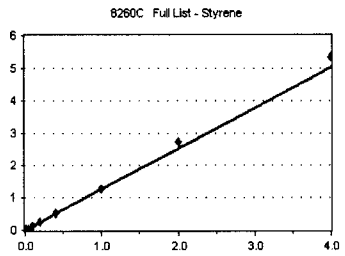


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.3	2385	1.978	10.38
9I26051-CAL2	0.6	4645	1.950	10.38
9I26051-CAL3	1.2	8244	1.736	10.38
9I26051-CAL4	3	20012	1.732	10.38
9I26051-CAL5	6	39820	1.729	10.38
9I26051-CAL6	15	96056	1.674	10.38
9I26051-CAL7	30	200478	1.795	10.38
9I26051-CAL8	60	417665	1.791	10.38
9I26051-CAL9	150	1049072	1.695	10.38
9I26051-CALA	300	2205316	1.799	10.38
9I26051-CALB	600	4343779	1.771	10.38

AVE RF **1.786** RF RSD **5.41** AVE RT **10.38**

Styrene

Curve Fit: **AVERAGE RF**

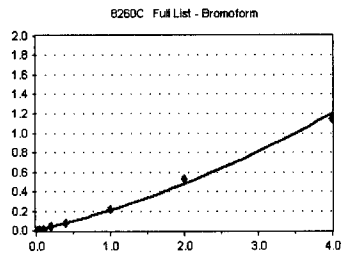


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~376~~	~~0.935~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~954~~	~~1.202~~	~~10.43~~
~~9I26051-CAL3~~	~~0.4~~	~~1810~~	~~1.143~~	~~10.43~~
9I26051-CAL4	1	4607	1.196	10.43
9I26051-CAL5	2	9190	1.197	10.43
9I26051-CAL6	5	21816	1.141	10.43
9I26051-CAL7	10	48081	1.292	10.43
9I26051-CAL8	20	99474	1.280	10.43
9I26051-CAL9	50	259072	1.256	10.43
9I26051-CALA	100	556502	1.362	10.43
9I26051-CALB	200	1096249	1.341	10.43

AVE RF **1.258** RF RSD **6.04** AVE RT **10.43**

Bromoform

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



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL4	1	516	0.134	10.44
9I26051-CAL5	2	1110	0.145	10.44
9I26051-CAL6	5	2886	0.151	10.44
9I26051-CAL7	10	7072	0.190	10.45
9I26051-CAL8	20	14599	0.188	10.45
9I26051-CAL9	50	43917	0.213	10.45
9I26051-CALA	100	108191	0.265	10.45
9I26051-CALB	200	234918	0.287	10.45

AVE RF **0.197** RF RSD **28.51** AVE RT **10.44**

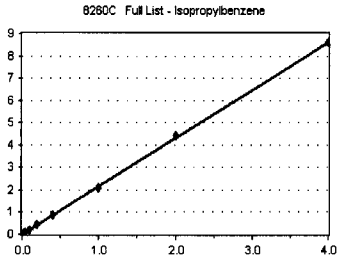
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

Isopropylbenzene

Curve Fit: **AVERAGE RF**

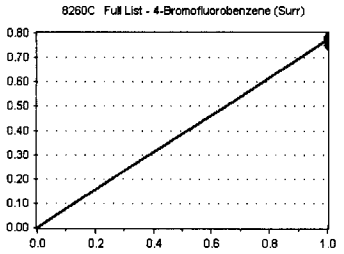


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	1007	2.505	10.65
9I26051-CAL2	0.2	1658	2.088	10.66
9I26051-CAL3	0.4	3087	1.950	10.66
9I26051-CAL4	1	8277	2.149	10.66
9I26051-CAL5	2	16179	2.108	10.66
9I26051-CAL6	5	38274	2.001	10.66
9I26051-CAL7	10	80907	2.174	10.66
9I26051-CAL8	20	170525	2.194	10.66
9I26051-CAL9	50	428305	2.076	10.66
9I26051-CALA	100	904070	2.212	10.66
9I26051-CALB	200	1763744	2.158	10.66

AVE RF **2.147** RF RSD **6.68** AVE RT **10.66**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

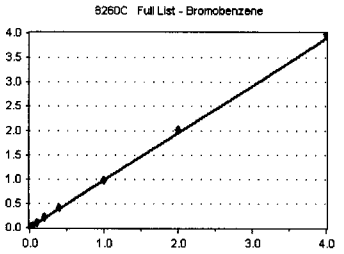


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	50	70815	0.777	10.88
9I26051-CAL2	50	69195	0.772	10.88
9I26051-CAL3	50	70019	0.787	10.88
9I26051-CAL4	50	67920	0.784	10.88
9I26051-CAL5	50	68748	0.784	10.88
9I26051-CAL6	50	68344	0.787	10.88
9I26051-CAL7	50	66326	0.773	10.88
9I26051-CAL8	50	69443	0.771	10.88
9I26051-CAL9	50	73705	0.764	10.88
9I26051-CALA	50	74165	0.750	10.88
9I26051-CALB	50	73514	0.746	10.88

AVE RF **0.772** RF RSD **1.81** AVE RT **10.88**

Bromobenzene

Curve Fit: **AVERAGE RF**

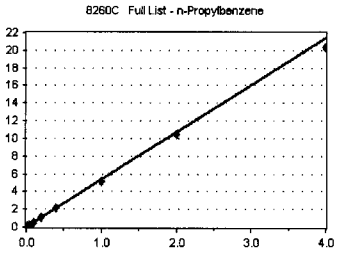


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	264	0.737	10.97
9I26051-CAL3	0.4	684	0.961	10.97
9I26051-CAL4	1	1684	0.972	10.97
9I26051-CAL5	2	3490	0.995	10.97
9I26051-CAL6	5	8558	0.986	10.97
9I26051-CAL7	10	18146	1.058	10.97
9I26051-CAL8	20	36937	1.025	10.97
9I26051-CAL9	50	94775	0.983	10.97
9I26051-CALA	100	199479	1.009	10.97
9I26051-CALB	200	392384	0.996	10.97

AVE RF **0.972** RF RSD **8.97** AVE RT **10.97**

n-Propylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	1072	5.882	11.01
9I26051-CAL2	0.2	2200	6.140	11.00
9I26051-CAL3	0.4	3693	5.189	11.01
9I26051-CAL4	1	9220	5.324	11.00
9I26051-CAL5	2	18414	5.247	11.00
9I26051-CAL6	5	44060	5.074	11.00
9I26051-CAL7	10	91848	5.353	11.00
9I26051-CAL8	20	192925	5.356	11.00
9I26051-CAL9	50	488095	5.062	11.00
9I26051-CALA	100	1031816	5.220	11.00
9I26051-CALB	200	2006523	5.092	11.00

AVE RF **5.358** RF RSD **6.43** AVE RT **11.00**

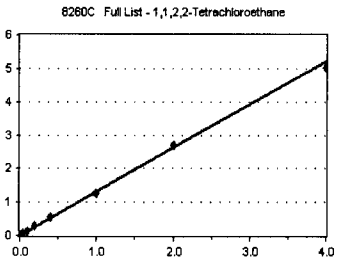
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

1,1,2,2-Tetrachloroethane

Curve Fit: **AVERAGE RF**

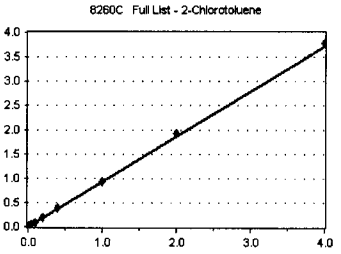


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	497	1.387	11.06
9I26051-CAL3	0.4	847	1.190	11.05
9I26051-CAL4	1	2293	1.324	11.05
9I26051-CAL5	2	4672	1.331	11.05
9I26051-CAL6	5	10901	1.255	11.05
9I26051-CAL7	10	23806	1.387	11.05
9I26051-CAL8	20	48593	1.349	11.05
9I26051-CAL9	50	122049	1.266	11.05
9I26051-CALA	100	264703	1.339	11.05
9I26051-CALB	200	494430	1.255	11.05

AVE RF **1.308** RF RSD **4.92** AVE RT **11.05**

2-Chlorotoluene

Curve Fit: **AVERAGE RF**

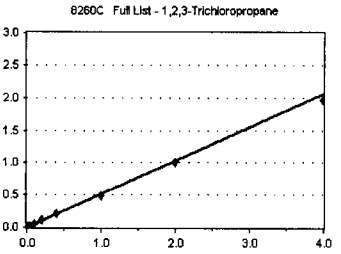


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	286	0.798	11.12
9I26051-CAL3	0.4	648	0.911	11.13
9I26051-CAL4	1	1588	0.917	11.12
9I26051-CAL5	2	3415	0.973	11.12
9I26051-CAL6	5	7936	0.914	11.12
9I26051-CAL7	10	17033	0.993	11.13
9I26051-CAL8	20	35482	0.985	11.12
9I26051-CAL9	50	88716	0.920	11.12
9I26051-CALA	100	190292	0.963	11.12
9I26051-CALB	200	372893	0.946	11.12

AVE RF **0.932** RF RSD **6.03** AVE RT **11.12**

1,2,3-Trichloropropane

Curve Fit: **AVERAGE RF**

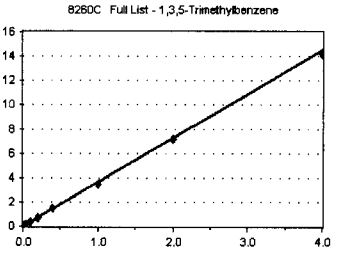


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	363	0.510	11.16
9I26051-CAL4	1	913	0.527	11.16
9I26051-CAL5	2	1824	0.520	11.16
9I26051-CAL6	5	4325	0.498	11.16
9I26051-CAL7	10	9803	0.571	11.16
9I26051-CAL8	20	18996	0.527	11.16
9I26051-CAL9	50	46667	0.484	11.16
9I26051-CALA	100	99386	0.503	11.16
9I26051-CALB	200	194027	0.492	11.16

AVE RF **0.515** RF RSD **5.06** AVE RT **11.16**

1,3,5-Trimethylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	744	4.083	11.16
9I26051-CAL2	0.2	1386	3.868	11.16
9I26051-CAL3	0.4	2439	3.427	11.16
9I26051-CAL4	1	6381	3.685	11.16
9I26051-CAL5	2	12560	3.579	11.16
9I26051-CAL6	5	29913	3.445	11.16
9I26051-CAL7	10	62130	3.621	11.16
9I26051-CAL8	20	131543	3.652	11.16
9I26051-CAL9	50	336773	3.492	11.16
9I26051-CALA	100	713639	3.610	11.16
9I26051-CALB	200	1395512	3.541	11.16

AVE RF **3.637** RF RSD **5.29** AVE RT **11.16**

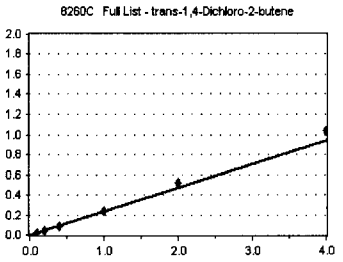
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

trans-1,4-Dichloro-2-butene

Curve Fit: **AVERAGE RF**

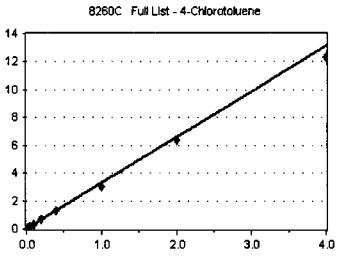


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL4~~	~~1~~	~~315~~	~~0.182~~	~~11.19~~
~~9I26051-CAL5~~	~~2~~	~~608~~	~~0.173~~	~~11.19~~
9I26051-CAL6	5	1607	0.185	11.19
9I26051-CAL7	10	4102	0.239	11.19
9I26051-CAL8	20	8149	0.226	11.19
9I26051-CAL9	50	22577	0.234	11.19
9I26051-CALA	100	51404	0.260	11.19
9I26051-CALB	200	102544	0.260	11.19

AVE RF **0.234** RF RSD **11.85** AVE RT **11.19**

4-Chlorotoluene

Curve Fit: **AVERAGE RF**

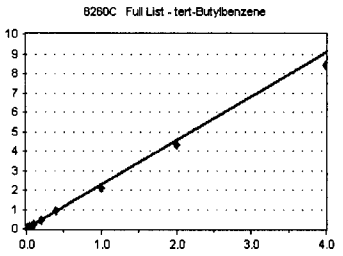


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	689	3.781	11.25
9I26051-CAL2	0.2	1281	3.575	11.25
9I26051-CAL3	0.4	2310	3.246	11.25
9I26051-CAL4	1	5709	3.297	11.25
9I26051-CAL5	2	11203	3.192	11.25
9I26051-CAL6	5	27493	3.166	11.25
9I26051-CAL7	10	57856	3.372	11.25
9I26051-CAL8	20	116547	3.235	11.25
9I26051-CAL9	50	295189	3.061	11.25
9I26051-CALA	100	628088	3.177	11.25
9I26051-CALB	200	1217721	3.090	11.25

AVE RF **3.290** RF RSD **6.54** AVE RT **11.25**

tert-Butylbenzene

Curve Fit: **AVERAGE RF**

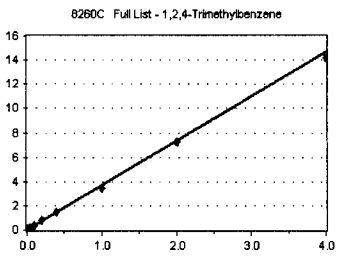


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	472	2.590	11.41
9I26051-CAL2	0.2	960	2.679	11.41
9I26051-CAL3	0.4	1643	2.309	11.41
9I26051-CAL4	1	3961	2.287	11.41
9I26051-CAL5	2	7779	2.217	11.41
9I26051-CAL6	5	18406	2.120	11.41
9I26051-CAL7	10	38652	2.253	11.41
9I26051-CAL8	20	80995	2.248	11.41
9I26051-CAL9	50	200688	2.081	11.41
9I26051-CALA	100	424964	2.150	11.41
9I26051-CALB	200	829909	2.106	11.41

AVE RF **2.276** RF RSD **8.50** AVE RT **11.41**

1,2,4-Trimethylbenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	773	4.242	11.47
9I26051-CAL2	0.2	1309	3.653	11.47
9I26051-CAL3	0.4	2527	3.551	11.47
9I26051-CAL4	1	6284	3.629	11.47
9I26051-CAL5	2	12884	3.671	11.47
9I26051-CAL6	5	30622	3.527	11.47
9I26051-CAL7	10	63543	3.703	11.47
9I26051-CAL8	20	133658	3.710	11.47
9I26051-CAL9	50	336446	3.489	11.47
9I26051-CALA	100	718002	3.632	11.47
9I26051-CALB	200	1400728	3.555	11.47

AVE RF **3.669** RF RSD **5.54** AVE RT **11.47**

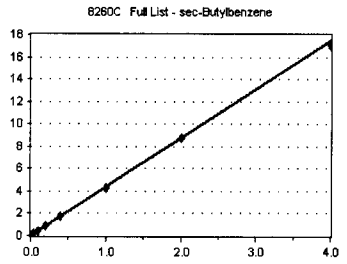
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

sec-Butylbenzene

Curve Fit: **AVERAGE RF**

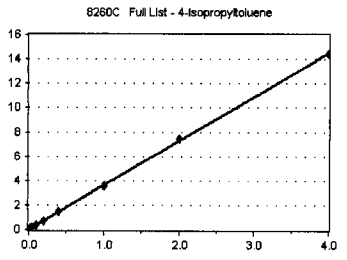


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	858	4.708	11.55
9I26051-CAL2	0.2	1622	4.527	11.55
9I26051-CAL3	0.4	3047	4.282	11.55
9I26051-CAL4	1	7388	4.266	11.55
9I26051-CAL5	2	15516	4.421	11.55
9I26051-CAL6	5	36041	4.151	11.55
9I26051-CAL7	10	75345	4.391	11.55
9I26051-CAL8	20	160793	4.464	11.55
9I26051-CAL9	50	408152	4.233	11.55
9I26051-CALA	100	862284	4.362	11.55
9I26051-CALB	200	1675162	4.251	11.55

AVE RF **4.369** RF RSD **3.62** AVE RT **11.55**

4-Isopropyltoluene

Curve Fit: **AVERAGE RF**

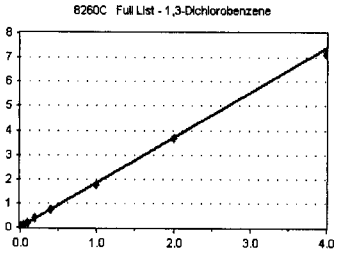


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	688	3.775	11.66
9I26051-CAL2	0.2	1273	3.553	11.66
9I26051-CAL3	0.4	2589	3.638	11.66
9I26051-CAL4	1	6309	3.643	11.66
9I26051-CAL5	2	12605	3.592	11.66
9I26051-CAL6	5	30228	3.481	11.66
9I26051-CAL7	10	62690	3.654	11.66
9I26051-CAL8	20	134275	3.728	11.66
9I26051-CAL9	50	343433	3.562	11.66
9I26051-CALA	100	733345	3.710	11.66
9I26051-CALB	200	1424200	3.614	11.66

AVE RF **3.632** RF RSD **2.34** AVE RT **11.66**

1,3-Dichlorobenzene

Curve Fit: **AVERAGE RF**

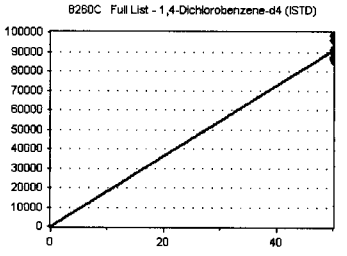


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	362	1.986	11.72
9I26051-CAL2	0.2	743	2.074	11.71
9I26051-CAL3	0.4	1278	1.796	11.72
9I26051-CAL4	1	3078	1.777	11.72
9I26051-CAL5	2	6372	1.816	11.72
9I26051-CAL6	5	15238	1.755	11.72
9I26051-CAL7	10	33185	1.934	11.72
9I26051-CAL8	20	66504	1.846	11.71
9I26051-CAL9	50	169819	1.761	11.72
9I26051-CALA	100	363861	1.841	11.72
9I26051-CALB	200	701151	1.779	11.72

AVE RF **1.851** RF RSD **5.59** AVE RT **11.72**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	50	91119	1822.380	11.77
9I26051-CAL2	50	89580	1791.600	11.77
9I26051-CAL3	50	88955	1779.100	11.77
9I26051-CAL4	50	86589	1731.780	11.77
9I26051-CAL5	50	87731	1754.620	11.77
9I26051-CAL6	50	86829	1736.580	11.77
9I26051-CAL7	50	85791	1715.820	11.77
9I26051-CAL8	50	90055	1801.100	11.77
9I26051-CAL9	50	96429	1928.580	11.77
9I26051-CALA	50	98834	1976.680	11.77
9I26051-CALB	50	98513	1970.260	11.77

AVE RF **1818.955** RF RSD **5.26** AVE RT **11.77**

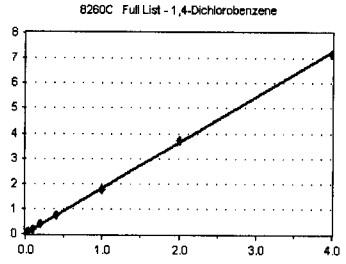
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

1,4-Dichlorobenzene

Curve Fit: **AVERAGE RF**

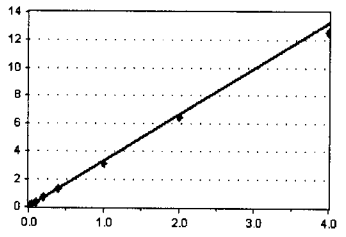


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	286	1.569	11.78
9I26051-CAL2	0.2	670	1.870	11.78
9I26051-CAL3	0.4	1255	1.764	11.78
9I26051-CAL4	1	3311	1.912	11.78
9I26051-CAL5	2	6672	1.901	11.78
9I26051-CAL6	5	15485	1.783	11.78
9I26051-CAL7	10	33561	1.956	11.78
9I26051-CAL8	20	66830	1.855	11.78
9I26051-CAL9	50	170510	1.768	11.78
9I26051-CALA	100	365594	1.850	11.78
9I26051-CALB	200	705926	1.791	11.78

AVE RF **1.820** RF RSD **5.74** AVE RT **11.78**

n-Butylbenzene

Curve Fit: **AVERAGE RF**

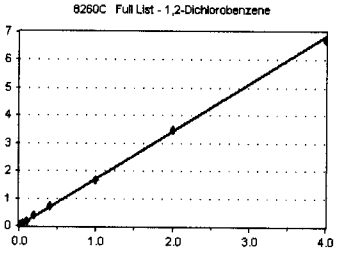


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	0.1	741	4.066	11.98
9I26051-CAL2	0.2	1205	3.363	11.98
9I26051-CAL3	0.4	2363	3.320	11.98
9I26051-CAL4	1	5776	3.335	11.98
9I26051-CAL5	2	11616	3.310	11.98
9I26051-CAL6	5	26618	3.066	11.98
9I26051-CAL7	10	55398	3.229	11.98
9I26051-CAL8	20	117444	3.260	11.98
9I26051-CAL9	50	298416	3.095	11.98
9I26051-CALA	100	635653	3.216	11.98
9I26051-CALB	200	1235413	3.135	11.98

AVE RF **3.309** RF RSD **8.17** AVE RT **11.98**

1,2-Dichlorobenzene

Curve Fit: **AVERAGE RF**

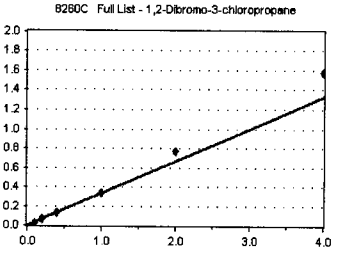


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	599	1.672	12.09
9I26051-CAL3	0.4	1195	1.679	12.09
9I26051-CAL4	1	2989	1.726	12.09
9I26051-CAL5	2	6103	1.739	12.09
9I26051-CAL6	5	14508	1.671	12.10
9I26051-CAL7	10	31314	1.825	12.10
9I26051-CAL8	20	63143	1.753	12.10
9I26051-CAL9	50	159412	1.653	12.09
9I26051-CALA	100	343702	1.739	12.09
9I26051-CALB	200	664539	1.686	12.10

AVE RF **1.714** RF RSD **3.05** AVE RT **12.10**

1,2-Dibromo-3-chloropropane

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL4~~	~~1~~	~~429~~	~~0.248~~	~~12.70~~
~~9I26051-CAL5~~	~~2~~	~~817~~	~~0.233~~	~~12.70~~
9I26051-CAL6	5	2255	0.260	12.70
9I26051-CAL7	10	5269	0.307	12.70
9I26051-CAL8	20	11496	0.319	12.70
9I26051-CAL9	50	32650	0.339	12.70
9I26051-CALA	100	75525	0.382	12.70
9I26051-CALB	200	155589	0.395	12.70

AVE RF **0.334** RF RSD **14.99** AVE RT **12.70**

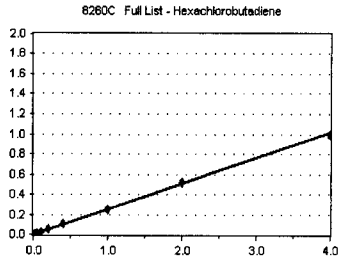
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Full List** Instrument Cal ID: **VJ190926S+ VJ190926G**

Hexachlorobutadiene

Curve Fit: **AVERAGE RF**

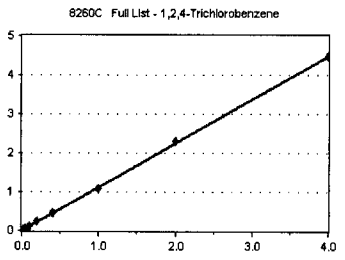


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.4~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL4	1	423	0.244	13.22
9I26051-CAL5	2	871	0.248	13.23
9I26051-CAL6	5	2217	0.255	13.23
9I26051-CAL7	10	4581	0.267	13.23
9I26051-CAL8	20	9438	0.262	13.23
9I26051-CAL9	50	23672	0.245	13.23
9I26051-CALA	100	51222	0.259	13.22
9I26051-CALB	200	98168	0.249	13.23

AVE RF **0.254** RF RSD **3.28** AVE RT **13.22**

1,2,4-Trichlorobenzene

Curve Fit: **AVERAGE RF**

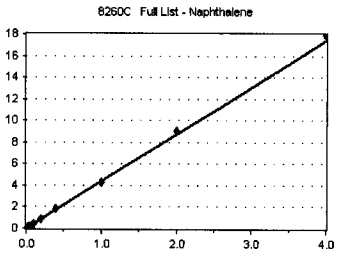


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	429	1.197	13.24
9I26051-CAL3	0.4	782	1.099	13.24
9I26051-CAL4	1	1768	1.021	13.24
9I26051-CAL5	2	4100	1.168	13.24
9I26051-CAL6	5	8947	1.030	13.24
9I26051-CAL7	10	20212	1.178	13.24
9I26051-CAL8	20	42045	1.167	13.24
9I26051-CAL9	50	105528	1.094	13.24
9I26051-CALA	100	228156	1.154	13.24
9I26051-CALB	200	442755	1.124	13.24

AVE RF **1.123** RF RSD **5.46** AVE RT **13.24**

Naphthalene

Curve Fit: **AVERAGE RF**

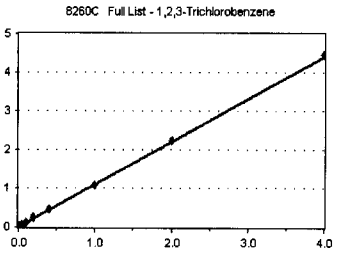


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	2898	4.072	13.52
9I26051-CAL4	1	7597	4.387	13.52
9I26051-CAL5	2	14697	4.188	13.52
9I26051-CAL6	5	34918	4.021	13.52
9I26051-CAL7	10	79213	4.617	13.52
9I26051-CAL8	20	163412	4.536	13.52
9I26051-CAL9	50	412833	4.281	13.52
9I26051-CALA	100	891841	4.512	13.52
9I26051-CALB	200	1762865	4.474	13.52

AVE RF **4.343** RF RSD **4.91** AVE RT **13.52**

1,2,3-Trichlorobenzene

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL2	0.2	361	1.007	13.68
9I26051-CAL3	0.4	761	1.069	13.68
9I26051-CAL4	1	1983	1.145	13.68
9I26051-CAL5	2	3947	1.125	13.68
9I26051-CAL6	5	9031	1.040	13.68
9I26051-CAL7	10	20337	1.185	13.68
9I26051-CAL8	20	40577	1.126	13.68
9I26051-CAL9	50	104398	1.083	13.68
9I26051-CALA	100	220874	1.117	13.68
9I26051-CALB	200	440028	1.117	13.68

AVE RF **1.102** RF RSD **4.74** AVE RT **13.68**

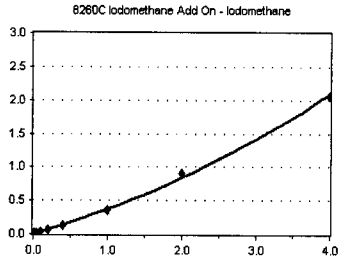
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Iodomethane Add On** Instrument Cal ID: **VJ190926S+ VJ190926G**

Iodomethane

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

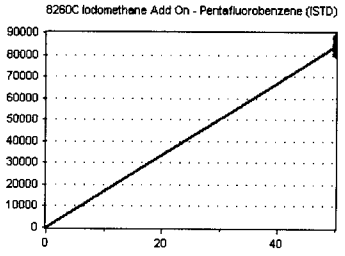


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.2~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL3	0.4	828	1.225	3.30
9I26051-CAL4	1	963	0.587	3.29
9I26051-CAL5	2	1150	0.355	3.29
9I26051-CAL6	5	2598	0.315	3.29
9I26051-CAL7	10	4837	0.300	3.29
9I26051-CAL8	20	10496	0.312	3.29
9I26051-CAL9	50	31306	0.355	3.29
9I26051-CALA	100	79827	0.456	3.29
9I26051-CALB	200	180775	0.515	3.30

AVE RF **0.491** RF RSD **59.65** AVE RT **3.29**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	50	85083	1701.660	6.10
9I26051-CAL2	50	83469	1669.380	6.10
9I26051-CAL3	50	84470	1689.400	6.10
9I26051-CAL4	50	81984	1639.680	6.10
9I26051-CAL5	50	80878	1617.560	6.09
9I26051-CAL6	50	82605	1652.100	6.10
9I26051-CAL7	50	80621	1612.420	6.10
9I26051-CAL8	50	84226	1684.520	6.10
9I26051-CAL9	50	88066	1761.320	6.10
9I26051-CALA	50	87434	1748.680	6.10
9I26051-CALB	50	87764	1755.280	6.10

AVE RF **1684.727** RF RSD **3.16** AVE RT **6.10**

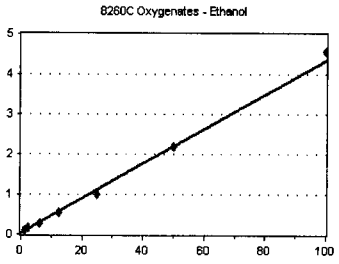
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VJ190926S+ VJ190926G**

Ethanol

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

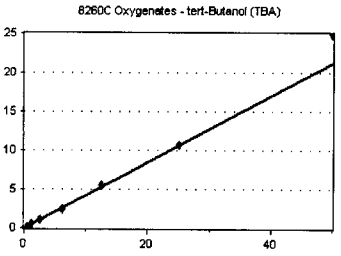


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~6.25~~	~~5365~~	~~0.504~~	~~3.32~~
~~9I26051-CAL2~~	~~12.5~~	~~5460~~	~~0.262~~	~~3.32~~
~~9I26051-CAL3~~	~~25~~	~~6227~~	~~0.147~~	~~3.33~~
9I26051-CAL4	62.5	8207	8.008	3.33
9I26051-CAL5	125	12266	6.066	3.30
9I26051-CAL6	312	21522	4.175	3.32
9I26051-CAL7	625	42586	4.226	3.32
9I26051-CAL8	1250	83151	3.949	3.32
9I26051-CAL9	2500	191989	4.360	3.32
9I26051-CALA	5000	399756	4.572	3.30

AVE RF **5.051** RF RSD **29.31** AVE RT **3.32**

tert-Butanol (TBA)

Curve Fit: **AVERAGE RF**

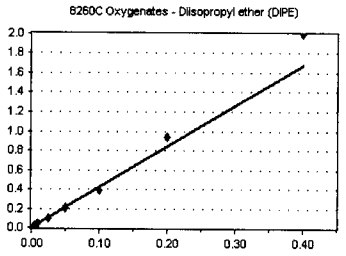


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~6.25~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~12.5~~	~~8847~~	~~0.424~~	~~4.27~~
9I26051-CAL3	25	17073	0.404	4.28
9I26051-CAL4	62.5	41742	0.407	4.28
9I26051-CAL5	125	82253	0.407	4.26
9I26051-CAL6	312	199371	0.387	4.28
9I26051-CAL7	625	447585	0.444	4.28
9I26051-CAL8	1250	893967	0.425	4.28
9I26051-CAL9	2500	2194652	0.498	4.28
~~9I26051-CALA~~	~~5000~~	~~4691502~~	~~0.537~~	~~4.26~~

AVE RF **0.425** RF RSD **8.75** AVE RT **4.28**

Diisopropyl ether (DIPE)

Curve Fit: **AVERAGE RF**

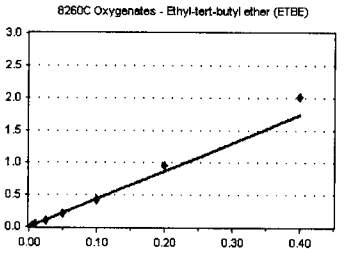


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL4	0.25	1630	3.976	4.51
9I26051-CAL5	0.5	3173	3.923	4.51
9I26051-CAL6	1.25	7883	3.817	4.51
9I26051-CAL7	2.5	16358	4.058	4.51
9I26051-CAL8	5	33179	3.939	4.51
9I26051-CAL9	10	82918	4.708	4.51
9I26051-CALA	20	174428	4.987	4.51

AVE RF **4.201** RF RSD **10.82** AVE RT **4.51**

Ethyl-tert-butyl ether (ETBE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL4	0.25	1774	4.328	4.87
9I26051-CAL5	0.5	3328	4.115	4.87
9I26051-CAL6	1.25	7904	3.827	4.88
9I26051-CAL7	2.5	16594	4.117	4.88
9I26051-CAL8	5	34932	4.147	4.88
9I26051-CAL9	10	84010	4.770	4.88
9I26051-CALA	20	176142	5.036	4.88

AVE RF **4.334** RF RSD **9.74** AVE RT **4.88**

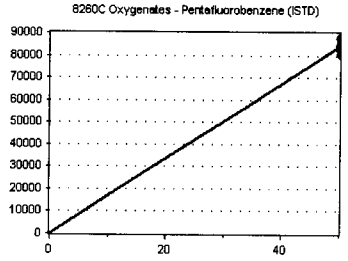
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VJ190926S+ VJ190926G**

Pentafluorobenzene (ISTD)

Curve Fit: **AVERAGE RF**

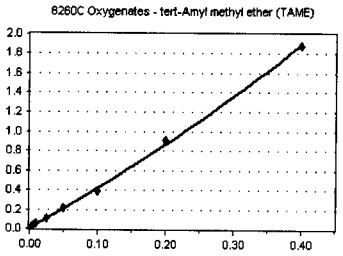


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	50	85083	1701.660	6.10
9I26051-CAL2	50	83469	1669.380	6.10
9I26051-CAL3	50	84470	1689.400	6.10
9I26051-CAL4	50	81984	1639.680	6.10
9I26051-CAL5	50	80878	1617.560	6.09
9I26051-CAL6	50	82605	1652.100	6.10
9I26051-CAL7	50	80621	1612.420	6.10
9I26051-CAL8	50	84226	1684.520	6.10
9I26051-CAL9	50	88066	1761.320	6.10
9I26051-CALA	50	87434	1748.680	6.10
9I26051-CALB	50	87764	1755.280	6.10

AVE RF **1684.727** RF RSD **3.16** AVE RT **6.10**

tert-Amyl methyl ether (TAME)

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

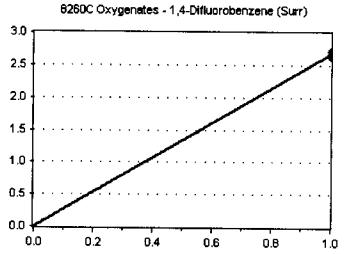


Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL4	0.25	2474	6.035	6.16
9I26051-CAL5	0.5	4288	5.302	6.15
9I26051-CAL6	1.25	8667	4.197	6.16
9I26051-CAL7	2.5	17059	4.232	6.16
9I26051-CAL8	5	32799	3.894	6.16
9I26051-CAL9	10	79624	4.521	6.16
9I26051-CALA	20	164564	4.705	6.16

AVE RF **4.698** RF RSD **15.78** AVE RT **6.16**

1,4-Difluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

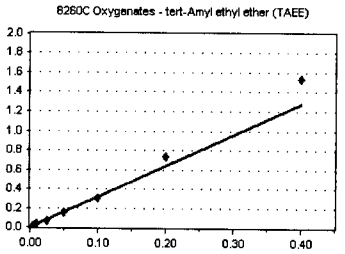


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	50	230170	2.705	6.66
9I26051-CAL2	50	225508	2.702	6.66
9I26051-CAL3	50	226191	2.678	6.66
9I26051-CAL4	50	217352	2.651	6.66
9I26051-CAL5	50	215594	2.666	6.66
9I26051-CAL6	50	218916	2.650	6.66
9I26051-CAL7	50	212867	2.640	6.66
9I26051-CAL8	50	222976	2.647	6.66
9I26051-CAL9	50	234393	2.662	6.66
9I26051-CALA	50	233929	2.675	6.66
9I26051-CALB	50	237056	2.701	6.66

AVE RF **2.671** RF RSD **0.88** AVE RT **6.66**

tert-Amyl ethyl ether (TAEE)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
~~9I26051-CAL1~~	~~0.025~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL2~~	~~0.05~~	~~0~~	~~0.000~~	~~0.00~~
~~9I26051-CAL3~~	~~0.1~~	~~0~~	~~0.000~~	~~0.00~~
9I26051-CAL4	0.25	1145	2.793	6.91
9I26051-CAL5	0.5	2564	3.170	6.92
9I26051-CAL6	1.25	5798	2.808	6.91
9I26051-CAL7	2.5	12505	3.102	6.92
9I26051-CAL8	5	25425	3.019	6.91
9I26051-CAL9	10	64746	3.676	6.91
9I26051-CALA	20	134637	3.850	6.91

AVE RF **3.203** RF RSD **12.82** AVE RT **6.91**

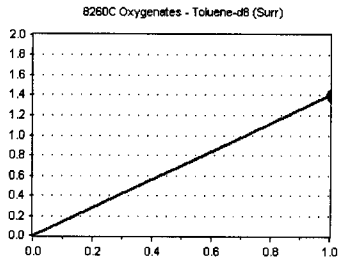
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8260C Oxygenates** Instrument Cal ID: **VJ190926S+ VJ190926G**

Toluene-d8 (Surr)

Curve Fit: **AVERAGE RF**

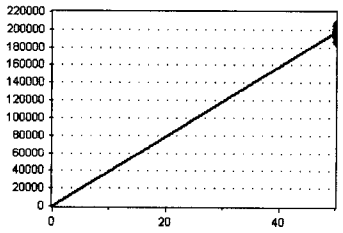


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	50	281171	1.399	8.18
9I26051-CAL2	50	276884	1.395	8.18
9I26051-CAL3	50	276952	1.399	8.18
9I26051-CAL4	50	268905	1.397	8.18
9I26051-CAL5	50	265160	1.382	8.18
9I26051-CAL6	50	268875	1.406	8.18
9I26051-CAL7	50	262548	1.411	8.18
9I26051-CAL8	50	276211	1.422	8.18
9I26051-CAL9	50	288797	1.400	8.18
9I26051-CALA	50	286934	1.404	8.18
9I26051-CALB	50	287974	1.409	8.18

AVE RF **1.402** RF RSD **0.73** AVE RT **8.18**

Chlorobenzene-d5 (ISTD)

Curve Fit: **AVERAGE RF**

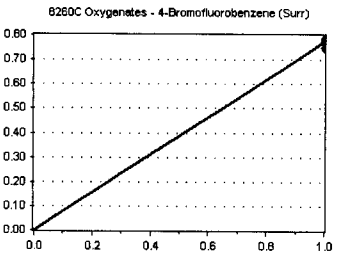


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	50	201011	4020.220	9.81
9I26051-CAL2	50	198493	3969.860	9.81
9I26051-CAL3	50	197907	3958.140	9.81
9I26051-CAL4	50	192549	3850.980	9.81
9I26051-CAL5	50	191897	3837.940	9.81
9I26051-CAL6	50	191233	3824.660	9.81
9I26051-CAL7	50	186111	3722.220	9.81
9I26051-CAL8	50	194298	3885.960	9.81
9I26051-CAL9	50	206278	4125.560	9.81
9I26051-CALA	50	204365	4087.300	9.81
9I26051-CALB	50	204350	4087.000	9.81

AVE RF **3942.713** RF RSD **3.28** AVE RT **9.81**

4-Bromofluorobenzene (Surr)

Curve Fit: **AVERAGE RF**

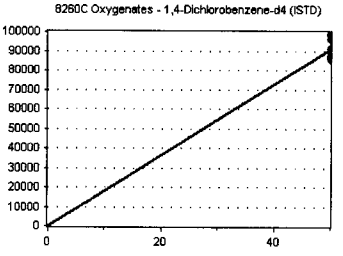


Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	50	70815	0.777	10.88
9I26051-CAL2	50	69195	0.772	10.88
9I26051-CAL3	50	70019	0.787	10.88
9I26051-CAL4	50	67920	0.784	10.88
9I26051-CAL5	50	68748	0.784	10.88
9I26051-CAL6	50	68344	0.787	10.88
9I26051-CAL7	50	66326	0.773	10.88
9I26051-CAL8	50	69443	0.771	10.88
9I26051-CAL9	50	73705	0.764	10.88
9I26051-CALA	50	74165	0.750	10.88
9I26051-CALB	50	73514	0.746	10.88

AVE RF **0.772** RF RSD **1.81** AVE RT **10.88**

1,4-Dichlorobenzene-d4 (ISTD)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I26051-CAL1	50	91119	1822.380	11.77
9I26051-CAL2	50	89580	1791.600	11.77
9I26051-CAL3	50	88955	1779.100	11.77
9I26051-CAL4	50	86589	1731.780	11.77
9I26051-CAL5	50	87731	1754.620	11.77
9I26051-CAL6	50	86829	1736.580	11.77
9I26051-CAL7	50	85791	1715.820	11.77
9I26051-CAL8	50	90055	1801.100	11.77
9I26051-CAL9	50	96429	1928.580	11.77
9I26051-CALA	50	98834	1976.680	11.77
9I26051-CALB	50	98513	1970.260	11.77

AVE RF **1818.955** RF RSD **5.26** AVE RT **11.77**

Calibration Status Report VOA-GCMS10

Method Path : C:\msdchem\1\methods\
Method File : VJ190926G.M
Title : NWTPH-Gx by GC/MS
Last Update : Fri Sep 27 15:17:10 2019
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	50	50	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092650.D
2	100	100	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092651.D
3	250	250	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092652.D
4	500	500	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092653.D
5	1000	1000	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092654.D
6	2500	2500	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092655.D
7	5000	5000	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092656.D
8	10K	10000	50	C:\msdchem\1\data\2019-09\9I26051\VJ19092657.D

#	ID	Update Time	Quant Time	Acquisition Time
1	50	Sep 27 15:17 2019	Sep 27 15:12 2019	27 Sep 2019 7:17 am
2	100	Sep 27 15:17 2019	Sep 27 15:12 2019	27 Sep 2019 7:44 am
3	250	Sep 27 15:17 2019	Sep 27 15:13 2019	27 Sep 2019 8:10 am
4	500	Sep 27 15:17 2019	Sep 27 15:13 2019	27 Sep 2019 8:37 am
5	1000	Sep 27 15:17 2019	Sep 27 15:13 2019	27 Sep 2019 9:04 am
6	2500	Sep 27 15:17 2019	Sep 27 15:13 2019	27 Sep 2019 9:31 am
7	5000	Sep 27 15:17 2019	Sep 27 15:13 2019	27 Sep 2019 9:57 am
8	10K	Sep 27 15:17 2019	Sep 27 15:13 2019	27 Sep 2019 10:24 am

VJ190926G.M Fri Sep 27 15:56:27 2019

Method Path : C:\msdchem\1\methods\
Method File : VJ190926G.M
Title : NWTPH-Gx by GC/MS
Last Update : Fri Sep 27 15:17:10 2019
Response Via : Initial Calibration

Calibration Files
50 =VJ19092650.D 100 =VJ19092651.D 250 =VJ19092652.D 500 =VJ19092653.D 1000=VJ19092654.D 2500=VJ19092655.D
5000=VJ19092656.D 10K =VJ19092657.D

		Compound	50	100	250	500	1000	2500	5000	10K	Avg	%RSD
1)	I	Pentafluorobenzene...	----------ISTD----------									
2)	S	1,4-Difluorobe...	1.768	1.766	1.771	1.785	1.777	1.773	1.764	1.763	1.771	0.41
3)	S	4-Bromofluorob...	0.548	0.536	0.542	0.547	0.549	0.551	0.545	0.538	0.544	0.99
4)	H	NWTPH-Gx (TPH)	2.833	2.530	2.400	2.544	2.411	2.449	2.632	2.579	2.547	5.56
5)	H	TPHg (C5-C9)	4.843	3.858	3.847	3.528	3.014	2.933	3.058	2.932	3.502	19.09
6)	H	TPHg (C6-C10)	4.332	3.464	2.779	2.833	2.605	2.569	2.668	2.564	2.977	20.88
7)	H	CA-LUFT (C5-C12)	5.565	4.497	4.477	4.188	3.641	3.550	3.742	3.584	4.155	16.61
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

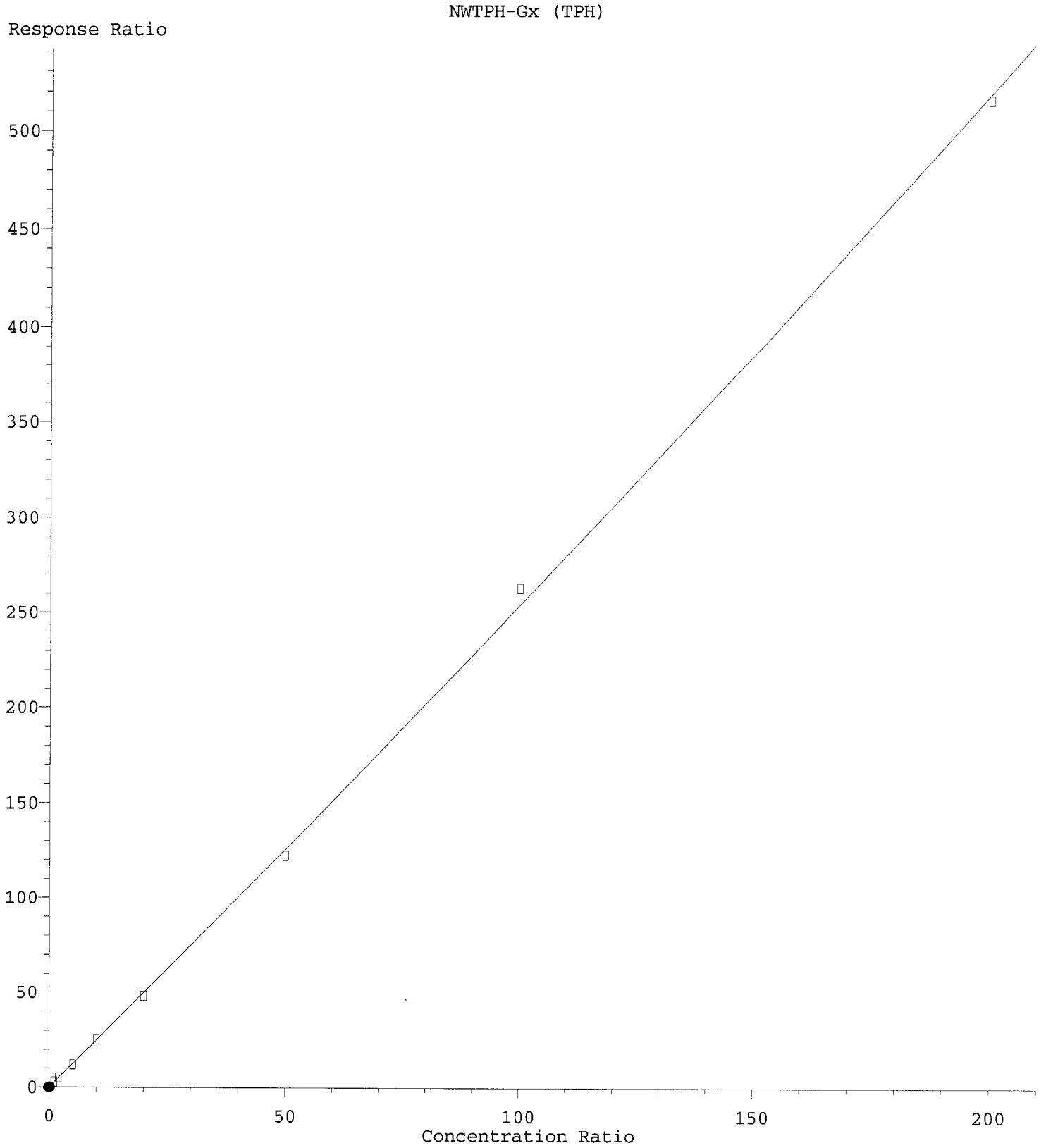
Method Path : C:\msdchem\1\methods\
Method File : VJ190926G.M
Title : NWTPH-Gx by GC/MS
Last Update : Fri Sep 27 15:17:10 2019
Response Via : Initial Calibration

Total Cpnds : 13

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Pentafluorobenzene (IS)	168	6.107	1.000	A	2	A	B
2	S	1,4-Difluorobenzene (Sur)	114	6.667	1.092	A	2	A	B
3	S	4-Bromofluorobenzene (Sur)	174	10.889	1.783	A	2	A	B
4	H	NWTPH-Gx (TPH)	TIC	8.739	1.431	Q	0	A	B
5	H	TPHg (C5-C9)	TIC	9.239	1.513	Q	0	A	B
6	H	TPHg (C6-C10)	TIC	9.239	1.513	Q	0	A	B
7	H	CA-LUFT (C5-C12)	TIC	9.239	1.513	Q	0	A	B
8		Benzene (NR)	78	6.016	0.985	A	2	A	B
9	S	Toluene-d8 (NR)	98	8.188	1.341	A	2	A	B
10		Toluene (NR)	91	8.243	1.350	A	2	A	B
11	S	Chlorobenzene-d5 (NR)	117	9.818	1.608	A	2	A	B
12	S	1,4-Dichlorobenzene-d4 (NR)	150	11.777	1.928	A	2	A	B
13		Naphthalene (NR)	128	13.529	2.215	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

VJ190926G.M Fri Sep 27 15:56:36 2019



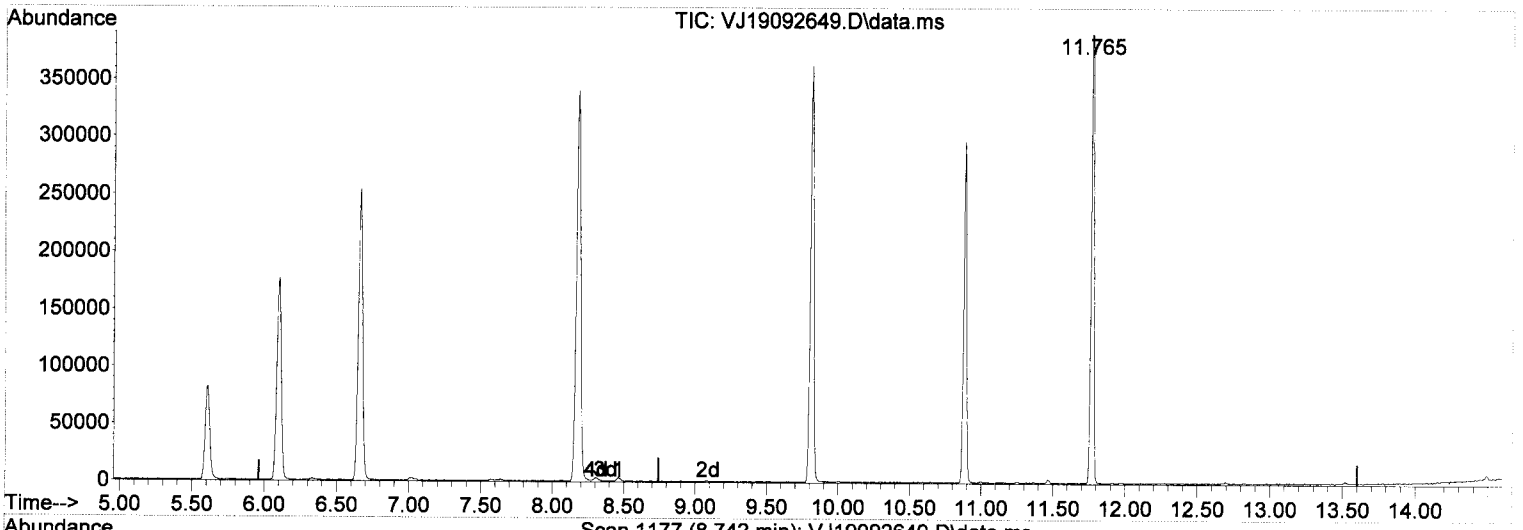
Int = 11.66

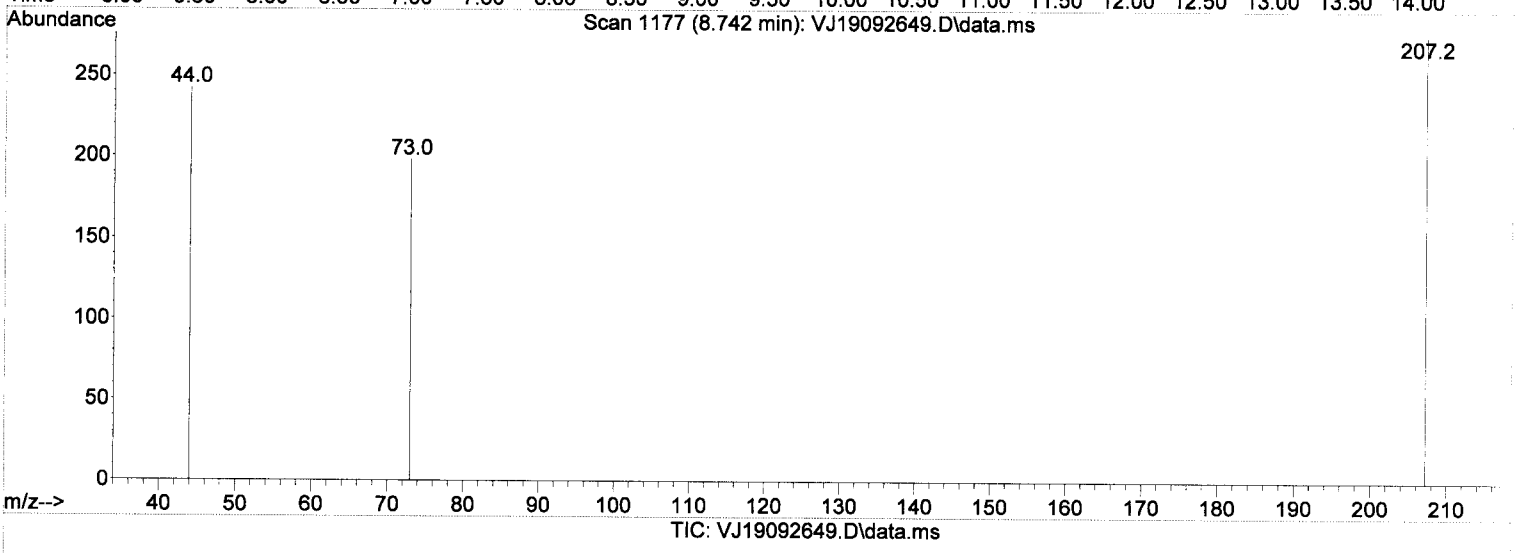
R = 5.26e-004 A*A + 2.49e+000 A + 1.37e-001
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VJ190926G.M
Calibration Table Last Updated: Fri Sep 27 15:17:54 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092649.D
Acq On : 27 Sep 2019 6:50 am
Operator : TB
Sample : 9I26051-ICB2
Misc : 1X 5mL DI+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 27 15:41:02 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration





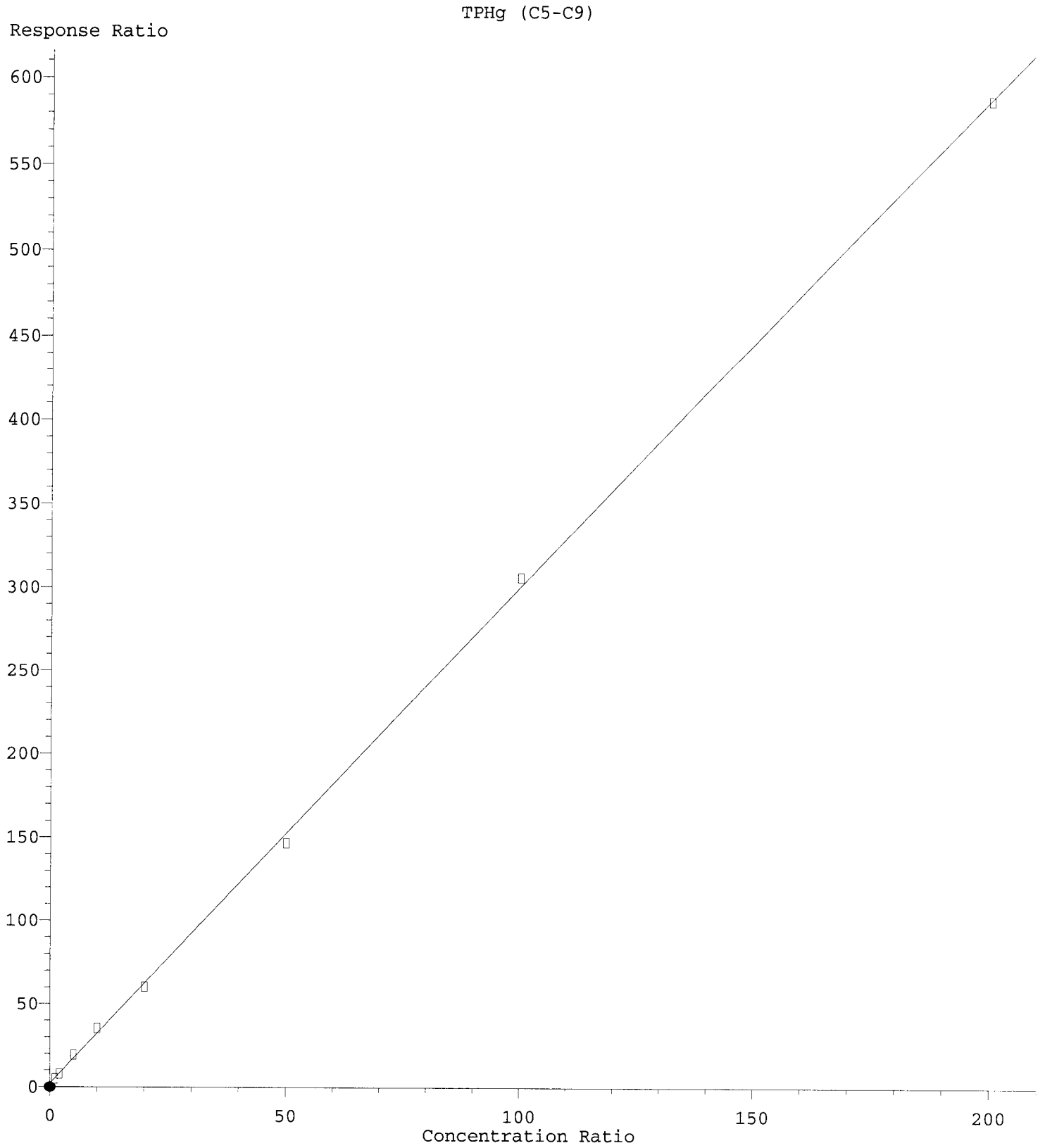
TIC: VJ19092649.D\data.ms

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

8.739min (0.000) 11.66 ug/L m

response 85582

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



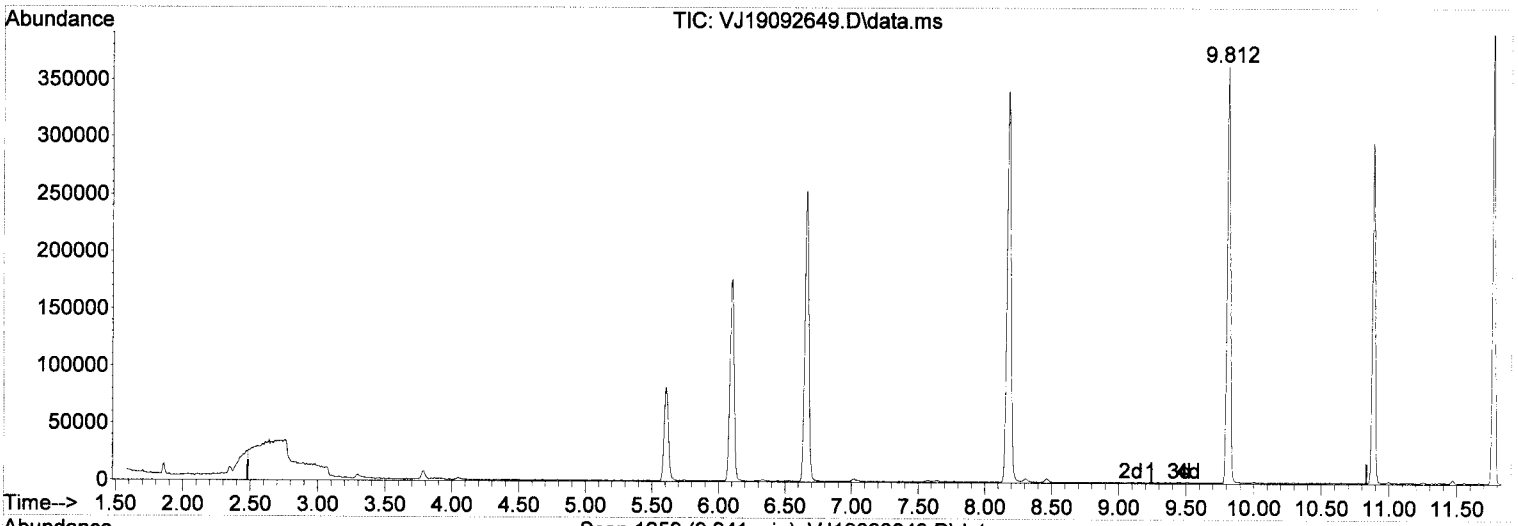
Int = 4.61

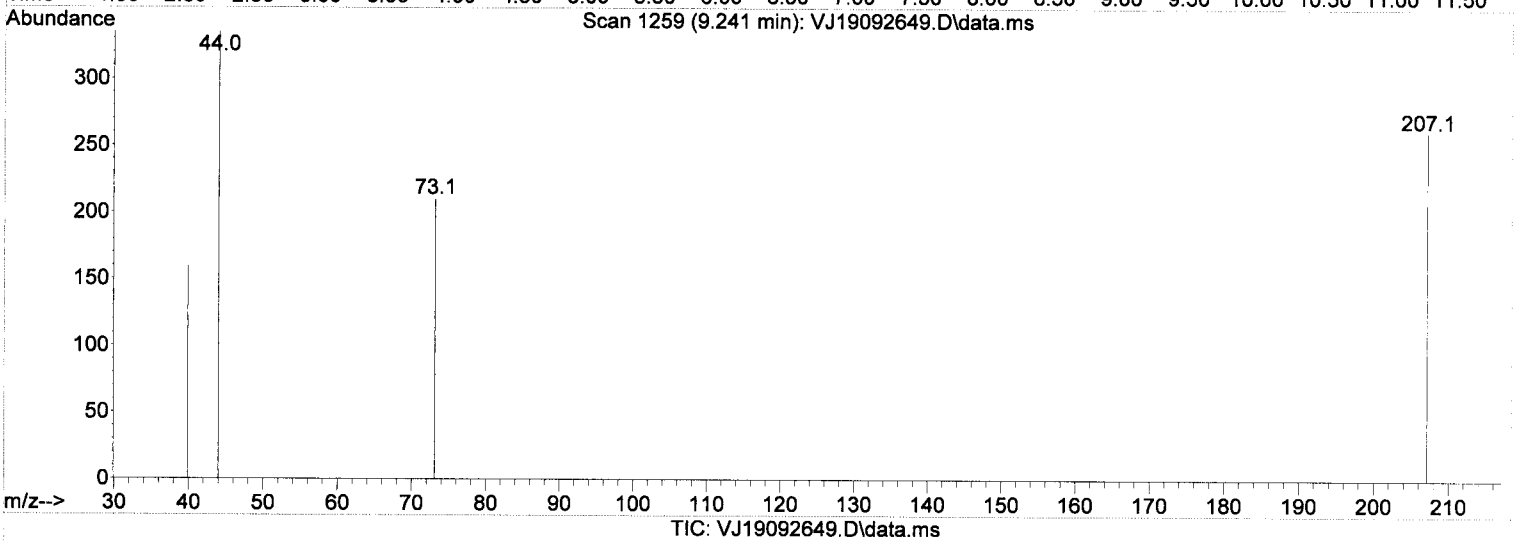
R = -5.66e-004 A*A + 3.04e+000 A + 2.08e+000
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\VJ190926G.M
Calibration Table Last Updated: Fri Sep 27 15:17:54 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092649.D
Acq On : 27 Sep 2019 6:50 am
Operator : TB
Sample : 9I26051-ICB2
Misc : 1X 5mL DI+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 27 15:41:02 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration





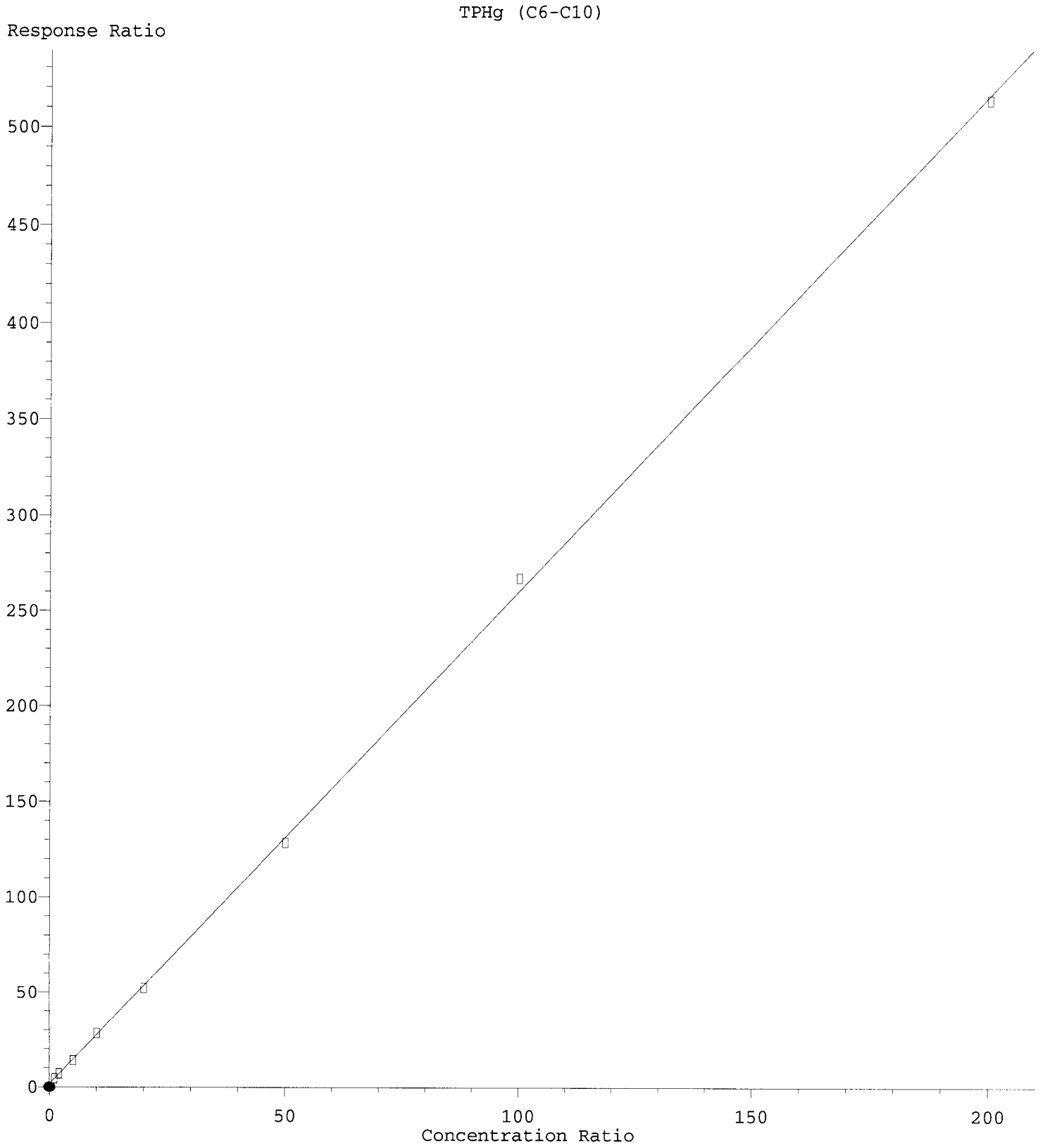
TIC: VJ19092649.D\data.ms

(5) TPHg (C5-C9) (H)

9.239min (0.000) 4.61 ug/L m

response 281021

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



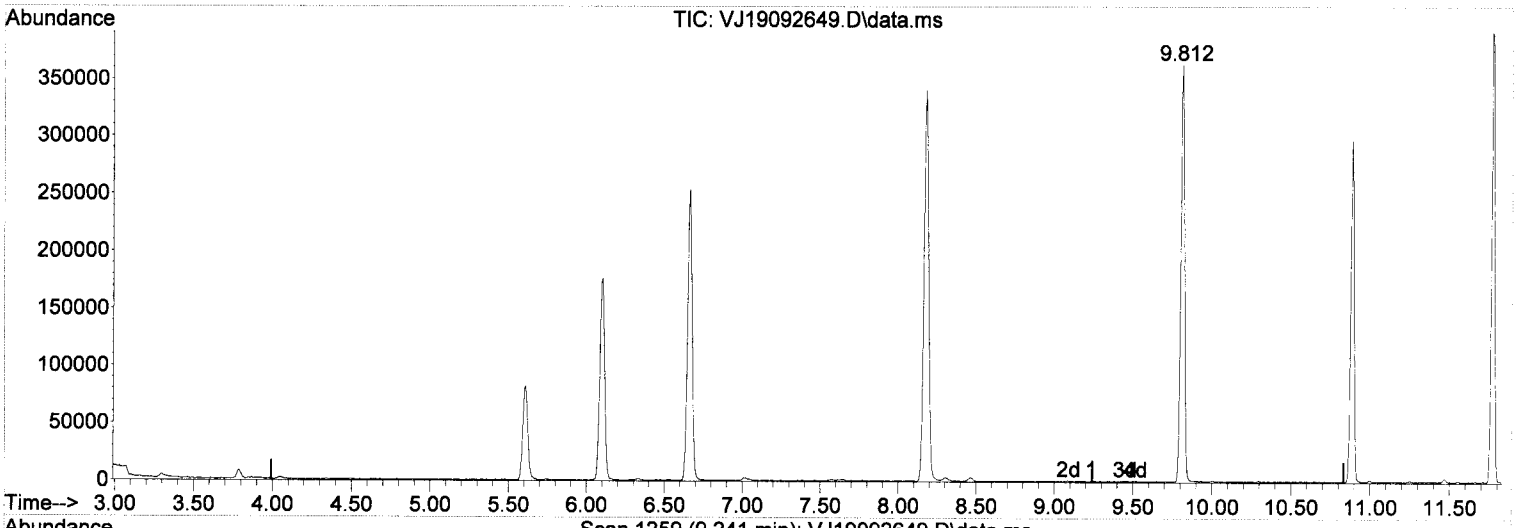
Int = 8.87

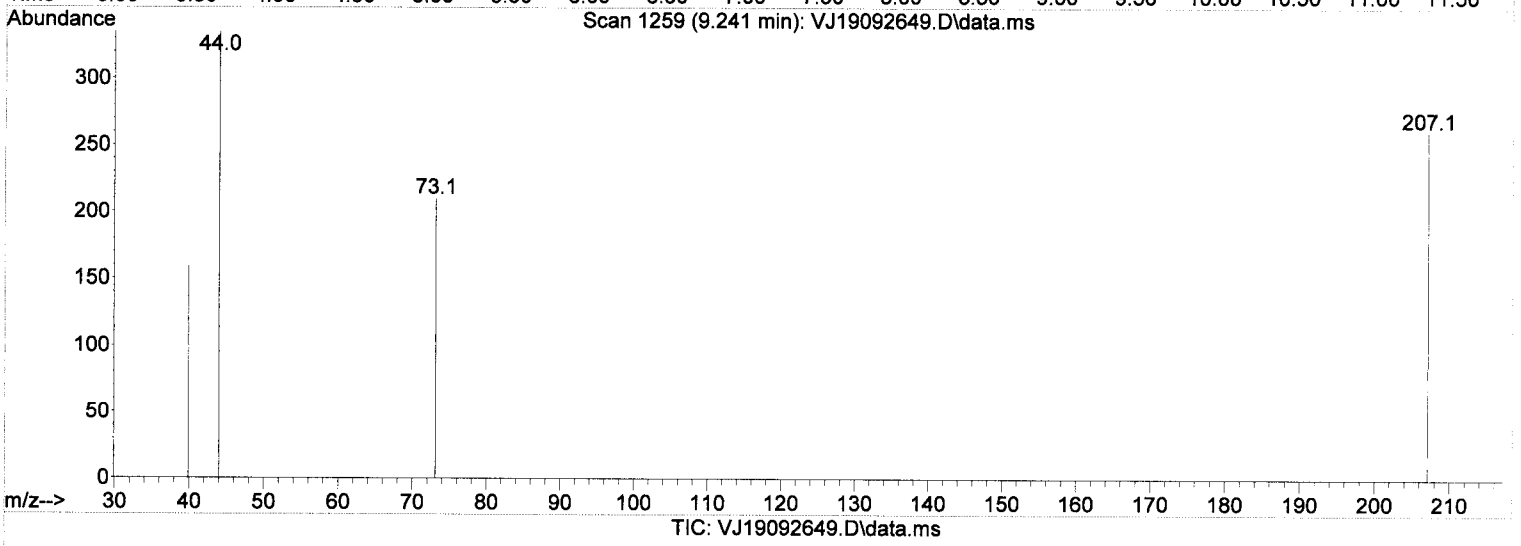
R = -1.67e-004 A*A + 2.60e+000 A + 1.63e+000
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\v81907260.m
Calibration Table Last Updated: Fri Sep 27 15:17:54 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092649.D
Acq On : 27 Sep 2019 6:50 am
Operator : TB
Sample : 9I26051-ICB2
Misc : 1X 5mL DI+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 27 15:41:02 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration





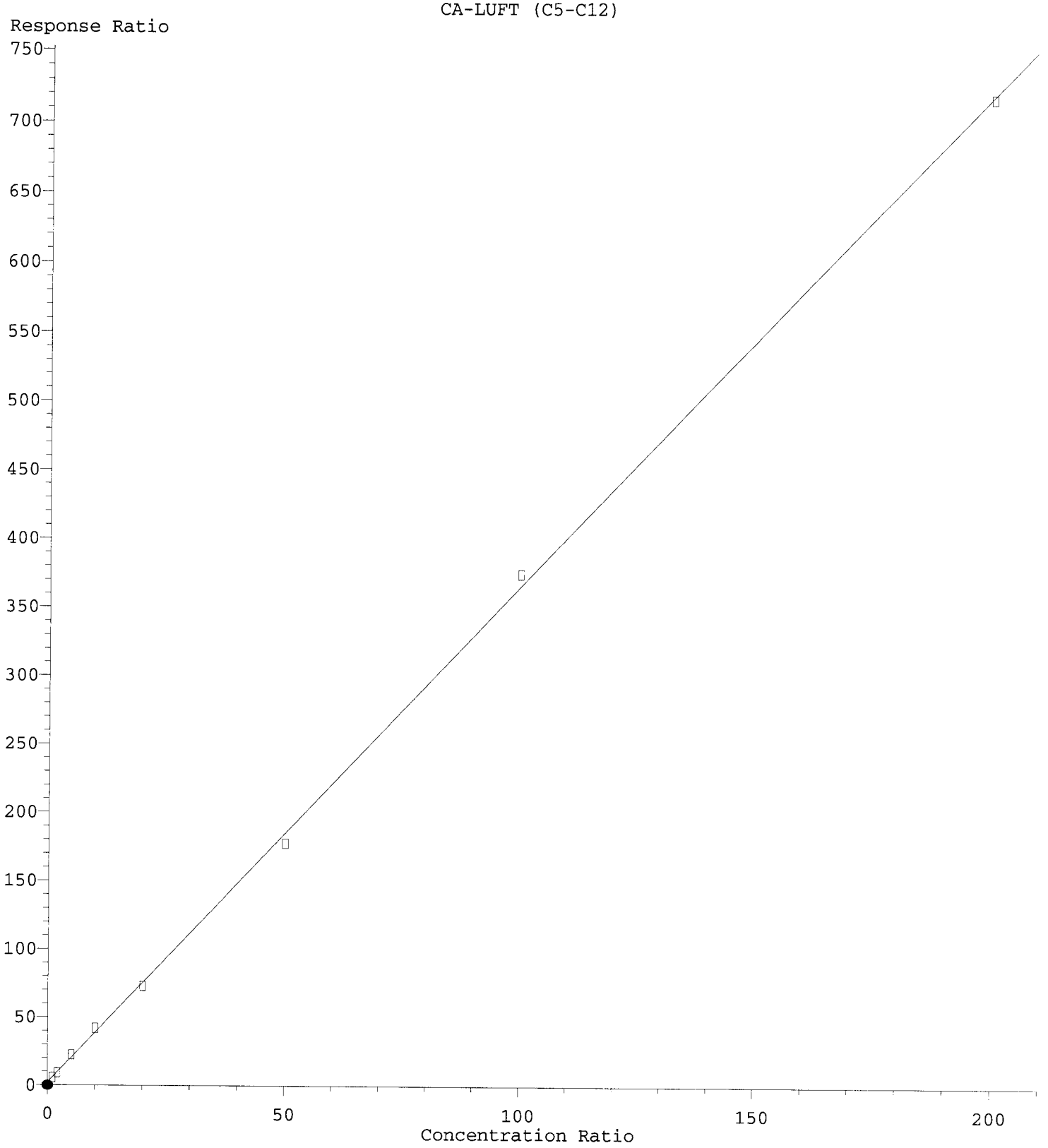
TIC: VJ19092649.D\data.ms

(6) TPHg (C6-C10) (H)

9.239min (0.000) 8.87 ug/L m

response 249005

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00



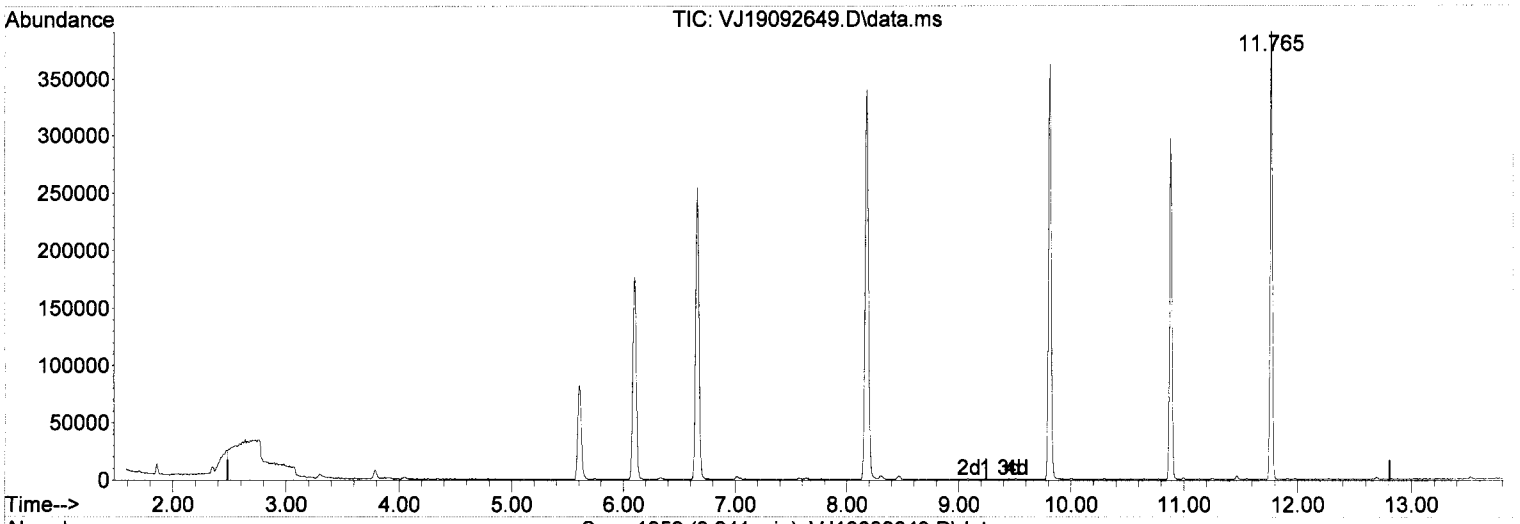
$I_{INT} = 6.35$

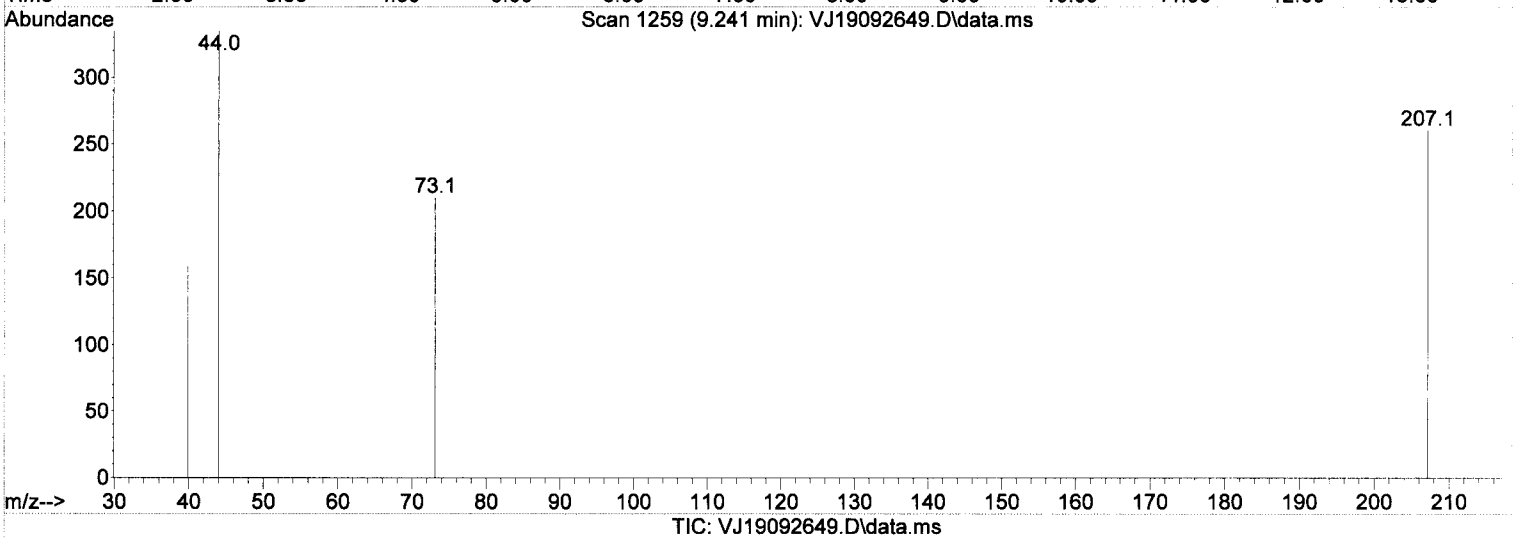
R = -5.04e-004 A*A + 3.69e+000 A + 2.10e+000
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)
Method Name: C:\msdchem\1\methods\v0119026e.M
Calibration Table Last Updated: Fri Sep 27 15:17:54 2019

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092649.D
Acq On : 27 Sep 2019 6:50 am
Operator : TB
Sample : 9I26051-ICB2
Misc : 1X 5mL DI+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 27 15:41:02 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration





TIC: VJ19092649.D\data.ms

(7) CA-LUFT (C5-C12) (H)

9.239min (0.000) 6.35 ug/L m

response 306027

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: 9I26051

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
9I26051-TUN2	MS Tune	Soil		A19G118	9/27/2019 5:30:00AM
9I26051-ICB2	Initial Cal Blank	Soil		A19G118	9/27/2019 6:50:00AM
9I26051-CALC	Cal Standard	Soil	A19I331	"	9/27/2019 7:17:00AM
9I26051-CALD	Cal Standard	Soil	A19I332	"	9/27/2019 7:44:00AM
9I26051-CALE	Cal Standard	Soil	A19I333	"	9/27/2019 8:10:00AM
9I26051-CALF	Cal Standard	Soil	A19I334	"	9/27/2019 8:37:00AM
9I26051-CALG	Cal Standard	Soil	A19H370	"	9/27/2019 9:04:00AM
9I26051-CALH	Cal Standard	Soil	A19H371	"	9/27/2019 9:31:00AM
9I26051-CALI	Cal Standard	Soil	A19H372	"	9/27/2019 9:57:00AM
9I26051-CALJ	Cal Standard	Soil	A19H373	"	9/27/2019 10:24:00AM
9I26051-ICV3	Initial Cal Check	Soil	A19G350	"	9/27/2019 11:45:00AM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9I2702** Instrument: **VOA-GCMS10**

8015D-Mod Gasoline (C6-C1(Sequence: **9I26051** Matrix: **Soil**

9I26051-CALC	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CALD	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CALE	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CALF	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CALG	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CALH	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-CALI	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I26051-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: 9I26051

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: **A9I2702** Instrument: **VOA-GCMS10**

NWTPH-Gx Sequence: **9I26051** Matrix: **Soil**

9I26051-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\2019-09\9I26051\
Data File : VJ19092660.D
Acq On : 27 Sep 2019 11:45 am
Operator : TB
Sample : 9I26051-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Sep 27 15:41:08 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration

9/27/19

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 (IS)	50.000	50.000	0.0	126	-0.01
2	S	1,4-Difluorobenzene (Sur)	50.000	49.229	1.5	123	-0.01
3	S	4-Bromofluorobenzene (Sur)	50.000	48.300	3.4	121	0.00
4	H	NWTPH-Gx (TPH)	500.000	458.274	8.3	114	0.00
5	H	TPHg (C5-C9)	500.000	466.695	6.7	109	0.00
6	H	TPHg (C6-C10)	500.000	448.869	10.2	111	0.00
7	H	CA-LUFT (C5-C12)	500.000	467.023	6.6	110	0.00
8		Benzene (NR)	-1.000	0.000	0.0	119	-0.01
9	S	Toluene-d8 (NR)	-1.000	0.000	0.0	122	-0.01
10		Toluene (NR)	-1.000	0.000	0.0	120	0.00
11	S	Chlorobenzene-d5 (NR)	-1.000	0.000	0.0	123	0.00
12	S	1,4-Dichlorobenzene-d4 (NR)	-1.000	0.000	0.0	119	0.00
13		Naphthalene (NR)	-1.000	0.000	0.0	122	-0.01

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

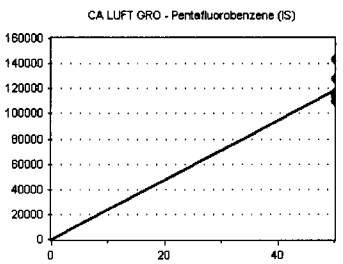
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **CA LUFT GRO** Instrument Cal ID: **VJ190926S+ VJ190926G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

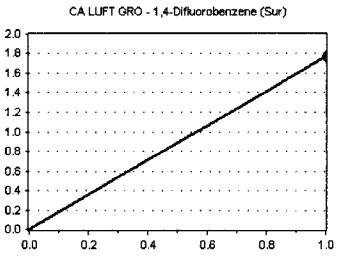


Standard	Concentration	Response	Response Factor	RT
9I26051-CALC	50	113074	2261.480	6.10
9I26051-CALD	50	115073	2301.460	6.10
9I26051-CALE	50	109981	2199.620	6.10
9I26051-CALF	50	109511	2190.220	6.10
9I26051-CALG	50	113434	2268.680	6.10
9I26051-CALH	50	116493	2329.860	6.10
9I26051-CALI	50	127905	2558.100	6.10
9I26051-CALJ	50	143951	2879.020	6.10

AVE RF **2373.555** RF RSD **9.87** AVE RT **6.10**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

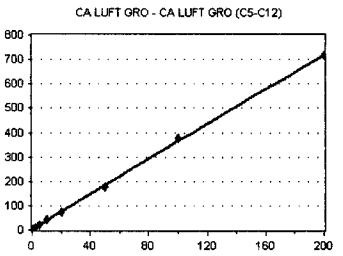


Standard	Concentration	Response	Response Factor	RT
9I26051-CALC	50	199925	1.768	6.66
9I26051-CALD	50	203204	1.766	6.66
9I26051-CALE	50	194788	1.771	6.66
9I26051-CALF	50	195473	1.785	6.66
9I26051-CALG	50	201528	1.777	6.66
9I26051-CALH	50	206587	1.773	6.66
9I26051-CALI	50	225634	1.764	6.66
9I26051-CALJ	50	253792	1.763	6.66

AVE RF **1.771** RF RSD **0.41** AVE RT **6.66**

CA LUFT GRO (C5-C12)

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

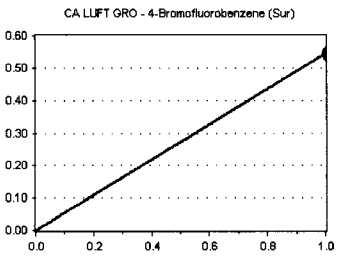


Standard	Concentration	Response	Response Factor	RT
9I26051-CALC	50	629208	5.565	9.24
9I26051-CALD	100	1035063	4.497	9.24
9I26051-CALE	250	2461965	4.477	9.24
9I26051-CALF	500	4586468	4.188	9.24
9I26051-CALG	1000	8260112	3.641	9.24
9I26051-CALH	2500	2.067643E+07	3.550	9.24
9I26051-CALI	5000	4.785885E+07	3.742	9.24
9I26051-CALJ	10000	1.031852E+08	3.584	9.24

AVE RF **4.155** RF RSD **16.61** AVE RT **9.24**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I26051-CALC	50	61945	0.548	10.88
9I26051-CALD	50	61650	0.536	10.88
9I26051-CALE	50	59627	0.542	10.88
9I26051-CALF	50	59929	0.547	10.88
9I26051-CALG	50	62285	0.549	10.88
9I26051-CALH	50	64135	0.551	10.88
9I26051-CALI	50	69662	0.545	10.88
9I26051-CALJ	50	77412	0.538	10.88

AVE RF **0.544** RF RSD **0.99** AVE RT **10.88**

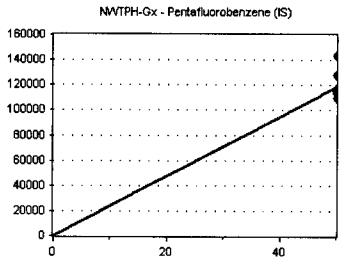
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **NWTPH-Gx** Instrument Cal ID: **VJ190926S+ VJ190926G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

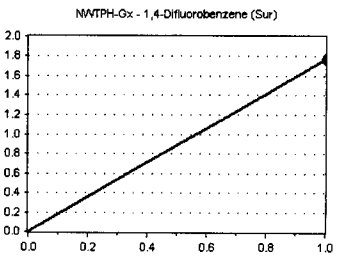


Standard	Concentration	Response	Response Factor	RT
9I26051-CALC	50	113074	2261.480	6.10
9I26051-CALD	50	115073	2301.460	6.10
9I26051-CALE	50	109981	2199.620	6.10
9I26051-CALF	50	109511	2190.220	6.10
9I26051-CALG	50	113434	2268.680	6.10
9I26051-CALH	50	116493	2329.860	6.10
9I26051-CALI	50	127905	2558.100	6.10
9I26051-CALJ	50	143951	2879.020	6.10

AVE RF **2373.555** RF RSD **9.87** AVE RT **6.10**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

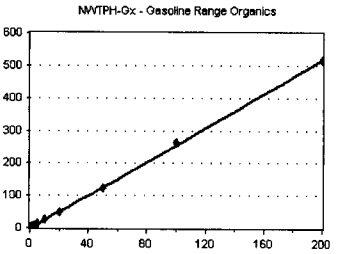


Standard	Concentration	Response	Response Factor	RT
9I26051-CALC	50	199925	1.768	6.66
9I26051-CALD	50	203204	1.766	6.66
9I26051-CALE	50	194788	1.771	6.66
9I26051-CALF	50	195473	1.785	6.66
9I26051-CALG	50	201528	1.777	6.66
9I26051-CALH	50	206587	1.773	6.66
9I26051-CALI	50	225634	1.764	6.66
9I26051-CALJ	50	253792	1.763	6.66

AVE RF **1.771** RF RSD **0.41** AVE RT **6.66**

Gasoline Range Organics

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

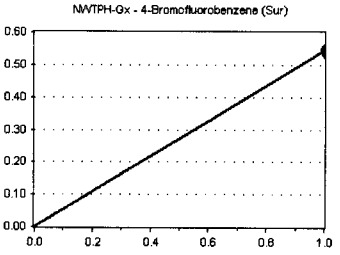


Standard	Concentration	Response	Response Factor	RT
9I26051-CALC	50	320378	2.833	8.74
9I26051-CALD	100	582275	2.530	8.74
9I26051-CALE	250	1319842	2.400	8.74
9I26051-CALF	500	2785925	2.544	8.74
9I26051-CALG	1000	5469213	2.411	8.74
9I26051-CALH	2500	1.426509E+07	2.449	8.74
9I26051-CALI	5000	3.366642E+07	2.632	8.74
9I26051-CALJ	10000	7.423594E+07	2.579	8.74

AVE RF **2.547** RF RSD **5.56** AVE RT **8.74**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I26051-CALC	50	61945	0.548	10.88
9I26051-CALD	50	61650	0.536	10.88
9I26051-CALE	50	59627	0.542	10.88
9I26051-CALF	50	59929	0.547	10.88
9I26051-CALG	50	62285	0.549	10.88
9I26051-CALH	50	64135	0.551	10.88
9I26051-CALI	50	69662	0.545	10.88
9I26051-CALJ	50	77412	0.538	10.88

AVE RF **0.544** RF RSD **0.99** AVE RT **10.88**

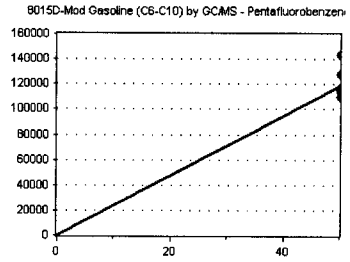
Element Calibration Review Sheet

Calibration ID: **A9I2702** Instrument: **VOA-GCMS10** Calibration Date: **09/26/2019**

Analysis: **8015D-Mod Gasoline (C6-C1** Instrument Cal ID: **VJ190926S+ VJ190926G**

Pentafluorobenzene (IS)

Curve Fit: **AVERAGE RF**

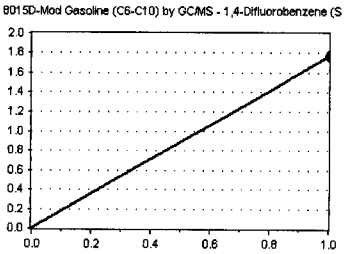


Standard	Concentration	Response	Response Factor	RT
9I26051-CALC	50	113074	2261.480	6.10
9I26051-CALD	50	115073	2301.460	6.10
9I26051-CALE	50	109981	2199.620	6.10
9I26051-CALF	50	109511	2190.220	6.10
9I26051-CALG	50	113434	2268.680	6.10
9I26051-CALH	50	116493	2329.860	6.10
9I26051-CALI	50	127905	2558.100	6.10
9I26051-CALJ	50	143951	2879.020	6.10

AVE RF **2373.555** RF RSD **9.87** AVE RT **6.10**

1,4-Difluorobenzene (Sur)

Curve Fit: **AVERAGE RF**

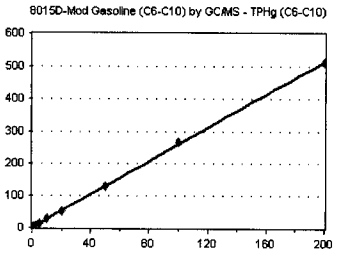


Standard	Concentration	Response	Response Factor	RT
9I26051-CALC	50	199925	1.768	6.66
9I26051-CALD	50	203204	1.766	6.66
9I26051-CALE	50	194788	1.771	6.66
9I26051-CALF	50	195473	1.785	6.66
9I26051-CALG	50	201528	1.777	6.66
9I26051-CALH	50	206587	1.773	6.66
9I26051-CALI	50	225634	1.764	6.66
9I26051-CALJ	50	253792	1.763	6.66

AVE RF **1.771** RF RSD **0.41** AVE RT **6.66**

TPHg (C6-C10)

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

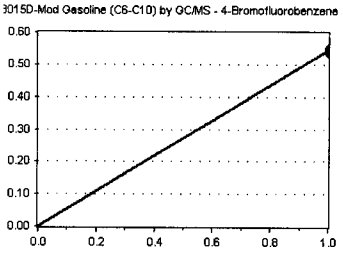


Standard	Concentration	Response	Response Factor	RT
9I26051-CALC	50	489865	4.332	9.24
9I26051-CALD	100	797203	3.464	9.24
9I26051-CALE	250	1528260	2.779	9.24
9I26051-CALF	500	3102369	2.833	9.24
9I26051-CALG	1000	5909770	2.605	9.24
9I26051-CALH	2500	1.496215E+07	2.569	9.24
9I26051-CALI	5000	3.412665E+07	2.668	9.24
9I26051-CALJ	10000	7.381909E+07	2.564	9.24

AVE RF **2.977** RF RSD **20.88** AVE RT **9.24**

4-Bromofluorobenzene (Sur)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9I26051-CALC	50	61945	0.548	10.88
9I26051-CALD	50	61650	0.536	10.88
9I26051-CALE	50	59627	0.542	10.88
9I26051-CALF	50	59929	0.547	10.88
9I26051-CALG	50	62285	0.549	10.88
9I26051-CALH	50	64135	0.551	10.88
9I26051-CALI	50	69662	0.545	10.88
9I26051-CALJ	50	77412	0.538	10.88

AVE RF **0.544** RF RSD **0.99** AVE RT **10.88**

Injection Log

Directory: w:\data\2019-09\9I26051

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	Vj19092625.d	1.	9I26051-IBL1	1X 5mL DI+MeOH	26 Sep 2019 20:08
2	2	Vj19092626.d	1.	9I26051-TUN1	A19G118 BFB (IS/...	26 Sep 2019 20:35
3	3	Vj19092627.d	1.	9I26051-ICB1	1X 5mL DI+MeOH	26 Sep 2019 21:02
4	4	Vj19092628.d	1.	9I26051-CAL1	1X 5mL 0.1/0.2P...	26 Sep 2019 21:28
5	5	Vj19092629.d	1.	9I26051-CAL2	1X 5mL 0.2/0.4P...	26 Sep 2019 21:55
6	6	Vj19092630.d	1.	9I26051-CAL3	1X 5mL 0.4/0.8P...	26 Sep 2019 22:22
7	7	Vj19092631.d	1.	9I26051-CAL4	1X 5mL 1/2PPB V...	26 Sep 2019 22:49
8	8	Vj19092632.d	1.	9I26051-CAL5	1X 5mL 2/4PPB V...	26 Sep 2019 23:15
9	9	Vj19092633.d	1.	9I26051-CAL6	1X 5mL 5/10PPB ...	26 Sep 2019 23:42
10	10	Vj19092634.d	1.	9I26051-CAL7	1X 5mL 10/20PPB...	27 Sep 2019 00:09
11	11	Vj19092635.d	1.	9I26051-CAL8	1X 5mL 20/40PPB...	27 Sep 2019 00:35
12	12	Vj19092636.d	1.	9I26051-CAL9	1X 5mL 50/100PP...	27 Sep 2019 01:02
13	13	Vj19092637.d	1.	9I26051-IBL2	1X 5mL DI+MeOH	27 Sep 2019 01:29
14	14	Vj19092638.d	1.	9I26051-CALA	1X 5mL 100/200P...	27 Sep 2019 01:56
15	15	Vj19092639.d	1.	9I26051-IBL3	1X 5mL DI+MeOH	27 Sep 2019 02:22
16	16	Vj19092640.d	1.	9I26051-CALB	1X 5mL 200/400P...	27 Sep 2019 02:49
17	17	Vj19092641.d	1.	9I26051-IBL4	1X 5mL DI+MeOH	27 Sep 2019 03:16
18	18	Vj19092642.d	1.	9I26051-IBL5	1X 5mL DI+MeOH	27 Sep 2019 03:43
19	19	Vj19092643.d	1.	9I26051-ICV1	1X 5mL 20/40PPB...	27 Sep 2019 04:10
20	20	Vj19092644.d	1.	9I26051-ICV2	1X 5mL OXY ICV	27 Sep 2019 04:36
21	21	Vj19092645.d	1.	9I26051-IBL6	1X 5mL DI+MeOH	27 Sep 2019 05:03
22	22	Vj19092646.d	1.	9I26051-TUN2	A19G118 BFB (IS/...	27 Sep 2019 05:30
23	23	Vj19092647.d	1.	9I26051-RT	1X 5mL DI+MeOH	27 Sep 2019 05:57
24	24	Vj19092648.d	1.	9I26051-IBL7	1X 5mL DI+MeOH	27 Sep 2019 06:23
25	25	Vj19092649.d	1.	9I26051-ICB2	1X 5mL DI+MeOH	27 Sep 2019 06:50
26	26	Vj19092650.d	1.	9I26051-CALC	1X 5mL 50PPB GX...	27 Sep 2019 07:17
27	27	Vj19092651.d	1.	9I26051-CALD	1X 5mL 100PPB GX...	27 Sep 2019 07:44
28	28	Vj19092652.d	1.	9I26051-CALE	1X 5mL 250PPB G...	27 Sep 2019 08:10
29	29	Vj19092653.d	1.	9I26051-CALF	1X 5mL 500PPB G...	27 Sep 2019 08:37
30	30	Vj19092654.d	1.	9I26051-CALG	1X 5mL 1000PPB ...	27 Sep 2019 09:04
31	31	Vj19092655.d	1.	9I26051-CALH	1X 5mL 2500PPB G...	27 Sep 2019 09:31
32	32	Vj19092656.d	1.	9I26051-CALI	1X 5mL 5000PPB ...	27 Sep 2019 09:57
33	33	Vj19092657.d	1.	9I26051-CALJ	1X 5mL 10000PPB...	27 Sep 2019 10:24
34	34	Vj19092658.d	1.	9I26051-IBL8	1X 5mL DI+MeOH	27 Sep 2019 10:51
35	35	Vj19092659.d	1.	9I26051-IBL9	1X 5mL DI+MeOH	27 Sep 2019 11:18
36	36	Vj19092660.d	1.	9I26051-ICV3	1X 5mL 500PPB G...	27 Sep 2019 11:45
37	37	Vj19092661.d	1.	9I26051-IBLA	1X 5mL DI+MeOH	27 Sep 2019 12:11

9/27/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092625.D
Acq On : 26 Sep 2019 8:08 pm
Operator : TB
Sample : 9I26051-IBL1
Misc : 1X 5mL DI+MeOH
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 27 15:39:52 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

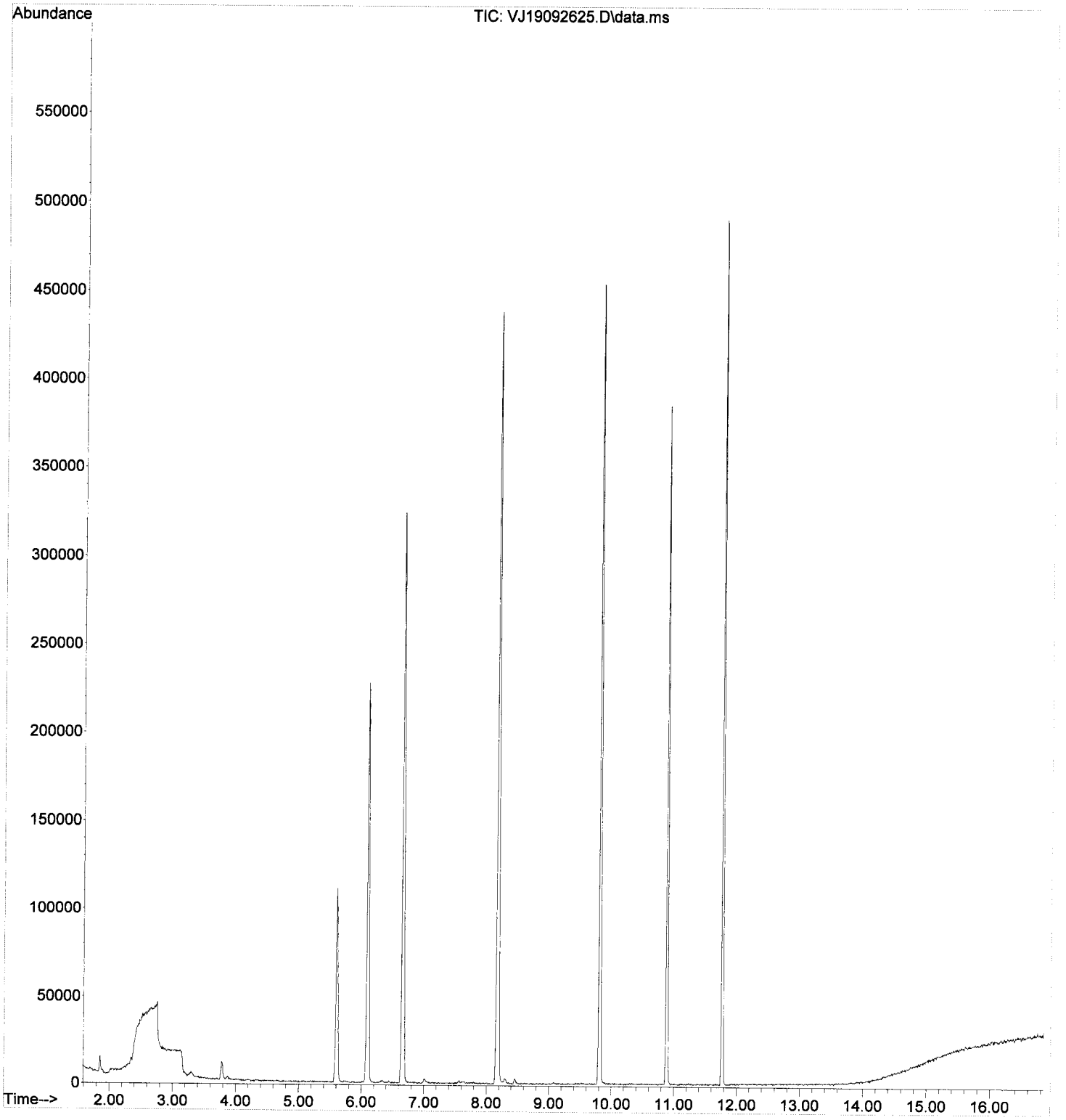
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	100766	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	244424	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	108570	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	75388	52.38	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	276747	51.42	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	339498	49.53	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	85744	51.12	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.898	50	819	0.31	ug/L		80
5) Bromomethane	2.342	96	2387	Below Cal			99
6) Chloroethane	2.457	64	377	1.25	ug/L		65
8) Ethanol	3.297	45	3917	6.13	ug/L		78
12) Iodomethane	3.297	142	1086	0.84	ug/L		71
14) Acetone	3.863	43	2333	Below Cal			98
28) Tetrahydrofuran	5.597	42	430	0.22	ug/L	#	34
32) 2-Butanone (MEK)	5.743	43	1402	0.53	ug/L		52
34) tert-Amyl methyl ether...	6.174	73	354	Below Cal		#	46
36) iso-Butyl Alcohol	6.314	43	762	2.45	ug/L		87

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092625.D
Acq On : 26 Sep 2019 8:08 pm
Operator : TB
Sample : 9I26051-IBL1
Misc : 1X 5mL DI+MeOH
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 27 15:39:52 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

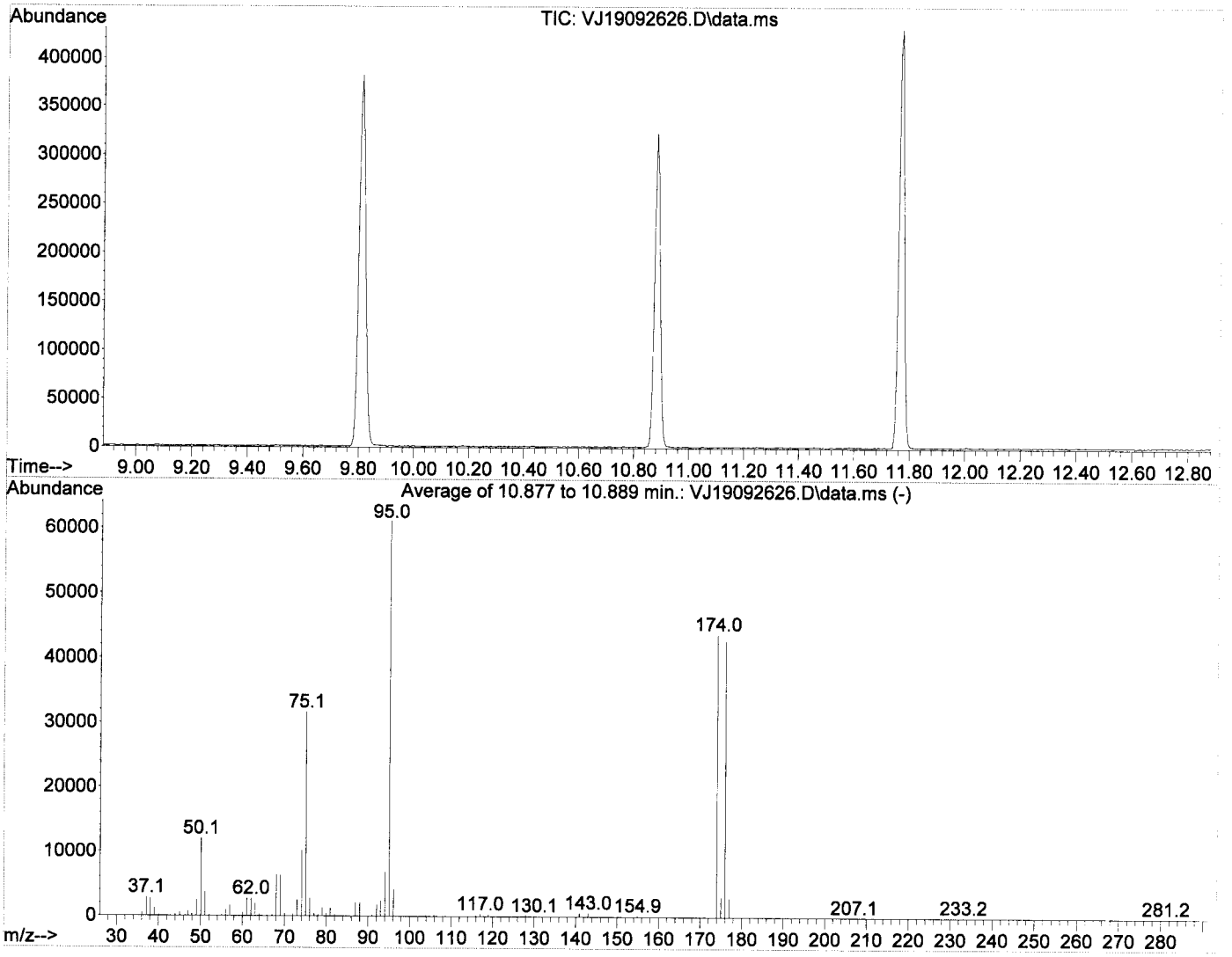


Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092626.D
Acq On : 26 Sep 2019 8:35 pm
Operator : TB
Sample : 9I26051-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\methods\VJ190926S+.M
Title : EPA 8260C: Volatile Organic Compounds
Last Update : Fri Sep 27 13:24:27 2019

9/27/19



AutoFind: Scans 1528, 1529, 1530; 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	139.7	61197	PASS
96	95	5	9	6.8	4133	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	71.6	43797	PASS
175	174	5	9	7.1	3111	PASS
176	174	95	105	97.4	42675	PASS
177	176	5	10	6.7	2860	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092626.D
Acq On : 26 Sep 2019 8:35 pm
Operator : TB
Sample : 9I26051-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 27 15:39:55 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

9/27/19

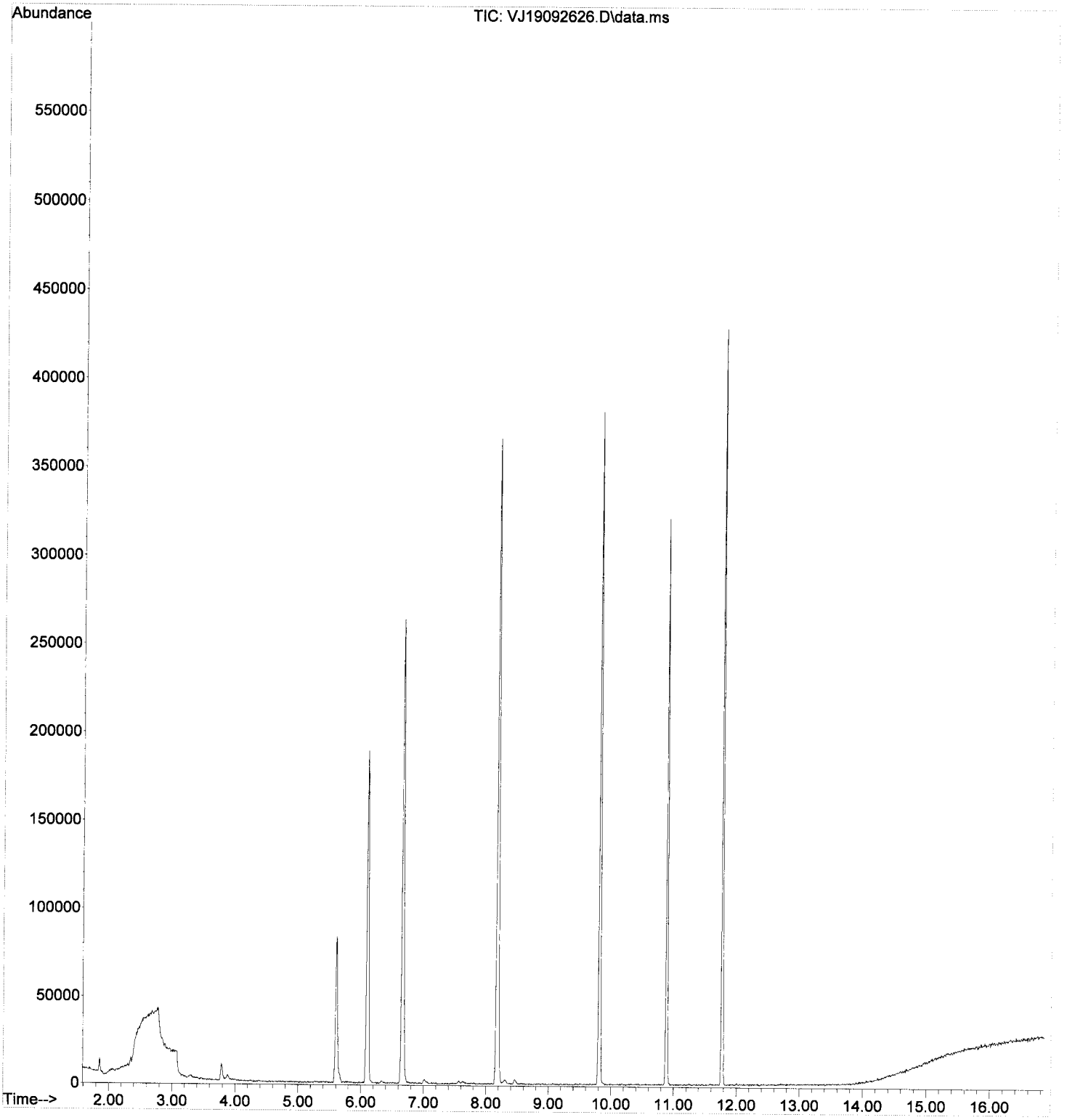
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	85074	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	204856	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	92614	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	60907	50.12	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	232451	51.15	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	283054	49.27	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	71954	50.29	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.904	50	808	0.36	ug/L		84
5) Bromomethane	2.348	96	2116	Below Cal			97
6) Chloroethane	2.463	64	296	1.16	ug/L		71
8) Ethanol	3.315	45	1380	Below Cal			78
12) Iodomethane	3.303	142	848	0.71	ug/L		72
13) Methylene Chloride	3.790	84	4476	0.11	ug/L		96
14) Acetone	3.881	43	3691	0.61	ug/L		94
28) Tetrahydrofuran	5.596	42	190	0.12	ug/L	#	66
32) 2-Butanone (MEK)	5.755	43	766	0.34	ug/L		52
34) tert-Amyl methyl ether...	6.162	73	152	Below Cal		#	46
36) iso-Butyl Alcohol	6.339	43	960	3.65	ug/L		90

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092626.D
Acq On : 26 Sep 2019 8:35 pm
Operator : TB
Sample : 9I26051-TUN1
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 27 15:39:55 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092627.D
Acq On : 26 Sep 2019 9:02 pm
Operator : TB
Sample : 9I26051-ICB1
Misc : 1X 5mL DI+MeOH
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 27 15:39:58 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

9/27/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	84032	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.813	117	200485	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	90162	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	61292	51.07	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	231159	51.50	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	281954	50.15	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	71137	51.07	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.892	50	655	0.29	ug/L		75
5) Bromomethane	2.342	96	2279	0.21	ug/L		96
6) Chloroethane	2.476	64	380	1.52	ug/L	#	47
8) Ethanol	3.321	45	4339	20.88	ug/L		82
12) Iodomethane	3.291	142	839	0.71	ug/L		74
14) Acetone	3.875	43	2097	Below Cal		#	42
28) Tetrahydrofuran	5.603	42	589	0.36	ug/L	#	57
32) 2-Butanone (MEK)	5.761	43	1241	0.57	ug/L		52
34) tert-Amyl methyl ether...	6.162	73	88	Below Cal		#	46
36) iso-Butyl Alcohol	6.321	43	1015	3.91	ug/L		65

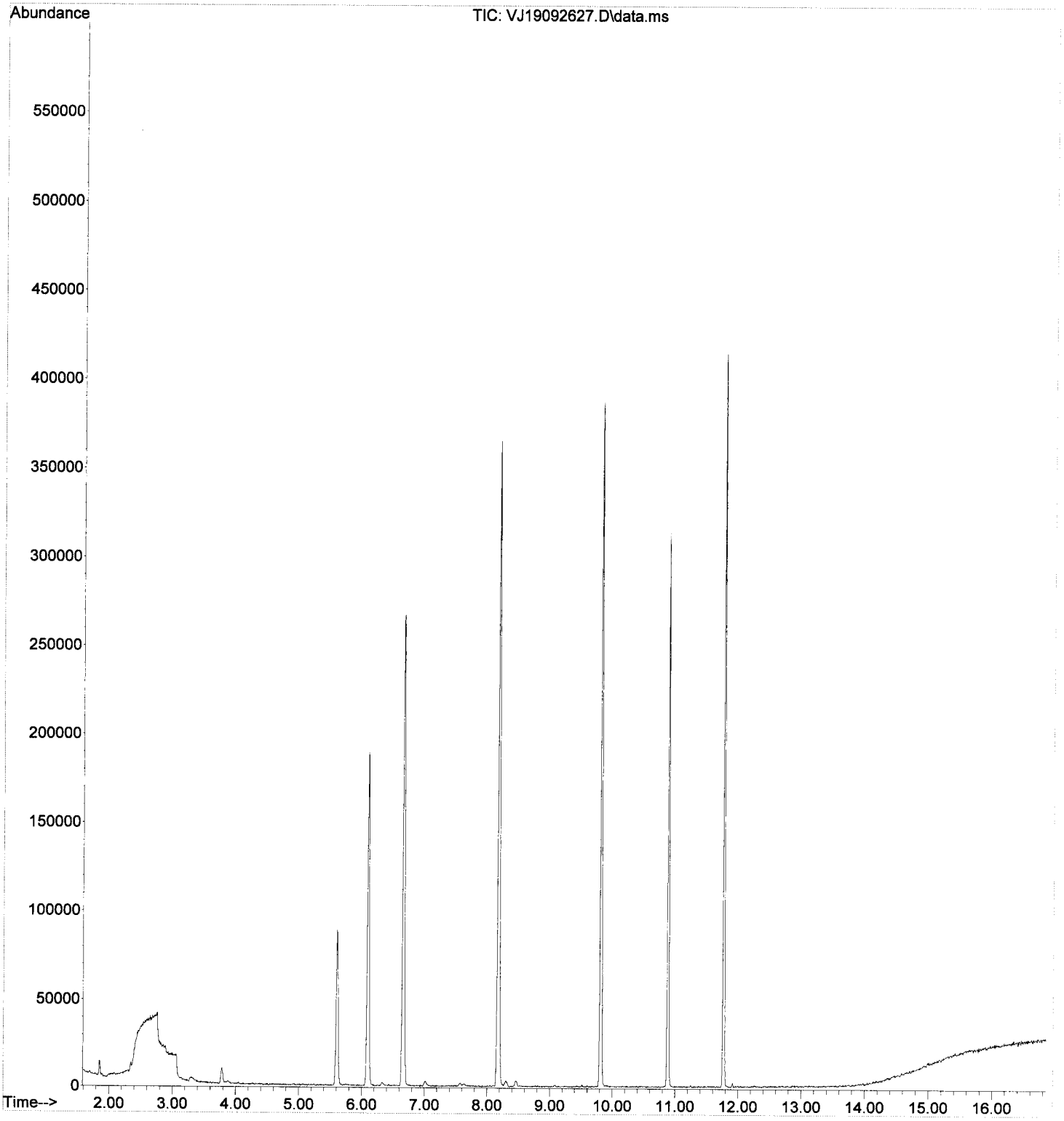
LWOC

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092627.D
Acq On : 26 Sep 2019 9:02 pm
Operator : TB
Sample : 9I26051-ICB1
Misc : 1X 5mL DI+MeOH
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 27 15:39:58 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092628.D
Acq On : 26 Sep 2019 9:28 pm
Operator : TB
Sample : 9I26051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCO+MeOH
ALS Vial : 4 Sample Multiplier: 1

post
9/27/19

Quant Time: Sep 27 11:04:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.095	99	85083	50.00	ug/L	0.00
43) Chlorobenzene-d5 (I)	9.812	117	201011	50.00	ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	91119	50.00	ug/L	0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.603	111	58707	48.22	ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.655	114	230170	51.09	ug/L	0.00
45) Toluene-d8 (S)	8.176	98	281171	49.20	ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.883	174	70815	50.39	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D. d		
4) Vinyl Chloride	0.000		0	N.D. d		
5) Bromomethane	2.342	96	2014	2.65	ug/L	87
6) Chloroethane	0.000		0	N.D. d		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethanol	3.315	45	5365	80.38	ug/L	89
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. d		
13) Methylene Chloride	3.784	84	2577	1.53	ug/L	88
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. 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.		
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	6.010	78	929	0.11	ug/L	62
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	8.237	91	1040	0.12	ug/L	95
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\2019-09\9I26051\
Data File : VJ19092628.D
Acq On : 26 Sep 2019 9:28 pm
Operator : TB
Sample : 9I26051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCO+MeOH
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 27 11:04:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

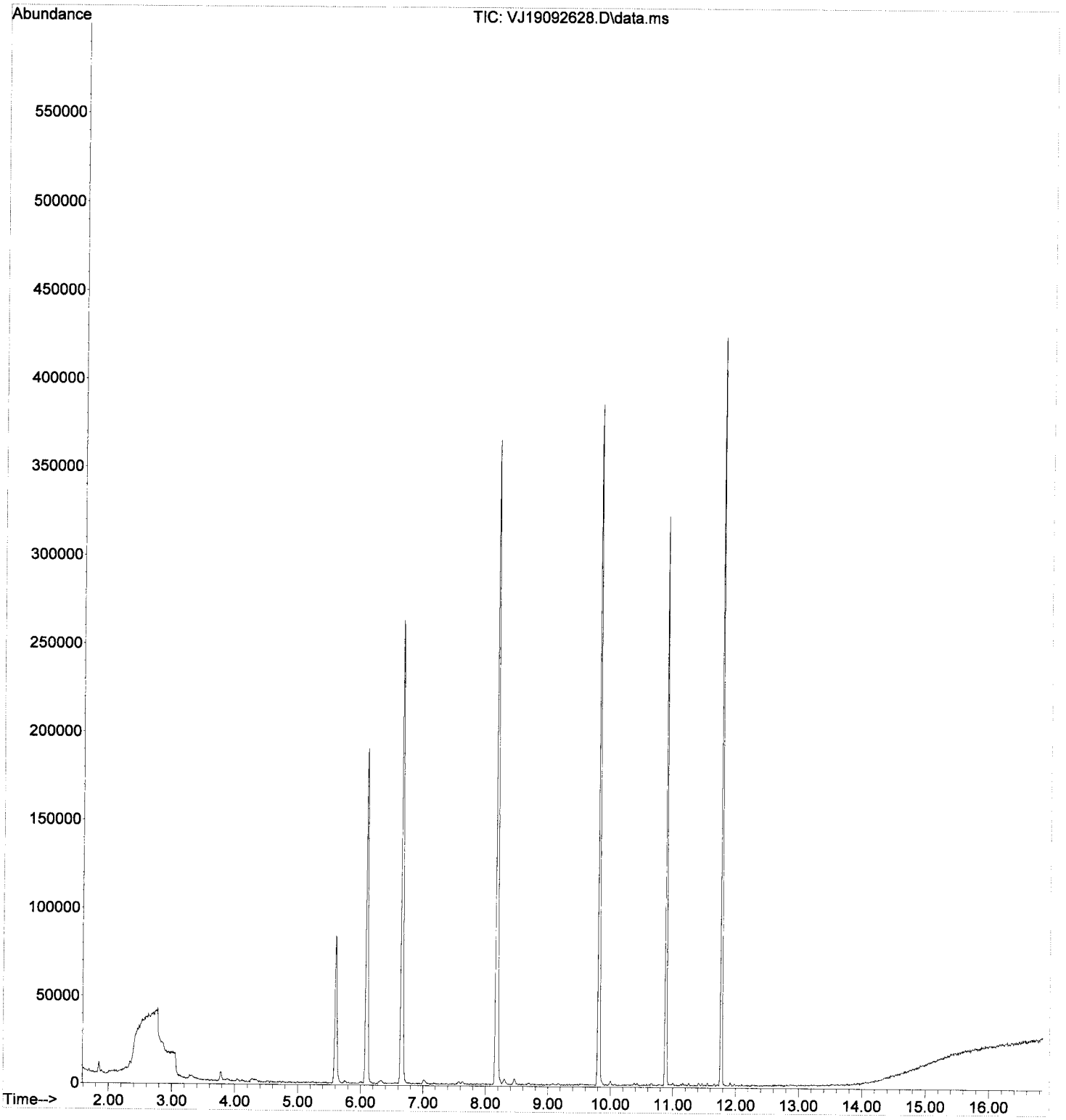
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) t-1,3-Dichloropropene	0.000		0	N.D. d	
50) 1,1,2-Trichloroethane	0.000		0	N.D.	
51) Dibromochloromethane	0.000		0	N.D.	
52) 1,3-Dichloropropane	0.000		0	N.D. d	
53) 1,2-Dibromoethane (EDB)	0.000		0	N.D.	
54) 2-Hexanone	0.000		0	N.D. d	
55) Chlorobenzene	9.831	112	362	0.07 ug/L #	60
56) Ethylbenzene	9.861	91	1042	0.11 ug/L	93
57) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
58) m,p-Xylenes (2)	10.001	91	1555	0.22 ug/L	84
59) o-Xylene	10.384	91	830	0.11 ug/L	70
60) Styrene	10.427	104	376	0.07 ug/L	67
61) Bromoform	0.000		0	N.D.	
62) Isopropylbenzene	10.652	105	1007	0.11 ug/L	77
65) Bromobenzene	0.000		0	N.D. d	
66) n-Propylbenzene	11.005	91	1072	0.11 ug/L	84
67) 1,1,2,2-Tetrachloroethane	0.000		0	N.D. d	
68) 2-Chlorotoluene	0.000		0	N.D.	
69) 1,3,5-Trimethylbenzene	11.157	105	744	0.11 ug/L	83
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	689	0.12 ug/L	89
73) tert-Butylbenzene	11.406	91	472	0.12 ug/L #	67
74) 1,2,4-Trimethylbenzene	11.467	105	773	0.11 ug/L	63
75) sec-Butylbenzene	11.552	105	858	0.11 ug/L	62
76) 4-Isopropyltoluene	11.662	119	688	0.10 ug/L	75
77) 1,3-Dichlorobenzene	11.717	146	362	0.11 ug/L #	73
78) 1,4-Dichlorobenzene	11.784	146	286	0.08 ug/L #	34
79) n-Butylbenzene	11.978	91	741	0.12 ug/L	96
80) 1,2-Dichlorobenzene	0.000		0	N.D. d	
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 (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092628.D
Acq On : 26 Sep 2019 9:28 pm
Operator : TB
Sample : 9I26051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCO+MeOH
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 27 11:04:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092628.D
Acq On : 26 Sep 2019 9:28 pm
Operator : TB
Sample : 9I26051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCO+MeOH
ALS Vial : 4 Sample Multiplier: 1

pre
9/27/19

Quant Time: Sep 27 10:51:40 2019
Quant Method : C:\msdchem\1\methods\~~VJ190926S+.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	85083	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	201011	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	91119	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	58707	48.22	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	230170	51.09	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	281171	49.20	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	70815	50.39	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.			
3) Chloromethane	1.892	50	980	0.45	ug/L		92
4) Vinyl Chloride	2.001	62	58	0.03	ug/L	#	46
5) Bromomethane	2.342	96	2014	2.65	ug/L		87
6) Chloroethane	2.482	64	188	0.74	ug/L	#	35
7) Trichlorofluoromethane	0.000		0	N.D.			
8) Ethanol	3.315	45	5365	80.38	ug/L		89
9) 1,1-Dichloroethene	3.145	61	62	0.02	ug/L	#	25
10) Carbon Disulfide	3.145	76	466	0.13	ug/L		78
11) Freon 113	0.000		0	N.D.			
12) Iodomethane	3.285	142	640	1.21	ug/L		66
13) Methylene Chloride	3.784	84	2577	1.53	ug/L		88
14) Acetone	3.881	43	1945	1.45	ug/L	#	42
15) t-1,2-Dichloroethene	3.954	61	82	0.03	ug/L	#	71
16) n-Hexane	0.000		0	N.D.			
17) Methyl-tert-butyl-ether	4.106	73	1636	0.23	ug/L		57
18) tert-Butanol (TBA)	4.276	59	4662	6.45	ug/L	#	86
19) Diisopropyl ether (DIPE)	4.514	45	57	0.01	ug/L	#	2
20) 1,1-Dichloroethane	4.581	63	196	0.07	ug/L	#	50
21) Acrylonitrile	0.000		0	N.D.			
22) Ethyl-tert-butyl ether...	4.879	59	60	0.01	ug/L	#	38
23) c-1,2-Dichloroethene	5.140	61	126	0.05	ug/L	#	35
24) 2,2-Dichloropropane	5.250	77	414	0.14	ug/L		64
25) Bromochloromethane	0.000		0	N.D.			
26) Chloroform	5.420	83	216	0.06	ug/L	#	25
27) Carbon Tetrachloride	0.000		0	N.D.			
28) Tetrahydrofuran	5.615	42	776	0.49	ug/L	#	55
29) 1,1,1-Trichloroethane	5.615	97	123	0.04	ug/L	#	25
31) 1,1-Dichloropropene	5.743	75	239	0.08	ug/L	#	26
32) 2-Butanone (MEK)	5.749	43	2129	1.05	ug/L		52
33) Benzene	6.010	78	929	0.11	ug/L		62
34) tert-Amyl methyl ether...	6.156	73	255	0.04	ug/L	#	46
35) 1,2-Dichloroethane (EDC)	6.217	62	83	0.03	ug/L	#	49
36) iso-Butyl Alcohol	6.327	43	1578	5.88	ug/L		80
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	7.172	63	62	0.03	ug/L	#	40
42) Bromodichloromethane	0.000		0	N.D.			
44) c-1,3-Dichloropropene	7.957	75	124	0.04	ug/L	#	4
46) Toluene	8.237	91	1040	0.12	ug/L		95
47) Tetrachloroethene (PCE)	0.000		0	N.D.			
48) 4-Methyl-2-Pentanone (...	8.675	43	1032	0.29	ug/L	#	43

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092628.D
Acq On : 26 Sep 2019 9:28 pm
Operator : TB
Sample : 9I26051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCO+MeOH
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 27 10:51:40 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

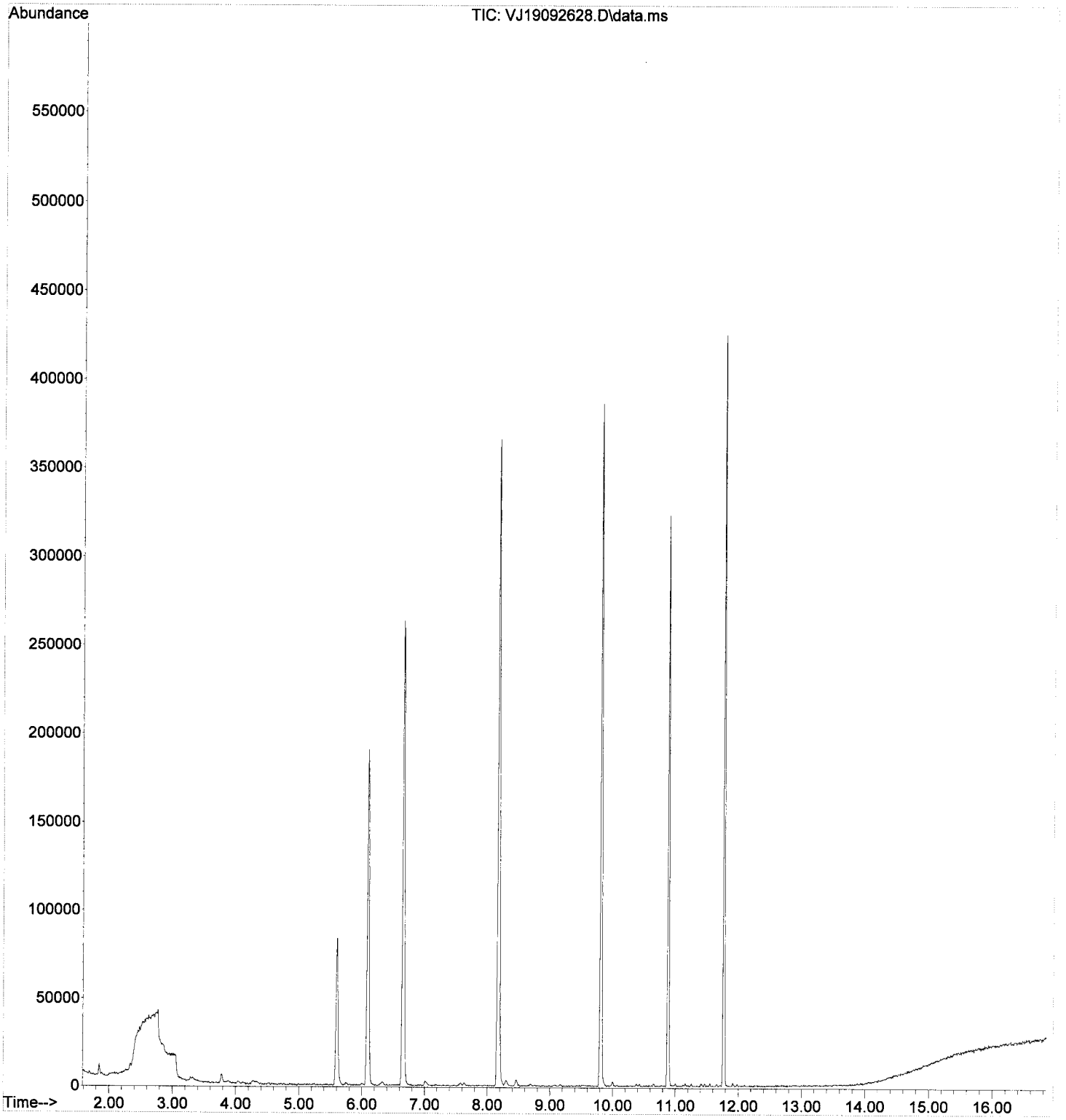
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	69	0.02	ug/L #	45
50) 1,1,2-Trichloroethane	0.000		0	N.D.		
51) Dibromochloromethane	0.000		0	N.D.		
52) 1,3-Dichloropropane	9.168	76	220	0.06	ug/L #	50
53) 1,2-Dibromoethane (EDB)	0.000		0	N.D.		
54) 2-Hexanone	9.551	43	746	0.27	ug/L #	32
55) Chlorobenzene	9.831	112	362	0.07	ug/L #	60
56) Ethylbenzene	9.861	91	1042	0.11	ug/L	93
57) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
58) m,p-Xylenes (2)	10.001	91	1555	0.22	ug/L	84
59) o-Xylene	10.384	91	830	0.11	ug/L	70
60) Styrene	10.427	104	376	0.07	ug/L	67
61) Bromoform	0.000		0	N.D.		
62) Isopropylbenzene	10.652	105	1007	0.11	ug/L	77
65) Bromobenzene	10.974	156	59	0.03	ug/L #	28
66) n-Propylbenzene	11.005	91	1072	0.11	ug/L	84
67) 1,1,2,2-Tetrachloroethane	11.053	83	268	0.11	ug/L #	24
68) 2-Chlorotoluene	0.000		0	N.D.		
69) 1,3,5-Trimethylbenzene	11.157	105	744	0.11	ug/L	83
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	689	0.12	ug/L	89
73) tert-Butylbenzene	11.406	91	472	0.12	ug/L #	67
74) 1,2,4-Trimethylbenzene	11.467	105	773	0.11	ug/L	63
75) sec-Butylbenzene	11.552	105	858	0.11	ug/L	62
76) 4-Isopropyltoluene	11.662	119	688	0.10	ug/L	75
77) 1,3-Dichlorobenzene	11.717	146	362	0.11	ug/L #	73
78) 1,4-Dichlorobenzene	11.784	146	286	0.08	ug/L #	34
79) n-Butylbenzene	11.978	91	741	0.12	ug/L	96
80) 1,2-Dichlorobenzene	12.100	146	239	0.07	ug/L #	24
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	80	0.04	ug/L	76
84) Naphthalene	13.517	128	819	0.10	ug/L	79
85) 1,2,3-Trichlorobenzene	13.682	180	141	0.07	ug/L #	12

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092628.D
Acq On : 26 Sep 2019 9:28 pm
Operator : TB
Sample : 9I26051-CAL1
Misc : 1X 5mL 0.1/0.2PPB VOCO+MeOH
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 27 10:51:40 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092629.D
Acq On : 26 Sep 2019 9:55 pm
Operator : TB
Sample : 9I26051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCO+MeOH
ALS Vial : 5 Sample Multiplier: 1

post
9/27/19

Quant Time: Sep 27 11:11:23 2019
Quant Method : C:\msdchem\1\methods\~~VJ190926S+.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	83469	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	198493	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	89580	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	58455	48.95	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	225508	51.03	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	276884	49.06	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	69195	50.09	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.			
3) Chloromethane	1.892	50	1044	0.48	ug/L		92
4) Vinyl Chloride	0.000		0	N.D.	d		
5) Bromomethane	2.342	96	2043	2.74	ug/L		95
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	0.000		0	N.D.	d		
8) Ethanol	3.315	45	5460m	83.39	ug/L		
9) 1,1-Dichloroethene	3.139	61	507	0.21	ug/L		98
10) Carbon Disulfide	3.145	76	822	0.24	ug/L		78
11) Freon 113	0.000		0	N.D.			
12) Iodomethane	0.000		0	N.D.	d		
13) Methylene Chloride	3.777	84	4596	2.78	ug/L		97
14) Acetone	0.000		0	N.D.	d		
15) t-1,2-Dichloroethene	3.948	61	462	0.18	ug/L		86
16) n-Hexane	0.000		0	N.D.			
17) Methyl-tert-butyl-ether	0.000		0	N.D.	d		
18) tert-Butanol (TBA)	4.270	59	8847m	12.47	ug/L		
19) Diisopropyl ether (DIPE)	0.000		0	N.D.	d		
20) 1,1-Dichloroethane	4.587	63	622	0.23	ug/L		66
21) Acrylonitrile	0.000		0	N.D.	d		
22) Ethyl-tert-butyl ether...	0.000		0	N.D.	d		
23) c-1,2-Dichloroethene	5.128	61	609	0.23	ug/L	#	75
24) 2,2-Dichloropropane	0.000		0	N.D.	d		
25) Bromochloromethane	0.000		0	N.D.	d		
26) Chloroform	5.426	83	731	0.22	ug/L		76
27) Carbon Tetrachloride	5.560	117	370	0.16	ug/L		90
28) Tetrahydrofuran	5.603	42	792	0.51	ug/L	#	55
29) 1,1,1-Trichloroethane	5.621	97	447	0.14	ug/L	#	67
31) 1,1-Dichloropropene	0.000		0	N.D.	d		
32) 2-Butanone (MEK)	0.000		0	N.D.	d		
33) Benzene	6.010	78	1839	0.23	ug/L		88
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)	6.631	130	227	0.12	ug/L	#	54
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	0.000		0	N.D.	d		
44) c-1,3-Dichloropropene	7.957	75	424	0.13	ug/L	#	23
46) Toluene	8.237	91	1992	0.23	ug/L		90
47) Tetrachloroethene (PCE)	0.000		0	N.D.	d		
48) 4-Methyl-2-Pentanone (...	0.000		0	N.D.	d		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092629.D
Acq On : 26 Sep 2019 9:55 pm
Operator : TB
Sample : 9I26051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCO+MeOH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 27 11:11:23 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

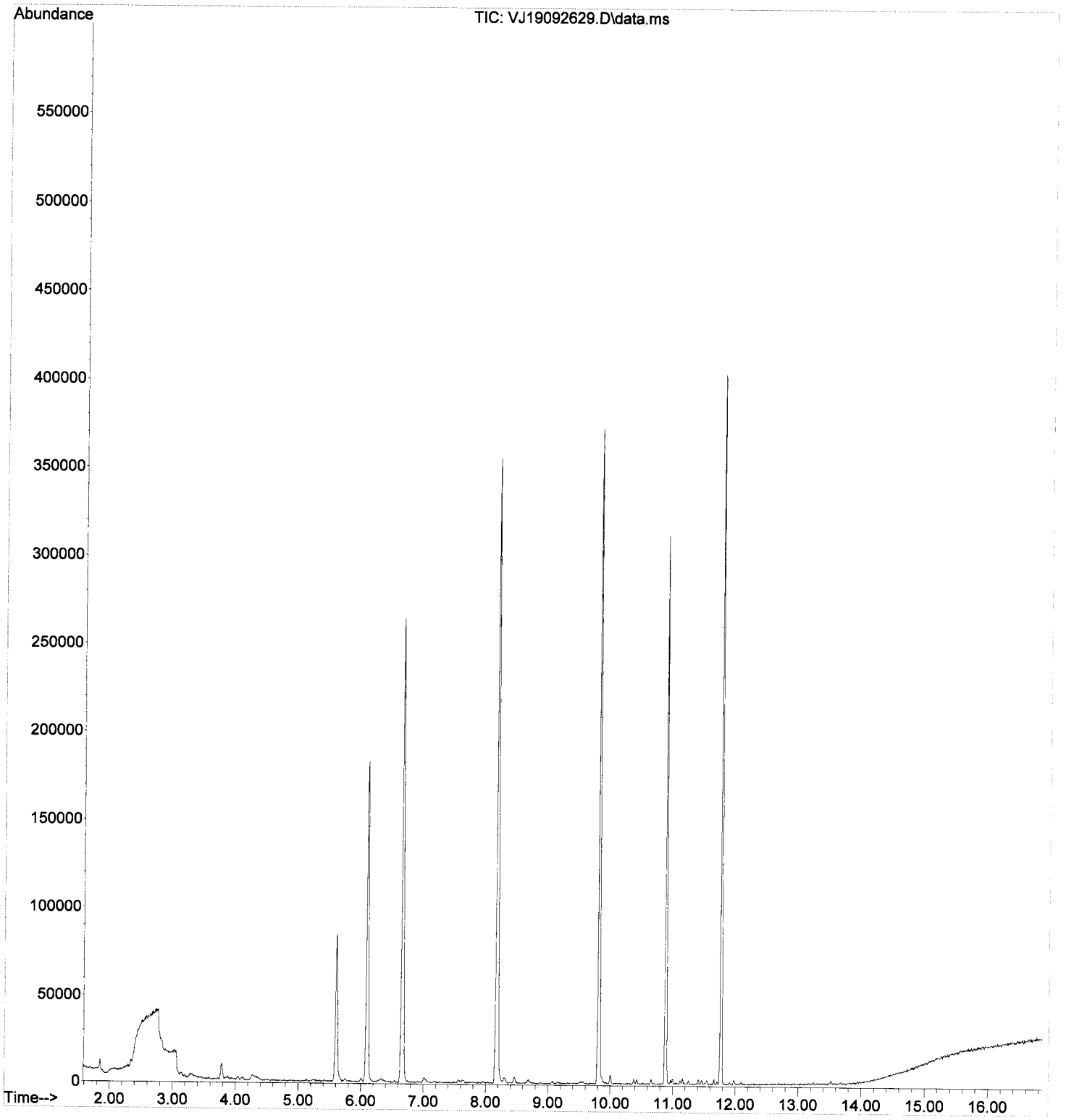
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) t-1,3-Dichloropropene	0.000		0	N.D. d	
50) 1,1,2-Trichloroethane	8.876	97	266	0.15 ug/L #	55
51) Dibromochloromethane	0.000		0	N.D.	
52) 1,3-Dichloropropane	9.161	76	584	0.17 ug/L #	74
53) 1,2-Dibromoethane (EDB)	0.000		0	N.D. d	
54) 2-Hexanone	9.557	43	1415	0.52 ug/L	84
55) Chlorobenzene	9.825	112	972	0.19 ug/L #	51
56) Ethylbenzene	9.867	91	2060	0.22 ug/L	87
57) 1,1,1,2-Tetrachloroethane	0.000		0	N.D. d	
58) m,p-Xylenes (2)	10.001	91	3044	0.43 ug/L	93
59) o-Xylene	10.378	91	1601	0.22 ug/L	87
60) Styrene	10.427	104	954	0.19 ug/L	82
61) Bromoform	0.000		0	N.D.	
62) Isopropylbenzene	10.658	105	1658	0.19 ug/L	87
65) Bromobenzene	10.968	156	264	0.14 ug/L	89
66) n-Propylbenzene	10.999	91	2200	0.23 ug/L	95
67) 1,1,2,2-Tetrachloroethane	11.060	83	497	0.21 ug/L	85
68) 2-Chlorotoluene	11.120	126	286	0.16 ug/L #	45
69) 1,3,5-Trimethylbenzene	11.163	105	1386	0.21 ug/L	77
70) 1,2,3-Trichloropropane	0.000		0	N.D. d	
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.	
72) 4-Chlorotoluene	11.254	91	1281	0.22 ug/L	91
73) tert-Butylbenzene	11.412	91	960	0.24 ug/L	81
74) 1,2,4-Trimethylbenzene	11.467	105	1309	0.20 ug/L	89
75) sec-Butylbenzene	11.552	105	1622	0.20 ug/L	87
76) 4-Isopropyltoluene	11.662	119	1273	0.19 ug/L	94
77) 1,3-Dichlorobenzene	11.710	146	743	0.22 ug/L	93
78) 1,4-Dichlorobenzene	11.783	146	670	0.20 ug/L #	41
79) n-Butylbenzene	11.978	91	1205	0.21 ug/L	94
80) 1,2-Dichlorobenzene	12.094	146	599	0.19 ug/L	89
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	429	0.21 ug/L #	69
84) Naphthalene	0.000		0	N.D. d	
85) 1,2,3-Trichlorobenzene	13.682	180	361	0.18 ug/L	72

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092629.D
Acq On : 26 Sep 2019 9:55 pm
Operator : TB
Sample : 9I26051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCO+MeOH
ALS Vial : 5 Sample Multiplier: 1

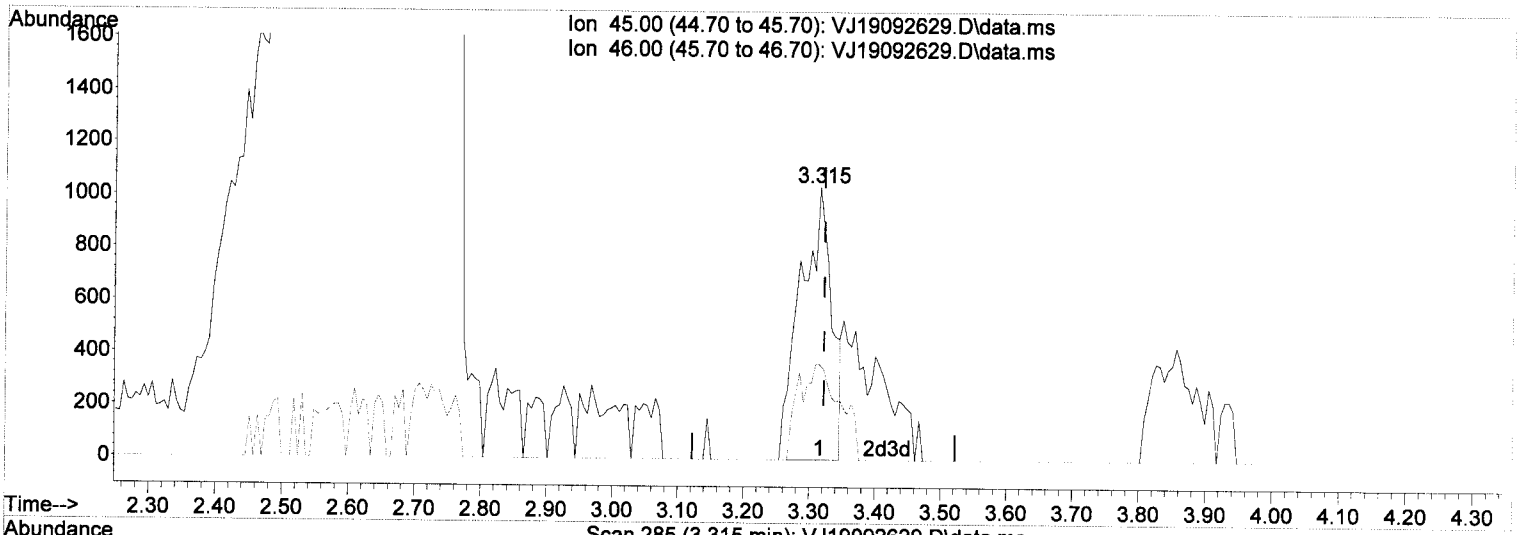
Quant Time: Sep 27 11:11:23 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

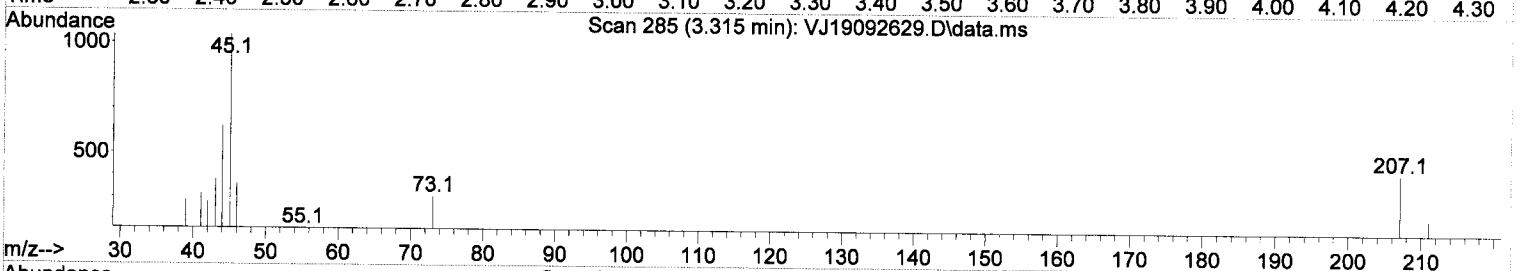


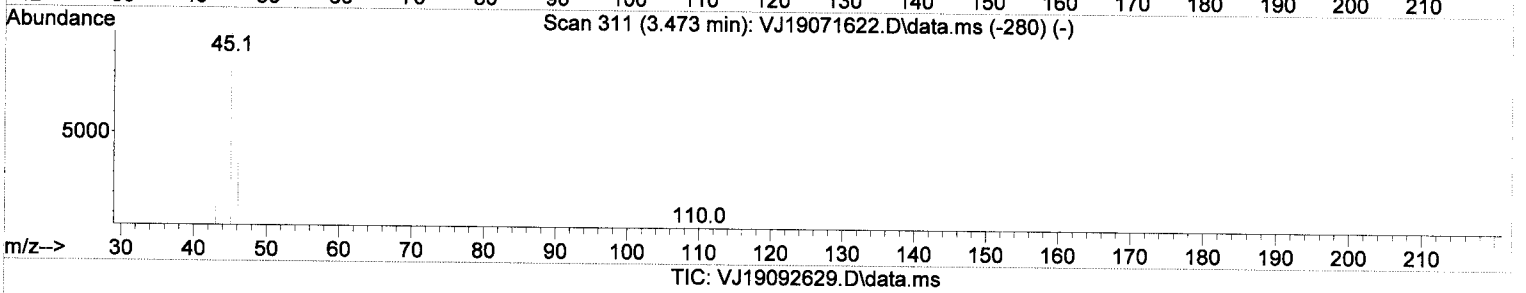
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092629.D
Acq On : 26 Sep 2019 9:55 pm
Operator : TB
Sample : 9I26051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCO+MeOH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 27 11:06:26 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092629.D\data.ms

(8) Ethanol

3.315min (-0.006) 51.70 ug/L

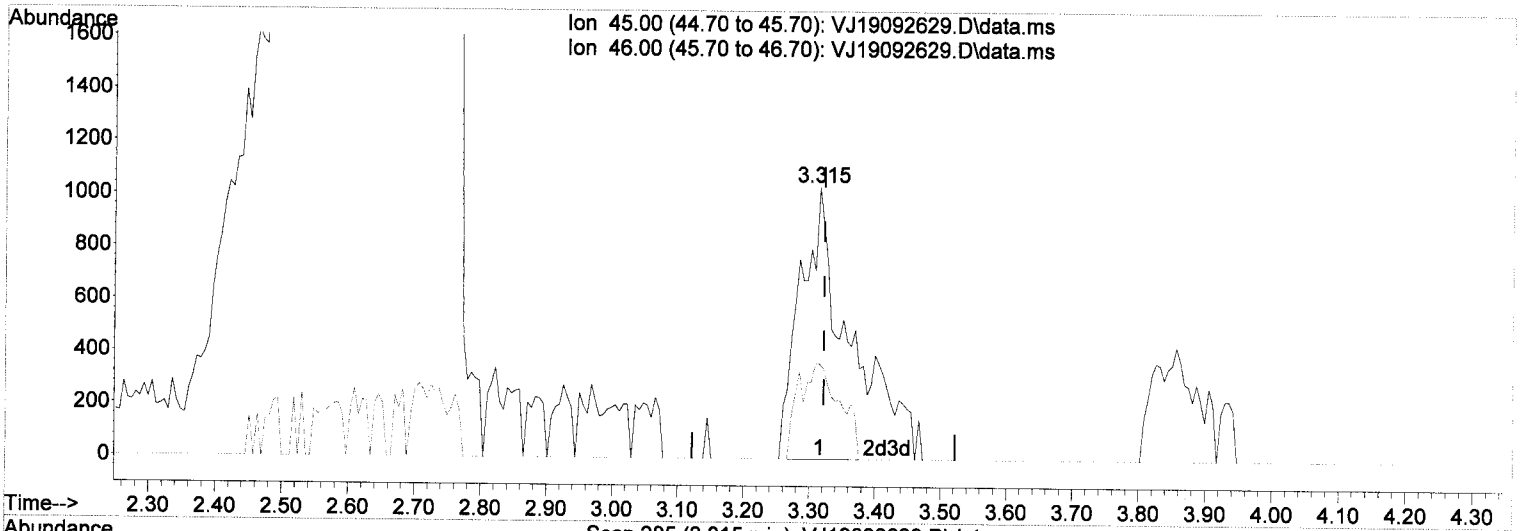
response 3385

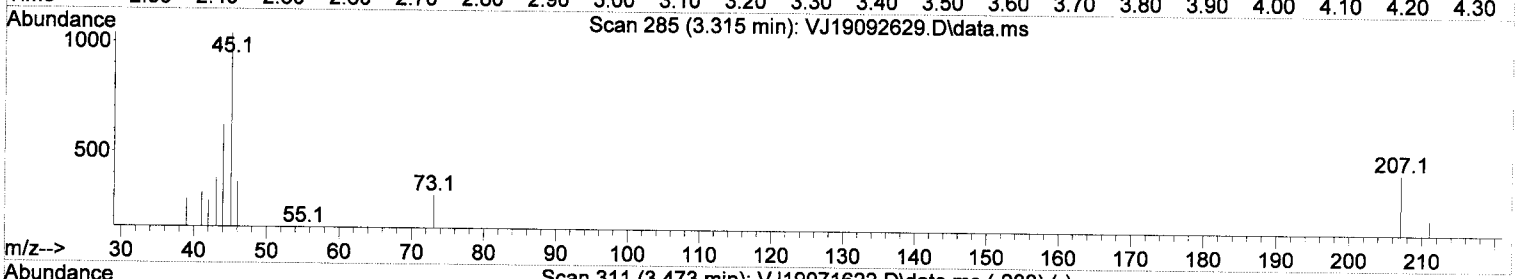
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	34.91
0.00	0.00	0.00
0.00	0.00	0.00

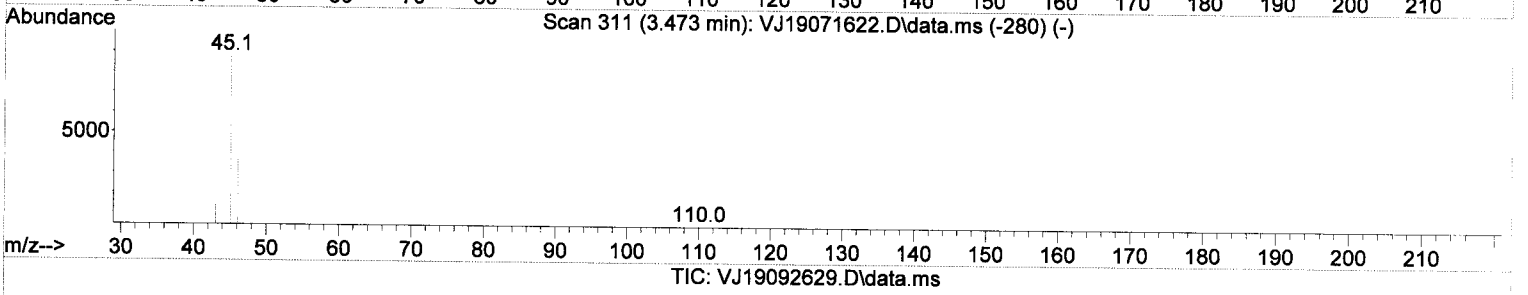
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092629.D
Acq On : 26 Sep 2019 9:55 pm
Operator : TB
Sample : 9I26051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCO+MeOH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 27 11:06:26 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092629.D\data.ms

(8) Ethanol

3.315min (-0.006) 83.39 ug/L m

9/27/19

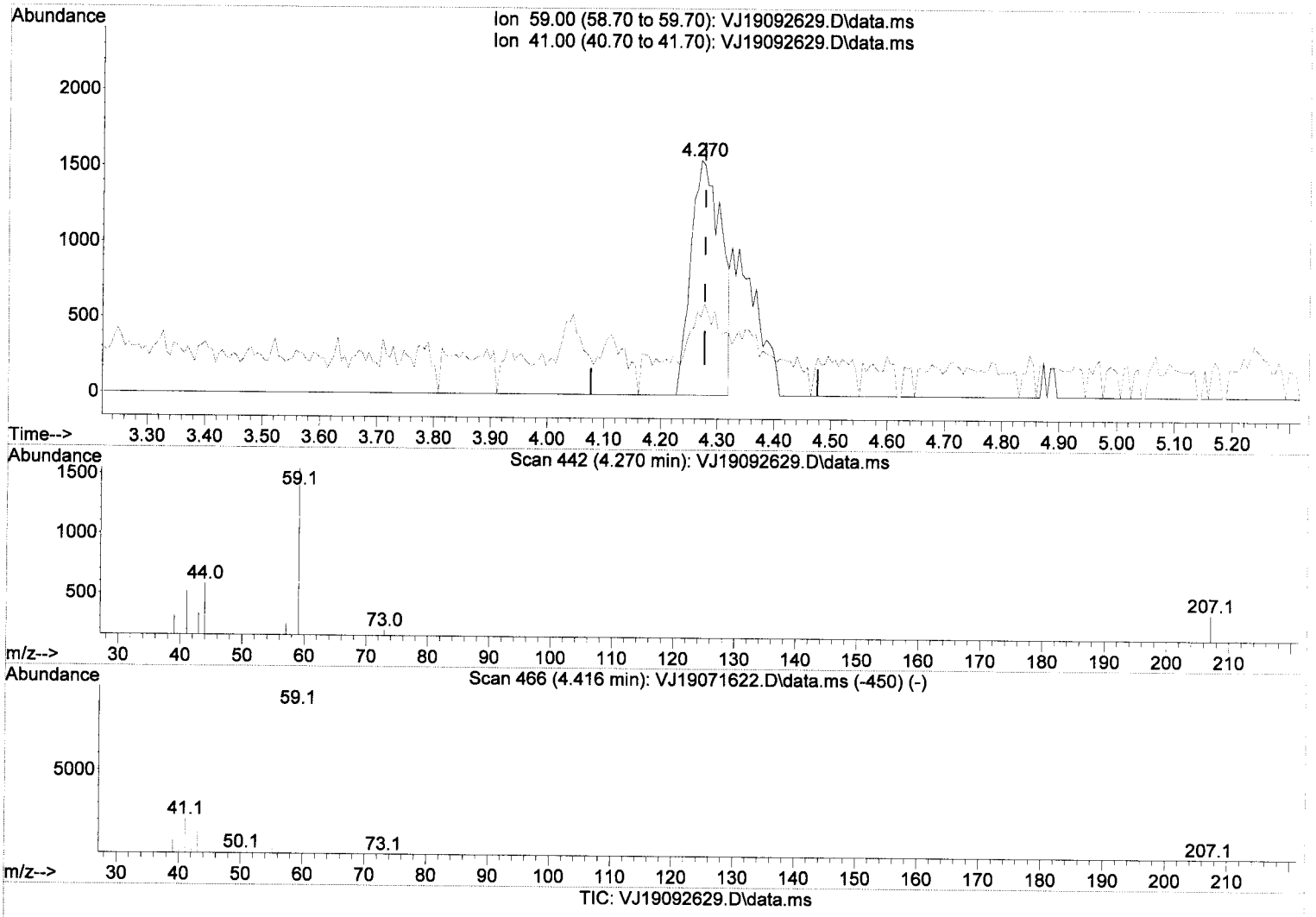
response 5460

Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	34.91
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092629.D
Acq On : 26 Sep 2019 9:55 pm
Operator : TB
Sample : 9I26051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCO+MeOH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 27 11:06:26 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



TIC: VJ19092629.D\data.ms

(18) tert-Butanol (TBA)

4.270min (-0.006) 8.16 ug/L

MI

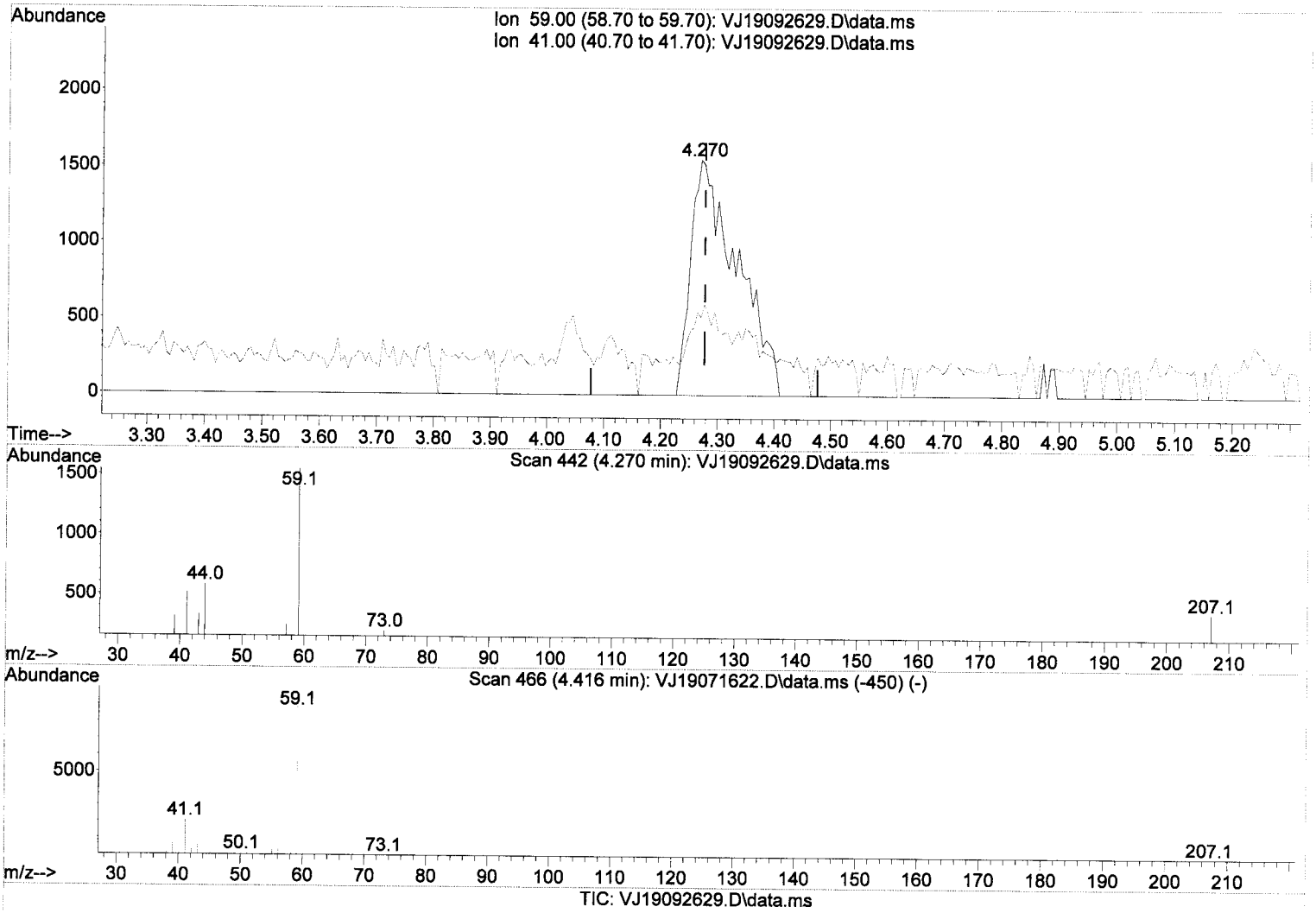
response 5787

Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	33.31#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092629.D
Acq On : 26 Sep 2019 9:55 pm
Operator : TB
Sample : 9I26051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCO+MeOH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 27 11:06:26 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



TIC: VJ19092629.D\data.ms

(18) tert-Butanol (TBA)

4.270min (-0.006) 12.47 ug/L m

9/27/19

response 8847

Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	33.31#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092629.D
Acq On : 26 Sep 2019 9:55 pm
Operator : TB
Sample : 9I26051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCO+MeOH
ALS Vial : 5 Sample Multiplier: 1

pre
9/27/19

Quant Time: Sep 27 10:51:43 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	83469	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	198493	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	89580	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	58455	48.95	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	225508	51.03	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	276884	49.06	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	69195	50.09	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.			
3) Chloromethane	1.892	50	1044	0.48	ug/L		92
4) Vinyl Chloride	2.013	62	115	0.07	ug/L	#	46
5) Bromomethane	2.342	96	2043	2.74	ug/L		95
6) Chloroethane	2.470	64	383	1.53	ug/L	#	32
7) Trichlorofluoromethane	2.591	101	117	0.15	ug/L	#	61
8) Ethanol	3.315	45	3385	51.70	ug/L		81
9) 1,1-Dichloroethene	3.139	61	507	0.21	ug/L		98
10) Carbon Disulfide	3.145	76	822	0.24	ug/L		78
11) Freon 113	0.000		0	N.D.			
12) Iodomethane	3.291	142	570	1.10	ug/L	#	47
13) Methylene Chloride	3.777	84	4596	2.78	ug/L		97
14) Acetone	3.869	43	2902	2.21	ug/L		94
15) t-1,2-Dichloroethene	3.948	61	462	0.18	ug/L		86
16) n-Hexane	0.000		0	N.D.			
17) Methyl-tert-butyl-ether	4.118	73	2538	0.36	ug/L		57
18) tert-Butanol (TBA)	4.270	59	5787	8.16	ug/L	#	92
19) Diisopropyl ether (DIPE)	4.501	45	253	0.04	ug/L	#	53
20) 1,1-Dichloroethane	4.587	63	622	0.23	ug/L		66
21) Acrylonitrile	4.641	53	55	0.04	ug/L	#	14
22) Ethyl-tert-butyl ether...	4.873	59	84	0.01	ug/L	#	38
23) c-1,2-Dichloroethene	5.128	61	609	0.23	ug/L	#	75
24) 2,2-Dichloropropane	5.244	77	1019	0.34	ug/L		71
25) Bromochloromethane	5.329	49	207	0.13	ug/L	#	14
26) Chloroform	5.426	83	731	0.22	ug/L		76
27) Carbon Tetrachloride	5.560	117	370	0.16	ug/L		90
28) Tetrahydrofuran	5.603	42	792	0.51	ug/L	#	55
29) 1,1,1-Trichloroethane	5.621	97	447	0.14	ug/L	#	67
31) 1,1-Dichloropropene	5.755	75	473	0.17	ug/L	#	53
32) 2-Butanone (MEK)	5.755	43	1670	0.84	ug/L		52
33) Benzene	6.010	78	1839	0.28	ug/L		88
34) tert-Amyl methyl ether...	6.150	73	447	0.07	ug/L	#	46
35) 1,2-Dichloroethane (EDC)	6.217	62	466	0.15	ug/L	#	49
36) iso-Butyl Alcohol	6.326	43	1792	6.80	ug/L		82
38) Trichloroethene (TCE)	6.631	130	227	0.12	ug/L	#	54
39) tert-Amyl ethyl ether ...	6.910	59	128	0.03	ug/L	#	20
40) Dibromomethane	7.063	93	57	0.05	ug/L	#	1
41) 1,2-Dichloropropane	7.178	63	314	0.15	ug/L	#	40
42) Bromodichloromethane	7.245	83	62	0.03	ug/L	#	26
44) c-1,3-Dichloropropene	7.957	75	424	0.13	ug/L	#	23
46) Toluene	8.237	91	1992	0.23	ug/L		90
47) Tetrachloroethene (PCE)	8.687	166	233	0.13	ug/L	#	75
48) 4-Methyl-2-Pentanone (...	8.675	43	1853	0.53	ug/L		89

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092629.D
Acq On : 26 Sep 2019 9:55 pm
Operator : TB
Sample : 9I26051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCO+MeOH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 27 10:51:43 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

9/27/19

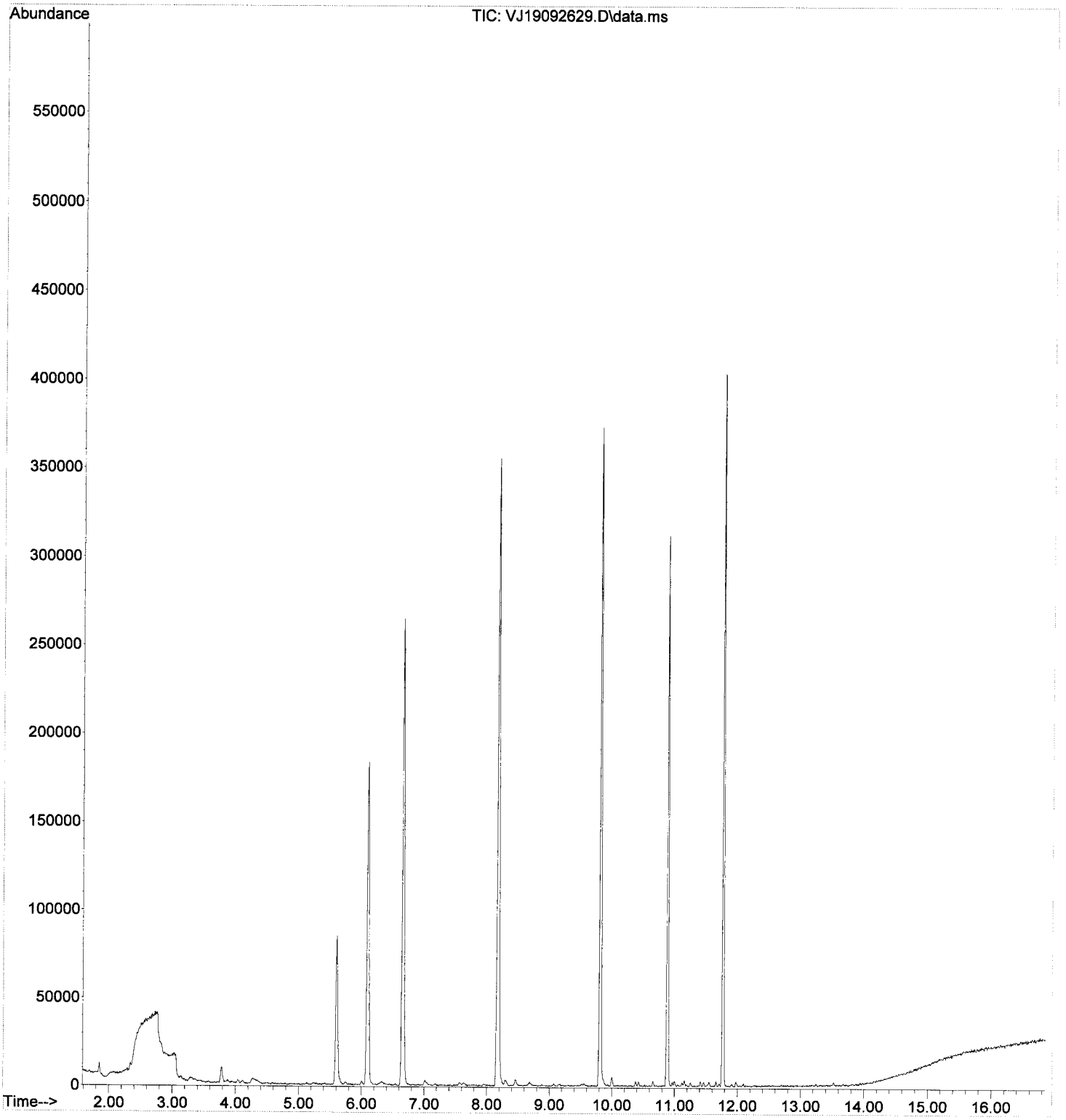
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.699	75	443	0.14	ug/L	#	45
50) 1,1,2-Trichloroethane	8.876	97	266	0.15	ug/L	#	55
51) Dibromochloromethane	0.000		0	N.D.			
52) 1,3-Dichloropropane	9.161	76	584	0.17	ug/L	#	74
53) 1,2-Dibromoethane (EDB)	9.301	107	159	0.08	ug/L	#	7
54) 2-Hexanone	9.557	43	1415	0.52	ug/L		84
55) Chlorobenzene	9.825	112	972	0.19	ug/L	#	51
56) Ethylbenzene	9.867	91	2060	0.22	ug/L		87
57) 1,1,1,2-Tetrachloroethane	9.885	131	57	0.03	ug/L	#	51
58) m,p-Xylenes (2)	10.001	91	3044	0.43	ug/L		93
59) o-Xylene	10.378	91	1601	0.22	ug/L		87
60) Styrene	10.427	104	954	0.19	ug/L		82
61) Bromoform	0.000		0	N.D.			
62) Isopropylbenzene	10.658	105	1658	0.19	ug/L		87
65) Bromobenzene	10.968	156	264	0.14	ug/L		89
66) n-Propylbenzene	10.999	91	2200	0.23	ug/L		95
67) 1,1,2,2-Tetrachloroethane	11.060	83	497	0.21	ug/L		85
68) 2-Chlorotoluene	11.120	126	286	0.16	ug/L	#	45
69) 1,3,5-Trimethylbenzene	11.163	105	1386	0.21	ug/L		77
70) 1,2,3-Trichloropropane	11.157	110	60	0.06	ug/L	#	76
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
72) 4-Chlorotoluene	11.254	91	1281	0.22	ug/L		91
73) tert-Butylbenzene	11.412	91	960	0.24	ug/L		81
74) 1,2,4-Trimethylbenzene	11.467	105	1309	0.20	ug/L		89
75) sec-Butylbenzene	11.552	105	1622	0.20	ug/L		87
76) 4-Isopropyltoluene	11.662	119	1273	0.19	ug/L		94
77) 1,3-Dichlorobenzene	11.710	146	743	0.22	ug/L		93
78) 1,4-Dichlorobenzene	11.783	146	670	0.20	ug/L	#	41
79) n-Butylbenzene	11.978	91	1205	0.21	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	599	0.19	ug/L		89
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	429	0.21	ug/L	#	69
84) Naphthalene	13.517	128	1519	0.19	ug/L		79
85) 1,2,3-Trichlorobenzene	13.682	180	361	0.18	ug/L		72

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092629.D
Acq On : 26 Sep 2019 9:55 pm
Operator : TB
Sample : 9I26051-CAL2
Misc : 1X 5mL 0.2/0.4PPB VOCO+MeOH
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 27 10:51:43 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

POST

Quant Time: Sep 27 11:16:21 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

9/27/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	6.095	99	84470	50.00 ug/L	0.00
43) Chlorobenzene-d5 (I)	9.812	117	197907	50.00 ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	88955	50.00 ug/L	0.00
System Monitoring Compounds					
30) Dibromofluoromethane (S)	5.603	111	58835	48.68 ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.661	114	226191	50.57 ug/L	0.00
45) Toluene-d8 (S)	8.176	98	276952	49.22 ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.883	174	70019	51.04 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D. d	
3) Chloromethane	1.898	50	1467	0.67 ug/L	93
4) Vinyl Chloride	2.001	62	708	0.41 ug/L #	46
5) Bromomethane	2.342	96	2374	3.15 ug/L	94
6) Chloroethane	0.000		0	N.D. d	
7) Trichlorofluoromethane	0.000		0	N.D. d	
8) Ethanol	3.327	45	6227m	93.97 ug/L	
9) 1,1-Dichloroethene	3.139	61	958	0.39 ug/L	89
10) Carbon Disulfide	3.151	76	1342	0.39 ug/L	69
11) Freon 113	3.200	101	422	0.31 ug/L #	16
12) Iodomethane	3.297	142	828	1.57 ug/L	84
13) Methylene Chloride	3.784	84	4661	2.78 ug/L	92
14) Acetone	0.000		0	N.D. d	
15) t-1,2-Dichloroethene	3.948	61	844	0.33 ug/L	93
16) n-Hexane	0.000		0	N.D.	
17) Methyl-tert-butyl-ether	4.112	73	3475	0.49 ug/L	94
18) tert-Butanol (TBA)	4.276	59	17073m	23.78 ug/L	
19) Diisopropyl ether (DIPE)	0.000		0	N.D. d	
20) 1,1-Dichloroethane	4.587	63	1089	0.40 ug/L	85
21) Acrylonitrile	0.000		0	N.D. d	
22) Ethyl-tert-butyl ether...	0.000		0	N.D. d	
23) c-1,2-Dichloroethene	5.134	61	933	0.35 ug/L	90
24) 2,2-Dichloropropane	5.237	77	1479	0.49 ug/L	84
25) Bromochloromethane	5.335	49	606	0.38 ug/L	94
26) Chloroform	5.426	83	1259	0.38 ug/L	86
27) Carbon Tetrachloride	5.560	117	711	0.31 ug/L	76
28) Tetrahydrofuran	0.000		0	N.D. d	
29) 1,1,1-Trichloroethane	5.633	97	1203	0.37 ug/L	80
31) 1,1-Dichloropropene	5.755	75	1088	0.38 ug/L	92
32) 2-Butanone (MEK)	0.000		0	N.D. d	
33) Benzene	6.004	78	3388	0.42 ug/L	89
34) tert-Amyl methyl ether...	0.000		0	N.D. d	
35) 1,2-Dichloroethane (EDC)	6.211	62	1178	0.36 ug/L	86
36) iso-Butyl Alcohol	0.000		0	N.D. d	
38) Trichloroethene (TCE)	6.631	130	616	0.32 ug/L	83
39) tert-Amyl ethyl ether ...	0.000		0	N.D. d	
40) Dibromomethane	7.069	93	307	0.26 ug/L #	81
41) 1,2-Dichloropropane	7.178	63	782	0.38 ug/L	76
42) Bromodichloromethane	7.245	83	528	0.24 ug/L	94
44) c-1,3-Dichloropropene	7.957	75	1074	0.34 ug/L #	44
46) Toluene	8.237	91	3563	0.42 ug/L	95
47) Tetrachloroethene (PCE)	8.681	166	566	0.31 ug/L	81
48) 4-Methyl-2-Pentanone (...	8.681	43	3017	0.86 ug/L	85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 11:16:21 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

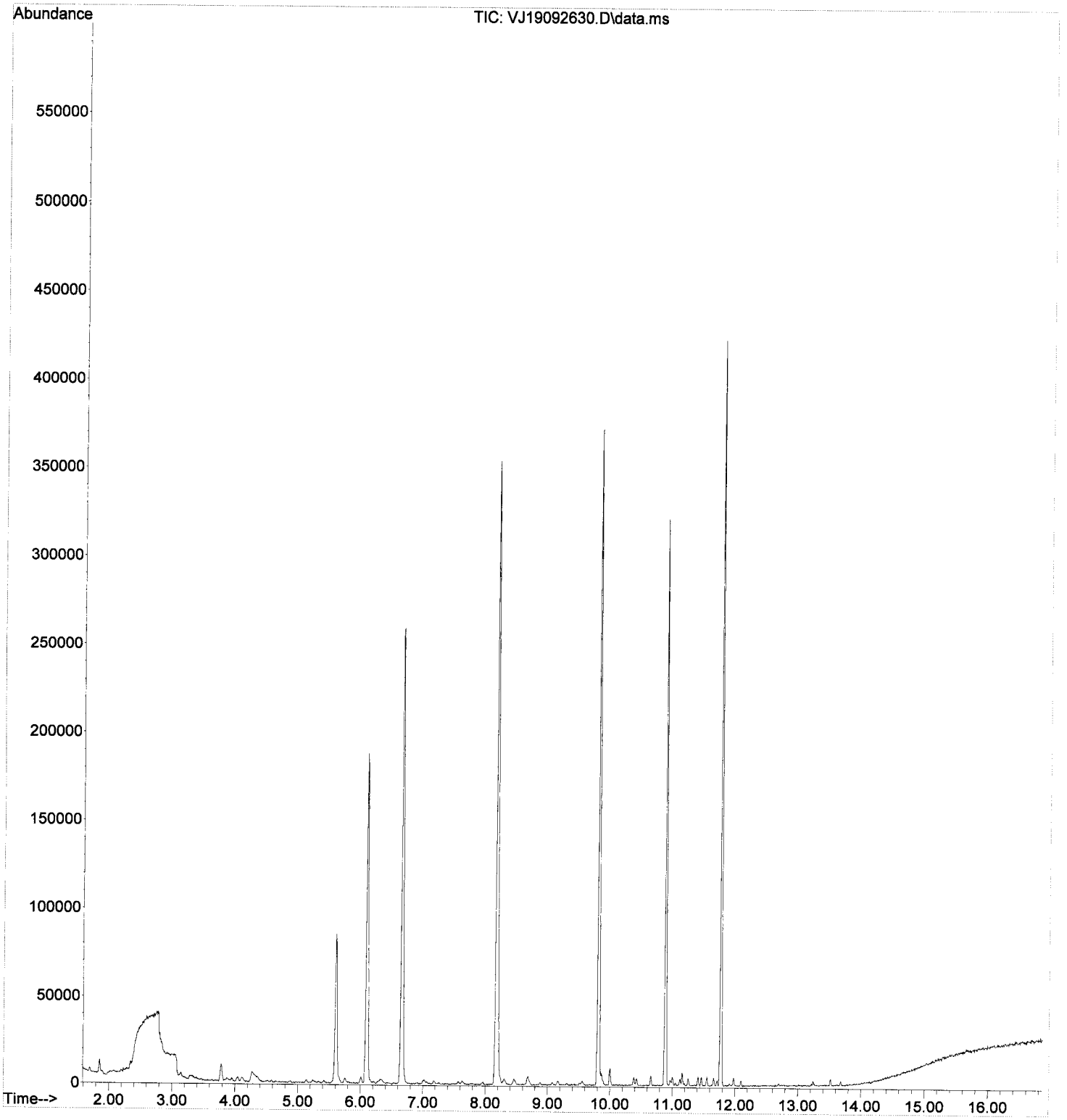
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	1076	0.35	ug/L		69
50) 1,1,2-Trichloroethane	8.882	97	680	0.39	ug/L		89
51) Dibromochloromethane	0.000		0	N.D.	d		
52) 1,3-Dichloropropane	9.174	76	1225	0.36	ug/L		84
53) 1,2-Dibromoethane (EDB)	9.307	107	601	0.32	ug/L		96
54) 2-Hexanone	9.551	43	2359	0.87	ug/L		75
55) Chlorobenzene	9.831	112	1986	0.40	ug/L		95
56) Ethylbenzene	9.861	91	3745	0.40	ug/L		99
57) 1,1,1,2-Tetrachloroethane	9.891	131	448	0.28	ug/L		78
58) m,p-Xylenes (2)	10.001	91	5405	0.77	ug/L		94
59) o-Xylene	10.384	91	2839	0.40	ug/L		89
60) Styrene	10.427	104	1810	0.36	ug/L		75
61) Bromoform	0.000		0	N.D.			
62) Isopropylbenzene	10.658	105	3087	0.36	ug/L		91
65) Bromobenzene	10.968	156	684	0.37	ug/L		91
66) n-Propylbenzene	11.005	91	3693	0.39	ug/L		96
67) 1,1,2,2-Tetrachloroethane	11.047	83	847	0.35	ug/L		91
68) 2-Chlorotoluene	11.126	126	648	0.37	ug/L		92
69) 1,3,5-Trimethylbenzene	11.163	105	2439	0.38	ug/L		92
70) 1,2,3-Trichloropropane	11.157	110	363	0.39	ug/L		87
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.			
72) 4-Chlorotoluene	11.254	91	2310	0.40	ug/L		92
73) tert-Butylbenzene	11.412	91	1643	0.41	ug/L	#	77
74) 1,2,4-Trimethylbenzene	11.467	105	2527	0.38	ug/L		92
75) sec-Butylbenzene	11.552	105	3047	0.38	ug/L		98
76) 4-Isopropyltoluene	11.656	119	2589	0.39	ug/L		94
77) 1,3-Dichlorobenzene	11.717	146	1278	0.39	ug/L		85
78) 1,4-Dichlorobenzene	11.783	146	1255	0.38	ug/L		90
79) n-Butylbenzene	11.978	91	2363	0.41	ug/L		95
80) 1,2-Dichlorobenzene	12.094	146	1195	0.38	ug/L		87
81) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	d		
82) Hexachlorobutadiene	0.000		0	N.D.			
83) 1,2,4-Trichlorobenzene	13.243	180	782	0.38	ug/L		86
84) Naphthalene	13.517	128	2898	0.36	ug/L		94
85) 1,2,3-Trichlorobenzene	13.682	180	761	0.38	ug/L		90

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

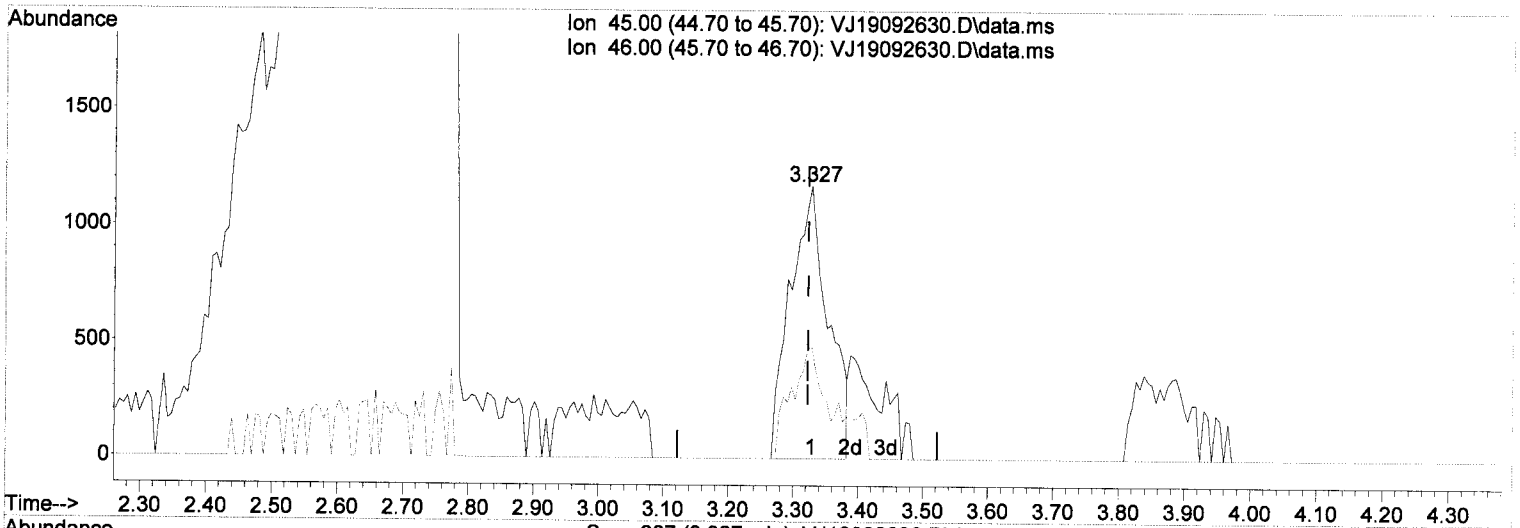
Quant Time: Sep 27 11:16:21 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

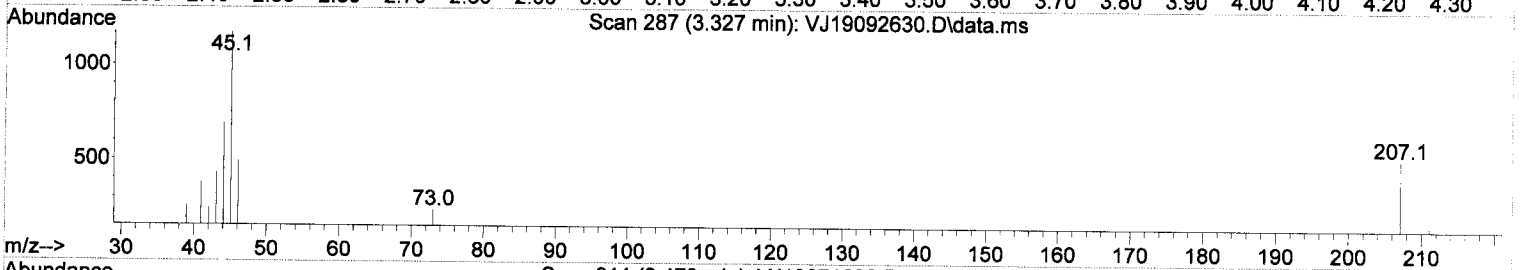


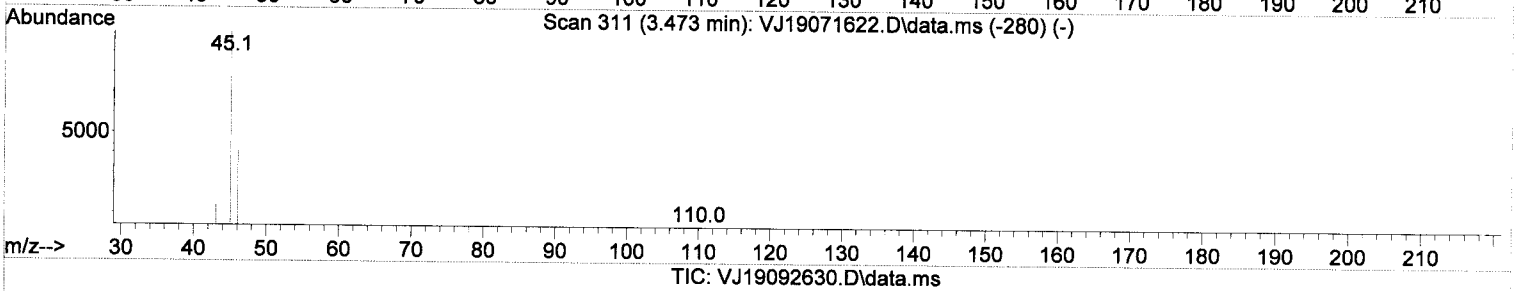
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 10:51:46 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092630.D\data.ms

(8) Ethanol

3.327min (+ 0.006) 72.00 ug/L

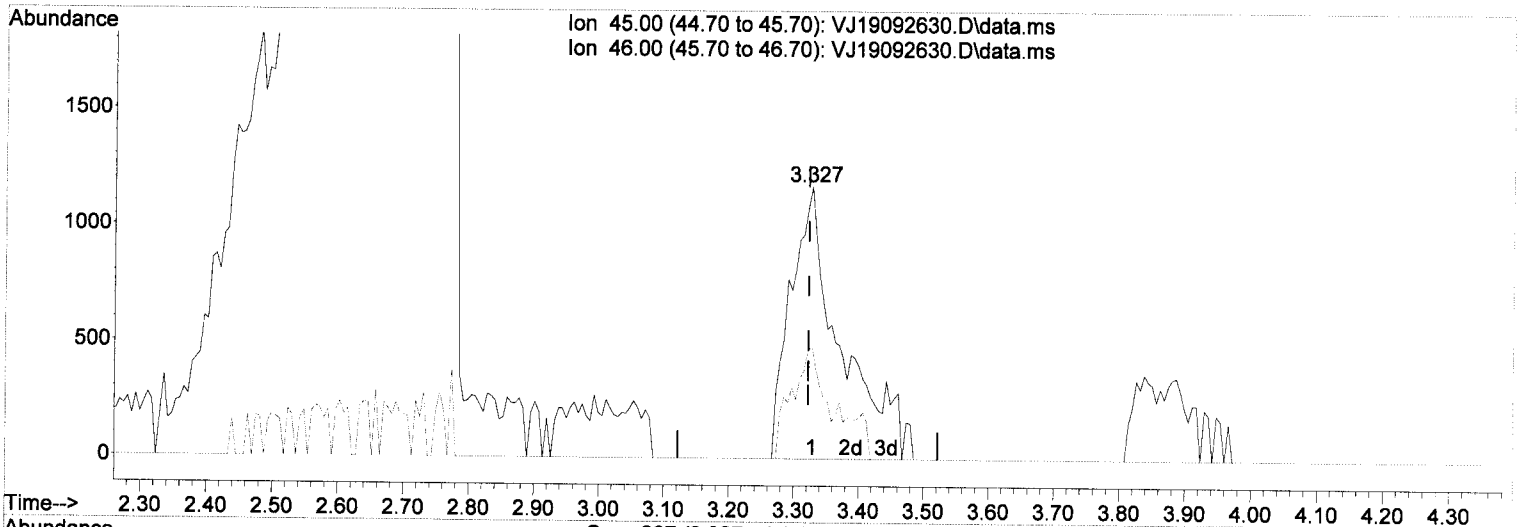
response 4771

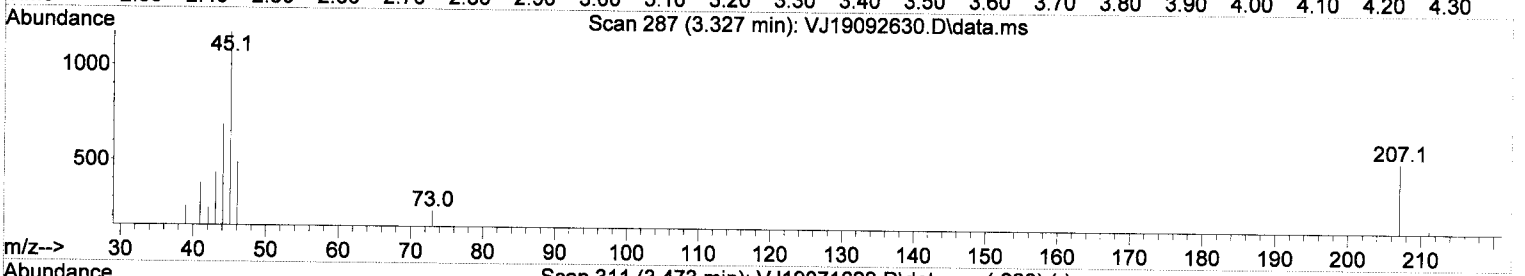
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	41.99
0.00	0.00	0.00
0.00	0.00	0.00

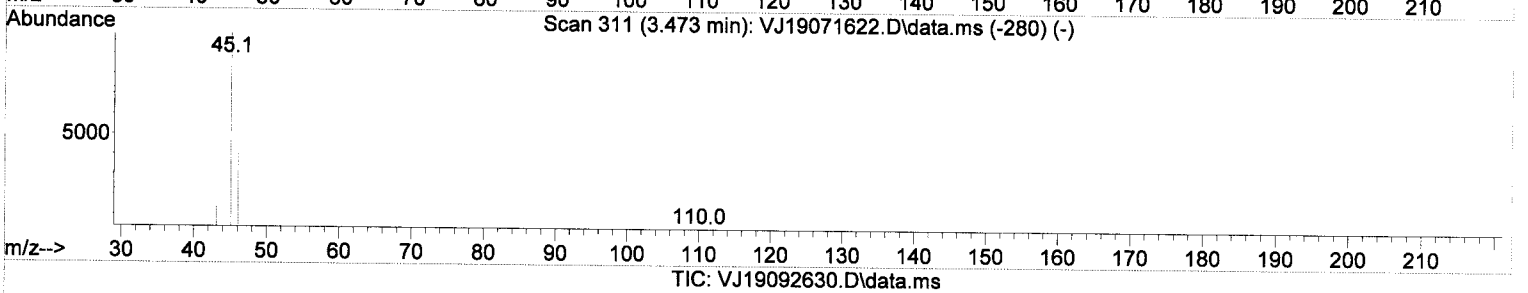
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 10:51:46 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092630.D\data.ms

(8) Ethanol

3.327min (+ 0.006) 93.97 ug/L m

response 6227

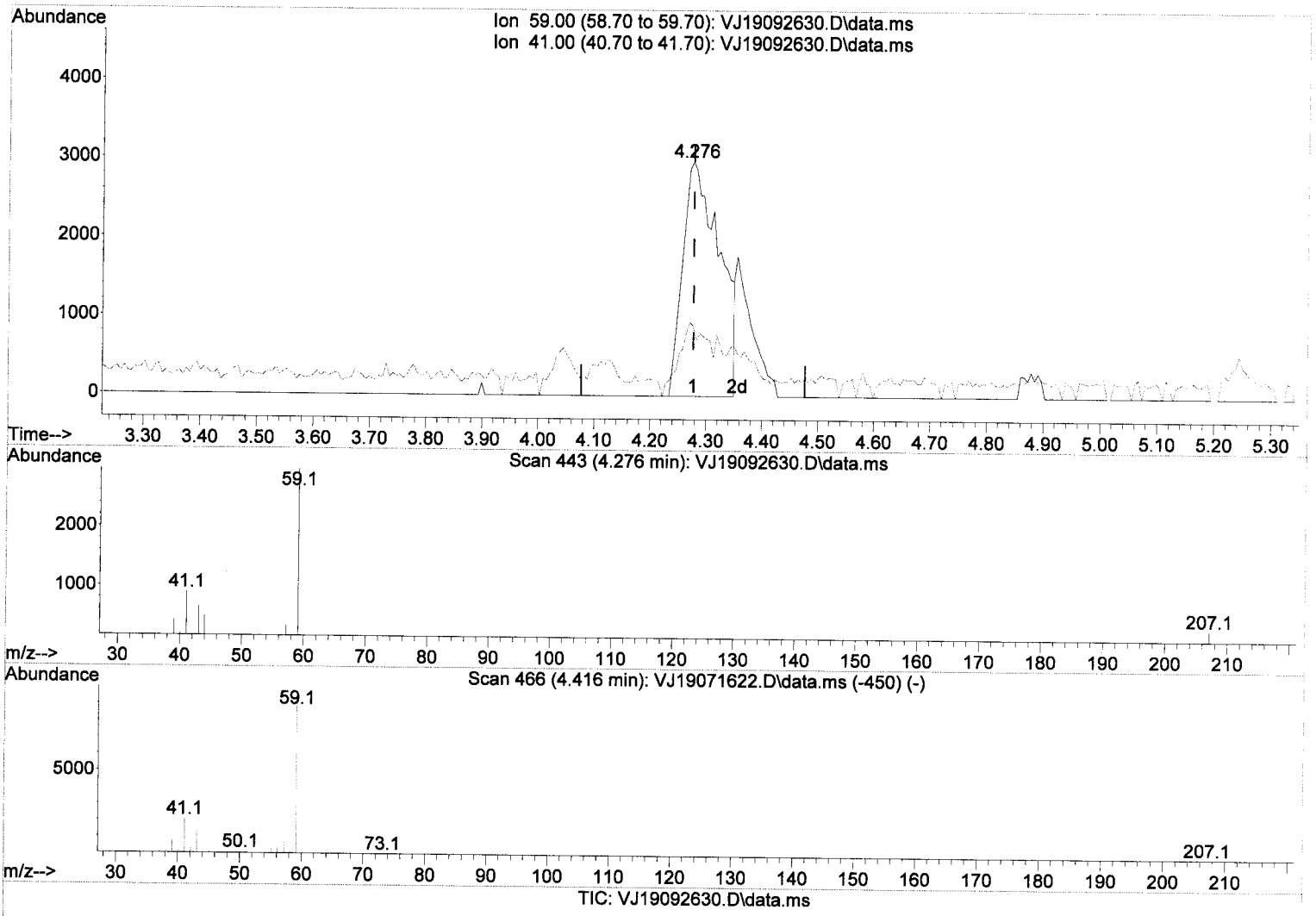
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	41.99
0.00	0.00	0.00
0.00	0.00	0.00

9/27/19

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 10:51:46 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



TIC: VJ19092630.D\data.ms

(18) tert-Butanol (TBA)

4.276min (-0.000) 18.86 ug/L

response 13543

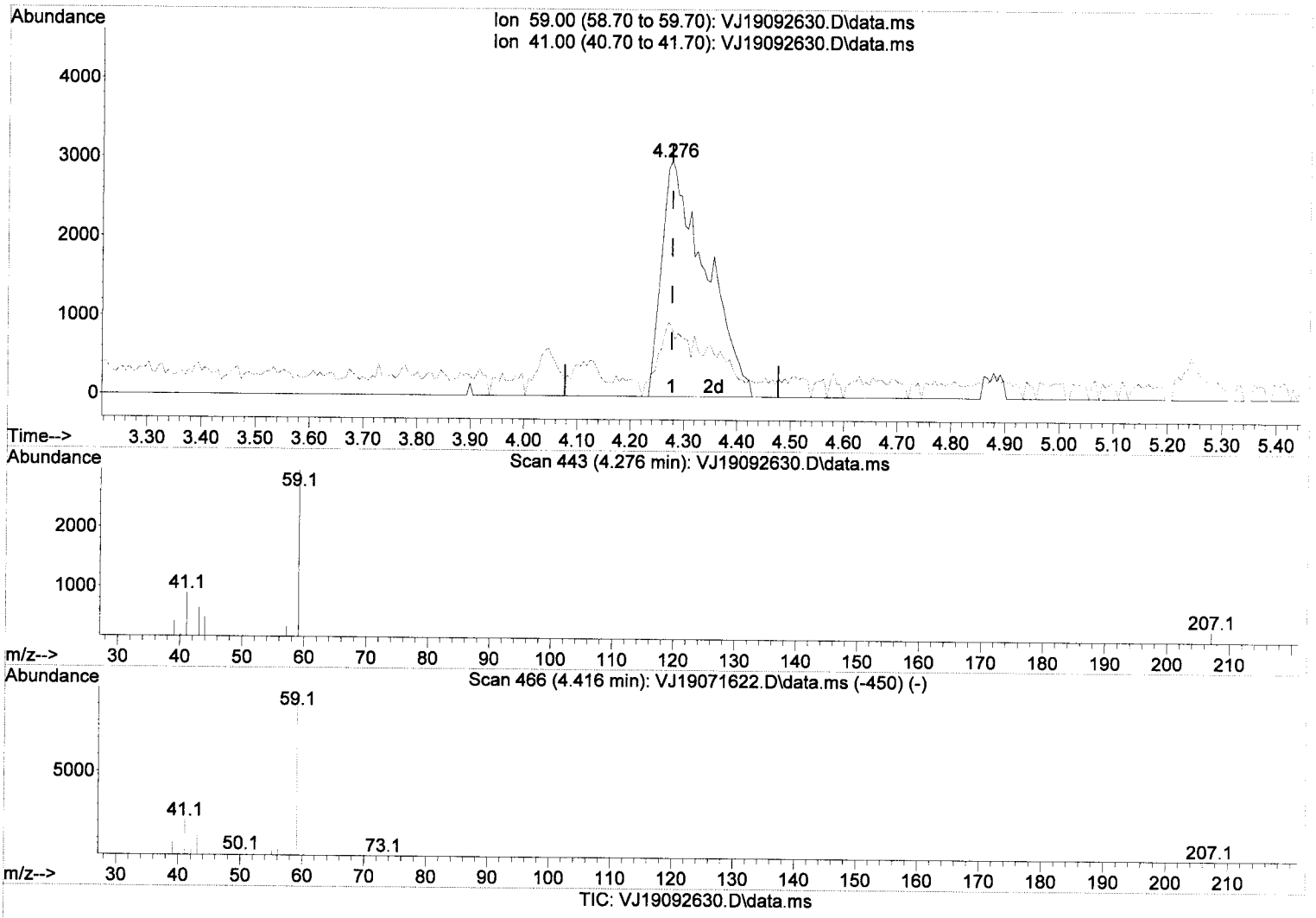
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	30.06#
0.00	0.00	0.00
0.00	0.00	0.00

MT

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 11:16:21 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



TIC: VJ19092630.D\data.ms

(18) tert-Butanol (TBA)

4.276min (-0.000) 23.78 ug/L m

response 17073

Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	30.06#
0.00	0.00	0.00
0.00	0.00	0.00

9/27/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

pre
9/27/19

Quant Time: Sep 27 10:51:46 2019
Quant Method : C:\msdchem\1\methods\~~VJ190926S+.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	84470	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	197907	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	88955	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	58835	48.68	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	226191	50.57	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	276952	49.22	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	70019	51.04	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.715	85	485	0.30	ug/L	#	51
3) Chloromethane	1.898	50	1467	0.67	ug/L		93
4) Vinyl Chloride	2.001	62	708	0.41	ug/L	#	46
5) Bromomethane	2.342	96	2374	3.15	ug/L		94
6) Chloroethane	2.463	64	579	2.29	ug/L	#	37
7) Trichlorofluoromethane	2.597	101	307	0.40	ug/L		92
8) Ethanol	~~3.327~~	~~45~~	~~4771~~	~~72.00~~	~~ug/L~~		~~92~~ MI
9) 1,1-Dichloroethene	3.139	61	958	0.39	ug/L		89
10) Carbon Disulfide	3.151	76	1342	0.39	ug/L		69
11) Freon 113	3.200	101	422	0.31	ug/L	#	16
12) Iodomethane	3.297	142	828	1.57	ug/L		84
13) Methylene Chloride	3.784	84	4661	2.78	ug/L		92
14) Acetone	3.875	43	1994	1.50	ug/L		100
15) t-1,2-Dichloroethene	3.948	61	844	0.33	ug/L		93
16) n-Hexane	0.000		0	N.D.			
17) Methyl-tert-butyl-ether	4.112	73	3475	0.49	ug/L		94
18) tert-Butanol (TBA)	~~4.276~~	~~59~~	~~13543~~	~~10.86~~	~~ug/L~~	#	~~98~~ MI
19) Diisopropyl ether (DIPE)	4.520	45	698	0.10	ug/L		80
20) 1,1-Dichloroethane	4.587	63	1089	0.40	ug/L		85
21) Acrylonitrile	4.653	53	366	0.29	ug/L	#	14
22) Ethyl-tert-butyl ether...	4.879	59	392	0.06	ug/L	#	45
23) c-1,2-Dichloroethene	5.134	61	933	0.35	ug/L		90
24) 2,2-Dichloropropane	5.237	77	1479	0.49	ug/L		84
25) Bromochloromethane	5.335	49	606	0.38	ug/L		94
26) Chloroform	5.426	83	1259	0.38	ug/L		86
27) Carbon Tetrachloride	5.560	117	711	0.31	ug/L		76
28) Tetrahydrofuran	5.596	42	967	0.62	ug/L		83
29) 1,1,1-Trichloroethane	5.633	97	1203	0.37	ug/L		80
31) 1,1-Dichloropropene	5.755	75	1088	0.38	ug/L		92
32) 2-Butanone (MEK)	5.749	43	2335	1.16	ug/L		82
33) Benzene	6.004	78	3388	0.42	ug/L		89
34) tert-Amyl methyl ether...	6.168	73	1462	0.22	ug/L	#	46
35) 1,2-Dichloroethane (EDC)	6.211	62	1178	0.36	ug/L		86
36) iso-Butyl Alcohol	6.314	43	3254	12.21	ug/L		72
38) Trichloroethene (TCE)	6.631	130	616	0.32	ug/L		83
39) tert-Amyl ethyl ether ...	6.917	59	337	0.07	ug/L		81
40) Dibromomethane	7.069	93	307	0.26	ug/L	#	81
41) 1,2-Dichloropropane	7.178	63	782	0.38	ug/L		76
42) Bromodichloromethane	7.245	83	528	0.24	ug/L		94
44) c-1,3-Dichloropropene	7.957	75	1074	0.34	ug/L	#	44
46) Toluene	8.237	91	3563	0.42	ug/L		95
47) Tetrachloroethene (PCE)	8.681	166	566	0.31	ug/L		81
48) 4-Methyl-2-Pentanone (...	8.681	43	3017	0.86	ug/L		85

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 10:51:46 2019
Quant Method : C:\msdchem\1\methods\~~VJ190926S+.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

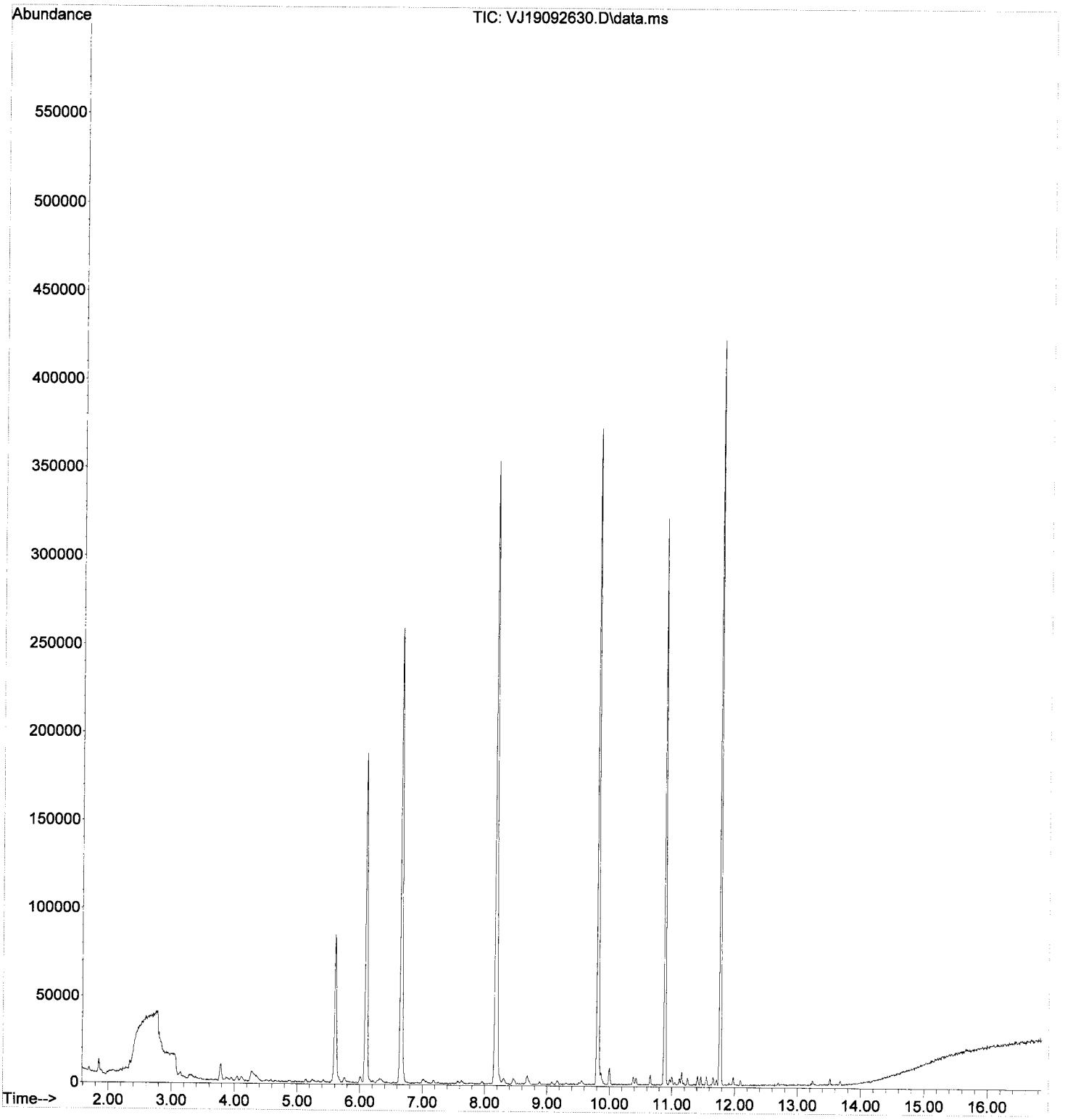
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	1076	0.35	ug/L	69
50) 1,1,2-Trichloroethane	8.882	97	680	0.39	ug/L	89
51) Dibromochloromethane	9.070	129	142	0.11	ug/L #	17
52) 1,3-Dichloropropane	9.174	76	1225	0.36	ug/L	84
53) 1,2-Dibromoethane (EDB)	9.307	107	601	0.32	ug/L	96
54) 2-Hexanone	9.551	43	2359	0.87	ug/L	75
55) Chlorobenzene	9.831	112	1986	0.40	ug/L	95
56) Ethylbenzene	9.861	91	3745	0.40	ug/L	99
57) 1,1,1,2-Tetrachloroethane	9.891	131	448	0.28	ug/L	78
58) m,p-Xylenes (2)	10.001	91	5405	0.77	ug/L	94
59) o-Xylene	10.384	91	2839	0.40	ug/L	89
60) Styrene	10.427	104	1810	0.36	ug/L	75
61) Bromoform	0.000		0	N.D.		
62) Isopropylbenzene	10.658	105	3087	0.36	ug/L	91
65) Bromobenzene	10.968	156	684	0.37	ug/L	91
66) n-Propylbenzene	11.005	91	3693	0.39	ug/L	96
67) 1,1,2,2-Tetrachloroethane	11.047	83	847	0.35	ug/L	91
68) 2-Chlorotoluene	11.126	126	648	0.37	ug/L	92
69) 1,3,5-Trimethylbenzene	11.163	105	2439	0.38	ug/L	92
70) 1,2,3-Trichloropropane	11.157	110	363	0.39	ug/L	87
71) t-1,4-Dichloro-2-butene	0.000		0	N.D.		
72) 4-Chlorotoluene	11.254	91	2310	0.40	ug/L	92
73) tert-Butylbenzene	11.412	91	1643	0.41	ug/L #	77
74) 1,2,4-Trimethylbenzene	11.467	105	2527	0.38	ug/L	92
75) sec-Butylbenzene	11.552	105	3047	0.38	ug/L	98
76) 4-Isopropyltoluene	11.656	119	2589	0.39	ug/L	94
77) 1,3-Dichlorobenzene	11.717	146	1278	0.39	ug/L	85
78) 1,4-Dichlorobenzene	11.783	146	1255	0.38	ug/L	90
79) n-Butylbenzene	11.978	91	2363	0.41	ug/L	95
80) 1,2-Dichlorobenzene	12.094	146	1195	0.38	ug/L	87
81) 1,2-Dibromo-3-Chloropr...	12.702	157	134	0.24	ug/L #	37
82) Hexachlorobutadiene	0.000		0	N.D.		
83) 1,2,4-Trichlorobenzene	13.243	180	782	0.38	ug/L	86
84) Naphthalene	13.517	128	2898	0.36	ug/L	94
85) 1,2,3-Trichlorobenzene	13.682	180	761	0.38	ug/L	90

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092630.D
Acq On : 26 Sep 2019 10:22 pm
Operator : TB
Sample : 9I26051-CAL3
Misc : 1X 5mL 0.4/0.8PPB VOCO+MeOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 10:51:46 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092631.D
Acq On : 26 Sep 2019 10:49 pm
Operator : TB
Sample : 9I26051-CAL4
Misc : 1X 5mL 1/2PPB VOCO+MeOH
ALS Vial : 7 Sample Multiplier: 1

POST
9/27/19

Quant Time: Sep 27 11:17:31 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	81984	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	192549	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	86589	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	56330	48.02	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	217352	50.07	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	268905	49.12	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	67920	50.86	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	1395	0.88	ug/L		86
3) Chloromethane	1.904	50	2599	1.22	ug/L		98
4) Vinyl Chloride	2.013	62	1578	0.95	ug/L		90
5) Bromomethane	2.348	96	2822	3.86	ug/L		92
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	0.000		0	N.D.	d		
8) Ethanol	3.327	45	8207	127.61	ug/L		88
9) 1,1-Dichloroethene	3.145	61	2333	0.97	ug/L		92
10) Carbon Disulfide	3.157	76	3107	0.93	ug/L		90
11) Freon 113	3.199	101	1302	0.97	ug/L		93
12) Iodomethane	3.291	142	963	1.89	ug/L		86
13) Methylene Chloride	3.783	84	3800	2.34	ug/L		95
14) Acetone	0.000		0	N.D.	d		
15) t-1,2-Dichloroethene	3.954	61	2257	0.90	ug/L		97
16) n-Hexane	4.039	86	420	1.05	ug/L	#	75
17) Methyl-tert-butyl-ether	4.118	73	8067	1.17	ug/L		95
18) tert-Butanol (TBA)	4.282	59	41742	59.91	ug/L	#	93
19) Diisopropyl ether (DIPE)	4.513	45	1630	0.25	ug/L		88
20) 1,1-Dichloroethane	4.580	63	2592	0.99	ug/L		98
21) Acrylonitrile	4.635	53	954m	0.77	ug/L		
22) Ethyl-tert-butyl ether...	4.872	59	1774	0.26	ug/L		84
23) c-1,2-Dichloroethene	5.134	61	2632	1.01	ug/L		98
24) 2,2-Dichloropropane	5.244	77	3177	1.08	ug/L		81
25) Bromochloromethane	5.335	49	1510	0.98	ug/L	#	74
26) Chloroform	5.420	83	3029	0.94	ug/L		90
27) Carbon Tetrachloride	5.566	117	2021	0.91	ug/L		93
28) Tetrahydrofuran	5.609	42	1809	1.20	ug/L		90
29) 1,1,1-Trichloroethane	5.621	97	3061	0.98	ug/L		99
31) 1,1-Dichloropropene	5.761	75	2801	1.02	ug/L		87
32) 2-Butanone (MEK)	5.748	43	5626	2.88	ug/L		87
33) Benzene	6.010	78	7846	1.00	ug/L		95
34) tert-Amyl methyl ether...	6.156	73	2474	0.39	ug/L		94
35) 1,2-Dichloroethane (EDC)	6.217	62	2955	0.94	ug/L		86
36) iso-Butyl Alcohol	6.314	43	7169	27.71	ug/L		87
38) Trichloroethene (TCE)	6.631	130	1660	0.89	ug/L		77
39) tert-Amyl ethyl ether ...	6.910	59	1145	0.23	ug/L		66
40) Dibromomethane	7.069	93	965	0.84	ug/L		77
41) 1,2-Dichloropropane	7.178	63	1993	0.99	ug/L		99
42) Bromodichloromethane	7.257	83	1688	0.80	ug/L		88
44) c-1,3-Dichloropropene	7.957	75	2900	0.94	ug/L		89
46) Toluene	8.237	91	8435	1.02	ug/L		99
47) Tetrachloroethene (PCE)	8.687	166	1713	0.95	ug/L		94
48) 4-Methyl-2-Pentanone (...	8.675	43	6953	2.03	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092631.D
Acq On : 26 Sep 2019 10:49 pm
Operator : TB
Sample : 9I26051-CAL4
Misc : 1X 5mL 1/2PPB VOCO+MeOH
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 27 11:17:31 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

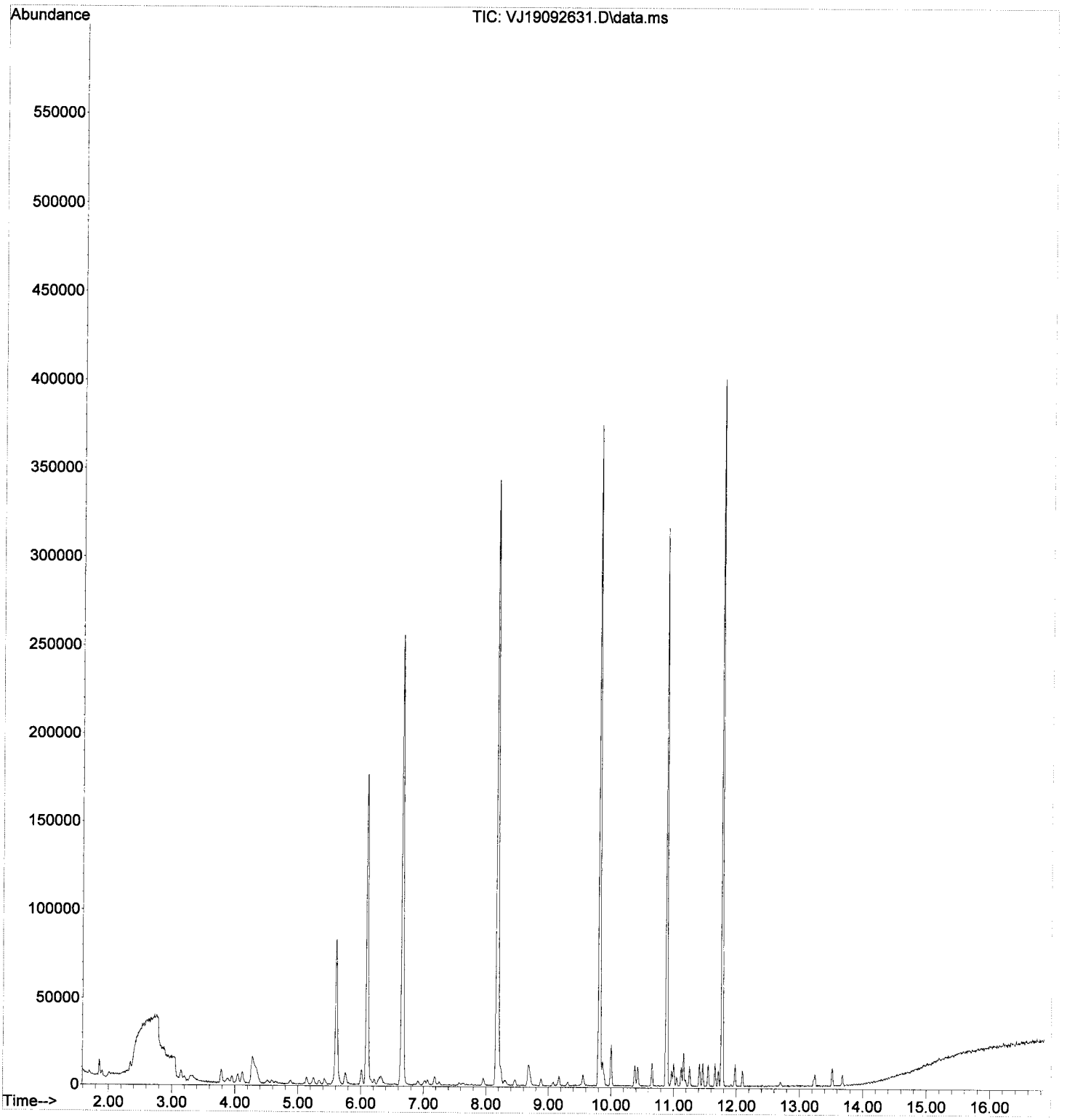
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	2780	0.93	ug/L		97
50) 1,1,2-Trichloroethane	8.875	97	1642	0.98	ug/L		92
51) Dibromochloromethane	9.070	129	821	0.66	ug/L		89
52) 1,3-Dichloropropane	9.174	76	3103	0.94	ug/L		94
53) 1,2-Dibromoethane (EDB)	9.307	107	1656	0.89	ug/L		76
54) 2-Hexanone	9.551	43	5387	2.03	ug/L		97
55) Chlorobenzene	9.824	112	4686	0.96	ug/L		91
56) Ethylbenzene	9.867	91	8628	0.94	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.891	131	1424	0.90	ug/L		81
58) m,p-Xylenes (2)	10.001	91	13397	1.95	ug/L		93
59) o-Xylene	10.378	91	6615	0.95	ug/L		92
60) Styrene	10.427	104	4607	0.93	ug/L		88
61) Bromoform	10.439	173	516	0.71	ug/L	#	37
62) Isopropylbenzene	10.658	105	8277	0.98	ug/L		94
65) Bromobenzene	10.968	156	1684	0.95	ug/L	#	66
66) n-Propylbenzene	10.999	91	9220	0.99	ug/L		96
67) 1,1,2,2-Tetrachloroethane	11.047	83	2293	0.98	ug/L		92
68) 2-Chlorotoluene	11.120	126	1588	0.93	ug/L	#	81
69) 1,3,5-Trimethylbenzene	11.157	105	6381	1.01	ug/L		88
70) 1,2,3-Trichloropropane	11.157	110	913	1.00	ug/L	#	63
71) t-1,4-Dichloro-2-butene	11.193	88	315	0.80	ug/L	#	68
72) 4-Chlorotoluene	11.254	91	5709	1.02	ug/L		89
73) tert-Butylbenzene	11.412	91	3961	1.02	ug/L		90
74) 1,2,4-Trimethylbenzene	11.467	105	6284	0.98	ug/L		99
75) sec-Butylbenzene	11.552	105	7388	0.96	ug/L		95
76) 4-Isopropyltoluene	11.662	119	6309	0.98	ug/L		93
77) 1,3-Dichlorobenzene	11.716	146	3078	0.96	ug/L		87
78) 1,4-Dichlorobenzene	11.783	146	3311	1.03	ug/L		94
79) n-Butylbenzene	11.978	91	5776	1.02	ug/L		89
80) 1,2-Dichlorobenzene	12.094	146	2989	0.98	ug/L		94
81) 1,2-Dibromo-3-Chloropr...	12.696	157	429	0.78	ug/L	#	34
82) Hexachlorobutadiene	13.219	223	423	0.93	ug/L		92
83) 1,2,4-Trichlorobenzene	13.243	180	1768	0.87	ug/L		89
84) Naphthalene	13.517	128	7597	0.97	ug/L		98
85) 1,2,3-Trichlorobenzene	13.681	180	1983	1.02	ug/L		94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092631.D
Acq On : 26 Sep 2019 10:49 pm
Operator : TB
Sample : 9I26051-CAL4
Misc : 1X 5mL 1/2PPB VOCO+MeOH
ALS Vial : 7 Sample Multiplier: 1

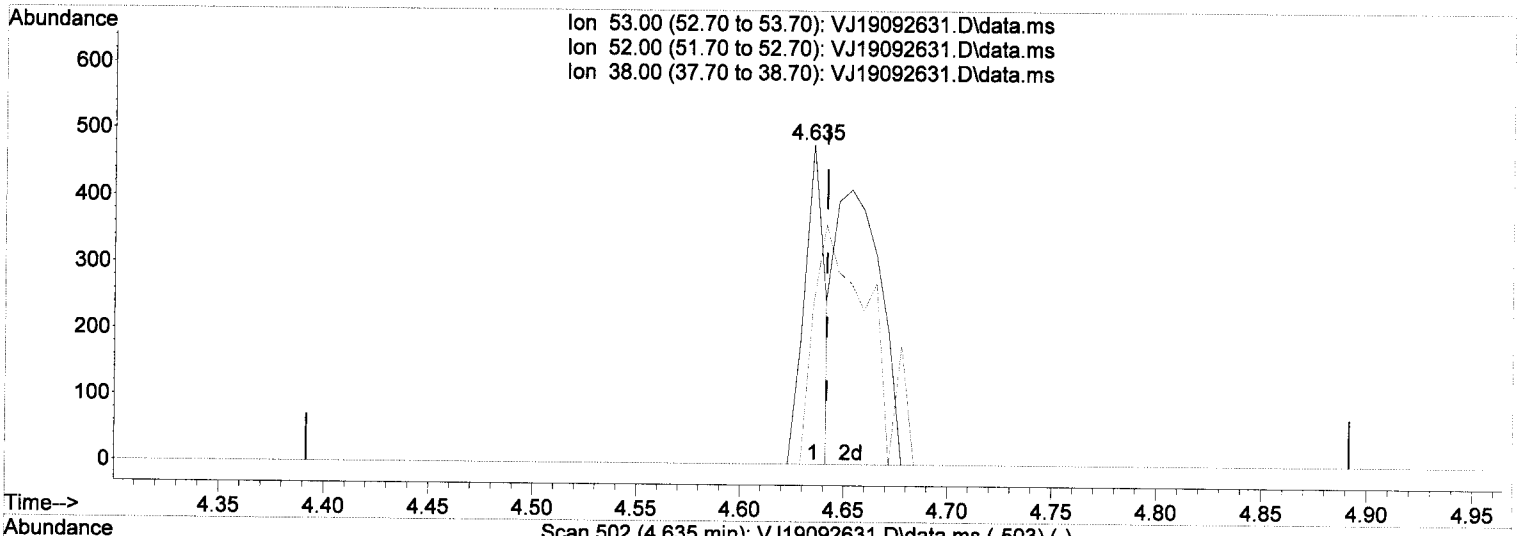
Quant Time: Sep 27 11:17:31 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

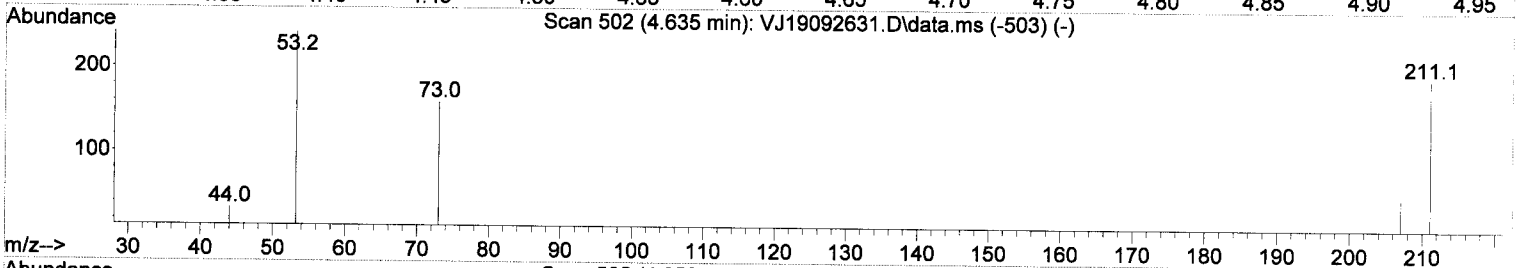


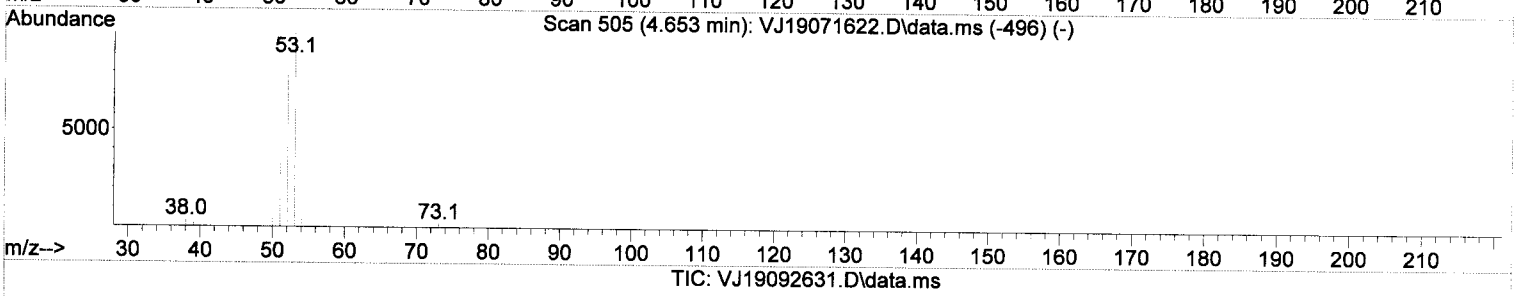
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092631.D
Acq On : 26 Sep 2019 10:49 pm
Operator : TB
Sample : 9I26051-CAL4
Misc : 1X 5mL 1/2PPB VOCO+MeOH
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 27 10:51:49 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092631.D\data.ms

(21) Acrylonitrile

4.635min (-0.006) 0.27 ug/L

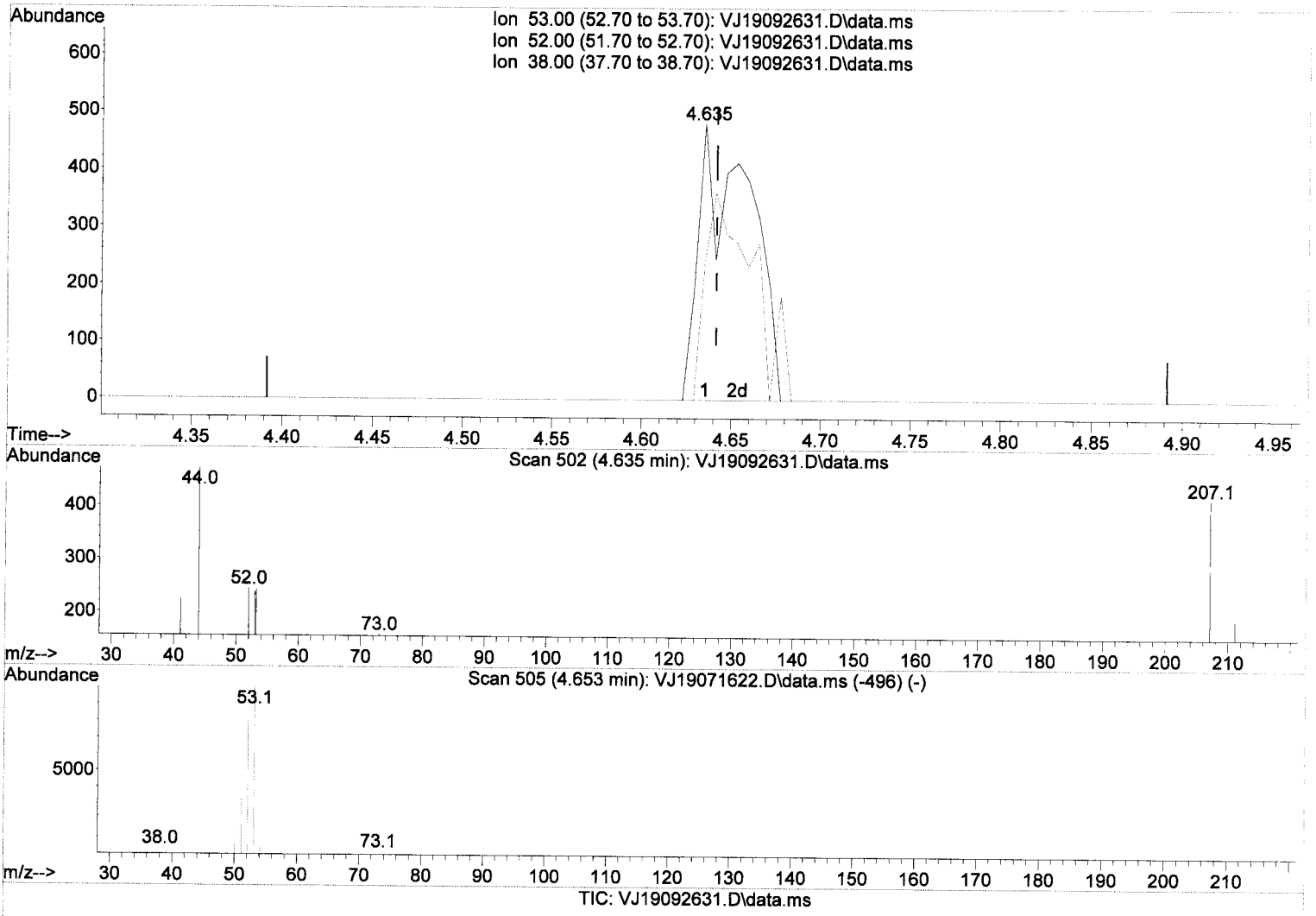
response 333

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	50.83
38.00	5.50	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092631.D
Acq On : 26 Sep 2019 10:49 pm
Operator : TB
Sample : 9I26051-CAL4
Misc : 1X 5mL 1/2PPB VOCO+MeOH
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 27 10:51:49 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



TIC: VJ19092631.D\data.ms

(21) Acrylonitrile

4.635min (-0.006) 0.77 ug/L m

response 954

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	100.83
38.00	5.50	0.00
0.00	0.00	0.00

9/27/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092631.D
Acq On : 26 Sep 2019 10:49 pm
Operator : TB
Sample : 9I26051-CAL4
Misc : 1X 5mL 1/2PPB VOCO+MeOH
ALS Vial : 7 Sample Multiplier: 1

pre 9/27/19

Quant Time: Sep 27 10:51:49 2019
Quant Method : C:\msdchem\1\methods\~~VJ190926S+.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	81984	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	192549	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	86589	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	56330	48.02	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	217352	50.07	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	268905	49.12	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	67920	50.86	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	1395	0.88	ug/L		86
3) Chloromethane	1.904	50	2599	1.22	ug/L		98
4) Vinyl Chloride	2.013	62	1578	0.96	ug/L		90
5) Bromomethane	2.348	96	2822	3.86	ug/L		92
6) Chloroethane	2.475	64	804	3.28	ug/L	#	1
7) Trichlorofluoromethane	2.603	101	660	0.89	ug/L	#	54
8) Ethanol	3.327	45	8207	127.61	ug/L		88
9) 1,1-Dichloroethene	3.145	61	2333	0.97	ug/L		92
10) Carbon Disulfide	3.157	76	3107	0.93	ug/L		90
11) Freon 113	3.199	101	1302	0.97	ug/L		93
12) Iodomethane	3.291	142	963	1.89	ug/L		86
13) Methylene Chloride	3.783	84	3800	2.34	ug/L		95
14) Acetone	3.875	43	4153	3.22	ug/L		78
15) t-1,2-Dichloroethene	3.954	61	2257	0.90	ug/L		97
16) n-Hexane	4.039	86	420	1.05	ug/L	#	75
17) Methyl-tert-butyl-ether	4.118	73	8067	1.17	ug/L		95
18) tert-Butanol (TBA)	4.282	59	41742	59.91	ug/L	#	93
19) Diisopropyl ether (DIPE)	4.513	45	1630	0.25	ug/L		88
20) 1,1-Dichloroethane	4.580	63	2592	0.99	ug/L		98
21) Acrylonitrile	4.635	53	~~333~~	~~0.27~~	~~ug/L~~		~~68~~ MF
22) Ethyl-tert-butyl ether...	4.872	59	1774	0.26	ug/L		84
23) c-1,2-Dichloroethene	5.134	61	2632	1.01	ug/L		98
24) 2,2-Dichloropropane	5.244	77	3177	1.08	ug/L		81
25) Bromochloromethane	5.335	49	1510	0.98	ug/L	#	74
26) Chloroform	5.420	83	3029	0.94	ug/L		90
27) Carbon Tetrachloride	5.566	117	2021	0.91	ug/L		93
28) Tetrahydrofuran	5.609	42	1809	1.20	ug/L		90
29) 1,1,1-Trichloroethane	5.621	97	3061	0.98	ug/L		99
31) 1,1-Dichloropropene	5.761	75	2801	1.02	ug/L		87
32) 2-Butanone (MEK)	5.748	43	5626	2.88	ug/L		87
33) Benzene	6.010	78	7846	1.00	ug/L		95
34) tert-Amyl methyl ether...	6.156	73	2474	0.39	ug/L		94
35) 1,2-Dichloroethane (EDC)	6.217	62	2955	0.94	ug/L		86
36) iso-Butyl Alcohol	6.314	43	7169	27.71	ug/L		87
38) Trichloroethene (TCE)	6.631	130	1660	0.89	ug/L		77
39) tert-Amyl ethyl ether ...	6.910	59	1145	0.23	ug/L		66
40) Dibromomethane	7.069	93	965	0.84	ug/L		77
41) 1,2-Dichloropropane	7.178	63	1993	0.99	ug/L		99
42) Bromodichloromethane	7.257	83	1688	0.80	ug/L		88
44) c-1,3-Dichloropropene	7.957	75	2900	0.94	ug/L		89
46) Toluene	8.237	91	8435	1.02	ug/L		99
47) Tetrachloroethene (PCE)	8.687	166	1713	0.95	ug/L		94
48) 4-Methyl-2-Pentanone (...	8.675	43	6953	2.03	ug/L		93

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092631.D
Acq On : 26 Sep 2019 10:49 pm
Operator : TB
Sample : 9I26051-CAL4
Misc : 1X 5mL 1/2PPB VOCO+MeOH
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 27 10:51:49 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

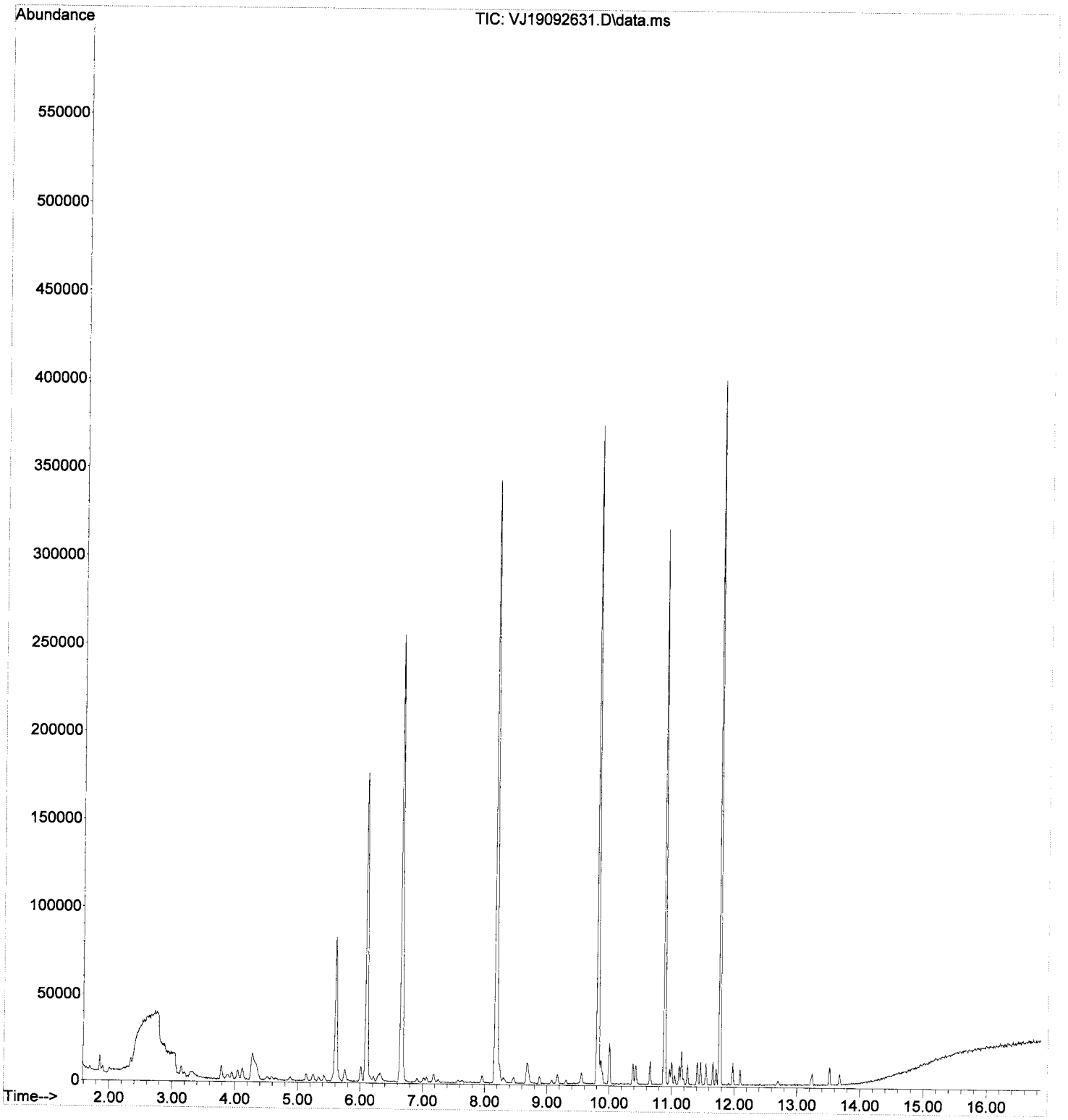
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	2780	0.93	ug/L		97
50) 1,1,2-Trichloroethane	8.875	97	1642	0.98	ug/L		92
51) Dibromochloromethane	9.070	129	821	0.66	ug/L		89
52) 1,3-Dichloropropane	9.174	76	3103	0.94	ug/L		94
53) 1,2-Dibromoethane (EDB)	9.307	107	1656	0.89	ug/L		76
54) 2-Hexanone	9.551	43	5387	2.03	ug/L		97
55) Chlorobenzene	9.824	112	4686	0.96	ug/L		91
56) Ethylbenzene	9.867	91	8628	0.94	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.891	131	1424	0.90	ug/L		81
58) m,p-Xylenes (2)	10.001	91	13397	1.95	ug/L		93
59) o-Xylene	10.378	91	6615	0.95	ug/L		92
60) Styrene	10.427	104	4607	0.93	ug/L		88
61) Bromoform	10.439	173	516	0.71	ug/L	#	37
62) Isopropylbenzene	10.658	105	8277	0.98	ug/L		94
65) Bromobenzene	10.968	156	1684	0.95	ug/L	#	66
66) n-Propylbenzene	10.999	91	9220	0.99	ug/L		96
67) 1,1,2,2-Tetrachloroethane	11.047	83	2293	0.98	ug/L		92
68) 2-Chlorotoluene	11.120	126	1588	0.93	ug/L	#	81
69) 1,3,5-Trimethylbenzene	11.157	105	6381	1.01	ug/L		88
70) 1,2,3-Trichloropropane	11.157	110	913	1.00	ug/L	#	63
71) t-1,4-Dichloro-2-butene	11.193	88	315	0.80	ug/L	#	68
72) 4-Chlorotoluene	11.254	91	5709	1.02	ug/L		89
73) tert-Butylbenzene	11.412	91	3961	1.02	ug/L		90
74) 1,2,4-Trimethylbenzene	11.467	105	6284	0.98	ug/L		99
75) sec-Butylbenzene	11.552	105	7388	0.96	ug/L		95
76) 4-Isopropyltoluene	11.662	119	6309	0.98	ug/L		93
77) 1,3-Dichlorobenzene	11.716	146	3078	0.96	ug/L		87
78) 1,4-Dichlorobenzene	11.783	146	3311	1.03	ug/L		94
79) n-Butylbenzene	11.978	91	5776	1.02	ug/L		89
80) 1,2-Dichlorobenzene	12.094	146	2989	0.98	ug/L		94
81) 1,2-Dibromo-3-Chloropr...	12.696	157	429	0.78	ug/L	#	34
82) Hexachlorobutadiene	13.219	223	423	0.93	ug/L		92
83) 1,2,4-Trichlorobenzene	13.243	180	1768	0.87	ug/L		89
84) Naphthalene	13.517	128	7597	0.97	ug/L		98
85) 1,2,3-Trichlorobenzene	13.681	180	1983	1.02	ug/L		94

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092631.D
Acq On : 26 Sep 2019 10:49 pm
Operator : TB
Sample : 9I26051-CAL4
Misc : 1X 5mL 1/2PPB VOCO+MeOH
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 27 10:51:49 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

post

9/27/19

Quant Time: Sep 27 13:11:20 2019
Quant Method : C:\msdchem\1\methods\~~VJ190926S+.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	80878	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	191897	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	87731	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	56215	48.58	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	215594	50.35	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	265160	48.60	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	68748	50.81	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.685	85	2406m	1.54	ug/L		
3) Chloromethane	1.892	50	4009	1.92	ug/L		97
4) Vinyl Chloride	1.989	62	3030	1.84	ug/L		91
5) Bromomethane	2.336	96	2937	4.07	ug/L		97
6) Chloroethane	0.000		0	N.D.	d		
7) Trichlorofluoromethane	2.591	101	1366	1.86	ug/L		91
8) Ethanol	3.303	45	12266m	193.33	ug/L		
9) 1,1-Dichloroethene	3.133	61	4576	1.92	ug/L		86
10) Carbon Disulfide	3.145	76	6011	1.82	ug/L		94
11) Freon 113	3.187	101	2441	1.85	ug/L		90
12) Iodomethane	3.285	142	1150	2.28	ug/L		75
13) Methylene Chloride	3.778	84	6720	4.19	ug/L		92
14) Acetone	3.869	43	8350m	6.56	ug/L		
15) t-1,2-Dichloroethene	3.942	61	4912	1.99	ug/L		84
16) n-Hexane	4.033	86	754	1.90	ug/L		92
17) Methyl-tert-butyl-ether	4.106	73	14610	2.15	ug/L		96
18) tert-Butanol (TBA)	4.264	59	82253m	119.66	ug/L		
19) Diisopropyl ether (DIPE)	4.508	45	3173	0.50	ug/L		97
20) 1,1-Dichloroethane	4.581	63	5221	2.02	ug/L		100
21) Acrylonitrile	4.629	53	1969	1.62	ug/L		90
22) Ethyl-tert-butyl ether...	4.873	59	3328	0.50	ug/L		98
23) c-1,2-Dichloroethene	5.128	61	5194	2.02	ug/L		85
24) 2,2-Dichloropropane	5.244	77	6209	2.14	ug/L		93
25) Bromochloromethane	5.335	49	2920	1.91	ug/L		85
26) Chloroform	5.420	83	6073	1.91	ug/L		98
27) Carbon Tetrachloride	5.560	117	3787	1.72	ug/L		89
28) Tetrahydrofuran	5.590	42	3550	2.38	ug/L		86
29) 1,1,1-Trichloroethane	5.621	97	5828	1.89	ug/L		98
31) 1,1-Dichloropropene	5.749	75	5503	2.03	ug/L		85
32) 2-Butanone (MEK)	5.736	43	9277	4.82	ug/L		85
33) Benzene	6.004	78	15470	2.00	ug/L		95
34) tert-Amyl methyl ether...	6.150	73	4288	0.68	ug/L		86
35) 1,2-Dichloroethane (EDC)	6.205	62	6019	1.93	ug/L		96
36) iso-Butyl Alcohol	6.327	43	12780	50.07	ug/L		93
38) Trichloroethene (TCE)	6.625	130	3608	1.97	ug/L		90
39) tert-Amyl ethyl ether ...	6.917	59	2564	0.53	ug/L		85
40) Dibromomethane	7.063	93	2282	2.01	ug/L	#	79
41) 1,2-Dichloropropane	7.178	63	3788	1.90	ug/L		89
42) Bromodichloromethane	7.251	83	3441	1.66	ug/L		93
44) c-1,3-Dichloropropene	7.963	75	5722	1.87	ug/L		99
46) Toluene	8.231	91	16529	2.01	ug/L		98
47) Tetrachloroethene (PCE)	8.687	166	3405	1.90	ug/L		90
48) 4-Methyl-2-Pentanone (...	8.675	43	13755	4.03	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 13:11:20 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

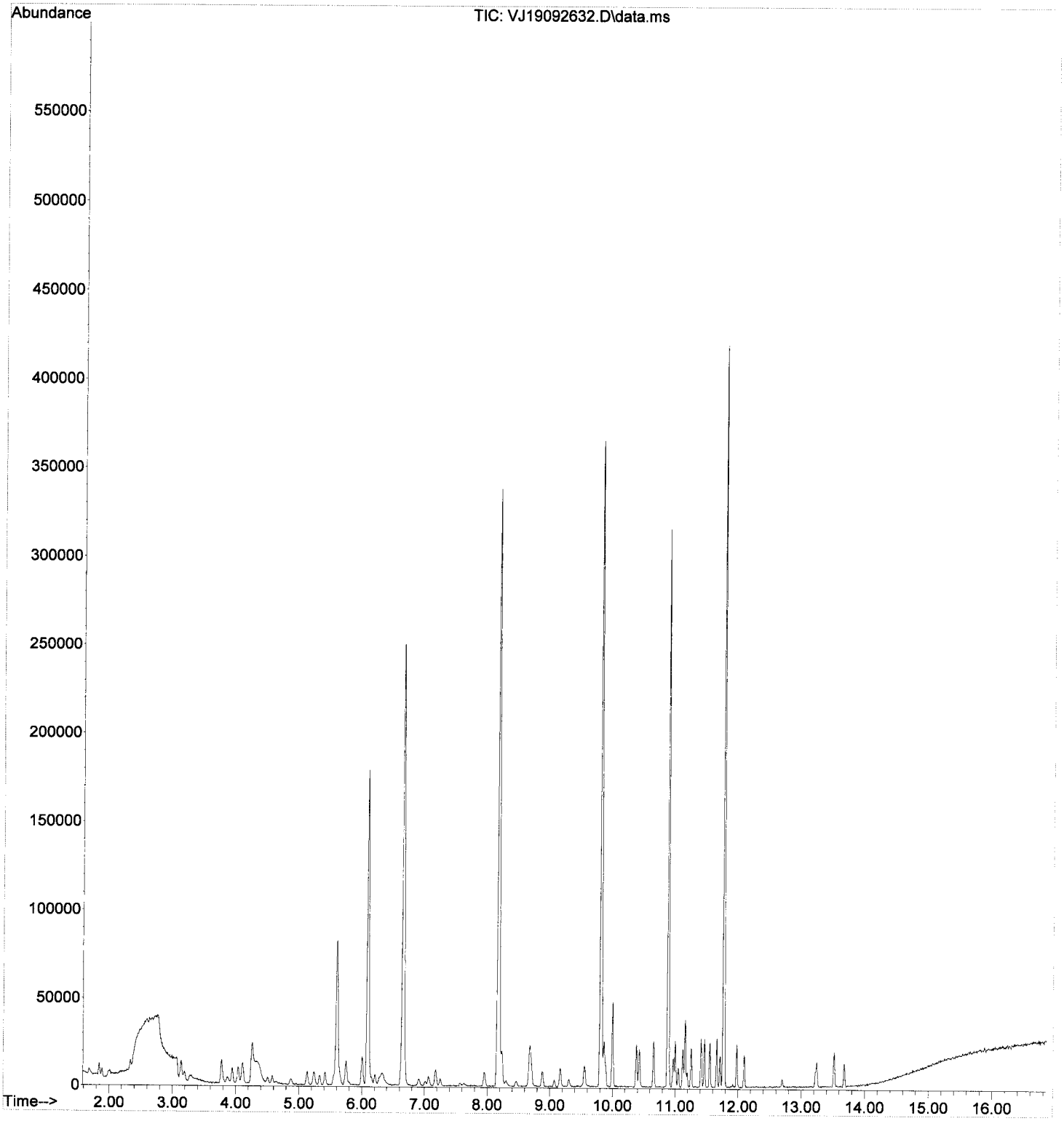
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	5491	1.85 ug/L	95
50) 1,1,2-Trichloroethane	8.882	97	3449	2.06 ug/L	90
51) Dibromochloromethane	9.076	129	1996	1.62 ug/L	90
52) 1,3-Dichloropropane	9.168	76	6858	2.09 ug/L	97
53) 1,2-Dibromoethane (EDB)	9.308	107	3632	1.96 ug/L	97
54) 2-Hexanone	9.551	43	9874	3.74 ug/L	93
55) Chlorobenzene	9.825	112	9732	2.00 ug/L	91
56) Ethylbenzene	9.861	91	17794	1.95 ug/L	99
57) 1,1,1,2-Tetrachloroethane	9.892	131	2840	1.80 ug/L	98
58) m,p-Xylenes (2)	10.001	91	26333	3.85 ug/L	96
59) o-Xylene	10.378	91	13487	1.94 ug/L	92
60) Styrene	10.427	104	9190	1.87 ug/L	94
61) Bromoform	10.439	173	1110	1.54 ug/L	92
62) Isopropylbenzene	10.658	105	16179	1.92 ug/L	98
65) Bromobenzene	10.968	156	3490	1.94 ug/L #	71
66) n-Propylbenzene	10.999	91	18414	1.96 ug/L	95
67) 1,1,2,2-Tetrachloroethane	11.047	83	4672	1.97 ug/L	99
68) 2-Chlorotoluene	11.120	126	3415	1.98 ug/L	94
69) 1,3,5-Trimethylbenzene	11.157	105	12560	1.96 ug/L	90
70) 1,2,3-Trichloropropane	11.157	110	1824	1.97 ug/L	95
71) t-1,4-Dichloro-2-butene	11.187	88	608	1.53 ug/L #	68
72) 4-Chlorotoluene	11.254	91	11203	1.97 ug/L	94
73) tert-Butylbenzene	11.412	91	7779	1.97 ug/L	89
74) 1,2,4-Trimethylbenzene	11.467	105	12884	1.98 ug/L	92
75) sec-Butylbenzene	11.552	105	15516	1.98 ug/L	95
76) 4-Isopropyltoluene	11.662	119	12605	1.93 ug/L	95
77) 1,3-Dichlorobenzene	11.717	146	6372	1.97 ug/L	100
78) 1,4-Dichlorobenzene	11.784	146	6672	2.05 ug/L	93
79) n-Butylbenzene	11.978	91	11616	2.03 ug/L	93
80) 1,2-Dichlorobenzene	12.094	146	6103	1.98 ug/L	94
81) 1,2-Dibromo-3-Chloropr...	12.702	157	817	1.46 ug/L #	39
82) Hexachlorobutadiene	13.225	223	871	1.89 ug/L	93
83) 1,2,4-Trichlorobenzene	13.244	180	4100	2.00 ug/L	89
84) Naphthalene	13.517	128	14697	1.85 ug/L	94
85) 1,2,3-Trichlorobenzene	13.682	180	3947	2.00 ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

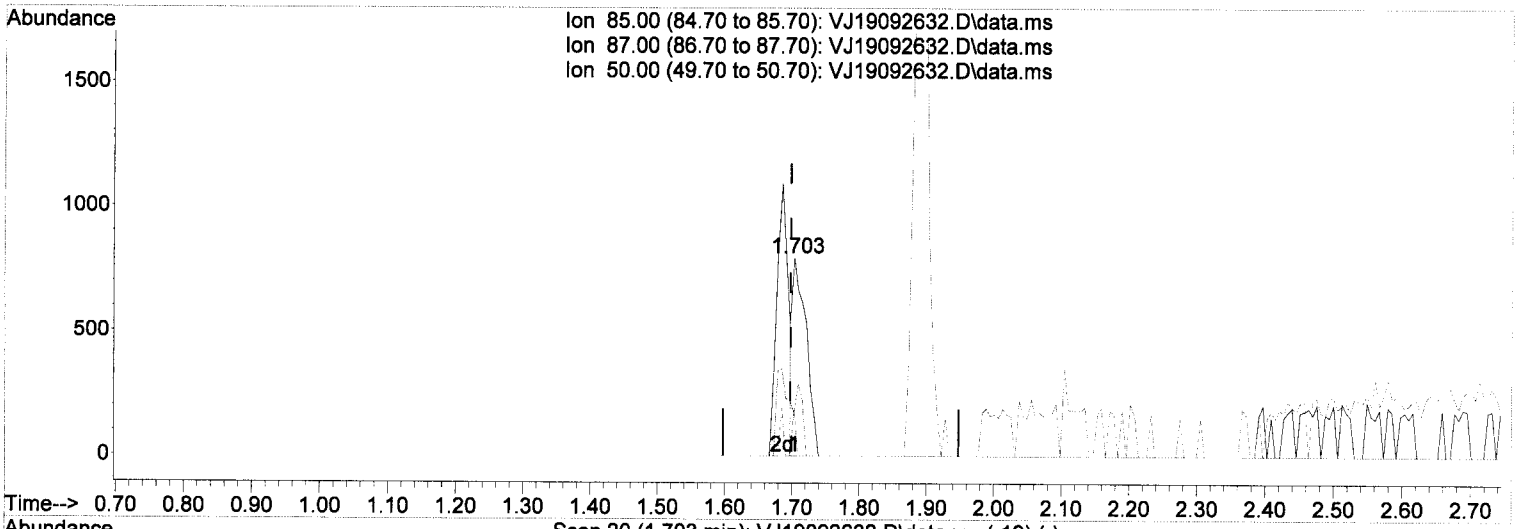
Quant Time: Sep 27 13:11:20 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

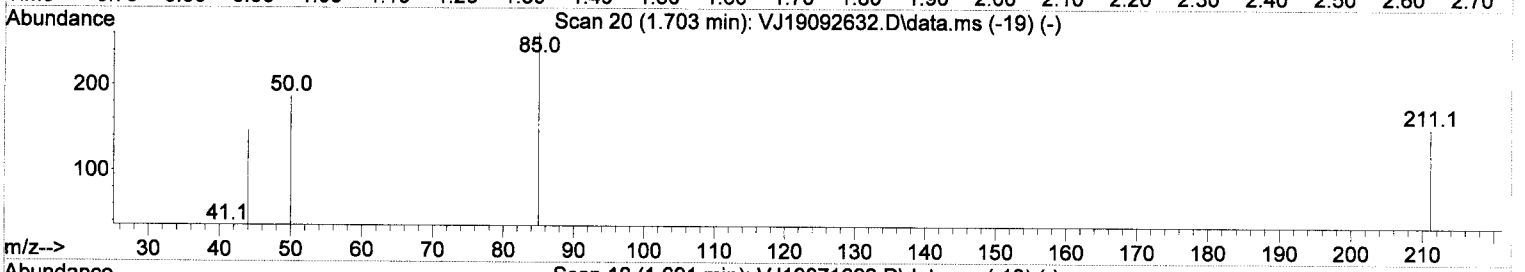


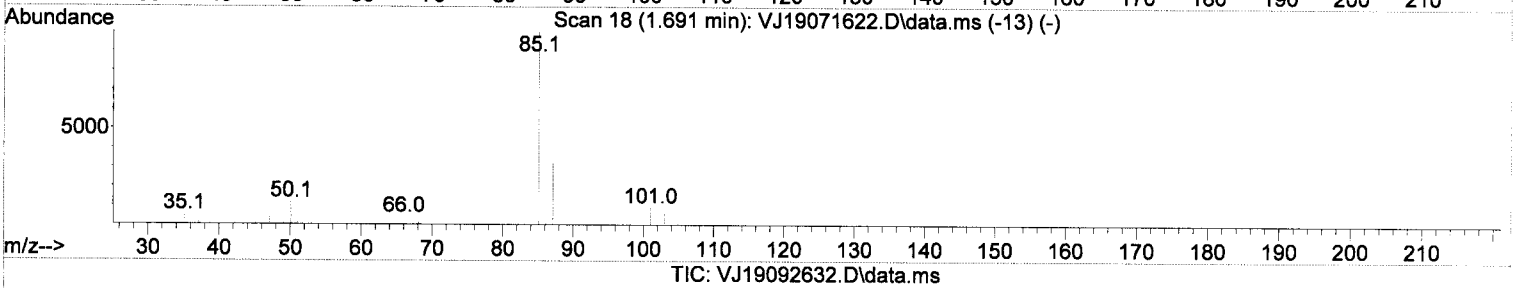
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 10:51:52 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092632.D\data.ms

(2) Dichlorodifluoromethane

1.703min (+ 0.006) 0.71 ug/L

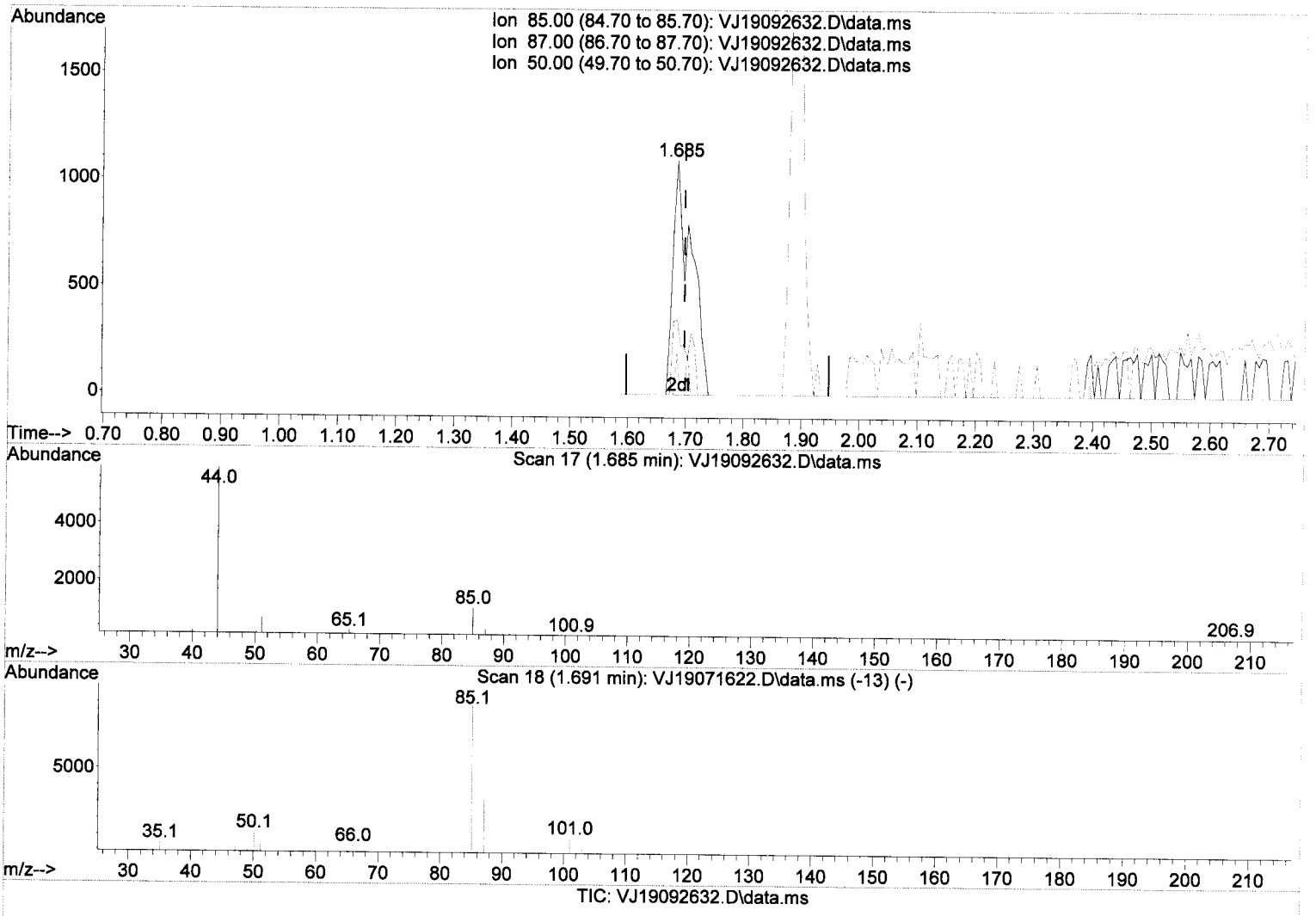
response 1107

Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	21.76
50.00	11.20	23.52
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 10:51:52 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



(2) Dichlorodifluoromethane

1.685min (-0.012) 1.54 ug/L m

response 2406

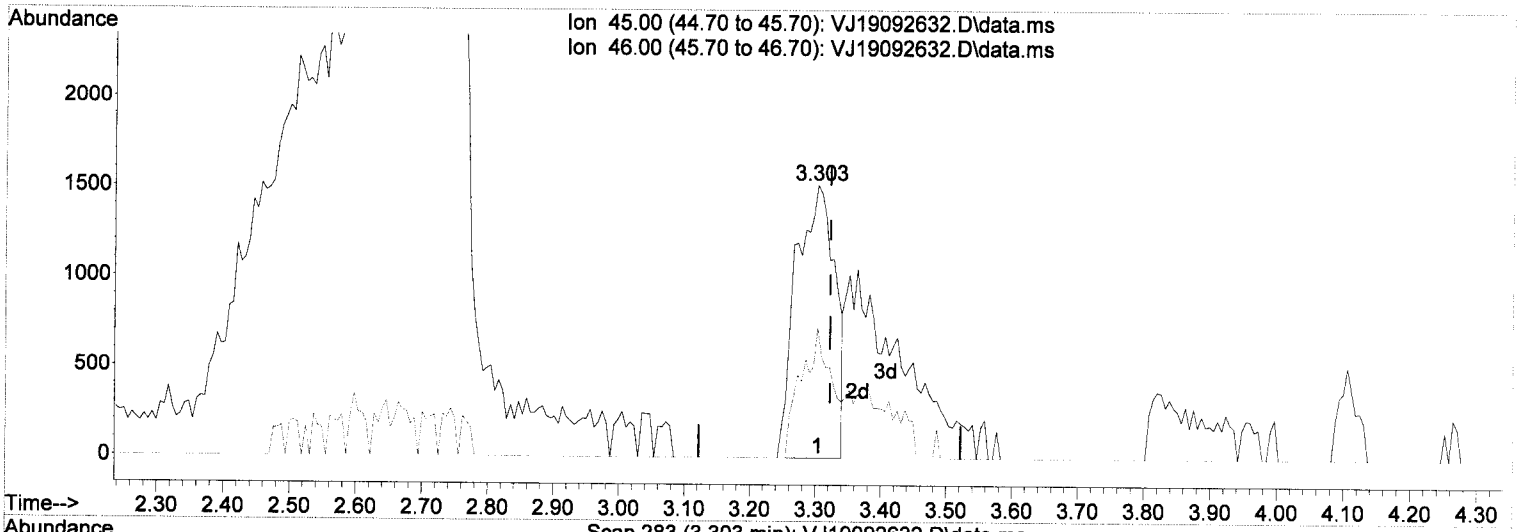
Ion	Exp%	Act%
85.00	100.00	100.00
87.00	31.10	32.02
50.00	11.20	17.84
0.00	0.00	0.00

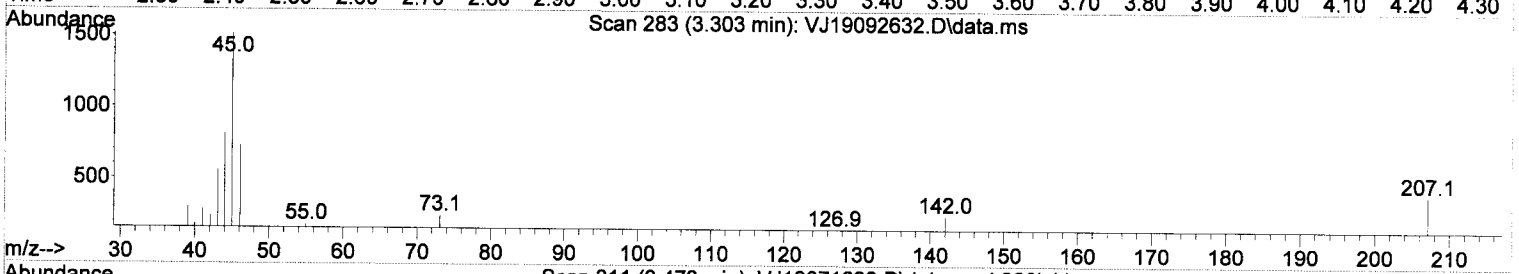
9/27/19

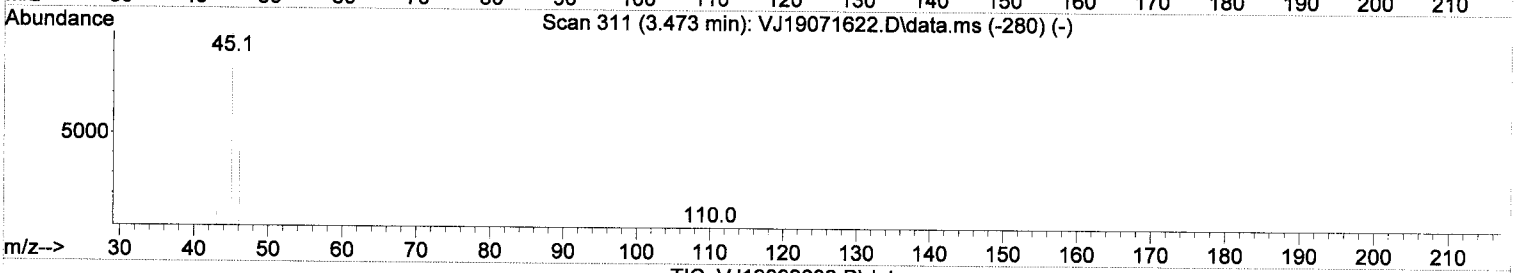
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 10:51:52 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092632.D\data.ms

(8) Ethanol

3.303min (-0.018) 96.95 ug/L

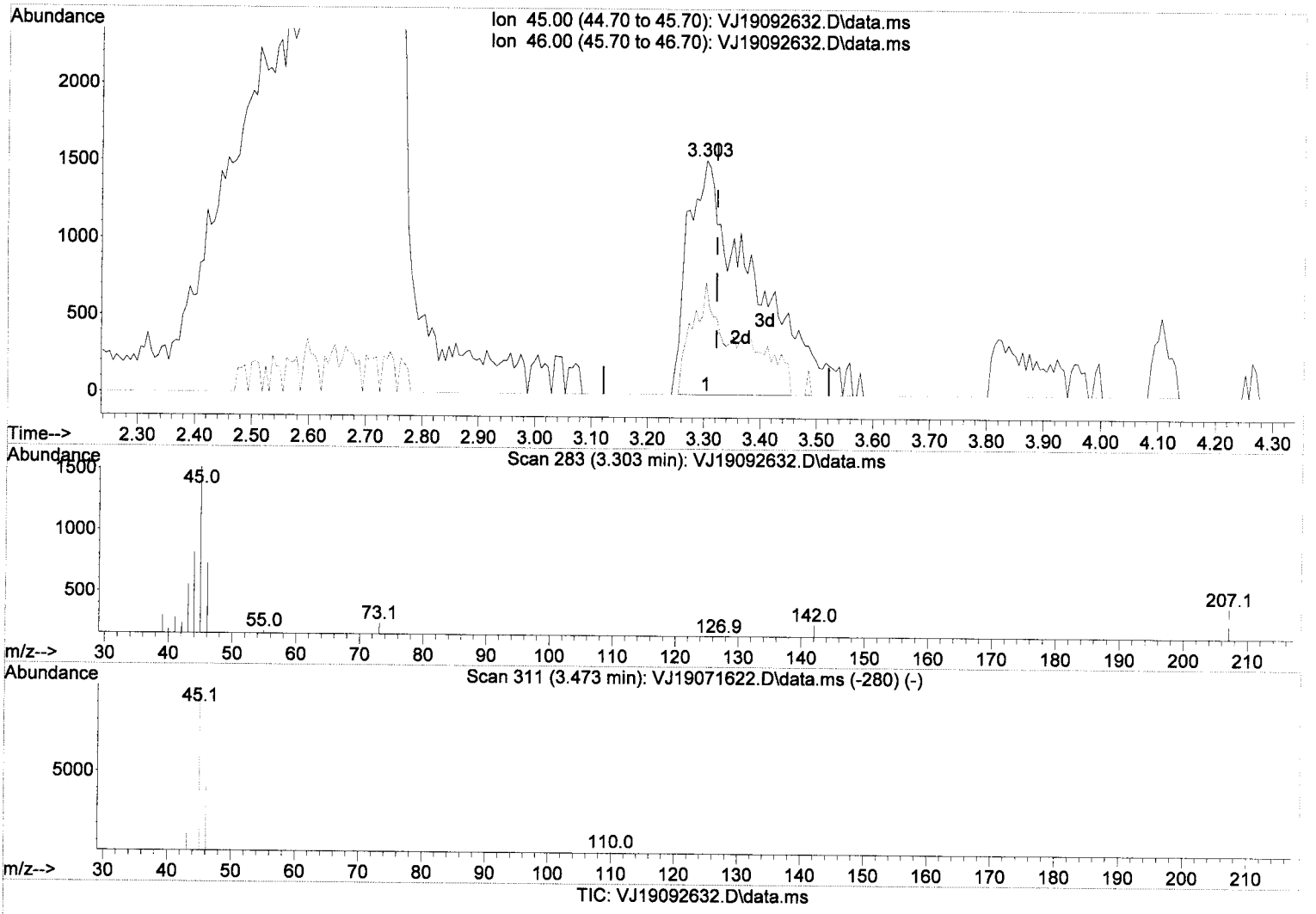
response 6151

Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	47.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 10:51:52 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



TIC: VJ19092632.D\data.ms

(8) Ethanol

3.303min (-0.018) 193.33 ug/L (m)

response 12266

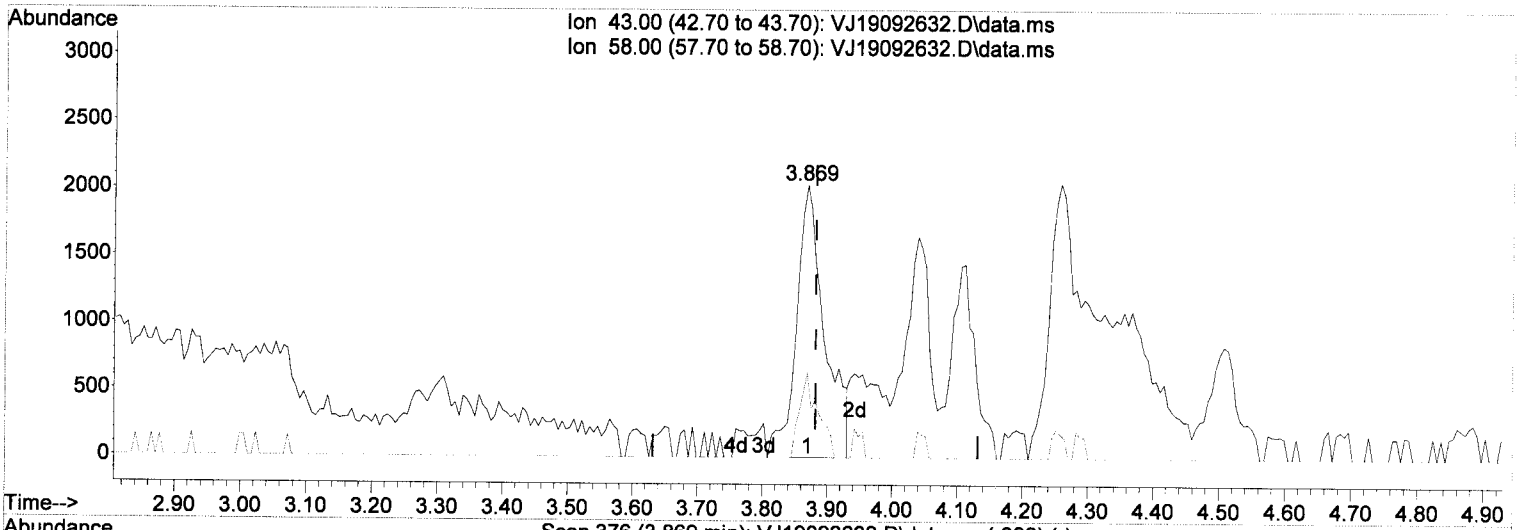
Ion	Exp%	Act%
45.00	100.00	100.00
46.00	47.50	47.98
0.00	0.00	0.00
0.00	0.00	0.00

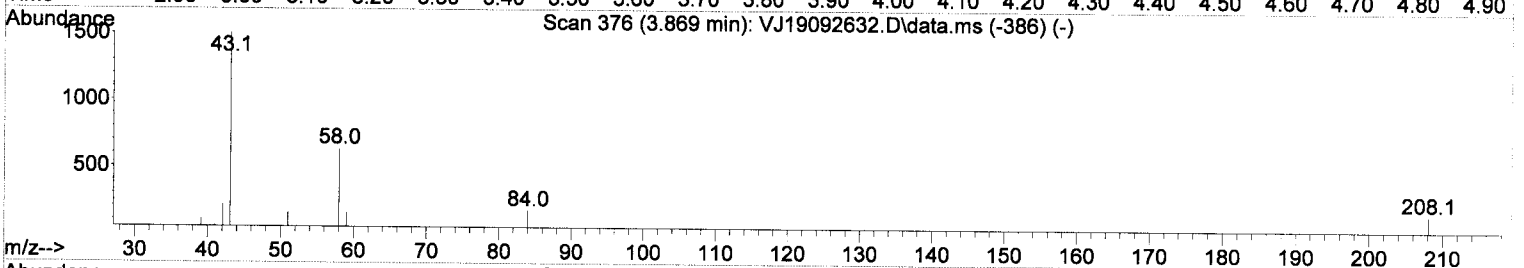
9/27/19

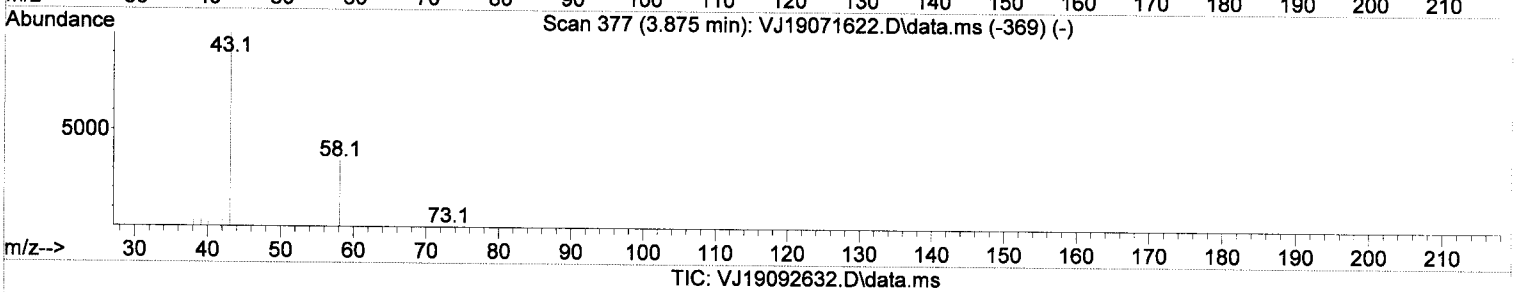
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 10:51:52 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092632.D\data.ms

(14) Acetone

3.869min (-0.012) 4.85 ug/L

response 6176

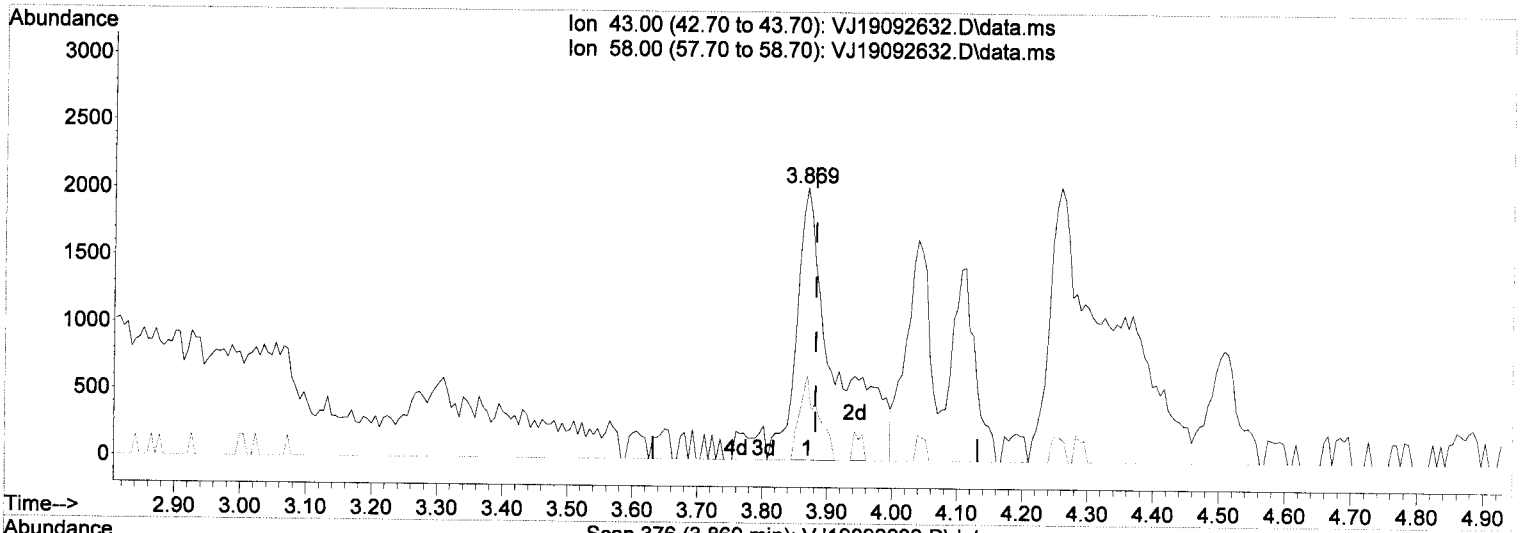
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	31.13
0.00	0.00	0.00
0.00	0.00	0.00

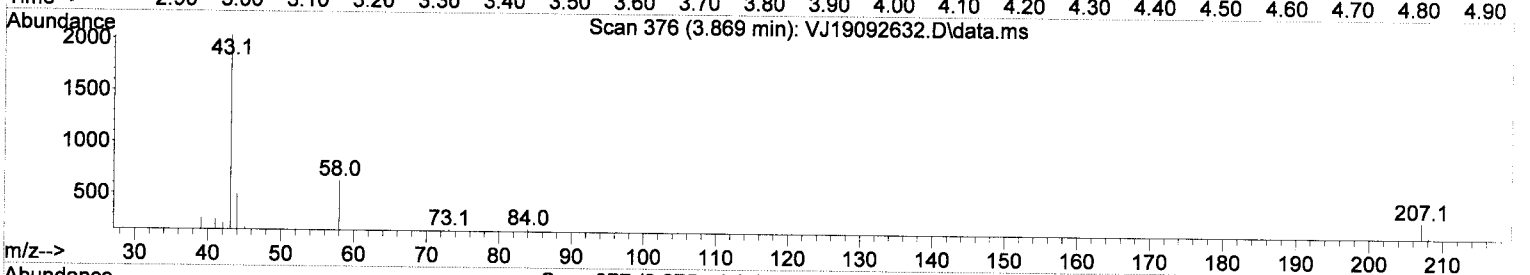
MI

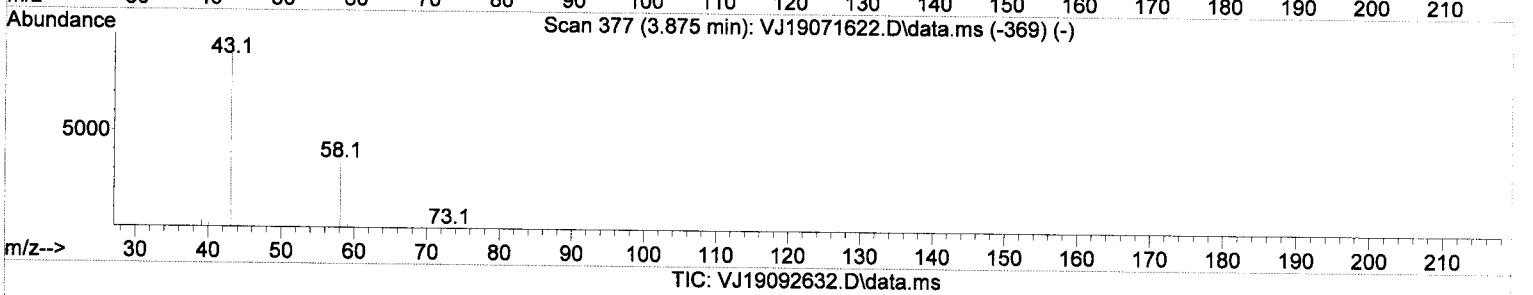
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 10:51:52 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092632.D\data.ms

(14) Acetone

3.869min (-0.012) 6.56 ug/L m

response 8350

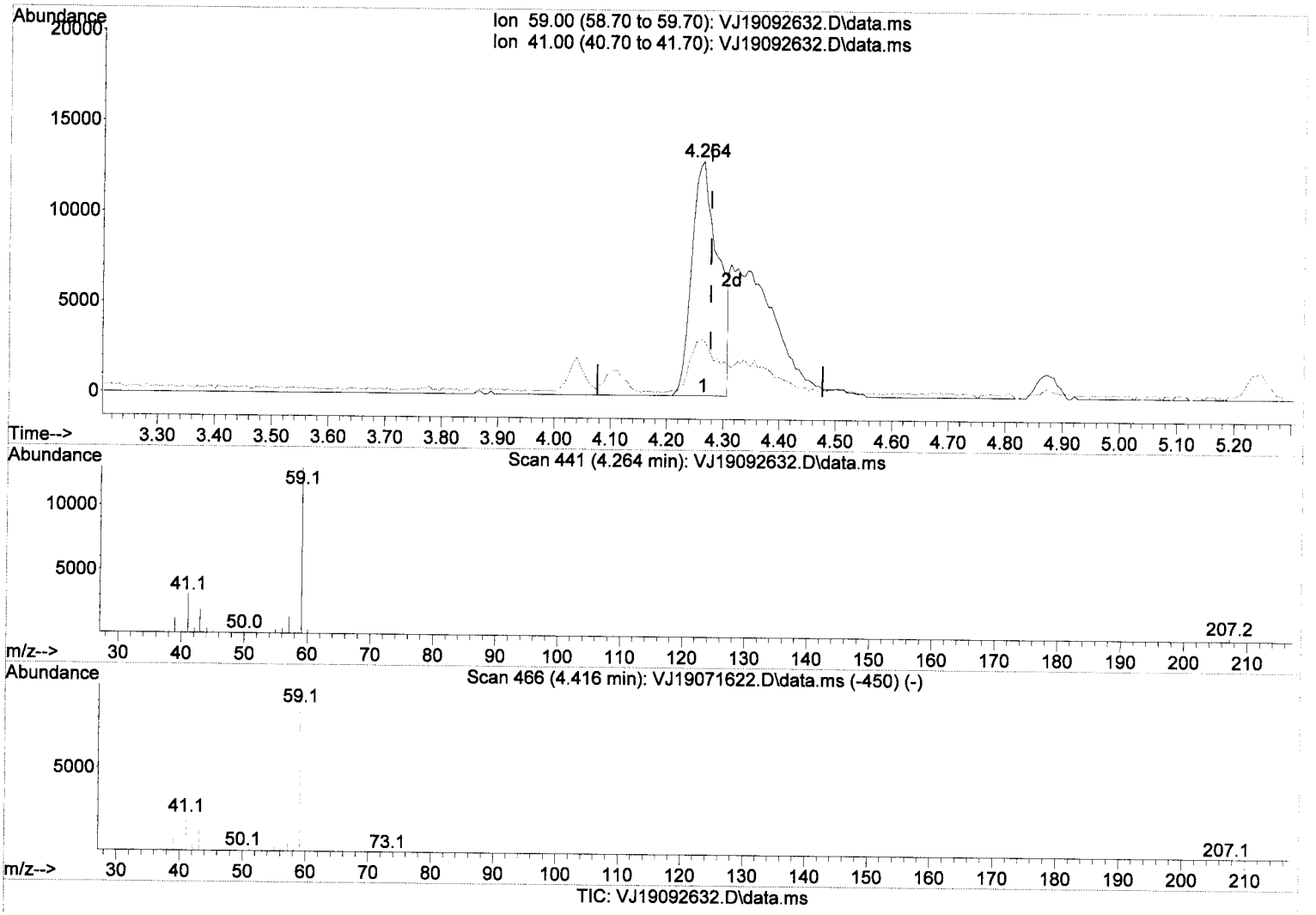
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	31.13
0.00	0.00	0.00
0.00	0.00	0.00

9/27/19

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 10:51:52 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



TIC: VJ19092632.D\data.ms

(18) tert-Butanol (TBA)

4.264min (-0.012) 61.79 ug/L

response 42475

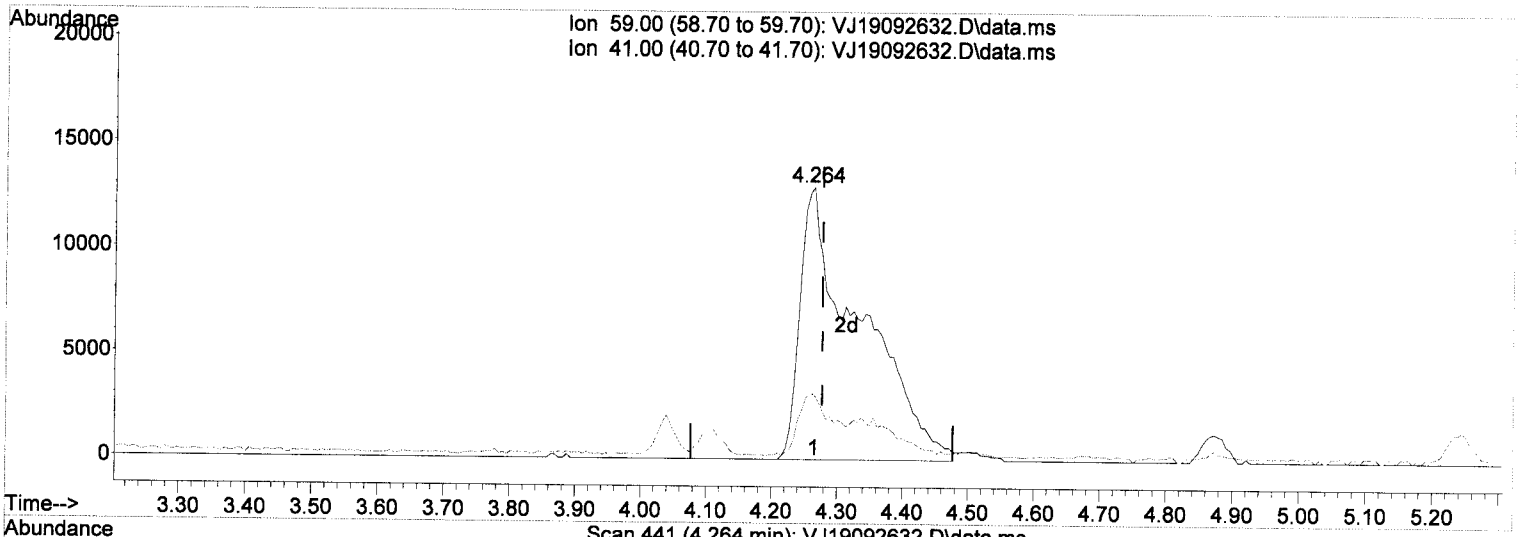
Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	24.15#
0.00	0.00	0.00
0.00	0.00	0.00

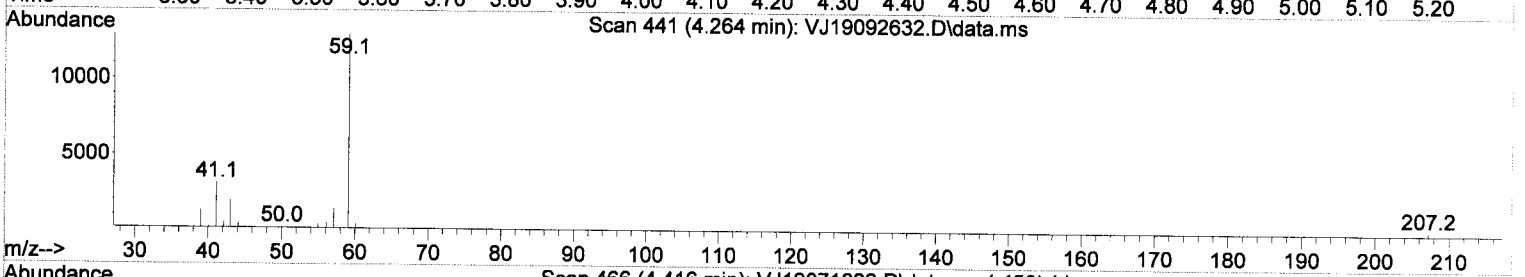
MT

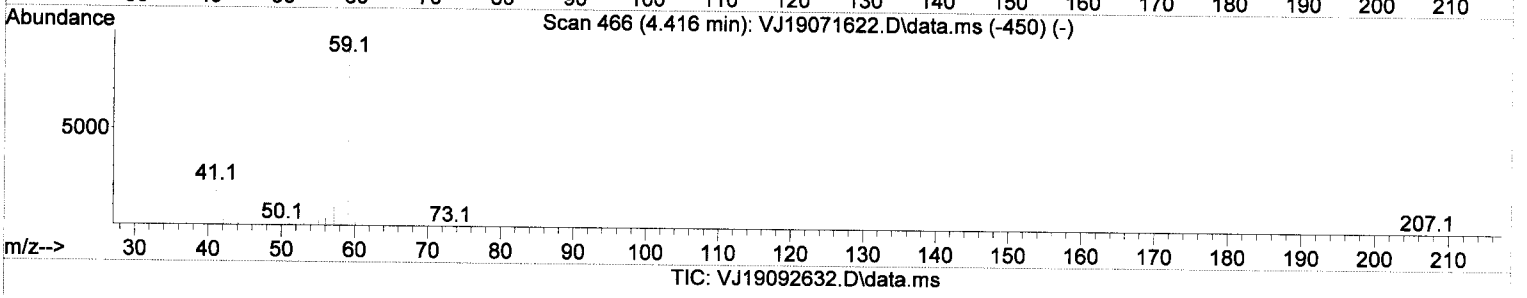
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 10:51:52 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092632.D\data.ms

(18) tert-Butanol (TBA)

4.264min (-0.012) 119.66 ug/L (m)

9/27/19

response 82253

Ion	Exp%	Act%
59.00	100.00	100.00
41.00	28.80	24.15#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 10:51:52 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

pre 9/27/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.089	99	80878	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	191897	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	87731	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	56215	48.58	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	215594	50.35	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	265160	48.60	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	68748	50.81	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	~~1.703~~	~~85~~	~~1107~~	0.71	ug/L		79
3) Chloromethane	1.892	50	4009	1.92	ug/L		97
4) Vinyl Chloride	1.989	62	3030	1.84	ug/L		91
5) Bromomethane	2.336	96	2937	4.07	ug/L		97
6) Chloroethane	2.457	64	924	3.82	ug/L	#	1
7) Trichlorofluoromethane	2.591	101	1366	1.86	ug/L		91
8) Ethanol	3.303	45	~~6151~~	~~96.95~~	~~ug/L~~		~~99~~
9) 1,1-Dichloroethene	3.133	61	4576	1.92	ug/L		86
10) Carbon Disulfide	3.145	76	6011	1.82	ug/L		94
11) Freon 113	3.187	101	2441	1.85	ug/L		90
12) Iodomethane	3.285	142	1150	2.28	ug/L		75
13) Methylene Chloride	3.778	84	6720	4.19	ug/L		92
14) Acetone	3.869	43	6176	4.85	ug/L		98
15) t-1,2-Dichloroethene	3.942	61	4912	1.99	ug/L		84
16) n-Hexane	4.033	86	754	1.90	ug/L		92
17) Methyl-tert-butyl-ether	4.106	73	14610	2.15	ug/L		96
18) tert-Butanol (TBA)	4.264	59	~~42475~~	~~61.79~~	~~ug/L~~	#	~~91~~
19) Diisopropyl ether (DIPE)	4.508	45	3173	0.50	ug/L		97
20) 1,1-Dichloroethane	4.581	63	5221	2.02	ug/L		100
21) Acrylonitrile	4.629	53	1969	1.62	ug/L		90
22) Ethyl-tert-butyl ether...	4.873	59	3328	0.50	ug/L		98
23) c-1,2-Dichloroethene	5.128	61	5194	2.02	ug/L		85
24) 2,2-Dichloropropane	5.244	77	6209	2.14	ug/L		93
25) Bromochloromethane	5.335	49	2920	1.91	ug/L		85
26) Chloroform	5.420	83	6073	1.91	ug/L		98
27) Carbon Tetrachloride	5.560	117	3787	1.72	ug/L		89
28) Tetrahydrofuran	5.590	42	3550	2.38	ug/L		86
29) 1,1,1-Trichloroethane	5.621	97	5828	1.89	ug/L		98
31) 1,1-Dichloropropene	5.749	75	5503	2.03	ug/L		85
32) 2-Butanone (MEK)	5.736	43	9277	4.82	ug/L		85
33) Benzene	6.004	78	15470	2.00	ug/L		95
34) tert-Amyl methyl ether...	6.150	73	4288	0.68	ug/L		86
35) 1,2-Dichloroethane (EDC)	6.205	62	6019	1.93	ug/L		96
36) iso-Butyl Alcohol	6.327	43	12780	50.07	ug/L		93
38) Trichloroethene (TCE)	6.625	130	3608	1.97	ug/L		90
39) tert-Amyl ethyl ether ...	6.917	59	2564	0.53	ug/L		85
40) Dibromomethane	7.063	93	2282	2.01	ug/L	#	79
41) 1,2-Dichloropropane	7.178	63	3788	1.90	ug/L		89
42) Bromodichloromethane	7.251	83	3441	1.66	ug/L		93
44) c-1,3-Dichloropropene	7.963	75	5722	1.87	ug/L		99
46) Toluene	8.231	91	16529	2.01	ug/L		98
47) Tetrachloroethene (PCE)	8.687	166	3405	1.90	ug/L		90
48) 4-Methyl-2-Pentanone (...	8.675	43	13755	4.03	ug/L		95

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 10:51:52 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

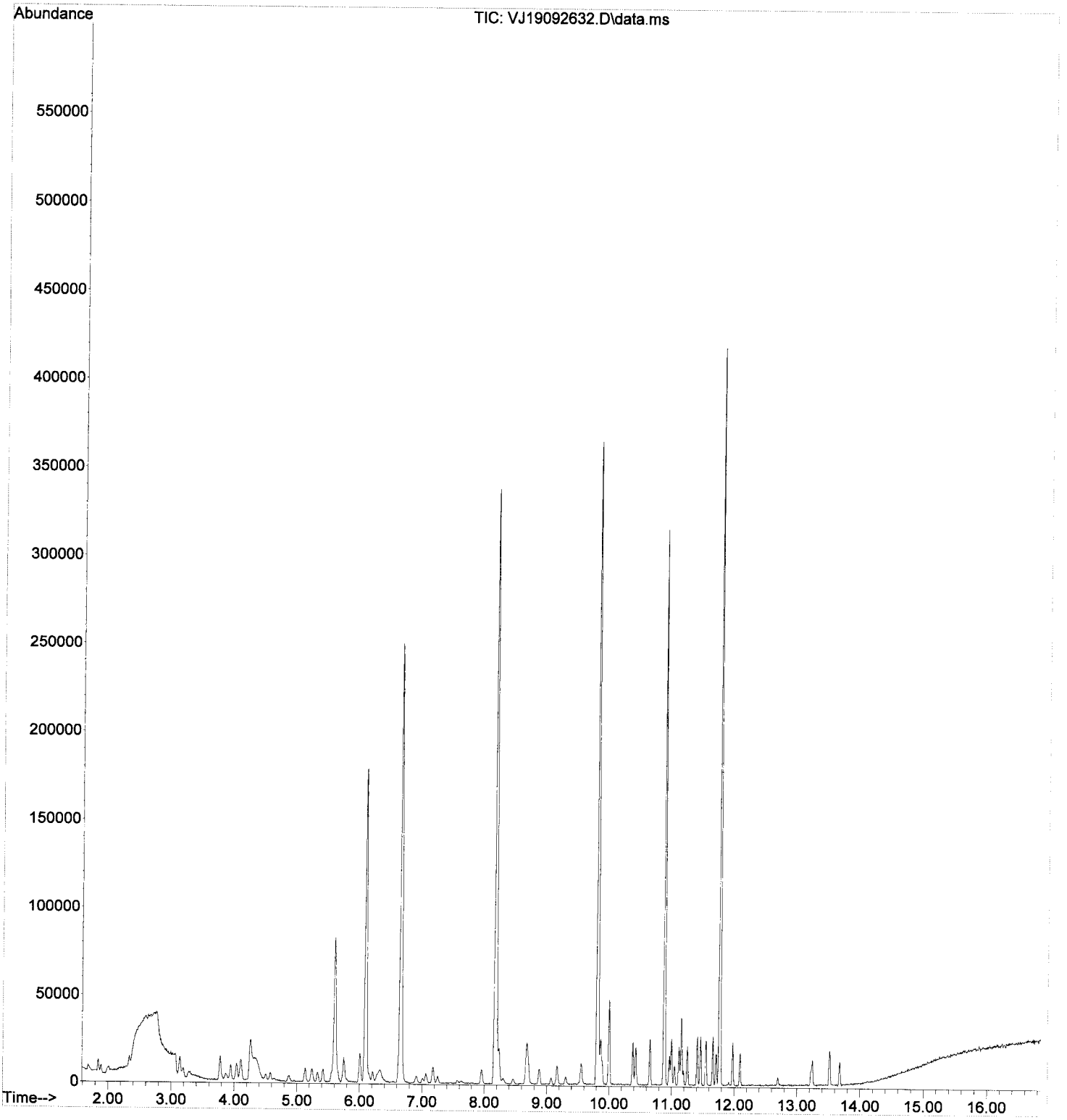
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	5491	1.85	ug/L		95
50) 1,1,2-Trichloroethane	8.882	97	3449	2.06	ug/L		90
51) Dibromochloromethane	9.076	129	1996	1.62	ug/L		90
52) 1,3-Dichloropropane	9.168	76	6858	2.09	ug/L		97
53) 1,2-Dibromoethane (EDB)	9.308	107	3632	1.96	ug/L		97
54) 2-Hexanone	9.551	43	9874	3.74	ug/L		93
55) Chlorobenzene	9.825	112	9732	2.00	ug/L		91
56) Ethylbenzene	9.861	91	17794	1.95	ug/L		99
57) 1,1,1,2-Tetrachloroethane	9.892	131	2840	1.80	ug/L		98
58) m,p-Xylenes (2)	10.001	91	26333	3.85	ug/L		96
59) o-Xylene	10.378	91	13487	1.94	ug/L		92
60) Styrene	10.427	104	9190	1.87	ug/L		94
61) Bromoform	10.439	173	1110	1.54	ug/L		92
62) Isopropylbenzene	10.658	105	16179	1.92	ug/L		98
65) Bromobenzene	10.968	156	3490	1.94	ug/L	#	71
66) n-Propylbenzene	10.999	91	18414	1.96	ug/L		95
67) 1,1,2,2-Tetrachloroethane	11.047	83	4672	1.97	ug/L		99
68) 2-Chlorotoluene	11.120	126	3415	1.98	ug/L		94
69) 1,3,5-Trimethylbenzene	11.157	105	12560	1.96	ug/L		90
70) 1,2,3-Trichloropropane	11.157	110	1824	1.97	ug/L		95
71) t-1,4-Dichloro-2-butene	11.187	88	608	1.53	ug/L	#	68
72) 4-Chlorotoluene	11.254	91	11203	1.97	ug/L		94
73) tert-Butylbenzene	11.412	91	7779	1.97	ug/L		89
74) 1,2,4-Trimethylbenzene	11.467	105	12884	1.98	ug/L		92
75) sec-Butylbenzene	11.552	105	15516	1.98	ug/L		95
76) 4-Isopropyltoluene	11.662	119	12605	1.93	ug/L		95
77) 1,3-Dichlorobenzene	11.717	146	6372	1.97	ug/L		100
78) 1,4-Dichlorobenzene	11.784	146	6672	2.05	ug/L		93
79) n-Butylbenzene	11.978	91	11616	2.03	ug/L		93
80) 1,2-Dichlorobenzene	12.094	146	6103	1.98	ug/L		94
81) 1,2-Dibromo-3-Chloropr...	12.702	157	817	1.46	ug/L	#	39
82) Hexachlorobutadiene	13.225	223	871	1.89	ug/L		93
83) 1,2,4-Trichlorobenzene	13.244	180	4100	2.00	ug/L		89
84) Naphthalene	13.517	128	14697	1.85	ug/L		94
85) 1,2,3-Trichlorobenzene	13.682	180	3947	2.00	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092632.D
Acq On : 26 Sep 2019 11:15 pm
Operator : TB
Sample : 9I26051-CAL5
Misc : 1X 5mL 2/4PPB VOCO+MeOH
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 10:51:52 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092633.D
Acq On : 26 Sep 2019 11:42 pm
Operator : TB
Sample : 9I26051-CAL6
Misc : 1X 5mL 5/10PPB VOCO+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 27 14:28:41 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

Post 9/27/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	82605	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	191233	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	86829	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.609	111	59172	50.15	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	218916	49.62	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	268875	50.14	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	68344	50.95	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	7777	5.13	ug/L		98
3) Chloromethane	1.904	50	10328	4.70	ug/L		93
4) Vinyl Chloride	2.007	62	7983	4.79	ug/L		97
5) Bromomethane	2.348	96	5311	5.19	ug/L		91
6) Chloroethane	2.470	64	1284	5.33	ug/L	#	39
7) Trichlorofluoromethane	2.603	101	3460	4.66	ug/L		98
8) Ethanol	3.321	45	21522	262.29	ug/L		90
9) 1,1-Dichloroethene	3.145	61	11926	4.94	ug/L		85
10) Carbon Disulfide	3.157	76	16321	4.74	ug/L		99
11) Freon 113	3.200	101	6278	4.85	ug/L		89
12) Iodomethane	3.291	142	2598	4.12	ug/L		76
13) Methylene Chloride	3.784	84	11168	4.98	ug/L		91
14) Acetone	3.881	43	13465	8.53	ug/L		95
15) t-1,2-Dichloroethene	3.954	61	12117	5.04	ug/L		95
16) n-Hexane	4.045	86	1898	4.97	ug/L	#	77
17) Methyl-tert-butyl-ether	4.118	73	33952	4.67	ug/L		94
18) tert-Butanol (TBA)	4.282	59	199371	284.21	ug/L	#	90
19) Diisopropyl ether (DIPE)	4.514	45	7883	1.14	ug/L		95
20) 1,1-Dichloroethane	4.587	63	13288	4.91	ug/L		94
21) Acrylonitrile	4.647	53	6000	5.03	ug/L		96
22) Ethyl-tert-butyl ether...	4.879	59	7904	1.10	ug/L		95
23) c-1,2-Dichloroethene	5.134	61	13062	4.91	ug/L		91
24) 2,2-Dichloropropane	5.244	77	14543	4.78	ug/L		94
25) Bromochloromethane	5.335	49	7462	4.91	ug/L		86
26) Chloroform	5.420	83	15960	4.92	ug/L		97
27) Carbon Tetrachloride	5.560	117	10019	4.51	ug/L		96
28) Tetrahydrofuran	5.603	42	7711	4.85	ug/L		95
29) 1,1,1-Trichloroethane	5.627	97	14839	4.97	ug/L		96
31) 1,1-Dichloropropene	5.755	75	13524	4.90	ug/L		89
32) 2-Butanone (MEK)	5.742	43	20088	9.31	ug/L		95
33) Benzene	6.010	78	37138	4.61	ug/L		95
34) tert-Amyl methyl ether...	6.162	73	8667	1.20	ug/L		94
35) 1,2-Dichloroethane (EDC)	6.217	62	15109	4.91	ug/L		96
36) iso-Butyl Alcohol	6.308	43	29284	114.68	ug/L		98
38) Trichloroethene (TCE)	6.631	130	9083	5.21	ug/L		92
39) tert-Amyl ethyl ether ...	6.911	59	5798	1.10	ug/L		90
40) Dibromomethane	7.075	93	5570	4.92	ug/L		82
41) 1,2-Dichloropropane	7.178	63	9704	4.85	ug/L		90
42) Bromodichloromethane	7.257	83	8928	4.59	ug/L		98
44) c-1,3-Dichloropropene	7.957	75	13551	4.70	ug/L		93
46) Toluene	8.237	91	38895	4.62	ug/L		97
47) Tetrachloroethene (PCE)	8.687	166	8724	5.07	ug/L		89
48) 4-Methyl-2-Pentanone (...	8.675	43	31569	9.34	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092633.D
Acq On : 26 Sep 2019 11:42 pm
Operator : TB
Sample : 9I26051-CAL6
Misc : 1X 5mL 5/10PPB VOCO+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 27 14:28:41 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

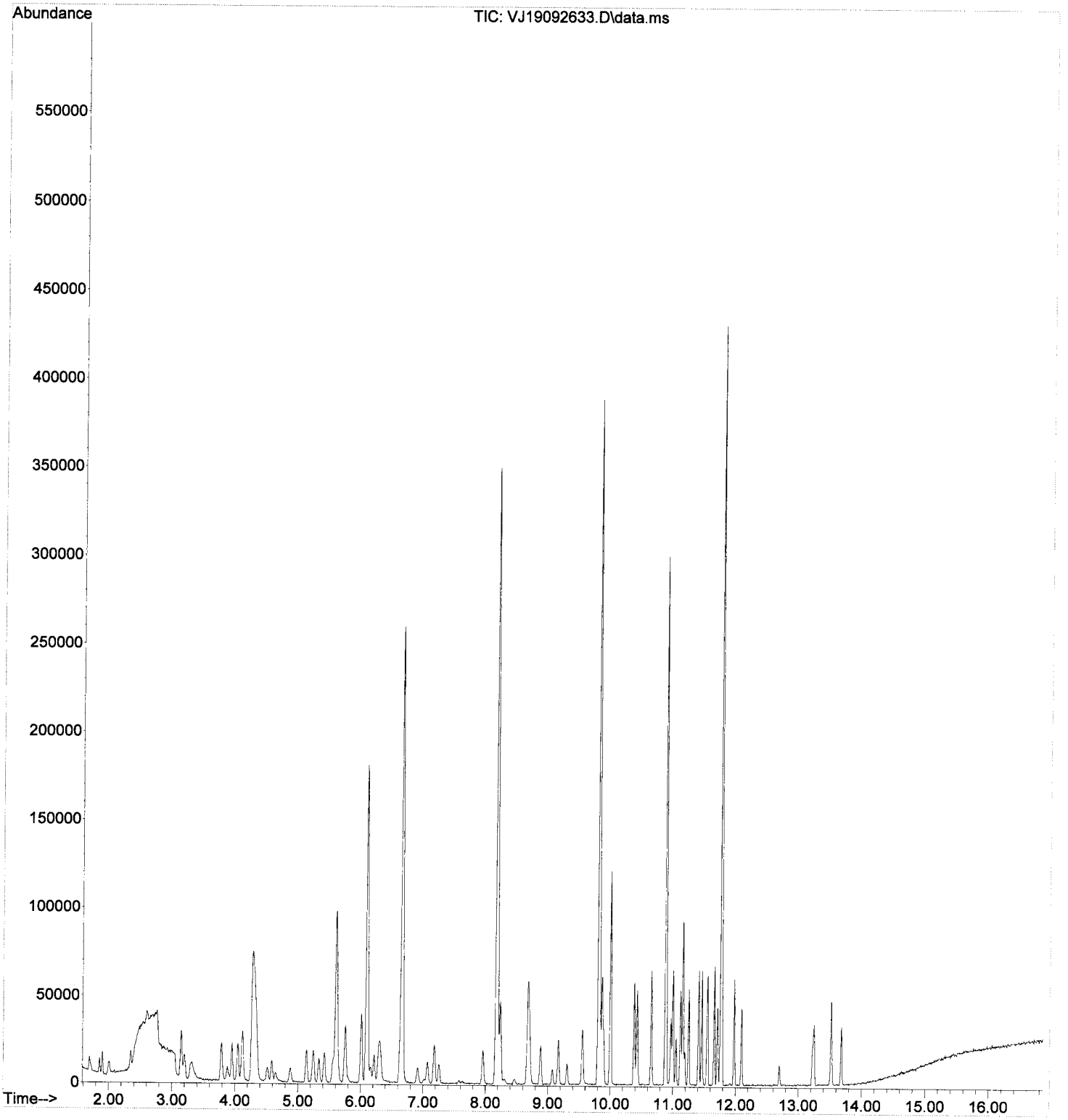
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	13406	4.64	ug/L		95
50) 1,1,2-Trichloroethane	8.882	97	8022	4.91	ug/L		96
51) Dibromochloromethane	9.076	129	4814	4.37	ug/L		98
52) 1,3-Dichloropropane	9.168	76	15269	4.80	ug/L		91
53) 1,2-Dibromoethane (EDB)	9.307	107	8459	4.77	ug/L		95
54) 2-Hexanone	9.551	43	24240	8.99	ug/L		96
55) Chlorobenzene	9.831	112	23005	4.97	ug/L		98
56) Ethylbenzene	9.861	91	42121	4.67	ug/L		96
57) 1,1,1,2-Tetrachloroethane	9.891	131	6772	4.54	ug/L		92
58) m,p-Xylenes (2)	10.001	91	63865	9.43	ug/L		97
59) o-Xylene	10.384	91	32191	4.63	ug/L		96
60) Styrene	10.427	104	21816	4.53	ug/L		95
61) Bromoform	10.439	173	2886	4.42	ug/L		95
62) Isopropylbenzene	10.658	105	38274	4.66	ug/L		96
65) Bromobenzene	10.968	156	8558	5.07	ug/L	#	80
66) n-Propylbenzene	10.999	91	44060	4.74	ug/L		94
67) 1,1,2,2-Tetrachloroethane	11.053	83	10901	4.80	ug/L		99
68) 2-Chlorotoluene	11.120	126	7936	4.90	ug/L	#	72
69) 1,3,5-Trimethylbenzene	11.163	105	29913	4.74	ug/L		91
70) 1,2,3-Trichloropropane	11.157	110	4325	4.84	ug/L		91
71) t-1,4-Dichloro-2-butene	11.193	88	1607	3.95	ug/L	#	76
72) 4-Chlorotoluene	11.254	91	27493	4.81	ug/L		89
73) tert-Butylbenzene	11.412	91	18406	4.66	ug/L		91
74) 1,2,4-Trimethylbenzene	11.467	105	30622	4.81	ug/L		92
75) sec-Butylbenzene	11.552	105	36041	4.75	ug/L		96
76) 4-Isopropyltoluene	11.662	119	30228	4.79	ug/L		94
77) 1,3-Dichlorobenzene	11.717	146	15238	4.74	ug/L		97
78) 1,4-Dichlorobenzene	11.783	146	15485	4.90	ug/L		95
79) n-Butylbenzene	11.978	91	26618	4.63	ug/L		95
80) 1,2-Dichlorobenzene	12.100	146	14508	4.87	ug/L		97
81) 1,2-Dibromo-3-Chloropr...	12.696	157	2255	3.89	ug/L	#	45
82) Hexachlorobutadiene	13.225	223	2217	5.03	ug/L		86
83) 1,2,4-Trichlorobenzene	13.244	180	8947	4.59	ug/L		91
84) Naphthalene	13.517	128	34918	4.63	ug/L		97
85) 1,2,3-Trichlorobenzene	13.682	180	9031	4.72	ug/L		94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092633.D
Acq On : 26 Sep 2019 11:42 pm
Operator : TB
Sample : 9I26051-CAL6
Misc : 1X 5mL 5/10PPB VOCO+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 27 14:28:41 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092633.D
Acq On : 26 Sep 2019 11:42 pm
Operator : TB
Sample : 9I26051-CAL6
Misc : 1X 5mL 5/10PPB VOCO+MeOH
ALS Vial : 9 Sample Multiplier: 1

pre 9/27/19

Quant Time: Sep 27 10:51:55 2019
Quant Method : C:\msdchem\1\methods\~~VJ190926S+.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	82605	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	191233	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	86829	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.609	111	59172	50.06	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	218916	50.05	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	268875	49.45	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	68344	51.04	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	7777	4.87	ug/L		98
3) Chloromethane	1.904	50	10328	4.83	ug/L		93
4) Vinyl Chloride	2.007	62	7983	4.76	ug/L		97
5) Bromomethane	2.348	96	5311	7.20	ug/L		91
6) Chloroethane	2.470	64	1284	5.19	ug/L	#	39
7) Trichlorofluoromethane	2.603	101	3460	4.62	ug/L		98
8) Ethanol	3.321	45	21522	332.13	ug/L		90
9) 1,1-Dichloroethene	3.145	61	11926	4.91	ug/L		85
10) Carbon Disulfide	3.157	76	16321	4.85	ug/L		99
11) Freon 113	3.200	101	6278	4.65	ug/L		89
12) Iodomethane	3.291	142	2598	5.05	ug/L		76
13) Methylene Chloride	3.784	84	11168	6.82	ug/L		91
14) Acetone	3.881	43	13465	10.36	ug/L		95
15) t-1,2-Dichloroethene	3.954	61	12117	4.81	ug/L		95
16) n-Hexane	4.045	86	1898	4.69	ug/L	#	77
17) Methyl-tert-butyl-ether	4.118	73	33952	4.88	ug/L		94
18) tert-Butanol (TBA)	4.282	59	199371	283.98	ug/L	#	90
19) Diisopropyl ether (DIPE)	4.514	45	7883	1.21	ug/L		95
20) 1,1-Dichloroethane	4.587	63	13288	5.03	ug/L		94
21) Acrylonitrile	4.647	53	6000	4.83	ug/L		96
22) Ethyl-tert-butyl ether...	4.879	59	7904	1.15	ug/L		95
23) c-1,2-Dichloroethene	5.134	61	13062	4.96	ug/L		91
24) 2,2-Dichloropropane	5.244	77	14543	4.91	ug/L		94
25) Bromochloromethane	5.335	49	7462	4.79	ug/L		86
26) Chloroform	5.420	83	15960	4.92	ug/L		97
27) Carbon Tetrachloride	5.560	117	10019	4.46	ug/L		96
28) Tetrahydrofuran	5.603	42	7711	5.06	ug/L		95
29) 1,1,1-Trichloroethane	5.627	97	14839	4.71	ug/L		96
31) 1,1-Dichloropropene	5.755	75	13524	4.88	ug/L		89
32) 2-Butanone (MEK)	5.742	43	20088	10.21	ug/L		95
33) Benzene	6.010	78	37138	4.71	ug/L		95
34) tert-Amyl methyl ether...	6.162	73	8667	1.35	ug/L		94
35) 1,2-Dichloroethane (EDC)	6.217	62	15109	4.75	ug/L		96
36) iso-Butyl Alcohol	6.308	43	29284	112.32	ug/L		98
38) Trichloroethene (TCE)	6.631	130	9083	4.85	ug/L		92
39) tert-Amyl ethyl ether ...	6.911	59	5798	1.16	ug/L		90
40) Dibromomethane	7.075	93	5570	4.80	ug/L		82
41) 1,2-Dichloropropane	7.178	63	9704	4.77	ug/L		90
42) Bromodichloromethane	7.257	83	8928	4.21	ug/L		98
44) c-1,3-Dichloropropene	7.957	75	13551	4.43	ug/L		93
46) Toluene	8.237	91	38895	4.76	ug/L		97
47) Tetrachloroethene (PCE)	8.687	166	8724	4.87	ug/L		89
48) 4-Methyl-2-Pentanone (...	8.675	43	31569	9.29	ug/L		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092633.D
Acq On : 26 Sep 2019 11:42 pm
Operator : TB
Sample : 9I26051-CAL6
Misc : 1X 5mL 5/10PPB VOCO+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 27 10:51:55 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

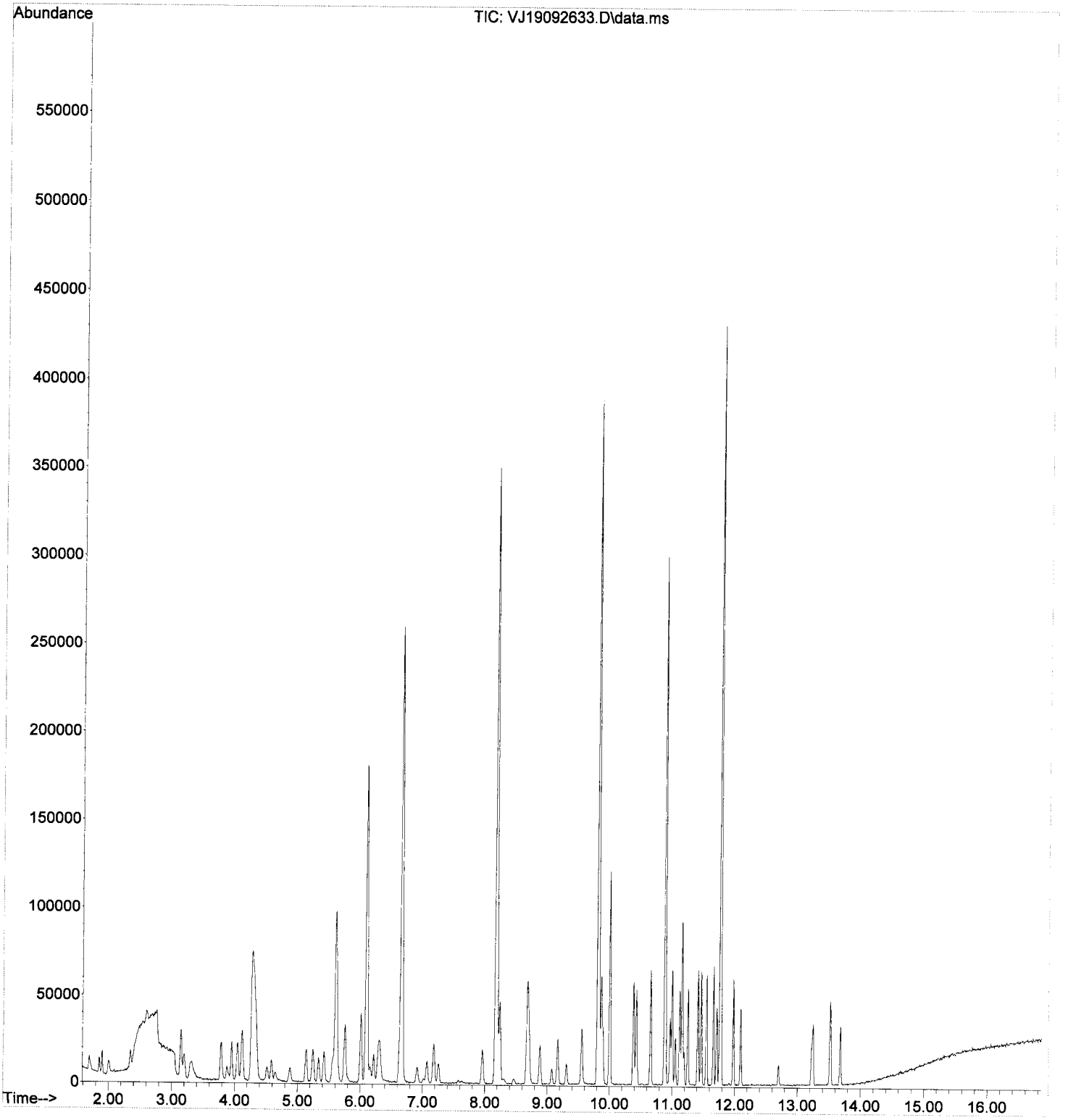
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	13406	4.53	ug/L		95
50) 1,1,2-Trichloroethane	8.882	97	8022	4.81	ug/L		96
51) Dibromochloromethane	9.076	129	4814	3.92	ug/L		98
52) 1,3-Dichloropropane	9.168	76	15269	4.67	ug/L		91
53) 1,2-Dibromoethane (EDB)	9.307	107	8459	4.59	ug/L		95
54) 2-Hexanone	9.551	43	24240	9.21	ug/L		96
55) Chlorobenzene	9.831	112	23005	4.74	ug/L		98
56) Ethylbenzene	9.861	91	42121	4.64	ug/L		96
57) 1,1,1,2-Tetrachloroethane	9.891	131	6772	4.31	ug/L		92
58) m,p-Xylenes (2)	10.001	91	63865	9.37	ug/L		97
59) o-Xylene	10.384	91	32191	4.65	ug/L		96
60) Styrene	10.427	104	21816	4.46	ug/L		95
61) Bromoform	10.439	173	2886	4.02	ug/L		95
62) Isopropylbenzene	10.658	105	38274	4.56	ug/L		96
65) Bromobenzene	10.968	156	8558	4.81	ug/L	#	80
66) n-Propylbenzene	10.999	91	44060	4.74	ug/L		94
67) 1,1,2,2-Tetrachloroethane	11.053	83	10901	4.65	ug/L		99
68) 2-Chlorotoluene	11.120	126	7936	4.64	ug/L	#	72
69) 1,3,5-Trimethylbenzene	11.163	105	29913	4.72	ug/L		91
70) 1,2,3-Trichloropropane	11.157	110	4325	4.72	ug/L		91
71) t-1,4-Dichloro-2-butene	11.193	88	1607	4.09	ug/L	#	76
72) 4-Chlorotoluene	11.254	91	27493	4.89	ug/L		89
73) tert-Butylbenzene	11.412	91	18406	4.71	ug/L		91
74) 1,2,4-Trimethylbenzene	11.467	105	30622	4.75	ug/L		92
75) sec-Butylbenzene	11.552	105	36041	4.65	ug/L		96
76) 4-Isopropyltoluene	11.662	119	30228	4.67	ug/L		94
77) 1,3-Dichlorobenzene	11.717	146	15238	4.75	ug/L		97
78) 1,4-Dichlorobenzene	11.783	146	15485	4.81	ug/L		95
79) n-Butylbenzene	11.978	91	26618	4.70	ug/L		95
80) 1,2-Dichlorobenzene	12.100	146	14508	4.77	ug/L		97
81) 1,2-Dibromo-3-Chloropr...	12.696	157	2255	4.07	ug/L	#	45
82) Hexachlorobutadiene	13.225	223	2217	4.87	ug/L		86
83) 1,2,4-Trichlorobenzene	13.244	180	8947	4.41	ug/L		91
84) Naphthalene	13.517	128	34918	4.43	ug/L		97
85) 1,2,3-Trichlorobenzene	13.682	180	9031	4.62	ug/L		94

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092633.D
Acq On : 26 Sep 2019 11:42 pm
Operator : TB
Sample : 9I26051-CAL6
Misc : 1X 5mL 5/10PPB VOCO+MeOH
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 27 10:51:55 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092634.D
Acq On : 27 Sep 2019 12:09 am
Operator : TB
Sample : 9I26051-CAL7
Misc : 1X 5mL 10/20PPB VOCO+MeOH
ALS Vial : 10 Sample Multiplier: 1

post 9/27/19

Quant Time: Sep 27 13:16:24 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	80621	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	186111	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	85791	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	57066	49.47	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	212867	49.87	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	262548	49.62	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	66326	50.13	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	15186	9.74	ug/L		98
3) Chloromethane	1.898	50	21347	10.23	ug/L		98
4) Vinyl Chloride	2.007	62	16459	10.05	ug/L		96
5) Bromomethane	2.348	96	8414	11.70	ug/L		94
6) Chloroethane	2.463	64	2040	8.45	ug/L		66
7) Trichlorofluoromethane	2.597	101	7442	10.19	ug/L		97
8) Ethanol	3.321	45	42586	673.37	ug/L		92
9) 1,1-Dichloroethene	3.139	61	23758	10.01	ug/L		86
10) Carbon Disulfide	3.151	76	32614	9.92	ug/L		98
11) Freon 113	3.199	101	13011	9.87	ug/L		91
12) Iodomethane	3.291	142	4837	9.63	ug/L		77
13) Methylene Chloride	3.783	84	18608	11.64	ug/L		88
14) Acetone	3.881	43	28539m	22.50	ug/L		
15) t-1,2-Dichloroethene	3.948	61	24655	10.03	ug/L		90
16) n-Hexane	4.045	86	3777	9.57	ug/L		92
17) Methyl-tert-butyl-ether	4.118	73	69438	10.23	ug/L		94
18) tert-Butanol (TBA)	4.276	59	447585	653.23	ug/L	#	89
19) Diisopropyl ether (DIPE)	4.513	45	16358	2.58	ug/L		95
20) 1,1-Dichloroethane	4.586	63	26789	10.39	ug/L		99
21) Acrylonitrile	4.647	53	12807	10.56	ug/L		94
22) Ethyl-tert-butyl ether...	4.878	59	16594	2.48	ug/L		95
23) c-1,2-Dichloroethene	5.134	61	27201	10.59	ug/L		92
24) 2,2-Dichloropropane	5.244	77	29404	10.18	ug/L		99
25) Bromochloromethane	5.335	49	16085	10.57	ug/L		84
26) Chloroform	5.420	83	32742	10.34	ug/L		95
27) Carbon Tetrachloride	5.560	117	20786	9.48	ug/L		97
28) Tetrahydrofuran	5.602	42	15512	10.43	ug/L		97
29) 1,1,1-Trichloroethane	5.627	97	29578	9.62	ug/L		97
31) 1,1-Dichloropropene	5.755	75	26315	9.73	ug/L		97
32) 2-Butanone (MEK)	5.748	43	40941	21.33	ug/L		95
33) Benzene	6.010	78	76211	9.91	ug/L		98
34) tert-Amyl methyl ether...	6.162	73	17059	2.72	ug/L		96
35) 1,2-Dichloroethane (EDC)	6.217	62	31858	10.26	ug/L		96
36) iso-Butyl Alcohol	6.302	43	65228	256.35	ug/L		96
38) Trichloroethene (TCE)	6.624	130	18272	10.00	ug/L		90
39) tert-Amyl ethyl ether ...	6.917	59	12505	2.57	ug/L		91
40) Dibromomethane	7.069	93	11394	10.06	ug/L		81
41) 1,2-Dichloropropane	7.178	63	19994	10.07	ug/L		90
42) Bromodichloromethane	7.257	83	19966	9.64	ug/L		99
44) c-1,3-Dichloropropene	7.957	75	29366	9.87	ug/L		95
46) Toluene	8.237	91	79804	10.03	ug/L		97
47) Tetrachloroethene (PCE)	8.681	166	17871	10.26	ug/L		87
48) 4-Methyl-2-Pentanone (...	8.675	43	69718	21.07	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092634.D
Acq On : 27 Sep 2019 12:09 am
Operator : TB
Sample : 9I26051-CAL7
Misc : 1X 5mL 10/20PPB VOCO+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 27 13:16:24 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

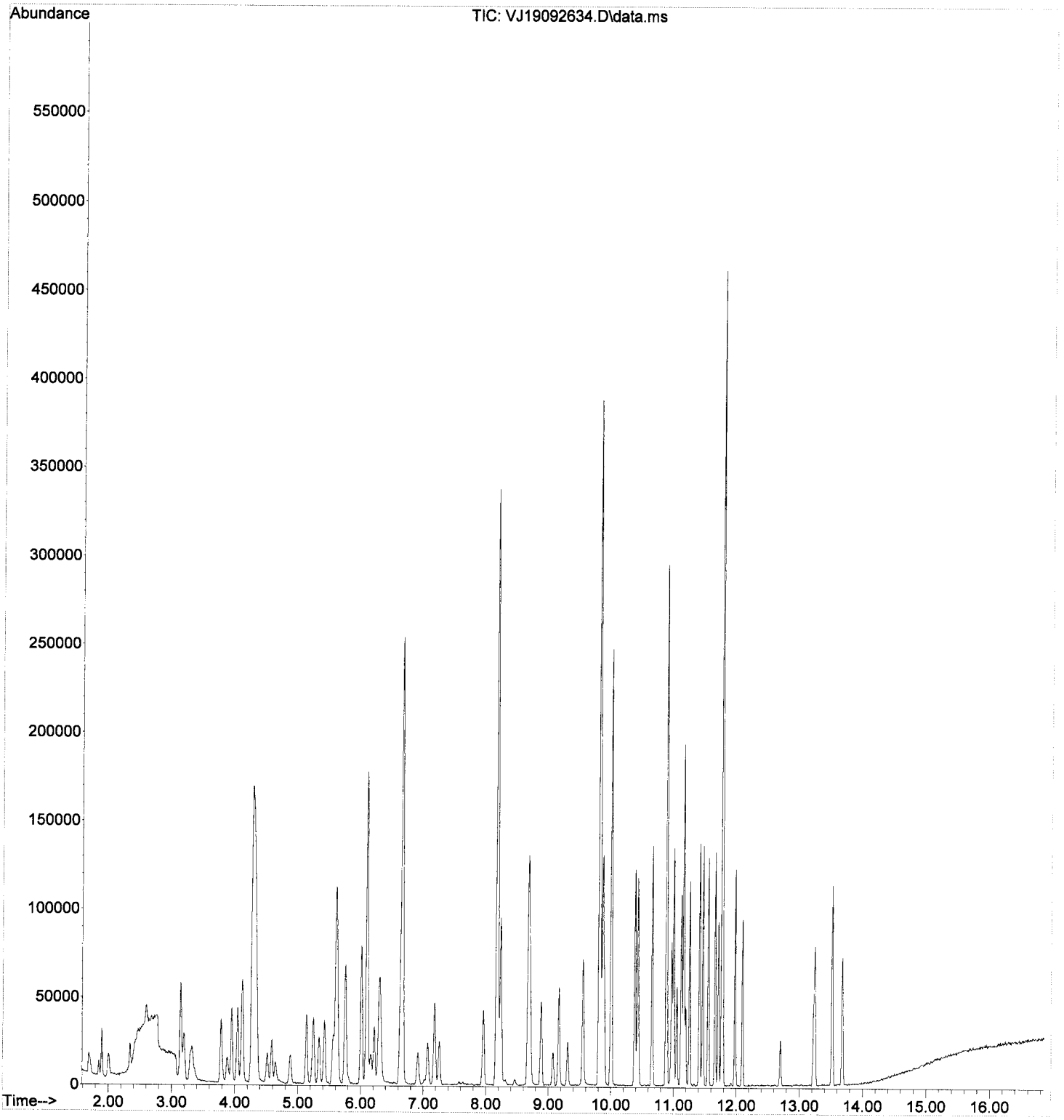
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	28378	9.86	ug/L		95
50) 1,1,2-Trichloroethane	8.881	97	16739	10.31	ug/L		92
51) Dibromochloromethane	9.076	129	11509	9.64	ug/L		98
52) 1,3-Dichloropropane	9.167	76	33253	10.44	ug/L		94
53) 1,2-Dibromoethane (EDB)	9.307	107	18498	10.31	ug/L		95
54) 2-Hexanone	9.551	43	52678	20.57	ug/L		96
55) Chlorobenzene	9.831	112	47850	10.14	ug/L		95
56) Ethylbenzene	9.867	91	88556	10.02	ug/L		96
57) 1,1,1,2-Tetrachloroethane	9.891	131	15195	9.93	ug/L		99
58) m,p-Xylenes (2)	10.001	91	132898	20.03	ug/L		94
59) o-Xylene	10.384	91	67580	10.04	ug/L		93
60) Styrene	10.427	104	48081	10.09	ug/L		94
61) Bromoform	10.445	173	7072	10.11	ug/L		94
62) Isopropylbenzene	10.658	105	80907	9.91	ug/L		97
65) Bromobenzene	10.968	156	18146	10.31	ug/L	#	79
66) n-Propylbenzene	10.999	91	91848	9.99	ug/L		94
67) 1,1,2,2-Tetrachloroethane	11.053	83	23806	10.29	ug/L		98
68) 2-Chlorotoluene	11.126	126	17033	10.08	ug/L		89
69) 1,3,5-Trimethylbenzene	11.163	105	62130	9.92	ug/L		92
70) 1,2,3-Trichloropropane	11.157	110	9803	10.83	ug/L	#	84
71) t-1,4-Dichloro-2-butene	11.193	88	4102	10.57	ug/L	#	70
72) 4-Chlorotoluene	11.254	91	57856	10.42	ug/L		91
73) tert-Butylbenzene	11.412	91	38652	10.02	ug/L		87
74) 1,2,4-Trimethylbenzene	11.467	105	63543	9.98	ug/L		97
75) sec-Butylbenzene	11.552	105	75345	9.84	ug/L		96
76) 4-Isopropyltoluene	11.662	119	62690	9.80	ug/L		96
77) 1,3-Dichlorobenzene	11.716	146	33185	10.48	ug/L		95
78) 1,4-Dichlorobenzene	11.783	146	33561	10.54	ug/L		94
79) n-Butylbenzene	11.978	91	55398	9.90	ug/L		96
80) 1,2-Dichlorobenzene	12.100	146	31314	10.41	ug/L		96
81) 1,2-Dibromo-3-Chloropr...	12.696	157	5269	9.62	ug/L	#	35
82) Hexachlorobutadiene	13.225	223	4581	10.19	ug/L		92
83) 1,2,4-Trichlorobenzene	13.243	180	20212	10.09	ug/L		94
84) Naphthalene	13.517	128	79213	10.18	ug/L		96
85) 1,2,3-Trichlorobenzene	13.681	180	20337	10.52	ug/L		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092634.D
Acq On : 27 Sep 2019 12:09 am
Operator : TB
Sample : 9I26051-CAL7
Misc : 1X 5mL 10/20PPB VOCO+MeOH
ALS Vial : 10 Sample Multiplier: 1

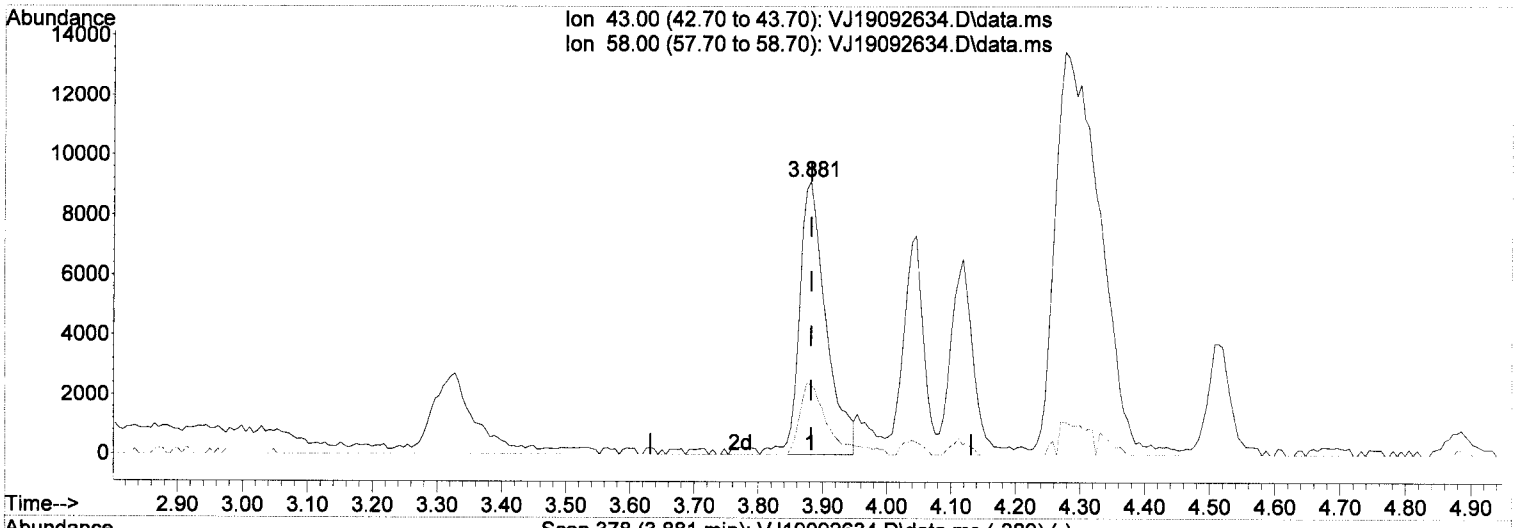
Quant Time: Sep 27 13:16:24 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

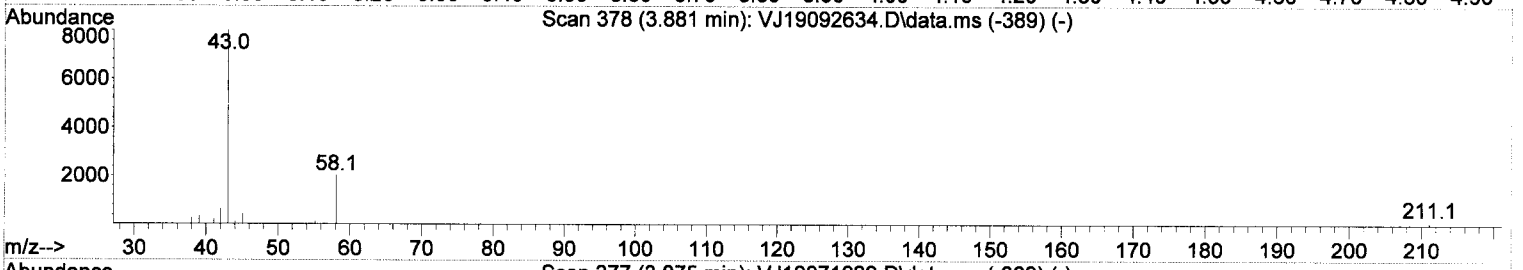


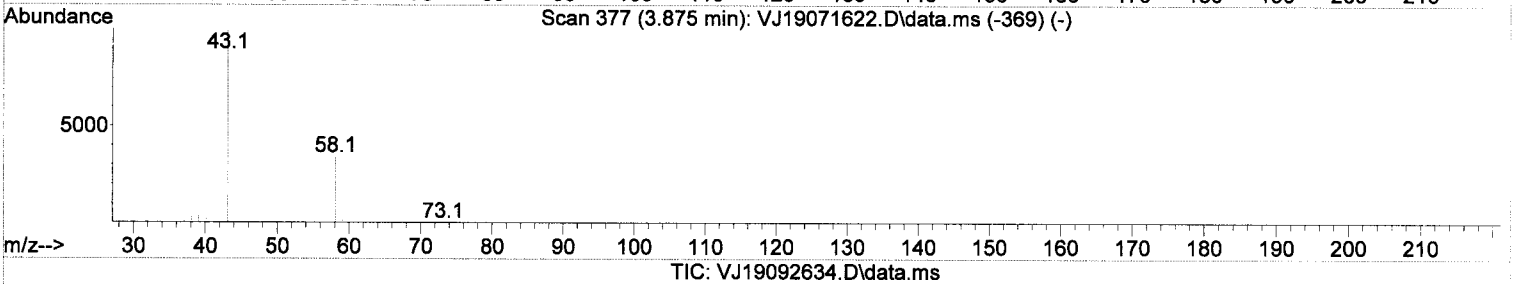
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092634.D
Acq On : 27 Sep 2019 12:09 am
Operator : TB
Sample : 9I26051-CAL7
Misc : 1X 5mL 10/20PPB VOCO+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 27 10:51:58 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092634.D\data.ms

(14) Acetone

3.881min (-0.000) 20.82 ug/L

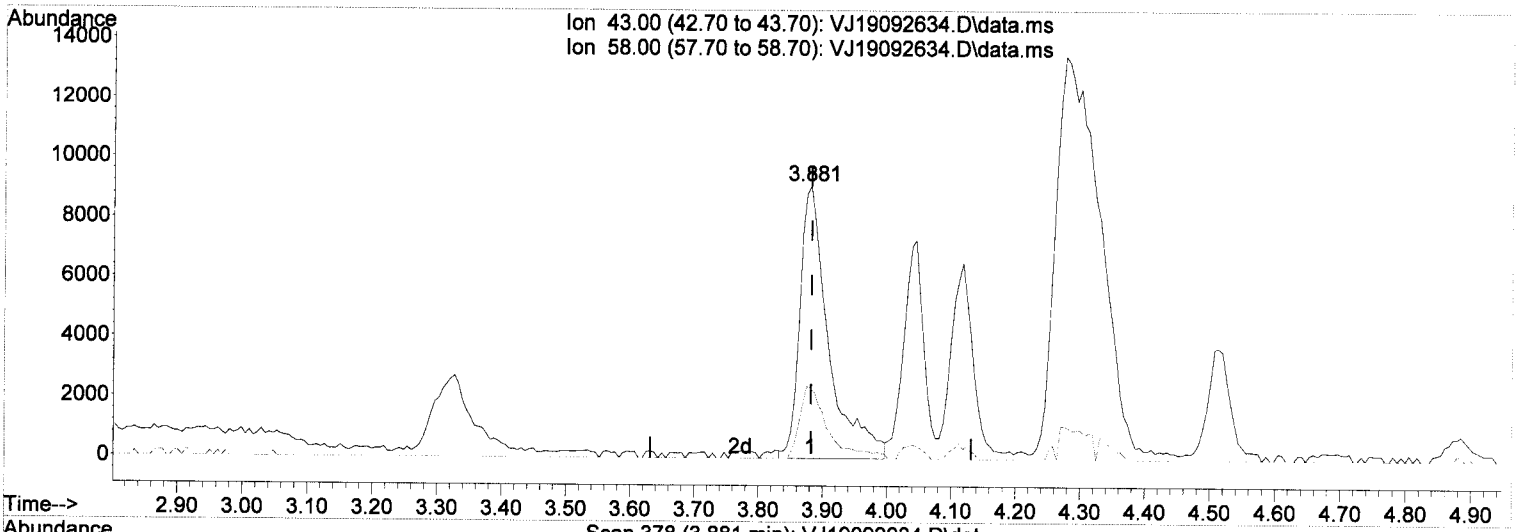
response 26404

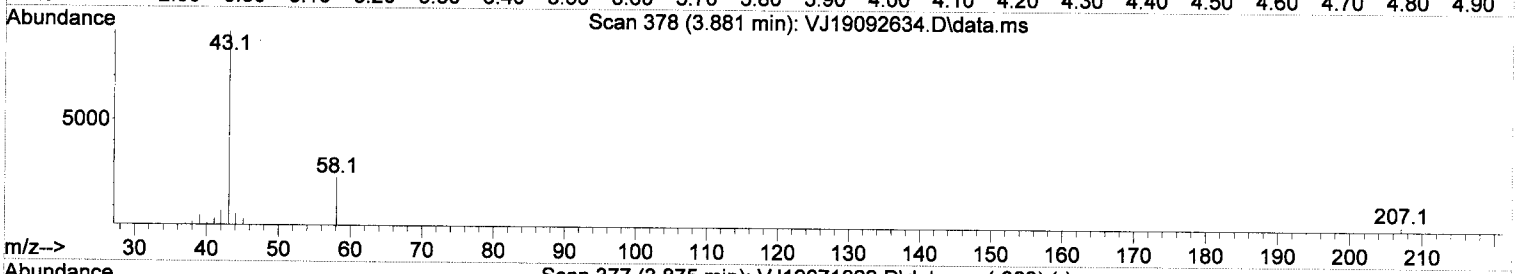
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	25.76
0.00	0.00	0.00
0.00	0.00	0.00

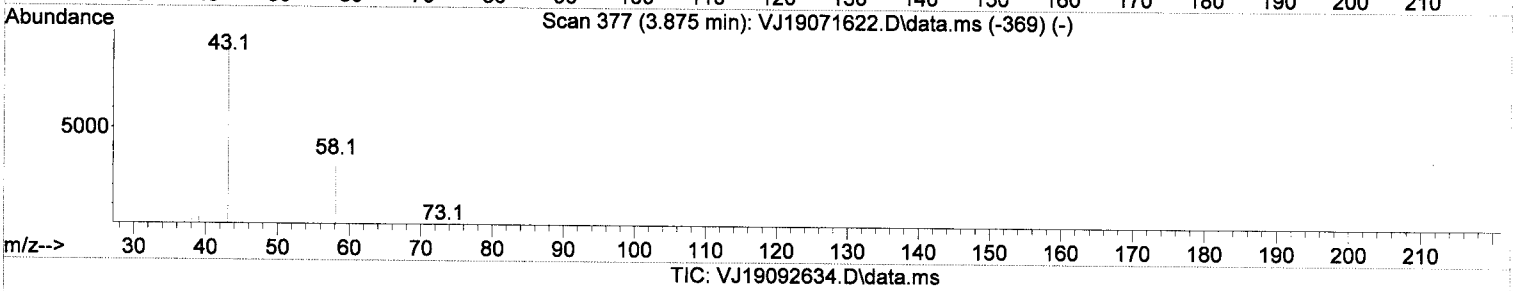
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092634.D
Acq On : 27 Sep 2019 12:09 am
Operator : TB
Sample : 9I26051-CAL7
Misc : 1X 5mL 10/20PPB VOCO+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 27 10:51:58 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092634.D\data.ms

(14) Acetone

3.881min (-0.000) 22.50 ug/L (m) 9/27/19

response 28539

Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	25.76
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092634.D
Acq On : 27 Sep 2019 12:09 am
Operator : TB
Sample : 9I26051-CAL7
Misc : 1X 5mL 10/20PPB VOCO+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 27 10:51:58 2019
Quant Method : C:\msdchem\1\methods\VS190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

9/27/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	80621	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	186111	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	85791	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	57066	49.47	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	212867	49.87	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	262548	49.62	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	66326	50.13	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	15186	9.74	ug/L		98
3) Chloromethane	1.898	50	21347	10.23	ug/L		98
4) Vinyl Chloride	2.007	62	16459	10.05	ug/L		96
5) Bromomethane	2.348	96	8414	11.70	ug/L		94
6) Chloroethane	2.463	64	2040	8.45	ug/L		66
7) Trichlorofluoromethane	2.597	101	7442	10.19	ug/L		97
8) Ethanol	3.321	45	42586	673.37	ug/L		92
9) 1,1-Dichloroethene	3.139	61	23758	10.01	ug/L		86
10) Carbon Disulfide	3.151	76	32614	9.92	ug/L		98
11) Freon 113	3.199	101	13011	9.87	ug/L		91
12) Iodomethane	3.291	142	4837	9.63	ug/L		77
13) Methylene Chloride	3.783	84	18608	11.64	ug/L		88
14) Acetone	3.881	43	~~26404~~	20.82	ug/L		~~88~~ MI
15) t-1,2-Dichloroethene	3.948	61	24655	10.03	ug/L		90
16) n-Hexane	4.045	86	3777	9.57	ug/L		92
17) Methyl-tert-butyl-ether	4.118	73	69438	10.23	ug/L		94
18) tert-Butanol (TBA)	4.276	59	447585	653.23	ug/L	#	89
19) Diisopropyl ether (DIPE)	4.513	45	16358	2.58	ug/L		95
20) 1,1-Dichloroethane	4.586	63	26789	10.39	ug/L		99
21) Acrylonitrile	4.647	53	12807	10.56	ug/L		94
22) Ethyl-tert-butyl ether...	4.878	59	16594	2.48	ug/L		95
23) c-1,2-Dichloroethene	5.134	61	27201	10.59	ug/L		92
24) 2,2-Dichloropropane	5.244	77	29404	10.18	ug/L		99
25) Bromochloromethane	5.335	49	16085	10.57	ug/L		84
26) Chloroform	5.420	83	32742	10.34	ug/L		95
27) Carbon Tetrachloride	5.560	117	20786	9.48	ug/L		97
28) Tetrahydrofuran	5.602	42	15512	10.43	ug/L		97
29) 1,1,1-Trichloroethane	5.627	97	29578	9.62	ug/L		97
31) 1,1-Dichloropropene	5.755	75	26315	9.73	ug/L		97
32) 2-Butanone (MEK)	5.748	43	40941	21.33	ug/L		95
33) Benzene	6.010	78	76211	9.91	ug/L		98
34) tert-Amyl methyl ether...	6.162	73	17059	2.72	ug/L		96
35) 1,2-Dichloroethane (EDC)	6.217	62	31858	10.26	ug/L		96
36) iso-Butyl Alcohol	6.302	43	65228	256.35	ug/L		96
38) Trichloroethene (TCE)	6.624	130	18272	10.00	ug/L		90
39) tert-Amyl ethyl ether ...	6.917	59	12505	2.57	ug/L		91
40) Dibromomethane	7.069	93	11394	10.06	ug/L		81
41) 1,2-Dichloropropane	7.178	63	19994	10.07	ug/L		90
42) Bromodichloromethane	7.257	83	19966	9.64	ug/L		99
44) c-1,3-Dichloropropene	7.957	75	29366	9.87	ug/L		95
46) Toluene	8.237	91	79804	10.03	ug/L		97
47) Tetrachloroethene (PCE)	8.681	166	17871	10.26	ug/L		87
48) 4-Methyl-2-Pentanone (...	8.675	43	69718	21.07	ug/L		96

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092634.D
Acq On : 27 Sep 2019 12:09 am
Operator : TB
Sample : 9I26051-CAL7
Misc : 1X 5mL 10/20PPB VOCO+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 27 10:51:58 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

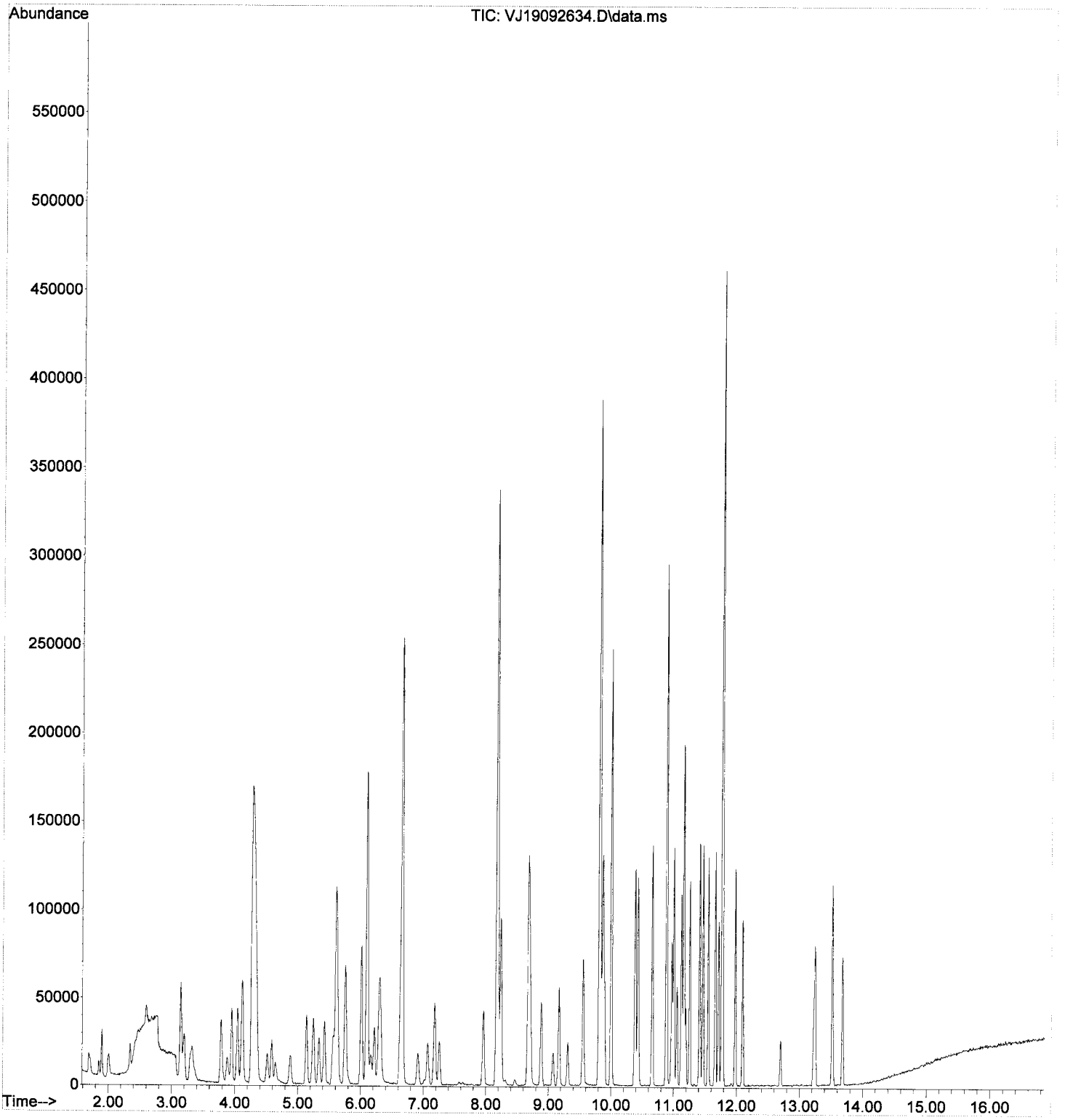
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	28378	9.86	ug/L	95
50) 1,1,2-Trichloroethane	8.881	97	16739	10.31	ug/L	92
51) Dibromochloromethane	9.076	129	11509	9.64	ug/L	98
52) 1,3-Dichloropropane	9.167	76	33253	10.44	ug/L	94
53) 1,2-Dibromoethane (EDB)	9.307	107	18498	10.31	ug/L	95
54) 2-Hexanone	9.551	43	52678	20.57	ug/L	96
55) Chlorobenzene	9.831	112	47850	10.14	ug/L	95
56) Ethylbenzene	9.867	91	88556	10.02	ug/L	96
57) 1,1,1,2-Tetrachloroethane	9.891	131	15195	9.93	ug/L	99
58) m,p-Xylenes (2)	10.001	91	132898	20.03	ug/L	94
59) o-Xylene	10.384	91	67580	10.04	ug/L	93
60) Styrene	10.427	104	48081	10.09	ug/L	94
61) Bromoform	10.445	173	7072	10.11	ug/L	94
62) Isopropylbenzene	10.658	105	80907	9.91	ug/L	97
65) Bromobenzene	10.968	156	18146	10.31	ug/L #	79
66) n-Propylbenzene	10.999	91	91848	9.99	ug/L	94
67) 1,1,2,2-Tetrachloroethane	11.053	83	23806	10.29	ug/L	98
68) 2-Chlorotoluene	11.126	126	17033	10.08	ug/L	89
69) 1,3,5-Trimethylbenzene	11.163	105	62130	9.92	ug/L	92
70) 1,2,3-Trichloropropane	11.157	110	9803	10.83	ug/L #	84
71) t-1,4-Dichloro-2-butene	11.193	88	4102	10.57	ug/L #	70
72) 4-Chlorotoluene	11.254	91	57856	10.42	ug/L	91
73) tert-Butylbenzene	11.412	91	38652	10.02	ug/L	87
74) 1,2,4-Trimethylbenzene	11.467	105	63543	9.98	ug/L	97
75) sec-Butylbenzene	11.552	105	75345	9.84	ug/L	96
76) 4-Isopropyltoluene	11.662	119	62690	9.80	ug/L	96
77) 1,3-Dichlorobenzene	11.716	146	33185	10.48	ug/L	95
78) 1,4-Dichlorobenzene	11.783	146	33561	10.54	ug/L	94
79) n-Butylbenzene	11.978	91	55398	9.90	ug/L	96
80) 1,2-Dichlorobenzene	12.100	146	31314	10.41	ug/L	96
81) 1,2-Dibromo-3-Chloropr...	12.696	157	5269	9.62	ug/L #	35
82) Hexachlorobutadiene	13.225	223	4581	10.19	ug/L	92
83) 1,2,4-Trichlorobenzene	13.243	180	20212	10.09	ug/L	94
84) Naphthalene	13.517	128	79213	10.18	ug/L	96
85) 1,2,3-Trichlorobenzene	13.681	180	20337	10.52	ug/L	98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092634.D
Acq On : 27 Sep 2019 12:09 am
Operator : TB
Sample : 9I26051-CAL7
Misc : 1X 5mL 10/20PPB VOCO+MeOH
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 27 10:51:58 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092635.D
Acq On : 27 Sep 2019 12:35 am
Operator : TB
Sample : 9I26051-CAL8
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 13:18:16 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

9/27/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	84226	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.813	117	194298	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	90055	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	60255	50.00	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	222976	50.00	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	276211	50.00	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	69443	50.00	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	32574	20.00	ug/L		98
3) Chloromethane	1.898	50	43595	20.00	ug/L		99
4) Vinyl Chloride	2.007	62	34233	20.00	ug/L		95
5) Bromomethane	2.348	96	15032	20.00	ug/L		98
6) Chloroethane	2.470	64	5042	20.00	ug/L		82
7) Trichlorofluoromethane	2.597	101	15256	20.00	ug/L		98
8) Ethanol	3.321	45	83151	1258.51	ug/L		87
9) 1,1-Dichloroethene	3.139	61	49575	20.00	ug/L		83
10) Carbon Disulfide	3.151	76	68694	20.00	ug/L		98
11) Freon 113	3.194	101	27543	20.00	ug/L		90
12) Iodomethane	3.291	142	10496	20.00	ug/L		78
13) Methylene Chloride	3.784	84	33415	20.00	ug/L		91
14) Acetone	3.881	43	52930m	39.95	ug/L		
15) t-1,2-Dichloroethene	3.948	61	51376	20.00	ug/L		93
16) n-Hexane	4.039	86	8248	20.00	ug/L		95
17) Methyl-tert-butyl-ether	4.112	73	141796	20.00	ug/L		90
18) tert-Butanol (TBA)	4.276	59	893967	1248.86	ug/L	#	88
19) Diisopropyl ether (DIPE)	4.514	45	33179	5.00	ug/L		94
20) 1,1-Dichloroethane	4.581	63	53896	20.00	ug/L		98
21) Acrylonitrile	4.641	53	25339m	20.00	ug/L		
22) Ethyl-tert-butyl ether...	4.879	59	34932	5.00	ug/L		96
23) c-1,2-Dichloroethene	5.134	61	53679	20.00	ug/L		91
24) 2,2-Dichloropropane	5.244	77	60427	20.02	ug/L		98
25) Bromochloromethane	5.335	49	31790	20.00	ug/L		88
26) Chloroform	5.420	83	66134	20.00	ug/L		97
27) Carbon Tetrachloride	5.560	117	45804	20.00	ug/L		92
28) Tetrahydrofuran	5.597	42	31076	20.00	ug/L		99
29) 1,1,1-Trichloroethane	5.627	97	64265	20.00	ug/L		98
31) 1,1-Dichloropropene	5.755	75	56524	20.00	ug/L		94
32) 2-Butanone (MEK)	5.743	43	80216	40.00	ug/L		96
33) Benzene	6.010	78	160743	20.00	ug/L		98
34) tert-Amyl methyl ether...	6.156	73	32799	5.00	ug/L		93
35) 1,2-Dichloroethane (EDC)	6.217	62	65007	20.05	ug/L		98
36) iso-Butyl Alcohol	6.314	43	132914	500.00	ug/L		97
38) Trichloroethene (TCE)	6.625	130	38197	20.00	ug/L		91
39) tert-Amyl ethyl ether ...	6.911	59	25425	5.00	ug/L		90
40) Dibromomethane	7.069	93	23659	20.00	ug/L		87
41) 1,2-Dichloropropane	7.178	63	41500	20.00	ug/L		90
42) Bromodichloromethane	7.257	83	43276	20.00	ug/L		96
44) c-1,3-Dichloropropene	7.957	75	62124	20.00	ug/L		94
46) Toluene	8.237	91	166207	20.00	ug/L		98
47) Tetrachloroethene (PCE)	8.681	166	36365	20.00	ug/L		85
48) 4-Methyl-2-Pentanone (...	8.681	43	138153	40.00	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092635.D
Acq On : 27 Sep 2019 12:35 am
Operator : TB
Sample : 9I26051-CAL8
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 13:18:16 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

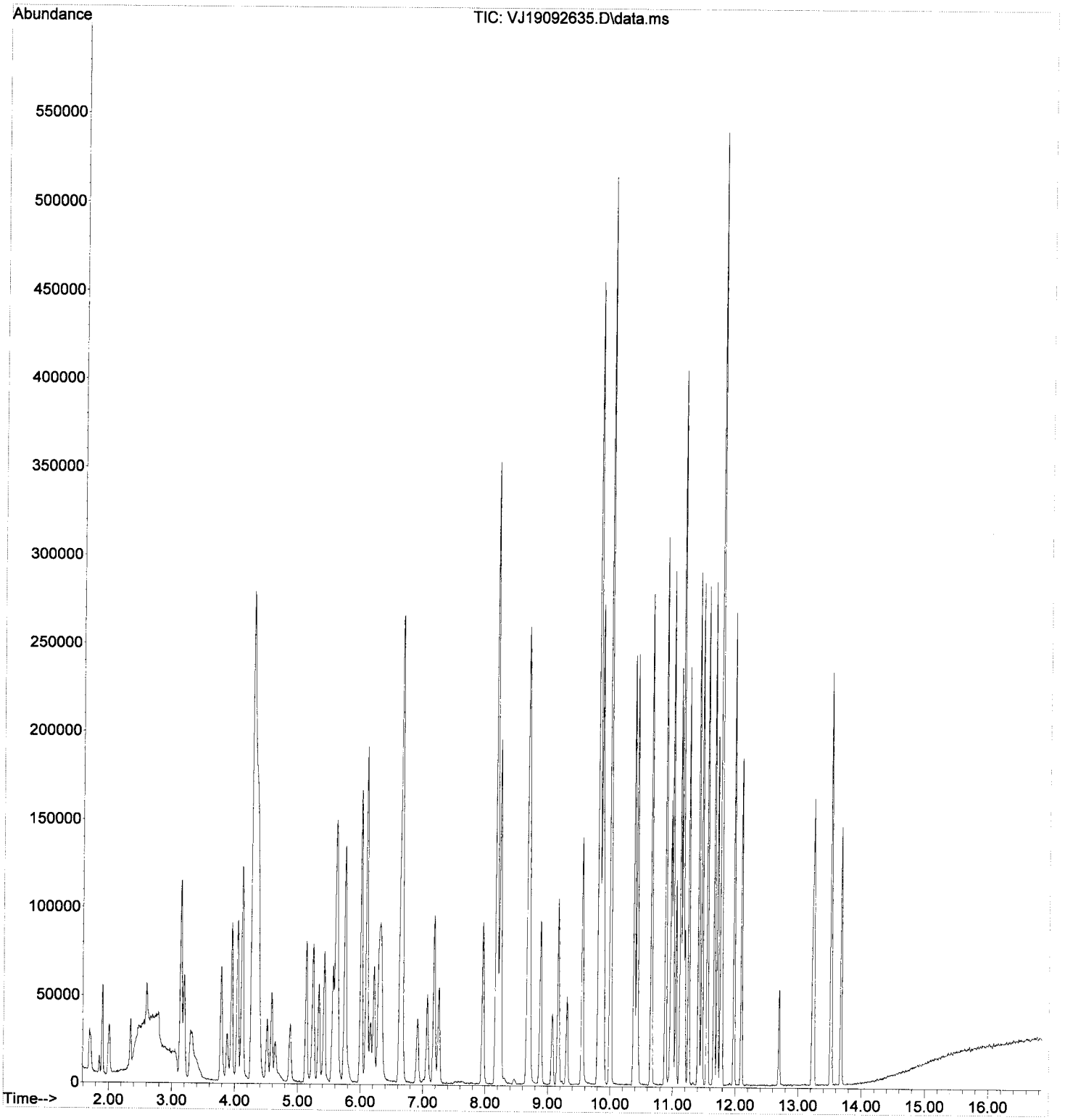
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	60103	20.00	ug/L		94
50) 1,1,2-Trichloroethane	8.882	97	33910	20.00	ug/L		94
51) Dibromochloromethane	9.070	129	24936	20.00	ug/L		98
52) 1,3-Dichloropropane	9.168	76	66481	20.00	ug/L		92
53) 1,2-Dibromoethane (EDB)	9.308	107	37447	20.00	ug/L		98
54) 2-Hexanone	9.551	43	106926	40.00	ug/L		97
55) Chlorobenzene	9.831	112	98547	20.00	ug/L		98
56) Ethylbenzene	9.867	91	184475	20.00	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.892	131	31953	20.00	ug/L		99
58) m,p-Xylenes (2)	10.001	91	277116	40.00	ug/L		95
59) o-Xylene	10.384	91	140549	20.00	ug/L		94
60) Styrene	10.427	104	99474	20.00	ug/L		94
61) Bromoform	10.445	173	14599	20.00	ug/L		97
62) Isopropylbenzene	10.658	105	170525	20.00	ug/L		96
65) Bromobenzene	10.968	156	36937	20.00	ug/L	#	80
66) n-Propylbenzene	10.999	91	192925	20.00	ug/L		93
67) 1,1,2,2-Tetrachloroethane	11.054	83	48593	20.00	ug/L		98
68) 2-Chlorotoluene	11.120	126	35482	20.00	ug/L	#	79
69) 1,3,5-Trimethylbenzene	11.163	105	131543	20.00	ug/L		94
70) 1,2,3-Trichloropropane	11.157	110	18996	20.00	ug/L		89
71) t-1,4-Dichloro-2-butene	11.194	88	8149	20.00	ug/L	#	83
72) 4-Chlorotoluene	11.254	91	116547	20.00	ug/L		91
73) tert-Butylbenzene	11.413	91	80995	20.00	ug/L		87
74) 1,2,4-Trimethylbenzene	11.467	105	133658	20.00	ug/L		96
75) sec-Butylbenzene	11.552	105	160793	20.00	ug/L		96
76) 4-Isopropyltoluene	11.662	119	134275	20.00	ug/L		96
77) 1,3-Dichlorobenzene	11.711	146	66504	20.00	ug/L		95
78) 1,4-Dichlorobenzene	11.784	146	66830	20.00	ug/L		96
79) n-Butylbenzene	11.978	91	117444	20.00	ug/L		97
80) 1,2-Dichlorobenzene	12.100	146	63143	20.00	ug/L		97
81) 1,2-Dibromo-3-Chloropr...	12.702	157	11496	20.00	ug/L	#	62
82) Hexachlorobutadiene	13.225	223	9438	20.00	ug/L		93
83) 1,2,4-Trichlorobenzene	13.244	180	42045	20.00	ug/L		95
84) Naphthalene	13.517	128	163412	20.00	ug/L		97
85) 1,2,3-Trichlorobenzene	13.682	180	40577	20.00	ug/L		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092635.D
Acq On : 27 Sep 2019 12:35 am
Operator : TB
Sample : 9I26051-CAL8
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 11 Sample Multiplier: 1

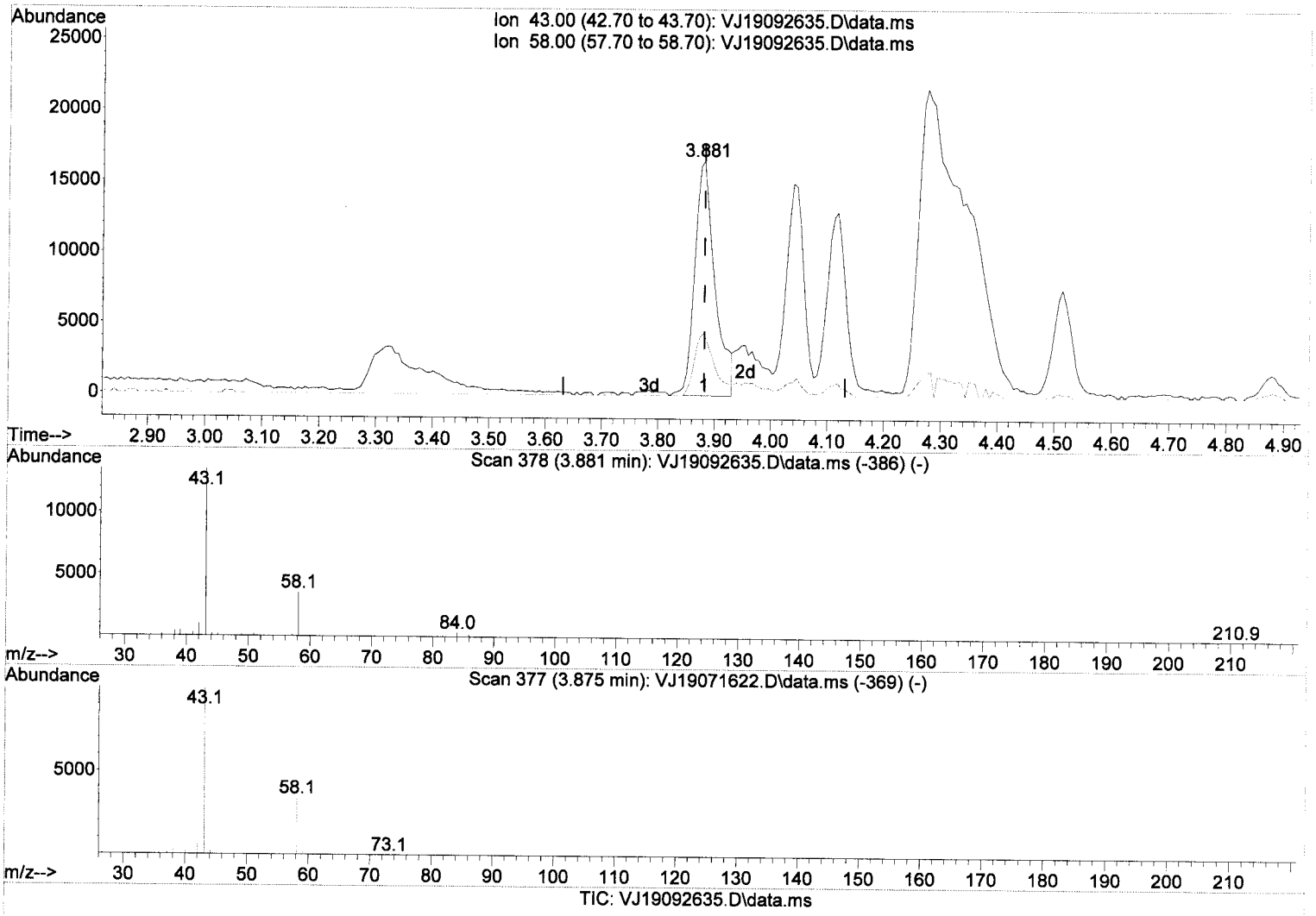
Quant Time: Sep 27 13:18:16 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092635.D
Acq On : 27 Sep 2019 12:35 am
Operator : TB
Sample : 9I26051-CAL8
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 10:52:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



TIC: VJ19092635.D\data.ms

(14) Acetone

3.881min (0.000) 31.13 ug/L

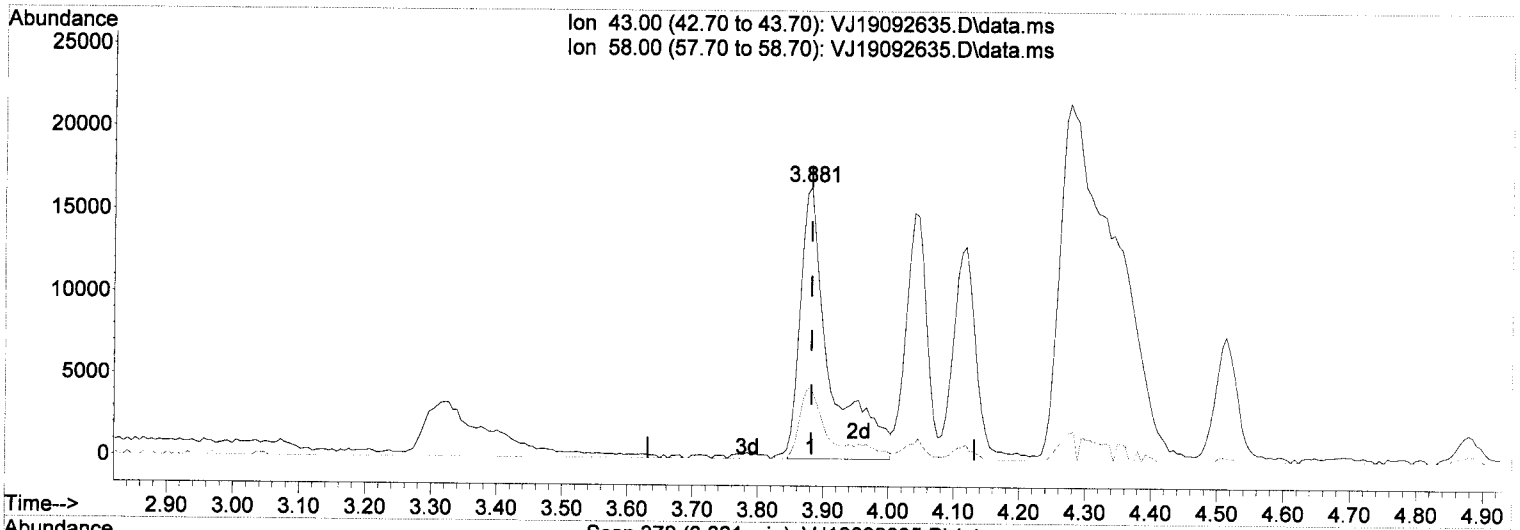
response 41248

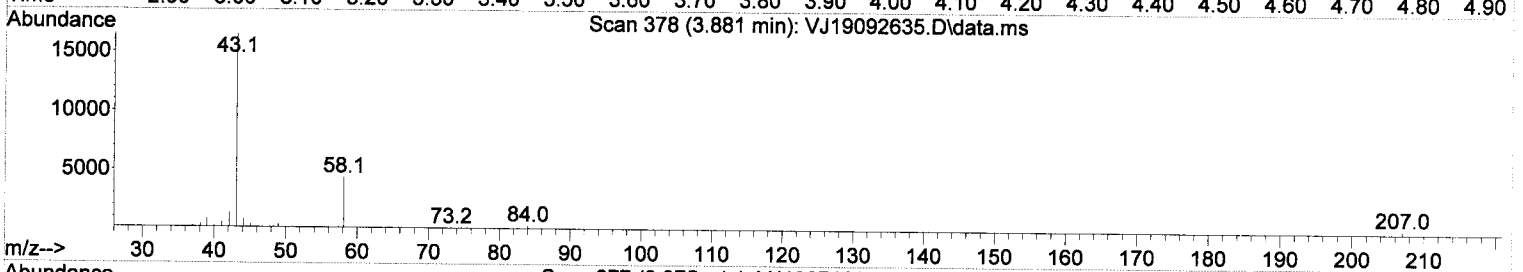
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	26.42
0.00	0.00	0.00
0.00	0.00	0.00

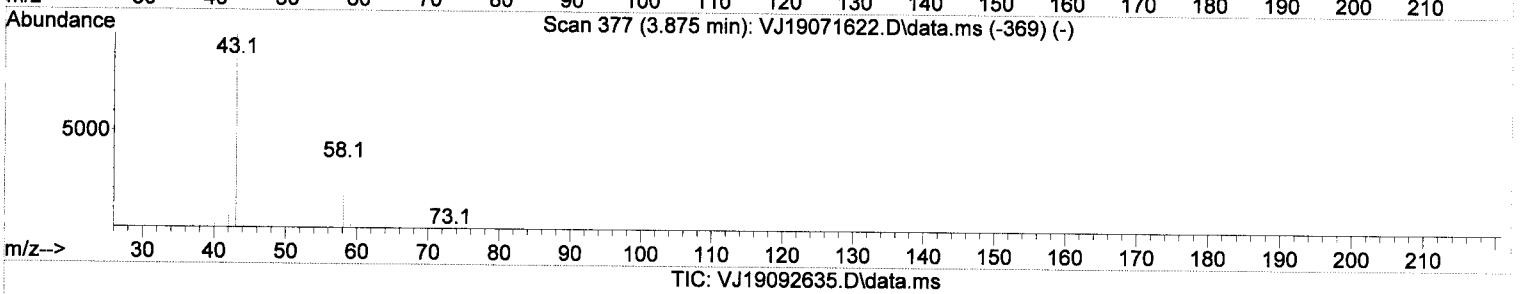
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092635.D
Acq On : 27 Sep 2019 12:35 am
Operator : TB
Sample : 9I26051-CAL8
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 10:52:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092635.D\data.ms

(14) Acetone

3.881min (0.000) 39.95 ug/L m

response 52930

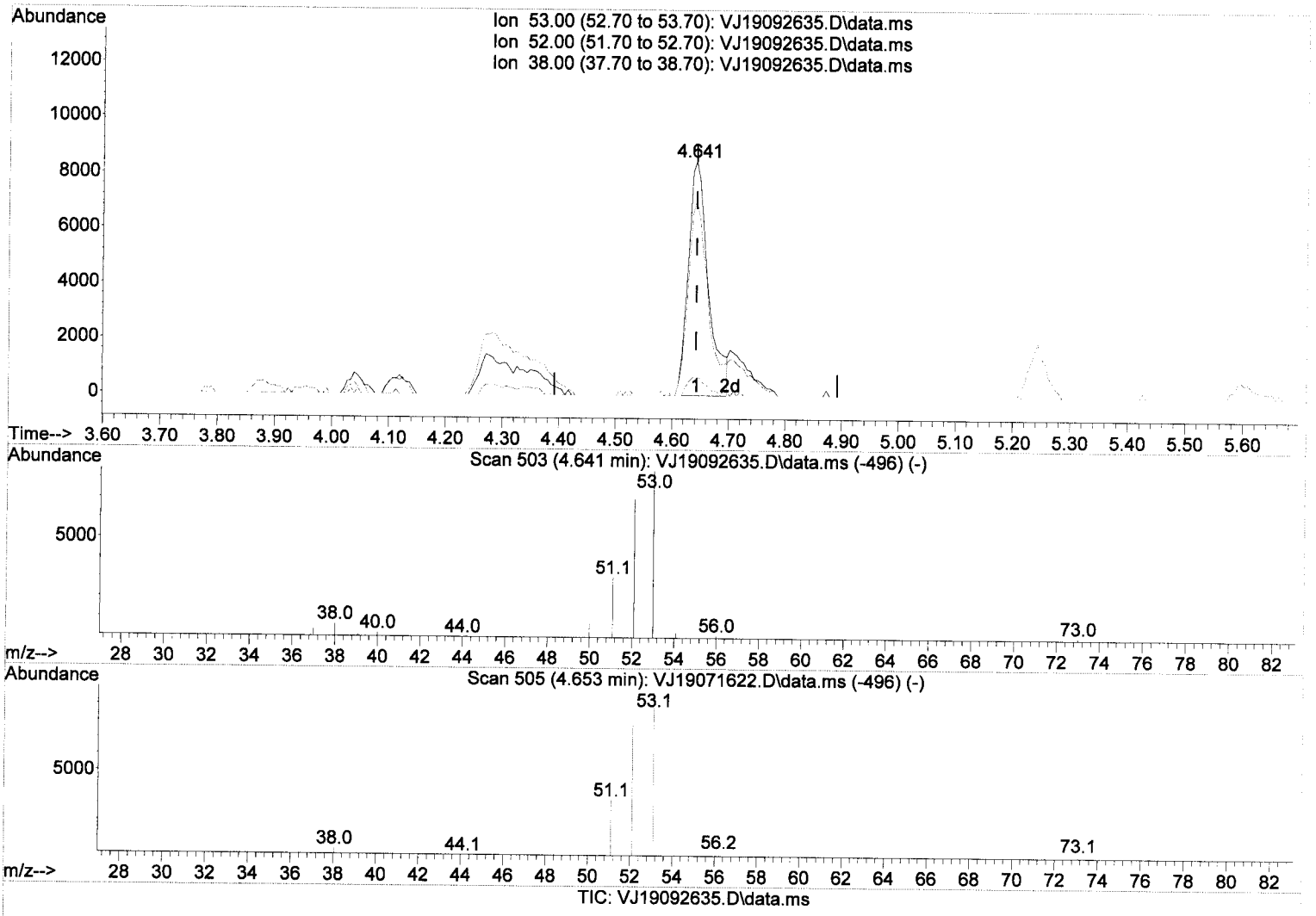
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	26.42
0.00	0.00	0.00
0.00	0.00	0.00

9/27/19

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092635.D
Acq On : 27 Sep 2019 12:35 am
Operator : TB
Sample : 9I26051-CAL8
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 10:52:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



(21) Acrylonitrile

4.641min (0.000) 16.61 ug/L

response 21048

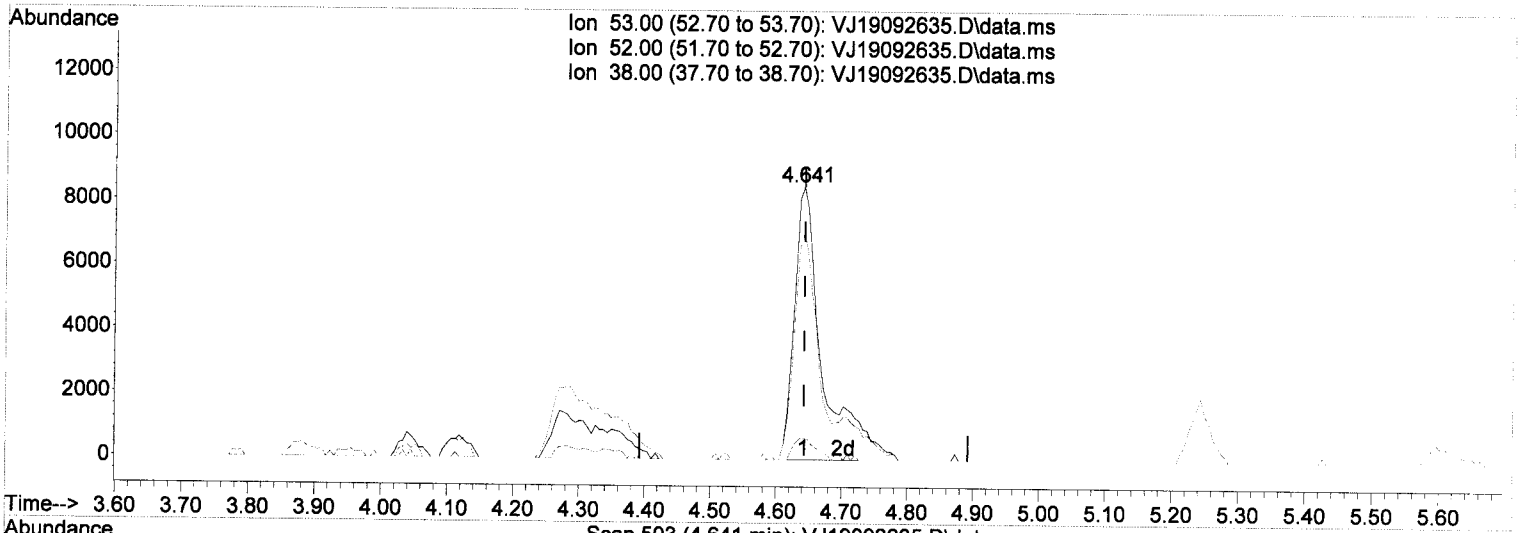
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	83.23
38.00	5.50	7.84
0.00	0.00	0.00

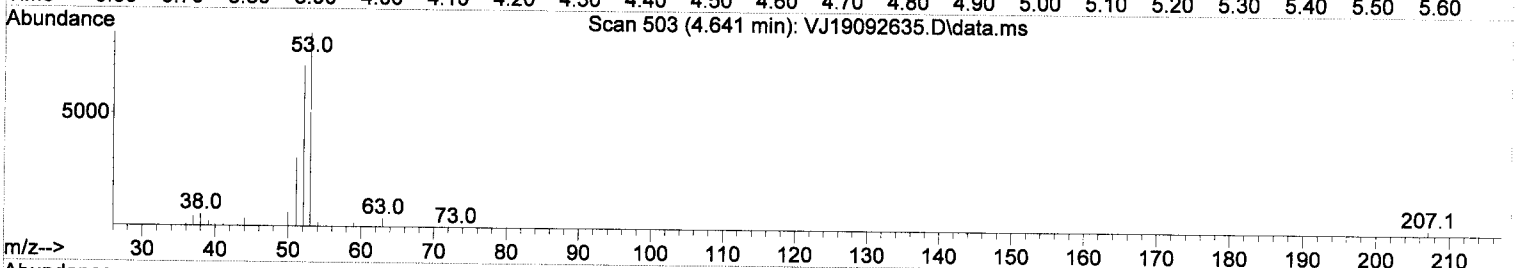
MI

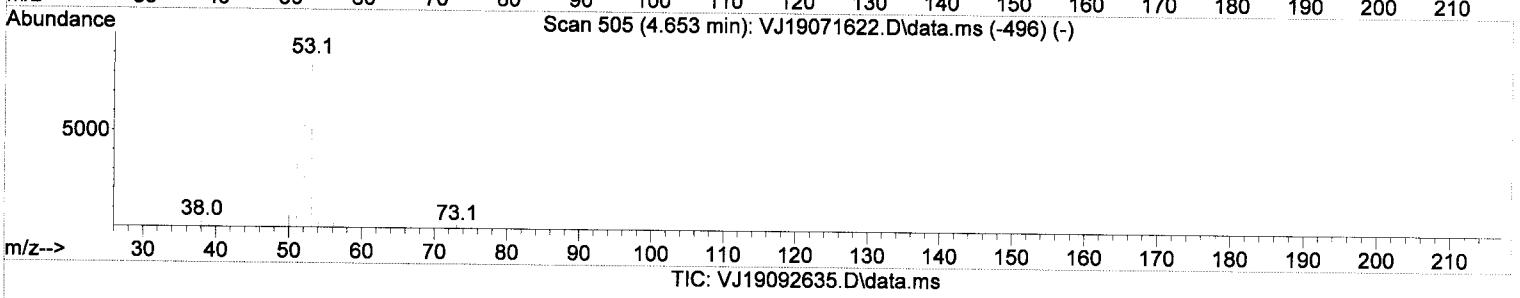
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092635.D
Acq On : 27 Sep 2019 12:35 am
Operator : TB
Sample : 9I26051-CAL8
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 10:52:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092635.D\data.ms

(21) Acrylonitrile

4.641min (0.000) 20.00 ug/L m

response 25339

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	83.23
38.00	5.50	7.84
0.00	0.00	0.00

9/27/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092635.D
Acq On : 27 Sep 2019 12:35 am
Operator : TB
Sample : 9I26051-CAL8
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 11 Sample Multiplier: 1

pre 9/27/19

Quant Time: Sep 27 10:52:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	84226	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.813	117	194298	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	90055	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	60255	50.00	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	222976	50.00	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	276211	50.00	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	69443	50.00	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	32574	20.00	ug/L		98
3) Chloromethane	1.898	50	43595	20.00	ug/L		99
4) Vinyl Chloride	2.007	62	34233	20.00	ug/L		95
5) Bromomethane	2.348	96	15032	20.00	ug/L		98
6) Chloroethane	2.470	64	5042	20.00	ug/L		82
7) Trichlorofluoromethane	2.597	101	15256	20.00	ug/L		98
8) Ethanol	3.321	45	83151	1258.51	ug/L		87
9) 1,1-Dichloroethene	3.139	61	49575	20.00	ug/L		83
10) Carbon Disulfide	3.151	76	68694	20.00	ug/L		98
11) Freon 113	3.194	101	27543	20.00	ug/L		90
12) Iodomethane	3.291	142	10496	20.00	ug/L		78
13) Methylene Chloride	3.784	84	33415	20.00	ug/L		91
14) Acetone	3.881	43	~~41248~~	~~31.13~~	~~ug/L~~		~~90~~ MI
15) t-1,2-Dichloroethene	3.948	61	51376	20.00	ug/L		93
16) n-Hexane	4.039	86	8248	20.00	ug/L		95
17) Methyl-tert-butyl-ether	4.112	73	141796	20.00	ug/L		90
18) tert-Butanol (TBA)	4.276	59	893967	1248.86	ug/L	#	88
19) Diisopropyl ether (DIPE)	4.514	45	33179	5.00	ug/L		94
20) 1,1-Dichloroethane	4.581	63	53896	20.00	ug/L		98
21) Acrylonitrile	4.641	53	~~21048~~	~~16.61~~	~~ug/L~~		~~96~~ MI
22) Ethyl-tert-butyl ether...	4.879	59	34932	5.00	ug/L		96
23) c-1,2-Dichloroethene	5.134	61	53679	20.00	ug/L		91
24) 2,2-Dichloropropane	5.244	77	60427	20.02	ug/L		98
25) Bromochloromethane	5.335	49	31790	20.00	ug/L		88
26) Chloroform	5.420	83	66134	20.00	ug/L		97
27) Carbon Tetrachloride	5.560	117	45804	20.00	ug/L		92
28) Tetrahydrofuran	5.597	42	31076	20.00	ug/L		99
29) 1,1,1-Trichloroethane	5.627	97	64265	20.00	ug/L		98
31) 1,1-Dichloropropene	5.755	75	56524	20.00	ug/L		94
32) 2-Butanone (MEK)	5.743	43	80216	40.00	ug/L		96
33) Benzene	6.010	78	160743	20.00	ug/L		98
34) tert-Amyl methyl ether...	6.156	73	32799	5.00	ug/L		93
35) 1,2-Dichloroethane (EDC)	6.217	62	65007	20.05	ug/L		98
36) iso-Butyl Alcohol	6.314	43	132914	500.00	ug/L		97
38) Trichloroethene (TCE)	6.625	130	38197	20.00	ug/L		91
39) tert-Amyl ethyl ether ...	6.911	59	25425	5.00	ug/L		90
40) Dibromomethane	7.069	93	23659	20.00	ug/L		87
41) 1,2-Dichloropropane	7.178	63	41500	20.00	ug/L		90
42) Bromodichloromethane	7.257	83	43276	20.00	ug/L		96
44) c-1,3-Dichloropropene	7.957	75	62124	20.00	ug/L		94
46) Toluene	8.237	91	166207	20.00	ug/L		98
47) Tetrachloroethene (PCE)	8.681	166	36365	20.00	ug/L		85
48) 4-Methyl-2-Pentanone (...	8.681	43	138153	40.00	ug/L		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092635.D
Acq On : 27 Sep 2019 12:35 am
Operator : TB
Sample : 9I26051-CAL8
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 10:52:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

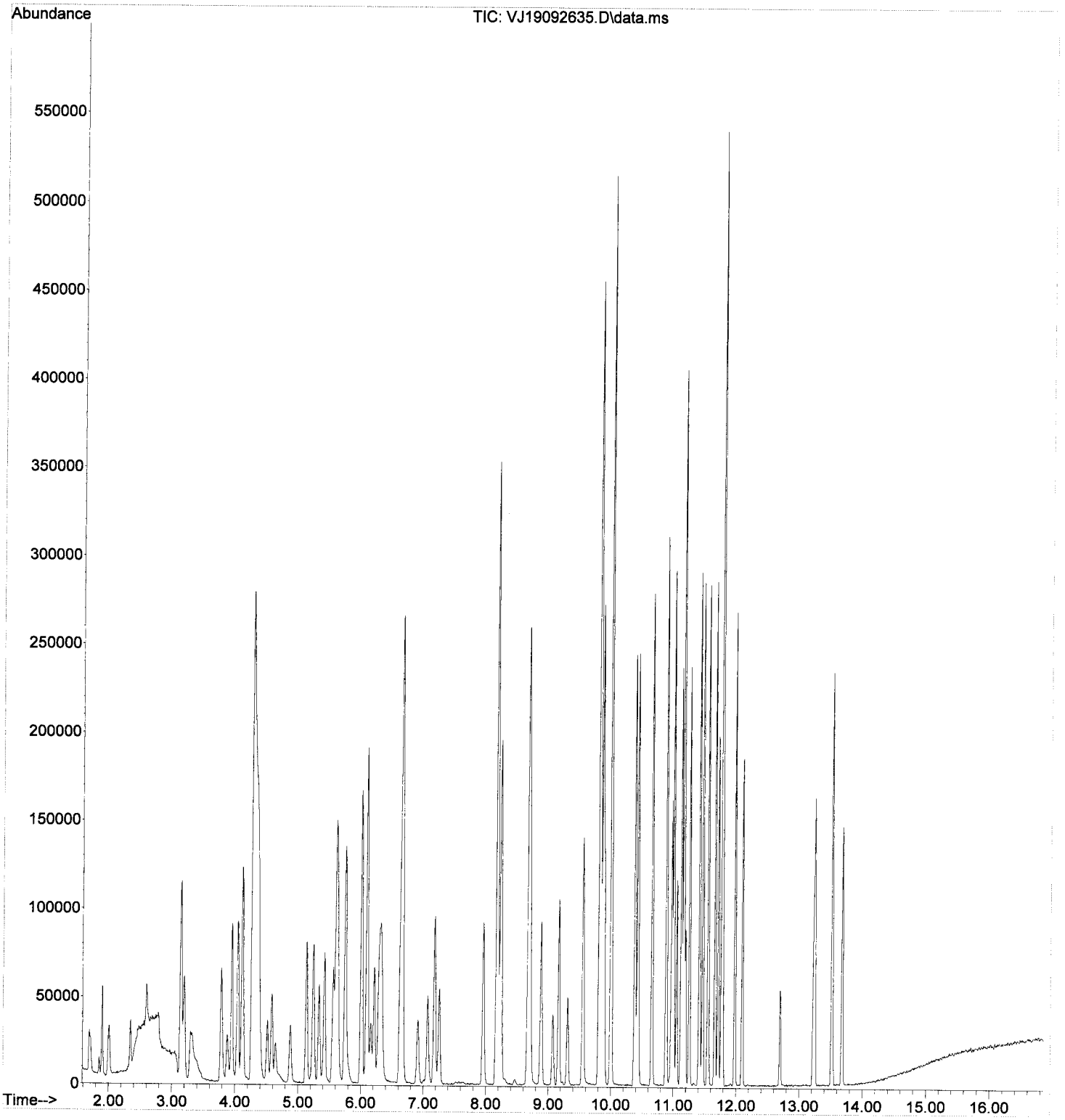
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	60103	20.00	ug/L		94
50) 1,1,2-Trichloroethane	8.882	97	33910	20.00	ug/L		94
51) Dibromochloromethane	9.070	129	24936	20.00	ug/L		98
52) 1,3-Dichloropropane	9.168	76	66481	20.00	ug/L		92
53) 1,2-Dibromoethane (EDB)	9.308	107	37447	20.00	ug/L		98
54) 2-Hexanone	9.551	43	106926	40.00	ug/L		97
55) Chlorobenzene	9.831	112	98547	20.00	ug/L		98
56) Ethylbenzene	9.867	91	184475	20.00	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.892	131	31953	20.00	ug/L		99
58) m,p-Xylenes (2)	10.001	91	277116	40.00	ug/L		95
59) o-Xylene	10.384	91	140549	20.00	ug/L		94
60) Styrene	10.427	104	99474	20.00	ug/L		94
61) Bromoform	10.445	173	14599	20.00	ug/L		97
62) Isopropylbenzene	10.658	105	170525	20.00	ug/L		96
65) Bromobenzene	10.968	156	36937	20.00	ug/L	#	80
66) n-Propylbenzene	10.999	91	192925	20.00	ug/L		93
67) 1,1,2,2-Tetrachloroethane	11.054	83	48593	20.00	ug/L		98
68) 2-Chlorotoluene	11.120	126	35482	20.00	ug/L	#	79
69) 1,3,5-Trimethylbenzene	11.163	105	131543	20.00	ug/L		94
70) 1,2,3-Trichloropropane	11.157	110	18996	20.00	ug/L		89
71) t-1,4-Dichloro-2-butene	11.194	88	8149	20.00	ug/L	#	83
72) 4-Chlorotoluene	11.254	91	116547	20.00	ug/L		91
73) tert-Butylbenzene	11.413	91	80995	20.00	ug/L		87
74) 1,2,4-Trimethylbenzene	11.467	105	133658	20.00	ug/L		96
75) sec-Butylbenzene	11.552	105	160793	20.00	ug/L		96
76) 4-Isopropyltoluene	11.662	119	134275	20.00	ug/L		96
77) 1,3-Dichlorobenzene	11.711	146	66504	20.00	ug/L		95
78) 1,4-Dichlorobenzene	11.784	146	66830	20.00	ug/L		96
79) n-Butylbenzene	11.978	91	117444	20.00	ug/L		97
80) 1,2-Dichlorobenzene	12.100	146	63143	20.00	ug/L		97
81) 1,2-Dibromo-3-Chloropr...	12.702	157	11496	20.00	ug/L	#	62
82) Hexachlorobutadiene	13.225	223	9438	20.00	ug/L		93
83) 1,2,4-Trichlorobenzene	13.244	180	42045	20.00	ug/L		95
84) Naphthalene	13.517	128	163412	20.00	ug/L		97
85) 1,2,3-Trichlorobenzene	13.682	180	40577	20.00	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092635.D
Acq On : 27 Sep 2019 12:35 am
Operator : TB
Sample : 9I26051-CAL8
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 10:52:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092636.D
Acq On : 27 Sep 2019 1:02 am
Operator : TB
Sample : 9I26051-CAL9
Misc : 1X 5mL 50/100PPB VOCO+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 27 13:19:03 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

POST 9/27/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	88066	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	206278	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	96429	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	65392	51.90	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	234393	50.27	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	288797	49.24	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	73705	49.56	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	80374	47.20	ug/L		97
3) Chloromethane	1.898	50	110944	48.68	ug/L		99
4) Vinyl Chloride	2.001	62	86780	48.49	ug/L		95
5) Bromomethane	2.342	96	34647	44.09	ug/L		99
6) Chloroethane	2.470	64	14728	55.87	ug/L		97
7) Trichlorofluoromethane	2.597	101	39290	49.26	ug/L		98
8) Ethanol	3.315	45	191989	2779.09	ug/L		88
9) 1,1-Dichloroethene	3.139	61	126525	48.82	ug/L		84
10) Carbon Disulfide	3.145	76	180413	50.24	ug/L		98
11) Freon 113	3.193	101	69489	48.26	ug/L		90
12) Iodomethane	3.291	142	31306	57.05	ug/L		82
13) Methylene Chloride	3.784	84	77692	44.47	ug/L		92
14) Acetone	3.875	43	128682m	92.89	ug/L		
15) t-1,2-Dichloroethene	3.948	61	128795	47.95	ug/L		93
16) n-Hexane	4.039	86	18920	43.88	ug/L	#	72
17) Methyl-tert-butyl-ether	4.112	73	353962	47.75	ug/L		59
18) tert-Butanol (TBA)	4.276	59	2194652	2932.22	ug/L	#	86
19) Diisopropyl ether (DIPE)	4.508	45	82918	11.95	ug/L		93
20) 1,1-Dichloroethane	4.580	63	139892	49.65	ug/L		98
21) Acrylonitrile	4.641	53	65047	49.10	ug/L		96
22) Ethyl-tert-butyl ether...	4.879	59	84010	11.50	ug/L		98
23) c-1,2-Dichloroethene	5.134	61	137723	49.08	ug/L		92
24) 2,2-Dichloropropane	5.244	77	148869	47.18	ug/L		99
25) Bromochloromethane	5.335	49	78798	47.41	ug/L		88
26) Chloroform	5.420	83	167945	48.57	ug/L		95
27) Carbon Tetrachloride	5.560	117	122184	51.02	ug/L		97
28) Tetrahydrofuran	5.590	42	76688	47.20	ug/L		97
29) 1,1,1-Trichloroethane	5.627	97	163298	48.60	ug/L		99
31) 1,1-Dichloropropene	5.755	75	143921	48.70	ug/L		94
32) 2-Butanone (MEK)	5.736	43	203004	96.81	ug/L		95
33) Benzene	6.010	78	396436	47.17	ug/L		98
34) tert-Amyl methyl ether...	6.156	73	79624	11.61	ug/L		93
35) 1,2-Dichloroethane (EDC)	6.211	62	160338	47.29	ug/L		98
36) iso-Butyl Alcohol	6.302	43	323184	1162.75	ug/L		99
38) Trichloroethene (TCE)	6.625	130	96909	48.53	ug/L		91
39) tert-Amyl ethyl ether ...	6.911	59	64746	12.18	ug/L		89
40) Dibromomethane	7.069	93	59717	48.28	ug/L		88
41) 1,2-Dichloropropane	7.178	63	104745	48.28	ug/L		92
42) Bromodichloromethane	7.251	83	118981	52.59	ug/L		97
44) c-1,3-Dichloropropene	7.957	75	162503	49.28	ug/L		96
46) Toluene	8.237	91	414816	47.02	ug/L		98
47) Tetrachloroethene (PCE)	8.681	166	93225	48.29	ug/L		84
48) 4-Methyl-2-Pentanone (...	8.675	43	344303	93.90	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092636.D
Acq On : 27 Sep 2019 1:02 am
Operator : TB
Sample : 9I26051-CAL9
Misc : 1X 5mL 50/100PPB VOCO+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 27 13:19:03 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

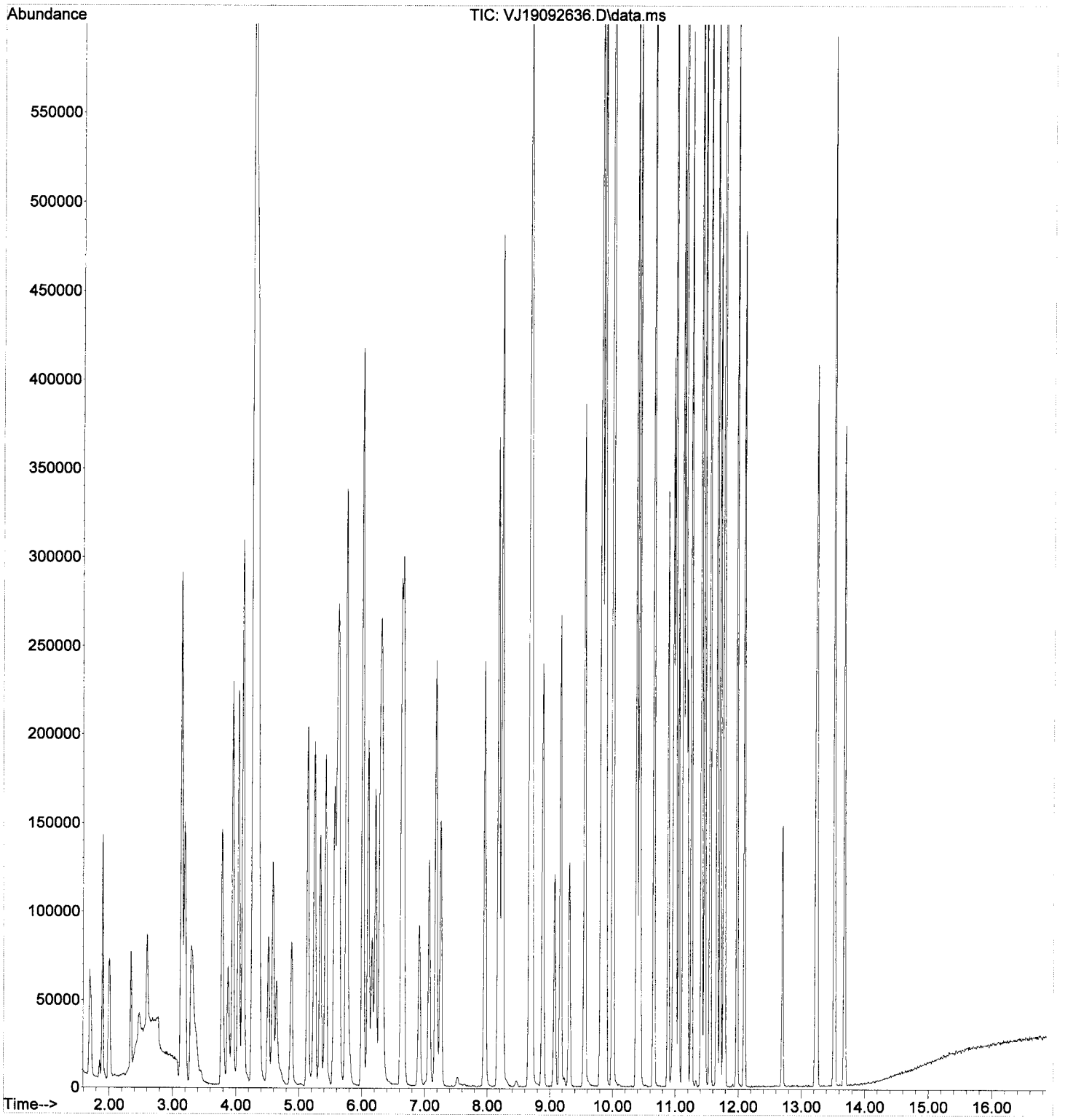
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	158766	49.76 ug/L	95
50) 1,1,2-Trichloroethane	8.882	97	86973	48.32 ug/L	96
51) Dibromochloromethane	9.070	129	74074	55.96 ug/L	98
52) 1,3-Dichloropropane	9.168	76	168512	47.75 ug/L	95
53) 1,2-Dibromoethane (EDB)	9.307	107	96020	48.30 ug/L	98
54) 2-Hexanone	9.551	43	272153	95.90 ug/L	98
55) Chlorobenzene	9.831	112	247216	47.26 ug/L	95
56) Ethylbenzene	9.861	91	459802	46.95 ug/L	97
57) 1,1,1,2-Tetrachloroethane	9.891	131	85576	50.45 ug/L	98
58) m,p-Xylenes (2)	10.001	91	695927	94.62 ug/L	95
59) o-Xylene	10.384	91	353145	47.33 ug/L	94
60) Styrene	10.427	104	259072	49.06 ug/L	96
61) Bromoform	10.445	173	43917	56.67 ug/L	98
62) Isopropylbenzene	10.658	105	428305	47.32 ug/L	97
65) Bromobenzene	10.968	156	94775	47.93 ug/L #	79
66) n-Propylbenzene	10.999	91	488095	47.25 ug/L	94
67) 1,1,2,2-Tetrachloroethane	11.053	83	122049	46.91 ug/L	98
68) 2-Chlorotoluene	11.120	126	88716	46.70 ug/L #	75
69) 1,3,5-Trimethylbenzene	11.163	105	336773	47.82 ug/L	94
70) 1,2,3-Trichloropropane	11.157	110	46667	45.89 ug/L	95
71) t-1,4-Dichloro-2-butene	11.193	88	22577	51.75 ug/L #	88
72) 4-Chlorotoluene	11.254	91	295189	47.31 ug/L	93
73) tert-Butylbenzene	11.412	91	200688	46.28 ug/L	87
74) 1,2,4-Trimethylbenzene	11.467	105	336446	47.02 ug/L	94
75) sec-Butylbenzene	11.552	105	408152	47.41 ug/L	96
76) 4-Isopropyltoluene	11.662	119	343433	47.77 ug/L	96
77) 1,3-Dichlorobenzene	11.717	146	169819	47.69 ug/L	96
78) 1,4-Dichlorobenzene	11.783	146	170510	47.66 ug/L	96
79) n-Butylbenzene	11.978	91	298416	47.46 ug/L	96
80) 1,2-Dichlorobenzene	12.094	146	159412	47.15 ug/L	95
81) 1,2-Dibromo-3-Chloropr...	12.702	157	32650	53.05 ug/L	71
82) Hexachlorobutadiene	13.225	223	23672	46.85 ug/L	95
83) 1,2,4-Trichlorobenzene	13.244	180	105528	46.88 ug/L	94
84) Naphthalene	13.517	128	412833	47.19 ug/L	97
85) 1,2,3-Trichlorobenzene	13.682	180	104398	48.06 ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092636.D
Acq On : 27 Sep 2019 1:02 am
Operator : TB
Sample : 9I26051-CAL9
Misc : 1X 5mL 50/100PPB VOCO+MeOH
ALS Vial : 12 Sample Multiplier: 1

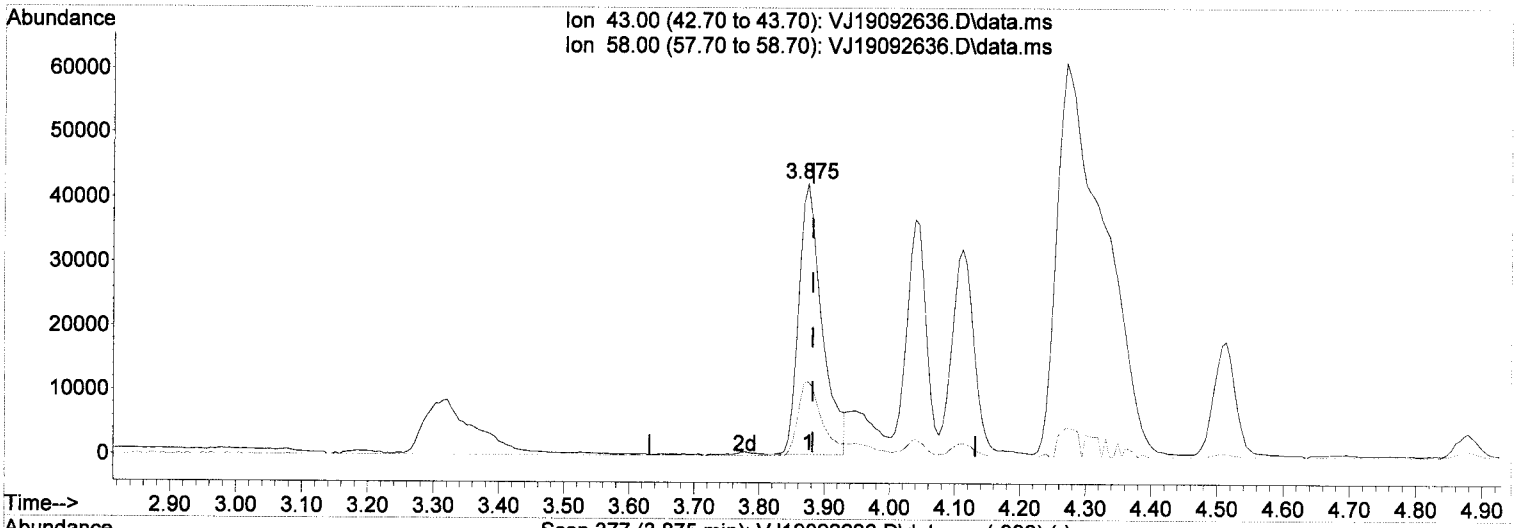
Quant Time: Sep 27 13:19:03 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

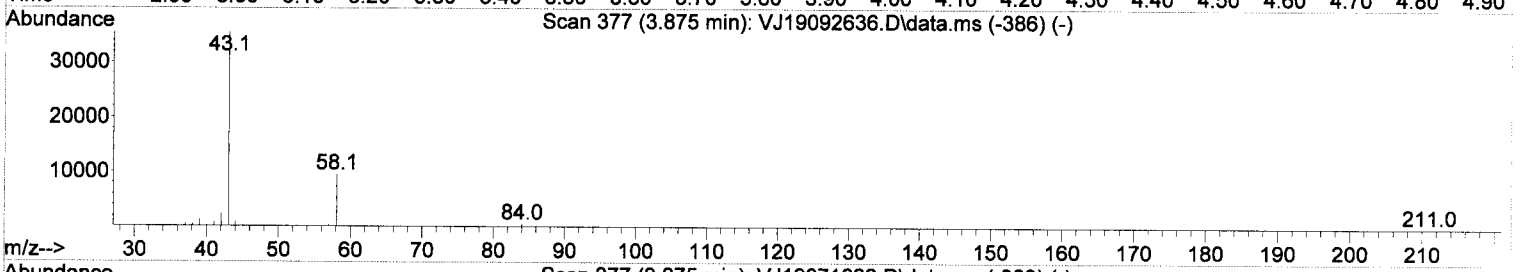


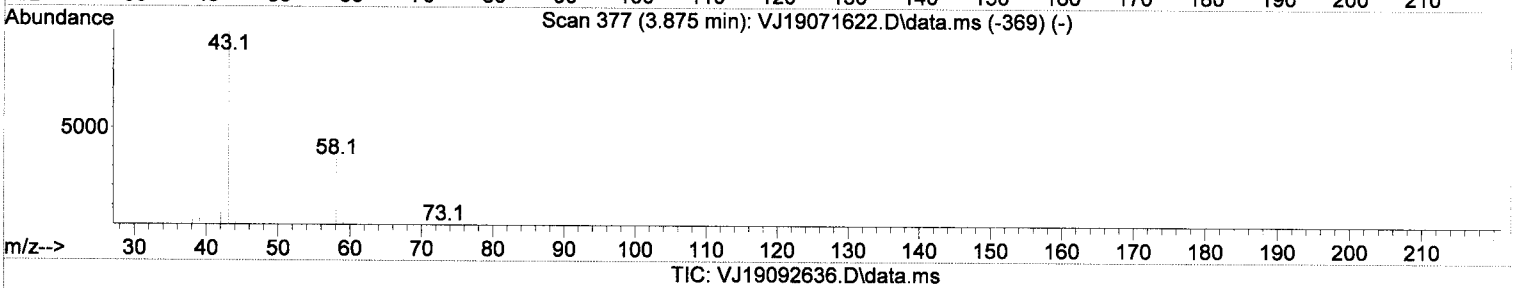
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092636.D
Acq On : 27 Sep 2019 1:02 am
Operator : TB
Sample : 9I26051-CAL9
Misc : 1X 5mL 50/100PPB VOCO+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 27 10:52:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092636.D\data.ms

(14) Acetone

3.875min (-0.006) 75.70 ug/L

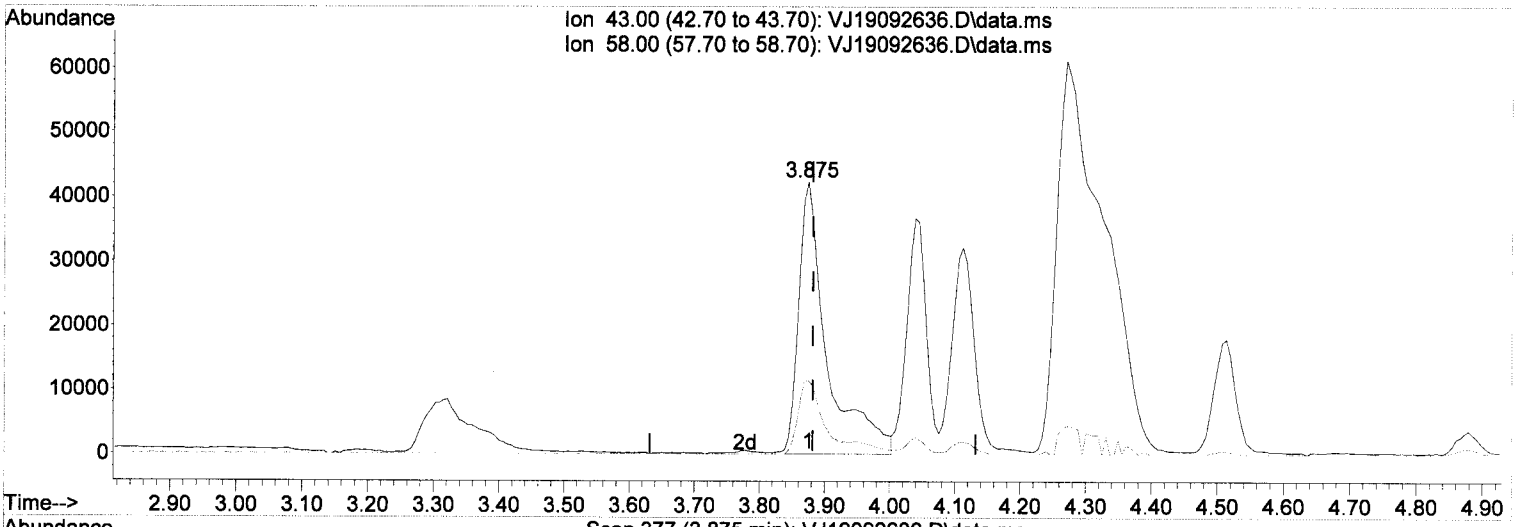
response 104863

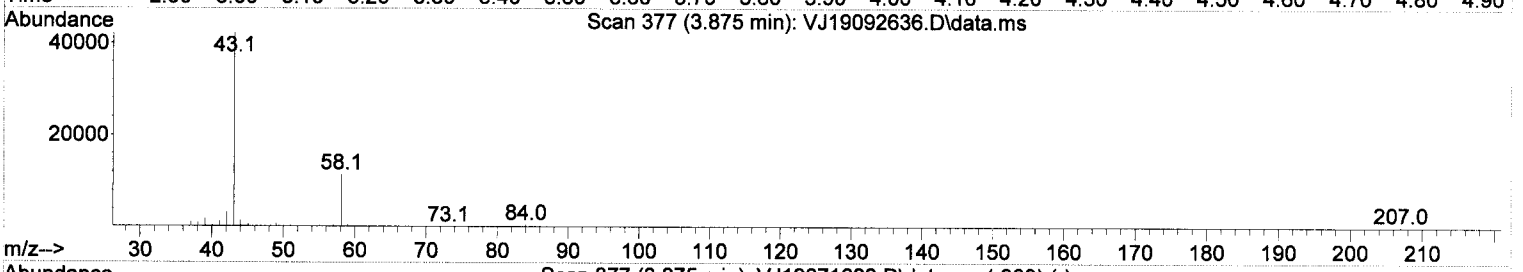
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	27.24
0.00	0.00	0.00
0.00	0.00	0.00

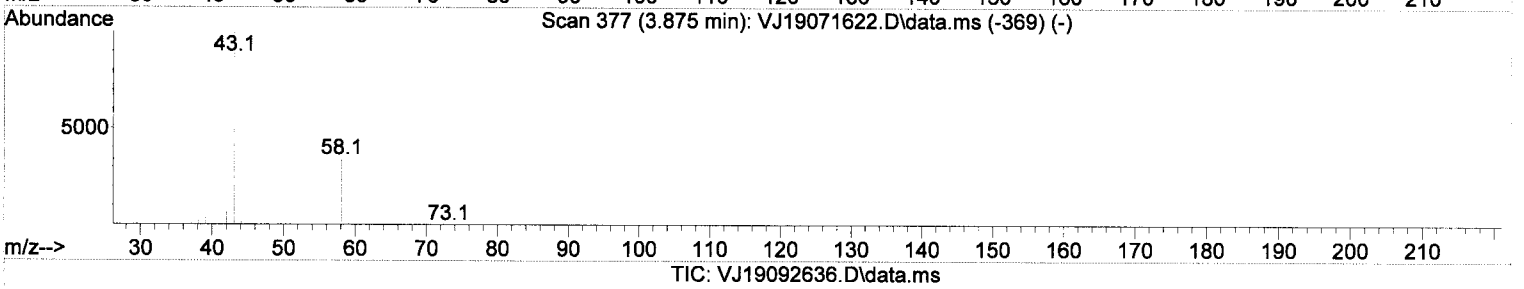
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092636.D
Acq On : 27 Sep 2019 1:02 am
Operator : TB
Sample : 9I26051-CAL9
Misc : 1X 5mL 50/100PPB VOCO+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 27 10:52:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092636.D\data.ms

(14) Acetone

3.875min (-0.006) 92.89 ug/L m

9/27/19

response 128682

Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	27.11
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092636.D
Acq On : 27 Sep 2019 1:02 am
Operator : TB
Sample : 9I26051-CAL9
Misc : 1X 5mL 50/100PPB VOCO+MeOH
ALS Vial : 12 Sample Multiplier: 1

PRE 9/27/19

Quant Time: Sep 27 10:52:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	88066	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	206278	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	96429	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	65392	51.90	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	234393	50.27	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	288797	49.24	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	73705	49.56	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	80374	47.20	ug/L		97
3) Chloromethane	1.898	50	110944	48.68	ug/L		99
4) Vinyl Chloride	2.001	62	86780	48.49	ug/L		95
5) Bromomethane	2.342	96	34647	44.09	ug/L		99
6) Chloroethane	2.470	64	14728	55.87	ug/L		97
7) Trichlorofluoromethane	2.597	101	39290	49.26	ug/L		98
8) Ethanol	3.315	45	191989	2779.09	ug/L		88
9) 1,1-Dichloroethene	3.139	61	126525	48.82	ug/L		84
10) Carbon Disulfide	3.145	76	180413	50.24	ug/L		98
11) Freon 113	3.193	101	69489	48.26	ug/L		90
12) Iodomethane	3.291	142	31306	57.05	ug/L		82
13) Methylene Chloride	3.784	84	77692	44.47	ug/L		92
14) Acetone	3.875	43	~~104863~~	~~75.70~~	~~ug/L~~		~~91~~ MT
15) t-1,2-Dichloroethene	3.948	61	128795	47.95	ug/L		93
16) n-Hexane	4.039	86	18920	43.88	ug/L	#	72
17) Methyl-tert-butyl-ether	4.112	73	353962	47.75	ug/L		59
18) tert-Butanol (TBA)	4.276	59	2194652	2932.22	ug/L	#	86
19) Diisopropyl ether (DIPE)	4.508	45	82918	11.95	ug/L		93
20) 1,1-Dichloroethane	4.580	63	139892	49.65	ug/L		98
21) Acrylonitrile	4.641	53	65047	49.10	ug/L		96
22) Ethyl-tert-butyl ether...	4.879	59	84010	11.50	ug/L		98
23) c-1,2-Dichloroethene	5.134	61	137723	49.08	ug/L		92
24) 2,2-Dichloropropane	5.244	77	148869	47.18	ug/L		99
25) Bromochloromethane	5.335	49	78798	47.41	ug/L		88
26) Chloroform	5.420	83	167945	48.57	ug/L		95
27) Carbon Tetrachloride	5.560	117	122184	51.02	ug/L		97
28) Tetrahydrofuran	5.590	42	76688	47.20	ug/L		97
29) 1,1,1-Trichloroethane	5.627	97	163298	48.60	ug/L		99
31) 1,1-Dichloropropene	5.755	75	143921	48.70	ug/L		94
32) 2-Butanone (MEK)	5.736	43	203004	96.81	ug/L		95
33) Benzene	6.010	78	396436	47.17	ug/L		98
34) tert-Amyl methyl ether...	6.156	73	79624	11.61	ug/L		93
35) 1,2-Dichloroethane (EDC)	6.211	62	160338	47.29	ug/L		98
36) iso-Butyl Alcohol	6.302	43	323184	1162.75	ug/L		99
38) Trichloroethene (TCE)	6.625	130	96909	48.53	ug/L		91
39) tert-Amyl ethyl ether ...	6.911	59	64746	12.18	ug/L		89
40) Dibromomethane	7.069	93	59717	48.28	ug/L		88
41) 1,2-Dichloropropane	7.178	63	104745	48.28	ug/L		92
42) Bromodichloromethane	7.251	83	118981	52.59	ug/L		97
44) c-1,3-Dichloropropene	7.957	75	162503	49.28	ug/L		96
46) Toluene	8.237	91	414816	47.02	ug/L		98
47) Tetrachloroethene (PCE)	8.681	166	93225	48.29	ug/L		84
48) 4-Methyl-2-Pentanone (...	8.675	43	344303	93.90	ug/L		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092636.D
Acq On : 27 Sep 2019 1:02 am
Operator : TB
Sample : 9I26051-CAL9
Misc : 1X 5mL 50/100PPB VOCO+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 27 10:52:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

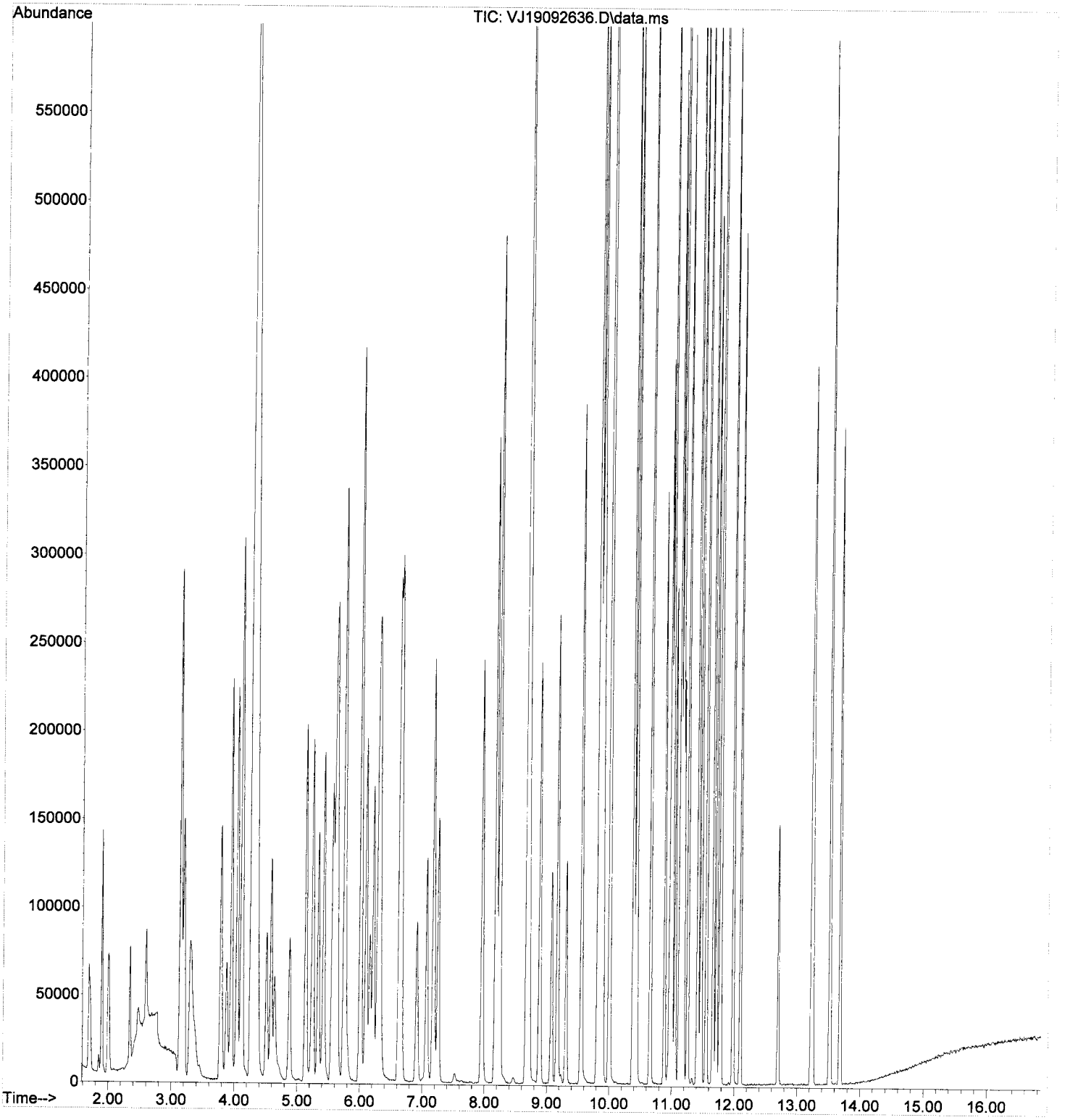
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.705	75	158766	49.76	ug/L		95
50) 1,1,2-Trichloroethane	8.882	97	86973	48.32	ug/L		96
51) Dibromochloromethane	9.070	129	74074	55.96	ug/L		98
52) 1,3-Dichloropropane	9.168	76	168512	47.75	ug/L		95
53) 1,2-Dibromoethane (EDB)	9.307	107	96020	48.30	ug/L		98
54) 2-Hexanone	9.551	43	272153	95.90	ug/L		98
55) Chlorobenzene	9.831	112	247216	47.26	ug/L		95
56) Ethylbenzene	9.861	91	459802	46.95	ug/L		97
57) 1,1,1,2-Tetrachloroethane	9.891	131	85576	50.45	ug/L		98
58) m,p-Xylenes (2)	10.001	91	695927	94.62	ug/L		95
59) o-Xylene	10.384	91	353145	47.33	ug/L		94
60) Styrene	10.427	104	259072	49.06	ug/L		96
61) Bromoform	10.445	173	43917	56.67	ug/L		98
62) Isopropylbenzene	10.658	105	428305	47.32	ug/L		97
65) Bromobenzene	10.968	156	94775	47.93	ug/L	#	79
66) n-Propylbenzene	10.999	91	488095	47.25	ug/L		94
67) 1,1,2,2-Tetrachloroethane	11.053	83	122049	46.91	ug/L		98
68) 2-Chlorotoluene	11.120	126	88716	46.70	ug/L	#	75
69) 1,3,5-Trimethylbenzene	11.163	105	336773	47.82	ug/L		94
70) 1,2,3-Trichloropropane	11.157	110	46667	45.89	ug/L		95
71) t-1,4-Dichloro-2-butene	11.193	88	22577	51.75	ug/L	#	88
72) 4-Chlorotoluene	11.254	91	295189	47.31	ug/L		93
73) tert-Butylbenzene	11.412	91	200688	46.28	ug/L		87
74) 1,2,4-Trimethylbenzene	11.467	105	336446	47.02	ug/L		94
75) sec-Butylbenzene	11.552	105	408152	47.41	ug/L		96
76) 4-Isopropyltoluene	11.662	119	343433	47.77	ug/L		96
77) 1,3-Dichlorobenzene	11.717	146	169819	47.69	ug/L		96
78) 1,4-Dichlorobenzene	11.783	146	170510	47.66	ug/L		96
79) n-Butylbenzene	11.978	91	298416	47.46	ug/L		96
80) 1,2-Dichlorobenzene	12.094	146	159412	47.15	ug/L		95
81) 1,2-Dibromo-3-Chloropr...	12.702	157	32650	53.05	ug/L		71
82) Hexachlorobutadiene	13.225	223	23672	46.85	ug/L		95
83) 1,2,4-Trichlorobenzene	13.244	180	105528	46.88	ug/L		94
84) Naphthalene	13.517	128	412833	47.19	ug/L		97
85) 1,2,3-Trichlorobenzene	13.682	180	104398	48.06	ug/L		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092636.D
Acq On : 27 Sep 2019 1:02 am
Operator : TB
Sample : 9I26051-CAL9
Misc : 1X 5mL 50/100PPB VOCO+MeOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 27 10:52:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092637.D
Acq On : 27 Sep 2019 1:29 am
Operator : TB
Sample : 9I26051-IBL2
Misc : 1X 5mL DI+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 27 15:40:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

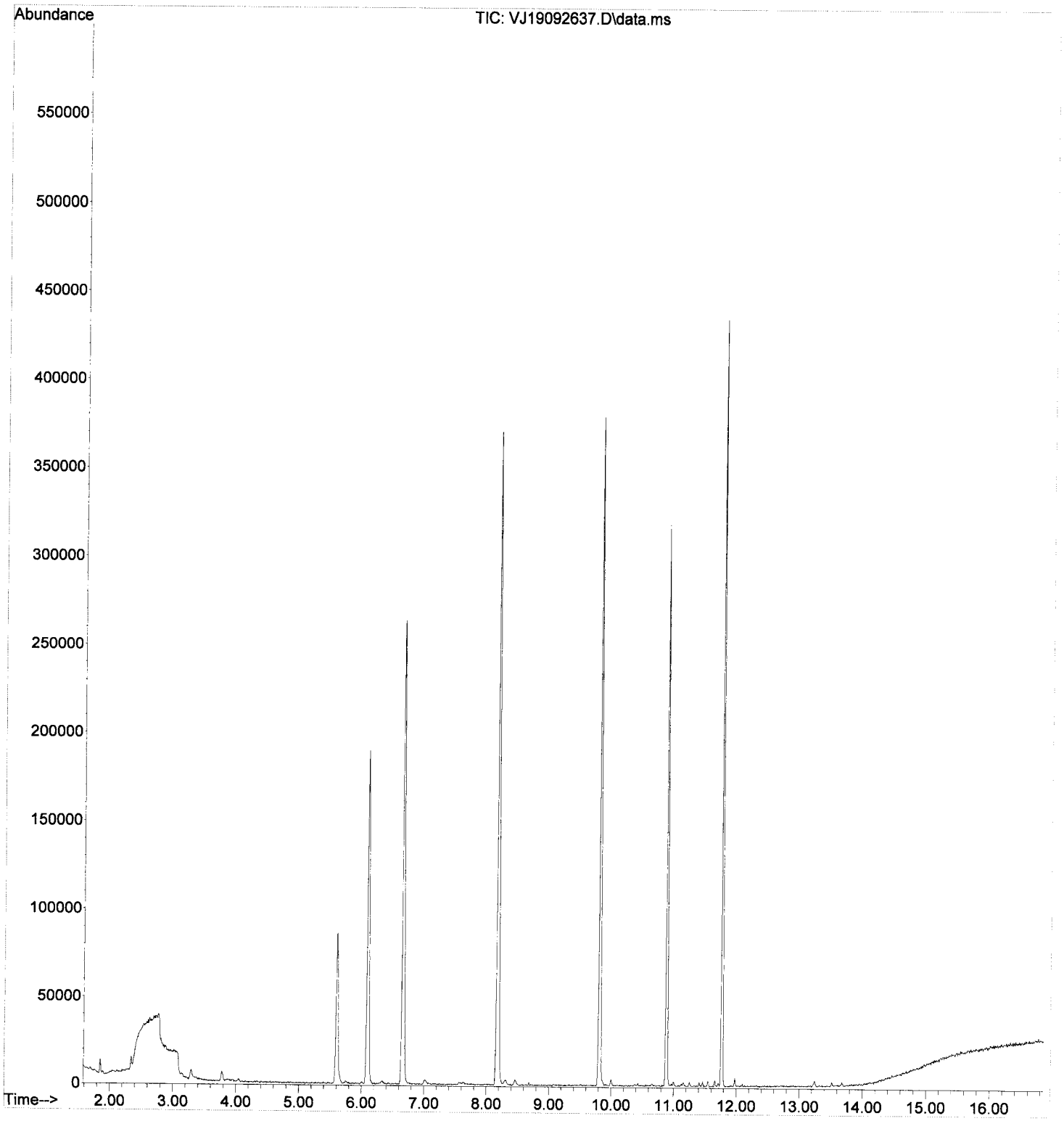
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
Internal Standards						
1) Pentafluorobenzene (I)	6.095	99	86250	50.00 ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	204013	50.00 ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	91549	50.00 ug/L		0.00
System Monitoring Compounds						
30) Dibromofluoromethane (S)	5.603	111	61089	49.59 ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	233568	50.70 ug/L		0.00
45) Toluene-d8 (S)	8.176	98	284953	49.81 ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	71775	50.75 ug/L		0.00
Target Compounds						Qvalue
3) Chloromethane	1.898	50	1383	0.60 ug/L		93
5) Bromomethane	2.342	96	3381	1.83 ug/L		99
6) Chloroethane	2.463	64	356	1.38 ug/L	#	1
8) Ethanol	3.303	45	1263	Below Cal		72
10) Carbon Disulfide	3.151	76	1394	0.39 ug/L		78
12) Iodomethane	3.291	142	4410	7.18 ug/L		79
13) Methylene Chloride	3.784	84	2629	Below Cal		89
14) Acetone	3.875	43	1220	Below Cal	#	42
15) t-1,2-Dichloroethene	3.954	61	353	0.14 ug/L	#	65
18) tert-Butanol (TBA)	4.282	59	68	0.09 ug/L	#	1
28) Tetrahydrofuran	5.615	42	485	0.29 ug/L	#	68
31) 1,1-Dichloropropene	5.755	75	457	0.16 ug/L	#	51
32) 2-Butanone (MEK)	5.742	43	1441	0.64 ug/L		52
33) Benzene	6.010	78	686	0.08 ug/L		52
34) tert-Amyl methyl ether...	6.150	73	293	Below Cal	#	46
36) iso-Butyl Alcohol	6.326	43	1050	3.94 ug/L		85
46) Toluene	8.243	91	788	0.09 ug/L		94
47) Tetrachloroethene (PCE)	8.675	166	360	0.20 ug/L	#	26
55) Chlorobenzene	9.825	112	471	0.10 ug/L	#	21
56) Ethylbenzene	9.861	91	1204	0.13 ug/L		86
58) m,p-Xylenes (2)	10.001	91	2053	0.28 ug/L		88
59) o-Xylene	10.384	91	665	0.09 ug/L		94
62) Isopropylbenzene	10.658	105	1086	0.12 ug/L		53
66) n-Propylbenzene	11.005	91	2049	0.21 ug/L		88
68) 2-Chlorotoluene	11.120	126	217	0.13 ug/L	#	73
69) 1,3,5-Trimethylbenzene	11.157	105	1161	0.17 ug/L		94
72) 4-Chlorotoluene	11.254	91	1253	0.21 ug/L		86
73) tert-Butylbenzene	11.412	91	619	0.15 ug/L	#	86
74) 1,2,4-Trimethylbenzene	11.467	105	1360	0.20 ug/L		83
75) sec-Butylbenzene	11.552	105	1882	0.24 ug/L		96
76) 4-Isopropyltoluene	11.662	119	1885	0.28 ug/L		90
77) 1,3-Dichlorobenzene	11.710	146	725	0.21 ug/L		94
78) 1,4-Dichlorobenzene	11.777	146	693	0.21 ug/L	#	26
79) n-Butylbenzene	11.978	91	2215	0.37 ug/L		91
80) 1,2-Dichlorobenzene	12.100	146	445	0.14 ug/L	#	47
82) Hexachlorobutadiene	13.225	223	65	0.14 ug/L	#	45
83) 1,2,4-Trichlorobenzene	13.243	180	1034	0.50 ug/L		78
84) Naphthalene	13.517	128	1705	0.21 ug/L		77
85) 1,2,3-Trichlorobenzene	13.682	180	719	0.36 ug/L		90

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092637.D
Acq On : 27 Sep 2019 1:29 am
Operator : TB
Sample : 9I26051-IBL2
Misc : 1X 5mL DI+MeOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 27 15:40:01 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092638.D
Acq On : 27 Sep 2019 1:56 am
Operator : TB
Sample : 9I26051-CALA
Misc : 1X 5mL 100/200PPB VOCO+MeOH
ALS Vial : 14 Sample Multiplier: 1

post
9/27/19

Quant Time: Sep 27 13:20:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	87434	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.813	117	204365	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	98834	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	65385	52.27	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	233929	50.53	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	286934	49.38	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	74165	48.66	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	165982	98.17	ug/L		97
3) Chloromethane	1.898	50	232480	102.74	ug/L		99
4) Vinyl Chloride	1.995	62	185157	104.21	ug/L		93
5) Bromomethane	2.342	96	72442	92.85	ug/L		99
6) Chloroethane	2.470	64	35122	134.21	ug/L		97
7) Trichlorofluoromethane	2.597	101	82683	104.42	ug/L		98
8) Ethanol	3.303	45	399756	5828.39	ug/L		90
9) 1,1-Dichloroethene	3.139	61	260855	101.38	ug/L		86
10) Carbon Disulfide	3.151	76	389633	109.28	ug/L		98
11) Freon 113	3.194	101	147776	103.37	ug/L		91
12) Iodomethane	3.291	142	79827	146.53	ug/L		81
13) Methylene Chloride	3.784	84	159473	91.95	ug/L		92
14) Acetone	3.869	43	267638m	194.60	ug/L		
15) t-1,2-Dichloroethene	3.948	61	264663	99.25	ug/L		92
16) n-Hexane	4.045	86	39871	93.13	ug/L	#	88
17) Methyl-tert-butyl-ether	4.112	73	726160	98.67	ug/L		94
18) tert-Butanol (TBA)	4.264	59	4691502	6313.50	ug/L	#	85
19) Diisopropyl ether (DIPE)	4.508	45	174428	25.32	ug/L		95
20) 1,1-Dichloroethane	4.581	63	284678	101.76	ug/L		100
21) Acrylonitrile	4.635	53	137247m	104.35	ug/L		
22) Ethyl-tert-butyl ether...	4.879	59	176142	24.29	ug/L		97
23) c-1,2-Dichloroethene	5.134	61	284599	102.15	ug/L		93
24) 2,2-Dichloropropane	5.244	77	305440	97.50	ug/L		99
25) Bromochloromethane	5.335	49	159504	96.67	ug/L		89
26) Chloroform	5.420	83	352255	102.62	ug/L		97
27) Carbon Tetrachloride	5.560	117	267011	112.31	ug/L		97
28) Tetrahydrofuran	5.591	42	160059	99.23	ug/L		96
29) 1,1,1-Trichloroethane	5.627	97	341926	102.51	ug/L		97
31) 1,1-Dichloropropene	5.755	75	301123	102.64	ug/L		95
32) 2-Butanone (MEK)	5.737	43	436266	209.56	ug/L		96
33) Benzene	6.010	78	839847	100.66	ug/L		98
34) tert-Amyl methyl ether...	6.156	73	164564	24.17	ug/L		94
35) 1,2-Dichloroethane (EDC)	6.211	62	336326	99.92	ug/L		98
36) iso-Butyl Alcohol	6.290	43	699546	2535.02	ug/L		100
38) Trichloroethene (TCE)	6.625	130	206156	103.98	ug/L		94
39) tert-Amyl ethyl ether ...	6.911	59	134637	25.51	ug/L		91
40) Dibromomethane	7.069	93	126198	102.77	ug/L		89
41) 1,2-Dichloropropane	7.178	63	222657	103.37	ug/L		90
42) Bromodichloromethane	7.251	83	268967	119.74	ug/L		99
44) c-1,3-Dichloropropene	7.957	75	353925	108.33	ug/L		97
46) Toluene	8.237	91	863625	98.80	ug/L		98
47) Tetrachloroethene (PCE)	8.681	166	193661	101.26	ug/L		86
48) 4-Methyl-2-Pentanone (...	8.675	43	720189	198.25	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092638.D
Acq On : 27 Sep 2019 1:56 am
Operator : TB
Sample : 9I26051-CALA
Misc : 1X 5mL 100/200PPB VOCO+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 27 13:20:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

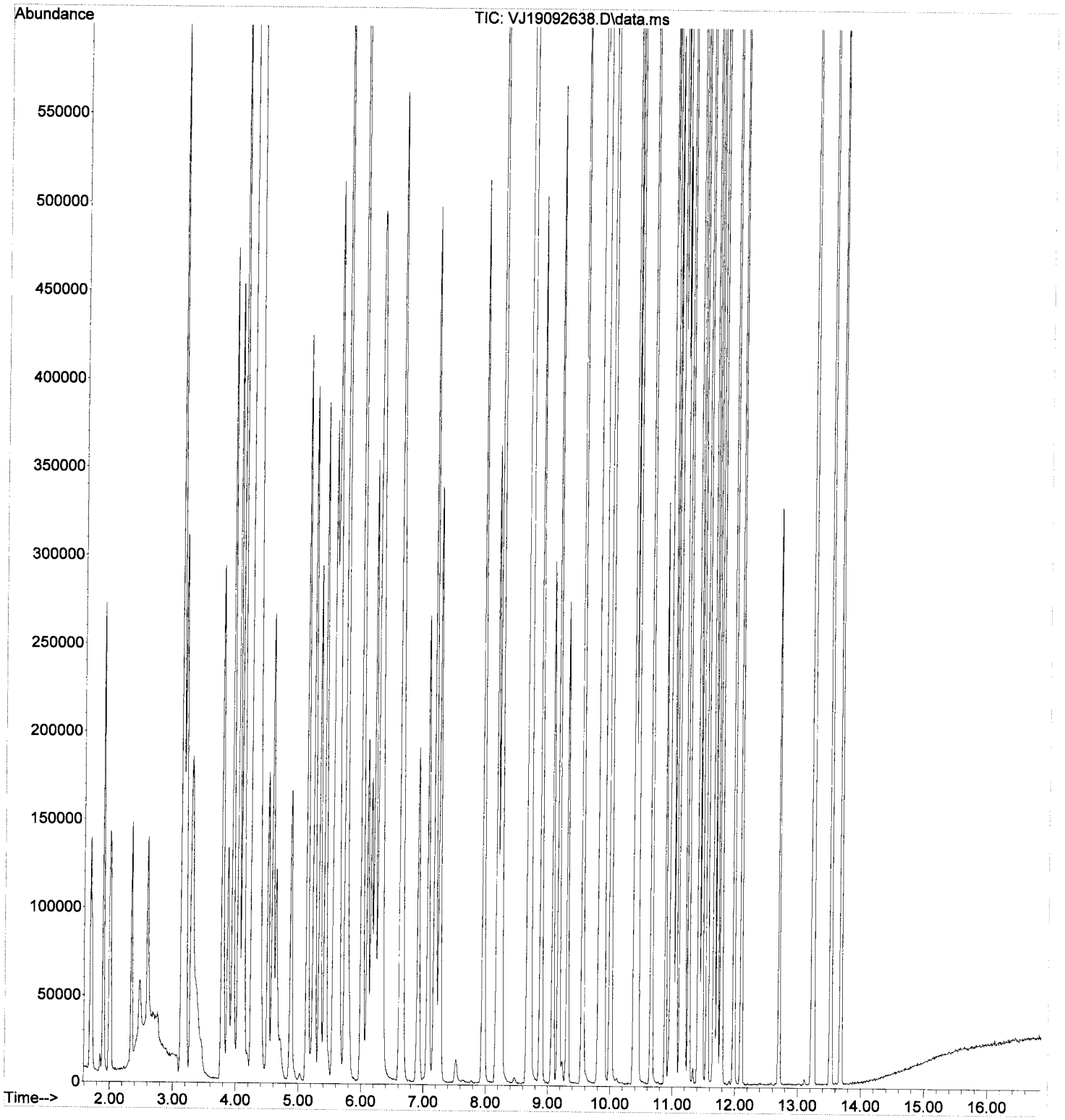
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	344644	109.04	ug/L		96
50) 1,1,2-Trichloroethane	8.882	97	185564	104.05	ug/L		95
51) Dibromochloromethane	9.070	129	175802	134.06	ug/L		99
52) 1,3-Dichloropropane	9.168	76	359607	102.85	ug/L		97
53) 1,2-Dibromoethane (EDB)	9.308	107	206062	104.63	ug/L		100
54) 2-Hexanone	9.551	43	574722	204.41	ug/L		97
55) Chlorobenzene	9.831	112	513937	99.16	ug/L		96
56) Ethylbenzene	9.861	91	957875	98.73	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.892	131	184671	109.90	ug/L		98
58) m,p-Xylenes (2)	10.001	91	1460708	200.46	ug/L		96
59) o-Xylene	10.384	91	744608	100.74	ug/L		95
60) Styrene	10.427	104	556502	106.38	ug/L		96
61) Bromoform	10.445	173	108191	140.92	ug/L		96
62) Isopropylbenzene	10.658	105	904070	100.81	ug/L		97
65) Bromobenzene	10.968	156	199479	98.42	ug/L	#	82
66) n-Propylbenzene	10.999	91	1031816	97.46	ug/L		95
67) 1,1,2,2-Tetrachloroethane	11.054	83	264703	99.27	ug/L		98
68) 2-Chlorotoluene	11.120	126	190292	97.73	ug/L	#	83
69) 1,3,5-Trimethylbenzene	11.163	105	713639	98.86	ug/L		94
70) 1,2,3-Trichloropropane	11.157	110	99386	95.34	ug/L		96
71) t-1,4-Dichloro-2-butene	11.187	88	51404	114.95	ug/L	#	86
72) 4-Chlorotoluene	11.254	91	628088	98.21	ug/L		93
73) tert-Butylbenzene	11.413	91	424964	95.61	ug/L		88
74) 1,2,4-Trimethylbenzene	11.467	105	718002	97.90	ug/L		95
75) sec-Butylbenzene	11.552	105	862284	97.73	ug/L		97
76) 4-Isopropyltoluene	11.662	119	733345	99.53	ug/L		97
77) 1,3-Dichlorobenzene	11.717	146	363861	99.71	ug/L		97
78) 1,4-Dichlorobenzene	11.784	146	365594	99.69	ug/L		95
79) n-Butylbenzene	11.978	91	635653	98.63	ug/L		96
80) 1,2-Dichlorobenzene	12.094	146	343702	99.19	ug/L		95
81) 1,2-Dibromo-3-Chloropr...	12.702	157	75525	119.72	ug/L		76
82) Hexachlorobutadiene	13.219	223	51222	98.90	ug/L		93
83) 1,2,4-Trichlorobenzene	13.244	180	228156	98.89	ug/L		95
84) Naphthalene	13.517	128	891841	99.46	ug/L		97
85) 1,2,3-Trichlorobenzene	13.682	180	220874	99.20	ug/L		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092638.D
Acq On : 27 Sep 2019 1:56 am
Operator : TB
Sample : 9I26051-CALA
Misc : 1X 5mL 100/200PPB VOCO+MeOH
ALS Vial : 14 Sample Multiplier: 1

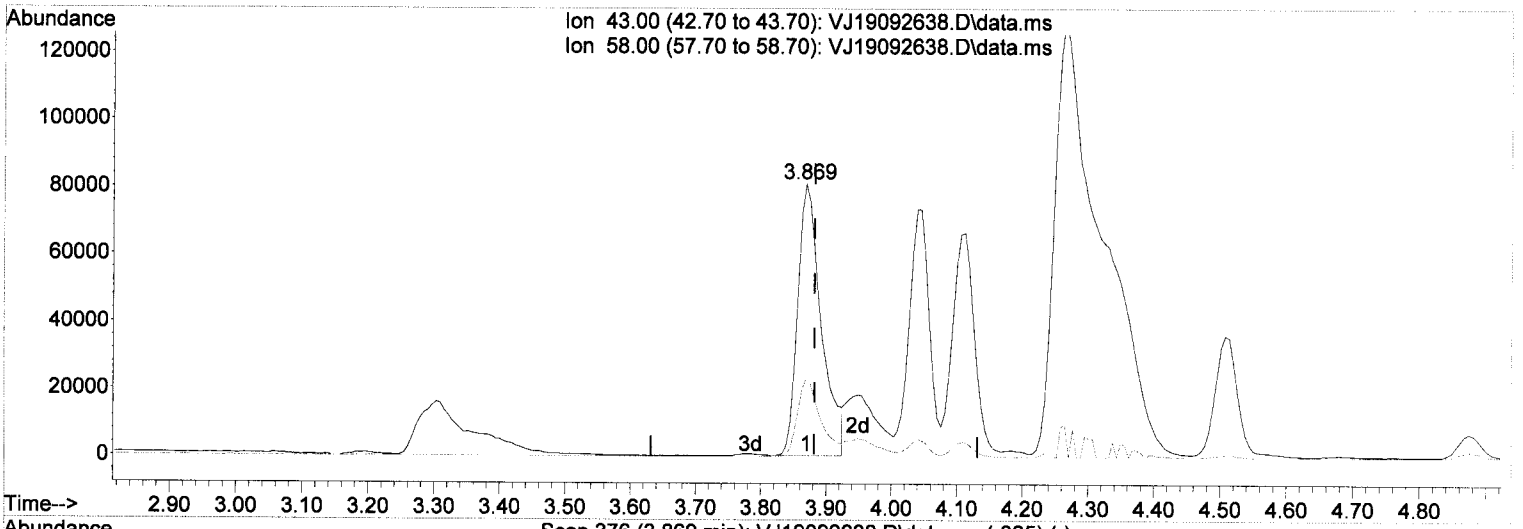
Quant Time: Sep 27 13:20:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

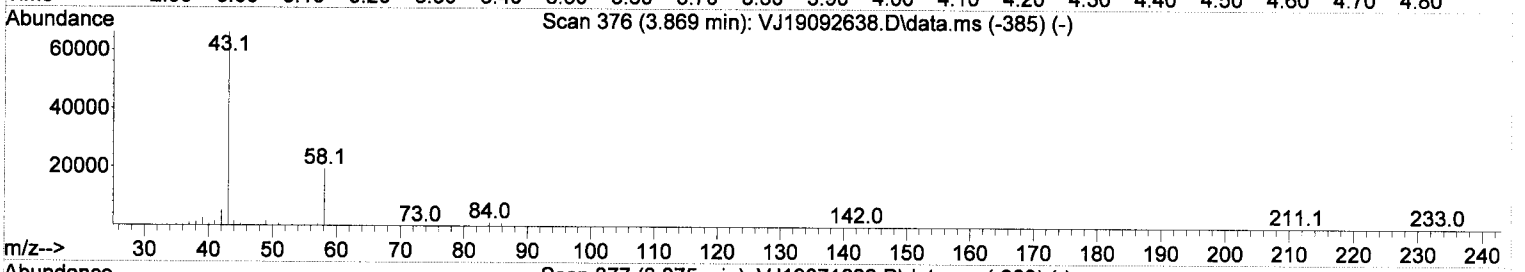


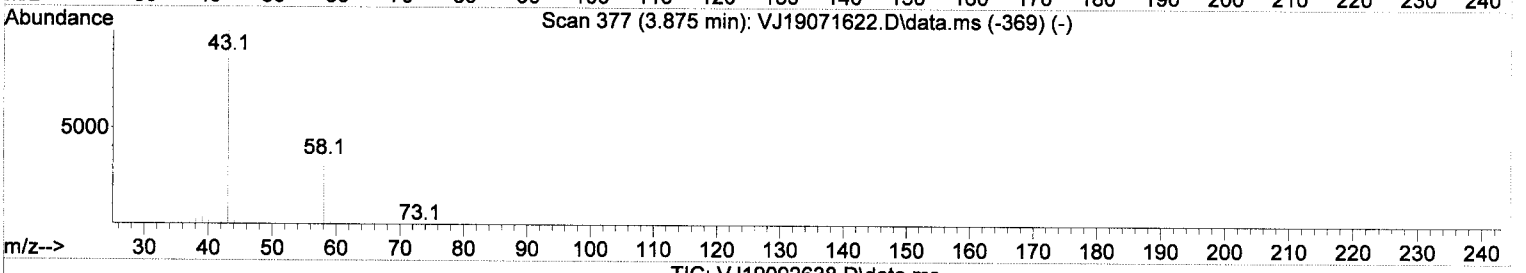
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092638.D
Acq On : 27 Sep 2019 1:56 am
Operator : TB
Sample : 9I26051-CALA
Misc : 1X 5mL 100/200PPB VOCO+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 27 10:52:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092638.D\data.ms

(14) Acetone

3.869min (-0.012) 147.71 ug/L

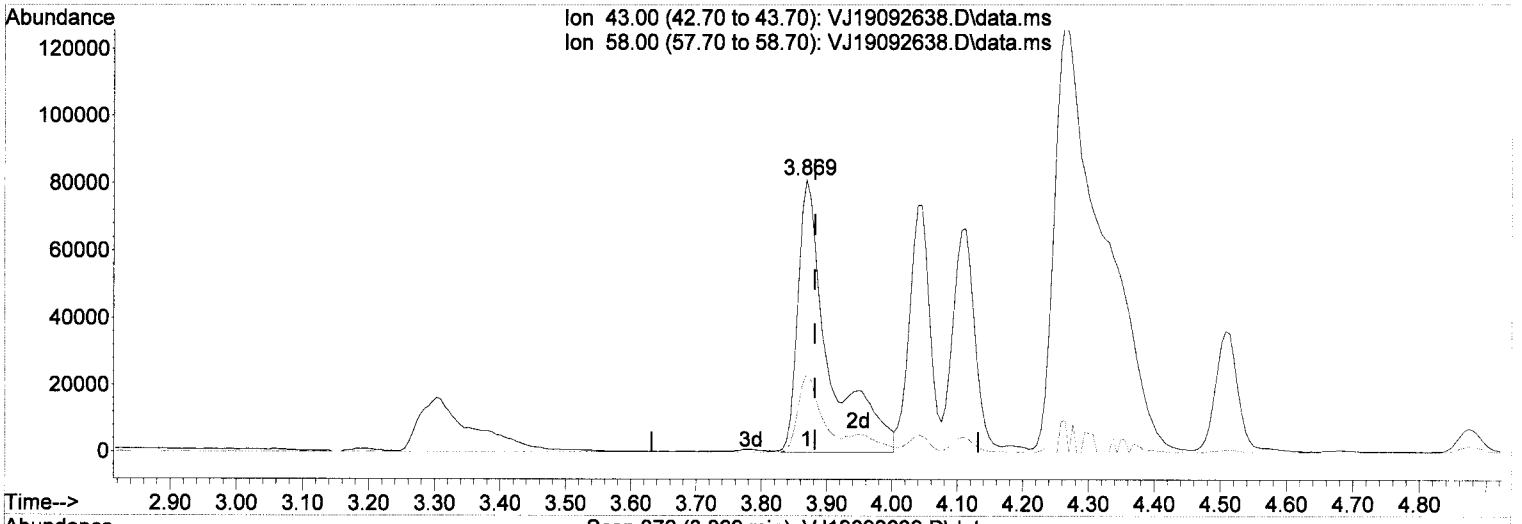
response 203157

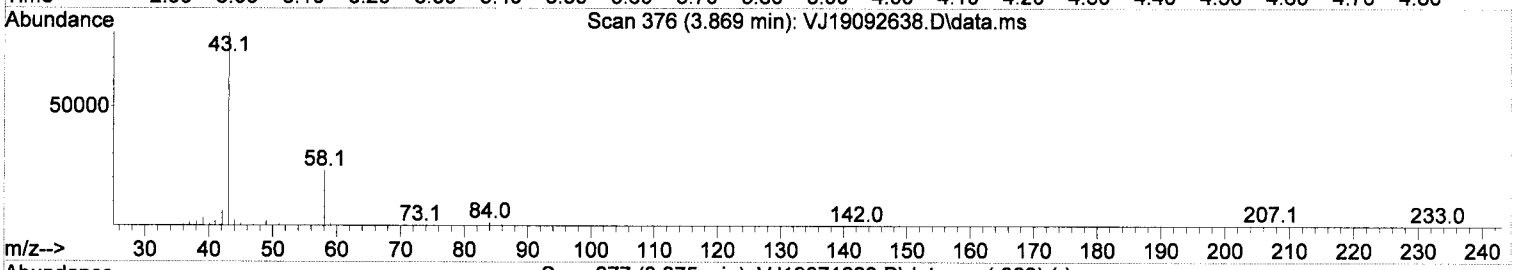
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	28.77
0.00	0.00	0.00
0.00	0.00	0.00

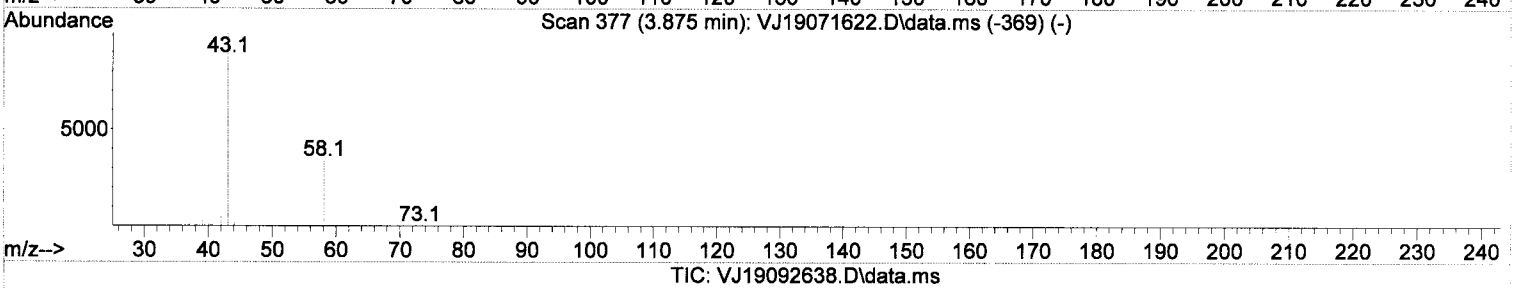
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092638.D
Acq On : 27 Sep 2019 1:56 am
Operator : TB
Sample : 9I26051-CALA
Misc : 1X 5mL 100/200PPB VOCO+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 27 10:52:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092638.D\data.ms

(14) Acetone

3.869min (-0.012) 194.60 ug/L m

response 267638

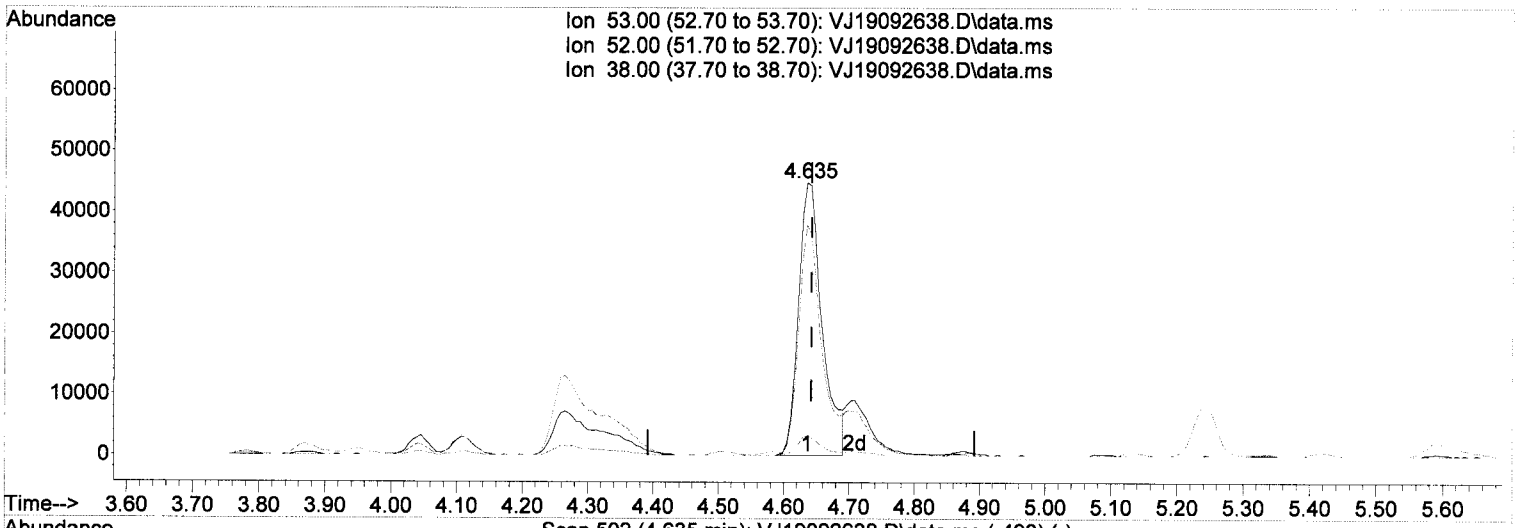
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	28.64
0.00	0.00	0.00
0.00	0.00	0.00

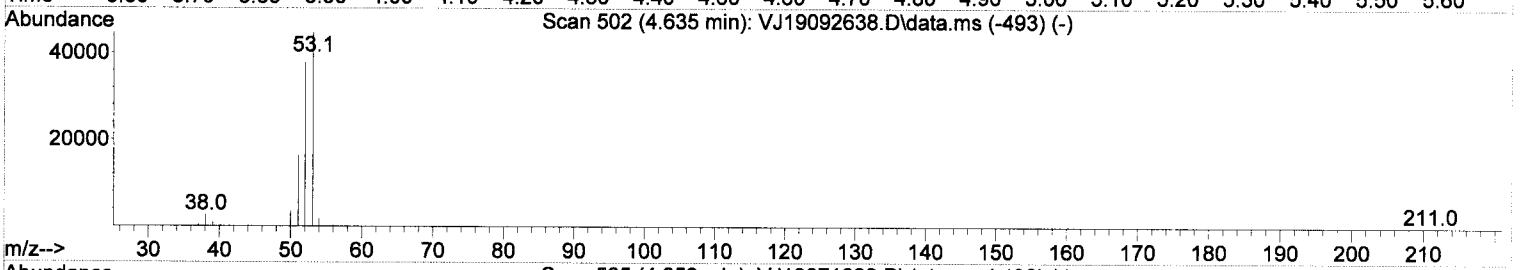
9/27/19

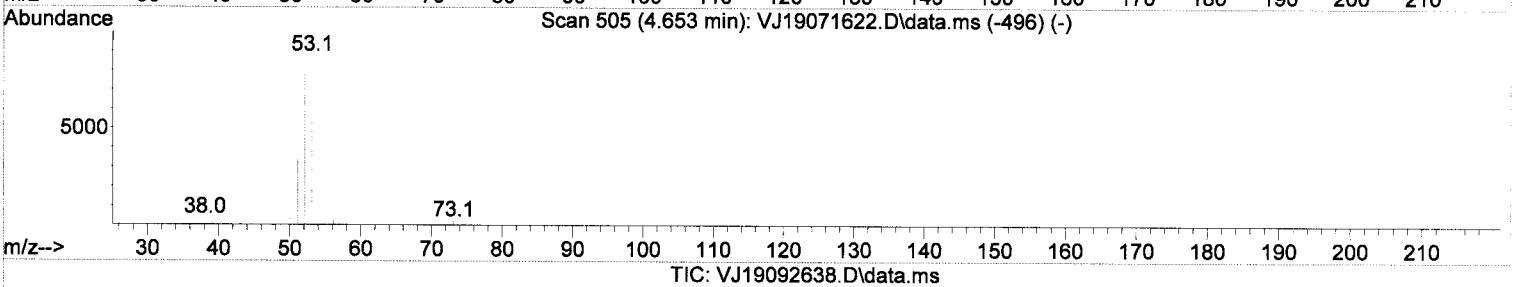
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092638.D
Acq On : 27 Sep 2019 1:56 am
Operator : TB
Sample : 9I26051-CALA
Misc : 1X 5mL 100/200PPB VOCO+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 27 10:52:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092638.D\data.ms

(21) Acrylonitrile

4.635min (-0.006) 85.85 ug/L

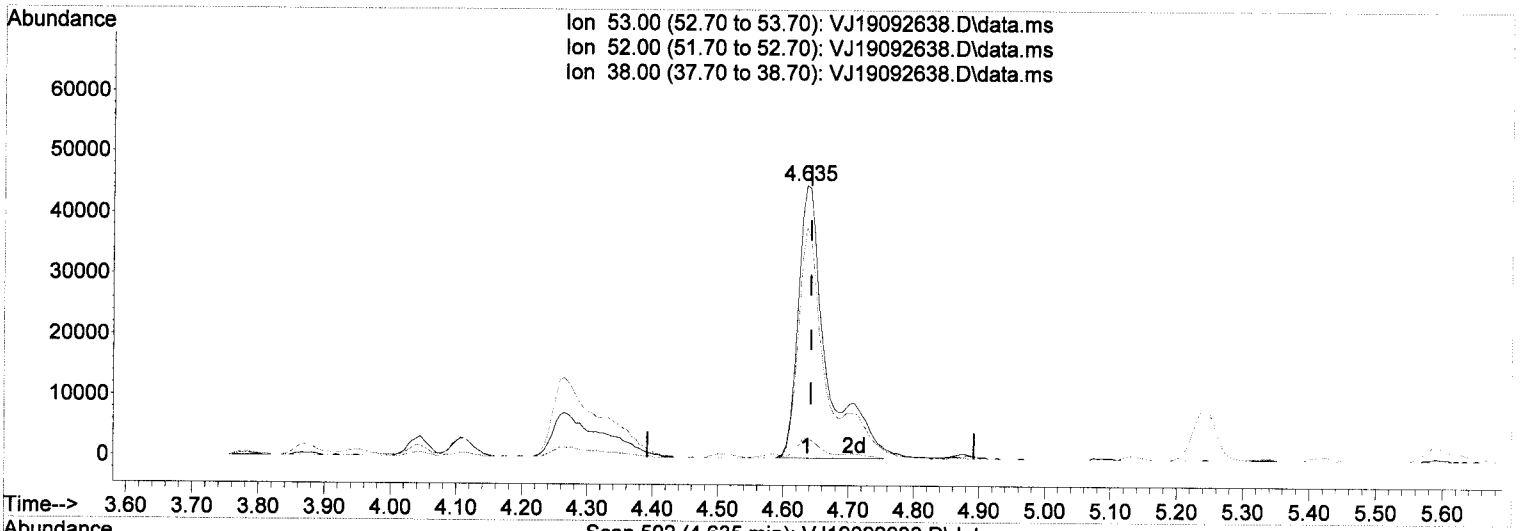
response 112915

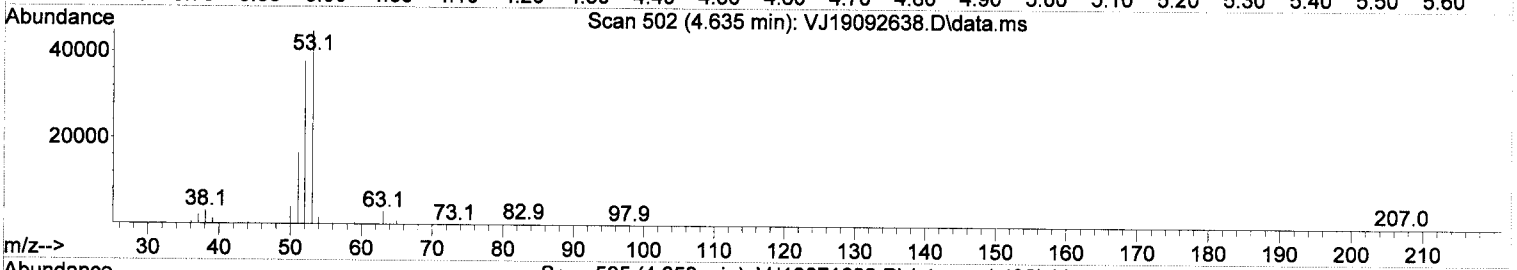
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	84.47
38.00	5.50	5.80
0.00	0.00	0.00

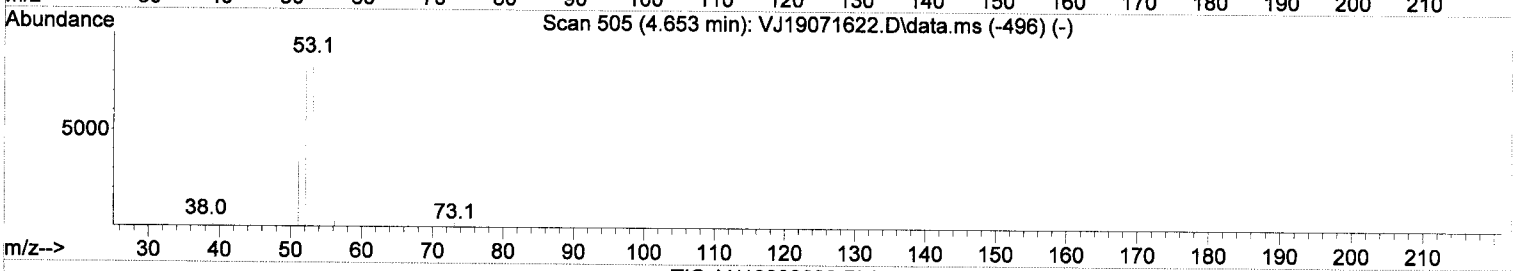
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092638.D
Acq On : 27 Sep 2019 1:56 am
Operator : TB
Sample : 9I26051-CALA
Misc : 1X 5mL 100/200PPB VOCO+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 27 10:52:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092638.D\data.ms

(21) Acrylonitrile

4.635min (-0.006) 104.35 ug/L m 9/27/19

response 137247

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	84.47
38.00	5.50	7.10
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092638.D
Acq On : 27 Sep 2019 1:56 am
Operator : TB
Sample : 9I26051-CALA
Misc : 1X 5mL 100/200PPB VOCO+MeOH
ALS Vial : 14 Sample Multiplier: 1

pre
9/27/19

Quant Time: Sep 27 10:52:07 2019
Quant Method : C:\msdchem\1\methods\VJ~~190926S+.M~~
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	87434	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.813	117	204365	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	98834	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	65385	52.27	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	233929	50.53	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	286934	49.38	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	74165	48.66	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	165982	98.17	ug/L		97
3) Chloromethane	1.898	50	232480	102.74	ug/L		99
4) Vinyl Chloride	1.995	62	185157	104.21	ug/L		93
5) Bromomethane	2.342	96	72442	92.85	ug/L		99
6) Chloroethane	2.470	64	35122	134.21	ug/L		97
7) Trichlorofluoromethane	2.597	101	82683	104.42	ug/L		98
8) Ethanol	3.303	45	399756	5828.39	ug/L		90
9) 1,1-Dichloroethene	3.139	61	260855	101.38	ug/L		86
10) Carbon Disulfide	3.151	76	389633	109.28	ug/L		98
11) Freon 113	3.194	101	147776	103.37	ug/L		91
12) Iodomethane	3.291	142	79827	146.53	ug/L		81
13) Methylene Chloride	3.784	84	159473	91.95	ug/L		92
14) Acetone	3.869	43	~~203157~~	~~147.71~~	~~ug/L~~		~~94~~ mt
15) t-1,2-Dichloroethene	3.948	61	264663	99.25	ug/L		92
16) n-Hexane	4.045	86	39871	93.13	ug/L	#	88
17) Methyl-tert-butyl-ether	4.112	73	726160	98.67	ug/L		94
18) tert-Butanol (TBA)	4.264	59	4691502	6313.50	ug/L	#	85
19) Diisopropyl ether (DIPE)	4.508	45	174428	25.32	ug/L		95
20) 1,1-Dichloroethane	4.581	63	284678	101.76	ug/L		100
21) Acrylonitrile	4.635	53	~~112915~~	~~85.85~~	~~ug/L~~		~~95~~ mt
22) Ethyl-tert-butyl ether...	4.879	59	176142	24.29	ug/L		97
23) c-1,2-Dichloroethene	5.134	61	284599	102.15	ug/L		93
24) 2,2-Dichloropropane	5.244	77	305440	97.50	ug/L		99
25) Bromochloromethane	5.335	49	159504	96.67	ug/L		89
26) Chloroform	5.420	83	352255	102.62	ug/L		97
27) Carbon Tetrachloride	5.560	117	267011	112.31	ug/L		97
28) Tetrahydrofuran	5.591	42	160059	99.23	ug/L		96
29) 1,1,1-Trichloroethane	5.627	97	341926	102.51	ug/L		97
31) 1,1-Dichloropropene	5.755	75	301123	102.64	ug/L		95
32) 2-Butanone (MEK)	5.737	43	436266	209.56	ug/L		96
33) Benzene	6.010	78	839847	100.66	ug/L		98
34) tert-Amyl methyl ether...	6.156	73	164564	24.17	ug/L		94
35) 1,2-Dichloroethane (EDC)	6.211	62	336326	99.92	ug/L		98
36) iso-Butyl Alcohol	6.290	43	699546	2535.02	ug/L		100
38) Trichloroethene (TCE)	6.625	130	206156	103.98	ug/L		94
39) tert-Amyl ethyl ether ...	6.911	59	134637	25.51	ug/L		91
40) Dibromomethane	7.069	93	126198	102.77	ug/L		89
41) 1,2-Dichloropropane	7.178	63	222657	103.37	ug/L		90
42) Bromodichloromethane	7.251	83	268967	119.74	ug/L		99
44) c-1,3-Dichloropropene	7.957	75	353925	108.33	ug/L		97
46) Toluene	8.237	91	863625	98.80	ug/L		98
47) Tetrachloroethene (PCE)	8.681	166	193661	101.26	ug/L		86
48) 4-Methyl-2-Pentanone (...	8.675	43	720189	198.25	ug/L		98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092638.D
Acq On : 27 Sep 2019 1:56 am
Operator : TB
Sample : 9I26051-CALA
Misc : 1X 5mL 100/200PPB VOCO+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 27 10:52:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

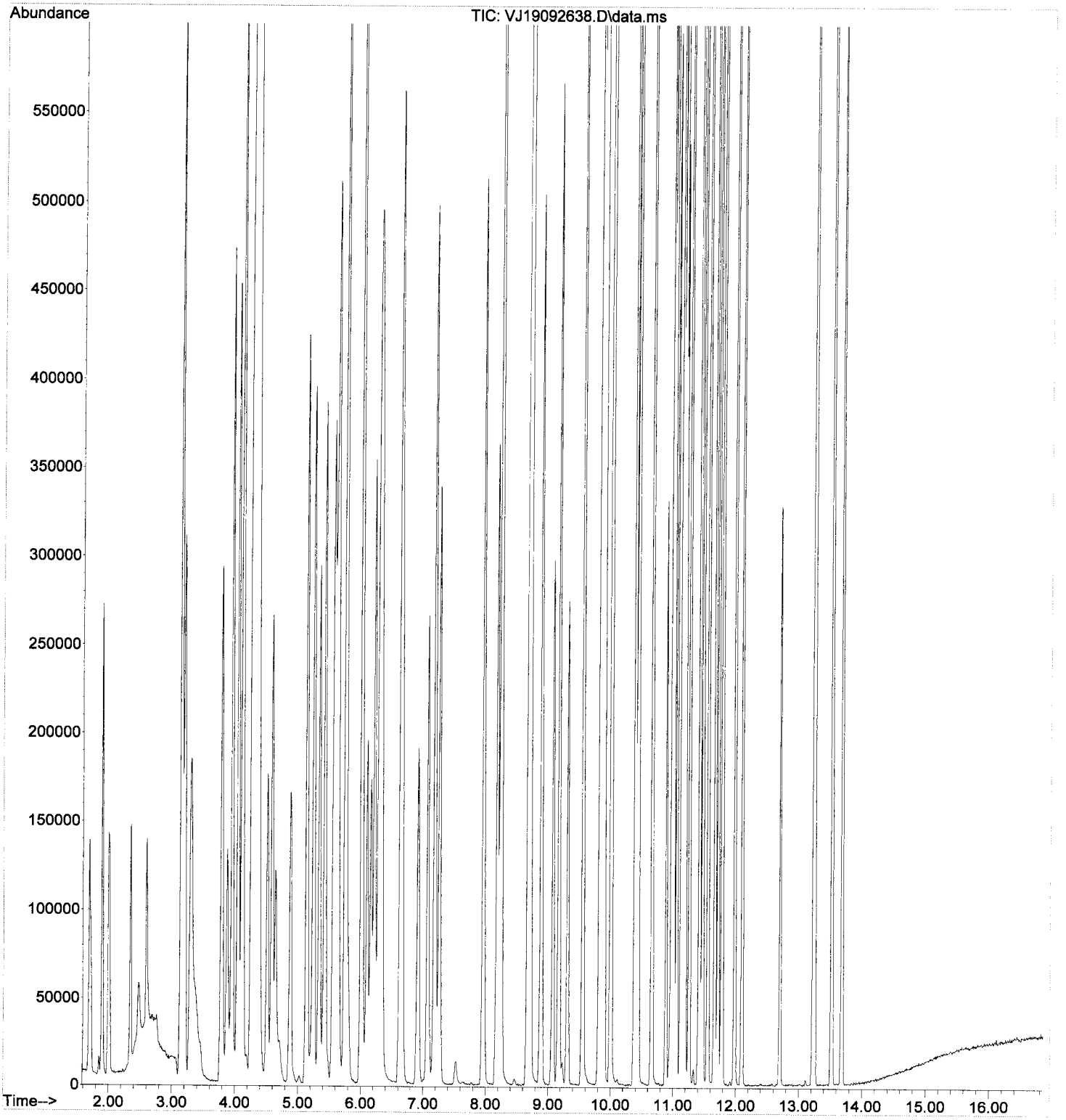
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	344644	109.04	ug/L		96
50) 1,1,2-Trichloroethane	8.882	97	185564	104.05	ug/L		95
51) Dibromochloromethane	9.070	129	175802	134.06	ug/L		99
52) 1,3-Dichloropropane	9.168	76	359607	102.85	ug/L		97
53) 1,2-Dibromoethane (EDB)	9.308	107	206062	104.63	ug/L		100
54) 2-Hexanone	9.551	43	574722	204.41	ug/L		97
55) Chlorobenzene	9.831	112	513937	99.16	ug/L		96
56) Ethylbenzene	9.861	91	957875	98.73	ug/L		98
57) 1,1,1,2-Tetrachloroethane	9.892	131	184671	109.90	ug/L		98
58) m,p-Xylenes (2)	10.001	91	1460708	200.46	ug/L		96
59) o-Xylene	10.384	91	744608	100.74	ug/L		95
60) Styrene	10.427	104	556502	106.38	ug/L		96
61) Bromoform	10.445	173	108191	140.92	ug/L		96
62) Isopropylbenzene	10.658	105	904070	100.81	ug/L		97
65) Bromobenzene	10.968	156	199479	98.42	ug/L	#	82
66) n-Propylbenzene	10.999	91	1031816	97.46	ug/L		95
67) 1,1,2,2-Tetrachloroethane	11.054	83	264703	99.27	ug/L		98
68) 2-Chlorotoluene	11.120	126	190292	97.73	ug/L	#	83
69) 1,3,5-Trimethylbenzene	11.163	105	713639	98.86	ug/L		94
70) 1,2,3-Trichloropropane	11.157	110	99386	95.34	ug/L		96
71) t-1,4-Dichloro-2-butene	11.187	88	51404	114.95	ug/L	#	86
72) 4-Chlorotoluene	11.254	91	628088	98.21	ug/L		93
73) tert-Butylbenzene	11.413	91	424964	95.61	ug/L		88
74) 1,2,4-Trimethylbenzene	11.467	105	718002	97.90	ug/L		95
75) sec-Butylbenzene	11.552	105	862284	97.73	ug/L		97
76) 4-Isopropyltoluene	11.662	119	733345	99.53	ug/L		97
77) 1,3-Dichlorobenzene	11.717	146	363861	99.71	ug/L		97
78) 1,4-Dichlorobenzene	11.784	146	365594	99.69	ug/L		95
79) n-Butylbenzene	11.978	91	635653	98.63	ug/L		96
80) 1,2-Dichlorobenzene	12.094	146	343702	99.19	ug/L		95
81) 1,2-Dibromo-3-Chloropr...	12.702	157	75525	119.72	ug/L		76
82) Hexachlorobutadiene	13.219	223	51222	98.90	ug/L		93
83) 1,2,4-Trichlorobenzene	13.244	180	228156	98.89	ug/L		95
84) Naphthalene	13.517	128	891841	99.46	ug/L		97
85) 1,2,3-Trichlorobenzene	13.682	180	220874	99.20	ug/L		97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092638.D
Acq On : 27 Sep 2019 1:56 am
Operator : TB
Sample : 9I26051-CALA
Misc : 1X 5mL 100/200PPB VOCO+MeOH
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 27 10:52:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092639.D
Acq On : 27 Sep 2019 2:22 am
Operator : TB
Sample : 9I26051-IBL3
Misc : 1X 5mL DI+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 27 15:40:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	92089	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	219172	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	98239	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.603	111	66788	50.78	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	251829	51.20	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	306504	49.87	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	76828	50.62	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	480	0.28	ug/L	#	51
3) Chloromethane	1.898	50	1661	0.68	ug/L		75
5) Bromomethane	2.342	96	3363	1.47	ug/L		94
6) Chloroethane	2.451	64	263	0.94	ug/L	#	8
8) Ethanol	3.309	45	4764	20.99	ug/L		91
9) 1,1-Dichloroethene	3.133	61	465	0.17	ug/L	#	50
10) Carbon Disulfide	3.151	76	2906	0.76	ug/L		83
11) Freon 113	3.194	101	502	0.35	ug/L		86
12) Iodomethane	3.291	142	5291	8.15	ug/L		78
13) Methylene Chloride	3.784	84	2927	Below Cal			92
14) Acetone	3.881	43	1513	Below Cal		#	42
15) t-1,2-Dichloroethene	3.948	61	854	0.32	ug/L		91
17) Methyl-tert-butyl-ether	4.106	73	687	0.08	ug/L		57
18) tert-Butanol (TBA)	4.289	59	606	0.77	ug/L	#	56
28) Tetrahydrofuran	5.609	42	561	0.32	ug/L	#	57
31) 1,1-Dichloropropene	5.755	75	1075	0.35	ug/L		86
32) 2-Butanone (MEK)	5.755	43	1689	0.70	ug/L		52
33) Benzene	6.010	78	1118	0.12	ug/L		74
34) tert-Amyl methyl ether...	6.168	73	458	Below Cal		#	46
36) iso-Butyl Alcohol	6.333	43	1138	4.00	ug/L		91
38) Trichloroethene (TCE)	6.631	130	481	0.25	ug/L	#	74
46) Toluene	8.237	91	1552	0.16	ug/L		95
47) Tetrachloroethene (PCE)	8.675	166	766	0.39	ug/L		80
49) t-1,3-Dichloropropene	8.705	75	353	0.11	ug/L	#	45
55) Chlorobenzene	9.825	112	1015	0.19	ug/L	#	24
56) Ethylbenzene	9.861	91	2281	0.22	ug/L		83
58) m,p-Xylenes (2)	10.001	91	3888	0.50	ug/L		94
59) o-Xylene	10.384	91	1119	0.14	ug/L		86
60) Styrene	10.427	104	887	0.16	ug/L		89
62) Isopropylbenzene	10.652	105	2359	0.25	ug/L		89
65) Bromobenzene	10.968	156	345	0.18	ug/L		82
66) n-Propylbenzene	10.999	91	4276	0.41	ug/L		92
68) 2-Chlorotoluene	11.127	126	520	0.28	ug/L	#	57
69) 1,3,5-Trimethylbenzene	11.157	105	2487	0.35	ug/L		88
72) 4-Chlorotoluene	11.254	91	2478	0.38	ug/L		93
73) tert-Butylbenzene	11.419	91	1227	0.27	ug/L	#	78
74) 1,2,4-Trimethylbenzene	11.467	105	2353	0.33	ug/L		88
75) sec-Butylbenzene	11.552	105	3581	0.42	ug/L		94
76) 4-Isopropyltoluene	11.662	119	3684	0.52	ug/L		91
77) 1,3-Dichlorobenzene	11.711	146	1661	0.46	ug/L		93
78) 1,4-Dichlorobenzene	11.784	146	1694	0.47	ug/L		81
79) n-Butylbenzene	11.978	91	4417	0.68	ug/L		89
80) 1,2-Dichlorobenzene	12.100	146	1045	0.31	ug/L		87

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092639.D
Acq On : 27 Sep 2019 2:22 am
Operator : TB
Sample : 9I26051-IBL3
Misc : 1X 5mL DI+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 27 15:40:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

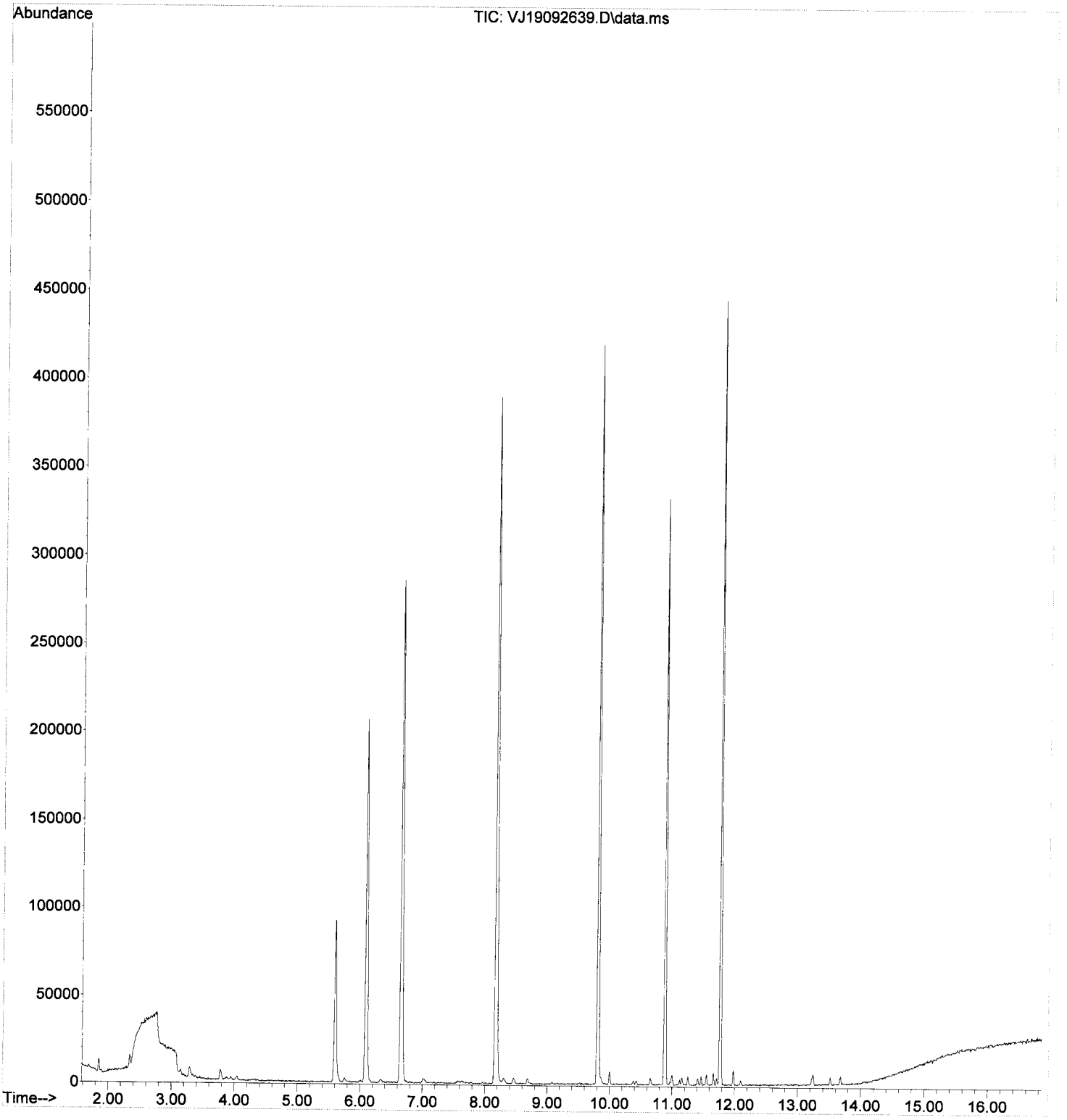
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
82) Hexachlorobutadiene	13.225	223	458	0.92 ug/L	82
83) 1,2,4-Trichlorobenzene	13.244	180	2013	0.91 ug/L	80
84) Naphthalene	13.517	128	3291	0.39 ug/L	93
85) 1,2,3-Trichlorobenzene	13.682	180	1455	0.67 ug/L	81

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092639.D
Acq On : 27 Sep 2019 2:22 am
Operator : TB
Sample : 9I26051-IBL3
Misc : 1X 5mL DI+MeOH
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 27 15:40:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092640.D
Acq On : 27 Sep 2019 2:49 am
Operator : TB
Sample : 9I26051-CALB
Misc : 1X 5mL 200/400PPB VOCO+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 27 13:21:37 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

post 9/27/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.101	99	87764	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	204350	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	98513	50.00	ug/L	#	0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.609	111	66425	52.90	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	237056	51.01	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	287974	49.57	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	73514	48.39	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	361804	213.19	ug/L		98
3) Chloromethane	1.898	50	475243	209.24	ug/L		99
4) Vinyl Chloride	2.001	62	382094	214.23	ug/L		95
5) Bromomethane	2.348	96	148437	189.53	ug/L		100
6) Chloroethane	2.476	64	76606	291.62	ug/L		98
7) Trichlorofluoromethane	2.603	101	165428	208.13	ug/L		99
8) Ethanol	0.000		0	N.D.	d		
9) 1,1-Dichloroethene	3.145	61	532245	206.07	ug/L		88
10) Carbon Disulfide	3.151	76	813775	227.38	ug/L		98
11) Freon 113	3.200	101	301617	210.19	ug/L		91
12) Iodomethane	3.297	142	180775	330.58	ug/L		84
13) Methylene Chloride	3.784	84	321520	184.68	ug/L		91
14) Acetone	3.875	43	540074m	391.21	ug/L		
15) t-1,2-Dichloroethene	3.954	61	533073	199.15	ug/L		95
16) n-Hexane	4.045	86	82276	191.46	ug/L	#	83
17) Methyl-tert-butyl-ether	4.112	73	1479305	200.24	ug/L		96
18) tert-Butanol (TBA)	0.000		0	N.D.	d		
19) Diisopropyl ether (DIPE)	0.000		0	N.D.			
20) 1,1-Dichloroethane	4.587	63	572397	203.85	ug/L		99
21) Acrylonitrile	4.641	53	276579m	209.50	ug/L		
22) Ethyl-tert-butyl ether...	0.000		0	N.D.	d		
23) c-1,2-Dichloroethene	5.134	61	569504	203.63	ug/L		94
24) 2,2-Dichloropropane	5.244	77	598046	190.19	ug/L		99
25) Bromochloromethane	5.335	49	319850	193.11	ug/L		89
26) Chloroform	5.420	83	699080	202.89	ug/L		96
27) Carbon Tetrachloride	5.560	117	557712	233.70	ug/L		97
28) Tetrahydrofuran	5.590	42	313497	193.63	ug/L		97
29) 1,1,1-Trichloroethane	5.627	97	682795	203.93	ug/L		98
31) 1,1-Dichloropropene	5.755	75	598593	203.26	ug/L		93
32) 2-Butanone (MEK)	5.736	43	859752	411.44	ug/L		95
33) Benzene	6.010	78	1669999	199.41	ug/L		98
34) tert-Amyl methyl ether...	0.000		0	N.D.	d		
35) 1,2-Dichloroethane (EDC)	6.217	62	658074	194.77	ug/L		99
36) iso-Butyl Alcohol	6.296	43	1366167	4932.11	ug/L		99
38) Trichloroethene (TCE)	6.631	130	417510	209.80	ug/L		94
39) tert-Amyl ethyl ether ...	0.000		0	N.D.			
40) Dibromomethane	7.069	93	246771	200.20	ug/L		89
41) 1,2-Dichloropropane	7.178	63	438077	202.61	ug/L		90
42) Bromodichloromethane	7.257	83	560307	248.51	ug/L		98
44) c-1,3-Dichloropropene	7.957	75	710362	217.44	ug/L		98
46) Toluene	8.237	91	1715656	196.29	ug/L		98
47) Tetrachloroethene (PCE)	8.681	166	388598	203.21	ug/L		84
48) 4-Methyl-2-Pentanone (...	8.681	43	1363153	375.26	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092640.D
Acq On : 27 Sep 2019 2:49 am
Operator : TB
Sample : 9I26051-CALB
Misc : 1X 5mL 200/400PPB VOCO+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 27 13:21:37 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

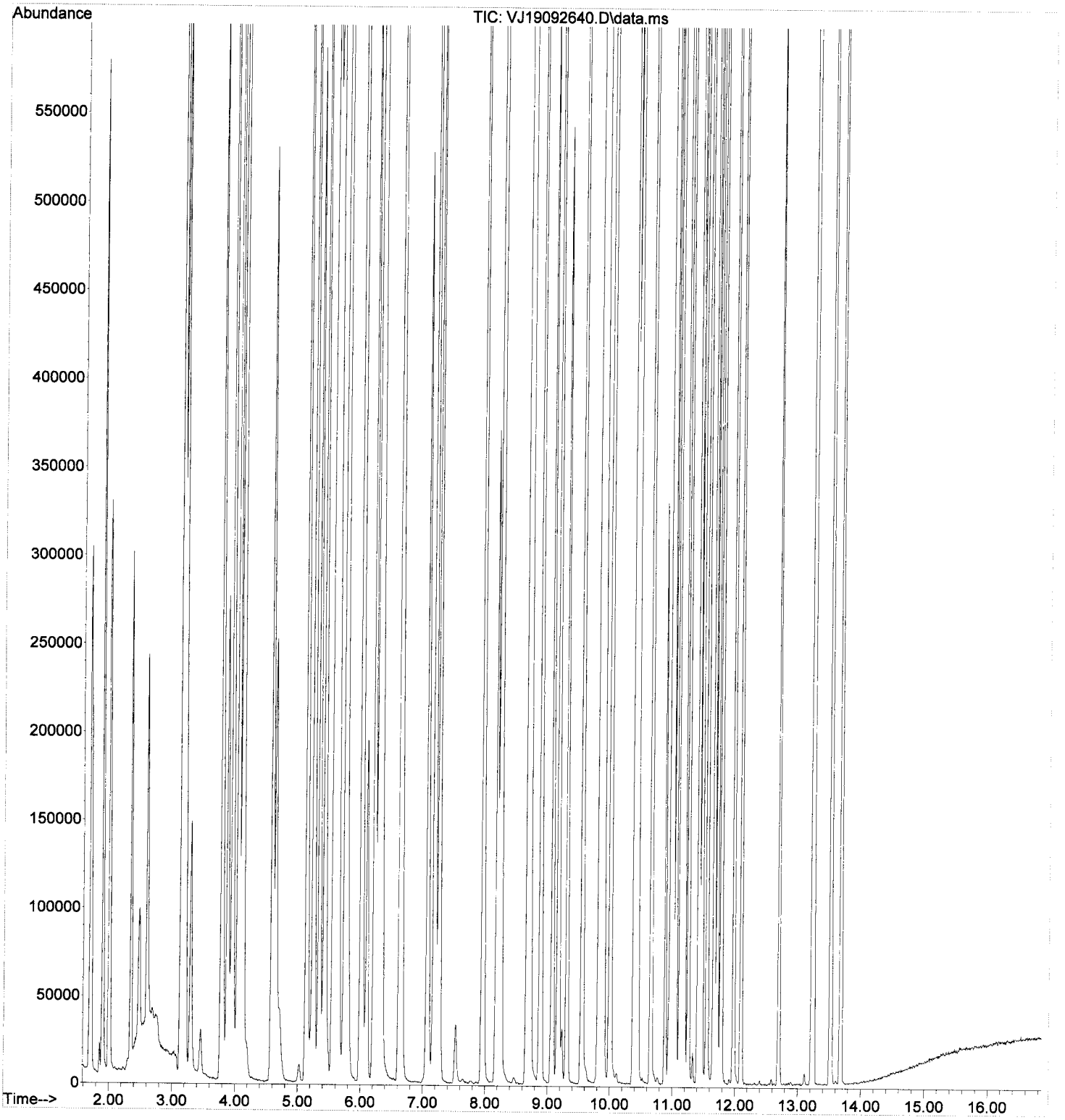
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	681628	215.66	ug/L		96
50) 1,1,2-Trichloroethane	8.882	97	368854	206.85	ug/L		96
51) Dibromochloromethane	9.070	129	376420	287.06	ug/L		99
52) 1,3-Dichloropropane	9.168	76	703679	201.28	ug/L		96
53) 1,2-Dibromoethane (EDB)	9.307	107	408690	207.54	ug/L		99
54) 2-Hexanone	9.551	43	1112936	395.86	ug/L		97
55) Chlorobenzene	9.831	112	1010988	195.09	ug/L		96
56) Ethylbenzene	9.867	91	1886129	194.43	ug/L		99
57) 1,1,1,2-Tetrachloroethane	9.891	131	364099	216.69	ug/L		99
58) m,p-Xylenes (2)	10.001	91	2874751	394.54	ug/L		96
59) o-Xylene	10.384	91	1469028	198.76	ug/L		95
60) Styrene	10.427	104	1096249	209.57	ug/L		96
61) Bromoform	10.445	173	234918	306.00	ug/L		97
62) Isopropylbenzene	10.658	105	1763744	196.68	ug/L		97
65) Bromobenzene	10.968	156	392384	194.22	ug/L	#	81
66) n-Propylbenzene	10.999	91	2006523	190.15	ug/L		95
67) 1,1,2,2-Tetrachloroethane	11.053	83	494430	186.03	ug/L		96
68) 2-Chlorotoluene	11.120	126	372893	192.14	ug/L	#	82
69) 1,3,5-Trimethylbenzene	11.163	105	1395512	193.96	ug/L		94
70) 1,2,3-Trichloropropane	11.157	110	194027	186.74	ug/L		96
71) t-1,4-Dichloro-2-butene	11.193	88	102544	230.06	ug/L	#	83
72) 4-Chlorotoluene	11.254	91	1217721	191.03	ug/L		92
73) tert-Butylbenzene	11.412	91	829909	187.33	ug/L		87
74) 1,2,4-Trimethylbenzene	11.467	105	1400728	191.60	ug/L		95
75) sec-Butylbenzene	11.552	105	1675162	190.47	ug/L		96
76) 4-Isopropyltoluene	11.662	119	1424200	193.92	ug/L		96
77) 1,3-Dichlorobenzene	11.717	146	701151	192.76	ug/L		96
78) 1,4-Dichlorobenzene	11.783	146	705926	193.12	ug/L		96
79) n-Butylbenzene	11.978	91	1235413	192.32	ug/L		96
80) 1,2-Dichlorobenzene	12.100	146	664539	192.42	ug/L		98
81) 1,2-Dibromo-3-Chloropr...	12.702	157	155589	247.44	ug/L		77
82) Hexachlorobutadiene	13.225	223	98168	190.17	ug/L		95
83) 1,2,4-Trichlorobenzene	13.244	180	442755	192.53	ug/L		95
84) Naphthalene	13.517	128	1762865	197.23	ug/L		97
85) 1,2,3-Trichlorobenzene	13.682	180	440028	198.26	ug/L		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092640.D
Acq On : 27 Sep 2019 2:49 am
Operator : TB
Sample : 9I26051-CALB
Misc : 1X 5mL 200/400PPB VOCO+MeOH
ALS Vial : 16 Sample Multiplier: 1

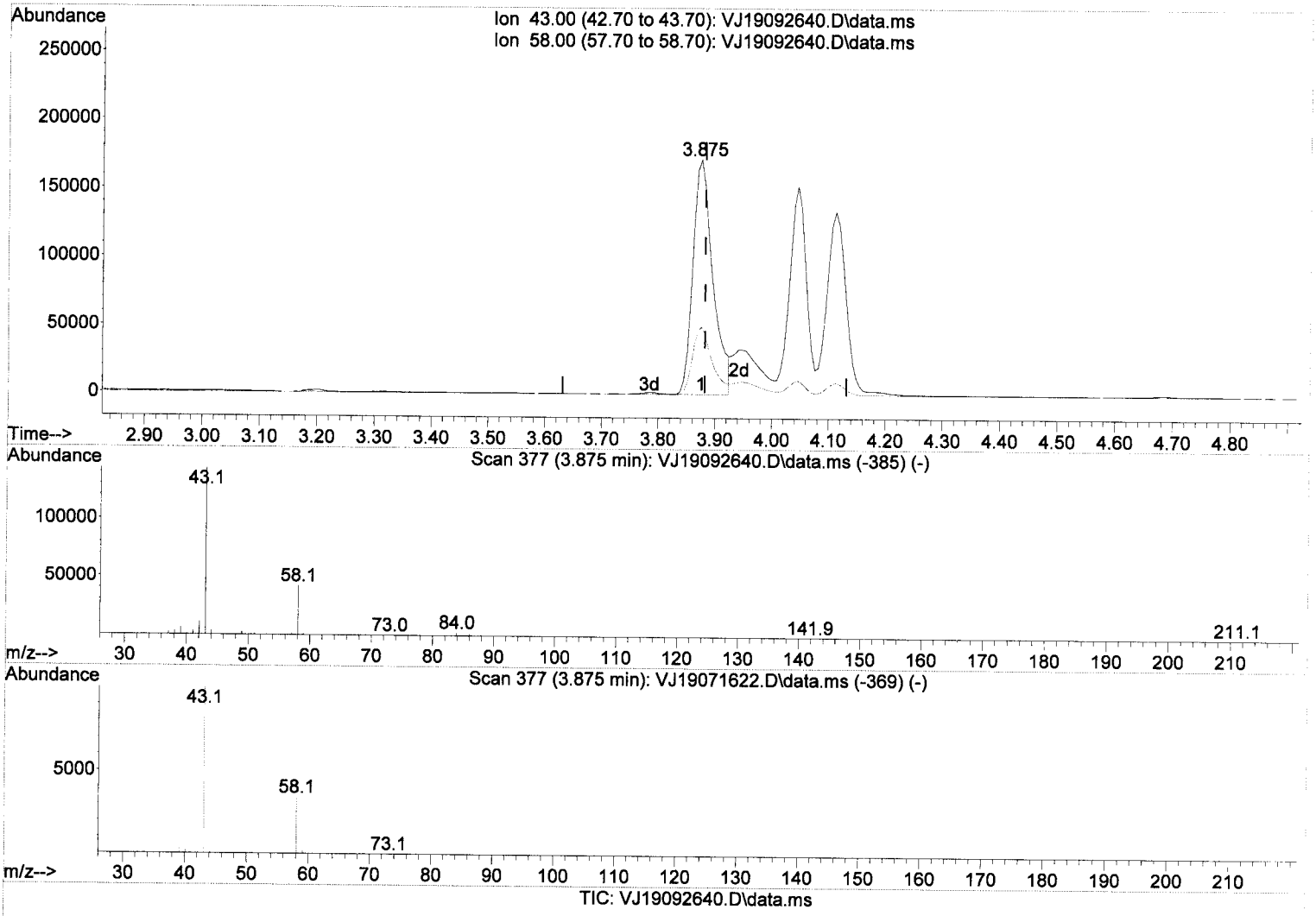
Quant Time: Sep 27 13:21:37 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092640.D
Acq On : 27 Sep 2019 2:49 am
Operator : TB
Sample : 9I26051-CALB
Misc : 1X 5mL 200/400PPB VOCO+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 27 10:52:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



TIC: VJ19092640.D\data.ms

(14) Acetone

3.875min (-0.006) 305.23 ug/L

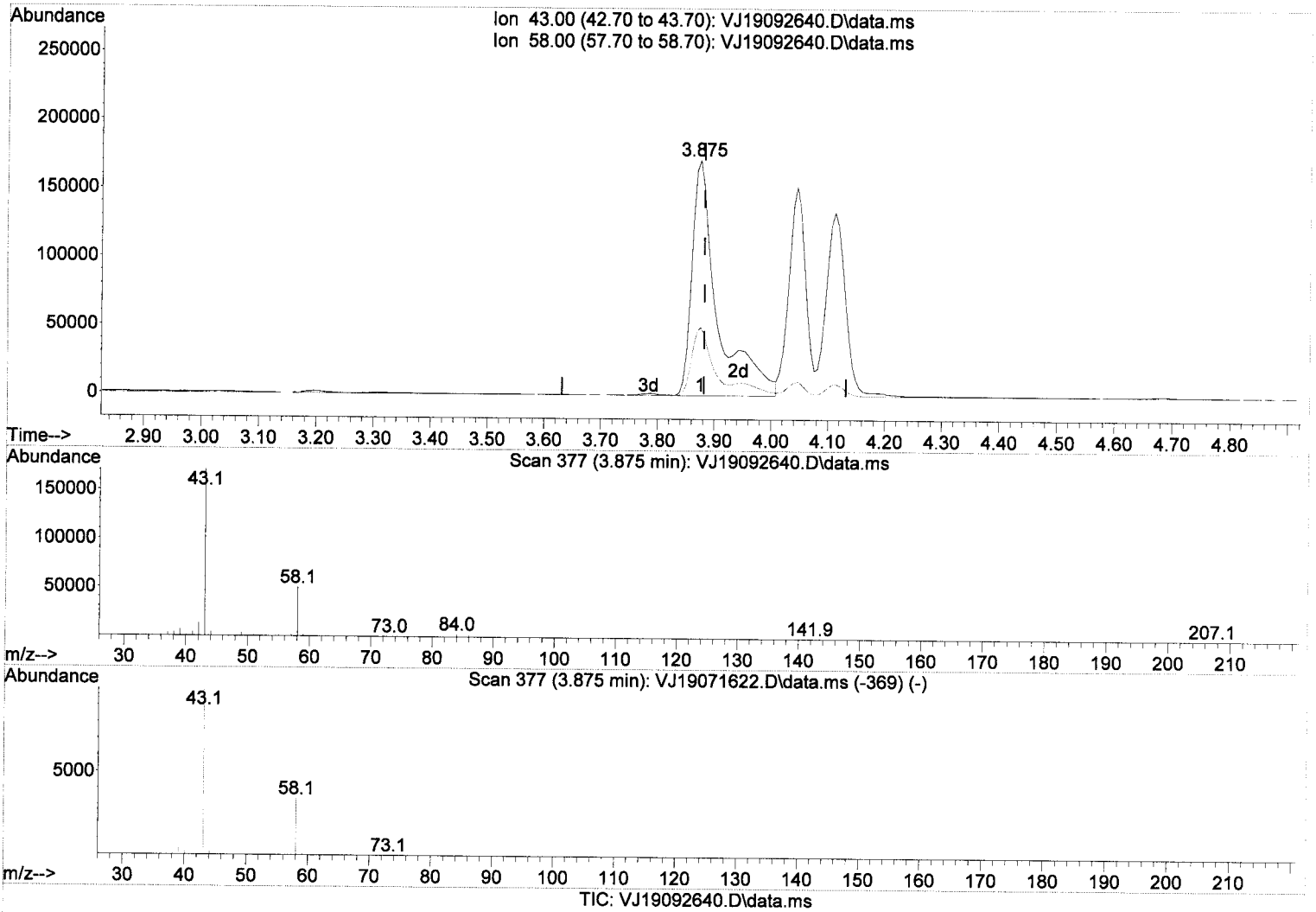
response 421376

Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	29.07
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092640.D
Acq On : 27 Sep 2019 2:49 am
Operator : TB
Sample : 9I26051-CALB
Misc : 1X 5mL 200/400PPB VOCO+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 27 10:52:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



TIC: VJ19092640.D\data.ms

(14) Acetone

3.875min (-0.006) 391.21 ug/L m

response 540074

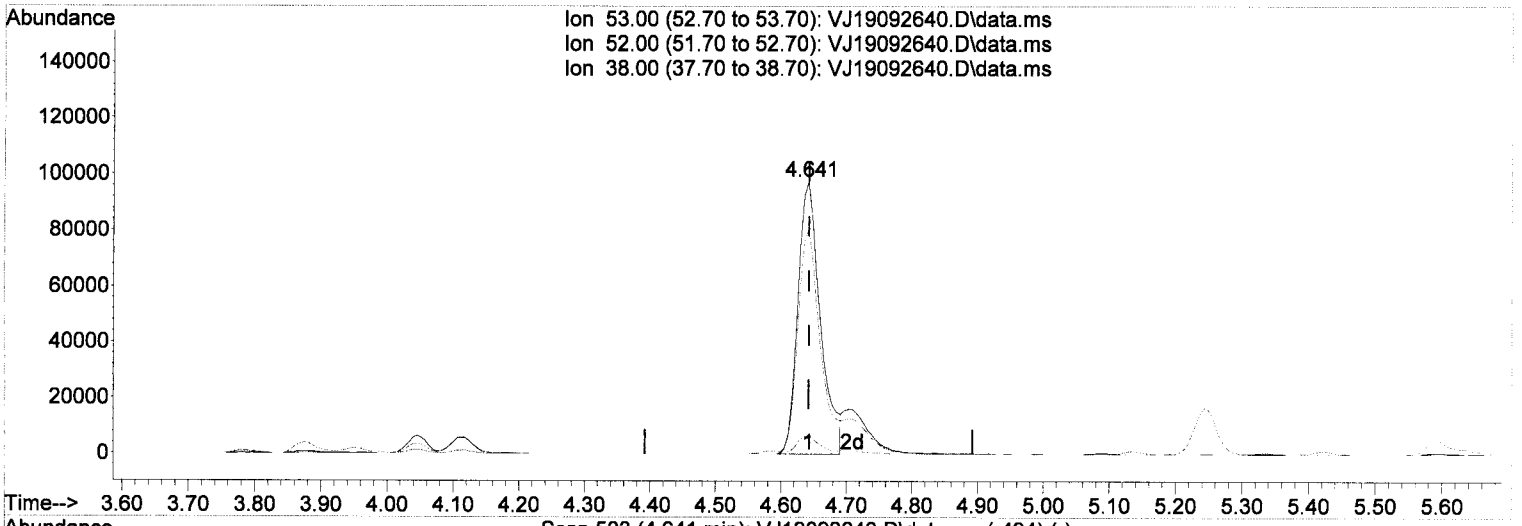
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	29.03
0.00	0.00	0.00
0.00	0.00	0.00

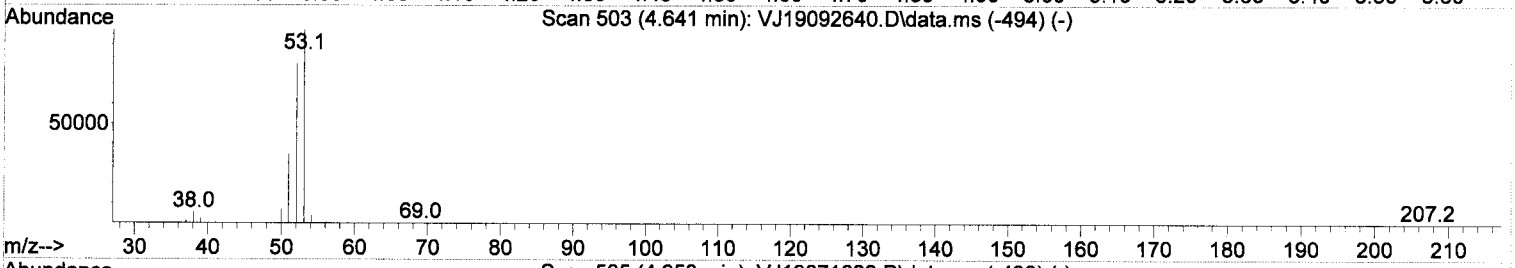
9/27/19

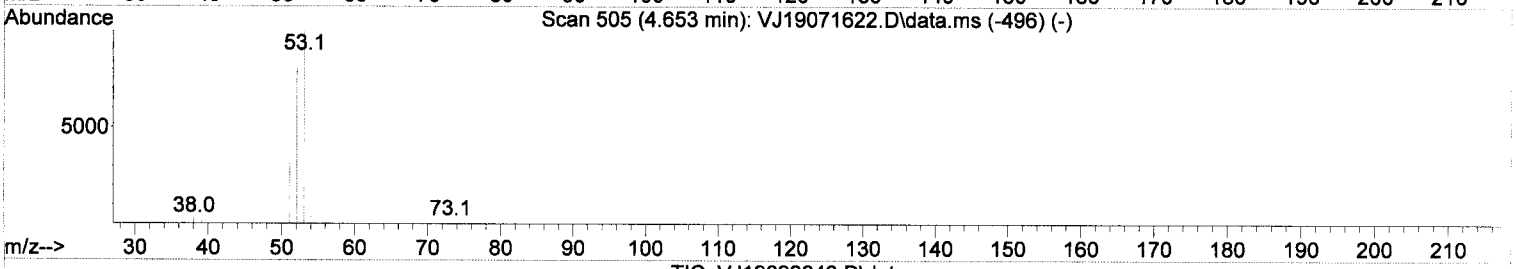
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092640.D
Acq On : 27 Sep 2019 2:49 am
Operator : TB
Sample : 9I26051-CALB
Misc : 1X 5mL 200/400PPB VOCO+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 27 10:52:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration







TIC: VJ19092640.D\data.ms

(21) Acrylonitrile

4.641min (-0.000) 176.22 ug/L

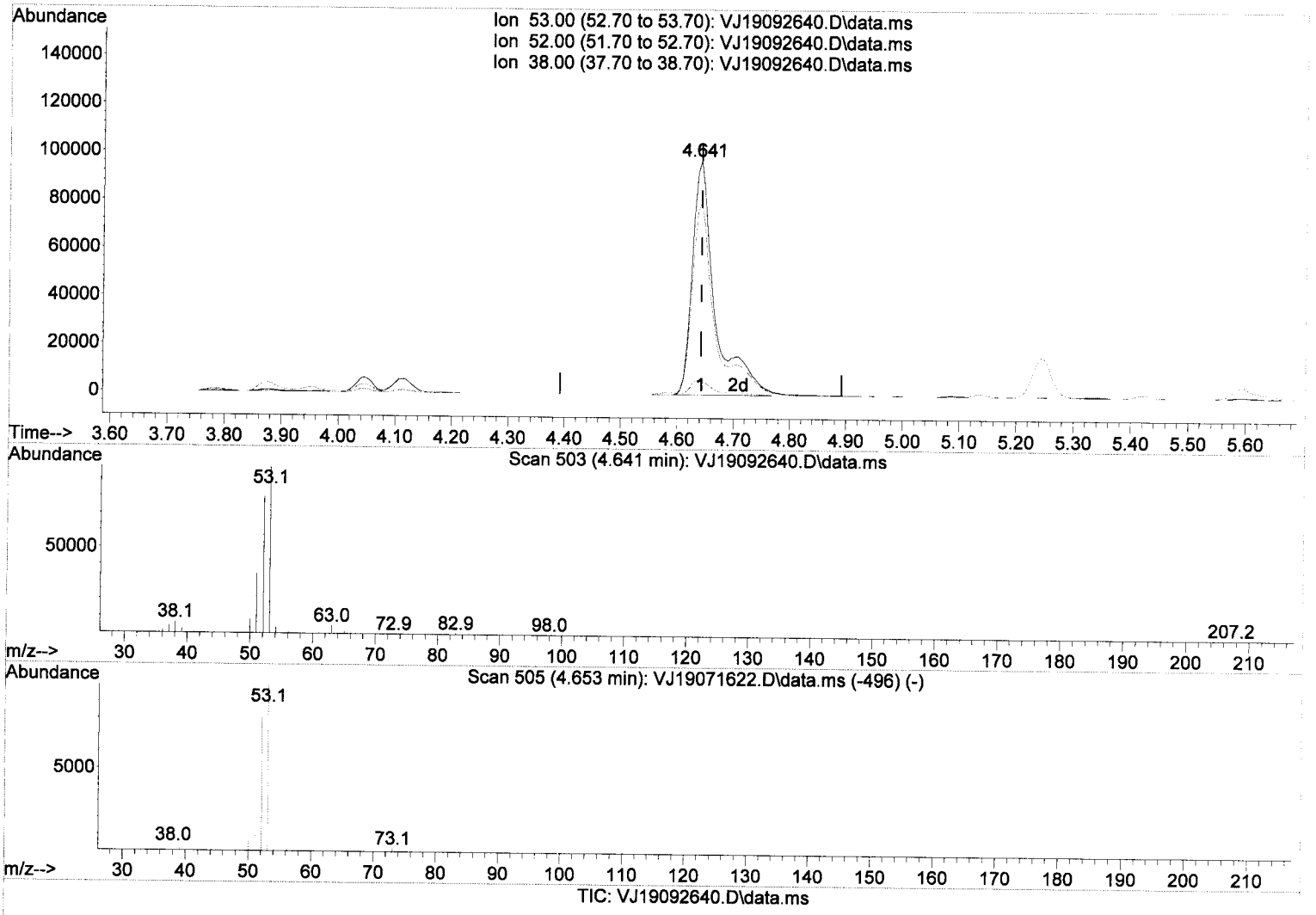
response 232642

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.25
38.00	5.50	5.54
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092640.D
Acq On : 27 Sep 2019 2:49 am
Operator : TB
Sample : 9I26051-CALB
Misc : 1X 5mL 200/400PPB VOCO+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 27 10:52:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



(21) Acrylonitrile

4.641min (-0.000) 209.50 ug/L m 9/27/19

response 276579

Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.25
38.00	5.50	6.65
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092640.D
Acq On : 27 Sep 2019 2:49 am
Operator : TB
Sample : 9I26051-CALB
Misc : 1X 5mL 200/400PPB VOCO+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 27 10:52:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

pre 9/27/19 pvc
9/27/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.101	99	87764	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	204350	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	98513	50.00	ug/L	#	0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.609	111	66425	52.90	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	237056	51.01	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	287974	49.57	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	73514	48.39	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.697	85	361804	213.19	ug/L		98
3) Chloromethane	1.898	50	475243	209.24	ug/L		99
4) Vinyl Chloride	2.001	62	382094	214.23	ug/L		95
5) Bromomethane	2.348	96	148437	189.53	ug/L		100
6) Chloroethane	2.476	64	76606	291.62	ug/L		98
7) Trichlorofluoromethane	2.603	101	165428	208.13	ug/L		99
8) Ethanol	3.321	45	8261	119.99	ug/L		82
9) 1,1-Dichloroethene	3.145	61	532245	206.07	ug/L		88
10) Carbon Disulfide	3.151	76	813775	227.38	ug/L		98
11) Freon 113	3.200	101	301617	210.19	ug/L		91
12) Iodomethane	3.297	142	180775	330.58	ug/L		84
13) Methylene Chloride	3.784	84	321520	184.68	ug/L		91
14) Acetone	3.875	43	421376	305.23	ug/L		94
15) t-1,2-Dichloroethene	3.954	61	533073	199.15	ug/L		95
16) n-Hexane	4.045	86	82276	191.46	ug/L	#	83
17) Methyl-tert-butyl-ether	4.112	73	1479305	200.24	ug/L		96
18) tert-Butanol (TBA)	4.270	59	536	0.72	ug/L	#	1
19) Diisopropyl ether (DIPE)	0.000		0	N.D.			
20) 1,1-Dichloroethane	4.587	63	572397	203.85	ug/L		99
21) Acrylonitrile	4.641	53	232642	176.22	ug/L		97
22) Ethyl-tert-butyl ether...	4.763	59	3212	0.44	ug/L	#	38
23) c-1,2-Dichloroethene	5.134	61	569504	203.63	ug/L		94
24) 2,2-Dichloropropane	5.244	77	598046	190.19	ug/L		99
25) Bromochloromethane	5.335	49	319850	193.11	ug/L		89
26) Chloroform	5.420	83	699080	202.89	ug/L		96
27) Carbon Tetrachloride	5.560	117	557712	233.70	ug/L		97
28) Tetrahydrofuran	5.590	42	313497	193.63	ug/L		97
29) 1,1,1-Trichloroethane	5.627	97	682795	203.93	ug/L		98
31) 1,1-Dichloropropene	5.755	75	598593	203.26	ug/L		93
32) 2-Butanone (MEK)	5.736	43	859752	411.44	ug/L		95
33) Benzene	6.010	78	1669999	199.41	ug/L		98
34) tert-Amyl methyl ether...	6.150	73	514	0.08	ug/L	#	46
35) 1,2-Dichloroethane (EDC)	6.217	62	658074	194.77	ug/L		99
36) iso-Butyl Alcohol	6.296	43	1366167	4932.11	ug/L		99
38) Trichloroethene (TCE)	6.631	130	417510	209.80	ug/L		94
39) tert-Amyl ethyl ether ...	0.000		0	N.D.			
40) Dibromomethane	7.069	93	246771	200.20	ug/L		89
41) 1,2-Dichloropropane	7.178	63	438077	202.61	ug/L		90
42) Bromodichloromethane	7.257	83	560307	248.51	ug/L		98
44) c-1,3-Dichloropropene	7.957	75	710362	217.44	ug/L		98
46) Toluene	8.237	91	1715656	196.29	ug/L		98
47) Tetrachloroethene (PCE)	8.681	166	388598	203.21	ug/L		84
48) 4-Methyl-2-Pentanone (...	8.681	43	1363153	375.26	ug/L		97

MT

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092640.D
Acq On : 27 Sep 2019 2:49 am
Operator : TB
Sample : 9I26051-CALB
Misc : 1X 5mL 200/400PPB VOCO+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 27 10:52:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration

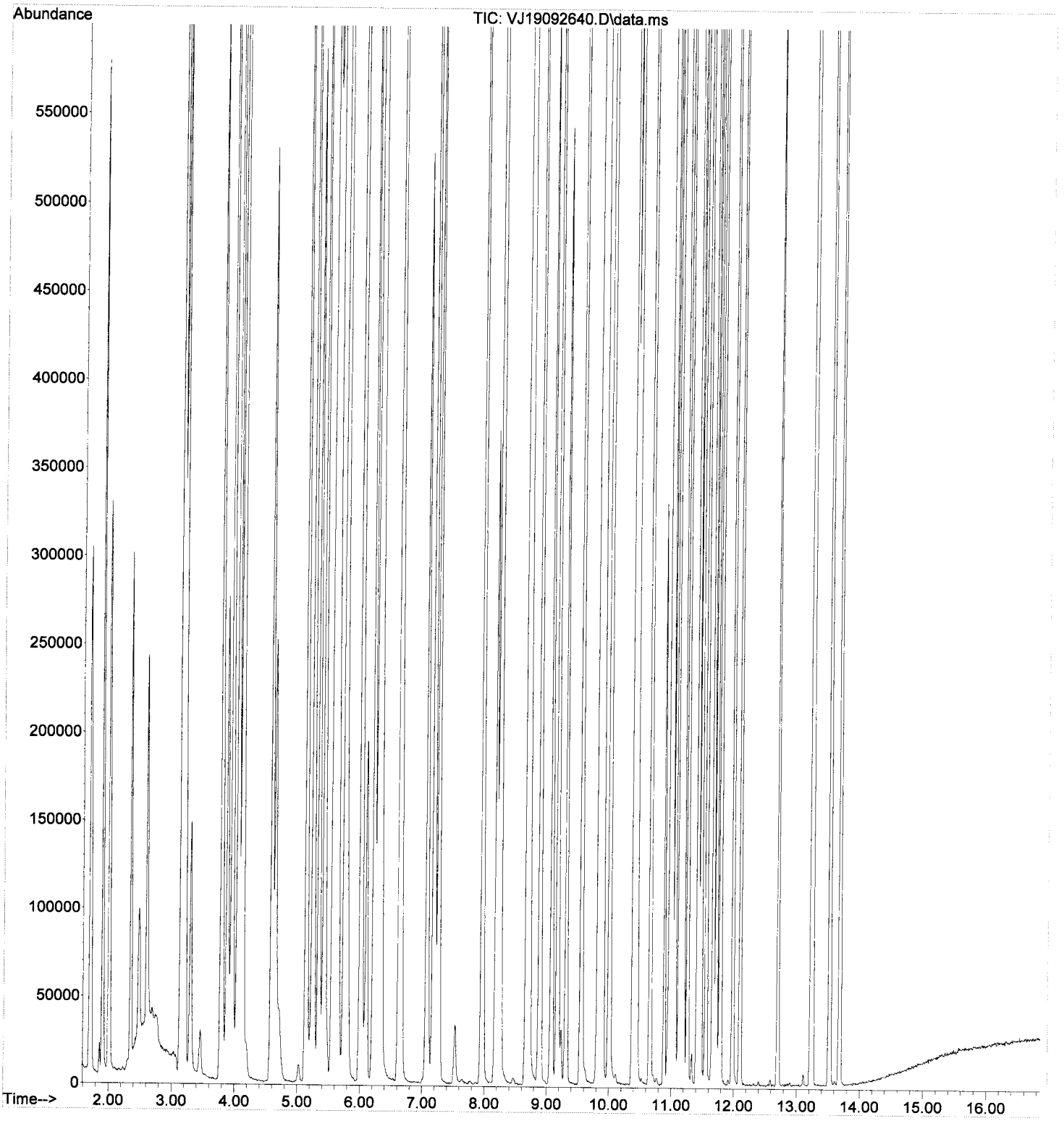
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) t-1,3-Dichloropropene	8.711	75	681628	215.66	ug/L		96
50) 1,1,2-Trichloroethane	8.882	97	368854	206.85	ug/L		96
51) Dibromochloromethane	9.070	129	376420	287.06	ug/L		99
52) 1,3-Dichloropropane	9.168	76	703679	201.28	ug/L		96
53) 1,2-Dibromoethane (EDB)	9.307	107	408690	207.54	ug/L		99
54) 2-Hexanone	9.551	43	1112936	395.86	ug/L		97
55) Chlorobenzene	9.831	112	1010988	195.09	ug/L		96
56) Ethylbenzene	9.867	91	1886129	194.43	ug/L		99
57) 1,1,1,2-Tetrachloroethane	9.891	131	364099	216.69	ug/L		99
58) m,p-Xylenes (2)	10.001	91	2874751	394.54	ug/L		96
59) o-Xylene	10.384	91	1469028	198.76	ug/L		95
60) Styrene	10.427	104	1096249	209.57	ug/L		96
61) Bromoform	10.445	173	234918	306.00	ug/L		97
62) Isopropylbenzene	10.658	105	1763744	196.68	ug/L		97
65) Bromobenzene	10.968	156	392384	194.22	ug/L	#	81
66) n-Propylbenzene	10.999	91	2006523	190.15	ug/L		95
67) 1,1,2,2-Tetrachloroethane	11.053	83	494430	186.03	ug/L		96
68) 2-Chlorotoluene	11.120	126	372893	192.14	ug/L	#	82
69) 1,3,5-Trimethylbenzene	11.163	105	1395512	193.96	ug/L		94
70) 1,2,3-Trichloropropane	11.157	110	194027	186.74	ug/L		96
71) t-1,4-Dichloro-2-butene	11.193	88	102544	230.06	ug/L	#	83
72) 4-Chlorotoluene	11.254	91	1217721	191.03	ug/L		92
73) tert-Butylbenzene	11.412	91	829909	187.33	ug/L		87
74) 1,2,4-Trimethylbenzene	11.467	105	1400728	191.60	ug/L		95
75) sec-Butylbenzene	11.552	105	1675162	190.47	ug/L		96
76) 4-Isopropyltoluene	11.662	119	1424200	193.92	ug/L		96
77) 1,3-Dichlorobenzene	11.717	146	701151	192.76	ug/L		96
78) 1,4-Dichlorobenzene	11.783	146	705926	193.12	ug/L		96
79) n-Butylbenzene	11.978	91	1235413	192.32	ug/L		96
80) 1,2-Dichlorobenzene	12.100	146	664539	192.42	ug/L		98
81) 1,2-Dibromo-3-Chloropr...	12.702	157	155589	247.44	ug/L		77
82) Hexachlorobutadiene	13.225	223	98168	190.17	ug/L		95
83) 1,2,4-Trichlorobenzene	13.244	180	442755	192.53	ug/L		95
84) Naphthalene	13.517	128	1762865	197.23	ug/L		97
85) 1,2,3-Trichlorobenzene	13.682	180	440028	198.26	ug/L		97

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092640.D
Acq On : 27 Sep 2019 2:49 am
Operator : TB
Sample : 9I26051-CALB
Misc : 1X 5mL 200/400PPB VOCO+MeOH
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 27 10:52:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 10:46:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092641.D
Acq On : 27 Sep 2019 3:16 am
Operator : TB
Sample : 9I26051-IBL4
Misc : 1X 5mL DI+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 27 15:40:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	90844	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	219365	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	98363	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	66313	51.11	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	250716	51.67	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	308516	50.15	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	77398	50.93	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	1023	0.61	ug/L		80
3) Chloromethane	1.891	50	2009	0.83	ug/L		97
4) Vinyl Chloride	2.001	62	412	0.22	ug/L	#	46
5) Bromomethane	2.342	96	4887	3.79	ug/L		96
6) Chloroethane	2.469	64	393	1.45	ug/L	#	7
7) Trichlorofluoromethane	2.597	101	400	0.49	ug/L	#	61
8) Ethanol	3.321	45	4717	21.21	ug/L		88
9) 1,1-Dichloroethene	3.133	61	935	0.35	ug/L		88
10) Carbon Disulfide	3.145	76	5675	1.50	ug/L		94
11) Freon 113	3.187	101	1249	0.88	ug/L		80
12) Iodomethane	3.291	142	6519	10.33	ug/L		89
13) Methylene Chloride	3.777	84	3309	Below Cal			96
14) Acetone	3.875	43	3306	0.14	ug/L	#	42
15) t-1,2-Dichloroethene	3.954	61	1598	0.60	ug/L		90
16) n-Hexane	4.045	86	189	0.45	ug/L	#	23
17) Methyl-tert-butyl-ether	4.124	73	724	0.09	ug/L		57
23) c-1,2-Dichloroethene	5.134	61	678	0.23	ug/L		87
25) Bromochloromethane	5.329	49	180	0.11	ug/L	#	14
26) Chloroform	5.420	83	295	0.08	ug/L		86
27) Carbon Tetrachloride	5.560	117	412	0.17	ug/L		88
28) Tetrahydrofuran	5.602	42	612	0.35	ug/L	#	58
29) 1,1,1-Trichloroethane	5.627	97	401	0.12	ug/L	#	63
31) 1,1-Dichloropropene	5.748	75	2117	0.70	ug/L		84
32) 2-Butanone (MEK)	5.748	43	1974	0.83	ug/L		52
33) Benzene	6.004	78	1902	0.21	ug/L		85
34) tert-Amyl methyl ether...	6.168	73	247	Below Cal		#	46
36) iso-Butyl Alcohol	6.332	43	1416	5.04	ug/L	#	63
38) Trichloroethene (TCE)	6.631	130	992	0.52	ug/L		86
40) Dibromomethane	7.063	93	131	0.11	ug/L	#	1
44) c-1,3-Dichloropropene	7.957	75	577	0.17	ug/L	#	26
46) Toluene	8.237	91	2923	0.30	ug/L		97
47) Tetrachloroethene (PCE)	8.681	166	1729	0.88	ug/L		87
48) 4-Methyl-2-Pentanone (...	8.681	43	465	0.12	ug/L	#	43
49) t-1,3-Dichloropropene	8.711	75	646	0.19	ug/L		59
52) 1,3-Dichloropropane	9.174	76	395	0.11	ug/L	#	77
53) 1,2-Dibromoethane (EDB)	9.307	107	217	0.11	ug/L	#	7
54) 2-Hexanone	9.557	43	510	0.16	ug/L	#	32
55) Chlorobenzene	9.824	112	1967	0.37	ug/L		80
56) Ethylbenzene	9.861	91	4315	0.42	ug/L		96
58) m,p-Xylenes (2)	10.001	91	7439	0.96	ug/L		95
59) o-Xylene	10.384	91	2490	0.31	ug/L		88
60) Styrene	10.427	104	1803	0.33	ug/L		86
62) Isopropylbenzene	10.658	105	4528	0.48	ug/L		98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092641.D
Acq On : 27 Sep 2019 3:16 am
Operator : TB
Sample : 9I26051-IBL4
Misc : 1X 5mL DI+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 27 15:40:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

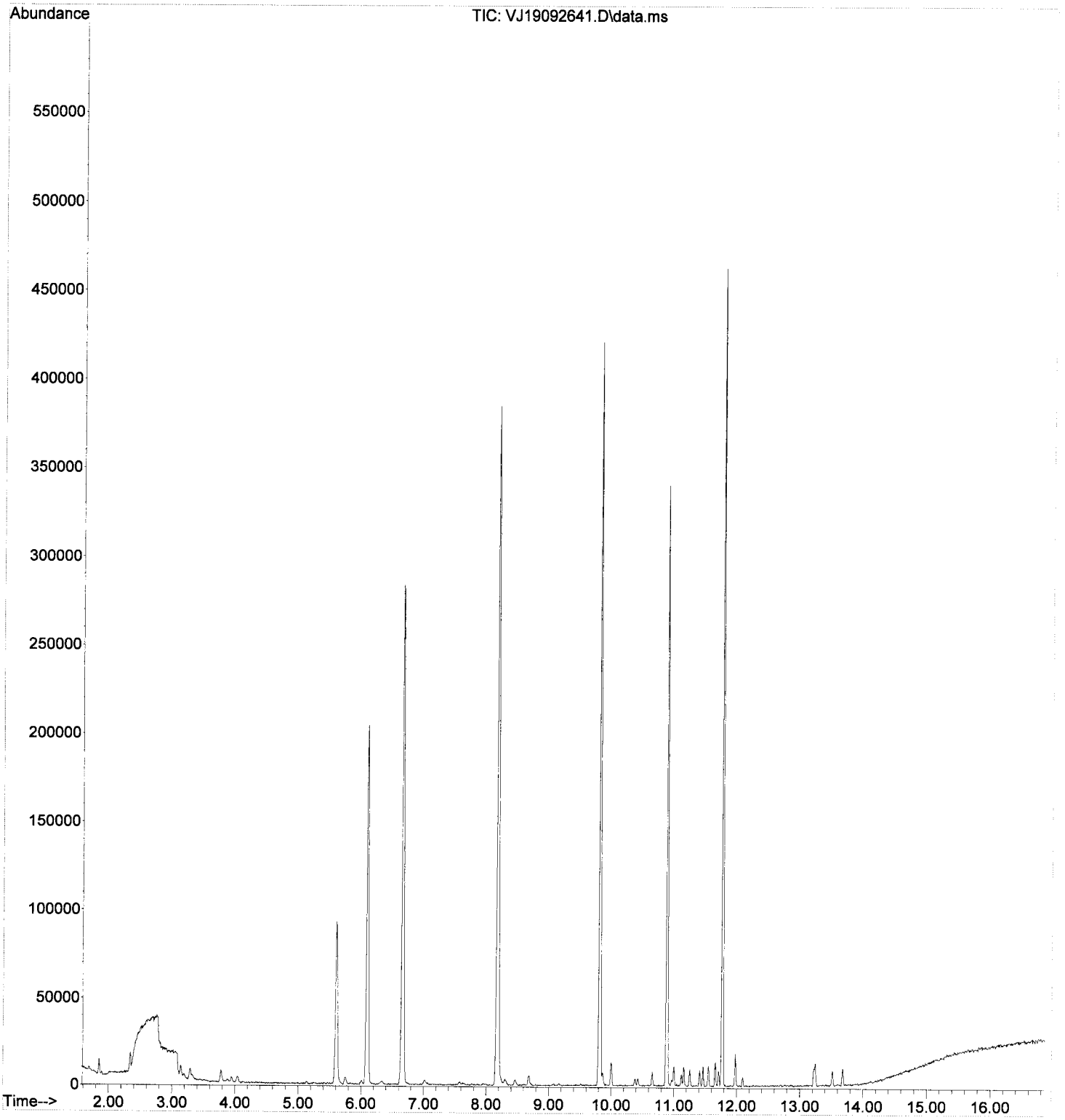
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
65) Bromobenzene	10.968	156	734	0.38 ug/L #	73
66) n-Propylbenzene	10.999	91	8000	0.76 ug/L	94
68) 2-Chlorotoluene	11.120	126	1057	0.58 ug/L	96
69) 1,3,5-Trimethylbenzene	11.157	105	4666	0.65 ug/L	90
72) 4-Chlorotoluene	11.254	91	4628	0.71 ug/L	91
73) tert-Butylbenzene	11.412	91	2548	0.57 ug/L	92
74) 1,2,4-Trimethylbenzene	11.467	105	5143	0.71 ug/L	97
75) sec-Butylbenzene	11.552	105	7160	0.83 ug/L	95
76) 4-Isopropyltoluene	11.662	119	6913	0.97 ug/L	97
77) 1,3-Dichlorobenzene	11.710	146	3275	0.90 ug/L	96
78) 1,4-Dichlorobenzene	11.777	146	3366	0.94 ug/L #	81
79) n-Butylbenzene	11.978	91	7926	1.22 ug/L	87
80) 1,2-Dichlorobenzene	12.094	146	1822	0.54 ug/L	93
82) Hexachlorobutadiene	13.225	223	963	1.93 ug/L	84
83) 1,2,4-Trichlorobenzene	13.243	180	3788	1.71 ug/L	91
84) Naphthalene	13.517	128	5977	0.70 ug/L	98
85) 1,2,3-Trichlorobenzene	13.681	180	2844	1.31 ug/L	93

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092641.D
Acq On : 27 Sep 2019 3:16 am
Operator : TB
Sample : 9I26051-IBL4
Misc : 1X 5mL DI+MeOH
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 27 15:40:07 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092642.D
Acq On : 27 Sep 2019 3:43 am
Operator : TB
Sample : 9I26051-IBL5
Misc : 1X 5mL DI+MeOH
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 27 15:40:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	89042	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	211136	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	94475	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	64062	50.37	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	243094	51.11	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	294932	49.81	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	74532	51.06	ug/L		0.00
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.691	85	294	0.18	ug/L	#	51
3) Chloromethane	1.898	50	1442	0.61	ug/L		87
5) Bromomethane	2.342	96	4095	2.74	ug/L		99
6) Chloroethane	2.469	64	342	1.28	ug/L	#	2
8) Ethanol	3.327	45	4465	19.16	ug/L		97
9) 1,1-Dichloroethene	3.132	61	212	0.08	ug/L	#	25
10) Carbon Disulfide	3.151	76	2344	0.63	ug/L		91
11) Freon 113	3.199	101	453	0.32	ug/L	#	65
12) Iodomethane	3.291	142	5080	8.09	ug/L		86
13) Methylene Chloride	3.777	84	3010	Below Cal			96
14) Acetone	3.887	43	2276	Below Cal		#	42
15) t-1,2-Dichloroethene	3.954	61	434	0.17	ug/L	#	68
28) Tetrahydrofuran	5.602	42	595	0.35	ug/L	#	53
31) 1,1-Dichloropropene	5.748	75	606	0.20	ug/L	#	51
32) 2-Butanone (MEK)	5.742	43	625	0.27	ug/L		52
34) tert-Amyl methyl ether...	6.162	73	287	Below Cal		#	46
36) iso-Butyl Alcohol	6.332	43	996	3.62	ug/L		82
38) Trichloroethene (TCE)	6.631	130	234	0.12	ug/L	#	62
46) Toluene	8.237	91	1130	0.12	ug/L		87
47) Tetrachloroethene (PCE)	8.687	166	634	0.33	ug/L	#	54
55) Chlorobenzene	9.824	112	597	0.12	ug/L	#	27
56) Ethylbenzene	9.867	91	1664	0.17	ug/L		89
58) m,p-Xylenes (2)	10.001	91	2657	0.36	ug/L		90
59) o-Xylene	10.378	91	924	0.12	ug/L		82
60) Styrene	10.427	104	646	0.12	ug/L		92
62) Isopropylbenzene	10.658	105	1611	0.18	ug/L		79
66) n-Propylbenzene	10.999	91	2987	0.30	ug/L		93
68) 2-Chlorotoluene	11.126	126	283	0.16	ug/L		87
69) 1,3,5-Trimethylbenzene	11.157	105	1600	0.23	ug/L		81
72) 4-Chlorotoluene	11.254	91	1820	0.29	ug/L		91
73) tert-Butylbenzene	11.412	91	781	0.18	ug/L		91
74) 1,2,4-Trimethylbenzene	11.467	105	1904	0.27	ug/L		95
75) sec-Butylbenzene	11.552	105	2454	0.30	ug/L		98
76) 4-Isopropyltoluene	11.662	119	2630	0.38	ug/L		88
77) 1,3-Dichlorobenzene	11.710	146	1046	0.30	ug/L		85
78) 1,4-Dichlorobenzene	11.783	146	1227	0.36	ug/L	#	56
79) n-Butylbenzene	11.978	91	3307	0.53	ug/L		94
80) 1,2-Dichlorobenzene	12.094	146	641	0.20	ug/L		87
82) Hexachlorobutadiene	13.225	223	283	0.59	ug/L	#	75
83) 1,2,4-Trichlorobenzene	13.249	180	1432	0.67	ug/L		91
84) Naphthalene	13.517	128	1730	0.21	ug/L		79
85) 1,2,3-Trichlorobenzene	13.681	180	1028	0.49	ug/L	#	73

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092642.D
Acq On : 27 Sep 2019 3:43 am
Operator : TB
Sample : 9I26051-IBL5
Misc : 1X 5mL DI+MeOH
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 27 15:40:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

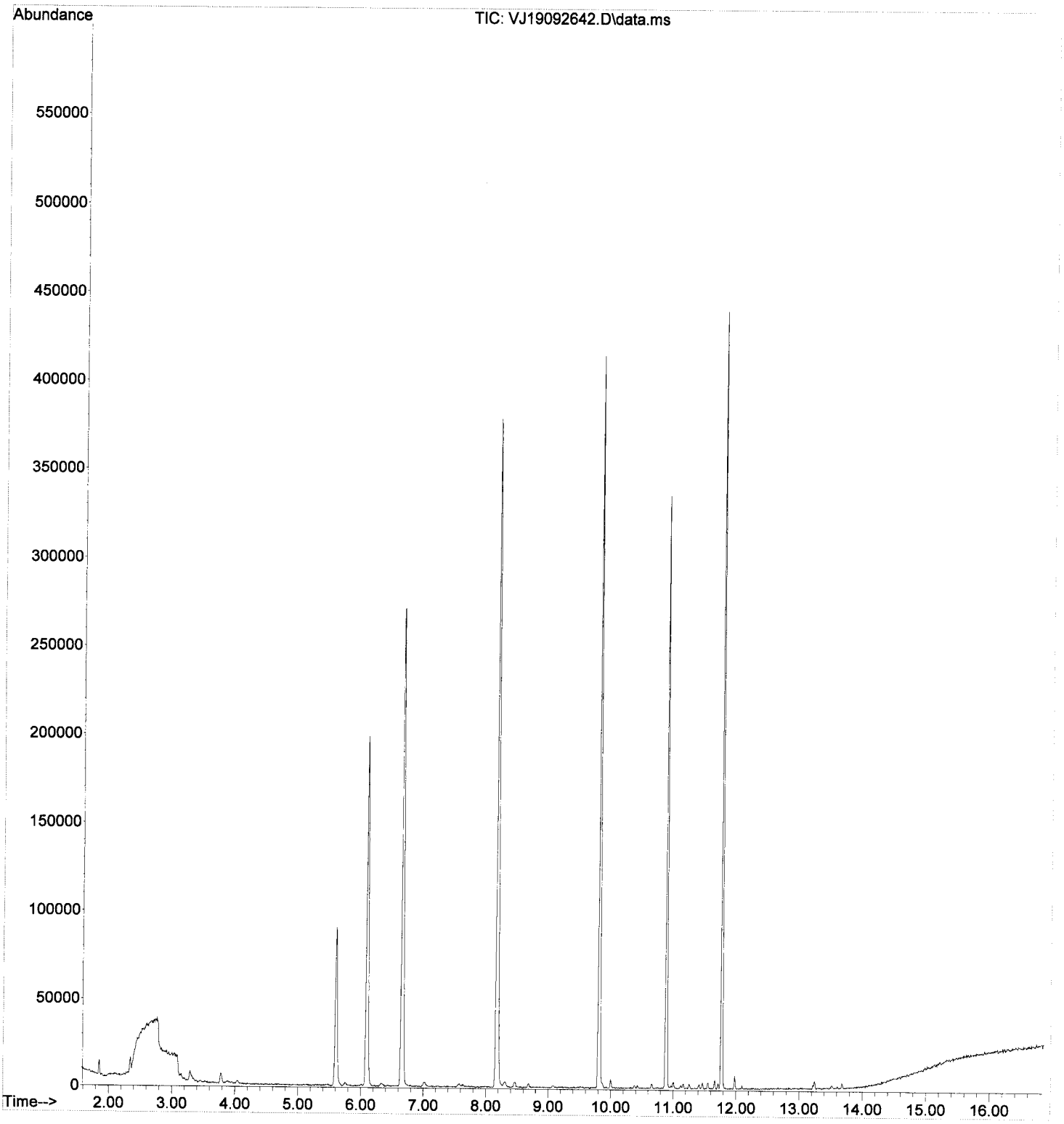
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092642.D
Acq On : 27 Sep 2019 3:43 am
Operator : TB
Sample : 9I26051-IBL5
Misc : 1X 5mL DI+MeOH
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 27 15:40:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092643.D
Acq On : 27 Sep 2019 4:10 am
Operator : TB
Sample : 9I26051-ICV1
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 19 Sample Multiplier: 1

9/27/19

Quant Time: Sep 27 15:40:13 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Pentafluorobenzene (I)	6.095	99	86482	50.00 ug/L	0.00
43) Chlorobenzene-d5 (I)	9.813	117	199034	50.00 ug/L	0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	92866	50.00 ug/L	0.00
System Monitoring Compounds					
30) Dibromofluoromethane (S)	5.603	111	63140	51.12 ug/L	0.00
37) 1,4-Difluorobenzene (S)	6.661	114	229401	49.66 ug/L	0.00
45) Toluene-d8 (S)	8.176	98	282435	50.60 ug/L	0.00
64) 4-Bromofluorobenzene (S)	10.883	174	70961	49.46 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.697	85	24092	15.19 ug/L	99
3) Chloromethane	1.898	50	40872	17.77 ug/L	98
4) Vinyl Chloride	2.001	62	33386	19.13 ug/L	95
5) Bromomethane	2.348	96	18957	25.63 ug/L	96
6) Chloroethane	2.470	64	5011	19.25 ug/L	75
7) Trichlorofluoromethane	2.603	101	14155	18.21 ug/L	99
8) Ethanol	3.321	45	~~6429~~	~~47.11 ug/L~~	~~92~~ MF
9) 1,1-Dichloroethene	3.139	61	50889	20.14 ug/L	86
10) Carbon Disulfide	3.151	76	77668	21.55 ug/L	99
11) Freon 113	3.200	101	27678	20.43 ug/L	88
12) Iodomethane	3.291	142	15784	26.23 ug/L	79
13) Methylene Chloride	3.784	84	33087	19.45 ug/L	91
14) Acetone	3.881	43	42670	30.42 ug/L	96
15) t-1,2-Dichloroethene	3.954	61	54573	21.70 ug/L	95
16) n-Hexane	4.045	86	7387	18.46 ug/L #	80
17) Methyl-tert-butyl-ether	4.118	73	142156	18.68 ug/L	95
20) 1,1-Dichloroethane	4.587	63	60643	21.40 ug/L	99
21) Acrylonitrile	4.648	53	~~20894~~	~~16.74 ug/L~~	~~97~~ MF
23) c-1,2-Dichloroethene	5.134	61	56267	20.22 ug/L	92
24) 2,2-Dichloropropane	5.244	77	54556	17.14 ug/L	100
25) Bromochloromethane	5.335	49	32165	20.21 ug/L	88
26) Chloroform	5.420	83	68573	20.21 ug/L	92
27) Carbon Tetrachloride	5.560	117	46567	20.00 ug/L	90
28) Tetrahydrofuran	5.597	42	30608	18.39 ug/L	99
29) 1,1,1-Trichloroethane	5.627	97	67870	21.70 ug/L	99
31) 1,1-Dichloropropene	5.755	75	57230	19.82 ug/L	94
32) 2-Butanone (MEK)	5.743	43	78366	34.69 ug/L	99
33) Benzene	6.010	78	161995	19.22 ug/L	98
34) tert-Amyl methyl ether...	6.156	73	541	Below Cal #	46
35) 1,2-Dichloroethane (EDC)	6.217	62	65804	20.43 ug/L	98
36) iso-Butyl Alcohol	6.302	43	140728	526.42 ug/L	99
38) Trichloroethene (TCE)	6.631	130	41746	22.87 ug/L	94
40) Dibromomethane	7.069	93	23441	19.79 ug/L	88
41) 1,2-Dichloropropane	7.178	63	41735	19.92 ug/L	87
42) Bromodichloromethane	7.257	83	45571	21.14 ug/L	98
44) c-1,3-Dichloropropene	7.957	75	61775	20.61 ug/L	94
46) Toluene	8.237	91	169264	19.30 ug/L	98
47) Tetrachloroethene (PCE)	8.681	166	37558	20.96 ug/L	83
48) 4-Methyl-2-Pentanone (...	8.675	43	135420	38.50 ug/L	97
49) t-1,3-Dichloropropene	8.711	75	61041	20.29 ug/L	95
50) 1,1,2-Trichloroethane	8.882	97	35752	21.02 ug/L	96
51) Dibromochloromethane	9.070	129	27117	21.23 ug/L	99
52) 1,3-Dichloropropane	9.168	76	67316	20.34 ug/L	95

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092643.D
Acq On : 27 Sep 2019 4:10 am
Operator : TB
Sample : 9I26051-ICV1
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 27 15:40:13 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

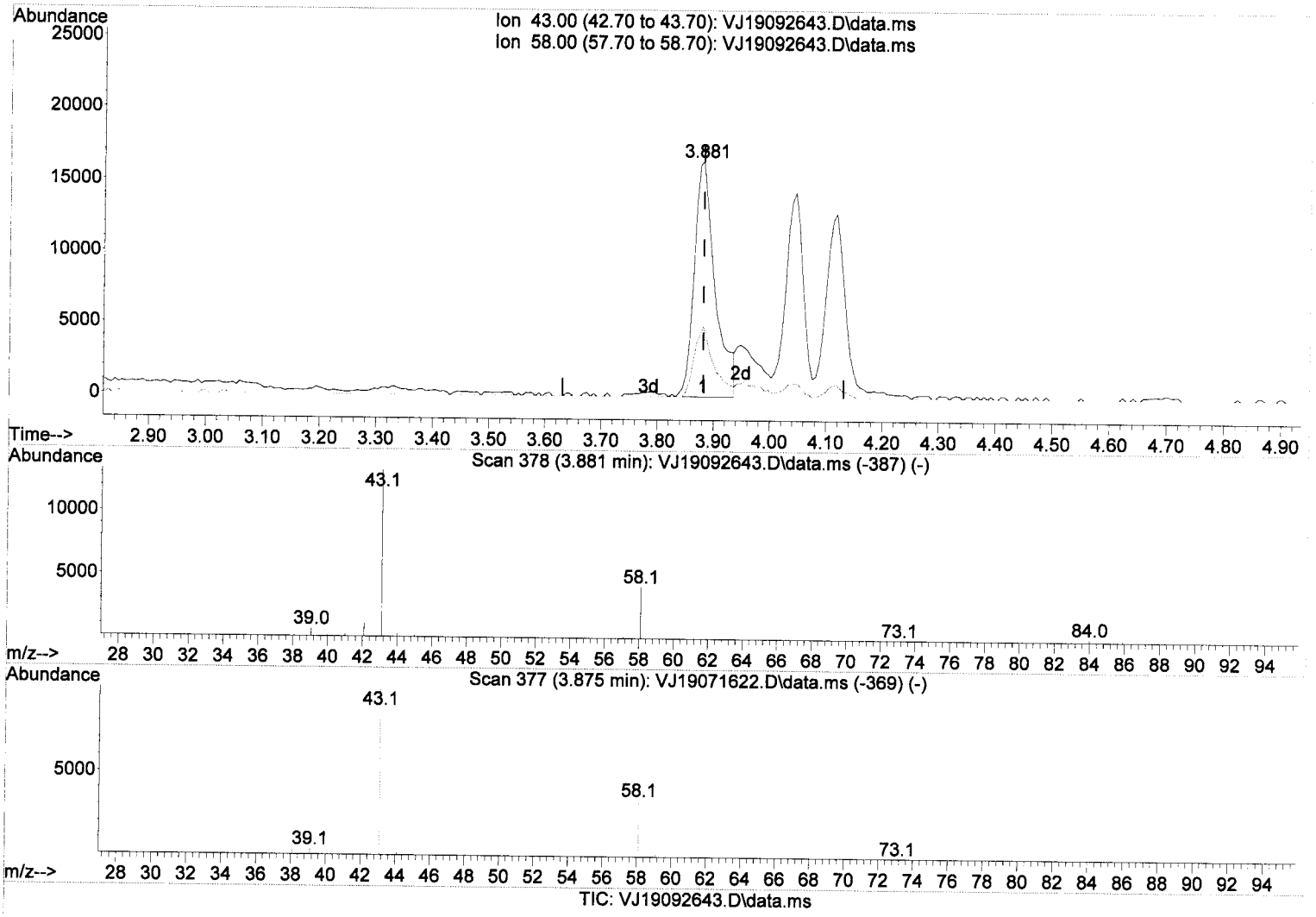
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
53) 1,2-Dibromoethane (EDB)	9.308	107	38269	20.73 ug/L	100
54) 2-Hexanone	9.551	43	107210	38.19 ug/L	97
55) Chlorobenzene	9.831	112	100367	20.83 ug/L	94
56) Ethylbenzene	9.861	91	185908	19.80 ug/L	99
57) 1,1,1,2-Tetrachloroethane	9.892	131	33315	21.47 ug/L	97
58) m,p-Xylenes (2)	10.001	91	279790	39.68 ug/L	95
59) o-Xylene	10.378	91	142874	19.75 ug/L	92
60) Styrene	10.427	104	102562	20.48 ug/L	95
61) Bromoform	10.439	173	17077	22.42 ug/L	95
62) Isopropylbenzene	10.658	105	172585	20.20 ug/L	97
65) Bromobenzene	10.968	156	38401	21.27 ug/L #	80
66) n-Propylbenzene	10.999	91	196506	19.75 ug/L	94
67) 1,1,2,2-Tetrachloroethane	11.047	83	48129	19.81 ug/L	97
68) 2-Chlorotoluene	11.120	126	36397	21.03 ug/L #	80
69) 1,3,5-Trimethylbenzene	11.157	105	135701	20.09 ug/L	90
70) 1,2,3-Trichloropropane	11.157	110	19361	20.25 ug/L	92
71) t-1,4-Dichloro-2-butene	11.187	88	7686	17.67 ug/L #	82
72) 4-Chlorotoluene	11.254	91	122741	20.08 ug/L	90
73) tert-Butylbenzene	11.412	91	81842	19.36 ug/L	89
74) 1,2,4-Trimethylbenzene	11.467	105	137701	20.21 ug/L	95
75) sec-Butylbenzene	11.552	105	167046	20.59 ug/L	96
76) 4-Isopropyltoluene	11.662	119	141275	20.94 ug/L	96
77) 1,3-Dichlorobenzene	11.711	146	70320	20.45 ug/L	93
78) 1,4-Dichlorobenzene	11.784	146	70341	20.81 ug/L	95
79) n-Butylbenzene	11.978	91	125153	20.37 ug/L	96
80) 1,2-Dichlorobenzene	12.100	146	66241	20.80 ug/L	97
81) 1,2-Dibromo-3-Chloropr...	12.702	157	12262	19.79 ug/L #	63
82) Hexachlorobutadiene	13.225	223	10828	22.97 ug/L	93
83) 1,2,4-Trichlorobenzene	13.244	180	44891	21.52 ug/L	95
84) Naphthalene	13.517	128	172810	21.42 ug/L	96
85) 1,2,3-Trichlorobenzene	13.682	180	44161	21.59 ug/L	98

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

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092643.D
Acq On : 27 Sep 2019 4:10 am
Operator : TB
Sample : 9I26051-ICV1
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 27 15:40:13 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



TIC: VJ19092643.D\data.ms

(14) Acetone

3.881min (+ 0.000) 30.42 ug/L

response 42670

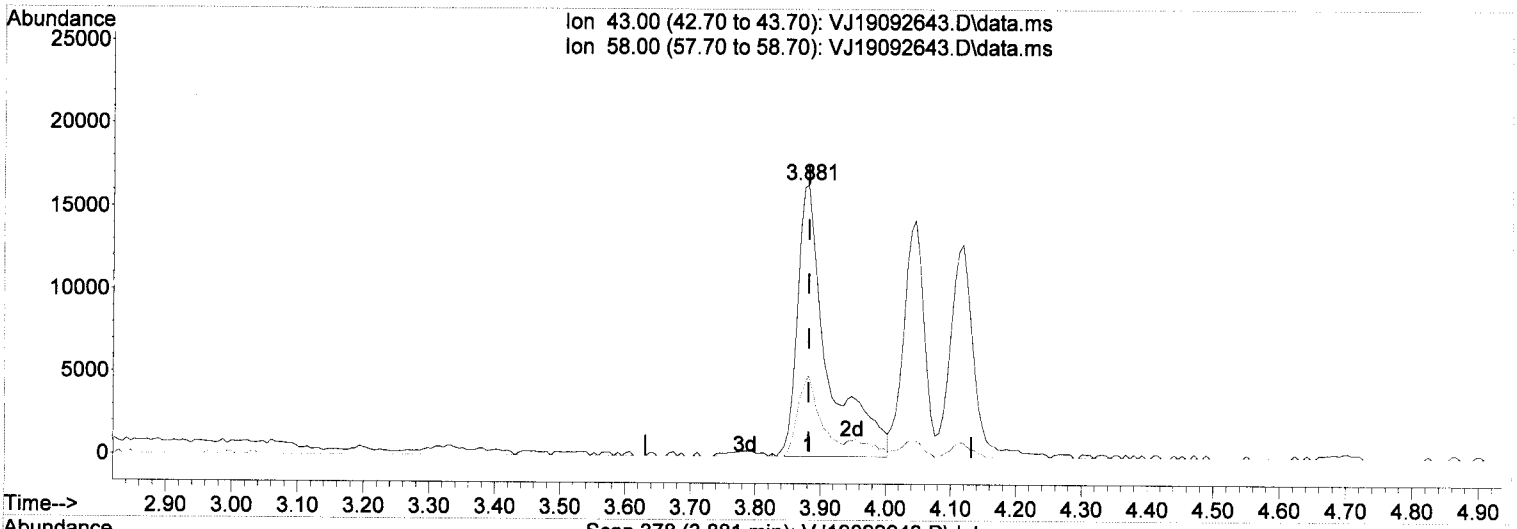
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	29.74
0.00	0.00	0.00
0.00	0.00	0.00

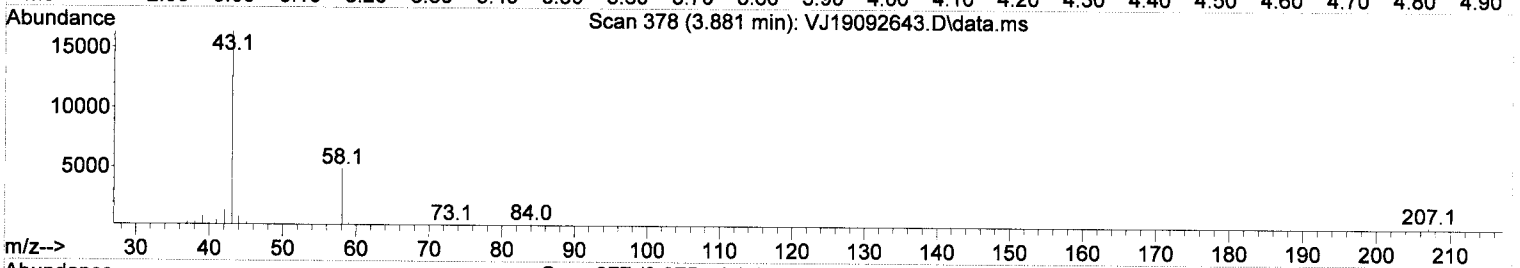
MT

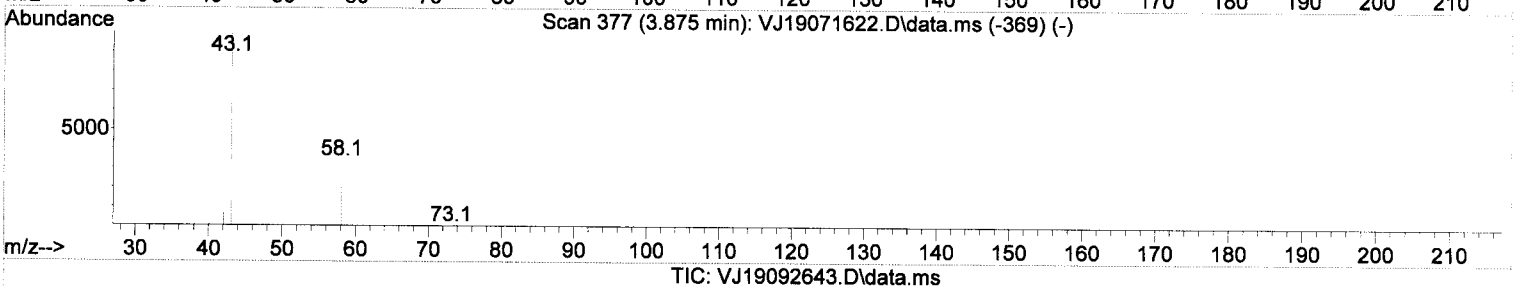
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092643.D
Acq On : 27 Sep 2019 4:10 am
Operator : TB
Sample : 9I26051-ICV1
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 27 15:40:13 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration







TIC: VJ19092643.D\data.ms

(14) Acetone

3.881min (+ 0.000) 38.38 ug/L m

response 53064

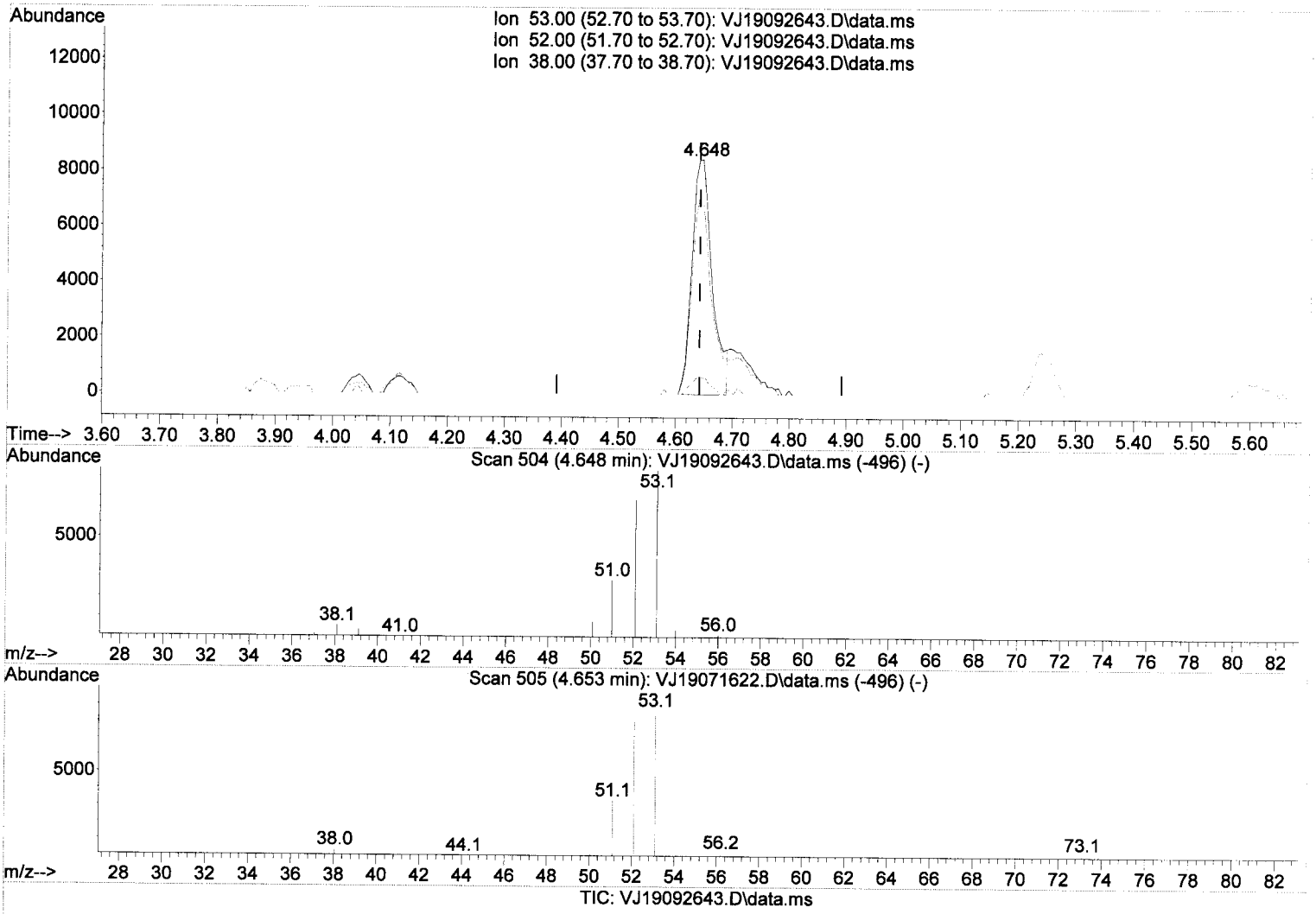
Ion	Exp%	Act%
43.00	100.00	100.00
58.00	32.20	29.74
0.00	0.00	0.00
0.00	0.00	0.00

9/27/19

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092643.D
Acq On : 27 Sep 2019 4:10 am
Operator : TB
Sample : 9I26051-ICV1
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 27 15:40:13 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



TIC: VJ19092643.D\data.ms

(21) Acrylonitrile

4.648min (+ 0.006) 16.74 ug/L

response 20894

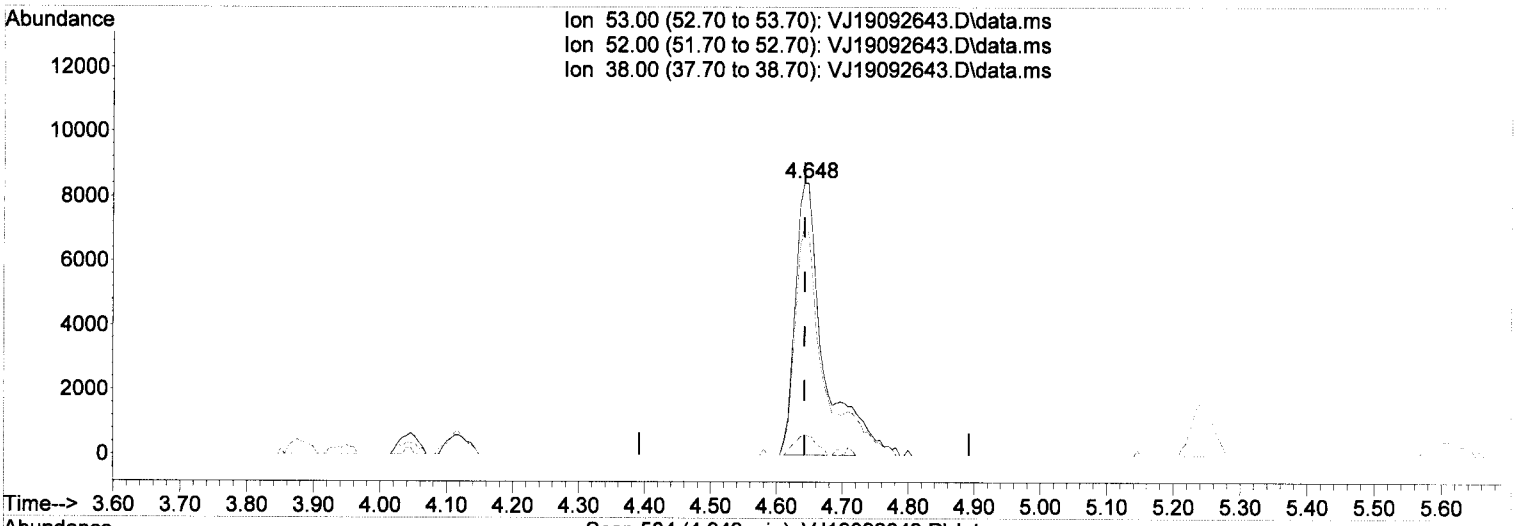
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.02
38.00	5.50	7.01
0.00	0.00	0.00

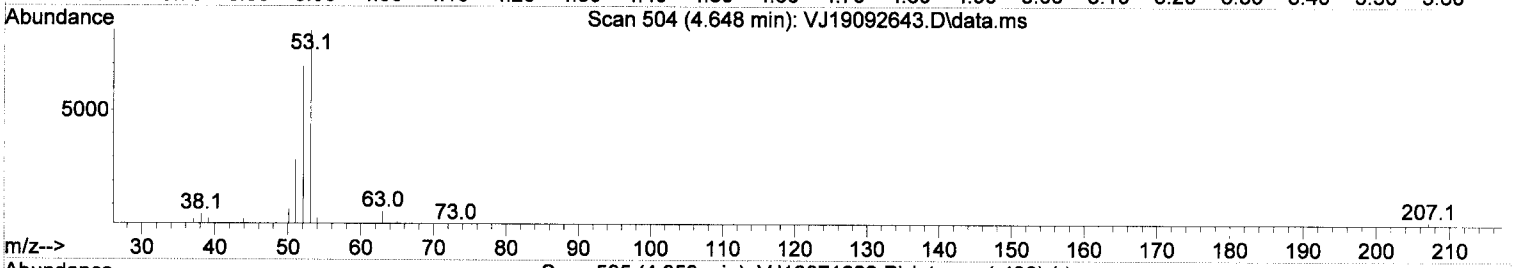
MI

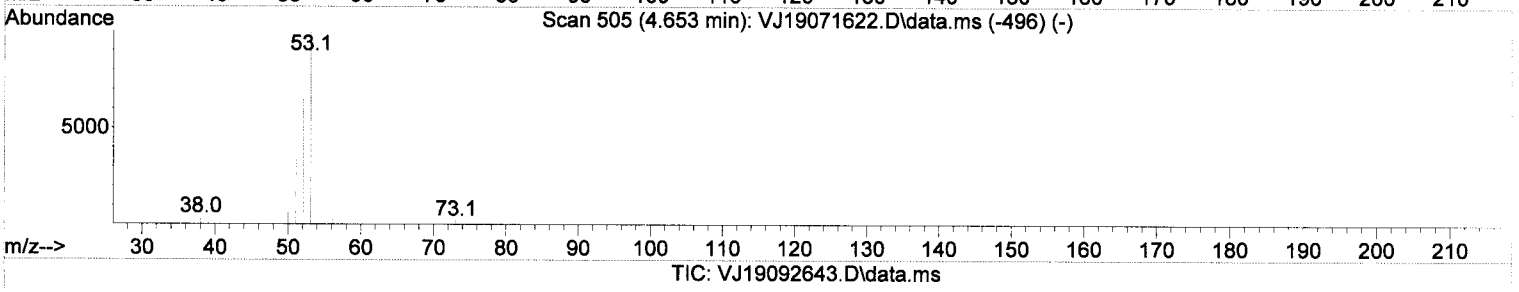
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092643.D
Acq On : 27 Sep 2019 4:10 am
Operator : TB
Sample : 9I26051-ICV1
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 27 15:40:13 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration







TIC: VJ19092643.D\data.ms

(21) Acrylonitrile

4.648min (+ 0.006) 20.54 ug/L m

response 25647

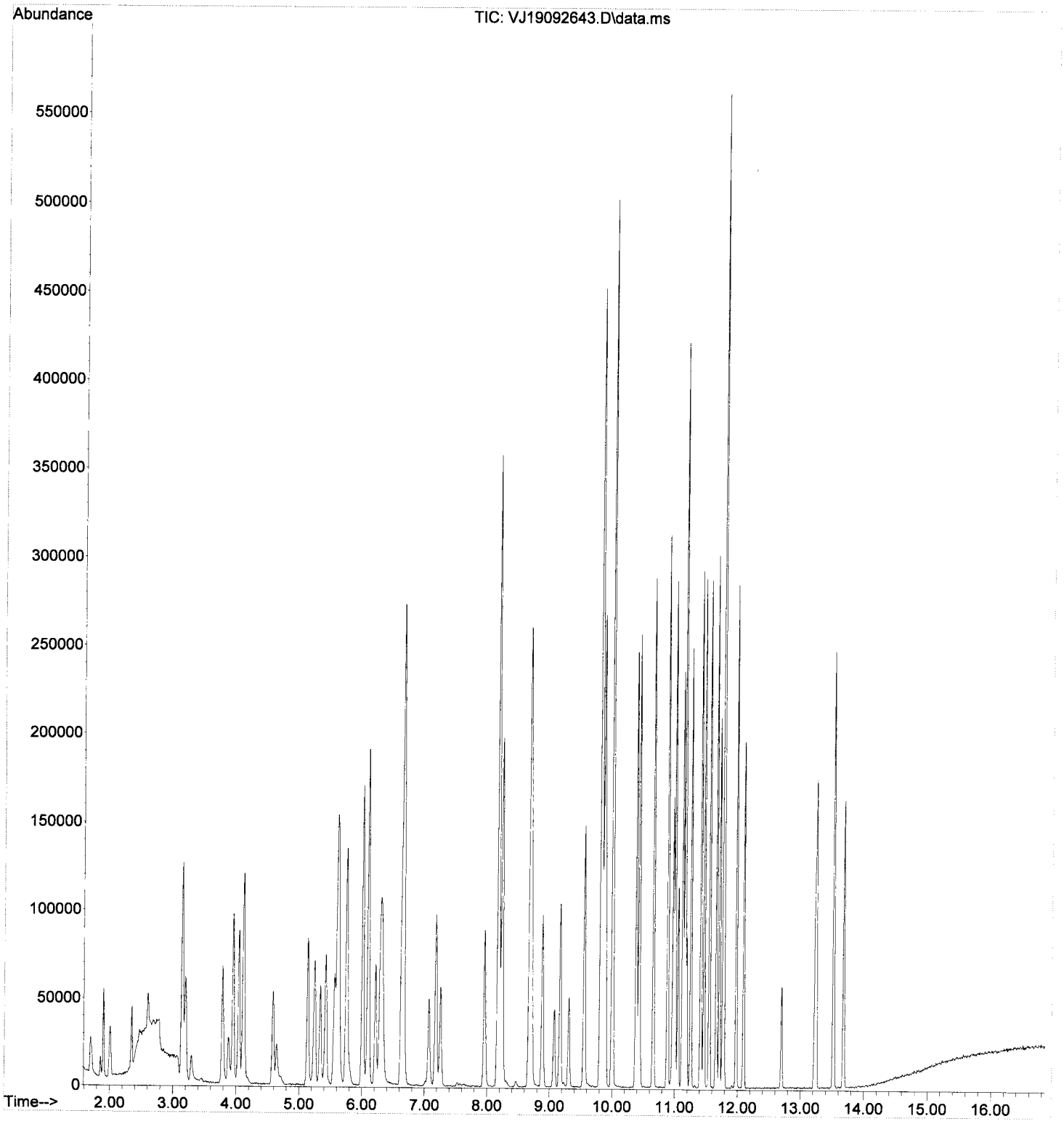
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	79.60	82.02
38.00	5.50	7.01
0.00	0.00	0.00

9/27/19

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092643.D
Acq On : 27 Sep 2019 4:10 am
Operator : TB
Sample : 9I26051-ICV1
Misc : 1X 5mL 20/40PPB VOCO+MeOH
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 27 15:40:13 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092644.D
Acq On : 27 Sep 2019 4:36 am
Operator : TB
Sample : 9I26051-ICV2
Misc : 1X 5mL OXY ICV
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 27 15:40:16 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

9/27/19

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	85694	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	197695	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	86598	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.609	111	62134	50.76	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.661	114	229034	50.04	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	280304	50.56	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	69561	51.99	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.904	50	2005	0.88	ug/L		87
4) Vinyl Chloride	2.001	62	274	0.16	ug/L	#	46
5) Bromomethane	2.348	96	4569	3.73	ug/L		97
6) Chloroethane	2.488	64	457	1.80	ug/L	#	1
8) Ethanol	3.321	45	83715	1090.12	ug/L		88
9) 1,1-Dichloroethene	3.145	61	406	0.16	ug/L	#	64
10) Carbon Disulfide	3.157	76	1767	0.49	ug/L		80
12) Iodomethane	3.297	142	4564	7.51	ug/L		80
13) Methylene Chloride	3.783	84	3439	Below Cal			91
14) Acetone	3.881	43	2359	Below Cal		#	42
15) t-1,2-Dichloroethene	3.948	61	721	0.29	ug/L	#	61
17) Methyl-tert-butyl-ether	4.118	73	1891	0.25	ug/L		57
18) tert-Butanol (TBA)	4.282	59	926920	1273.72	ug/L	#	87
19) Diisopropyl ether (DIPE)	4.513	45	36501	5.07	ug/L		97
20) 1,1-Dichloroethane	4.586	63	442	0.16	ug/L	#	50
22) Ethyl-tert-butyl ether...	4.878	59	37494	5.05	ug/L		94
23) c-1,2-Dichloroethene	5.140	61	584	0.21	ug/L	#	58
24) 2,2-Dichloropropane	5.244	77	535	0.17	ug/L		66
26) Chloroform	5.426	83	568	0.17	ug/L		81
28) Tetrahydrofuran	5.590	42	421	0.26	ug/L	#	42
29) 1,1,1-Trichloroethane	5.633	97	414	0.13	ug/L	#	25
31) 1,1-Dichloropropene	5.761	75	815	0.28	ug/L		94
32) 2-Butanone (MEK)	5.755	43	1314	0.59	ug/L		52
33) Benzene	6.016	78	1928	0.23	ug/L		89
34) tert-Amyl methyl ether...	6.162	73	35641	4.99	ug/L		94
36) iso-Butyl Alcohol	6.326	43	736	2.78	ug/L	#	60
38) Trichloroethene (TCE)	6.624	130	518	0.29	ug/L	#	68
39) tert-Amyl ethyl ether ...	6.917	59	27195	4.95	ug/L		90
41) 1,2-Dichloropropane	7.178	63	191	0.09	ug/L	#	40
44) c-1,3-Dichloropropene	7.957	75	454	0.15	ug/L	#	33
46) Toluene	8.243	91	2136	0.25	ug/L		87
47) Tetrachloroethene (PCE)	8.687	166	479	0.27	ug/L	#	60
49) t-1,3-Dichloropropene	8.699	75	342	0.11	ug/L	#	45
55) Chlorobenzene	9.824	112	1210	0.25	ug/L	#	44
56) Ethylbenzene	9.867	91	2358	0.25	ug/L		93
58) m,p-Xylenes (2)	10.001	91	3935	0.56	ug/L		85
59) o-Xylene	10.384	91	1731	0.24	ug/L		84
60) Styrene	10.433	104	1061	0.21	ug/L		94
62) Isopropylbenzene	10.652	105	2179	0.26	ug/L		87
65) Bromobenzene	10.968	156	376	0.22	ug/L		88
66) n-Propylbenzene	11.005	91	3353	0.36	ug/L		90
68) 2-Chlorotoluene	11.120	126	455	0.28	ug/L	#	73
69) 1,3,5-Trimethylbenzene	11.157	105	1876	0.30	ug/L		93

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092644.D
Acq On : 27 Sep 2019 4:36 am
Operator : TB
Sample : 9I26051-ICV2
Misc : 1X 5mL OXY ICV
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 27 15:40:16 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

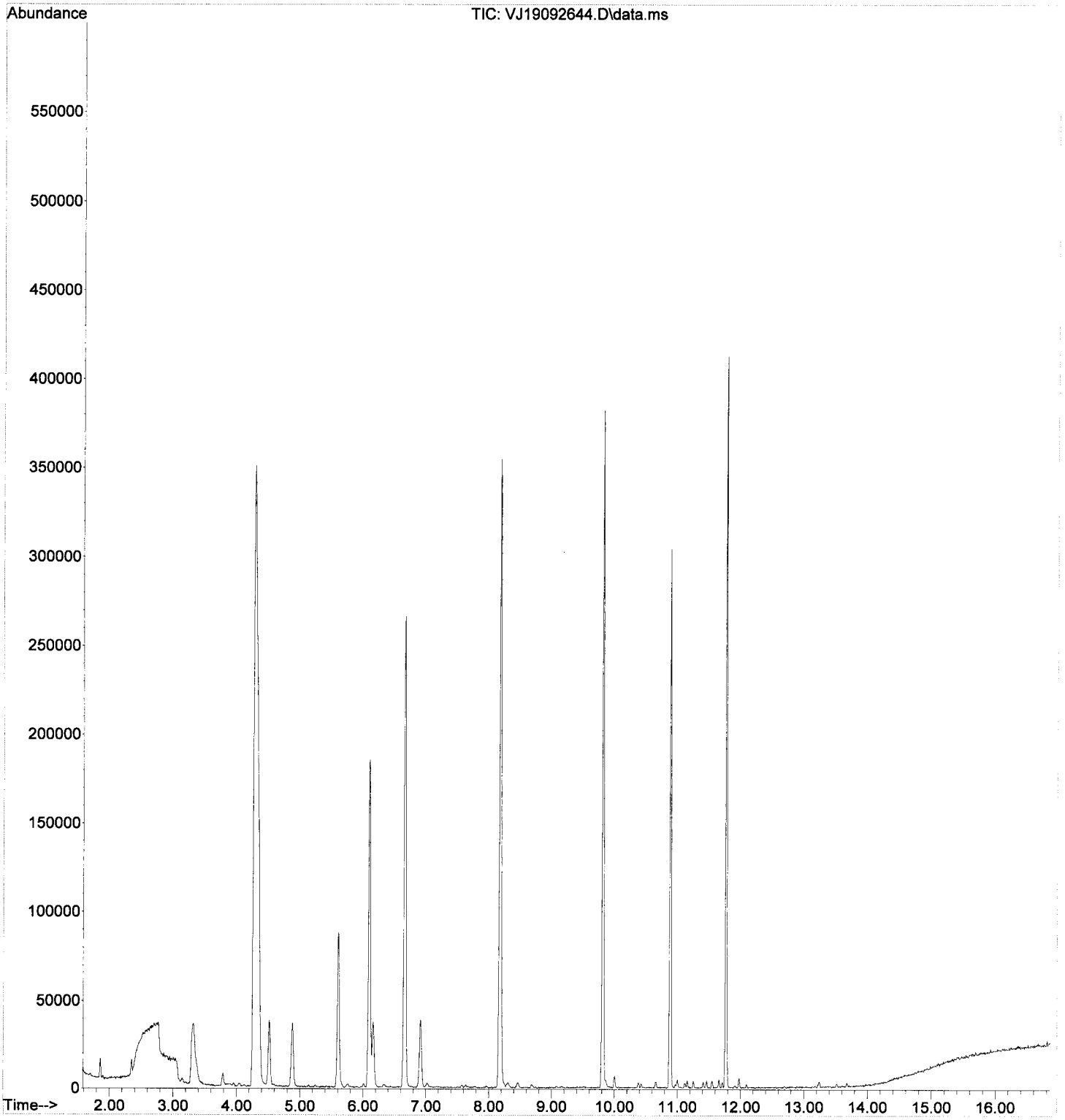
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
72) 4-Chlorotoluene	11.260	91	2092	0.37	ug/L		93
73) tert-Butylbenzene	11.412	91	979	0.25	ug/L		85
74) 1,2,4-Trimethylbenzene	11.467	105	2123	0.33	ug/L		95
75) sec-Butylbenzene	11.552	105	2517	0.33	ug/L		92
76) 4-Isopropyltoluene	11.662	119	2487	0.40	ug/L		92
77) 1,3-Dichlorobenzene	11.716	146	1305	0.41	ug/L		96
78) 1,4-Dichlorobenzene	11.777	146	1278	0.41	ug/L	#	55
79) n-Butylbenzene	11.978	91	2855	0.50	ug/L		89
80) 1,2-Dichlorobenzene	12.094	146	773	0.26	ug/L		85
82) Hexachlorobutadiene	13.225	223	310	0.71	ug/L	#	69
83) 1,2,4-Trichlorobenzene	13.243	180	1152	0.59	ug/L		79
84) Naphthalene	13.517	128	1653	0.22	ug/L		77
85) 1,2,3-Trichlorobenzene	13.681	180	882	0.46	ug/L		86

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092644.D
Acq On : 27 Sep 2019 4:36 am
Operator : TB
Sample : 9I26051-ICV2
Misc : 1X 5mL OXY ICV
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 27 15:40:16 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092645.D
Acq On : 27 Sep 2019 5:03 am
Operator : TB
Sample : 9I26051-IBL6
Misc : 1X 5mL DI+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 27 15:40:19 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration

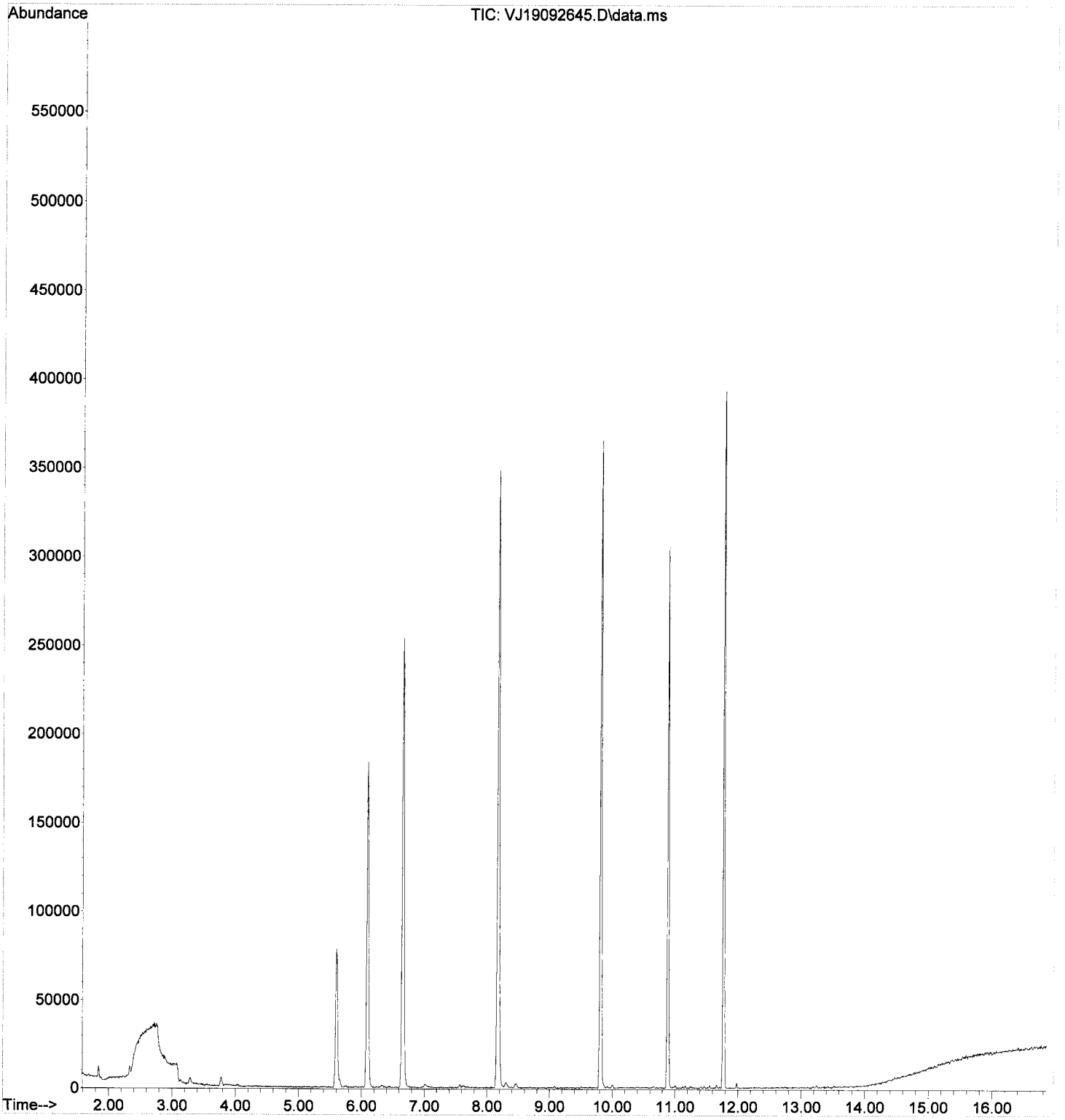
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene (I)	6.095	99	82809	50.00	ug/L		0.00
43) Chlorobenzene-d5 (I)	9.812	117	192637	50.00	ug/L		0.00
63) 1,4-Dichlorobenzene-d4...	11.771	152	86656	50.00	ug/L		0.00
System Monitoring Compounds							
30) Dibromofluoromethane (S)	5.602	111	57408	48.54	ug/L		0.00
37) 1,4-Difluorobenzene (S)	6.655	114	217714	49.22	ug/L		0.00
45) Toluene-d8 (S)	8.176	98	270160	50.01	ug/L		0.00
64) 4-Bromofluorobenzene (S)	10.883	174	67691	50.56	ug/L		0.00
Target Compounds							Qvalue
3) Chloromethane	1.891	50	783	0.36	ug/L		85
5) Bromomethane	2.336	96	2726	0.99	ug/L		96
6) Chloroethane	2.482	64	403	1.64	ug/L	#	55
8) Ethanol	3.315	45	1643	Below Cal			87
10) Carbon Disulfide	3.139	76	797	0.23	ug/L		78
12) Iodomethane	3.285	142	2762	4.42	ug/L		87
13) Methylene Chloride	3.771	84	2596	Below Cal			92
14) Acetone	3.875	43	1444	Below Cal		#	42
28) Tetrahydrofuran	5.602	42	350	0.22	ug/L	#	30
32) 2-Butanone (MEK)	5.748	43	608	0.28	ug/L		52
34) tert-Amyl methyl ether...	6.180	73	241	Below Cal		#	46
36) iso-Butyl Alcohol	6.332	43	707	2.76	ug/L		89
58) m,p-Xylenes (2)	10.007	91	1126	0.17	ug/L		78
66) n-Propylbenzene	11.005	91	1115	0.12	ug/L		86
69) 1,3,5-Trimethylbenzene	11.163	105	540	0.09	ug/L		77
72) 4-Chlorotoluene	11.260	91	631	0.11	ug/L	#	46
74) 1,2,4-Trimethylbenzene	11.461	105	529	0.08	ug/L		92
75) sec-Butylbenzene	11.552	105	790	0.10	ug/L		74
76) 4-Isopropyltoluene	11.662	119	923	0.15	ug/L		91
77) 1,3-Dichlorobenzene	11.716	146	307	0.10	ug/L	#	74
78) 1,4-Dichlorobenzene	11.783	146	427	0.14	ug/L	#	59
79) n-Butylbenzene	11.978	91	1245	0.22	ug/L		80
83) 1,2,4-Trichlorobenzene	13.243	180	464	0.24	ug/L		84
84) Naphthalene	13.517	128	667	0.09	ug/L		79
85) 1,2,3-Trichlorobenzene	13.681	180	299	0.16	ug/L		85

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092645.D
Acq On : 27 Sep 2019 5:03 am
Operator : TB
Sample : 9I26051-IBL6
Misc : 1X 5mL DI+MeOH
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 27 15:40:19 2019
Quant Method : C:\msdchem\1\methods\VJ190926S+.M
Quant Title : EPA 8260C: Volatile Organic Compounds
QLast Update : Fri Sep 27 13:24:27 2019
Response via : Initial Calibration



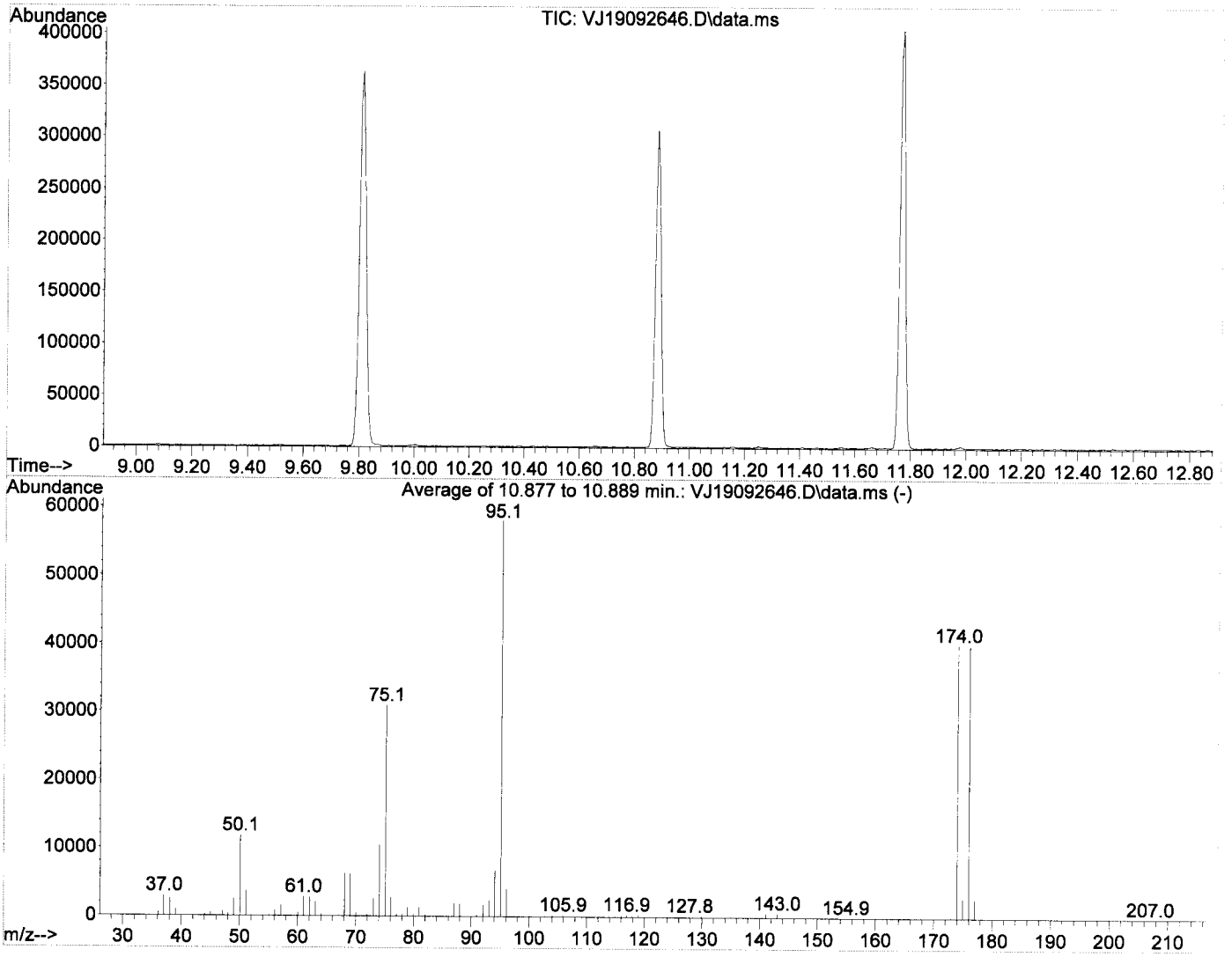
BFB

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092646.D
Acq On : 27 Sep 2019 5:30 am
Operator : TB
Sample : 9I26051-TUN2
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1

Integration File: APEXG.P

Method : C:\msdchem\1\methods\VJ190926G.M
Title : NWTPH-Gx by GC/MS
Last Update : Fri Sep 27 15:17:10 2019

9/27/19



AutoFind: Scans 1528, 1529, 1530; 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	144.7	58115	PASS
96	95	5	9	7.0	4039	PASS
173	174	0.00	2	0.5	215	PASS
174	95	50	200	69.1	40149	PASS
175	174	5	9	7.2	2881	PASS
176	174	95	105	99.7	40040	PASS
177	176	5	10	6.7	2683	PASS

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092646.D
Acq On : 27 Sep 2019 5:30 am
Operator : TB
Sample : 9I26051-TUN2
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1

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Quant Time: Sep 27 15:40:56 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration

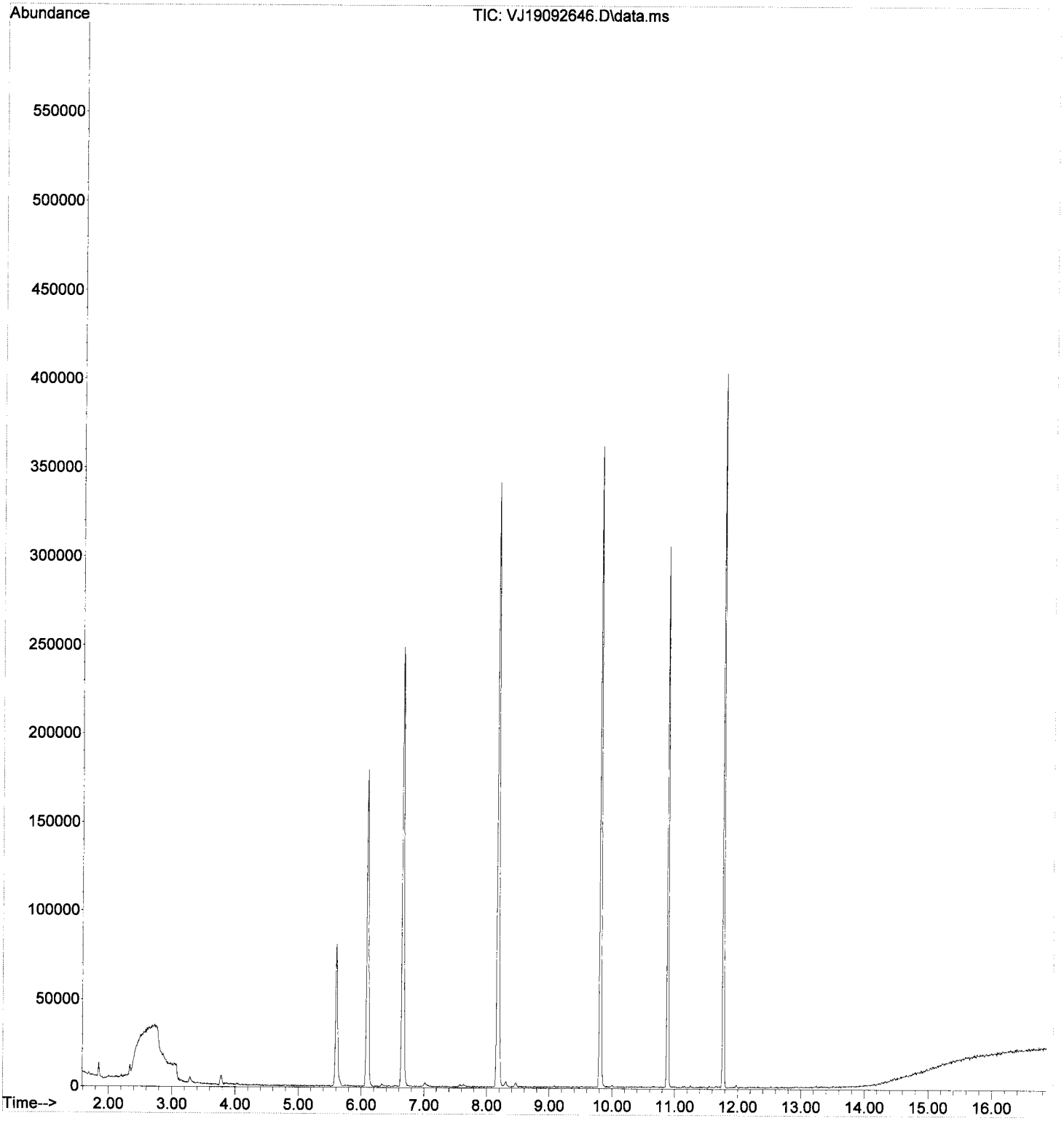
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	120433	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	214827	50.36	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.883	174	66427	50.66	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	264347	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	190197	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	136083	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	47971m	5.26	ug/L	
5) TPHg (C5-C9)	9.239	TIC	264127m	1.93	ug/L	
6) TPHg (C6-C10)	9.239	TIC	225009m	4.66	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	274145m	2.43	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092646.D
Acq On : 27 Sep 2019 5:30 am
Operator : TB
Sample : 9I26051-TUN2
Misc : A19G118 BFB (IS/SURR)
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 27 15:40:56 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092647.D
Acq On : 27 Sep 2019 5:57 am
Operator : TB
Sample : 9I26051-RT
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 27 15:40:58 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration

9/27/19

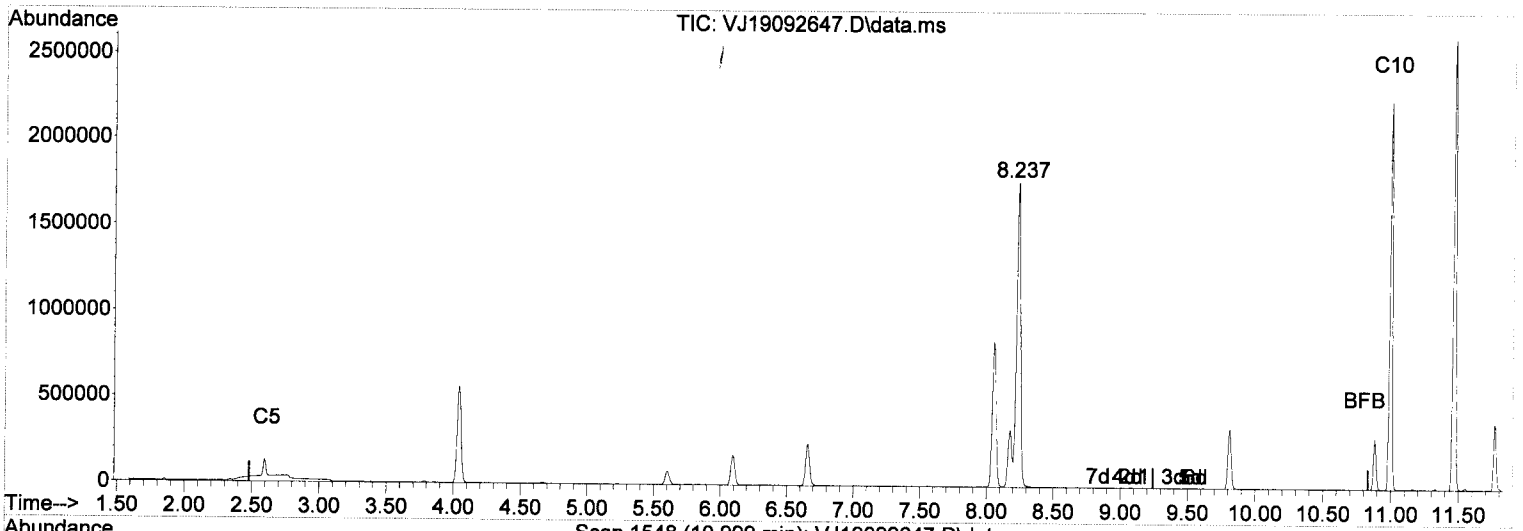
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	117165	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.661	114	206170	49.68	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	62468	48.97	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	254880	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	179031	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	128970	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	17670019m	2988.46	ug/L	
5) TPHg (C5-C9)	9.239	TIC	7575246m	1033.24	ug/L	
6) TPHg (C6-C10)	9.239	TIC	6809899m	1087.23	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	15896612m	1821.17	ug/L	

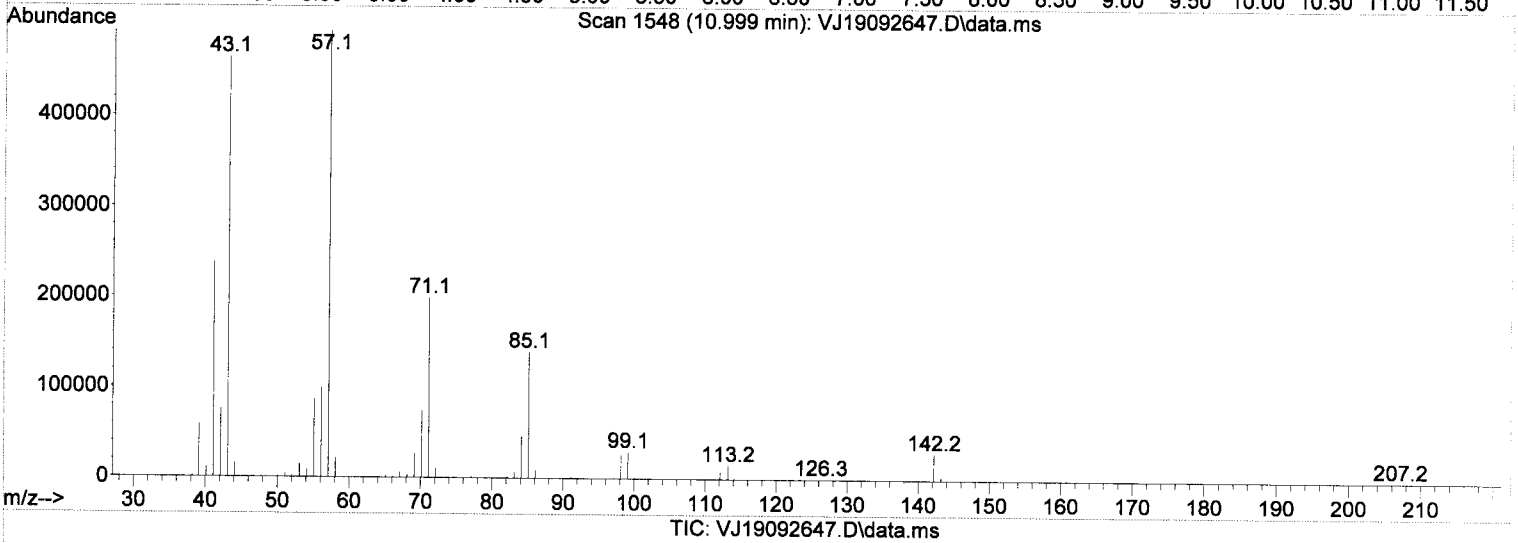
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092647.D
Acq On : 27 Sep 2019 5:57 am
Operator : TB
Sample : 9I26051-RT
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 27 15:09:45 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration





TIC: VJ19092647.D\data.ms

(5) TPHg (C5-C9) (H)

9.239min (0.000) 916.40 ug/L m

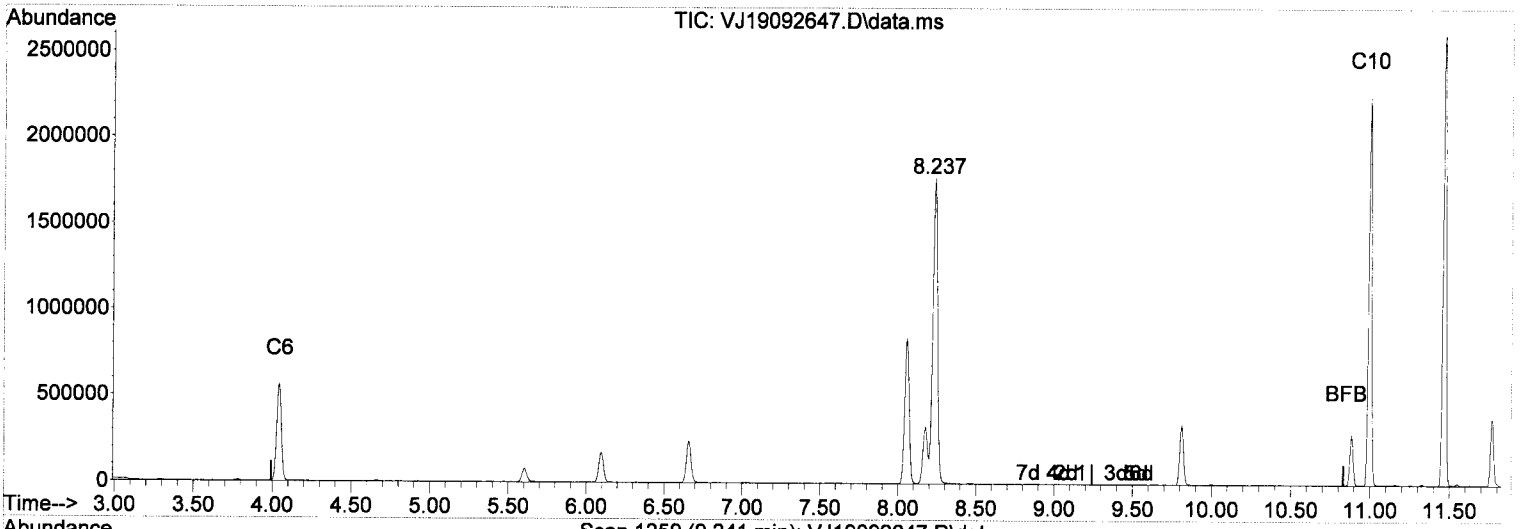
response 7575246

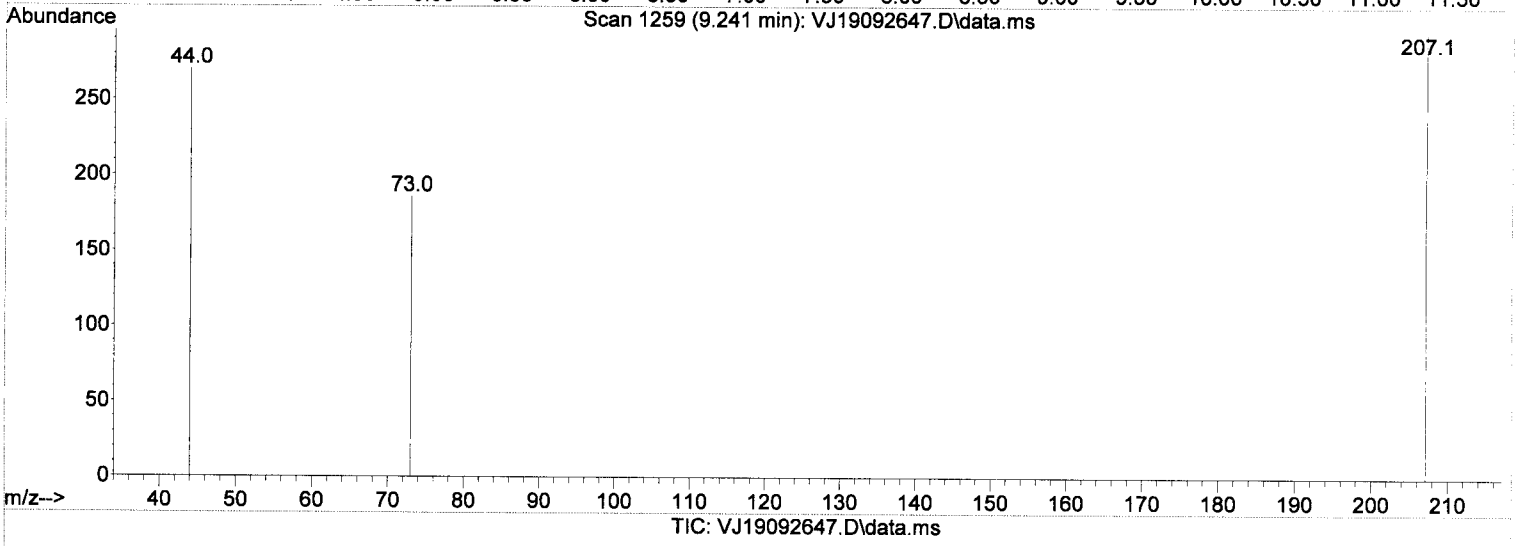
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.44#
0.00	0.00	1.31#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092647.D
Acq On : 27 Sep 2019 5:57 am
Operator : TB
Sample : 9I26051-RT
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 27 15:09:45 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration





TIC: VJ19092647.D\data.ms

(6) TPHg (C6-C10) (H)

9.239min (0.000) 1025.83 ug/L m

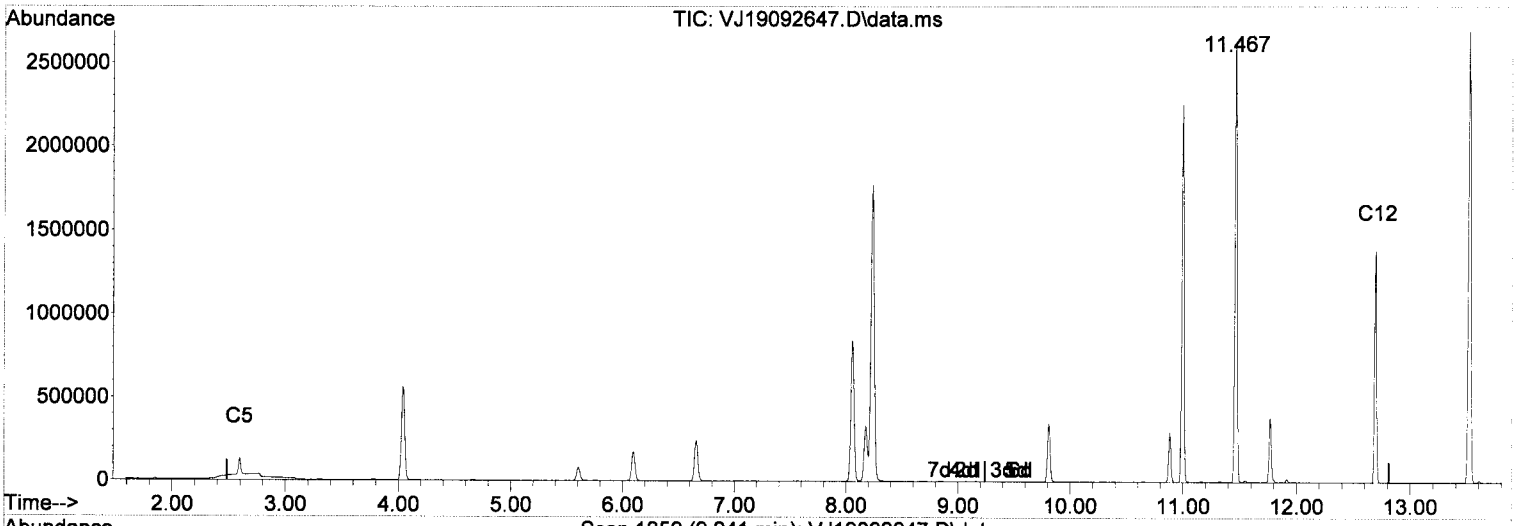
response 6809899

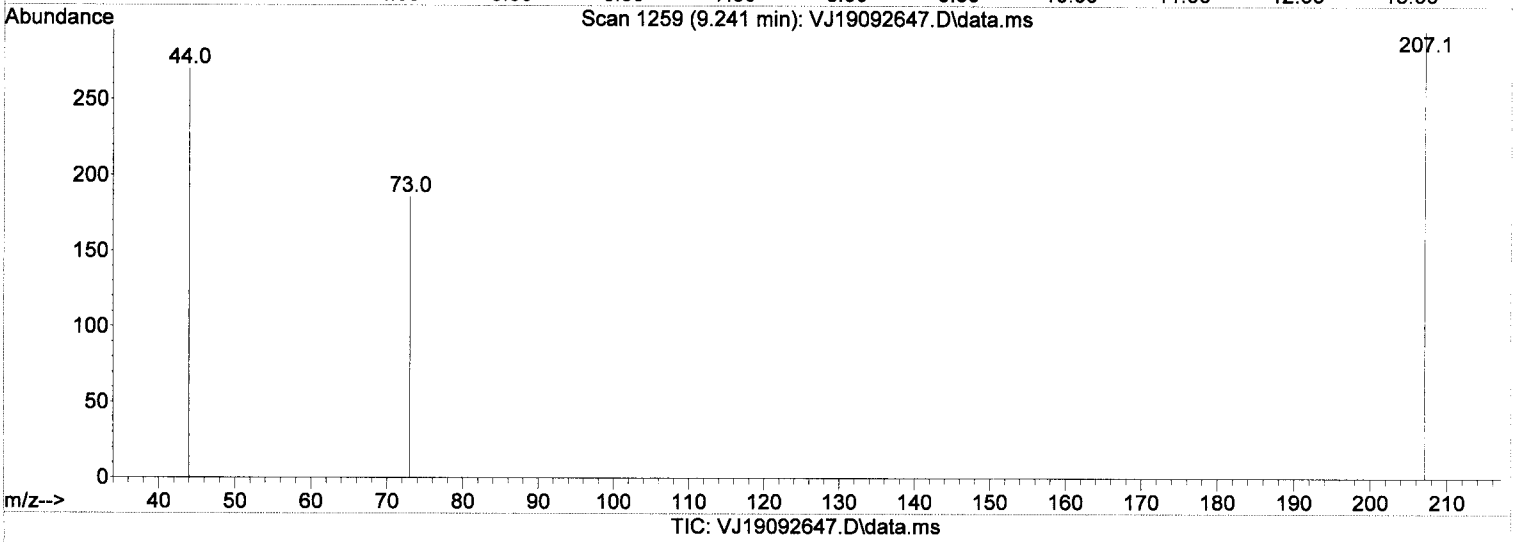
Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	2.72#
0.00	0.00	1.46#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092647.D
Acq On : 27 Sep 2019 5:57 am
Operator : TB
Sample : 9I26051-RT
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 27 15:09:45 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration





TIC: VJ19092647.D\data.ms

(7) CA-LUFT (C5-C12) (H)

9.239min (0.000) 1619.78 ug/L m

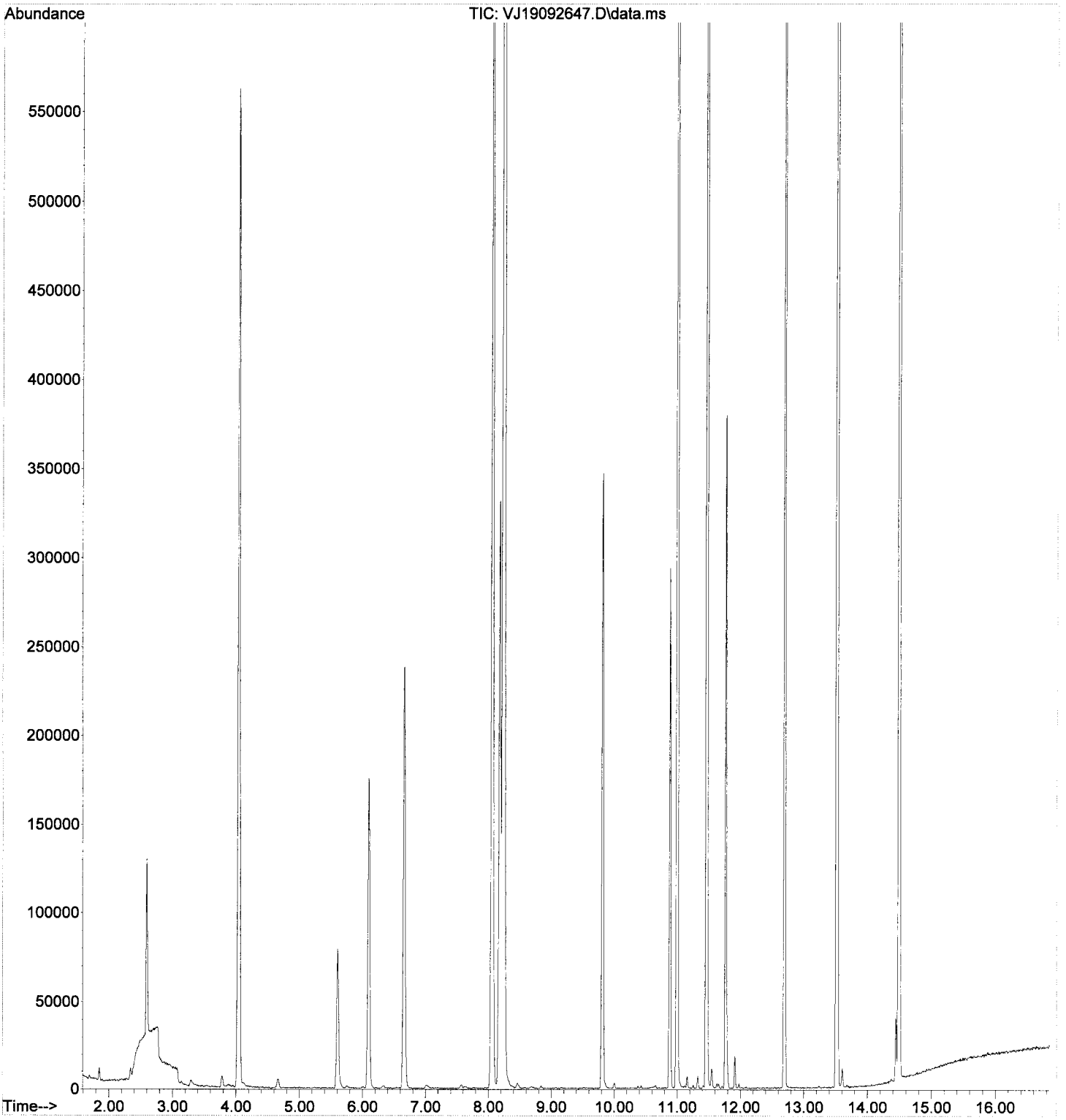
response 15896612

Signal	Exp%	Act%
TIC	100.00	100.00
0.00	0.00	1.16#
0.00	0.00	0.63#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092647.D
Acq On : 27 Sep 2019 5:57 am
Operator : TB
Sample : 9I26051-RT
Misc : 1X 5mL DI+MeOH
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 27 15:40:58 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092648.D
Acq On : 27 Sep 2019 6:23 am
Operator : TB
Sample : 9I26051-IBL7
Misc : 1X 5mL DI+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 27 15:41:00 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration

NR

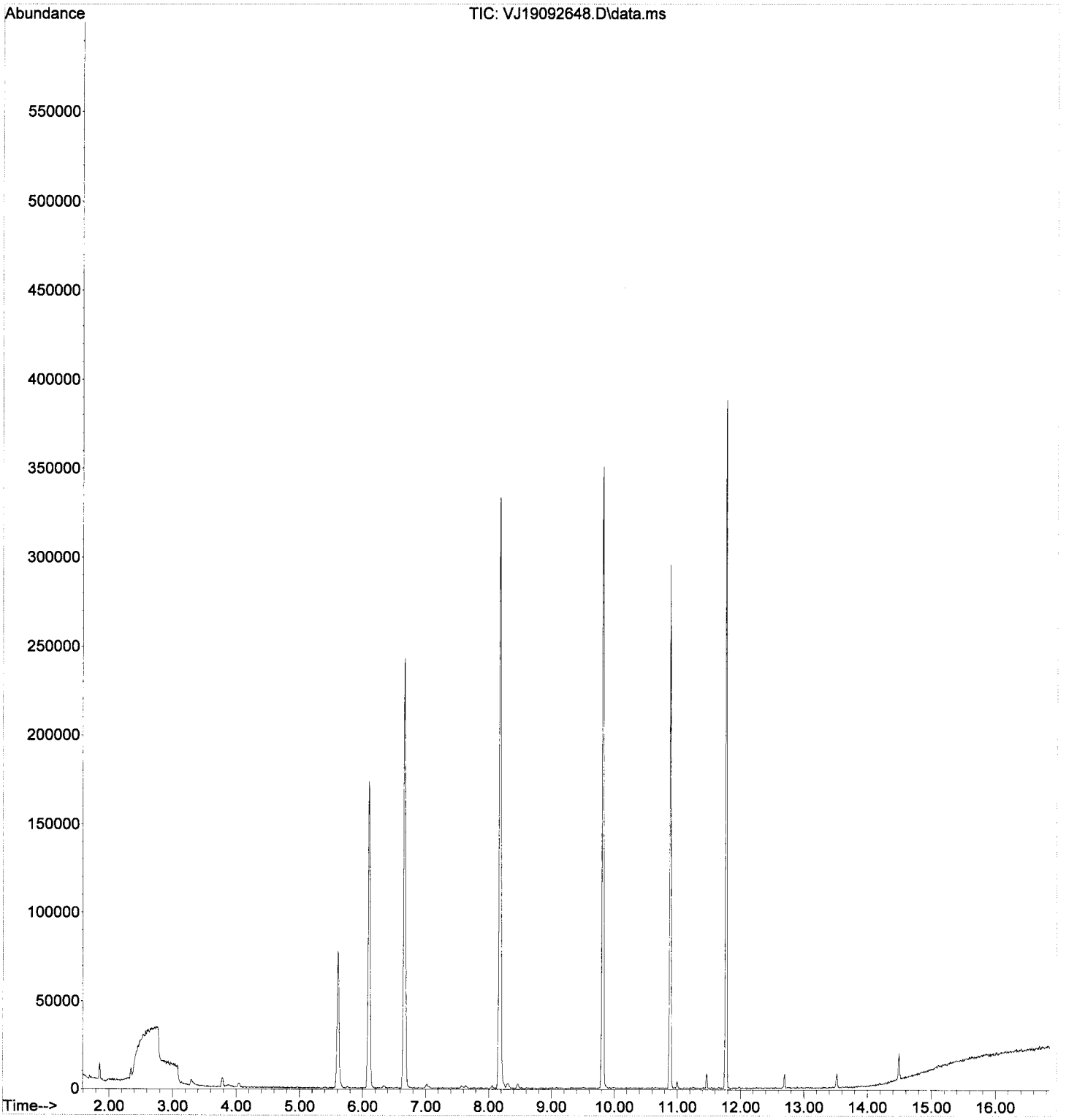
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	116616	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.661	114	206735	50.05	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	63542	50.05	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	252991	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	182159	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	128347	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	130539m	19.74	ug/L	
5) TPHg (C5-C9)	9.239	TIC	283988m	5.92	ug/L	
6) TPHg (C6-C10)	9.239	TIC	254816m	10.75	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	332327m	10.21	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092648.D
Acq On : 27 Sep 2019 6:23 am
Operator : TB
Sample : 9I26051-IBL7
Misc : 1X 5mL DI+MeOH
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 27 15:41:00 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092649.D
Acq On : 27 Sep 2019 6:50 am
Operator : TB
Sample : 9I26051-ICB2
Misc : 1X 5mL DI+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 27 15:41:02 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration

9/27/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.101	168	119292	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.661	114	210475	49.82	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	65308	50.28	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	260955	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	185538	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	131535	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	85582m	11.66	ug/L	
5) TPHg (C5-C9)	9.239	TIC	281021m	4.61	ug/L	
6) TPHg (C6-C10)	9.239	TIC	249005m	8.87	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	306027m	6.35	ug/L	

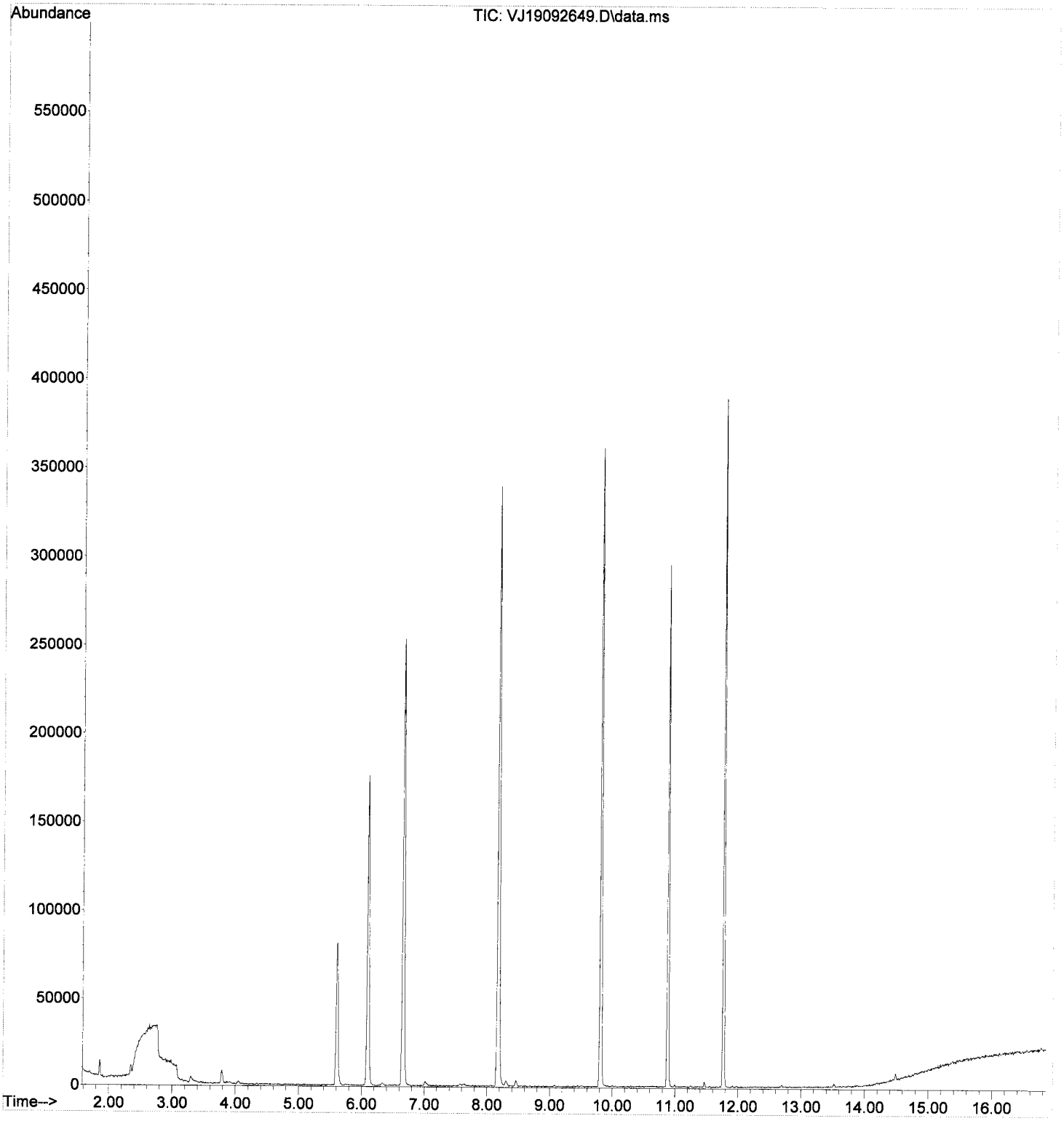
NWDL

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092649.D
Acq On : 27 Sep 2019 6:50 am
Operator : TB
Sample : 9I26051-ICB2
Misc : 1X 5mL DI+MeOH
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 27 15:41:02 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092650.D
Acq On : 27 Sep 2019 7:17 am
Operator : TB
Sample : 9I26051-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 27 15:12:56 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration

9/27/19

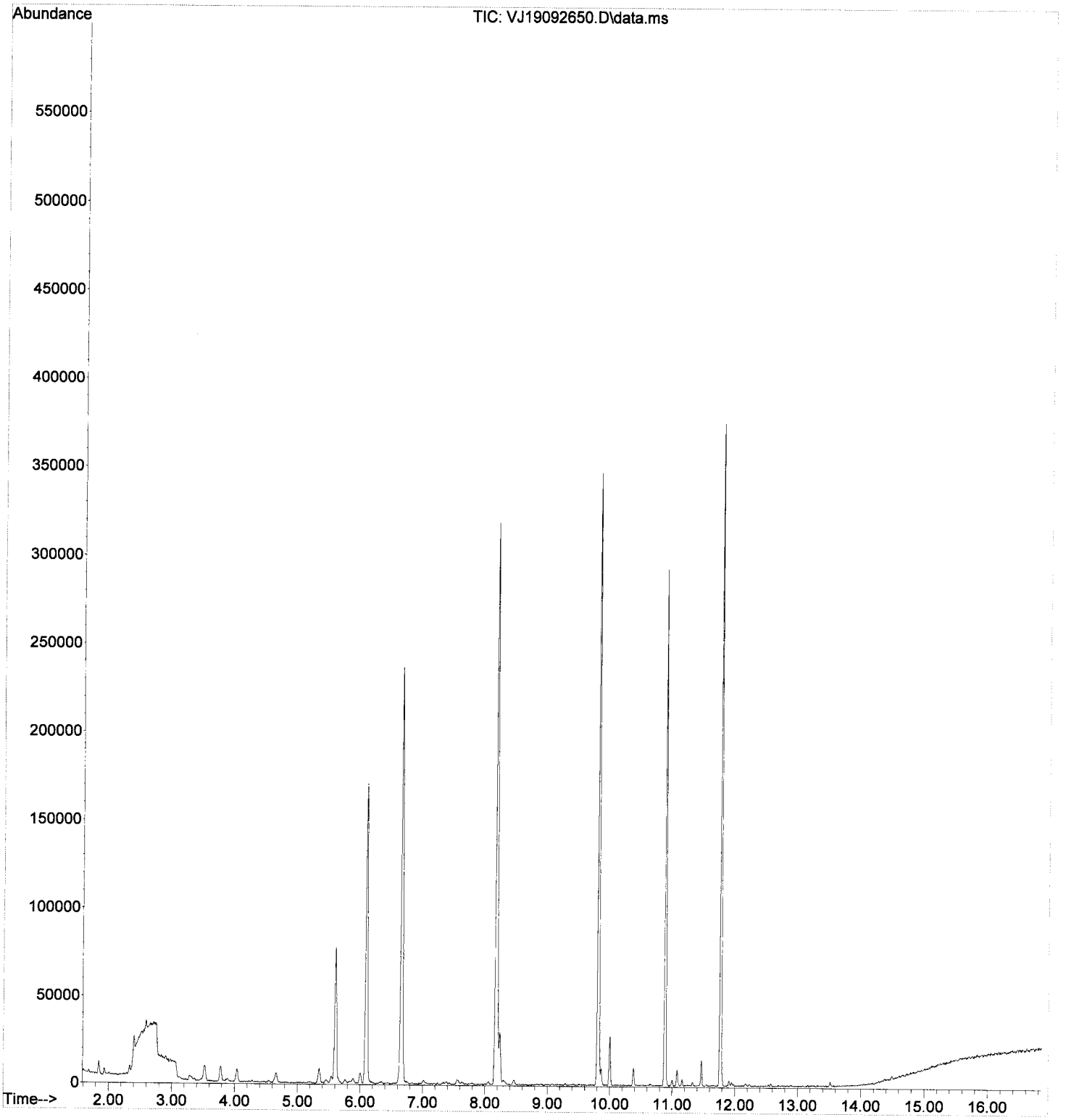
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	113074	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	199925	49.53	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.883	174	61945	50.05	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	246095	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	175594	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	123494	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	320378m	55.69	ug/L	
5) TPHg (C5-C9)	9.239	TIC	547585m	68.64	ug/L	
6) TPHg (C6-C10)	9.239	TIC	489865m	76.46	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	629208m	66.43	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092650.D
Acq On : 27 Sep 2019 7:17 am
Operator : TB
Sample : 9I26051-CALC
Misc : 1X 5mL 50PPB GX+MeOH
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 27 15:12:56 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092651.D
Acq On : 27 Sep 2019 7:44 am
Operator : TB
Sample : 9I26051-CALD
Misc : 1X 5mL 100PPB GX+MeOH
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 27 15:12:58 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration

9/27/19

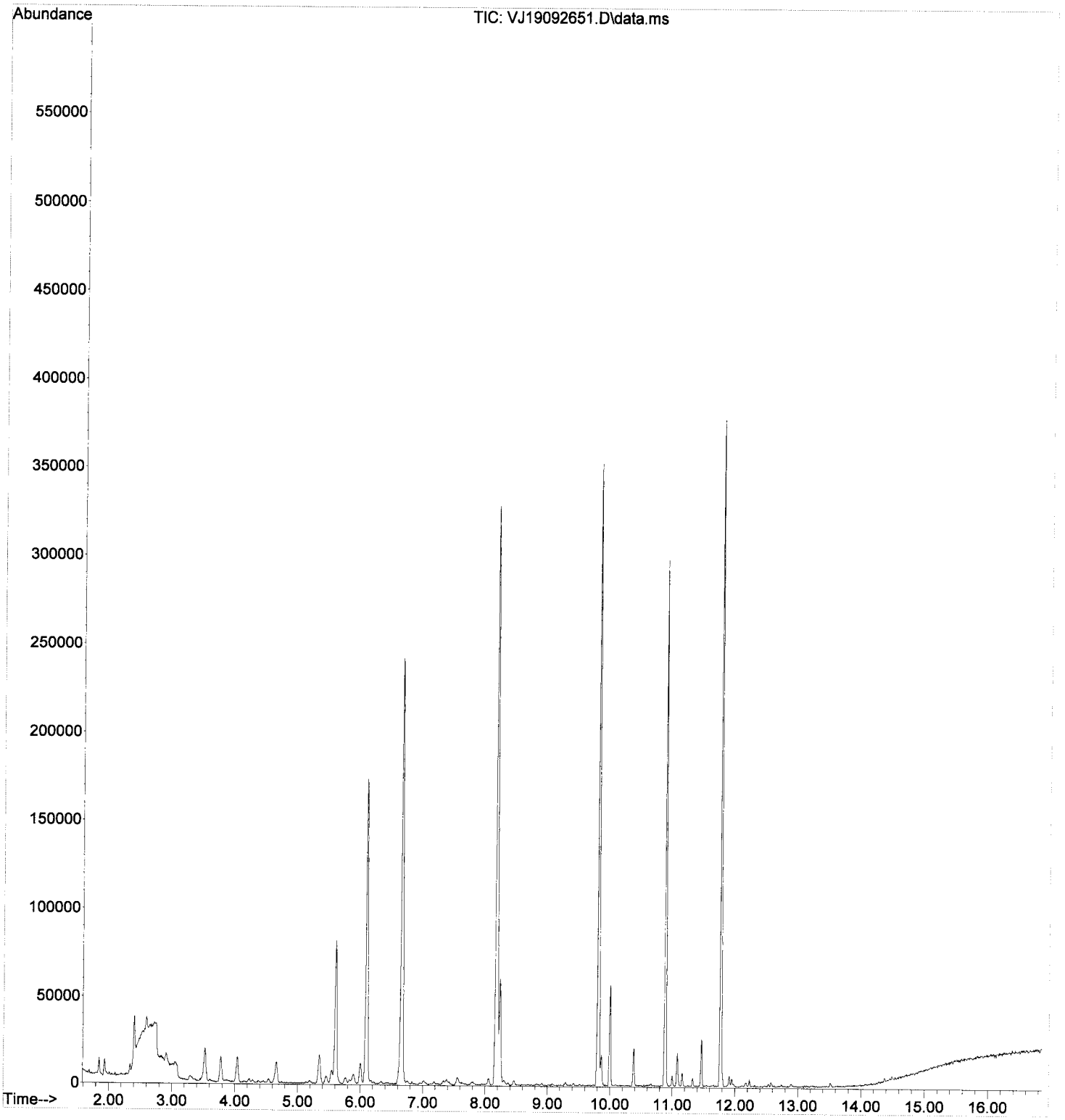
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	115073	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.661	114	203204	49.47	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	61650	48.95	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	251857	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	180421	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	126478	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	582275m	99.45	ug/L	
5) TPHg (C5-C9)	9.239	TIC	887919m	109.37	ug/L	
6) TPHg (C6-C10)	9.239	TIC	797203m	122.27	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	1035063m	107.38	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092651.D
Acq On : 27 Sep 2019 7:44 am
Operator : TB
Sample : 9I26051-CALD
Misc : 1X 5mL 100PPB GX+MeOH
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 27 15:12:58 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092652.D
Acq On : 27 Sep 2019 8:10 am
Operator : TB
Sample : 9I26051-CALE
Misc : 1X 5mL 250PPB GX+MeOH
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 27 15:13:00 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration

9/27/19

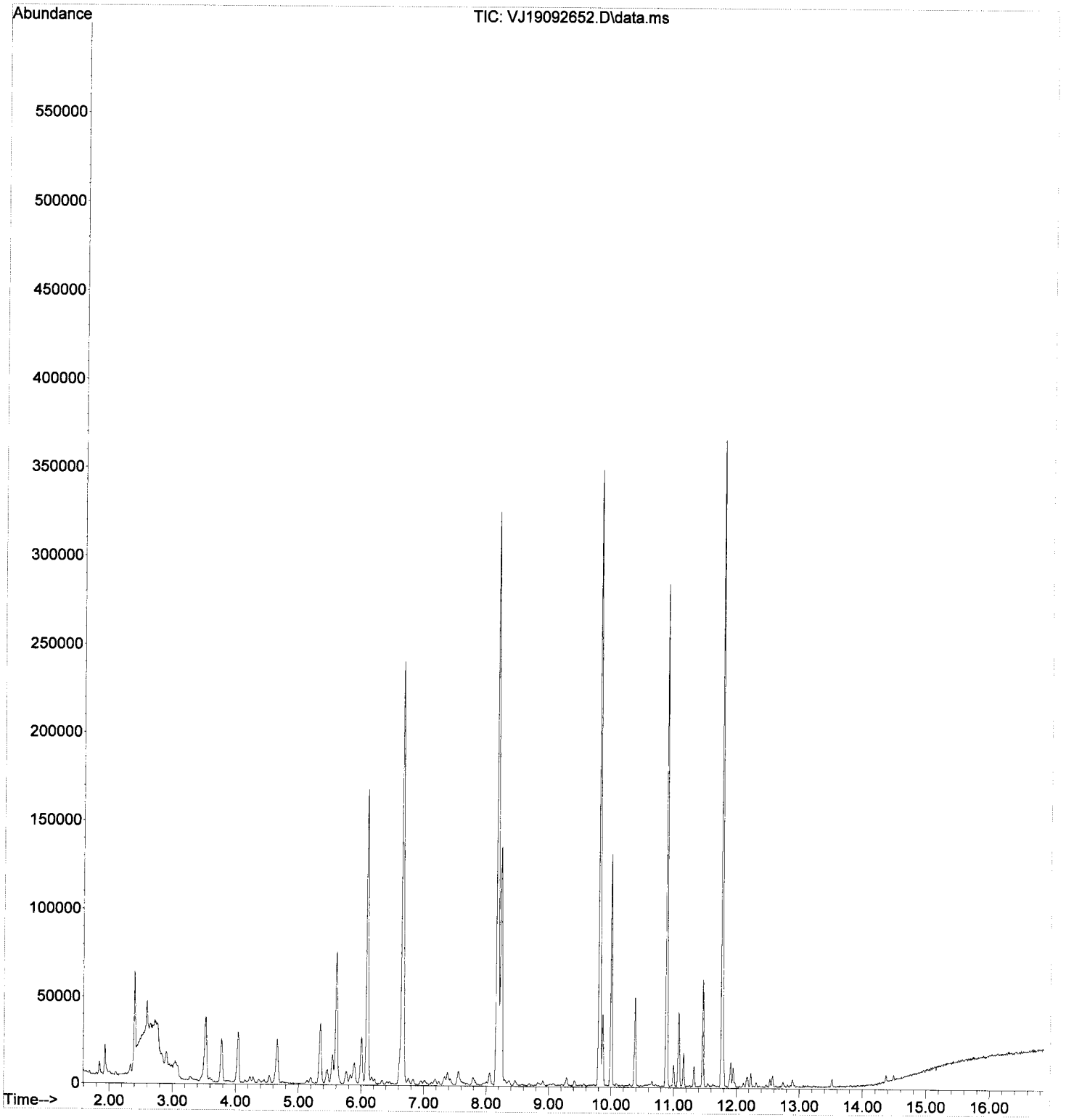
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	109981	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	194788	49.61	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.883	174	59627	49.54	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	248322	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	174976	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	122856	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	1319842m	235.86	ug/L	
5) TPHg (C5-C9)	9.239	TIC	2115593m	272.65	ug/L	
6) TPHg (C6-C10)	9.239	TIC	1528260m	245.25	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	2461965m	267.25	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092652.D
Acq On : 27 Sep 2019 8:10 am
Operator : TB
Sample : 9I26051-CALE
Misc : 1X 5mL 250PPB GX+MeOH
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 27 15:13:00 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092653.D
Acq On : 27 Sep 2019 8:37 am
Operator : TB
Sample : 9I26051-CALF
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 27 15:13:02 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration

9/27/19

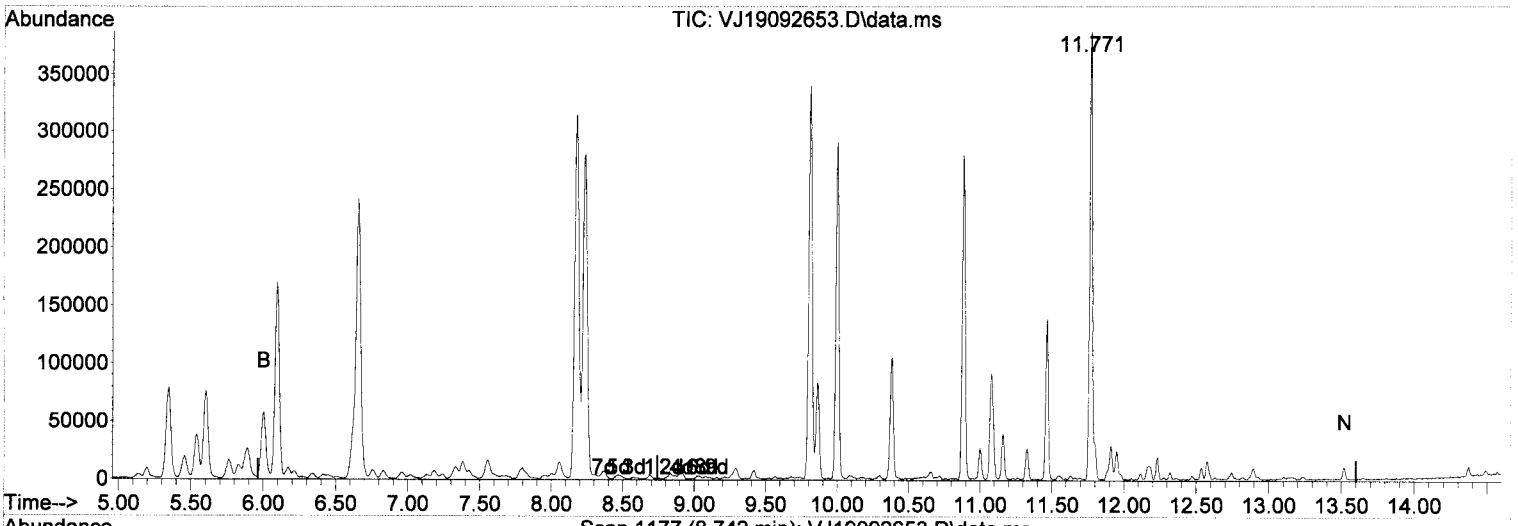
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	109511	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	195473	50.00	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.883	174	59929	50.00	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	240291	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	170766	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	122659	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	2785925m	500.00	ug/L	
5) TPHg (C5-C9)	9.239	TIC	3863135m	500.00	ug/L	
6) TPHg (C6-C10)	9.239	TIC	3102369m	500.00	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	4586468m	500.00	ug/L	

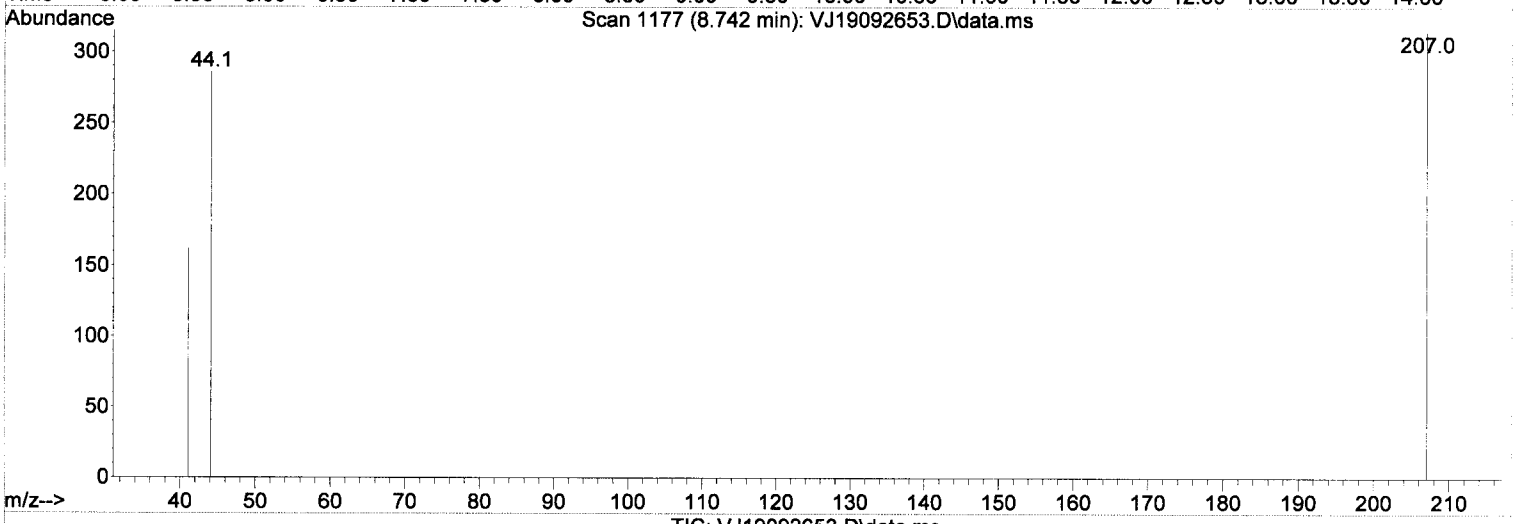
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092653.D
Acq On : 27 Sep 2019 8:37 am
Operator : TB
Sample : 9I26051-CALF
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 27 15:13:02 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration





TIC: VJ19092653.D\data.ms

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

8.739min (0.000) 500.00 ug/L m

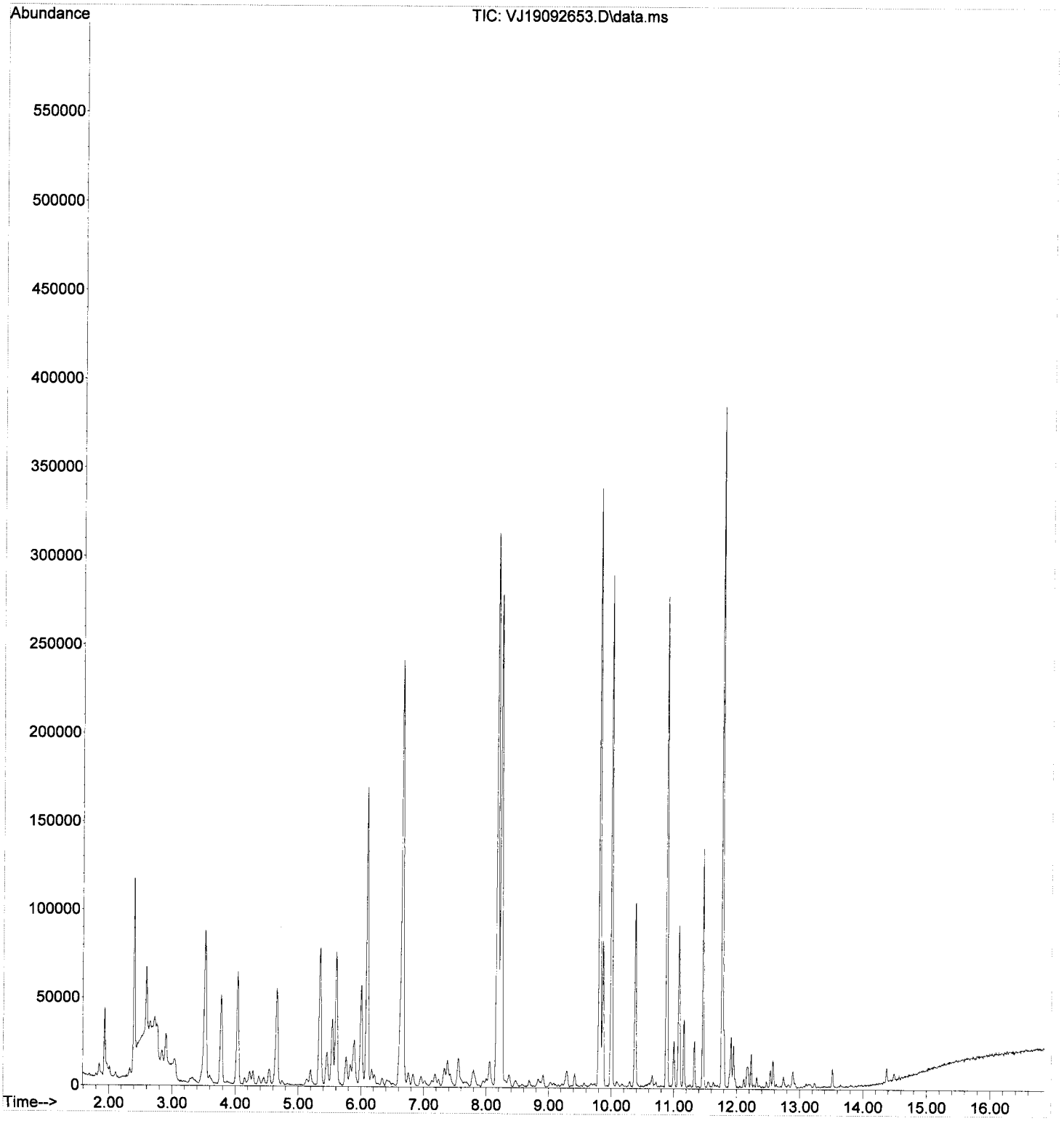
response 2785925

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\2019-09\9I26051\
Data File : VJ19092653.D
Acq On : 27 Sep 2019 8:37 am
Operator : TB
Sample : 9I26051-CALF
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 27 15:13:02 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092654.D
Acq On : 27 Sep 2019 9:04 am
Operator : TB
Sample : 9I26051-CALG
Misc : 1X 5mL 1000PPB GX+MeOH
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 27 15:13:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration

9/27/19

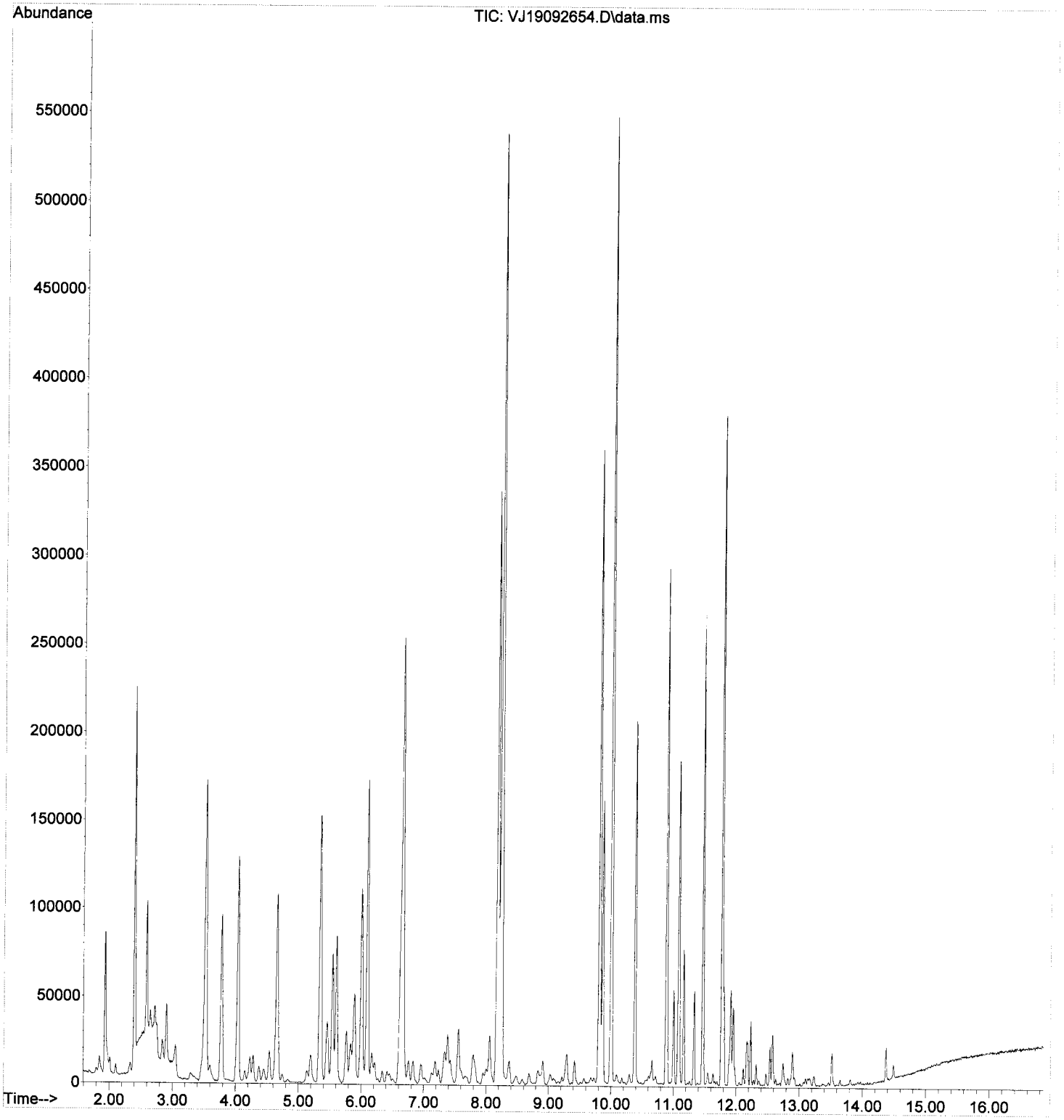
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	113434	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	201528	49.77	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.883	174	62285	50.17	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	249483	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	177920	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	128271	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	5469213m	947.63	ug/L	
5) TPHg (C5-C9)	9.239	TIC	6838678m	854.51	ug/L	
6) TPHg (C6-C10)	9.239	TIC	5909770m	919.52	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	8260112m	869.34	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092654.D
Acq On : 27 Sep 2019 9:04 am
Operator : TB
Sample : 9I26051-CALG
Misc : 1X 5mL 1000PPB GX+MeOH
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 27 15:13:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092655.D
Acq On : 27 Sep 2019 9:31 am
Operator : TB
Sample : 9I26051-CALH
Misc : 1X 5mL 2500PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Sep 27 15:13:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration

9/27/19

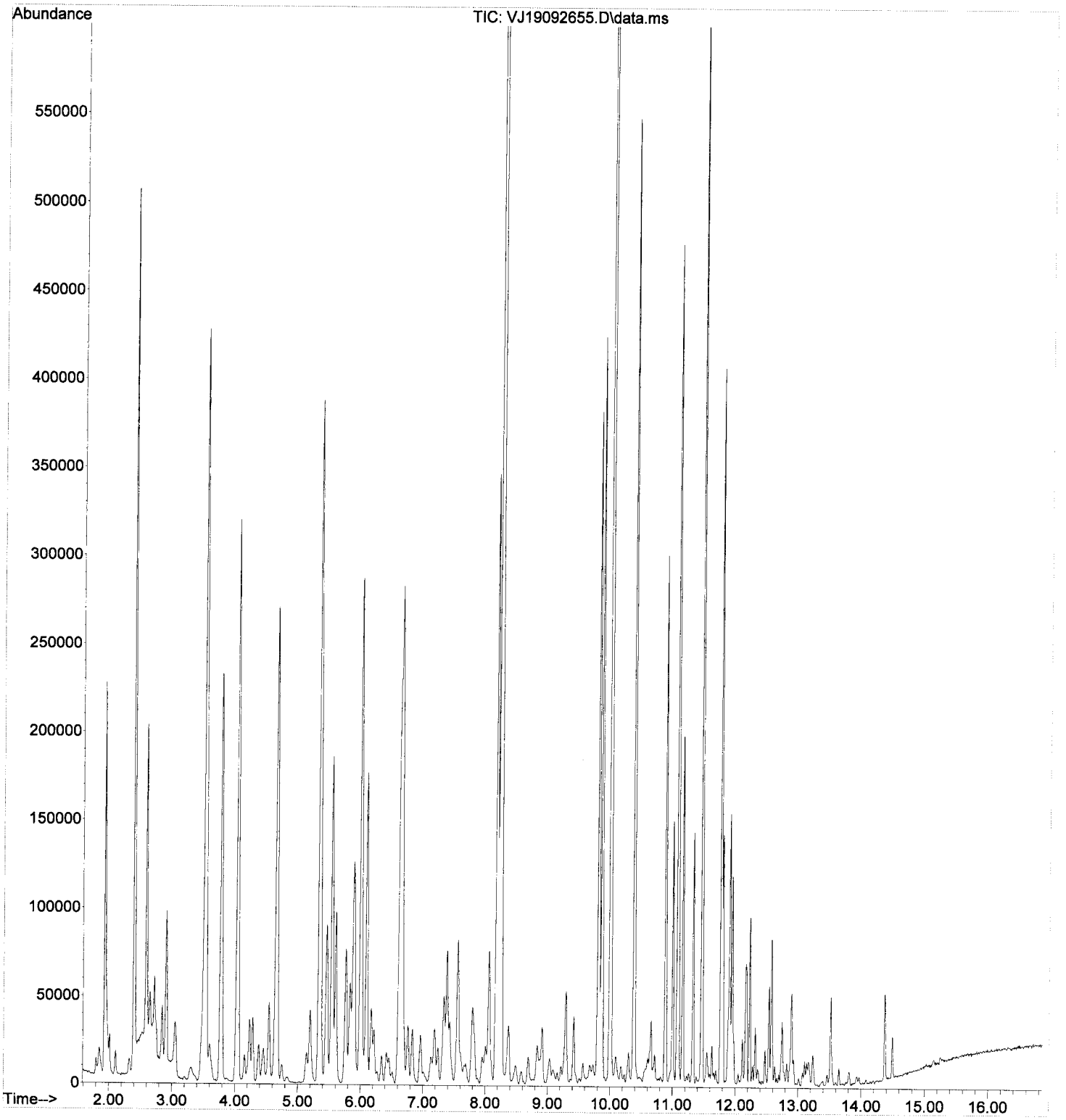
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	116493	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.661	114	206587	49.68	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	64135	50.30	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	256710	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	182086	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	133120	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	14265094m	2406.76	ug/L	
5) TPHg (C5-C9)	9.239	TIC	17085853m	2078.86	ug/L	
6) TPHg (C6-C10)	9.239	TIC	14962149m	2266.88	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	20676428m	2118.97	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092655.D
Acq On : 27 Sep 2019 9:31 am
Operator : TB
Sample : 9I26051-CALH
Misc : 1X 5mL 2500PPB GX+MeOH
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Sep 27 15:13:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092656.D
Acq On : 27 Sep 2019 9:57 am
Operator : TB
Sample : 9I26051-CALI
Misc : 1X 5mL 5000PPB GX+MeOH
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 27 15:13:08 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration

9/27/19

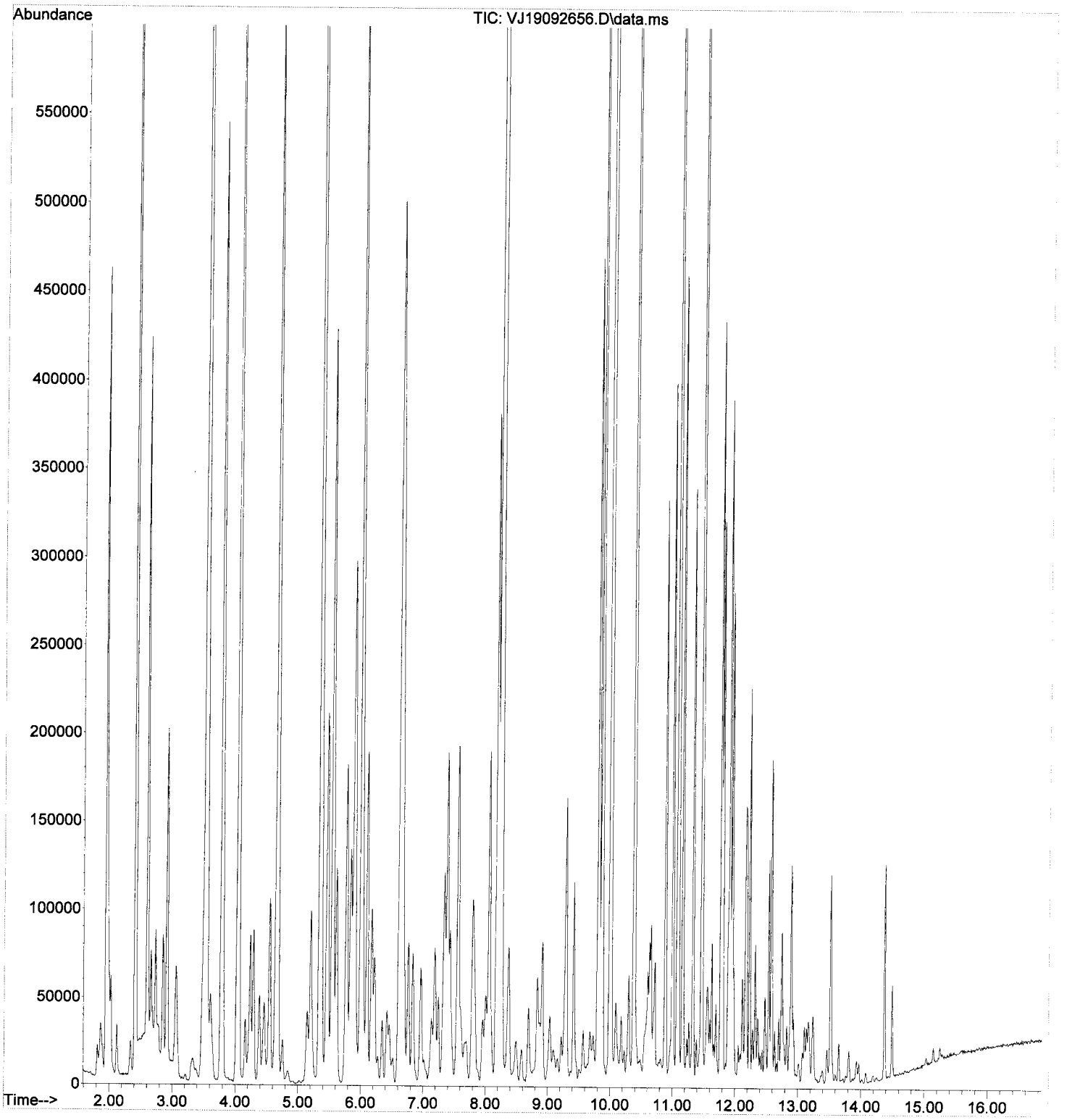
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.101	168	127905	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.661	114	225634	49.41	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	69662	49.76	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	280401	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	199102	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	144581	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	33666424m	5173.30	ug/L	
5) TPHg (C5-C9)	9.239	TIC	39110660m	4334.07	ug/L	
6) TPHg (C6-C10)	9.239	TIC	34126649m	4709.13	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	47858853m	4467.08	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092656.D
Acq On : 27 Sep 2019 9:57 am
Operator : TB
Sample : 9I26051-CALI
Misc : 1X 5mL 5000PPB GX+MeOH
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 27 15:13:08 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092657.D
Acq On : 27 Sep 2019 10:24 am
Operator : TB
Sample : 9I26051-CALJ
Misc : 1X 5mL 10000PPB GX+MeOH
ALS Vial : 33 Sample Multiplier: 1

9/27/19

Quant Time: Sep 27 15:13:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration

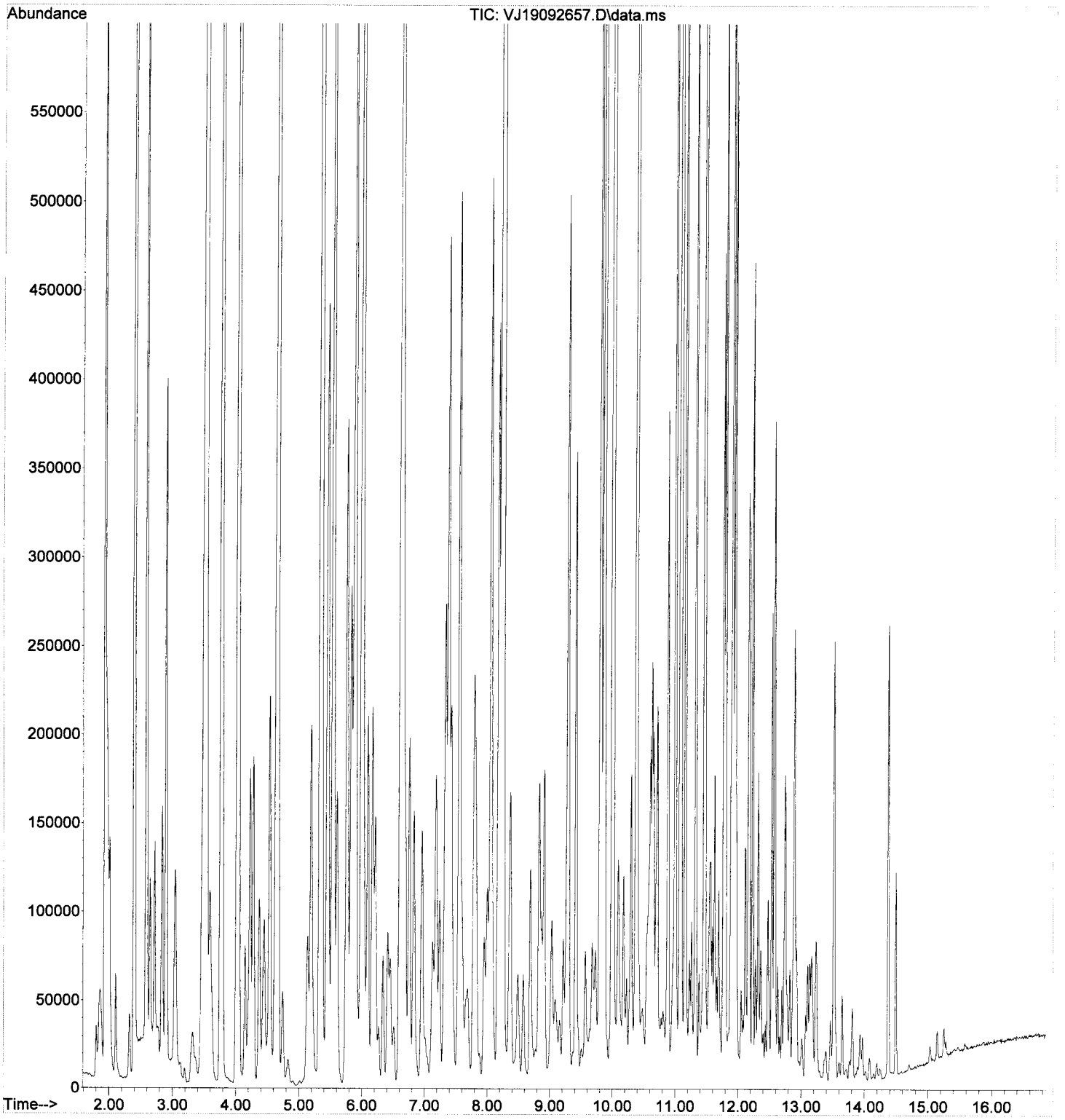
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	143951	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	253792	49.39	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.883	174	77412	49.13	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	306318	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	214977	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	160764	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	74235934m	10135.79	ug/L	
5) TPHg (C5-C9)	9.239	TIC	84398982m	8310.18	ug/L	
6) TPHg (C6-C10)	9.239	TIC	73819086m	9050.83	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	103185189m	8557.60	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092657.D
Acq On : 27 Sep 2019 10:24 am
Operator : TB
Sample : 9I26051-CALJ
Misc : 1X 5mL 10000PPB GX+MeOH
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 27 15:13:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:08:33 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092658.D
Acq On : 27 Sep 2019 10:51 am
Operator : TB
Sample : 9I26051-IBL8
Misc : 1X 5mL DI+MeOH
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Sep 27 15:41:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration

NR

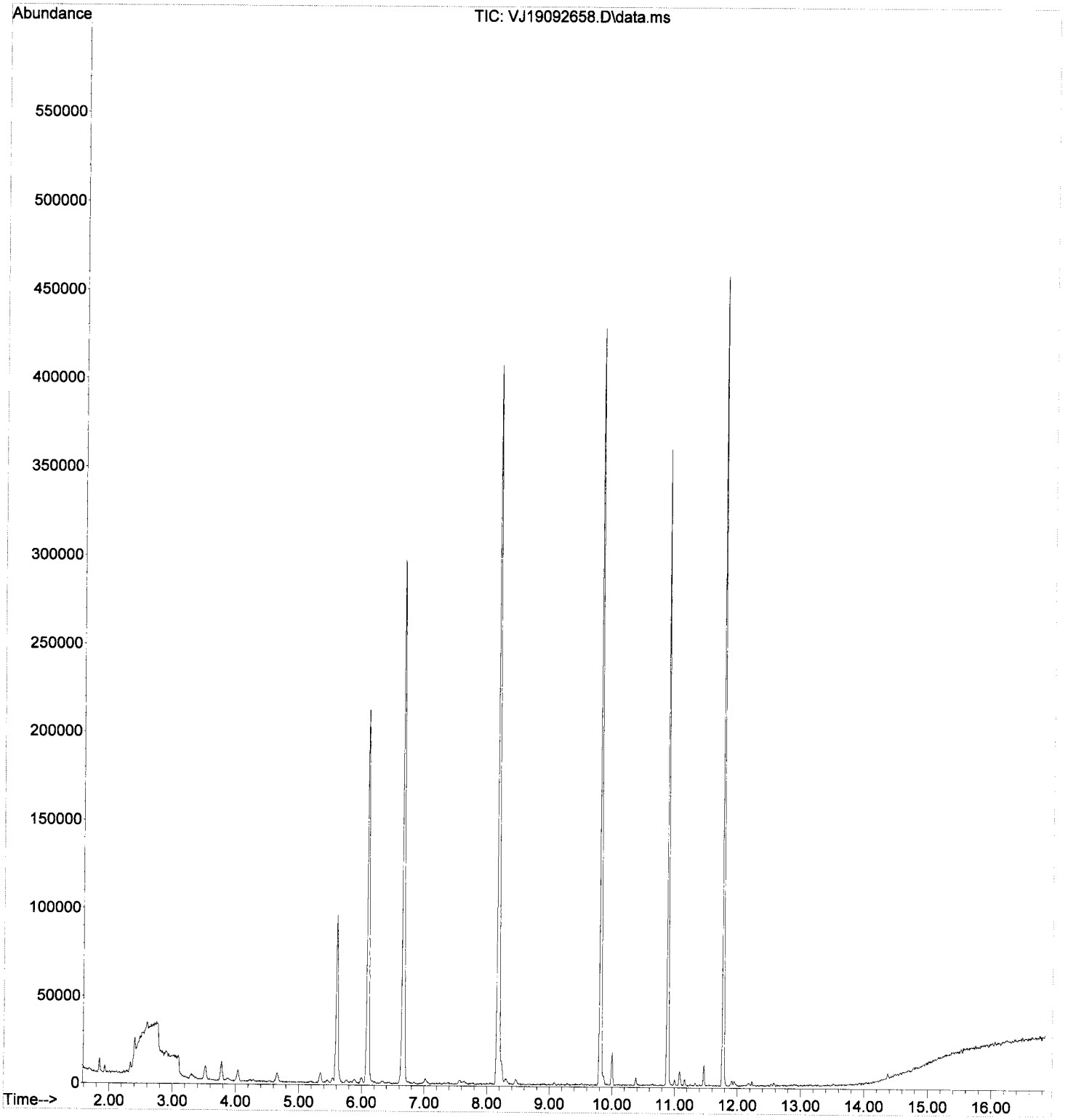
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	152094	50.00	ug/L	-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	264876	49.17	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.883	174	81263	49.07	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	321366	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.813	117	229527	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	161319	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	246323m	29.78	ug/L	
5) TPHg (C5-C9)	9.239	TIC	510049m	21.02	ug/L	
6) TPHg (C6-C10)	9.239	TIC	440067m	24.36	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	597324m	24.83	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092658.D
Acq On : 27 Sep 2019 10:51 am
Operator : TB
Sample : 9I26051-IBL8
Misc : 1X 5mL DI+MeOH
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Sep 27 15:41:04 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092659.D
Acq On : 27 Sep 2019 11:18 am
Operator : TB
Sample : 9I26051-IBL9
Misc : 1X 5mL DI+MeOH
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Sep 27 15:41:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration

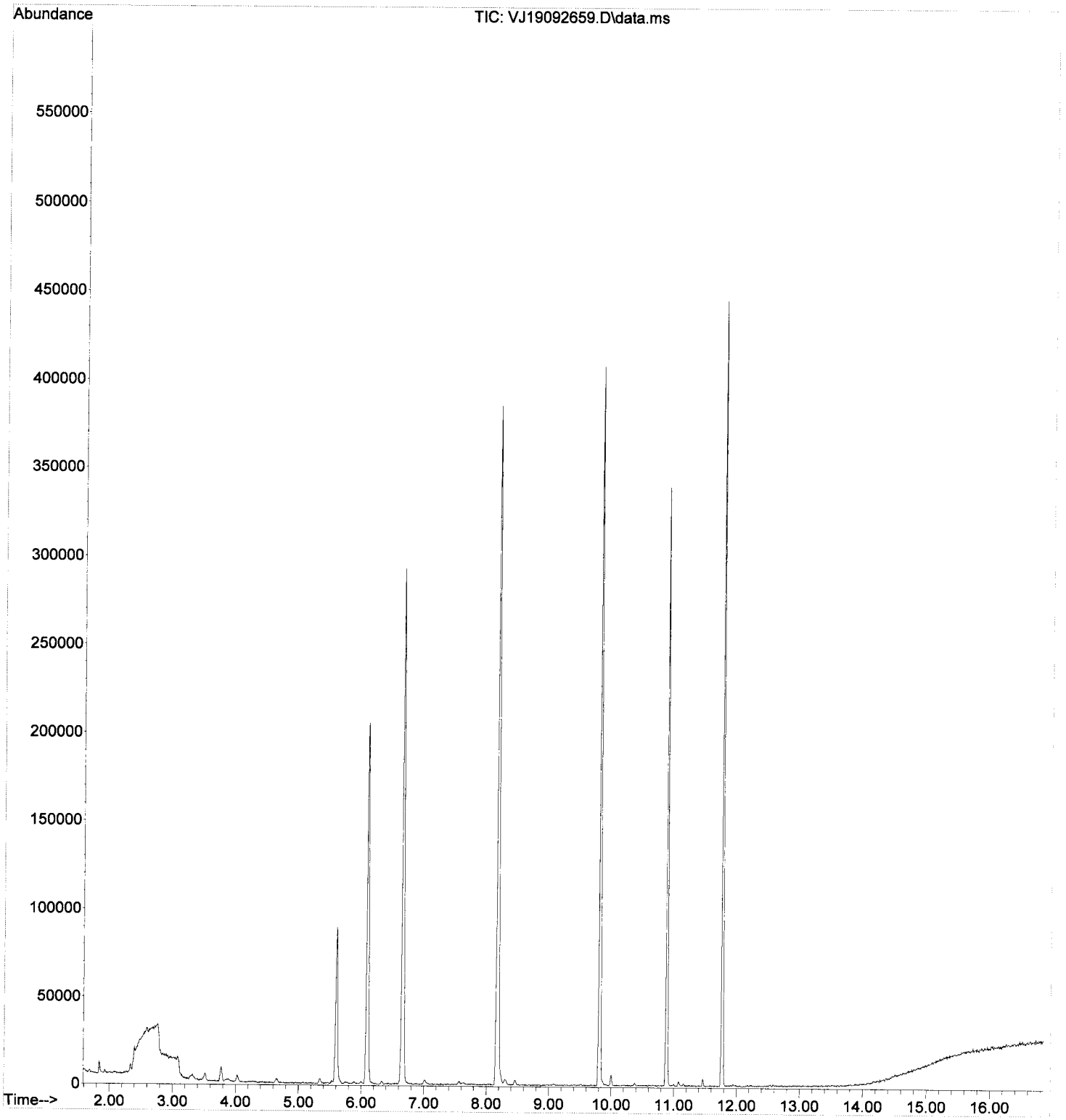
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	145500	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	255042	49.49	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.883	174	77394	48.86	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	309277	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	221345	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	157118	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	136683m	16.12	ug/L	
5) TPHg (C5-C9)	9.239	TIC	380739m	8.90	ug/L	
6) TPHg (C6-C10)	9.239	TIC	330136m	12.36	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	417382m	10.47	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092659.D
Acq On : 27 Sep 2019 11:18 am
Operator : TB
Sample : 9I26051-IBL9
Misc : 1X 5mL DI+MeOH
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Sep 27 15:41:06 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092660.D
Acq On : 27 Sep 2019 11:45 am
Operator : TB
Sample : 9I26051-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Sep 27 15:41:08 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration

9/27/19 9/27/19
9/27/19

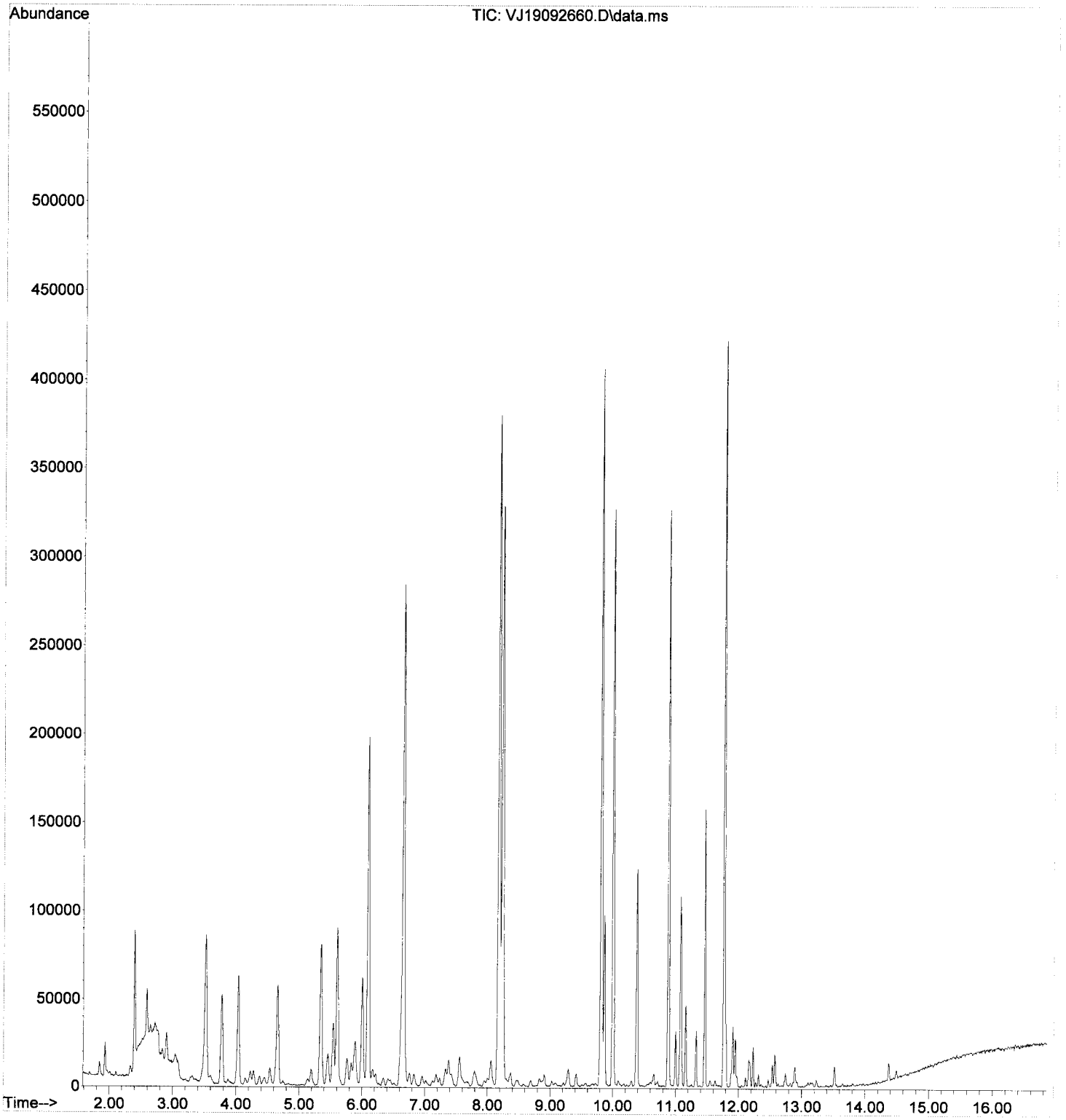
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.095	168	137879	50.00	ug/L	#-0.01
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.655	114	240406	49.23	ug/L	-0.01
3) 4-Bromofluorobenzene (...	10.883	174	72506	48.30	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	293049	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.812	117	209720	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	145574	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	3171037m	458.27	ug/L	
5) TPHg (C5-C9)	9.239	TIC	4191668m	466.69	ug/L	
6) TPHg (C6-C10)	9.239	TIC	3442797m	448.87	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	5029852m	467.02	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092660.D
Acq On : 27 Sep 2019 11:45 am
Operator : TB
Sample : 9I26051-ICV3
Misc : 1X 5mL 500PPB GX+MeOH
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Sep 27 15:41:08 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092661.D
Acq On : 27 Sep 2019 12:11 pm
Operator : TB
Sample : 9I26051-IBLA
Misc : 1X 5mL DI+MeOH
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Sep 27 15:41:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration

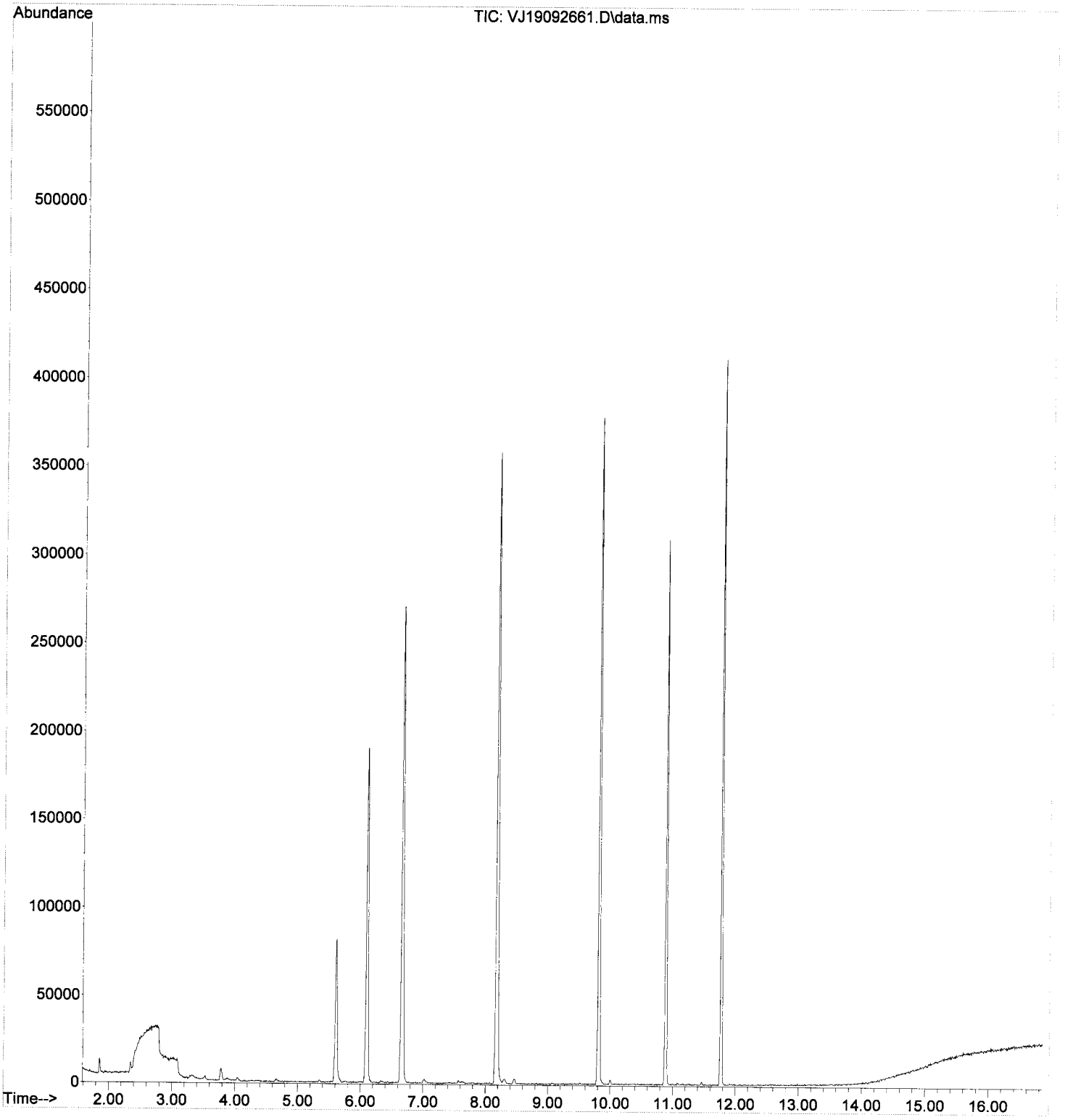
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene (IS)	6.102	168	131605	50.00	ug/L	# 0.00
System Monitoring Compounds						
2) 1,4-Difluorobenzene (Sur)	6.661	114	232437	49.87	ug/L	0.00
3) 4-Bromofluorobenzene (...	10.883	174	68719	47.96	ug/L	0.00
9) Toluene-d8 (NR)	8.176	98	281892	0.00	ug/L	-0.01
11) Chlorobenzene-d5 (NR)	9.813	117	201547	0.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4...	11.771	150	141569	0.00	ug/L	0.00
Target Compounds						Qvalue
4) NWTPH-Gx (TPH)	8.739	TIC	103742m	13.09	ug/L	
5) TPHg (C5-C9)	9.239	TIC	304114m	3.87	ug/L	
6) TPHg (C6-C10)	9.239	TIC	268460m	7.96	ug/L	
7) CA-LUFT (C5-C12)	9.239	TIC	335746m	6.16	ug/L	

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\2019-09\9I26051\
Data File : VJ19092661.D
Acq On : 27 Sep 2019 12:11 pm
Operator : TB
Sample : 9I26051-IBLA
Misc : 1X 5mL DI+MeOH
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Sep 27 15:41:10 2019
Quant Method : C:\msdchem\1\methods\VJ190926G.M
Quant Title : NWTPH-Gx by GC/MS
QLast Update : Fri Sep 27 15:17:10 2019
Response via : Initial Calibration



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

Polychlorinated Biphenyls by EPA 8082A
Benchsheet & Analysis Sequence Data

Batch 9100797
Sequence 9J09024 (A9J0058-01,02,03,09,10)

Apex Laboratories

PREPARATION BENCH SHEET

OCT 3 1 2019

BATCH #: 9100797 (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
	9100797-BLK1		QC	10/08/19 11:10	36	2				100					
	9100797-BS1		QC	10/08/19 11:10	30	2	A19J094		100	100					
	A9J0058-01	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	33.05	2				100	PDI-039SC-A-12-13-190930	+1262,1268			
	A9J0058-01RE1	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	33.05	2				100	PDI-039SC-A-12-13-190930	Added 10/16/2019 By KAK			
	A9J0058-02	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	33.33	2				100	PDI-039SC-A-13-13.7-190930	+1262,1268			
	A9J0058-03	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	35.51	2				100	PDI-1039SC-A-12-13-190930	+1262,1268			
	A9J0058-03RE1	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	35.51	2				100	PDI-1039SC-A-12-13-190930	Added 10/16/2019 By KAK			
	A9J0058-09	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	35.62	2				100	PDI-040SC-A-09-10-190930	+1262,1268			
	A9J0058-10	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	32.88	2				100	PDI-040SC-A-10-11.3-190930	+1262,1268			
	A9J0058-15	F	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	30.87	2				100	PDI-042SC-A-12-13-190930	MS/MSD, +1262,1268			
	9100797-MS1		QC	10/08/19 11:10	30.81	2	A19J094	A9J0058-15	100	100					
	9100797-MSD1		QC	10/08/19 11:10	30.78	2	A19J094	A9J0058-15	100	100					
	A9J0058-16	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	33.49	2				100	PDI-042SC-A-13-13.8-190930	+1262,1268			
	A9J0058-22	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	34.49	2				100	PDI-044SC-A-11-12-190930	+1262,1268			
	A9J0058-23	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	33.82	2				100	PDI-044SC-A-12-12.8-190930	+1262,1268			
	A9J0063-02	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	35.45	2				100	PDI-046SC-A-12-13-191001	+1262,1268			
	A9J0063-03	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	35.51	2				100	PDI-046SC-A-13-13.5-191001	+1262,1268			
	A9J0063-07	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	34.33	2				100	PDI-047SC-A-11-12-191001	+1262,1268			
	A9J0063-08	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	35.83	2				100	PDI-047SC-A-12-13.2-191001	+1262,1268			
	A9J0063-08RE1	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	35.83	2				100	PDI-047SC-A-12-13.2-191001	Added 10/16/2019 By KAK			

Prepared By: _____ Date _____

Reviewed By: _____ Date 10/30/19

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100797 (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
	A9J0063-09	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	31.9	2				100	PDI-047SC-B-00-02-191001	+1262,1268			
	A9J0063-10	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	33.74	2				100	PDI-047SC-B-02-04-191001	+1262,1268			
	A9J0063-11	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	33.44	2				100	PDI-047SC-B-04-06-191001	+1262,1268			
	A9J0063-12	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	35.44	2				100	PDI-047SC-B-06-08-191001	+1262,1268			
	A9J0063-15	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	33.4	2				100	PDI-071SC-A-10-11-191001	+1262,1268			
	A9J0063-16	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:11	33.4	2				100	PDI-071SC-A-11-11.5-191001	+1262,1268			
	A9J0063-17	E	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:11	33.41	2				100	PDI-071SC-B-00-02-191001	+1262,1268			
	A9J0063-17RE1	E	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:11	33.41	2				100	PDI-071SC-B-00-02-191001	Added 10/16/2019 By KAK			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18H290	01/01/21	Copper, Granular Lot# J260003
A18K311	12/31/20	Glass Wool
A19C104	09/03/23	Florisil Lot 817211-CM
A19C168	11/30/23	Sulfuric Acid
A19H411	08/31/21	n-Hexane Lot# 192712
A19H436	07/31/21	Sodium Sulfate Lot # 190116
A19I027	01/01/22	DCM CHEM PROD. 190351

Analyte Spike(s)

Std ID	Exp. Date	Description
A19J094	02/28/20	8082 PCB Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19I298	03/19/20	8082 PCB Surrogate Spike

Method 3546 digestion time and temperture achieved.
Initial:

Witness:_____

Prepared By: Date

Reviewed By: Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100797 (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	9100797-BLK1		QC	10/08/19 11:10	~~30~~ 36	2				100					
2	9100797-BS1		QC	10/08/19 11:10	30	2	A19J094		100	100					
3	A9J0058-01	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 33.05	2				100	PDI-039SC-A-12-13-190930	+1262,1268 D,i,t			
4	A9J0058-02	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 33.53	2				100	PDI-039SC-A-13-13.7-190930	+1262,1268 D,i,t			
5	A9J0058-03	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 35.51	2				100	PDI-1039SC-A-12-13-190930	+1262,1268 D,i,t			
6	A9J0058-09	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 35.62	2				100	PDI-040SC-A-09-10-190930	+1262,1268 D,i,t			
7	A9J0058-10	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 32.88	2				100	PDI-040SC-A-10-11.3-190930	+1262,1268 D,i,t			
8	A9J0058-15	F	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 30.87	2				100	PDI-042SC-A-12-13-190930	MS/MSD, +1262,1268 D,i,t			
9	9100797-MS1		QC	10/08/19 11:10	~~30~~ 30.81	2	A19J094	A9J0058-15	100	100					
10	9100797-MSD1		QC	10/08/19 11:10	~~30~~ 30.78	2	A19J094	A9J0058-15	100	100					
11	A9J0058-16	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 33.49	2				100	PDI-042SC-A-13-13.8-190930	+1262,1268 D,i,t			
12	A9J0058-22	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 34.49	2				100	PDI-044SC-A-11-12-190930	+1262,1268 D,i,t			
13	A9J0058-23	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 33.82	2 ✓				100	PDI-044SC-A-12-12.8-190930	+1262,1268 D,i,t			
14	A9J0063-02	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 35.45	2 ✓				100	PDI-046SC-A-12-13-191001	+1262,1268 D,i,t			
15	A9J0063-03	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 35.51	2 ✓				100	PDI-046SC-A-13-13.5-191001	+1262,1268 D,i,t			
16	A9J0063-07	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 34.33	2 ✓				100	PDI-047SC-A-11-12-191001	+1262,1268 D,i,t			
17	A9J0063-08	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 35.83	2 ✓				100	PDI-047SC-A-12-13.2-191001	+1262,1268 D,i,t			
18	A9J0063-09	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 31.90	2 ✓				100	PDI-047SC-B-00-02-191001	+1262,1268 md S			
19	A9J0063-10	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 33.74	2 ✓				100	PDI-047SC-B-02-04-191001	+1262,1268 D,i,t S			
20	A9J0063-11	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 33.44	2 ✓				100	PDI-047SC-B-04-06-191001	+1262,1268 D,i,t			

Prepared By: [signature] 10-08-19 Date 10/8/19

Reviewed By: SCG 10/8/2019 Date

Printed: 10/8/2019 11:13:02AM

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100797 (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
21	A9J0063-12	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 35.44	2 ✓				100	PDI-047SC-B-06 -08-191001	+1262,1268 D,V+			
22	A9J0063-15	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:10	~~30~~ 33.40	2 ✓				100	PDI-071SC-A-10 -11-191001	+1262,1268 D,V+			
23	A9J0063-16	C	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:11	~~30~~ 33.40	2 ✓				100	PDI-071SC-A-11 -11.5-191001	+1262,1268 D,V+			
24	A9J0063-17	E	8082 PCBs - Low Level (30g/2mL)	10/08/19 11:11	~~30~~ 33.41	2 ✓				100	PDI-071SC-B-00 -02-191001	+1262,1268 ND S			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A18H290	01/01/21	Copper, Granular Lot# J260003
A18K311	12/31/20	Glass Wool
A19C104	09/03/23	Florisil Lot 817211-CM
A19C168	11/30/23	Sulfuric Acid
A19H411	08/31/21	n-Hexane Lot# 192712
A19H436	07/31/21	Sodium Sulfate Lot # 190116
A19I027	01/01/22	DCM CHEM PROD. 190351

Analyte Spike(s) cm

Std ID	Exp. Date	Description
A19J094	02/28/20	8082 PCB Matrix Spike

Surrogate(s) cm

Std ID	Exp. Date	Description
A19I298	03/19/20	8082 PCB Surrogate Spike

S= Solids precipitated

Method 3546 digestion time and temperture achieved.
Initial: cm

Witness: JC 10/8/19

Prepared By: Date

Reviewed By: Date

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9J09024**	Instrument:	**DUALECD2F**
Date:	**10/09/19 07:24**	Calibration:	**A9J0303**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J09024-CCV1	Sediment	QC	QC				A19I232
2	9J09024-CCB1	Sediment	QC	QC				A19I233
3	9100797-BLK1	Sediment	QC	QC		9100797		
4	9100797-BS1	Sediment	QC	QC		9100797		
5	A9J0058-01	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
6	9J09024-IBL1	Sediment	QC	QC				
7	A9J0058-02	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
8	9J09024-IBL2	Sediment	QC	QC				
9	A9J0058-03	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
10	9J09024-IBL3	Sediment	QC	QC				
11	A9J0058-09	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
12	9J09024-IBL4	Sediment	QC	QC				
13	A9J0058-10	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
14	9J09024-IBL5	Sediment	QC	QC				
15	9J09024-CCV2	Sediment	QC	QC				A19I232
16	9J09024-CCB2	Sediment	QC	QC				A19I233
17	A9J0063-02	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
18	9J09024-IBL6	Sediment	QC	QC				
19	A9J0063-03	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
20	9J09024-IBL7	Sediment	QC	QC				
21	A9J0063-07	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
22	9J09024-IBL8	Sediment	QC	QC				
23	A9J0063-08	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
24	9J09024-IBL9	Sediment	QC	QC				
25	A9J0063-09	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
26	9J09024-IBLA	Sediment	QC	QC				
27	A9J0063-10	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
28	9J09024-IBLB	Sediment	QC	QC				
29	9J09024-CCV3	Sediment	QC	QC				A19I232
30	9J09024-CCB3	Sediment	QC	QC				A19I233

Comments:

Data Entered By: 10/16/19

Data Reviewed By: 10/21/19

TOTAL AROCLOR AVERAGE RESULTS

The average result for the 1016 and 1260 selected peaks are reported here to facilitate data entry and review. Averages are done on all individual peaks and must be for matrix spikes if all peaks are not used in the average.

9J09024-CCV1

Aroclor 1016

Peak	Initial Res
1016 (1)	478.91
1016 (2)	495.33
1016 (3)	492.56
1016 (4)	497.84
1016 (5)	495.86
1016 (6)	492.17
Average:	**492.11**

Aroclor 1260

Peak	Initial Res
1260 (1)	506.42
1260 (2)	539.49
1260 (3)	526.03
1260 (4)	541.10
1260 (5)	543.48
1260 (6)	530.23
Average:	**531.13**

9100797-BS1

Aroclor 1016

Peak	Initial Res
1016 (1)	693.23
1016 (2)	792.77
1016 (3)	734.90
1016 (4)	821.65
1016 (5)	783.76
1016 (6)	701.19
Average:	**754.58**

Aroclor 1260

Peak	Initial Res
1260 (1)	958.64
1260 (2)	1,056.33
1260 (3)	1,053.99
1260 (4)	1,171.40
1260 (5)	1,109.01
1260 (6)	1,131.85
Average:	**1,080.20**

TOTAL AROCLOR AVERAGE RESULTS

The average result for the 1016 and 1260 selected peaks are reported here to facilitate data entry and review. Averages are done on all individual peaks and must be for matrix spikes if all peaks are not used in the average.

9J09024-CCV2

Aroclor 1016

Peak	Initial Res
1016 (1)	490.99
1016 (2)	489.86
1016 (3)	490.64
1016 (4)	490.25
1016 (5)	496.86
1016 (6)	469.19
Average:	**487.97**

Aroclor 1260

Peak	Initial Res
1260 (1)	513.54
1260 (2)	514.04
1260 (3)	525.45
1260 (4)	518.24
1260 (5)	514.85
1260 (6)	507.88
Average:	**515.67**

9J09024-CCV3

Aroclor 1016

Peak	Initial Res
1016 (1)	510.19
1016 (2)	523.21
1016 (3)	511.53
1016 (4)	509.15
1016 (5)	518.52
1016 (6)	508.75
Average:	**513.56**

Aroclor 1260

Peak	Initial Res
1260 (1)	519.71
1260 (2)	547.92
1260 (3)	526.92
1260 (4)	541.34
1260 (5)	575.74
1260 (6)	532.64
Average:	**540.71**

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F002.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 8:05
Operator : MJB / KAK
Sample : 9J09024-CCV1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:36:01 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	4.856	16416103	228.217	ng/ml
62) S	DCBP (S)	9.632	19937564	277.083	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.772	1481436	478.914	ng/ml
3)	Aroclor 1016 (2)	6.183	3058481	495.327	ng/ml
4)	Aroclor 1016 (3)	6.265	1640927	492.555	ng/ml
5)	Aroclor 1016 (4)	6.424	1341263	497.839	ng/ml
6)	Aroclor 1016 (5)	6.646	1613947	495.858	ng/ml
7)	Aroclor 1016 (6)	6.771	1156424	492.167	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	5.212	161853	155.934	ng/ml
10)	Aroclor 1221 (2)	5.330	171581	264.563	ng/ml
11)	Aroclor 1221 (3)	5.411	808210	370.252	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	5.411	808210	459.143	ng/ml
14)	Aroclor 1232 (2)	6.183	3058481	1246.176	ng/ml
15)	Aroclor 1232 (3)	6.265	1640927	1294.803	ng/ml
16)	Aroclor 1232 (4)	6.424	1341263	1564.092	ng/ml
17)	Aroclor 1232 (5)	6.646	1613947	1424.037	ng/ml
18)	Aroclor 1232 (6)	6.771	1156424	1237.074	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	5.772	1481436	671.282	ng/ml
21)	Aroclor 1242 (2)	6.183	3058481	671.808	ng/ml
22)	Aroclor 1242 (3)	6.265	1640927	702.942	ng/ml
23)	Aroclor 1242 (4)	6.424	1341263	764.314	ng/ml
24)	Aroclor 1242 (5)	6.646	1613947	675.491	ng/ml
25)	Aroclor 1242 (6)	6.771	1156424	584.376	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	6.183	3058481	1034.357	ng/ml
28)	Aroclor 1248 (2)	6.424	1341263	386.975	ng/ml
29)	Aroclor 1248 (3)	6.646	1613947	411.747	ng/ml
30)	Aroclor 1248 (4)	6.939	311543	65.023	ng/ml
31)	Aroclor 1248 (5)	6.974	1147591	229.352	ng/ml
32)	Aroclor 1248 (6)	7.462	2285971	877.417	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	6.974	1147591	242.743	ng/ml
35)	Aroclor 1254 (2)	7.084	1155127	205.223	ng/ml
36)	Aroclor 1254 (3)	7.462	2285971	267.203	ng/ml
37)	Aroclor 1254 (4)	7.620	342834	58.876	ng/ml
38)	Aroclor 1254 (5)	8.001	3060289	523.998	ng/ml
39)	Aroclor 1254 (6)	8.293	342369	181.174	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	7.574	3117854	506.417	ng/ml
42)	Aroclor 1260 (2)	7.707	4187916	539.493	ng/ml
43)	Aroclor 1260 (3)	8.264	2984514	526.026	ng/ml
44)	Aroclor 1260 (4)	8.434	7231990	541.101	ng/ml
45)	Aroclor 1260 (5)	8.733	4759468	543.481	ng/ml
46)	Aroclor 1260 (6)	9.126	1904980	530.231	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

492.11

531.13

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F002.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 8:05
Operator : MJB / KAK
Sample : 9J09024-CCV1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:36:01 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

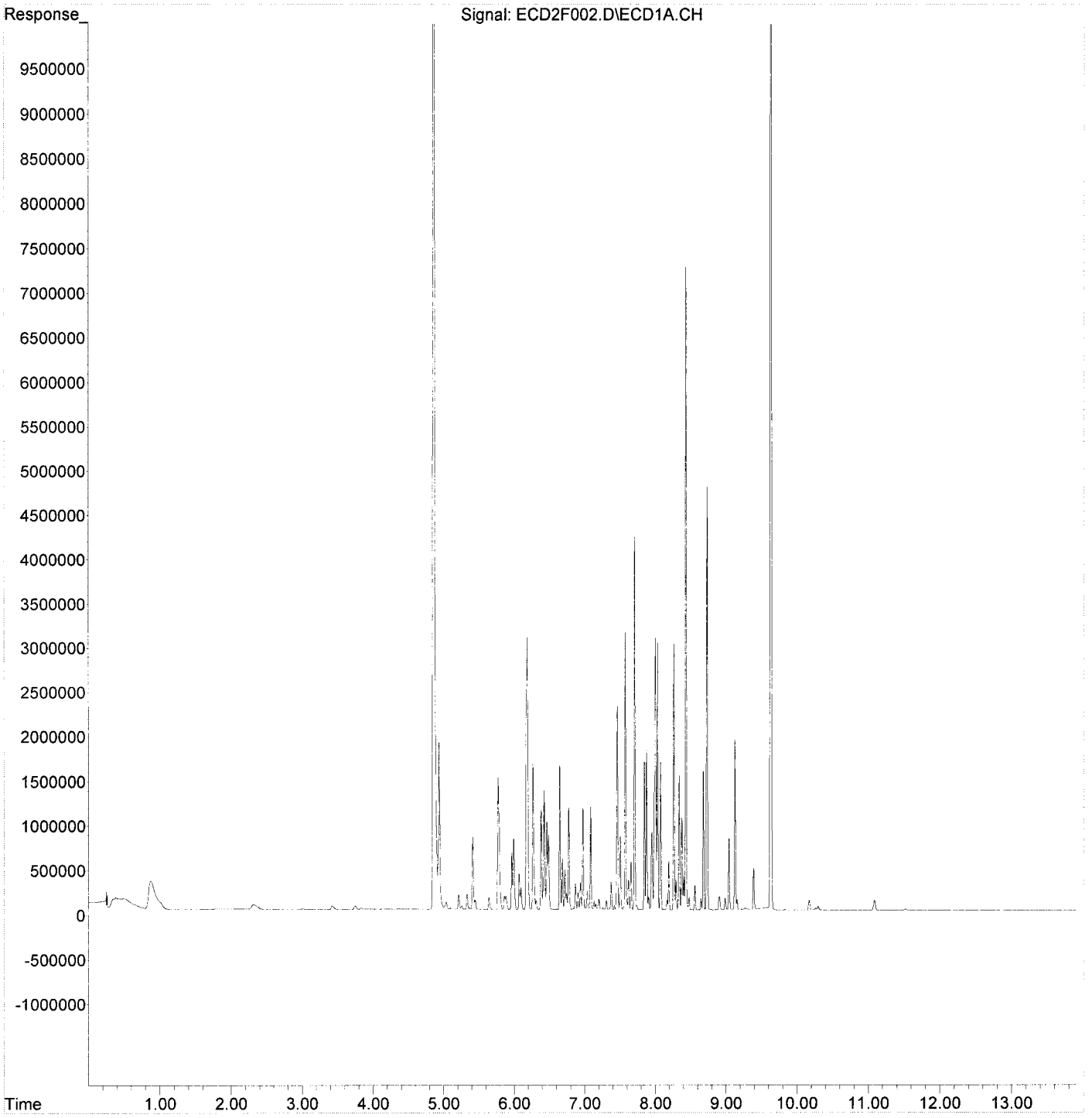
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	7.707	4187916	708.864	ng/ml
49)	Aroclor 1262 (2)	8.031	2998323	363.976	ng/ml
50)	Aroclor 1262 (3)	8.264	2984514	433.536	ng/ml
51)	Aroclor 1262 (4)	8.434	7231990	487.977	ng/ml
52)	Aroclor 1262 (5)	8.733	4759468	534.003	ng/ml
53)	Aroclor 1262 (6)	9.126	1904980	397.605	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	8.264	2984514	828.618	ng/ml
56)	Aroclor 1268 (2)	8.681	1553516	94.030	ng/ml
57)	Aroclor 1268 (3)	8.733	4759468	342.612	ng/ml
58)	Aroclor 1268 (4)	8.909	148106	11.790	ng/ml
59)	Aroclor 1268 (5)	9.126	1904980	347.632	ng/ml
60)	Aroclor 1268 (6)	9.390	466139	13.598	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F002.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 8:05
Operator : MJB / KAK
Sample : 9J09024-CCV1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:36:01 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F003.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 8:23
Operator : MJB / KAK
Sample : 9J09024-CCB1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:36:20 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19
clean

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.848	6425868	89.333 ng/ml
62) S	DCBP (S)	9.625	7532720	104.686 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.765	294	0.095 ng/ml
3)	Aroclor 1016 (2)	6.177	737	0.119 ng/ml
4)	Aroclor 1016 (3)	6.267	218	0.065 ng/ml
5)	Aroclor 1016 (4)	6.392	453	0.168 ng/ml
6)	Aroclor 1016 (5)	6.648	269	0.083 ng/ml
7)	Aroclor 1016 (6)	6.762	161	0.069 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.198	6560	6.320 ng/ml
10)	Aroclor 1221 (2)	5.350	894	1.378 ng/ml
11)	Aroclor 1221 (3)	5.416	2154	0.987 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.416	2154	1.224 ng/ml
14)	Aroclor 1232 (2)	6.177	737	0.300 ng/ml
15)	Aroclor 1232 (3)	6.267	218	0.172 ng/ml
16)	Aroclor 1232 (4)	6.392	453	0.529 ng/ml
17)	Aroclor 1232 (5)	6.648	269	0.237 ng/ml
18)	Aroclor 1232 (6)	6.762	161	0.173 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.765	294	0.133 ng/ml
21)	Aroclor 1242 (2)	6.177	737	0.162 ng/ml
22)	Aroclor 1242 (3)	6.267	218	0.093 ng/ml
23)	Aroclor 1242 (4)	6.392	453	0.258 ng/ml
24)	Aroclor 1242 (5)	6.648	269	0.112 ng/ml
25)	Aroclor 1242 (6)	6.762	161	0.082 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.177	737	0.249 ng/ml
28)	Aroclor 1248 (2)	6.392	453	0.131 ng/ml
29)	Aroclor 1248 (3)	6.648	269	0.069 ng/ml
30)	Aroclor 1248 (4)	6.936	247	0.052 ng/ml
31)	Aroclor 1248 (5)	7.003	3338	0.667 ng/ml
32)	Aroclor 1248 (6)	7.447	1437	0.551 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.936	247	0.052 ng/ml
35)	Aroclor 1254 (2)	7.080	4170	0.741 ng/ml
36)	Aroclor 1254 (3)	7.447	1437	0.168 ng/ml
37)	Aroclor 1254 (4)	7.626	560	0.096 ng/ml
38)	Aroclor 1254 (5)	8.006	1875	0.321 ng/ml
39)	Aroclor 1254 (6)	8.285	299	0.158 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.564	1153	0.187 ng/ml
42)	Aroclor 1260 (2)	7.700	557	0.072 ng/ml
43)	Aroclor 1260 (3)	8.255	587	0.103 ng/ml
44)	Aroclor 1260 (4)	8.424	4808	0.360 ng/ml
45)	Aroclor 1260 (5)	8.728	1298	0.148 ng/ml
46)	Aroclor 1260 (6)	9.124	1836	0.511 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F003.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 8:23
Operator : MJB / KAK
Sample : 9J09024-CCB1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:36:20 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

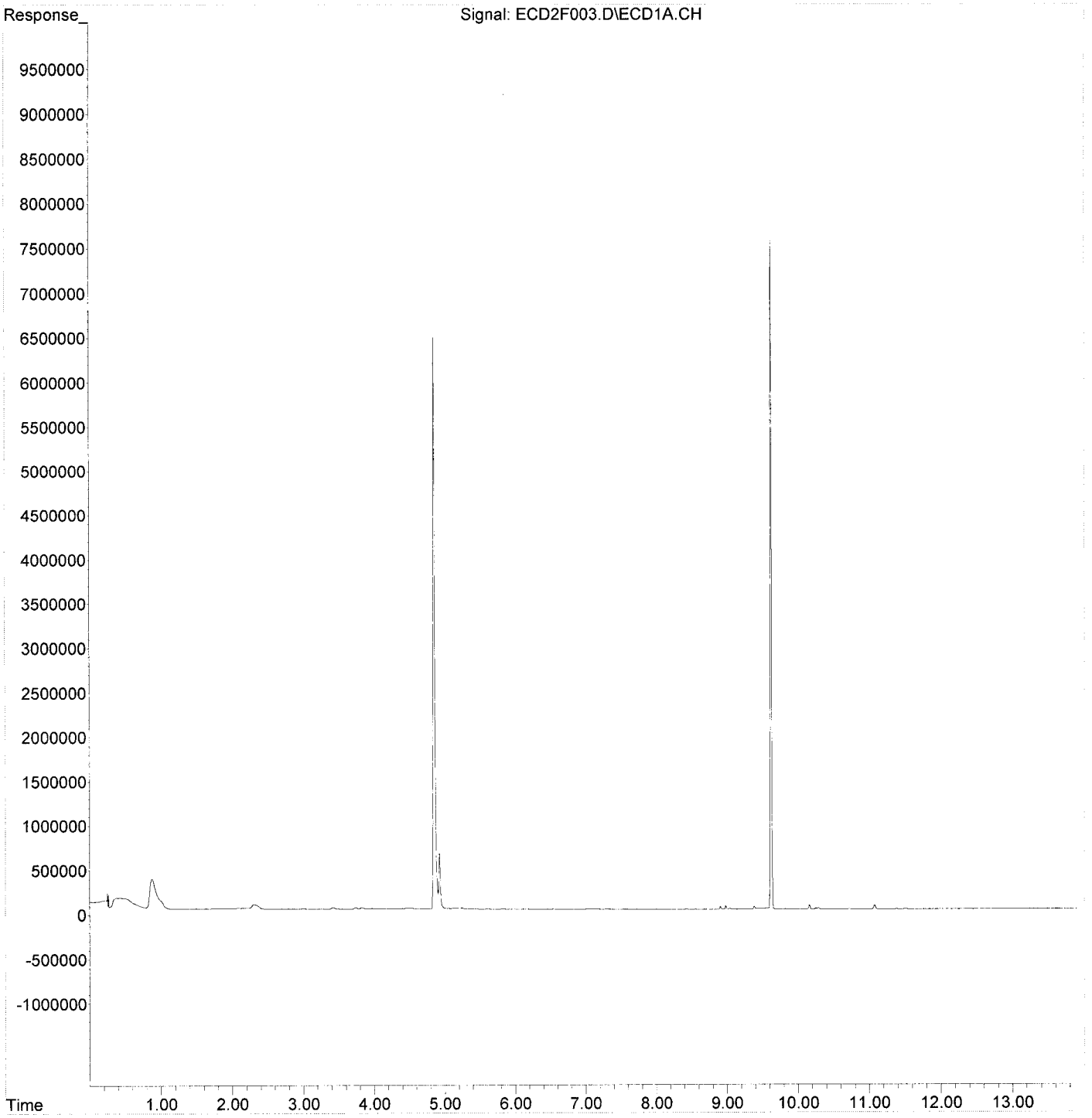
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.700	557	0.094 ng/ml
49)	Aroclor 1262 (2)	8.030	504	0.061 ng/ml
50)	Aroclor 1262 (3)	8.255	587	0.085 ng/ml
51)	Aroclor 1262 (4)	8.424	4808	0.324 ng/ml
52)	Aroclor 1262 (5)	8.728	1298	0.146 ng/ml
53)	Aroclor 1262 (6)	9.124	1836	0.383 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.255	587	0.163 ng/ml
56)	Aroclor 1268 (2)	8.680	1025	0.062 ng/ml
57)	Aroclor 1268 (3)	8.728	1298	0.093 ng/ml
58)	Aroclor 1268 (4)	8.906	32560	2.592 ng/ml
59)	Aroclor 1268 (5)	9.124	1836	0.335 ng/ml
60)	Aroclor 1268 (6)	9.385	36590	1.067 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F003.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 8:23
Operator : MJB / KAK
Sample : 9J09024-CCB1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:36:20 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 9:01
Operator : MJB / KAK
Sample : 9100797-BLK1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:36:39 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19

clean

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.856	9629452	133.869 ng/ml
62) S	DCBP (S)	9.632	18352916	255.060 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.773	1558	0.504 ng/ml
3)	Aroclor 1016 (2)	6.185	2782	0.450 ng/ml
4)	Aroclor 1016 (3)	6.266	1723	0.517 ng/ml
5)	Aroclor 1016 (4)	6.423	2555	0.948 ng/ml
6)	Aroclor 1016 (5)	6.646	1925	0.591 ng/ml
7)	Aroclor 1016 (6)	6.771	1381	0.588 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.213	14434	13.907 ng/ml
10)	Aroclor 1221 (2)	5.296	6767	10.435 ng/ml
11)	Aroclor 1221 (3)	5.404	5593	2.562 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.404	5593	3.178 ng/ml
14)	Aroclor 1232 (2)	6.185	2782	1.133 ng/ml
15)	Aroclor 1232 (3)	6.266	1723	1.359 ng/ml
16)	Aroclor 1232 (4)	6.423	2555	2.979 ng/ml
17)	Aroclor 1232 (5)	6.646	1925	1.698 ng/ml
18)	Aroclor 1232 (6)	6.771	1381	1.478 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.773	1558	0.706 ng/ml
21)	Aroclor 1242 (2)	6.185	2782	0.611 ng/ml
22)	Aroclor 1242 (3)	6.266	1723	0.738 ng/ml
23)	Aroclor 1242 (4)	6.423	2555	1.456 ng/ml
24)	Aroclor 1242 (5)	6.646	1925	0.806 ng/ml
25)	Aroclor 1242 (6)	6.771	1381	0.698 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.185	2782	0.941 ng/ml
28)	Aroclor 1248 (2)	6.423	2555	0.737 ng/ml
29)	Aroclor 1248 (3)	6.646	1925	0.491 ng/ml
30)	Aroclor 1248 (4)	6.912	308	0.064 ng/ml
31)	Aroclor 1248 (5)	7.009f	13902	2.778 ng/ml
32)	Aroclor 1248 (6)	7.461	6879	2.640 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.009f	13902	2.941 ng/ml
35)	Aroclor 1254 (2)	7.084	13732	2.440 ng/ml
36)	Aroclor 1254 (3)	7.461	6879	0.804 ng/ml
37)	Aroclor 1254 (4)	7.619	3421	0.587 ng/ml
38)	Aroclor 1254 (5)	8.011	5102	0.874 ng/ml
39)	Aroclor 1254 (6)	8.293	1193	0.631 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.575	6149	0.999 ng/ml
42)	Aroclor 1260 (2)	7.707	5867	0.756 ng/ml
43)	Aroclor 1260 (3)	8.263	2658	0.468 ng/ml
44)	Aroclor 1260 (4)	8.430	7731	0.578 ng/ml
45)	Aroclor 1260 (5)	8.732	3536	0.404 ng/ml
46)	Aroclor 1260 (6)	9.129	4022	1.119 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 9:01
Operator : MJB / KAK
Sample : 9100797-BLK1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:36:39 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

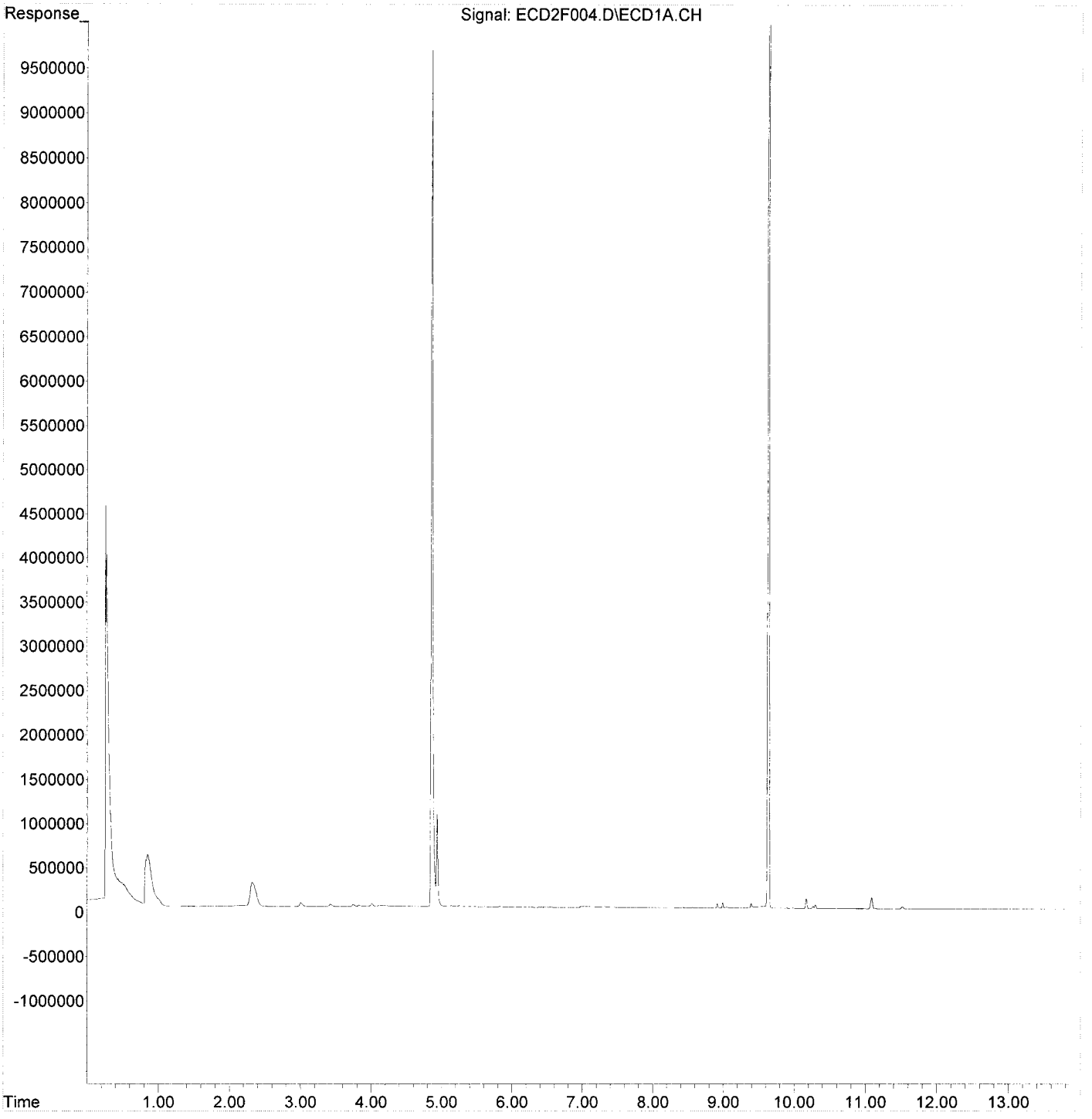
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.707	5867	0.993 ng/ml
49)	Aroclor 1262 (2)	8.032	3584	0.435 ng/ml
50)	Aroclor 1262 (3)	8.263	2658	0.386 ng/ml
51)	Aroclor 1262 (4)	8.430	7731	0.522 ng/ml
52)	Aroclor 1262 (5)	8.732	3536	0.397 ng/ml
53)	Aroclor 1262 (6)	9.129	4022	0.839 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.241	770	0.214 ng/ml
56)	Aroclor 1268 (2)	8.682	1637	0.099 ng/ml
57)	Aroclor 1268 (3)	8.732	3536	0.255 ng/ml
58)	Aroclor 1268 (4)	8.912	51408	4.092 ng/ml
59)	Aroclor 1268 (5)	9.129	4022	0.734 ng/ml
60)	Aroclor 1268 (6)	9.392	54679	1.595 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 9:01
Operator : MJB / KAK
Sample : 9100797-BLK1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:36:39 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F005.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 9:19
Operator : MJB / KAK
Sample : 9100797-BS1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:36:58 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	TCMX (S)	4.847	11088008	154.146	ng/ml	5-06
62) S	DCBP (S)	9.623	21723009	301.896	ng/ml	
	Target Compounds					
2)	Aroclor 1016 (1)	5.764	2144380	693.229	ng/ml	754.58
3)	Aroclor 1016 (2)	6.176	4895119	792.774	ng/ml	
4)	Aroclor 1016 (3)	6.258	2448284	734.899	ng/ml	
5)	Aroclor 1016 (4)	6.417	2213674	821.654	ng/ml	
6)	Aroclor 1016 (5)	6.638	2551015	783.756	ng/ml	
7)	Aroclor 1016 (6)	6.764	1647565	701.194	ng/ml	
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml	
9)	Aroclor 1221 (1)	5.204	207120	199.546	ng/ml	
10)	Aroclor 1221 (2)	5.322	229507	353.879	ng/ml	
11)	Aroclor 1221 (3)	5.402	1055056	483.335	ng/ml	
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml	
13)	Aroclor 1232 (1)	5.402	1055056	599.376	ng/ml	
14)	Aroclor 1232 (2)	6.176	4895119	1994.513	ng/ml	
15)	Aroclor 1232 (3)	6.258	2448284	1931.863	ng/ml	
16)	Aroclor 1232 (4)	6.417	2213674	2581.441	ng/ml	
17)	Aroclor 1232 (5)	6.638	2551015	2250.841	ng/ml	
18)	Aroclor 1232 (6)	6.764	1647565	1762.467	ng/ml	
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml	
20)	Aroclor 1242 (1)	5.764	2144380	971.681	ng/ml	
21)	Aroclor 1242 (2)	6.176	4895119	1075.234	ng/ml	
22)	Aroclor 1242 (3)	6.258	2448284	1048.799	ng/ml	
23)	Aroclor 1242 (4)	6.417	2213674	1261.455	ng/ml	
24)	Aroclor 1242 (5)	6.638	2551015	1067.686	ng/ml	
25)	Aroclor 1242 (6)	6.764	1647565	832.565	ng/ml	
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml	
27)	Aroclor 1248 (1)	6.176	4895119	1655.495	ng/ml	
28)	Aroclor 1248 (2)	6.417	2213674	638.679	ng/ml	
29)	Aroclor 1248 (3)	6.638	2551015	650.810	ng/ml	
30)	Aroclor 1248 (4)	6.932	545974	113.951	ng/ml	
31)	Aroclor 1248 (5)	6.967	1904651	380.654	ng/ml	
32)	Aroclor 1248 (6)	7.455	4116319	1579.954	ng/ml	
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml	
34)	Aroclor 1254 (1)	6.967	1904651	402.879	ng/ml	
35)	Aroclor 1254 (2)	7.076	2201607	391.143	ng/ml	
36)	Aroclor 1254 (3)	7.455	4116319	481.149	ng/ml	
37)	Aroclor 1254 (4)	7.612	621950	106.809	ng/ml	
38)	Aroclor 1254 (5)	7.994	6042100	1034.559	ng/ml	
39)	Aroclor 1254 (6)	8.286	531584	281.302	ng/ml	
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml	
41)	Aroclor 1260 (1)	7.567	5902024	958.636	ng/ml	1080.20
42)	Aroclor 1260 (2)	7.700	8199984	1056.333	ng/ml	
43)	Aroclor 1260 (3)	8.257	5980025	1053.990	ng/ml	
44)	Aroclor 1260 (4)	8.427	15656125	1171.398	ng/ml	
45)	Aroclor 1260 (5)	8.726	9712035	1109.012	ng/ml	
46)	Aroclor 1260 (6)	9.119	4066455	1131.854	ng/ml	
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml	

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F005.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 9:19
Operator : MJB / KAK
Sample : 9100797-BS1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:36:58 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

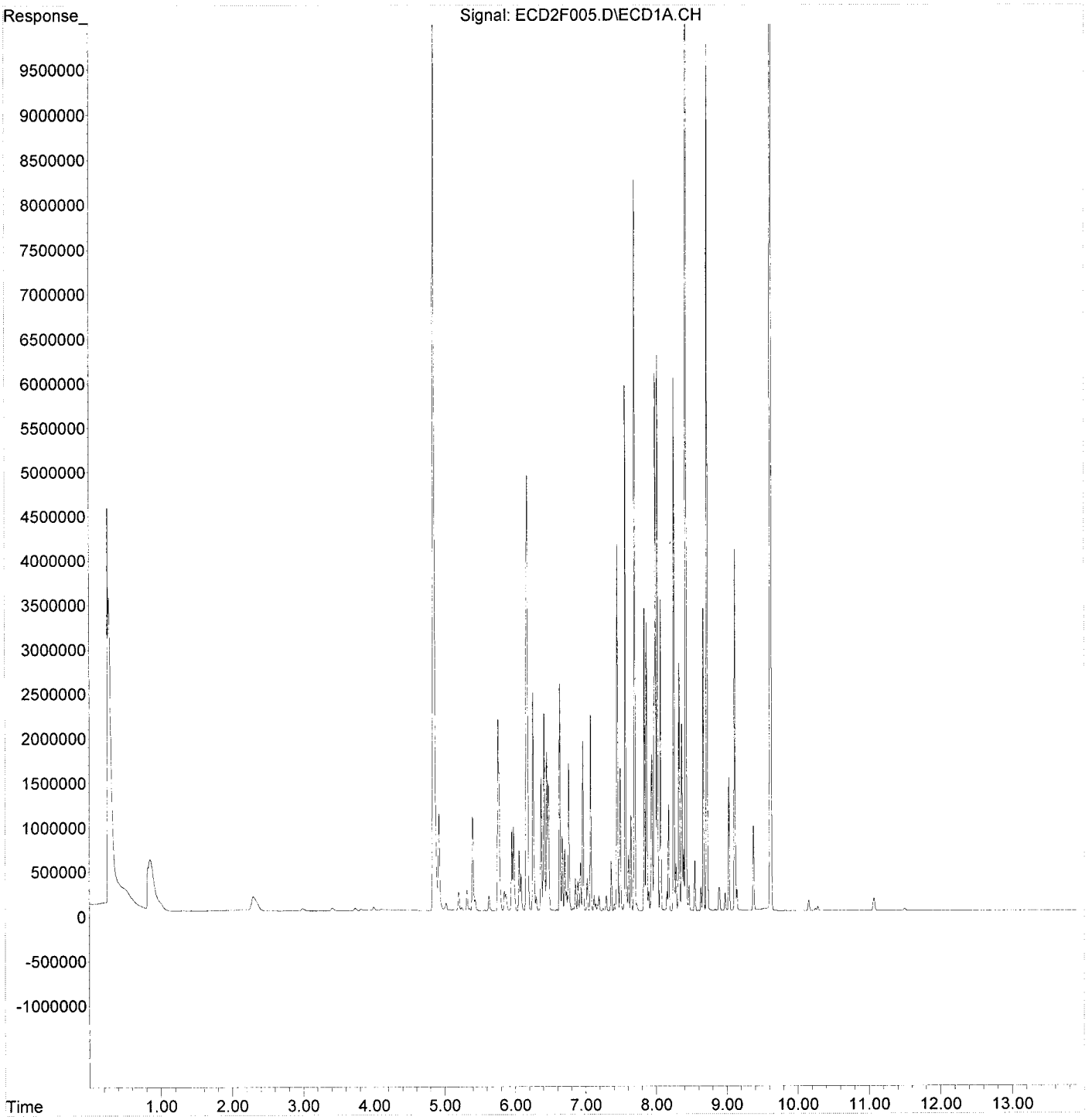
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	7.700	8199984	1387.963	ng/ml
49)	Aroclor 1262 (2)	8.024	6235944	757.001	ng/ml
50)	Aroclor 1262 (3)	8.257	5980025	868.668	ng/ml
51)	Aroclor 1262 (4)	8.427	15656125	1056.393	ng/ml
52)	Aroclor 1262 (5)	8.726	9712035	1089.672	ng/ml
53)	Aroclor 1262 (6)	9.119	4066455	848.745	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	8.257	5980025	1660.290	ng/ml
56)	Aroclor 1268 (2)	8.673	3404268	206.051	ng/ml
57)	Aroclor 1268 (3)	8.726	9712035	699.124	ng/ml
58)	Aroclor 1268 (4)	8.897	258708	20.595	ng/ml
59)	Aroclor 1268 (5)	9.119	4066455	742.071	ng/ml
60)	Aroclor 1268 (6)	9.382	958596	27.964	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F005.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 9:19
Operator : MJB / KAK
Sample : 9100797-BS1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:36:58 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 9:36
Operator : MJB / KAK
Sample : A9J0058-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:37:18 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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RR-6

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.847	8349425	116.074 ng/ml
62) S	DCBP (S)	9.624	14740674	204.859 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.766	1646	0.532 ng/ml
3)	Aroclor 1016 (2)	6.178	3945	0.639 ng/ml
4)	Aroclor 1016 (3)	6.282	2553	0.766 ng/ml
5)	Aroclor 1016 (4)	6.411	3011	1.117 ng/ml
6)	Aroclor 1016 (5)	6.593f	296	0.091 ng/ml
7)	Aroclor 1016 (6)	6.753	270	0.115 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.204	7274	7.008 ng/ml
10)	Aroclor 1221 (2)	5.318	3132	4.829 ng/ml
11)	Aroclor 1221 (3)	5.393	8497	3.892 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.393	8497	4.827 ng/ml
14)	Aroclor 1232 (2)	6.178	3945	1.608 ng/ml
15)	Aroclor 1232 (3)	6.282	2553	2.015 ng/ml
16)	Aroclor 1232 (4)	6.411	3011	3.511 ng/ml
17)	Aroclor 1232 (5)	6.593f	296	0.261 ng/ml
18)	Aroclor 1232 (6)	6.753	270	0.289 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.766	1646	0.746 ng/ml
21)	Aroclor 1242 (2)	6.178	3945	0.867 ng/ml
22)	Aroclor 1242 (3)	6.282	2553	1.094 ng/ml
23)	Aroclor 1242 (4)	6.411	3011	1.716 ng/ml
24)	Aroclor 1242 (5)	6.593f	296	0.124 ng/ml
25)	Aroclor 1242 (6)	6.753	270	0.137 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.178	3945	1.334 ng/ml
28)	Aroclor 1248 (2)	6.411	3011	0.869 ng/ml
29)	Aroclor 1248 (3)	6.593f	296	0.075 ng/ml
30)	Aroclor 1248 (4)	6.931	219	0.046 ng/ml
31)	Aroclor 1248 (5)	6.971	2745	0.549 ng/ml
32)	Aroclor 1248 (6)	7.449	3763	1.444 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.971	2745	0.581 ng/ml
35)	Aroclor 1254 (2)	7.085	11880	2.111 ng/ml
36)	Aroclor 1254 (3)	7.449	3763	0.440 ng/ml
37)	Aroclor 1254 (4)	7.613	3615	0.621 ng/ml
38)	Aroclor 1254 (5)	8.003	3653	0.625 ng/ml
39)	Aroclor 1254 (6)	8.285	1254	0.663 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.569	3946	0.641 ng/ml
42)	Aroclor 1260 (2)	7.699	4072	0.525 ng/ml
43)	Aroclor 1260 (3)	8.255	2275	0.401 ng/ml
44)	Aroclor 1260 (4)	8.423	9048	0.677 ng/ml
45)	Aroclor 1260 (5)	8.724	3952	0.451 ng/ml
46)	Aroclor 1260 (6)	9.124	4291	1.194 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 9:36
Operator : MJB / KAK
Sample : A9J0058-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:37:18 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

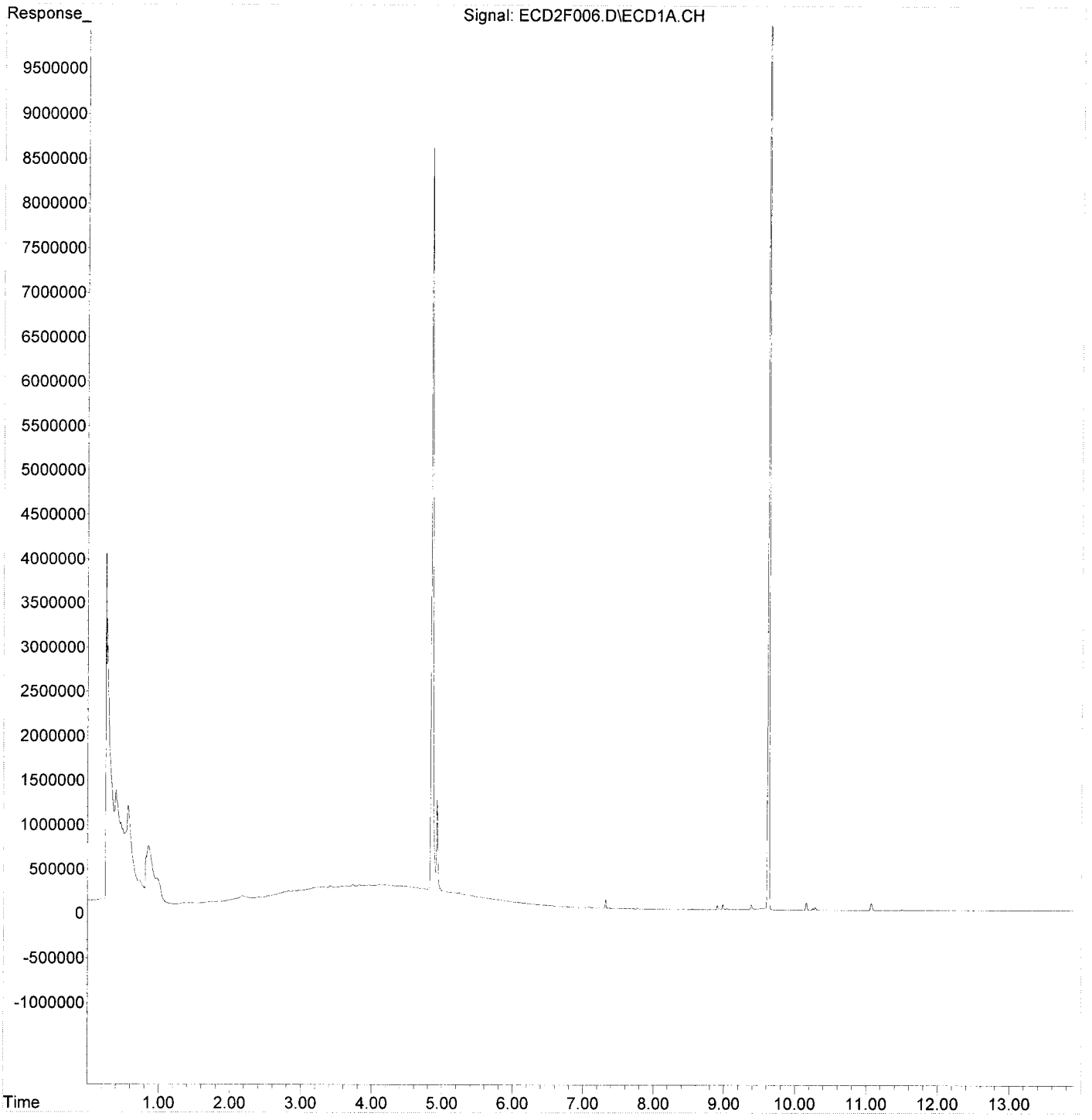
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.699	4072	0.689 ng/ml
49)	Aroclor 1262 (2)	8.021	2186	0.265 ng/ml
50)	Aroclor 1262 (3)	8.255	2275	0.330 ng/ml
51)	Aroclor 1262 (4)	8.423	9048	0.611 ng/ml
52)	Aroclor 1262 (5)	8.724	3952	0.443 ng/ml
53)	Aroclor 1262 (6)	9.124	4291	0.896 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.255	2275	0.632 ng/ml
56)	Aroclor 1268 (2)	8.678	2279	0.138 ng/ml
57)	Aroclor 1268 (3)	8.724	3952	0.284 ng/ml
58)	Aroclor 1268 (4)	8.905	50673	4.034 ng/ml
59)	Aroclor 1268 (5)	9.124	4291	0.783 ng/ml
60)	Aroclor 1268 (6)	9.384	56835	1.658 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 9:36
Operator : MJB / KAK
Sample : A9J0058-01
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:37:18 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F008.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 10:11
Operator : MJB / KAK
Sample : A9J0058-02
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:37:37 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.847	8028754	111.616 ng/ml
62) S	DCBP (S)	9.622	13619434	189.276 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.758	245	0.079 ng/ml
3)	Aroclor 1016 (2)	6.174	2450	0.397 ng/ml
4)	Aroclor 1016 (3)	6.284	1892	0.568 ng/ml
5)	Aroclor 1016 (4)	6.415	2387	0.886 ng/ml
6)	Aroclor 1016 (5)	6.632	229	0.070 ng/ml
7)	Aroclor 1016 (6)	6.763	646	0.275 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.196	6401	6.167 ng/ml
10)	Aroclor 1221 (2)	5.345	1252	1.931 ng/ml
11)	Aroclor 1221 (3)	5.392	51978	23.812 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.392	51978	29.528 ng/ml
14)	Aroclor 1232 (2)	6.174	2450	0.998 ng/ml
15)	Aroclor 1232 (3)	6.284	1892	1.493 ng/ml
16)	Aroclor 1232 (4)	6.415	2387	2.784 ng/ml
17)	Aroclor 1232 (5)	6.632	229	0.202 ng/ml
18)	Aroclor 1232 (6)	6.763	646	0.691 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.758	245	0.111 ng/ml
21)	Aroclor 1242 (2)	6.174	2450	0.538 ng/ml
22)	Aroclor 1242 (3)	6.284	1892	0.810 ng/ml
23)	Aroclor 1242 (4)	6.415	2387	1.360 ng/ml
24)	Aroclor 1242 (5)	6.632	229	0.096 ng/ml
25)	Aroclor 1242 (6)	6.763	646	0.327 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.174	2450	0.829 ng/ml
28)	Aroclor 1248 (2)	6.415	2387	0.689 ng/ml
29)	Aroclor 1248 (3)	6.632	229	0.058 ng/ml
30)	Aroclor 1248 (4)	6.892f	2064	0.431 ng/ml
31)	Aroclor 1248 (5)	6.982	5062	1.012 ng/ml
32)	Aroclor 1248 (6)	7.449	6778	2.602 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.982	5062	1.071 ng/ml
35)	Aroclor 1254 (2)	7.074	7735	1.374 ng/ml
36)	Aroclor 1254 (3)	7.449	6778	0.792 ng/ml
37)	Aroclor 1254 (4)	7.612	6586	1.131 ng/ml
38)	Aroclor 1254 (5)	8.004	7018	1.202 ng/ml
39)	Aroclor 1254 (6)	8.284	3417	1.808 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.569	4956	0.805 ng/ml
42)	Aroclor 1260 (2)	7.698	6532	0.841 ng/ml
43)	Aroclor 1260 (3)	8.255	3788	0.668 ng/ml
44)	Aroclor 1260 (4)	8.423	12242	0.916 ng/ml
45)	Aroclor 1260 (5)	8.724	4974	0.568 ng/ml
46)	Aroclor 1260 (6)	9.123	4868	1.355 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F008.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 10:11
Operator : MJB / KAK
Sample : A9J0058-02
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:37:37 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

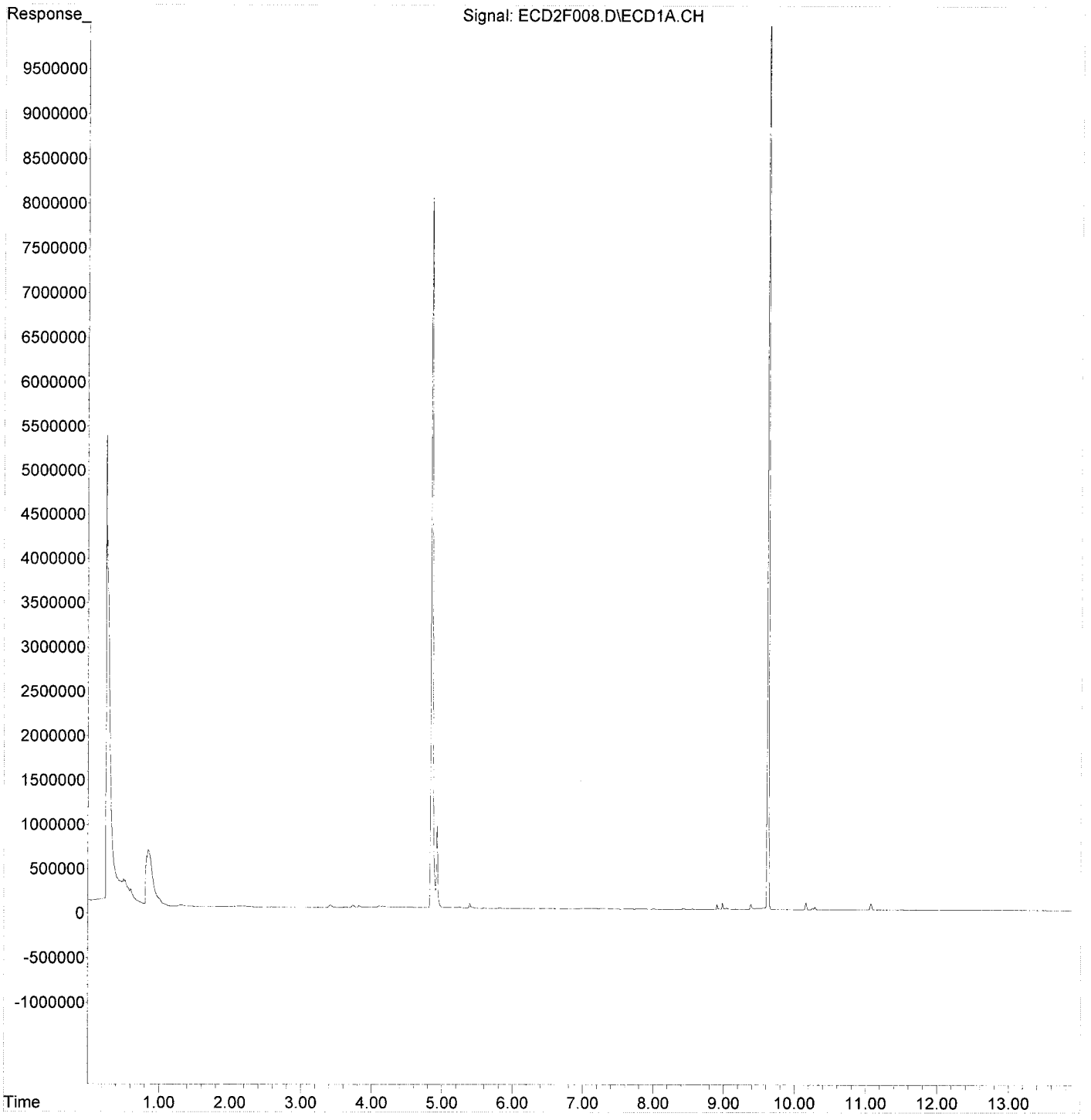
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.698	6532	1.106 ng/ml
49)	Aroclor 1262 (2)	8.004	7018	0.852 ng/ml
50)	Aroclor 1262 (3)	8.255	3788	0.550 ng/ml
51)	Aroclor 1262 (4)	8.423	12242	0.826 ng/ml
52)	Aroclor 1262 (5)	8.724	4974	0.558 ng/ml
53)	Aroclor 1262 (6)	9.123	4868	1.016 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.255	3788	1.052 ng/ml
56)	Aroclor 1268 (2)	8.679	3418	0.207 ng/ml
57)	Aroclor 1268 (3)	8.724	4974	0.358 ng/ml
58)	Aroclor 1268 (4)	8.904	56662	4.511 ng/ml
59)	Aroclor 1268 (5)	9.123	4868	0.888 ng/ml
60)	Aroclor 1268 (6)	9.384	61115	1.783 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F008.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 10:11
Operator : MJB / KAK
Sample : A9J0058-02
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:37:37 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F010.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 10:47
Operator : MJB / KAK
Sample : A9J0058-03
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:37:57 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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RR-6

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.847	6596001	91.698 ng/ml
62) S	DCBP (S)	9.623	10879217	151.194 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.758	447	0.145 ng/ml
3)	Aroclor 1016 (2)	6.175	645	0.104 ng/ml
4)	Aroclor 1016 (3)	6.252	546	0.164 ng/ml
5)	Aroclor 1016 (4)	6.416	1092	0.405 ng/ml
6)	Aroclor 1016 (5)	6.638	387	0.119 ng/ml
7)	Aroclor 1016 (6)	6.760	250	0.106 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.223	6386	6.153 ng/ml
10)	Aroclor 1221 (2)	5.373f	1690	2.606 ng/ml
11)	Aroclor 1221 (3)	5.395	5110	2.341 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.395	5110	2.903 ng/ml
14)	Aroclor 1232 (2)	6.175	645	0.263 ng/ml
15)	Aroclor 1232 (3)	6.252	546	0.431 ng/ml
16)	Aroclor 1232 (4)	6.416	1092	1.273 ng/ml
17)	Aroclor 1232 (5)	6.638	387	0.341 ng/ml
18)	Aroclor 1232 (6)	6.760	250	0.267 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.758	447	0.203 ng/ml
21)	Aroclor 1242 (2)	6.175	645	0.142 ng/ml
22)	Aroclor 1242 (3)	6.252	546	0.234 ng/ml
23)	Aroclor 1242 (4)	6.416	1092	0.622 ng/ml
24)	Aroclor 1242 (5)	6.638	387	0.162 ng/ml
25)	Aroclor 1242 (6)	6.760	250	0.126 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.175	645	0.218 ng/ml
28)	Aroclor 1248 (2)	6.416	1092	0.315 ng/ml
29)	Aroclor 1248 (3)	6.638	387	0.099 ng/ml
30)	Aroclor 1248 (4)	6.971f	3142	0.656 ng/ml
31)	Aroclor 1248 (5)	6.971	3142	0.628 ng/ml
32)	Aroclor 1248 (6)	7.449	7294	2.800 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.971	3142	0.665 ng/ml
35)	Aroclor 1254 (2)	7.075	5771	1.025 ng/ml
36)	Aroclor 1254 (3)	7.449	7294	0.853 ng/ml
37)	Aroclor 1254 (4)	7.613	7827	1.344 ng/ml
38)	Aroclor 1254 (5)	8.004	7604	1.302 ng/ml
39)	Aroclor 1254 (6)	8.287	4584	2.426 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.549	5364	0.871 ng/ml
42)	Aroclor 1260 (2)	7.699	7141	0.920 ng/ml
43)	Aroclor 1260 (3)	8.255	4713	0.831 ng/ml
44)	Aroclor 1260 (4)	8.423	12395	0.927 ng/ml
45)	Aroclor 1260 (5)	8.721	6429	0.734 ng/ml
46)	Aroclor 1260 (6)	9.121	5610	1.562 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F010.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 10:47
Operator : MJB / KAK
Sample : A9J0058-03
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:37:57 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

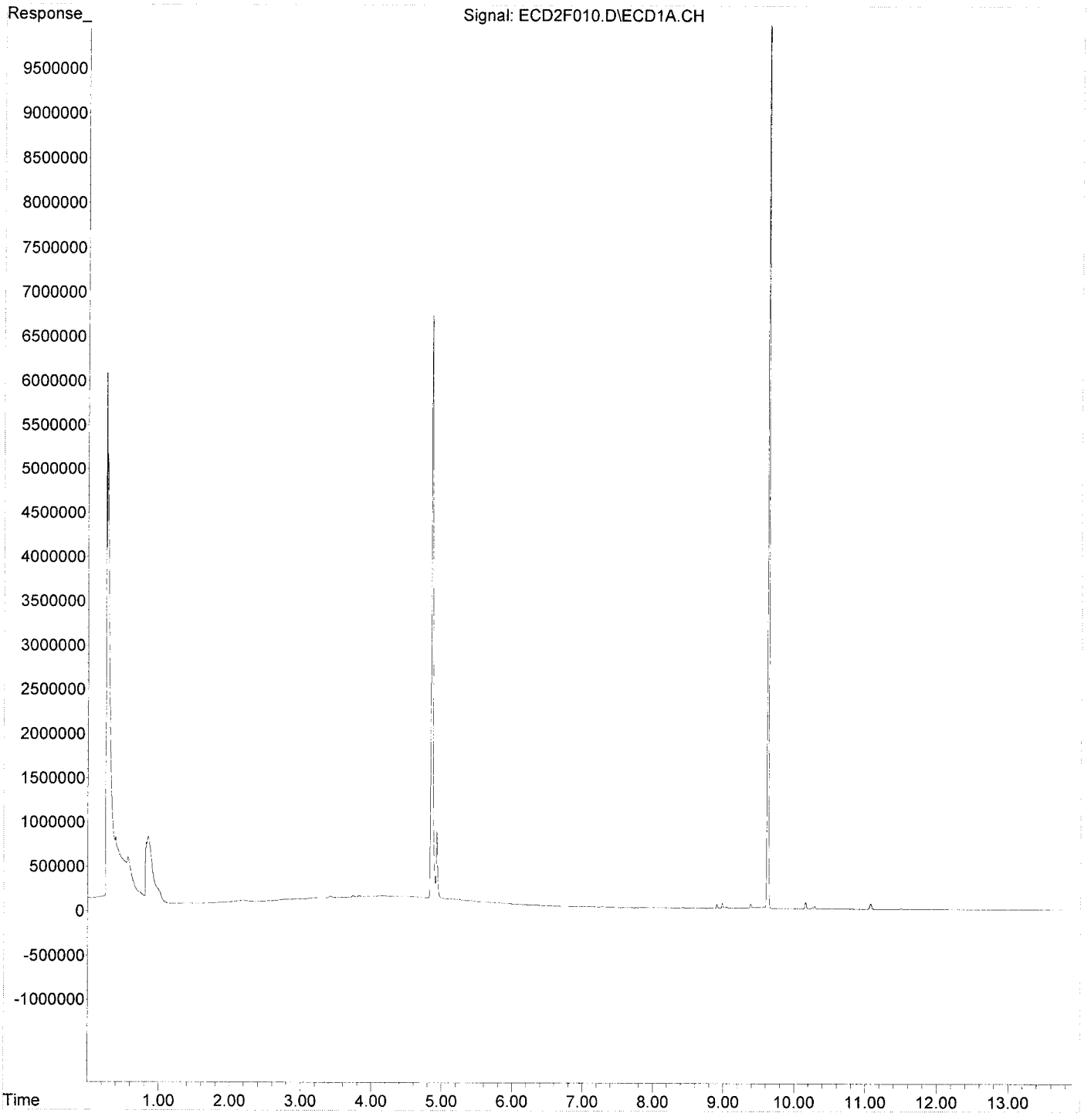
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.699	7141	1.209 ng/ml
49)	Aroclor 1262 (2)	8.027	5999	0.728 ng/ml
50)	Aroclor 1262 (3)	8.255	4713	0.685 ng/ml
51)	Aroclor 1262 (4)	8.423	12395	0.836 ng/ml
52)	Aroclor 1262 (5)	8.721	6429	0.721 ng/ml
53)	Aroclor 1262 (6)	9.121	5610	1.171 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.255	4713	1.308 ng/ml
56)	Aroclor 1268 (2)	8.680	4074	0.247 ng/ml
57)	Aroclor 1268 (3)	8.721	6429	0.463 ng/ml
58)	Aroclor 1268 (4)	8.905	46625	3.712 ng/ml
59)	Aroclor 1268 (5)	9.121	5610	1.024 ng/ml
60)	Aroclor 1268 (6)	9.384	51676	1.507 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F010.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 10:47
Operator : MJB / KAK
Sample : A9J0058-03
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:37:57 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F012.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 11:22
Operator : MJB / KAK
Sample : A9J0058-09
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:38:16 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.847	9395703	130.619 ng/ml
62) S	DCBP (S)	9.622	16062480	223.229 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.762	580	0.188 ng/ml
3)	Aroclor 1016 (2)	6.176	1937	0.314 ng/ml
4)	Aroclor 1016 (3)	6.245	1065	0.320 ng/ml
5)	Aroclor 1016 (4)	6.418	1367	0.507 ng/ml
6)	Aroclor 1016 (5)	6.632	533	0.164 ng/ml
7)	Aroclor 1016 (6)	6.762	547	0.233 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.202	6285	6.055 ng/ml
10)	Aroclor 1221 (2)	5.328	1735	2.675 ng/ml
11)	Aroclor 1221 (3)	5.410	4296	1.968 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.394	4198	2.385 ng/ml
14)	Aroclor 1232 (2)	6.176	1937	0.789 ng/ml
15)	Aroclor 1232 (3)	6.245	1065	0.840 ng/ml
16)	Aroclor 1232 (4)	6.418	1367	1.594 ng/ml
17)	Aroclor 1232 (5)	6.632	533	0.470 ng/ml
18)	Aroclor 1232 (6)	6.762	547	0.585 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.762	580	0.263 ng/ml
21)	Aroclor 1242 (2)	6.176	1937	0.425 ng/ml
22)	Aroclor 1242 (3)	6.245	1065	0.456 ng/ml
23)	Aroclor 1242 (4)	6.418	1367	0.779 ng/ml
24)	Aroclor 1242 (5)	6.632	533	0.223 ng/ml
25)	Aroclor 1242 (6)	6.762	547	0.276 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.176	1937	0.655 ng/ml
28)	Aroclor 1248 (2)	6.418	1367	0.394 ng/ml
29)	Aroclor 1248 (3)	6.632	533	0.136 ng/ml
30)	Aroclor 1248 (4)	6.936	490	0.102 ng/ml
31)	Aroclor 1248 (5)	6.976	2421	0.484 ng/ml
32)	Aroclor 1248 (6)	7.448	2116	0.812 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.976	2421	0.512 ng/ml
35)	Aroclor 1254 (2)	7.080	4168	0.740 ng/ml
36)	Aroclor 1254 (3)	7.448	2116	0.247 ng/ml
37)	Aroclor 1254 (4)	7.612	2148	0.369 ng/ml
38)	Aroclor 1254 (5)	8.004	4465	0.764 ng/ml
39)	Aroclor 1254 (6)	8.284	895	0.473 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.564	2484	0.403 ng/ml
42)	Aroclor 1260 (2)	7.699	2187	0.282 ng/ml
43)	Aroclor 1260 (3)	8.255	1675	0.295 ng/ml
44)	Aroclor 1260 (4)	8.422	14890	1.114 ng/ml
45)	Aroclor 1260 (5)	8.723	5010	0.572 ng/ml
46)	Aroclor 1260 (6)	9.121	4221	1.175 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F012.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 11:22
Operator : MJB / KAK
Sample : A9J0058-09
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:38:16 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

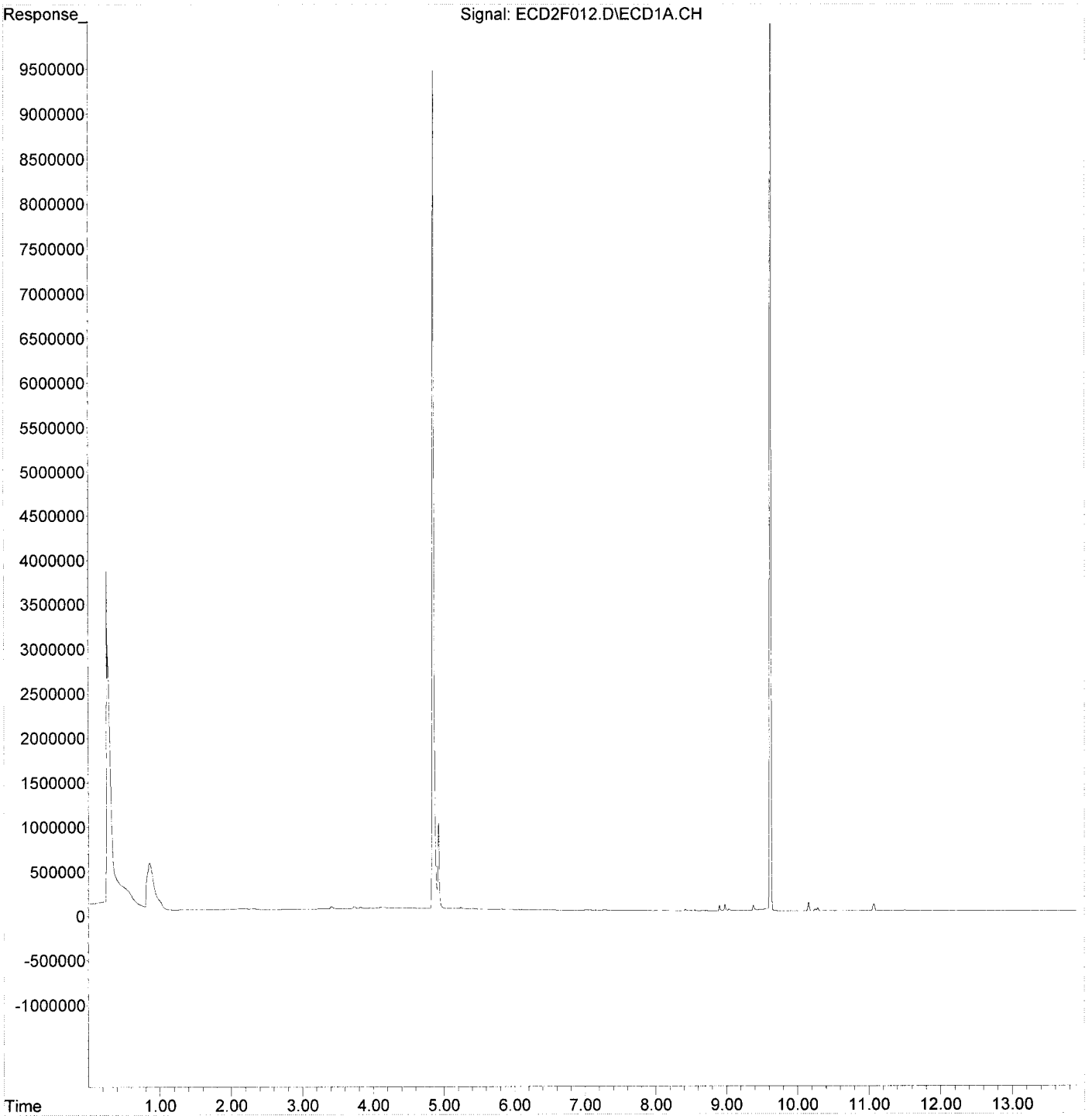
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.699	2187	0.370 ng/ml
49)	Aroclor 1262 (2)	8.004	4465	0.542 ng/ml
50)	Aroclor 1262 (3)	8.255	1675	0.243 ng/ml
51)	Aroclor 1262 (4)	8.422	14890	1.005 ng/ml
52)	Aroclor 1262 (5)	8.723	5010	0.562 ng/ml
53)	Aroclor 1262 (6)	9.121	4221	0.881 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.255	1675	0.465 ng/ml
56)	Aroclor 1268 (2)	8.673	3045	0.184 ng/ml
57)	Aroclor 1268 (3)	8.723	5010	0.361 ng/ml
58)	Aroclor 1268 (4)	8.904	59024	4.699 ng/ml
59)	Aroclor 1268 (5)	9.121	4221	0.770 ng/ml
60)	Aroclor 1268 (6)	9.382	62907	1.835 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F012.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 11:22
Operator : MJB / KAK
Sample : A9J0058-09
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:38:16 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F014.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 11:57
Operator : MJB / KAK
Sample : A9J0058-10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:38:35 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.846	8454589	117.536 ng/ml
62) S	DCBP (S)	9.621	17325735	240.785 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.760	1102	0.356 ng/ml
3)	Aroclor 1016 (2)	6.176	3601	0.583 ng/ml
4)	Aroclor 1016 (3)	6.253	2143	0.643 ng/ml
5)	Aroclor 1016 (4)	6.411	2976	1.105 ng/ml
6)	Aroclor 1016 (5)	6.638	1287	0.395 ng/ml
7)	Aroclor 1016 (6)	6.763	1026	0.437 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.198	6320	6.089 ng/ml
10)	Aroclor 1221 (2)	5.330	1711	2.638 ng/ml
11)	Aroclor 1221 (3)	5.395	6126	2.806 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.395	6126	3.480 ng/ml
14)	Aroclor 1232 (2)	6.176	3601	1.467 ng/ml
15)	Aroclor 1232 (3)	6.253	2143	1.691 ng/ml
16)	Aroclor 1232 (4)	6.411	2976	3.470 ng/ml
17)	Aroclor 1232 (5)	6.638	1287	1.135 ng/ml
18)	Aroclor 1232 (6)	6.763	1026	1.098 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.760	1102	0.500 ng/ml
21)	Aroclor 1242 (2)	6.176	3601	0.791 ng/ml
22)	Aroclor 1242 (3)	6.253	2143	0.918 ng/ml
23)	Aroclor 1242 (4)	6.411	2976	1.696 ng/ml
24)	Aroclor 1242 (5)	6.638	1287	0.539 ng/ml
25)	Aroclor 1242 (6)	6.763	1026	0.519 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.176	3601	1.218 ng/ml
28)	Aroclor 1248 (2)	6.411	2976	0.859 ng/ml
29)	Aroclor 1248 (3)	6.638	1287	0.328 ng/ml
30)	Aroclor 1248 (4)	6.932	1023	0.214 ng/ml
31)	Aroclor 1248 (5)	6.967	2851	0.570 ng/ml
32)	Aroclor 1248 (6)	7.447	4268	1.638 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.967	2851	0.603 ng/ml
35)	Aroclor 1254 (2)	7.074	5630	1.000 ng/ml
36)	Aroclor 1254 (3)	7.447	4268	0.499 ng/ml
37)	Aroclor 1254 (4)	7.611	3236	0.556 ng/ml
38)	Aroclor 1254 (5)	8.002	4491	0.769 ng/ml
39)	Aroclor 1254 (6)	8.284	1095	0.579 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.566	2616	0.425 ng/ml
42)	Aroclor 1260 (2)	7.697	3098	0.399 ng/ml
43)	Aroclor 1260 (3)	8.254	1181	0.208 ng/ml
44)	Aroclor 1260 (4)	8.420	12306	0.921 ng/ml
45)	Aroclor 1260 (5)	8.721	4457	0.509 ng/ml
46)	Aroclor 1260 (6)	9.122	3979	1.107 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F014.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 11:57
Operator : MJB / KAK
Sample : A9J0058-10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:38:35 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

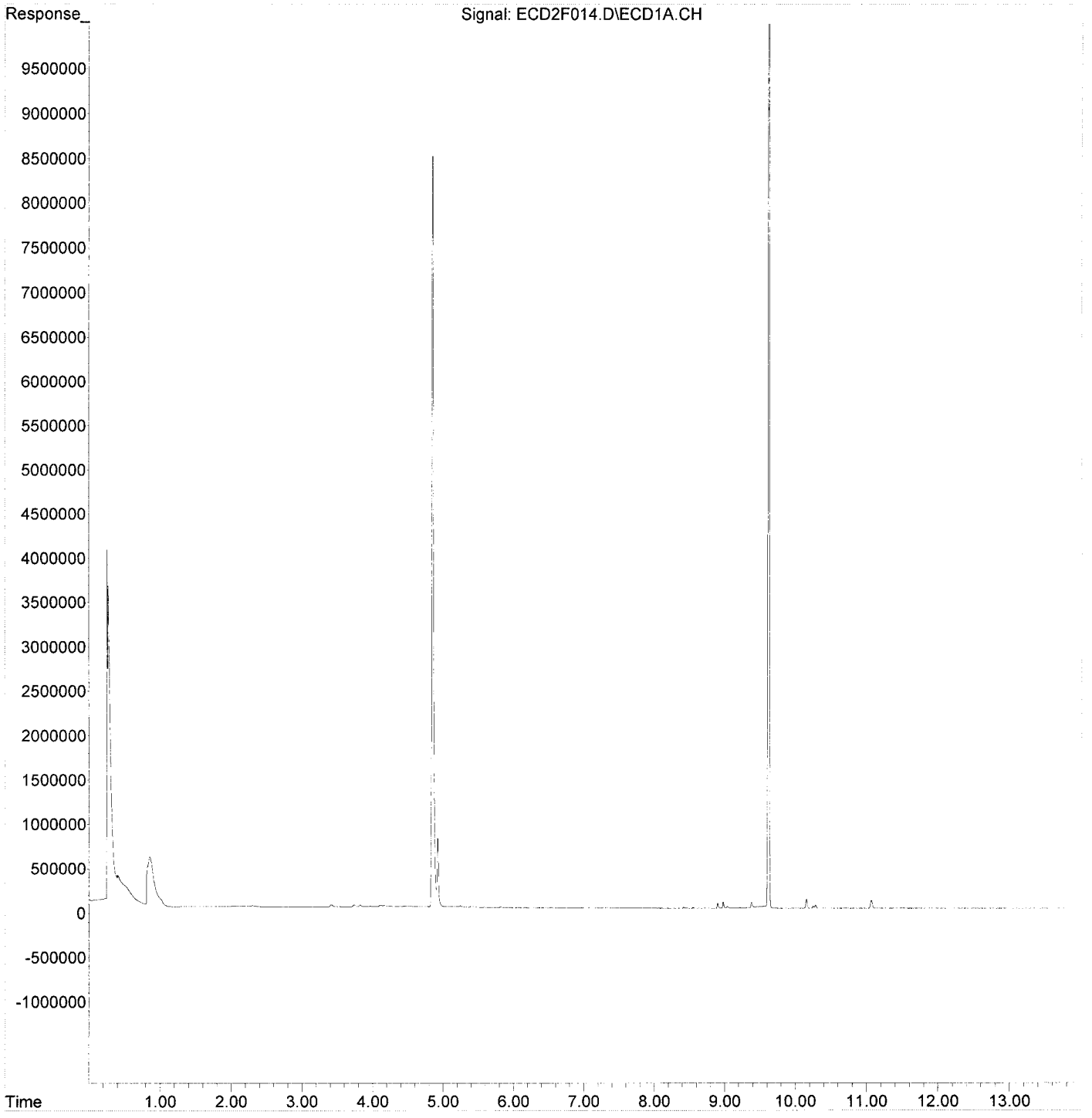
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.697	3098	0.524 ng/ml
49)	Aroclor 1262 (2)	8.021	2011	0.244 ng/ml
50)	Aroclor 1262 (3)	8.254	1181	0.171 ng/ml
51)	Aroclor 1262 (4)	8.420	12306	0.830 ng/ml
52)	Aroclor 1262 (5)	8.721	4457	0.500 ng/ml
53)	Aroclor 1262 (6)	9.122	3979	0.830 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.254	1181	0.328 ng/ml
56)	Aroclor 1268 (2)	8.672	1412	0.085 ng/ml
57)	Aroclor 1268 (3)	8.721	4457	0.321 ng/ml
58)	Aroclor 1268 (4)	8.903	57365	4.567 ng/ml
59)	Aroclor 1268 (5)	9.122	3979	0.726 ng/ml
60)	Aroclor 1268 (6)	9.382	62985	1.837 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F014.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 11:57
Operator : MJB / KAK
Sample : A9J0058-10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:38:35 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F016.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 12:33
Operator : MJB / KAK
Sample : 9J09024-CCV2
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:38:55 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.847	16455062	228.759 ng/ml
62) S	DCBP (S)	9.623	19292408	268.116 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.763	1518795	490.992 ng/ml
3)	Aroclor 1016 (2)	6.176	3024704	489.857 ng/ml
4)	Aroclor 1016 (3)	6.258	1634531	490.635 ng/ml
5)	Aroclor 1016 (4)	6.416	1320812	490.249 ng/ml
6)	Aroclor 1016 (5)	6.638	1617222	496.864 ng/ml
7)	Aroclor 1016 (6)	6.764	1102426	469.186 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.203	161554	155.647 ng/ml
10)	Aroclor 1221 (2)	5.321	165951	255.881 ng/ml
11)	Aroclor 1221 (3)	5.402	768656	352.132 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.402	768656	436.672 ng/ml
14)	Aroclor 1232 (2)	6.176	3024704	1232.414 ng/ml
15)	Aroclor 1232 (3)	6.258	1634531	1289.756 ng/ml
16)	Aroclor 1232 (4)	6.416	1320812	1540.244 ng/ml
17)	Aroclor 1232 (5)	6.638	1617222	1426.926 ng/ml
18)	Aroclor 1232 (6)	6.764	1102426	1179.310 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.763	1518795	688.211 ng/ml
21)	Aroclor 1242 (2)	6.176	3024704	664.389 ng/ml
22)	Aroclor 1242 (3)	6.258	1634531	700.202 ng/ml
23)	Aroclor 1242 (4)	6.416	1320812	752.660 ng/ml
24)	Aroclor 1242 (5)	6.638	1617222	676.862 ng/ml
25)	Aroclor 1242 (6)	6.764	1102426	557.089 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.176	3024704	1022.934 ng/ml
28)	Aroclor 1248 (2)	6.416	1320812	381.074 ng/ml
29)	Aroclor 1248 (3)	6.638	1617222	412.582 ng/ml
30)	Aroclor 1248 (4)	6.932	320333	66.857 ng/ml
31)	Aroclor 1248 (5)	6.966	1097946	219.430 ng/ml
32)	Aroclor 1248 (6)	7.454	2286013	877.433 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.966	1097946	232.241 ng/ml
35)	Aroclor 1254 (2)	7.076	1123507	199.605 ng/ml
36)	Aroclor 1254 (3)	7.454	2286013	267.208 ng/ml
37)	Aroclor 1254 (4)	7.613	354020	60.797 ng/ml
38)	Aroclor 1254 (5)	7.994	3145641	538.613 ng/ml
39)	Aroclor 1254 (6)	8.286	352153	186.351 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.566	3161695	513.538 ng/ml
42)	Aroclor 1260 (2)	7.700	3990305	514.036 ng/ml
43)	Aroclor 1260 (3)	8.257	2981269	525.454 ng/ml
44)	Aroclor 1260 (4)	8.426	6926428	518.238 ng/ml
45)	Aroclor 1260 (5)	8.725	4508714	514.848 ng/ml
46)	Aroclor 1260 (6)	9.119	1824673	507.878 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

487.97

515.67

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F016.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 12:33
Operator : MJB / KAK
Sample : 9J09024-CCV2
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:38:55 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

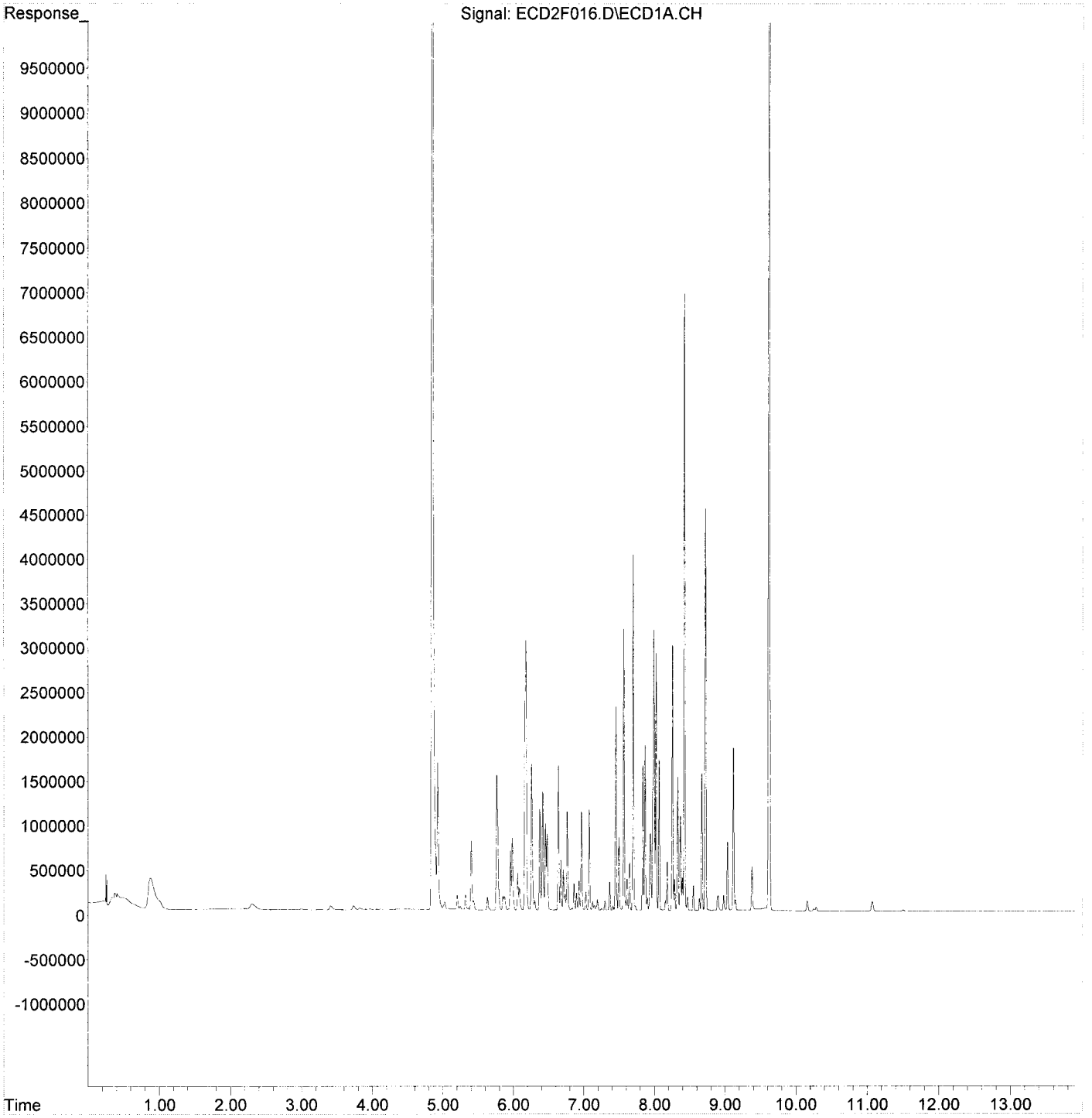
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	7.700	3990305	675.415	ng/ml
49)	Aroclor 1262 (2)	8.024	2921265	354.622	ng/ml
50)	Aroclor 1262 (3)	8.257	2981269	433.064	ng/ml
51)	Aroclor 1262 (4)	8.426	6926428	467.359	ng/ml
52)	Aroclor 1262 (5)	8.725	4508714	505.869	ng/ml
53)	Aroclor 1262 (6)	9.119	1824673	380.843	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	8.257	2981269	827.717	ng/ml
56)	Aroclor 1268 (2)	8.673	1533025	92.790	ng/ml
57)	Aroclor 1268 (3)	8.725	4508714	324.561	ng/ml
58)	Aroclor 1268 (4)	8.901	171180	13.627	ng/ml
59)	Aroclor 1268 (5)	9.119	1824673	332.977	ng/ml
60)	Aroclor 1268 (6)	9.382	488504	14.251	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F016.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 12:33
Operator : MJB / KAK
Sample : 9J09024-CCV2
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:38:55 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F017.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 12:50
Operator : MJB / KAK
Sample : 9J09024-CCB2
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:39:15 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19

clean

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.846	6244716	86.814 ng/ml
62) S	DCBP (S)	9.621	7930281	110.211 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.762	127	0.041 ng/ml
3)	Aroclor 1016 (2)	6.173	906	0.147 ng/ml
4)	Aroclor 1016 (3)	6.262	239	0.072 ng/ml
5)	Aroclor 1016 (4)	6.411	621	0.230 ng/ml
6)	Aroclor 1016 (5)	6.629	151	0.046 ng/ml
7)	Aroclor 1016 (6)	6.766	224	0.095 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.200	7380	7.110 ng/ml
10)	Aroclor 1221 (2)	5.337	1546	2.384 ng/ml
11)	Aroclor 1221 (3)	5.396	1675	0.767 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.396	1675	0.952 ng/ml
14)	Aroclor 1232 (2)	6.173	906	0.369 ng/ml
15)	Aroclor 1232 (3)	6.262	239	0.188 ng/ml
16)	Aroclor 1232 (4)	6.411	621	0.724 ng/ml
17)	Aroclor 1232 (5)	6.629	151	0.134 ng/ml
18)	Aroclor 1232 (6)	6.766	224	0.239 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.762	127	0.057 ng/ml
21)	Aroclor 1242 (2)	6.173	906	0.199 ng/ml
22)	Aroclor 1242 (3)	6.262	239	0.102 ng/ml
23)	Aroclor 1242 (4)	6.411	621	0.354 ng/ml
24)	Aroclor 1242 (5)	6.629	151	0.063 ng/ml
25)	Aroclor 1242 (6)	6.766	224	0.113 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.173	906	0.306 ng/ml
28)	Aroclor 1248 (2)	6.411	621	0.179 ng/ml
29)	Aroclor 1248 (3)	6.629	151	0.039 ng/ml
30)	Aroclor 1248 (4)	6.930	317	0.066 ng/ml
31)	Aroclor 1248 (5)	6.980	1964	0.392 ng/ml
32)	Aroclor 1248 (6)	7.453	1360	0.522 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.980	1964	0.415 ng/ml
35)	Aroclor 1254 (2)	7.073	3408	0.605 ng/ml
36)	Aroclor 1254 (3)	7.453	1360	0.159 ng/ml
37)	Aroclor 1254 (4)	7.610	811	0.139 ng/ml
38)	Aroclor 1254 (5)	8.003	2058	0.352 ng/ml
39)	Aroclor 1254 (6)	8.288	408	0.216 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.568	1252	0.203 ng/ml
42)	Aroclor 1260 (2)	7.691	411	0.053 ng/ml
43)	Aroclor 1260 (3)	8.247	839	0.148 ng/ml
44)	Aroclor 1260 (4)	8.422	6149	0.460 ng/ml
45)	Aroclor 1260 (5)	8.724	1999	0.228 ng/ml
46)	Aroclor 1260 (6)	9.120	3106	0.865 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F017.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 12:50
Operator : MJB / KAK
Sample : 9J09024-CCB2
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:39:15 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

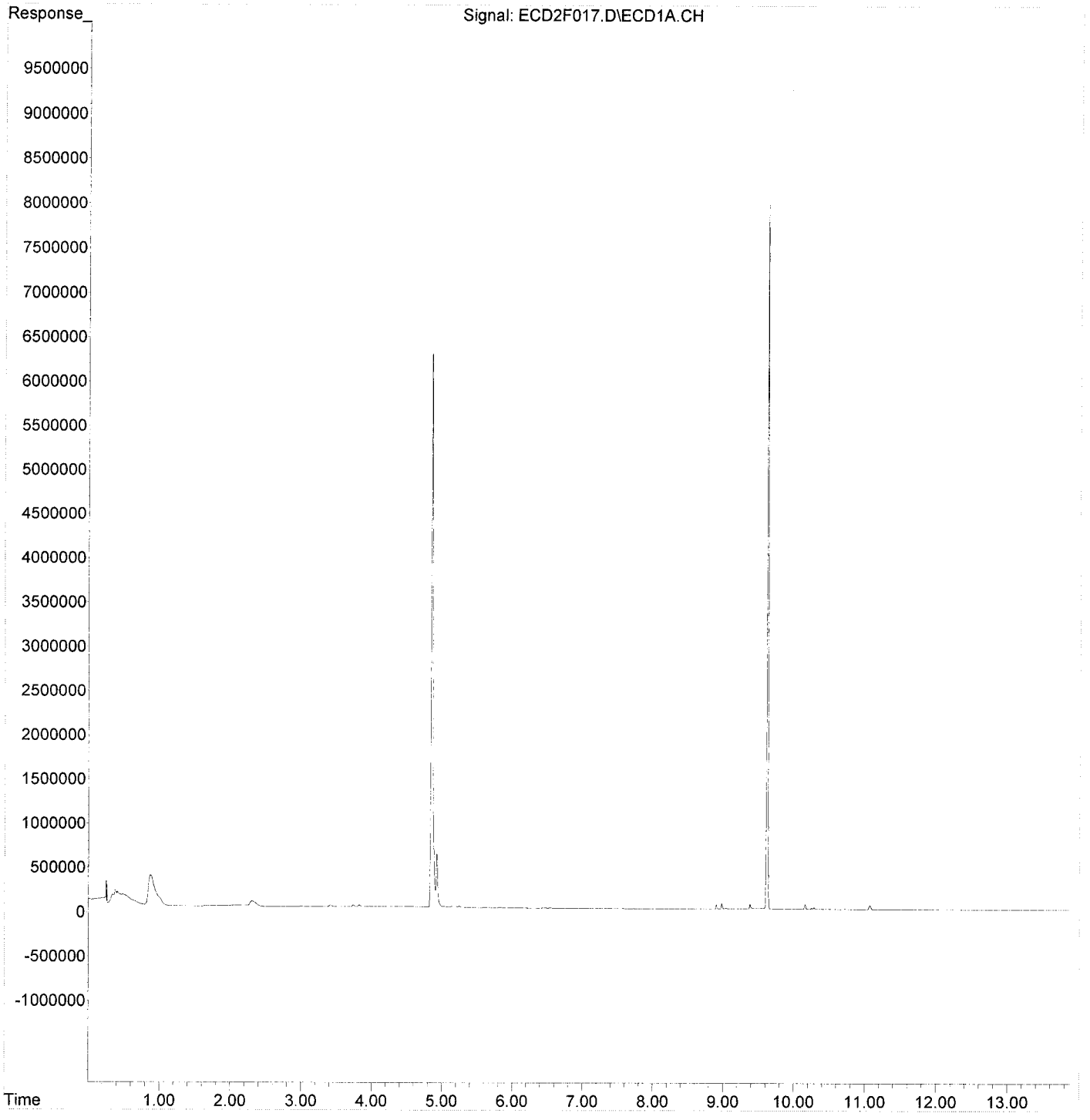
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.691	411	0.070 ng/ml
49)	Aroclor 1262 (2)	8.003	2058	0.250 ng/ml
50)	Aroclor 1262 (3)	8.247	839	0.122 ng/ml
51)	Aroclor 1262 (4)	8.422	6149	0.415 ng/ml
52)	Aroclor 1262 (5)	8.724	1999	0.224 ng/ml
53)	Aroclor 1262 (6)	9.120	3106	0.648 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.247	839	0.233 ng/ml
56)	Aroclor 1268 (2)	8.676	1354	0.082 ng/ml
57)	Aroclor 1268 (3)	8.724	1999	0.144 ng/ml
58)	Aroclor 1268 (4)	8.903	47618	3.791 ng/ml
59)	Aroclor 1268 (5)	9.120	3106	0.567 ng/ml
60)	Aroclor 1268 (6)	9.382	54276	1.583 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09024\
Data File : ECD2F017.D
Signal(s) : ECD1A.CH
Acq On : 09 Oct 2019 12:50
Operator : MJB / KAK
Sample : 9J09024-CCB2
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 09 16:39:15 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 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

Polychlorinated Biphenyls by EPA 8082A
Benchsheet & Analysis Sequence Data

Sequence 9J09025 (A9J0058-15,16,22,23)

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9J09025**	Instrument:	**DUALECD2R**
Date:	**10/09/19 07:24**	Calibration:	**A9G1705**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J09025-CCV1	Sediment	QC	QC				A19I232
2	9J09025-CCB1	Sediment	QC	QC				A19I233
3	A9J0058-15	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
4	9J09025-IBL1	Sediment	QC	QC				
5	9100797-MS1	Sediment	QC	QC		9100797		
6	9J09025-IBL2	Sediment	QC	QC				
7	9100797-MSD1	Sediment	QC	QC		9100797		
8	9J09025-IBL3	Sediment	QC	QC				
9	A9J0058-16	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
10	9J09025-IBL4	Sediment	QC	QC				
11	A9J0058-22	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
12	9J09025-IBL5	Sediment	QC	QC				
13	A9J0058-23	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
14	9J09025-IBL6	Sediment	QC	QC				
15	9J09025-CCV2	Sediment	QC	QC				A19I232
16	9J09025-CCB2	Sediment	QC	QC				A19I233
17	A9J0063-11	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
18	9J09025-IBL7	Sediment	QC	QC				
19	A9J0063-12	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
20	9J09025-IBL8	Sediment	QC	QC				
21	A9J0063-15	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
22	9J09025-IBL9	Sediment	QC	QC				
23	A9J0063-16	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
24	9J09025-IBLA	Sediment	QC	QC				
25	A9J0063-17	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
26	9J09025-IBLB	Sediment	QC	QC				
27	9J09025-CCV3	Sediment	QC	QC				A19I232
28	9J09025-CCB3	Sediment	QC	QC				A19I233

Comments:

Data Entered By: 10/16/19

Data Reviewed By: 10/18/19

TOTAL AROCLOR AVERAGE RESULTS

The average result for the 1016 and 1260 selected peaks are reported here to facilitate data entry and review. Averages are done on all individual peaks and must be for matrix spikes if all peaks are not used in the average.

9J09025-CCV1

Aroclor 1016

Peak	Initial Res
1016 (1)	462.61
1016 (2)	485.87
1016 (3)	458.75
1016 (4)	468.34
1016 (5)	450.49
1016 (6)	463.26
Average:	**464.89**

Aroclor 1260

Peak	Initial Res
1260 (1)	483.24
1260 (2)	487.87
1260 (3)	490.84
1260 (4)	500.57
1260 (5)	490.10
1260 (6)	493.37
Average:	**491.00**

9100797-MS1

Aroclor 1016

Peak	Initial Res
1016 (1)	569.50
1016 (2)	646.98
1016 (3)	590.42
1016 (4)	690.42
1016 (5)	688.85
1016 (6)	673.45
Average:	**643.27**

Aroclor 1260

Peak	Initial Res
1260 (1)	877.16
1260 (2)	908.75
1260 (3)	923.62
1260 (4)	1,038.70
1260 (5)	987.15
1260 (6)	993.78
Average:	**954.86**

TOTAL AROCLOR AVERAGE RESULTS

The average result for the 1016 and 1260 selected peaks are reported here to facilitate data entry and review. Averages are done on all individual peaks and must be for matrix spikes if all peaks are not used in the average.

9100797-MSD1

Aroclor 1016

Peak	Initial Res
1016 (1)	734.77
1016 (2)	795.21
1016 (3)	727.06
1016 (4)	806.91
1016 (5)	798.15
1016 (6)	802.02
Average:	**777.35**

Aroclor 1260

Peak	Initial Res
1260 (1)	899.74
1260 (2)	911.58
1260 (3)	946.91
1260 (4)	997.75
1260 (5)	974.64
1260 (6)	974.20
Average:	**950.80**

9J09025-CCV2

Aroclor 1016

Peak	Initial Res
1016 (1)	471.52
1016 (2)	484.03
1016 (3)	480.36
1016 (4)	465.43
1016 (5)	471.23
1016 (6)	488.84
Average:	**476.90**

Aroclor 1260

Peak	Initial Res
1260 (1)	499.72
1260 (2)	508.05
1260 (3)	504.48
1260 (4)	529.58
1260 (5)	510.67
1260 (6)	515.32
Average:	**511.30**

TOTAL AROCLOR AVERAGE RESULTS

The average result for the 1016 and 1260 selected peaks are reported here to facilitate data entry and review. Averages are done on all individual peaks and must be for matrix spikes if all peaks are not used in the average.

9J09025-CCV3

Aroclor 1016

Peak	Initial Res
1016 (1)	494.95
1016 (2)	508.41
1016 (3)	491.98
1016 (4)	481.44
1016 (5)	506.83
1016 (6)	498.53
Average:	**497.02**

Aroclor 1260

Peak	Initial Res
1260 (1)	539.66
1260 (2)	507.05
1260 (3)	539.41
1260 (4)	561.74
1260 (5)	548.17
1260 (6)	537.95
Average:	**539.00**

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R002.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 8:05
Operator : MJB / KAK
Sample : 9J09025-CCV1
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:42:41 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	5.728	58064439	233.613 ng/ml
62) S	DCBP (S)	10.718	31386590	250.692 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.398	3576515	462.606 ng/ml
3)	Aroclor 1016 (2)	6.888	6796910	485.870 ng/ml
4)	Aroclor 1016 (3)	7.015	2953457	458.747 ng/ml
5)	Aroclor 1016 (4)	7.101	2934076	468.341 ng/ml
6)	Aroclor 1016 (5)	7.146	3150449	450.494 ng/ml
7)	Aroclor 1016 (6)	7.271	3234505	463.257 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.887	270884	136.785 ng/ml
10)	Aroclor 1221 (2)	5.975	461299	229.714 ng/ml
11)	Aroclor 1221 (3)	6.062	2155391	321.461 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.062	2155391	386.122 ng/ml
14)	Aroclor 1232 (2)	6.398	3576515	1077.419 ng/ml
15)	Aroclor 1232 (3)	6.888	6796910	1086.165 ng/ml
16)	Aroclor 1232 (4)	7.101	2934076	1303.499 ng/ml
17)	Aroclor 1232 (5)	7.146	3150449	1206.988 ng/ml
18)	Aroclor 1232 (6)	7.271	3234505	1187.502 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.398	3576515	590.454 ng/ml
21)	Aroclor 1242 (2)	6.888	6796910	597.133 ng/ml
22)	Aroclor 1242 (3)	7.015	2953457	595.802 ng/ml
23)	Aroclor 1242 (4)	7.101	2934076	643.813 ng/ml
24)	Aroclor 1242 (5)	7.146	3150449	587.601 ng/ml
25)	Aroclor 1242 (6)	7.271	3234505	587.409 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.860	5506339	825.077 ng/ml
28)	Aroclor 1248 (2)	7.101	2934076	364.358 ng/ml
29)	Aroclor 1248 (3)	7.146	3150449	406.332 ng/ml
30)	Aroclor 1248 (4)	7.271	3234505	346.062 ng/ml
31)	Aroclor 1248 (5)	7.635	774967	65.781 ng/ml
32)	Aroclor 1248 (6)	7.795	2699367	256.340 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.614	2253028	183.979 ng/ml
35)	Aroclor 1254 (2)	7.795	2699367	138.157 ng/ml
36)	Aroclor 1254 (3)	8.105	1548747	74.313 ng/ml
37)	Aroclor 1254 (4)	8.344	1044996	68.205 ng/ml
38)	Aroclor 1254 (5)	8.680	8265820	530.842 ng/ml
39)	Aroclor 1254 (6)	8.897	1173339	245.521 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.241	6417683	483.236 ng/ml
42)	Aroclor 1260 (2)	8.447	8137293	487.869 ng/ml
43)	Aroclor 1260 (3)	8.680	8265820	490.839 ng/ml
44)	Aroclor 1260 (4)	9.172	12969378	500.573 ng/ml
45)	Aroclor 1260 (5)	9.439	7422577	490.100 ng/ml
46)	Aroclor 1260 (6)	10.028	2888319	493.371 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

464.89

491.00

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R002.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 8:05
Operator : MJB / KAK
Sample : 9J09025-CCV1
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:42:41 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

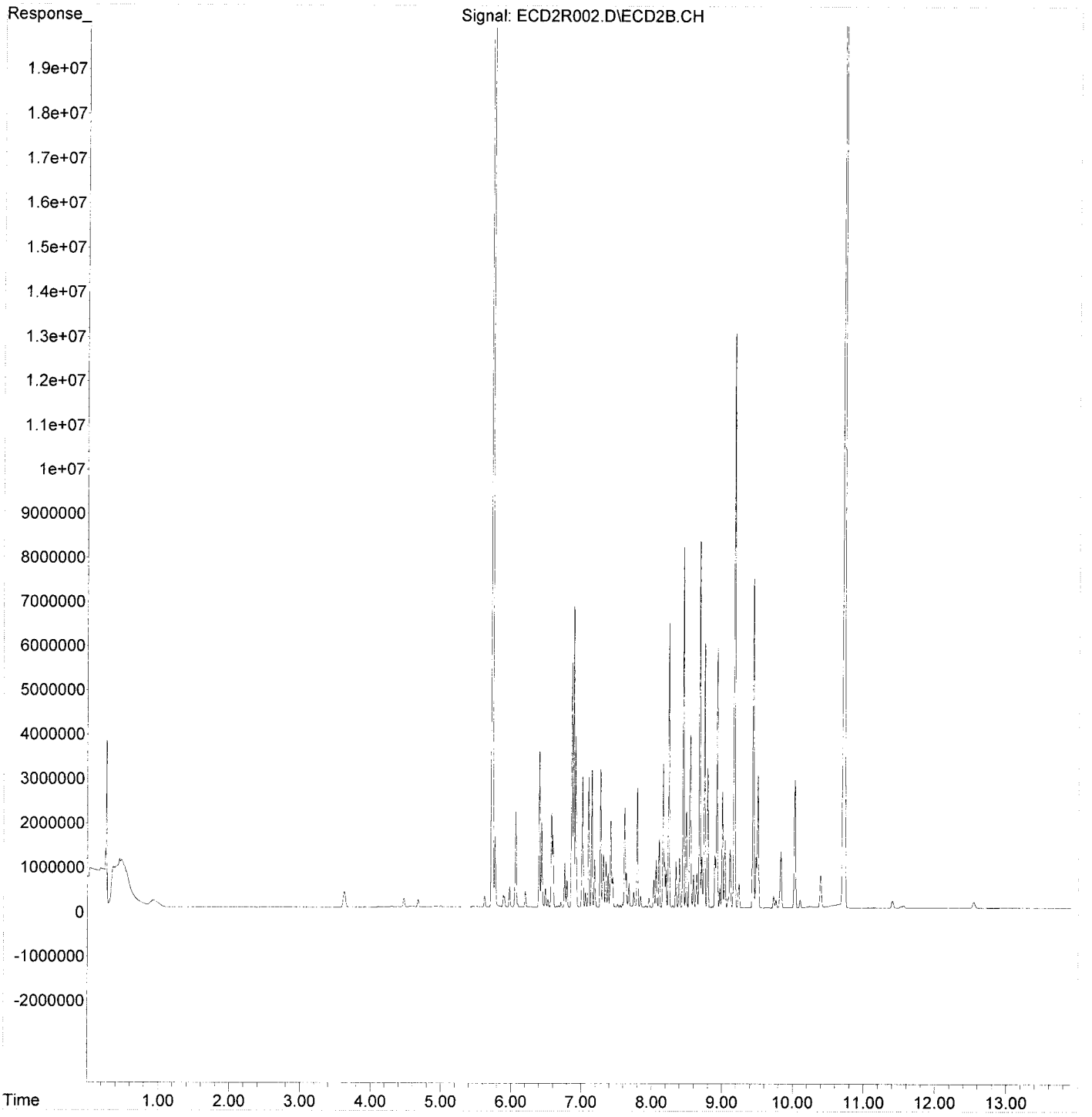
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	8.447	8137293	611.964	ng/ml
49)	Aroclor 1262 (2)	8.749	5974529	337.466	ng/ml
50)	Aroclor 1262 (3)	8.927	5877649	393.277	ng/ml
51)	Aroclor 1262 (4)	9.172	12969378	404.441	ng/ml
52)	Aroclor 1262 (5)	9.439	7422577	394.530	ng/ml
53)	Aroclor 1262 (6)	10.028	2888319	354.058	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	8.967	436838	53.679	ng/ml
56)	Aroclor 1268 (2)	9.439	7422577	202.028	ng/ml
57)	Aroclor 1268 (3)	9.506	2982826	101.276	ng/ml
58)	Aroclor 1268 (4)	9.730	268120	10.619	ng/ml
59)	Aroclor 1268 (5)	10.028	2888319	296.685	ng/ml
60)	Aroclor 1268 (6)	10.392	719299	10.486	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R002.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 8:05
Operator : MJB / KAK
Sample : 9J09025-CCV1
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:42:41 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R003.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 8:23
Operator : MJB / KAK
Sample : 9J09025-CCB1
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:42:59 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19 Clean

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	5.730	21491016	86.466 ng/ml
62) S	DCBP (S)	10.717	11507415	91.912 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.403	4033	0.522 ng/ml
3)	Aroclor 1016 (2)	6.898	5154	0.368 ng/ml
4)	Aroclor 1016 (3)	7.020	3793	0.589 ng/ml
5)	Aroclor 1016 (4)	7.104	3028	0.483 ng/ml
6)	Aroclor 1016 (5)	7.145	3179	0.455 ng/ml
7)	Aroclor 1016 (6)	7.282	3754	0.538 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.897	7078	3.574 ng/ml
10)	Aroclor 1221 (2)	5.987	4920	2.450 ng/ml
11)	Aroclor 1221 (3)	6.049	39288	5.860 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.049	39288	7.038 ng/ml
14)	Aroclor 1232 (2)	6.403	4033	1.215 ng/ml
15)	Aroclor 1232 (3)	6.898	5154	0.824 ng/ml
16)	Aroclor 1232 (4)	7.104	3028	1.345 ng/ml
17)	Aroclor 1232 (5)	7.145	3179	1.218 ng/ml
18)	Aroclor 1232 (6)	7.282	3754	1.378 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.403	4033	0.666 ng/ml
21)	Aroclor 1242 (2)	6.898	5154	0.453 ng/ml
22)	Aroclor 1242 (3)	7.020	3793	0.765 ng/ml
23)	Aroclor 1242 (4)	7.104	3028	0.664 ng/ml
24)	Aroclor 1242 (5)	7.145	3179	0.593 ng/ml
25)	Aroclor 1242 (6)	7.282	3754	0.682 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.871	4804	0.720 ng/ml
28)	Aroclor 1248 (2)	7.104	3028	0.376 ng/ml
29)	Aroclor 1248 (3)	7.145	3179	0.410 ng/ml
30)	Aroclor 1248 (4)	7.282	3754	0.402 ng/ml
31)	Aroclor 1248 (5)	7.640	26246	2.228 ng/ml
32)	Aroclor 1248 (6)	7.779	19500	1.852 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.597	1827	0.149 ng/ml
35)	Aroclor 1254 (2)	7.779	19500	0.998 ng/ml
36)	Aroclor 1254 (3)	8.105	3394	0.163 ng/ml
37)	Aroclor 1254 (4)	8.360	4524	0.295 ng/ml
38)	Aroclor 1254 (5)	8.682	2865	0.184 ng/ml
39)	Aroclor 1254 (6)	8.909	3487	0.730 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.237	3430	0.258 ng/ml
42)	Aroclor 1260 (2)	8.446	2616	0.157 ng/ml
43)	Aroclor 1260 (3)	8.682	2865	0.170 ng/ml
44)	Aroclor 1260 (4)	9.170	2322	0.090 ng/ml
45)	Aroclor 1260 (5)	9.439	1817	0.120 ng/ml
46)	Aroclor 1260 (6)	10.029	2069	0.353 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R003.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 8:23
Operator : MJB / KAK
Sample : 9J09025-CCB1
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:42:59 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

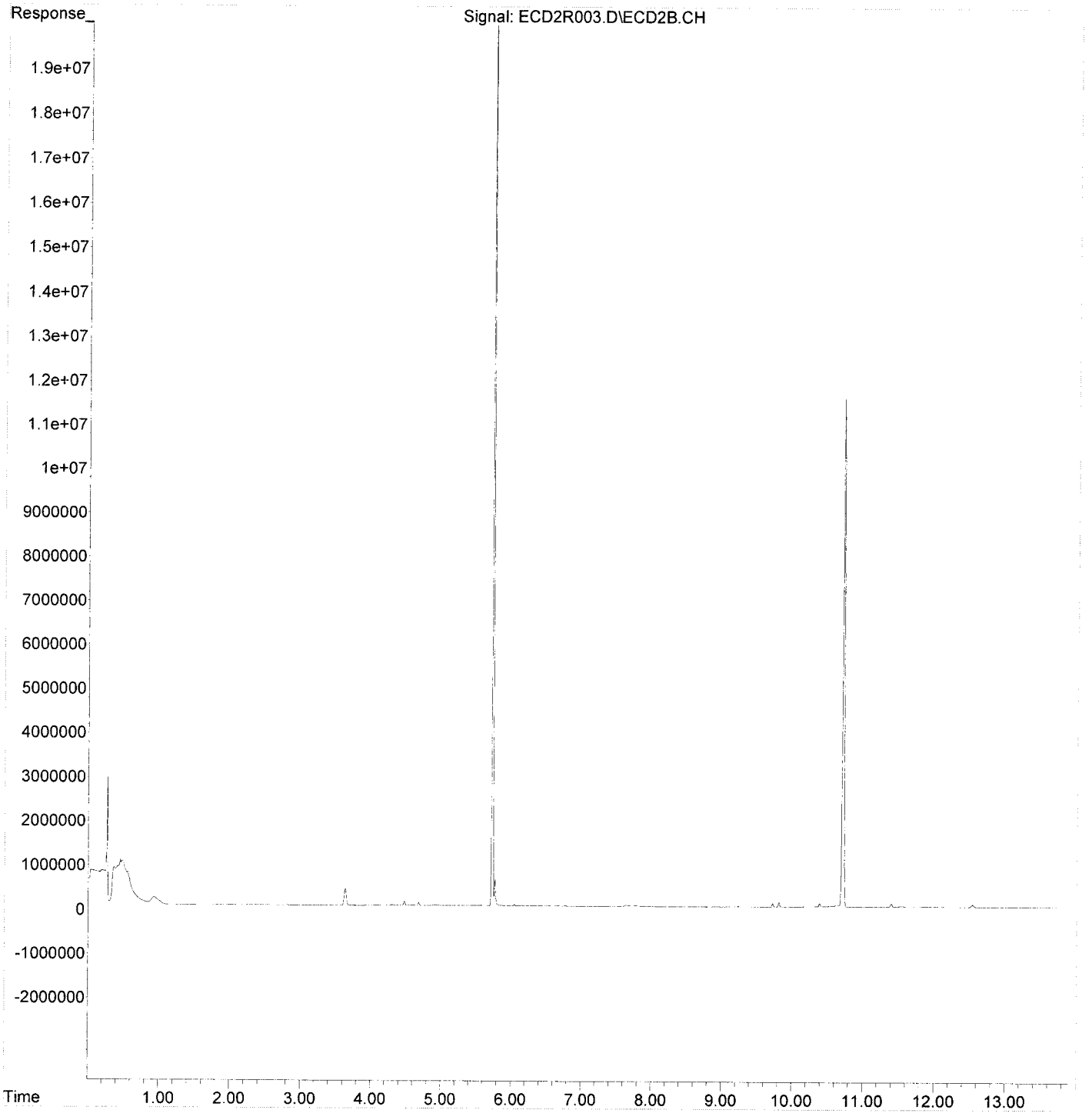
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.446	2616	0.197 ng/ml
49)	Aroclor 1262 (2)	8.755	3092	0.175 ng/ml
50)	Aroclor 1262 (3)	8.926	3477	0.233 ng/ml
51)	Aroclor 1262 (4)	9.170	2322	0.072 ng/ml
52)	Aroclor 1262 (5)	9.439	1817	0.097 ng/ml
53)	Aroclor 1262 (6)	10.029	2069	0.254 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.974	3038	0.373 ng/ml
56)	Aroclor 1268 (2)	9.439	1817	0.049 ng/ml
57)	Aroclor 1268 (3)	9.503	1861	0.063 ng/ml
58)	Aroclor 1268 (4)	9.729	85949	3.404 ng/ml
59)	Aroclor 1268 (5)	10.029	2069	0.213 ng/ml
60)	Aroclor 1268 (6)	10.391	73466	1.071 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R003.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 8:23
Operator : MJB / KAK
Sample : 9J09025-CCB1
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:42:59 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R004.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 9:01
Operator : MJB / KAK
Sample : A9J0058-15
Misc :
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:43:16 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	5.727	29563564	118.944 ng/ml
62) S	DCBP (S)	10.717	25820919	206.238 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.400	16581	2.145 ng/ml
3)	Aroclor 1016 (2)	6.887	17658	1.262 ng/ml
4)	Aroclor 1016 (3)	7.013	12054	1.872 ng/ml
5)	Aroclor 1016 (4)	7.101	12498	1.995 ng/ml
6)	Aroclor 1016 (5)	7.145	11679	1.670 ng/ml
7)	Aroclor 1016 (6)	7.270	11435	1.638 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.897	12909	6.519 ng/ml
10)	Aroclor 1221 (2)	5.981	12250	6.100 ng/ml
11)	Aroclor 1221 (3)	6.047	52749	7.867 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.047	52749	9.450 ng/ml
14)	Aroclor 1232 (2)	6.400	16581	4.995 ng/ml
15)	Aroclor 1232 (3)	6.887	17658	2.822 ng/ml
16)	Aroclor 1232 (4)	7.101	12498	5.552 ng/ml
17)	Aroclor 1232 (5)	7.145	11679	4.474 ng/ml
18)	Aroclor 1232 (6)	7.270	11435	4.198 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.400	16581	2.737 ng/ml
21)	Aroclor 1242 (2)	6.887	17658	1.551 ng/ml
22)	Aroclor 1242 (3)	7.013	12054	2.432 ng/ml
23)	Aroclor 1242 (4)	7.101	12498	2.742 ng/ml
24)	Aroclor 1242 (5)	7.145	11679	2.178 ng/ml
25)	Aroclor 1242 (6)	7.270	11435	2.077 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.860	16937	2.538 ng/ml
28)	Aroclor 1248 (2)	7.101	12498	1.552 ng/ml
29)	Aroclor 1248 (3)	7.145	11679	1.506 ng/ml
30)	Aroclor 1248 (4)	7.270	11435	1.223 ng/ml
31)	Aroclor 1248 (5)	7.639	82047	6.964 ng/ml
32)	Aroclor 1248 (6)	7.767	55609	5.281 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.633	81954	6.692 ng/ml
35)	Aroclor 1254 (2)	7.767	55609	2.846 ng/ml
36)	Aroclor 1254 (3)	8.104	8958	0.430 ng/ml
37)	Aroclor 1254 (4)	8.361	10193	0.665 ng/ml
38)	Aroclor 1254 (5)	8.679	9522	0.612 ng/ml
39)	Aroclor 1254 (6)	8.910	3284	0.687 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.240	12969	0.977 ng/ml
42)	Aroclor 1260 (2)	8.447	11030	0.661 ng/ml
43)	Aroclor 1260 (3)	8.679	9522	0.565 ng/ml
44)	Aroclor 1260 (4)	9.170	6111	0.236 ng/ml
45)	Aroclor 1260 (5)	9.440	5533	0.365 ng/ml
46)	Aroclor 1260 (6)	10.031	2624	0.448 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R004.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 9:01
Operator : MJB / KAK
Sample : A9J0058-15
Misc :
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:43:16 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

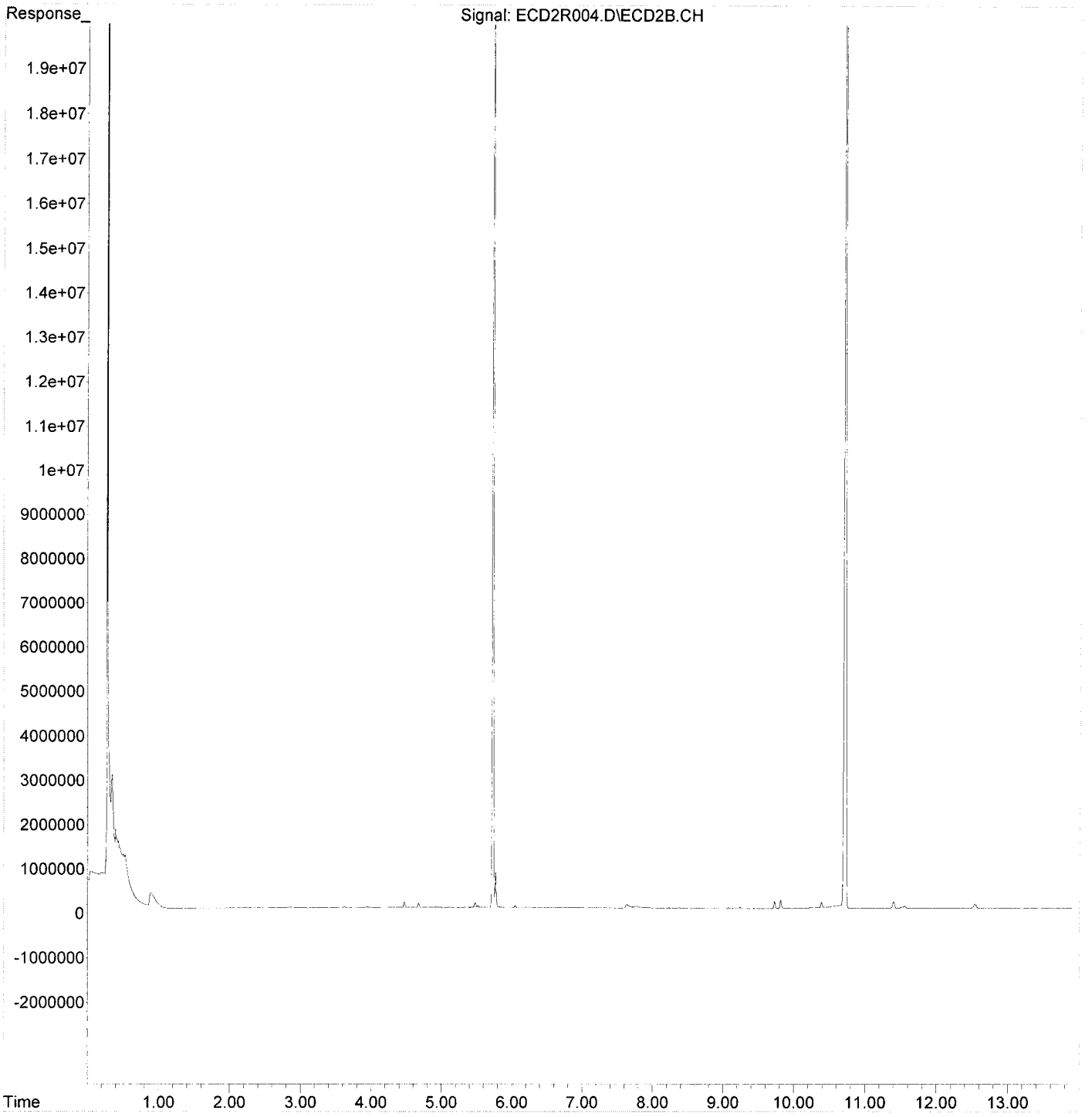
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.447	11030	0.830 ng/ml
49)	Aroclor 1262 (2)	8.748	5771	0.326 ng/ml
50)	Aroclor 1262 (3)	8.926	5014	0.336 ng/ml
51)	Aroclor 1262 (4)	9.170	6111	0.191 ng/ml
52)	Aroclor 1262 (5)	9.440	5533	0.294 ng/ml
53)	Aroclor 1262 (6)	10.031	2624	0.322 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.970	3175	0.390 ng/ml
56)	Aroclor 1268 (2)	9.440	5533	0.151 ng/ml
57)	Aroclor 1268 (3)	9.502	3453	0.117 ng/ml
58)	Aroclor 1268 (4)	9.730	156177	6.185 ng/ml
59)	Aroclor 1268 (5)	10.031	2624	0.270 ng/ml
60)	Aroclor 1268 (6)	10.391	121658	1.774 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R004.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 9:01
Operator : MJB / KAK
Sample : A9J0058-15
Misc :
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:43:16 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R006.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 9:36
Operator : MJB / KAK
Sample : 9100797-MS1
Misc :
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:43:35 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	5.730	29380282	118.207	ng/ml
62) S	DCBP (S)	10.715	27608194	220.513	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	6.400	4402936	569.500	ng/ml
3)	Aroclor 1016 (2)	6.888	9050766	646.985	ng/ml
4)	Aroclor 1016 (3)	7.016	3801183	590.421	ng/ml
5)	Aroclor 1016 (4)	7.101	4325375	690.421	ng/ml
6)	Aroclor 1016 (5)	7.146	4817328	688.847	ng/ml
7)	Aroclor 1016 (6)	7.271	4702101	673.452	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	5.889	324343	163.779	ng/ml
10)	Aroclor 1221 (2)	5.977	545831	271.808	ng/ml
11)	Aroclor 1221 (3)	6.065	2587800	385.952	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	6.065	2587800	463.585	ng/ml
14)	Aroclor 1232 (2)	6.400	4402936	1326.377	ng/ml
15)	Aroclor 1232 (3)	6.888	9050766	1446.338	ng/ml
16)	Aroclor 1232 (4)	7.101	4325375	1921.601	ng/ml
17)	Aroclor 1232 (5)	7.146	4817328	1845.597	ng/ml
18)	Aroclor 1232 (6)	7.271	4702101	1726.309	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	6.400	4402936	726.889	ng/ml
21)	Aroclor 1242 (2)	6.888	9050766	795.143	ng/ml
22)	Aroclor 1242 (3)	7.016	3801183	766.814	ng/ml
23)	Aroclor 1242 (4)	7.101	4325375	949.100	ng/ml
24)	Aroclor 1242 (5)	7.146	4817328	898.496	ng/ml
25)	Aroclor 1242 (6)	7.271	4702101	853.935	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	6.861	7900318	1183.794	ng/ml
28)	Aroclor 1248 (2)	7.101	4325375	537.132	ng/ml
29)	Aroclor 1248 (3)	7.146	4817328	621.320	ng/ml
30)	Aroclor 1248 (4)	7.271	4702101	503.082	ng/ml
31)	Aroclor 1248 (5)	7.636	1148210	97.462	ng/ml
32)	Aroclor 1248 (6)	7.794	4644293	441.036	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	7.613	3576514	292.052	ng/ml
35)	Aroclor 1254 (2)	7.794	4644293	237.702	ng/ml
36)	Aroclor 1254 (3)	8.105	2453728	117.737	ng/ml
37)	Aroclor 1254 (4)	8.344	1818216	118.672	ng/ml
38)	Aroclor 1254 (5)	8.679	15553934	998.894	ng/ml
39)	Aroclor 1254 (6)	8.895	2198265	459.988	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	8.241	11649183	877.156	ng/ml
42)	Aroclor 1260 (2)	8.447	15157250	908.749	ng/ml
43)	Aroclor 1260 (3)	8.679	15553934	923.619	ng/ml
44)	Aroclor 1260 (4)	9.171	26911783	1038.702	ng/ml
45)	Aroclor 1260 (5)	9.438	14950351	987.146	ng/ml
46)	Aroclor 1260 (6)	10.026	5817825	993.778	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

643.27

954.86

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R006.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 9:36
Operator : MJB / KAK
Sample : 9100797-MS1
Misc :
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:43:35 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

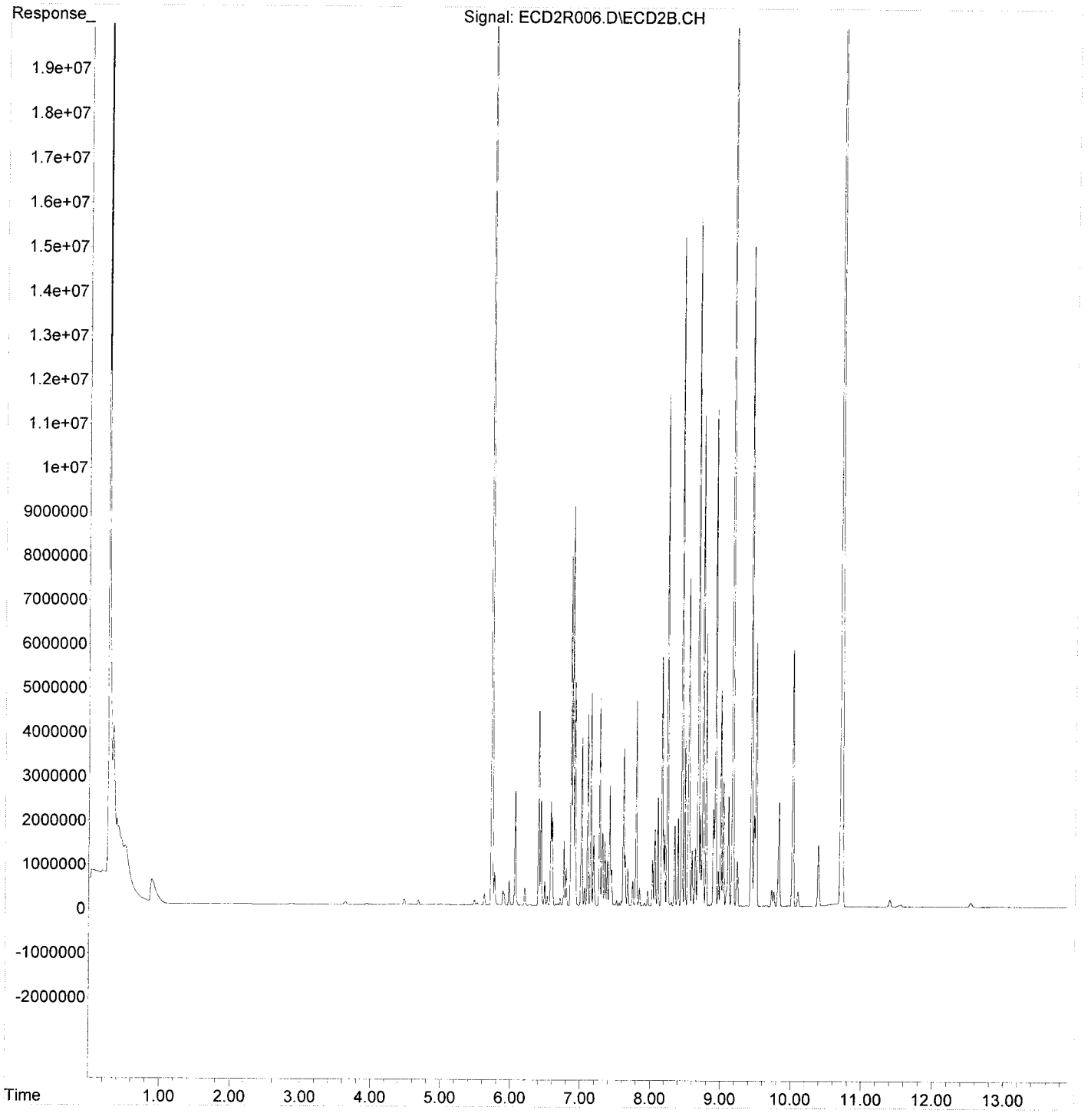
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	8.447	15157250	1139.900	ng/ml
49)	Aroclor 1262 (2)	8.747	11134675	628.933	ng/ml
50)	Aroclor 1262 (3)	8.925	11272212	754.230	ng/ml
51)	Aroclor 1262 (4)	9.171	26911783	839.226	ng/ml
52)	Aroclor 1262 (5)	9.438	14950351	794.651	ng/ml
53)	Aroclor 1262 (6)	10.026	5817825	713.164	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	8.966	795962	97.809	ng/ml
56)	Aroclor 1268 (2)	9.438	14950351	406.918	ng/ml
57)	Aroclor 1268 (3)	9.504	5981449	203.088	ng/ml
58)	Aroclor 1268 (4)	9.728	374083	14.816	ng/ml
59)	Aroclor 1268 (5)	10.026	5817825	597.600	ng/ml
60)	Aroclor 1268 (6)	10.389	1378870	20.101	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R006.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 9:36
Operator : MJB / KAK
Sample : 9100797-MS1
Misc :
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:43:35 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R008.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 10:11
Operator : MJB / KAK
Sample : 9100797-MSD1
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:43:51 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1)	S TCMX (S)	5.729	37184193	149.605	ng/ml	
62)	S DCBP (S)	10.715	27072999	216.239	ng/ml	
	Target Compounds					
2)	Aroclor 1016 (1)	6.399	5680705	734.773	ng/ml	777.35
3)	Aroclor 1016 (2)	6.888	11124304	795.210	ng/ml	
4)	Aroclor 1016 (3)	7.014	4680858	727.057	ng/ml	
5)	Aroclor 1016 (4)	7.101	5055134	806.906	ng/ml	
6)	Aroclor 1016 (5)	7.146	5581746	798.154	ng/ml	
7)	Aroclor 1016 (6)	7.271	5599768	802.019	ng/ml	
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml	
9)	Aroclor 1221 (1)	5.888	395465	199.693	ng/ml	
10)	Aroclor 1221 (2)	5.976	677735	337.492	ng/ml	
11)	Aroclor 1221 (3)	6.064	3308084	493.377	ng/ml	
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml	
13)	Aroclor 1232 (1)	6.064	3308084	592.618	ng/ml	
14)	Aroclor 1232 (2)	6.399	5680705	1711.303	ng/ml	
15)	Aroclor 1232 (3)	6.888	11124304	1777.695	ng/ml	
16)	Aroclor 1232 (4)	7.101	5055134	2245.805	ng/ml	
17)	Aroclor 1232 (5)	7.146	5581746	2138.457	ng/ml	
18)	Aroclor 1232 (6)	7.271	5599768	2055.875	ng/ml	
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml	
20)	Aroclor 1242 (1)	6.399	5680705	937.838	ng/ml	
21)	Aroclor 1242 (2)	6.888	11124304	977.311	ng/ml	
22)	Aroclor 1242 (3)	7.014	4680858	944.271	ng/ml	
23)	Aroclor 1242 (4)	7.101	5055134	1109.228	ng/ml	
24)	Aroclor 1242 (5)	7.146	5581746	1041.071	ng/ml	
25)	Aroclor 1242 (6)	7.271	5599768	1016.958	ng/ml	
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml	
27)	Aroclor 1248 (1)	6.860	9414405	1410.666	ng/ml	
28)	Aroclor 1248 (2)	7.101	5055134	627.755	ng/ml	
29)	Aroclor 1248 (3)	7.146	5581746	719.911	ng/ml	
30)	Aroclor 1248 (4)	7.271	5599768	599.124	ng/ml	
31)	Aroclor 1248 (5)	7.635	1274438	108.177	ng/ml	
32)	Aroclor 1248 (6)	7.794	5032175	477.870	ng/ml	
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml	
34)	Aroclor 1254 (1)	7.613	4116988	336.187	ng/ml	
35)	Aroclor 1254 (2)	7.794	5032175	257.554	ng/ml	
36)	Aroclor 1254 (3)	8.104	2746392	131.780	ng/ml	
37)	Aroclor 1254 (4)	8.343	1888485	123.258	ng/ml	
38)	Aroclor 1254 (5)	8.678	15946148	1024.082	ng/ml	
39)	Aroclor 1254 (6)	8.895	2270268	475.054	ng/ml	
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml	
41)	Aroclor 1260 (1)	8.240	11949090	899.738	ng/ml	950.80
42)	Aroclor 1260 (2)	8.446	15204544	911.585	ng/ml	
43)	Aroclor 1260 (3)	8.678	15946148	946.910	ng/ml	
44)	Aroclor 1260 (4)	9.169	25850678	997.747	ng/ml	
45)	Aroclor 1260 (5)	9.438	14760950	974.640	ng/ml	
46)	Aroclor 1260 (6)	10.025	5703230	974.203	ng/ml	
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml	

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R008.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 10:11
Operator : MJB / KAK
Sample : 9100797-MSD1
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:43:51 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

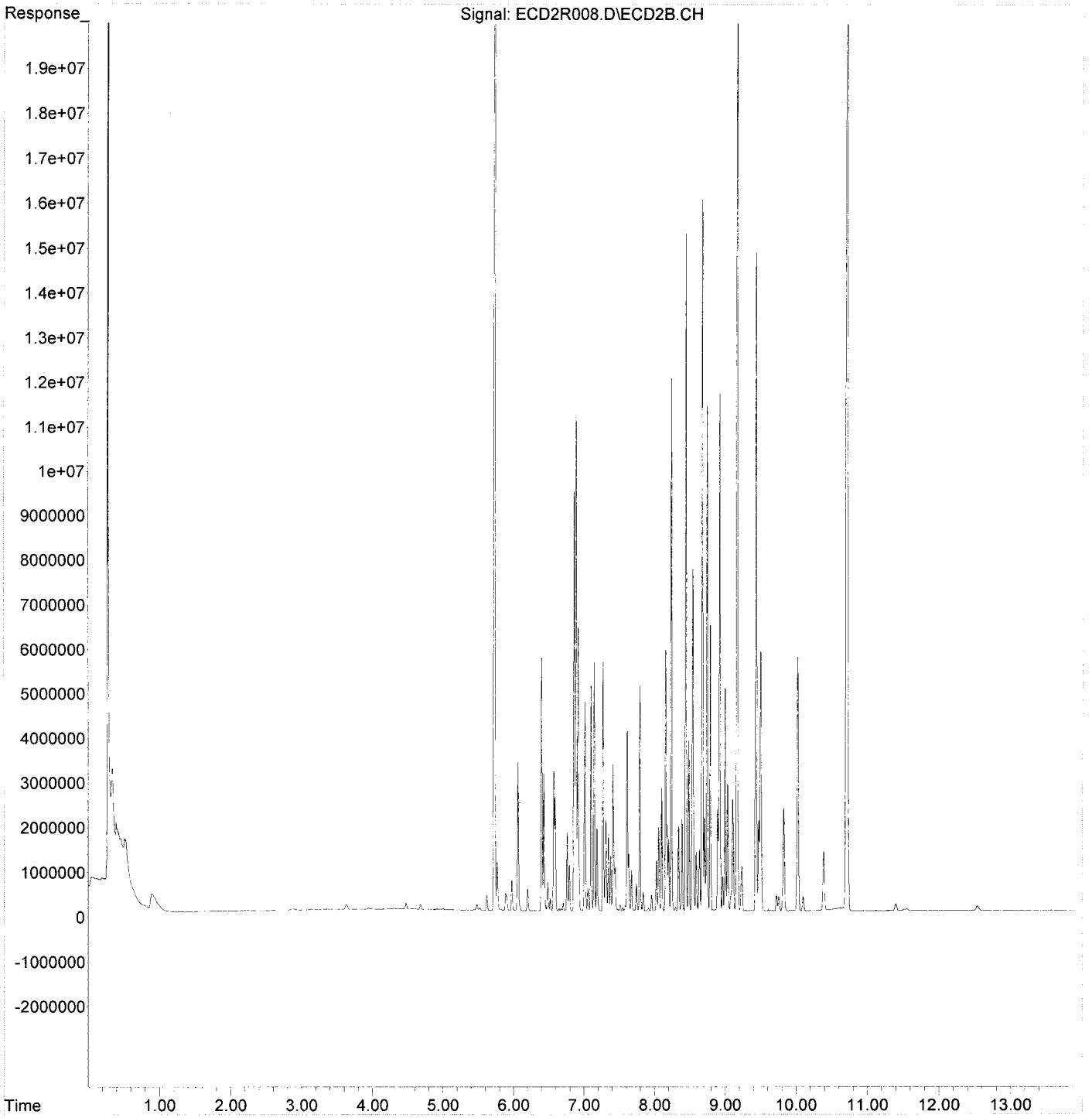
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	8.446	15204544	1143.457	ng/ml
49)	Aroclor 1262 (2)	8.746	11325334	639.702	ng/ml
50)	Aroclor 1262 (3)	8.925	11594831	775.816	ng/ml
51)	Aroclor 1262 (4)	9.169	25850678	806.136	ng/ml
52)	Aroclor 1262 (5)	9.438	14760950	784.584	ng/ml
53)	Aroclor 1262 (6)	10.025	5703230	699.117	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	8.965	776330	95.397	ng/ml
56)	Aroclor 1268 (2)	9.438	14760950	401.763	ng/ml
57)	Aroclor 1268 (3)	9.504	5822101	197.677	ng/ml
58)	Aroclor 1268 (4)	9.727	365450	14.474	ng/ml
59)	Aroclor 1268 (5)	10.025	5703230	585.829	ng/ml
60)	Aroclor 1268 (6)	10.389	1321403	19.264	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R008.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 10:11
Operator : MJB / KAK
Sample : 9100797-MSD1
Misc :
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:43:51 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R010.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 10:47
Operator : MJB / KAK
Sample : A9J0058-16
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:44:08 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	TCMX (S)	5.729	29937240	120.448	ng/ml
62)	S	DCBP (S)	10.713	22402181	178.932	ng/ml
		Target Compounds				
2)		Aroclor 1016 (1)	6.400	9989	1.292	ng/ml
3)		Aroclor 1016 (2)	6.888	17033	1.218	ng/ml
4)		Aroclor 1016 (3)	7.015	8852	1.375	ng/ml
5)		Aroclor 1016 (4)	7.100	8503	1.357	ng/ml
6)		Aroclor 1016 (5)	7.147	7873	1.126	ng/ml
7)		Aroclor 1016 (6)	7.271	8224	1.178	ng/ml
8)		Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)		Aroclor 1221 (1)	5.919	7572	3.824	ng/ml
10)		Aroclor 1221 (2)	5.975	6539	3.256	ng/ml
11)		Aroclor 1221 (3)	6.048	49914	7.444	ng/ml
12)		Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)		Aroclor 1232 (1)	6.048	49914	8.942	ng/ml
14)		Aroclor 1232 (2)	6.400	9989	3.009	ng/ml
15)		Aroclor 1232 (3)	6.888	17033	2.722	ng/ml
16)		Aroclor 1232 (4)	7.100	8503	3.778	ng/ml
17)		Aroclor 1232 (5)	7.147	7873	3.016	ng/ml
18)		Aroclor 1232 (6)	7.271	8224	3.019	ng/ml
19)		Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)		Aroclor 1242 (1)	6.400	9989	1.649	ng/ml
21)		Aroclor 1242 (2)	6.888	17033	1.496	ng/ml
22)		Aroclor 1242 (3)	7.015	8852	1.786	ng/ml
23)		Aroclor 1242 (4)	7.100	8503	1.866	ng/ml
24)		Aroclor 1242 (5)	7.147	7873	1.468	ng/ml
25)		Aroclor 1242 (6)	7.271	8224	1.494	ng/ml
26)		Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)		Aroclor 1248 (1)	6.861	13672	2.049	ng/ml
28)		Aroclor 1248 (2)	7.100	8503	1.056	ng/ml
29)		Aroclor 1248 (3)	7.147	7873	1.015	ng/ml
30)		Aroclor 1248 (4)	7.271	8224	0.880	ng/ml
31)		Aroclor 1248 (5)	7.641	34634	2.940	ng/ml
32)		Aroclor 1248 (6)	7.789	29690	2.819	ng/ml
33)		Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)		Aroclor 1254 (1)	7.641	34634	2.828	ng/ml
35)		Aroclor 1254 (2)	7.789	29690	1.520	ng/ml
36)		Aroclor 1254 (3)	8.103	9065	0.435	ng/ml
37)		Aroclor 1254 (4)	8.343	6968	0.455	ng/ml
38)		Aroclor 1254 (5)	8.677	8582	0.551	ng/ml
39)		Aroclor 1254 (6)	8.909	3713	0.777	ng/ml
40)		Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)		Aroclor 1260 (1)	8.238	8449	0.636	ng/ml
42)		Aroclor 1260 (2)	8.444	10081	0.604	ng/ml
43)		Aroclor 1260 (3)	8.677	8582	0.510	ng/ml
44)		Aroclor 1260 (4)	9.168	6910	0.267	ng/ml
45)		Aroclor 1260 (5)	9.436	6106	0.403	ng/ml
46)		Aroclor 1260 (6)	10.024	4972	0.849	ng/ml
47)		Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R010.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 10:47
Operator : MJB / KAK
Sample : A9J0058-16
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:44:08 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

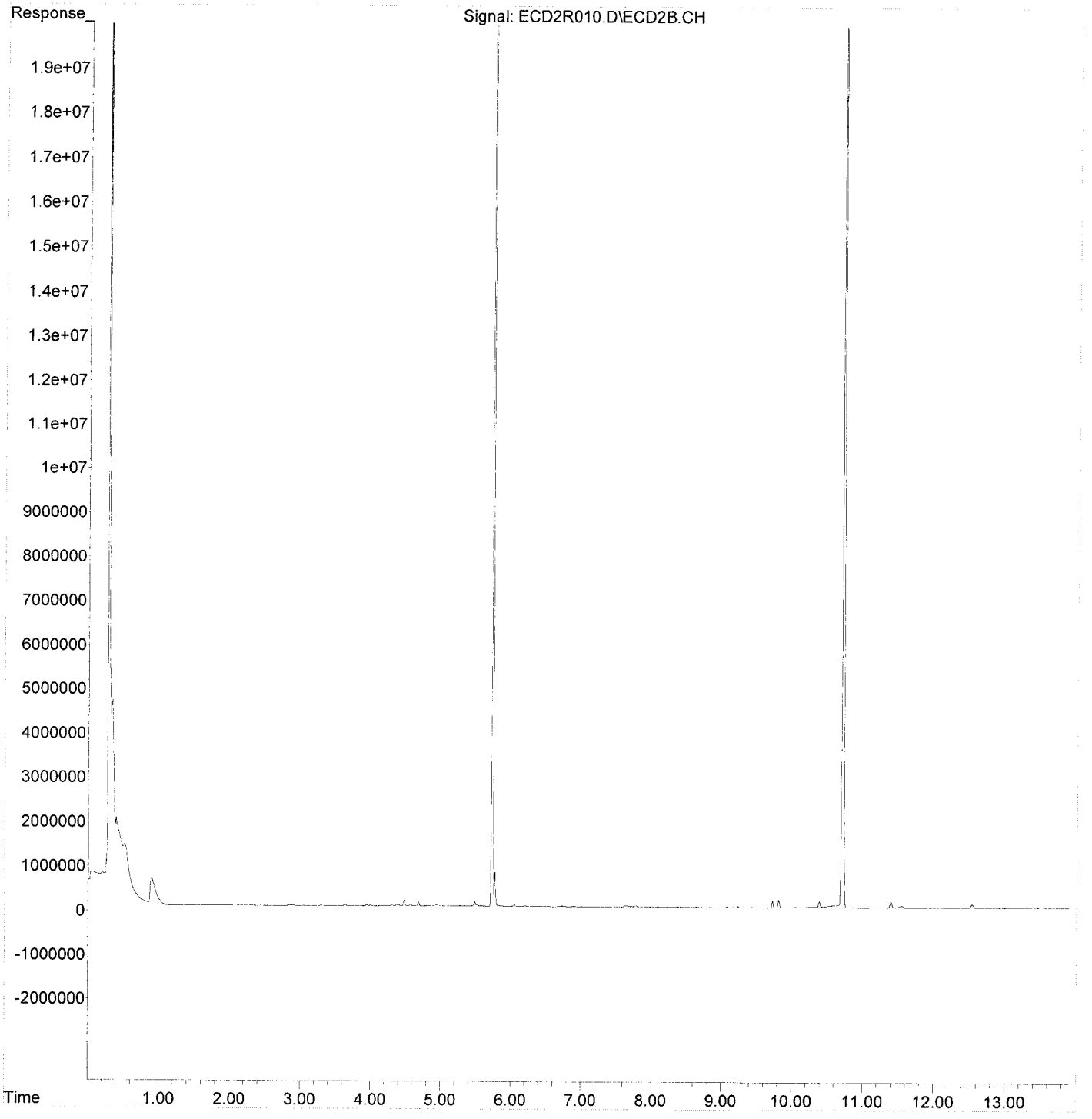
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.444	10081	0.758 ng/ml
49)	Aroclor 1262 (2)	8.747	4697	0.265 ng/ml
50)	Aroclor 1262 (3)	8.925	4299	0.288 ng/ml
51)	Aroclor 1262 (4)	9.168	6910	0.215 ng/ml
52)	Aroclor 1262 (5)	9.436	6106	0.325 ng/ml
53)	Aroclor 1262 (6)	10.024	4972	0.609 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.966	2774	0.341 ng/ml
56)	Aroclor 1268 (2)	9.436	6106	0.166 ng/ml
57)	Aroclor 1268 (3)	9.502	3649	0.124 ng/ml
58)	Aroclor 1268 (4)	9.727	148543	5.883 ng/ml
59)	Aroclor 1268 (5)	10.024	4972	0.511 ng/ml
60)	Aroclor 1268 (6)	10.388	133107	1.940 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R010.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 10:47
Operator : MJB / KAK
Sample : A9J0058-16
Misc :
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:44:08 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R012.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 11:22
Operator : MJB / KAK
Sample : A9J0058-22
Misc :
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:44:28 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19

		Compound	R.T.	Response	Conc Units
		System Monitoring Compounds			
1)	S	TCMX (S)	5.728	31798481	127.936 ng/ml
62)	S	DCBP (S)	10.713	24422522	195.069 ng/ml
		Target Compounds			
2)		Aroclor 1016 (1)	6.399	3967	0.513 ng/ml
3)		Aroclor 1016 (2)	6.887	3443	0.246 ng/ml
4)		Aroclor 1016 (3)	7.009	2209	0.343 ng/ml
5)		Aroclor 1016 (4)	7.100	3024	0.483 ng/ml
6)		Aroclor 1016 (5)	7.146	2744	0.392 ng/ml
7)		Aroclor 1016 (6)	7.271	3628	0.520 ng/ml
8)		Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)		Aroclor 1221 (1)	5.898	1051	0.531 ng/ml
10)		Aroclor 1221 (2)	5.987	356	0.177 ng/ml
11)		Aroclor 1221 (3)	6.048	41326	6.164 ng/ml
12)		Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)		Aroclor 1232 (1)	6.048	41326	7.403 ng/ml
14)		Aroclor 1232 (2)	6.399	3967	1.195 ng/ml
15)		Aroclor 1232 (3)	6.887	3443	0.550 ng/ml
16)		Aroclor 1232 (4)	7.100	3024	1.343 ng/ml
17)		Aroclor 1232 (5)	7.146	2744	1.051 ng/ml
18)		Aroclor 1232 (6)	7.271	3628	1.332 ng/ml
19)		Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)		Aroclor 1242 (1)	6.399	3967	0.655 ng/ml
21)		Aroclor 1242 (2)	6.887	3443	0.302 ng/ml
22)		Aroclor 1242 (3)	7.009	2209	0.446 ng/ml
23)		Aroclor 1242 (4)	7.100	3024	0.663 ng/ml
24)		Aroclor 1242 (5)	7.146	2744	0.512 ng/ml
25)		Aroclor 1242 (6)	7.271	3628	0.659 ng/ml
26)		Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)		Aroclor 1248 (1)	6.860	3588	0.538 ng/ml
28)		Aroclor 1248 (2)	7.100	3024	0.375 ng/ml
29)		Aroclor 1248 (3)	7.146	2744	0.354 ng/ml
30)		Aroclor 1248 (4)	7.271	3628	0.388 ng/ml
31)		Aroclor 1248 (5)	7.632	35595	3.021 ng/ml
32)		Aroclor 1248 (6)	7.783	26894	2.554 ng/ml
33)		Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)		Aroclor 1254 (1)	7.632	35595	2.907 ng/ml
35)		Aroclor 1254 (2)	7.783	26894	1.376 ng/ml
36)		Aroclor 1254 (3)	8.126	2038	0.098 ng/ml
37)		Aroclor 1254 (4)	8.354	3100	0.202 ng/ml
38)		Aroclor 1254 (5)	8.676	5073	0.326 ng/ml
39)		Aroclor 1254 (6)	8.907	2945	0.616 ng/ml
40)		Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)		Aroclor 1260 (1)	8.236	4628	0.348 ng/ml
42)		Aroclor 1260 (2)	8.444	4700	0.282 ng/ml
43)		Aroclor 1260 (3)	8.676	5073	0.301 ng/ml
44)		Aroclor 1260 (4)	9.168	3933	0.152 ng/ml
45)		Aroclor 1260 (5)	9.438	5190	0.343 ng/ml
46)		Aroclor 1260 (6)	10.024	2603	0.445 ng/ml
47)		Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R012.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 11:22
Operator : MJB / KAK
Sample : A9J0058-22
Misc :
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:44:28 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

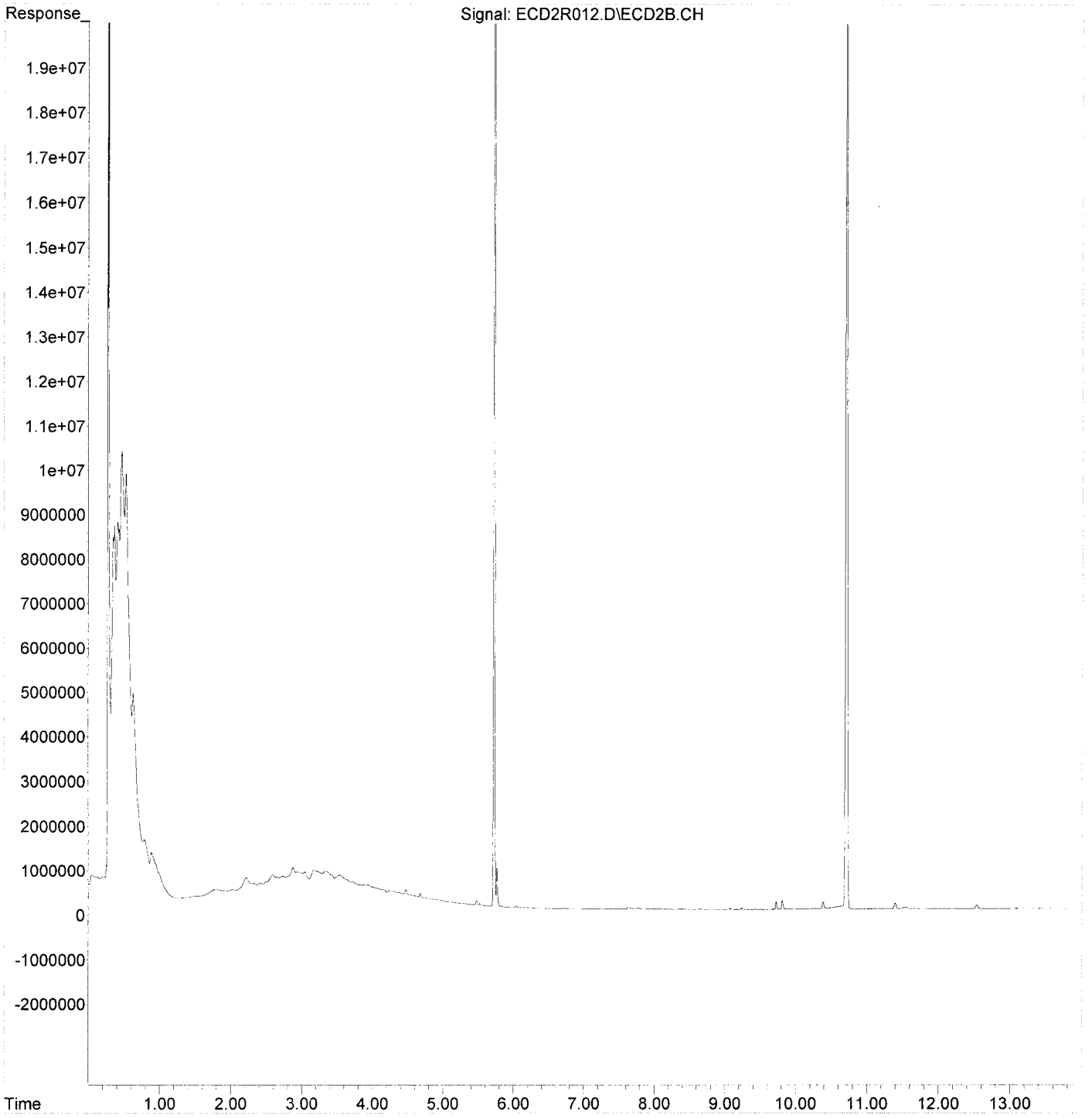
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.444	4700	0.353 ng/ml
49)	Aroclor 1262 (2)	8.745	2284	0.129 ng/ml
50)	Aroclor 1262 (3)	8.938	2051	0.137 ng/ml
51)	Aroclor 1262 (4)	9.168	3933	0.123 ng/ml
52)	Aroclor 1262 (5)	9.438	5190	0.276 ng/ml
53)	Aroclor 1262 (6)	10.024	2603	0.319 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.965	2450	0.301 ng/ml
56)	Aroclor 1268 (2)	9.438	5190	0.141 ng/ml
57)	Aroclor 1268 (3)	9.502	3556	0.121 ng/ml
58)	Aroclor 1268 (4)	9.727	169749	6.723 ng/ml
59)	Aroclor 1268 (5)	10.024	2603	0.267 ng/ml
60)	Aroclor 1268 (6)	10.388	139643	2.036 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R012.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 11:22
Operator : MJB / KAK
Sample : A9J0058-22
Misc :
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:44:28 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R014.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 11:57
Operator : MJB / KAK
Sample : A9J0058-23
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:44:47 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	5.729	36486910	146.799 ng/ml
62) S	DCBP (S)	10.714	24900014	198.882 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.397	4730	0.612 ng/ml
3)	Aroclor 1016 (2)	6.887	4282	0.306 ng/ml
4)	Aroclor 1016 (3)	7.016	3337	0.518 ng/ml
5)	Aroclor 1016 (4)	7.094	3122	0.498 ng/ml
6)	Aroclor 1016 (5)	7.145	2764	0.395 ng/ml
7)	Aroclor 1016 (6)	7.281	3507	0.502 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.912	6803	3.435 ng/ml
10)	Aroclor 1221 (2)	5.972	4575	2.278 ng/ml
11)	Aroclor 1221 (3)	6.048	54898	8.188 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.048	54898	9.834 ng/ml
14)	Aroclor 1232 (2)	6.397	4730	1.425 ng/ml
15)	Aroclor 1232 (3)	6.887	4282	0.684 ng/ml
16)	Aroclor 1232 (4)	7.094	3122	1.387 ng/ml
17)	Aroclor 1232 (5)	7.145	2764	1.059 ng/ml
18)	Aroclor 1232 (6)	7.281	3507	1.287 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.397	4730	0.781 ng/ml
21)	Aroclor 1242 (2)	6.887	4282	0.376 ng/ml
22)	Aroclor 1242 (3)	7.016	3337	0.673 ng/ml
23)	Aroclor 1242 (4)	7.094	3122	0.685 ng/ml
24)	Aroclor 1242 (5)	7.145	2764	0.515 ng/ml
25)	Aroclor 1242 (6)	7.281	3507	0.637 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.862	4335	0.650 ng/ml
28)	Aroclor 1248 (2)	7.094	3122	0.388 ng/ml
29)	Aroclor 1248 (3)	7.145	2764	0.356 ng/ml
30)	Aroclor 1248 (4)	7.281	3507	0.375 ng/ml
31)	Aroclor 1248 (5)	7.636	27090	2.299 ng/ml
32)	Aroclor 1248 (6)	7.776	24307	2.308 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.636	27090	2.212 ng/ml
35)	Aroclor 1254 (2)	7.776	24307	1.244 ng/ml
36)	Aroclor 1254 (3)	8.100	5010	0.240 ng/ml
37)	Aroclor 1254 (4)	8.343	4655	0.304 ng/ml
38)	Aroclor 1254 (5)	8.676	4883	0.314 ng/ml
39)	Aroclor 1254 (6)	8.907	3162	0.662 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.238	4339	0.327 ng/ml
42)	Aroclor 1260 (2)	8.444	4097	0.246 ng/ml
43)	Aroclor 1260 (3)	8.676	4883	0.290 ng/ml
44)	Aroclor 1260 (4)	9.167	4053	0.156 ng/ml
45)	Aroclor 1260 (5)	9.436	5509	0.364 ng/ml
46)	Aroclor 1260 (6)	10.025	5978	1.021 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R014.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 11:57
Operator : MJB / KAK
Sample : A9J0058-23
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:44:47 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

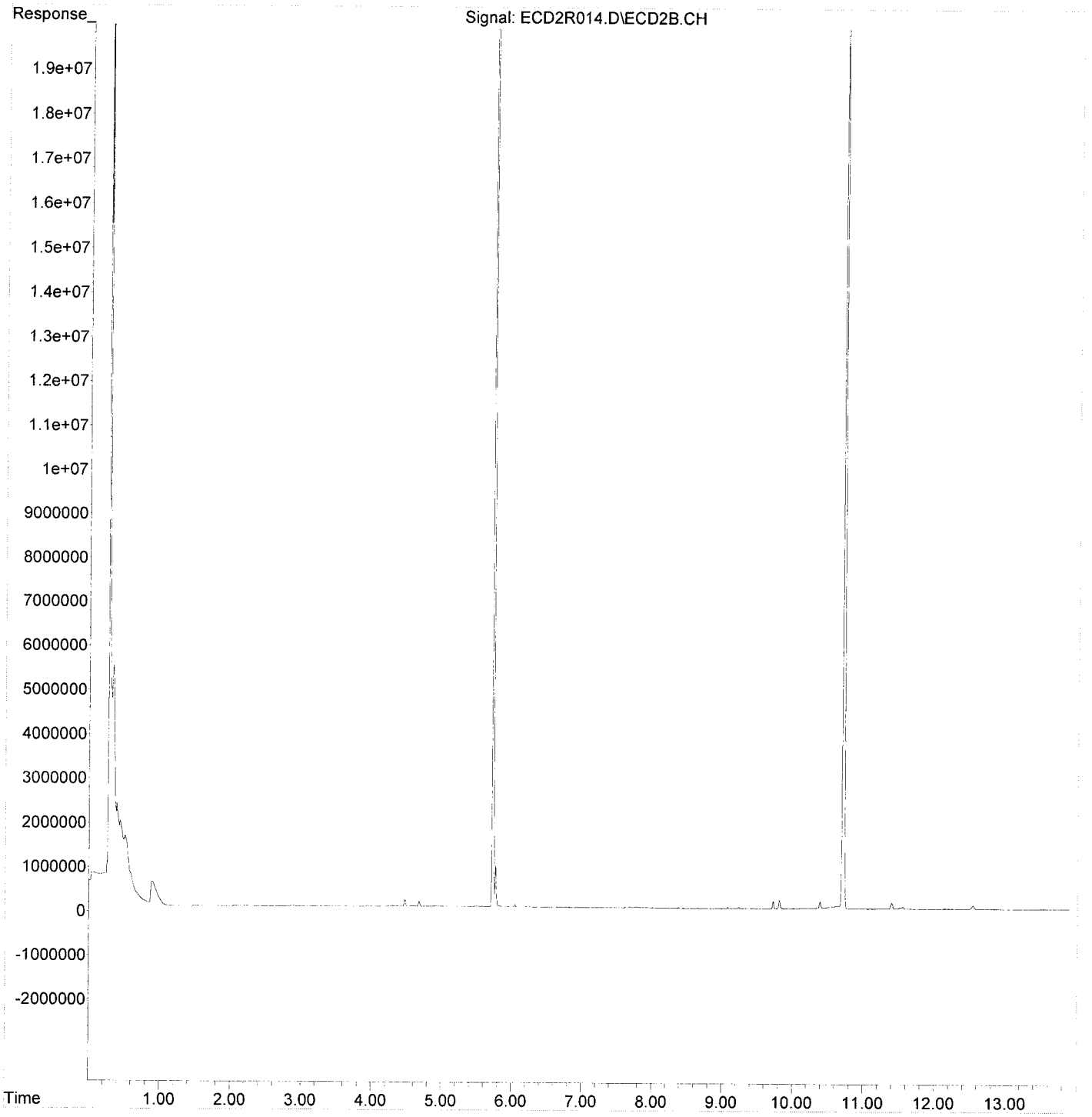
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.444	4097	0.308 ng/ml
49)	Aroclor 1262 (2)	8.747	1935	0.109 ng/ml
50)	Aroclor 1262 (3)	8.921	3104	0.208 ng/ml
51)	Aroclor 1262 (4)	9.167	4053	0.126 ng/ml
52)	Aroclor 1262 (5)	9.436	5509	0.293 ng/ml
53)	Aroclor 1262 (6)	10.025	5978	0.733 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.966	2915	0.358 ng/ml
56)	Aroclor 1268 (2)	9.436	5509	0.150 ng/ml
57)	Aroclor 1268 (3)	9.500	3796	0.129 ng/ml
58)	Aroclor 1268 (4)	9.726	173503	6.872 ng/ml
59)	Aroclor 1268 (5)	10.025	5978	0.614 ng/ml
60)	Aroclor 1268 (6)	10.389	157212	2.292 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R014.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 11:57
Operator : MJB / KAK
Sample : A9J0058-23
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:44:47 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R016.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 12:33
Operator : MJB / KAK
Sample : 9J09025-CCV2
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:45:07 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/16/19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	5.729	60724878	244.317 ng/ml
62) S	DCBP (S)	10.713	31104113	248.436 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.399	3645430	471.520 ng/ml
3)	Aroclor 1016 (2)	6.887	6771157	484.029 ng/ml
4)	Aroclor 1016 (3)	7.014	3092579	480.356 ng/ml
5)	Aroclor 1016 (4)	7.100	2915844	465.430 ng/ml
6)	Aroclor 1016 (5)	7.145	3295455	471.229 ng/ml
7)	Aroclor 1016 (6)	7.270	3413150	488.843 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.889	284427	143.623 ng/ml
10)	Aroclor 1221 (2)	5.976	466120	232.114 ng/ml
11)	Aroclor 1221 (3)	6.064	2213113	330.070 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.064	2213113	396.462 ng/ml
14)	Aroclor 1232 (2)	6.399	3645430	1098.180 ng/ml
15)	Aroclor 1232 (3)	6.887	6771157	1082.050 ng/ml
16)	Aroclor 1232 (4)	7.100	2915844	1295.399 ng/ml
17)	Aroclor 1232 (5)	7.145	3295455	1262.543 ng/ml
18)	Aroclor 1232 (6)	7.270	3413150	1253.089 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.399	3645430	601.831 ng/ml
21)	Aroclor 1242 (2)	6.887	6771157	594.871 ng/ml
22)	Aroclor 1242 (3)	7.014	3092579	623.867 ng/ml
23)	Aroclor 1242 (4)	7.100	2915844	639.812 ng/ml
24)	Aroclor 1242 (5)	7.145	3295455	614.647 ng/ml
25)	Aroclor 1242 (6)	7.270	3413150	619.853 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.860	5674238	850.235 ng/ml
28)	Aroclor 1248 (2)	7.100	2915844	362.094 ng/ml
29)	Aroclor 1248 (3)	7.145	3295455	425.035 ng/ml
30)	Aroclor 1248 (4)	7.270	3413150	365.176 ng/ml
31)	Aroclor 1248 (5)	7.635	757642	64.310 ng/ml
32)	Aroclor 1248 (6)	7.793	2803477	266.226 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.612	2392321	195.353 ng/ml
35)	Aroclor 1254 (2)	7.793	2803477	143.486 ng/ml
36)	Aroclor 1254 (3)	8.103	1617507	77.613 ng/ml
37)	Aroclor 1254 (4)	8.342	1113573	72.681 ng/ml
38)	Aroclor 1254 (5)	8.677	8495565	545.596 ng/ml
39)	Aroclor 1254 (6)	8.894	1246943	260.923 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.239	6636581	499.719 ng/ml
42)	Aroclor 1260 (2)	8.445	8473848	508.048 ng/ml
43)	Aroclor 1260 (3)	8.677	8495565	504.481 ng/ml
44)	Aroclor 1260 (4)	9.168	13720895	529.579 ng/ml
45)	Aroclor 1260 (5)	9.437	7734139	510.672 ng/ml
46)	Aroclor 1260 (6)	10.023	3016814	515.320 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

476.90

511.30

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R016.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 12:33
Operator : MJB / KAK
Sample : 9J09025-CCV2
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:45:07 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

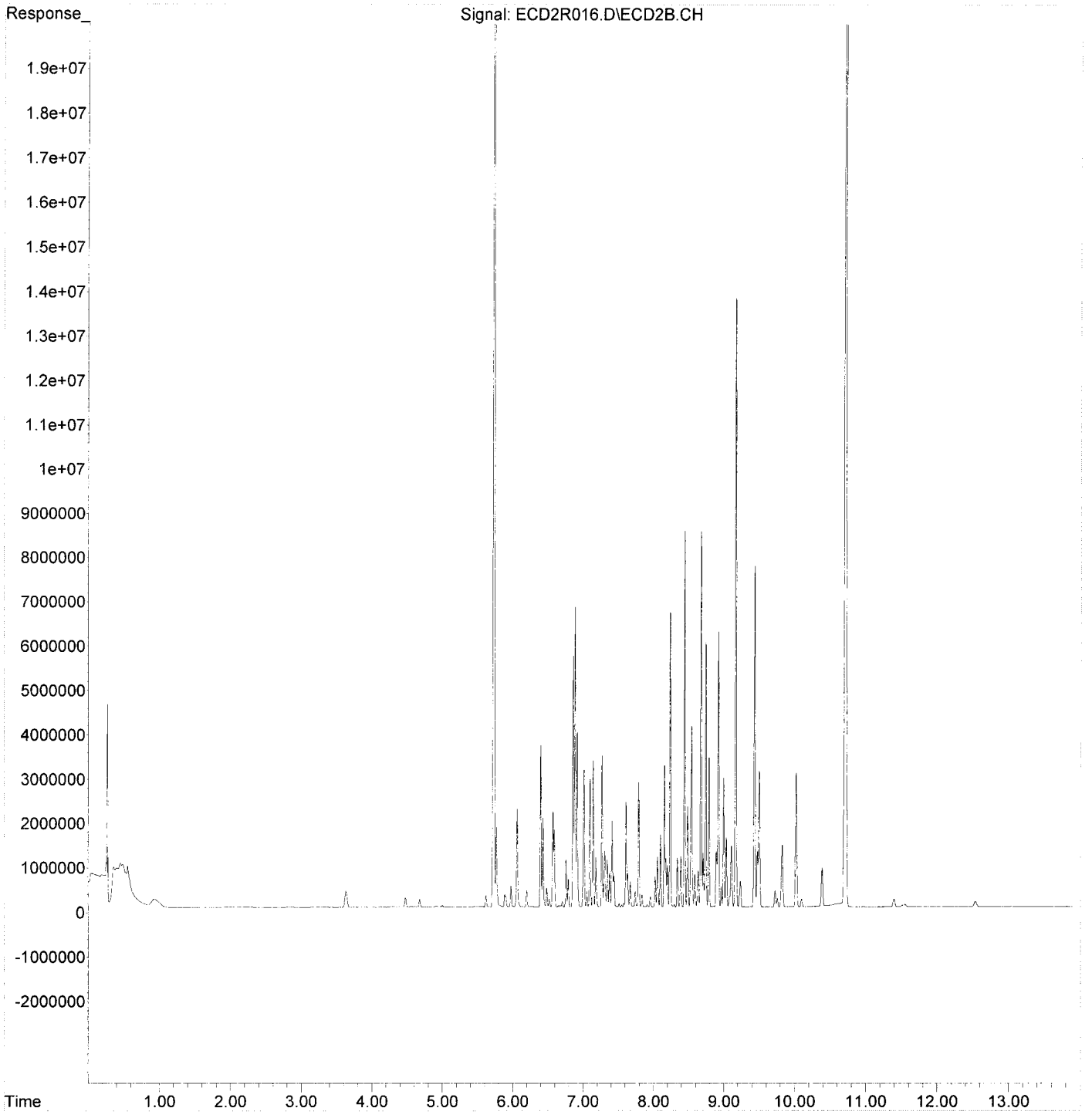
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	8.445	8473848	637.275	ng/ml
49)	Aroclor 1262 (2)	8.745	6003188	339.085	ng/ml
50)	Aroclor 1262 (3)	8.924	6203142	415.055	ng/ml
51)	Aroclor 1262 (4)	9.168	13720895	427.877	ng/ml
52)	Aroclor 1262 (5)	9.437	7734139	411.090	ng/ml
53)	Aroclor 1262 (6)	10.023	3016814	369.809	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	8.965	458596	56.353	ng/ml
56)	Aroclor 1268 (2)	9.437	7734139	210.508	ng/ml
57)	Aroclor 1268 (3)	9.503	3061475	103.946	ng/ml
58)	Aroclor 1268 (4)	9.726	364339	14.430	ng/ml
59)	Aroclor 1268 (5)	10.023	3016814	309.884	ng/ml
60)	Aroclor 1268 (6)	10.387	853111	12.437	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R016.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 12:33
Operator : MJB / KAK
Sample : 9J09025-CCV2
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:45:07 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R017.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 12:50
Operator : MJB / KAK
Sample : 9J09025-CCB2
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:45:25 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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		Compound	R.T.	Response	Conc Units
		System Monitoring Compounds			
1)	S	TCMX (S)	5.729	22161528	89.163 ng/ml
62)	S	DCBP (S)	10.713	11745680	93.816 ng/ml
		Target Compounds			
2)		Aroclor 1016 (1)	6.400	12328	1.595 ng/ml
3)		Aroclor 1016 (2)	6.896	14003	1.001 ng/ml
4)		Aroclor 1016 (3)	7.022	11861	1.842 ng/ml
5)		Aroclor 1016 (4)	7.104	11273	1.799 ng/ml
6)		Aroclor 1016 (5)	7.148	11116	1.590 ng/ml
7)		Aroclor 1016 (6)	7.282	13619	1.951 ng/ml
8)		Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)		Aroclor 1221 (1)	5.911	13802	6.969 ng/ml
10)		Aroclor 1221 (2)	5.984	12089	6.020 ng/ml
11)		Aroclor 1221 (3)	6.048	47647	7.106 ng/ml
12)		Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)		Aroclor 1232 (1)	6.048	47647	8.536 ng/ml
14)		Aroclor 1232 (2)	6.400	12328	3.714 ng/ml
15)		Aroclor 1232 (3)	6.896	14003	2.238 ng/ml
16)		Aroclor 1232 (4)	7.104	11273	5.008 ng/ml
17)		Aroclor 1232 (5)	7.148	11116	4.259 ng/ml
18)		Aroclor 1232 (6)	7.282	13619	5.000 ng/ml
19)		Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)		Aroclor 1242 (1)	6.400	12328	2.035 ng/ml
21)		Aroclor 1242 (2)	6.896	14003	1.230 ng/ml
22)		Aroclor 1242 (3)	7.022	11861	2.393 ng/ml
23)		Aroclor 1242 (4)	7.104	11273	2.474 ng/ml
24)		Aroclor 1242 (5)	7.148	11116	2.073 ng/ml
25)		Aroclor 1242 (6)	7.282	13619	2.473 ng/ml
26)		Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)		Aroclor 1248 (1)	6.862	13918	2.085 ng/ml
28)		Aroclor 1248 (2)	7.104	11273	1.400 ng/ml
29)		Aroclor 1248 (3)	7.148	11116	1.434 ng/ml
30)		Aroclor 1248 (4)	7.282	13619	1.457 ng/ml
31)		Aroclor 1248 (5)	7.634	39273	3.334 ng/ml
32)		Aroclor 1248 (6)	7.765	34579	3.284 ng/ml
33)		Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)		Aroclor 1254 (1)	7.634	39273	3.207 ng/ml
35)		Aroclor 1254 (2)	7.765	34579	1.770 ng/ml
36)		Aroclor 1254 (3)	8.117	7943	0.381 ng/ml
37)		Aroclor 1254 (4)	8.361	9964	0.650 ng/ml
38)		Aroclor 1254 (5)	8.676	4400	0.283 ng/ml
39)		Aroclor 1254 (6)	8.906	3443	0.721 ng/ml
40)		Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)		Aroclor 1260 (1)	8.257	6689	0.504 ng/ml
42)		Aroclor 1260 (2)	8.457	4623	0.277 ng/ml
43)		Aroclor 1260 (3)	8.676	4400	0.261 ng/ml
44)		Aroclor 1260 (4)	9.171	2697	0.104 ng/ml
45)		Aroclor 1260 (5)	9.438	2863	0.189 ng/ml
46)		Aroclor 1260 (6)	10.025	2205	0.377 ng/ml
47)		Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R017.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 12:50
Operator : MJB / KAK
Sample : 9J09025-CCB2
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:45:25 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

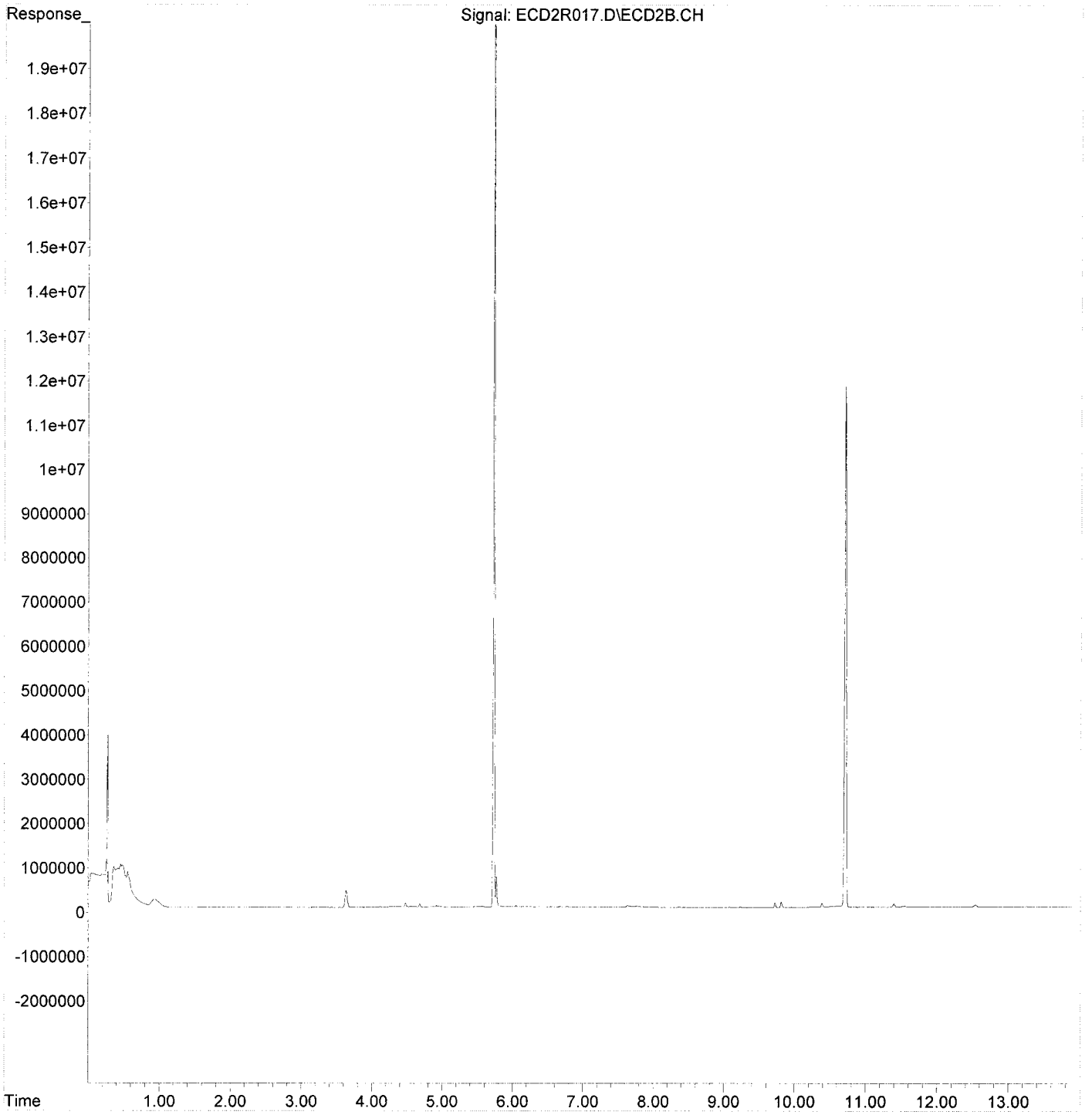
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.457	4623	0.348 ng/ml
49)	Aroclor 1262 (2)	8.767	2672	0.151 ng/ml
50)	Aroclor 1262 (3)	8.925	3383	0.226 ng/ml
51)	Aroclor 1262 (4)	9.171	2697	0.084 ng/ml
52)	Aroclor 1262 (5)	9.438	2863	0.152 ng/ml
53)	Aroclor 1262 (6)	10.025	2205	0.270 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.969	4336	0.533 ng/ml
56)	Aroclor 1268 (2)	9.438	2863	0.078 ng/ml
57)	Aroclor 1268 (3)	9.500	2507	0.085 ng/ml
58)	Aroclor 1268 (4)	9.726	105862	4.193 ng/ml
59)	Aroclor 1268 (5)	10.025	2205	0.227 ng/ml
60)	Aroclor 1268 (6)	10.388	89304	1.302 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J09025\
Data File : ECD2R017.D
Signal(s) : ECD2B.CH
Acq On : 09 Oct 2019 12:50
Operator : MJB / KAK
Sample : 9J09025-CCB2
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Oct 09 16:45:25 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716RT3.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 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

Polychlorinated Biphenyls by EPA 8082A
Benchsheet & Analysis Sequence Data

Sequence 9J18010 (A9J0058-01RE1,03RE1)

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9J18010** Instrument: **DUALECD2F**

Date: **10/18/19 07:16** Calibration: **A9J0303**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J18010-CCV1	Sediment	QC	QC				A19I232
2	9J18010-CCB1	Sediment	QC	QC				A19J194
3	A9J0058-01RE1	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
4	9J18010-IBL1	Sediment	QC	QC				
5	A9J0058-03RE1	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
6	9J18010-IBL2	Sediment	QC	QC				
7	A9J0063-08RE1	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
8	9J18010-IBL3	Sediment	QC	QC				
9	A9J0063-17RE1	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/15/19	9100797		
10	9J18010-IBL4	Sediment	QC	QC				
11	A9J0149-10RE1	Sediment	8082 PCBs - Low Level (30g/2mL)	Anchor QEA, LLC	10/17/19	9101019		
12	9J18010-IBL5	Sediment	QC	QC				
13	9J18010-CCV2	Sediment	QC	QC				A19I232
14	9J18010-CCB2	Sediment	QC	QC				A19J194

Comments:

Data Entered By: 10/22/19

Data Reviewed By: 10/22/19

TOTAL AROCLOR AVERAGE RESULTS

The average result for the 1016 and 1260 selected peaks are reported here to facilitate data entry and review. Averages are done on all individual peaks and must be for matrix spikes if all peaks are not used in the average.

9J18010-CCV1

Aroclor 1016

Peak	Initial Res
1016 (1)	453.01
1016 (2)	482.87
1016 (3)	469.80
1016 (4)	478.04
1016 (5)	488.85
1016 (6)	477.72
Average:	**475.05**

Aroclor 1260

Peak	Initial Res
1260 (1)	498.00
1260 (2)	511.43
1260 (3)	521.12
1260 (4)	556.35
1260 (5)	546.23
1260 (6)	527.04
Average:	**526.70**

9J18010-CCV2

Aroclor 1016

Peak	Initial Res
1016 (1)	477.27
1016 (2)	500.47
1016 (3)	470.65
1016 (4)	500.24
1016 (5)	495.36
1016 (6)	484.16
Average:	**488.03**

Aroclor 1260

Peak	Initial Res
1260 (1)	520.69
1260 (2)	523.43
1260 (3)	553.46
1260 (4)	556.62
1260 (5)	571.20
1260 (6)	544.51
Average:	**544.99**

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F002.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:00
Operator : MJB / KAK
Sample : 9J18010-CCV1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 18 09:02:55 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/22/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	4.852	14653728	203.717	ng/ml
62) S	DCBP (S)	9.629	19485865	270.805	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.768	1401303	453.009	ng/ml
3)	Aroclor 1016 (2)	6.181	2981553	482.868	ng/ml
4)	Aroclor 1016 (3)	6.262	1565119	469.800	ng/ml
5)	Aroclor 1016 (4)	6.420	1287911	478.037	ng/ml
6)	Aroclor 1016 (5)	6.642	1591144	488.852	ng/ml
7)	Aroclor 1016 (6)	6.769	1122487	477.724	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	5.208	146564	141.204	ng/ml
10)	Aroclor 1221 (2)	5.326	166343	256.485	ng/ml
11)	Aroclor 1221 (3)	5.407	752156	344.573	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	5.407	752156	427.299	ng/ml
14)	Aroclor 1232 (2)	6.181	2981553	1214.832	ng/ml
15)	Aroclor 1232 (3)	6.262	1565119	1234.986	ng/ml
16)	Aroclor 1232 (4)	6.420	1287911	1501.877	ng/ml
17)	Aroclor 1232 (5)	6.642	1591144	1403.916	ng/ml
18)	Aroclor 1232 (6)	6.769	1122487	1200.770	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	5.768	1401303	634.971	ng/ml
21)	Aroclor 1242 (2)	6.181	2981553	654.911	ng/ml
22)	Aroclor 1242 (3)	6.262	1565119	670.468	ng/ml
23)	Aroclor 1242 (4)	6.420	1287911	733.912	ng/ml
24)	Aroclor 1242 (5)	6.642	1591144	665.948	ng/ml
25)	Aroclor 1242 (6)	6.769	1122487	567.227	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	6.181	2981553	1008.340	ng/ml
28)	Aroclor 1248 (2)	6.420	1287911	371.582	ng/ml
29)	Aroclor 1248 (3)	6.642	1591144	405.929	ng/ml
30)	Aroclor 1248 (4)	6.936	303961	63.440	ng/ml
31)	Aroclor 1248 (5)	6.971	1086121	217.067	ng/ml
32)	Aroclor 1248 (6)	7.458	2309639	886.501	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	6.971	1086121	229.740	ng/ml
35)	Aroclor 1254 (2)	7.080	1110476	197.290	ng/ml
36)	Aroclor 1254 (3)	7.458	2309639	269.970	ng/ml
37)	Aroclor 1254 (4)	7.617	354204	60.828	ng/ml
38)	Aroclor 1254 (5)	7.999	3195440	547.140	ng/ml
39)	Aroclor 1254 (6)	8.291	349378	184.883	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	7.570	3066041	498.001	ng/ml
42)	Aroclor 1260 (2)	7.703	3970064	511.429	ng/ml
43)	Aroclor 1260 (3)	8.261	2956704	521.124	ng/ml
44)	Aroclor 1260 (4)	8.431	7435753	556.346	ng/ml
45)	Aroclor 1260 (5)	8.730	4783532	546.229	ng/ml
46)	Aroclor 1260 (6)	9.124	1893524	527.042	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

475.05

526.70

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F002.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:00
Operator : MJB / KAK
Sample : 9J18010-CCV1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 18 09:02:55 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

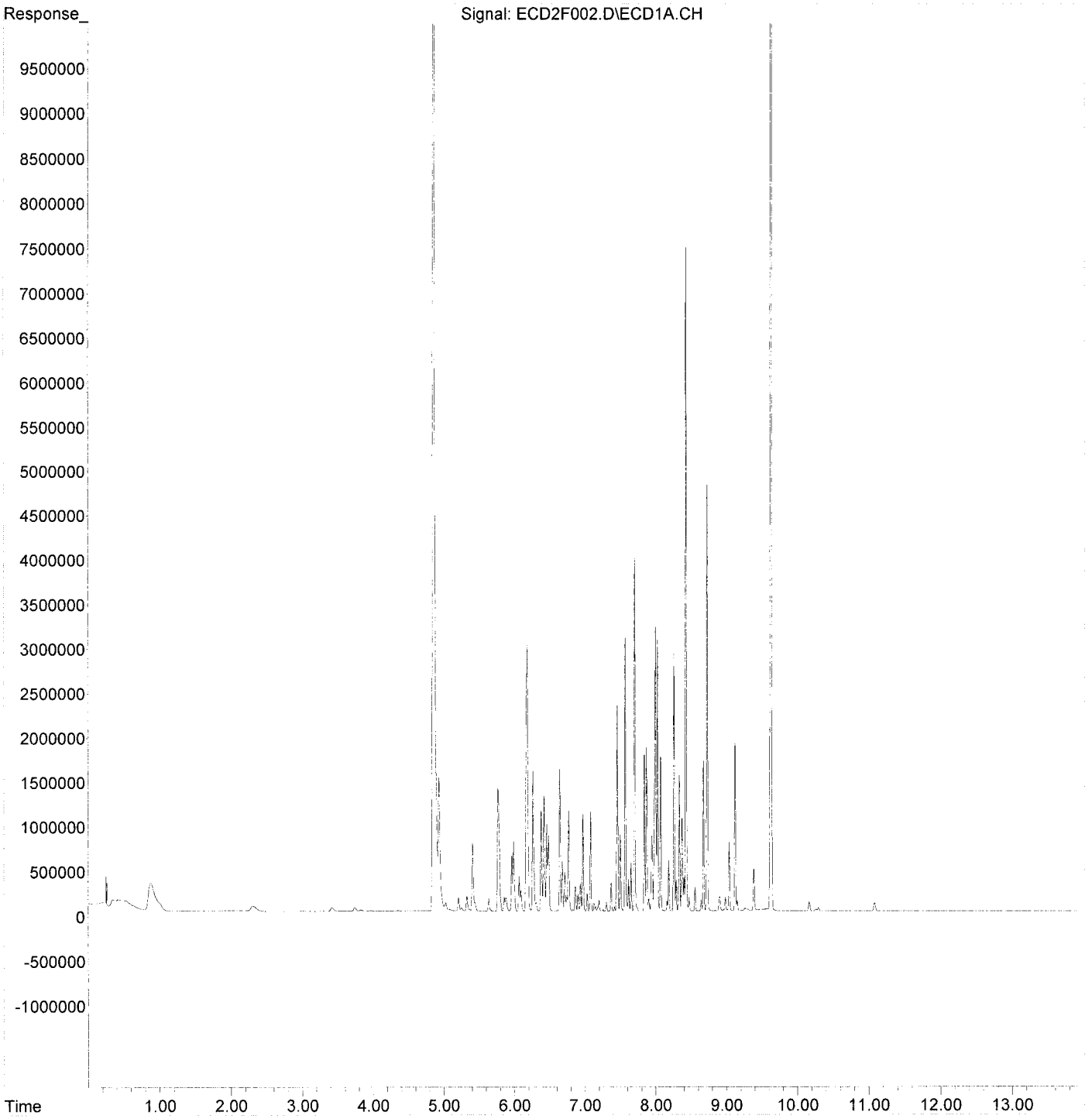
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.703	3970064	671.989 ng/ml
49)	Aroclor 1262 (2)	8.028	3039280	368.948 ng/ml
50)	Aroclor 1262 (3)	8.261	2956704	429.496 ng/ml
51)	Aroclor 1262 (4)	8.431	7435753	501.725 ng/ml
52)	Aroclor 1262 (5)	8.730	4783532	536.703 ng/ml
53)	Aroclor 1262 (6)	9.124	1893524	395.214 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.261	2956704	820.897 ng/ml
56)	Aroclor 1268 (2)	8.677	1679278	101.642 ng/ml
57)	Aroclor 1268 (3)	8.730	4783532	344.344 ng/ml
58)	Aroclor 1268 (4)	8.906	162917	12.969 ng/ml
59)	Aroclor 1268 (5)	9.124	1893524	345.541 ng/ml
60)	Aroclor 1268 (6)	9.387	476592	13.903 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F002.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:00
Operator : MJB / KAK
Sample : 9J18010-CCV1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 18 09:02:55 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F003.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:18
Operator : MJB / KAK
Sample : 9J18010-CCB1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:38 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/22/19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.850	6057666	84.214 ng/ml
62) S	DCBP (S)	9.624	8583124	119.284 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.767	180	0.058 ng/ml
3)	Aroclor 1016 (2)	6.184	722	0.117 ng/ml
4)	Aroclor 1016 (3)	6.258	289	0.087 ng/ml
5)	Aroclor 1016 (4)	6.417	198	0.073 ng/ml
6)	Aroclor 1016 (5)	6.637	163	0.050 ng/ml
7)	Aroclor 1016 (6)	6.762	360	0.153 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.203	3216	3.098 ng/ml
10)	Aroclor 1221 (2)	5.320	2974	4.585 ng/ml
11)	Aroclor 1221 (3)	5.400	1600	0.733 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.400	1600	0.909 ng/ml
14)	Aroclor 1232 (2)	6.184	722	0.294 ng/ml
15)	Aroclor 1232 (3)	6.258	289	0.228 ng/ml
16)	Aroclor 1232 (4)	6.417	198	0.231 ng/ml
17)	Aroclor 1232 (5)	6.637	163	0.143 ng/ml
18)	Aroclor 1232 (6)	6.762	360	0.385 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.767	180	0.082 ng/ml
21)	Aroclor 1242 (2)	6.184	722	0.159 ng/ml
22)	Aroclor 1242 (3)	6.258	289	0.124 ng/ml
23)	Aroclor 1242 (4)	6.417	198	0.113 ng/ml
24)	Aroclor 1242 (5)	6.637	163	0.068 ng/ml
25)	Aroclor 1242 (6)	6.762	360	0.182 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.184	722	0.244 ng/ml
28)	Aroclor 1248 (2)	6.417	198	0.057 ng/ml
29)	Aroclor 1248 (3)	6.637	163	0.041 ng/ml
30)	Aroclor 1248 (4)	6.927	529	0.110 ng/ml
31)	Aroclor 1248 (5)	6.964	395	0.079 ng/ml
32)	Aroclor 1248 (6)	7.455	2343	0.899 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.964	395	0.084 ng/ml
35)	Aroclor 1254 (2)	7.077	228	0.041 ng/ml
36)	Aroclor 1254 (3)	7.455	2343	0.274 ng/ml
37)	Aroclor 1254 (4)	7.620	1191	0.205 ng/ml
38)	Aroclor 1254 (5)	8.007	2299	0.394 ng/ml
39)	Aroclor 1254 (6)	8.288	544	0.288 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.568	1785	0.290 ng/ml
42)	Aroclor 1260 (2)	7.699	794	0.102 ng/ml
43)	Aroclor 1260 (3)	8.254	611	0.108 ng/ml
44)	Aroclor 1260 (4)	8.425	6165	0.461 ng/ml
45)	Aroclor 1260 (5)	8.731	1531	0.175 ng/ml
46)	Aroclor 1260 (6)	9.124	2164	0.602 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F003.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:18
Operator : MJB / KAK
Sample : 9J18010-CCB1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:38 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

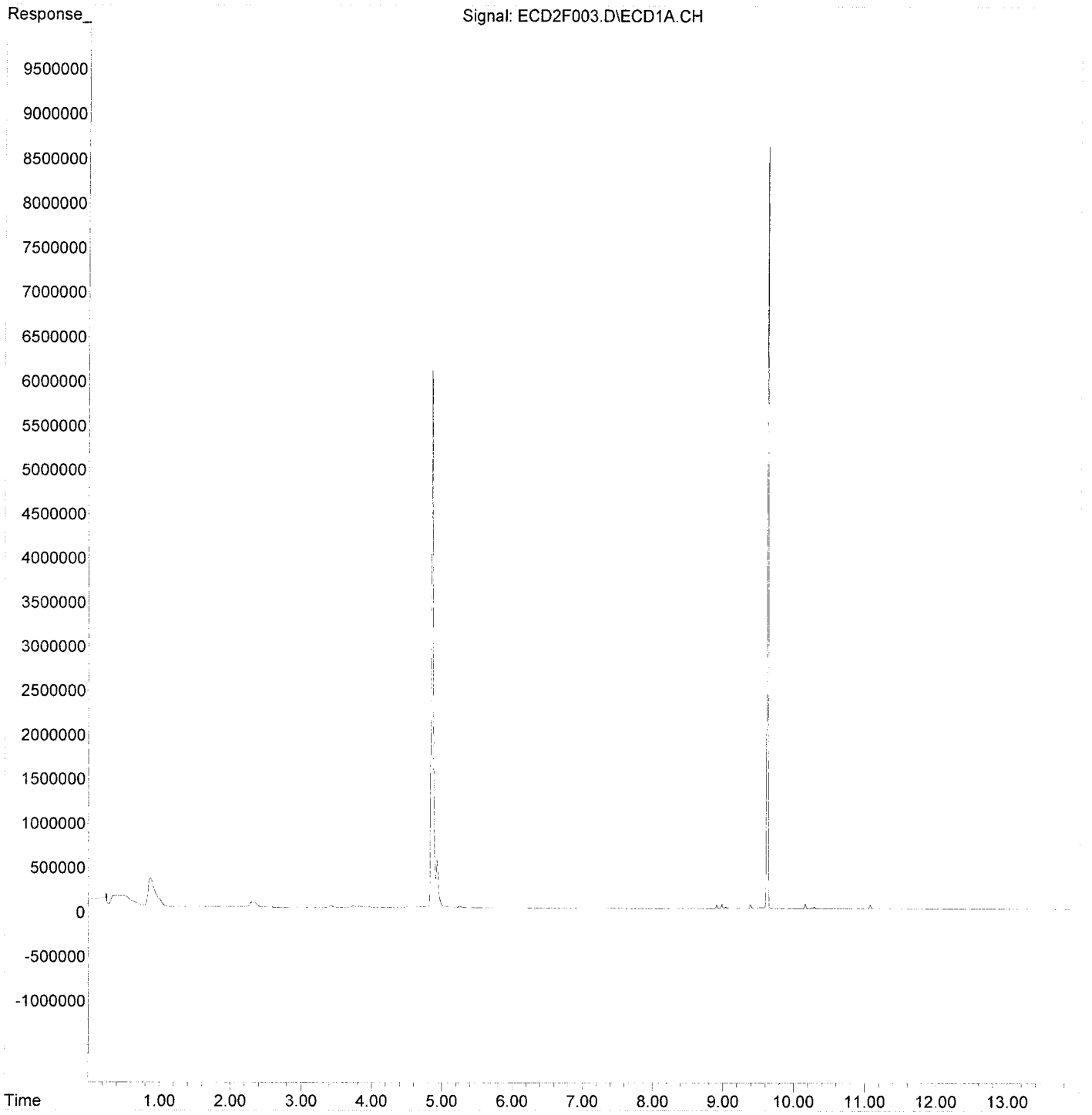
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.699	794	0.134 ng/ml
49)	Aroclor 1262 (2)	8.043	510	0.062 ng/ml
50)	Aroclor 1262 (3)	8.254	611	0.089 ng/ml
51)	Aroclor 1262 (4)	8.425	6165	0.416 ng/ml
52)	Aroclor 1262 (5)	8.731	1531	0.172 ng/ml
53)	Aroclor 1262 (6)	9.124	2164	0.452 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.254	611	0.170 ng/ml
56)	Aroclor 1268 (2)	8.681	804	0.049 ng/ml
57)	Aroclor 1268 (3)	8.731	1531	0.110 ng/ml
58)	Aroclor 1268 (4)	8.907	42557	3.388 ng/ml
59)	Aroclor 1268 (5)	9.124	2164	0.395 ng/ml
60)	Aroclor 1268 (6)	9.386	45003	1.313 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F003.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:18
Operator : MJB / KAK
Sample : 9J18010-CCB1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:38 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/22/19

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	TCMX (S)	4.849	7222292	100.405	ng/ml	
62) S	DCBP (S)	9.624	14900696	207.083	ng/ml	
	Target Compounds					
2)	Aroclor 1016 (1)	5.755	121025	39.125	ng/mlm	↑MDL
3)	Aroclor 1016 (2)	6.174	74553	12.074	ng/mlm	
4)	Aroclor 1016 (3)	6.249	66175	19.864	ng/mlm	
5)	Aroclor 1016 (4)	6.408	53578	19.887	ng/mlm	
6)	Aroclor 1016 (5)	6.628	37366	11.480	ng/mlm	
7)	Aroclor 1016 (6)	6.743	31198	13.278	ng/mlm	
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml	
9)	Aroclor 1221 (1)	5.187	202972	195.550	ng/mlm	
10)	Aroclor 1221 (2)	5.307	184876	285.062	ng/mlm	
11)	Aroclor 1221 (3)	5.393	177842	81.472	ng/mlm	
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml	
13)	Aroclor 1232 (1)	5.393	176173	100.083	ng/mlm	R-02
14)	Aroclor 1232 (2)	6.174	72474	29.530	ng/mlm	
15)	Aroclor 1232 (3)	6.249	67117	52.960	ng/mlm	
16)	Aroclor 1232 (4)	6.408	53664	62.580	ng/mlm	
17)	Aroclor 1232 (5)	6.624	38002	33.530	ng/mlm	
18)	Aroclor 1232 (6)	6.757	30648	32.785	ng/mlm	
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml	
20)	Aroclor 1242 (1)	5.755	122067	55.312	ng/mlm	↑MDL
21)	Aroclor 1242 (2)	6.174	74621	16.391	ng/mlm	
22)	Aroclor 1242 (3)	6.249	67294	28.827	ng/mlm	
23)	Aroclor 1242 (4)	6.402	54163	30.864	ng/mlm	
24)	Aroclor 1242 (5)	6.632	36850	15.423	ng/mlm	
25)	Aroclor 1242 (6)	6.757	30684	15.506	ng/mlm	
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml	
27)	Aroclor 1248 (1)	6.174	74599	25.229	ng/mlm	
28)	Aroclor 1248 (2)	6.408	54244	15.650	ng/mlm	
29)	Aroclor 1248 (3)	6.632	38105	9.721	ng/mlm	
30)	Aroclor 1248 (4)	6.937	747	0.156	ng/ml	
31)	Aroclor 1248 (5)	6.970	1382	0.276	ng/ml	
32)	Aroclor 1248 (6)	7.451	4395	1.687	ng/ml	
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml	
34)	Aroclor 1254 (1)	6.970	1382	0.292	ng/ml	
35)	Aroclor 1254 (2)	7.085	9411	1.672	ng/ml	
36)	Aroclor 1254 (3)	7.451	4395	0.514	ng/ml	
37)	Aroclor 1254 (4)	7.614	3476	0.597	ng/ml	
38)	Aroclor 1254 (5)	8.005	4292	0.735	ng/ml	
39)	Aroclor 1254 (6)	8.286	1569	0.830	ng/ml	
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml	
41)	Aroclor 1260 (1)	7.568	3882	0.631	ng/ml	
42)	Aroclor 1260 (2)	7.699	3380	0.435	ng/ml	
43)	Aroclor 1260 (3)	8.255	1794	0.316	ng/ml	
44)	Aroclor 1260 (4)	8.424	12111	0.906	ng/ml	
45)	Aroclor 1260 (5)	8.727	3873	0.442	ng/ml	
46)	Aroclor 1260 (6)	9.121	2924	0.814	ng/ml	
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml	

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

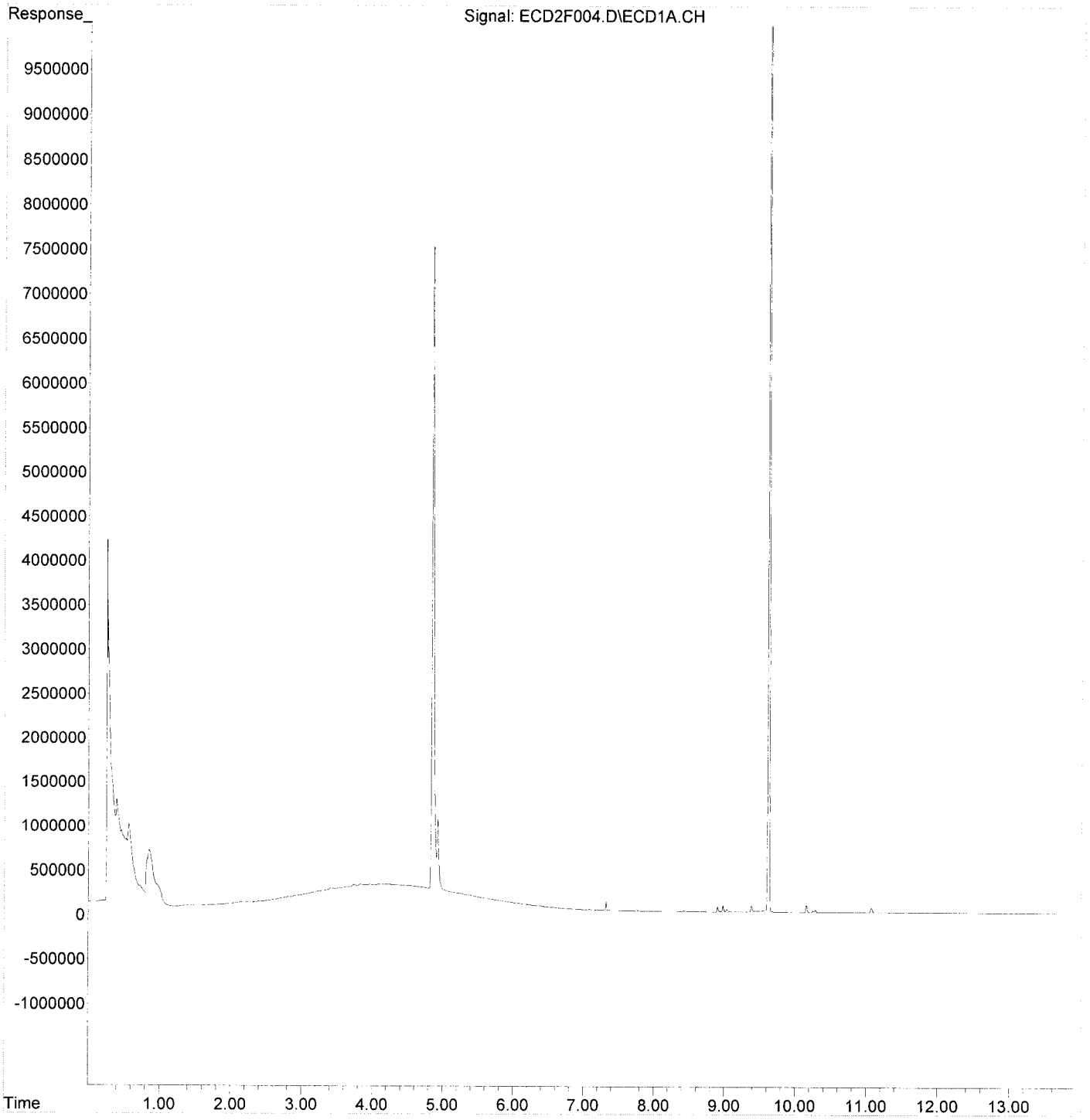
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.699	3380	0.572 ng/ml
49)	Aroclor 1262 (2)	8.024	2591	0.314 ng/ml
50)	Aroclor 1262 (3)	8.255	1794	0.261 ng/ml
51)	Aroclor 1262 (4)	8.424	12111	0.817 ng/ml
52)	Aroclor 1262 (5)	8.727	3873	0.435 ng/ml
53)	Aroclor 1262 (6)	9.121	2924	0.610 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.255	1794	0.498 ng/ml
56)	Aroclor 1268 (2)	8.679	1844	0.112 ng/ml
57)	Aroclor 1268 (3)	8.727	3873	0.279 ng/ml
58)	Aroclor 1268 (4)	8.905	62894	5.007 ng/ml
59)	Aroclor 1268 (5)	9.121	2924	0.534 ng/ml
60)	Aroclor 1268 (6)	9.386	69186	2.018 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

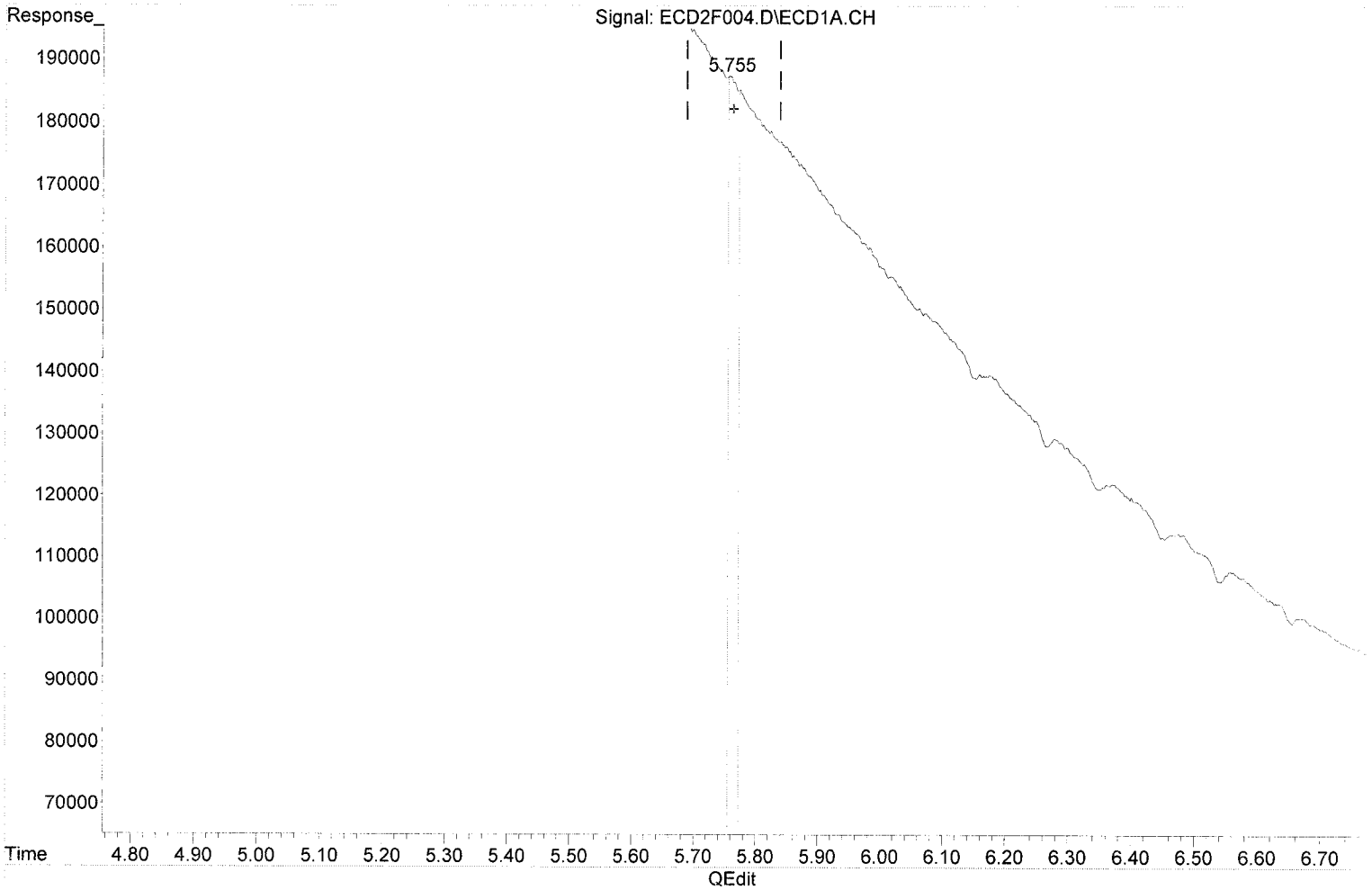
Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(2) Aroclor 1016 (1)

5.755min 39.125 ng/ml m 10/22/19

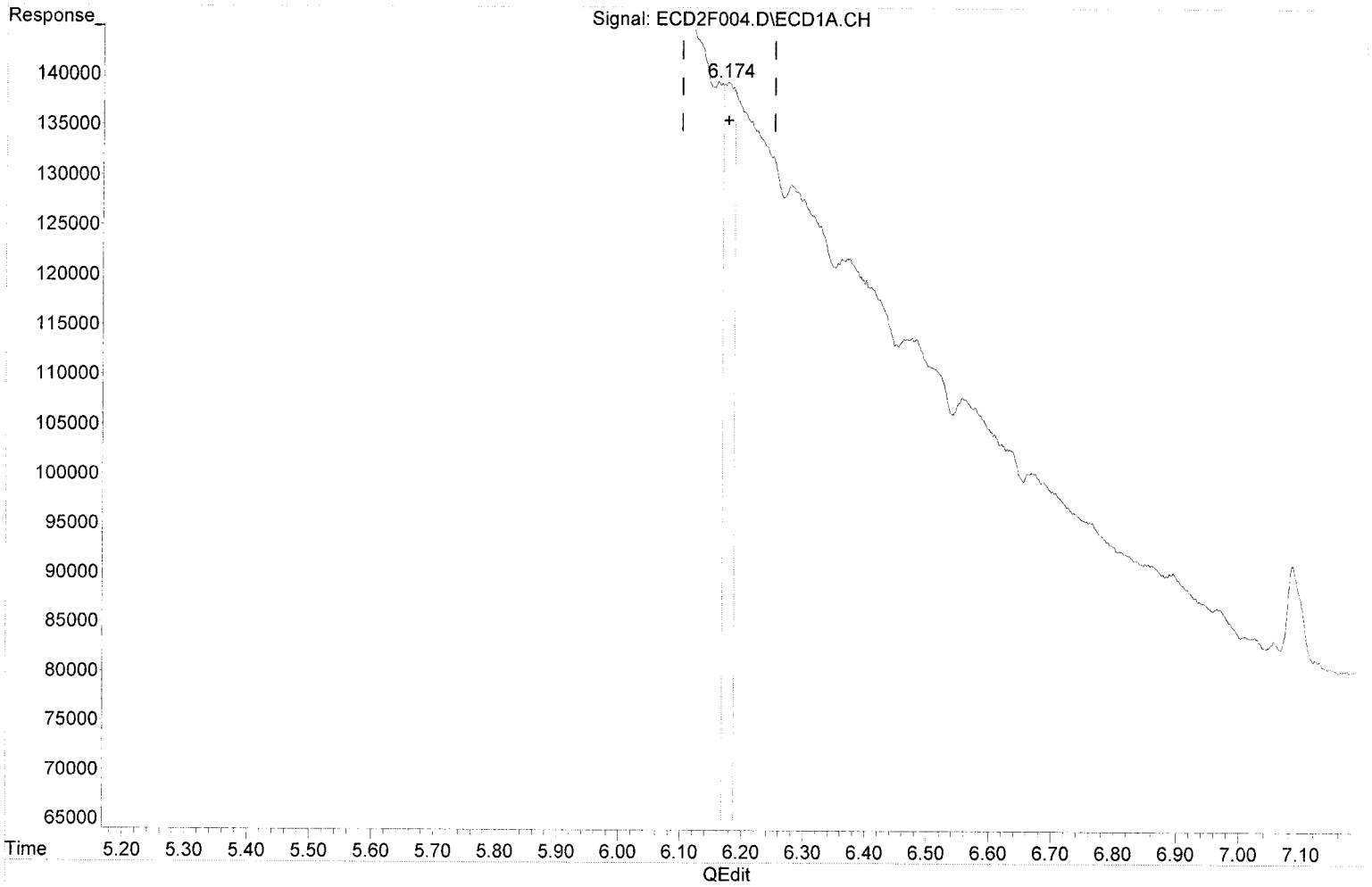
response 121025

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(3) Aroclor 1016 (2)

6.174min 12.074 ng/ml (m) 10/22/19

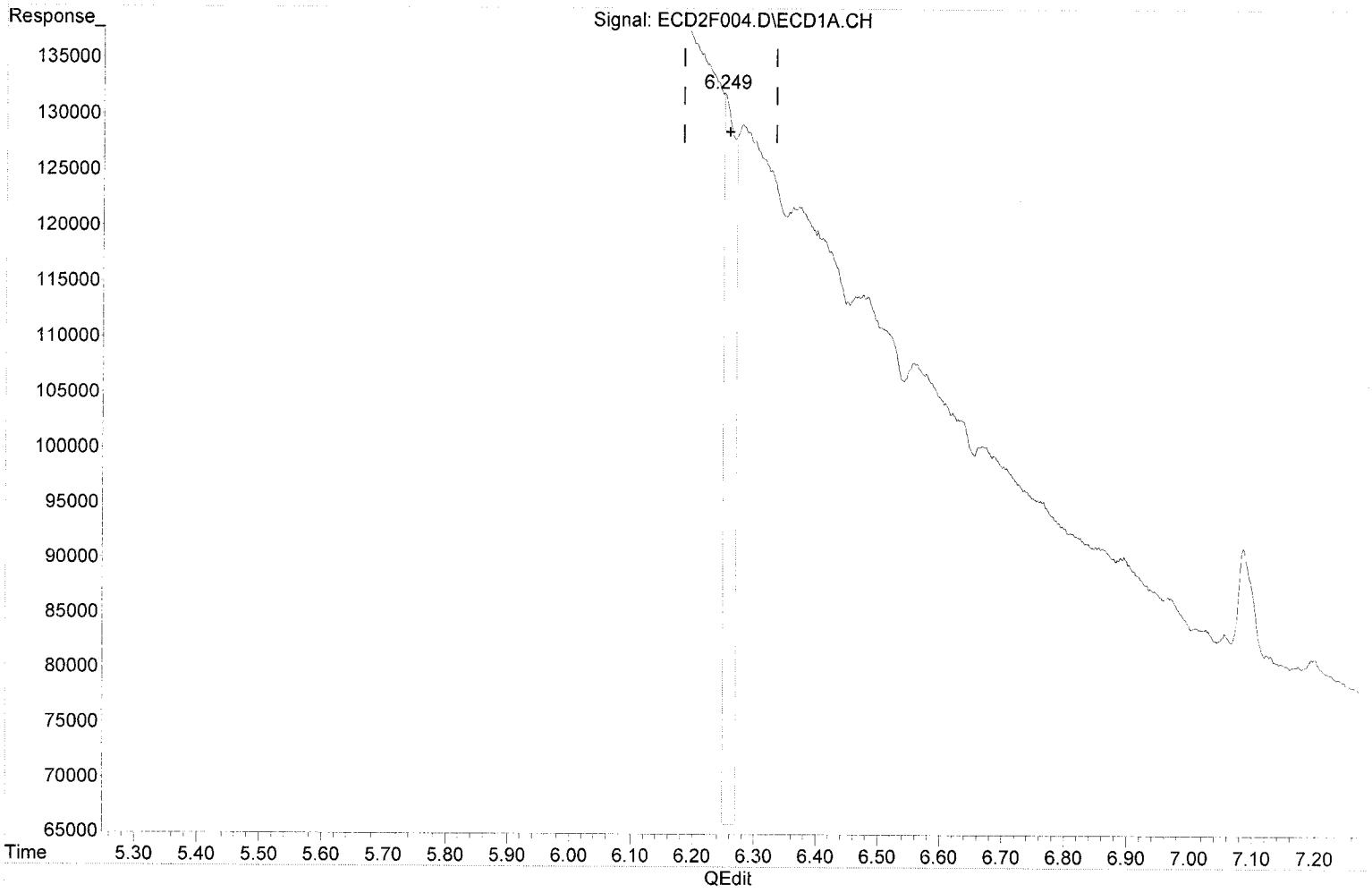
response 74553

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(4) Aroclor 1016 (3)

6.249min 19.864 ng/ml m 10/22/19

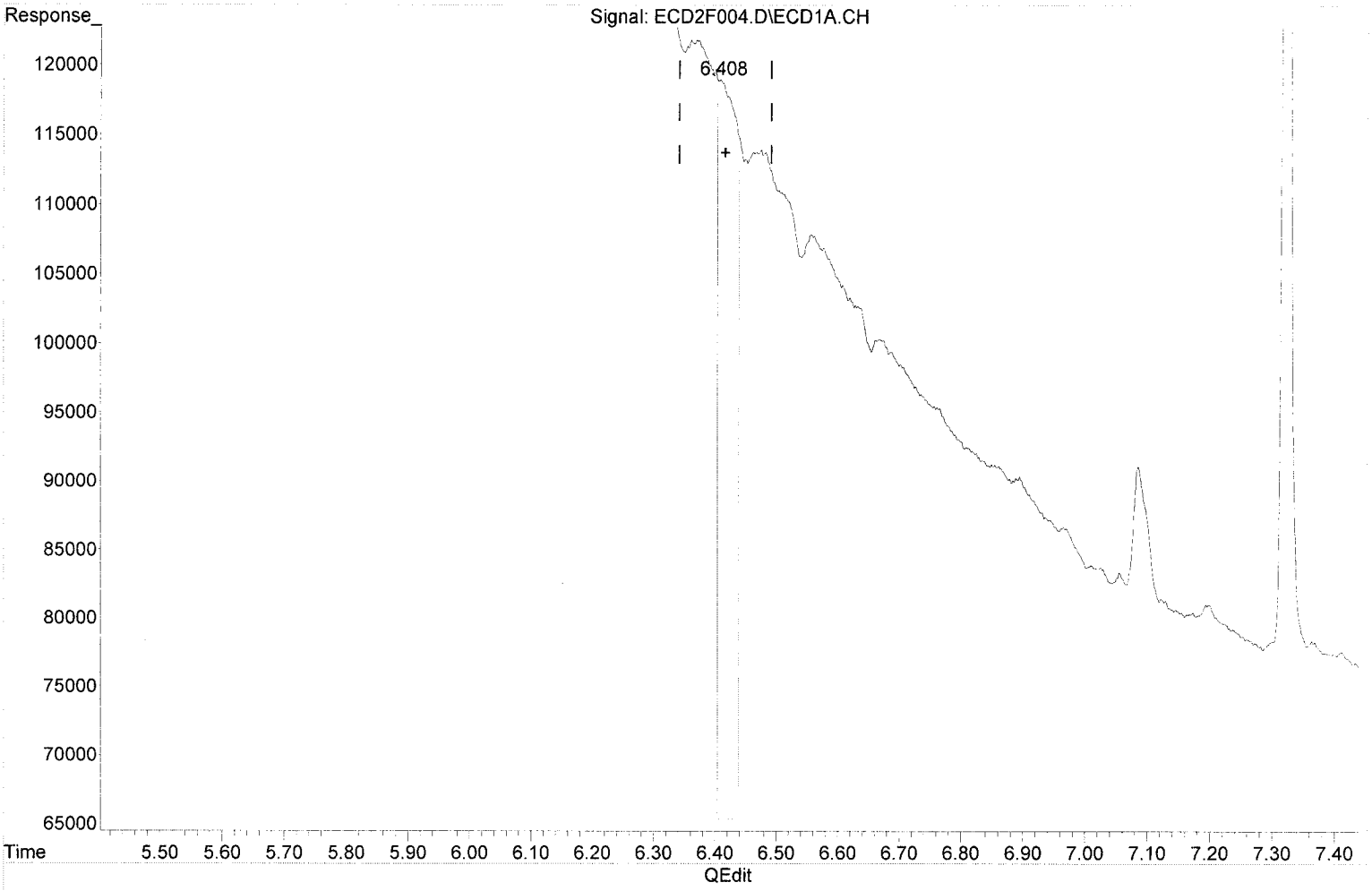
response 66175

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(5) Aroclor 1016 (4)

6.408min 19.887 ng/ml (m) 10/22/19

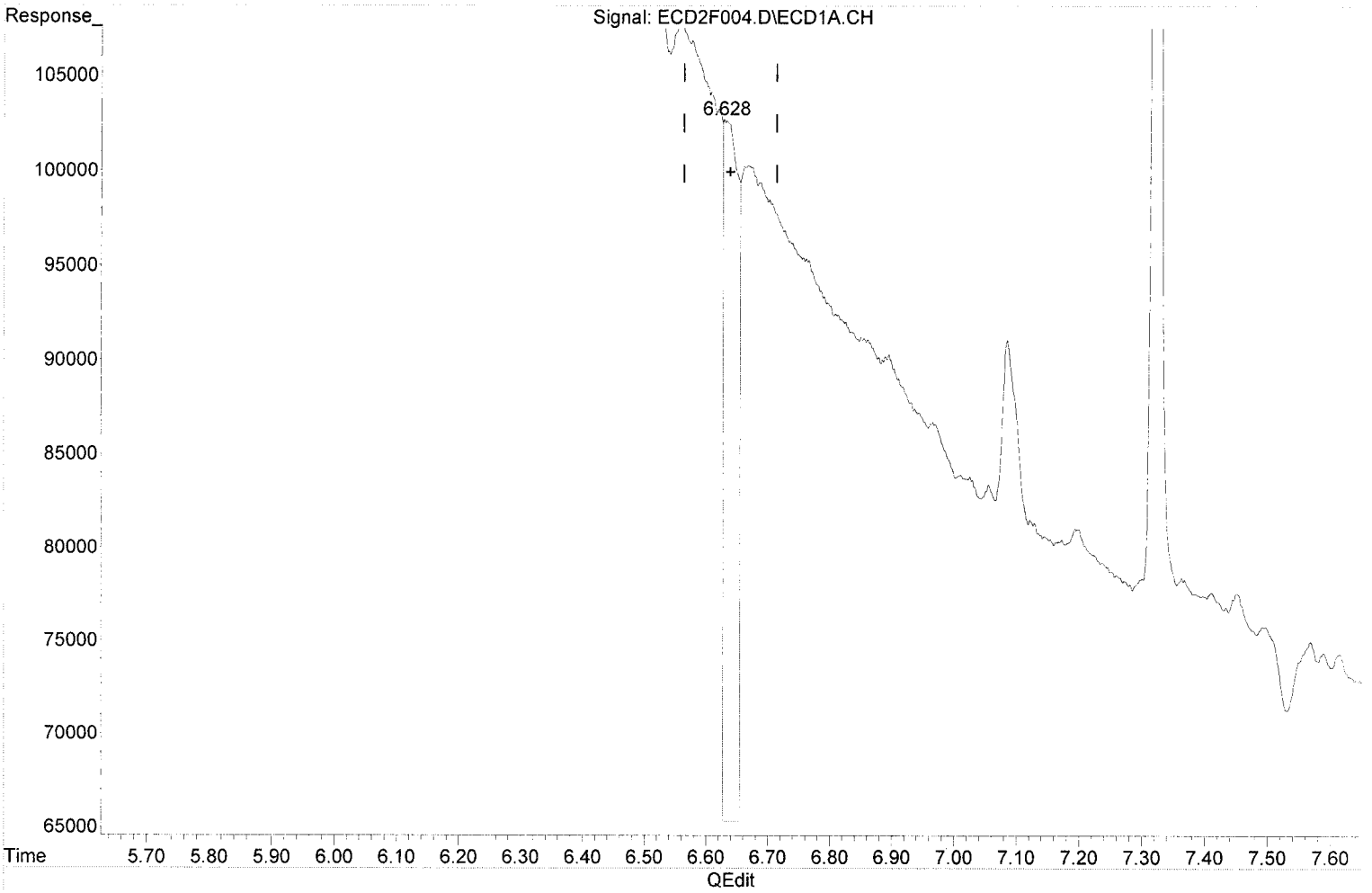
response 53578

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(6) Aroclor 1016 (5)

6.628min 11.480 ng/ml (n) 10/22/19

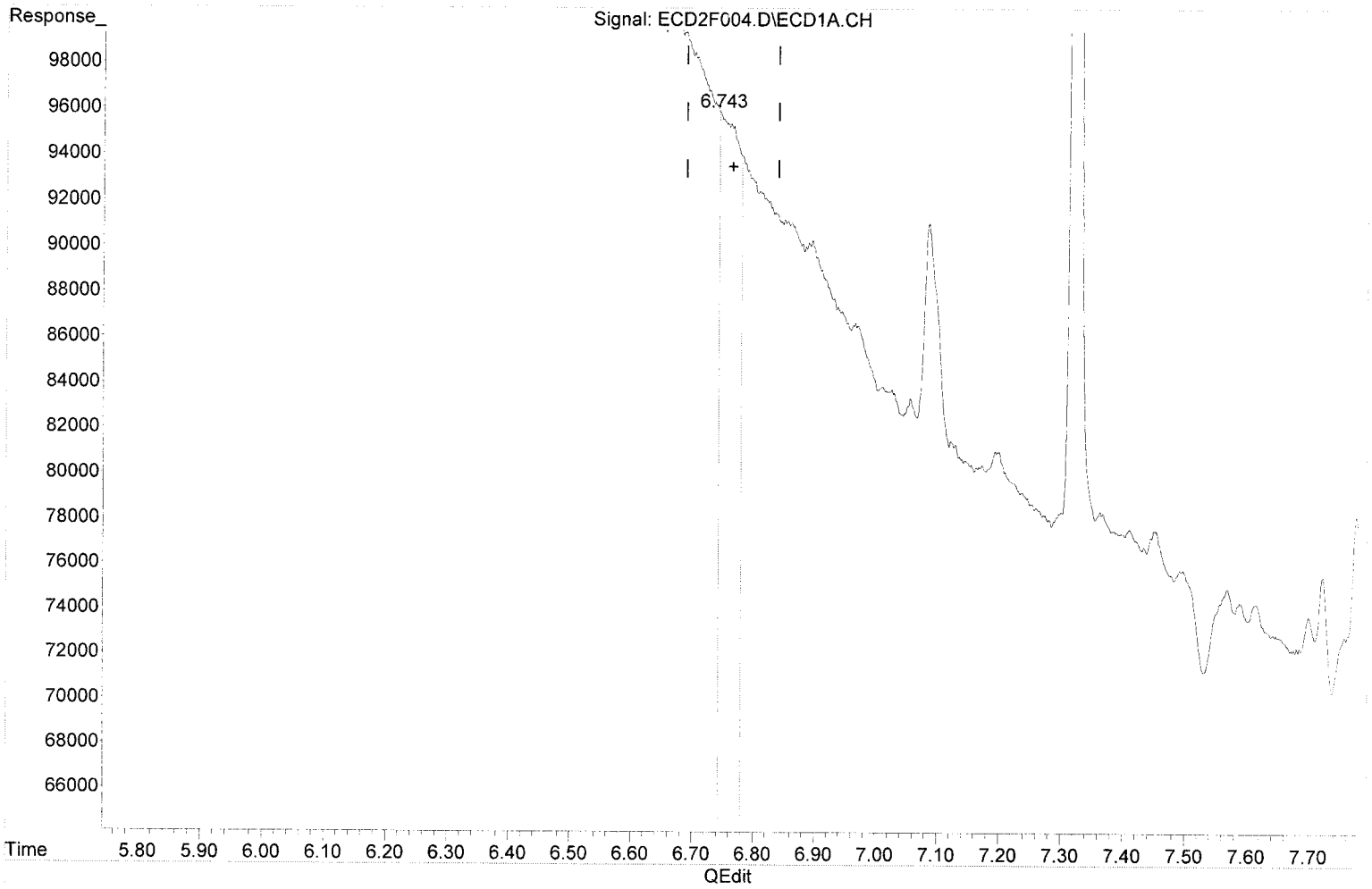
response 37366

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(7) Aroclor 1016 (6)

6.743min 13.278 ng/ml (m) 10/22/19

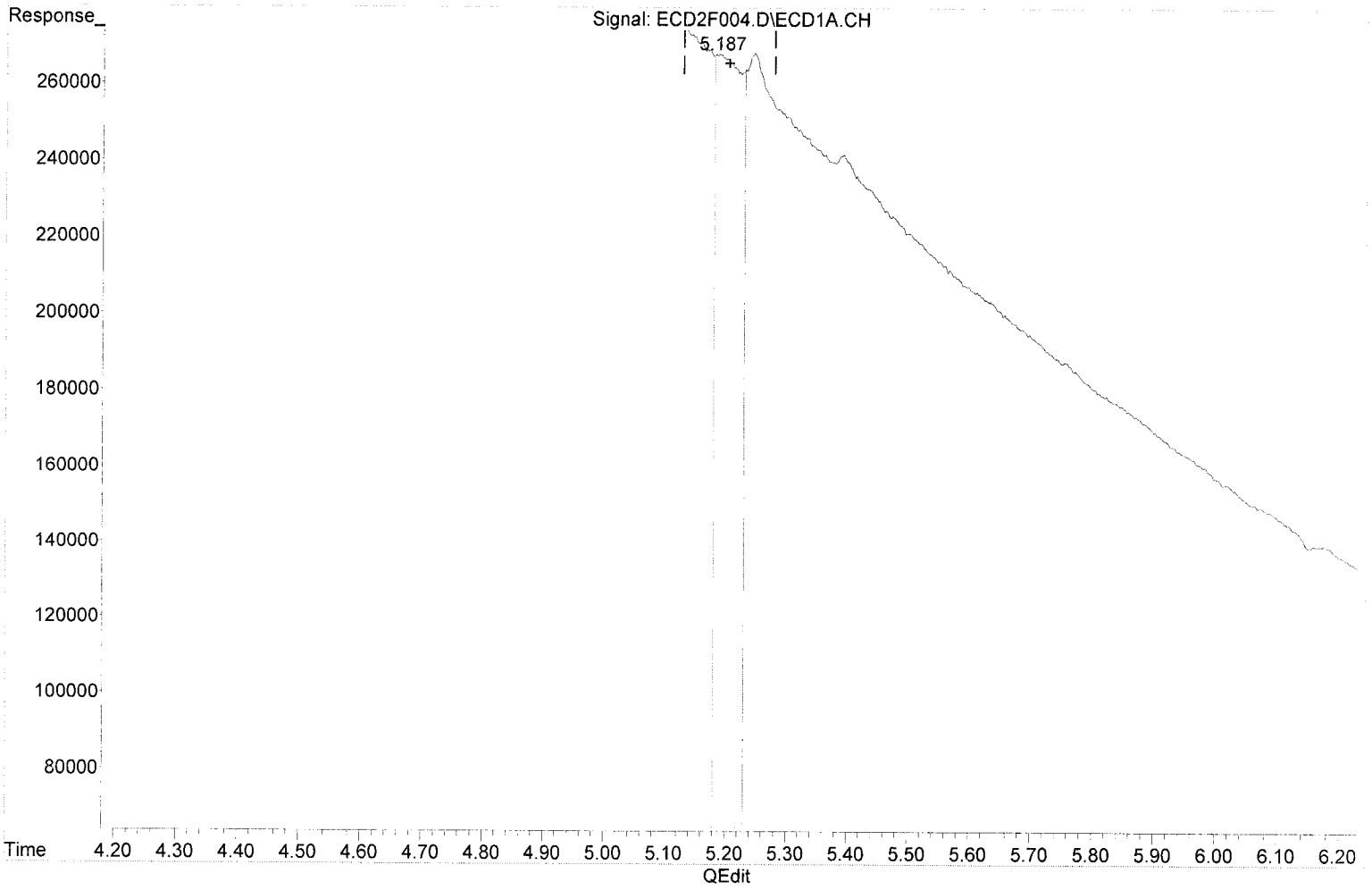
response 31198

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(9) Aroclor 1221 (1)

5.187min 195.550 ng/ml (m) 10/22/19

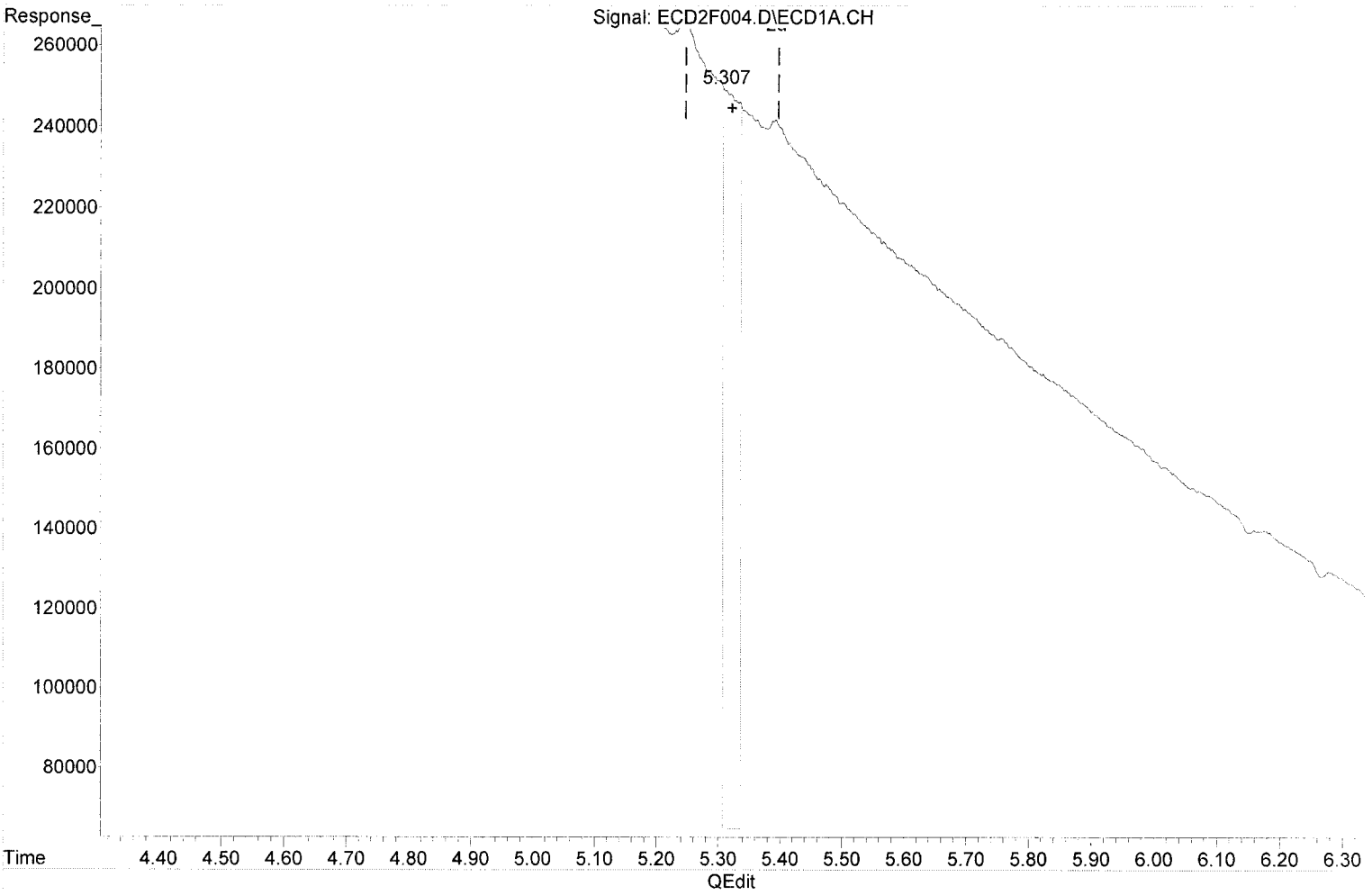
response 202972

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(10) Aroclor 1221 (2)

5.307min 285.062 ng/ml (m) 10/22/19

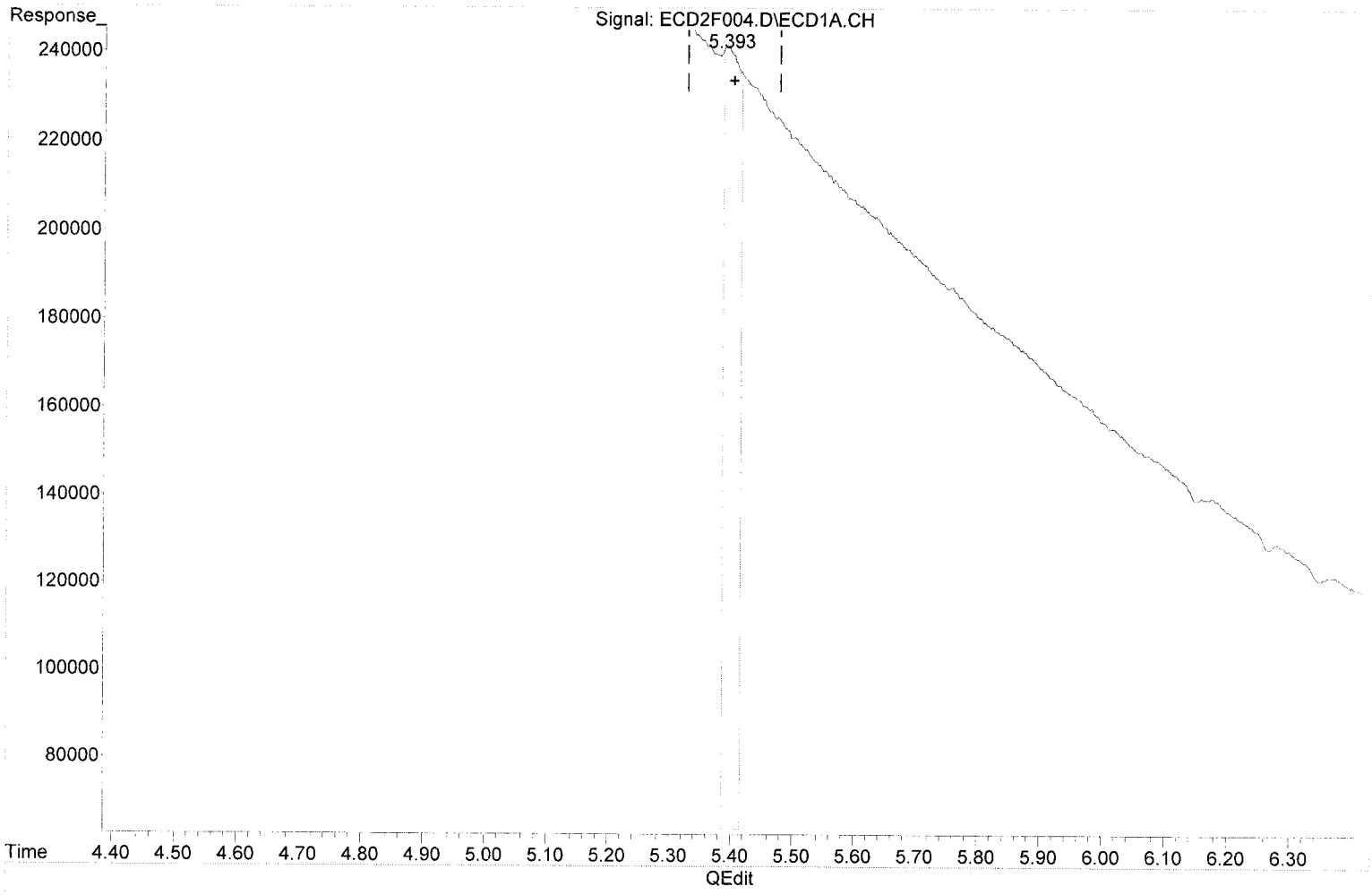
response 184876

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(11) Aroclor 1221 (3)

5.393min 81.472 ng/ml (m) 10/22/19

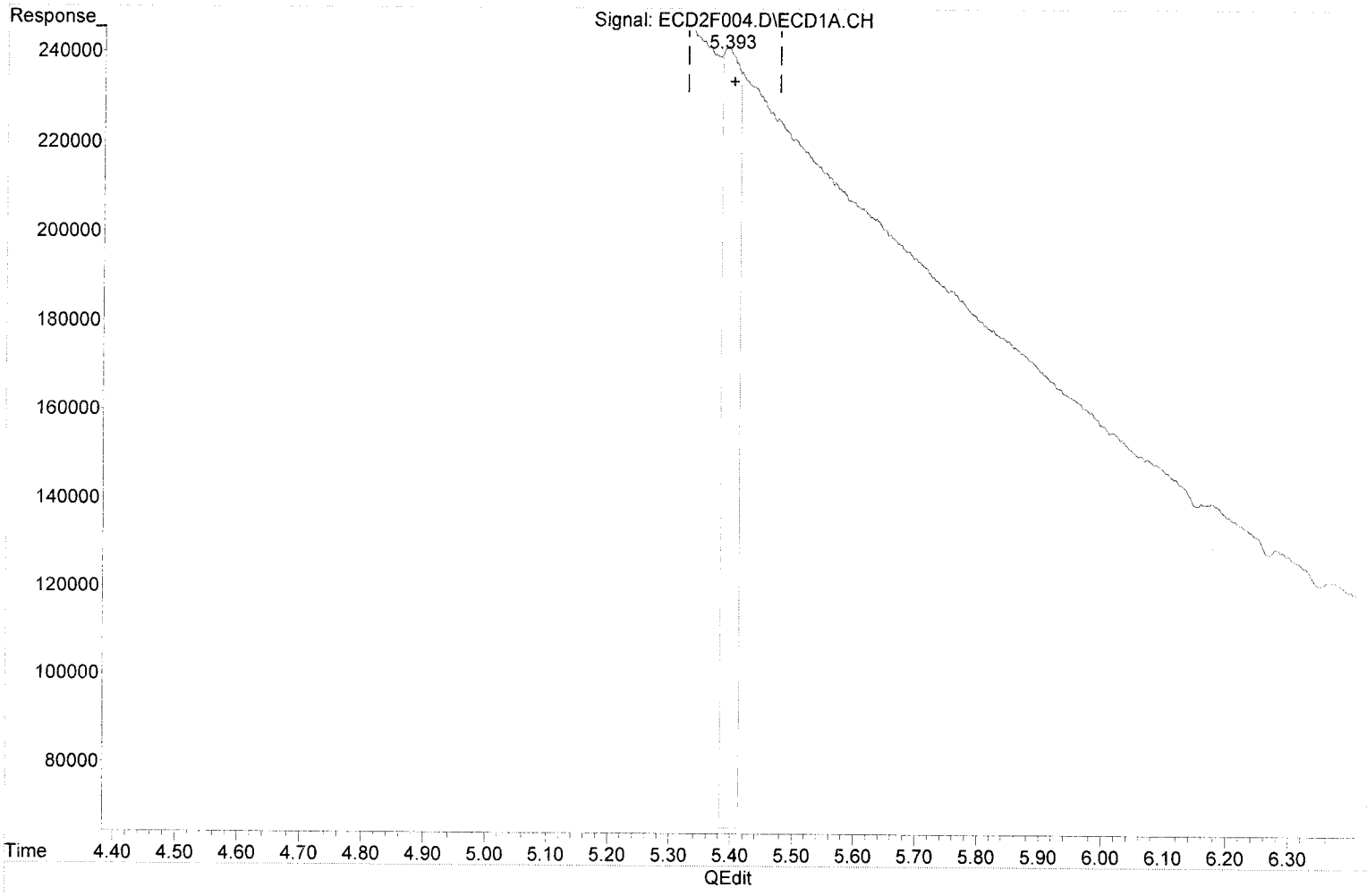
response 177842

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(13) Aroclor 1232 (1)

5.393min 100.083 ng/ml (m) 10/22/19

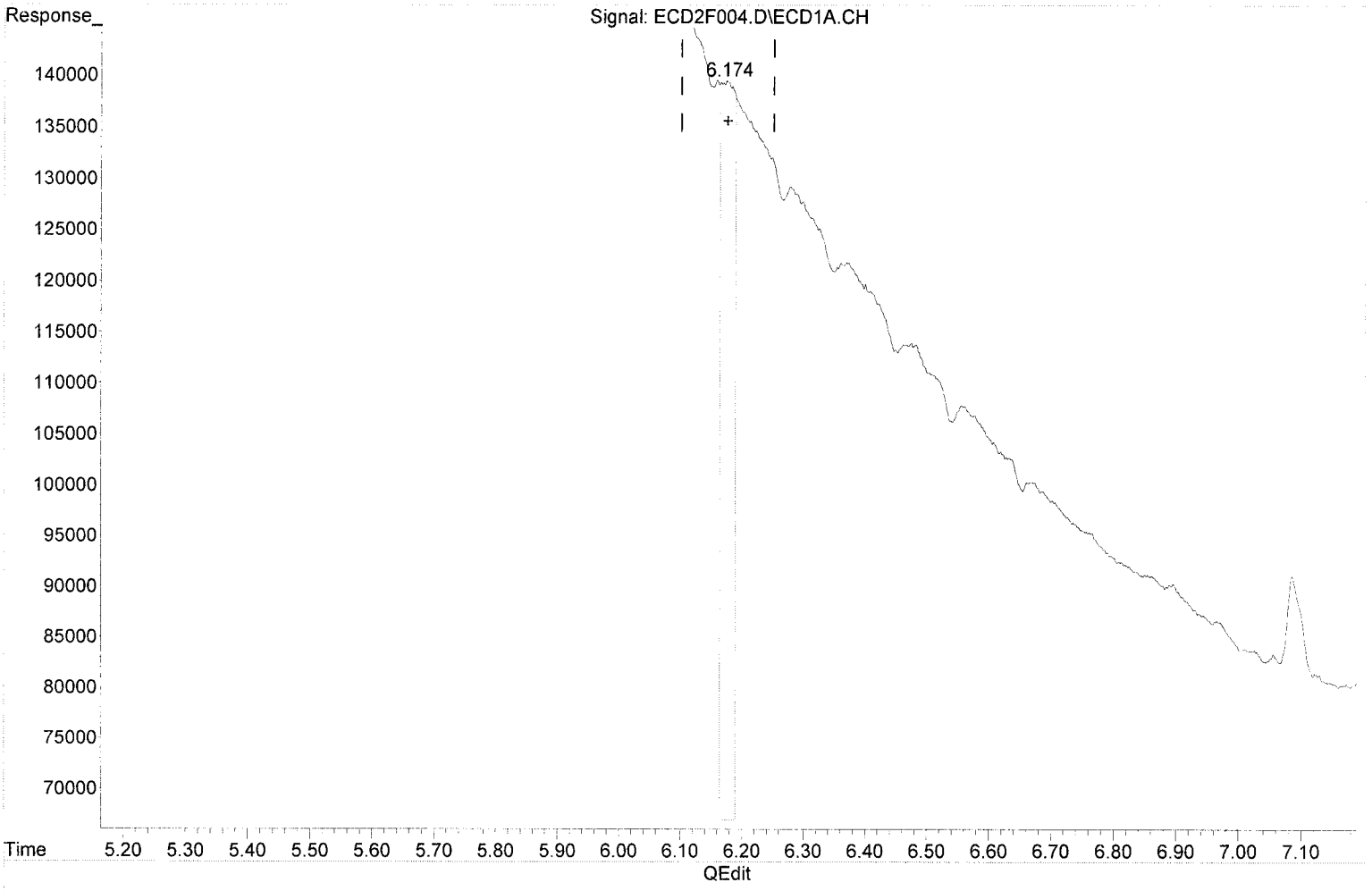
response 176173

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(14) Aroclor 1232 (2)

6.174min 29.530 ng/ml m 10/22/19

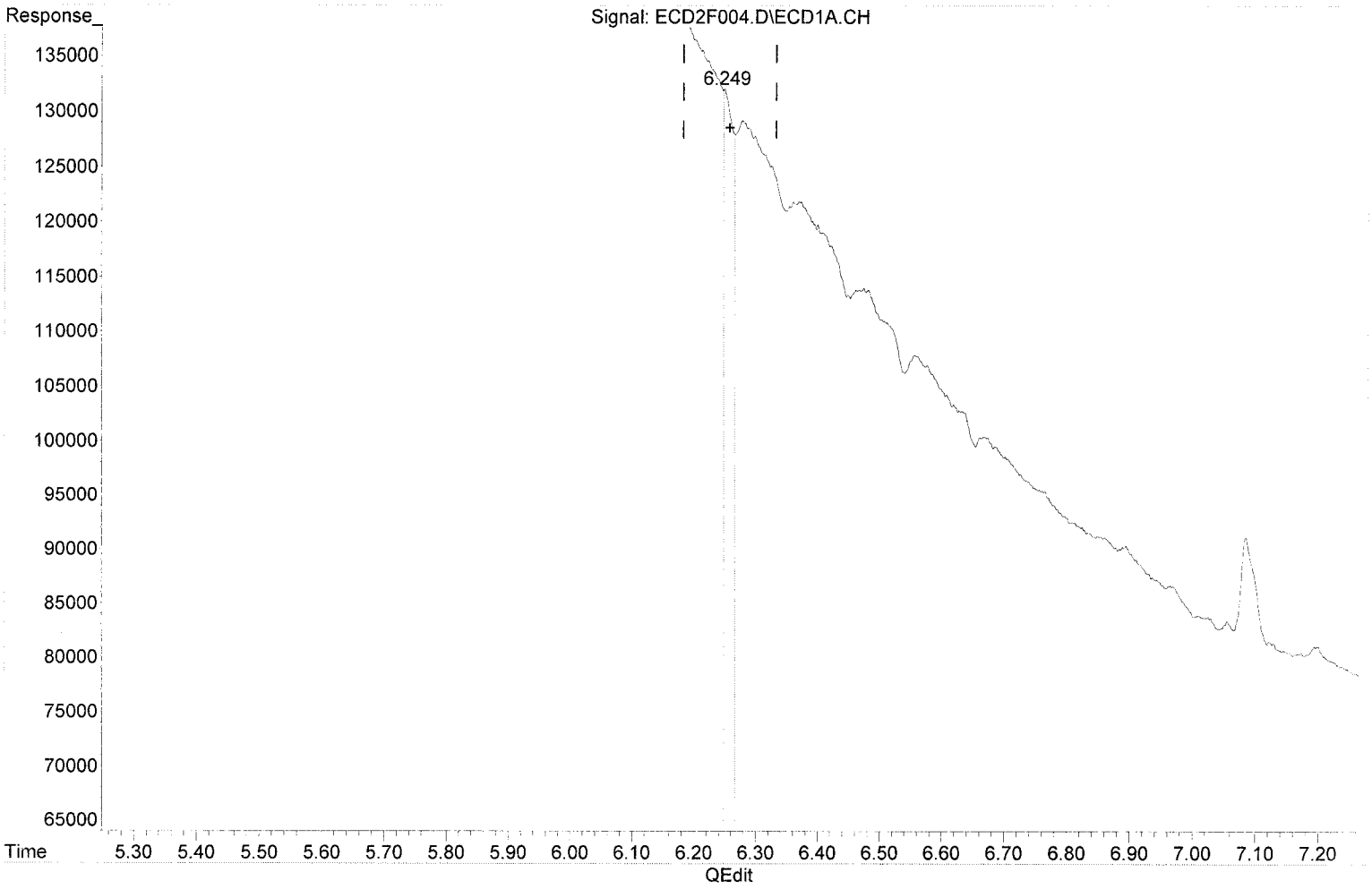
response 72474

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(15) Aroclor 1232 (3)

6.249min 52.960 ng/ml m 10/22/19

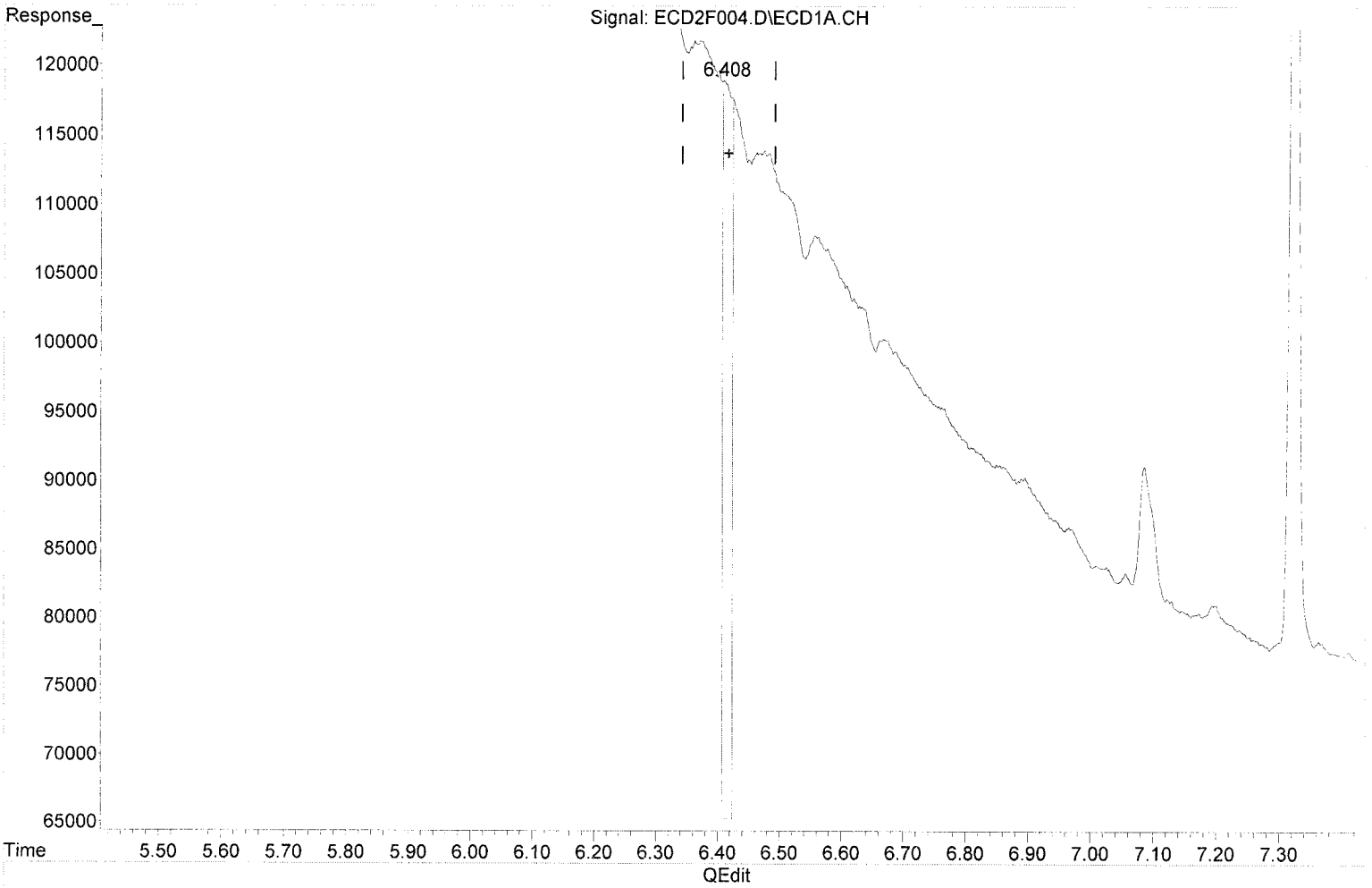
response 67117

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(16) Aroclor 1232 (4)

6.408min 62.580 ng/ml (m) 10/22/19

response 53664

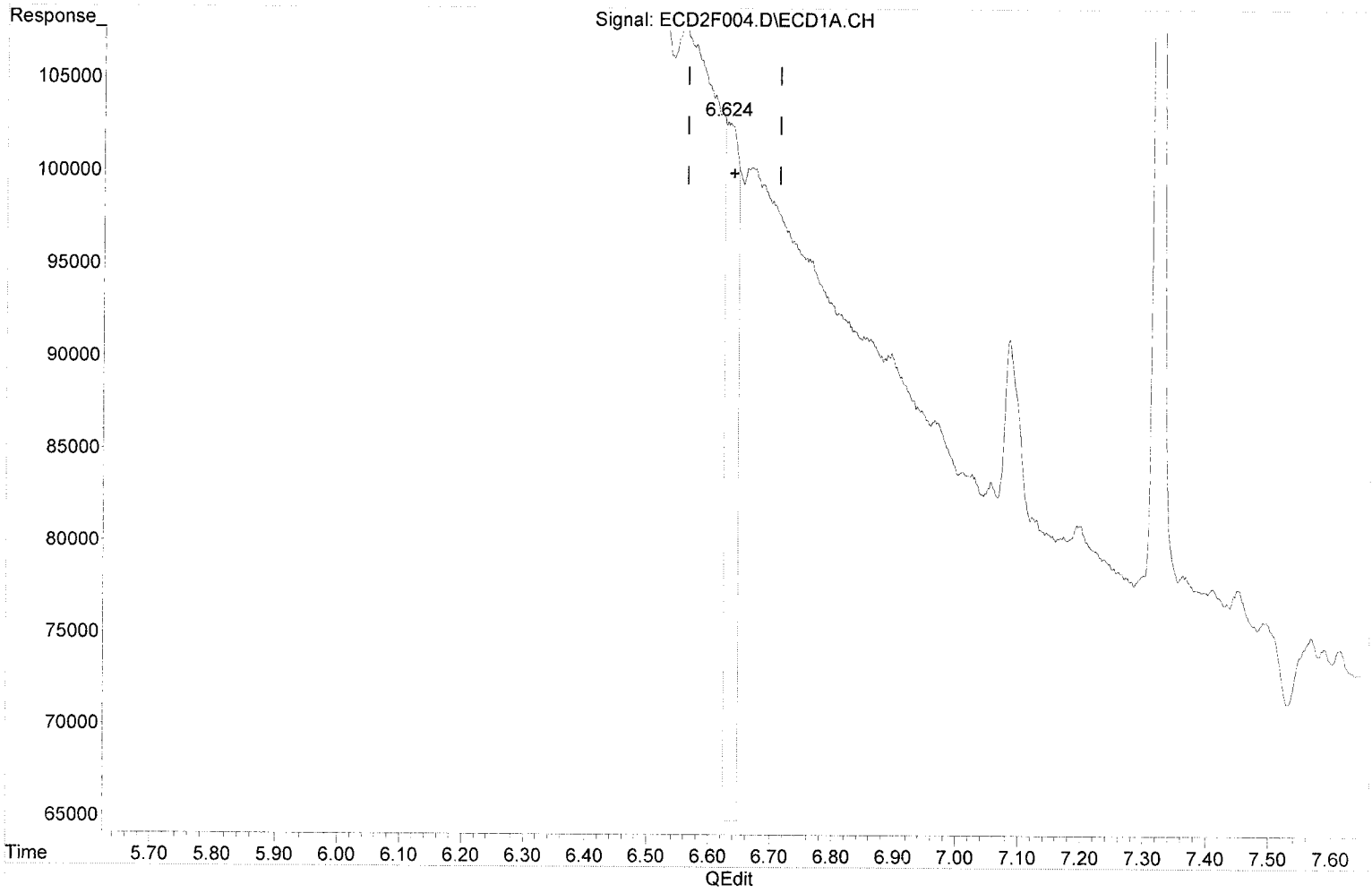
(+) = Expected Retention Time

FECD2_QUANTPCB_191001.M Tue Oct 22 08:07:40 2019 Page: 1

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(17) Aroclor 1232 (5)

6.624min 33.530 ng/ml (m) 10/22/19

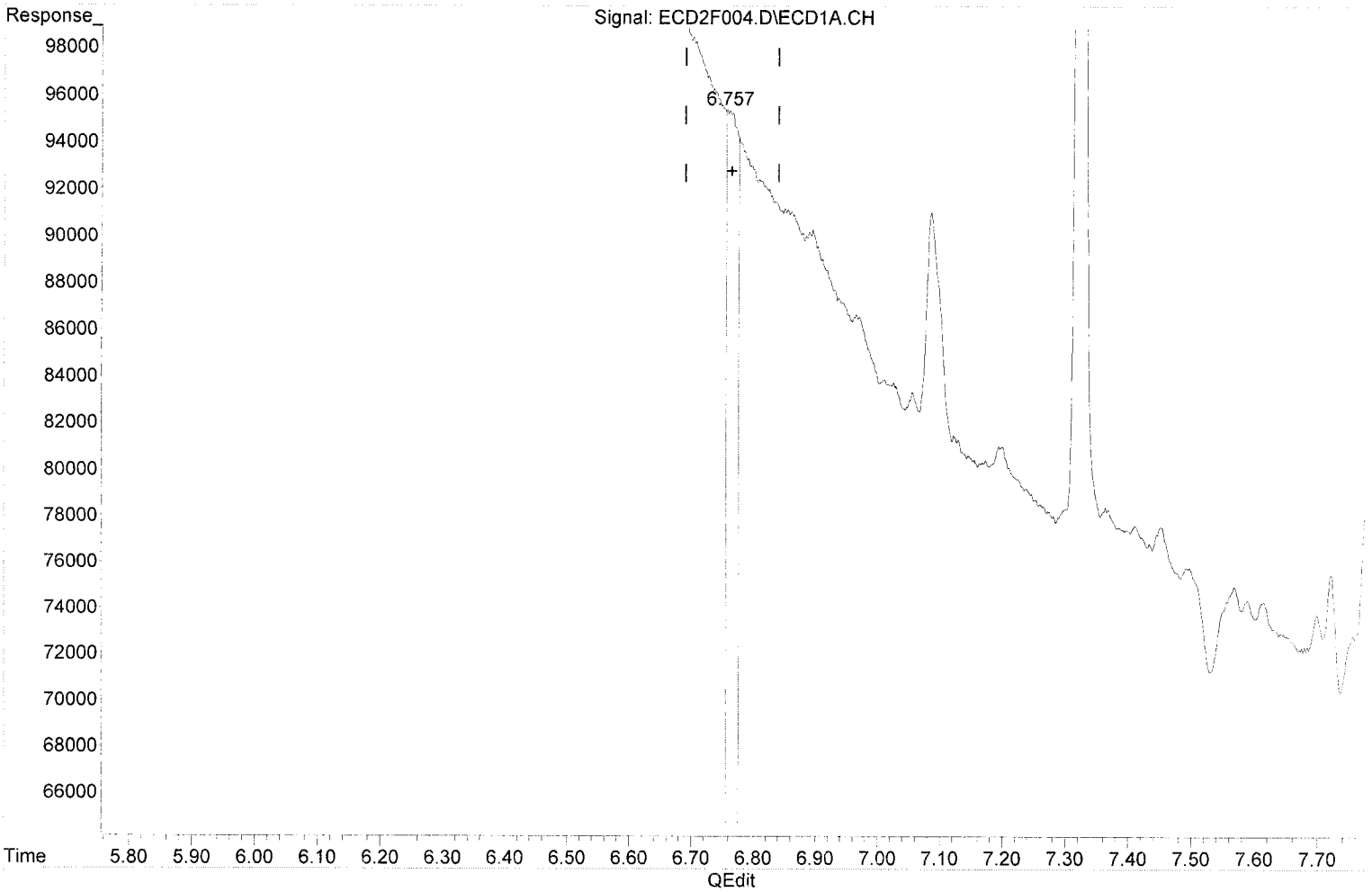
response 38002

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Aroclor 1232 (6)

6.757min 32.785 ng/ml (m) 10/22/19

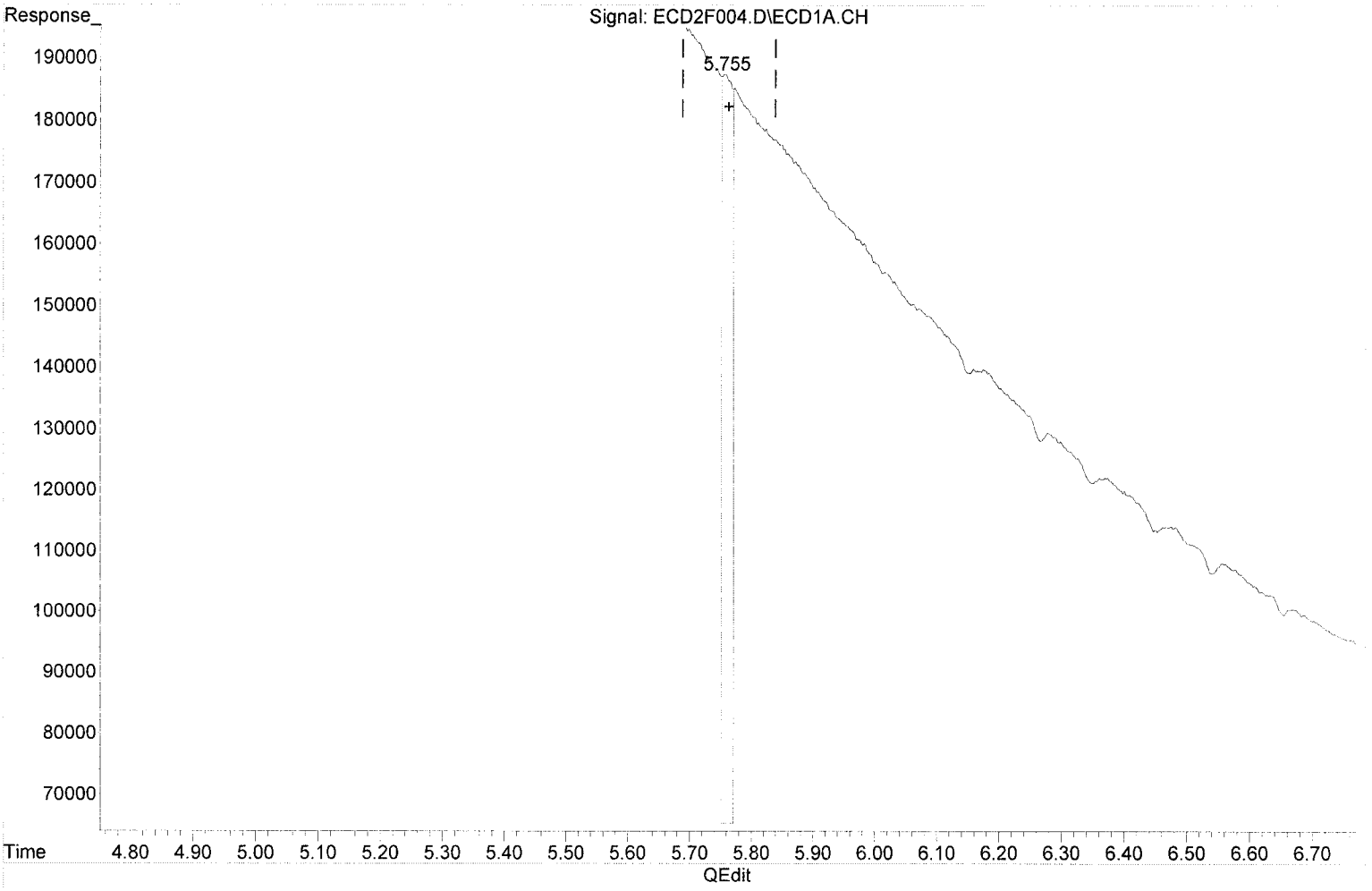
response 30648

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(20) Aroclor 1242 (1)

5.755min 55.312 ng/ml m 10/22/19

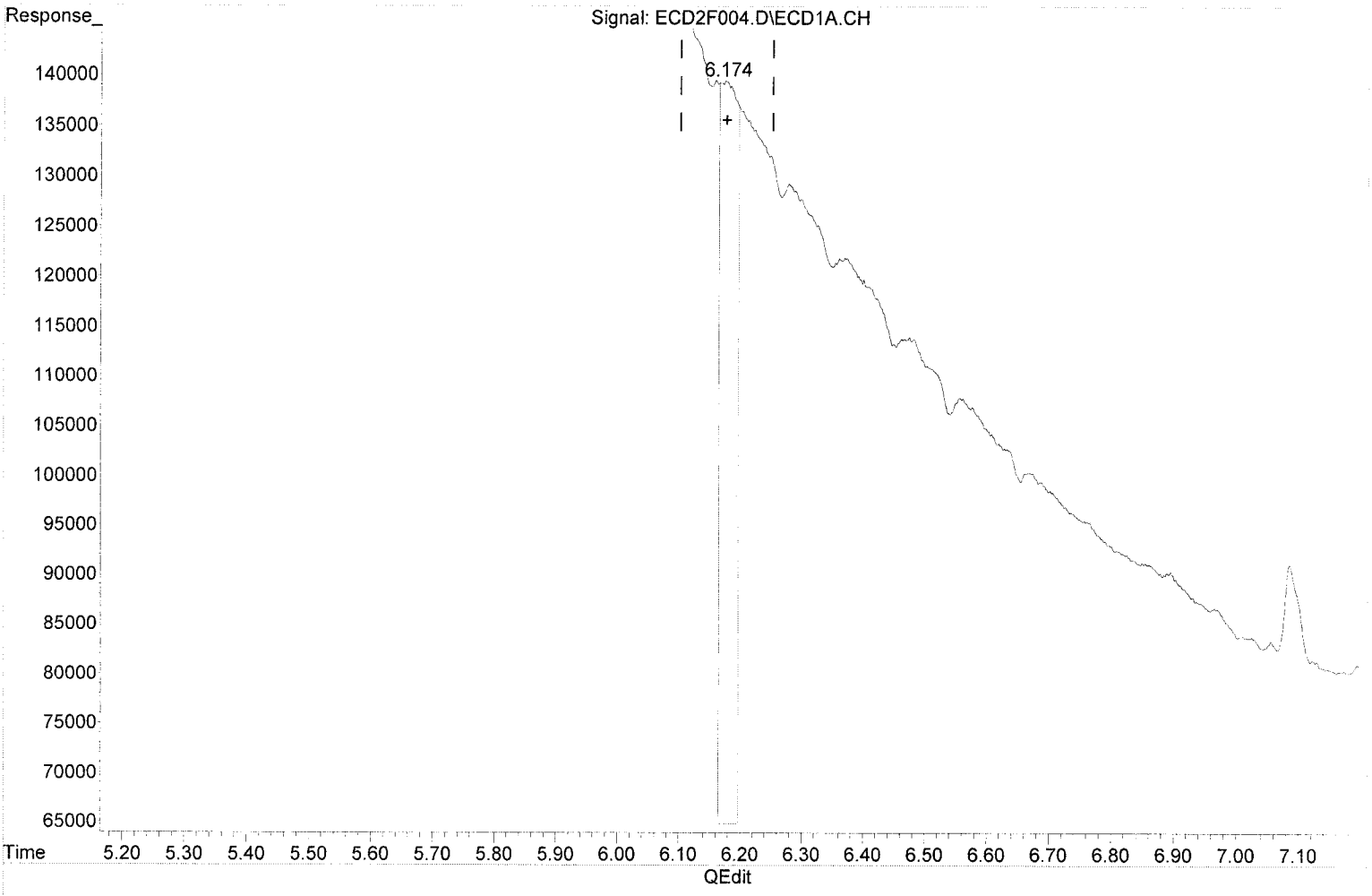
response 122067

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(21) Aroclor 1242 (2)

6.174min 16.391 ng/ml m 10/22/19

response 74621

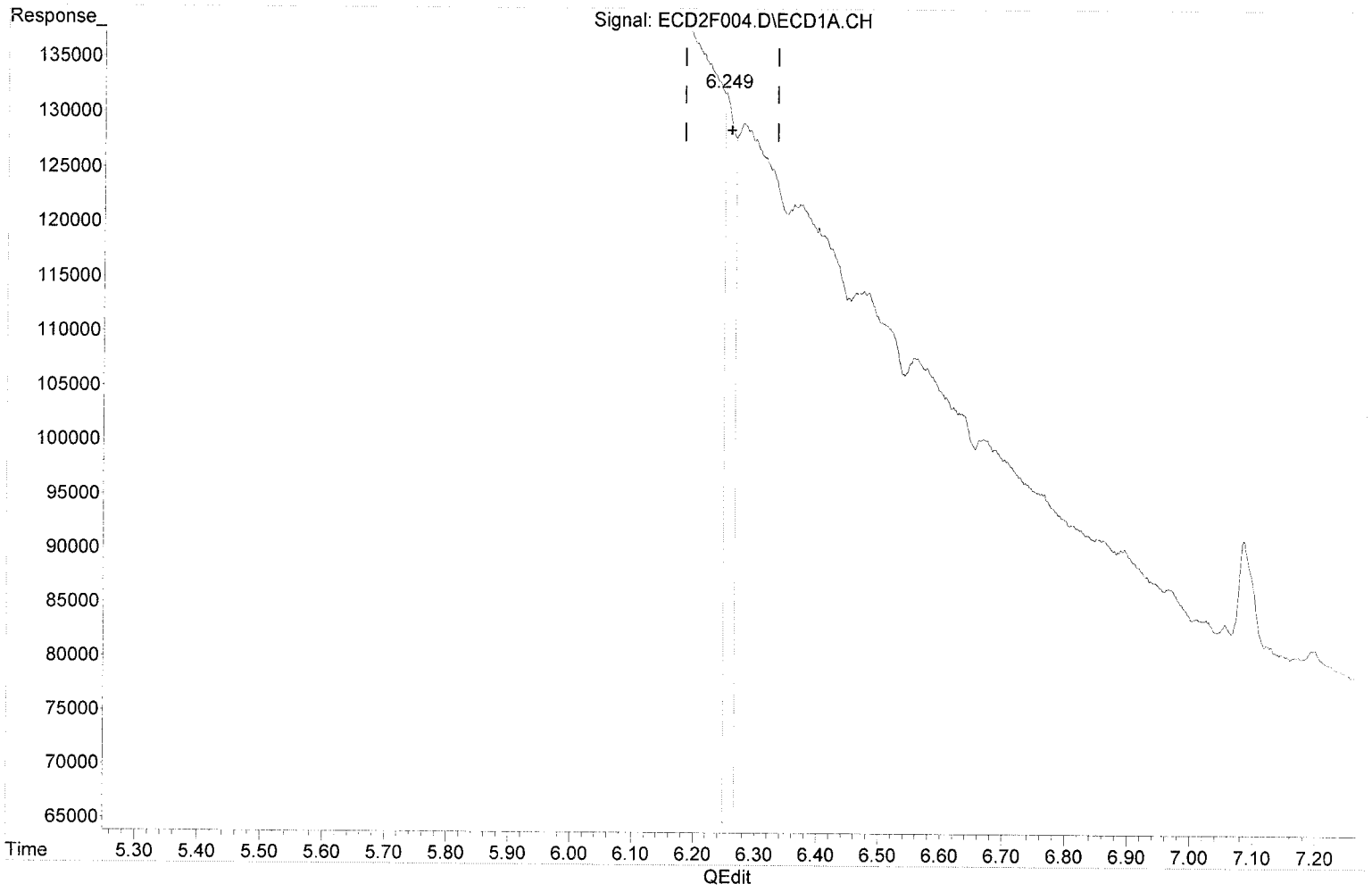
(+) = Expected Retention Time

FECD2_QUANTPCB_191001.M Tue Oct 22 08:07:52 2019 Page: 1

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(22) Aroclor 1242 (3)

6.249min 28.827 ng/ml m 10/22/19

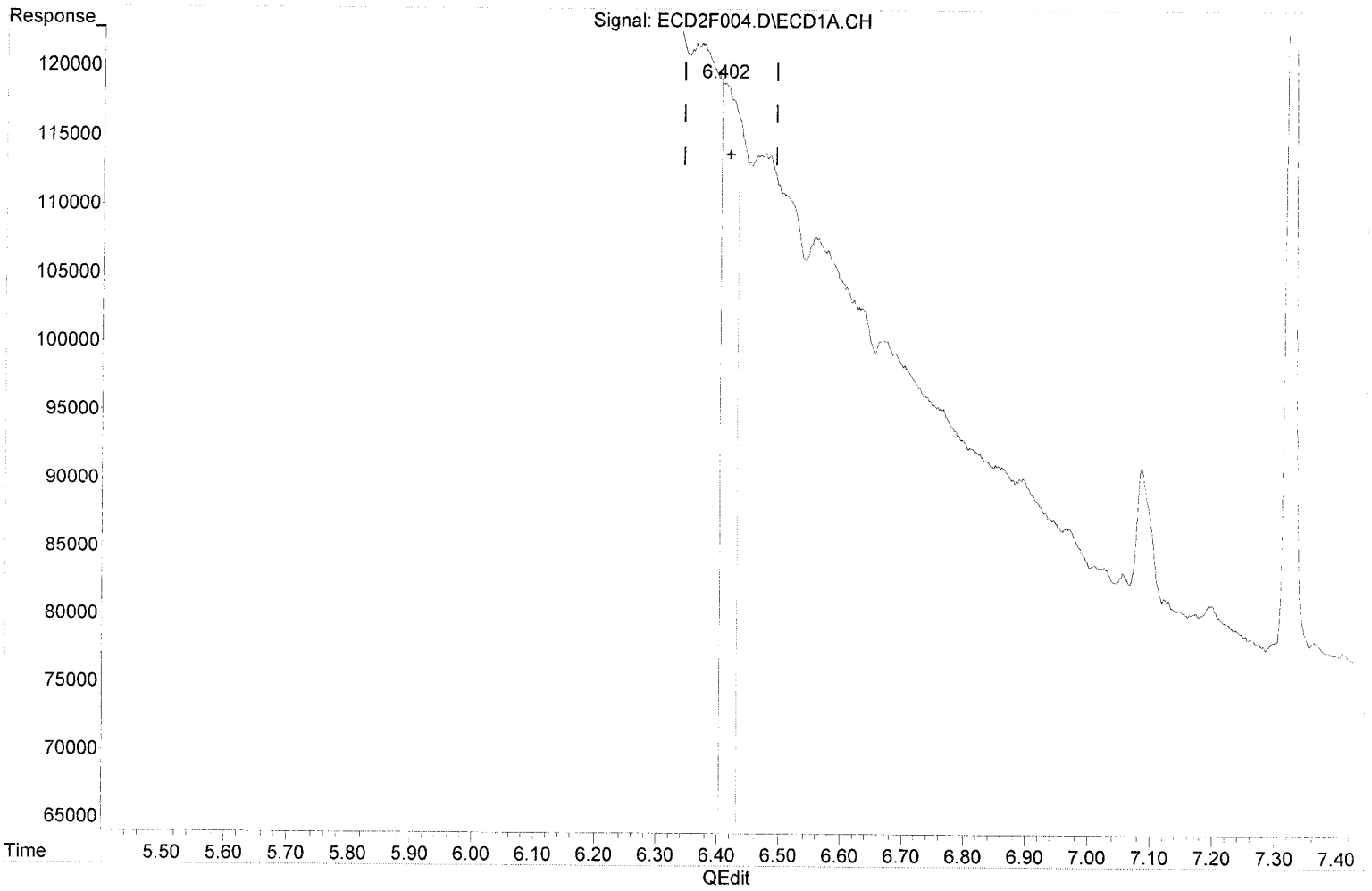
response 67294

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(23) Aroclor 1242 (4)

6.402min 30.864 ng/ml m 10/22/19

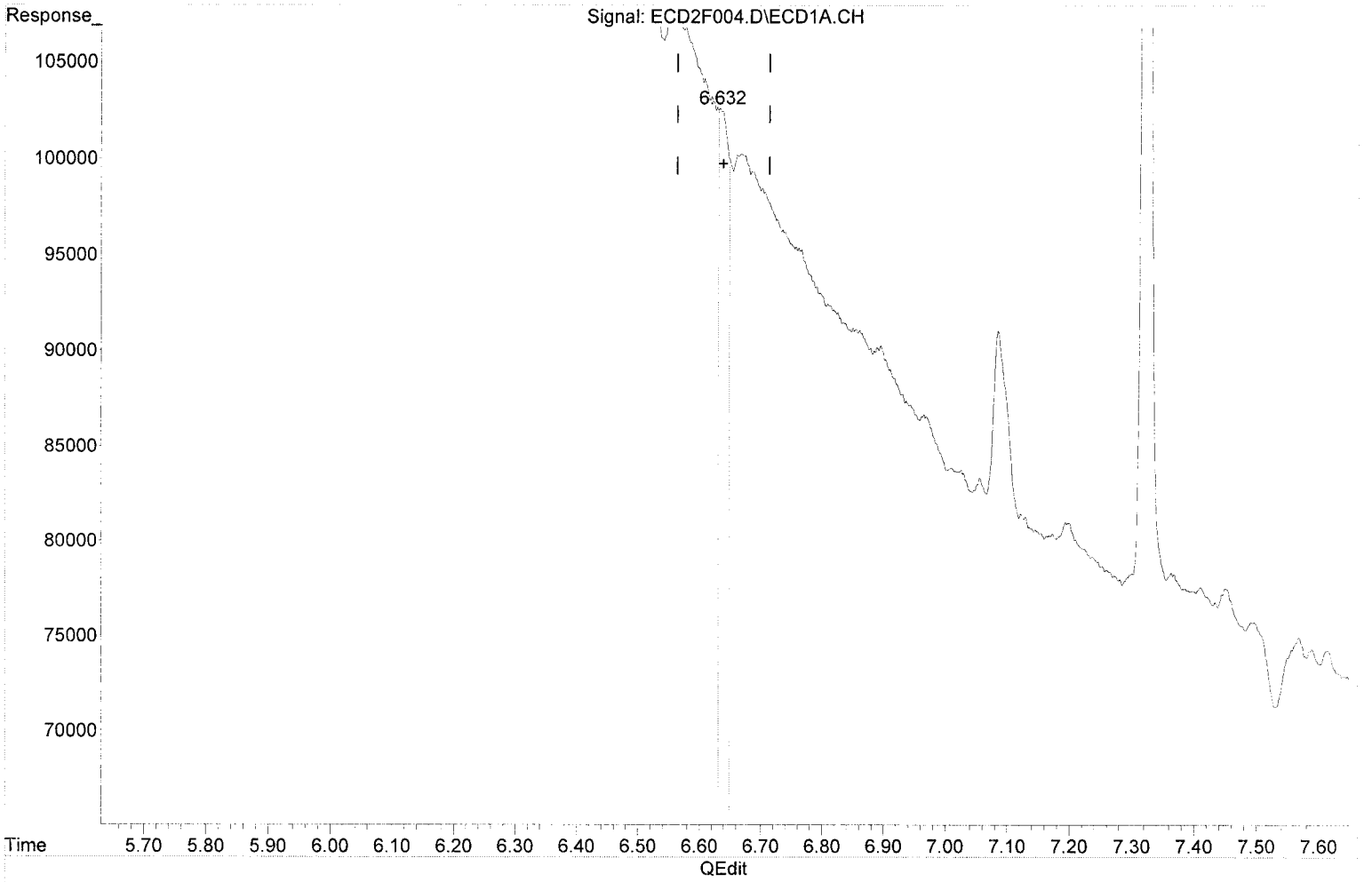
response 54163

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(24) Aroclor 1242 (5)

6.632min 15.423 ng/ml m

response 36850

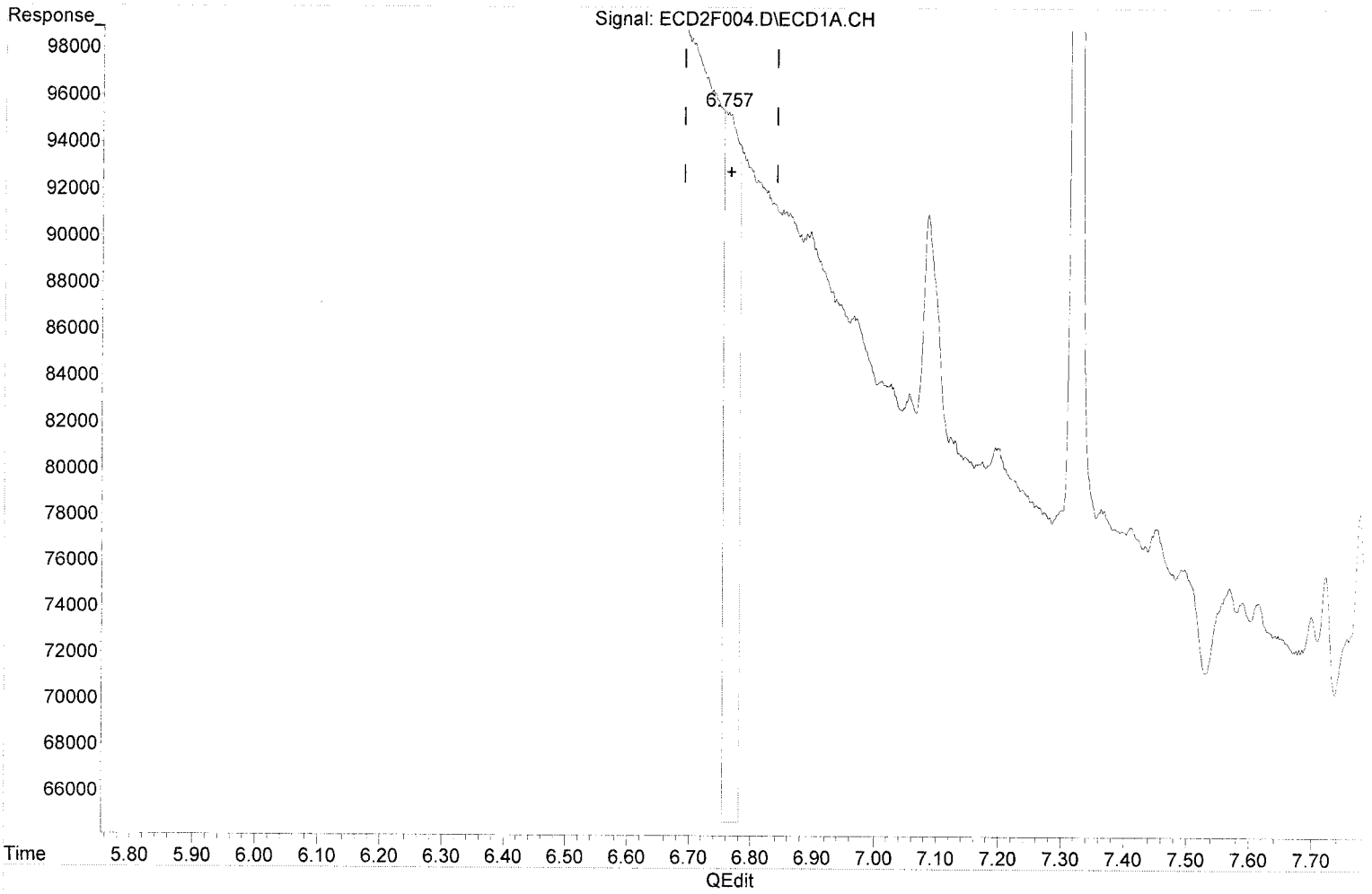
10/22/19

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(25) Aroclor 1242 (6)

6.757min 15.506 ng/ml (m) 10/22/19

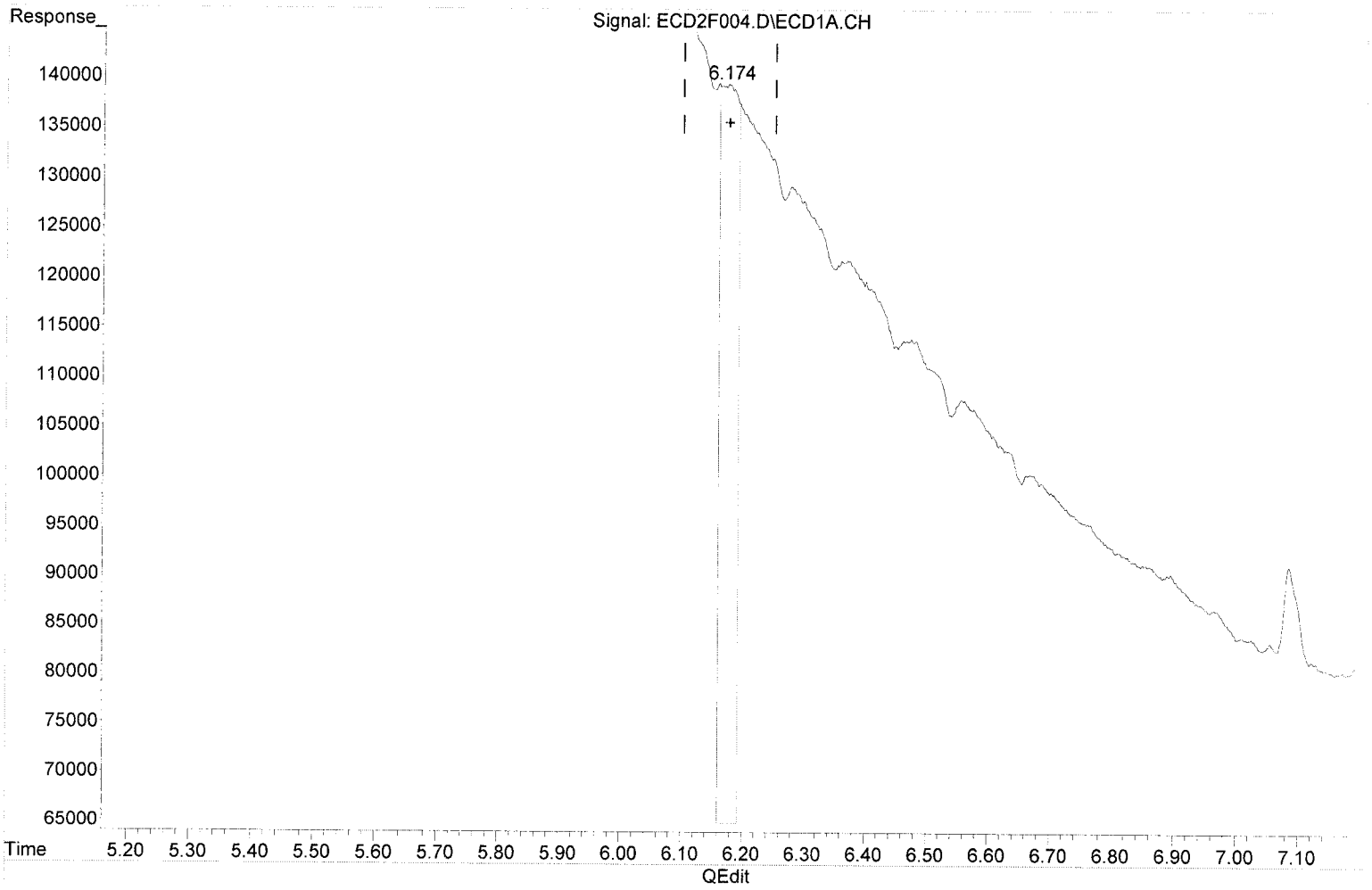
response 30684

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(27) Aroclor 1248 (1)

6.174min 25.229 ng/ml m 10/22/19

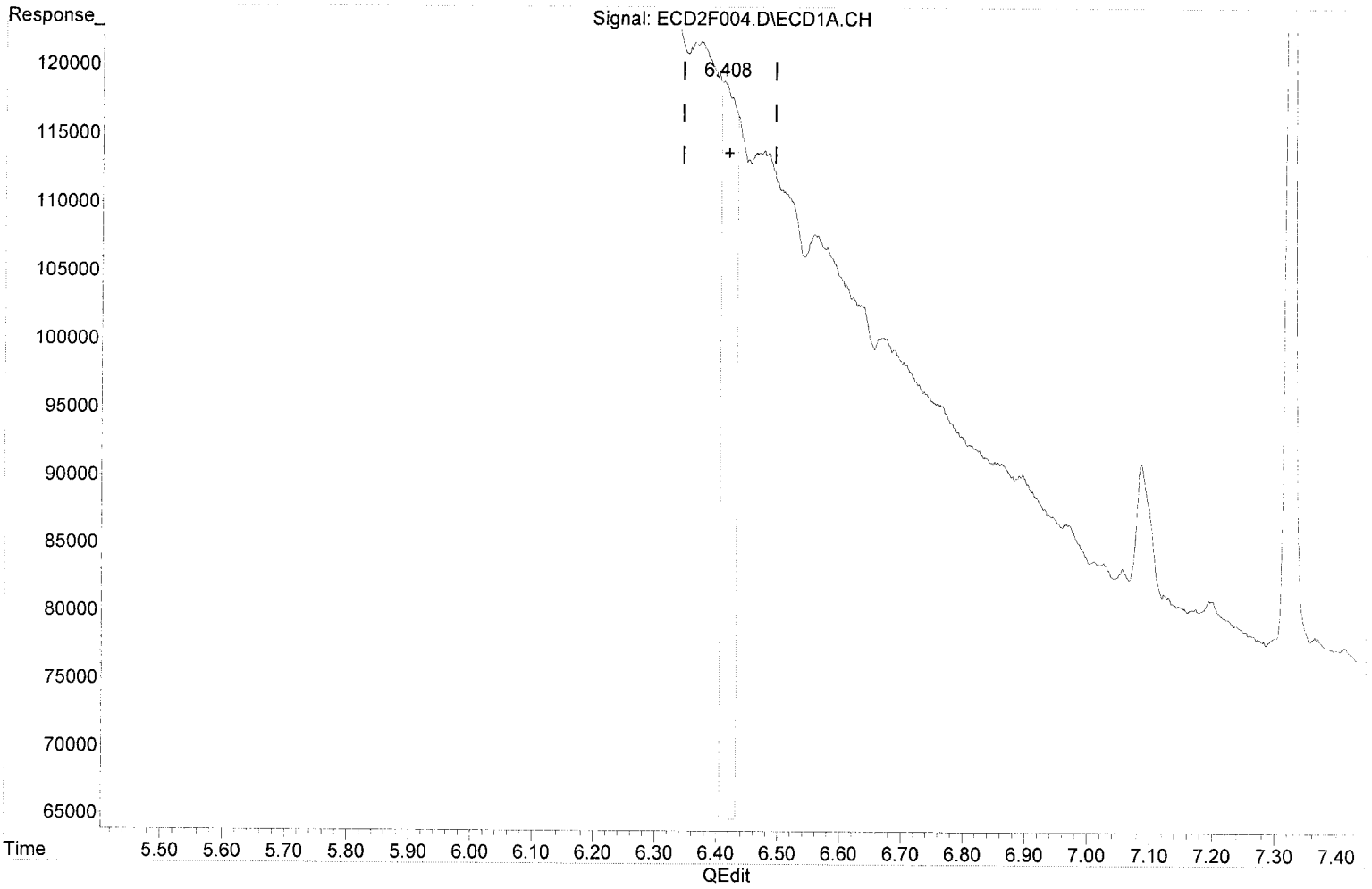
response 74599

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(28) Aroclor 1248 (2)

6.408min 15.650 ng/ml m 10/22/19

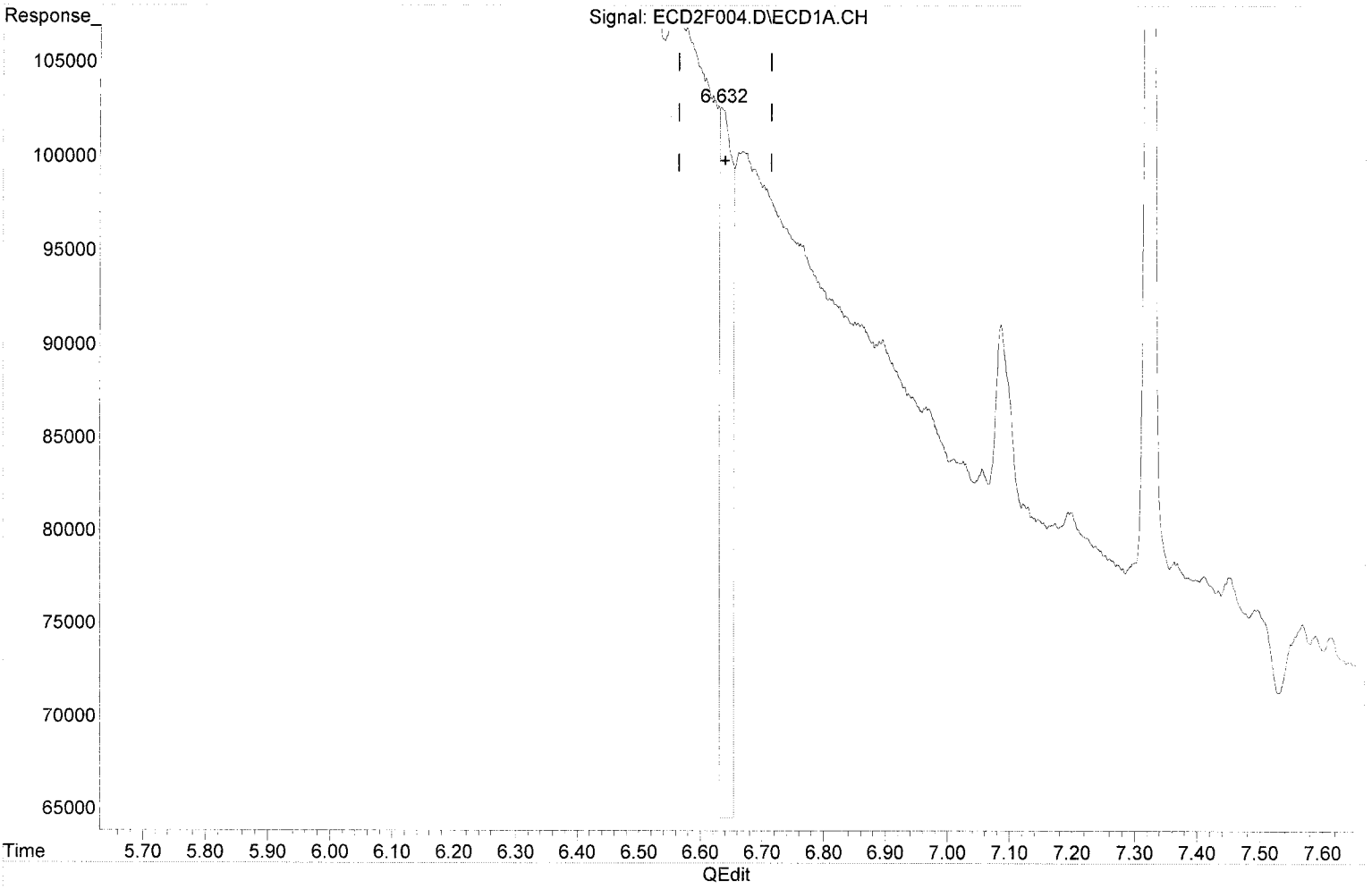
response 54244

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(29) Aroclor 1248 (3)

6.632min 9.721 ng/ml m 10/22/19

response 38105

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/22/19 MT

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.849	7222292	100.405 ng/ml
62) S	DCBP (S)	9.624	14900696	207.083 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.756	725	0.234 ng/ml
3)	Aroclor 1016 (2)	6.175	2571	0.416 ng/ml
4)	Aroclor 1016 (3)	6.249	2413	0.724 ng/ml
5)	Aroclor 1016 (4)	6.409	2781	1.032 ng/ml
6)	Aroclor 1016 (5)	6.619	514	0.158 ng/ml
7)	Aroclor 1016 (6)	6.809f	198	0.084 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.202	5093	4.907 ng/ml
10)	Aroclor 1221 (2)	5.320	3212	4.953 ng/ml
11)	Aroclor 1221 (3)	5.393	6765	3.099 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.393	6765	3.843 ng/ml
14)	Aroclor 1232 (2)	6.175	2571	1.048 ng/ml
15)	Aroclor 1232 (3)	6.249	2413	1.904 ng/ml
16)	Aroclor 1232 (4)	6.409	2781	3.243 ng/ml
17)	Aroclor 1232 (5)	6.619	514	0.454 ng/ml
18)	Aroclor 1232 (6)	6.809f	198	0.212 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.756	725	0.329 ng/ml
21)	Aroclor 1242 (2)	6.175	2571	0.565 ng/ml
22)	Aroclor 1242 (3)	6.249	2413	1.034 ng/ml
23)	Aroclor 1242 (4)	6.409	2781	1.585 ng/ml
24)	Aroclor 1242 (5)	6.619	514	0.215 ng/ml
25)	Aroclor 1242 (6)	6.809f	198	0.100 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.175	2571	0.870 ng/ml
28)	Aroclor 1248 (2)	6.409	2781	0.802 ng/ml
29)	Aroclor 1248 (3)	6.619	514	0.131 ng/ml
30)	Aroclor 1248 (4)	6.937	747	0.156 ng/ml
31)	Aroclor 1248 (5)	6.970	1382	0.276 ng/ml
32)	Aroclor 1248 (6)	7.451	4395	1.687 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.970	1382	0.292 ng/ml
35)	Aroclor 1254 (2)	7.085	9411	1.672 ng/ml
36)	Aroclor 1254 (3)	7.451	4395	0.514 ng/ml
37)	Aroclor 1254 (4)	7.614	3476	0.597 ng/ml
38)	Aroclor 1254 (5)	8.005	4292	0.735 ng/ml
39)	Aroclor 1254 (6)	8.286	1569	0.830 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.568	3882	0.631 ng/ml
42)	Aroclor 1260 (2)	7.699	3380	0.435 ng/ml
43)	Aroclor 1260 (3)	8.255	1794	0.316 ng/ml
44)	Aroclor 1260 (4)	8.424	12111	0.906 ng/ml
45)	Aroclor 1260 (5)	8.727	3873	0.442 ng/ml
46)	Aroclor 1260 (6)	9.121	2924	0.814 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

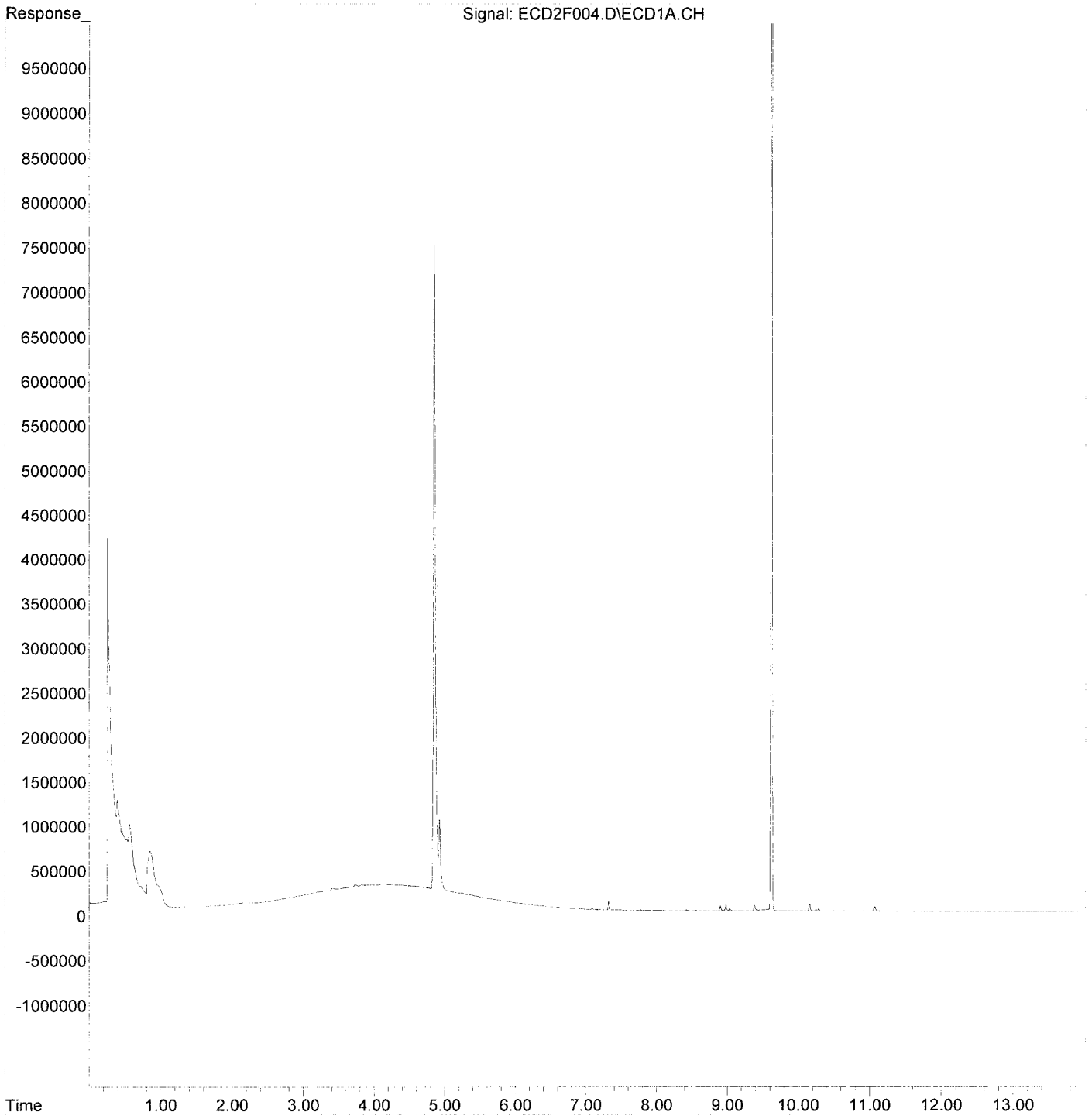
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.699	3380	0.572 ng/ml
49)	Aroclor 1262 (2)	8.024	2591	0.314 ng/ml
50)	Aroclor 1262 (3)	8.255	1794	0.261 ng/ml
51)	Aroclor 1262 (4)	8.424	12111	0.817 ng/ml
52)	Aroclor 1262 (5)	8.727	3873	0.435 ng/ml
53)	Aroclor 1262 (6)	9.121	2924	0.610 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.255	1794	0.498 ng/ml
56)	Aroclor 1268 (2)	8.679	1844	0.112 ng/ml
57)	Aroclor 1268 (3)	8.727	3873	0.279 ng/ml
58)	Aroclor 1268 (4)	8.905	62894	5.007 ng/ml
59)	Aroclor 1268 (5)	9.121	2924	0.534 ng/ml
60)	Aroclor 1268 (6)	9.386	69186	2.018 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F004.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 8:36
Operator : MJB / KAK
Sample : A9J0058-01RE1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:39:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/22/19

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	TCMX (S)	4.849	5705455	79.317	ng/ml	
62) S	DCBP (S)	9.623	12136316	168.665	ng/ml	
	Target Compounds					
2)	Aroclor 1016 (1)	5.756	50941	16.468	ng/mlm	
3)	Aroclor 1016 (2)	6.189	433	0.070	ng/ml	
4)	Aroclor 1016 (3)	6.259	524	0.157	ng/ml	
5)	Aroclor 1016 (4)	6.419	834	0.310	ng/ml	
6)	Aroclor 1016 (5)	6.636	270	0.083	ng/ml	
7)	Aroclor 1016 (6)	6.763	590	0.251	ng/ml	
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml	
9)	Aroclor 1221 (1)	5.195	91333	87.993	ng/mlm	R-02
10)	Aroclor 1221 (2)	5.305	82236	126.800	ng/mlm	R-02
11)	Aroclor 1221 (3)	5.393	76941	35.248	ng/mlm	R-02
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml	
13)	Aroclor 1232 (1)	5.393	77221	43.869	ng/mlm	↑MDL
14)	Aroclor 1232 (2)	6.160	28182	11.483	ng/mlm	↑MDL
15)	Aroclor 1232 (3)	6.250	24314	19.186	ng/mlm	↑MDL
16)	Aroclor 1232 (4)	6.410	18538	21.618	ng/mlm	↑MDL
17)	Aroclor 1232 (5)	6.631	10937	9.650	ng/mlm	↑MDL
18)	Aroclor 1232 (6)	6.763	7627	8.159	ng/mlm	↑MDL
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml	
20)	Aroclor 1242 (1)	5.752	51024	23.120	ng/mlm	
21)	Aroclor 1242 (2)	6.189	433	0.095	ng/ml	
22)	Aroclor 1242 (3)	6.259	524	0.224	ng/ml	
23)	Aroclor 1242 (4)	6.419	834	0.476	ng/ml	
24)	Aroclor 1242 (5)	6.636	270	0.113	ng/ml	
25)	Aroclor 1242 (6)	6.763	590	0.298	ng/ml	
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml	
27)	Aroclor 1248 (1)	6.189	433	0.146	ng/ml	
28)	Aroclor 1248 (2)	6.419	834	0.241	ng/ml	
29)	Aroclor 1248 (3)	6.636	270	0.069	ng/ml	
30)	Aroclor 1248 (4)	6.939	291	0.061	ng/ml	
31)	Aroclor 1248 (5)	6.966	882	0.176	ng/ml	
32)	Aroclor 1248 (6)	7.448	7588	2.913	ng/ml	
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml	
34)	Aroclor 1254 (1)	6.966	882	0.187	ng/ml	
35)	Aroclor 1254 (2)	7.078	1324	0.235	ng/ml	
36)	Aroclor 1254 (3)	7.448	7588	0.887	ng/ml	
37)	Aroclor 1254 (4)	7.614	8077	1.387	ng/ml	
38)	Aroclor 1254 (5)	8.006	8112	1.389	ng/ml	
39)	Aroclor 1254 (6)	8.289	4853	2.568	ng/ml	
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml	
41)	Aroclor 1260 (1)	7.552	5539	0.900	ng/ml	
42)	Aroclor 1260 (2)	7.697	7139	0.920	ng/ml	
43)	Aroclor 1260 (3)	8.254	4877	0.860	ng/ml	
44)	Aroclor 1260 (4)	8.423	14025	1.049	ng/ml	
45)	Aroclor 1260 (5)	8.724	5940	0.678	ng/ml	
46)	Aroclor 1260 (6)	9.125	3800	1.058	ng/ml	
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml	

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

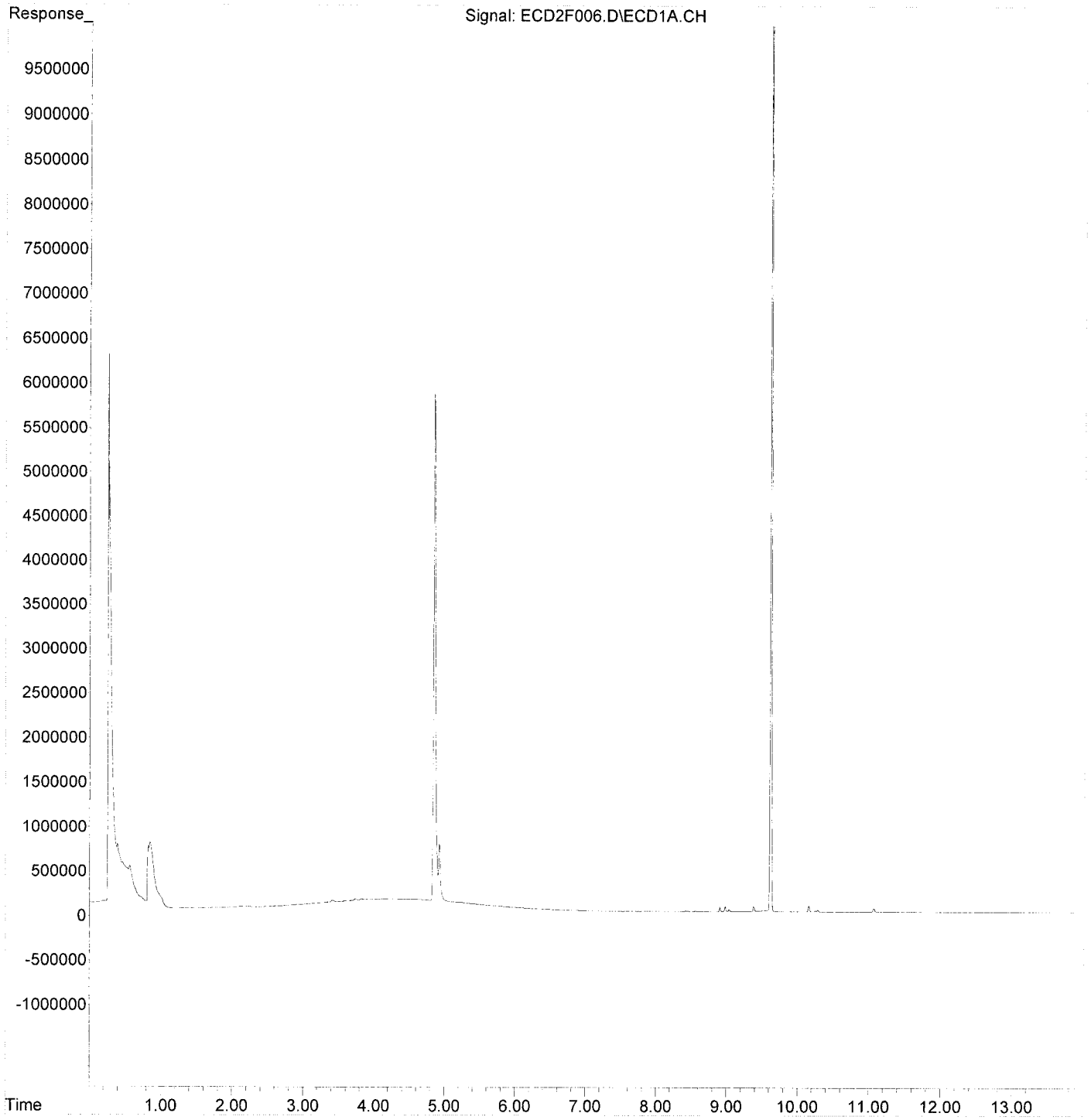
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.697	7139	1.208 ng/ml
49)	Aroclor 1262 (2)	8.024	6535	0.793 ng/ml
50)	Aroclor 1262 (3)	8.254	4877	0.709 ng/ml
51)	Aroclor 1262 (4)	8.423	14025	0.946 ng/ml
52)	Aroclor 1262 (5)	8.724	5940	0.666 ng/ml
53)	Aroclor 1262 (6)	9.125	3800	0.793 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.254	4877	1.354 ng/ml
56)	Aroclor 1268 (2)	8.689	3627	0.220 ng/ml
57)	Aroclor 1268 (3)	8.724	5940	0.428 ng/ml
58)	Aroclor 1268 (4)	8.906	54451	4.335 ng/ml
59)	Aroclor 1268 (5)	9.125	3800	0.693 ng/ml
60)	Aroclor 1268 (6)	9.385	57887	1.689 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

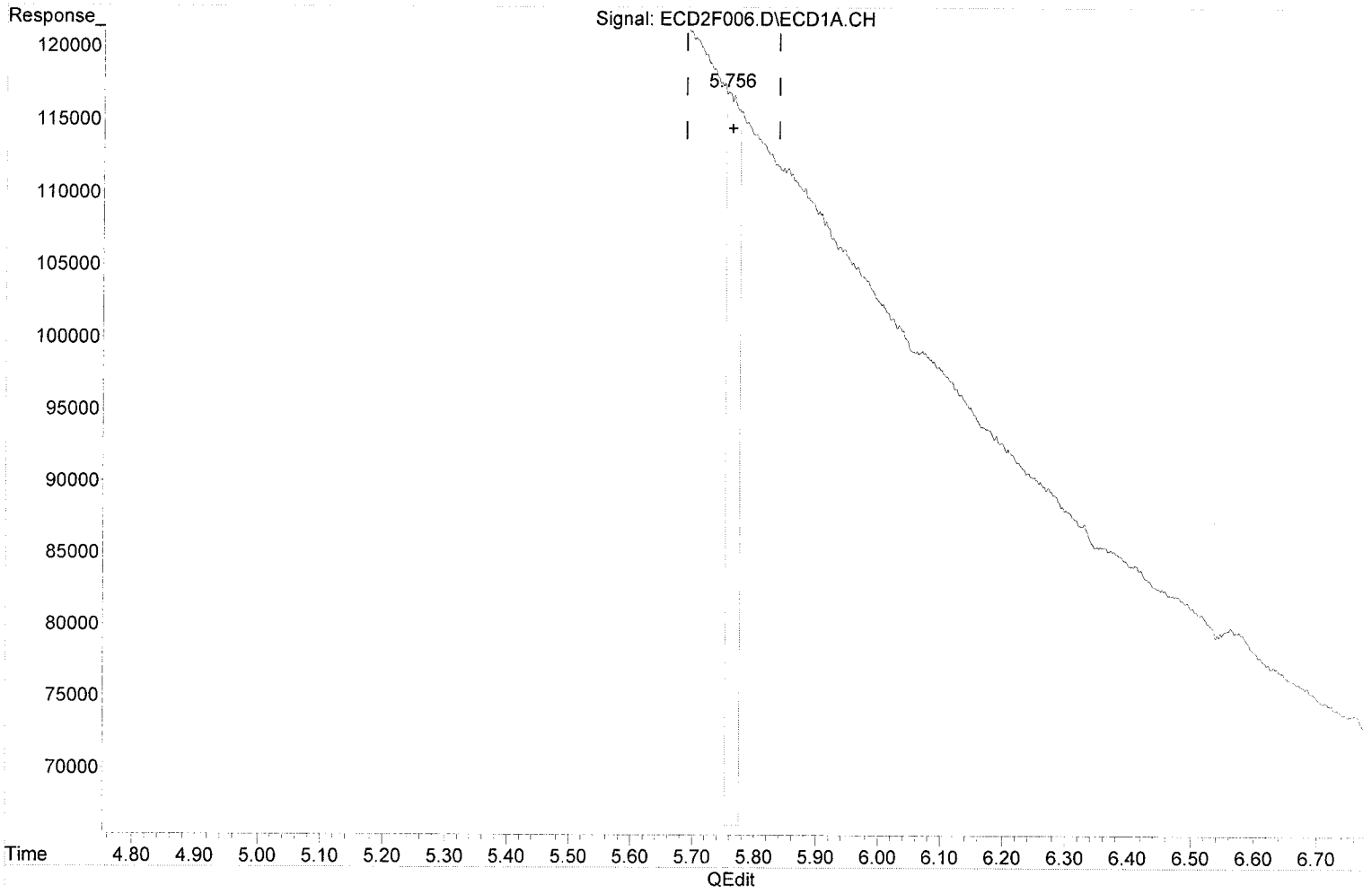
Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(2) Aroclor 1016 (1)

5.756min 16.468 ng/ml m 10/22/19

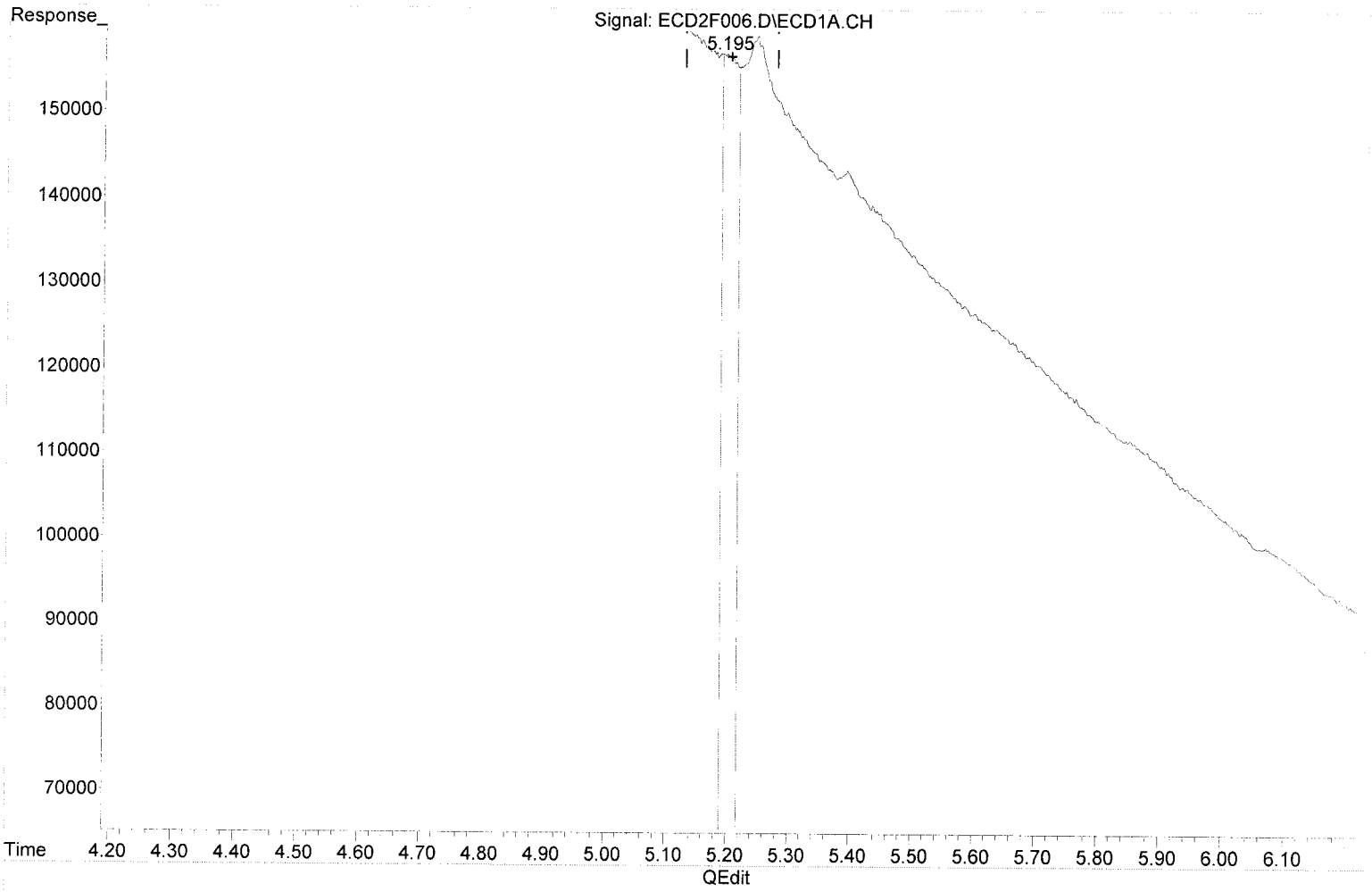
response 50941

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(9) Aroclor 1221 (1)

5.195min 87.993 ng/ml (m) 10/22/19

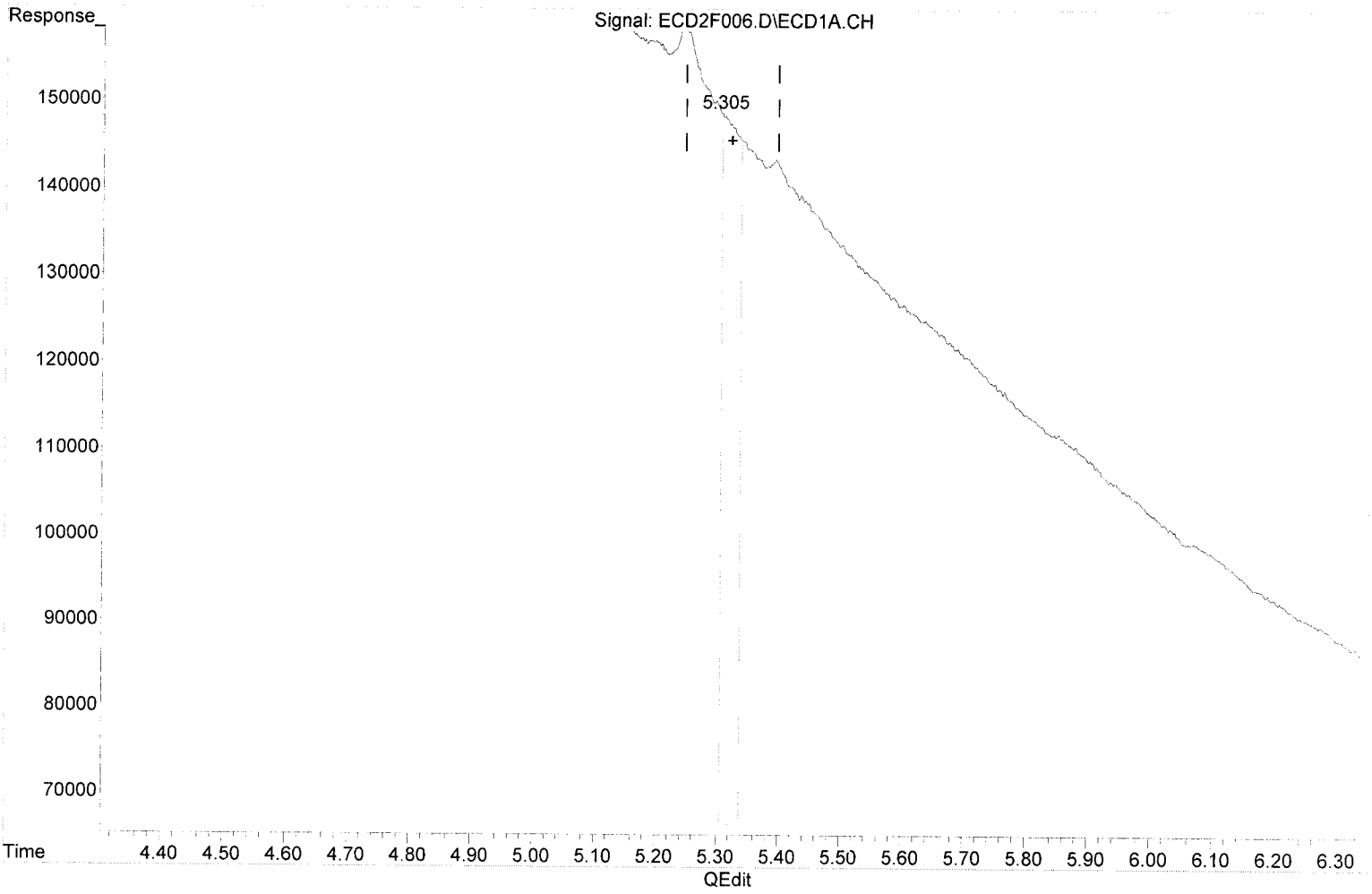
response 91333

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(10) Aroclor 1221 (2)

5.305min 126.800 ng/ml m 10/22/19

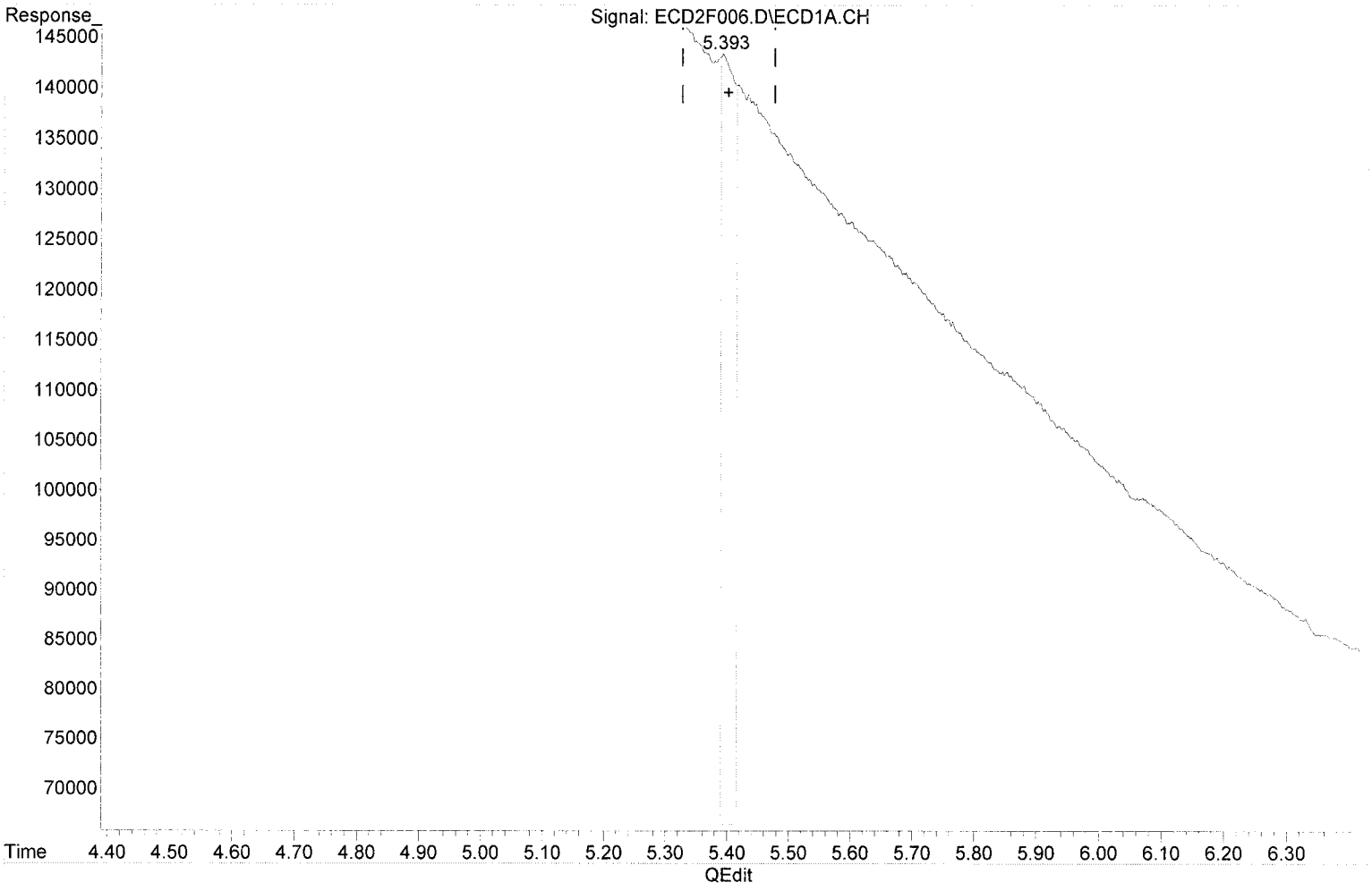
response 82236

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(11) Aroclor 1221 (3)

5.393min 35.248 ng/ml m 10/22/19

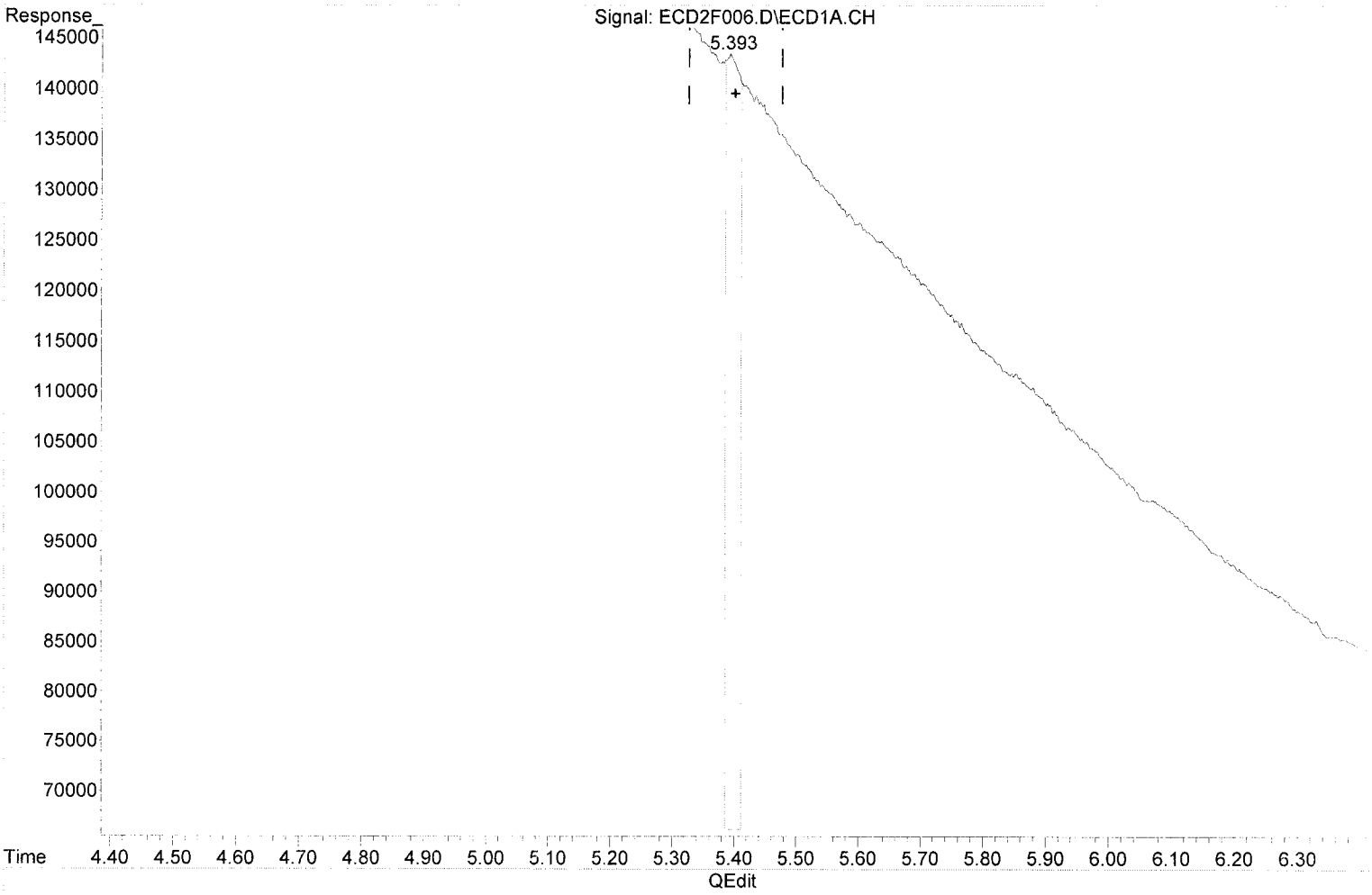
response 76941

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(13) Aroclor 1232 (1)

5.393min 43.869 ng/ml m 10/22/19

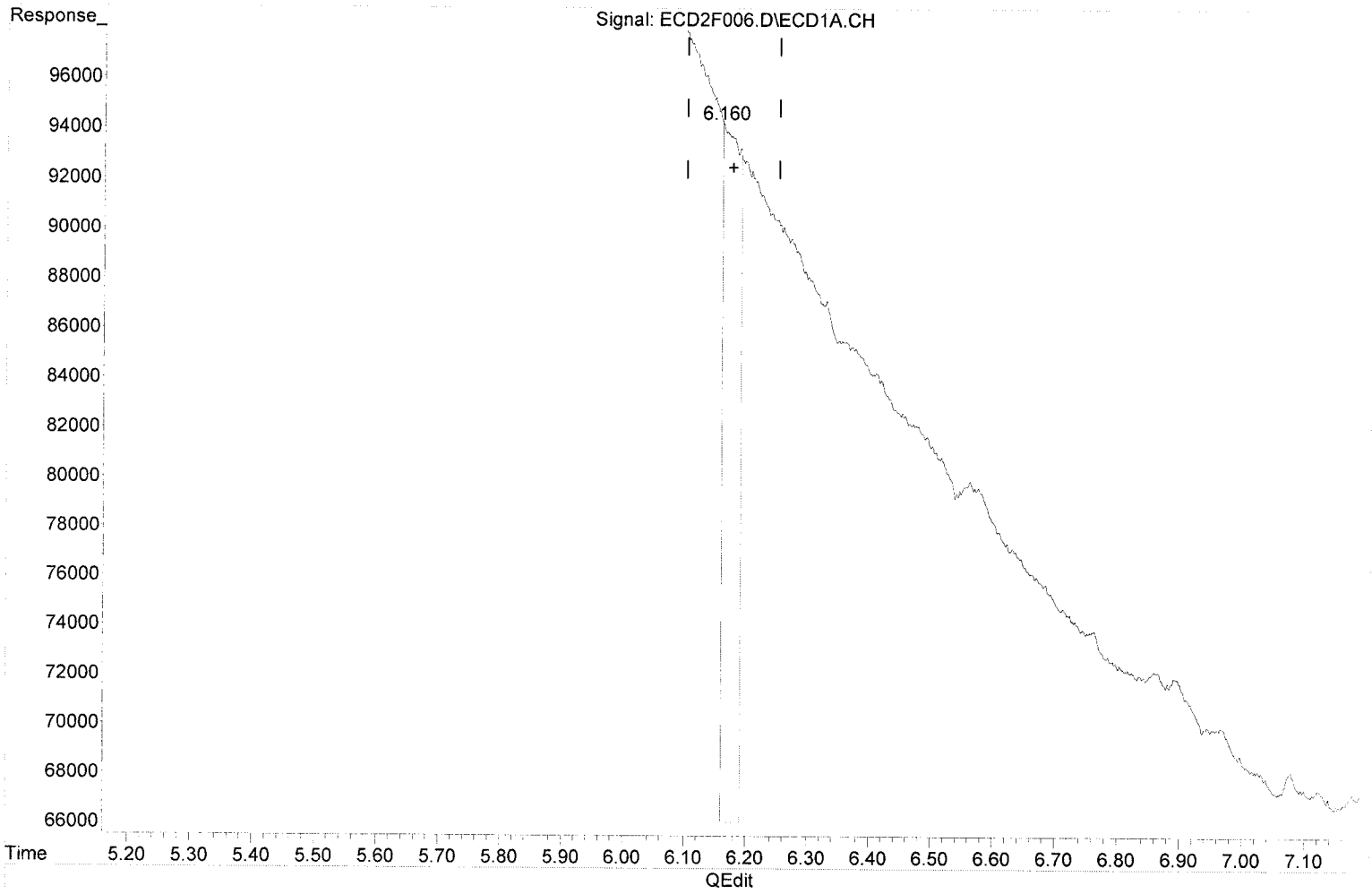
response 77221

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(14) Aroclor 1232 (2)

6.160min 11.483 ng/ml (m) 10/22/19

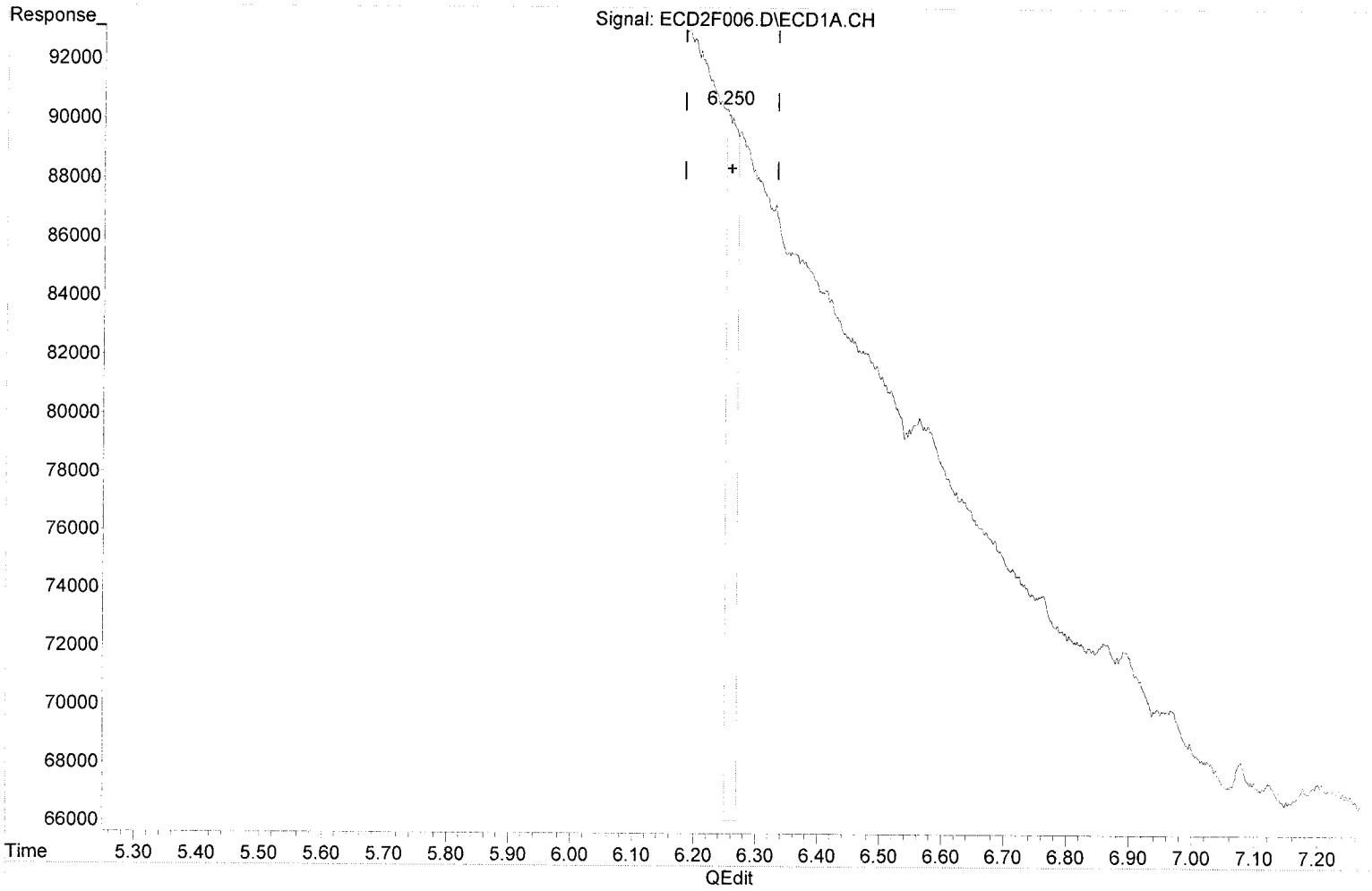
response 28182

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(15) Aroclor 1232 (3)

6.250min 19.186 ng/ml (m) 10/22/19

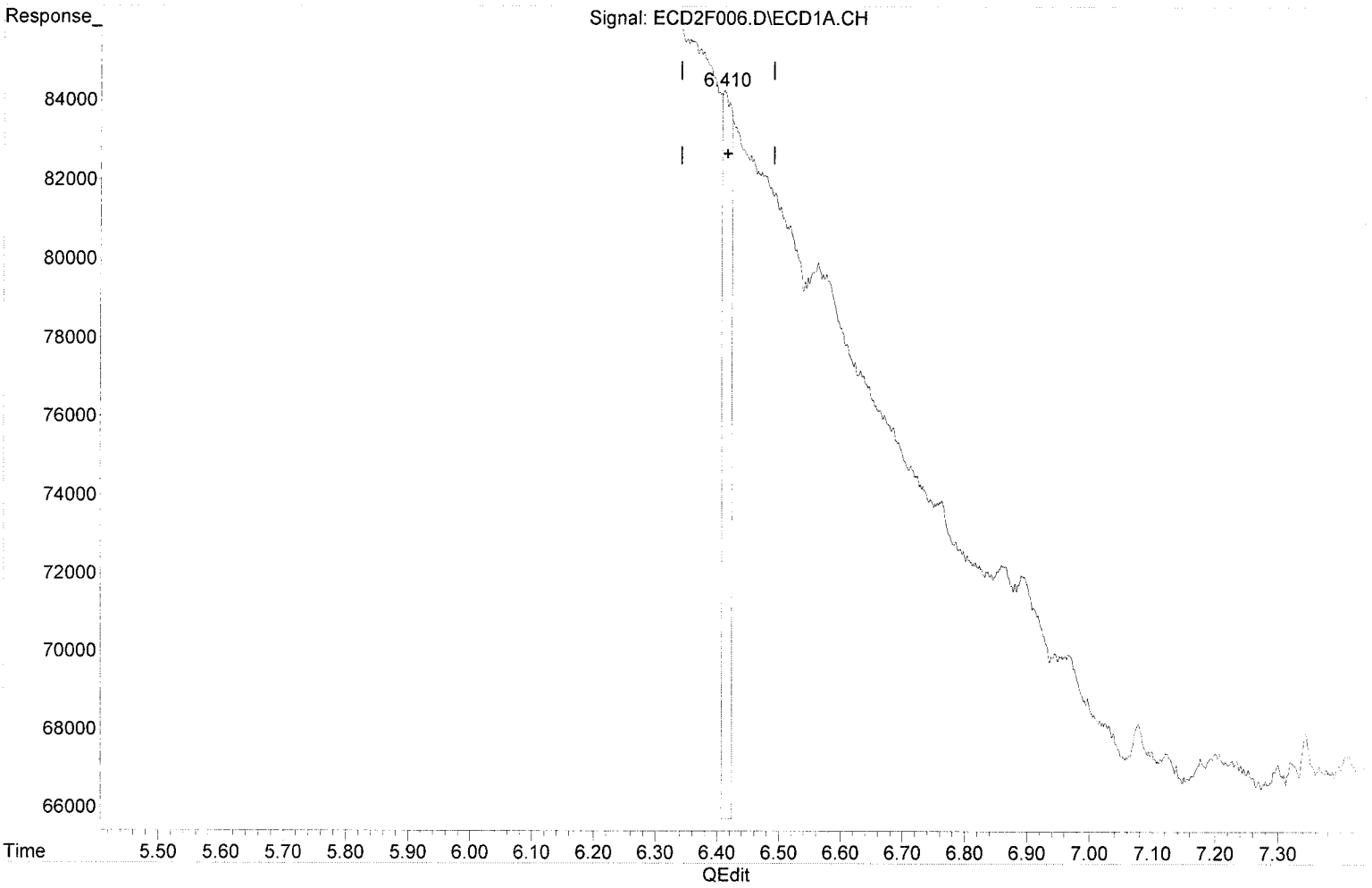
response 24314

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(16) Aroclor 1232 (4)

6.410min 21.618 ng/ml (m) 10/22/19

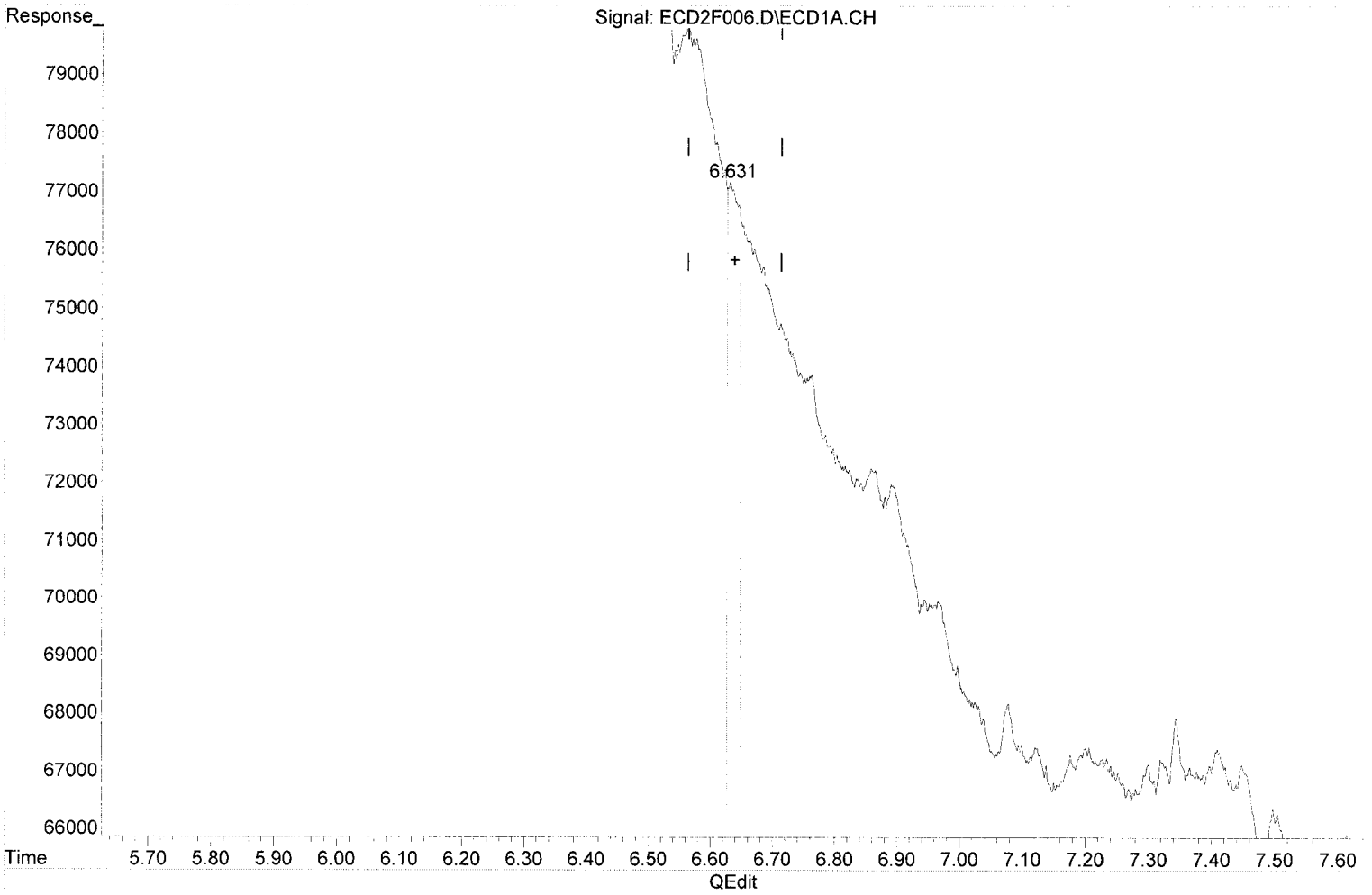
response 18538

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(17) Aroclor 1232 (5)

6.631min 9.650 ng/ml m 10/22/19

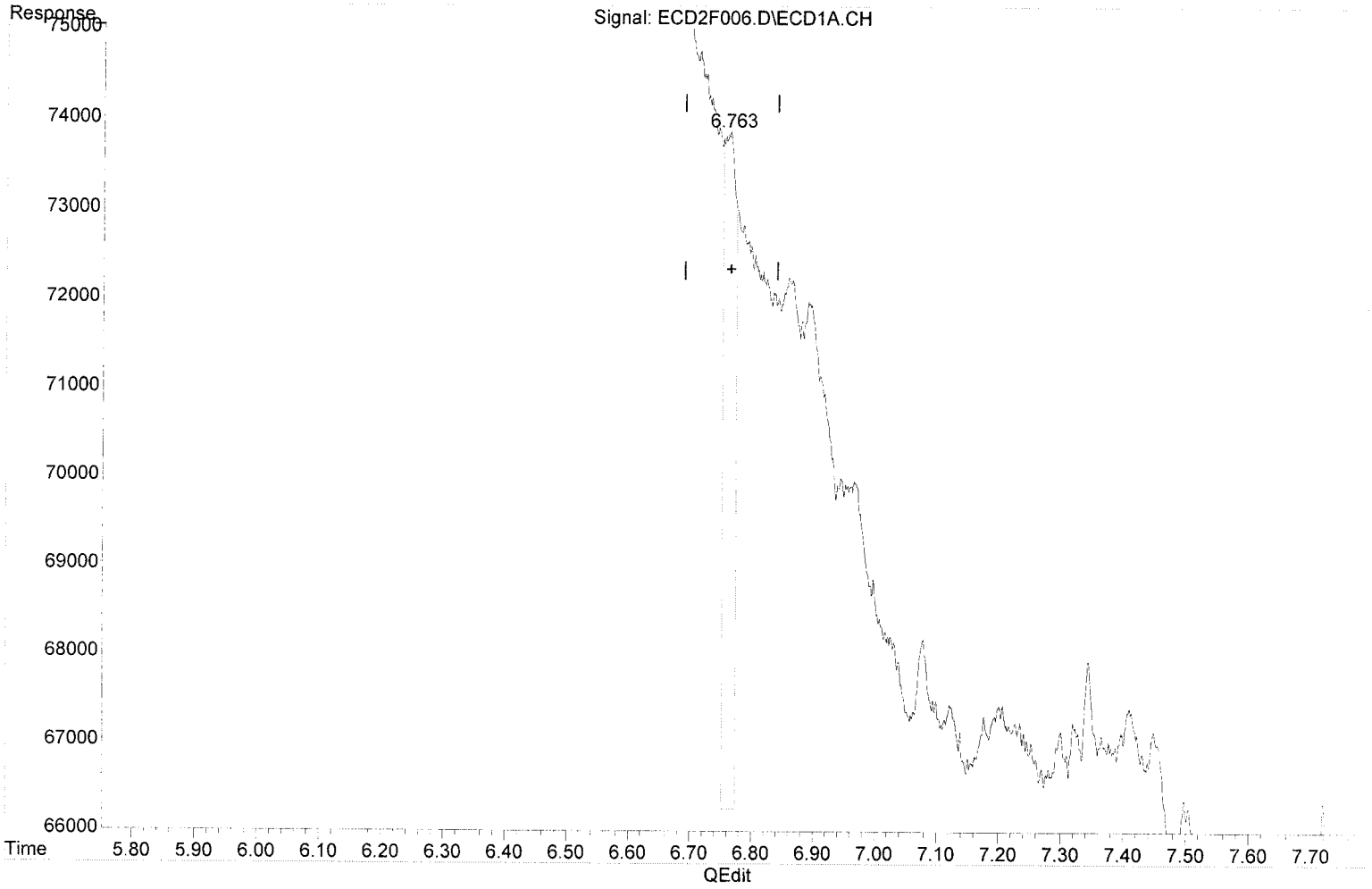
response 10937

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Aroclor 1232 (6)

6.763min 8.159 ng/ml (m) 10/22/19

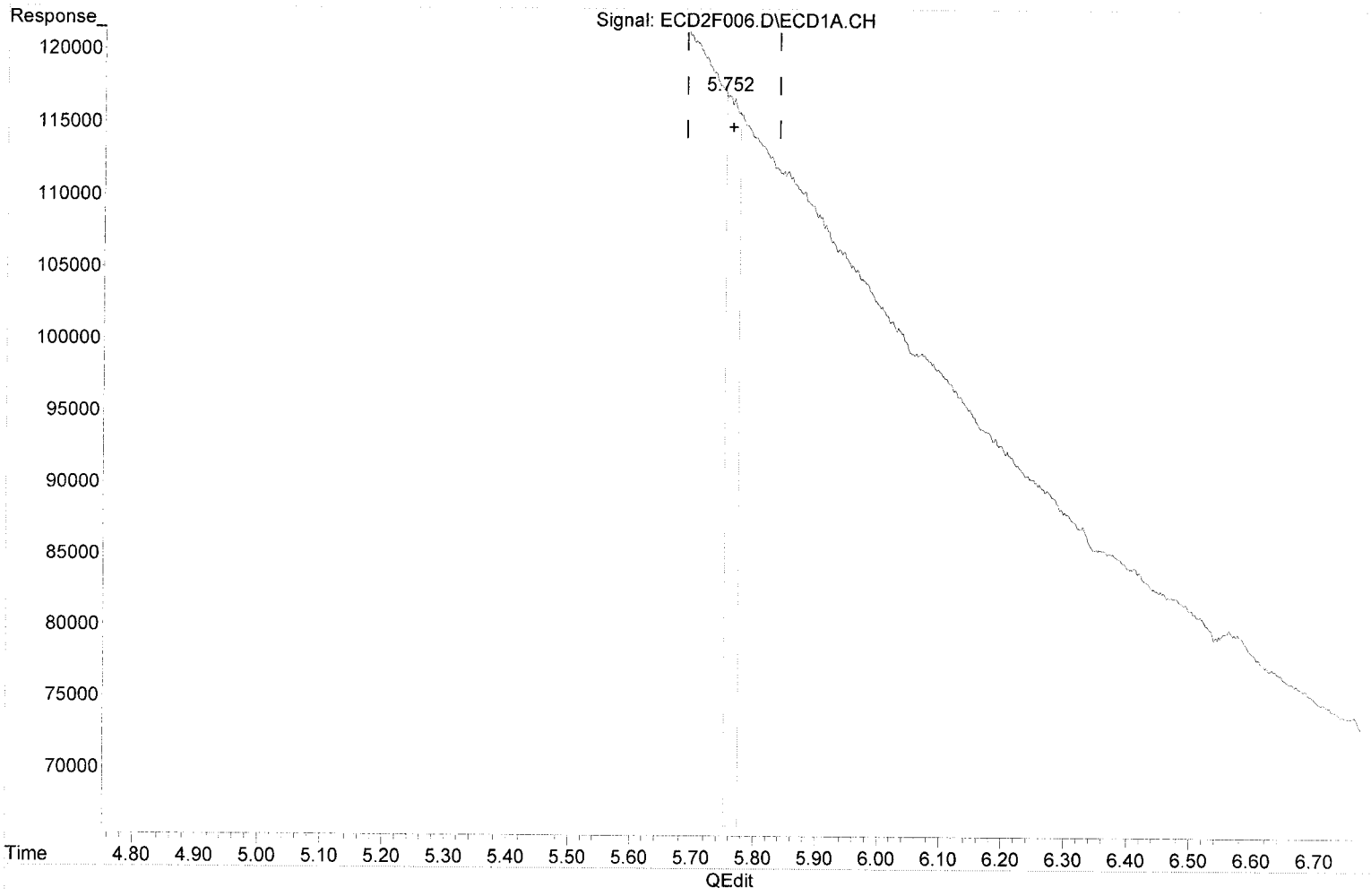
response 7627

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(20) Aroclor 1242 (1)

5.752min 23.120 ng/ml (m) 10/22/19

response 51024

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

10/22/19
MI

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.849	5705455	79.317 ng/ml
62) S	DCBP (S)	9.623	12136316	168.665 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.766	726	0.235 ng/ml
3)	Aroclor 1016 (2)	6.189	433	0.070 ng/ml
4)	Aroclor 1016 (3)	6.259	524	0.157 ng/ml
5)	Aroclor 1016 (4)	6.419	834	0.310 ng/ml
6)	Aroclor 1016 (5)	6.636	270	0.083 ng/ml
7)	Aroclor 1016 (6)	6.763	590	0.251 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.206	4753	4.579 ng/ml
10)	Aroclor 1221 (2)	5.320	3099	4.779 ng/ml
11)	Aroclor 1221 (3)	5.393	3803	1.742 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.393	3803	2.161 ng/ml
14)	Aroclor 1232 (2)	6.189	433	0.176 ng/ml
15)	Aroclor 1232 (3)	6.259	524	0.413 ng/ml
16)	Aroclor 1232 (4)	6.419	834	0.973 ng/ml
17)	Aroclor 1232 (5)	6.636	270	0.238 ng/ml
18)	Aroclor 1232 (6)	6.763	590	0.631 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.766	726	0.329 ng/ml
21)	Aroclor 1242 (2)	6.189	433	0.095 ng/ml
22)	Aroclor 1242 (3)	6.259	524	0.224 ng/ml
23)	Aroclor 1242 (4)	6.419	834	0.476 ng/ml
24)	Aroclor 1242 (5)	6.636	270	0.113 ng/ml
25)	Aroclor 1242 (6)	6.763	590	0.298 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.189	433	0.146 ng/ml
28)	Aroclor 1248 (2)	6.419	834	0.241 ng/ml
29)	Aroclor 1248 (3)	6.636	270	0.069 ng/ml
30)	Aroclor 1248 (4)	6.939	291	0.061 ng/ml
31)	Aroclor 1248 (5)	6.966	882	0.176 ng/ml
32)	Aroclor 1248 (6)	7.448	7588	2.913 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.966	882	0.187 ng/ml
35)	Aroclor 1254 (2)	7.078	1324	0.235 ng/ml
36)	Aroclor 1254 (3)	7.448	7588	0.887 ng/ml
37)	Aroclor 1254 (4)	7.614	8077	1.387 ng/ml
38)	Aroclor 1254 (5)	8.006	8112	1.389 ng/ml
39)	Aroclor 1254 (6)	8.289	4853	2.568 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.552	5539	0.900 ng/ml
42)	Aroclor 1260 (2)	7.697	7139	0.920 ng/ml
43)	Aroclor 1260 (3)	8.254	4877	0.860 ng/ml
44)	Aroclor 1260 (4)	8.423	14025	1.049 ng/ml
45)	Aroclor 1260 (5)	8.724	5940	0.678 ng/ml
46)	Aroclor 1260 (6)	9.125	3800	1.058 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

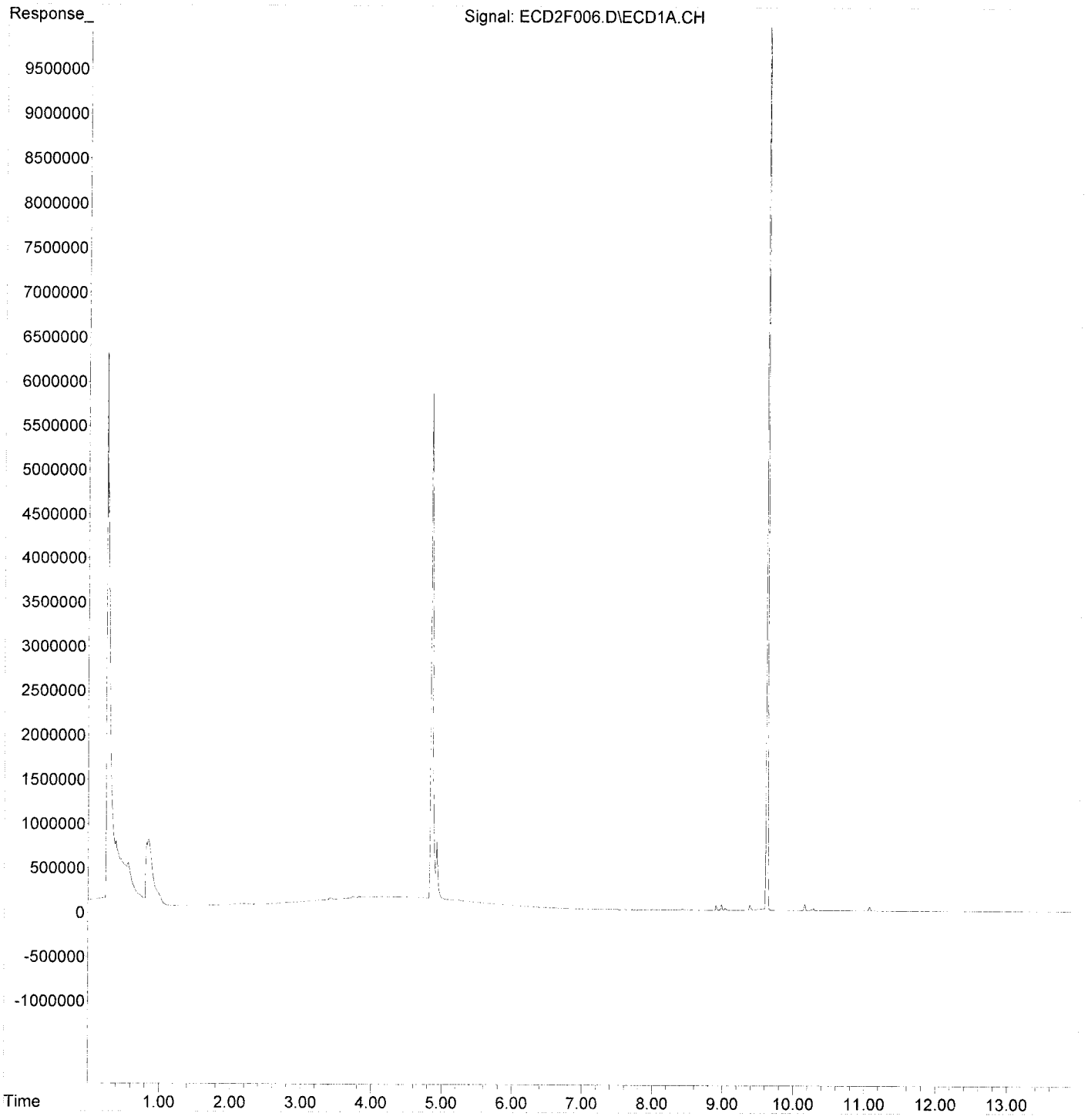
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.697	7139	1.208 ng/ml
49)	Aroclor 1262 (2)	8.024	6535	0.793 ng/ml
50)	Aroclor 1262 (3)	8.254	4877	0.709 ng/ml
51)	Aroclor 1262 (4)	8.423	14025	0.946 ng/ml
52)	Aroclor 1262 (5)	8.724	5940	0.666 ng/ml
53)	Aroclor 1262 (6)	9.125	3800	0.793 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.254	4877	1.354 ng/ml
56)	Aroclor 1268 (2)	8.689	3627	0.220 ng/ml
57)	Aroclor 1268 (3)	8.724	5940	0.428 ng/ml
58)	Aroclor 1268 (4)	8.906	54451	4.335 ng/ml
59)	Aroclor 1268 (5)	9.125	3800	0.693 ng/ml
60)	Aroclor 1268 (6)	9.385	57887	1.689 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F006.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 9:11
Operator : MJB / KAK
Sample : A9J0058-03RE1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:40:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F014.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 11:32
Operator : MJB / KAK
Sample : 9J18010-CCV2
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:41:27 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/22/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	4.849	14376021	199.856	ng/ml
62) S	DCBP (S)	9.624	20706961	287.775	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.764	1476346	477.269	ng/ml
3)	Aroclor 1016 (2)	6.177	3090251	500.472	ng/ml
4)	Aroclor 1016 (3)	6.259	1567941	470.647	ng/ml
5)	Aroclor 1016 (4)	6.417	1347739	500.243	ng/ml
6)	Aroclor 1016 (5)	6.639	1612312	495.356	ng/ml
7)	Aroclor 1016 (6)	6.766	1137618	484.163	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	5.205	155373	149.692	ng/ml
10)	Aroclor 1221 (2)	5.324	166729	257.081	ng/ml
11)	Aroclor 1221 (3)	5.404	765026	350.469	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	5.404	765026	434.610	ng/ml
14)	Aroclor 1232 (2)	6.177	3090251	1259.121	ng/ml
15)	Aroclor 1232 (3)	6.259	1567941	1237.212	ng/ml
16)	Aroclor 1232 (4)	6.417	1347739	1571.644	ng/ml
17)	Aroclor 1232 (5)	6.639	1612312	1422.594	ng/ml
18)	Aroclor 1232 (6)	6.766	1137618	1216.956	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	5.764	1476346	668.975	ng/ml
21)	Aroclor 1242 (2)	6.177	3090251	678.787	ng/ml
22)	Aroclor 1242 (3)	6.259	1567941	671.677	ng/ml
23)	Aroclor 1242 (4)	6.417	1347739	768.004	ng/ml
24)	Aroclor 1242 (5)	6.639	1612312	674.807	ng/ml
25)	Aroclor 1242 (6)	6.766	1137618	574.873	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	6.177	3090251	1045.101	ng/ml
28)	Aroclor 1248 (2)	6.417	1347739	388.843	ng/ml
29)	Aroclor 1248 (3)	6.639	1612312	411.330	ng/ml
30)	Aroclor 1248 (4)	6.933	296684	61.921	ng/ml
31)	Aroclor 1248 (5)	6.967	1068715	213.588	ng/ml
32)	Aroclor 1248 (6)	7.455	2371500	910.245	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	6.967	1068715	226.058	ng/ml
35)	Aroclor 1254 (2)	7.077	1157201	205.591	ng/ml
36)	Aroclor 1254 (3)	7.455	2371500	277.200	ng/ml
37)	Aroclor 1254 (4)	7.614	349924	60.093	ng/ml
38)	Aroclor 1254 (5)	7.994	3271058	560.087	ng/ml
39)	Aroclor 1254 (6)	8.287	355012	187.864	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	7.567	3205739	520.692	ng/ml
42)	Aroclor 1260 (2)	7.701	4063251	523.433	ng/ml
43)	Aroclor 1260 (3)	8.257	3140158	553.458	ng/ml
44)	Aroclor 1260 (4)	8.427	7439371	556.617	ng/ml
45)	Aroclor 1260 (5)	8.726	5002252	571.204	ng/ml
46)	Aroclor 1260 (6)	9.120	1956274	544.508	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

~~413.03~~ 488.03 10/22/19

~~545.00~~ 544.99 10/22/19

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F014.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 11:32
Operator : MJB / KAK
Sample : 9J18010-CCV2
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:41:27 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

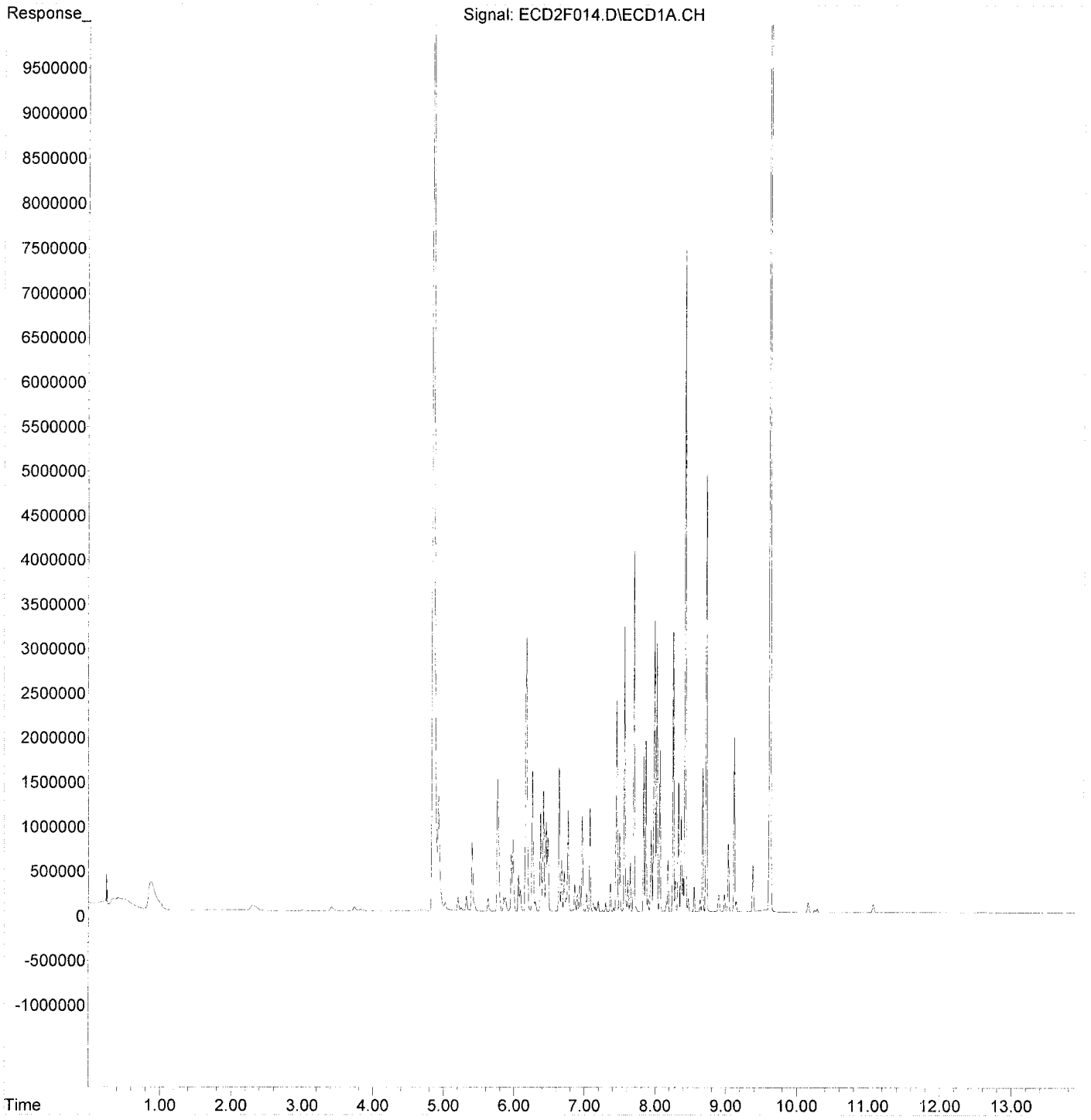
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	7.701	4063251	687.763	ng/ml
49)	Aroclor 1262 (2)	8.024	3015919	366.112	ng/ml
50)	Aroclor 1262 (3)	8.257	3140158	456.145	ng/ml
51)	Aroclor 1262 (4)	8.427	7439371	501.970	ng/ml
52)	Aroclor 1262 (5)	8.726	5002252	561.243	ng/ml
53)	Aroclor 1262 (6)	9.120	1956274	408.311	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	8.257	3140158	871.831	ng/ml
56)	Aroclor 1268 (2)	8.674	1612344	97.591	ng/ml
57)	Aroclor 1268 (3)	8.726	5002252	360.089	ng/ml
58)	Aroclor 1268 (4)	8.903	188706	15.022	ng/ml
59)	Aroclor 1268 (5)	9.120	1956274	356.992	ng/ml
60)	Aroclor 1268 (6)	9.383	527033	15.375	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F014.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 11:32
Operator : MJB / KAK
Sample : 9J18010-CCV2
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:41:27 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F015.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 11:50
Operator : MJB / KAK
Sample : 9J18010-CCB2
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:41:44 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/22/19
Clean

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.849	5765448	80.151 ng/ml
62) S	DCBP (S)	9.623	8362171	116.213 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.764	613	0.198 ng/ml
3)	Aroclor 1016 (2)	6.172	858	0.139 ng/ml
4)	Aroclor 1016 (3)	6.260	437	0.131 ng/ml
5)	Aroclor 1016 (4)	6.412	173	0.064 ng/ml
6)	Aroclor 1016 (5)	6.638	171	0.052 ng/ml
7)	Aroclor 1016 (6)	6.765	382	0.162 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.208	3572	3.441 ng/ml
10)	Aroclor 1221 (2)	5.327	3036	4.681 ng/ml
11)	Aroclor 1221 (3)	5.386	1691	0.775 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.386	1691	0.961 ng/ml
14)	Aroclor 1232 (2)	6.172	858	0.349 ng/ml
15)	Aroclor 1232 (3)	6.260	437	0.345 ng/ml
16)	Aroclor 1232 (4)	6.412	173	0.202 ng/ml
17)	Aroclor 1232 (5)	6.638	171	0.151 ng/ml
18)	Aroclor 1232 (6)	6.765	382	0.408 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.764	613	0.278 ng/ml
21)	Aroclor 1242 (2)	6.172	858	0.188 ng/ml
22)	Aroclor 1242 (3)	6.260	437	0.187 ng/ml
23)	Aroclor 1242 (4)	6.412	173	0.099 ng/ml
24)	Aroclor 1242 (5)	6.638	171	0.071 ng/ml
25)	Aroclor 1242 (6)	6.765	382	0.193 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.172	858	0.290 ng/ml
28)	Aroclor 1248 (2)	6.412	173	0.050 ng/ml
29)	Aroclor 1248 (3)	6.638	171	0.044 ng/ml
30)	Aroclor 1248 (4)	6.939	954	0.199 ng/ml
31)	Aroclor 1248 (5)	6.965	700	0.140 ng/ml
32)	Aroclor 1248 (6)	7.457	2265	0.869 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.965	700	0.148 ng/ml
35)	Aroclor 1254 (2)	7.078	156	0.028 ng/ml
36)	Aroclor 1254 (3)	7.457	2265	0.265 ng/ml
37)	Aroclor 1254 (4)	7.617	1618	0.278 ng/ml
38)	Aroclor 1254 (5)	8.006	2315	0.396 ng/ml
39)	Aroclor 1254 (6)	8.287	466	0.246 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.568	2344	0.381 ng/ml
42)	Aroclor 1260 (2)	7.698	1023	0.132 ng/ml
43)	Aroclor 1260 (3)	8.251	781	0.138 ng/ml
44)	Aroclor 1260 (4)	8.424	5872	0.439 ng/ml
45)	Aroclor 1260 (5)	8.728	2159	0.247 ng/ml
46)	Aroclor 1260 (6)	9.121	2282	0.635 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F015.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 11:50
Operator : MJB / KAK
Sample : 9J18010-CCB2
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:41:44 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

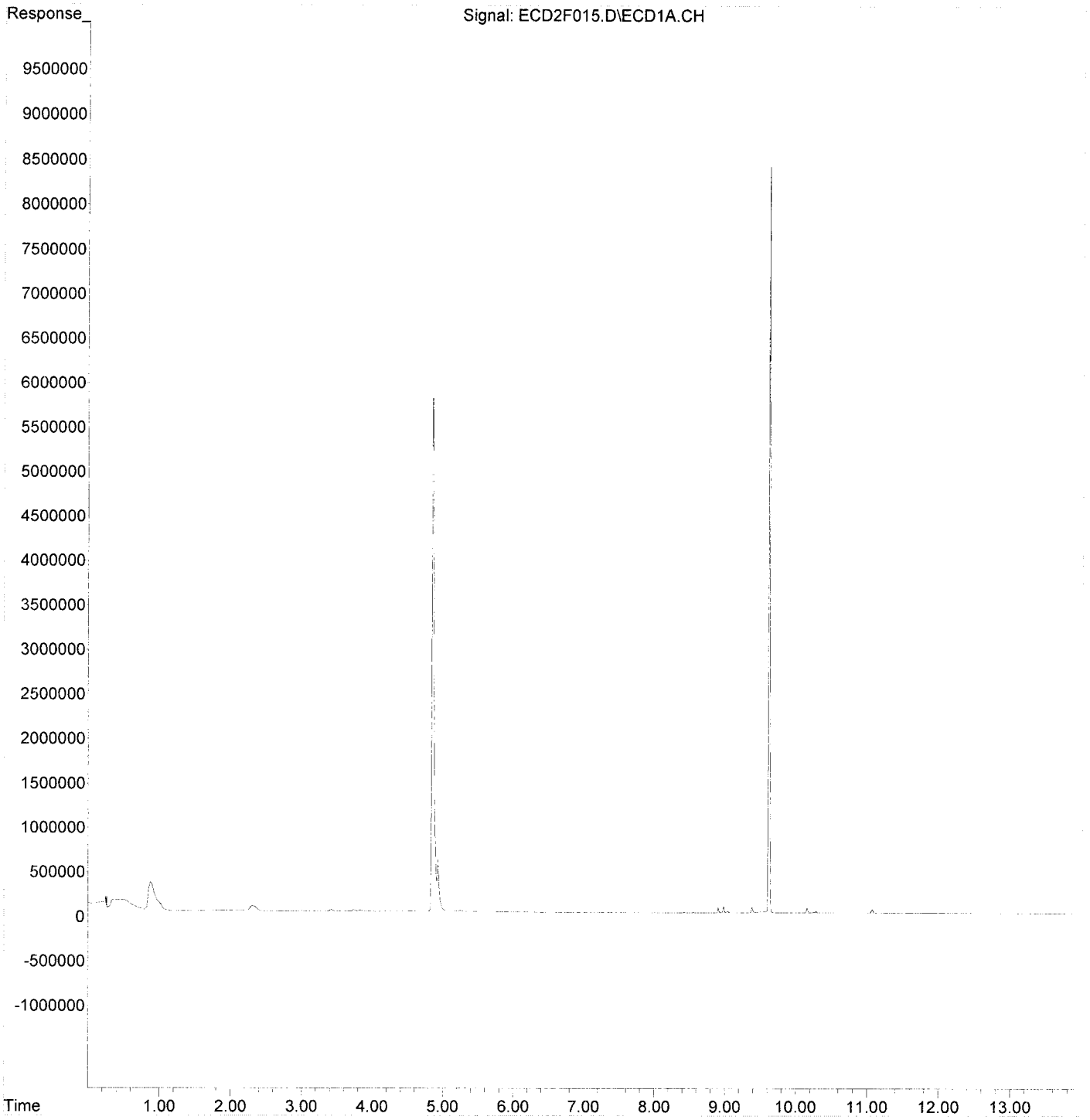
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.698	1023	0.173 ng/ml
49)	Aroclor 1262 (2)	8.031	968	0.117 ng/ml
50)	Aroclor 1262 (3)	8.251	781	0.113 ng/ml
51)	Aroclor 1262 (4)	8.424	5872	0.396 ng/ml
52)	Aroclor 1262 (5)	8.728	2159	0.242 ng/ml
53)	Aroclor 1262 (6)	9.121	2282	0.476 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.251	781	0.217 ng/ml
56)	Aroclor 1268 (2)	8.675	870	0.053 ng/ml
57)	Aroclor 1268 (3)	8.728	2159	0.155 ng/ml
58)	Aroclor 1268 (4)	8.906	56040	4.461 ng/ml
59)	Aroclor 1268 (5)	9.121	2282	0.416 ng/ml
60)	Aroclor 1268 (6)	9.385	60991	1.779 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J18010\
Data File : ECD2F015.D
Signal(s) : ECD1A.CH
Acq On : 18 Oct 2019 11:50
Operator : MJB / KAK
Sample : 9J18010-CCB2
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 21 10:41:44 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 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

Polychlorinated Biphenyls by EPA 8082A
Calibration Data

Sequence 9G16029 (Cal ID A9G1705) DUALECD2R

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9G16029**	Instrument:	**DUALECD2R**
Date:	**07/16/19 07:22**	Calibration:	**A9G1705**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9G16029-ICB1	Water	QC	QC				A19G011
2	9G16029-CAL1	Water	QC	QC				A19F250
3	9G16029-CAL2	Water	QC	QC				A19F251
4	9G16029-CAL3	Water	QC	QC				A19F252
5	9G16029-CAL4	Water	QC	QC				A19F253
6	9G16029-CAL5	Water	QC	QC				A19F247
7	9G16029-CAL6	Water	QC	QC				A19F248
8	9G16029-CAL7	Water	QC	QC				A19F249
9	9G16029-IBL1	Water	QC	QC				
10	9G16029-ICV1	Water	QC	QC				A19F266
11	9G16029-CAL8	Water	QC	QC				A19F256
12	9G16029-CAL9	Water	QC	QC				A19F257
13	9G16029-CALA	Water	QC	QC				A19F258
14	9G16029-CALB	Water	QC	QC				A19F261
15	9G16029-CALC	Water	QC	QC				A19F262
16	9G16029-CALD	Water	QC	QC				A19F263
17	9G16029-CALE	Water	QC	QC				A19F264
18	9G16029-ICV2	Water	QC	QC				A19B137
19	9G16029-ICV3	Water	QC	QC				A19D327
20	9G16029-ICV4	Water	QC	QC				A19B138
21	9G16029-ICV5	Water	QC	QC				A19E303

Comments: ICAL

Data Entered By: MB 7/17/19

Data Reviewed By: MW 7/18/19

Calibration Status Report HP G1530A

Method Path : L:\Methods\
Method File : RECD2_QUANTPCB_190716.M
Title : PCB Data Analysis
Last Update : Wed Jul 17 16:14:22 2019
Response Via : Initial Calibration

A9G1705

MJP 7/17/19

#	ID	Conc	ISTD Conc	Path\File
1	1	10	0	K:\DATA\9G16029\ECD2R008.D
2	2	25	0	K:\DATA\9G16029\ECD2R009.D
3	3	50	0	K:\DATA\9G16029\ECD2R010.D
4	4	100	0	K:\DATA\9G16029\ECD2R011.D
5	5	250	0	K:\DATA\9G16029\ECD2R023.D
6	6	500	0	K:\DATA\9G16029\ECD2R013.D
7	7	800	0	K:\DATA\9G16029\ECD2R014.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Jul 17 16:12 2019	Jul 17 15:47 2019	16 Jul 2019 10:02 am
2	2	Jul 17 16:12 2019	Jul 17 15:49 2019	16 Jul 2019 10:20 am
3	3	Jul 17 16:13 2019	Jul 17 15:50 2019	16 Jul 2019 10:37 am
4	4	Jul 17 16:13 2019	Jul 17 15:51 2019	16 Jul 2019 10:55 am
5	5	Jul 17 16:14 2019	Jul 17 16:10 2019	16 Jul 2019 2:29 pm
6	6	Jul 17 16:13 2019	Jul 17 15:53 2019	16 Jul 2019 11:31 am
7	7	Jul 17 16:13 2019	Jul 17 15:53 2019	16 Jul 2019 11:49 am

RECD2_QUANTPCB_190716.M Wed Jul 17 17:33:38 2019

Response Factor Report HP G1530A

Method Path : L:\Methods\
Method File : RECD2_QUANTPCB_190716.M
Title : PCB Data Analysis
Last Update : Wed Jul 17 16:14:22 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD2R008.D 2 =ECD2R009.D 3 =ECD2R010.D
4 =ECD2R011.D 5 =ECD2R023.D 6 =ECD2R013.D

MB 7/17/19

	Compound	1	2	3	4	5	6	Avg		%RSD
1) S	TCMX (S)	2.319	2.398	2.357	2.509	2.651	2.640	2.485	E5	5.33
2)	Aroclor 1016 ...	9.082	8.549	7.752	7.604	7.253	6.951	7.731	E3	10.55
3)	Aroclor 1016 ...	1.488	1.478	1.398	1.389	1.355	1.363	1.399	E4	4.50
4)	Aroclor 1016 ...	7.530	6.936	6.530	6.293	6.057	5.943	6.438	E3	9.60
5)	Aroclor 1016 ...	7.500	7.066	6.215	6.091	5.836	5.546	6.265	E3	11.91
6)	Aroclor 1016 ...	8.453	7.773	6.836	6.592	6.636	6.306	6.993	E3	11.57
7)	Aroclor 1016 (6)	8.246	7.585	6.948	6.499	6.660	6.517	6.982	E3	9.84
8)	Aroclor 1016 ...							0.000		-1.00
9)	Aroclor 1221 (1)					1.980		1.980	E3	0.00
10)	Aroclor 1221 (2)					2.008		2.008	E3	0.00
11)	Aroclor 1221 (3)					6.705		6.705	E3	0.00
12)	Aroclor 1221 ...							0.000		-1.00
13)	Aroclor 1232 (1)					5.582		5.582	E3	0.00
14)	Aroclor 1232 (2)					3.320		3.320	E3	0.00
15)	Aroclor 1232 (3)					6.258		6.258	E3	0.00
16)	Aroclor 1232 (4)					2.251		2.251	E3	0.00
17)	Aroclor 1232 (5)					2.610		2.610	E3	0.00
18)	Aroclor 1232 (6)					2.724		2.724	E3	0.00
19)	Aroclor 1232 ...							0.000		-1.00
20)	Aroclor 1242 ...					6.057		6.057	E3	0.00
21)	Aroclor 1242 ...					1.138		1.138	E4	0.00
22)	Aroclor 1242 ...					4.957		4.957	E3	0.00
23)	Aroclor 1242 ...					4.557		4.557	E3	0.00
24)	Aroclor 1242 ...					5.362		5.362	E3	0.00
25)	Aroclor 1242 (6)					5.506		5.506	E3	0.00
26)	Aroclor 1242 ...							0.000		-1.00
27)	Aroclor 1248 ...					6.674		6.674	E3	0.00
28)	Aroclor 1248 ...					8.053		8.053	E3	0.00
29)	Aroclor 1248 ...					7.753		7.753	E3	0.00
30)	Aroclor 1248 ...					9.347		9.347	E3	0.00
31)	Aroclor 1248 ...					1.178		1.178	E4	0.00
32)	Aroclor 1248 (6)					1.053		1.053	E4	0.00
33)	Aroclor 1248 ...							0.000		-1.00
34)	Aroclor 1254 ...					1.225		1.225	E4	0.00
35)	Aroclor 1254 ...					1.954		1.954	E4	0.00
36)	Aroclor 1254 ...					2.084		2.084	E4	0.00
37)	Aroclor 1254 ...					1.532		1.532	E4	0.00
38)	Aroclor 1254 ...					1.557		1.557	E4	0.00
39)	Aroclor 1254 (6)					4.779		4.779	E3	0.00
40)	Aroclor 1254 ...							0.000		-1.00
41)	Aroclor 1260 ...	1.477	1.407	1.310	1.293	1.301	1.258	1.328	E4	6.26
42)	Aroclor 1260 ...	1.822	1.730	1.646	1.660	1.666	1.615	1.668	E4	5.40
43)	Aroclor 1260 (3)	1.784	1.752	1.653	1.636	1.704	1.599	1.684	E4	3.92
44)	Aroclor 1260 (4)	2.668	2.673	2.435	2.448	2.657	2.575	2.591	E4	4.18
45)	Aroclor 1260 (5)	1.568	1.510	1.495	1.493	1.494	1.505	1.515	E4	1.85
46)	Aroclor 1260 (6)	6.450	6.383	5.525	5.699	5.716	5.656	5.854	E3	6.68
47)	Aroclor 1260 ...							0.000		-1.00
48)	Aroclor 1262 (1)					1.330		1.330	E4	0.00
49)	Aroclor 1262 (2)					1.770		1.770	E4	0.00
50)	Aroclor 1262 (3)					1.495		1.495	E4	0.00
51)	Aroclor 1262 (4)					3.207		3.207	E4	0.00
52)	Aroclor 1262 (5)					1.881		1.881	E4	0.00
53)	Aroclor 1262 (6)					8.158		8.158	E3	0.00
54)	Aroclor 1262 ...							0.000		-1.00
55)	Aroclor 1268 (1)					8.138		8.138	E3	0.00
56)	Aroclor 1268 (2)					3.674		3.674	E4	0.00
57)	Aroclor 1268 (3)					2.945		2.945	E4	0.00
58)	Aroclor 1268 (4)					2.525		2.525	E4	0.00
59)	Aroclor 1268 (5)					9.735		9.735	E3	0.00
60)	Aroclor 1268 (6)					6.860		6.860	E4	0.00

Method Path : L:\Methods\
Method File : RECD2_QUANTPCB_190716.M
Title : PCB Data Analysis
Last Update : Wed Jul 17 16:14:22 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD2R008.D 2 =ECD2R009.D 3 =ECD2R010.D
4 =ECD2R011.D 5 =ECD2R023.D 6 =ECD2R013.D

	Compound	1	2	3	4	5	6	Avg	%RSD
61)	Aroclor 1268 ...							0.000	-1.00
62) S	DCBP (S)	1.194	1.197	1.112	1.183	1.313	1.347	1.252 E5	8.71

(#) = Out of Range ### Number of calibration levels exceeded format ###

Compound List Report HP G1530A

Method Path : L:\Methods\
Method File : RECD2_QUANTPCB_190716.M
Title : PCB Data Analysis
Last Update : Wed Jul 17 16:14:22 2019
Response Via : Initial Calibration

Total Cpnds : 62

MJB 7/17/19

PK#		Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1	S	TCMX (S)	5.769	1.000	A	H	R
2		Aroclor 1016 (1)	6.440	1.000	A	H	R
3		Aroclor 1016 (2)	6.929	1.000	A	H	R
4		Aroclor 1016 (3)	7.057	1.000	A	H	R
5		Aroclor 1016 (4)	7.143	1.000	A	H	R
6		Aroclor 1016 (5)	7.188	1.000	A	H	R
7		Aroclor 1016 (6)	7.314	1.000	A	H	R
8		Aroclor 1016 - AVE	1.838	1.000	A	H	R
9		Aroclor 1221 (1)	5.943	1.000	A	H	R
10		Aroclor 1221 (2)	6.015	1.000	A	H	R
11		Aroclor 1221 (3)	6.102	1.000	A	H	R
12		Aroclor 1221 - AVE	1.838	1.000	A	H	R
13		Aroclor 1232 (1)	6.103	1.000	A	H	R
14		Aroclor 1232 (2)	6.439	1.000	A	H	R
15		Aroclor 1232 (3)	6.929	1.000	A	H	R
16		Aroclor 1232 (4)	7.142	1.000	A	H	R
17		Aroclor 1232 (5)	7.187	1.000	A	H	R
18		Aroclor 1232 (6)	7.313	1.000	A	H	R
19		Aroclor 1232 - AVE	1.838	1.000	A	H	R
20		Aroclor 1242 (1)	6.438	1.000	A	H	R
21		Aroclor 1242 (2)	6.928	1.000	A	H	R
22		Aroclor 1242 (3)	7.056	1.000	A	H	R
23		Aroclor 1242 (4)	7.142	1.000	A	H	R
24		Aroclor 1242 (5)	7.187	1.000	A	H	R
25		Aroclor 1242 (6)	7.313	1.000	A	H	R
26		Aroclor 1242 - AVE	1.838	1.000	A	H	R
27		Aroclor 1248 (1)	6.901	1.000	A	H	R
28		Aroclor 1248 (2)	7.142	1.000	A	H	R
29		Aroclor 1248 (3)	7.187	1.000	A	H	R
30		Aroclor 1248 (4)	7.313	1.000	A	H	R
31		Aroclor 1248 (5)	7.678	1.000	A	H	R
32		Aroclor 1248 (6)	7.836	1.000	A	H	R
33		Aroclor 1248 - AVE	1.838	1.000	A	H	R
34		Aroclor 1254 (1)	7.656	1.000	A	H	R
35		Aroclor 1254 (2)	7.837	1.000	A	H	R
36		Aroclor 1254 (3)	8.148	1.000	A	H	R
37		Aroclor 1254 (4)	8.387	1.000	A	H	R
38		Aroclor 1254 (5)	8.721	1.000	A	H	R
39		Aroclor 1254 (6)	8.953	1.000	A	H	R
40		Aroclor 1254 - AVE	1.838	1.000	A	H	R
41		Aroclor 1260 (1)	8.285	1.000	A	H	R
42		Aroclor 1260 (2)	8.490	1.000	A	H	R
43		Aroclor 1260 (3)	8.723	1.000	A	H	R
44		Aroclor 1260 (4)	9.219	1.000	A	H	R
45		Aroclor 1260 (5)	9.491	1.000	A	H	R
46		Aroclor 1260 (6)	10.091	1.000	A	H	R
47		Aroclor 1260 - AVE	1.838	1.000	A	H	R
48		Aroclor 1262 (1)	8.489	1.000	A	H	R
49		Aroclor 1262 (2)	8.791	1.000	A	H	R
50		Aroclor 1262 (3)	8.970	1.000	A	H	R
51		Aroclor 1262 (4)	9.218	1.000	A	H	R
52		Aroclor 1262 (5)	9.492	1.000	A	H	R
53		Aroclor 1262 (6)	10.090	1.000	A	H	R
54		Aroclor 1262 - AVE	1.838	1.000	A	H	R
55		Aroclor 1268 (1)	9.012	1.000	A	H	R
56		Aroclor 1268 (2)	9.492	1.000	A	H	R

57		Aroclor 1268 (3)	9.562	1.000	A	H	R
58		Aroclor 1268 (4)	9.787	1.000	A	H	R
59		Aroclor 1268 (5)	10.090	1.000	A	H	R
60		Aroclor 1268 (6)	10.463	1.000	A	H	R
61		Aroclor 1268 - AVE	1.837	1.000	A	H	R
62	S	DCBP (S)	10.798	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

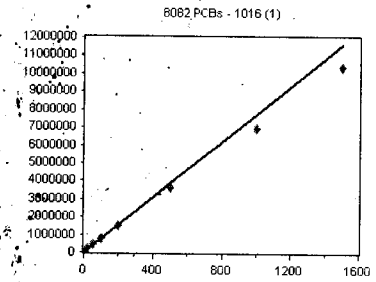
RECD2_QUANTPCB_190716.M Wed Jul 17 17:33:47 2019

Element Calibration Review Sheet

Calibration ID: **A9G1705** Instrument: **DUALECD2R** Calibration Date: **07/17/2019**

Analysis: **8082 PCBs** Instrument Cal ID: **RECD2_QUANTPCB_19071**

1016 (1)

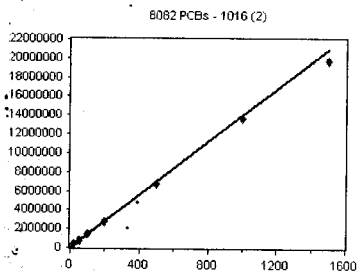


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9G16029-CAL1	20	181636	9081.800	6.44
9G16029-CAL2	50	427452	8549.040	6.44
9G16029-CAL3	100	775198	7751.980	6.44
9G16029-CAL4	200	1520873	7604.365	6.44
9G16029-CAL5	500	3626665	7253.330	6.44
9G16029-CAL6	1000	6951076	6951.076	6.44
9G16029-CAL7	1500	039058E+07	6927.053	6.44

AVE RF **7731.235** RF RSD **10.55** AVE RT **6.44**

1016 (2)

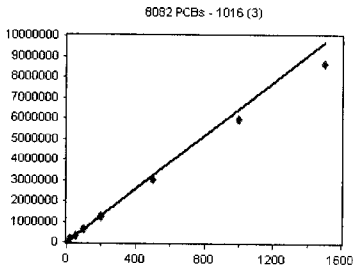


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9G16029-CAL1	20	297615	14880.750	6.93
9G16029-CAL2	50	739201	14784.020	6.93
9G16029-CAL3	100	1398387	13983.870	6.93
9G16029-CAL4	200	2778958	13894.790	6.93
9G16029-CAL5	500	6773511	13547.020	6.93
9G16029-CAL6	1000	363407E+07	13634.070	6.93
9G16029-CAL7	1500	979926E+07	13199.510	6.93

AVE RF **13989.150** RF RSD **4.50** AVE RT **6.93**

1016 (3)

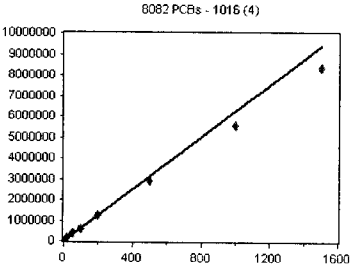


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9G16029-CAL1	20	150591	7529.550	7.06
9G16029-CAL2	50	346787	6935.740	7.06
9G16029-CAL3	100	652989	6529.890	7.06
9G16029-CAL4	200	1258573	6292.865	7.06
9G16029-CAL5	500	3028417	6056.834	7.06
9G16029-CAL6	1000	5943053	5943.053	7.06
9G16029-CAL7	1500	8668119	5778.746	7.06

AVE RF **6438.097** RF RSD **9.60** AVE RT **7.06**

1016 (4)



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9G16029-CAL1	20	149992	7499.600	7.14
9G16029-CAL2	50	353276	7065.520	7.14
9G16029-CAL3	100	621548	6215.480	7.14
9G16029-CAL4	200	1218268	6091.340	7.14
9G16029-CAL5	500	2918005	5836.010	7.14
9G16029-CAL6	1000	5545937	5545.937	7.14
9G16029-CAL7	1500	8399920	5599.947	7.14

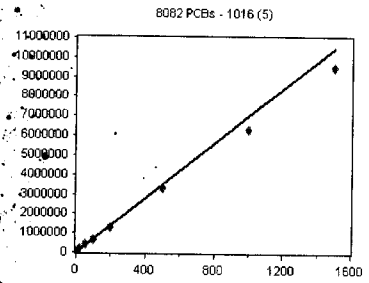
AVE RF **6264.833** RF RSD **11.91** AVE RT **7.14**

Element Calibration Review Sheet

Calibration ID: **A9G1705** Instrument: **DUALECD2R** Calibration Date: **07/17/2019**

Analysis: **8082 PCBs** Instrument Cal ID: **RECD2_QUANTPCB_19071**

1016 (5)

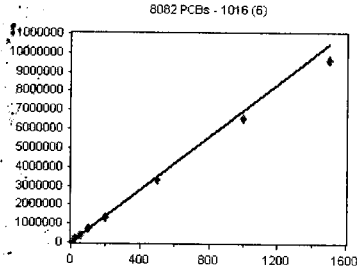


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9G16029-CAL1	20	169065	8453.250	7.19
9G16029-CAL2	50	388633	7772.660	7.19
9G16029-CAL3	100	683606	6836.060	7.19
9G16029-CAL4	200	1318474	6592.370	7.19
9G16029-CAL5	500	3317795	6635.590	7.19
9G16029-CAL6	1000	6306248	6306.248	7.19
9G16029-CAL7	1500	9535588	6357.059	7.19

AVE RF **6993.320** RF RSD **11.57** AVE RT **7.19**

1016 (6)

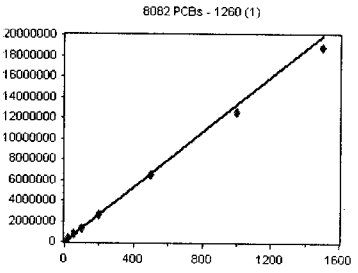


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9G16029-CAL1	20	164919	8245.950	7.31
9G16029-CAL2	50	379231	7584.620	7.31
9G16029-CAL3	100	694825	6948.250	7.31
9G16029-CAL4	200	1299806	6499.030	7.31
9G16029-CAL5	500	3330050	6660.100	7.31
9G16029-CAL6	1000	6516844	6516.844	7.31
9G16029-CAL7	1500	9629768	6419.845	7.31

AVE RF **6982.091** RF RSD **9.84** AVE RT **7.31**

1260 (1)

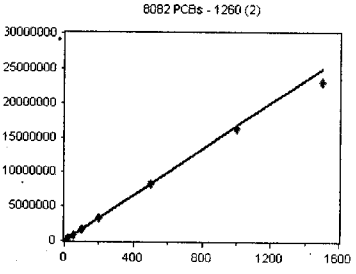


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9G16029-CAL1	20	295306	14765.300	8.29
9G16029-CAL2	50	703524	14070.480	8.28
9G16029-CAL3	100	1309548	13095.480	8.29
9G16029-CAL4	200	2586850	12934.250	8.28
9G16029-CAL5	500	6504386	13008.770	8.29
9G16029-CAL6	1000	257823E+07	12578.230	8.28
9G16029-CAL7	1500	876782E+07	12511.880	8.28

AVE RF **13280.630** RF RSD **6.26** AVE RT **8.28**

1260 (2)



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9G16029-CAL1	20	364431	18221.550	8.49
9G16029-CAL2	50	865219	17304.380	8.49
9G16029-CAL3	100	1646418	16464.180	8.49
9G16029-CAL4	200	3320933	16604.660	8.49
9G16029-CAL5	500	8328165	16656.330	8.49
9G16029-CAL6	1000	315234E+07	16152.340	8.49
9G16029-CAL7	1500	302685E+07	15351.230	8.49

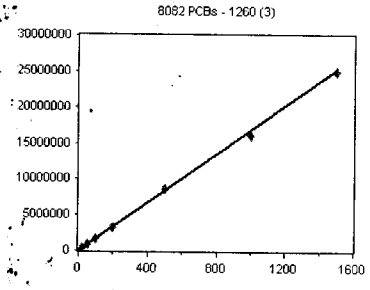
AVE RF **16679.240** RF RSD **5.40** AVE RT **8.49**

Element Calibration Review Sheet

Calibration ID: **A9G1705** Instrument: **DUALECD2R** Calibration Date: **07/17/2019**

Analysis: **8082 PCBs** Instrument Cal ID: **RECD2_QUANTPCB_19071**

1260 (3)

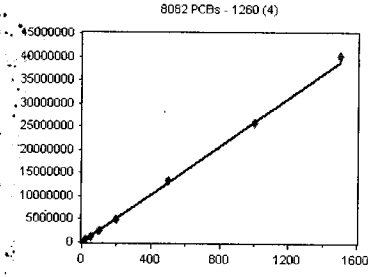


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9G16029-CAL1	20	356756	17837.800	8.72
9G16029-CAL2	50	876184	17523.680	8.72
9G16029-CAL3	100	1653114	16531.140	8.72
9G16029-CAL4	200	3271651	16358.250	8.72
9G16029-CAL5	500	8521487	17042.970	8.72
9G16029-CAL6	1000	598517E+07	15985.170	8.72
9G16029-CAL7	1500	490357E+07	16602.380	8.72

AVE RF **16840.200** RF RSD **3.92** AVE RT **8.72**

1260 (4)

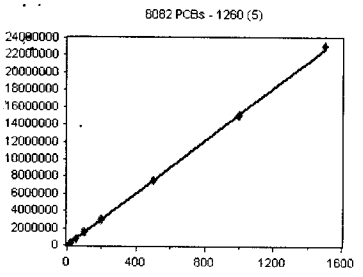


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9G16029-CAL1	20	533543	26677.150	9.22
9G16029-CAL2	50	1336399	26727.980	9.22
9G16029-CAL3	100	2434835	24348.350	9.22
9G16029-CAL4	200	4895017	24475.090	9.22
9G16029-CAL5	500	.32858E+07	26571.600	9.22
9G16029-CAL6	1000	575069E+07	25750.690	9.22
9G16029-CAL7	1500	021881E+07	26812.540	9.22

AVE RF **25909.060** RF RSD **4.18** AVE RT **9.22**

1260 (5)

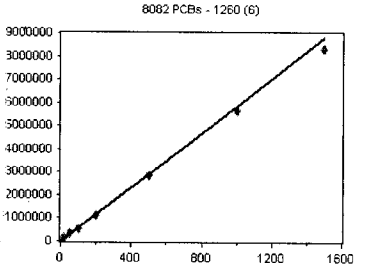


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9G16029-CAL1	20	313665	15683.250	9.49
9G16029-CAL2	50	755113	15102.260	9.49
9G16029-CAL3	100	1495329	14953.290	9.49
9G16029-CAL4	200	2986287	14931.430	9.49
9G16029-CAL5	500	7469130	14938.260	9.49
9G16029-CAL6	1000	504861E+07	15048.610	9.49
9G16029-CAL7	1500	303711E+07	15358.070	9.49

AVE RF **15145.030** RF RSD **1.85** AVE RT **9.49**

1260 (6)



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9G16029-CAL1	20	129008	6450.400	10.09
9G16029-CAL2	50	319139	6382.780	10.09
9G16029-CAL3	100	552480	5524.800	10.09
9G16029-CAL4	200	1139825	5699.125	10.09
9G16029-CAL5	500	2857825	5715.650	10.09
9G16029-CAL6	1000	5656013	5656.013	10.09
9G16029-CAL7	1500	8326510	5551.007	10.09

AVE RF **5854.254** RF RSD **6.68** AVE RT **10.09**

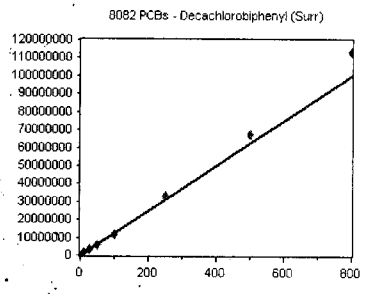
Element Calibration Review Sheet

Calibration ID: **A9G1705** Instrument: **DUALECD2R** Calibration Date: **07/17/2019**

Analysis: **8082 PCBs** Instrument Cal ID: **RECD2_QUANTPCB_19071**

Decachlorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9G16029-CAL1	10	1193945	119394.500	10.80
9G16029-CAL2	25	2991799	119672.000	10.80
9G16029-CAL3	50	5560175	111203.500	10.80
9G16029-CAL4	100	182974E+07	118297.400	10.80
9G16029-CAL5	250	281717E+07	131268.700	10.80
9G16029-CAL6	500	733221E+07	134664.400	10.80
9G16029-CAL7	800	.13518E+08	141897.500	10.80

AVE RF **125199.700** RF RSD **8.71** AVE RT **10.80**

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9G16029

Analysis Included

1311/8082 TCLP PCBs
608 PCBs
608 PCBs - LL (1000/1mL) +1262/68
608.3 PCBs - DEVELOPMENT
608.3 PCBs - LL (1000/1mL) +1262/68 - DEVELOPMENT
8082 PCBs
8082 PCBs - Low Level (2mL FV)
8082 PCBs - Low Level (2mL FV) +1262/68
8082 PCBs - Low Level (1000/1mL)
8082 PCBs - Low Level (1000/1mL) +1262/68
8082 PCBs - Low Level (30g/2mL)
8082 PCBs + 1262/1268
8082 PCBs in Trans. Oil - LL

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD ID	Analyzed
9G16029-ICB1	Initial Cal Blank	Water	A19G011		7/16/2019 9:44:00AM
9G16029-CAL1	Cal Standard	Water	A19F250	"	7/16/2019 10:02:00AM
9G16029-CAL2	Cal Standard	Water	A19F251	"	7/16/2019 10:20:00AM
9G16029-CAL3	Cal Standard	Water	A19F252	"	7/16/2019 10:37:00AM
9G16029-CAL4	Cal Standard	Water	A19F253	"	7/16/2019 10:55:00AM
9G16029-CAL5	Cal Standard	Water	A19F247	"	7/16/2019 11:13:00AM
9G16029-CAL6	Cal Standard	Water	A19F248	"	7/16/2019 11:31:00AM
9G16029-CAL7	Cal Standard	Water	A19F249	"	7/16/2019 11:49:00AM
9G16029-ICV1	Initial Cal Check	Water	A19F266	"	7/16/2019 12:24:00PM
9G16029-CAL8	Cal Standard	Water	A19F256	"	7/16/2019 12:42:00PM
9G16029-CAL9	Cal Standard	Water	A19F257	"	7/16/2019 1:00:00PM
9G16029-CALA	Cal Standard	Water	A19F258	"	7/16/2019 1:18:00PM
9G16029-CALB	Cal Standard	Water	A19F261	"	7/16/2019 1:35:00PM
9G16029-CALC	Cal Standard	Water	A19F262	"	7/16/2019 1:53:00PM
9G16029-CALD	Cal Standard	Water	A19F263	"	7/16/2019 2:11:00PM
9G16029-CALE	Cal Standard	Water	A19F264	"	7/16/2019 2:29:00PM
9G16029-ICV2	Initial Cal Check	Water	A19B137	"	7/16/2019 2:47:00PM
9G16029-ICV3	Initial Cal Check	Water	A19D327	"	7/16/2019 3:05:00PM
9G16029-ICV4	Initial Cal Check	Water	A19B138	"	7/16/2019 3:22:00PM
9G16029-ICV5	Initial Cal Check	Water	A19E303	"	7/16/2019 3:40:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: A9G1705 Instrument: DUALECD2R

1311/8082 TCLP PCBs Sequence: 9G16029 Matrix: Water

9G16029-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1016	0.0000	0.00	20.0	0	
Aroclor 1260	0.0000	0.00	20.0	0	
Aroclor 1016	0.0000	0.00	20.0	0	
Aroclor 1260	0.0000	0.00	20.0	0	

9G16029-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9G16029

Aroclor 1016	0.0000	0.00	50.0	0	
Aroclor 1260	0.0000	0.00	50.0	0	
Aroclor 1016	0.0000	0.00	50.0	0	
Aroclor 1260	0.0000	0.00	50.0	0	

9G16029-CAL3

	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1016	0.0000	0.00	100	0	
Aroclor 1260	0.0000	0.00	100	0	
Aroclor 1016	0.0000	0.00	100	0	
Aroclor 1260	0.0000	0.00	100	0	

9G16029-CAL4

	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1016	0.0000	0.00	200	0	
Aroclor 1260	0.0000	0.00	200	0	
Aroclor 1016	0.0000	0.00	200	0	
Aroclor 1260	0.0000	0.00	200	0	

9G16029-CAL5

	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1016	0.0000	0.00	500	0	
Aroclor 1260	0.0000	0.00	500	0	
Aroclor 1016	0.0000	0.00	500	0	
Aroclor 1260	0.0000	0.00	500	0	

9G16029-CAL6

	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1016	800.0000	0.00	1000	0	
Aroclor 1260	800.0000	0.00	1000	0	
Aroclor 1016	0.0000	0.00	1000	0	
Aroclor 1260	0.0000	0.00	1000	0	
Aroclor 1016	0.0000	0.00	1000	0	
Aroclor 1260	0.0000	0.00	1000	0	

9G16029-CAL7

	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1016	800.0000	0.00	1500	0	
Aroclor 1260	800.0000	0.00	1500	0	
Aroclor 1016	0.0000	0.00	1500	0	
Aroclor 1260	0.0000	0.00	1500	0	
Aroclor 1016	0.0000	0.00	1500	0	
Aroclor 1260	0.0000	0.00	1500	0	

9G16029-CAL8

	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1221	0.0000	0.00	500	0	
Aroclor 1221	0.0000	0.00	500	0	

9G16029-CAL9

	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1232	0.0000	0.00	500	0	
Aroclor 1232	0.0000	0.00	500	0	

9G16029-CALA

	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1242	0.0000	0.00	500	0	
Aroclor 1242	0.0000	0.00	500	0	

9G16029-CALB

	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1248	0.0000	0.00	500	0	
Aroclor 1248	0.0000	0.00	500	0	

9G16029-CALC

	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1254	0.0000	0.00	500	0	

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9G16029

Aroclor 1254	0.0000	0.00	500	0

9G16029-CALD	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1262	0.0000	0.00	500	0	
Aroclor 1262	0.0000	0.00	500	0	

9G16029-CALE	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1268	0.0000	0.00	500	0	
Aroclor 1268	0.0000	0.00	500	0	

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: **A9G1705** Instrument: **DUALECD2R**

608.3 PCBs - DEVELOPMEN Sequence: **9G16029** Matrix: **Water**

9G16029-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.

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R007.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 9:44 am
Operator : MJB / KAK
Sample : 9G16029-ICB1
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:21:11 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	5.768	23403927	94.162 ng/ml
62) S	DCBP (S)	10.797	11229950	89.696 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.441	6024	0.779 ng/ml
3)	Aroclor 1016 (2)	6.940	16295	1.165 ng/ml
4)	Aroclor 1016 (3)	7.054	13920	2.162 ng/ml
5)	Aroclor 1016 (4)	7.147	13039	2.081 ng/ml
6)	Aroclor 1016 (5)	7.195	12934	1.850 ng/ml
7)	Aroclor 1016 (6)	7.316	7974	1.142 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.944	7049	3.560 ng/ml
10)	Aroclor 1221 (2)	6.000	7307	3.638 ng/ml
11)	Aroclor 1221 (3)	6.088	41060	6.124 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.088	41060	7.356 ng/ml
14)	Aroclor 1232 (2)	6.441	6024	1.815 ng/ml
15)	Aroclor 1232 (3)	6.940	16295	2.604 ng/ml
16)	Aroclor 1232 (4)	7.147	13039	5.793 ng/ml
17)	Aroclor 1232 (5)	7.195	12934	4.955 ng/ml
18)	Aroclor 1232 (6)	7.316	7974	2.927 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.437	6212	1.026 ng/ml
21)	Aroclor 1242 (2)	6.940	16295	1.432 ng/ml
22)	Aroclor 1242 (3)	7.054	13920	2.808 ng/ml
23)	Aroclor 1242 (4)	7.147	13039	2.861 ng/ml
24)	Aroclor 1242 (5)	7.195	12934	2.412 ng/ml
25)	Aroclor 1242 (6)	7.316	7974	1.448 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.912	14048	2.105 ng/ml
28)	Aroclor 1248 (2)	7.147	13039	1.619 ng/ml
29)	Aroclor 1248 (3)	7.195	12934	1.668 ng/ml
30)	Aroclor 1248 (4)	7.316	7974	0.853 ng/ml
31)	Aroclor 1248 (5)	7.659	58590	4.973 ng/ml
32)	Aroclor 1248 (6)	7.837	7269	0.690 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.659	58590	4.784 ng/ml
35)	Aroclor 1254 (2)	7.837	7269	0.372 ng/ml
36)	Aroclor 1254 (3)	8.159	3809	0.183 ng/ml
37)	Aroclor 1254 (4)	8.390	2711	0.177 ng/ml
38)	Aroclor 1254 (5)	8.724	6223	0.400 ng/ml
39)	Aroclor 1254 (6)	8.953	4042	0.846 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.285	3724	0.280 ng/ml
42)	Aroclor 1260 (2)	8.492	5523	0.331 ng/ml
43)	Aroclor 1260 (3)	8.724	6223	0.370 ng/ml
44)	Aroclor 1260 (4)	9.219	10306	0.398 ng/ml
45)	Aroclor 1260 (5)	9.492	10678	0.705 ng/ml
46)	Aroclor 1260 (6)	10.094	22753	3.887 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R007.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 9:44 am
Operator : MJB / KAK
Sample : 9G16029-ICB1
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:21:11 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

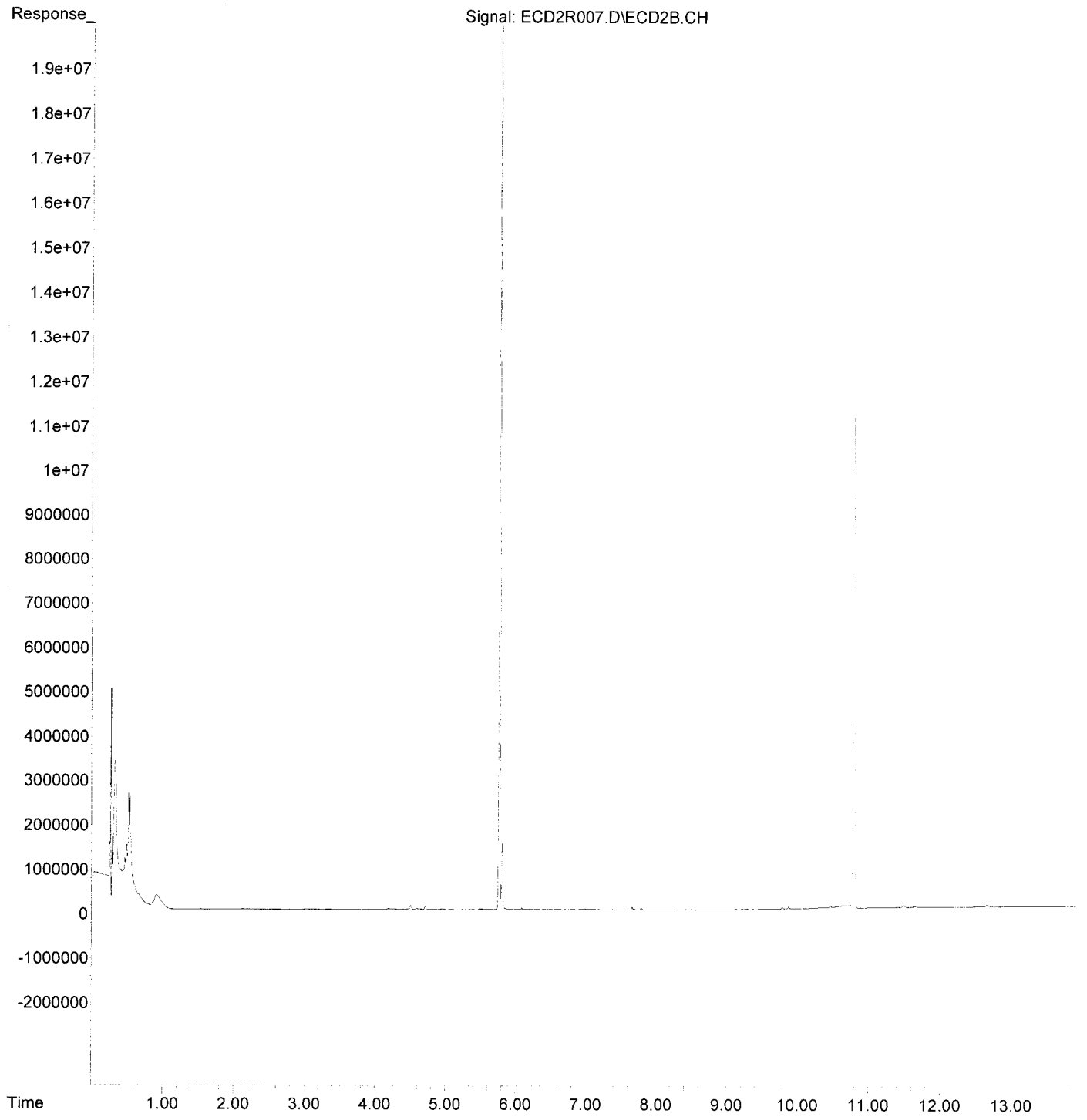
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.492	5523	0.415 ng/ml
49)	Aroclor 1262 (2)	8.791	4551	0.257 ng/ml
50)	Aroclor 1262 (3)	8.968	6010	0.402 ng/ml
51)	Aroclor 1262 (4)	9.219	10306	0.321 ng/ml
52)	Aroclor 1262 (5)	9.492	10678	0.568 ng/ml
53)	Aroclor 1262 (6)	10.094	22753	2.789 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	9.014	4267	0.524 ng/ml
56)	Aroclor 1268 (2)	9.492	10678	0.291 ng/ml
57)	Aroclor 1268 (3)	9.558	9544	0.324 ng/ml
58)	Aroclor 1268 (4)	9.789	53961	2.137 ng/ml
59)	Aroclor 1268 (5)	10.094	22753	2.337 ng/ml
60)	Aroclor 1268 (6)	10.465	71854	1.047 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R007.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 9:44 am
Operator : MJB / KAK
Sample : 9G16029-ICB1
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:21:11 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R015.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 12:06 pm
Operator : MJB / KAK
Sample : 9G16029-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:21:28 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

clean
MJB 7.17.19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S TCMX (S)	5.789	14155	0.057 ng/ml
62)	S DCBP (S)	10.794	6577	0.053 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.437	5925	0.766 ng/ml
3)	Aroclor 1016 (2)	6.937	9165	0.655 ng/ml
4)	Aroclor 1016 (3)	7.053	9720	1.510 ng/ml
5)	Aroclor 1016 (4)	7.148	10478	1.673 ng/ml
6)	Aroclor 1016 (5)	7.194	8602	1.230 ng/ml
7)	Aroclor 1016 (6)	7.314	5722	0.820 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.948	5541	2.798 ng/ml
10)	Aroclor 1221 (2)	6.000	6935	3.453 ng/ml
11)	Aroclor 1221 (3)	6.088	9893	1.476 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.088	9893	1.772 ng/ml
14)	Aroclor 1232 (2)	6.437	5925	1.785 ng/ml
15)	Aroclor 1232 (3)	6.937	9165	1.465 ng/ml
16)	Aroclor 1232 (4)	7.148	10478	4.655 ng/ml
17)	Aroclor 1232 (5)	7.194	8602	3.296 ng/ml
18)	Aroclor 1232 (6)	7.314	5722	2.101 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.437	5925	0.978 ng/ml
21)	Aroclor 1242 (2)	6.937	9165	0.805 ng/ml
22)	Aroclor 1242 (3)	7.053	9720	1.961 ng/ml
23)	Aroclor 1242 (4)	7.148	10478	2.299 ng/ml
24)	Aroclor 1242 (5)	7.194	8602	1.604 ng/ml
25)	Aroclor 1242 (6)	7.314	5722	1.039 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.913	8590	1.287 ng/ml
28)	Aroclor 1248 (2)	7.148	10478	1.301 ng/ml
29)	Aroclor 1248 (3)	7.194	8602	1.109 ng/ml
30)	Aroclor 1248 (4)	7.314	5722	0.612 ng/ml
31)	Aroclor 1248 (5)	7.659	49446	4.197 ng/ml
32)	Aroclor 1248 (6)	7.834	7228	0.686 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.659	49446	4.038 ng/ml
35)	Aroclor 1254 (2)	7.834	7228	0.370 ng/ml
36)	Aroclor 1254 (3)	8.145	4239	0.203 ng/ml
37)	Aroclor 1254 (4)	8.387	4415	0.288 ng/ml
38)	Aroclor 1254 (5)	8.722	5662	0.364 ng/ml
39)	Aroclor 1254 (6)	8.956	3269	0.684 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.284	5464	0.411 ng/ml
42)	Aroclor 1260 (2)	8.490	5749	0.345 ng/ml
43)	Aroclor 1260 (3)	8.722	5662	0.336 ng/ml
44)	Aroclor 1260 (4)	9.217	5940	0.229 ng/ml
45)	Aroclor 1260 (5)	9.494	3408	0.225 ng/ml
46)	Aroclor 1260 (6)	10.088	1868	0.319 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R015.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 12:06 pm
Operator : MJB / KAK
Sample : 9G16029-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:21:28 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

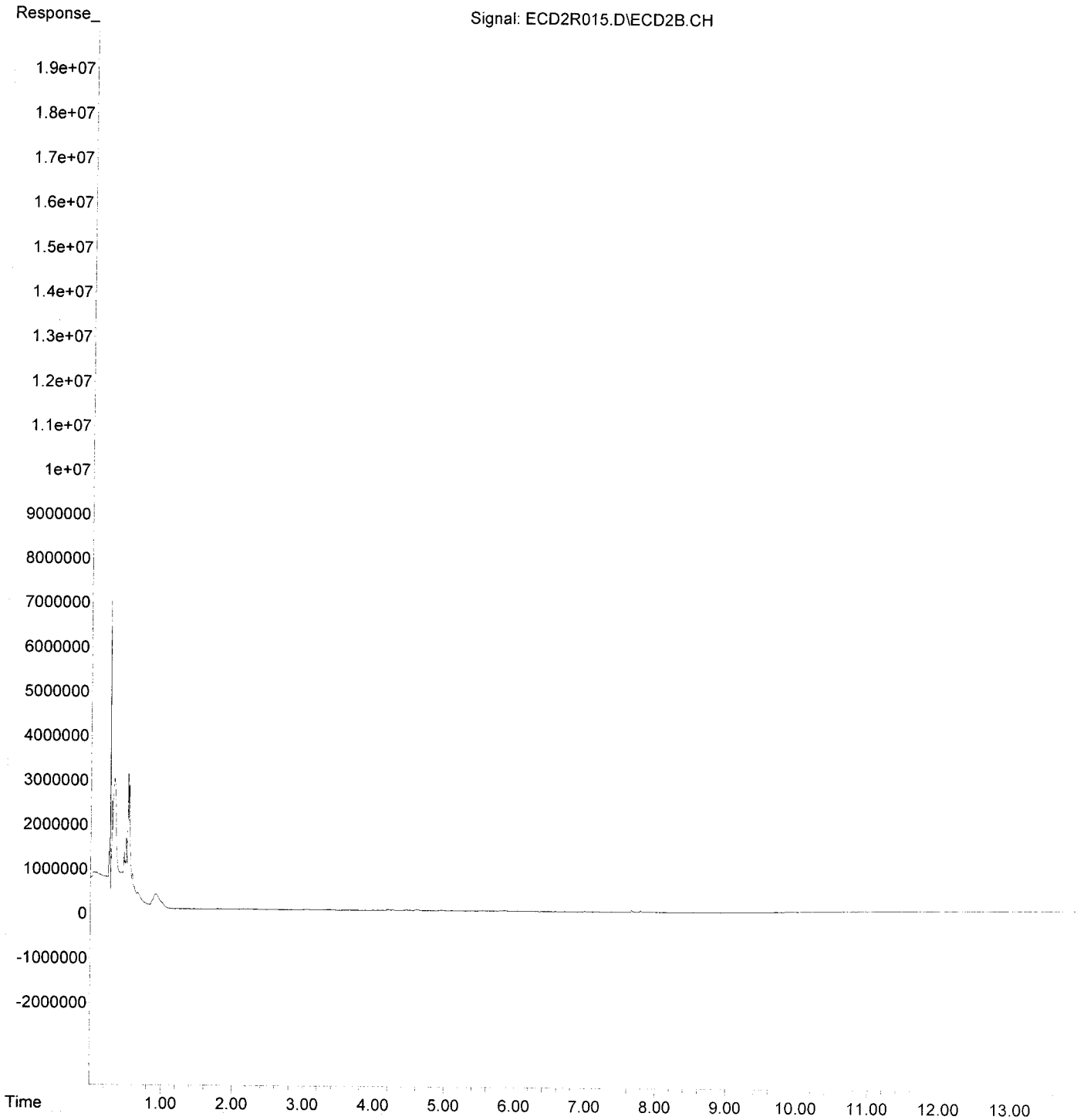
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.490	5749	0.432 ng/ml
49)	Aroclor 1262 (2)	8.793	4096	0.231 ng/ml
50)	Aroclor 1262 (3)	8.970	4090	0.274 ng/ml
51)	Aroclor 1262 (4)	9.217	5940	0.185 ng/ml
52)	Aroclor 1262 (5)	9.494	3408	0.181 ng/ml
53)	Aroclor 1262 (6)	10.088	1868	0.229 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	9.021	1900	0.233 ng/ml
56)	Aroclor 1268 (2)	9.494	3408	0.093 ng/ml
57)	Aroclor 1268 (3)	9.562	2488	0.084 ng/ml
58)	Aroclor 1268 (4)	9.791	1940	0.077 ng/ml
59)	Aroclor 1268 (5)	10.088	1868	0.192 ng/ml
60)	Aroclor 1268 (6)	10.459	1036	0.015 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R015.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 12:06 pm
Operator : MJB / KAK
Sample : 9G16029-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:21:28 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R016.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 12:24 pm
Operator : MJB / KAK
Sample : 9G16029-ICV1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:21:46 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7.17.19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	5.768	49206903	197.976	ng/ml
62) S	DCBP (S)	10.797	22930428	183.151	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	6.438	3731829	482.695	ng/ml
3)	Aroclor 1016 (2)	6.928	7083664	506.369	ng/ml
4)	Aroclor 1016 (3)	7.056	3144028	488.348	ng/ml
5)	Aroclor 1016 (4)	7.142	2857032	456.043	ng/ml
6)	Aroclor 1016 (5)	7.187	3305667	472.689	ng/ml
7)	Aroclor 1016 (6)	7.313	3320994	475.645	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	5.942	231759	117.028	ng/ml
10)	Aroclor 1221 (2)	6.016	481402	239.724	ng/ml
11)	Aroclor 1221 (3)	6.103	2370492	353.542	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	6.103	2370492	424.656	ng/ml
14)	Aroclor 1232 (2)	6.438	3731829	1124.207	ng/ml
15)	Aroclor 1232 (3)	6.928	7083664	1131.990	ng/ml
16)	Aroclor 1232 (4)	7.142	2857032	1269.272	ng/ml
17)	Aroclor 1232 (5)	7.187	3305667	1266.455	ng/ml
18)	Aroclor 1232 (6)	7.313	3320994	1219.256	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	6.438	3731829	616.095	ng/ml
21)	Aroclor 1242 (2)	6.928	7083664	622.326	ng/ml
22)	Aroclor 1242 (3)	7.056	3144028	634.246	ng/ml
23)	Aroclor 1242 (4)	7.142	2857032	626.908	ng/ml
24)	Aroclor 1242 (5)	7.187	3305667	616.551	ng/ml
25)	Aroclor 1242 (6)	7.313	3320994	603.116	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	6.901	5819636	872.022	ng/ml
28)	Aroclor 1248 (2)	7.142	2857032	354.791	ng/ml
29)	Aroclor 1248 (3)	7.187	3305667	426.352	ng/ml
30)	Aroclor 1248 (4)	7.313	3320994	355.316	ng/ml
31)	Aroclor 1248 (5)	7.677	663333	56.305	ng/ml
32)	Aroclor 1248 (6)	7.836	3095120	293.922	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	7.657	2652308	216.583	ng/ml
35)	Aroclor 1254 (2)	7.836	3095120	158.413	ng/ml
36)	Aroclor 1254 (3)	8.148	1605806	77.051	ng/ml
37)	Aroclor 1254 (4)	8.387	1000227	65.283	ng/ml
38)	Aroclor 1254 (5)	8.721	9536233	612.429	ng/ml
39)	Aroclor 1254 (6)	8.940	1055717	220.909	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	8.284	7305949	550.121	ng/ml
42)	Aroclor 1260 (2)	8.488	8733937	523.641	ng/ml
43)	Aroclor 1260 (3)	8.721	9536233	566.278	ng/ml
44)	Aroclor 1260 (4)	9.218	11949565	461.212	ng/ml
45)	Aroclor 1260 (5)	9.492	7067725	466.670	ng/ml
46)	Aroclor 1260 (6)	10.090	2277897	389.101	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

480.30

492.84

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R016.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 12:24 pm
Operator : MJB / KAK
Sample : 9G16029-ICV1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:21:46 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

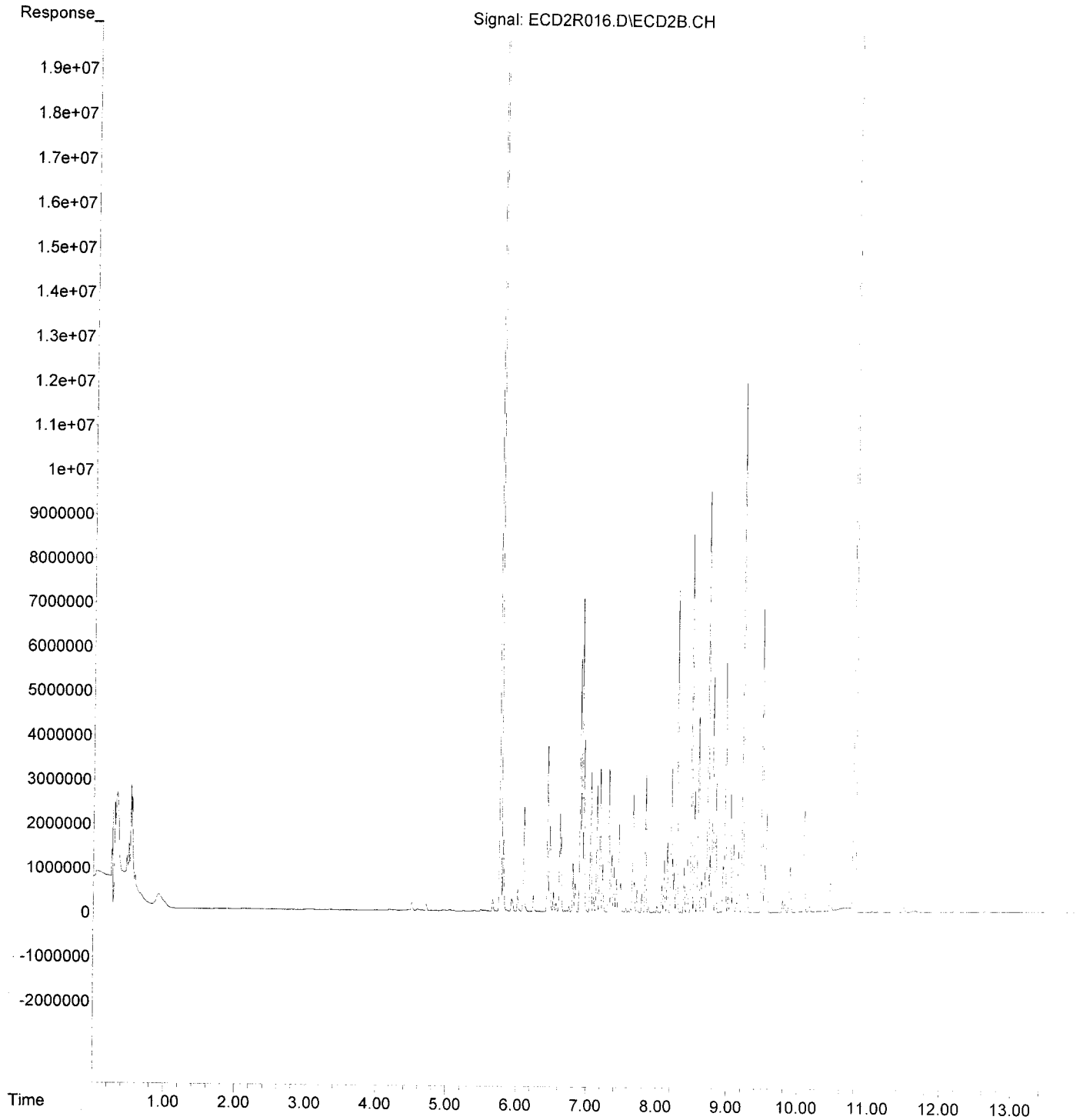
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.488	8733937	656.835 ng/ml
49)	Aroclor 1262 (2)	8.791	5318070	300.387 ng/ml
50)	Aroclor 1262 (3)	8.970	5666790	379.168 ng/ml
51)	Aroclor 1262 (4)	9.218	11949565	372.639 ng/ml
52)	Aroclor 1262 (5)	9.492	7067725	375.669 ng/ml
53)	Aroclor 1262 (6)	10.090	2277897	279.231 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	9.012	345897	42.504 ng/ml
56)	Aroclor 1268 (2)	9.492	7067725	192.369 ng/ml
57)	Aroclor 1268 (3)	9.558	2247377	76.305 ng/ml
58)	Aroclor 1268 (4)	9.787	254480	10.079 ng/ml
59)	Aroclor 1268 (5)	10.090	2277897	233.983 ng/ml
60)	Aroclor 1268 (6)	10.462	651847	9.503 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R016.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 12:24 pm
Operator : MJB / KAK
Sample : 9G16029-ICV1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:21:46 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R024.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 2:47 pm
Operator : MJB / KAK
Sample : 9G16029-ICV2
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:22:03 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc Units	
	System Monitoring Compounds				
1)	S TCMX (S)	5.766	10032126	40.363 ng/ml	
62)	S DCBP (S)	10.797	10956816	87.515 ng/ml	
	Target Compounds				
2)	Aroclor 1016 (1)	6.439	530222	68.582 ng/ml	
3)	Aroclor 1016 (2)	6.928	964167	68.922 ng/ml	
4)	Aroclor 1016 (3)	7.057	454350	70.572 ng/ml	
5)	Aroclor 1016 (4)	7.142	3033515	484.213 ng/ml	
6)	Aroclor 1016 (5)	7.188	815826	116.658 ng/ml	
7)	Aroclor 1016 (6)	7.313	1655648	237.128 ng/ml	
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml	
9)	Aroclor 1221 (1)	5.943	1747696	882.512 ng/ml	
10)	Aroclor 1221 (2)	6.015	1803483	898.083 ng/ml	893.79
11)	Aroclor 1221 (3)	6.103	6039614	900.765 ng/ml	
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml	
13)	Aroclor 1232 (1)	6.103	6039614	1081.951 ng/ml	
14)	Aroclor 1232 (2)	6.439	530222	159.729 ng/ml	
15)	Aroclor 1232 (3)	6.928	964167	154.077 ng/ml	
16)	Aroclor 1232 (4)	7.142	3033515	1347.676 ng/ml	
17)	Aroclor 1232 (5)	7.188	815826	312.556 ng/ml	
18)	Aroclor 1232 (6)	7.313	1655648	607.848 ng/ml	
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml	
20)	Aroclor 1242 (1)	6.439	530222	87.535 ng/ml	
21)	Aroclor 1242 (2)	6.928	964167	84.706 ng/ml	
22)	Aroclor 1242 (3)	7.057	454350	91.656 ng/ml	
23)	Aroclor 1242 (4)	7.142	3033515	665.632 ng/ml	
24)	Aroclor 1242 (5)	7.188	815826	152.163 ng/ml	
25)	Aroclor 1242 (6)	7.313	1655648	300.678 ng/ml	
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml	
27)	Aroclor 1248 (1)	6.901	725001	108.635 ng/ml	
28)	Aroclor 1248 (2)	7.142	3033515	376.707 ng/ml	
29)	Aroclor 1248 (3)	7.188	815826	105.222 ng/ml	
30)	Aroclor 1248 (4)	7.313	1655648	177.139 ng/ml	
31)	Aroclor 1248 (5)	7.678	2684598	227.873 ng/ml	
32)	Aroclor 1248 (6)	7.837	8575244	814.330 ng/ml	
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml	
34)	Aroclor 1254 (1)	7.656	5399980	440.954 ng/ml	
35)	Aroclor 1254 (2)	7.837	8575244	438.893 ng/ml	
36)	Aroclor 1254 (3)	8.149	9071900	435.297 ng/ml	444.24
37)	Aroclor 1254 (4)	8.387	6458375	421.528 ng/ml	
38)	Aroclor 1254 (5)	8.722	7377613	473.800 ng/ml	
39)	Aroclor 1254 (6)	8.954	2174360	454.985 ng/ml	
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml	
41)	Aroclor 1260 (1)	8.285	3540345	266.580 ng/ml	
42)	Aroclor 1260 (2)	8.490	4495716	269.540 ng/ml	
43)	Aroclor 1260 (3)	8.722	7377613	438.095 ng/ml	
44)	Aroclor 1260 (4)	9.218	1393171	53.772 ng/ml	
45)	Aroclor 1260 (5)	9.492	1002630	66.202 ng/ml	
46)	Aroclor 1260 (6)	10.090	171447	29.286 ng/ml	
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml	

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R024.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 2:47 pm
Operator : MJB / KAK
Sample : 9G16029-ICV2
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:22:03 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

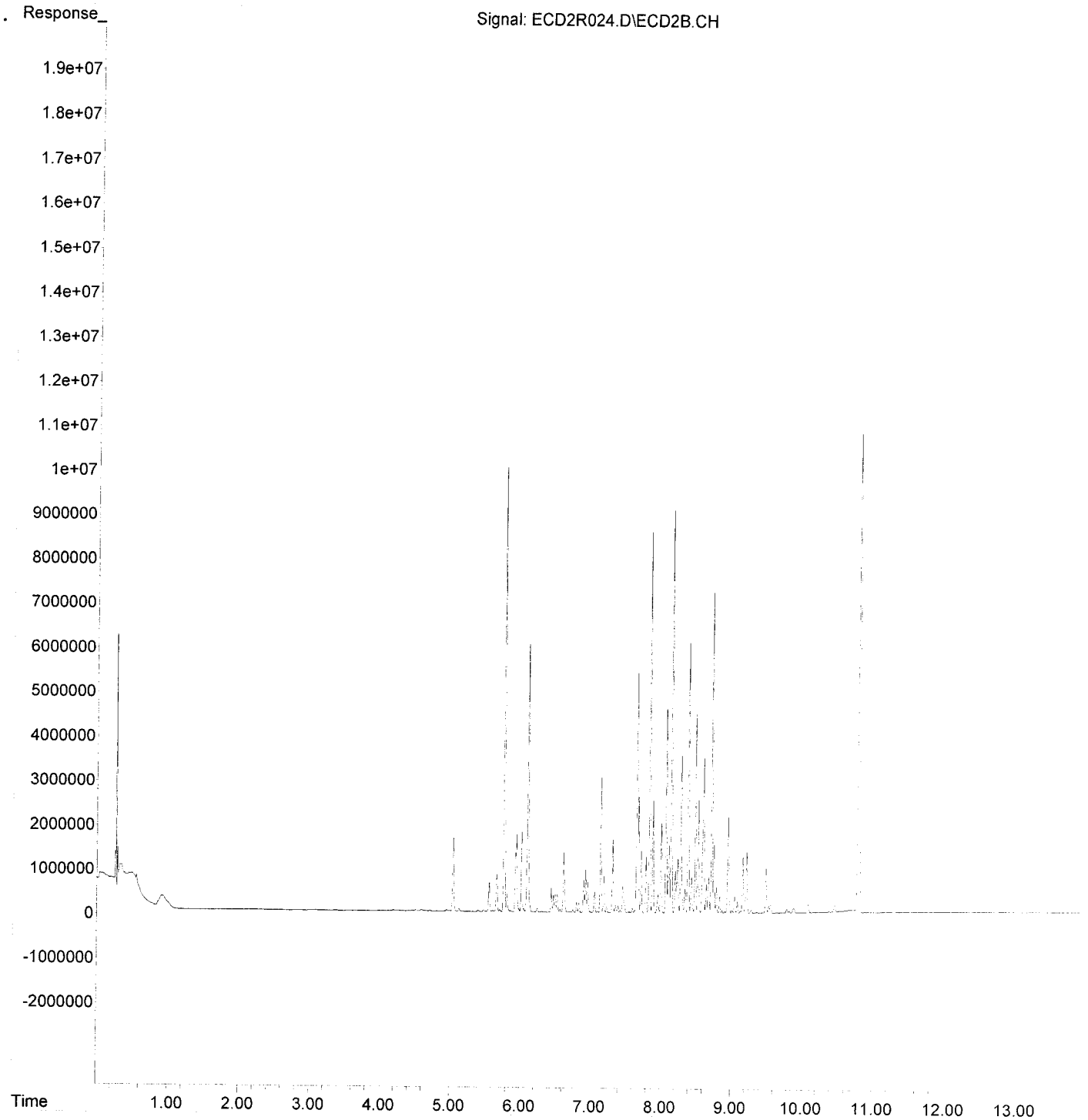
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.490	4495716	338.100 ng/ml
49)	Aroclor 1262 (2)	8.791	563825	31.847 ng/ml
50)	Aroclor 1262 (3)	8.954	2174360	145.488 ng/ml
51)	Aroclor 1262 (4)	9.218	1393171	43.445 ng/ml
52)	Aroclor 1262 (5)	9.492	1002630	53.292 ng/ml
53)	Aroclor 1262 (6)	10.090	171447	21.016 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	9.014	56338	6.923 ng/ml
56)	Aroclor 1268 (2)	9.492	1002630	27.290 ng/ml
57)	Aroclor 1268 (3)	9.560	171262	5.815 ng/ml
58)	Aroclor 1268 (4)	9.789	86553	3.428 ng/ml
59)	Aroclor 1268 (5)	10.090	171447	17.611 ng/ml
60)	Aroclor 1268 (6)	10.464	131415	1.916 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R024.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 2:47 pm
Operator : MJB / KAK
Sample : 9G16029-ICV2
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:22:03 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R025.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 3:05 pm
Operator : MJB / KAK
Sample : 9G16029-ICV3
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:22:19 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	5.767	9944809	40.011 ng/ml
62) S	DCBP (S)	10.796	10954768	87.498 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.439	1678442	217.099 ng/ml
3)	Aroclor 1016 (2)	6.928	3119919	223.024 ng/ml
4)	Aroclor 1016 (3)	7.056	1465294	227.598 ng/ml
5)	Aroclor 1016 (4)	7.141	1167266	186.320 ng/ml
6)	Aroclor 1016 (5)	7.187	1309568	187.260 ng/ml
7)	Aroclor 1016 (6)	7.313	1421964	203.659 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.943	606409	306.211 ng/ml
10)	Aroclor 1221 (2)	6.015	731773	364.402 ng/ml
11)	Aroclor 1221 (3)	6.102	2707557	403.813 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.102	2707557	485.038 ng/ml
14)	Aroclor 1232 (2)	6.439	1678442	505.628 ng/ml
15)	Aroclor 1232 (3)	6.928	3119919	498.572 ng/ml
16)	Aroclor 1232 (4)	7.141	1167266	518.572 ng/ml
17)	Aroclor 1232 (5)	7.187	1309568	501.717 ng/ml
18)	Aroclor 1232 (6)	7.313	1421964	522.054 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.439	1678442	277.097 ng/ml
21)	Aroclor 1242 (2)	6.928	3119919	274.096 ng/ml
22)	Aroclor 1242 (3)	7.056	1465294	295.594 ng/ml
23)	Aroclor 1242 (4)	7.141	1167266	256.129 ng/ml
24)	Aroclor 1242 (5)	7.187	1309568	244.252 ng/ml
25)	Aroclor 1242 (6)	7.313	1421964	258.239 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.901	2525130	378.369 ng/ml
28)	Aroclor 1248 (2)	7.141	1167266	144.953 ng/ml
29)	Aroclor 1248 (3)	7.187	1309568	168.903 ng/ml
30)	Aroclor 1248 (4)	7.313	1421964	152.137 ng/ml
31)	Aroclor 1248 (5)	7.678	1646704	139.775 ng/ml
32)	Aroclor 1248 (6)	7.835	2212635	210.118 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.658	1747022	142.659 ng/ml
35)	Aroclor 1254 (2)	7.835	2212635	113.246 ng/ml
36)	Aroclor 1254 (3)	8.148	864255	41.470 ng/ml
37)	Aroclor 1254 (4)	8.386	639590	41.745 ng/ml
38)	Aroclor 1254 (5)	8.723	5278928	339.020 ng/ml
39)	Aroclor 1254 (6)	8.939	1611715	337.252 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.284	5590661	420.964 ng/ml
42)	Aroclor 1260 (2)	8.488	6661878	399.411 ng/ml
43)	Aroclor 1260 (3)	8.723	5278928	313.472 ng/ml
44)	Aroclor 1260 (4)	9.218	15613037	602.609 ng/ml
45)	Aroclor 1260 (5)	9.492	9000037	594.257 ng/ml
46)	Aroclor 1260 (6)	10.090	3957865	676.067 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

505.26

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R025.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 3:05 pm
Operator : MJB / KAK
Sample : 9G16029-ICV3
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:22:19 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.488	6661878	501.006 ng/ml
49)	Aroclor 1262 (2)	8.791	8901001	502.766 ng/ml
50)	Aroclor 1262 (3)	8.970	7141482	477.840 ng/ml
51)	Aroclor 1262 (4)	9.218	15613037	486.882 ng/ml
52)	Aroclor 1262 (5)	9.492	9000037	478.376 ng/ml
53)	Aroclor 1262 (6)	10.090	3957865	485.166 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	9.012	941570	115.702 ng/ml
56)	Aroclor 1268 (2)	9.492	9000037	244.963 ng/ml
57)	Aroclor 1268 (3)	9.560	4790274	162.644 ng/ml
58)	Aroclor 1268 (4)	9.787	350733	13.891 ng/ml
59)	Aroclor 1268 (5)	10.090	3957865	406.547 ng/ml
60)	Aroclor 1268 (6)	10.462	1222575	17.823 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

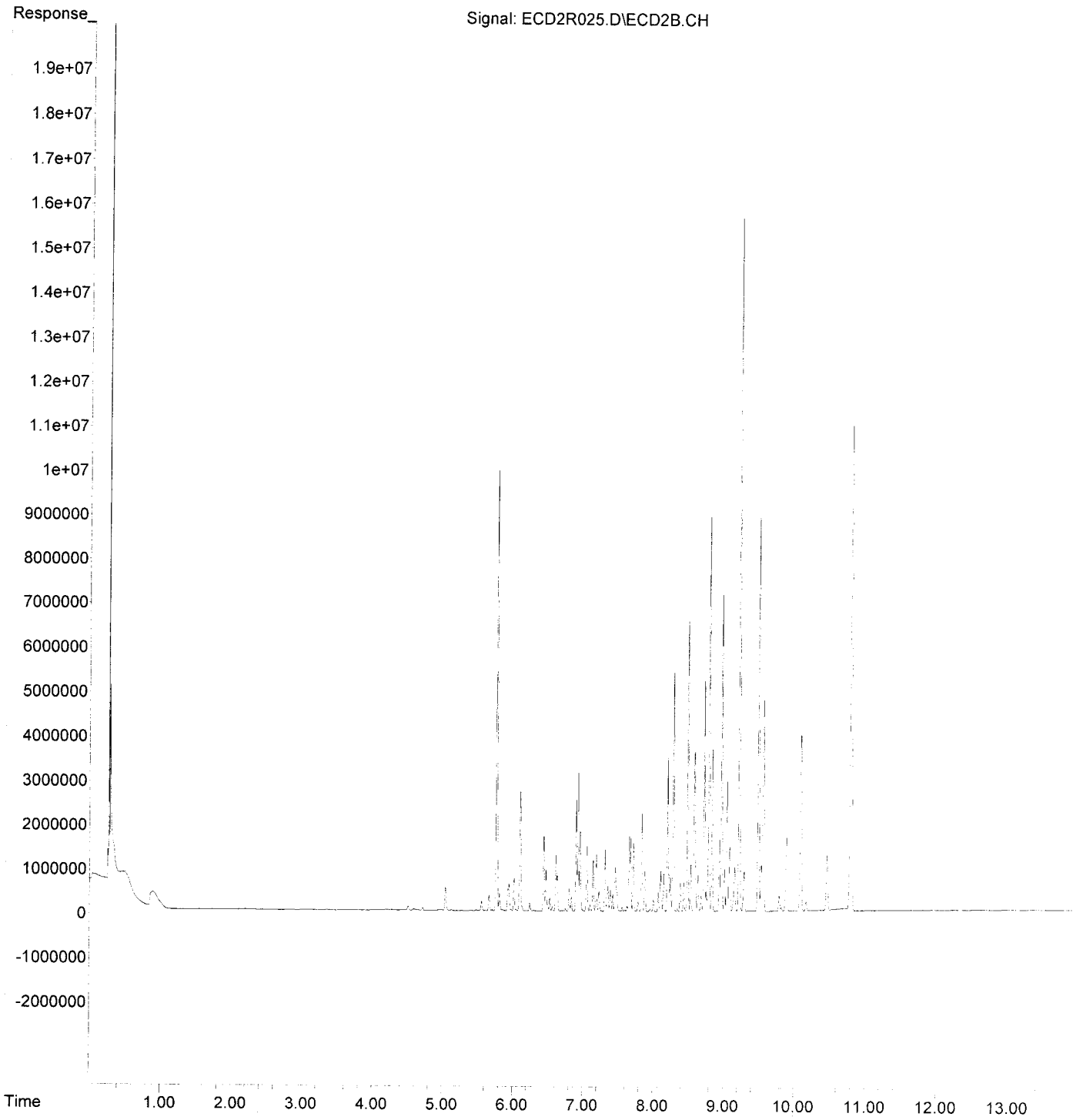
488.67

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R025.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 3:05 pm
Operator : MJB / KAK
Sample : 9G16029-ICV3
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:22:19 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R026.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 3:22 pm
Operator : MJB / KAK
Sample : 9G16029-ICV4
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:22:38 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7.17.19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	5.767	12734072	51.234 ng/ml
62) S	DCBP (S)	10.796	5882142	46.982 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.439	3644511	471.401 ng/ml
3)	Aroclor 1016 (2)	6.929	6835569	488.634 ng/ml
4)	Aroclor 1016 (3)	7.056	3035567	471.501 ng/ml
5)	Aroclor 1016 (4)	7.142	2671942	426.499 ng/ml
6)	Aroclor 1016 (5)	7.187	3127477	447.209 ng/ml
7)	Aroclor 1016 (6)	7.313	3227115	462.199 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.943	239135	120.753 ng/ml
10)	Aroclor 1221 (2)	6.016	501645	249.805 ng/ml
11)	Aroclor 1221 (3)	6.104	2421318	361.122 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.104	2421318	433.761 ng/ml
14)	Aroclor 1232 (2)	6.439	3644511	1097.903 ng/ml
15)	Aroclor 1232 (3)	6.929	6835569	1092.343 ng/ml
16)	Aroclor 1232 (4)	7.142	2671942	1187.043 ng/ml
17)	Aroclor 1232 (5)	7.187	3127477	1198.187 ng/ml
18)	Aroclor 1232 (6)	7.313	3227115	1184.789 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.439	3644511	601.679 ng/ml
21)	Aroclor 1242 (2)	6.929	6835569	600.530 ng/ml
22)	Aroclor 1242 (3)	7.056	3035567	612.366 ng/ml
23)	Aroclor 1242 (4)	7.142	2671942	586.294 ng/ml
24)	Aroclor 1242 (5)	7.187	3127477	583.316 ng/ml
25)	Aroclor 1242 (6)	7.313	3227115	586.067 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.901	5510863	825.755 ng/ml
28)	Aroclor 1248 (2)	7.142	2671942	331.806 ng/ml
29)	Aroclor 1248 (3)	7.187	3127477	403.369 ng/ml
30)	Aroclor 1248 (4)	7.313	3227115	345.272 ng/ml
31)	Aroclor 1248 (5)	7.678	3764424	319.531 ng/ml
32)	Aroclor 1248 (6)	7.835	2910654	276.404 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.661	2555094	208.645 ng/ml
35)	Aroclor 1254 (2)	7.835	2910654	148.971 ng/ml
36)	Aroclor 1254 (3)	8.148	1112116	53.363 ng/ml
37)	Aroclor 1254 (4)	8.386	772490	50.419 ng/ml
38)	Aroclor 1254 (5)	8.723	216390	13.897 ng/ml
39)	Aroclor 1254 (6)	8.940	183926	38.487 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.284	88787	6.685 ng/ml
42)	Aroclor 1260 (2)	8.487	169427	10.158 ng/ml
43)	Aroclor 1260 (3)	8.723	216390	12.850 ng/ml
44)	Aroclor 1260 (4)	9.218	2021068	78.006 ng/ml
45)	Aroclor 1260 (5)	9.493	20386102	1346.059 ng/ml
46)	Aroclor 1260 (6)	10.090	5247620	896.378 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

595.04

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R026.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 3:22 pm
Operator : MJB / KAK
Sample : 9G16029-ICV4
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:22:38 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	8.487	169427	12.742	ng/ml
49)	Aroclor 1262 (2)	8.791	4088023	230.909	ng/ml
50)	Aroclor 1262 (3)	8.969	293807	19.659	ng/ml
51)	Aroclor 1262 (4)	9.218	2021068	63.026	ng/ml
52)	Aroclor 1262 (5)	9.493	20386102	1083.576	ng/ml
53)	Aroclor 1262 (6)	10.090	5247620	643.267	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	9.012	4465298	548.703	ng/ml
56)	Aroclor 1268 (2)	9.493	20386102	554.869	ng/ml
57)	Aroclor 1268 (3)	9.561	16514791	560.725	ng/ml
58)	Aroclor 1268 (4)	9.788	13421731	531.569	ng/ml
59)	Aroclor 1268 (5)	10.090	5247620	539.030	ng/ml
60)	Aroclor 1268 (6)	10.463	35449492	516.786	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

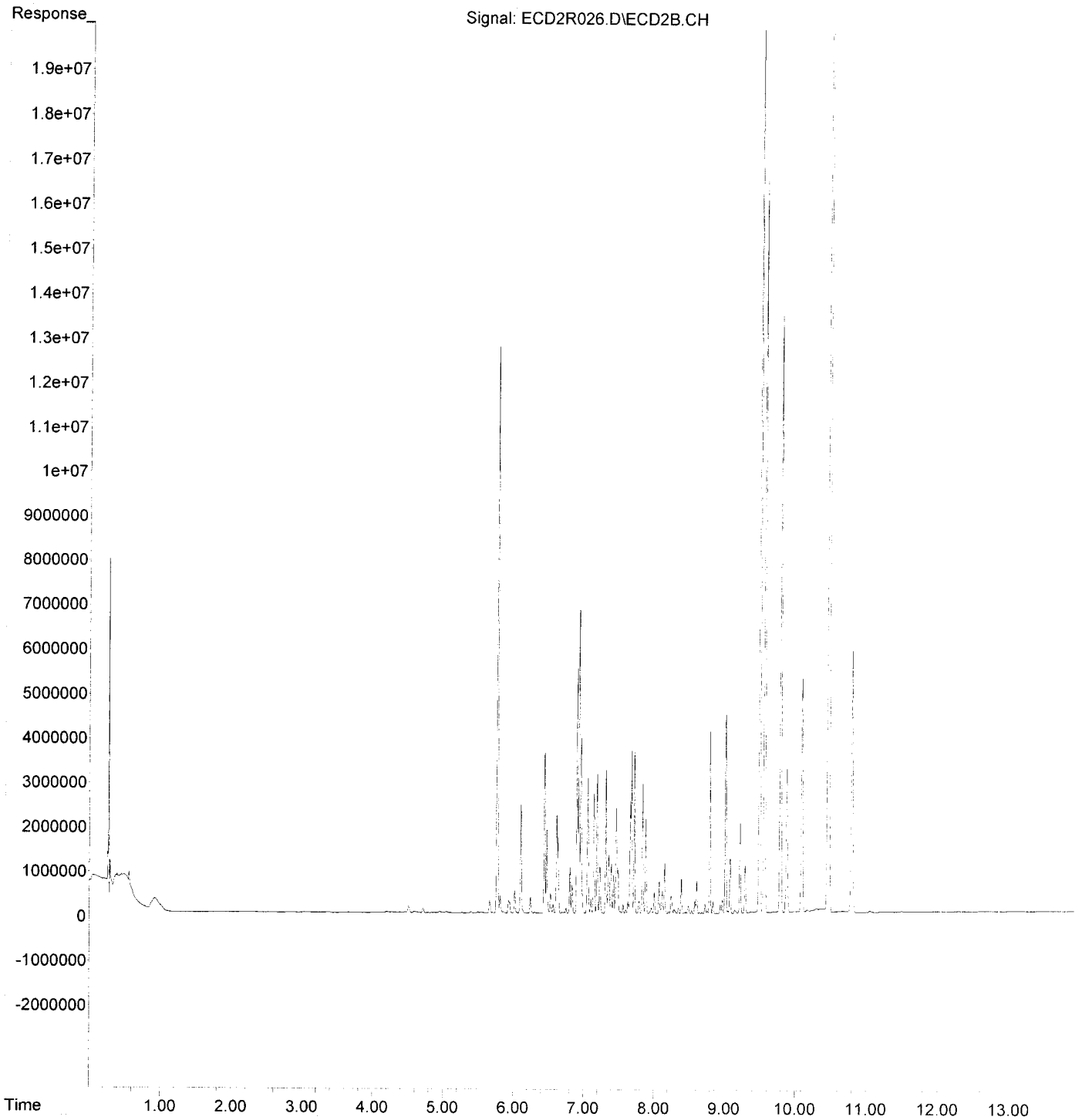
541.95

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R026.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 3:22 pm
Operator : MJB / KAK
Sample : 9G16029-ICV4
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:22:38 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R027.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 3:40 pm
Operator : MJB / KAK
Sample : 9G16029-ICV5
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:22:52 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	5.793	9494	0.038 ng/ml
62) S	DCBP (S)	10.795	3875	0.031 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.439	1684363	217.865 ng/ml
3)	Aroclor 1016 (2)	6.928	3233873	231.170 ng/ml
4)	Aroclor 1016 (3)	7.054	1541267	239.398 ng/ml
5)	Aroclor 1016 (4)	7.142	4398194	702.045 ng/ml
6)	Aroclor 1016 (5)	7.187	4273119	611.029 ng/ml
7)	Aroclor 1016 (6)	7.313	4903254	702.261 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.943	24012	12.125 ng/ml
10)	Aroclor 1221 (2)	6.015	46896	23.353 ng/ml
11)	Aroclor 1221 (3)	6.103	259905	38.763 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.103	259905	46.560 ng/ml
14)	Aroclor 1232 (2)	6.439	1684363	507.412 ng/ml
15)	Aroclor 1232 (3)	6.928	3233873	516.782 ng/ml
16)	Aroclor 1232 (4)	7.142	4398194	1953.952 ng/ml
17)	Aroclor 1232 (5)	7.187	4273119	1637.101 ng/ml
18)	Aroclor 1232 (6)	7.313	4903254	1800.160 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.439	1684363	278.075 ng/ml
21)	Aroclor 1242 (2)	6.928	3233873	284.107 ng/ml
22)	Aroclor 1242 (3)	7.054	1541267	310.920 ng/ml
23)	Aroclor 1242 (4)	7.142	4398194	965.079 ng/ml
24)	Aroclor 1242 (5)	7.187	4273119	796.994 ng/ml
25)	Aroclor 1242 (6)	7.313	4903254	890.466 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.901	3518933	527.281 ng/ml
28)	Aroclor 1248 (2)	7.142	4398194	546.175 ng/ml
29)	Aroclor 1248 (3)	7.187	4273119	551.130 ng/ml
30)	Aroclor 1248 (4)	7.313	4903254	524.603 ng/ml
31)	Aroclor 1248 (5)	7.678	6222611	528.186 ng/ml
32)	Aroclor 1248 (6)	7.836	5602567	532.036 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.660	4601694	375.767 ng/ml
35)	Aroclor 1254 (2)	7.836	5602567	286.747 ng/ml
36)	Aroclor 1254 (3)	8.148	3181748	152.670 ng/ml
37)	Aroclor 1254 (4)	8.386	2256787	147.297 ng/ml
38)	Aroclor 1254 (5)	8.721	495030	31.791 ng/ml
39)	Aroclor 1254 (6)	8.953	193664	40.524 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.283	276218	20.799 ng/ml
42)	Aroclor 1260 (2)	8.486	380242	22.797 ng/ml
43)	Aroclor 1260 (3)	8.721	495030	29.396 ng/ml
44)	Aroclor 1260 (4)	9.218	97017	3.745 ng/ml
45)	Aroclor 1260 (5)	9.491	69389	4.582 ng/ml
46)	Aroclor 1260 (6)	10.089	17877	3.054 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

534.90

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R027.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 3:40 pm
Operator : MJB / KAK
Sample : 9G16029-ICV5
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:22:52 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

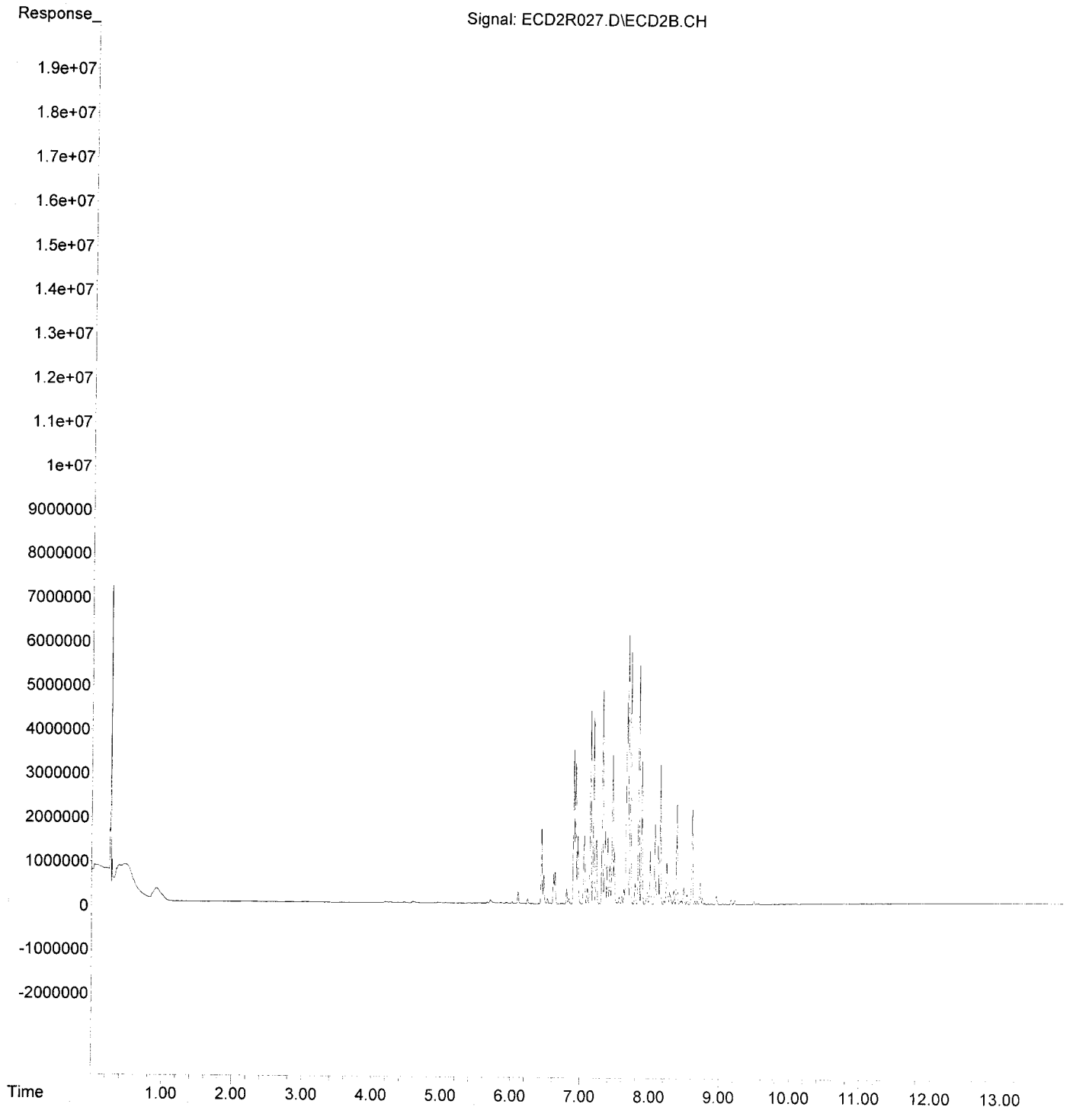
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.486	380242	28.596 ng/ml
49)	Aroclor 1262 (2)	8.790	39925	2.255 ng/ml
50)	Aroclor 1262 (3)	8.953	193664	12.958 ng/ml
51)	Aroclor 1262 (4)	9.218	97017	3.025 ng/ml
52)	Aroclor 1262 (5)	9.491	69389	3.688 ng/ml
53)	Aroclor 1262 (6)	10.089	17877	2.191 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	9.016	9665	1.188 ng/ml
56)	Aroclor 1268 (2)	9.491	69389	1.889 ng/ml
57)	Aroclor 1268 (3)	9.558	20746	0.704 ng/ml
58)	Aroclor 1268 (4)	9.786	3269	0.129 ng/ml
59)	Aroclor 1268 (5)	10.089	17877	1.836 ng/ml
60)	Aroclor 1268 (6)	10.463	6958	0.101 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R027.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 3:40 pm
Operator : MJB / KAK
Sample : 9G16029-ICV5
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 17:22:52 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R008.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:02 am
Operator : MJB / KAK
Sample : 9G16029-CAL1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:16:58 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S TCMX (S)	5.768	2318903	9.330 ng/ml
62)	S DCBP (S)	10.797	1193945	9.536 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.440	181636	23.494 ng/ml
3)	Aroclor 1016 (2)	6.930	297615	21.275 ng/ml
4)	Aroclor 1016 (3)	7.057	150591	23.391 ng/ml
5)	Aroclor 1016 (4)	7.144	149992	23.942 ng/ml
6)	Aroclor 1016 (5)	7.188	169065	24.175 ng/ml
7)	Aroclor 1016 (6)	7.314	164919	23.620 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.943	13170	6.650 ng/ml
10)	Aroclor 1221 (2)	6.017	27857	13.872 ng/ml
11)	Aroclor 1221 (3)	6.104	119675	17.849 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.104	119675	21.439 ng/ml
14)	Aroclor 1232 (2)	6.440	181636	54.718 ng/ml
15)	Aroclor 1232 (3)	6.930	297615	47.560 ng/ml
16)	Aroclor 1232 (4)	7.144	149992	66.636 ng/ml
17)	Aroclor 1232 (5)	7.188	169065	64.771 ng/ml
18)	Aroclor 1232 (6)	7.314	164919	60.548 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.440	181636	29.987 ng/ml
21)	Aroclor 1242 (2)	6.930	297615	26.147 ng/ml
22)	Aroclor 1242 (3)	7.057	150591	30.379 ng/ml
23)	Aroclor 1242 (4)	7.144	149992	32.912 ng/ml
24)	Aroclor 1242 (5)	7.188	169065	31.533 ng/ml
25)	Aroclor 1242 (6)	7.314	164919	29.951 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.902	260601	39.049 ng/ml
28)	Aroclor 1248 (2)	7.144	149992	18.626 ng/ml
29)	Aroclor 1248 (3)	7.188	169065	21.805 ng/ml
30)	Aroclor 1248 (4)	7.314	164919	17.645 ng/ml
31)	Aroclor 1248 (5)	7.658	154361	13.102 ng/ml
32)	Aroclor 1248 (6)	7.838	139838	13.279 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.658	154361	12.605 ng/ml
35)	Aroclor 1254 (2)	7.838	139838	7.157 ng/ml
36)	Aroclor 1254 (3)	8.149	78042	3.745 ng/ml
37)	Aroclor 1254 (4)	8.388	54910	3.584 ng/ml
38)	Aroclor 1254 (5)	8.723	356756	22.911 ng/ml
39)	Aroclor 1254 (6)	8.941	55962	11.710 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.285	295306	22.236 ng/ml
42)	Aroclor 1260 (2)	8.490	364431	21.849 ng/ml
43)	Aroclor 1260 (3)	8.723	356756	21.185 ng/ml
44)	Aroclor 1260 (4)	9.219	533543	20.593 ng/ml
45)	Aroclor 1260 (5)	9.492	313665	20.711 ng/ml
46)	Aroclor 1260 (6)	10.091	129008	22.037 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R008.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:02 am
Operator : MJB / KAK
Sample : 9G16029-CAL1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:16:58 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

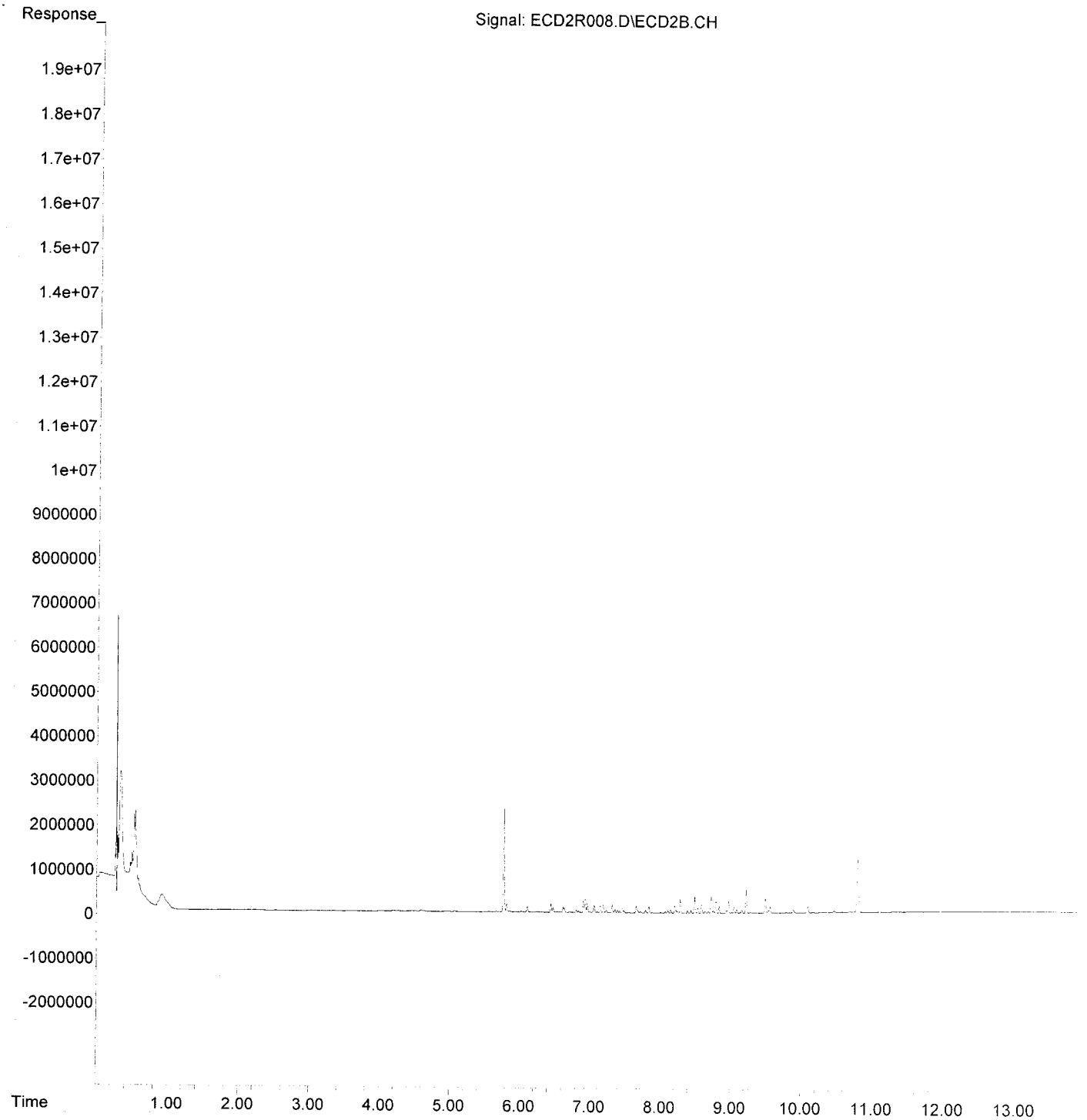
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.490	364431	27.407 ng/ml
49)	Aroclor 1262 (2)	8.792	266908	15.076 ng/ml
50)	Aroclor 1262 (3)	8.971	263865	17.655 ng/ml
51)	Aroclor 1262 (4)	9.219	533543	16.638 ng/ml
52)	Aroclor 1262 (5)	9.492	313665	16.672 ng/ml
53)	Aroclor 1262 (6)	10.091	129008	15.814 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	9.013	20815	2.558 ng/ml
56)	Aroclor 1268 (2)	9.492	313665	8.537 ng/ml
57)	Aroclor 1268 (3)	9.560	133809	4.543 ng/ml
58)	Aroclor 1268 (4)	9.789	11369	0.450 ng/ml
59)	Aroclor 1268 (5)	10.091	129008	13.252 ng/ml
60)	Aroclor 1268 (6)	10.464	31053	0.453 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R008.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:02 am
Operator : MJB / KAK
Sample : 9G16029-CAL1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:16:58 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R009.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:20 am
Operator : MJB / KAK
Sample : 9G16029-CAL2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:17:22 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	5.767	5995077	24.120 ng/ml
62) S	DCBP (S)	10.797	2991799	23.896 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.439	427452	55.289 ng/ml
3)	Aroclor 1016 (2)	6.929	739201	52.841 ng/ml
4)	Aroclor 1016 (3)	7.056	346787	53.865 ng/ml
5)	Aroclor 1016 (4)	7.142	353276	56.390 ng/ml
6)	Aroclor 1016 (5)	7.187	388633	55.572 ng/ml
7)	Aroclor 1016 (6)	7.314	379231	54.315 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.943	31047	15.677 ng/ml
10)	Aroclor 1221 (2)	6.015	64272	32.005 ng/ml
11)	Aroclor 1221 (3)	6.103	280459	41.829 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.103	280459	50.242 ng/ml
14)	Aroclor 1232 (2)	6.439	427452	128.769 ng/ml
15)	Aroclor 1232 (3)	6.929	739201	118.126 ng/ml
16)	Aroclor 1232 (4)	7.142	353276	156.947 ng/ml
17)	Aroclor 1232 (5)	7.187	388633	148.892 ng/ml
18)	Aroclor 1232 (6)	7.314	379231	139.229 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.439	427452	70.569 ng/ml
21)	Aroclor 1242 (2)	6.929	739201	64.941 ng/ml
22)	Aroclor 1242 (3)	7.056	346787	69.957 ng/ml
23)	Aroclor 1242 (4)	7.142	353276	77.518 ng/ml
24)	Aroclor 1242 (5)	7.187	388633	72.485 ng/ml
25)	Aroclor 1242 (6)	7.314	379231	68.871 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.901	616263	92.342 ng/ml
28)	Aroclor 1248 (2)	7.142	353276	43.870 ng/ml
29)	Aroclor 1248 (3)	7.187	388633	50.124 ng/ml
30)	Aroclor 1248 (4)	7.314	379231	40.574 ng/ml
31)	Aroclor 1248 (5)	7.678	100640	8.543 ng/ml
32)	Aroclor 1248 (6)	7.837	315606	29.971 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.657	306011	24.988 ng/ml
35)	Aroclor 1254 (2)	7.837	315606	16.153 ng/ml
36)	Aroclor 1254 (3)	8.148	181768	8.722 ng/ml
37)	Aroclor 1254 (4)	8.387	129069	8.424 ng/ml
38)	Aroclor 1254 (5)	8.722	876184	56.270 ng/ml
39)	Aroclor 1254 (6)	8.940	135519	28.357 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.284	703524	52.974 ng/ml
42)	Aroclor 1260 (2)	8.490	865219	51.874 ng/ml
43)	Aroclor 1260 (3)	8.722	876184	52.029 ng/ml
44)	Aroclor 1260 (4)	9.219	1336399	51.580 ng/ml
45)	Aroclor 1260 (5)	9.492	755113	49.859 ng/ml
46)	Aroclor 1260 (6)	10.090	319139	54.514 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R009.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:20 am
Operator : MJB / KAK
Sample : 9G16029-CAL2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:17:22 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

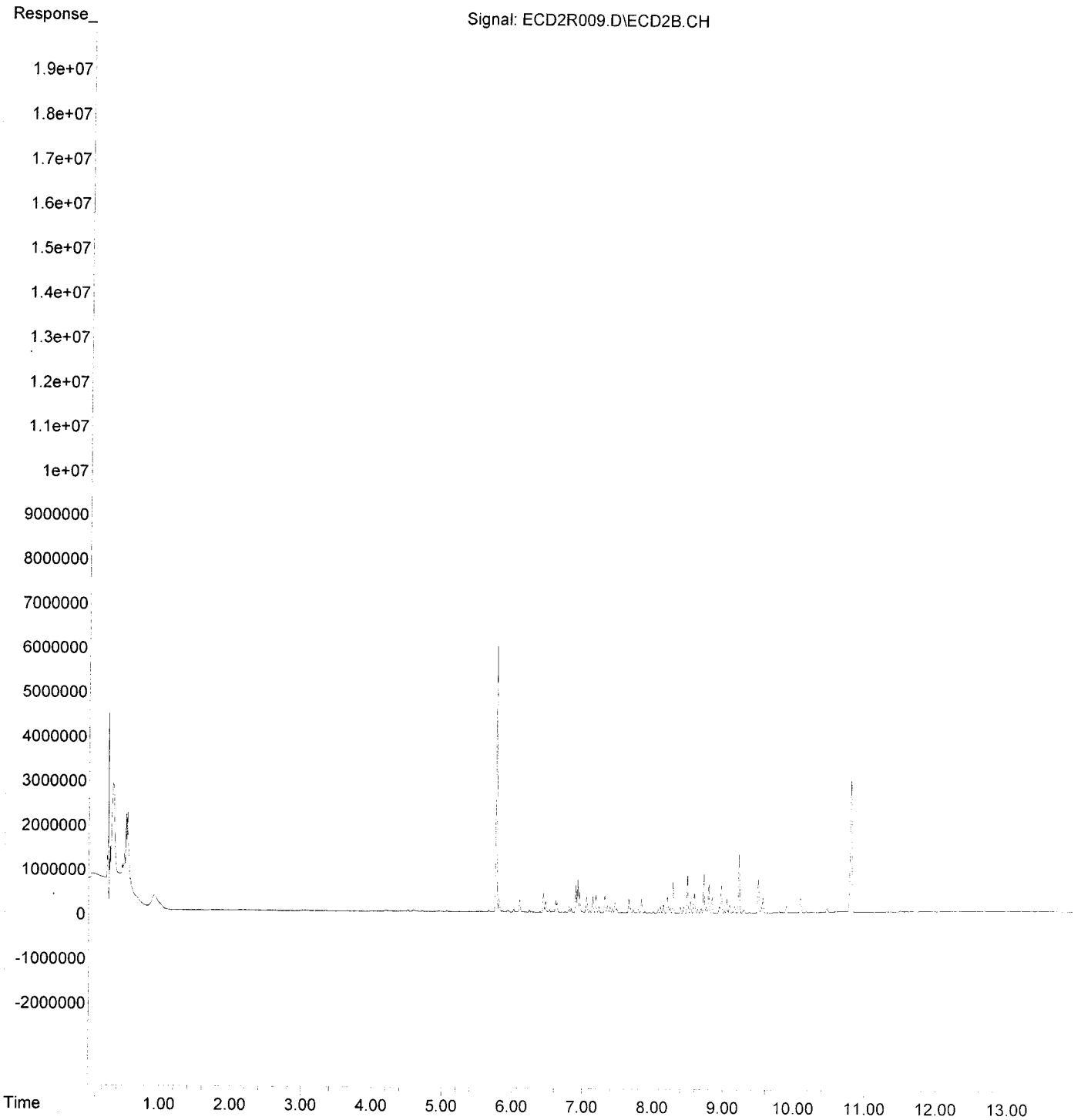
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.490	865219	65.069 ng/ml
49)	Aroclor 1262 (2)	8.791	635237	35.881 ng/ml
50)	Aroclor 1262 (3)	8.969	613226	41.031 ng/ml
51)	Aroclor 1262 (4)	9.219	1336399	41.675 ng/ml
52)	Aroclor 1262 (5)	9.492	755113	40.136 ng/ml
53)	Aroclor 1262 (6)	10.090	319139	39.121 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	9.012	49435	6.075 ng/ml
56)	Aroclor 1268 (2)	9.492	755113	20.553 ng/ml
57)	Aroclor 1268 (3)	9.560	331418	11.253 ng/ml
58)	Aroclor 1268 (4)	9.788	27550	1.091 ng/ml
59)	Aroclor 1268 (5)	10.090	319139	32.782 ng/ml
60)	Aroclor 1268 (6)	10.464	77726	1.133 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R009.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:20 am
Operator : MJB / KAK
Sample : 9G16029-CAL2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:17:22 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R010.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:37 am
Operator : MJB / KAK
Sample : 9G16029-CAL3
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:17:48 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	5.768	11782609	47.406 ng/ml
62) S	DCBP (S)	10.796	5560175	44.410 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.440	775198	100.268 ng/ml
3)	Aroclor 1016 (2)	6.929	1398387	99.962 ng/ml
4)	Aroclor 1016 (3)	7.056	652989	101.426 ng/ml
5)	Aroclor 1016 (4)	7.143	621548	99.212 ng/ml
6)	Aroclor 1016 (5)	7.188	683606	97.751 ng/ml
7)	Aroclor 1016 (6)	7.313	694825	99.515 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.944	52467	26.494 ng/ml
10)	Aroclor 1221 (2)	6.017	110061	54.807 ng/ml
11)	Aroclor 1221 (3)	6.104	482749	71.999 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.104	482749	86.481 ng/ml
14)	Aroclor 1232 (2)	6.440	775198	233.527 ng/ml
15)	Aroclor 1232 (3)	6.929	1398387	223.466 ng/ml
16)	Aroclor 1232 (4)	7.143	621548	276.130 ng/ml
17)	Aroclor 1232 (5)	7.188	683606	261.901 ng/ml
18)	Aroclor 1232 (6)	7.313	694825	255.095 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.440	775198	127.979 ng/ml
21)	Aroclor 1242 (2)	6.929	1398387	122.853 ng/ml
22)	Aroclor 1242 (3)	7.056	652989	131.728 ng/ml
23)	Aroclor 1242 (4)	7.143	621548	136.384 ng/ml
24)	Aroclor 1242 (5)	7.188	683606	127.502 ng/ml
25)	Aroclor 1242 (6)	7.313	694825	126.185 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.902	1141434	171.034 ng/ml
28)	Aroclor 1248 (2)	7.143	621548	77.185 ng/ml
29)	Aroclor 1248 (3)	7.188	683606	88.169 ng/ml
30)	Aroclor 1248 (4)	7.313	694825	74.340 ng/ml
31)	Aroclor 1248 (5)	7.658	569213	48.316 ng/ml
32)	Aroclor 1248 (6)	7.838	585928	55.641 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.658	569213	46.481 ng/ml
35)	Aroclor 1254 (2)	7.838	585928	29.989 ng/ml
36)	Aroclor 1254 (3)	8.149	334116	16.032 ng/ml
37)	Aroclor 1254 (4)	8.388	239308	15.619 ng/ml
38)	Aroclor 1254 (5)	8.724	1653114	106.165 ng/ml
39)	Aroclor 1254 (6)	8.940	246918	51.668 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.285	1309548	98.606 ng/ml
42)	Aroclor 1260 (2)	8.490	1646418	98.711 ng/ml
43)	Aroclor 1260 (3)	8.724	1653114	98.165 ng/ml
44)	Aroclor 1260 (4)	9.219	2434835	93.976 ng/ml
45)	Aroclor 1260 (5)	9.492	1495329	98.734 ng/ml
46)	Aroclor 1260 (6)	10.091	552480	94.372 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R010.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:37 am
Operator : MJB / KAK
Sample : 9G16029-CAL3
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:17:48 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

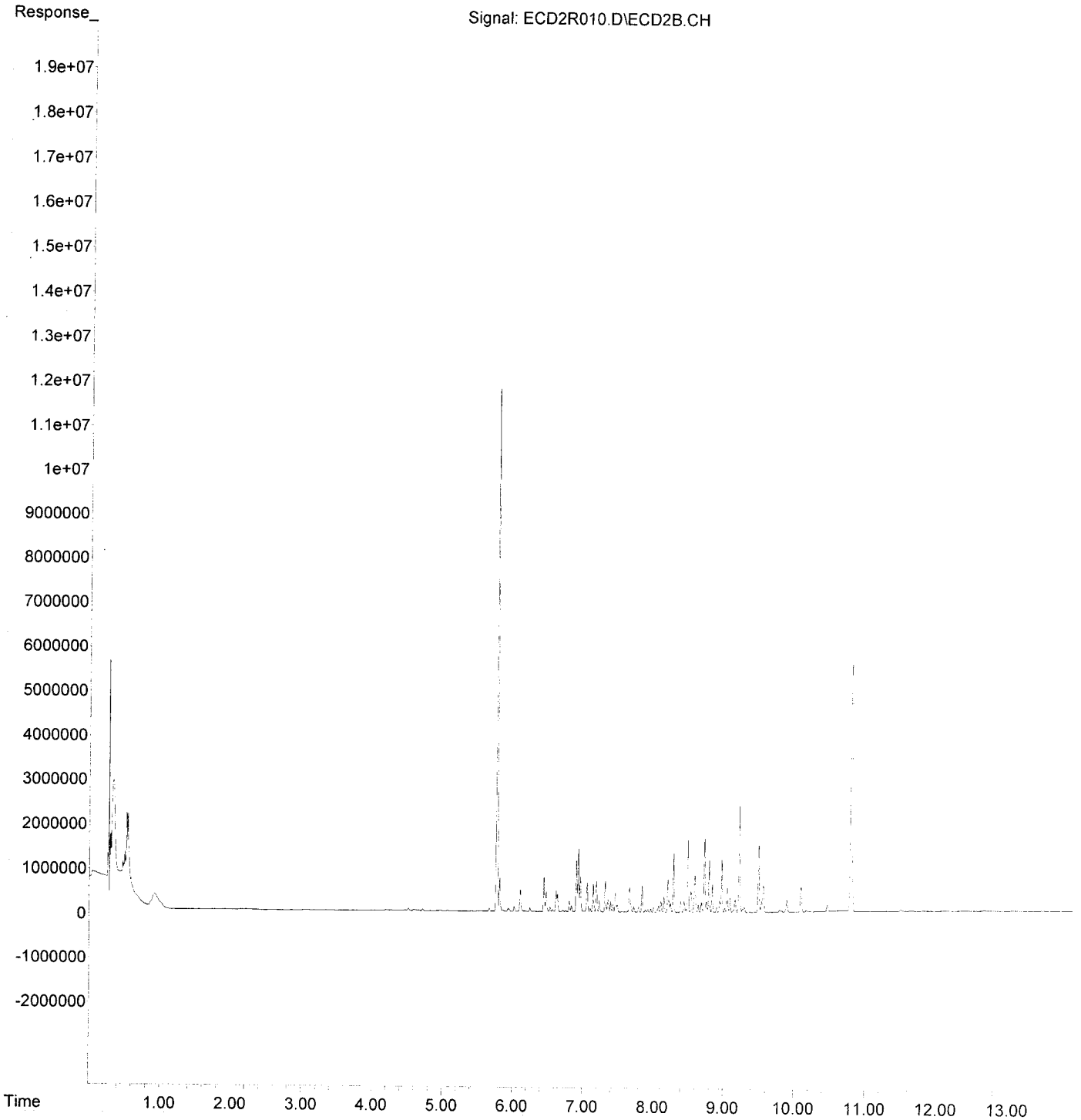
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.490	1646418	123.819 ng/ml
49)	Aroclor 1262 (2)	8.792	1157523	65.382 ng/ml
50)	Aroclor 1262 (3)	8.971	1172149	78.429 ng/ml
51)	Aroclor 1262 (4)	9.219	2434835	75.929 ng/ml
52)	Aroclor 1262 (5)	9.492	1495329	79.481 ng/ml
53)	Aroclor 1262 (6)	10.091	552480	67.724 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	9.013	93812	11.528 ng/ml
56)	Aroclor 1268 (2)	9.492	1495329	40.700 ng/ml
57)	Aroclor 1268 (3)	9.561	594232	20.176 ng/ml
58)	Aroclor 1268 (4)	9.789	45144	1.788 ng/ml
59)	Aroclor 1268 (5)	10.091	552480	56.750 ng/ml
60)	Aroclor 1268 (6)	10.464	136861	1.995 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R010.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:37 am
Operator : MJB / KAK
Sample : 9G16029-CAL3
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:17:48 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R011.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:55 am
Operator : MJB / KAK
Sample : 9G16029-CAL4
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:18:10 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	5.767	25090528	100.948	ng/ml
62) S	DCBP (S)	10.797	11829736	94.487	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	6.439	1520873	196.718	ng/ml
3)	Aroclor 1016 (2)	6.928	2778958	198.651	ng/ml
4)	Aroclor 1016 (3)	7.056	1258573	195.488	ng/ml
5)	Aroclor 1016 (4)	7.142	1218268	194.461	ng/ml
6)	Aroclor 1016 (5)	7.187	1318474	188.533	ng/ml
7)	Aroclor 1016 (6)	7.313	1299806	186.163	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	5.943	101170	51.087	ng/ml
10)	Aroclor 1221 (2)	6.016	209657	104.403	ng/ml
11)	Aroclor 1221 (3)	6.103	957804	142.850	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	6.103	957804	171.583	ng/ml
14)	Aroclor 1232 (2)	6.439	1520873	458.160	ng/ml
15)	Aroclor 1232 (3)	6.928	2778958	444.085	ng/ml
16)	Aroclor 1232 (4)	7.142	1218268	541.231	ng/ml
17)	Aroclor 1232 (5)	7.187	1318474	505.129	ng/ml
18)	Aroclor 1232 (6)	7.313	1299806	477.205	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	6.439	1520873	251.084	ng/ml
21)	Aroclor 1242 (2)	6.928	2778958	244.142	ng/ml
22)	Aroclor 1242 (3)	7.056	1258573	253.892	ng/ml
23)	Aroclor 1242 (4)	7.142	1218268	267.320	ng/ml
24)	Aroclor 1242 (5)	7.187	1318474	245.913	ng/ml
25)	Aroclor 1242 (6)	7.313	1299806	236.054	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	6.901	2270752	340.252	ng/ml
28)	Aroclor 1248 (2)	7.142	1218268	151.287	ng/ml
29)	Aroclor 1248 (3)	7.187	1318474	170.051	ng/ml
30)	Aroclor 1248 (4)	7.313	1299806	139.067	ng/ml
31)	Aroclor 1248 (5)	7.677	323344	27.446	ng/ml
32)	Aroclor 1248 (6)	7.837	1124452	106.781	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	7.657	1025020	83.701	ng/ml
35)	Aroclor 1254 (2)	7.837	1124452	57.551	ng/ml
36)	Aroclor 1254 (3)	8.148	643998	30.901	ng/ml
37)	Aroclor 1254 (4)	8.387	448049	29.243	ng/ml
38)	Aroclor 1254 (5)	8.723	3271651	210.110	ng/ml
39)	Aroclor 1254 (6)	8.940	476827	99.776	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	8.284	2586850	194.784	ng/ml
42)	Aroclor 1260 (2)	8.489	3320933	199.106	ng/ml
43)	Aroclor 1260 (3)	8.723	3271651	194.276	ng/ml
44)	Aroclor 1260 (4)	9.219	4895017	188.931	ng/ml
45)	Aroclor 1260 (5)	9.491	2986287	197.179	ng/ml
46)	Aroclor 1260 (6)	10.090	1139825	194.700	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R011.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:55 am
Operator : MJB / KAK
Sample : 9G16029-CAL4
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:18:10 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

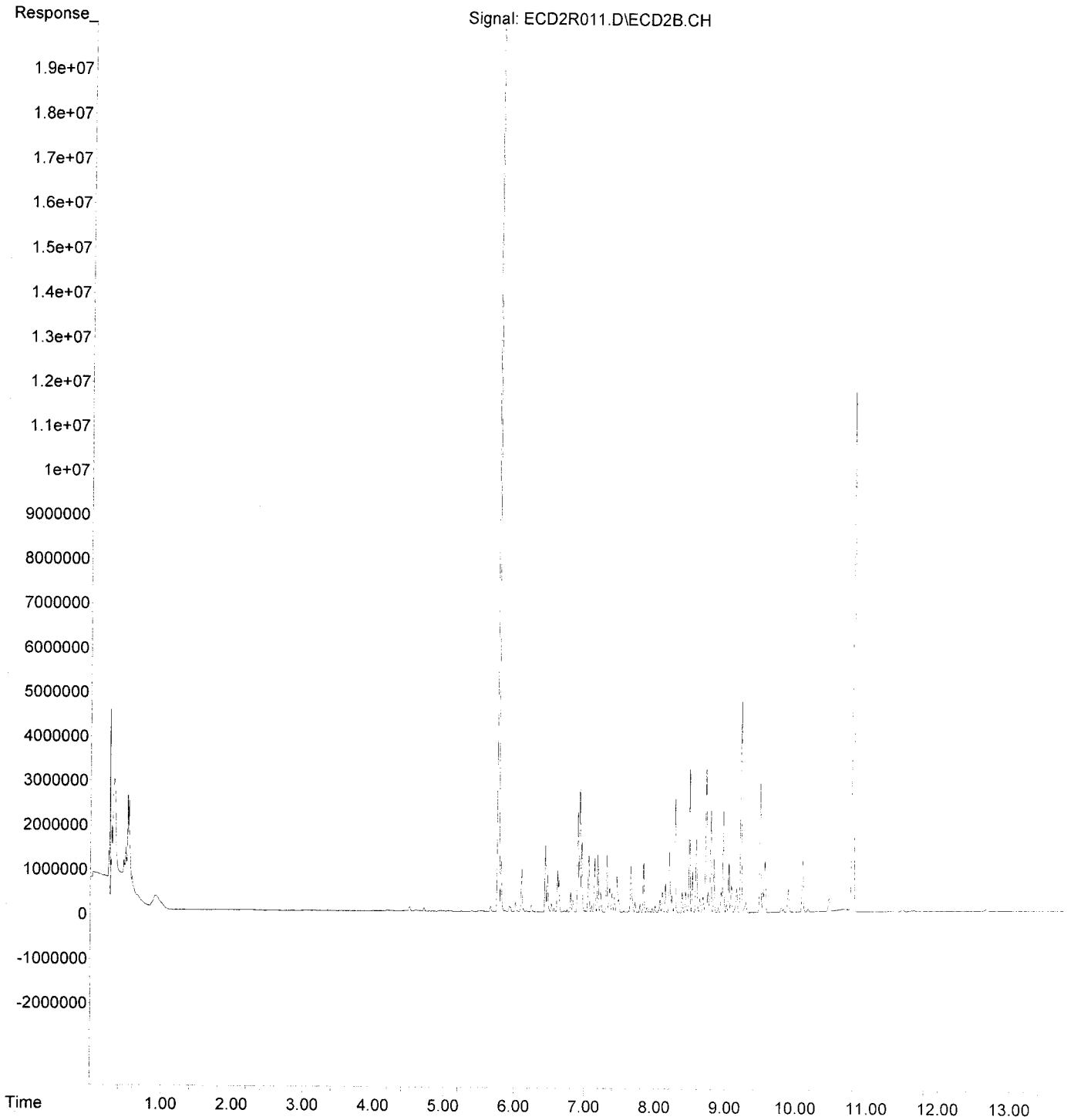
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.489	3320933	249.750 ng/ml
49)	Aroclor 1262 (2)	8.791	2292371	129.483 ng/ml
50)	Aroclor 1262 (3)	8.970	2273211	152.102 ng/ml
51)	Aroclor 1262 (4)	9.219	4895017	152.648 ng/ml
52)	Aroclor 1262 (5)	9.491	2986287	158.729 ng/ml
53)	Aroclor 1262 (6)	10.090	1139825	139.723 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	9.013	174980	21.502 ng/ml
56)	Aroclor 1268 (2)	9.491	2986287	81.281 ng/ml
57)	Aroclor 1268 (3)	9.559	1140444	38.721 ng/ml
58)	Aroclor 1268 (4)	9.787	95899	3.798 ng/ml
59)	Aroclor 1268 (5)	10.090	1139825	117.082 ng/ml
60)	Aroclor 1268 (6)	10.462	272483	3.972 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R011.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:55 am
Operator : MJB / KAK
Sample : 9G16029-CAL4
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:18:10 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R012.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:13 am
Operator : MJB / KAK
Sample : 9G16029-CAL5
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:18:32 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S TCMX (S)	5.769	66277609	266.658	ng/ml
62)	S DCBP (S)	10.798	32817174	262.119	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	6.440	3626665	469.093	ng/ml
3)	Aroclor 1016 (2)	6.929	6773511	484.198	ng/ml
4)	Aroclor 1016 (3)	7.057	3028417	470.390	ng/ml
5)	Aroclor 1016 (4)	7.143	2918005	465.775	ng/ml
6)	Aroclor 1016 (5)	7.188	3317795	474.424	ng/ml
7)	Aroclor 1016 (6)	7.314	3330050	476.942	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	5.943	234562	118.444	ng/ml
10)	Aroclor 1221 (2)	6.016	479052	238.554	ng/ml
11)	Aroclor 1221 (3)	6.104	2318473	345.784	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	6.104	2318473	415.337	ng/ml
14)	Aroclor 1232 (2)	6.440	3626665	1092.527	ng/ml
15)	Aroclor 1232 (3)	6.929	6773511	1082.426	ng/ml
16)	Aroclor 1232 (4)	7.143	2918005	1296.360	ng/ml
17)	Aroclor 1232 (5)	7.188	3317795	1271.101	ng/ml
18)	Aroclor 1232 (6)	7.314	3330050	1222.580	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	6.440	3626665	598.733	ng/ml
21)	Aroclor 1242 (2)	6.929	6773511	595.078	ng/ml
22)	Aroclor 1242 (3)	7.057	3028417	610.923	ng/ml
23)	Aroclor 1242 (4)	7.143	2918005	640.287	ng/ml
24)	Aroclor 1242 (5)	7.188	3317795	618.813	ng/ml
25)	Aroclor 1242 (6)	7.314	3330050	604.761	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	6.901	5606975	840.156	ng/ml
28)	Aroclor 1248 (2)	7.143	2918005	362.363	ng/ml
29)	Aroclor 1248 (3)	7.188	3317795	427.916	ng/ml
30)	Aroclor 1248 (4)	7.314	3330050	356.285	ng/ml
31)	Aroclor 1248 (5)	7.678	756051	64.175	ng/ml
32)	Aroclor 1248 (6)	7.837	2821839	267.970	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	7.657	2323039	189.696	ng/ml
35)	Aroclor 1254 (2)	7.837	2821839	144.426	ng/ml
36)	Aroclor 1254 (3)	8.149	1496888	71.825	ng/ml
37)	Aroclor 1254 (4)	8.387	1055735	68.906	ng/ml
38)	Aroclor 1254 (5)	8.723	8521487	547.261	ng/ml
39)	Aroclor 1254 (6)	8.941	1173435	245.542	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	8.285	6504386	489.765	ng/ml
42)	Aroclor 1260 (2)	8.490	8328165	499.313	ng/ml
43)	Aroclor 1260 (3)	8.723	8521487	506.021	ng/ml
44)	Aroclor 1260 (4)	9.219	13285795	512.786	ng/ml
45)	Aroclor 1260 (5)	9.491	7469130	493.174	ng/ml
46)	Aroclor 1260 (6)	10.091	2857825	488.162	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R012.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:13 am
Operator : MJB / KAK
Sample : 9G16029-CAL5
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:18:32 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

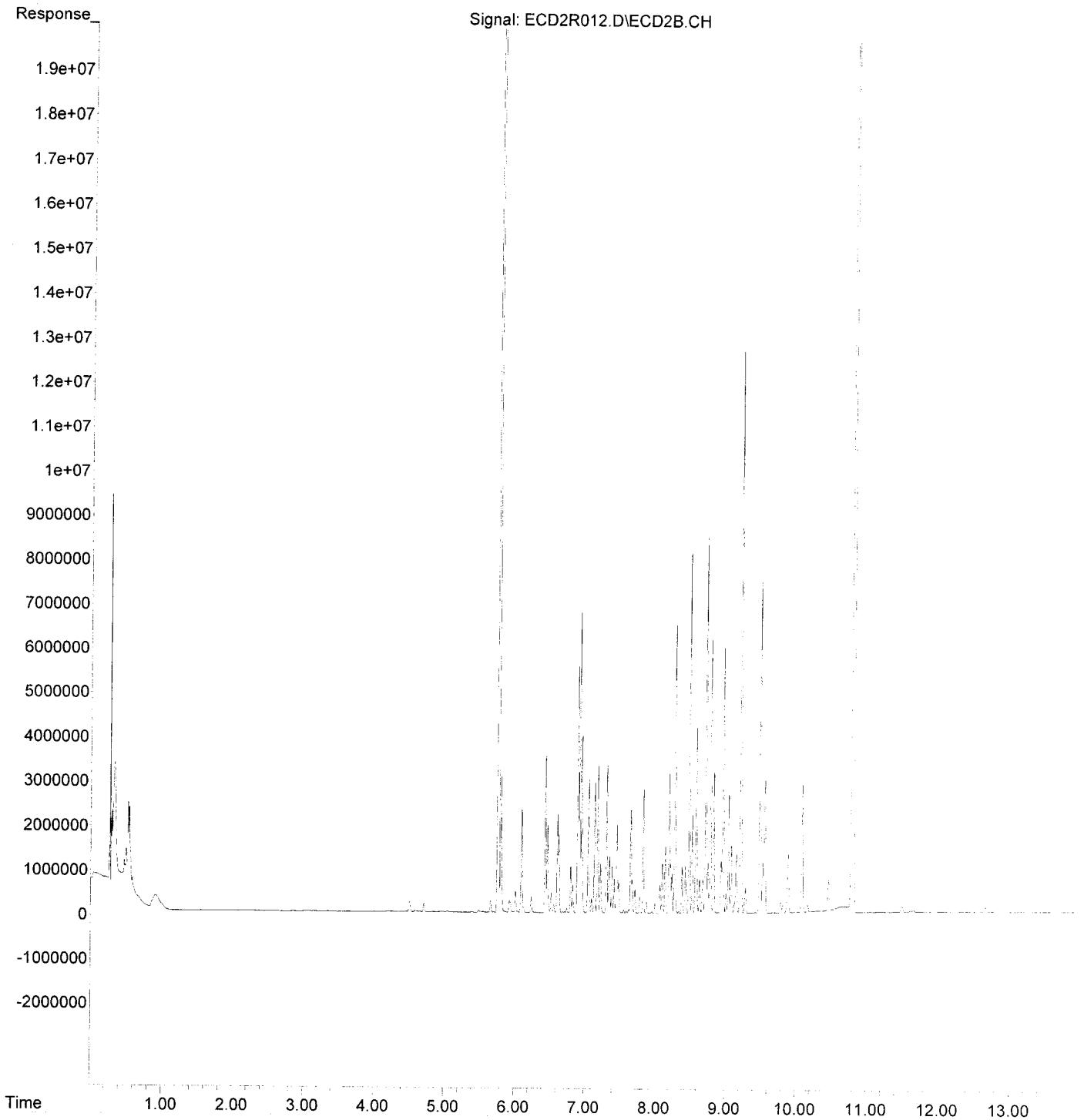
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.490	8328165	626.319 ng/ml
49)	Aroclor 1262 (2)	8.792	6165019	348.226 ng/ml
50)	Aroclor 1262 (3)	8.971	5963456	399.018 ng/ml
51)	Aroclor 1262 (4)	9.219	13285795	414.309 ng/ml
52)	Aroclor 1262 (5)	9.491	7469130	397.004 ng/ml
53)	Aroclor 1262 (6)	10.091	2857825	350.320 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	9.013	439094	53.957 ng/ml
56)	Aroclor 1268 (2)	9.491	7469130	203.295 ng/ml
57)	Aroclor 1268 (3)	9.559	2981635	101.235 ng/ml
58)	Aroclor 1268 (4)	9.788	237418	9.403 ng/ml
59)	Aroclor 1268 (5)	10.091	2857825	293.553 ng/ml
60)	Aroclor 1268 (6)	10.462	680821	9.925 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R012.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:13 am
Operator : MJB / KAK
Sample : 9G16029-CAL5
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:18:32 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R013.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:31 am
Operator : MJB / KAK
Sample : 9G16029-CAL6
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:18:54 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7.17.19

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	5.770	131991260	531.046 ng/ml
52) S	DCBP (S)	10.797	67332205	537.798 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	6.439	6951076	899.090 ng/ml
3)	Aroclor 1016 (2)	6.929	13634072	974.618 ng/ml
4)	Aroclor 1016 (3)	7.057	5943053	923.108 ng/ml
5)	Aroclor 1016 (4)	7.142	5545937	885.249 ng/ml
6)	Aroclor 1016 (5)	7.187	6306248	901.753 ng/ml
7)	Aroclor 1016 (6)	7.313	6516844	933.365 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.943	422892	213.543 ng/ml
10)	Aroclor 1221 (2)	6.016	869395	432.934 ng/ml
11)	Aroclor 1221 (3)	6.103	4377925	652.936 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	6.103	4377925	784.272 ng/ml
14)	Aroclor 1232 (2)	6.439	6951076	2094.000 ng/ml
15)	Aroclor 1232 (3)	6.929	13634072	2178.763 ng/ml
16)	Aroclor 1232 (4)	7.142	5545937	2463.850 ng/ml
17)	Aroclor 1232 (5)	7.187	6306248	2416.026 ng/ml
18)	Aroclor 1232 (6)	7.313	6516844	2392.566 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	6.439	6951076	1147.566 ng/ml
21)	Aroclor 1242 (2)	6.929	13634072	1197.803 ng/ml
22)	Aroclor 1242 (3)	7.057	5943053	1198.894 ng/ml
23)	Aroclor 1242 (4)	7.142	5545937	1216.923 ng/ml
24)	Aroclor 1242 (5)	7.187	6306248	1176.200 ng/ml
25)	Aroclor 1242 (6)	7.313	6516844	1183.506 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.901	11032162	1653.073 ng/ml
28)	Aroclor 1248 (2)	7.142	5545937	688.703 ng/ml
29)	Aroclor 1248 (3)	7.187	6306248	813.355 ng/ml
30)	Aroclor 1248 (4)	7.313	6516844	697.243 ng/ml
31)	Aroclor 1248 (5)	7.678	1402158	119.018 ng/ml
32)	Aroclor 1248 (6)	7.837	5248269	498.391 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	7.657	4591475	374.932 ng/ml
35)	Aroclor 1254 (2)	7.837	5248269	268.614 ng/ml
36)	Aroclor 1254 (3)	8.148	3010662	144.460 ng/ml
37)	Aroclor 1254 (4)	8.387	2043163	133.354 ng/ml
38)	Aroclor 1254 (5)	8.723	15985170	1026.588 ng/ml
39)	Aroclor 1254 (6)	8.940	2273359	475.701 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	8.283	12578233	947.111 ng/ml
42)	Aroclor 1260 (2)	8.490	16152335	968.409 ng/ml
43)	Aroclor 1260 (3)	8.723	15985170	949.227 ng/ml
44)	Aroclor 1260 (4)	9.219	25750690	993.888 ng/ml
45)	Aroclor 1260 (5)	9.492	15048607	993.633 ng/ml
46)	Aroclor 1260 (6)	10.090	5656013	966.138 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R013.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:31 am
Operator : MJB / KAK
Sample : 9G16029-CAL6
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:18:54 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

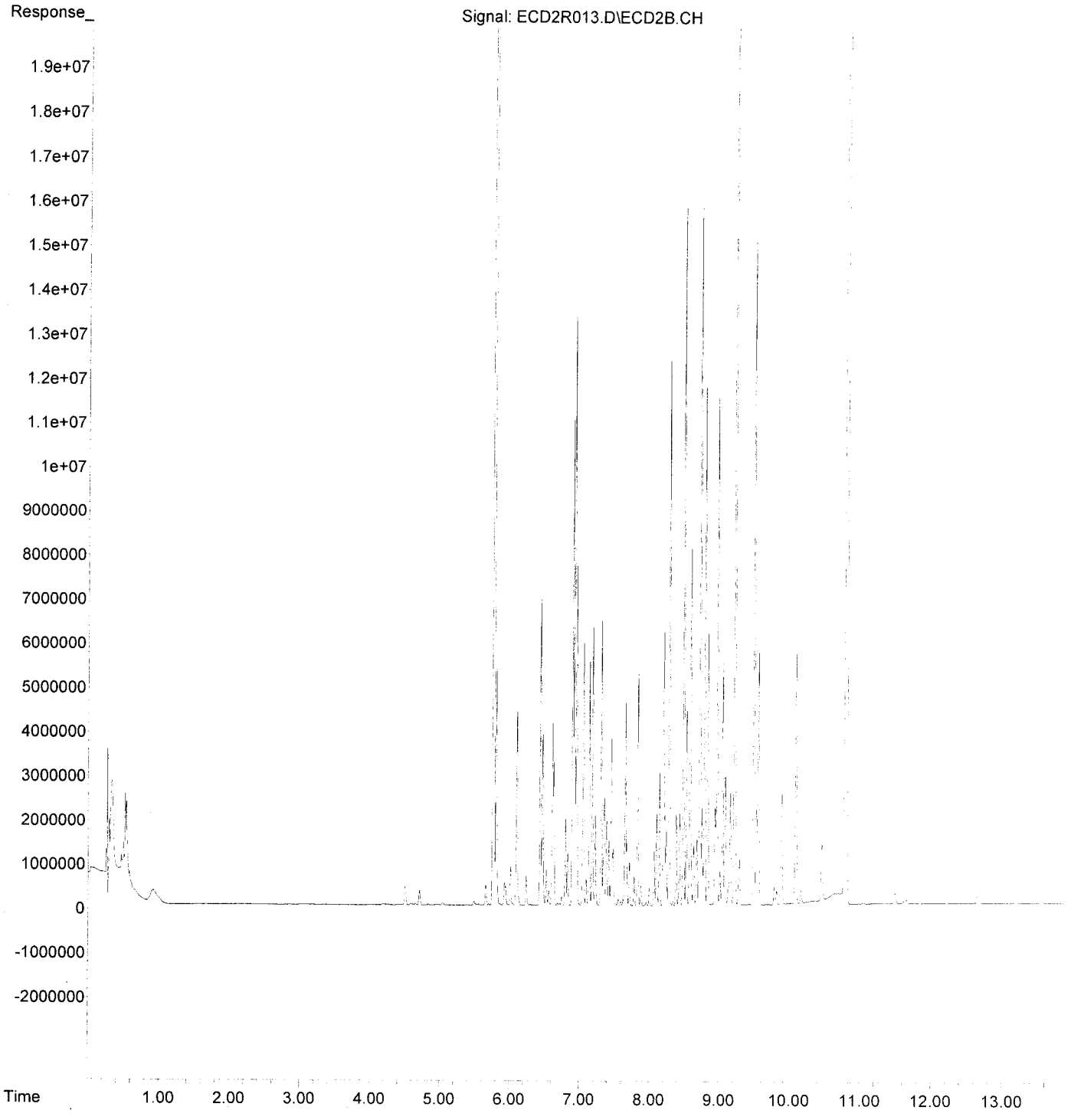
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	8.490	16152335	1214.735 ng/ml
49)	Aroclor 1262 (2)	8.791	11745447	663.432 ng/ml
50)	Aroclor 1262 (3)	8.970	11478630	768.041 ng/ml
51)	Aroclor 1262 (4)	9.219	25750690	803.018 ng/ml
52)	Aroclor 1262 (5)	9.492	15048607	799.874 ng/ml
53)	Aroclor 1262 (6)	10.090	5656013	693.329 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	9.012	762260	93.668 ng/ml
56)	Aroclor 1268 (2)	9.492	15048607	409.593 ng/ml
57)	Aroclor 1268 (3)	9.559	5717410	194.123 ng/ml
58)	Aroclor 1268 (4)	9.788	391615	15.510 ng/ml
59)	Aroclor 1268 (5)	10.090	5656013	580.979 ng/ml
60)	Aroclor 1268 (6)	10.462	1256484	18.317 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R013.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:31 am
Operator : MJB / KAK
Sample : 9G16029-CAL6
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:18:54 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R014.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:49 am
Operator : MJB / KAK
Sample : 9G16029-CAL7
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:19:17 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7.17.19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	5.772	202001367	812.721	ng/ml
52) S	DCBP (S)	10.800	113518034	906.696	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	6.439	10390584	1343.974	ng/ml
3)	Aroclor 1016 (2)	6.929	19799257	1415.330	ng/ml
4)	Aroclor 1016 (3)	7.056	8668119	1346.380	ng/ml
5)	Aroclor 1016 (4)	7.142	8399920	1340.805	ng/ml
6)	Aroclor 1016 (5)	7.188	9535588	1363.528	ng/ml
7)	Aroclor 1016 (6)	7.313	9629768	1379.209	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	5.943	588490	297.163	ng/ml
10)	Aroclor 1221 (2)	6.015	1270599	632.722	ng/ml
11)	Aroclor 1221 (3)	6.103	6315832	941.961	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	6.103	6315832	1131.433	ng/ml
14)	Aroclor 1232 (2)	6.439	10390584	3130.146	ng/ml
15)	Aroclor 1232 (3)	6.929	19799257	3163.978	ng/ml
16)	Aroclor 1232 (4)	7.142	8399920	3731.767	ng/ml
17)	Aroclor 1232 (5)	7.188	9535588	3653.239	ng/ml
18)	Aroclor 1232 (6)	7.313	9629768	3535.432	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	6.439	10390584	1715.401	ng/ml
21)	Aroclor 1242 (2)	6.929	19799257	1739.437	ng/ml
22)	Aroclor 1242 (3)	7.056	8668119	1748.622	ng/ml
23)	Aroclor 1242 (4)	7.142	8399920	1843.162	ng/ml
24)	Aroclor 1242 (5)	7.188	9535588	1778.515	ng/ml
25)	Aroclor 1242 (6)	7.313	9629768	1748.835	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	6.902	16388193	2455.628	ng/ml
28)	Aroclor 1248 (2)	7.142	8399920	1043.116	ng/ml
29)	Aroclor 1248 (3)	7.188	9535588	1229.862	ng/ml
30)	Aroclor 1248 (4)	7.313	9629768	1030.297	ng/ml
31)	Aroclor 1248 (5)	7.678	2006667	170.329	ng/ml
32)	Aroclor 1248 (6)	7.837	7750598	736.019	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	7.656	6621008	540.661	ng/ml
35)	Aroclor 1254 (2)	7.837	7750598	396.687	ng/ml
36)	Aroclor 1254 (3)	8.148	4443565	213.215	ng/ml
37)	Aroclor 1254 (4)	8.387	2983648	194.738	ng/ml
38)	Aroclor 1254 (5)	8.723	24903569	1599.340	ng/ml
39)	Aroclor 1254 (6)	8.940	3339880	698.871	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	8.284	18767823	1413.173	ng/ml
42)	Aroclor 1260 (2)	8.490	23026847	1380.569	ng/ml
43)	Aroclor 1260 (3)	8.723	24903569	1478.817	ng/ml
44)	Aroclor 1260 (4)	9.219	40218812	1552.307	ng/ml
45)	Aroclor 1260 (5)	9.492	23037112	1521.101	ng/ml
46)	Aroclor 1260 (6)	10.090	8326510	1422.302	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R014.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:49 am
Operator : MJB / KAK
Sample : 9G16029-CAL7
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:19:17 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

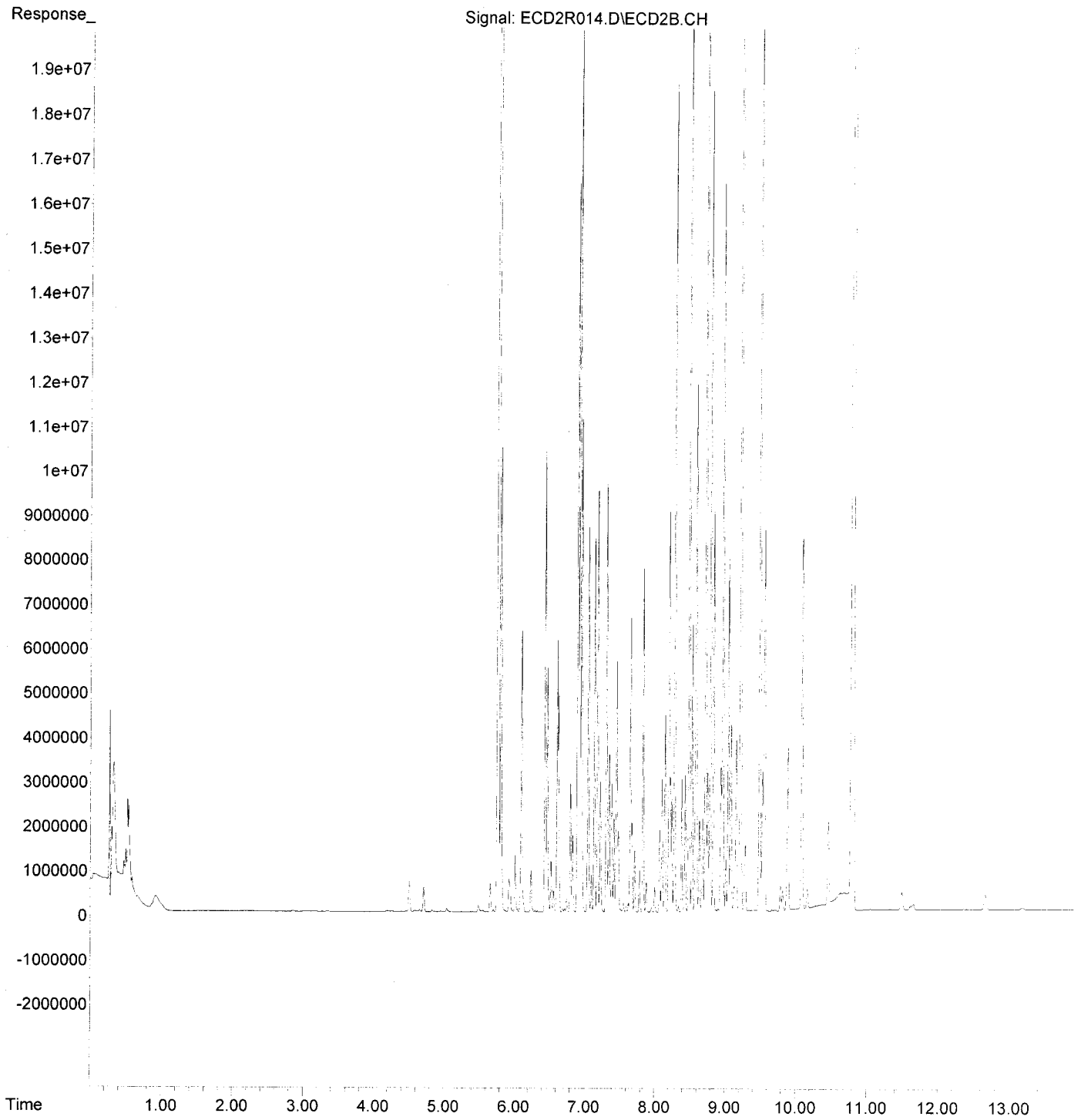
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	8.490	23026847	1731.732	ng/ml
49)	Aroclor 1262 (2)	8.791	18438887	1041.505	ng/ml
50)	Aroclor 1262 (3)	8.970	16672058	1115.536	ng/ml
51)	Aroclor 1262 (4)	9.219	40218812	1254.197	ng/ml
52)	Aroclor 1262 (5)	9.492	23037112	1224.484	ng/ml
53)	Aroclor 1262 (6)	10.090	8326510	1020.686	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	9.012	1179546	144.944	ng/ml
56)	Aroclor 1268 (2)	9.492	23037112	627.024	ng/ml
57)	Aroclor 1268 (3)	9.558	8668829	294.332	ng/ml
58)	Aroclor 1268 (4)	9.788	546280	21.635	ng/ml
59)	Aroclor 1268 (5)	10.090	8326510	855.290	ng/ml
60)	Aroclor 1268 (6)	10.462	1853082	27.014	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9G16029\REQUANT\
Data File : ECD2R014.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:49 am
Operator : MJB / KAK
Sample : 9G16029-CAL7
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:19:17 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:14:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Sequence: C:\HPCHEM\2\SEQUENCE\9G16028.S

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	Hexane	E2A21015	1	Sample		
2	Vial 1	Hexane	E2A21015	1	Sample		
3	Vial 2	conditioning run	E2A21015	1	Sample		
4	Vial 2	conditioning run	E2A21015	1	Sample		
5	Vial 1	Hexane	E2A21015	1	Sample		
6	Vial 1	Hexane	E2A21015	1	Sample		
7	Vial 1	Hexane	E2A21015	1	Sample		
8	Vial 3	9G16028-ICB1	E2A21015	1	Sample		
9	Vial 4	9G16028-CAL1	E2A21015	1	Sample		
10	Vial 5	9G16028-CAL2	E2A21015	1	Sample		
11	Vial 6	9G16028-CAL3	E2A21015	1	Sample		
12	Vial 7	9G16028-CAL4	E2A21015	1	Sample		
13	Vial 8	9G16028-CAL5	E2A21015	1	Sample		
14	Vial 9	9G16028-CAL6	E2A21015	1	Sample		
15	Vial 10	9G16028-CAL7	E2A21015	1	Sample		
16	Vial 1	Carryover blank	E2A21015	1	Sample		
17	Vial 11	9G16028-ICV1	E2A21015	1	Sample		
18	Vial 12	9G16028-CAL8	E2A21015	1	Sample		
19	Vial 13	9G16028-CAL9	E2A21015	1	Sample		
20	Vial 14	9G16028-CALA	E2A21015	1	Sample		
21	Vial 15	9G16028-CALB	E2A21015	1	Sample		
22	Vial 16	9G16028-CALC	E2A21015	1	Sample		
23	Vial 17	9G16028-CALD	E2A21015	1	Sample		
24	Vial 18	9G16028-CALE	E2A21015	1	Sample		
25	Vial 19	9G16028-ICV2	E2A21015	1	Sample		
26	Vial 20	9G16028-ICV3	E2A21015	1	Sample		
27	Vial 21	9G16028-ICV4	E2A21015	1	Sample		
28	Vial 22	9G16028-ICV5	E2A21015	1	Sample		

Sequence Table (Back Injector):

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 51	Hexane	E2A21015	1	Sample		
2	Vial 51	Hexane	E2A21015	1	Sample		
3	Vial 52	conditioning run	E2A21015	1	Sample		
4	Vial 52	conditioning run	E2A21015	1	Sample		
5	Vial 51	Hexane	E2A21015	1	Sample		
6	Vial 51	Hexane	E2A21015	1	Sample		
7	Vial 53	9G16029-ICB1	E2A21015	1	Sample		
8	Vial 4	9G16029-CAL1	E2A21015	1	Sample		
9	Vial 5	9G16029-CAL2	E2A21015	1	Sample		
10	Vial 6	9G16029-CAL3	E2A21015	1	Sample		
11	Vial 7	9G16029-CAL4	E2A21015	1	Sample		
12	Vial 8	9G16029-CAL5	E2A21015	1	Sample		
13	Vial 9	9G16029-CAL6	E2A21015	1	Sample		
14	Vial 10	9G16029-CAL7	E2A21015	1	Sample		
15	Vial 1	~~Carryover blank~~	E2A21015	1	Sample		
16	Vial 11	9G16029-ICV1	E2A21015	1	Sample		
17	Vial 12	9G16029-CAL8	E2A21015	1	Sample		
18	Vial 13	9G16029-CAL9	E2A21015	1	Sample		
19	Vial 14	9G16029-CALA	E2A21015	1	Sample		
20	Vial 15	9G16029-CALB	E2A21015	1	Sample		
21	Vial 16	9G16029-CALC	E2A21015	1	Sample		
22	Vial 17	9G16029-CALD	E2A21015	1	Sample		

7/17/19

- 9G16029-ICB1

MJB 7/17/19

Sequence: C:\HPCHEM\2\SEQUENCE\9G16028.S

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
23	Vial 18	9G16029-CALE	E2A21015	1	Sample		
24	Vial 19	9G16029-ICV2	E2A21015	1	Sample		
25	Vial 20	9G16029-ICV3	E2A21015	1	Sample		
26	Vial 21	9G16029-ICV4	E2A21015	1	Sample		
27	Vial 22	9G16029-ICV5	E2A21015	1	Sample		
28	Vial 51	Hexane	E2A21015	1	Sample		

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R008.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:02 am
Operator : MJB / KAK
Sample : 9G16029-CAL1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:47:58 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7.17.19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	5.768	2318903	11.554	ng/ml
62) S	DCBP (S)	10.797	1193945	8.735	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	6.440	181636	32.203	ng/ml
3)	Aroclor 1016 (2)	6.930	297615	28.871	ng/ml
4)	Aroclor 1016 (3)	7.057	150591	29.791	ng/ml
5)	Aroclor 1016 (4)	7.144	149992	26.762	ng/ml
6)	Aroclor 1016 (5)	7.188	169065	25.742	ng/ml
7)	Aroclor 1016 (6)	7.314	164919	24.601	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	8.285	295306	22.267	ng/ml
42)	Aroclor 1260 (2)	8.490	364431	22.267	ng/ml
43)	Aroclor 1260 (3)	8.723	356756	21.948	ng/ml
44)	Aroclor 1260 (4)	9.219	533543	19.286	ng/ml
45)	Aroclor 1260 (5)	9.492	313665	19.983	ng/ml
46)	Aroclor 1260 (6)	10.091	129008	20.144	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R008.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:02 am
Operator : MJB / KAK
Sample : 9G16029-CAL1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:47:58 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

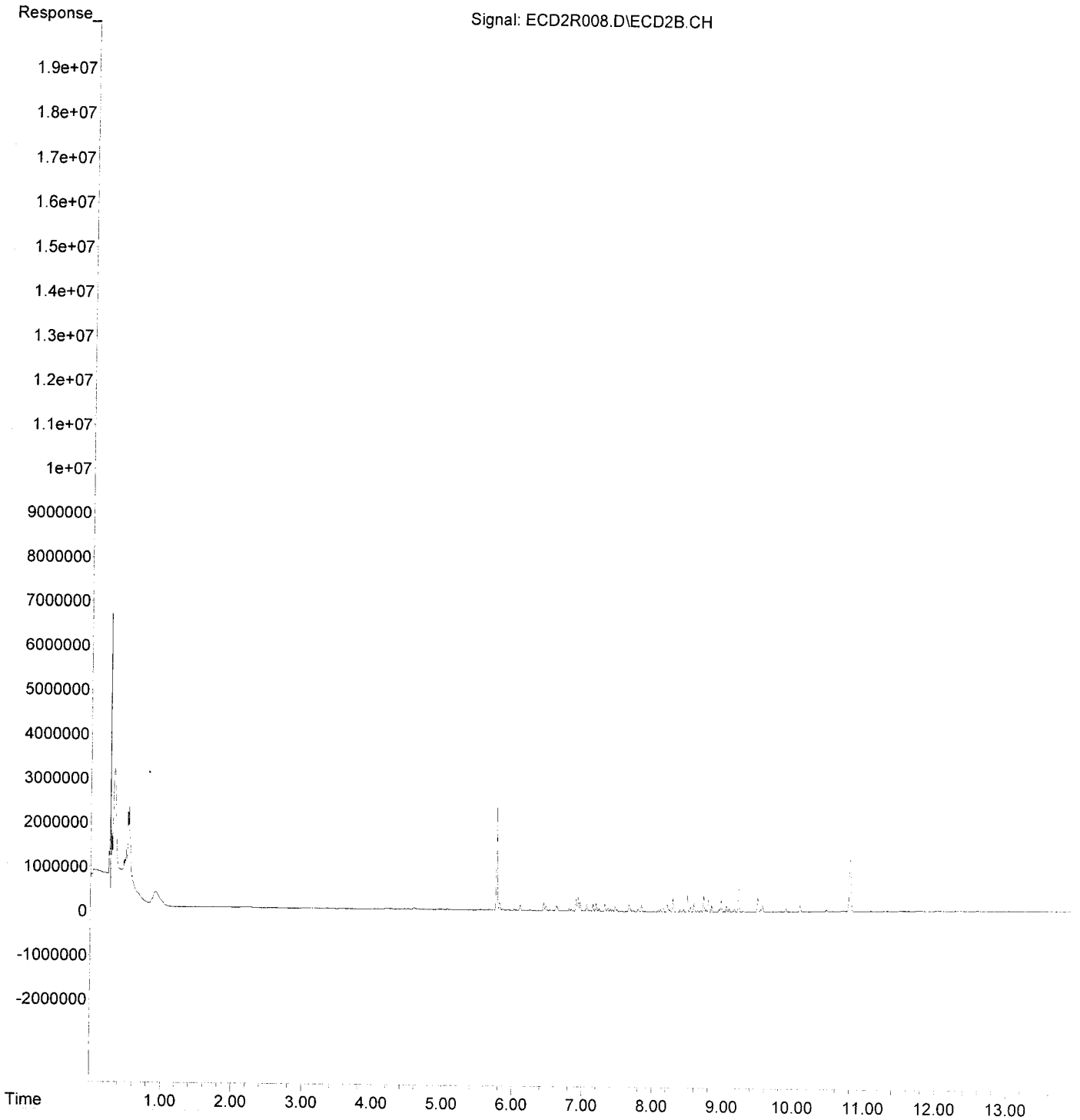
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R008.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:02 am
Operator : MJB / KAK
Sample : 9G16029-CAL1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:47:58 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R009.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:20 am
Operator : MJB / KAK
Sample : 9G16029-CAL2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:49:55 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7.17.19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	5.767	5995077	29.871	ng/ml
62) S	DCBP (S)	10.797	2991799	21.889	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	6.439	427452	75.785	ng/ml
3)	Aroclor 1016 (2)	6.929	739201	64.257	ng/ml
4)	Aroclor 1016 (3)	7.056	346787	68.604	ng/ml
5)	Aroclor 1016 (4)	7.142	353276	63.033	ng/ml
6)	Aroclor 1016 (5)	7.187	388633	59.173	ng/ml
7)	Aroclor 1016 (6)	7.314	379231	56.570	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	8.284	703524	53.047	ng/ml
42)	Aroclor 1260 (2)	8.490	865219	52.864	ng/ml
43)	Aroclor 1260 (3)	8.722	876184	53.903	ng/ml
44)	Aroclor 1260 (4)	9.219	1336399	48.307	ng/ml
45)	Aroclor 1260 (5)	9.492	755113	48.107	ng/ml
46)	Aroclor 1260 (6)	10.090	319139	49.833	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R009.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:20 am
Operator : MJB / KAK
Sample : 9G16029-CAL2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:49:55 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

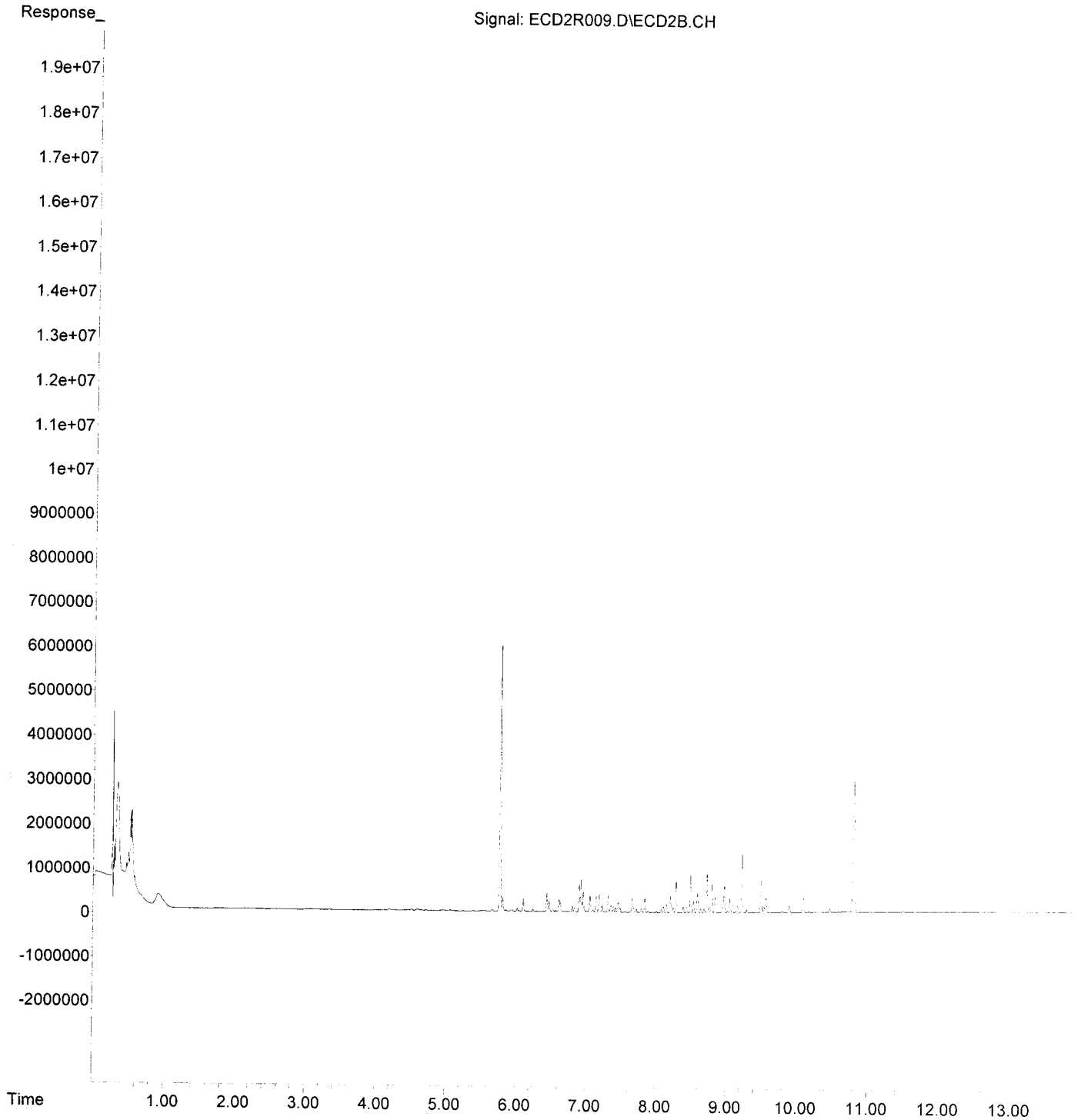
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R009.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:20 am
Operator : MJB / KAK
Sample : 9G16029-CAL2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:49:55 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R010.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:37 am
Operator : MJB / KAK
Sample : 9G16029-CAL3
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:50:54 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	5.768	11782609	58.707	ng/ml
62) S	DCBP (S)	10.796	5560175	40.680	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	6.440	775198	137.439	ng/ml
3)	Aroclor 1016 (2)	6.929	1398387	121.558	ng/ml
4)	Aroclor 1016 (3)	7.056	652989	129.179	ng/ml
5)	Aroclor 1016 (4)	7.143	621548	110.898	ng/ml
6)	Aroclor 1016 (5)	7.188	683606	104.085	ng/ml
7)	Aroclor 1016 (6)	7.313	694825	103.647	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	8.285	1309548	98.742	ng/ml
42)	Aroclor 1260 (2)	8.490	1646418	100.595	ng/ml
43)	Aroclor 1260 (3)	8.724	1653114	101.701	ng/ml
44)	Aroclor 1260 (4)	9.219	2434835	88.012	ng/ml
45)	Aroclor 1260 (5)	9.492	1495329	95.266	ng/ml
46)	Aroclor 1260 (6)	10.091	552480	86.268	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R010.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:37 am
Operator : MJB / KAK
Sample : 9G16029-CAL3
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:50:54 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

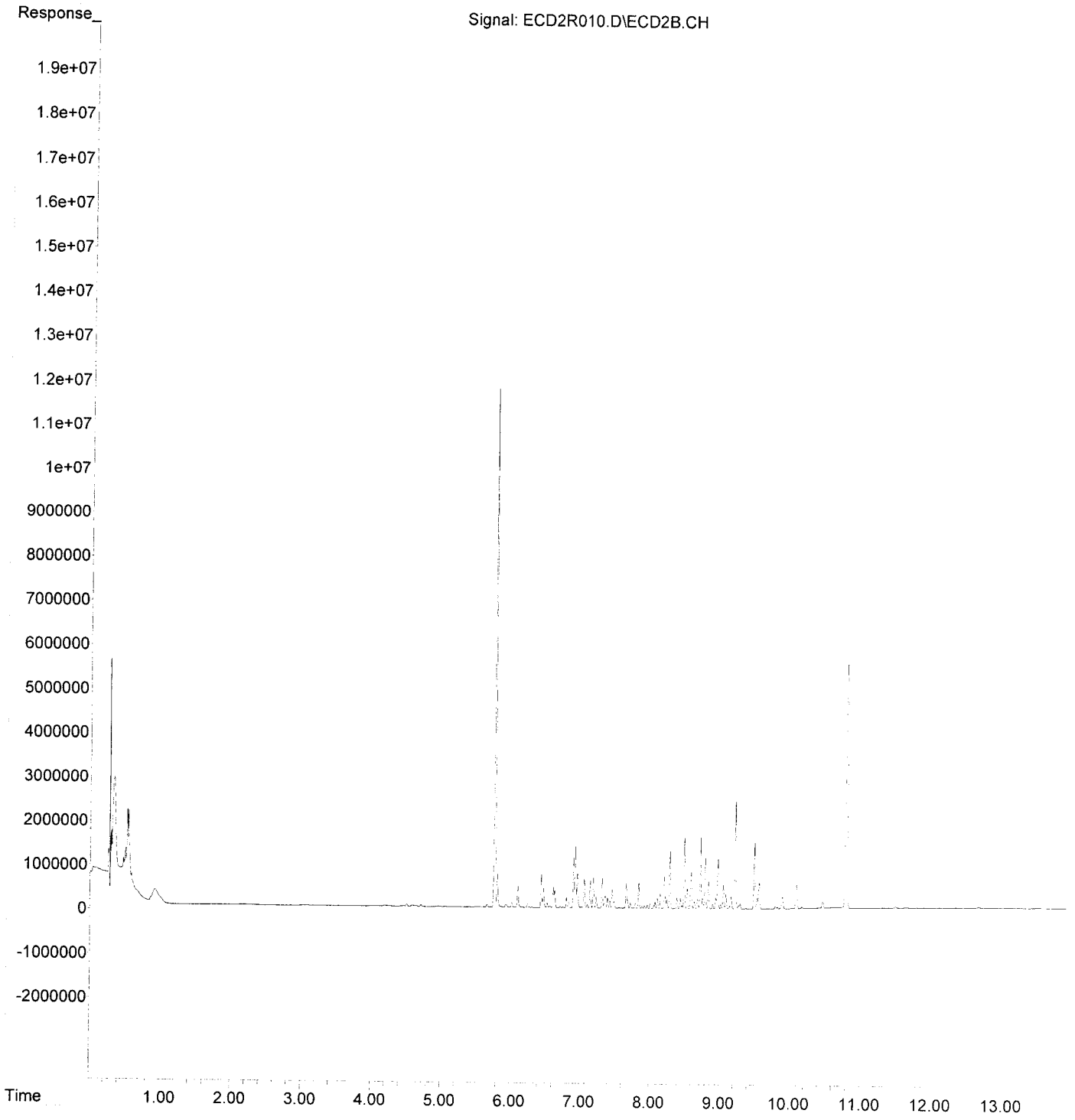
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R010.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:37 am
Operator : MJB / KAK
Sample : 9G16029-CAL3
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:50:54 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R011.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:55 am
Operator : MJB / KAK
Sample : 9G16029-CAL4
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:51:54 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	5.767	25090528	125.014	ng/ml
62) S	DCBP (S)	10.797	11829736	86.549	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	6.439	1520873	269.644	ng/ml
3)	Aroclor 1016 (2)	6.928	2778958	241.567	ng/ml
4)	Aroclor 1016 (3)	7.056	1258573	248.981	ng/ml
5)	Aroclor 1016 (4)	7.142	1218268	217.367	ng/ml
6)	Aroclor 1016 (5)	7.187	1318474	200.749	ng/ml
7)	Aroclor 1016 (6)	7.313	1299806	193.892	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	8.284	2586850	195.053	ng/ml
42)	Aroclor 1260 (2)	8.489	3320933	202.907	ng/ml
43)	Aroclor 1260 (3)	8.723	3271651	201.274	ng/ml
44)	Aroclor 1260 (4)	9.219	4895017	176.941	ng/ml
45)	Aroclor 1260 (5)	9.491	2986287	190.253	ng/ml
46)	Aroclor 1260 (6)	10.090	1139825	177.980	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R011.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:55 am
Operator : MJB / KAK
Sample : 9G16029-CAL4
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:51:54 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

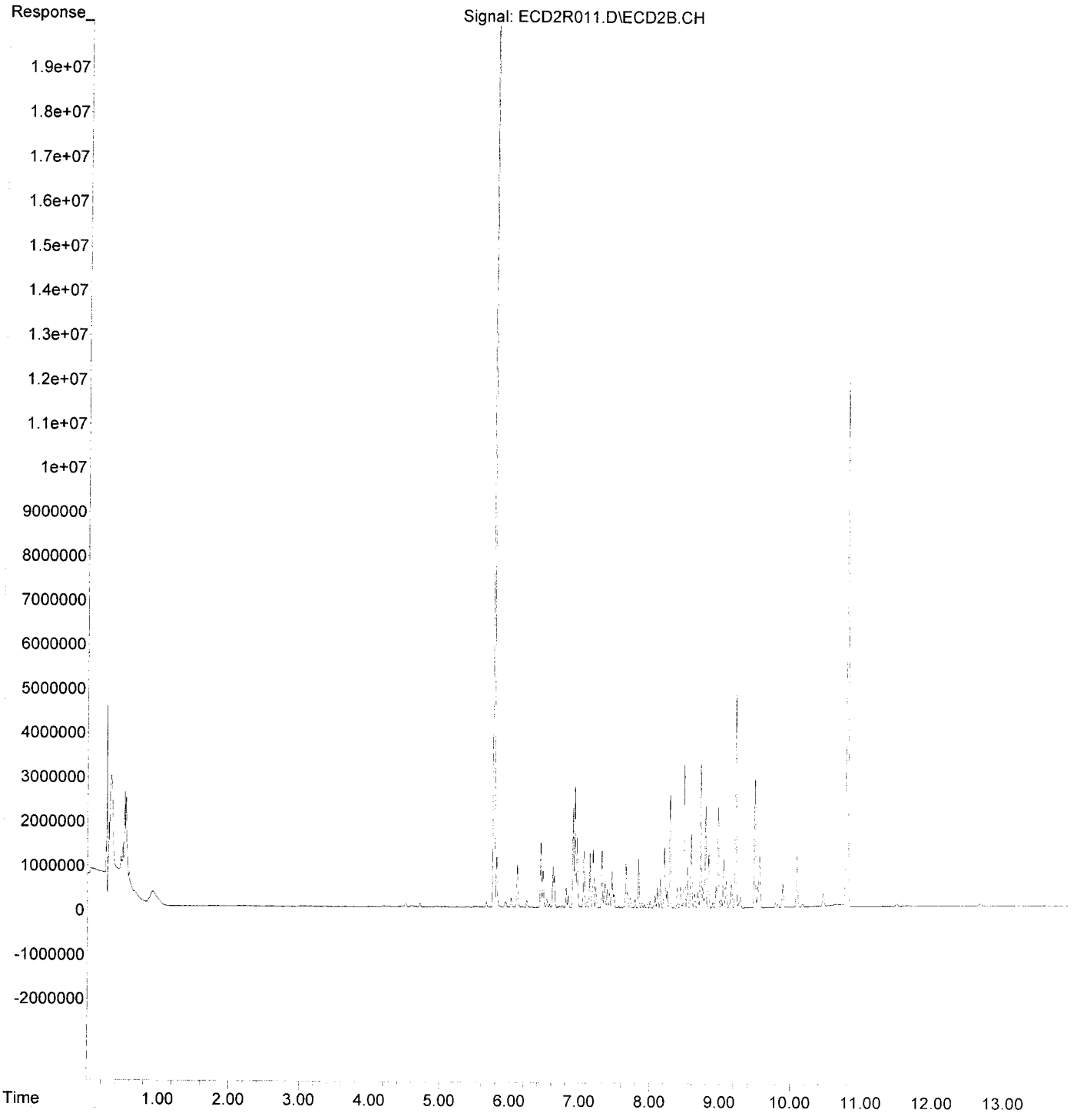
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R011.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 10:55 am
Operator : MJB / KAK
Sample : 9G16029-CAL4
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:51:54 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R012.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:13 am
Operator : MJB / KAK
Sample : 9G16029-CAL5
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:44:53 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Mon May 13 10:55:30 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	5.769	66277609	330.230	ng/ml
62) S	DCBP (S)	10.798	32817174	240.099	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	6.440	3626665	642.992	ng/ml
3)	Aroclor 1016 (2)	6.929	6773511	588.803	ng/ml
4)	Aroclor 1016 (3)	7.057	3028417	599.106	ng/ml
5)	Aroclor 1016 (4)	7.143	2918005	520.639	ng/ml
6)	Aroclor 1016 (5)	7.188	3317795	505.163	ng/ml
7)	Aroclor 1016 (6)	7.314	3330050	496.745	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	8.285	6504386	490.441	ng/ml
42)	Aroclor 1260 (2)	8.490	8328165	508.847	ng/ml
43)	Aroclor 1260 (3)	8.723	8521487	524.247	ng/ml
44)	Aroclor 1260 (4)	9.219	13285795	480.244	ng/ml
45)	Aroclor 1260 (5)	9.491	7469130	475.850	ng/ml
46)	Aroclor 1260 (6)	10.091	2857825	446.240	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R012.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:13 am
Operator : MJB / KAK
Sample : 9G16029-CAL5
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:44:53 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Mon May 13 10:55:30 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

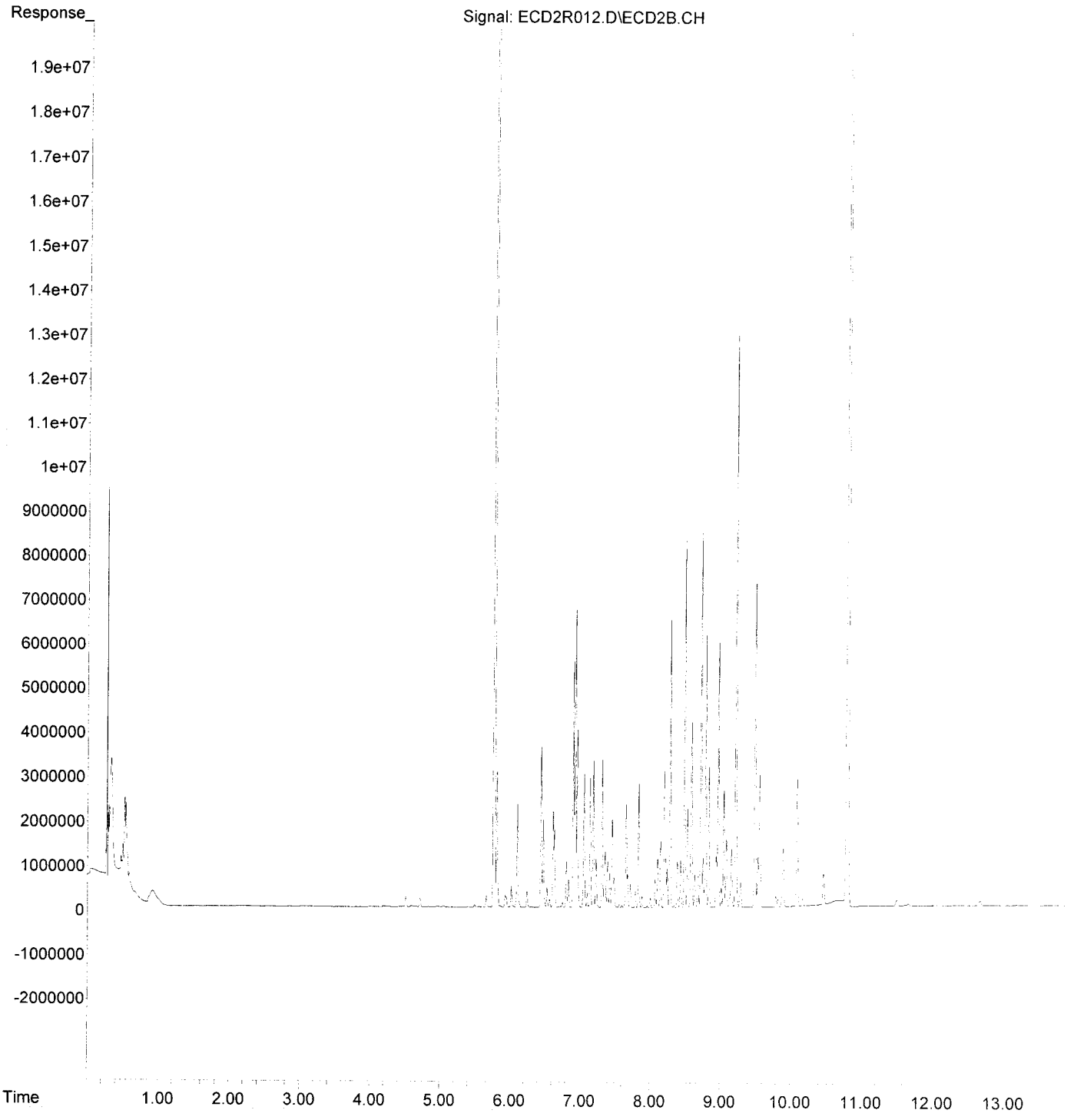
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R012.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:13 am
Operator : MJB / KAK
Sample : 9G16029-CAL5
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:44:53 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Mon May 13 10:55:30 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R013.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:31 am
Operator : MJB / KAK
Sample : 9G16029-CAL6
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:53:02 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	5.770	131991260	657.650	ng/ml
62) S	DCBP (S)	10.797	67332205	492.619	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	6.439	6951076	1232.395	ng/ml
3)	Aroclor 1016 (2)	6.929	13634072	1185.172	ng/ml
4)	Aroclor 1016 (3)	7.057	5943053	1175.702	ng/ml
5)	Aroclor 1016 (4)	7.142	5545937	989.522	ng/ml
6)	Aroclor 1016 (5)	7.187	6306248	960.181	ng/ml
7)	Aroclor 1016 (6)	7.313	6516844	972.120	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	8.283	12578233	948.419	ng/ml
42)	Aroclor 1260 (2)	8.490	16152335	986.900	ng/ml
43)	Aroclor 1260 (3)	8.723	15985170	983.417	ng/ml
44)	Aroclor 1260 (4)	9.219	25750690	930.814	ng/ml
45)	Aroclor 1260 (5)	9.492	15048607	958.729	ng/ml
46)	Aroclor 1260 (6)	10.090	5656013	883.168	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R013.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:31 am
Operator : MJB / KAK
Sample : 9G16029-CAL6
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:53:02 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

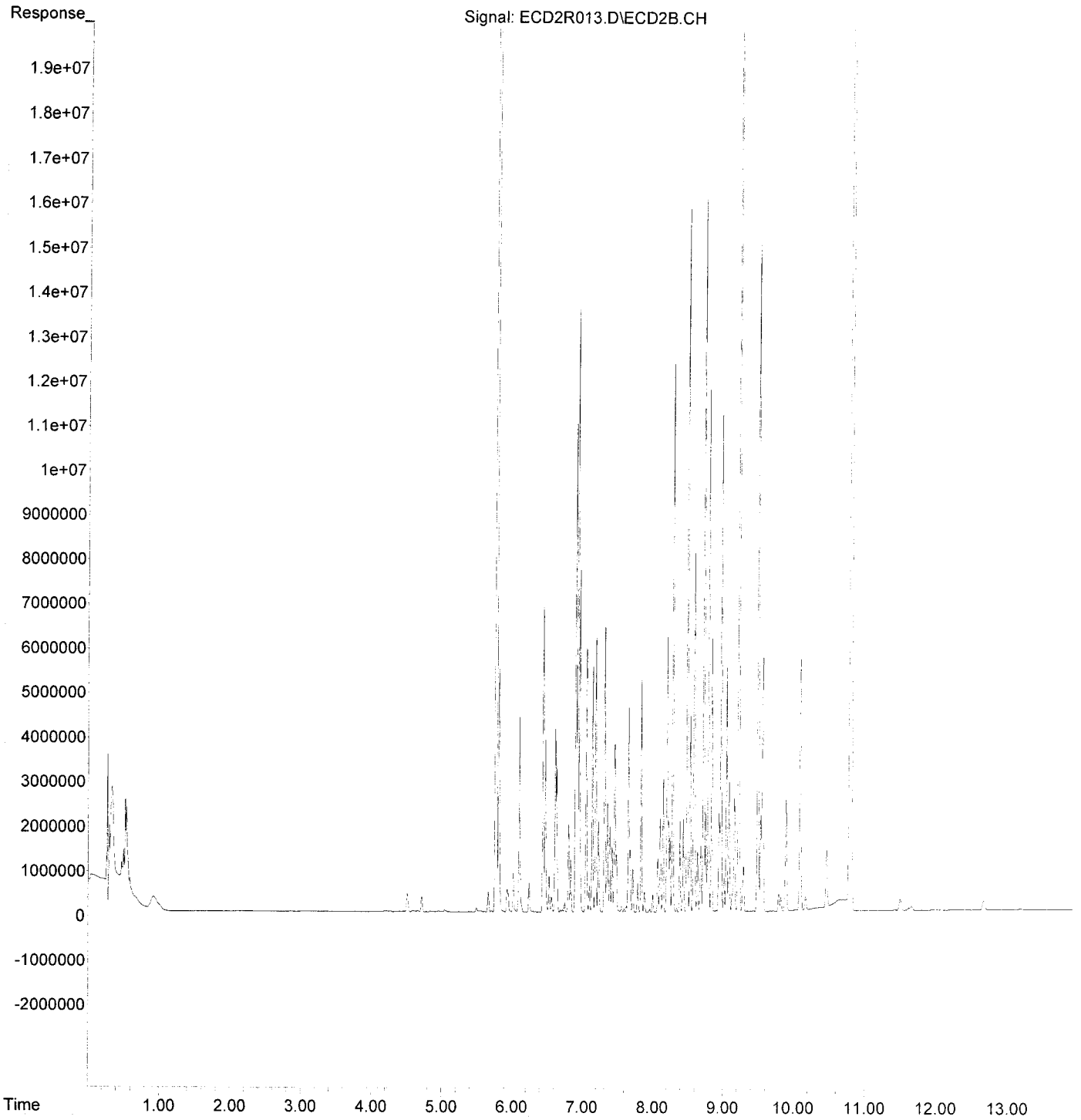
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R013.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:31 am
Operator : MJB / KAK
Sample : 9G16029-CAL6
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:53:02 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R014.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:49 am
Operator : MJB / KAK
Sample : 9G16029-CAL7
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:53:58 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	5.772	202001367	1006.477	ng/ml
62) S	DCBP (S)	10.800	113518034	830.526	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	6.439	10390584	1842.205	ng/ml
3)	Aroclor 1016 (2)	6.929	19799257	1721.095	ng/ml
4)	Aroclor 1016 (3)	7.056	8668119	1714.797	ng/ml
5)	Aroclor 1016 (4)	7.142	8399920	1498.737	ng/ml
6)	Aroclor 1016 (5)	7.188	9535588	1451.876	ng/ml
7)	Aroclor 1016 (6)	7.313	9629768	1436.476	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	8.284	18767823	1415.124	ng/ml
42)	Aroclor 1260 (2)	8.490	23026847	1406.929	ng/ml
43)	Aroclor 1260 (3)	8.723	24903569	1532.082	ng/ml
44)	Aroclor 1260 (4)	9.219	40218812	1453.795	ng/ml
45)	Aroclor 1260 (5)	9.492	23037112	1467.668	ng/ml
46)	Aroclor 1260 (6)	10.090	8326510	1300.157	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R014.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:49 am
Operator : MJB / KAK
Sample : 9G16029-CAL7
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:53:58 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

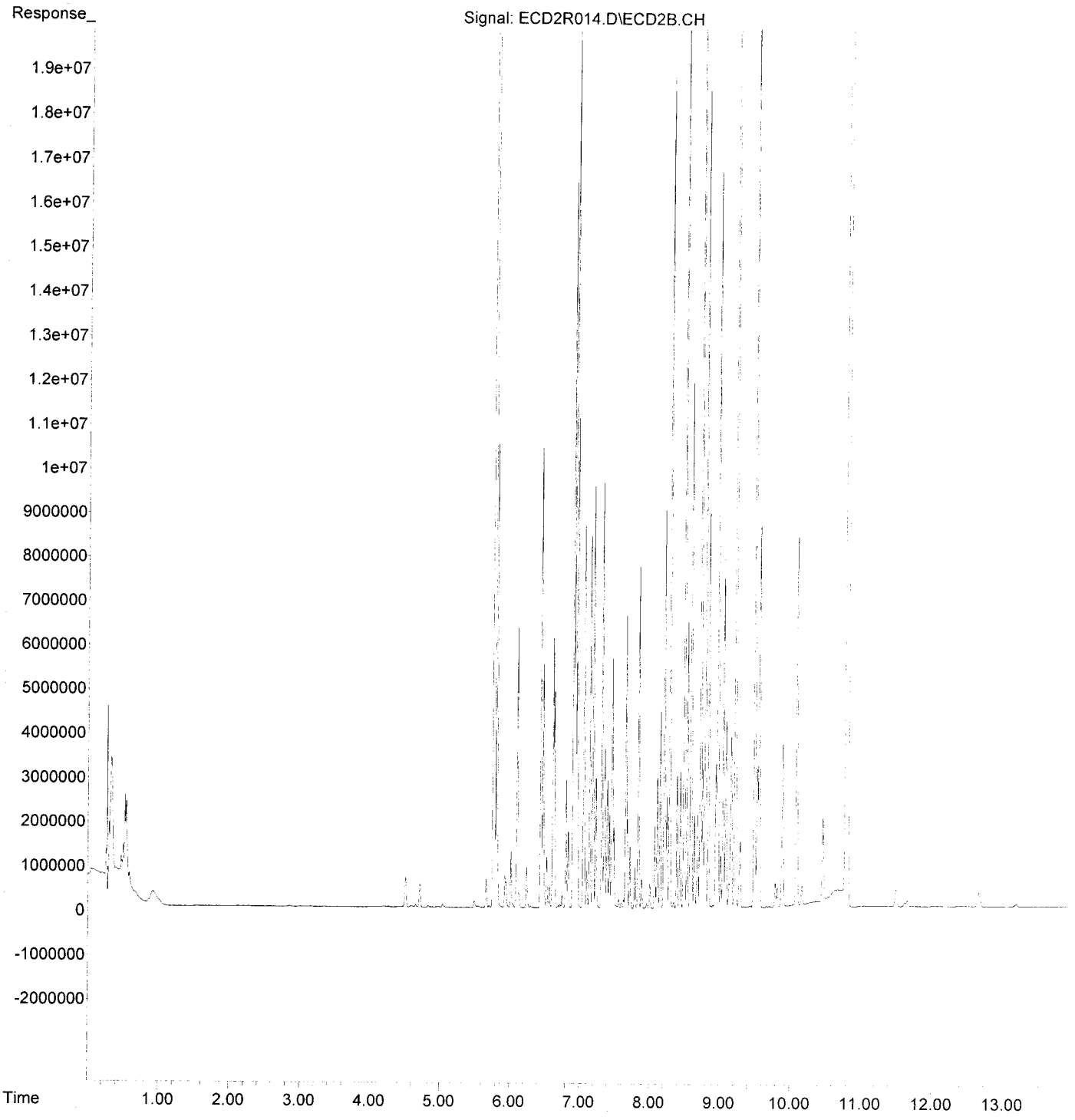
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R014.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 11:49 am
Operator : MJB / KAK
Sample : 9G16029-CAL7
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:53:58 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R017.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 12:42 pm
Operator : MJB / KAK
Sample : 9G16029-CAL8
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:56:40 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	0.000	0	N.D.	ng/mld
62) S	DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	5.943	990182	561.615	ng/ml
10)	Aroclor 1221 (2)	6.015	1004074	605.050	ng/ml
11)	Aroclor 1221 (3)	6.102	3352491	596.719	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R017.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 12:42 pm
Operator : MJB / KAK
Sample : 9G16029-CAL8
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:56:40 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

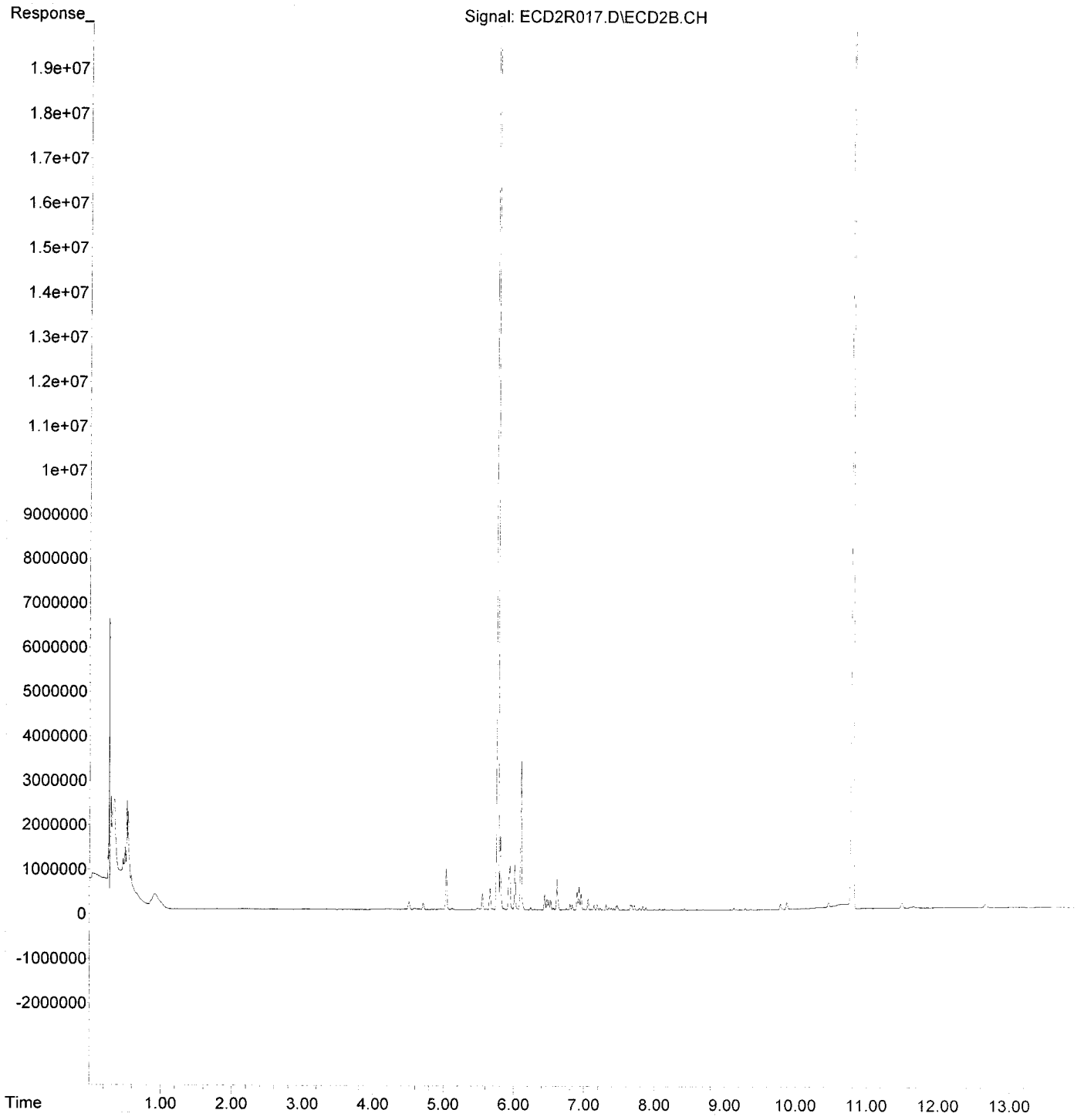
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R017.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 12:42 pm
Operator : MJB / KAK
Sample : 9G16029-CAL8
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:56:40 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:45:09 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R018.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 1:00 pm
Operator : MJB / KAK
Sample : 9G16029-CAL9
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:58:55 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:56:52 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7.17.19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	0.000	0	N.D.	ng/mld
62) S	DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	6.103	2791076	613.641	ng/ml
14)	Aroclor 1232 (2)	6.439	1659760	593.317	ng/ml
15)	Aroclor 1232 (3)	6.929	3128856	593.486	ng/ml
16)	Aroclor 1232 (4)	7.142	1125461	541.377	ng/ml
17)	Aroclor 1232 (5)	7.187	1305087	547.876	ng/ml
18)	Aroclor 1232 (6)	7.313	1361894	550.710	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R018.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 1:00 pm
Operator : MJB / KAK
Sample : 9G16029-CAL9
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:58:55 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:56:52 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

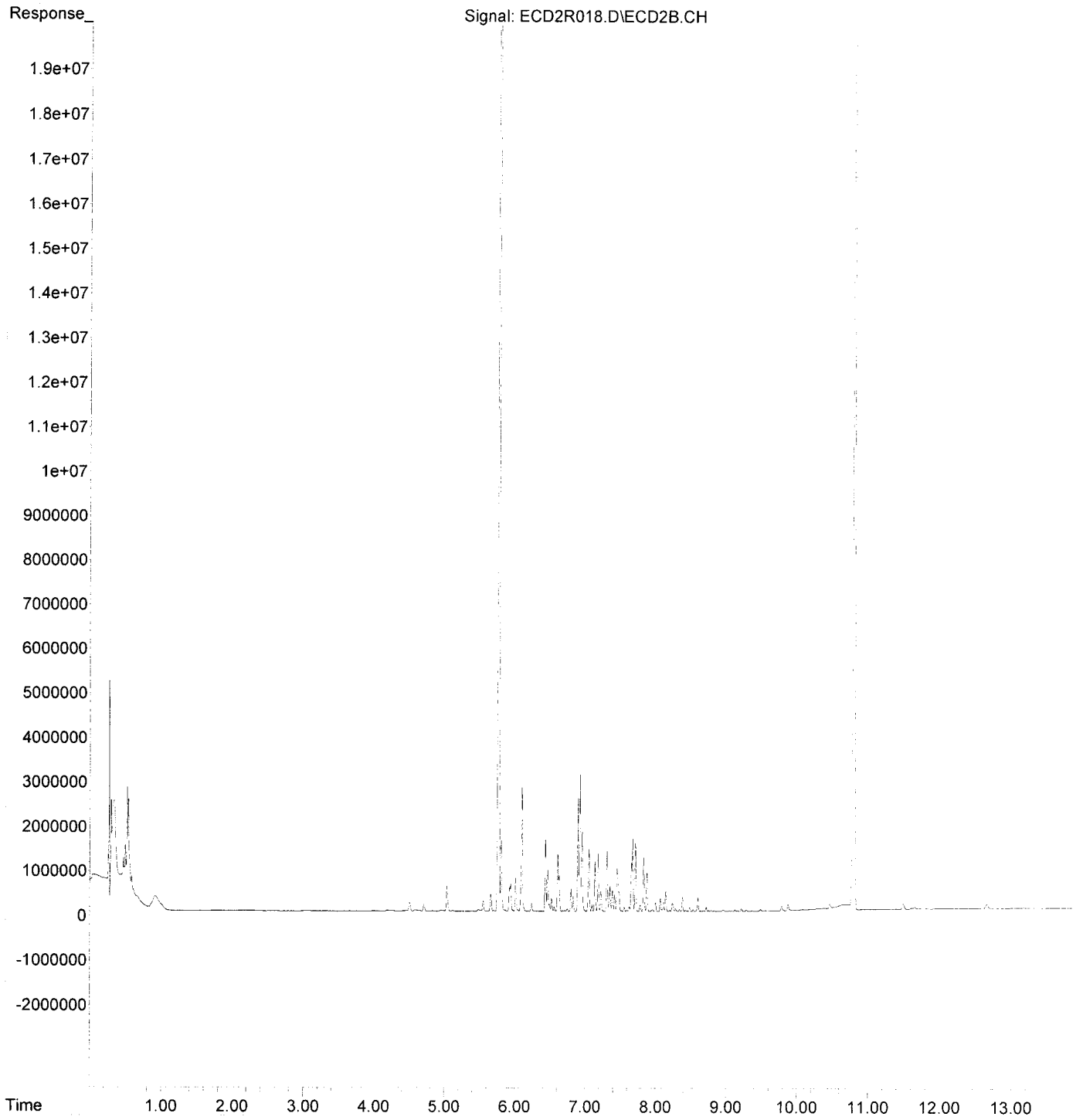
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R018.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 1:00 pm
Operator : MJB / KAK
Sample : 9G16029-CAL9
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 15:58:55 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:56:52 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R019.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 1:18 pm
Operator : MJB / KAK
Sample : 9G16029-CALA
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:00:56 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:59:03 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	0.000	0	N.D.	ng/mld
62) S	DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	6.438	3028616	604.291	ng/ml
21)	Aroclor 1242 (2)	6.928	5691284	586.079	ng/ml
22)	Aroclor 1242 (3)	7.056	2478557	562.076	ng/ml
23)	Aroclor 1242 (4)	7.142	2278671	540.723	ng/ml
24)	Aroclor 1242 (5)	7.187	2680772	545.784	ng/ml
25)	Aroclor 1242 (6)	7.313	2753195	535.370	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R019.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 1:18 pm
Operator : MJB / KAK
Sample : 9G16029-CALA
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:00:56 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:59:03 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

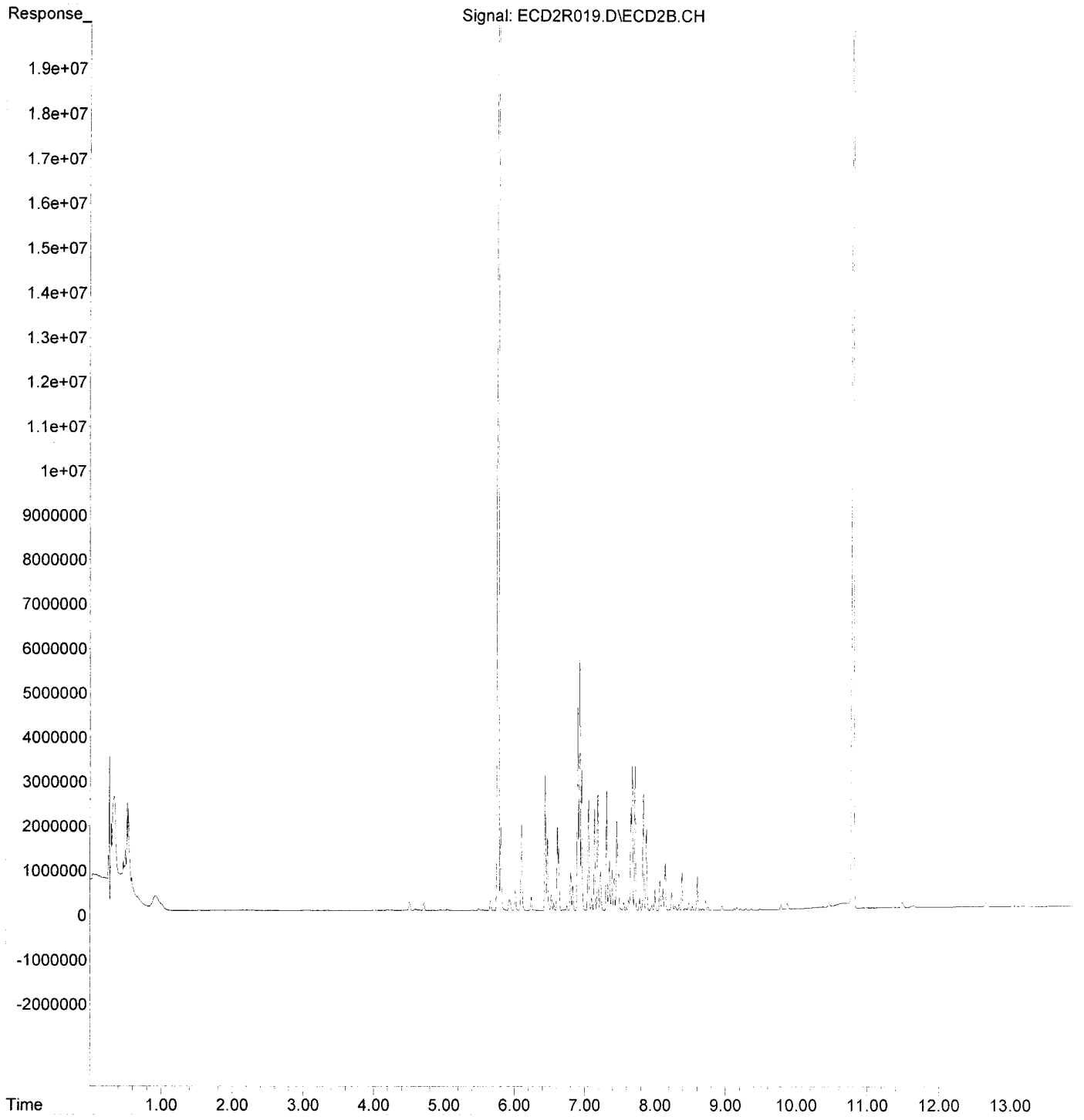
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R019.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 1:18 pm
Operator : MJB / KAK
Sample : 9G16029-CALA
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:00:56 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 15:59:03 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R020.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 1:35 pm
Operator : MJB / KAK
Sample : 9G16029-CALB
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:03:38 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:01:06 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	0.000	0	N.D.	ng/mld
62) S	DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	6.901	3336865	569.324	ng/ml
28)	Aroclor 1248 (2)	7.142	4026361	525.076	ng/ml
29)	Aroclor 1248 (3)	7.187	3876690	543.442	ng/ml
30)	Aroclor 1248 (4)	7.313	4673297	551.320	ng/ml
31)	Aroclor 1248 (5)	7.678	5890551	534.931	ng/ml
32)	Aroclor 1248 (6)	7.836	5265214	544.610	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R020.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 1:35 pm
Operator : MJB / KAK
Sample : 9G16029-CALB
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:03:38 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:01:06 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

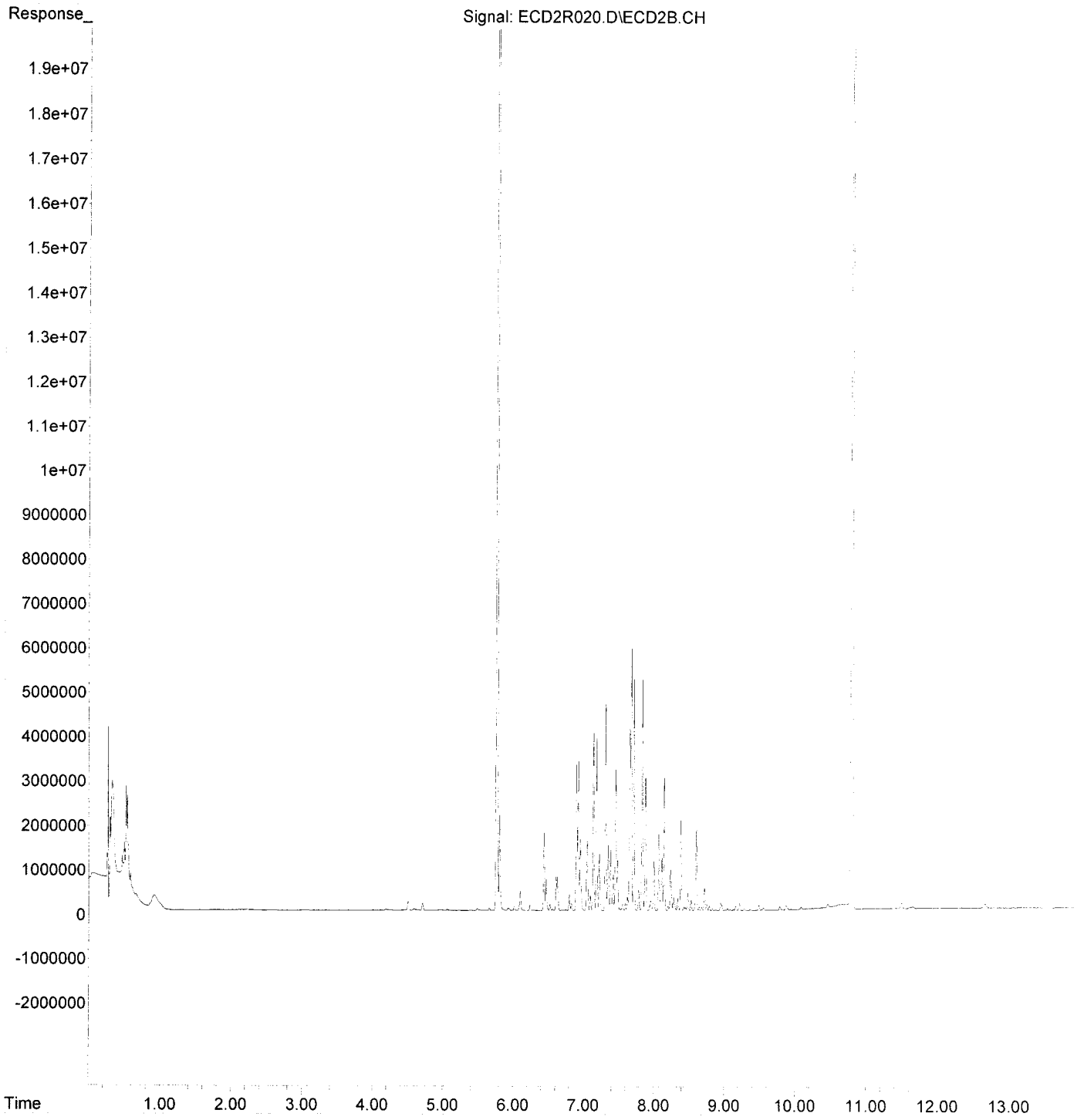
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R020.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 1:35 pm
Operator : MJB / KAK
Sample : 9G16029-CALB
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:03:38 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:01:06 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R021.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 1:53 pm
Operator : MJB / KAK
Sample : 9G16029-CALC
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:05:33 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:03:45 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	0.000	0	N.D.	ng/mld
62) S	DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	7.656	6123070	558.912	ng/ml
35)	Aroclor 1254 (2)	7.837	9769169	543.434	ng/ml
36)	Aroclor 1254 (3)	8.148	10420366	532.640	ng/ml
37)	Aroclor 1254 (4)	8.387	7660670	524.278	ng/ml
38)	Aroclor 1254 (5)	8.721	7785579	526.757	ng/ml
39)	Aroclor 1254 (6)	8.953	2389483	544.536	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R021.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 1:53 pm
Operator : MJB / KAK
Sample : 9G16029-CALC
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:05:33 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:03:45 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

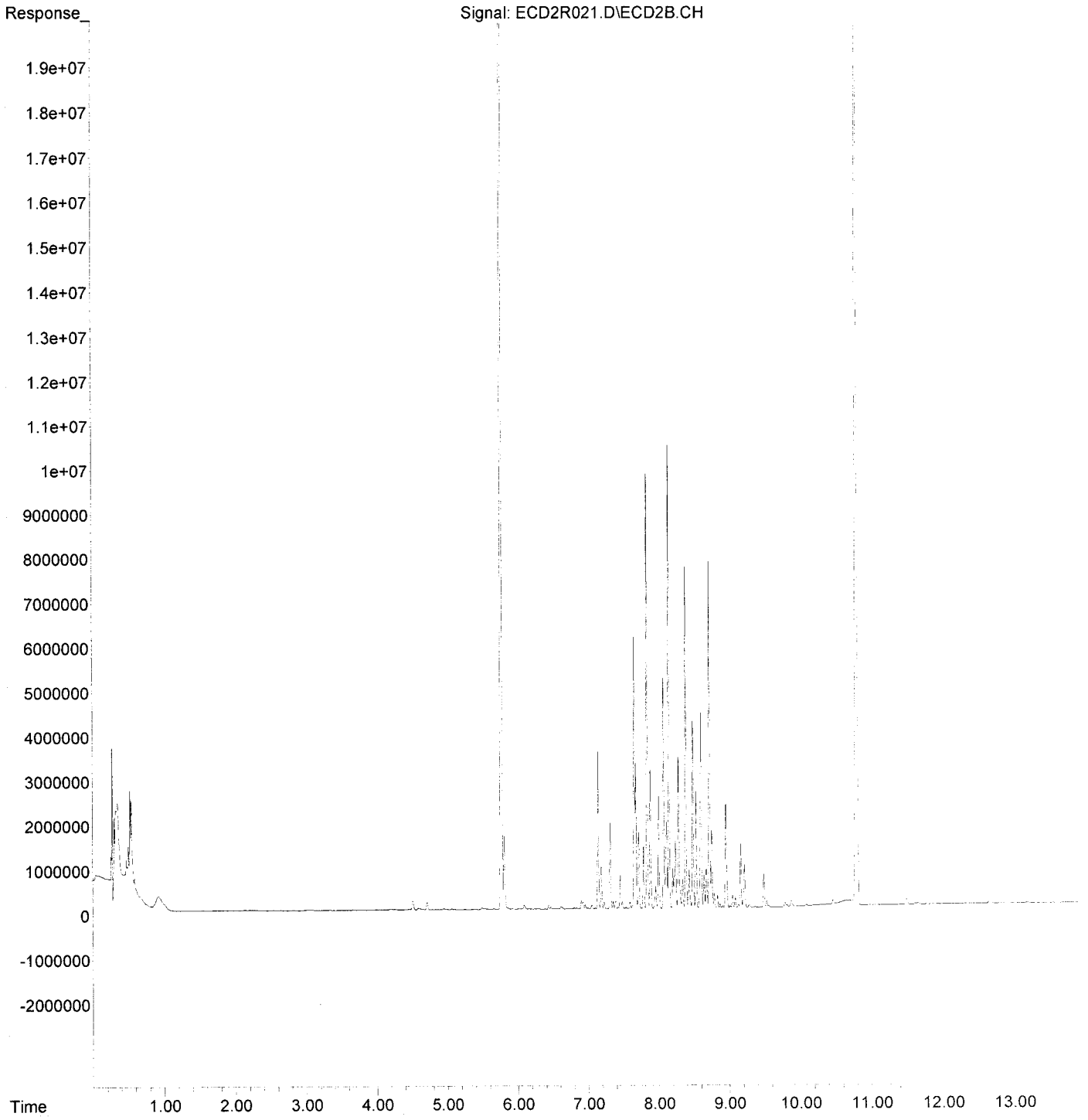
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R021.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 1:53 pm
Operator : MJB / KAK
Sample : 9G16029-CALC
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:05:33 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:03:45 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R022.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 2:11 pm
Operator : MJB / KAK
Sample : 9G16029-CALD
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:07:24 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:05:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	0.000	0	N.D.	ng/mld
62) S	DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R022.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 2:11 pm
Operator : MJB / KAK
Sample : 9G16029-CALD
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:07:24 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:05:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

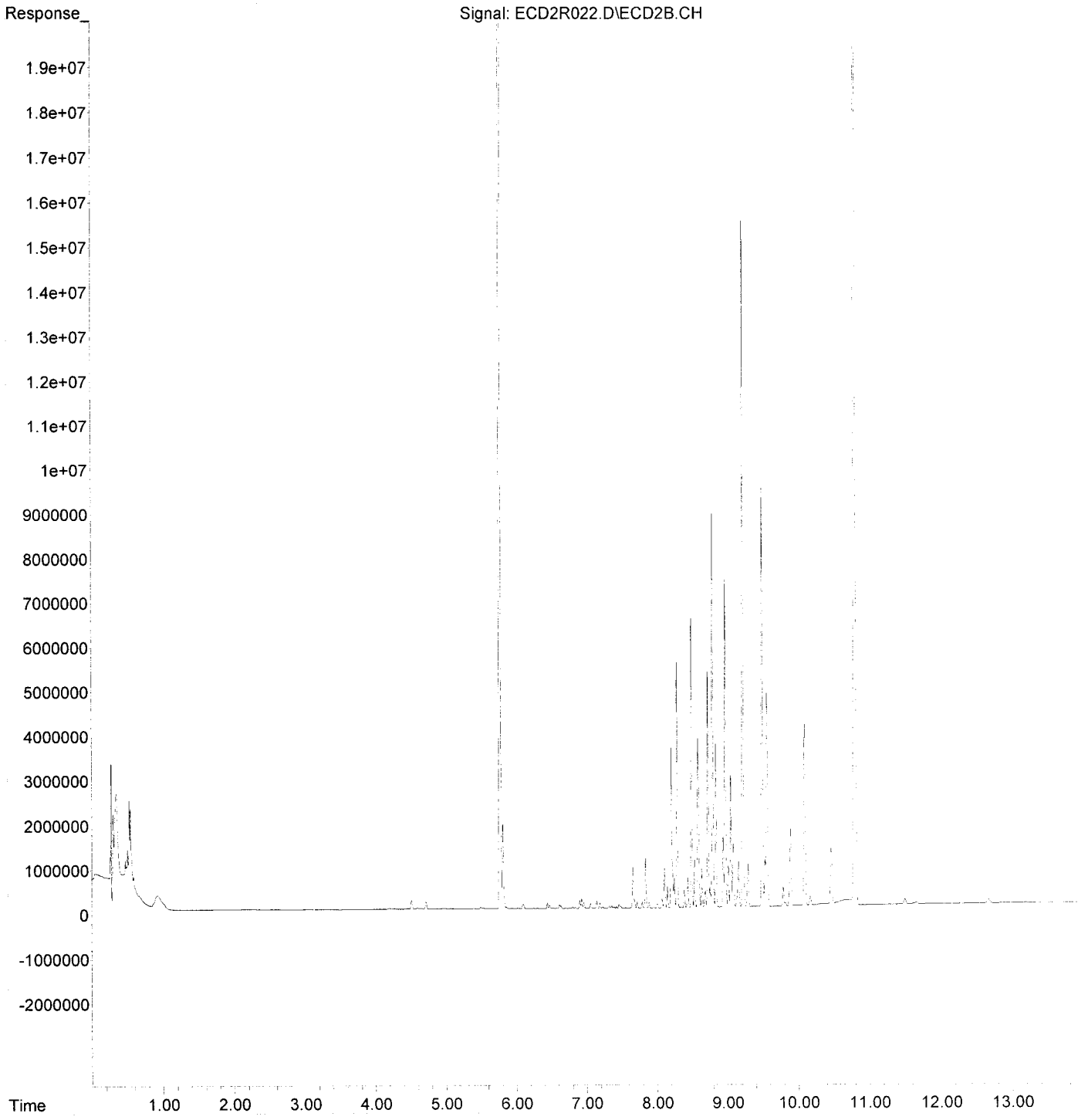
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	8.489	6648501	502.238	ng/ml
49)	Aroclor 1262 (2)	8.791	8852039	491.292	ng/ml
50)	Aroclor 1262 (3)	8.970	7472667	504.276	ng/ml
51)	Aroclor 1262 (4)	9.218	16033690	481.467	ng/ml
52)	Aroclor 1262 (5)	9.492	9406862	497.772	ng/ml
53)	Aroclor 1262 (6)	10.090	4078880	464.425	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R022.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 2:11 pm
Operator : MJB / KAK
Sample : 9G16029-CALD
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:07:24 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:05:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R023.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 2:29 pm
Operator : MJB / KAK
Sample : 9G16029-CALE
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:10:01 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:07:32 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 7/17/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	0.000	0	N.D.	ng/mld
62) S	DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R023.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 2:29 pm
Operator : MJB / KAK
Sample : 9G16029-CALE
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:10:01 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:07:32 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

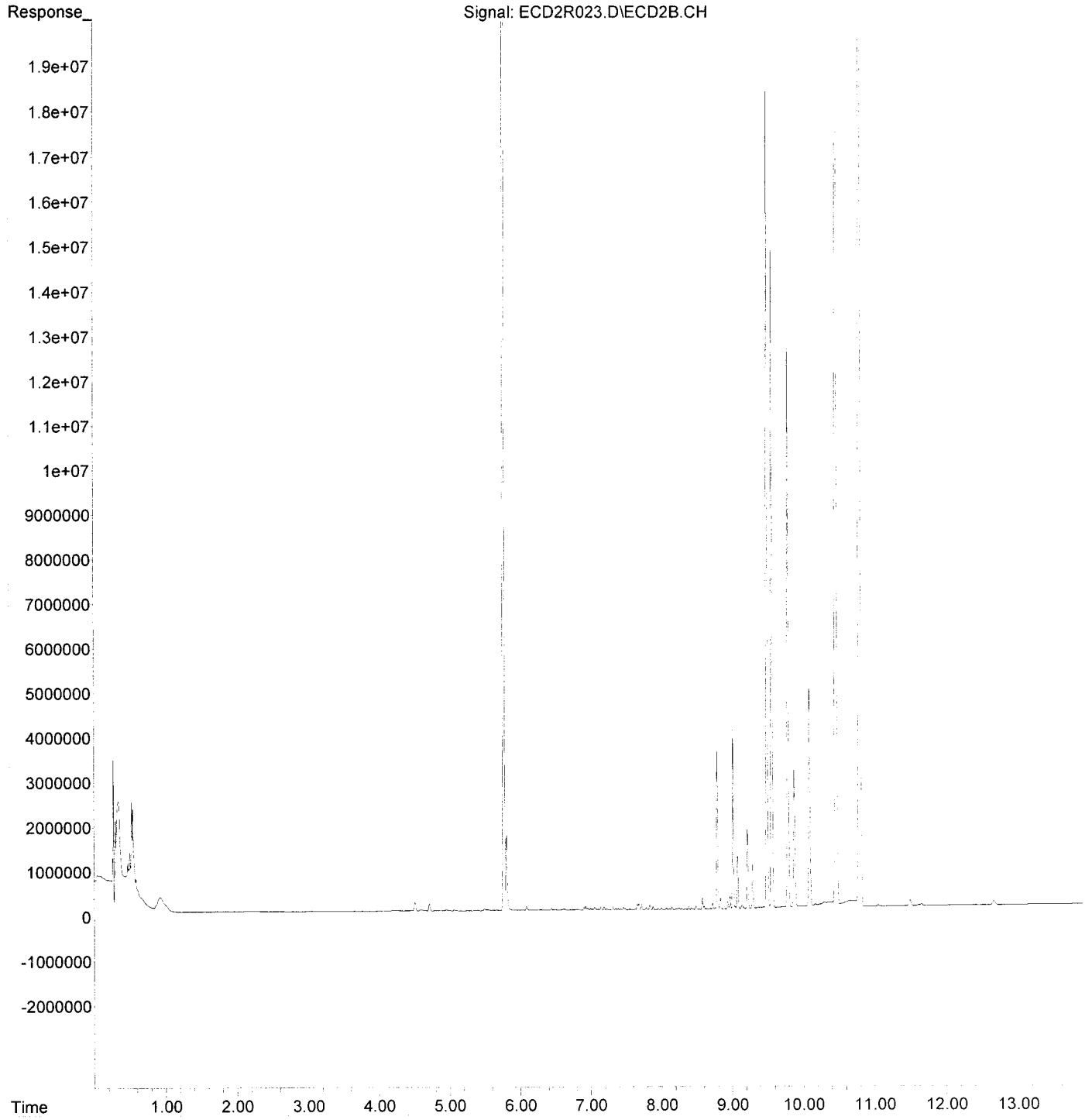
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	9.012	4068958	522.540	ng/ml
56)	Aroclor 1268 (2)	9.492	18370205	506.632	ng/ml
57)	Aroclor 1268 (3)	9.562	14726276	501.830	ng/ml
58)	Aroclor 1268 (4)	9.787	12624646	497.466	ng/ml
59)	Aroclor 1268 (5)	10.090	4867655	509.182	ng/ml
60)	Aroclor 1268 (6)	10.463	34298014	495.724	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9G16029\
Data File : ECD2R023.D
Signal(s) : ECD2B.CH
Acq On : 16 Jul 2019 2:29 pm
Operator : MJB / KAK
Sample : 9G16029-CALE
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 17 16:10:01 2019
Quant Method : L:\Methods\RECD2_QUANTPCB_190716.M
Quant Title : PCB Data Analysis
QLast Update : Wed Jul 17 16:07:32 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

Polychlorinated Biphenyls by EPA 8082A
Calibration Data

Sequence 9J01027 (Cal ID A9J0303) DUALECD2F

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9J01027**	Instrument:	**DUALECD2F**
Date:	**10/01/19 07:02**	Calibration:	**A9J0303**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J01027-ICB1	Water	QC	QC				A19I233
2	9J01027-CAL1	Water	QC	QC				A19F250
3	9J01027-CAL2	Water	QC	QC				A19F251
4	9J01027-CAL3	Water	QC	QC				A19F252
5	9J01027-CAL4	Water	QC	QC				A19F253
6	9J01027-CAL5	Water	QC	QC				A19F247
7	9J01027-CAL6	Water	QC	QC				A19F248
8	9J01027-CAL7	Water	QC	QC				A19F249
9	9J01027-IBL1	Water	QC	QC				
10	9J01027-ICV1	Water	QC	QC				A19H459
11	9J01027-CAL8	Water	QC	QC				A19H447
12	9J01027-CAL9	Water	QC	QC				A19H448
13	9J01027-CALA	Water	QC	QC				A19H449
14	9J01027-CALB	Water	QC	QC				A19H450
15	9J01027-CALC	Water	QC	QC				A19H451
16	9J01027-CALD	Water	QC	QC				A19H452
17	9J01027-CALE	Water	QC	QC				A19H453
18	9J01027-ICV2	Water	QC	QC				A19H405
19	9J01027-ICV3	Water	QC	QC				A19D327
20	9J01027-ICV4	Water	QC	QC				A19H406
21	9J01027-ICV5	Water	QC	QC				A19E303

Comments:

Data Entered By: 10/3/19

Data Reviewed By: MW 10/3/19

Calibration Status Report HP G1530A

Method Path : K:\METHODS\
Method File : FECD2_QUANTPCB_191001.M
Title : PCB Data Analysis
Last Update : Wed Oct 02 17:06:13 2019
Response Via : Initial Calibration

A9J0303
10/3/19

#	ID	Conc	ISTD Conc	Path\File
1	1	10	0	K:\DATA\9J01027\ECD2F010.D
2	2	25	0	K:\DATA\9J01027\ECD2F011.D
3	3	50	0	K:\DATA\9J01027\ECD2F012.D
4	4	100	0	K:\DATA\9J01027\ECD2F013.D
5	5	250	0	K:\DATA\9J01027\ECD2F025.D
6	6	500	0	K:\DATA\9J01027\ECD2F015.D
7	7	800	0	K:\DATA\9J01027\ECD2F016.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Oct 02 17:02 2019	Oct 02 16:32 2019	01 Oct 2019 12:43
2	2	Oct 02 17:02 2019	Oct 02 16:33 2019	01 Oct 2019 13:01
3	3	Oct 02 17:02 2019	Oct 02 16:35 2019	01 Oct 2019 13:18
4	4	Oct 02 17:03 2019	Oct 02 16:36 2019	01 Oct 2019 13:36
5	5	Oct 02 17:06 2019	Oct 02 16:51 2019	01 Oct 2019 17:07
6	6	Oct 02 17:04 2019	Oct 02 16:37 2019	01 Oct 2019 14:11
7	7	Oct 02 17:04 2019	Oct 02 16:38 2019	01 Oct 2019 14:29

FECD2_QUANTPCB_191001.M Thu Oct 03 08:45:16 2019

Response Factor Report HP G1530A

Method Path : K:\METHODS\
Method File : FECD2_QUANTPCB_191001.M
Title : PCB Data Analysis
Last Update : Wed Oct 02 17:06:13 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD2F010.D 2 =ECD2F011.D 3 =ECD2F012.D
4 =ECD2F013.D 5 =ECD2F025.D 6 =ECD2F015.D

10/3/19

		Compound	1	2	3	4	5	6	Avg		%RSD	
1)	S	TCMX (S)	6.460	7.326	7.061	7.121	7.969	6.692	7.193	E4	7.42	
2)		Aroclor 1016 ...	3.437	3.404	3.144	3.053	3.049	2.647	3.093	E3	8.85	✓
3)		Aroclor 1016 ...	6.457	6.488	6.101	6.135	6.456	5.554	6.175	E3	5.41	✓
4)		Aroclor 1016 ...	3.716	3.560	3.275	3.286	3.399	2.855	3.331	E3	8.20	✓
5)		Aroclor 1016 ...	3.100	2.969	2.756	2.638	2.604	2.303	2.694	E3	10.17	✓
6)		Aroclor 1016 ...	3.559	3.416	3.269	3.215	3.272	2.890	3.255	E3	6.42	✓
7)		Aroclor 1016 (6)	2.798	2.595	2.331	2.222	2.244	2.014	2.350	E3	11.16	✓
8)		Aroclor 1016 ...							0.000		-1.00	
9)		Aroclor 1221 (1)					1.038		1.038	E3	0.00	
10)		Aroclor 1221 (2)					6.485		6.485	E2	0.00	
11)		Aroclor 1221 (3)					2.183		2.183	E3	0.00	
12)		Aroclor 1221 ...							0.000		-1.00	
13)		Aroclor 1232 (1)					1.760		1.760	E3	0.00	
14)		Aroclor 1232 (2)					2.454		2.454	E3	0.00	
15)		Aroclor 1232 (3)					1.267		1.267	E3	0.00	
16)		Aroclor 1232 (4)					8.575		8.575	E2	0.00	
17)		Aroclor 1232 (5)					1.133		1.133	E3	0.00	
18)		Aroclor 1232 (6)					9.348		9.348	E2	0.00	
19)		Aroclor 1232 ...							0.000		-1.00	
20)		Aroclor 1242 ...					2.207		2.207	E3	0.00	
21)		Aroclor 1242 ...					4.553		4.553	E3	0.00	
22)		Aroclor 1242 ...					2.334		2.334	E3	0.00	
23)		Aroclor 1242 ...					1.755		1.755	E3	0.00	
24)		Aroclor 1242 ...					2.389		2.389	E3	0.00	
25)		Aroclor 1242 (6)					1.979		1.979	E3	0.00	
26)		Aroclor 1242 ...							0.000		-1.00	
27)		Aroclor 1248 ...					2.957		2.957	E3	0.00	
28)		Aroclor 1248 ...					3.466		3.466	E3	0.00	
29)		Aroclor 1248 ...					3.920		3.920	E3	0.00	
30)		Aroclor 1248 ...					4.791		4.791	E3	0.00	
31)		Aroclor 1248 ...					5.004		5.004	E3	0.00	
32)		Aroclor 1248 (6)					2.605		2.605	E3	0.00	
33)		Aroclor 1248 ...							0.000		-1.00	
34)		Aroclor 1254 ...					4.728		4.728	E3	0.00	
35)		Aroclor 1254 ...					5.629		5.629	E3	0.00	
36)		Aroclor 1254 ...					8.555		8.555	E3	0.00	
37)		Aroclor 1254 ...					5.823		5.823	E3	0.00	
38)		Aroclor 1254 ...					5.840		5.840	E3	0.00	
39)		Aroclor 1254 (6)					1.890		1.890	E3	0.00	
40)		Aroclor 1254 ...							0.000		-1.00	
41)		Aroclor 1260 ...	6.896	6.631	6.287	6.027	6.032	5.414	6.157	E3	8.10	✓
42)		Aroclor 1260 ...	8.611	8.316	7.858	7.370	7.841	6.849	7.763	E3	7.63	✓
43)		Aroclor 1260 (3)	6.268	6.157	5.682	5.656	5.441	4.967	5.674	E3	7.74	✓
44)		Aroclor 1260 (4)	1.413	1.402	1.317	1.348	1.355	1.185	1.337	E4	5.63	✓
45)		Aroclor 1260 (5)	9.583	9.334	8.735	8.598	8.445	7.743	8.757	E3	6.88	✓
46)		Aroclor 1260 (6)	4.048	3.894	3.590	3.353	3.510	3.292	3.593	E3	7.79	✓
47)		Aroclor 1260 ...							0.000		-1.00	
48)		Aroclor 1262 (1)					5.908		5.908	E3	0.00	
49)		Aroclor 1262 (2)					8.238		8.238	E3	0.00	
50)		Aroclor 1262 (3)					6.884		6.884	E3	0.00	
51)		Aroclor 1262 (4)					1.482		1.482	E4	0.00	
52)		Aroclor 1262 (5)					8.913		8.913	E3	0.00	
53)		Aroclor 1262 (6)					4.791		4.791	E3	0.00	
54)		Aroclor 1262 ...							0.000		-1.00	
55)		Aroclor 1268 (1)					3.602		3.602	E3	0.00	
56)		Aroclor 1268 (2)					1.652		1.652	E4	0.00	
57)		Aroclor 1268 (3)					1.389		1.389	E4	0.00	
58)		Aroclor 1268 (4)					1.256		1.256	E4	0.00	
59)		Aroclor 1268 (5)					5.480		5.480	E3	0.00	
60)		Aroclor 1268 (6)					3.428		3.428	E4	0.00	

Method Path : K:\METHODS\
Method File : FECD2_QUANTPCB_191001.M
Title : PCB Data Analysis
Last Update : Wed Oct 02 17:06:13 2019
Response Via : Initial Calibration

Calibration Files
1 =ECD2F010.D 2 =ECD2F011.D 3 =ECD2F012.D
4 =ECD2F013.D 5 =ECD2F025.D 6 =ECD2F015.D

		Compound	1	2	3	4	5	6	Avg	%RSD
61)		Aroclor 1268 ...							0.000	-1.00
62)	S	DCBP (S)	7.263	7.272	7.274	7.045	7.546	6.580	7.196 E4	4.31

(#) = Out of Range ### Number of calibration levels exceeded format ###

Compound List Report HP G1530A

Method Path : K:\METHODS\
Method File : FECD2_QUANTPCB_191001.M
Title : PCB Data Analysis
Last Update : Wed Oct 02 17:06:13 2019
Response Via : Initial Calibration

10/3/19

Total Cpnds : 62

PK#		Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1	S	TCMX (S)	4.846	1.000	A	H	L
2		Aroclor 1016 (1)	5.763	1.000	A	H	R
3		Aroclor 1016 (2)	6.176	1.000	A	H	R
4		Aroclor 1016 (3)	6.258	1.000	A	H	R
5		Aroclor 1016 (4)	6.416	1.000	A	H	R
6		Aroclor 1016 (5)	6.638	1.000	A	H	R
7		Aroclor 1016 (6)	6.764	1.000	A	H	R
8		Aroclor 1016 - AVE	0.784	1.000	A	H	R
9		Aroclor 1221 (1)	5.204	1.000	A	H	R
10		Aroclor 1221 (2)	5.322	1.000	A	H	R
11		Aroclor 1221 (3)	5.402	1.000	A	H	R
12		Aroclor 1221 - AVE	0.784	1.000	A	H	R
13		Aroclor 1232 (1)	5.401	1.000	A	H	R
14		Aroclor 1232 (2)	6.176	1.000	A	H	R
15		Aroclor 1232 (3)	6.258	1.000	A	H	R
16		Aroclor 1232 (4)	6.416	1.000	A	H	R
17		Aroclor 1232 (5)	6.638	1.000	A	H	R
18		Aroclor 1232 (6)	6.764	1.000	A	H	R
19		Aroclor 1232 - AVE	0.784	1.000	A	H	R
20		Aroclor 1242 (1)	5.763	1.000	A	H	R
21		Aroclor 1242 (2)	6.177	1.000	A	H	R
22		Aroclor 1242 (3)	6.258	1.000	A	H	R
23		Aroclor 1242 (4)	6.417	1.000	A	H	R
24		Aroclor 1242 (5)	6.638	1.000	A	H	R
25		Aroclor 1242 (6)	6.765	1.000	A	H	R
26		Aroclor 1242 - AVE	0.784	1.000	A	H	R
27		Aroclor 1248 (1)	6.176	1.000	A	H	R
28		Aroclor 1248 (2)	6.417	1.000	A	H	R
29		Aroclor 1248 (3)	6.639	1.000	A	H	R
30		Aroclor 1248 (4)	6.933	1.000	A	H	R
31		Aroclor 1248 (5)	6.971	1.000	A	H	R
32		Aroclor 1248 (6)	7.449	1.000	A	H	R
33		Aroclor 1248 - AVE	0.784	1.000	A	H	R
34		Aroclor 1254 (1)	6.968	1.000	A	H	R
35		Aroclor 1254 (2)	7.078	1.000	A	H	R
36		Aroclor 1254 (3)	7.450	1.000	A	H	R
37		Aroclor 1254 (4)	7.614	1.000	A	H	R
38		Aroclor 1254 (5)	7.996	1.000	A	H	R
39		Aroclor 1254 (6)	8.288	1.000	A	H	R
40		Aroclor 1254 - AVE	0.784	1.000	A	H	R
41		Aroclor 1260 (1)	7.568	1.000	A	H	R
42		Aroclor 1260 (2)	7.701	1.000	A	H	R
43		Aroclor 1260 (3)	8.259	1.000	A	H	R
44		Aroclor 1260 (4)	8.429	1.000	A	H	R
45		Aroclor 1260 (5)	8.729	1.000	A	H	R
46		Aroclor 1260 (6)	9.124	1.000	A	H	R
47		Aroclor 1260 - AVE	0.784	1.000	A	H	R
48		Aroclor 1262 (1)	7.702	1.000	A	H	R
49		Aroclor 1262 (2)	8.027	1.000	A	H	R
50		Aroclor 1262 (3)	8.259	1.000	A	H	R
51		Aroclor 1262 (4)	8.429	1.000	A	H	R
52		Aroclor 1262 (5)	8.728	1.000	A	H	R
53		Aroclor 1262 (6)	9.123	1.000	A	H	R
54		Aroclor 1262 - AVE	0.784	1.000	A	H	R
55		Aroclor 1268 (1)	8.251	1.000	A	H	R
56		Aroclor 1268 (2)	8.677	1.000	A	H	R

57		Aroclor 1268 (3)	8.724	1.000	A	H	R
58		Aroclor 1268 (4)	8.907	1.000	A	H	R
59		Aroclor 1268 (5)	9.123	1.000	A	H	R
60		Aroclor 1268 (6)	9.388	1.000	A	H	R
61		Aroclor 1268 - AVE	0.787	1.000	A	H	R
62	S	DCBP (S)	9.628	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

FECD2_QUANTPCB_191001.M Thu Oct 03 08:45:07 2019

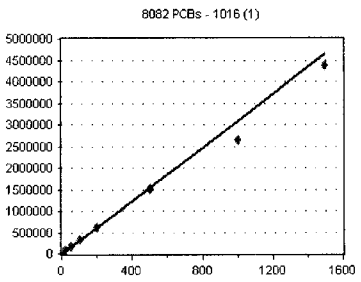
Element Calibration Review Sheet

Calibration ID: **A9J0303** Instrument: **DUALECD2F** Calibration Date: **10/03/2019**

Analysis: **8082 PCBs** Instrument Cal ID: **FECD2_QUANTPCB_19100**

1016 (1)

Curve Fit: **AVERAGE RF**

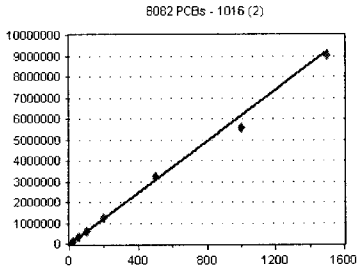


Standard	Concentration	Response	Response Factor	RT
9J01027-CAL1	20	68730	3436.500	5.77
9J01027-CAL2	50	170189	3403.780	5.77
9J01027-CAL3	100	314353	3143.530	5.76
9J01027-CAL4	200	610611	3053.055	5.76
9J01027-CAL5	500	1524562	3049.124	5.76
9J01027-CAL6	1000	2646872	2646.872	5.76
9J01027-CAL7	1500	4380564	2920.376	5.76

AVE RF **3093.320** RF RSD **8.85** AVE RT **5.76**

1016 (2)

Curve Fit: **AVERAGE RF**

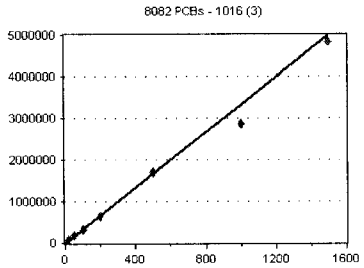


Standard	Concentration	Response	Response Factor	RT
9J01027-CAL1	20	129135	6456.750	6.18
9J01027-CAL2	50	324381	6487.620	6.18
9J01027-CAL3	100	610072	6100.720	6.18
9J01027-CAL4	200	1226934	6134.670	6.18
9J01027-CAL5	500	3227952	6455.904	6.18
9J01027-CAL6	1000	5554254	5554.254	6.18
9J01027-CAL7	1500	9049145	6032.763	6.18

AVE RF **6174.669** RF RSD **5.41** AVE RT **6.18**

1016 (3)

Curve Fit: **AVERAGE RF**

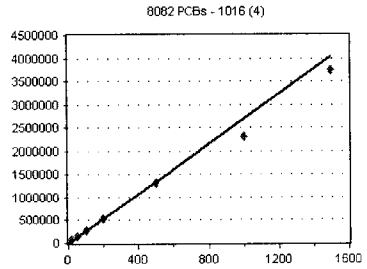


Standard	Concentration	Response	Response Factor	RT
9J01027-CAL1	20	74319	3715.950	6.26
9J01027-CAL2	50	178015	3560.300	6.26
9J01027-CAL3	100	327487	3274.870	6.26
9J01027-CAL4	200	657194	3285.970	6.26
9J01027-CAL5	500	1699526	3399.052	6.26
9J01027-CAL6	1000	2854613	2854.613	6.26
9J01027-CAL7	1500	4844176	3229.451	6.26

AVE RF **3331.458** RF RSD **8.20** AVE RT **6.26**

1016 (4)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J01027-CAL1	20	62007	3100.350	6.42
9J01027-CAL2	50	148435	2968.700	6.42
9J01027-CAL3	100	275590	2755.900	6.42
9J01027-CAL4	200	527619	2638.095	6.42
9J01027-CAL5	500	1301865	2603.730	6.42
9J01027-CAL6	1000	2303056	2303.056	6.42
9J01027-CAL7	1500	3733998	2489.332	6.42

AVE RF **2694.166** RF RSD **10.17** AVE RT **6.42**

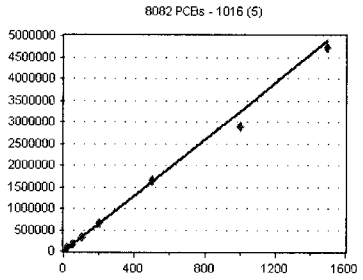
Element Calibration Review Sheet

Calibration ID: **A9J0303** Instrument: **DUALECD2F** Calibration Date: **10/03/2019**

Analysis: **8082 PCBs** Instrument Cal ID: **FECD2_QUANTPCB_19100**

1016 (5)

Curve Fit: **AVERAGE RF**

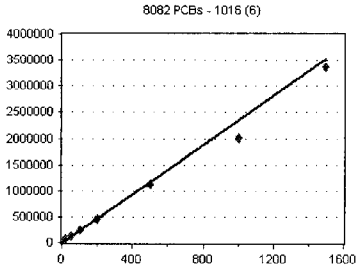


Standard	Concentration	Response	Response Factor	RT
9J01027-CAL1	20	71184	3559.200	6.64
9J01027-CAL2	50	170823	3416.460	6.64
9J01027-CAL3	100	326936	3269.360	6.64
9J01027-CAL4	200	643033	3215.165	6.64
9J01027-CAL5	500	1635925	3271.850	6.64
9J01027-CAL6	1000	2890325	2890.325	6.64
9J01027-CAL7	1500	4742463	3161.642	6.64

AVE RF **3254.857** RF RSD **6.42** AVE RT **6.64**

1016 (6)

Curve Fit: **AVERAGE RF**

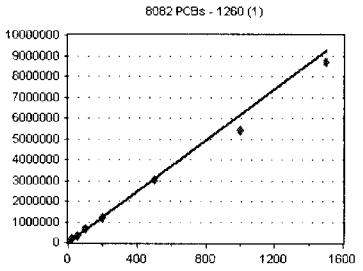


Standard	Concentration	Response	Response Factor	RT
9J01027-CAL1	20	55955	2797.750	6.77
9J01027-CAL2	50	129770	2595.400	6.77
9J01027-CAL3	100	233137	2331.370	6.77
9J01027-CAL4	200	444341	2221.705	6.77
9J01027-CAL5	500	1121780	2243.560	6.77
9J01027-CAL6	1000	2014203	2014.203	6.77
9J01027-CAL7	1500	3365426	2243.617	6.77

AVE RF **2349.658** RF RSD **11.16** AVE RT **6.77**

1260 (1)

Curve Fit: **AVERAGE RF**

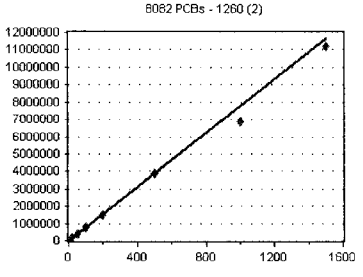


Standard	Concentration	Response	Response Factor	RT
9J01027-CAL1	20	137921	6896.050	7.57
9J01027-CAL2	50	331534	6630.680	7.57
9J01027-CAL3	100	628662	6286.620	7.57
9J01027-CAL4	200	1205320	6026.600	7.57
9J01027-CAL5	500	3016068	6032.136	7.57
9J01027-CAL6	1000	5414361	5414.361	7.57
9J01027-CAL7	1500	8715557	5810.371	7.57

AVE RF **6156.688** RF RSD **8.10** AVE RT **7.57**

1260 (2)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J01027-CAL1	20	172226	8611.300	7.70
9J01027-CAL2	50	415781	8315.620	7.70
9J01027-CAL3	100	785832	7858.320	7.70
9J01027-CAL4	200	1474076	7370.380	7.70
9J01027-CAL5	500	3920327	7840.654	7.70
9J01027-CAL6	1000	6848896	6848.896	7.70
9J01027-CAL7	1500	124048E+07	7493.653	7.70

AVE RF **7762.689** RF RSD **7.63** AVE RT **7.70**

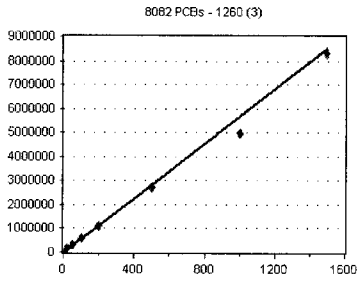
Element Calibration Review Sheet

Calibration ID: **A9J0303** Instrument: **DUALECD2F** Calibration Date: **10/03/2019**

Analysis: **8082 PCBs** Instrument Cal ID: **FECD2_QUANTPCB_19100**

1260 (3)

Curve Fit: **AVERAGE RF**

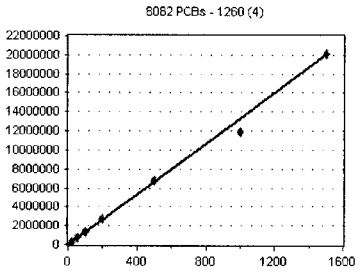


Standard	Concentration	Response	Response Factor	RT
9J01027-CAL1	20	125360	6268.000	8.26
9J01027-CAL2	50	307832	6156.640	8.26
9J01027-CAL3	100	568163	5681.630	8.26
9J01027-CAL4	200	1131292	5656.460	8.26
9J01027-CAL5	500	2720500	5441.000	8.26
9J01027-CAL6	1000	4967010	4967.010	8.26
9J01027-CAL7	1500	8317768	5545.179	8.26

AVE RF **5673.703** RF RSD **7.74** AVE RT **8.26**

1260 (4)

Curve Fit: **AVERAGE RF**

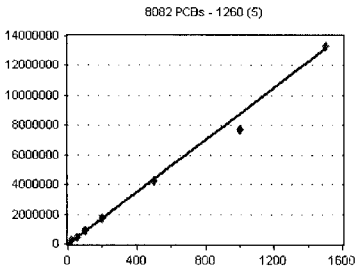


Standard	Concentration	Response	Response Factor	RT
9J01027-CAL1	20	282538	14126.900	8.43
9J01027-CAL2	50	701091	14021.820	8.43
9J01027-CAL3	100	1316826	13168.260	8.43
9J01027-CAL4	200	2695284	13476.420	8.43
9J01027-CAL5	500	6774987	13549.970	8.43
9J01027-CAL6	1000	184773E+07	11847.730	8.43
9J01027-CAL7	1500	2.00493E+07	13366.200	8.43

AVE RF **13365.330** RF RSD **5.63** AVE RT **8.43**

1260 (5)

Curve Fit: **AVERAGE RF**

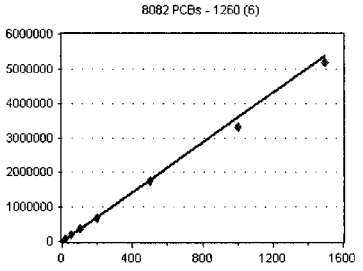


Standard	Concentration	Response	Response Factor	RT
9J01027-CAL1	20	191667	9583.350	8.73
9J01027-CAL2	50	466708	9334.160	8.73
9J01027-CAL3	100	873520	8735.200	8.73
9J01027-CAL4	200	1719690	8598.450	8.73
9J01027-CAL5	500	4222705	8445.410	8.73
9J01027-CAL6	1000	7742543	7742.543	8.73
9J01027-CAL7	1500	329377E+07	8862.514	8.73

AVE RF **8757.375** RF RSD **6.88** AVE RT **8.73**

1260 (6)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J01027-CAL1	20	80966	4048.300	9.13
9J01027-CAL2	50	194684	3893.680	9.12
9J01027-CAL3	100	358964	3589.640	9.12
9J01027-CAL4	200	670631	3353.155	9.12
9J01027-CAL5	500	1755158	3510.316	9.12
9J01027-CAL6	1000	3292230	3292.230	9.12
9J01027-CAL7	1500	5192764	3461.843	9.12

AVE RF **3592.738** RF RSD **7.79** AVE RT **9.12**

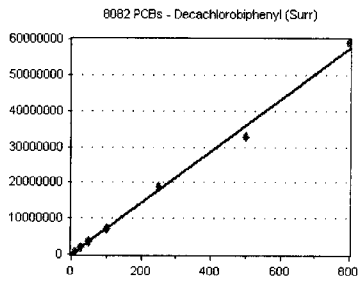
Element Calibration Review Sheet

Calibration ID: **A9J0303** Instrument: **DUALECD2F** Calibration Date: **10/03/2019**

Analysis: **8082 PCBs** Instrument Cal ID: **FECD2_QUANTPCB_19100**

Decachlorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9J01027-CAL1	10	726257	72625.700	9.63
9J01027-CAL2	25	1817963	72718.520	9.63
9J01027-CAL3	50	3636853	72737.060	9.63
9J01027-CAL4	100	7044557	70445.570	9.63
9J01027-CAL5	250	886598E+07	75463.920	9.63
9J01027-CAL6	500	:.29022E+07	65804.400	9.63
9J01027-CAL7	800	;.91137E+07	73892.130	9.63

AVE RF **71955.330** RF RSD **4.31** AVE RT **9.63**

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J01027

Analysis Included

1311/8082 TCLP PCBs
608 PCBs
608 PCBs - LL (1000/1mL) +1262/68
8082 PCBs
8082 PCBs - Low Level (2mL FV)
8082 PCBs - Low Level (2mL FV) +1262/68
8082 PCBs - Low Level (1000/1mL)
8082 PCBs - Low Level (1000/1mL) +1262/68
8082 PCBs - Low Level (30g/2mL)
8082 PCBs + 1262/1268
8082 PCBs in Trans. Oil - LL

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9J01027-ICB1	Initial Cal Blank	Water	A19I233		10/1/2019 12:25:00PM
9J01027-CAL1	Cal Standard	Water	A19F250	"	10/1/2019 12:43:00PM
9J01027-CAL2	Cal Standard	Water	A19F251	"	10/1/2019 1:01:00PM
9J01027-CAL3	Cal Standard	Water	A19F252	"	10/1/2019 1:18:00PM
9J01027-CAL4	Cal Standard	Water	A19F253	"	10/1/2019 1:36:00PM
9J01027-CAL5	Cal Standard	Water	A19F247	"	10/1/2019 1:53:00PM
9J01027-CAL6	Cal Standard	Water	A19F248	"	10/1/2019 2:11:00PM
9J01027-CAL7	Cal Standard	Water	A19F249	"	10/1/2019 2:29:00PM
9J01027-ICV1	Initial Cal Check	Water	A19H459	"	10/1/2019 3:04:00PM
9J01027-CAL8	Cal Standard	Water	A19H447	"	10/1/2019 3:22:00PM
9J01027-CAL9	Cal Standard	Water	A19H448	"	10/1/2019 3:39:00PM
9J01027-CALA	Cal Standard	Water	A19H449	"	10/1/2019 3:57:00PM
9J01027-CALB	Cal Standard	Water	A19H450	"	10/1/2019 4:15:00PM
9J01027-CALC	Cal Standard	Water	A19H451	"	10/1/2019 4:32:00PM
9J01027-CALD	Cal Standard	Water	A19H452	"	10/1/2019 4:50:00PM
9J01027-CALE	Cal Standard	Water	A19H453	"	10/1/2019 5:07:00PM
9J01027-ICV2	Initial Cal Check	Water	A19H405	"	10/1/2019 5:25:00PM
9J01027-ICV3	Initial Cal Check	Water	A19D327	"	10/1/2019 5:43:00PM
9J01027-ICV4	Initial Cal Check	Water	A19H406	"	10/1/2019 6:00:00PM
9J01027-ICV5	Initial Cal Check	Water	A19E303	"	10/1/2019 6:18:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9J0303** Instrument: **DUALECD2F**

1311/8082 TCLP PCBs Sequence: **9J01027** Matrix: **Water**

9J01027-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1016	0.0000	0.00	20	0	
Aroclor 1260	0.0000	0.00	20	0	
Aroclor 1016	0.0000	0.00	20	0	
Aroclor 1260	0.0000	0.00	20	0	

9J01027-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1016	0.0000	0.00	50	0	
Aroclor 1260	0.0000	0.00	50	0	

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J01027

Aroclor 1016	0.0000	0.00	50	0	
Aroclor 1260	0.0000	0.00	50	0	
9J01027-CAL3	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
Aroclor 1016	0.0000	0.00	100	0	
Aroclor 1260	0.0000	0.00	100	0	
Aroclor 1016	0.0000	0.00	100	0	
Aroclor 1260	0.0000	0.00	100	0	
9J01027-CAL4	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
Aroclor 1016	0.0000	0.00	200	0	
Aroclor 1260	0.0000	0.00	200	0	
Aroclor 1016	0.0000	0.00	200	0	
Aroclor 1260	0.0000	0.00	200	0	
9J01027-CAL5	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
Aroclor 1016	0.0000	0.00	500	0	
Aroclor 1260	0.0000	0.00	500	0	
Aroclor 1016	0.0000	0.00	500	0	
Aroclor 1260	0.0000	0.00	500	0	
9J01027-CAL6	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
Aroclor 1016	800.0000	0.00	1000	0	
Aroclor 1260	800.0000	0.00	1000	0	
Aroclor 1016	0.0000	0.00	1000	0	
Aroclor 1260	0.0000	0.00	1000	0	
Aroclor 1016	0.0000	0.00	1000	0	
Aroclor 1260	0.0000	0.00	1000	0	
9J01027-CAL7	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
Aroclor 1016	800.0000	0.00	1500	0	
Aroclor 1260	800.0000	0.00	1500	0	
Aroclor 1016	0.0000	0.00	1500	0	
Aroclor 1260	0.0000	0.00	1500	0	
Aroclor 1016	0.0000	0.00	1500	0	
Aroclor 1260	0.0000	0.00	1500	0	
9J01027-CAL8	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
Aroclor 1221	0.0000	0.00	500	0	
Aroclor 1221	0.0000	0.00	500	0	
9J01027-CAL9	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
Aroclor 1232	0.0000	0.00	500	0	
Aroclor 1232	0.0000	0.00	500	0	
9J01027-CALA	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
Aroclor 1242	0.0000	0.00	500	0	
Aroclor 1242	0.0000	0.00	500	0	
9J01027-CALB	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
Aroclor 1248	0.0000	0.00	500	0	
Aroclor 1248	0.0000	0.00	500	0	
9J01027-CALC	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
Aroclor 1254	0.0000	0.00	500	0	
Aroclor 1254	0.0000	0.00	500	0	

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9J01027

9J01027-CALD	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1262	0.0000	0.00	500	0	
Aroclor 1262	0.0000	0.00	500	0	

9J01027-CALE	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
Aroclor 1268	0.0000	0.00	500	0	
Aroclor 1268	0.0000	0.00	500	0	

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: **A9J0303** Instrument: **DUALECD2F**

608 PCBs - LL (1000/1mL) +1 Sequence: **9J01027** Matrix: **Water**

9J01027-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.

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F009.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 12:25
Operator : MJB / KAK
Sample : 9J01027-ICB1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:33:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/13/19

clean

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.856	6649223	92.438 ng/ml
62) S	DCBP (S)	9.638	6648175	92.393 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.765	1766	0.571 ng/ml
3)	Aroclor 1016 (2)	6.204	5272	0.854 ng/ml
4)	Aroclor 1016 (3)	6.256	2848	0.855 ng/ml
5)	Aroclor 1016 (4)	6.412	1954	0.725 ng/ml
6)	Aroclor 1016 (5)	6.645	357	0.110 ng/ml
7)	Aroclor 1016 (6)	6.743	12434	5.292 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.201	10883	10.485 ng/ml
10)	Aroclor 1221 (2)	5.316	428	0.659 ng/ml
11)	Aroclor 1221 (3)	5.400	7272	3.332 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.400	7272	4.131 ng/ml
14)	Aroclor 1232 (2)	6.204	5272	2.148 ng/ml
15)	Aroclor 1232 (3)	6.256	2848	2.247 ng/ml
16)	Aroclor 1232 (4)	6.412	1954	2.278 ng/ml
17)	Aroclor 1232 (5)	6.645	357	0.315 ng/ml
18)	Aroclor 1232 (6)	6.743	12434	13.301 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.765	1766	0.800 ng/ml
21)	Aroclor 1242 (2)	6.204	5272	1.158 ng/ml
22)	Aroclor 1242 (3)	6.256	2848	1.220 ng/ml
23)	Aroclor 1242 (4)	6.412	1954	1.113 ng/ml
24)	Aroclor 1242 (5)	6.645	357	0.149 ng/ml
25)	Aroclor 1242 (6)	6.743	12434	6.283 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.204	5272	1.783 ng/ml
28)	Aroclor 1248 (2)	6.412	1954	0.564 ng/ml
29)	Aroclor 1248 (3)	6.645	357	0.091 ng/ml
30)	Aroclor 1248 (4)	6.956	30113	6.285 ng/ml
31)	Aroclor 1248 (5)	6.956	30113	6.018 ng/ml
32)	Aroclor 1248 (6)	7.467	5284	2.028 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.956	30113	6.370 ng/ml
35)	Aroclor 1254 (2)	7.090	9348	1.661 ng/ml
36)	Aroclor 1254 (3)	7.467	5284	0.618 ng/ml
37)	Aroclor 1254 (4)	7.624	3342	0.574 ng/ml
38)	Aroclor 1254 (5)	7.990	4534	0.776 ng/ml
39)	Aroclor 1254 (6)	8.262	2726	1.443 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.571	3154	0.512 ng/ml
42)	Aroclor 1260 (2)	7.699	1582	0.204 ng/ml
43)	Aroclor 1260 (3)	8.262	2726	0.481 ng/ml
44)	Aroclor 1260 (4)	8.432	11069	0.828 ng/ml
45)	Aroclor 1260 (5)	8.737	5338	0.610 ng/ml
46)	Aroclor 1260 (6)	9.138	4060	1.130 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F009.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 12:25
Operator : MJB / KAK
Sample : 9J01027-ICB1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:33:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

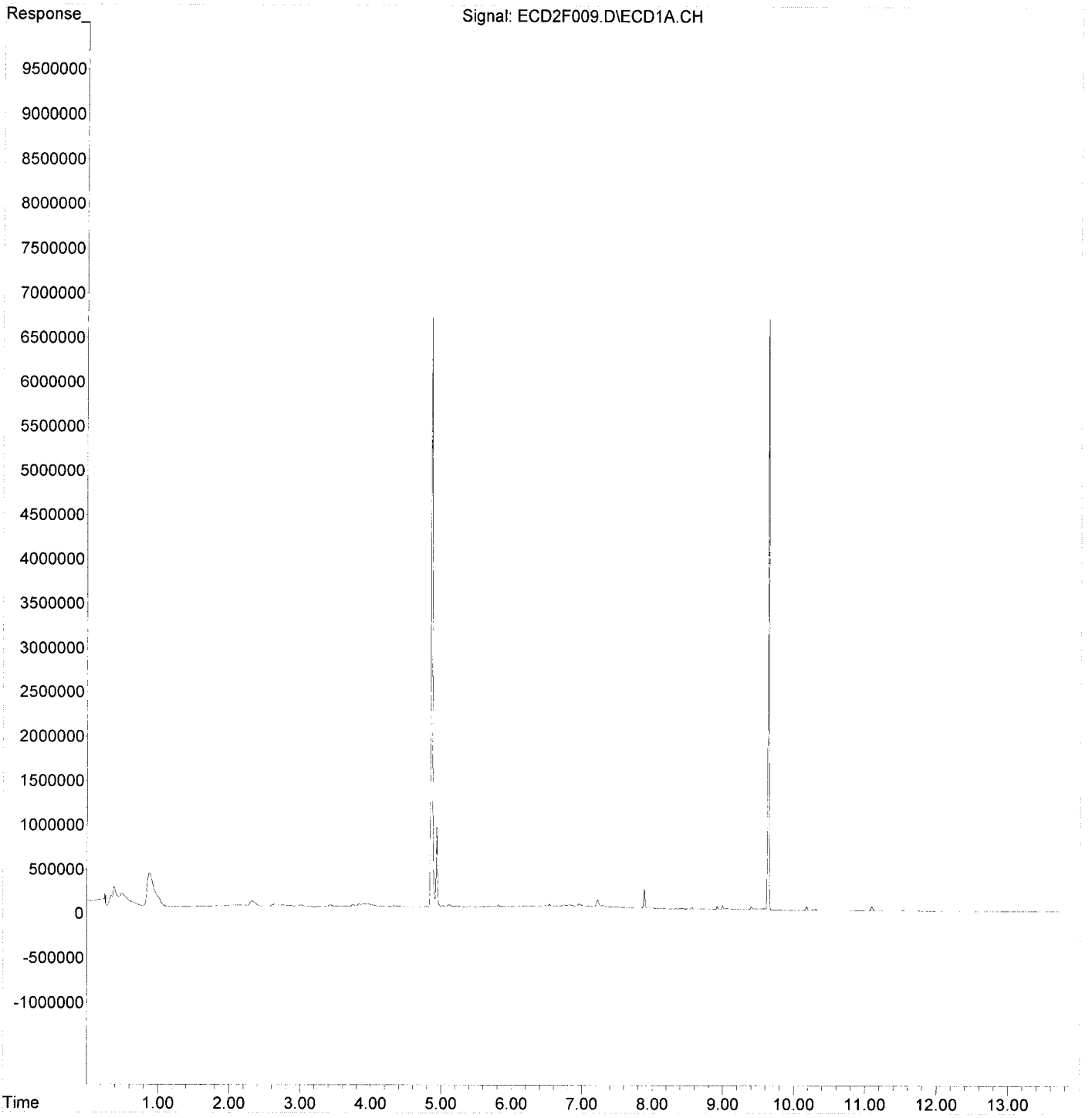
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.699	1582	0.268 ng/ml
49)	Aroclor 1262 (2)	8.015	7300	0.886 ng/ml
50)	Aroclor 1262 (3)	8.262	2726	0.396 ng/ml
51)	Aroclor 1262 (4)	8.432	11069	0.747 ng/ml
52)	Aroclor 1262 (5)	8.737	5338	0.599 ng/ml
53)	Aroclor 1262 (6)	9.138	4060	0.847 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.262	2726	0.757 ng/ml
56)	Aroclor 1268 (2)	8.702	5264	0.319 ng/ml
57)	Aroclor 1268 (3)	8.737	5338	0.384 ng/ml
58)	Aroclor 1268 (4)	8.915	35082	2.793 ng/ml
59)	Aroclor 1268 (5)	9.138	4060	0.741 ng/ml
60)	Aroclor 1268 (6)	9.398	35989	1.050 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F009.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 12:25
Operator : MJB / KAK
Sample : 9J01027-ICB1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:33:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F017.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:46
Operator : MJB / KAK
Sample : 9J01027-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:34:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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No Carryover

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.849	2923	0.041 ng/ml
62) S	DCBP (S)	9.627	6596	0.092 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.764	1137	0.368 ng/ml
3)	Aroclor 1016 (2)	6.186	4479	0.725 ng/ml
4)	Aroclor 1016 (3)	6.258	1847	0.554 ng/ml
5)	Aroclor 1016 (4)	6.432	4901	1.819 ng/ml
6)	Aroclor 1016 (5)	6.636	369	0.113 ng/ml
7)	Aroclor 1016 (6)	6.727	7994	3.402 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.192	14910	14.365 ng/ml
10)	Aroclor 1221 (2)	5.315	287	0.443 ng/ml
11)	Aroclor 1221 (3)	5.393	7821	3.583 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.393	7821	4.443 ng/ml
14)	Aroclor 1232 (2)	6.186	4479	1.825 ng/ml
15)	Aroclor 1232 (3)	6.258	1847	1.457 ng/ml
16)	Aroclor 1232 (4)	6.432	4901	5.715 ng/ml
17)	Aroclor 1232 (5)	6.636	369	0.326 ng/ml
18)	Aroclor 1232 (6)	6.727	7994	8.552 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.764	1137	0.515 ng/ml
21)	Aroclor 1242 (2)	6.186	4479	0.984 ng/ml
22)	Aroclor 1242 (3)	6.258	1847	0.791 ng/ml
23)	Aroclor 1242 (4)	6.432	4901	2.793 ng/ml
24)	Aroclor 1242 (5)	6.636	369	0.155 ng/ml
25)	Aroclor 1242 (6)	6.727	7994	4.040 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.186	4479	1.515 ng/ml
28)	Aroclor 1248 (2)	6.432	4901	1.414 ng/ml
29)	Aroclor 1248 (3)	6.636	369	0.094 ng/ml
30)	Aroclor 1248 (4)	6.925	6473	1.351 ng/ml
31)	Aroclor 1248 (5)	6.950	14819	2.962 ng/ml
32)	Aroclor 1248 (6)	7.448	3534	1.356 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.950	14819	3.135 ng/ml
35)	Aroclor 1254 (2)	7.078	7732	1.374 ng/ml
36)	Aroclor 1254 (3)	7.448	3534	0.413 ng/ml
37)	Aroclor 1254 (4)	7.618	3898	0.669 ng/ml
38)	Aroclor 1254 (5)	7.994	2502	0.428 ng/ml
39)	Aroclor 1254 (6)	8.306	311	0.165 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.563	4873	0.792 ng/ml
42)	Aroclor 1260 (2)	7.700	1718	0.221 ng/ml
43)	Aroclor 1260 (3)	8.257	1708	0.301 ng/ml
44)	Aroclor 1260 (4)	8.428	6077	0.455 ng/ml
45)	Aroclor 1260 (5)	8.727	4245	0.485 ng/ml
46)	Aroclor 1260 (6)	9.123	600	0.167 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F017.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:46
Operator : MJB / KAK
Sample : 9J01027-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:34:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

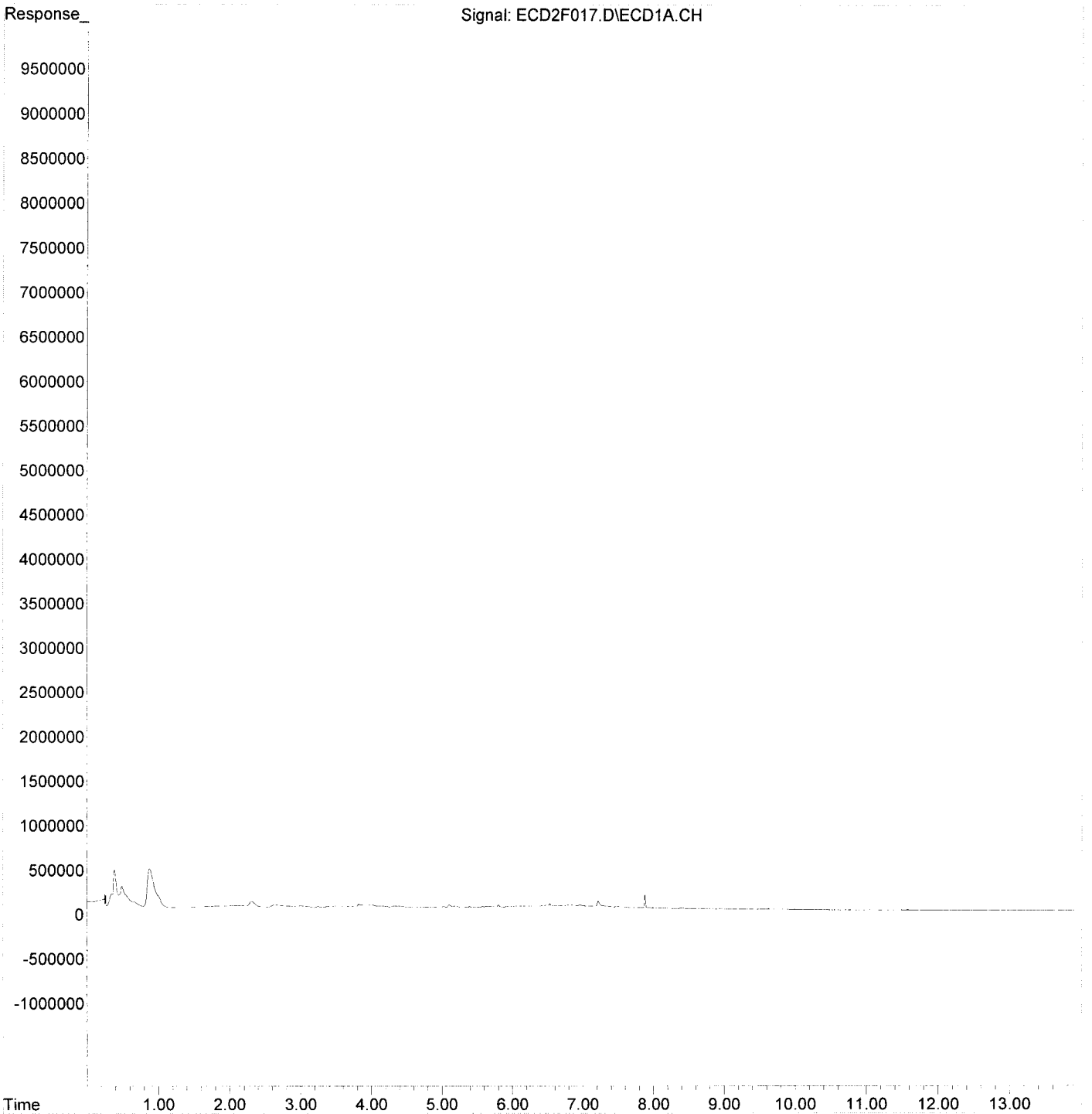
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.700	1718	0.291 ng/ml
49)	Aroclor 1262 (2)	7.994	2502	0.304 ng/ml
50)	Aroclor 1262 (3)	8.257	1708	0.248 ng/ml
51)	Aroclor 1262 (4)	8.428	6077	0.410 ng/ml
52)	Aroclor 1262 (5)	8.727	4245	0.476 ng/ml
53)	Aroclor 1262 (6)	9.123	600	0.125 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.257	1708	0.474 ng/ml
56)	Aroclor 1268 (2)	8.690	4141	0.251 ng/ml
57)	Aroclor 1268 (3)	8.727	4245	0.306 ng/ml
58)	Aroclor 1268 (4)	8.934	3036	0.242 ng/ml
59)	Aroclor 1268 (5)	9.123	600	0.110 ng/ml
60)	Aroclor 1268 (6)	9.384	662	0.019 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F017.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:46
Operator : MJB / KAK
Sample : 9J01027-IBL1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:34:13 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F018.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 15:04
Operator : MJB / KAK
Sample : 9J01027-ICV1
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:34:30 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/3/19

1016, 1260

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	4.847	12756786	177.345	ng/ml
62) S	DCBP (S)	9.626	13251704	184.166	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.763	1397580	451.806	ng/ml
3)	Aroclor 1016 (2)	6.176	2902702	470.098	ng/ml
4)	Aroclor 1016 (3)	6.257	1500278	450.337	ng/ml
5)	Aroclor 1016 (4)	6.416	1149337	426.602	ng/ml
6)	Aroclor 1016 (5)	6.638	1426729	438.338	ng/ml
7)	Aroclor 1016 (6)	6.764	1029800	438.277	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	5.203	152752	147.166	ng/ml
10)	Aroclor 1221 (2)	5.321	154872	238.799	ng/ml
11)	Aroclor 1221 (3)	5.402	738617	338.370	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	5.402	738617	419.607	ng/ml
14)	Aroclor 1232 (2)	6.176	2902702	1182.704	ng/ml
15)	Aroclor 1232 (3)	6.257	1500278	1183.821	ng/ml
16)	Aroclor 1232 (4)	6.416	1149337	1340.281	ng/ml
17)	Aroclor 1232 (5)	6.638	1426729	1258.848	ng/ml
18)	Aroclor 1232 (6)	6.764	1029800	1101.619	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	5.763	1397580	633.284	ng/ml
21)	Aroclor 1242 (2)	6.176	2902702	637.591	ng/ml
22)	Aroclor 1242 (3)	6.257	1500278	642.691	ng/ml
23)	Aroclor 1242 (4)	6.416	1149337	654.946	ng/ml
24)	Aroclor 1242 (5)	6.638	1426729	597.134	ng/ml
25)	Aroclor 1242 (6)	6.764	1029800	520.389	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	6.176	2902702	981.673	ng/ml
28)	Aroclor 1248 (2)	6.416	1149337	331.601	ng/ml
29)	Aroclor 1248 (3)	6.638	1426729	363.984	ng/ml
30)	Aroclor 1248 (4)	6.932	248074	51.776	ng/ml
31)	Aroclor 1248 (5)	6.967	1122813	224.400	ng/ml
32)	Aroclor 1248 (6)	7.455	2147782	824.376	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	6.967	1122813	237.502	ng/ml
35)	Aroclor 1254 (2)	7.077	1195583	212.410	ng/ml
36)	Aroclor 1254 (3)	7.455	2147782	251.050	ng/ml
37)	Aroclor 1254 (4)	7.613	252302	43.328	ng/ml
38)	Aroclor 1254 (5)	7.995	3253931	557.155	ng/ml
39)	Aroclor 1254 (6)	8.287	355863	188.314	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	7.567	3012637	489.327	ng/ml
42)	Aroclor 1260 (2)	7.700	3843113	495.075	ng/ml
43)	Aroclor 1260 (3)	8.257	2411992	425.118	ng/ml
44)	Aroclor 1260 (4)	8.427	5775330	432.113	ng/ml
45)	Aroclor 1260 (5)	8.727	3845521	439.118	ng/ml
46)	Aroclor 1260 (6)	9.122	1272449	354.173	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

445.910

439.154

OUT TOO HIGH

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F018.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 15:04
Operator : MJB / KAK
Sample : 9J01027-ICV1
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:34:30 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

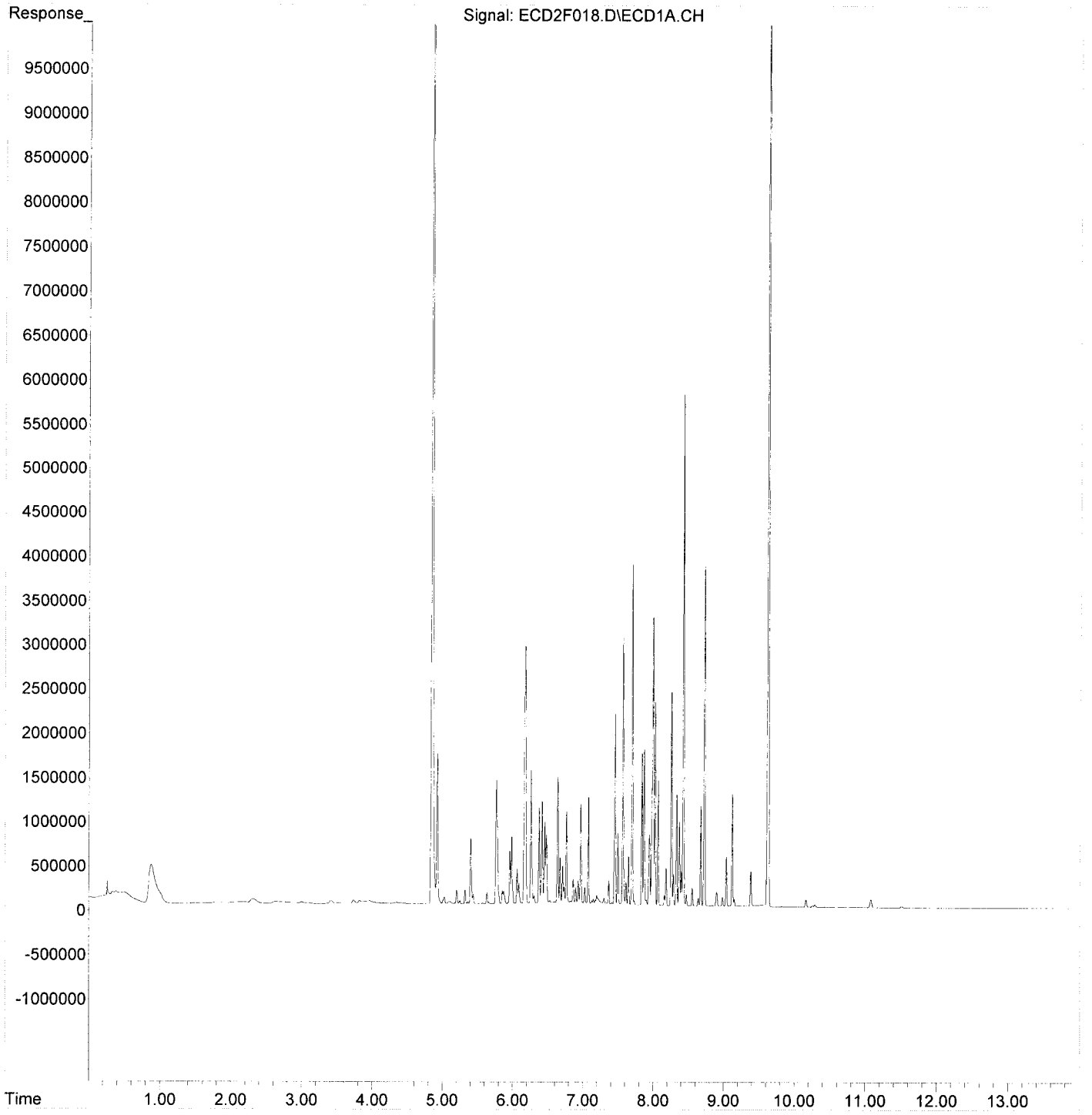
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	7.700	3843113	650.501	ng/ml
49)	Aroclor 1262 (2)	8.025	2303373	279.614	ng/ml
50)	Aroclor 1262 (3)	8.257	2411992	350.370	ng/ml
51)	Aroclor 1262 (4)	8.427	5775330	389.689	ng/ml
52)	Aroclor 1262 (5)	8.727	3845521	431.460	ng/ml
53)	Aroclor 1262 (6)	9.122	1272449	265.584	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	8.257	2411992	669.664	ng/ml
56)	Aroclor 1268 (2)	8.675	1125984	68.153	ng/ml
57)	Aroclor 1268 (3)	8.727	3845521	276.821	ng/ml
58)	Aroclor 1268 (4)	8.903	156527	12.461	ng/ml
59)	Aroclor 1268 (5)	9.122	1272449	232.204	ng/ml
60)	Aroclor 1268 (6)	9.385	394034	11.495	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F018.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 15:04
Operator : MJB / KAK
Sample : 9J01027-ICV1
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:34:30 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F026.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 17:25
Operator : MJB / KAK
Sample : 9J01027-ICV2
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:34:46 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/3/19

1221, 1254

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S TCMX (S)	4.847	2782057	38.676	ng/ml
62)	S DCBP (S)	9.628	5956978	82.787	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.763	346654	112.065	ng/ml
3)	Aroclor 1016 (2)	6.176	445927	72.219	ng/ml
4)	Aroclor 1016 (3)	6.259	262605	78.826	ng/ml
5)	Aroclor 1016 (4)	6.418	1346382	499.740	ng/ml
6)	Aroclor 1016 (5)	6.639	870617	267.482	ng/ml
7)	Aroclor 1016 (6)	6.766	396101	168.578	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	5.204	990134	953.929	ng/ml
10)	Aroclor 1221 (2)	5.322	648214	999.485	ng/ml
11)	Aroclor 1221 (3)	5.403	2234993	1023.880	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	5.403	2234993	1269.696	ng/ml
14)	Aroclor 1232 (2)	6.176	445927	181.693	ng/ml
15)	Aroclor 1232 (3)	6.259	262605	207.213	ng/ml
16)	Aroclor 1232 (4)	6.418	1346382	1570.062	ng/ml
17)	Aroclor 1232 (5)	6.639	870617	768.173	ng/ml
18)	Aroclor 1232 (6)	6.766	396101	423.726	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	5.763	346654	157.079	ng/ml
21)	Aroclor 1242 (2)	6.176	445927	97.950	ng/ml
22)	Aroclor 1242 (3)	6.259	262605	112.495	ng/ml
23)	Aroclor 1242 (4)	6.418	1346382	767.231	ng/ml
24)	Aroclor 1242 (5)	6.639	870617	364.383	ng/ml
25)	Aroclor 1242 (6)	6.766	396101	200.162	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	6.176	445927	150.809	ng/ml
28)	Aroclor 1248 (2)	6.418	1346382	388.452	ng/ml
29)	Aroclor 1248 (3)	6.639	870617	222.110	ng/ml
30)	Aroclor 1248 (4)	6.933	1378277	287.662	ng/ml
31)	Aroclor 1248 (5)	6.968	2540156	507.663	ng/ml
32)	Aroclor 1248 (6)	7.449	4290107	1646.658	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	6.968	2540156	537.303	ng/ml
35)	Aroclor 1254 (2)	7.078	2798213	497.138	ng/ml
36)	Aroclor 1254 (3)	7.449	4290107	501.463	ng/ml
37)	Aroclor 1254 (4)	7.614	2883518	495.193	ng/ml
38)	Aroclor 1254 (5)	7.996	2933762	502.334	ng/ml
39)	Aroclor 1254 (6)	8.288	928979	491.594	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	7.569	1612324	261.882	ng/ml
42)	Aroclor 1260 (2)	7.701	1861859	239.847	ng/ml
43)	Aroclor 1260 (3)	8.259	259923	45.812	ng/ml
44)	Aroclor 1260 (4)	8.428	608712	45.544	ng/ml
45)	Aroclor 1260 (5)	8.728	531251	60.663	ng/ml
46)	Aroclor 1260 (6)	9.123	42735	11.895	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

992.431

504.171

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F026.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 17:25
Operator : MJB / KAK
Sample : 9J01027-ICV2
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:34:46 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

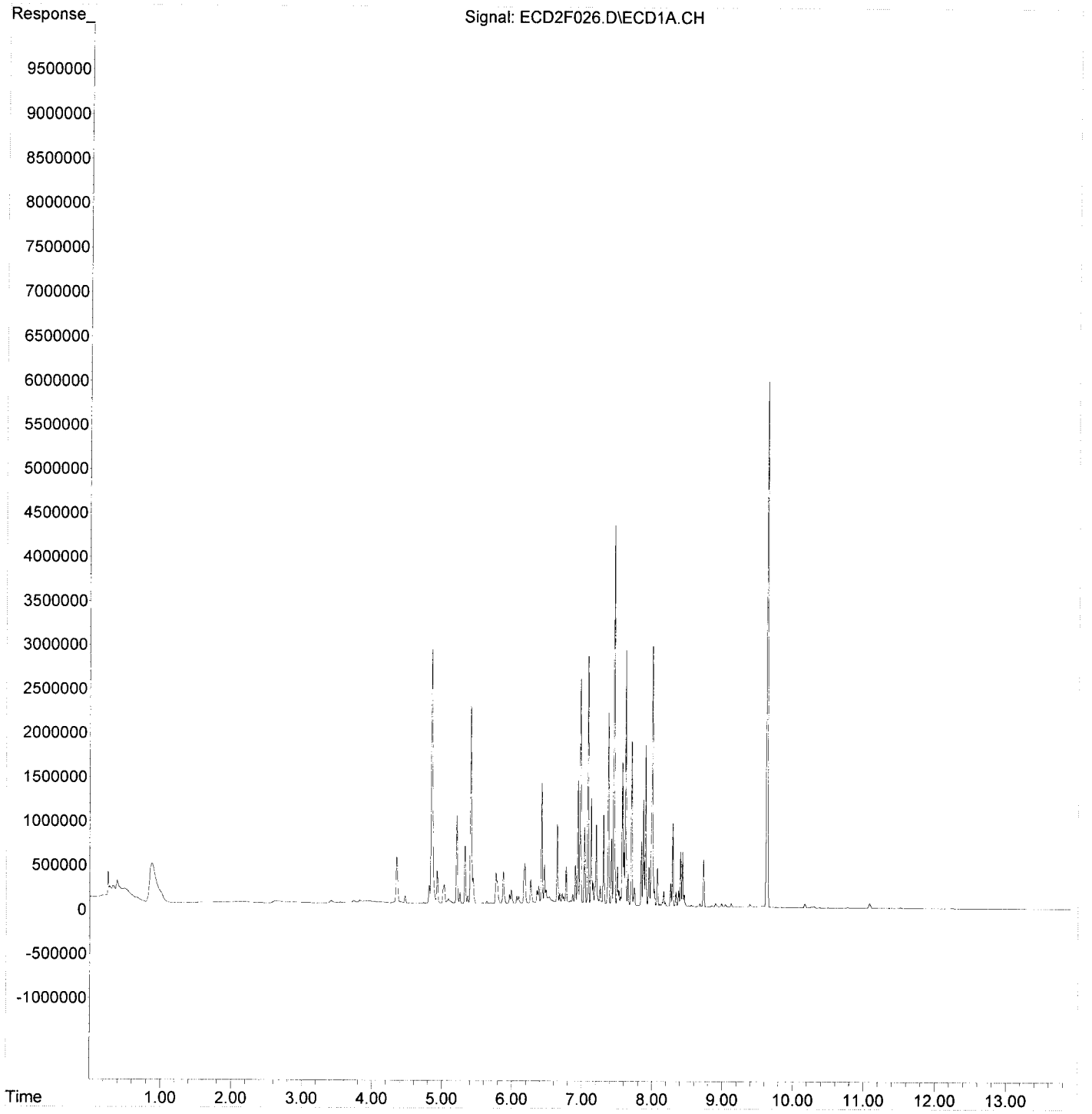
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.701	1861859	315.146 ng/ml
49)	Aroclor 1262 (2)	8.025	189690	23.027 ng/ml
50)	Aroclor 1262 (3)	8.259	259923	37.757 ng/ml
51)	Aroclor 1262 (4)	8.428	608712	41.073 ng/ml
52)	Aroclor 1262 (5)	8.728	531251	59.605 ng/ml
53)	Aroclor 1262 (6)	9.123	42735	8.920 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.259	259923	72.165 ng/ml
56)	Aroclor 1268 (2)	8.676	34288	2.075 ng/ml
57)	Aroclor 1268 (3)	8.728	531251	38.242 ng/ml
58)	Aroclor 1268 (4)	8.899	36841	2.933 ng/ml
59)	Aroclor 1268 (5)	9.123	42735	7.799 ng/ml
60)	Aroclor 1268 (6)	9.387	33703	0.983 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F026.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 17:25
Operator : MJB / KAK
Sample : 9J01027-ICV2
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:34:46 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F027.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 17:43
Operator : MJB / KAK
Sample : 9J01027-ICV3
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:35:03 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/3/19

1232, 1262

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.847	2995286	41.641 ng/ml
62) S	DCBP (S)	9.627	6789634	94.359 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.764	694515	224.521 ng/ml
3)	Aroclor 1016 (2)	6.177	1382320	223.869 ng/ml
4)	Aroclor 1016 (3)	6.258	754154	226.374 ng/ml
5)	Aroclor 1016 (4)	6.417	510857	189.616 ng/ml
6)	Aroclor 1016 (5)	6.640	681016	209.231 ng/ml
7)	Aroclor 1016 (6)	6.765	538713	229.273 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	5.203	361224	348.016 ng/ml
10)	Aroclor 1221 (2)	5.322	258631	398.785 ng/ml
11)	Aroclor 1221 (3)	5.403	973802	446.111 ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/ml
13)	Aroclor 1232 (1)	5.403	973802	553.215 ng/ml
14)	Aroclor 1232 (2)	6.177	1382320	563.226 ng/ml
15)	Aroclor 1232 (3)	6.258	754154	595.079 ng/ml
16)	Aroclor 1232 (4)	6.417	510857	595.728 ng/ml
17)	Aroclor 1232 (5)	6.640	681016	600.882 ng/ml
18)	Aroclor 1232 (6)	6.765	538713	576.283 ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/ml
20)	Aroclor 1242 (1)	5.764	694515	314.705 ng/ml
21)	Aroclor 1242 (2)	6.177	1382320	303.632 ng/ml
22)	Aroclor 1242 (3)	6.258	754154	323.065 ng/ml
23)	Aroclor 1242 (4)	6.417	510857	291.110 ng/ml
24)	Aroclor 1242 (5)	6.640	681016	285.028 ng/ml
25)	Aroclor 1242 (6)	6.765	538713	272.228 ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/ml
27)	Aroclor 1248 (1)	6.177	1382320	467.491 ng/ml
28)	Aroclor 1248 (2)	6.417	510857	147.390 ng/ml
29)	Aroclor 1248 (3)	6.640	681016	173.740 ng/ml
30)	Aroclor 1248 (4)	6.933	708567	147.886 ng/ml
31)	Aroclor 1248 (5)	6.971	1064305	212.707 ng/ml
32)	Aroclor 1248 (6)	7.456	2125850	815.958 ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/ml
34)	Aroclor 1254 (1)	6.971	1064305	225.126 ng/ml
35)	Aroclor 1254 (2)	7.077	590952	104.990 ng/ml
36)	Aroclor 1254 (3)	7.456	2125850	248.487 ng/ml
37)	Aroclor 1254 (4)	7.614	244406	41.972 ng/ml
38)	Aroclor 1254 (5)	7.996	1562700	267.574 ng/ml
39)	Aroclor 1254 (6)	8.288	101095	53.497 ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/ml
41)	Aroclor 1260 (1)	7.569	2511226	407.886 ng/ml
42)	Aroclor 1260 (2)	7.701	3122504	402.245 ng/ml
43)	Aroclor 1260 (3)	8.259	3607694	635.862 ng/ml
44)	Aroclor 1260 (4)	8.429	7862103	588.246 ng/ml
45)	Aroclor 1260 (5)	8.727	4914295	561.161 ng/ml
46)	Aroclor 1260 (6)	9.123	2502923	696.662 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

580.736

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F027.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 17:43
Operator : MJB / KAK
Sample : 9J01027-ICV3
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:35:03 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	7.701	3122504	528.528	ng/ml
49)	Aroclor 1262 (2)	8.026	4098428	497.521	ng/ml
50)	Aroclor 1262 (3)	8.259	3607694	524.060	ng/ml
51)	Aroclor 1262 (4)	8.429	7862103	530.493	ng/ml
52)	Aroclor 1262 (5)	8.727	4914295	551.375	ng/ml
53)	Aroclor 1262 (6)	9.123	2502923	522.407	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	8.259	3607694	1001.637	ng/ml
56)	Aroclor 1268 (2)	8.676	2920409	176.765	ng/ml
57)	Aroclor 1268 (3)	8.727	4914295	353.757	ng/ml
58)	Aroclor 1268 (4)	8.906	237063	18.872	ng/ml
59)	Aroclor 1268 (5)	9.123	2502923	456.748	ng/ml
60)	Aroclor 1268 (6)	9.386	817119	23.837	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

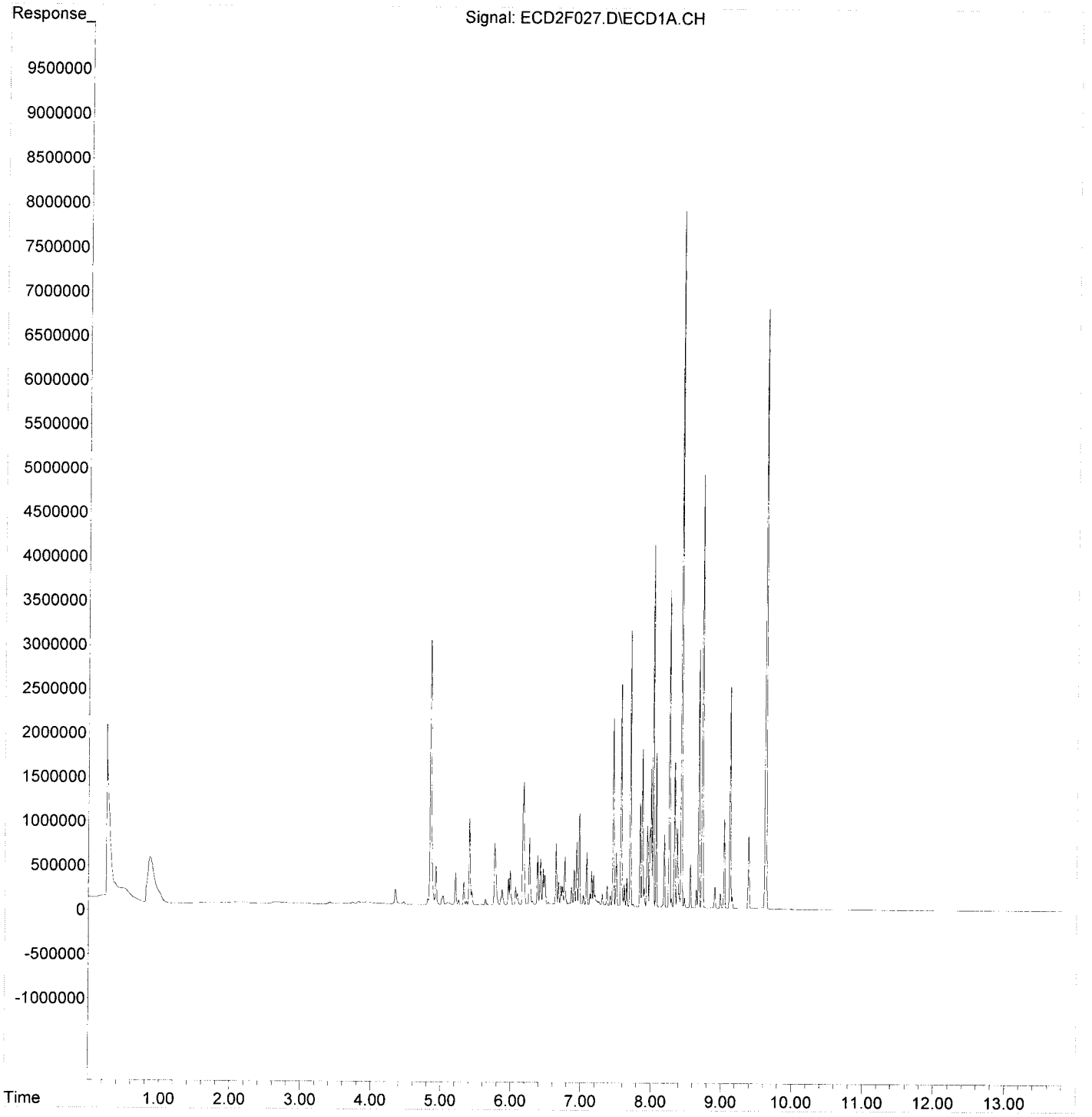
525.731

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F027.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 17:43
Operator : MJB / KAK
Sample : 9J01027-ICV3
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:35:03 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F028.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 18:00
Operator : MJB / KAK
Sample : 9J01027-ICV4
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:35:19 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/3/19

1242, 1268

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S TCMX (S)	4.847	3045417	42.338	ng/ml
62)	S DCBP (S)	9.627	3004855	41.760	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.763	1215016	392.787	ng/ml
3)	Aroclor 1016 (2)	6.177	2468884	399.841	ng/ml
4)	Aroclor 1016 (3)	6.258	1306267	392.101	ng/ml
5)	Aroclor 1016 (4)	6.417	971749	360.686	ng/ml
6)	Aroclor 1016 (5)	6.639	1274266	391.497	ng/ml
7)	Aroclor 1016 (6)	6.765	1025908	436.620	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	5.203	136201	131.221	ng/ml
10)	Aroclor 1221 (2)	5.322	143770	221.680	ng/ml
11)	Aroclor 1221 (3)	5.402	693740	317.812	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	5.402	693740	394.113	ng/ml
14)	Aroclor 1232 (2)	6.177	2468884	1005.945	ng/ml
15)	Aroclor 1232 (3)	6.258	1306267	1030.734	ng/ml
16)	Aroclor 1232 (4)	6.417	971749	1133.190	ng/ml
17)	Aroclor 1232 (5)	6.639	1274266	1124.325	ng/ml
18)	Aroclor 1232 (6)	6.765	1025908	1097.455	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	5.763	1215016	550.559	ng/ml
21)	Aroclor 1242 (2)	6.177	2468884	542.301	ng/ml
22)	Aroclor 1242 (3)	6.258	1306267	559.580	ng/ml
23)	Aroclor 1242 (4)	6.417	971749	553.748	ng/ml
24)	Aroclor 1242 (5)	6.639	1274266	533.323	ng/ml
25)	Aroclor 1242 (6)	6.765	1025908	518.422	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	6.177	2468884	834.959	ng/ml
28)	Aroclor 1248 (2)	6.417	971749	280.364	ng/ml
29)	Aroclor 1248 (3)	6.639	1274266	325.088	ng/ml
30)	Aroclor 1248 (4)	6.933	1315086	274.473	ng/ml
31)	Aroclor 1248 (5)	6.972	1409259	281.648	ng/ml
32)	Aroclor 1248 (6)	7.449	402413	154.457	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	6.972	1409259	298.092	ng/ml
35)	Aroclor 1254 (2)	7.078	282334	50.160	ng/ml
36)	Aroclor 1254 (3)	7.449	402413	47.037	ng/ml
37)	Aroclor 1254 (4)	7.615	296498	50.918	ng/ml
38)	Aroclor 1254 (5)	7.996	60560	10.369	ng/ml
39)	Aroclor 1254 (6)	8.288	22743	12.035	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	7.571	64665	10.503	ng/ml
42)	Aroclor 1260 (2)	7.701	55060	7.093	ng/ml
43)	Aroclor 1260 (3)	8.250	1833627	323.180	ng/ml
44)	Aroclor 1260 (4)	8.429	913677	68.362	ng/ml
45)	Aroclor 1260 (5)	8.724	7045621	804.536	ng/ml
46)	Aroclor 1260 (6)	9.123	2698301	751.043	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

542.989

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F028.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 18:00
Operator : MJB / KAK
Sample : 9J01027-ICV4
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:35:19 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	7.701	55060	9.320	ng/ml
49)	Aroclor 1262 (2)	8.026	1560976	189.492	ng/ml
50)	Aroclor 1262 (3)	8.250	1833627	266.356	ng/ml
51)	Aroclor 1262 (4)	8.429	913677	61.650	ng/ml
52)	Aroclor 1262 (5)	8.724	7045621	790.506	ng/ml
53)	Aroclor 1262 (6)	9.123	2698301	563.186	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	8.250	1833627	509.087	ng/ml
56)	Aroclor 1268 (2)	8.676	8474071	512.913	ng/ml
57)	Aroclor 1268 (3)	8.724	7045621	507.181	ng/ml
58)	Aroclor 1268 (4)	8.907	6505022	517.838	ng/ml
59)	Aroclor 1268 (5)	9.123	2698301	492.402	ng/ml
60)	Aroclor 1268 (6)	9.387	17040476	497.103	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

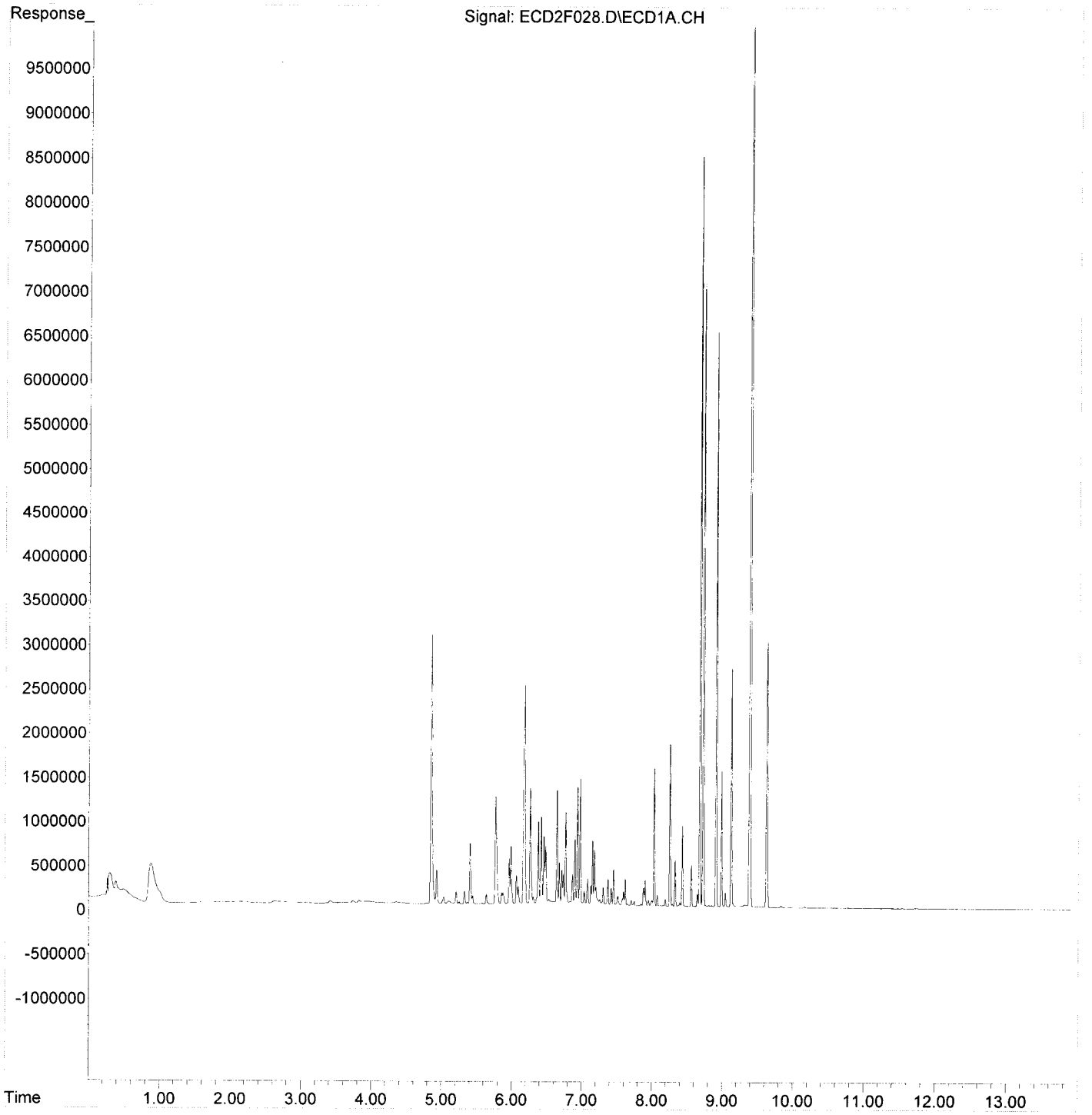
506.087

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F028.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 18:00
Operator : MJB / KAK
Sample : 9J01027-ICV4
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:35:19 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F029.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 18:18
Operator : MJB / KAK
Sample : 9J01027-ICV5
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:37:32 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/3/19
1248

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S TCMX (S)	4.781f	55209	0.768	ng/ml
62)	S DCBP (S)	9.625	1599	0.022	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.763	682733	220.712	ng/ml
3)	Aroclor 1016 (2)	6.176	1467580	237.677	ng/ml
4)	Aroclor 1016 (3)	6.258	833190	250.098	ng/ml
5)	Aroclor 1016 (4)	6.417	1912151	709.737	ng/ml
6)	Aroclor 1016 (5)	6.639	2275040	698.968	ng/ml
7)	Aroclor 1016 (6)	6.765	1769171	752.949	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	5.204	22380	21.562	ng/ml
10)	Aroclor 1221 (2)	5.322	13576	20.933	ng/ml
11)	Aroclor 1221 (3)	5.402	88944	40.747	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	5.402	88944	50.529	ng/ml
14)	Aroclor 1232 (2)	6.176	1467580	597.965	ng/ml
15)	Aroclor 1232 (3)	6.258	833190	657.444	ng/ml
16)	Aroclor 1232 (4)	6.417	1912151	2229.824	ng/ml
17)	Aroclor 1232 (5)	6.639	2275040	2007.340	ng/ml
18)	Aroclor 1232 (6)	6.765	1769171	1892.555	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	5.763	682733	309.366	ng/ml
21)	Aroclor 1242 (2)	6.176	1467580	322.360	ng/ml
22)	Aroclor 1242 (3)	6.258	833190	356.923	ng/ml
23)	Aroclor 1242 (4)	6.417	1912151	1089.633	ng/ml
24)	Aroclor 1242 (5)	6.639	2275040	952.181	ng/ml
25)	Aroclor 1242 (6)	6.765	1769171	894.016	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	6.176	1467580	496.325	ng/ml
28)	Aroclor 1248 (2)	6.417	1912151	551.685	ng/ml
29)	Aroclor 1248 (3)	6.639	2275040	580.404	ng/ml
30)	Aroclor 1248 (4)	6.933	2754708	574.939	ng/ml
31)	Aroclor 1248 (5)	6.970	2931483	585.872	ng/ml
32)	Aroclor 1248 (6)	7.448	1479721	567.957	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	6.970	2931483	620.078	ng/ml
35)	Aroclor 1254 (2)	7.077	889149	157.969	ng/ml
36)	Aroclor 1254 (3)	7.448	1479721	172.962	ng/ml
37)	Aroclor 1254 (4)	7.614	1039063	178.441	ng/ml
38)	Aroclor 1254 (5)	7.995	222358	38.073	ng/ml
39)	Aroclor 1254 (6)	8.288	89072	47.135	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	7.571	213438	34.668	ng/ml
42)	Aroclor 1260 (2)	7.701	134910	17.379	ng/ml
43)	Aroclor 1260 (3)	8.258	21756	3.835	ng/ml
44)	Aroclor 1260 (4)	8.427	53822	4.027	ng/ml
45)	Aroclor 1260 (5)	8.728	42530	4.856	ng/ml
46)	Aroclor 1260 (6)	9.122	13095	3.645	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

559.530

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F029.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 18:18
Operator : MJB / KAK
Sample : 9J01027-ICV5
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:37:32 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

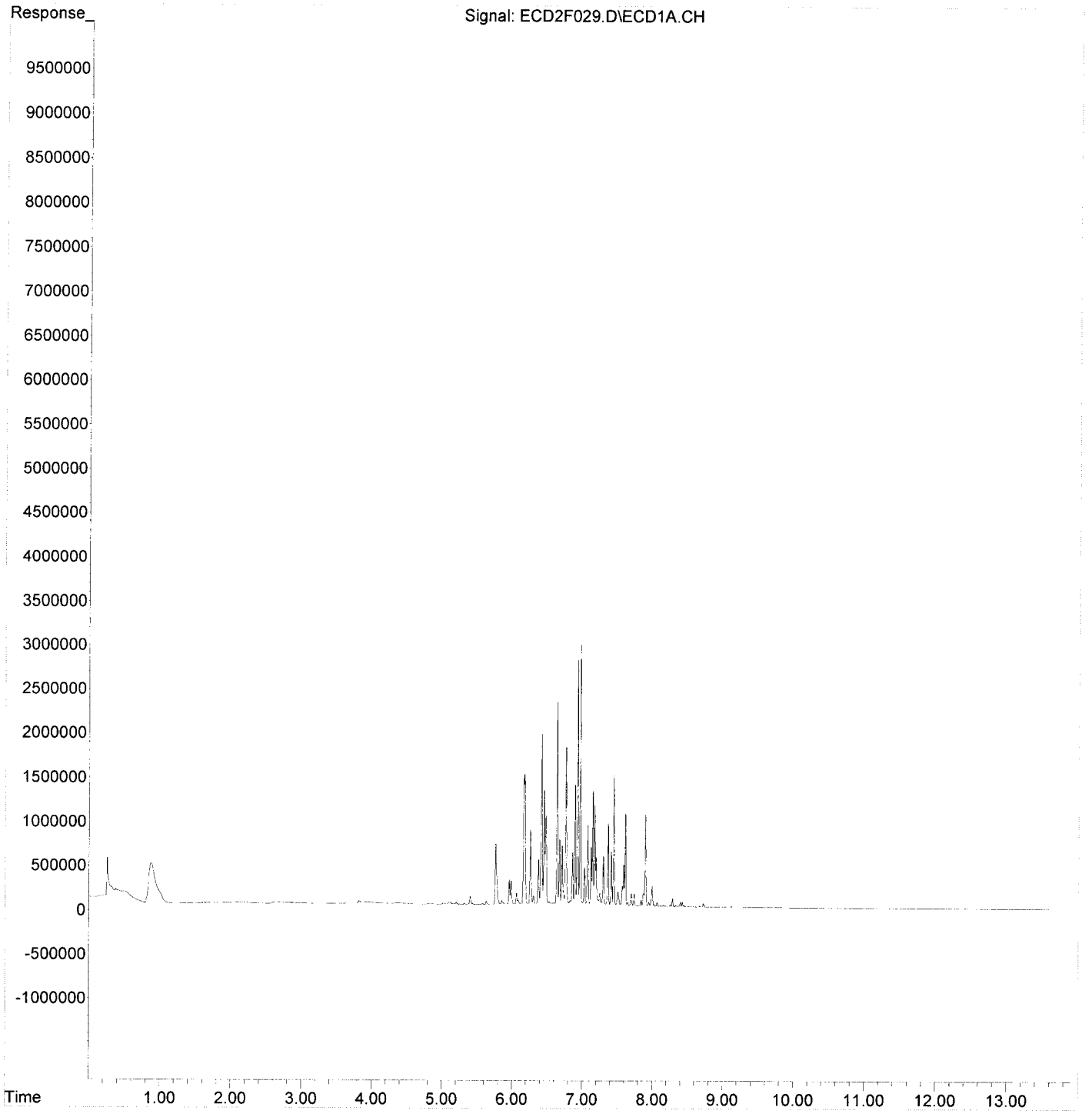
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	7.701	134910	22.835 ng/ml
49)	Aroclor 1262 (2)	8.025	18107	2.198 ng/ml
50)	Aroclor 1262 (3)	8.258	21756	3.160 ng/ml
51)	Aroclor 1262 (4)	8.427	53822	3.632 ng/ml
52)	Aroclor 1262 (5)	8.728	42530	4.772 ng/ml
53)	Aroclor 1262 (6)	9.122	13095	2.733 ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/ml
55)	Aroclor 1268 (1)	8.258	21756	6.040 ng/ml
56)	Aroclor 1268 (2)	8.676	12855	0.778 ng/ml
57)	Aroclor 1268 (3)	8.728	42530	3.062 ng/ml
58)	Aroclor 1268 (4)	8.903	1819	0.145 ng/ml
59)	Aroclor 1268 (5)	9.122	13095	2.390 ng/ml
60)	Aroclor 1268 (6)	9.385	5285	0.154 ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/ml

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

Quantitation Report (Not Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F029.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 18:18
Operator : MJB / KAK
Sample : 9J01027-ICV5
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:37:32 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F010.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 12:43
Operator : MJB / KAK
Sample : 9J01027-CAL1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:14:21 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
1)	S	TCMX (S)	4.849	646019	8.981	ng/ml
62)	S	DCBP (S)	9.631	726257	10.093	ng/ml
		Target Compounds				
2)		Aroclor 1016 (1)	5.766	68730	22.219	ng/ml
3)		Aroclor 1016 (2)	6.179	129135	20.914	ng/ml
4)		Aroclor 1016 (3)	6.261	74319	22.308	ng/ml
5)		Aroclor 1016 (4)	6.419	62007	23.015	ng/ml
6)		Aroclor 1016 (5)	6.642	71184	21.870	ng/ml
7)		Aroclor 1016 (6)	6.768	55955	23.814	ng/ml
8)		Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)		Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)		Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)		Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)		Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)		Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)		Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)		Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)		Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)		Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)		Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)		Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)		Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)		Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)		Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)		Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)		Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)		Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)		Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)		Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)		Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)		Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)		Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)		Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)		Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)		Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)		Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)		Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)		Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)		Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)		Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)		Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)		Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)		Aroclor 1260 (1)	7.570	137921	22.402	ng/ml
42)		Aroclor 1260 (2)	7.704	172226	22.186	ng/ml
43)		Aroclor 1260 (3)	8.262	125360	22.095	ng/ml
44)		Aroclor 1260 (4)	8.431	282538	21.140	ng/ml
45)		Aroclor 1260 (5)	8.731	191667	21.886	ng/ml
46)		Aroclor 1260 (6)	9.126	80966	22.536	ng/ml
47)		Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

10/3/19

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F010.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 12:43
Operator : MJB / KAK
Sample : 9J01027-CAL1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:14:21 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

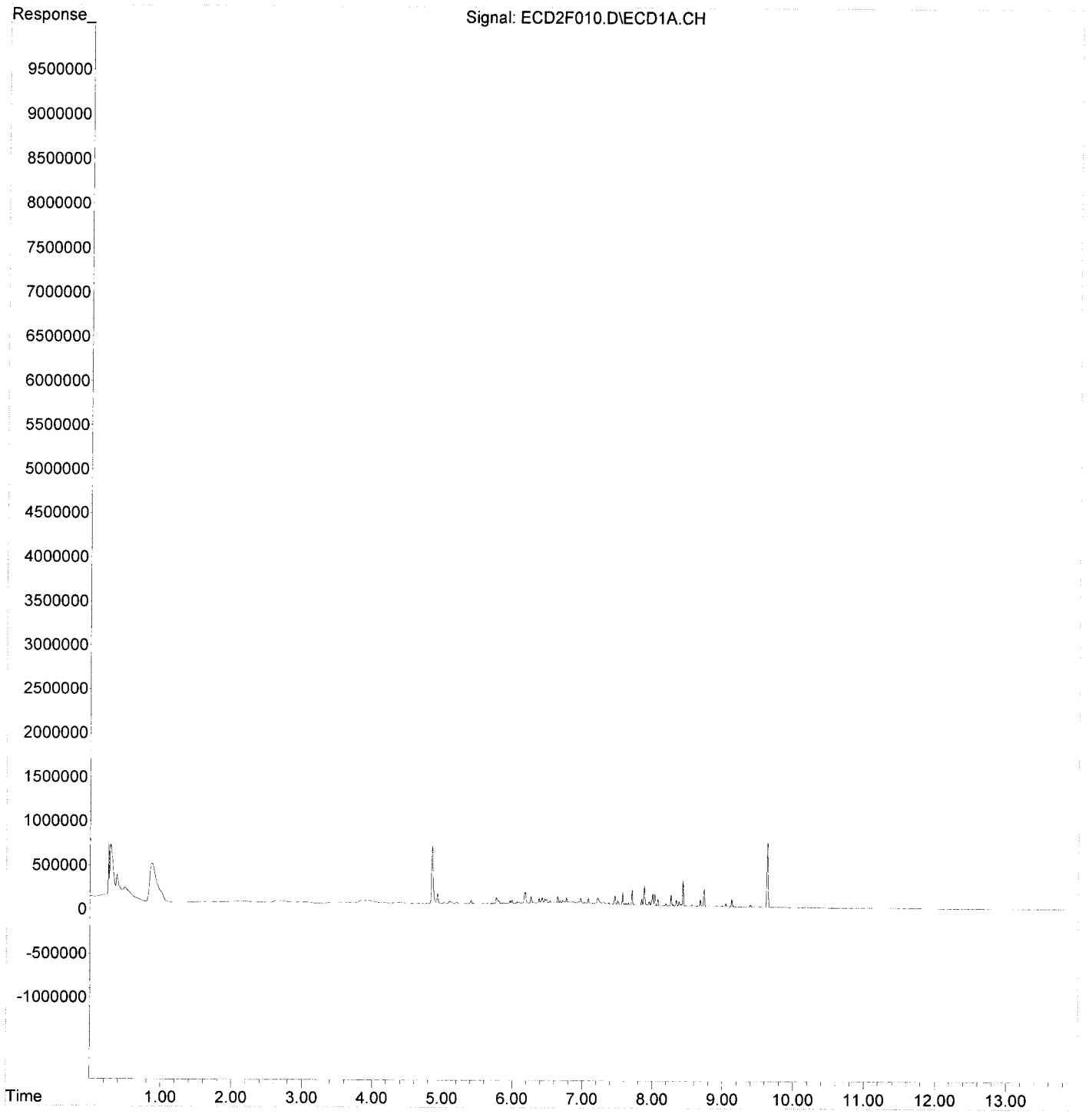
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F010.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 12:43
Operator : MJB / KAK
Sample : 9J01027-CAL1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:14:21 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F011.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:01
Operator : MJB / KAK
Sample : 9J01027-CAL2
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:14:40 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	4.848	1831617	25.463	ng/ml
62) S	DCBP (S)	9.629	1817963	25.265	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.765	170189	55.018	ng/ml
3)	Aroclor 1016 (2)	6.178	324381	52.534	ng/ml
4)	Aroclor 1016 (3)	6.260	178015	53.434	ng/ml
5)	Aroclor 1016 (4)	6.418	148435	55.095	ng/ml
6)	Aroclor 1016 (5)	6.641	170823	52.482	ng/ml
7)	Aroclor 1016 (6)	6.766	129770	55.229	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	7.569	331534	53.849	ng/ml
42)	Aroclor 1260 (2)	7.702	415781	53.561	ng/ml
43)	Aroclor 1260 (3)	8.260	307832	54.256	ng/ml
44)	Aroclor 1260 (4)	8.429	701091	52.456	ng/ml
45)	Aroclor 1260 (5)	8.730	466708	53.293	ng/ml
46)	Aroclor 1260 (6)	9.124	194684	54.188	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

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Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F011.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:01
Operator : MJB / KAK
Sample : 9J01027-CAL2
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:14:40 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

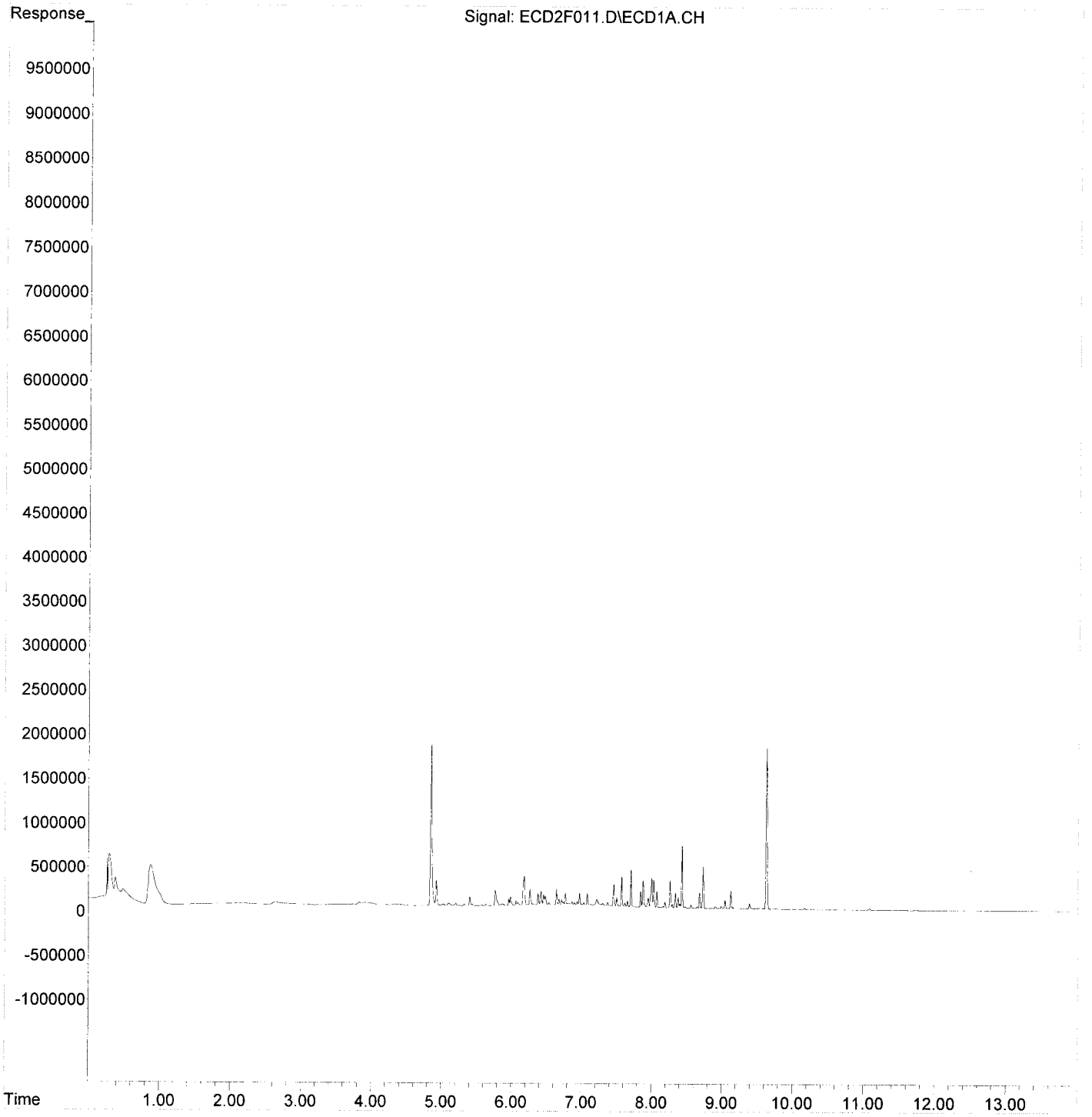
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F011.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:01
Operator : MJB / KAK
Sample : 9J01027-CAL2
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:14:40 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F012.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:18
Operator : MJB / KAK
Sample : 9J01027-CAL3
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:14:59 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	4.848	3530422	49.080	ng/ml
62) S	DCBP (S)	9.628	3636853	50.543	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.764	314353	101.623	ng/ml
3)	Aroclor 1016 (2)	6.177	610072	98.802	ng/ml
4)	Aroclor 1016 (3)	6.259	327487	98.301	ng/ml
5)	Aroclor 1016 (4)	6.417	275590	102.291	ng/ml
6)	Aroclor 1016 (5)	6.640	326936	100.445	ng/ml
7)	Aroclor 1016 (6)	6.765	233137	99.222	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	7.569	628662	102.110	ng/ml
42)	Aroclor 1260 (2)	7.701	785832	101.232	ng/ml
43)	Aroclor 1260 (3)	8.260	568163	100.140	ng/ml
44)	Aroclor 1260 (4)	8.429	1316826	98.526	ng/ml
45)	Aroclor 1260 (5)	8.729	873520	99.747	ng/ml
46)	Aroclor 1260 (6)	9.124	358964	99.914	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

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Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F012.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:18
Operator : MJB / KAK
Sample : 9J01027-CAL3
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:14:59 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

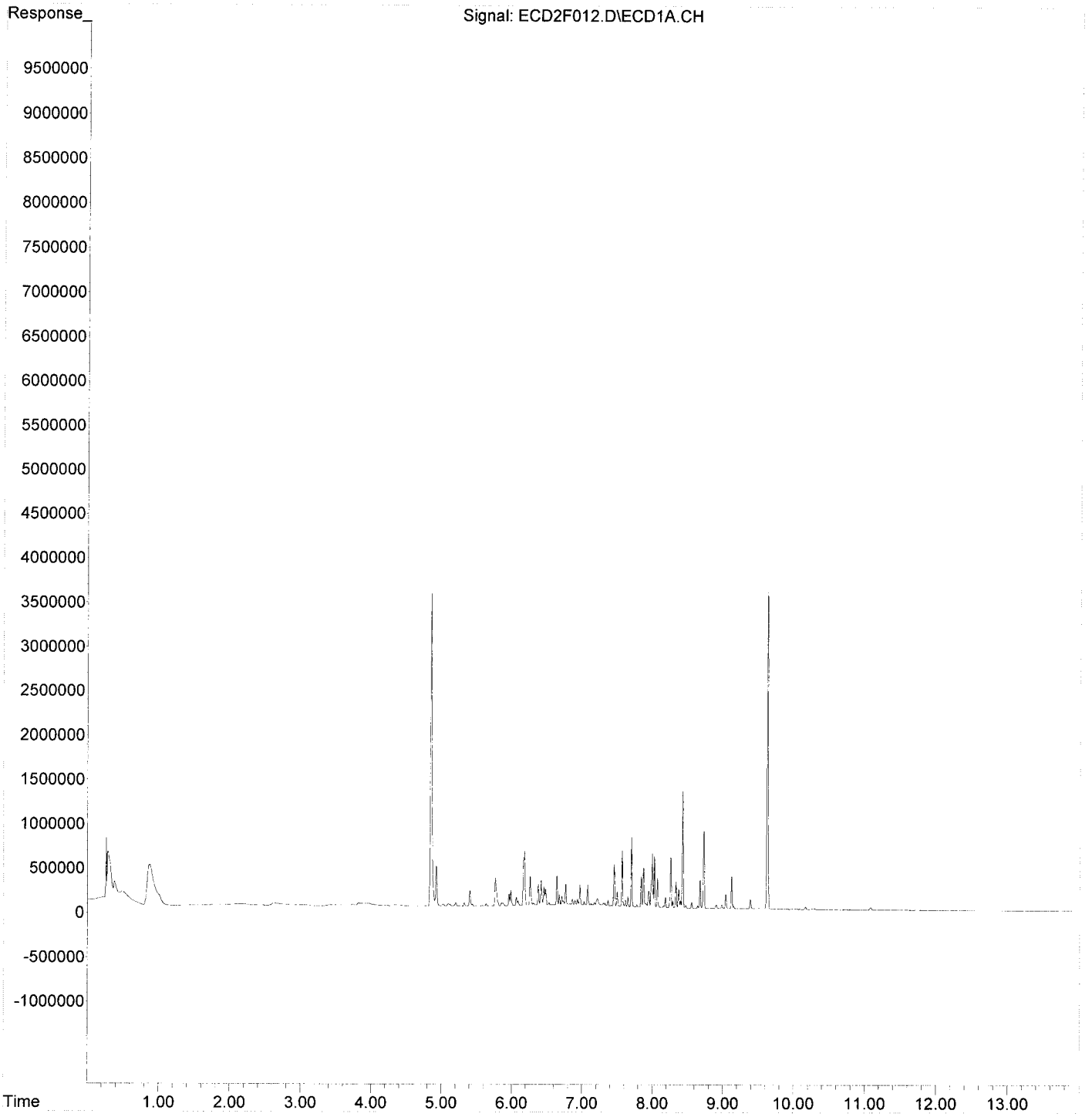
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F012.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:18
Operator : MJB / KAK
Sample : 9J01027-CAL3
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:14:59 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F013.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:36
Operator : MJB / KAK
Sample : 9J01027-CAL4
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:15:18 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	4.846	7120656	98.992	ng/ml
62) S	DCBP (S)	9.628	7044557	97.902	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.764	610611	197.397	ng/ml
3)	Aroclor 1016 (2)	6.177	1226934	198.704	ng/ml
4)	Aroclor 1016 (3)	6.259	657194	197.269	ng/ml
5)	Aroclor 1016 (4)	6.417	527619	195.837	ng/ml
6)	Aroclor 1016 (5)	6.639	643033	197.561	ng/ml
7)	Aroclor 1016 (6)	6.766	444341	189.109	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	7.569	1205320	195.774	ng/ml
42)	Aroclor 1260 (2)	7.701	1474076	189.892	ng/ml
43)	Aroclor 1260 (3)	8.260	1131292	199.392	ng/ml
44)	Aroclor 1260 (4)	8.429	2695284	201.662	ng/ml
45)	Aroclor 1260 (5)	8.729	1719690	196.370	ng/ml
46)	Aroclor 1260 (6)	9.123	670631	186.663	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

10/3/19

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F013.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:36
Operator : MJB / KAK
Sample : 9J01027-CAL4
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:15:18 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

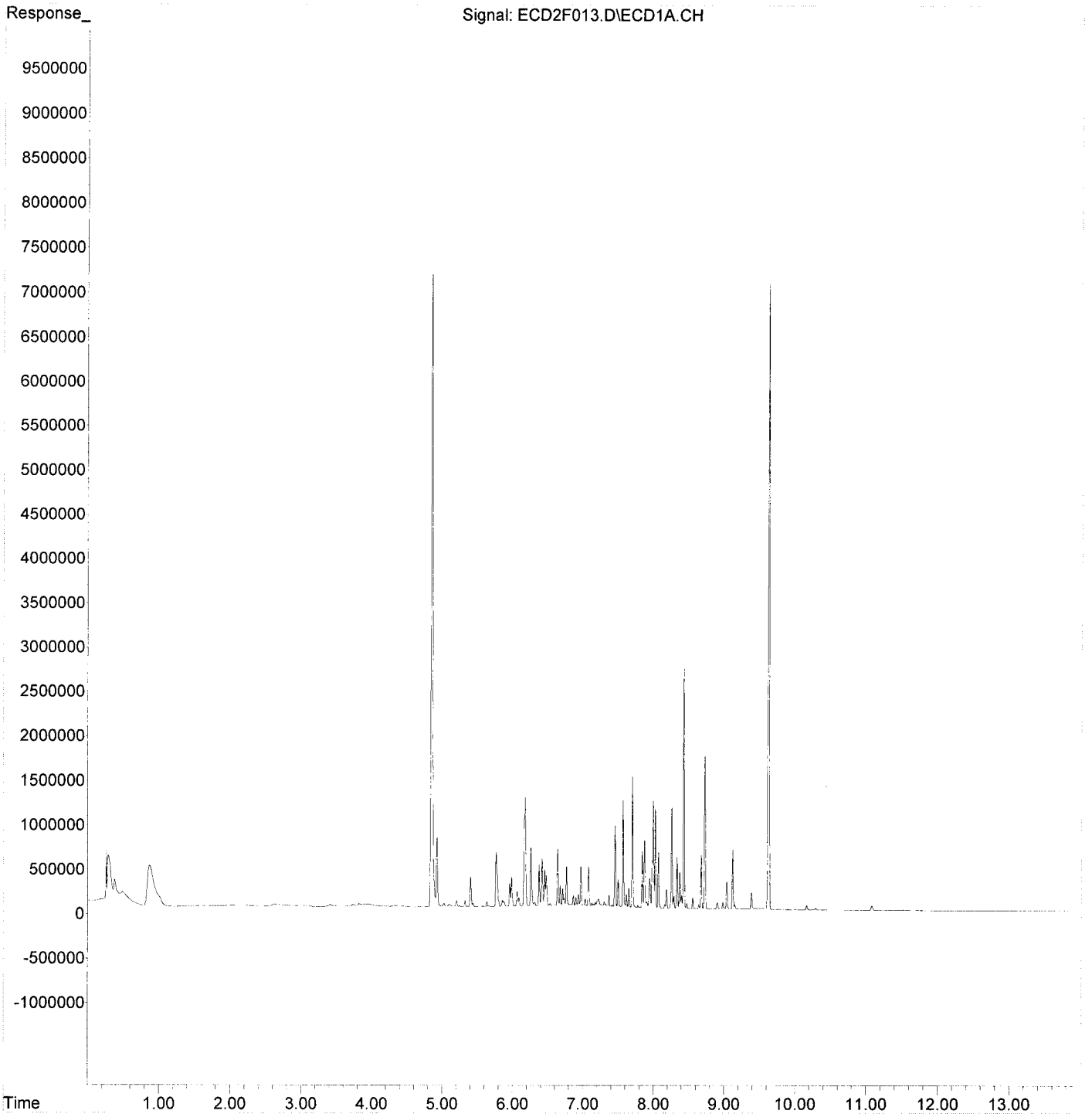
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F013.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:36
Operator : MJB / KAK
Sample : 9J01027-CAL4
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:15:18 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F014.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:53
Operator : MJB / KAK
Sample : 9J01027-CAL5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:15:37 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1)	S TCMX (S)	4.847	19921511	276.950	ng/ml	✓
62)	S DCBP (S)	9.628	18865982	262.190	ng/ml	✓
	Target Compounds					
2)	Aroclor 1016 (1)	5.763	1524562	492.856	ng/ml	✓
3)	Aroclor 1016 (2)	6.176	3227952	522.773	ng/ml	
4)	Aroclor 1016 (3)	6.258	1699526	510.145	ng/ml	
5)	Aroclor 1016 (4)	6.417	1301865	483.216	ng/ml	
6)	Aroclor 1016 (5)	6.639	1635925	502.610	ng/ml	
7)	Aroclor 1016 (6)	6.765	1121780	477.423	ng/ml	
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml	
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld	
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld	
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld	
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld	
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld	
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld	
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld	
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld	
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld	
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld	
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld	10/3/19
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld	
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld	
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld	
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld	
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld	
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld	
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld	
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld	
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld	
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld	
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld	
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld	
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld	
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld	
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld	
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld	
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld	
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld	
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld	
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld	
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld	
41)	Aroclor 1260 (1)	7.568	3016068	489.885	ng/ml	✓
42)	Aroclor 1260 (2)	7.701	3920327	505.022	ng/ml	
43)	Aroclor 1260 (3)	8.259	2720500	479.493	ng/ml	
44)	Aroclor 1260 (4)	8.429	6774987	506.908	ng/ml	
45)	Aroclor 1260 (5)	8.729	4222705	482.188	ng/ml	
46)	Aroclor 1260 (6)	9.124	1755158	488.530	ng/ml	
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml	

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F014.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:53
Operator : MJB / KAK
Sample : 9J01027-CAL5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:15:37 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

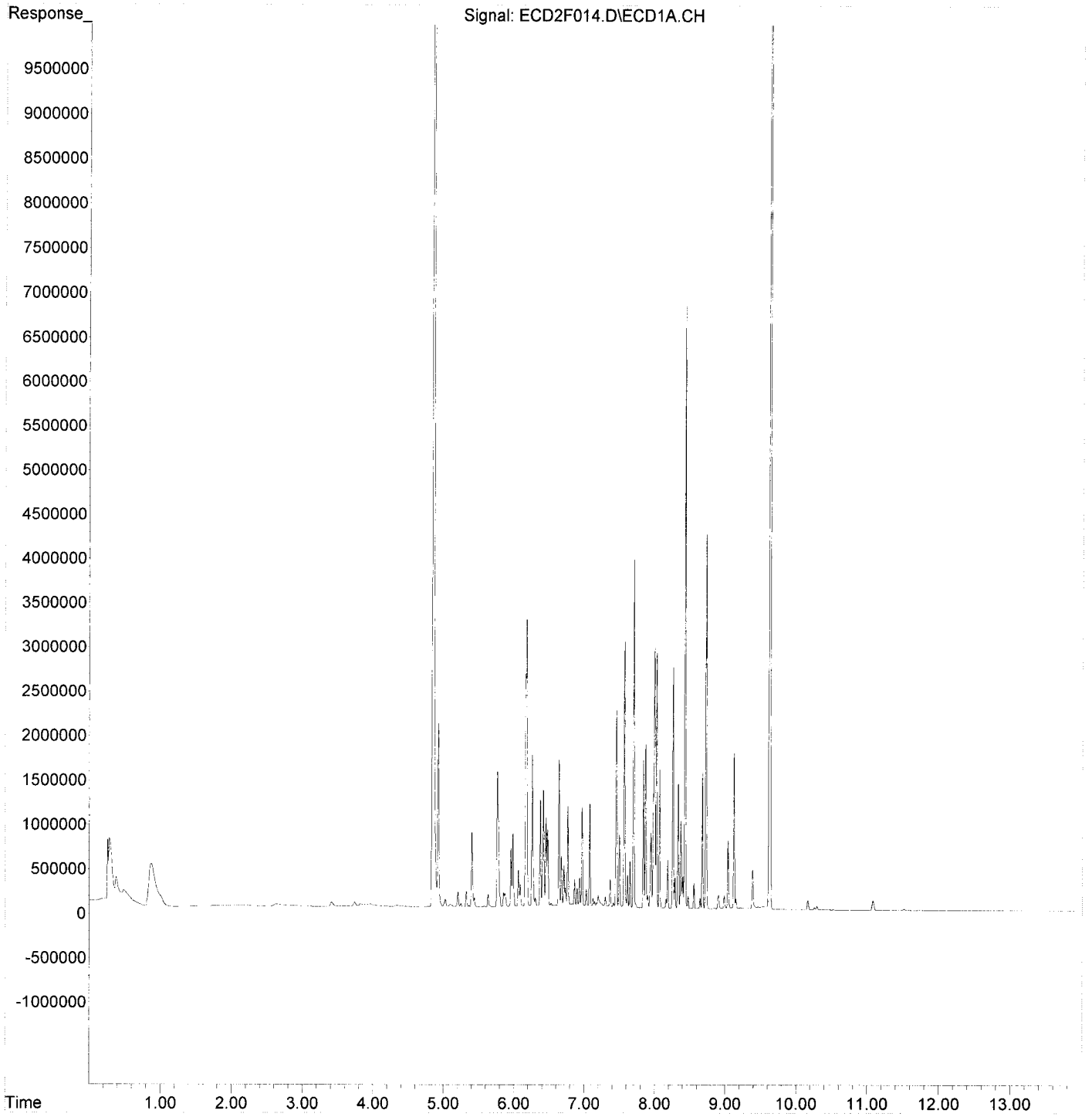
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F014.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:53
Operator : MJB / KAK
Sample : 9J01027-CAL5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:15:37 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F015.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:11
Operator : MJB / KAK
Sample : 9J01027-CAL6
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:15:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	4.847	33462342	465.195	ng/ml ✓
62) S	DCBP (S)	9.628	32902195	457.259	ng/ml ✓
	Target Compounds				
2)	Aroclor 1016 (1)	5.764	2646872	855.673	ng/ml
3)	Aroclor 1016 (2)	6.176	5554254	899.522	ng/ml
4)	Aroclor 1016 (3)	6.259	2854613	856.866	ng/ml ✓
5)	Aroclor 1016 (4)	6.418	2303056	854.830	ng/ml
6)	Aroclor 1016 (5)	6.640	2890325	888.004	ng/ml
7)	Aroclor 1016 (6)	6.766	2014203	857.232	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	7.569	5414361	879.427	ng/ml
42)	Aroclor 1260 (2)	7.702	6848896	882.284	ng/ml
43)	Aroclor 1260 (3)	8.259	4967010	875.444	ng/ml ✓
44)	Aroclor 1260 (4)	8.429	11847732	886.453	ng/ml
45)	Aroclor 1260 (5)	8.728	7742543	884.117	ng/ml
46)	Aroclor 1260 (6)	9.123	3292230	916.357	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

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Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F015.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:11
Operator : MJB / KAK
Sample : 9J01027-CAL6
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:15:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

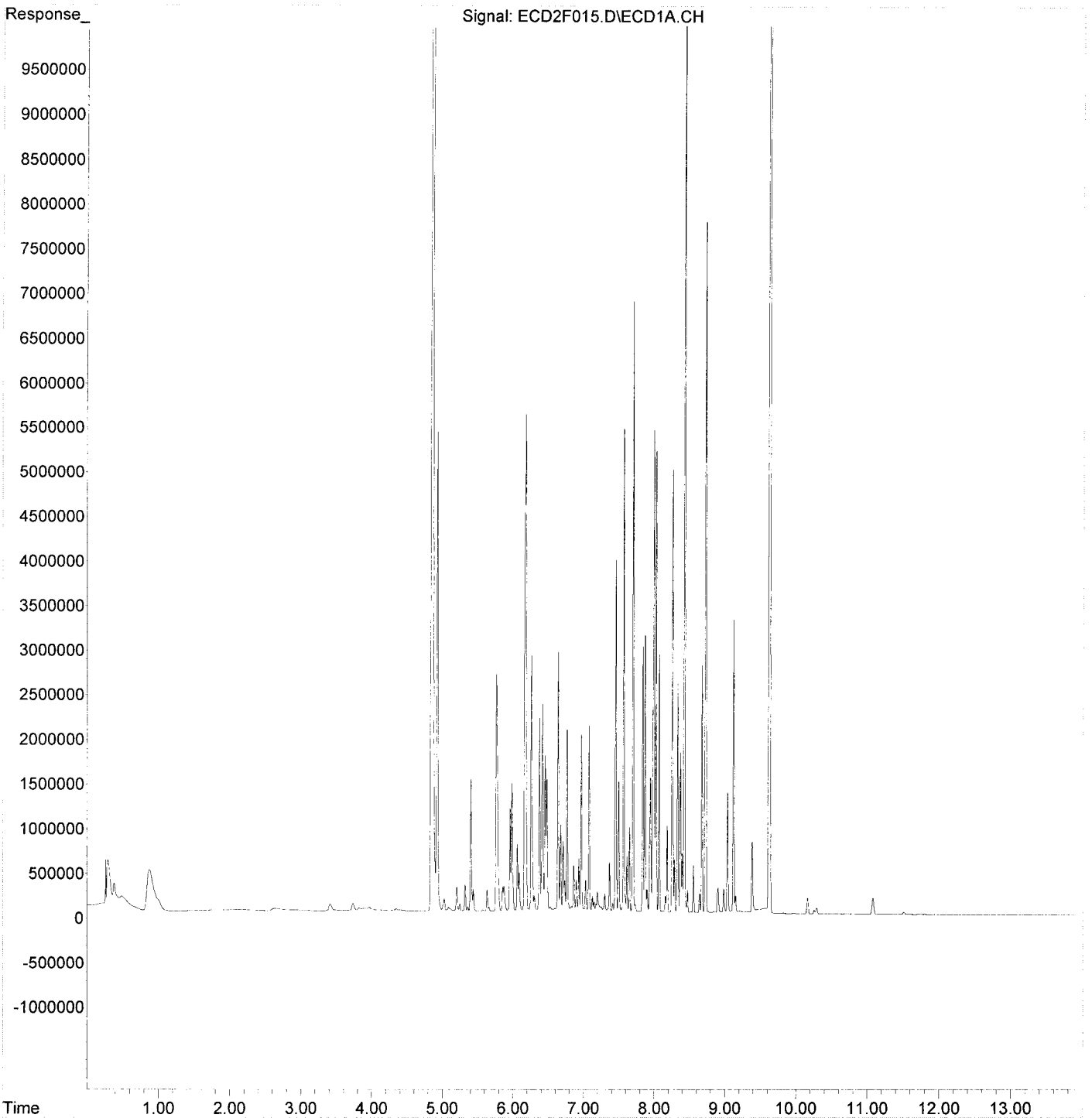
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F015.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:11
Operator : MJB / KAK
Sample : 9J01027-CAL6
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:15:56 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F016.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:29
Operator : MJB / KAK
Sample : 9J01027-CAL7
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:16:16 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	4.848	61784827	858.935	ng/ml
62) S	DCBP (S)	9.630	59113696	821.533	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.763	4380564	1416.136	ng/ml
3)	Aroclor 1016 (2)	6.176	9049145	1465.527	ng/ml
4)	Aroclor 1016 (3)	6.259	4844176	1454.071	ng/ml
5)	Aroclor 1016 (4)	6.417	3733998	1385.956	ng/ml
6)	Aroclor 1016 (5)	6.639	4742463	1457.042	ng/ml
7)	Aroclor 1016 (6)	6.765	3365426	1432.305	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	7.569	8715557	1415.624	ng/ml
42)	Aroclor 1260 (2)	7.702	11240477	1448.013	ng/ml
43)	Aroclor 1260 (3)	8.259	8317768	1466.021	ng/ml
44)	Aroclor 1260 (4)	8.429	20049305	1500.098	ng/ml
45)	Aroclor 1260 (5)	8.729	13293768	1518.008	ng/ml
46)	Aroclor 1260 (6)	9.123	5192764	1445.351	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

10/3/19

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F016.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:29
Operator : MJB / KAK
Sample : 9J01027-CAL7
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:16:16 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

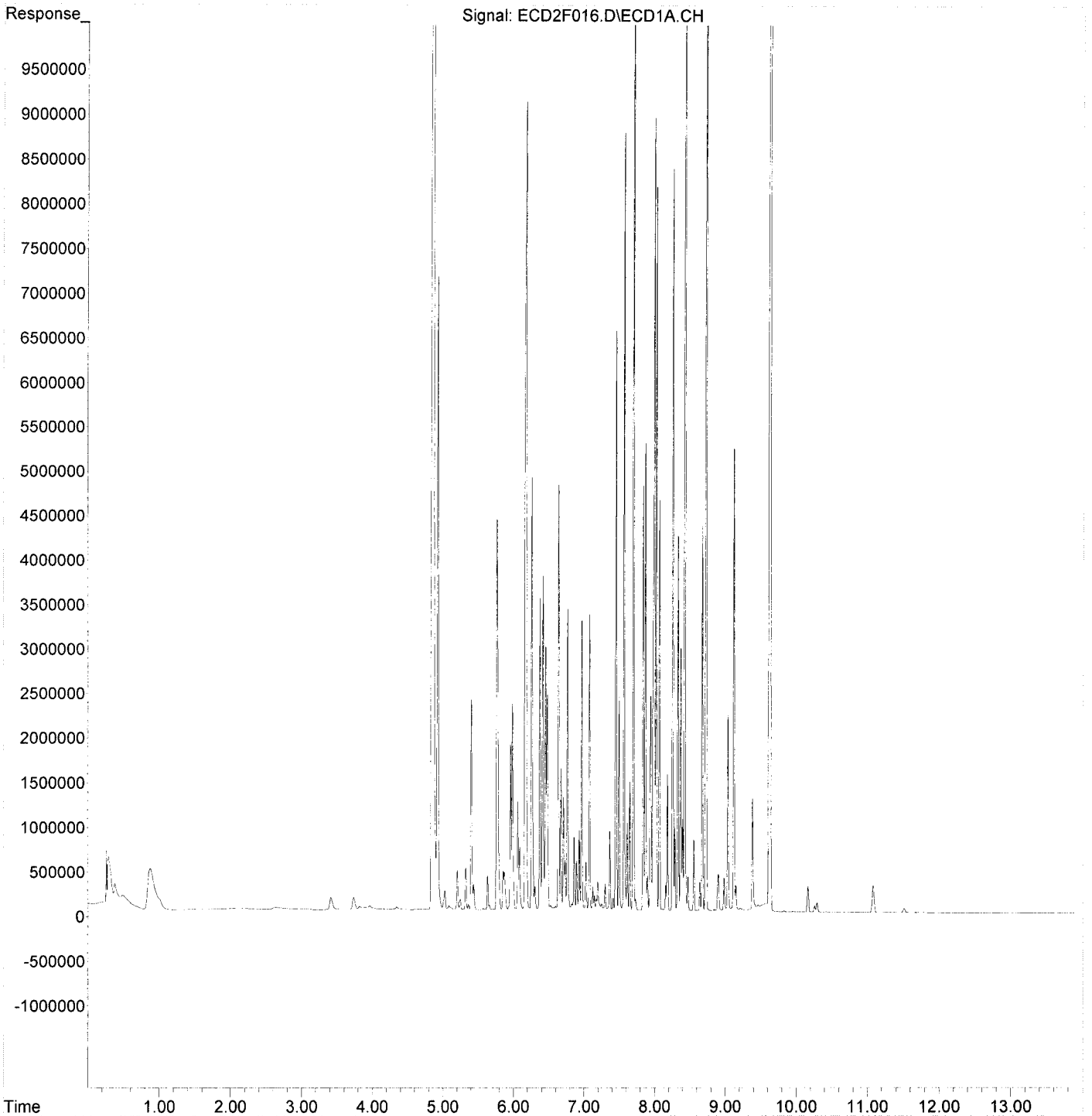
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\requant\
Data File : ECD2F016.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:29
Operator : MJB / KAK
Sample : 9J01027-CAL7
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 03 08:16:16 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 17:06:13 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Sequence: C:\HPCHEM\2\SEQUENCE\9J01027.S

Sequence Table (Front Injector):

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	Hexane	E2A21015	1	Sample		
2	Vial 2	9J01027-CCV2	E2A21015	1	Sample		
3	Vial 3	9J01027-CCB2	E2A21015	1	Sample		
4	Vial 3	9J01027-ICB1	E2A21015	1	Sample		
5	Vial 5	9J01027-CAL1	E2A21015	1	Sample		
6	Vial 6	9J01027-CAL2	E2A21015	1	Sample		
7	Vial 7	9J01027-CAL3	E2A21015	1	Sample		
8	Vial 8	9J01027-CAL4	E2A21015	1	Sample		
9	Vial 9	9J01027-CAL5	E2A21015	1	Sample		
10	Vial 10	9J01027-CAL6	E2A21015	1	Sample		
11	Vial 11	9J01027-CAL7	E2A21015	1	Sample		
12	Vial 1	9J01027-IBL1	E2A21015	1	Sample		
13	Vial 12	9J01027-ICV1	E2A21015	1	Sample		
14	Vial 13	9J01027-CAL8	E2A21015	1	Sample		
15	Vial 14	9J01027-CAL9	E2A21015	1	Sample		
16	Vial 15	9J01027-CALA	E2A21015	1	Sample		
17	Vial 16	9J01027-CALB	E2A21015	1	Sample		
18	Vial 17	9J01027-CALC	E2A21015	1	Sample		
19	Vial 18	9J01027-CALD	E2A21015	1	Sample		
20	Vial 19	9J01027-CALE	E2A21015	1	Sample		
21	Vial 20	9J01027-ICV2	E2A21015	1	Sample		
22	Vial 21	9J01027-ICV3	E2A21015	1	Sample		
23	Vial 22	9J01027-ICV4	E2A21015	1	Sample		
24	Vial 23	9J01027-ICV5	E2A21015	1	Sample		

File 9

File 29

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Sequence Table (Back Injector):

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 51	Hexane	E2A21015	1	Sample		
2	Vial 52	9J01028-CCV2	E2A21015	1	Sample		
3	Vial 53	9J01028-CCB2	E2A21015	1	Sample		
4	Vial 54	9091465-BLK1	E2A21015	1	Sample		
5	Vial 55	9091465-BS1	E2A21015	1	Sample		
6	Vial 56	9091465-BSD1	E2A21015	1	Sample		
7	Vial 57	A9I0810-01	E2A21015	1	Sample		
8	Vial 58	A9I0892-01	E2A21015	1	Sample		
9	Vial 59	A9I0893-18	E2A21015	1	Sample		
10	Vial 52	9J01028-CCV3	E2A21015	1	Sample		
11	Vial 53	9J01028-CCB3	E2A21015	1	Sample		
12	Vial 51	Hexane	E2A21015	1	Sample		
13	Vial 51	Hexane	E2A21015	1	Sample		
14	Vial 51	Hexane	E2A21015	1	Sample		
15	Vial 51	Hexane	E2A21015	1	Sample		
16	Vial 51	Hexane	E2A21015	1	Sample		
17	Vial 51	Hexane	E2A21015	1	Sample		
18	Vial 51	Hexane	E2A21015	1	Sample		
19	Vial 51	Hexane	E2A21015	1	Sample		
20	Vial 51	Hexane	E2A21015	1	Sample		
21	Vial 51	Hexane	E2A21015	1	Sample		
22	Vial 51	Hexane	E2A21015	1	Sample		
23	Vial 51	Hexane	E2A21015	1	Sample		

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F010.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 12:43
Operator : MJB / KAK
Sample : 9J01027-CAL1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:31:03 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	4.849	646019	9.596	ng/ml
62) S	DCBP (S)	9.631	726257	12.789	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.766	68730	25.582	ng/ml
3)	Aroclor 1016 (2)	6.179	129135	25.092	ng/ml
4)	Aroclor 1016 (3)	6.261	74319	25.591	ng/ml
5)	Aroclor 1016 (4)	6.419	62007	26.176	ng/ml
6)	Aroclor 1016 (5)	6.642	71184	25.374	ng/ml
7)	Aroclor 1016 (6)	6.768	55955	28.481	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	7.570	137921	27.233	ng/ml
42)	Aroclor 1260 (2)	7.704	172226	27.512	ng/ml
43)	Aroclor 1260 (3)	8.262	125360	26.666	ng/ml
44)	Aroclor 1260 (4)	8.431	282538	26.000	ng/ml
45)	Aroclor 1260 (5)	8.731	191667	26.903	ng/ml
46)	Aroclor 1260 (6)	9.126	80966	27.380	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

10/3/19

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F010.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 12:43
Operator : MJB / KAK
Sample : 9J01027-CAL1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:31:03 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

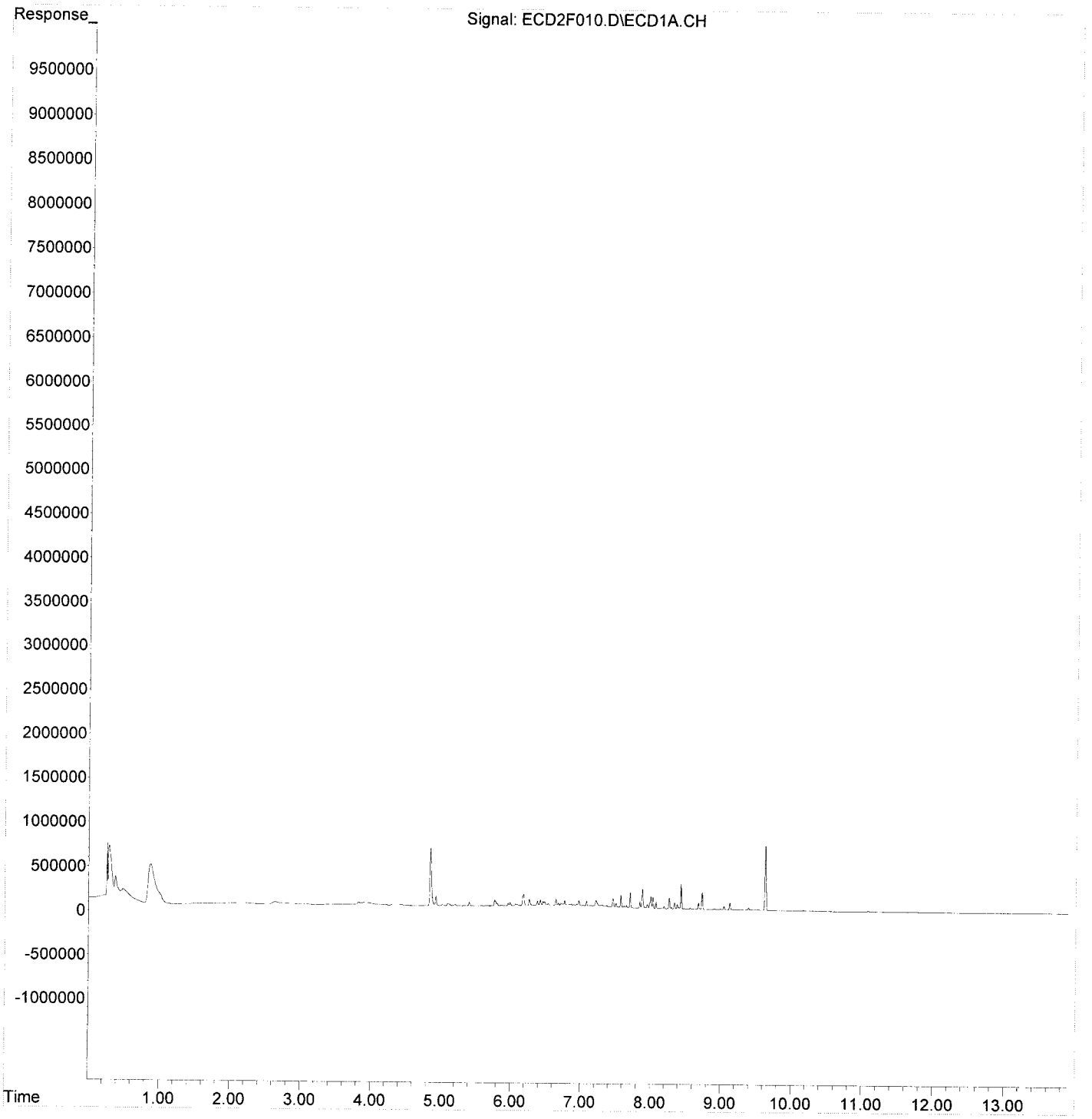
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F010.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 12:43
Operator : MJB / KAK
Sample : 9J01027-CAL1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:31:03 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F011.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:01
Operator : MJB / KAK
Sample : 9J01027-CAL2
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:32:24 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.848	1831617	27.208 ng/ml
62) S	DCBP (S)	9.629	1817963	32.013 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.765	170189	63.345 ng/ml
3)	Aroclor 1016 (2)	6.178	324381	63.029 ng/ml
4)	Aroclor 1016 (3)	6.260	178015	61.296 ng/ml
5)	Aroclor 1016 (4)	6.418	148435	62.660 ng/ml
6)	Aroclor 1016 (5)	6.641	170823	60.891 ng/ml
7)	Aroclor 1016 (6)	6.766	129770	66.053 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D. ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D. ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D. ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D. ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D. ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D. ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D. ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D. ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D. ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D. ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D. ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D. ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D. ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D. ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D. ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D. ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D. ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D. ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D. ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D. ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D. ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D. ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D. ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D. ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D. ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D. ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D. ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/mld
41)	Aroclor 1260 (1)	7.569	331534	65.463 ng/ml
42)	Aroclor 1260 (2)	7.702	415781	66.418 ng/ml
43)	Aroclor 1260 (3)	8.260	307832	65.480 ng/ml
44)	Aroclor 1260 (4)	8.429	701091	64.516 ng/ml
45)	Aroclor 1260 (5)	8.730	466708	65.508 ng/ml
46)	Aroclor 1260 (6)	9.124	194684	65.836 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

10/3/19

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F011.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:01
Operator : MJB / KAK
Sample : 9J01027-CAL2
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:32:24 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

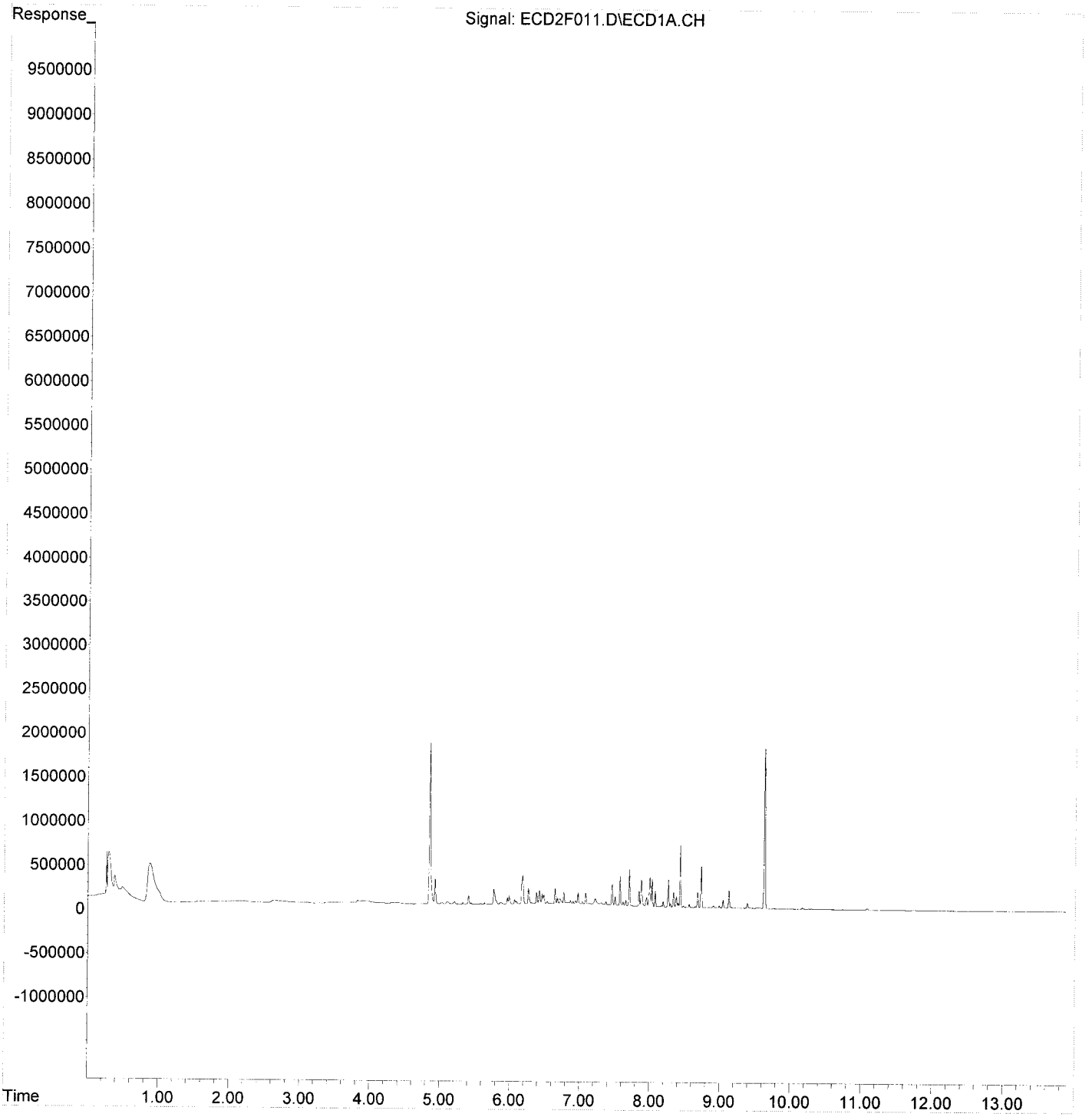
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F011.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:01
Operator : MJB / KAK
Sample : 9J01027-CAL2
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:32:24 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F012.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:18
Operator : MJB / KAK
Sample : 9J01027-CAL3
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:34:08 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	4.848	3530422	52.442	ng/ml
62) S	DCBP (S)	9.628	3636853	64.042	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.764	314353	117.004	ng/ml
3)	Aroclor 1016 (2)	6.177	610072	118.541	ng/ml
4)	Aroclor 1016 (3)	6.259	327487	112.765	ng/ml
5)	Aroclor 1016 (4)	6.417	275590	116.337	ng/ml
6)	Aroclor 1016 (5)	6.640	326936	116.539	ng/ml
7)	Aroclor 1016 (6)	6.765	233137	118.667	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	7.569	628662	124.132	ng/ml
42)	Aroclor 1260 (2)	7.701	785832	125.532	ng/ml
43)	Aroclor 1260 (3)	8.260	568163	120.856	ng/ml
44)	Aroclor 1260 (4)	8.429	1316826	121.177	ng/ml
45)	Aroclor 1260 (5)	8.729	873520	122.609	ng/ml
46)	Aroclor 1260 (6)	9.124	358964	121.389	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

10/31/19

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F012.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:18
Operator : MJB / KAK
Sample : 9J01027-CAL3
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:34:08 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

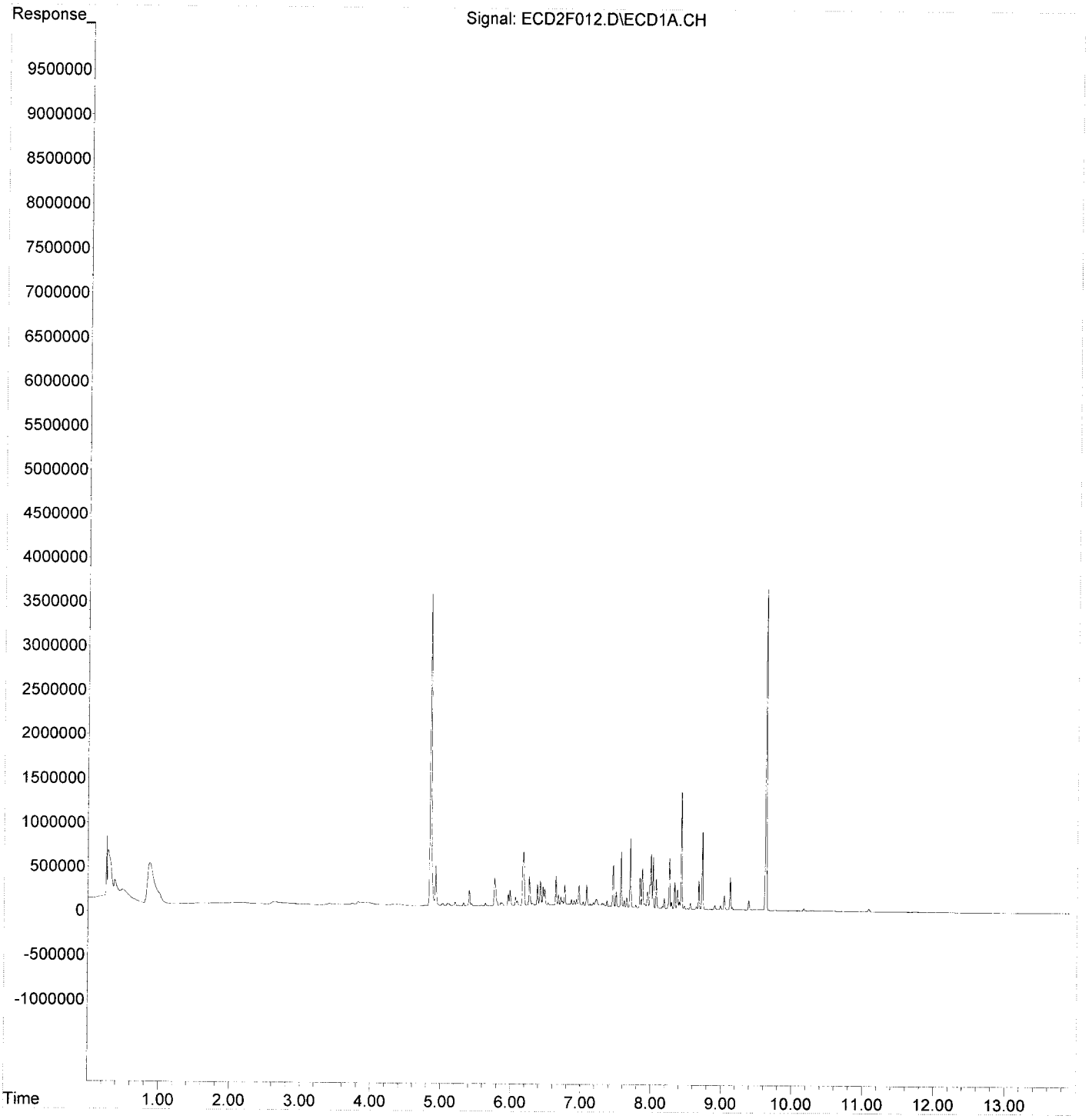
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F012.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:18
Operator : MJB / KAK
Sample : 9J01027-CAL3
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:34:08 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F013.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:36
Operator : MJB / KAK
Sample : 9J01027-CAL4
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:35:14 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	TCMX (S)	4.846	7120656	105.773 ng/ml
62) S	DCBP (S)	9.628	7044557	124.049 ng/ml
	Target Compounds			
2)	Aroclor 1016 (1)	5.764	610611	227.273 ng/ml
3)	Aroclor 1016 (2)	6.177	1226934	238.402 ng/ml
4)	Aroclor 1016 (3)	6.259	657194	226.294 ng/ml
5)	Aroclor 1016 (4)	6.417	527619	222.728 ng/ml
6)	Aroclor 1016 (5)	6.639	643033	229.214 ng/ml
7)	Aroclor 1016 (6)	6.766	444341	226.170 ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D. ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D. ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D. ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D. ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D. ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D. ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D. ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D. ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D. ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D. ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D. ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D. ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D. ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D. ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D. ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D. ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D. ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D. ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D. ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D. ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D. ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D. ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D. ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D. ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D. ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D. ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D. ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D. ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D. ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D. ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D. ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D. ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D. ng/mld
41)	Aroclor 1260 (1)	7.569	1205320	237.996 ng/ml
42)	Aroclor 1260 (2)	7.701	1474076	235.474 ng/ml
43)	Aroclor 1260 (3)	8.260	1131292	240.642 ng/ml
44)	Aroclor 1260 (4)	8.429	2695284	248.026 ng/ml
45)	Aroclor 1260 (5)	8.729	1719690	241.378 ng/ml
46)	Aroclor 1260 (6)	9.123	670631	226.785 ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D. ng/ml

10/3/19

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F013.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:36
Operator : MJB / KAK
Sample : 9J01027-CAL4
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:35:14 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

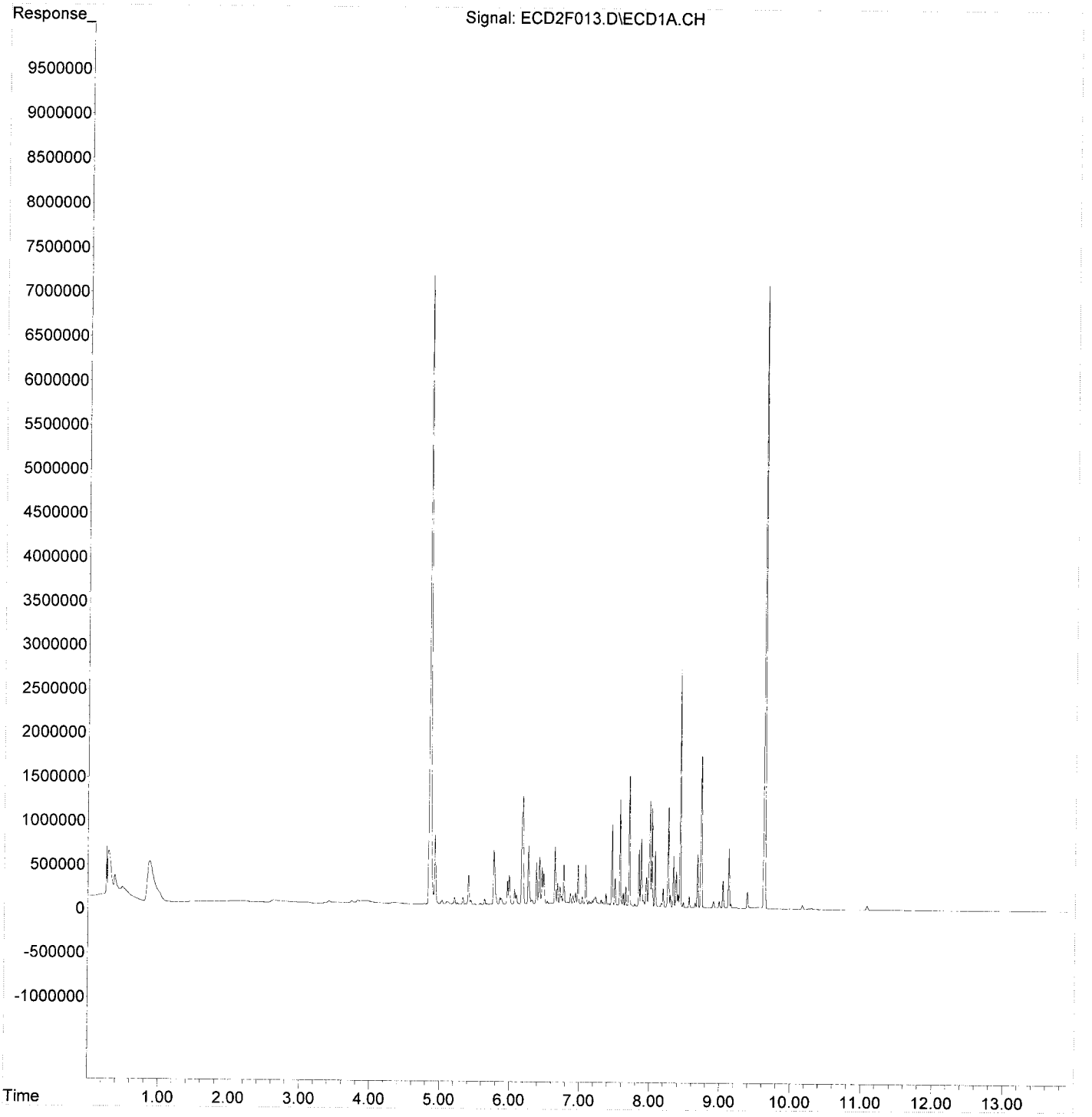
	Compound	R.T.	Response	Conc Units
48)	Aroclor 1262 (1)	0.000	0	N.D. ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D. ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D. ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D. ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D. ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D. ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D. ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D. ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D. ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D. ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D. ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D. ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D. ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D. ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F013.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:36
Operator : MJB / KAK
Sample : 9J01027-CAL4
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:35:14 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F014.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:53
Operator : MJB / KAK
Sample : 9J01027-CAL5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:29:50 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:29:45 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S TCMX (S)	4.847	19921511	295.922	ng/ml
62)	S DCBP (S)	9.628	18865982	332.215	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.763	1524562	567.452	ng/ml
3)	Aroclor 1016 (2)	6.176	3227952	627.214	ng/ml
4)	Aroclor 1016 (3)	6.258	1699526	585.204	ng/ml
5)	Aroclor 1016 (4)	6.417	1301865	549.568	ng/ml
6)	Aroclor 1016 (5)	6.639	1635925	583.139	ng/ml
7)	Aroclor 1016 (6)	6.765	1121780	570.986	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	7.568	3016068	595.538	ng/ml
42)	Aroclor 1260 (2)	7.701	3920327	626.247	ng/ml
43)	Aroclor 1260 (3)	8.259	2720500	578.688	ng/ml
44)	Aroclor 1260 (4)	8.429	6774987	623.450	ng/ml
45)	Aroclor 1260 (5)	8.729	4222705	592.705	ng/ml
46)	Aroclor 1260 (6)	9.124	1755158	593.536	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

10/3/19

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F014.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:53
Operator : MJB / KAK
Sample : 9J01027-CAL5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:29:50 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:29:45 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

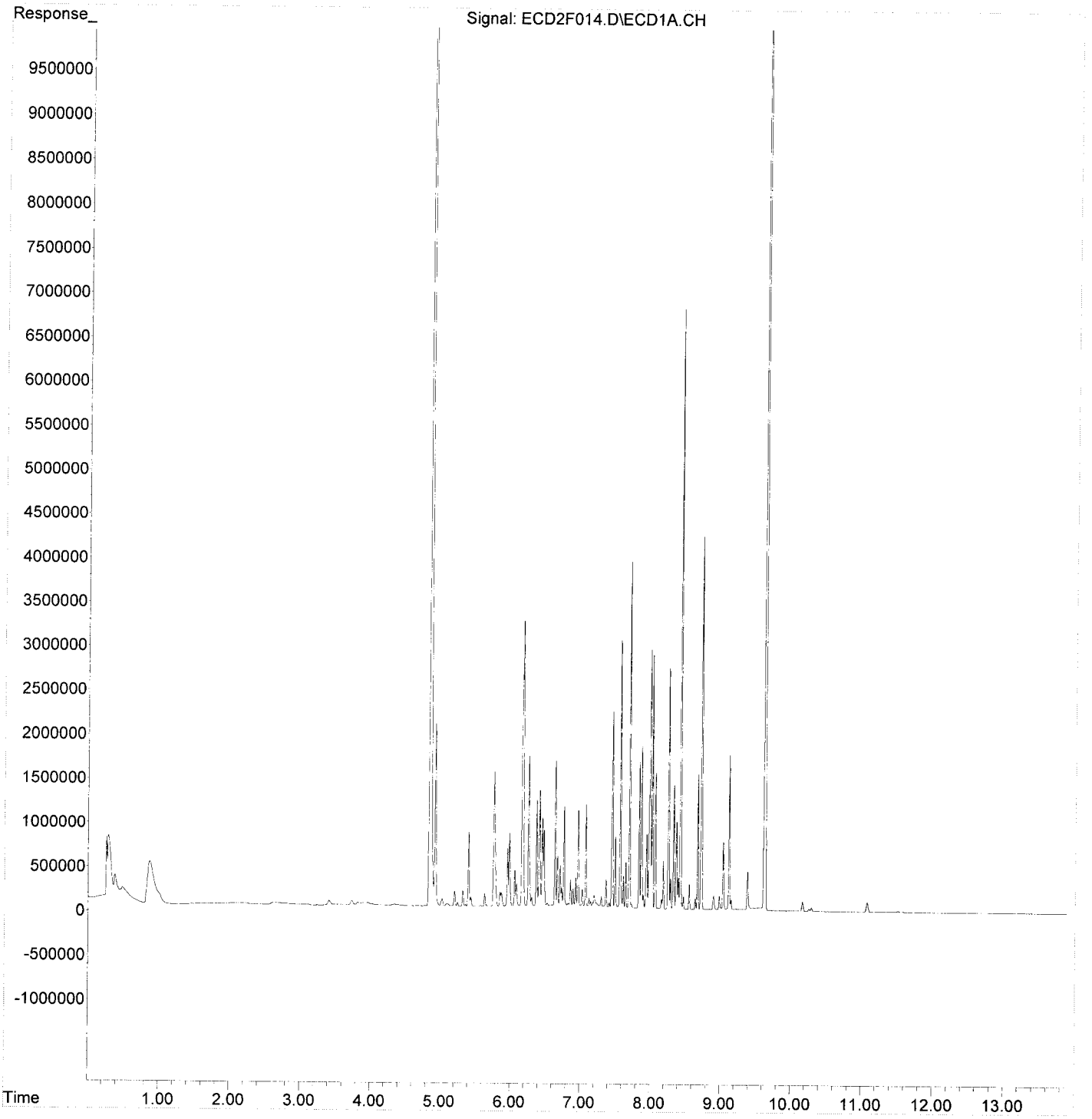
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F014.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 13:53
Operator : MJB / KAK
Sample : 9J01027-CAL5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:29:50 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:29:45 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F015.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:11
Operator : MJB / KAK
Sample : 9J01027-CAL6
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:36:19 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	4.847	33462342	497.063	ng/ml
62) S	DCBP (S)	9.628	32902195	579.381	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.764	2646872	985.183	ng/ml
3)	Aroclor 1016 (2)	6.176	5554254	1079.230	ng/ml
4)	Aroclor 1016 (3)	6.259	2854613	982.940	ng/ml
5)	Aroclor 1016 (4)	6.418	2303056	972.210	ng/ml
6)	Aroclor 1016 (5)	6.640	2890325	1030.280	ng/ml
7)	Aroclor 1016 (6)	6.766	2014203	1025.229	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	7.569	5414361	1069.093	ng/ml
42)	Aroclor 1260 (2)	7.702	6848896	1094.068	ng/ml
43)	Aroclor 1260 (3)	8.259	4967010	1056.552	ng/ml
44)	Aroclor 1260 (4)	8.429	11847732	1090.256	ng/ml
45)	Aroclor 1260 (5)	8.728	7742543	1086.754	ng/ml
46)	Aroclor 1260 (6)	9.123	3292230	1113.322	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

10/31/19

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F015.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:11
Operator : MJB / KAK
Sample : 9J01027-CAL6
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:36:19 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

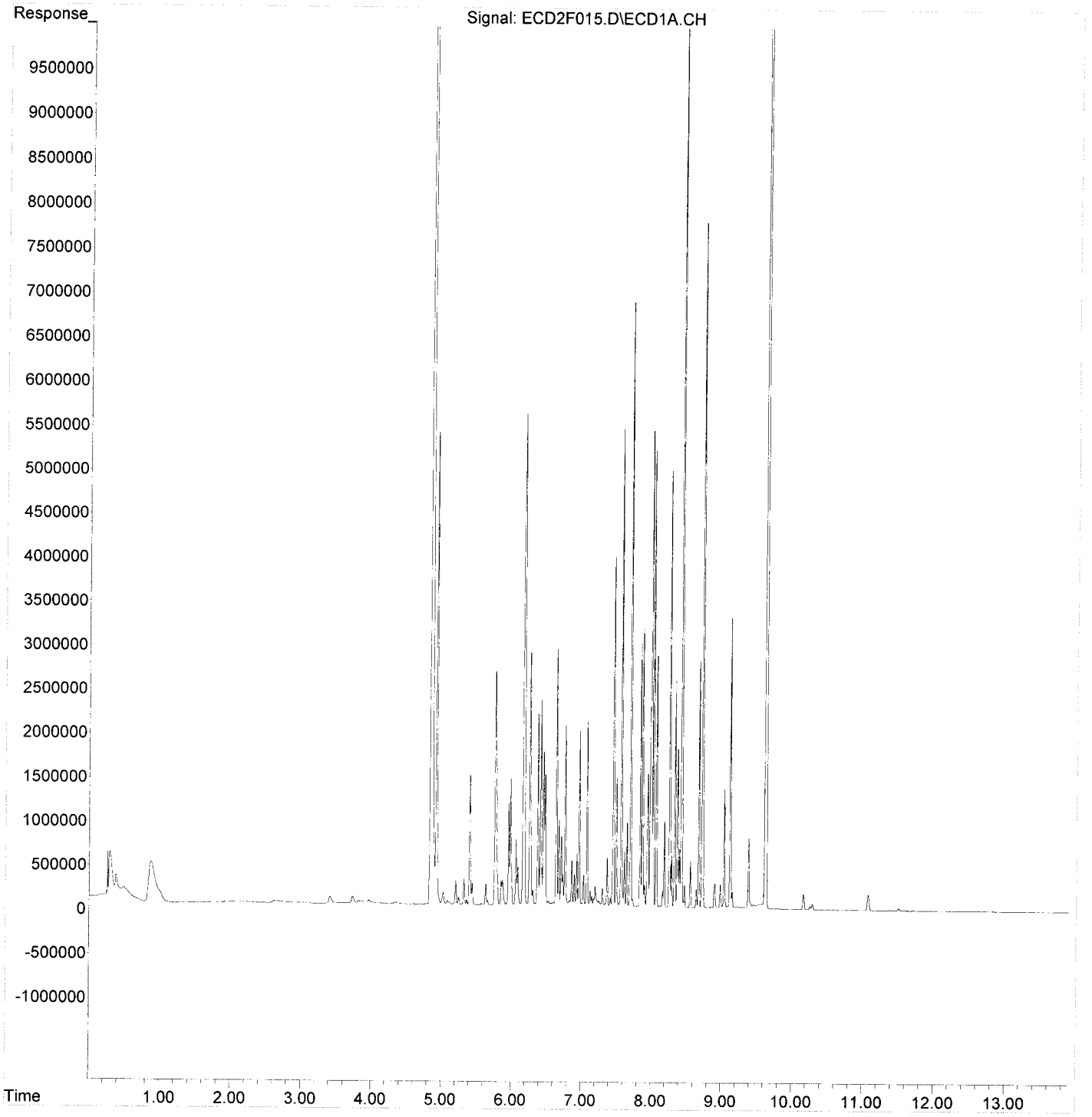
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F015.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:11
Operator : MJB / KAK
Sample : 9J01027-CAL6
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:36:19 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F016.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:29
Operator : MJB / KAK
Sample : 9J01027-CAL7
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:37:28 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	4.848	61784827	917.776	ng/ml
62) S	DCBP (S)	9.630	59113696	1040.945	ng/ml
	Target Compounds				
2)	Aroclor 1016 (1)	5.763	4380564	1630.474	ng/ml
3)	Aroclor 1016 (2)	6.176	9049145	1758.312	ng/ml
4)	Aroclor 1016 (3)	6.259	4844176	1668.014	ng/ml
5)	Aroclor 1016 (4)	6.417	3733998	1576.266	ng/ml
6)	Aroclor 1016 (5)	6.639	4742463	1690.490	ng/ml
7)	Aroclor 1016 (6)	6.765	3365426	1713.002	ng/ml
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/ml
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	7.569	8715557	1720.930	ng/ml
42)	Aroclor 1260 (2)	7.702	11240477	1795.595	ng/ml
43)	Aroclor 1260 (3)	8.259	8317768	1769.305	ng/ml
44)	Aroclor 1260 (4)	8.429	20049305	1844.984	ng/ml
45)	Aroclor 1260 (5)	8.729	13293768	1865.932	ng/ml
46)	Aroclor 1260 (6)	9.123	5192764	1756.019	ng/ml
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/ml

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Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F016.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:29
Operator : MJB / KAK
Sample : 9J01027-CAL7
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:37:28 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

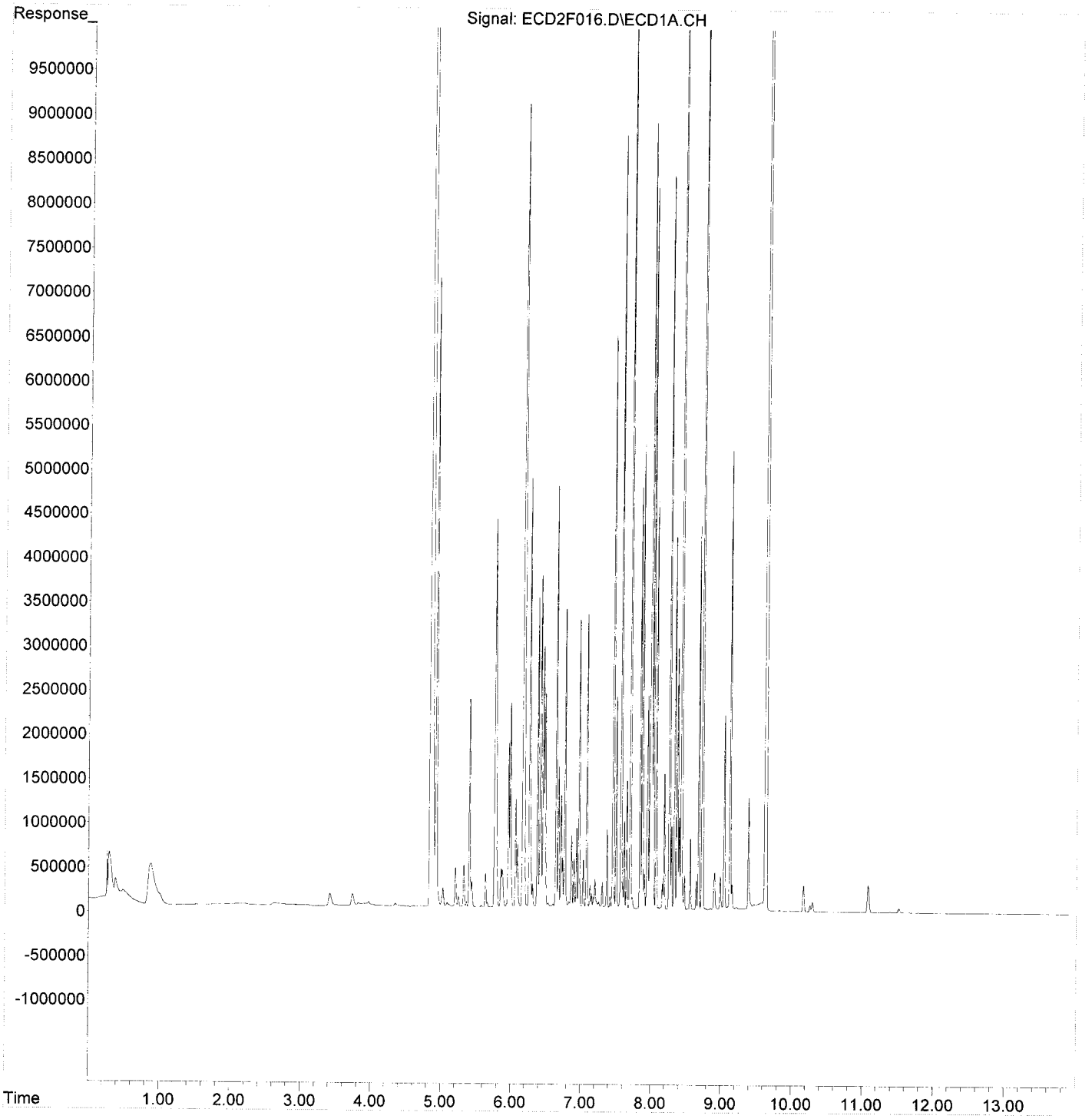
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F016.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 14:29
Operator : MJB / KAK
Sample : 9J01027-CAL7
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:37:28 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Tue Aug 27 11:23:26 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F019.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 15:22
Operator : MJB / KAK
Sample : 9J01027-CAL8
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:39:28 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:39:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S TCMX (S)	0.000	0	N.D.	ng/mld
62)	S DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	5.204	518977	548.796	ng/ml
10)	Aroclor 1221 (2)	5.322	324274	536.371	ng/ml
11)	Aroclor 1221 (3)	5.402	1091433	535.444	ng/ml
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/ml
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

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Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F019.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 15:22
Operator : MJB / KAK
Sample : 9J01027-CAL8
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:39:28 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:39:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

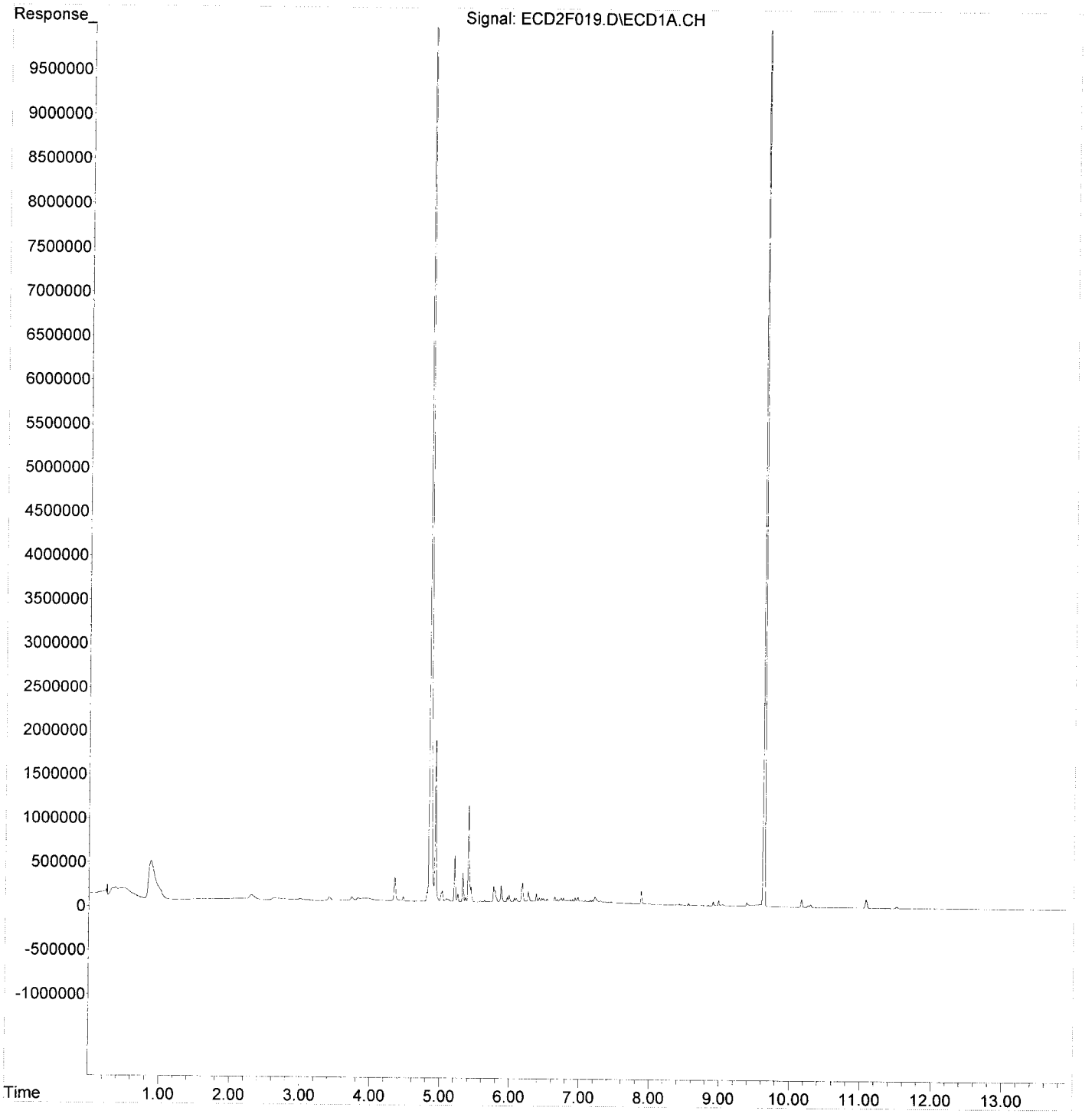
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F019.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 15:22
Operator : MJB / KAK
Sample : 9J01027-CAL8
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:39:28 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:39:22 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F020.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 15:39
Operator : MJB / KAK
Sample : 9J01027-CAL9
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:41:14 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:41:08 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	0.000	0	N.D.	ng/mld
62) S	DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	5.401	880129	541.719	ng/ml
14)	Aroclor 1232 (2)	6.176	1227146	553.002	ng/ml
15)	Aroclor 1232 (3)	6.258	633659	546.820	ng/ml
16)	Aroclor 1232 (4)	6.416	428767	548.434	ng/ml
17)	Aroclor 1232 (5)	6.638	566680	522.897	ng/ml
18)	Aroclor 1232 (6)	6.764	467403	544.550	ng/ml
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/ml
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

10/31/19

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F020.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 15:39
Operator : MJB / KAK
Sample : 9J01027-CAL9
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:41:14 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:41:08 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

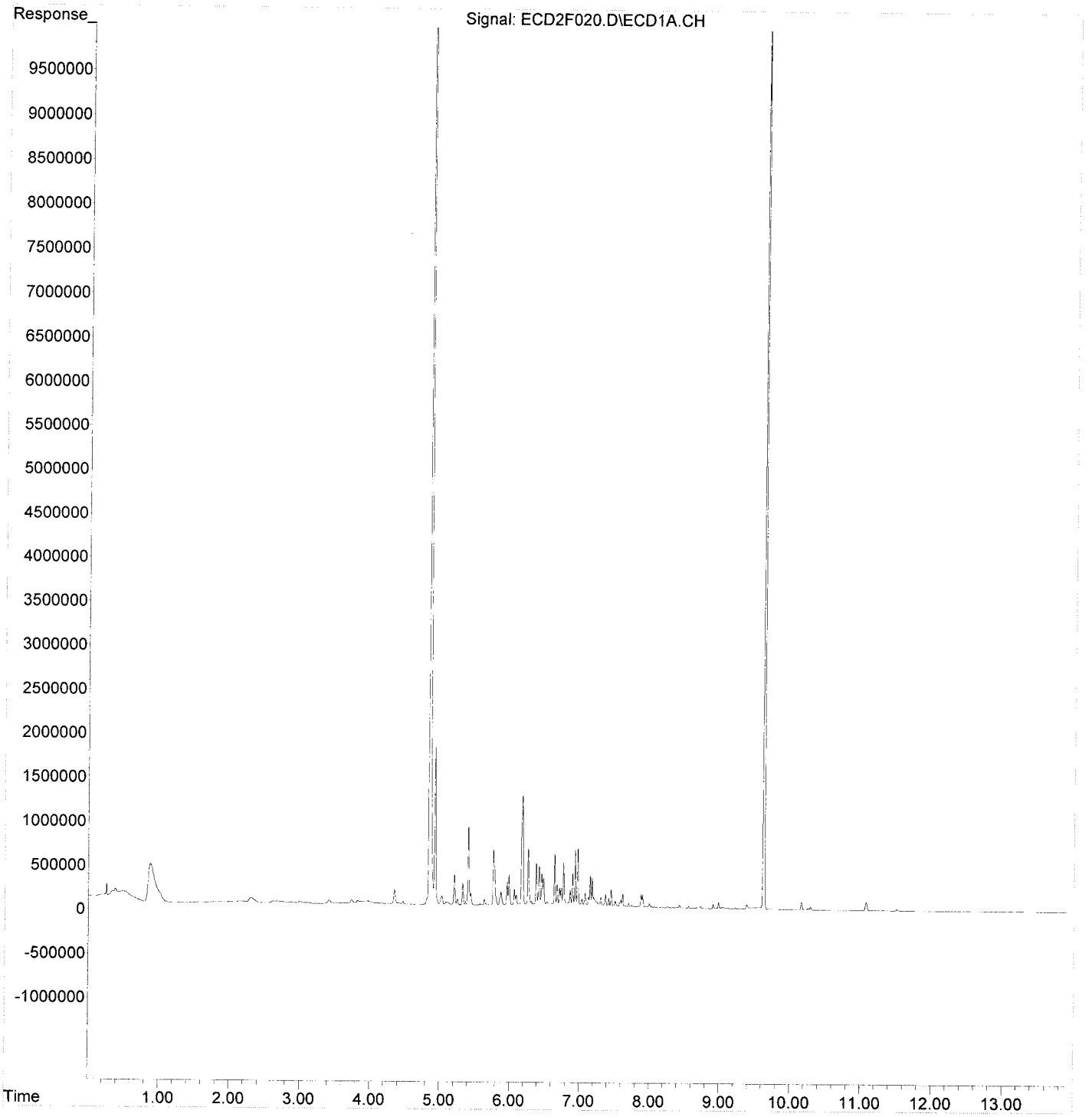
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F020.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 15:39
Operator : MJB / KAK
Sample : 9J01027-CAL9
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:41:14 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:41:08 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F021.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 15:57
Operator : MJB / KAK
Sample : 9J01027-CALA
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:43:26 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:43:10 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	0.000	0	N.D.	ng/mld
62) S	DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	5.763	1103438	567.014	ng/ml
21)	Aroclor 1242 (2)	6.177	2276305	567.348	ng/ml
22)	Aroclor 1242 (3)	6.258	1167184	543.460	ng/ml
23)	Aroclor 1242 (4)	6.417	877429	540.321	ng/ml
24)	Aroclor 1242 (5)	6.638	1194646	565.821	ng/ml
25)	Aroclor 1242 (6)	6.765	989452	562.717	ng/ml
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/ml
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

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Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F021.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 15:57
Operator : MJB / KAK
Sample : 9J01027-CALA
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:43:26 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:43:10 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

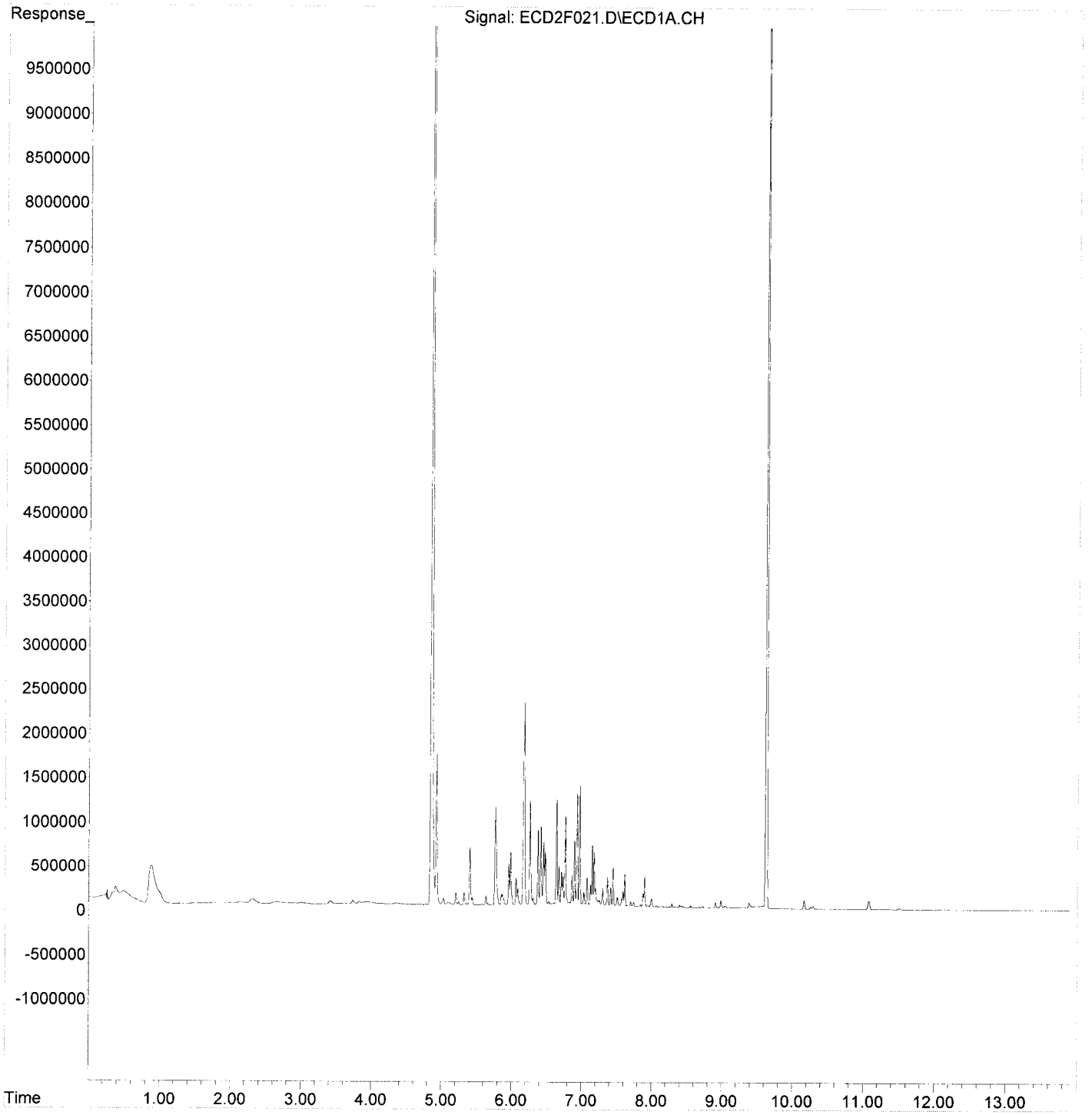
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F021.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 15:57
Operator : MJB / KAK
Sample : 9J01027-CALA
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:43:26 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:43:10 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F022.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 16:15
Operator : MJB / KAK
Sample : 9J01027-CALB
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:45:06 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:44:59 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	0.000	0	N.D.	ng/mld
62) S	DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	6.176	1478446	588.371	ng/ml
28)	Aroclor 1248 (2)	6.417	1733011	577.099	ng/ml
29)	Aroclor 1248 (3)	6.639	1959878	556.895	ng/ml
30)	Aroclor 1248 (4)	6.933	2395651	572.564	ng/ml
31)	Aroclor 1248 (5)	6.971	2501811	578.456	ng/ml
32)	Aroclor 1248 (6)	7.449	1302671	592.576	ng/ml
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/ml
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

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Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F022.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 16:15
Operator : MJB / KAK
Sample : 9J01027-CALB
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:45:06 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:44:59 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

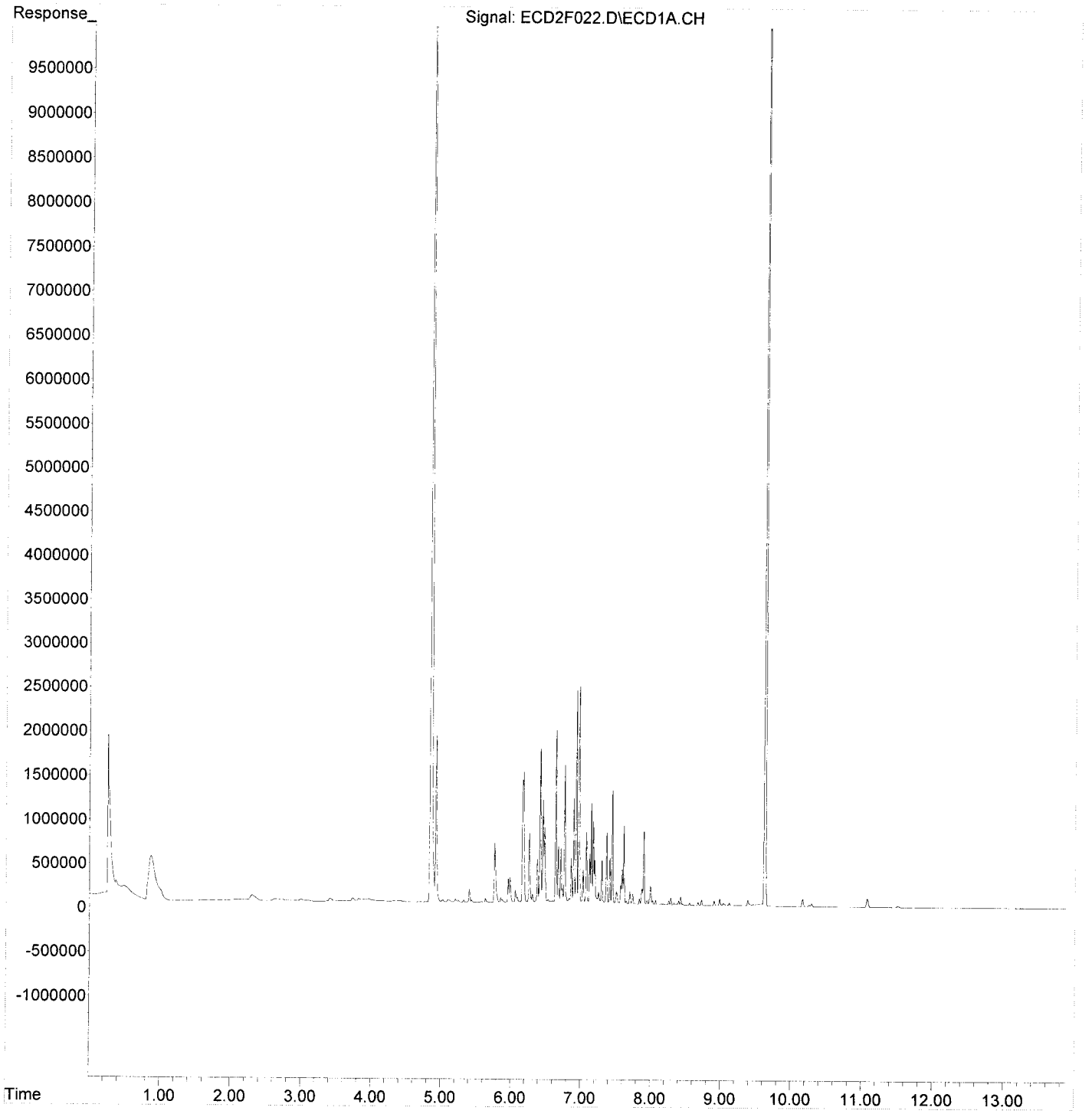
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F022.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 16:15
Operator : MJB / KAK
Sample : 9J01027-CALB
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:45:06 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:44:59 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F023.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 16:32
Operator : MJB / KAK
Sample : 9J01027-CALC
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:47:14 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:47:06 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	0.000	0	N.D.	ng/mld
62) S	DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	6.968	2363802	515.216	ng/ml
35)	Aroclor 1254 (2)	7.078	2814322	544.366	ng/ml
36)	Aroclor 1254 (3)	7.450	4277591	541.384	ng/ml
37)	Aroclor 1254 (4)	7.614	2911508	517.543	ng/ml
38)	Aroclor 1254 (5)	7.996	2920132	539.366	ng/ml
39)	Aroclor 1254 (6)	8.288	944864	514.336	ng/ml
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/ml
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

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Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F023.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 16:32
Operator : MJB / KAK
Sample : 9J01027-CALC
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:47:14 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:47:06 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

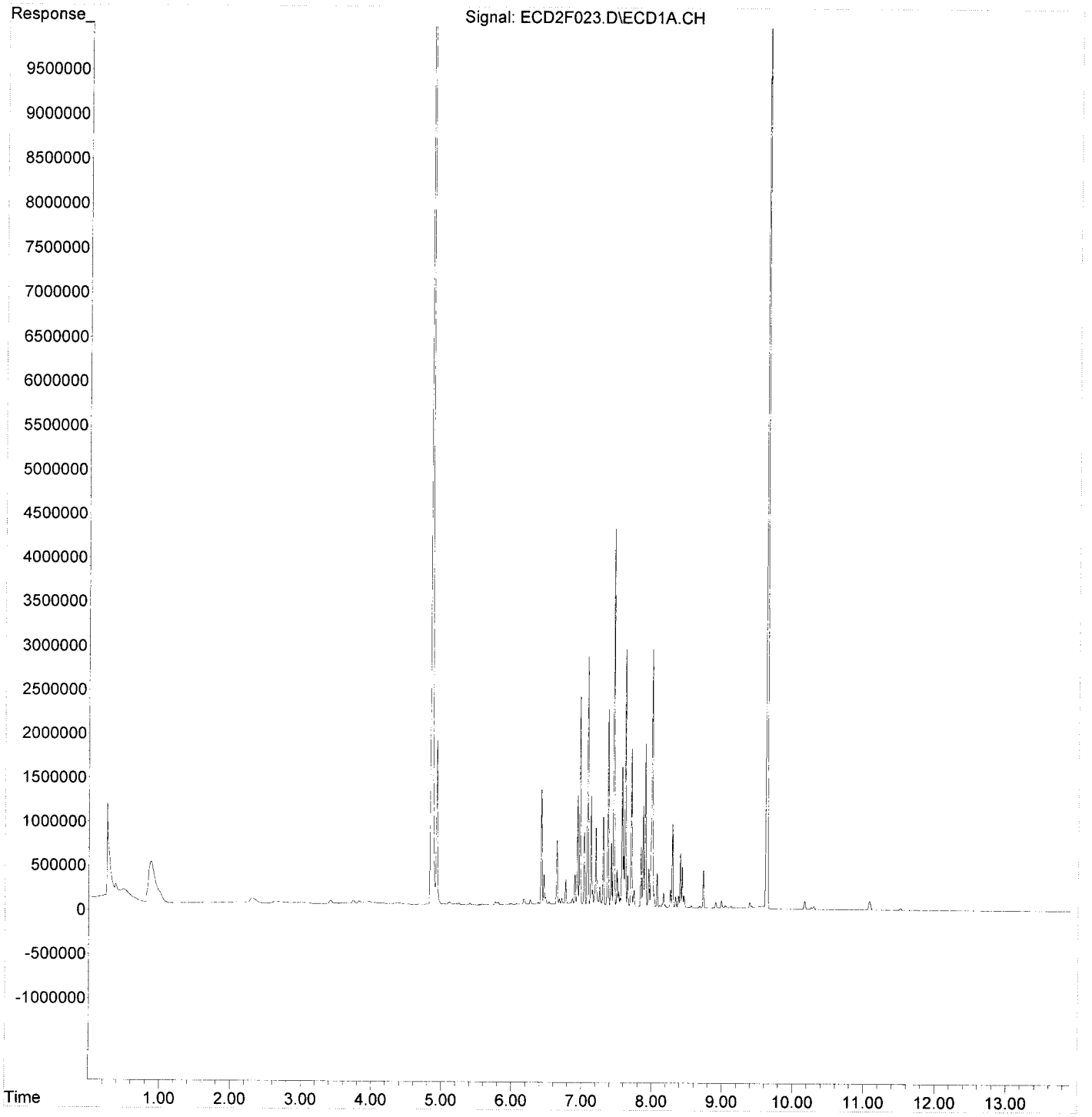
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F023.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 16:32
Operator : MJB / KAK
Sample : 9J01027-CALC
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:47:14 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:47:06 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F024.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 16:50
Operator : MJB / KAK
Sample : 9J01027-CALD
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:48:50 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:48:44 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

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	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S TCMX (S)	0.000	0	N.D.	ng/mld
62)	S DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F024.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 16:50
Operator : MJB / KAK
Sample : 9J01027-CALD
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:48:50 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:48:44 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

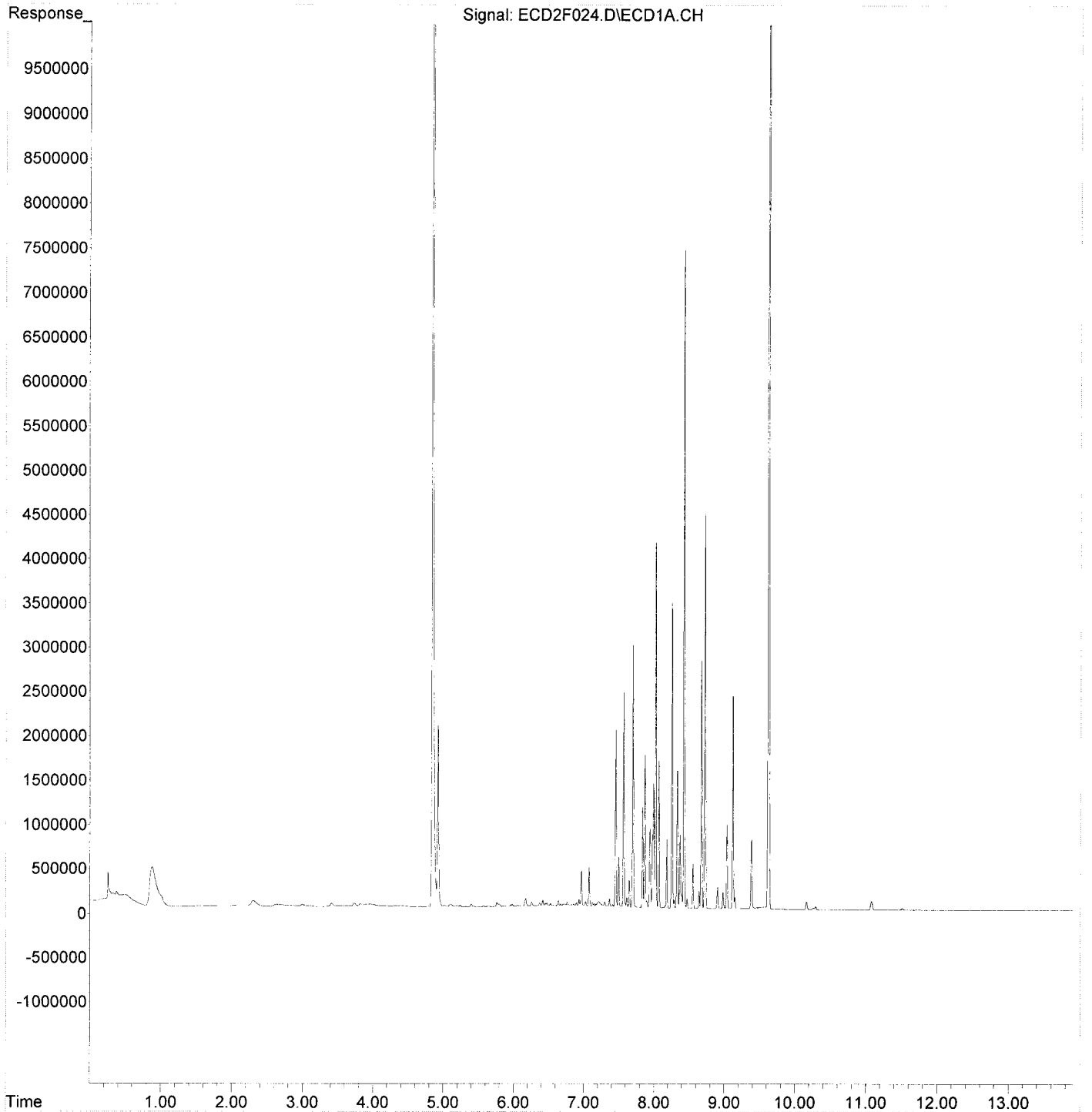
	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	7.702	2953963	580.525	ng/ml
49)	Aroclor 1262 (2)	8.027	4118848	598.562	ng/ml
50)	Aroclor 1262 (3)	8.259	3442064	589.942	ng/ml
51)	Aroclor 1262 (4)	8.429	7410182	603.537	ng/ml
52)	Aroclor 1262 (5)	8.728	4456402	606.449	ng/ml
53)	Aroclor 1262 (6)	9.123	2395569	611.846	ng/ml
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/ml
55)	Aroclor 1268 (1)	0.000	0	N.D.	ng/mld
56)	Aroclor 1268 (2)	0.000	0	N.D.	ng/mld
57)	Aroclor 1268 (3)	0.000	0	N.D.	ng/mld
58)	Aroclor 1268 (4)	0.000	0	N.D.	ng/mld
59)	Aroclor 1268 (5)	0.000	0	N.D.	ng/mld
60)	Aroclor 1268 (6)	0.000	0	N.D.	ng/mld
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/mld

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F024.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 16:50
Operator : MJB / KAK
Sample : 9J01027-CALD
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:48:50 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:48:44 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F025.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 17:07
Operator : MJB / KAK
Sample : 9J01027-CALE
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:50:35 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:50:29 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

10/31/19

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	TCMX (S)	0.000	0	N.D.	ng/mld
62) S	DCBP (S)	0.000	0	N.D.	ng/mld
	Target Compounds				
2)	Aroclor 1016 (1)	0.000	0	N.D.	ng/mld
3)	Aroclor 1016 (2)	0.000	0	N.D.	ng/mld
4)	Aroclor 1016 (3)	0.000	0	N.D.	ng/mld
5)	Aroclor 1016 (4)	0.000	0	N.D.	ng/mld
6)	Aroclor 1016 (5)	0.000	0	N.D.	ng/mld
7)	Aroclor 1016 (6)	0.000	0	N.D.	ng/mld
8)	Aroclor 1016 - AVE	0.000	0	N.D.	ng/mld
9)	Aroclor 1221 (1)	0.000	0	N.D.	ng/mld
10)	Aroclor 1221 (2)	0.000	0	N.D.	ng/mld
11)	Aroclor 1221 (3)	0.000	0	N.D.	ng/mld
12)	Aroclor 1221 - AVE	0.000	0	N.D.	ng/mld
13)	Aroclor 1232 (1)	0.000	0	N.D.	ng/mld
14)	Aroclor 1232 (2)	0.000	0	N.D.	ng/mld
15)	Aroclor 1232 (3)	0.000	0	N.D.	ng/mld
16)	Aroclor 1232 (4)	0.000	0	N.D.	ng/mld
17)	Aroclor 1232 (5)	0.000	0	N.D.	ng/mld
18)	Aroclor 1232 (6)	0.000	0	N.D.	ng/mld
19)	Aroclor 1232 - AVE	0.000	0	N.D.	ng/mld
20)	Aroclor 1242 (1)	0.000	0	N.D.	ng/mld
21)	Aroclor 1242 (2)	0.000	0	N.D.	ng/mld
22)	Aroclor 1242 (3)	0.000	0	N.D.	ng/mld
23)	Aroclor 1242 (4)	0.000	0	N.D.	ng/mld
24)	Aroclor 1242 (5)	0.000	0	N.D.	ng/mld
25)	Aroclor 1242 (6)	0.000	0	N.D.	ng/mld
26)	Aroclor 1242 - AVE	0.000	0	N.D.	ng/mld
27)	Aroclor 1248 (1)	0.000	0	N.D.	ng/mld
28)	Aroclor 1248 (2)	0.000	0	N.D.	ng/mld
29)	Aroclor 1248 (3)	0.000	0	N.D.	ng/mld
30)	Aroclor 1248 (4)	0.000	0	N.D.	ng/mld
31)	Aroclor 1248 (5)	0.000	0	N.D.	ng/mld
32)	Aroclor 1248 (6)	0.000	0	N.D.	ng/mld
33)	Aroclor 1248 - AVE	0.000	0	N.D.	ng/mld
34)	Aroclor 1254 (1)	0.000	0	N.D.	ng/mld
35)	Aroclor 1254 (2)	0.000	0	N.D.	ng/mld
36)	Aroclor 1254 (3)	0.000	0	N.D.	ng/mld
37)	Aroclor 1254 (4)	0.000	0	N.D.	ng/mld
38)	Aroclor 1254 (5)	0.000	0	N.D.	ng/mld
39)	Aroclor 1254 (6)	0.000	0	N.D.	ng/mld
40)	Aroclor 1254 - AVE	0.000	0	N.D.	ng/mld
41)	Aroclor 1260 (1)	0.000	0	N.D.	ng/mld
42)	Aroclor 1260 (2)	0.000	0	N.D.	ng/mld
43)	Aroclor 1260 (3)	0.000	0	N.D.	ng/mld
44)	Aroclor 1260 (4)	0.000	0	N.D.	ng/mld
45)	Aroclor 1260 (5)	0.000	0	N.D.	ng/mld
46)	Aroclor 1260 (6)	0.000	0	N.D.	ng/mld
47)	Aroclor 1260 - AVE	0.000	0	N.D.	ng/mld

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F025.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 17:07
Operator : MJB / KAK
Sample : 9J01027-CALE
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:50:35 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:50:29 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
48)	Aroclor 1262 (1)	0.000	0	N.D.	ng/mld
49)	Aroclor 1262 (2)	0.000	0	N.D.	ng/mld
50)	Aroclor 1262 (3)	0.000	0	N.D.	ng/mld
51)	Aroclor 1262 (4)	0.000	0	N.D.	ng/mld
52)	Aroclor 1262 (5)	0.000	0	N.D.	ng/mld
53)	Aroclor 1262 (6)	0.000	0	N.D.	ng/mld
54)	Aroclor 1262 - AVE	0.000	0	N.D.	ng/mld
55)	Aroclor 1268 (1)	8.251	1800898	527.700	ng/ml
56)	Aroclor 1268 (2)	8.677	8260729	571.000	ng/ml
57)	Aroclor 1268 (3)	8.724	6945860	577.281	ng/ml
58)	Aroclor 1268 (4)	8.907	6280946	561.373	ng/ml
59)	Aroclor 1268 (5)	9.123	2739937	592.002	ng/ml
60)	Aroclor 1268 (6)	9.388	17139773	589.500	ng/ml
61)	Aroclor 1268 - AVE	0.000	0	N.D.	ng/ml

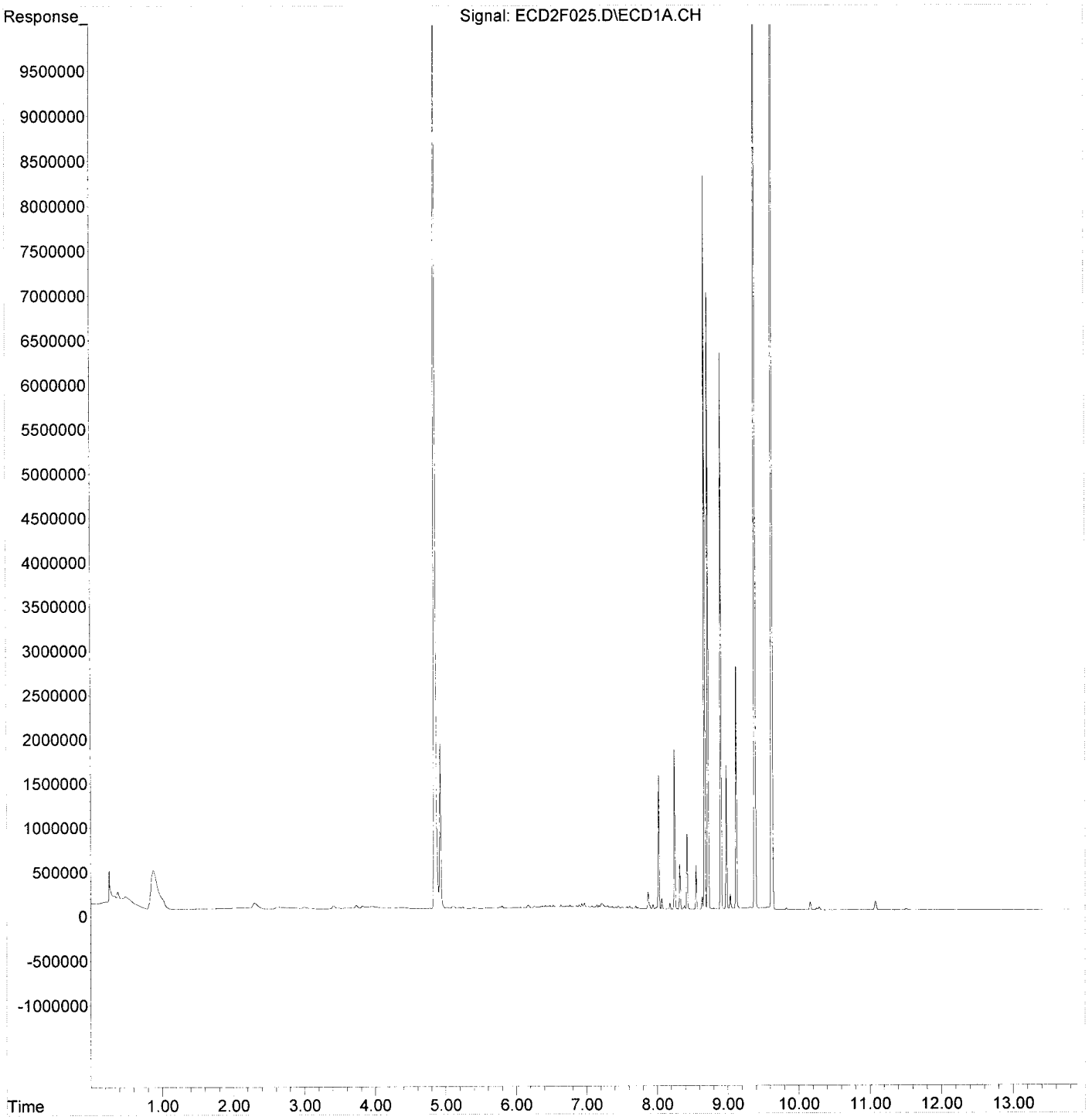
10/3/19

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

Quantitation Report (QT Reviewed)

Data Path : K:\DATA\9J01027\
Data File : ECD2F025.D
Signal(s) : ECD1A.CH
Acq On : 01 Oct 2019 17:07
Operator : MJB / KAK
Sample : 9J01027-CALE
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: PCB1.e
Quant Time: Oct 02 16:50:35 2019
Quant Method : K:\METHODS\FECD2_QUANTPCB_191001.M
Quant Title : PCB Data Analysis
QLast Update : Wed Oct 02 16:50:29 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
Benchsheet & Analysis Sequence Data

Batch 9100817
Sequence 9J10029 (A9J0058-01RE1,02RE1,03RE1,
09RE1,10RE1,15RE1,16RE1,22RE1,23RE1)

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100817 (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
	9100817-BLK1		QC	10/06/19 08:54	11	10				100					
	9100817-BS1		QC	10/06/19 08:54	10	10	A19I221		100	100					
	A9I0936-23RE1	D	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.12	10				100	PDI-064SC-B-06-08-190929	From 9100707 by jgc on 10/08/19			
	A9J0058-01RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.1	10				100	PDI-039SC-A-12-13-190930	From 9100707 by jgc on 10/08/19			
	A9J0058-02RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.13	10				100	PDI-039SC-A-13-13.7-190930	From 9100707 by jgc on 10/08/19			
	A9J0058-03RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.67	10				100	PDI-1039SC-A-12-13-190930	From 9100707 by jgc on 10/08/19			
	A9J0058-09RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.21	10				100	PDI-040SC-A-09-10-190930	From 9100707 by jgc on 10/08/19			
	A9J0058-10RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.89	10				100	PDI-040SC-A-10-11.3-190930	From 9100707 by jgc on 10/08/19			
	A9J0058-15RE1	D	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.91	10				100	PDI-042SC-A-12-13-190930	MS/MSD			
	9100817-MS1		QC	10/06/19 08:54	10.48	10	A19I221	A9J0058-15RE1	100	100					
	9100817-MSD1		QC	10/06/19 08:54	10.15	10	A19I221	A9J0058-15RE1	100	100					
	A9J0058-16RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.71	10				100	PDI-042SC-A-13-13.8-190930	From 9100707 by jgc on 10/08/19			
	A9J0058-22RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.26	10				100	PDI-044SC-A-11-12-190930	From 9100707 by jgc on 10/08/19			
	A9J0058-23RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.56	10				100	PDI-044SC-A-12-12.8-190930	From 9100707 by jgc on 10/08/19			
	A9J0063-02RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.13	10				100	PDI-046SC-A-12-13-191001	From 9100707 by jgc on 10/08/19			
	A9J0063-03RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.5	10				100	PDI-046SC-A-13-13.5-191001	From 9100707 by jgc on 10/08/19			
	A9J0063-07RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.18	10				100	PDI-047SC-A-11-12-191001	From 9100707 by jgc on 10/08/19			
	A9J0063-08RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.65	10				100	PDI-047SC-A-12-13.2-191001	From 9100707 by jgc on 10/08/19			
	A9J0063-09RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.33	10				100	PDI-047SC-B-00-02-191001	From 9100707 by jgc on 10/08/19			
	A9J0063-10RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.1	10				100	PDI-047SC-B-02-04-191001	From 9100707 by jgc on 10/08/19			

Prepared By: Date

MJB 10/16/19
Reviewed By: Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100817 (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
	A9J0063-11RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.2	10				100	PDI-047SC-B-04-06-191001	From 9100707 by jgc on 10/08/19			
	A9J0063-12RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.21	10				100	PDI-047SC-B-06-08-191001	From 9100707 by jgc on 10/08/19			
	A9J0063-15RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.14	10				100	PDI-071SC-A-10-11-191001	From 9100707 by jgc on 10/08/19			
	A9J0063-16RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.27	10				100	PDI-071SC-A-11-11.5-191001	From 9100707 by jgc on 10/08/19			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A19H411	08/31/21	n-Hexane Lot# 192712
A19I027	01/01/22	DCM CHEM PROD. 190351

Analyte Spike(s)

Std ID	Exp. Date	Description
A19I221	03/18/20	2,4 + 4,4 DDx Pesticide Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19I298	03/19/20	8082 PCB Surrogate Spike

From 9100707 on 10/8/2019 by jgc

Prepared By: Date

Reviewed By: Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100817 (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 (In / Out)	pH <2	pH Other	pH >11
	9100817-BLK1		QC	10/06/19 08:54	11	10				100		1ml / 2ml			
	9100817-BS1		QC	10/06/19 08:54	10	10	A19I221		100	100		1ml / 2ml ☆			
	A9I0936-23RE1	D	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.12	10				100	PDI-064SC-B-06-08-190929	From 9100707 by jgc on 10/08/19 1ml / 2ml ☆			
	A9J0058-01RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.1	10				100	PDI-039SC-A-12-13-190930	From 9100707 by jgc on 10/08/19 1ml / 2ml			
	A9J0058-02RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.13	10				100	PDI-039SC-A-13-13.7-190930	From 9100707 by jgc on 10/08/19 1ml / 2ml			
	A9J0058-03RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.67	10				100	PDI-1039SC-A-12-13-190930	From 9100707 by jgc on 10/08/19 1ml / 2ml			
	A9J0058-09RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.21	10				100	PDI-040SC-A-09-10-190930	From 9100707 by jgc on 10/08/19 1ml / 2ml			
	A9J0058-10RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.89	10				100	PDI-040SC-A-10-11.3-190930	From 9100707 by jgc on 10/08/19 1ml / 2ml			
	A9J0058-15RE1	D	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.91	10				100	PDI-042SC-A-12-13-190930	MS/MSD 1ml / 2ml			
	9100817-MS1		QC	10/06/19 08:54	10.48	10	A19I221	A9J0058-15RE1	100	100		1ml / 2ml			
	9100817-MSD1		QC	10/06/19 08:54	10.15	10	A19I221	A9J0058-15RE1	100	100		1ml / 2ml			
	A9J0058-16RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.71	10				100	PDI-042SC-A-13-13.8-190930	From 9100707 by jgc on 10/08/19 1ml / 2ml			
	A9J0058-22RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.26	10				100	PDI-044SC-A-11-12-190930	From 9100707 by jgc on 10/08/19 1ml / 2ml			
	A9J0058-23RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.56	10				100	PDI-044SC-A-12-12.8-190930	From 9100707 by jgc on 10/08/19 1ml / 2ml			
	A9J0063-02RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.13	10				100	PDI-046SC-A-12-13-191001	From 9100707 by jgc on 10/08/19 1ml / 2ml			
	A9J0063-03RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.5	10				100	PDI-046SC-A-13-13.5-191001	From 9100707 by jgc on 10/08/19 1ml / 2ml			
	A9J0063-07RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.18	10				100	PDI-047SC-A-11-12-191001	From 9100707 by jgc on 10/08/19 1ml / 2ml			
	A9J0063-08RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.65	10				100	PDI-047SC-A-12-13.2-191001	From 9100707 by jgc on 10/08/19 1ml / 2ml			
	A9J0063-09RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.33	10				100	PDI-047SC-B-00-02-191001	From 9100707 by jgc on 10/08/19 1ml / 2ml			
	A9J0063-10RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.1	10				100	PDI-047SC-B-02-04-191001	From 9100707 by jgc on 10/08/19 1ml / 2ml			

JC — Prepared By: — 10/8/19 Date

CAS — Reviewed By: — 10/10/19 Date

JC 10/9/19 Exchange

10-9-19 Exchange

Page 1 of 2

Printed: 10/8/2019 1:40:06PM

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100817 (Sediment)

Prep Method: EPA 3546/3640A (GPC)

In | Out

#	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
	A9J0063-11RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.2	~~5~~ 10				100	PDI-047SC-B-04 -06-191001	From 9100707 by jgc on 10/08/19 1mL 2mL			
	A9J0063-12RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.21	~~5~~ 10				100	PDI-047SC-B-06 -08-191001	From 9100707 by jgc on 10/08/19 1mL 2mL			
	A9J0063-15RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.14	~~5~~ 10				100	PDI-071SC-A-10 -11-191001	From 9100707 by jgc on 10/08/19 1mL 2mL			
	A9J0063-16RE1	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	10.27	~~5~~ 10				100	PDI-071SC-A-11 -11.5-191001	From 9100707 by jgc on 10/08/19 1mL 2mL			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A19H411	08/31/21	n-Hexane Lot# 192712
A19I027	01/01/22	DCM CHEM PROD. 190351

Analyte Spike(s)

Std ID	Exp. Date	Description
A19I221	03/18/20	2,4 + 4,4 DDx Pesticide Matrix Spike

Surrogate(s)

Std ID	Exp. Date	Description
A19I298	03/19/20	8082 PCB Surrogate Spike

From 9100707 on 10/8/2019 by jgc

★= Concentrated to between 0.5mL and 1mL on initial blow down before solvent exchange.

X 10/9/19

Prepared By: Date

Reviewed By: Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100707 (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	9100707-BLK1		QC	10/06/19 08:54	~~10~~ 11	5				100					
2	9100707-BS1		QC	10/06/19 08:54	10	5	A19I221		100	100					
3	A9I0936-23	D	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.12	5				100	PDI-064SC-B-06 -08-190929	sed. mud			
4	A9J0058-01	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.10	5				100	PDI-039SC-A-12 -13-190930	soil			
5	A9J0058-02	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.13	5				100	PDI-039SC-A-13 -13.7-190930	soil			
6	A9J0058-03	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.67	5				100	PDI-1039SC-A-1 2-13-190930	soil.			
7	A9J0058-09	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.21	5				100	PDI-040SC-A-09 -10-190930	Soil			
8	A9J0058-10	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.89	5				100	PDI-040SC-A-10 -11.3-190930	Soil			
9	A9J0058-15	B D	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.91	5				100	PDI-042SC-A-12 -13-190930	MS/MSD Soil			
10	9100707-MS1	E	QC	10/06/19 08:54	~~10~~ 10.68	5	A19I221	A9J0058-15	100	100		Soil			
11	9100707-MSD1	F	QC	10/06/19 08:55	~~10~~ 10.15	5	A19I221	A9J0058-15	100	100		soil			
12	A9J0058-16	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.71	5				100	PDI-042SC-A-13 -13.8-190930	soil			
13	A9J0058-22	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.26	5				100	PDI-044SC-A-11 -12-190930	soil			
14	A9J0058-23	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.56	5				100	PDI-044SC-A-12 -12.8-190930	soil			
15	A9J0063-02	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.13	5				100	PDI-046SC-A-12 -13-191001	soil			
16	A9J0063-03	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.50	5				100	PDI-046SC-A-13 -13.5-191001	soil			
17	A9J0063-07	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.18	5				100	PDI-047SC-A-11 -12-191001	soil			
18	A9J0063-08	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.65	5				100	PDI-047SC-A-12 -13.2-191001	soil			
19	A9J0063-09	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.33	5				100	PDI-047SC-B-00 -02-191001	mud			
20	A9J0063-10	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.10	5				100	PDI-047SC-B-02 -04-191001	soil			

AM 10/06/19
Prepared By: Date

SCG 10/7/2019
Reviewed By: Date

CAS 10/6/19
I 10/6/19

Printed: 10/6/2019 9:13:25AM

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100707 (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
21	A9J0063-11	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.20	5				100	PDI-047SC-B-04 -06-191001	Soil			
22	A9J0063-12	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.21	5				100	PDI-047SC-B-06 -08-191001	Soil			
23	A9J0063-15	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:54	~~10~~ 10.14	5				100	PDI-071SC-A-10 -11-191001	Soil			
24	A9J0063-16	B	8081B 2,4+4,4-DDx Only (+Add)	10/06/19 08:55	~~10~~ 10.27	5				100	PDI-071SC-A-11 -11.5-191001	Soil			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19H436	07/31/21	Sodium Sulfate Lot # 190116
A19I027	01/01/22	DCM CHEM PROD. 190351

Analyte Spike(s)

Std ID	Exp. Date	Description
A19I221	03/18/20	2,4 + 4,4 DDx Pesticide Matrix Spike

CAS

Surrogate(s)

Std ID	Exp. Date	Description
A19I298	03/19/20	8082 PCB Surrogate Spike

CAS

Method 3546 digestion time and temperture achieved.

Initial: CAS

Witness: JAG 10/6/19

Prepared By: Date

Reviewed By: Date

Printed: 10/6/2019 9:13:25AM

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9J10029**	Instrument:	**DUALECD5**
Date:	**10/10/19 10:30**	Calibration:	**A9H2608**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J10029-BKD1	Sediment	QC	QC				A19G138
2	9J10029-CCV1	Sediment	QC	QC				A19H383
3	9J10029-CCV2	Sediment	QC	QC				A19E154
4	9J10029-CCB1	Sediment	QC	QC				A19I233
5	9100817-BLK1	Sediment	QC	QC		9100817		
6	9100817-BS1	Sediment	QC	QC		9100817		
7	A9I0936-23RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/11/19	9100817		
8	9J10029-IBL1	Sediment	QC	QC				
9	9J10029-IBL2	Sediment	QC	QC				
10	9J10029-IBL3	Sediment	QC	QC				
11	9J10029-IBL4	Sediment	QC	QC				
12	A9J0058-01RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100817		
13	A9J0058-02RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100817		
14	A9J0058-03RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100817		
15	9J10029-CCV3	Sediment	QC	QC				A19H384
16	9J10029-CCV4	Sediment	QC	QC				A19E155
17	9J10029-CCB2	Sediment	QC	QC				A19I233
18	A9J0058-09RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100817		
19	A9J0058-10RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100817		
20	A9J0058-15RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100817		
21	9100817-MS1	Sediment	QC	QC		9100817		
22	9100817-MSD1	Sediment	QC	QC		9100817		
23	A9J0058-16RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100817		
24	9J10029-CCV5	Sediment	QC	QC				A19H383
25	9J10029-CCV6	Sediment	QC	QC				A19E154
26	9J10029-CCB3	Sediment	QC	QC				A19I233
27	A9J0058-22RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100817		
28	A9J0058-23RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100817		
29	A9J0063-02RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100817		
30	A9J0063-03RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100817		
31	A9J0063-07RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100817		
32	A9J0063-08RE1	Sediment	8081B 2,4+4,4-DDx Only (+Add)	Anchor QEA, LLC	10/15/19	9100817		
33	9J10029-CCV7	Sediment	QC	QC				A19H384
34	9J10029-CCV8	Sediment	QC	QC				A19E155
35	9J10029-CCB4	Sediment	QC	QC				A19I233
36	9J10029-IBL5	Sediment	QC	QC				
37	9J10029-IBL6	Sediment	QC	QC				

Comments:

Data Entered By: MJB 10/16/19

Data Reviewed By: MJB 10/21/19

Pesticide Breakdown Check (Validated 8/8/2013)

Sequence: 9J10029 BKD1
Data File: ECD5-10101903.D

First Column Area Counts		Percent Breakdown	
DDE	956676		
DDD	8594145		
DDT	139070220	**6.43**	**PASS**
Endrin	80424600	**10.28**	**PASS**
Endrin Aldehyde	3391188		
Endrin Ketone	5828438		

Second Column Area Counts		Percent Breakdown	
DDE	1381886		
DDD	13240600		
DDT	215136839	**6.36**	**PASS**
Endrin	120477817	**9.50**	**PASS**
Endrin Aldehyde	4086856		
Endrin Ketone	8563652		

Breakdown must be less than 15% to accept sample data.

MJB 10/15/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-10\9J10029\
Data File : ECD5-10101903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 11:46
Operator : MJB
Sample : 9J10029-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: Oct 10 12:00:04 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT4.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	4,4'-DDE	7.453	956676	NoCal	ng/mL
2)	Endrin	7.815	80424600	NoCal	ng/mL
3)	4,4'-DDD	7.871	8594145	NoCal	ng/mL
4)	4,4'-DDT	8.065	139070220	NoCal	ng/mL
5)	Endrin Aldehyde	8.261	3391188	NoCal	ng/mL
6)	Endrin Ketone	8.751	5828438	NoCal	ng/mL
8)	4,4'-DDE [2C]	8.209	1381886	NoCal	ng/mL
9)	Endrin [2C]	8.572	120477817	NoCal	ng/mL
10)	4,4'-DDD [2C]	8.622	13240600	NoCal	ng/mL
11)	Endrin Aldehyde [2C]	8.957	4086856	NoCal	ng/mL
12)	4,4'-DDT [2C]	8.847	215136839	NoCal	ng/mL
13)	Endrin Ketone [2C]	9.541	8563652	NoCal	ng/mL

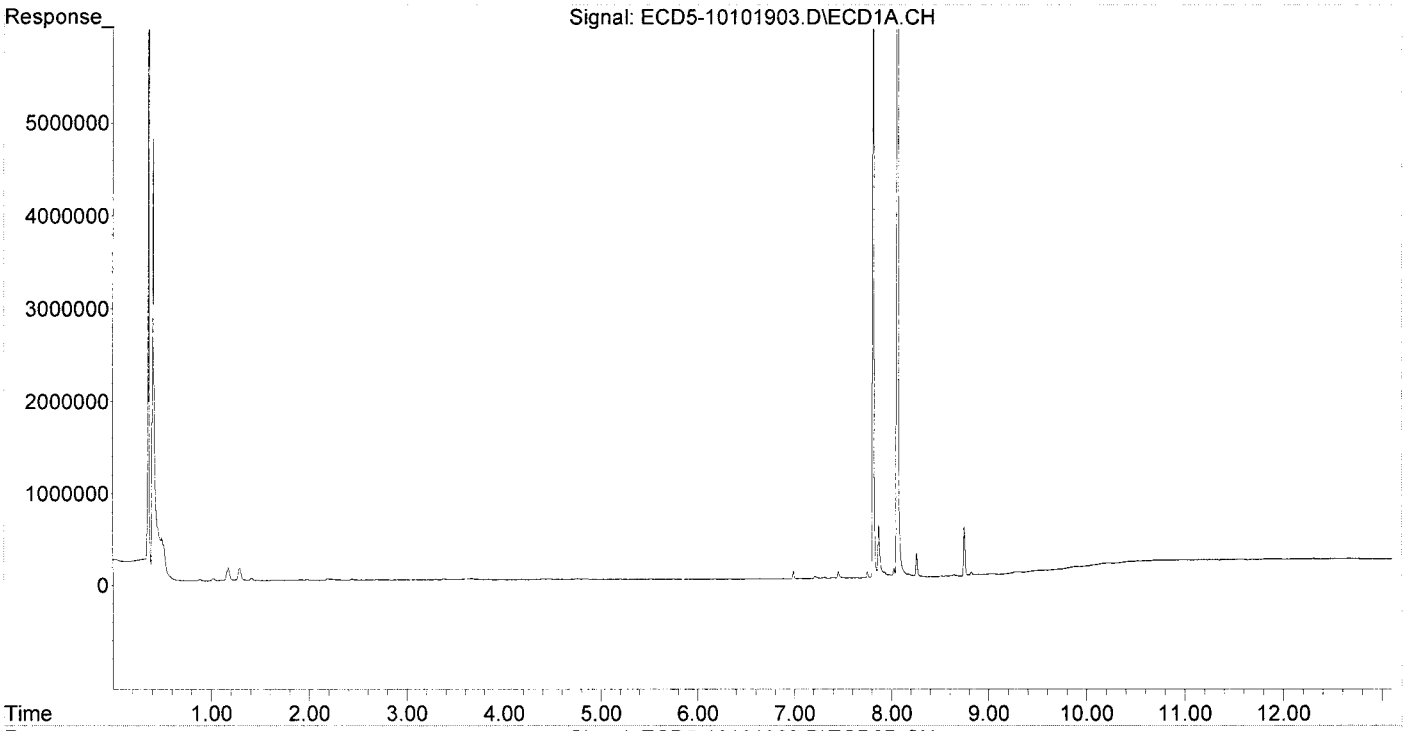
(f)=RT Delta > 1/2 Window (m)=manual int.

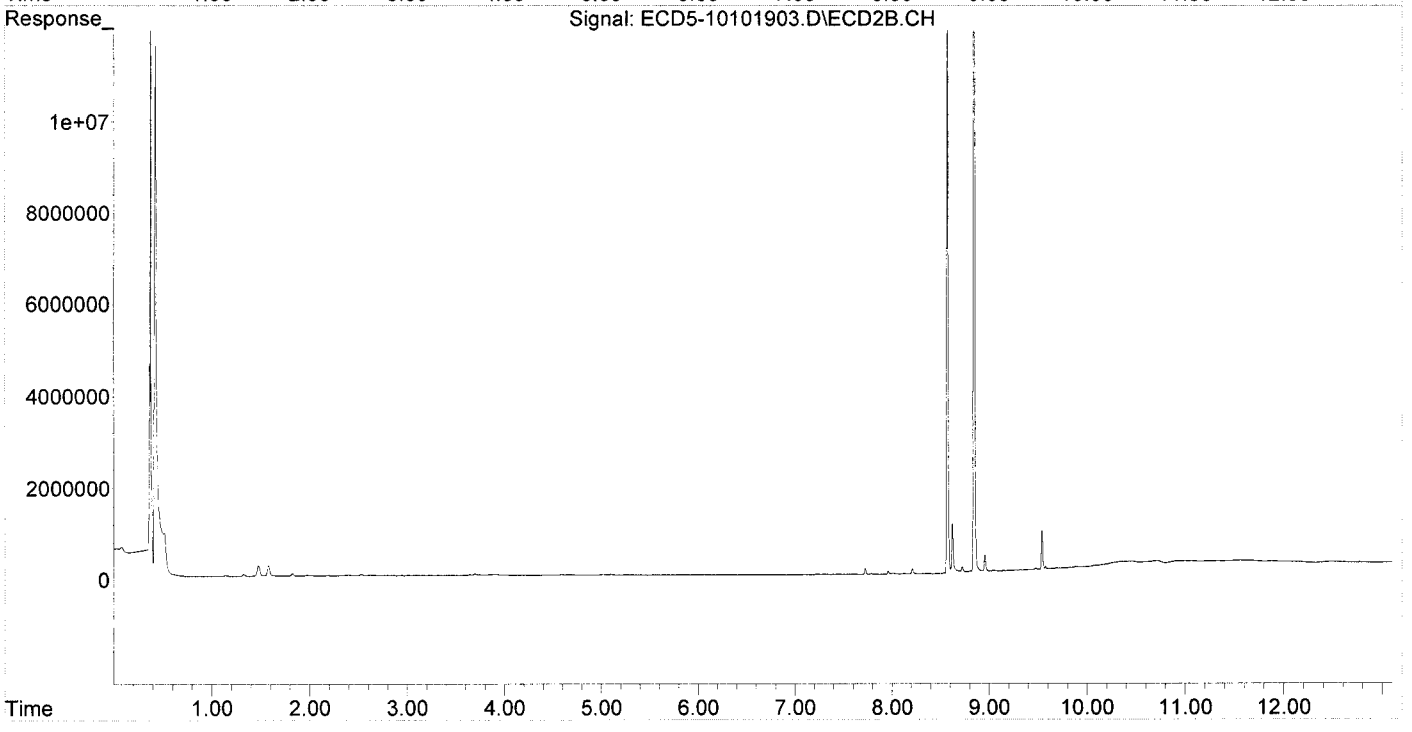
MJB 10/15/19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\4\data\2019-10\9J10029\
Data File : ECD5-10101903.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 11:46
Operator : MJB
Sample : 9J10029-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: Oct 10 12:00:04 2019
Quant Method : C:\msdchem\4\methods\PestBreakdownCHK_190823RT4.M
Quant Title : Pesticides
QLast Update : Thu Aug 21 11:53:22 2014
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 12:04
Operator : MJB
Sample : 9J10029-CCV1
Misc : A19H383, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:03:23 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/15/19

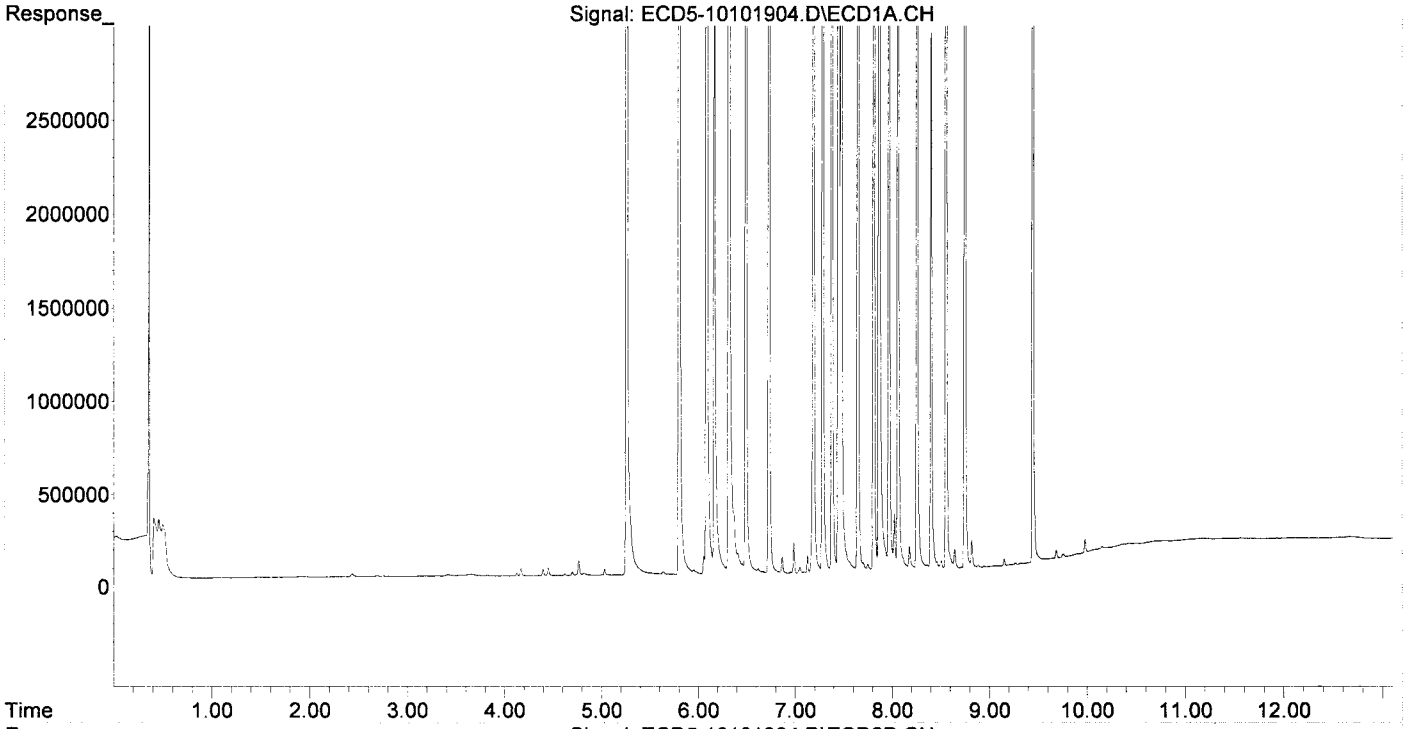
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.262	5.853	7627590	13817602	45.956	47.100	
22)	S	DCBP (S)	9.447	10.376	6794907	9481508	48.157	52.744	
		Target Compounds							
2)		a-BHC	5.803	6.461	10791831	21138795	47.058	51.515	
3)		g-BHC	6.088	6.779	9356630	17915140	46.371	50.224	
4)		b-BHC	6.168	6.846	3410402	7201302	37.733	45.501	
5)		Heptachlor	6.493	7.149	9555957	17125103	52.709	55.969	
6)		d-BHC	6.317	7.098	7862001	16707871	39.971	47.376	
7)		Aldrin	6.732	7.412	10613432	18226014	53.754	55.332	
8)		Heptachlo...	7.191	7.850	9061312	15638100	49.199	51.980	
9)		trans-Chl...	7.285	7.989	9672398	16108623	52.314	51.412	
10)		cis-Chlor...	7.382	8.096	9432576	15258041	51.807	52.389	
11)		Endosulfa...	7.478	8.145	9313060	14524717	54.725	52.783	
12)		4,4'-DDE	7.449	8.207	7898921	15019501	41.897	48.344	
13)		Dieldrin	7.649	8.345	10043591	16665439	52.316	54.793	
14)		Endrin	7.813	8.571	8055901	12634182	54.792	55.946	
15)		4,4'-DDD	7.868	8.621	6692400	12454434	42.589	48.610	
16)		Endosulfa...	7.970	8.718	7366334	12217882	51.293	52.982	
17)		4,4'-DDT	8.064	8.845	5872540	10082949	49.118	53.313	
18)		Endrin Al...	8.258	8.955	6670747	10935376	54.273	55.361	
19)		Endosulfa...	8.558	9.145	7863192	13072128	50.738	52.480	
20)		Methoxychlor	8.403	9.325	2873084	4894710	49.050	54.149	
21)		Endrin Ke...	8.751	9.540	8449480	13670621	50.669	53.128	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.639	0.000	15003	0	0.085	N.D.	#
25)		Oxychlordane	7.127	7.783	87989	8382	0.535	0.031	#
26)		2,4'-DDE	7.191	7.989	9061312	16108623	70.647	75.935	
27)		trans-Non...	7.382	8.047	9432576	62591	52.363	0.208	#
28)		2,4'-DDD	0.000	8.345	0	16665439	N.D.	88.241	#
29)		2,4'-DDT	7.750	8.571	37276	12634182	0.340	70.844	#
30)		cis-Nonac...	7.813f	8.621	8055901	12454434	38.802	37.128	
31)		Mirex	8.507	9.540	39457	13670621	0.315	73.469	#
32)		Chlordane...	7.382f	8.047	9432576	62591	479.064	1.730	#
33)		Chlordane...	7.449	8.145	7898921	14524717	315.146	478.352	#
34)		Chlordane...	7.970	8.797f	7366334	59026	1274.205	6.583	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.449f	0.000	7898921	0	8819.230	N.D.	#
37)		Toxaphene...	7.750f	8.718	37276	12217882	23.082	3712.485	#
38)		Toxaphene...	8.025	8.797f	297859	59026	88.451	11.646	#
39)		Toxaphene...	8.258	8.845	6670747	10082949	2058.776	1207.563	#
40)		Toxaphene...	8.507	9.041f	39457	168468	16.460	36.149	#
41)		Toxaphene...	8.558	9.408	7863192	45666	2484.748	9.614	#
42)		Toxaphene...	3.412f	0.000	5876	0	NoCal	N.D.	

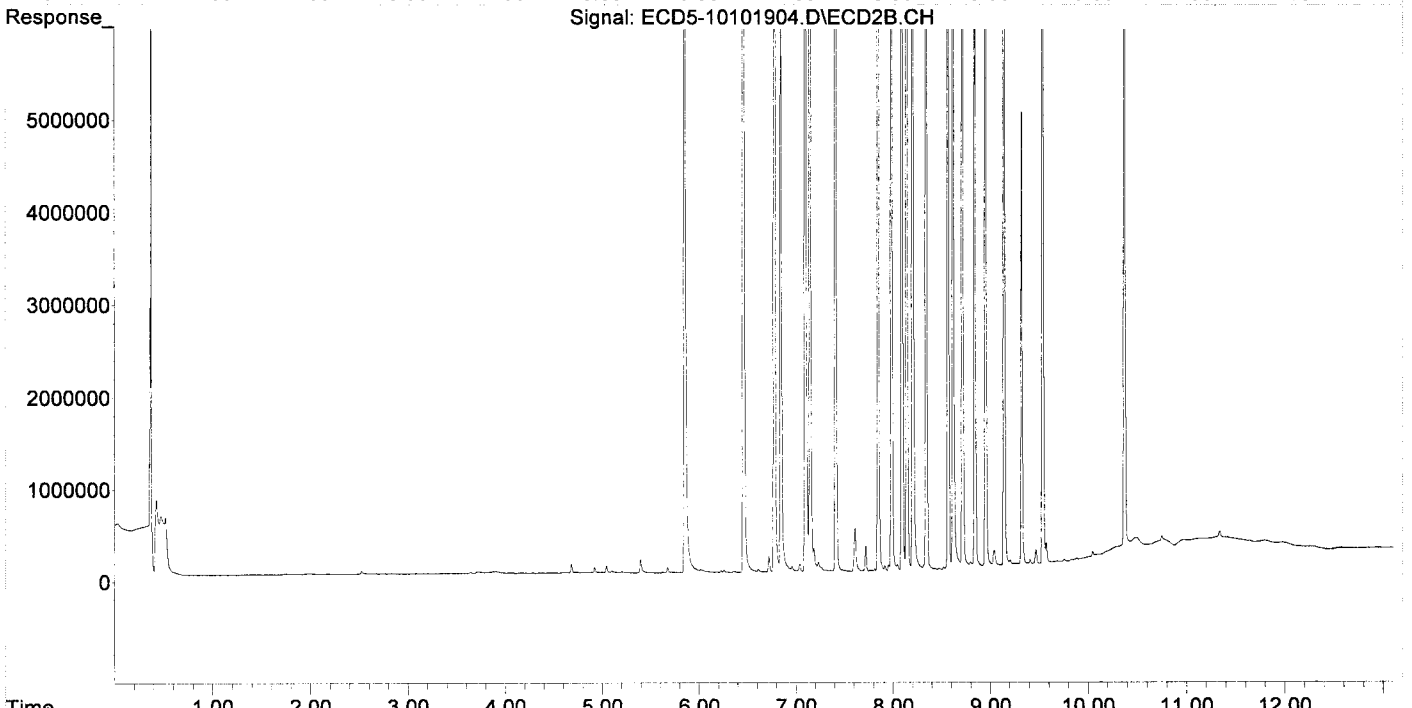
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101904.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 12:04
Operator : MJB
Sample : 9J10029-CCV1
Misc : A19H383, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:03:23 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 12:47
Operator : MJB
Sample : 9J10029-CCV2
Misc : A19E154, 9-42 50 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:03:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/15/19

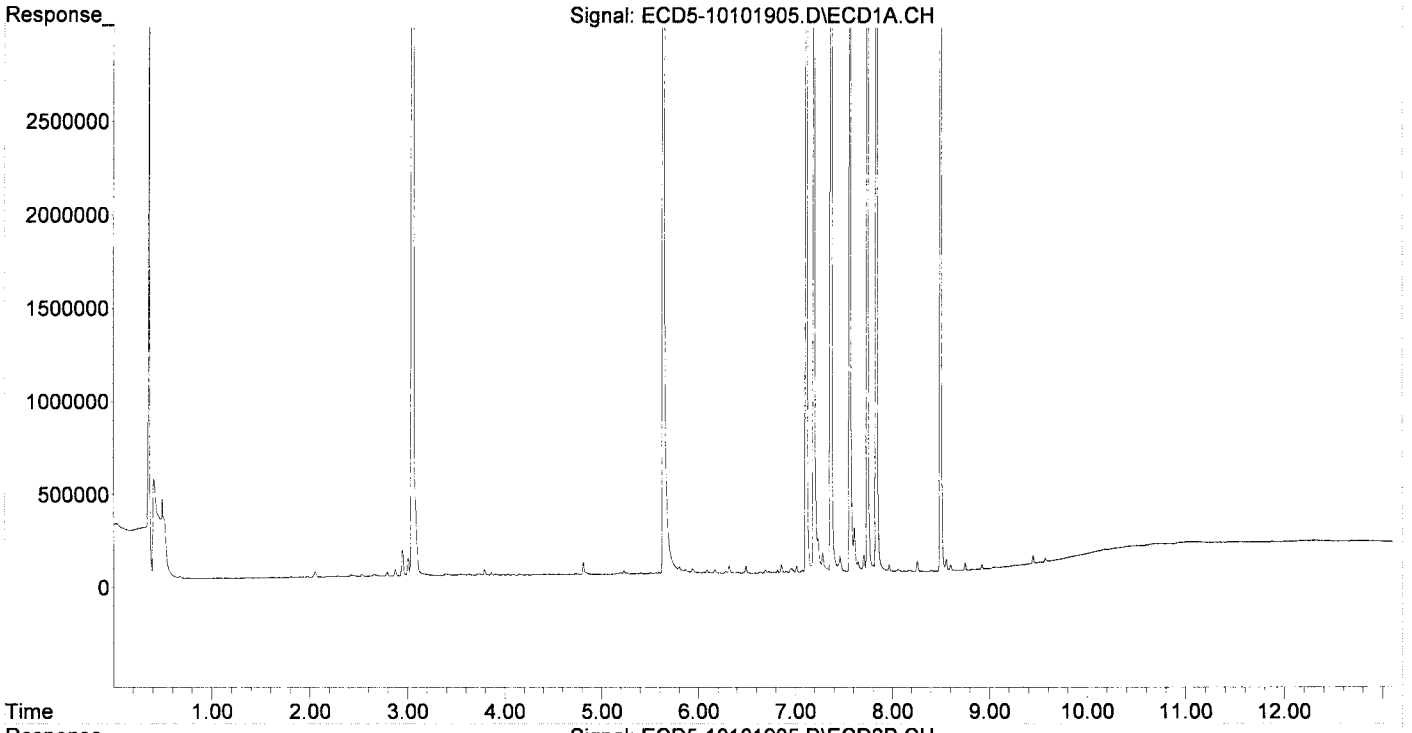
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.847	8265	12780	0.050	0.044	
22)	S	DCBP (S)	9.446	10.373	48753	156617	0.346	0.871	#
		Target Compounds							
2)		a-BHC	5.800	6.456	36976	42877	0.161	0.104	
3)		g-BHC	6.088	6.777	19921	29514	0.099	0.083	
4)		b-BHC	6.170	6.844	19512	27552	0.216	0.174	
5)		Heptachlor	6.490	7.145	36618	60559	0.202	0.198	
6)		d-BHC	6.317	7.095	39928	86542	0.203	0.245	
7)		Aldrin	6.729	7.407	8536	20374	0.043	0.062	#
8)		Heptachlo...	7.196	7.846	6302587	59943	34.220	0.199	#
9)		trans-Chl...	7.284	7.982	105040	11241614	0.568	35.878	#
10)		cis-Chlor...	7.372	8.092	9855370	79911	54.129	0.274	#
11)		Endosulfa...	7.462	8.157	86152	118810	0.506	0.432	
12)		4,4'-DDE	7.462	8.203	86152	23104	0.457	0.074	#
13)		Dieldrin	7.649	8.354	54553	9952732	0.284	32.723	#
14)		Endrin	7.839f	8.577	11198534	9897714	76.166	43.829	#
15)		4,4'-DDD	7.839f	8.613	11198534	18684645	71.264	72.926	
16)		Endosulfa...	7.970	8.716	36849	47964	0.257	0.208	
17)		4,4'-DDT	8.061	8.843	14561	19273	0.122	0.074	
18)		Endrin Al...	8.260	8.953	52872	67579	BelowCal	BelowCal	
19)		Endosulfa...	8.557	9.143	63138	94238	0.407	0.378	
20)		Methoxychlor	8.403	9.323	7249	46621	0.124	0.393	#
21)		Endrin Ke...	8.750	9.526	38914	9788984	0.233	38.043	#
23)		Hexachlor...	3.053	3.542	10412984	22375702	56.983	59.521	
24)		Hexachlor...	5.640	6.315	7905170	16192709	44.841	51.555	
25)		Oxychlordane	7.117	7.776	8379376	14085690	50.927	51.426	
26)		2,4'-DDE	7.196	7.982	6302587	11241614	49.139	52.992	
27)		trans-Non...	7.372	8.050	9855370	16545991	54.726	54.854	
28)		2,4'-DDD	7.567	8.354	5706862	9952732	50.005	52.698	
29)		2,4'-DDT	7.748	8.577	5881943	9897714	53.624	55.499	
30)		cis-Nonac...	7.839	8.613	11198534	18684645	53.939	55.700	
31)		Mirex	8.500	9.526	6225743	9788984	49.660	52.608	
32)		Chlordane...	7.372f	8.050	9855370	16545991	500.536	457.266	
33)		Chlordane...	7.462f	8.157	86152	118810	3.437	3.913	
34)		Chlordane...	7.970	8.843f	36849	19273	6.374	2.150	#
35)		Chlordane...	3.388	3.383f	9197	71193	NoCal	NoCal	
36)		Toxaphene...	0.000	8.354f	0	9952732	N.D.	3792.589	#
37)		Toxaphene...	7.709	8.716	89063	47964	55.150	14.574	#
38)		Toxaphene...	8.061f	8.763	14561	12459	4.324	2.458	#
39)		Toxaphene...	8.260	8.843	52872	19273	16.318	2.308	#
40)		Toxaphene...	8.500	0.000	6225743	0	2597.152	N.D.	#
41)		Toxaphene...	8.557	0.000	63138	0	19.951	N.D.	#
42)		Toxaphene...	3.388	3.383f	9197	71193	NoCal	NoCal	

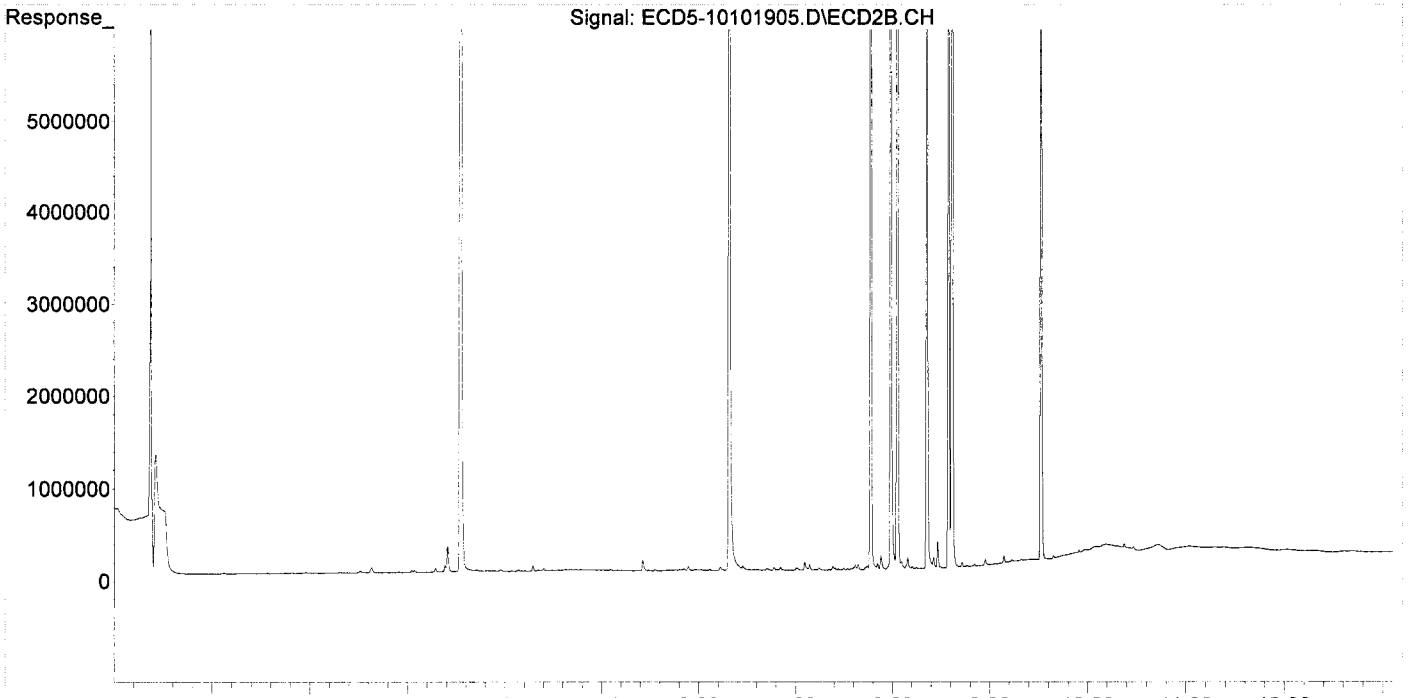
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101905.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 12:47
Operator : MJB
Sample : 9J10029-CCV2
Misc : A19E154, 9-42 50 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:03:29 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 13:05
Operator : MJB
Sample : 9J10029-CCB1
Misc : A19I233
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:03:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/15/19

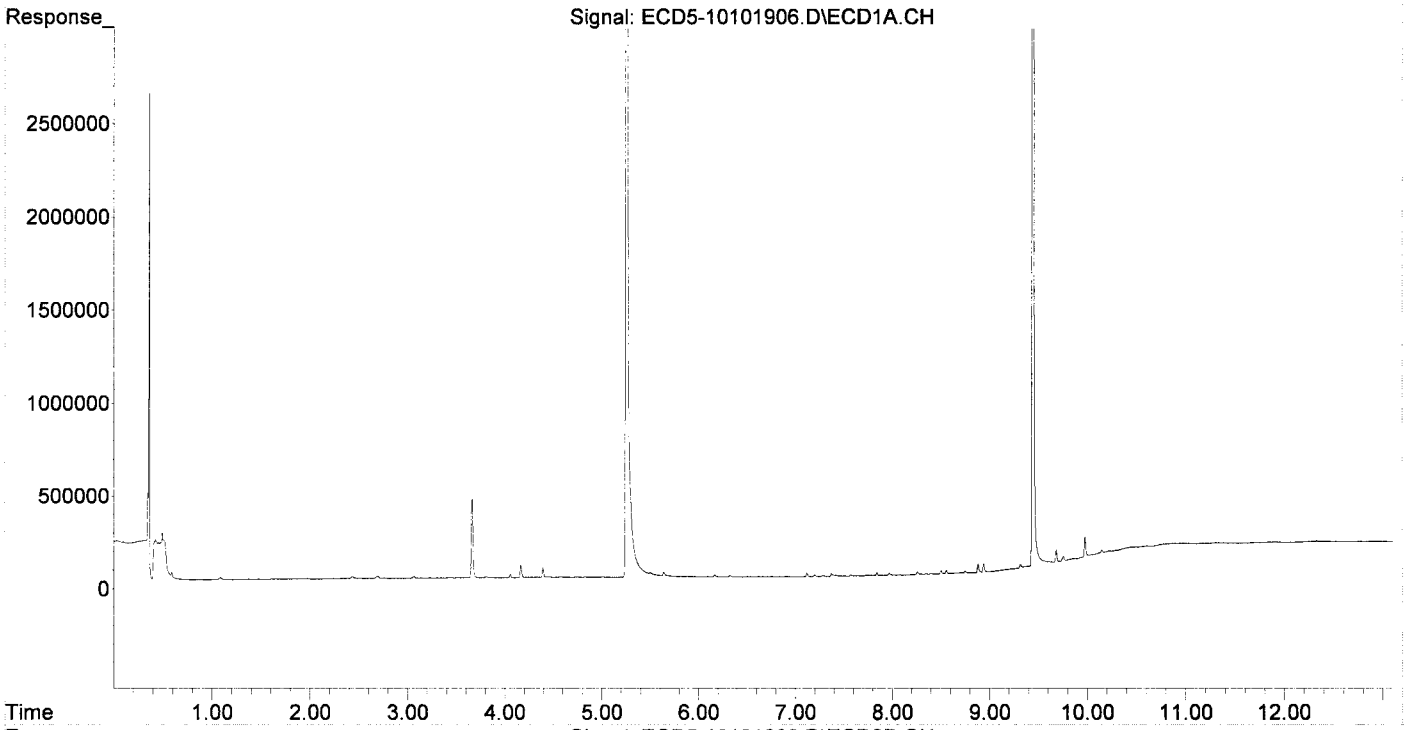
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.259	5.851	13075945	23204687	78.782	79.098	
22)	S	DCBP (S)	9.446	10.373	10763892	15716545	76.286	87.429	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.167	6.850	10364	5618	0.115	0.035	#
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.326	7.100	7560	17650	0.038	0.050	
7)		Aldrin	0.000	7.444f	0	6340	N.D.	0.019	#
8)		Heptachlo...	7.200	0.000	8857	0	0.048	N.D.	#
9)		trans-Chl...	7.286	7.986	5088	13361	0.028	0.043	#
10)		cis-Chlor...	7.375	0.000	15207	0	0.084	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	7.650	8.357	2308	14898	0.012	0.049	#
14)		Endrin	7.842f	8.577	16047	11319	0.109	0.050	#
15)		4,4'-DDD	7.880	8.613	2603	25971	0.017	0.101	#
16)		Endosulfa...	7.969	8.716	11547	14318	0.080	0.062	
17)		4,4'-DDT	0.000	8.862	0	4365	N.D.	BelowCal	
18)		Endrin Al...	8.261	8.954	15949	23253	BelowCal	BelowCal	
19)		Endosulfa...	8.559	9.144	18183	27040	0.117	0.109	
20)		Methoxychlor	8.398	0.000	5988	0	0.102	N.D.	#
21)		Endrin Ke...	8.751	0.000	10207	0	0.061	N.D.	#
23)		Hexachlor...	3.067	3.547	8548	9169	0.047	0.024	#
24)		Hexachlor...	5.642	6.318	24761	17648	0.140	0.056	#
25)		Oxychlordane	7.121	7.777	18779	18757	0.114	0.068	
26)		2,4'-DDE	7.200	7.986	8857	13361	0.069	0.063	
27)		trans-Non...	7.375	8.051	15207	22670	87346.616	0.075	#
28)		2,4'-DDD	7.573	8.357	7642	14898	0.067	0.079	
29)		2,4'-DDT	7.751	8.577	4509	11319	0.041	0.063	#
30)		cis-Nonac...	7.842	8.613	16047	25971	0.077	0.077	
31)		Mirex	8.504	0.000	16733	0	0.133	N.D.	#
32)		Chlordane...	7.375f	8.051	15207	22670	0.772	0.627	
33)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
34)		Chlordane...	7.969	8.789f	11547	2980	1.997	0.332	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.357f	0	14898	N.D.	5.677	#
37)		Toxaphene...	7.751f	8.716	4509	14318	2.792	4.350	#
38)		Toxaphene...	0.000	8.789f	0	2980	N.D.	0.588	#
39)		Toxaphene...	8.261	8.862f	15949	4365	4.922	0.523	#
40)		Toxaphene...	8.504	0.000	16733	0	6.980	N.D.	#
41)		Toxaphene...	8.559	9.395	18183	60811	5.746	12.802	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

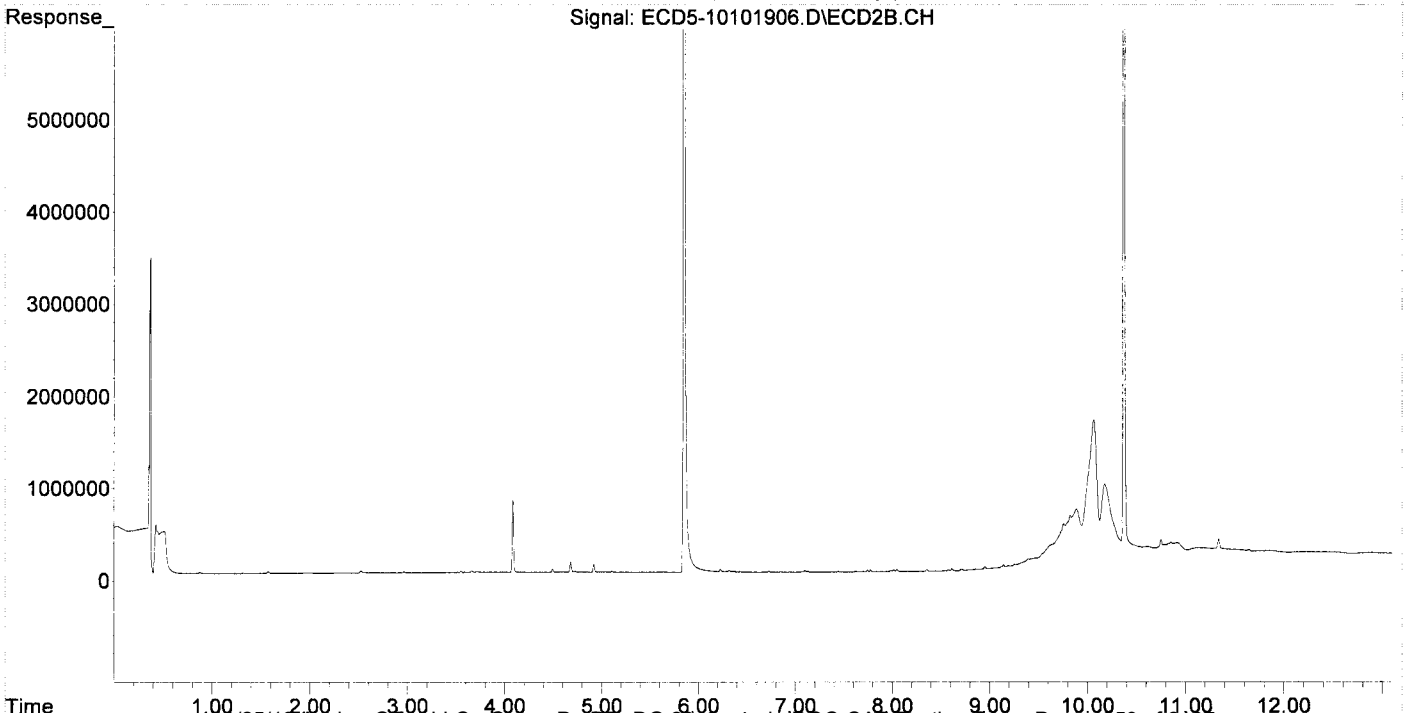
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101906.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 13:05
Operator : MJB
Sample : 9J10029-CCB1
Misc : A19I233
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:03:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 13:22
Operator : MJB
Sample : 9100817-BLK1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 15 18:49:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/15/19

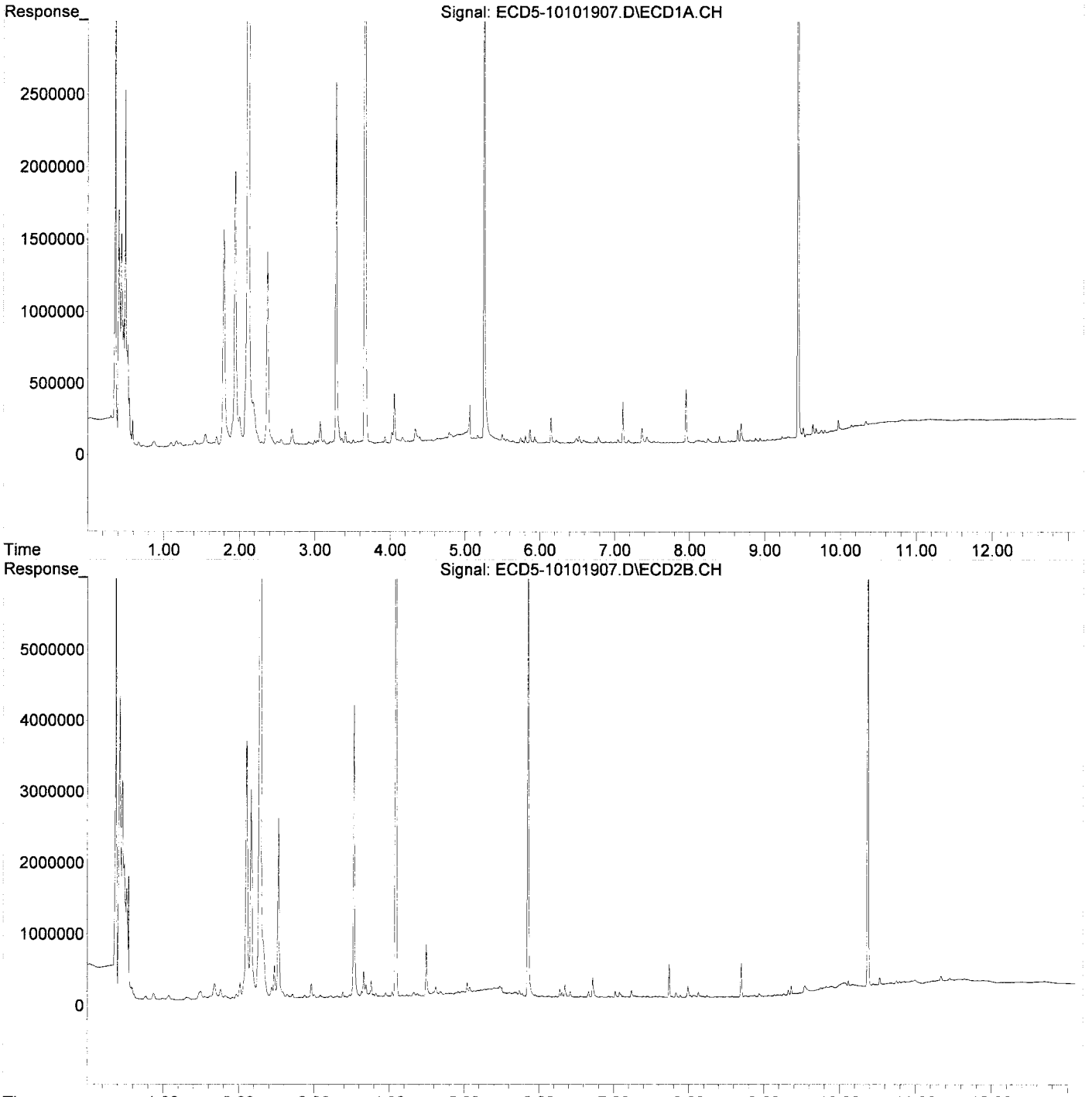
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.851	3859579	6718263	23.254	22.901	
22)	S	DCBP (S)	9.444	10.372	5940152	7793499	42.099	43.354	
		Target Compounds							
2)		a-BHC	5.807	0.000	58272	0	0.254	N.D.	#
3)		g-BHC	6.089	0.000	14072	0	0.070	N.D.	#
4)		b-BHC	6.150	6.845	178164	10323	1.971	0.065	#
5)		Heptachlor	6.490	7.122f	35921	12344	0.198	0.040	#
6)		d-BHC	6.292f	7.077f	8052	65880	0.041	0.187	#
7)		Aldrin	6.737	7.394	14348	12471	0.073	0.038	#
8)		Heptachlo...	7.188	7.830	21297	64487	0.116	0.214	#
9)		trans-Chl...	7.276	7.991	5447	159730	0.029	0.510	#
10)		cis-Chlor...	7.365	8.078	102973	26193	0.566	0.090	#
11)		Endosulfa...	0.000	8.129	0	71806	N.D.	0.261	#
12)		4,4'-DDE	7.431	8.185f	40785	13221	0.216	0.043m	#
13)		Dieldrin	7.651	8.353	3233	8916	0.017	0.029	#
14)		Endrin	0.000	8.576	0	9170	N.D.	0.041	#
15)		4,4'-DDD	7.861	0.000	4102	0	0.026	N.D.	#
16)		Endosulfa...	7.954	8.700	364246	471588	2.536	2.045	
17)		4,4'-DDT	8.086f	8.844	14076	13800	0.118	0.042	#
18)		Endrin Al...	8.246	8.938	25579	38718	BelowCal	BelowCal	
19)		Endosulfa...	8.555	9.142	10167	14833	0.066	0.060	
20)		Methoxychlor	8.399	9.323	42801	63202	0.731	0.598	
21)		Endrin Ke...	8.747	9.540	7977	108210	0.048	0.421	#
23)		Hexachlor...	3.070	3.528	167822	4109839	0.918	10.932	#
24)		Hexachlor...	5.639	6.308	22966	69418	0.130	0.221	#
25)		Oxychlordane	7.111	7.775	281959	14788	1.714	0.054	#
26)		2,4'-DDE	7.188	7.991	21297	159730	0.166	0.753	#
27)		trans-Non...	7.365	8.059	102973	30562	0.258	0.101	#
28)		2,4'-DDD	7.579	8.353	8192	8916	0.072	0.047	
29)		2,4'-DDT	7.747	8.576	6064	9170	0.055	0.051	
30)		cis-Nonac...	7.861f	8.576f	4102	9170	0.020	0.027	
31)		Mirex	8.518	9.540	9016	108210	0.072	0.582	#
32)		Chlordane...	7.365	8.059	102973	30562	5.230	0.845	#
33)		Chlordane...	7.431	8.161	40785	22856	1.627	0.753	#
34)		Chlordane...	7.954f	8.820	364246	13733	63.006	1.532	#
35)		Chlordane...	3.357	3.383f	52033	88246	NoCal	NoCal	
36)		Toxaphene...	7.431	8.409f	40785	9736	45.537	3.710	#
37)		Toxaphene...	7.701	8.751	4666	16130	2.889	4.901	#
38)		Toxaphene...	0.000	8.751	0	16130	N.D.	3.182	#
39)		Toxaphene...	8.246	8.844	25579	13800	7.894	1.653	#
40)		Toxaphene...	8.518f	0.000	9016	0	3.761	N.D.	#
41)		Toxaphene...	8.555	9.390	10167	13594	3.213	2.862	
42)		Toxaphene...	3.357	3.383f	52033	88246	NoCal	NoCal	

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 13:22
Operator : MJB
Sample : 9100817-BLK1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

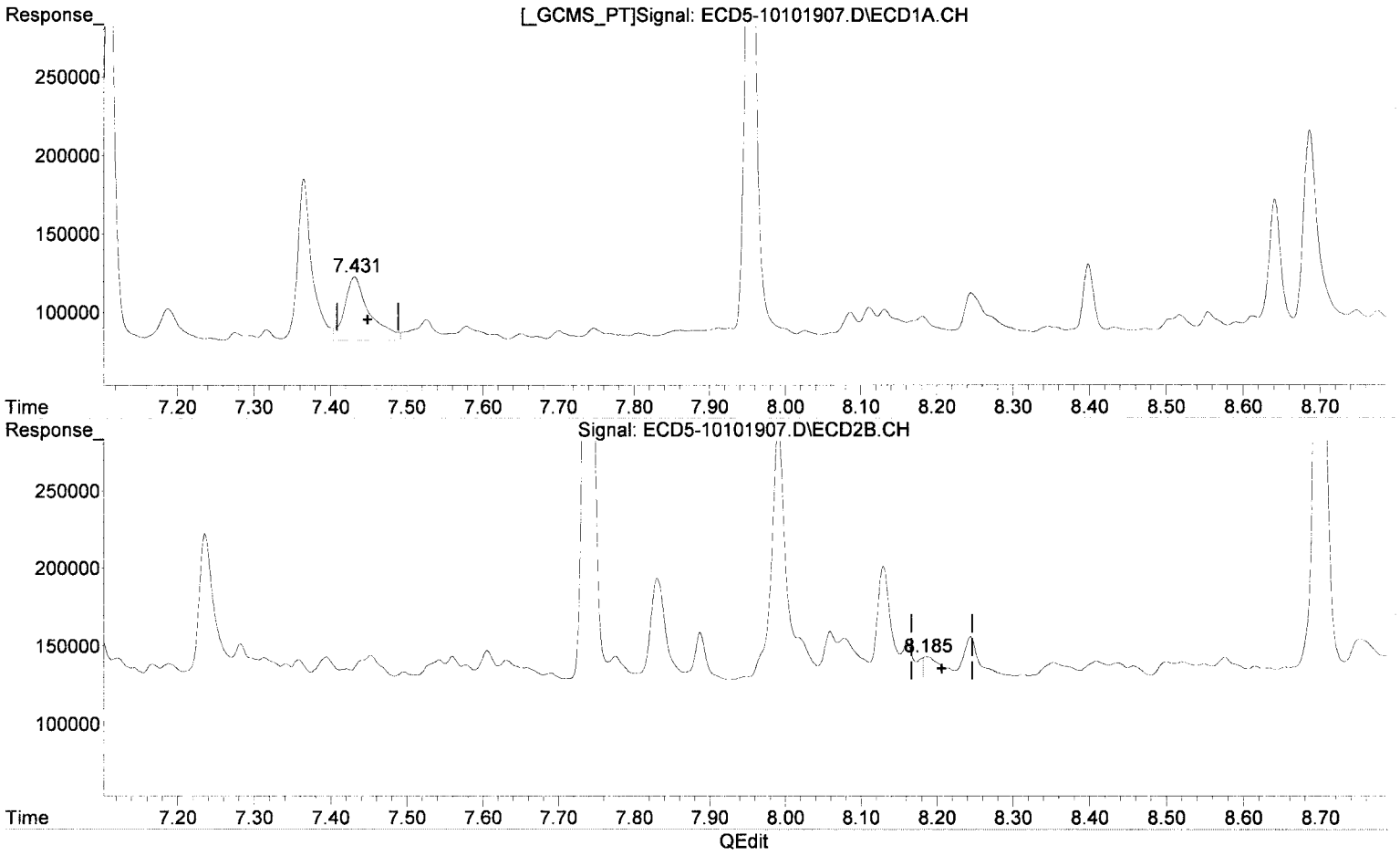
Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 15 18:49:13 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 13:22
Operator : MJB
Sample : 9100817-BLK1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:03:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.431min 0.216 ng/mL

response 40785

MJB 10/15/19

(12) 4,4'-DDE #2

8.185min 0.043 ng/mL (m)

response 13221

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 13:22
Operator : MJB
Sample : 9100817-BLK1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:03:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MI
MJB 10/15/19

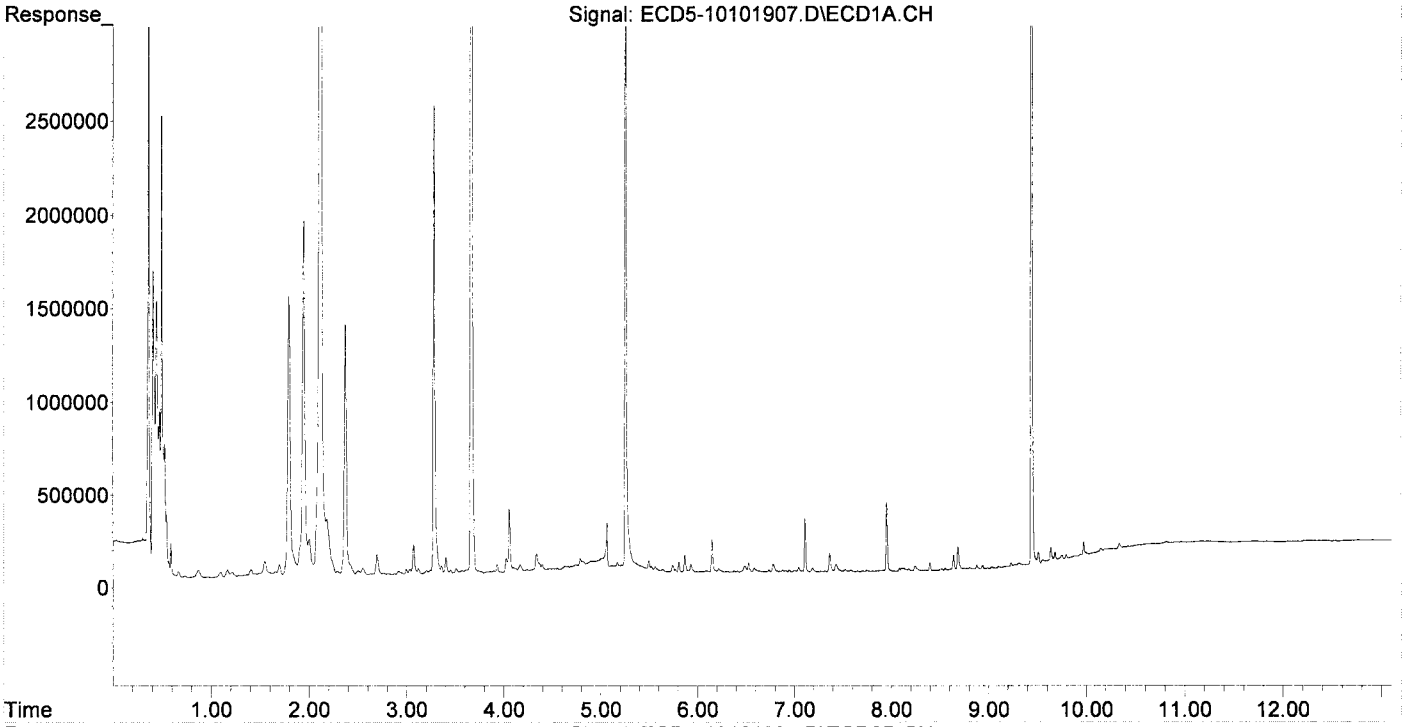
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.851	3859579	6718263	23.254	22.901	
22)	S	DCBP (S)	9.444	10.372	5940152	7793499	42.099	43.354	
		Target Compounds							
2)		a-BHC	5.807	0.000	58272	0	0.254	N.D.	#
3)		g-BHC	6.089	0.000	14072	0	0.070	N.D.	#
4)		b-BHC	6.150	6.845	178164	10323	1.971	0.065	#
5)		Heptachlor	6.490	7.122f	35921	12344	0.198	0.040	#
6)		d-BHC	6.292f	7.077f	8052	65880	0.041	0.187	#
7)		Aldrin	6.737	7.394	14348	12471	0.073	0.038	#
8)		Heptachlo...	7.188	7.830	21297	64487	0.116	0.214	#
9)		trans-Chl...	7.276	7.991	5447	159730	0.029	0.510	#
10)		cis-Chlor...	7.365	8.078	102973	26193	0.566	0.090	#
11)		Endosulfa...	0.000	8.129	0	71806	N.D.	0.261	#
12)		4,4'-DDE	7.431	8.244f	40785	26270	0.216	0.085	#
13)		Dieldrin	7.651	8.353	3233	8916	0.017	0.029	#
14)		Endrin	0.000	8.576	0	9170	N.D.	0.041	#
15)		4,4'-DDD	7.861	0.000	4102	0	0.026	N.D.	#
16)		Endosulfa...	7.954	8.700	364246	471588	2.536	2.045	
17)		4,4'-DDT	8.086f	8.844	14076	13800	0.118	0.042	#
18)		Endrin Al...	8.246	8.938	25579	38718	BelowCal	BelowCal	
19)		Endosulfa...	8.555	9.142	10167	14833	0.066	0.060	
20)		Methoxychlor	8.399	9.323	42801	63202	0.731	0.598	
21)		Endrin Ke...	8.747	9.540	7977	108210	0.048	0.421	#
23)		Hexachlor...	3.070	3.528	167822	4109839	0.918	10.932	#
24)		Hexachlor...	5.639	6.308	22966	69418	0.130	0.221	#
25)		Oxychlordane	7.111	7.775	281959	14788	1.714	0.054	#
26)		2,4'-DDE	7.188	7.991	21297	159730	0.166	0.753	#
27)		trans-Non...	7.365	8.059	102973	30562	0.258	0.101	#
28)		2,4'-DDD	7.579	8.353	8192	8916	0.072	0.047	
29)		2,4'-DDT	7.747	8.576	6064	9170	0.055	0.051	
30)		cis-Nonac...	7.861f	8.576f	4102	9170	0.020	0.027	
31)		Mirex	8.518	9.540	9016	108210	0.072	0.582	#
32)		Chlordane...	7.365	8.059	102973	30562	5.230	0.845	#
33)		Chlordane...	7.431	8.161	40785	22856	1.627	0.753	#
34)		Chlordane...	7.954f	8.820	364246	13733	63.006	1.532	#
35)		Chlordane...	3.357	3.383f	52033	88246	NoCal	NoCal	
36)		Toxaphene...	7.431	8.409f	40785	9736	45.537	3.710	#
37)		Toxaphene...	7.701	8.751	4666	16130	2.889	4.901	#
38)		Toxaphene...	0.000	8.751	0	16130	N.D.	3.182	#
39)		Toxaphene...	8.246	8.844	25579	13800	7.894	1.653	#
40)		Toxaphene...	8.518f	0.000	9016	0	3.761	N.D.	#
41)		Toxaphene...	8.555	9.390	10167	13594	3.213	2.862	
42)		Toxaphene...	3.357	3.383f	52033	88246	NoCal	NoCal	

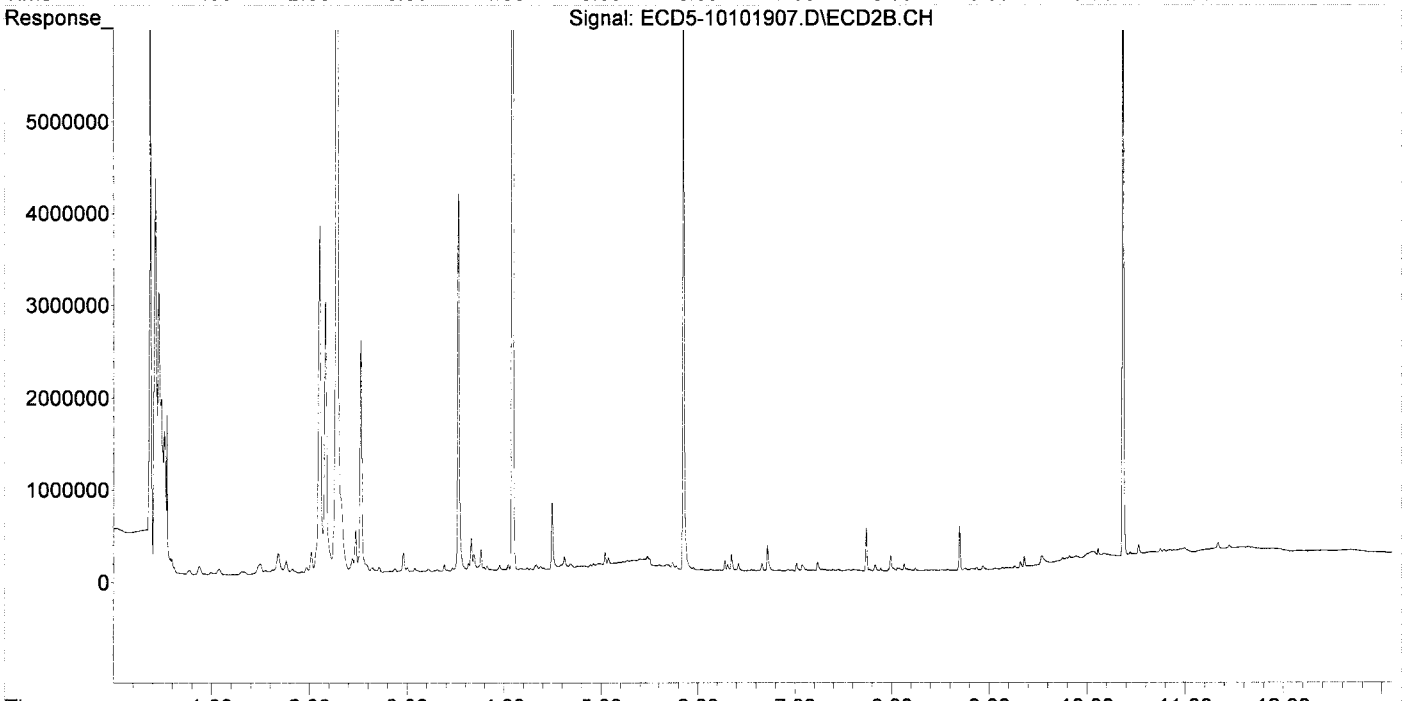
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 13:22
Operator : MJB
Sample : 9100817-BLK1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 8 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:03:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 13:39
Operator : MJB
Sample : 9100817-BS1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:03:51 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/15/19

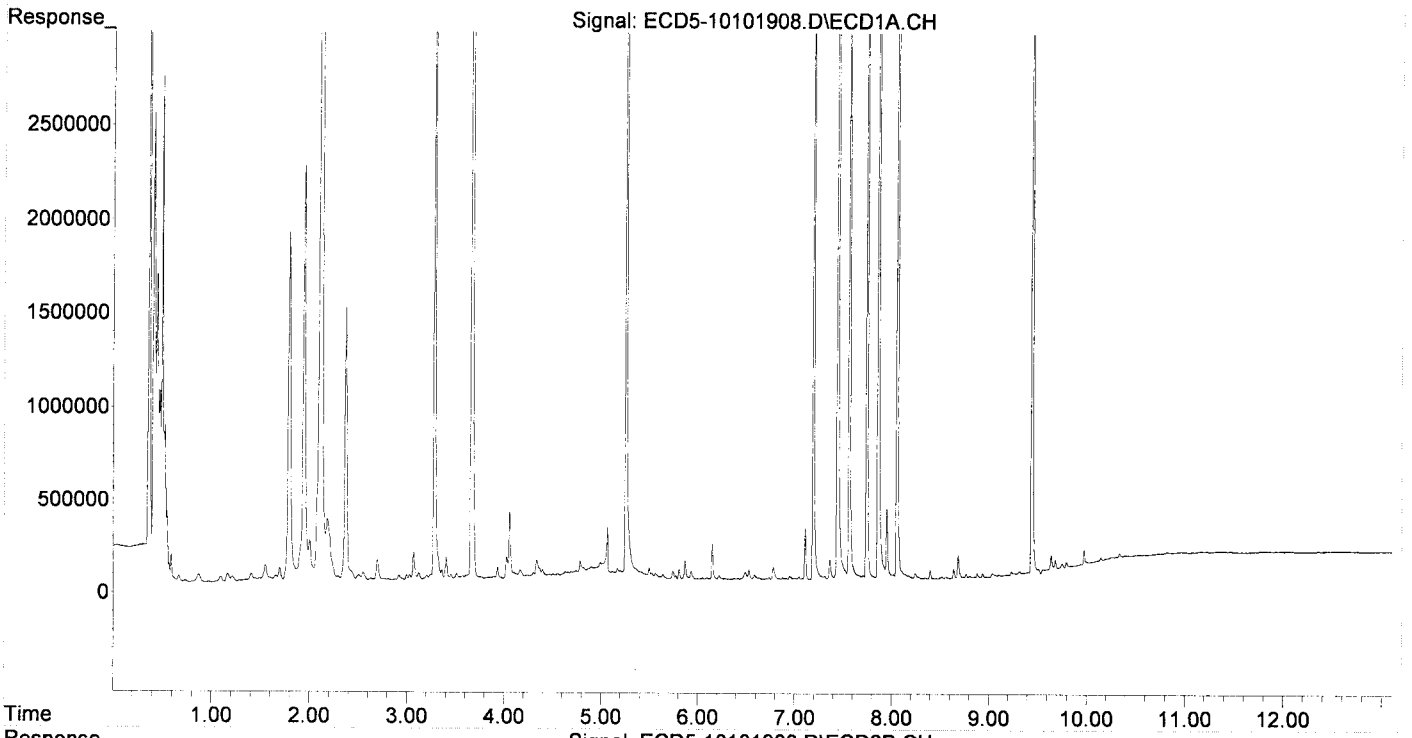
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.850	4500866	7580937	27.118	25.841	
22)	S	DCBP (S)	9.444	10.373	6603521	8223283	46.801	45.745	
		Target Compounds							
2)		a-BHC	5.806	0.000	57236	0	0.250	N.D.	#
3)		g-BHC	6.090	0.000	12035	0	0.060	N.D.	#
4)		b-BHC	6.150	6.844	189087	17474	2.092	0.110	#
5)		Heptachlor	6.491	7.167	37102	15533	0.205	0.051	#
6)		d-BHC	0.000	7.077f	0	73347	N.D.	0.208	#
7)		Aldrin	6.736	7.394	12734	15821	0.064	0.048	
8)		Heptachlo...	7.193	7.830	4239869	65445	23.020	0.218	#
9)		trans-Chl...	7.310f	7.982	14508	7145872	0.078	22.807	#
10)		cis-Chlor...	7.365	8.078	103560	28022	0.569	0.096	#
11)		Endosulfa...	7.444f	8.160	6810339	22047	40.018	0.080	#
12)		4,4'-DDE	7.444	8.203	6810339	11626457	36.123	37.423	
13)		Dieldrin	0.000	8.354	0	7224228	N.D.	23.752	#
14)		Endrin	0.000	8.576	0	8036995	N.D.	35.589	#
15)		4,4'-DDD	7.863	8.618	6208162	10753129	39.507	41.969	
16)		Endosulfa...	7.953	8.700	373430	477043	2.600	2.069	
17)		4,4'-DDT	8.058	8.842	6384995	10364552	53.404	54.674	
18)		Endrin Al...	8.245	8.937	26961	39137	BelowCal	BelowCal	
19)		Endosulfa...	8.556	9.142	7236	11477	0.047	0.046	
20)		Methoxychlor	8.399	9.323	43300	62229	0.739	0.586	
21)		Endrin Ke...	8.768	9.543	20041	86779	0.120	0.337	#
23)		Hexachlor...	3.069	3.528	154729	5771698	0.847	15.353	#
24)		Hexachlor...	5.640	6.308	29382	76104	0.167	0.242	#
25)		Oxychlordane	7.110	7.777	265939	26281	1.616	0.096	#
26)		2,4'-DDE	7.193	7.982	4239869	7145872	33.057	33.685	
27)		trans-Non...	7.365	8.058	103560	37779	0.262	0.125	#
28)		2,4'-DDD	7.564	8.354	4312227	7224228	37.785	38.251	
29)		2,4'-DDT	7.745	8.576	5012329	8036995	45.696	45.066	
30)		cis-Nonac...	7.863f	8.618	6208162	10753129	29.902	32.056	
31)		Mirex	8.519	9.543	7665	86779	0.061	0.466	#
32)		Chlordane...	7.365	8.058	103560	37779	5.260	1.044	#
33)		Chlordane...	7.444	8.160	6810339	22047	271.715	0.726	#
34)		Chlordane...	7.953f	8.842f	373430	10364552	64.595	1156.000	#
35)		Chlordane...	3.357	3.383f	60235	84087	NoCal	NoCal	
36)		Toxaphene...	7.444f	8.354f	6810339	7224228	7603.817	2752.865	#
37)		Toxaphene...	7.709	8.752f	18709	19190	11.585	5.831	#
38)		Toxaphene...	8.058f	8.752	6384995	19190	1896.070	3.786	#
39)		Toxaphene...	8.245	8.842	26961	10364552	8.321	1241.288	#
40)		Toxaphene...	8.519f	9.047f	7665	5108	3.198	1.096	#
41)		Toxaphene...	8.556	9.392	7236	12214	2.287	2.571	
42)		Toxaphene...	3.357	3.383f	60235	84087	NoCal	NoCal	

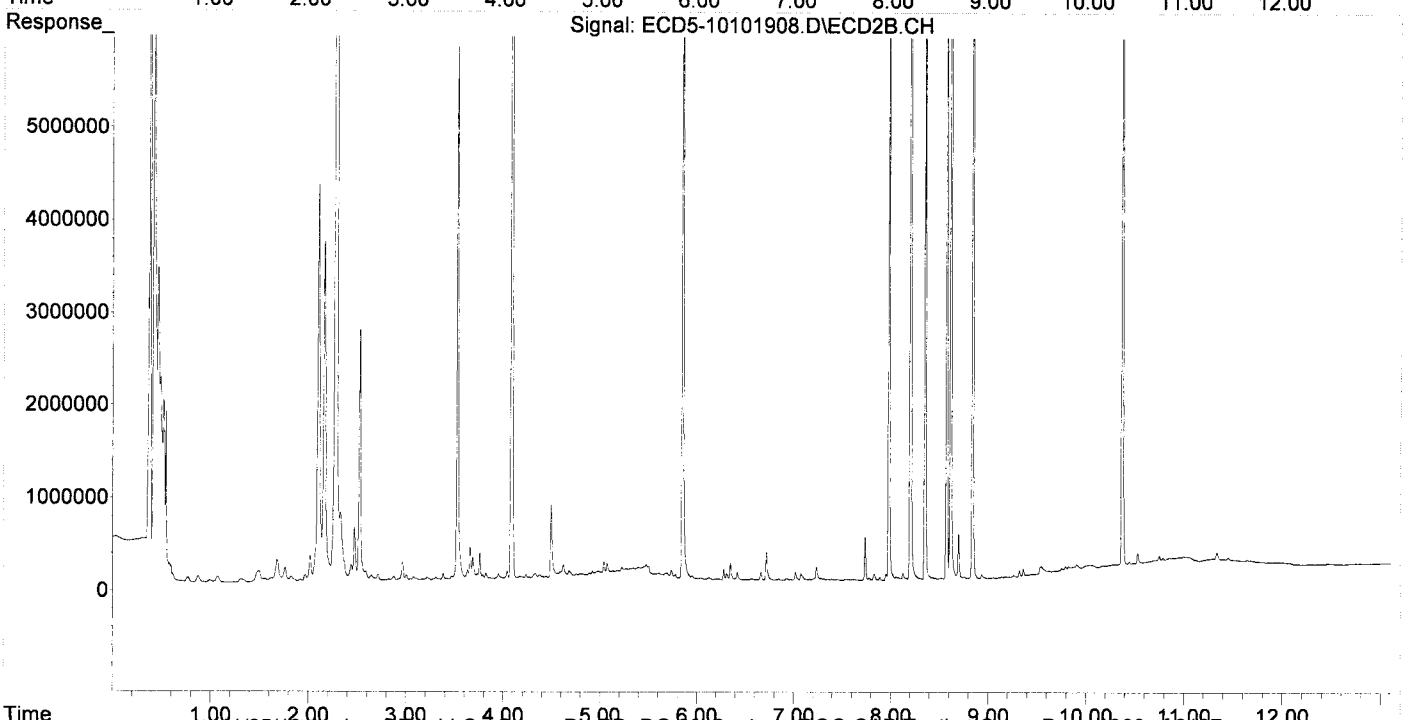
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 13:39
Operator : MJB
Sample : 9100817-BS1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 9 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:03:51 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:22
Operator : MJB
Sample : A9J0058-01RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 15 18:57:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/15/19

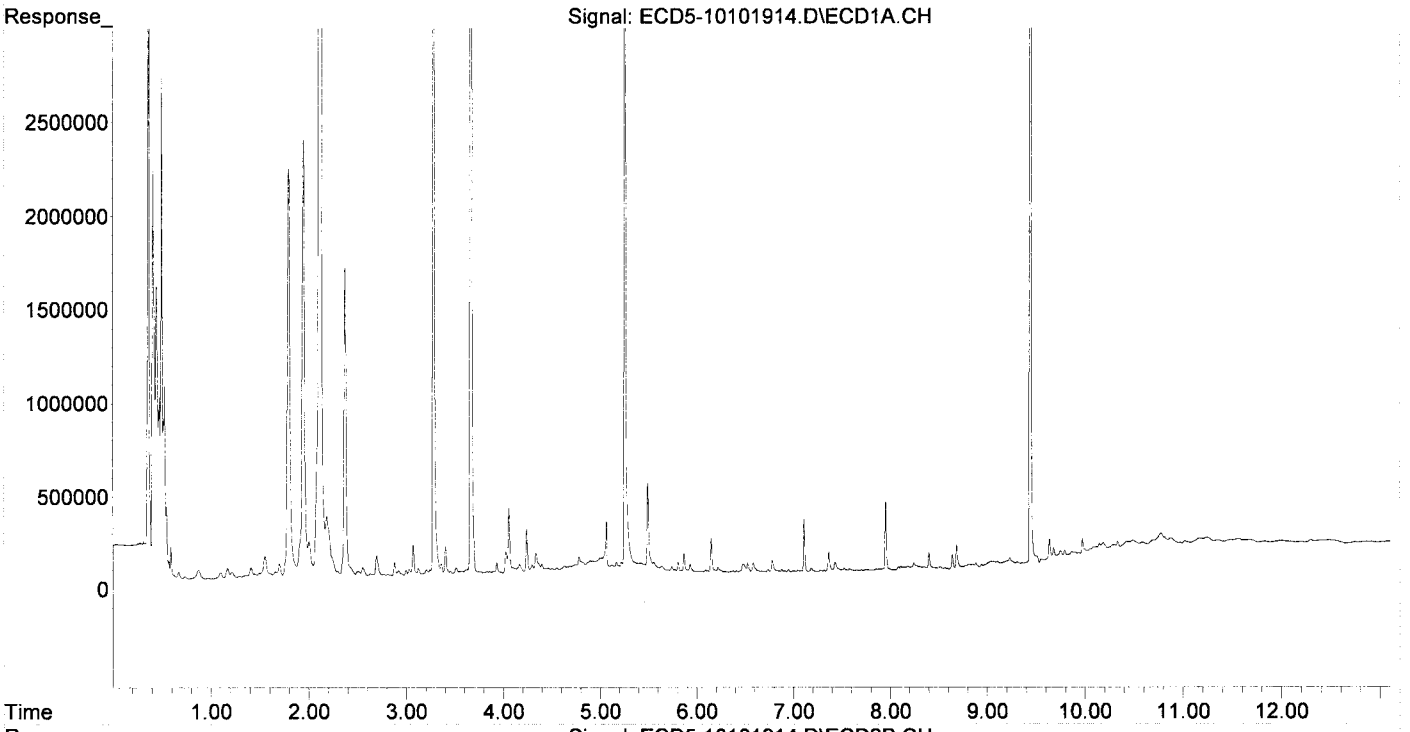
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.851	5218403	8880739	31.441	30.272	
22)	S	DCBP (S)	9.443	10.372	7133445	9702160	50.556	53.972	
		Target Compounds							
2)		a-BHC	5.805	0.000	59483	0	0.259	N.D.	#
3)		g-BHC	6.089	0.000	13659	0	0.068	N.D.	#
4)		b-BHC	6.149	0.000	184151	0	2.037	N.D.	#
5)		Heptachlor	6.478	7.167	43389	14754	0.239	0.048	#
6)		d-BHC	0.000	7.075f	0	79360	N.D.	0.225	#
7)		Aldrin	6.735	7.393	13503	12849	0.068	0.039	#
8)		Heptachlo...	7.183	7.827f	17585	45328	0.095	0.151	#
9)		trans-Chl...	7.277	7.990	4583	158112	0.025	0.505	#
10)		cis-Chlor...	7.364	8.073f	105241	28934	0.578	0.099	#
11)		Endosulfa...	0.000	8.160	0	28119	N.D.	0.102	#
12)		4,4'-DDE	7.430	8.179f	49082	20244	0.260	0.065	#
13)		Dieldrin	7.650	8.342	4514	18354	0.024	0.060	#
14)		Endrin	0.000	8.576	0	25315	N.D.	0.112	#
15)		4,4'-DDD	7.854	8.633	7715	26830	0.049	0.105m	#
16)		Endosulfa...	7.953	8.700	368103	511720	2.563	2.219	
17)		4,4'-DDT	8.084f	8.829	18561	8959	0.155	0.014m	#
18)		Endrin Al...	8.243	8.938	35270	62726	BelowCal	BelowCal	
19)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
20)		Methoxychlor	8.399	9.322	89115	138184	1.521	1.526	
21)		Endrin Ke...	0.000	9.539	0	109249	N.D.	0.425	#
23)		Hexachlor...	3.070	3.529	167517	7407453	0.917	19.704	#
24)		Hexachlor...	5.640	6.308	37479	100067	0.213	0.319	#
25)		Oxychlordane	7.110	7.774	277328	14345	1.686	0.052	#
26)		2,4'-DDE	7.183	7.990	17585	158112	0.137	0.745	#
27)		trans-Non...	7.364	8.059	105241	31825	0.271	0.106	#
28)		2,4'-DDD	7.578	8.343	11646	18373	0.102	0.097m	
29)		2,4'-DDT	7.747	8.576	5860	25315	0.053	0.142	#
30)		cis-Nonac...	7.854	8.594	7715	25717	0.037	0.077	#
31)		Mirex	8.514	9.539	12722	109249	0.101	0.587	#
32)		Chlordane...	7.364	8.059	105241	31825	5.345	0.880	#
33)		Chlordane...	7.430	8.160	49082	28119	1.958	0.926	#
34)		Chlordane...	7.953f	0.000	368103	0	63.673	N.D.	#
35)		Chlordane...	3.357	3.383f	66468	96542	NoCal	NoCal	
36)		Toxaphene...	7.430	8.364f	49082	15279	54.800	5.822	#
37)		Toxaphene...	7.699	8.748	5282	34736	3.271	10.555	#
38)		Toxaphene...	0.000	8.748	0	34736	N.D.	6.854	#
39)		Toxaphene...	8.243f	8.874f	35270	13328	10.885	1.596	#
40)		Toxaphene...	8.514f	8.994	12722	58896	5.307	12.638	#
41)		Toxaphene...	0.000	9.393	0	40535	N.D.	8.533	#
42)		Toxaphene...	3.357	3.383f	66468	96542	NoCal	NoCal	

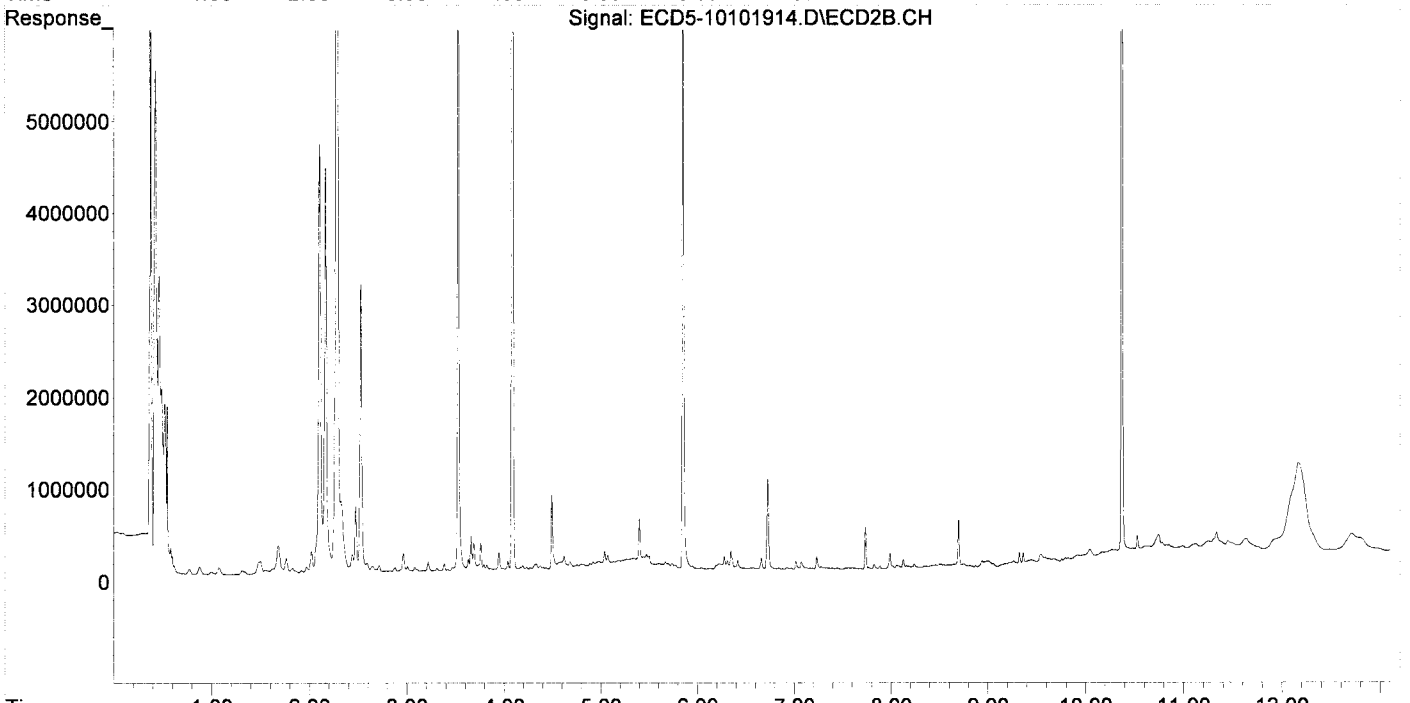
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:22
Operator : MJB
Sample : A9J0058-01RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 15 18:57:14 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

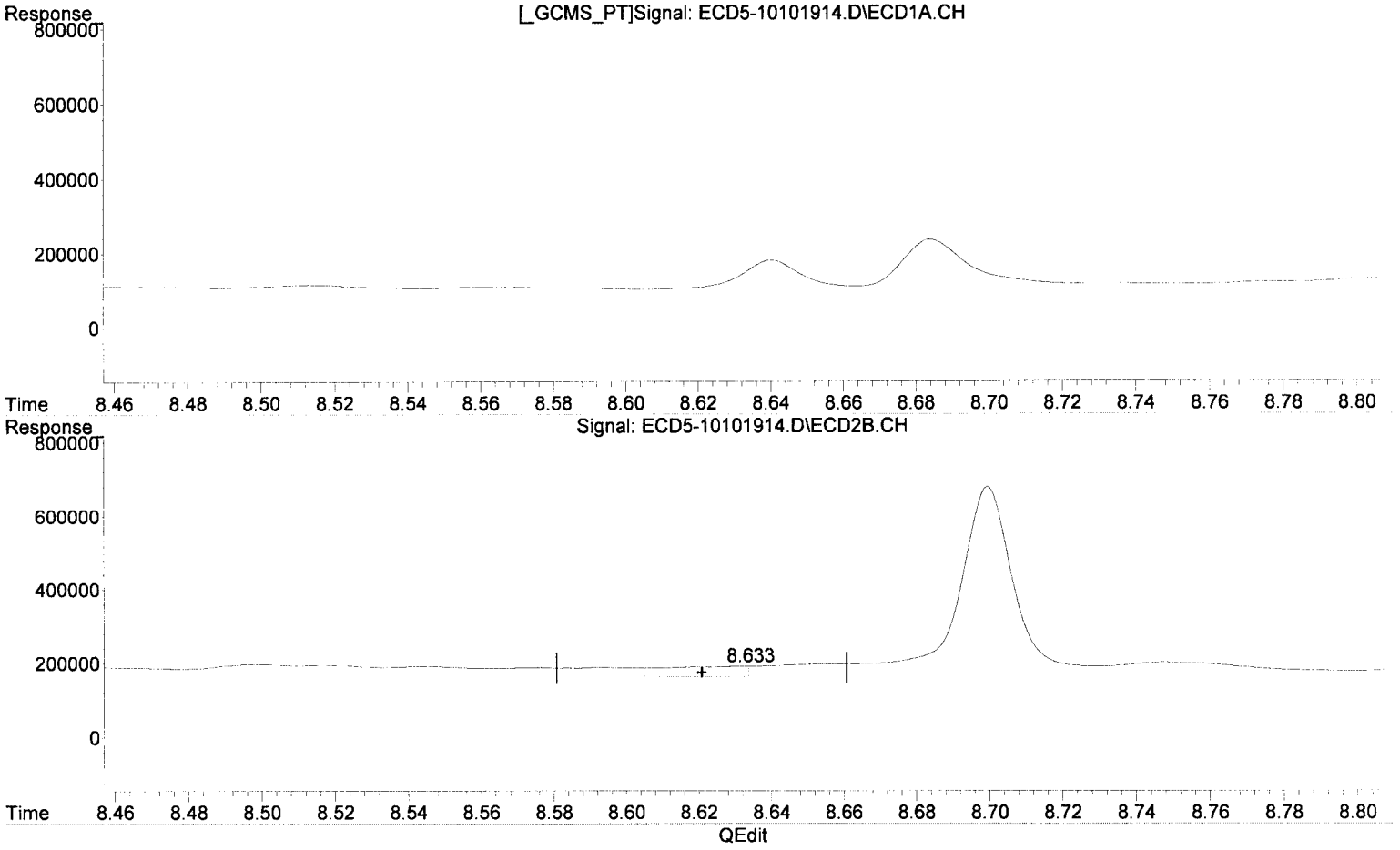




Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:22
Operator : MJB
Sample : A9J0058-01RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(15) 4,4'-DDD

7.854min 0.049 ng/mL

response 7715

MJB 10/15/19

(15) 4,4'-DDD #2

8.633min 0.105 ng/mL (m)

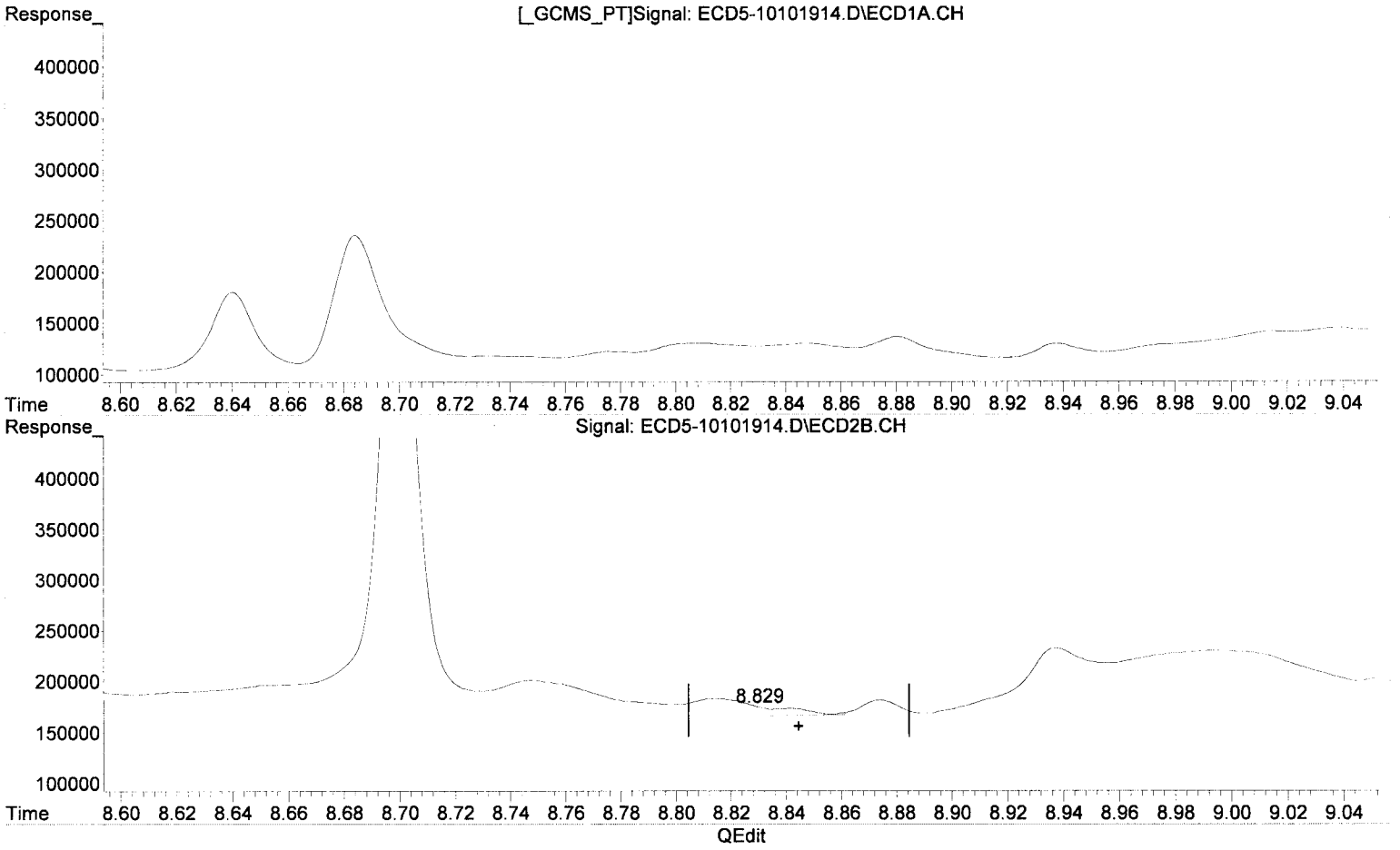
response 26830

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:22
Operator : MJB
Sample : A9J0058-01RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(17) 4,4'-DDT

8.084min 0.155 ng/mL

response 18561

MJB 10/15/19

(17) 4,4'-DDT #2

8.829min 0.014 ng/mL (m)

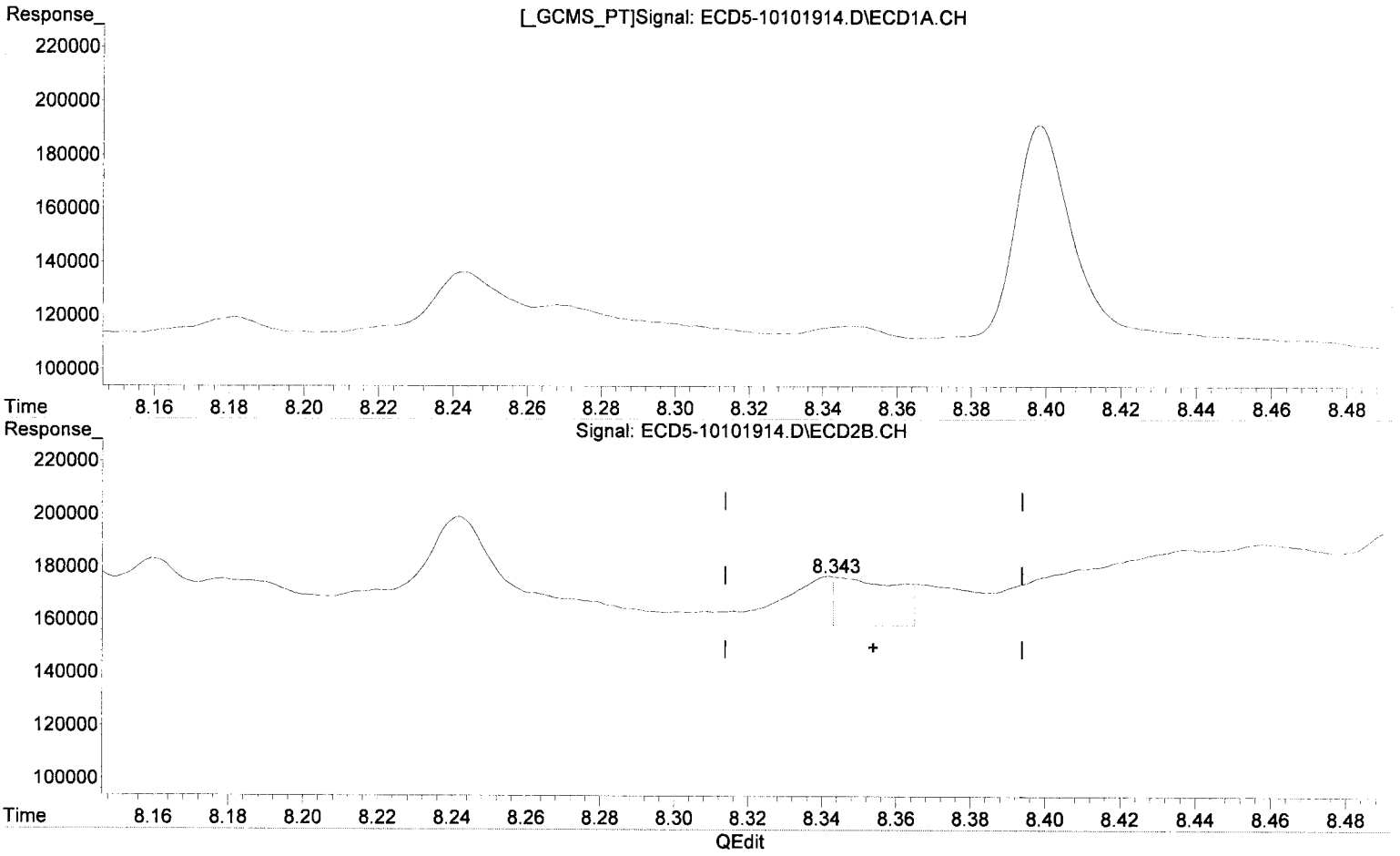
response 8959

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:22
Operator : MJB
Sample : A9J0058-01RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(28) 2,4'-DDD

7.578min 0.102 ng/mL

response 11646

MJB 10/15/19

(28) 2,4'-DDD #2

8.343min 0.097 ng/mL m

response 18373

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:22
Operator : MJB
Sample : A9J0058-01RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.851	5218403	8880739	31.441	30.272	
22)	S	DCBP (S)	9.443	10.372	7133445	9702160	50.556	53.972	
		Target Compounds							
2)		a-BHC	5.805	0.000	59483	0	0.259	N.D.	#
3)		g-BHC	6.089	0.000	13659	0	0.068	N.D.	#
4)		b-BHC	6.149	0.000	184151	0	2.037	N.D.	#
5)		Heptachlor	6.478	7.167	43389	14754	0.239	0.048	#
6)		d-BHC	0.000	7.075f	0	79360	N.D.	0.225	#
7)		Aldrin	6.735	7.393	13503	12849	0.068	0.039	#
8)		Heptachlo...	7.183	7.827f	17585	45328	0.095	0.151	#
9)		trans-Chl...	7.277	7.990	4583	158112	0.025	0.505	#
10)		cis-Chlor...	7.364	8.073f	105241	28934	0.578	0.099	#
11)		Endosulfa...	0.000	8.160	0	28119	N.D.	0.102	#
12)		4,4'-DDE	7.430	8.179f	49082	20244	0.260	0.065	#
13)		Dieldrin	7.650	8.342	4514	18354	0.024	0.060	#
14)		Endrin	0.000	8.576	0	25315	N.D.	0.112	#
15)		4,4'-DDD	7.854	8.594f	7715	25717	0.049	0.100	#
16)		Endosulfa...	7.953	8.700	368103	511720	2.563	2.219	
17)		4,4'-DDT	8.084f	8.874f	18561	13328	0.155	0.039	#
18)		Endrin Al...	8.243	8.938	35270	62726	BelowCal	BelowCal	
19)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
20)		Methoxychlor	8.399	9.322	89115	138184	1.521	1.526	
21)		Endrin Ke...	0.000	9.539	0	109249	N.D.	0.425	#
23)		Hexachlor...	3.070	3.529	167517	7407453	0.917	19.704	#
24)		Hexachlor...	5.640	6.308	37479	100067	0.213	0.319	#
25)		Oxychlordane	7.110	7.774	277328	14345	1.686	0.052	#
26)		2,4'-DDE	7.183	7.990	17585	158112	0.137	0.745	#
27)		trans-Non...	7.364	8.059	105241	31825	0.271	0.106	#
28)		2,4'-DDD	7.578	8.364	11646	15279	0.102	0.081	
29)		2,4'-DDT	7.747	8.576	5860	25315	0.053	0.142	#
30)		cis-Nonac...	7.854	8.594	7715	25717	0.037	0.077	#
31)		Mirex	8.514	9.539	12722	109249	0.101	0.587	#
32)		Chlordane...	7.364	8.059	105241	31825	5.345	0.880	#
33)		Chlordane...	7.430	8.160	49082	28119	1.958	0.926	#
34)		Chlordane...	7.953f	0.000	368103	0	63.673	N.D.	#
35)		Chlordane...	3.357	3.383f	66468	96542	NoCal	NoCal	
36)		Toxaphene...	7.430	8.364f	49082	15279	54.800	5.822	#
37)		Toxaphene...	7.699	8.748	5282	34736	3.271	10.555	#
38)		Toxaphene...	0.000	8.748	0	34736	N.D.	6.854	#
39)		Toxaphene...	8.243f	8.874f	35270	13328	10.885	1.596	#
40)		Toxaphene...	8.514f	8.994	12722	58896	5.307	12.638	#
41)		Toxaphene...	0.000	9.393	0	40535	N.D.	8.533	#
42)		Toxaphene...	3.357	3.383f	66468	96542	NoCal	NoCal	

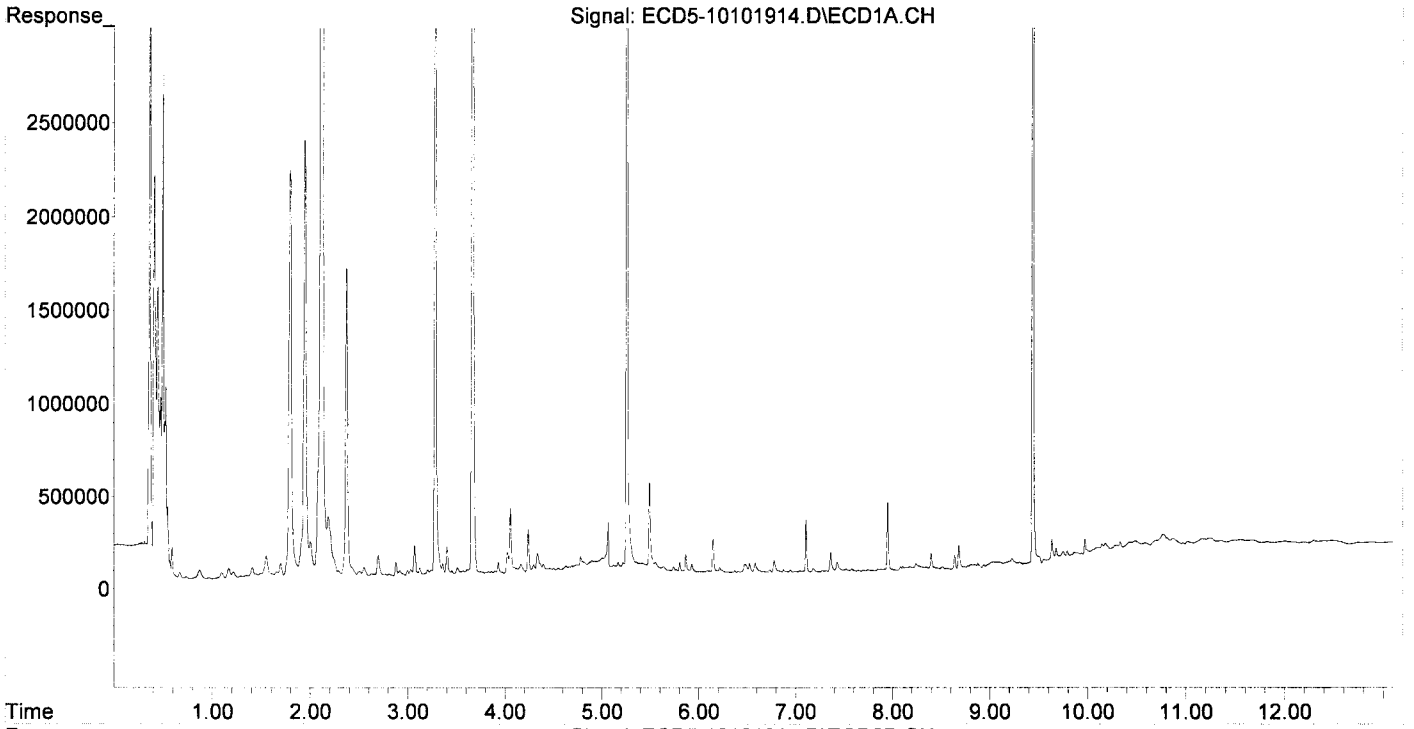
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

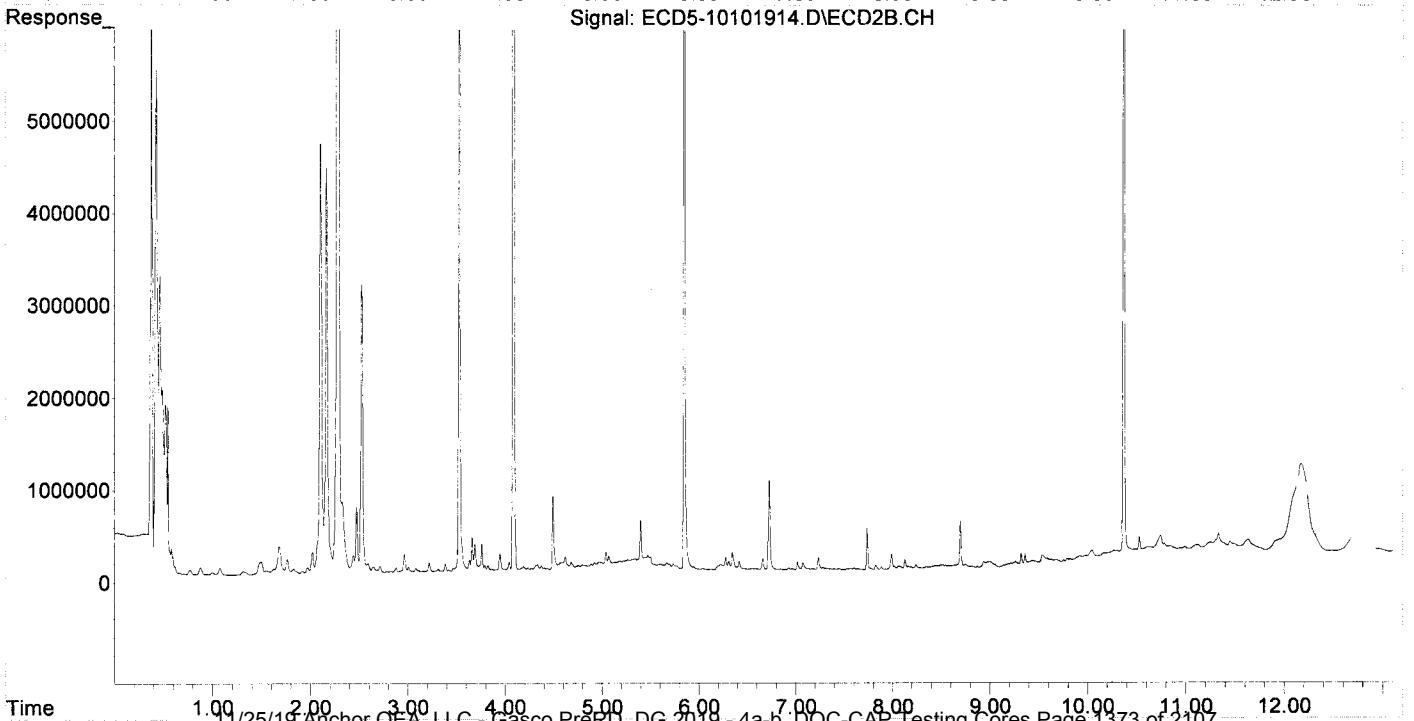
MJB 10/15/19

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101914.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:22
Operator : MJB
Sample : A9J0058-01RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:04 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:40
Operator : MJB
Sample : A9J0058-02RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 16 10:30:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/16/19

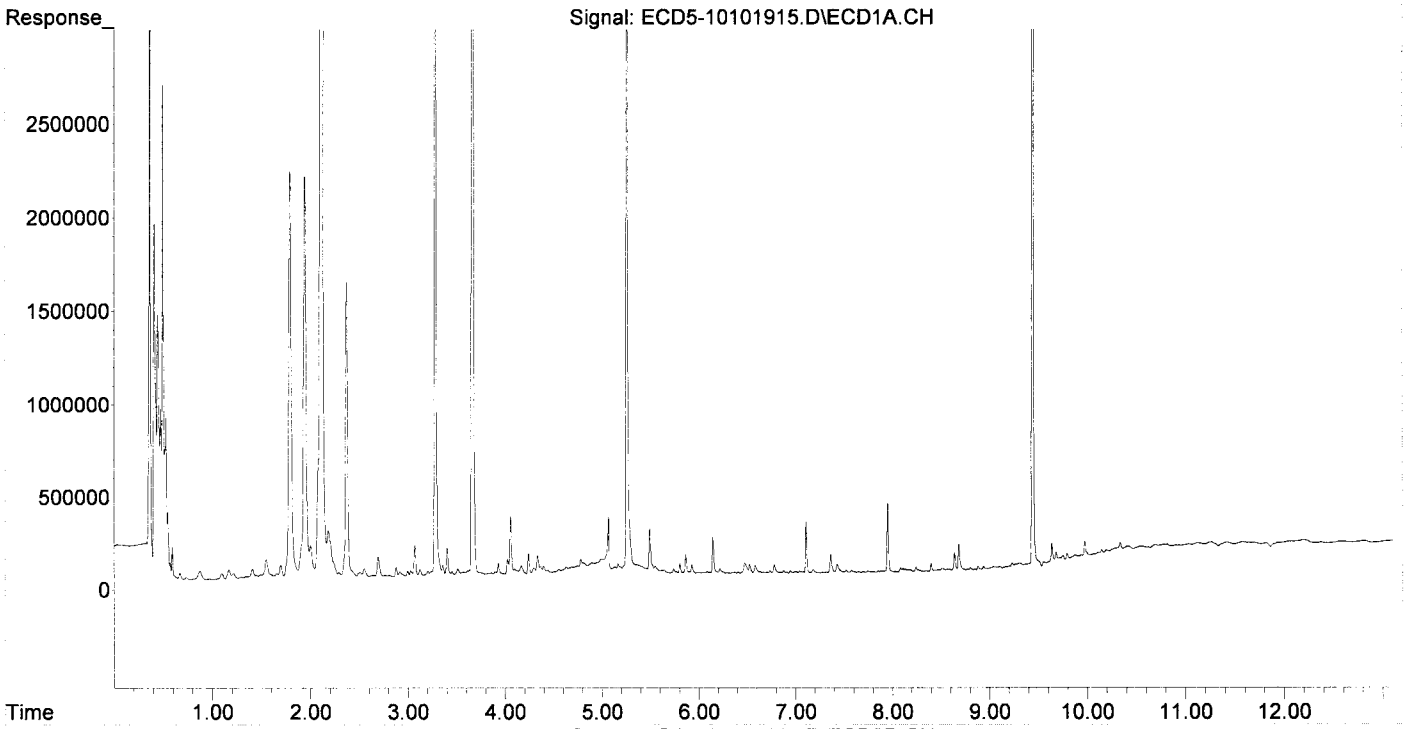
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.851	4319477	7528444	26.025	25.662	
22)	S	DCBP (S)	9.444	10.372	6607829	8637564	46.831	48.050	
		Target Compounds							
2)		a-BHC	5.804	0.000	59635	0	0.260	N.D.	#
3)		g-BHC	6.088	0.000	14597	0	0.072	N.D.	#
4)		b-BHC	6.147f	0.000	192788	0	2.133	N.D.	#
5)		Heptachlor	6.475	7.167	57976	13641	0.320	0.045	#
6)		d-BHC	0.000	7.076f	0	81575	N.D.	0.231	#
7)		Aldrin	6.735	7.393	14752	15216	0.075	0.046	
8)		Heptachlo...	7.183	7.827f	18611	43930	0.101	0.146	#
9)		trans-Chl...	7.278	7.991	3552	155022	0.019	0.495	#
10)		cis-Chlor...	7.364	8.073f	100072	27726	0.550	0.095	#
11)		Endosulfa...	0.000	8.160	0	22698	N.D.	0.082	#
12)		4,4'-DDE	7.431	8.192	43678	12088	0.232	0.039m	#
13)		Dieldrin	7.650	8.368f	4482	12304	0.023	0.040	#
14)		Endrin	0.000	8.547f	0	6110	N.D.	0.027	#
15)		4,4'-DDD	7.854	0.000	4949	0	0.031m	N.D.	#
16)		Endosulfa...	7.952	8.700	368186	470234	2.564	2.039	
17)		4,4'-DDT	8.085f	8.845	20221	28523	0.169	0.128	
18)		Endrin Al...	8.243	8.937	21846	61163	BelowCal	BelowCal	
19)		Endosulfa...	8.568	0.000	9431	0	0.061	N.D.	#
20)		Methoxychlor	8.399	9.323	40502	126271	0.691	1.379	#
21)		Endrin Ke...	8.775f	9.538	5830	309641	0.035	1.203	#
23)		Hexachlor...	3.070	3.528	170418	7101354	0.933	18.890	#
24)		Hexachlor...	5.642	6.309	26436	71286	0.150	0.227	#
25)		Oxychlordane	7.110	7.774	272696	15629	1.657	0.057	#
26)		2,4'-DDE	7.183	7.991	18611	155022	0.145	0.731	#
27)		trans-Non...	7.364	8.060	100072	30328	0.242	0.101	#
28)		2,4'-DDD	7.578	8.368	10298	12304	0.090	0.065	
29)		2,4'-DDT	7.747	8.576	6200	5453	0.057	0.031m	#
30)		cis-Nonac...	7.853	0.000	4946	0	0.024	N.D.	#
31)		Mirex	8.515	9.538	13713	309641	0.109	1.664	#
32)		Chlordane...	7.364	8.060	100072	30328	5.082	0.838	#
33)		Chlordane...	7.431	8.160	43678	22698	1.743	0.748	#
34)		Chlordane...	7.952f	8.820	368186	24633	63.688	2.747	#
35)		Chlordane...	3.358	3.383f	65185	83391	NoCal	NoCal	
36)		Toxaphene...	7.431	8.368	43678	12304	48.766	4.689	#
37)		Toxaphene...	7.699	8.758f	5582	17876	3.456	5.432	#
38)		Toxaphene...	0.000	8.758	0	17876	N.D.	3.527	#
39)		Toxaphene...	8.243f	8.845	21846	28523	6.742	3.416	#
40)		Toxaphene...	8.475	0.000	6826	0	2.847	N.D.	#
41)		Toxaphene...	8.568	9.362f	9431	215298	2.980	45.324	#
42)		Toxaphene...	3.358	3.383f	65185	83391	NoCal	NoCal	

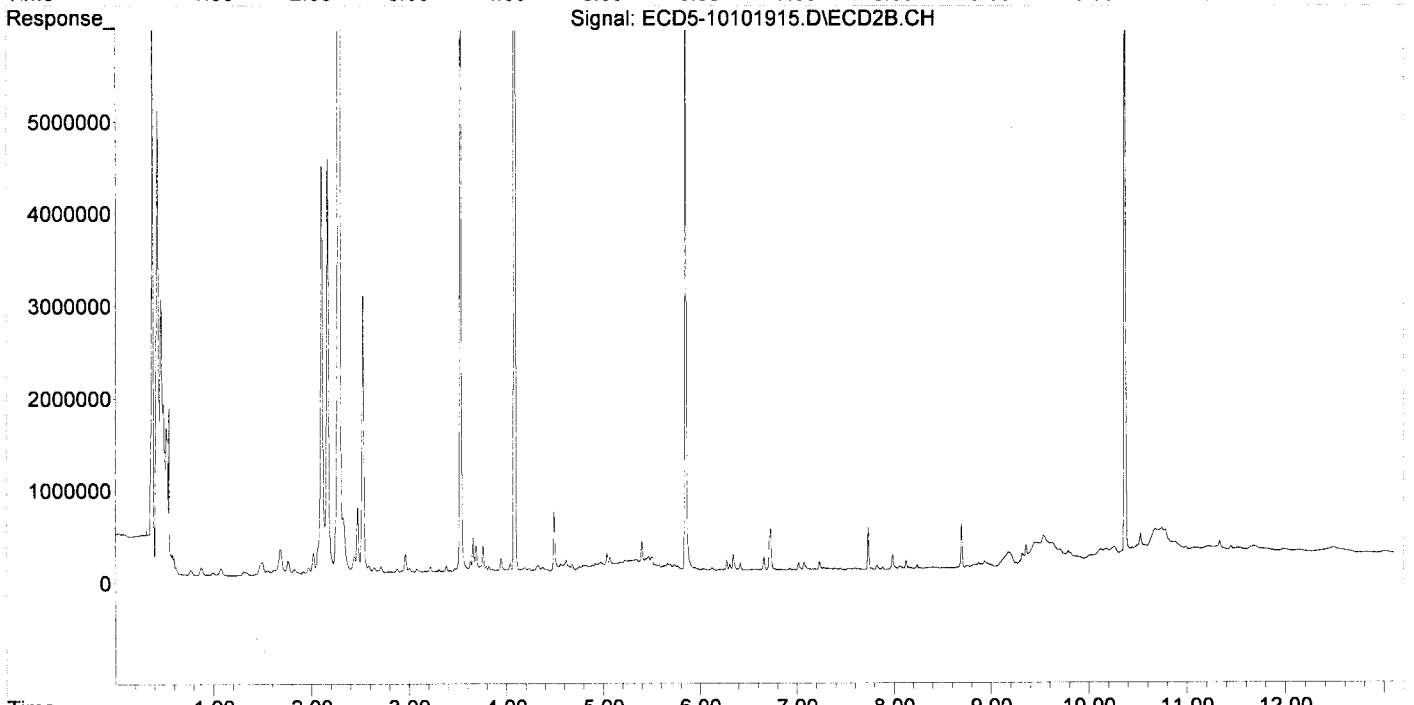
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:40
Operator : MJB
Sample : A9J0058-02RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 16 10:30:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

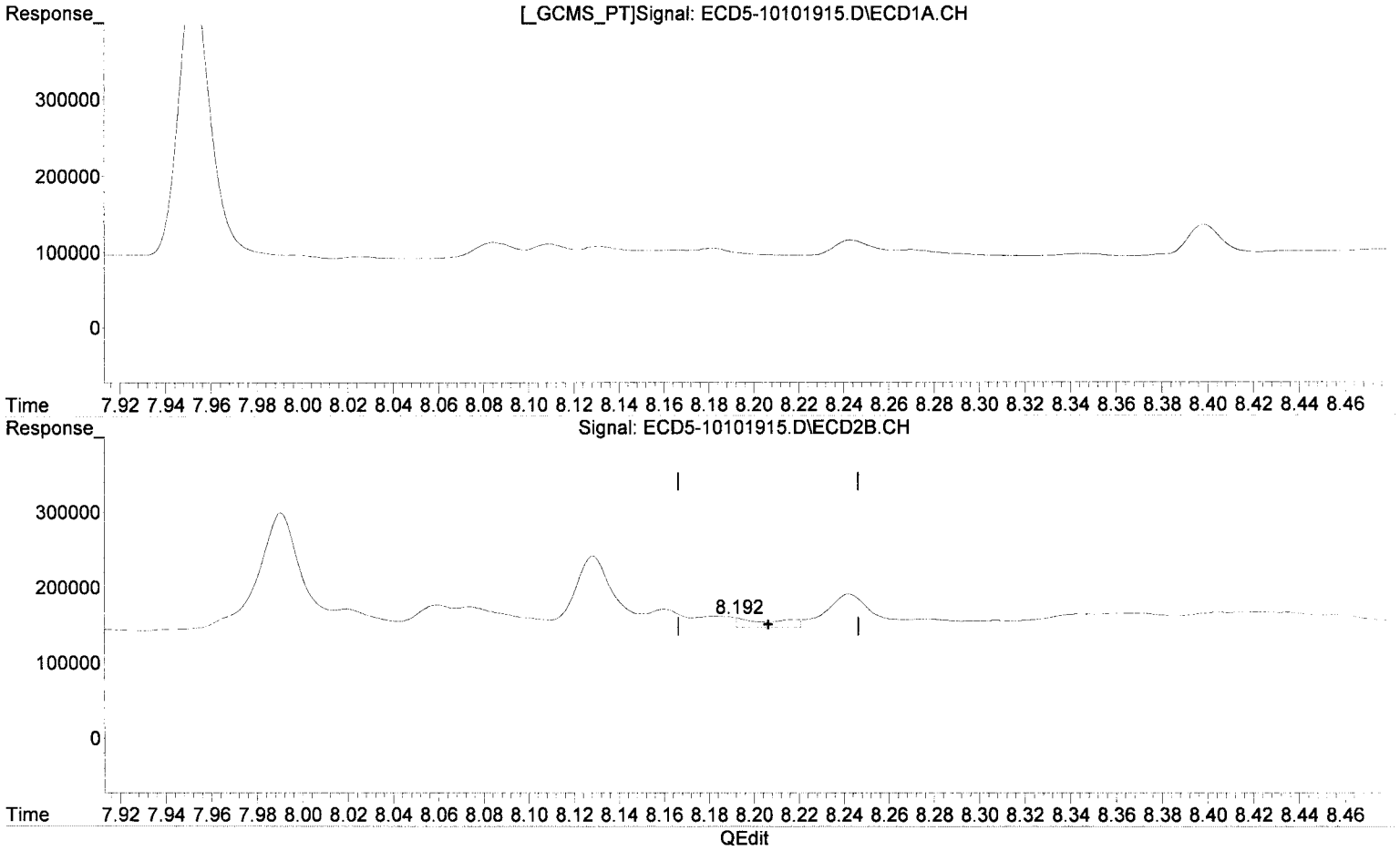




Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:40
Operator : MJB
Sample : A9J0058-02RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.431min 0.232 ng/mL

response 43678

MJB 10/16/19

(12) 4,4'-DDE #2

8.192min 0.039 ng/mL m

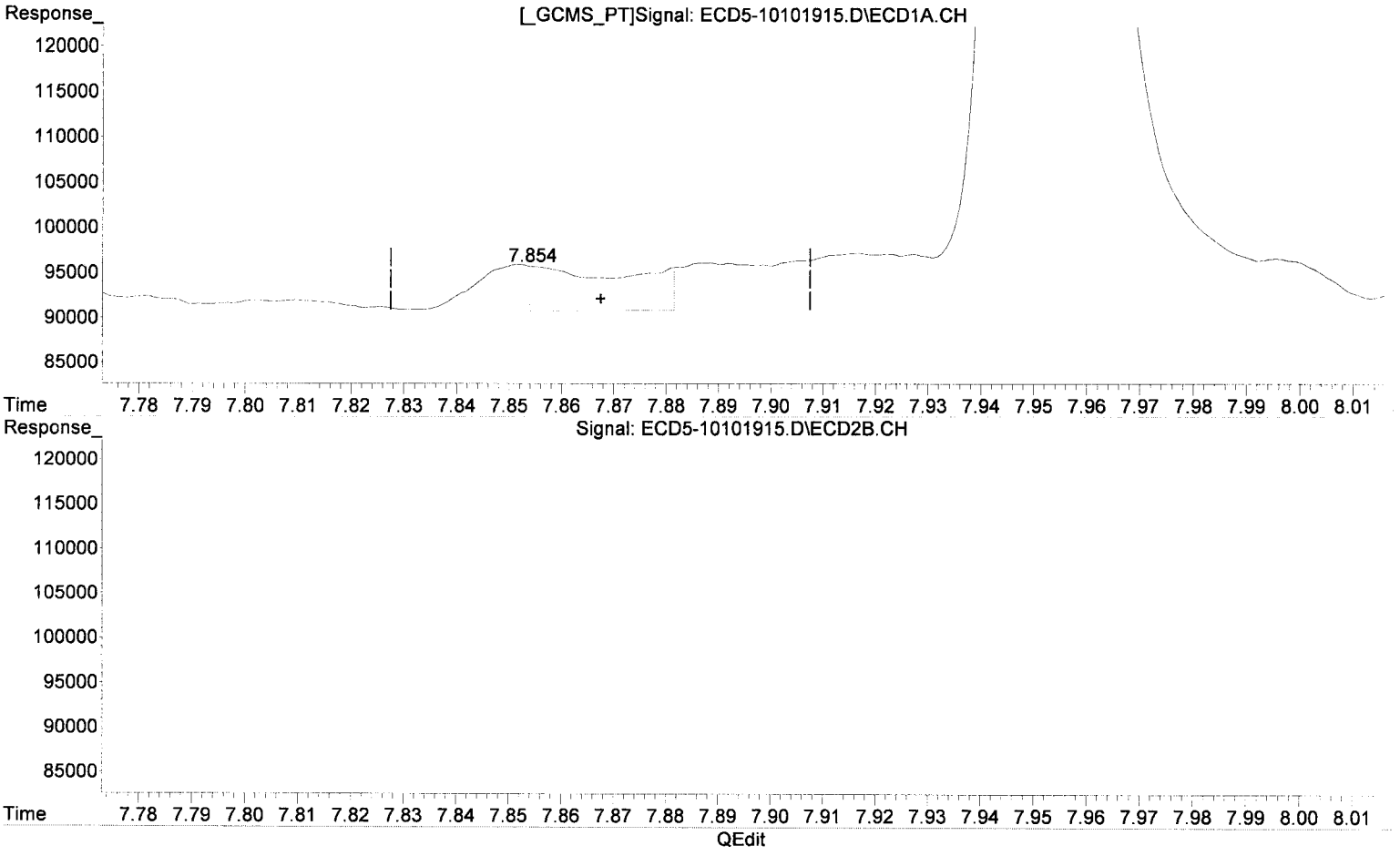
response 12088

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:40
Operator : MJB
Sample : A9J0058-02RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(15) 4,4'-DDD

7.854min 0.031 ng/mL (m)

response 4949

MJB 10/16/19

(15) 4,4'-DDD #2

0.000min 0.000 ng/mL

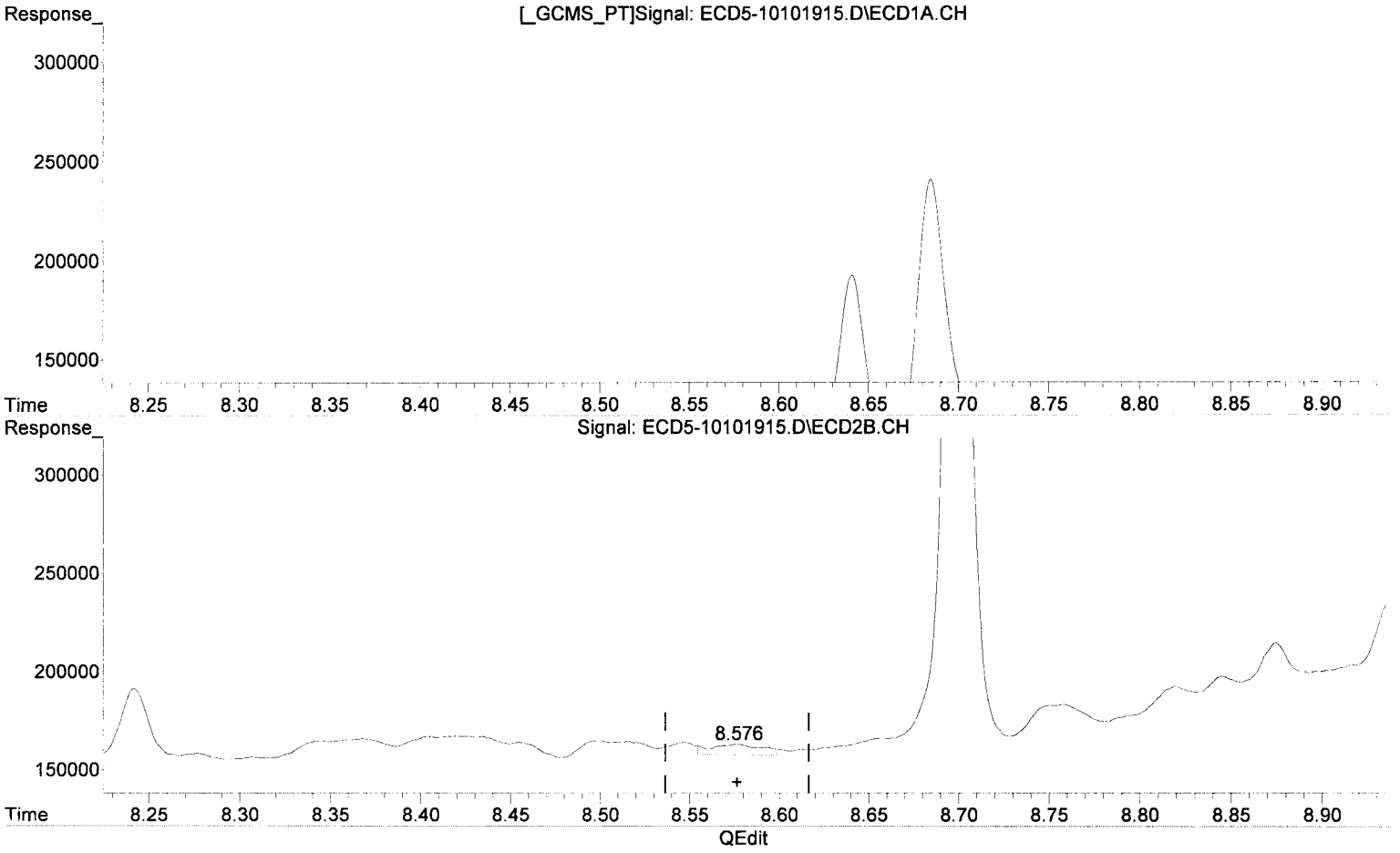
response 0

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:40
Operator : MJB
Sample : A9J0058-02RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(29) 2,4'-DDT

7.747min 0.057 ng/mL

response 6200

MJB 10/16/19

(29) 2,4'-DDT #2

8.576min 0.031 ng/mL m

response 5453

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:40
Operator : MJB
Sample : A9J0058-02RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJ MJB 10/11/19

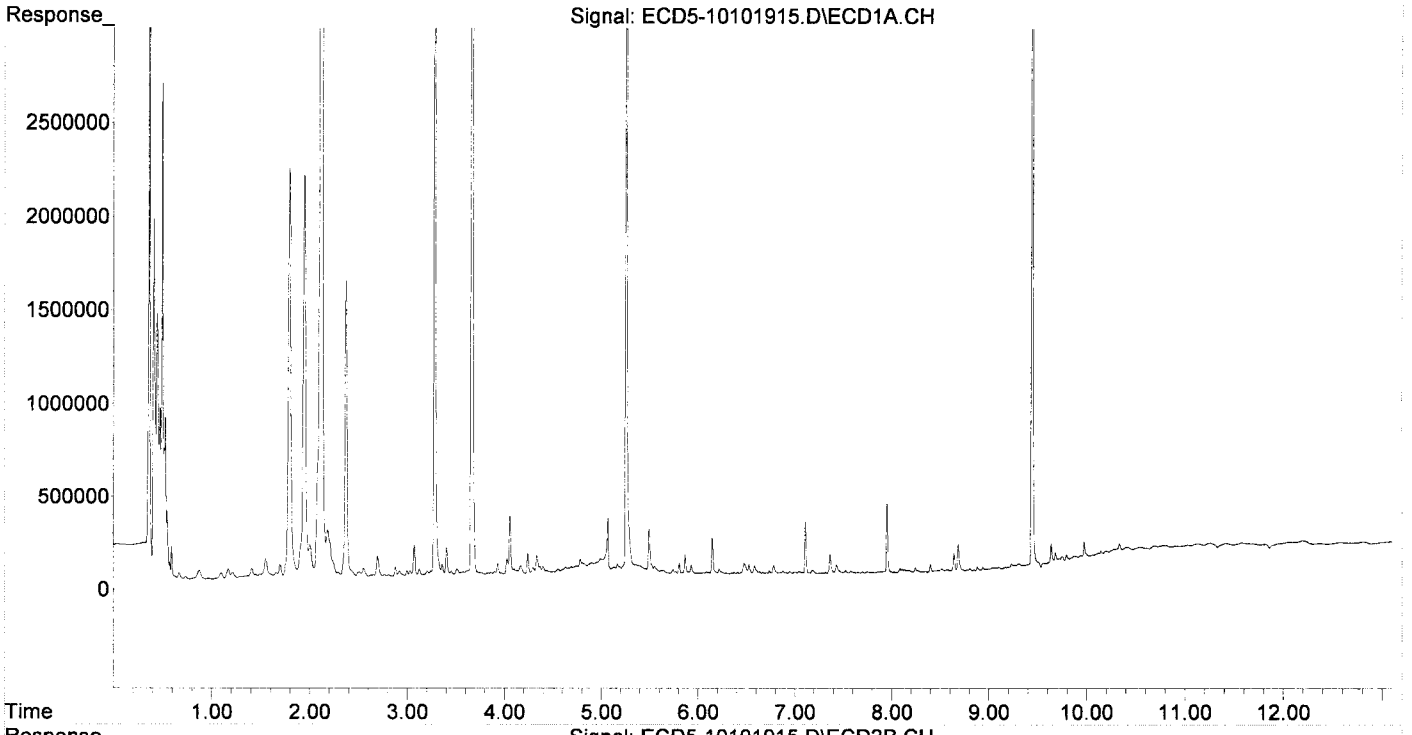
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.851	4319477	7528444	26.025	25.662	
22)	S	DCBP (S)	9.444	10.372	6607829	8637564	46.831	48.050	
		Target Compounds							
2)		a-BHC	5.804	0.000	59635	0	0.260	N.D.	#
3)		g-BHC	6.088	0.000	14597	0	0.072	N.D.	#
4)		b-BHC	6.147f	0.000	192788	0	2.133	N.D.	#
5)		Heptachlor	6.475	7.167	57976	13641	0.320	0.045	#
6)		d-BHC	0.000	7.076f	0	81575	N.D.	0.231	#
7)		Aldrin	6.735	7.393	14752	15216	0.075	0.046	
8)		Heptachlo...	7.183	7.827f	18611	43930	0.101	0.146	#
9)		trans-Chl...	7.278	7.991	3552	155022	0.019	0.495	#
10)		cis-Chlor...	7.364	8.073f	100072	27726	0.550	0.095	#
11)		Endosulfa...	0.000	8.160	0	22698	N.D.	0.082	#
12)		4,4'-DDE	7.431	8.242f	43678	40903	0.232	0.132	#
13)		Dieldrin	7.650	8.368f	4482	12304	0.023	0.040	#
14)		Endrin	0.000	8.547f	0	6110	N.D.	0.027	#
15)		4,4'-DDD	7.853	0.000	4946	0	0.031	N.D.	#
16)		Endosulfa...	7.952	8.700	368186	470234	2.564	2.039	
17)		4,4'-DDT	8.085f	8.845	20221	28523	0.169	0.128	
18)		Endrin Al...	8.243	8.937	21846	61163	BelowCal	BelowCal	
19)		Endosulfa...	8.568	0.000	9431	0	0.061	N.D.	#
20)		Methoxychlor	8.399	9.323	40502	126271	0.691	1.379	#
21)		Endrin Ke...	8.775f	9.538	5830	309641	0.035	1.203	#
23)		Hexachlor...	3.070	3.528	170418	7101354	0.933	18.890	#
24)		Hexachlor...	5.642	6.309	26436	71286	0.150	0.227	#
25)		Oxychlordane	7.110	7.774	272696	15629	1.657	0.057	#
26)		2,4'-DDE	7.183	7.991	18611	155022	0.145	0.731	#
27)		trans-Non...	7.364	8.060	100072	30328	0.242	0.101	#
28)		2,4'-DDD	7.578	8.368	10298	12304	0.090	0.065	
29)		2,4'-DDT	7.747	8.547f	6200	6110	0.057	0.034	
30)		cis-Nonac...	7.853	0.000	4946	0	0.024	N.D.	#
31)		Mirex	8.515	9.538	13713	309641	0.109	1.664	#
32)		Chlordane...	7.364	8.060	100072	30328	5.082	0.838	#
33)		Chlordane...	7.431	8.160	43678	22698	1.743	0.748	#
34)		Chlordane...	7.952f	8.820	368186	24633	63.688	2.747	#
35)		Chlordane...	3.358	3.383f	65185	83391	NoCal	NoCal	
36)		Toxaphene...	7.431	8.368	43678	12304	48.766	4.689	#
37)		Toxaphene...	7.699	8.758f	5582	17876	3.456	5.432	#
38)		Toxaphene...	0.000	8.758	0	17876	N.D.	3.527	#
39)		Toxaphene...	8.243f	8.845	21846	28523	6.742	3.416	#
40)		Toxaphene...	8.475	0.000	6826	0	2.847	N.D.	#
41)		Toxaphene...	8.568	9.362f	9431	215298	2.980	45.324	#
42)		Toxaphene...	3.358	3.383f	65185	83391	NoCal	NoCal	

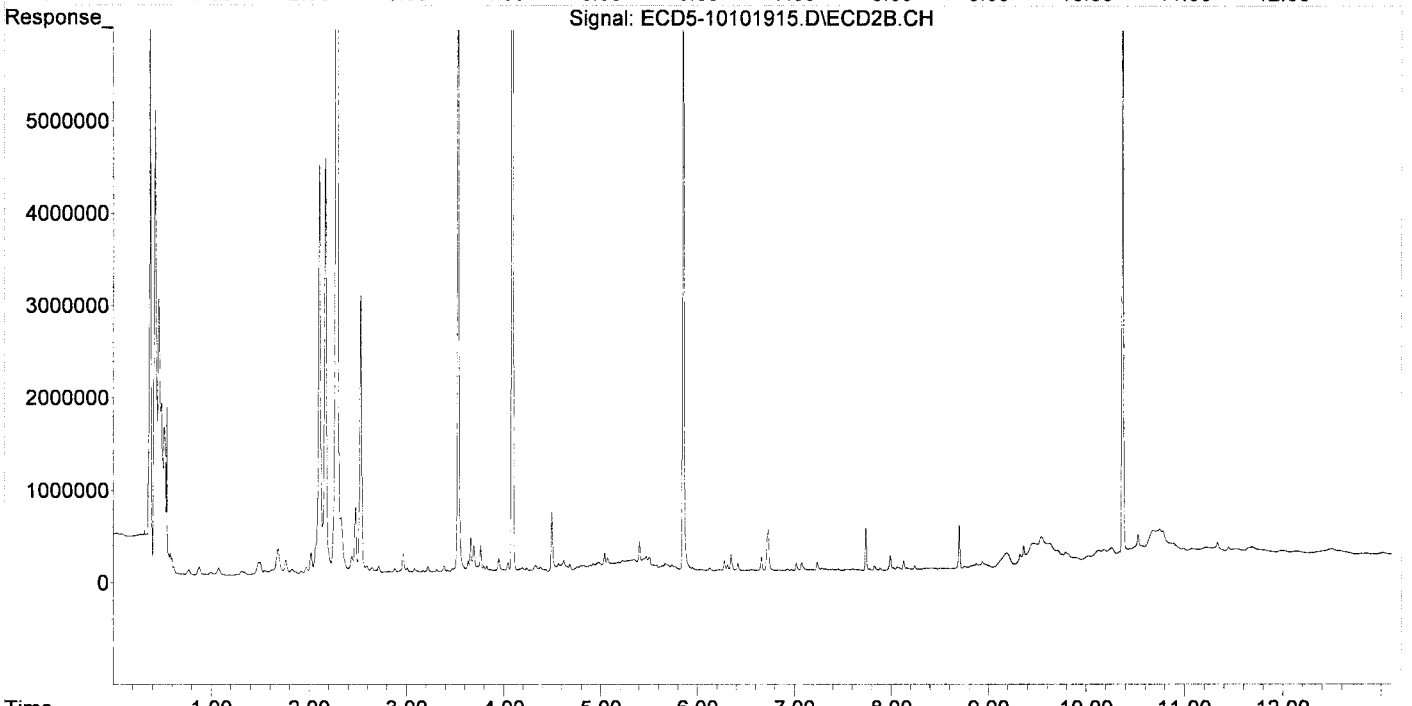
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101915.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:40
Operator : MJB
Sample : A9J0058-02RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:11 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:57
Operator : MJB
Sample : A9J0058-03RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, 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: Oct 16 10:33:21 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/16/19

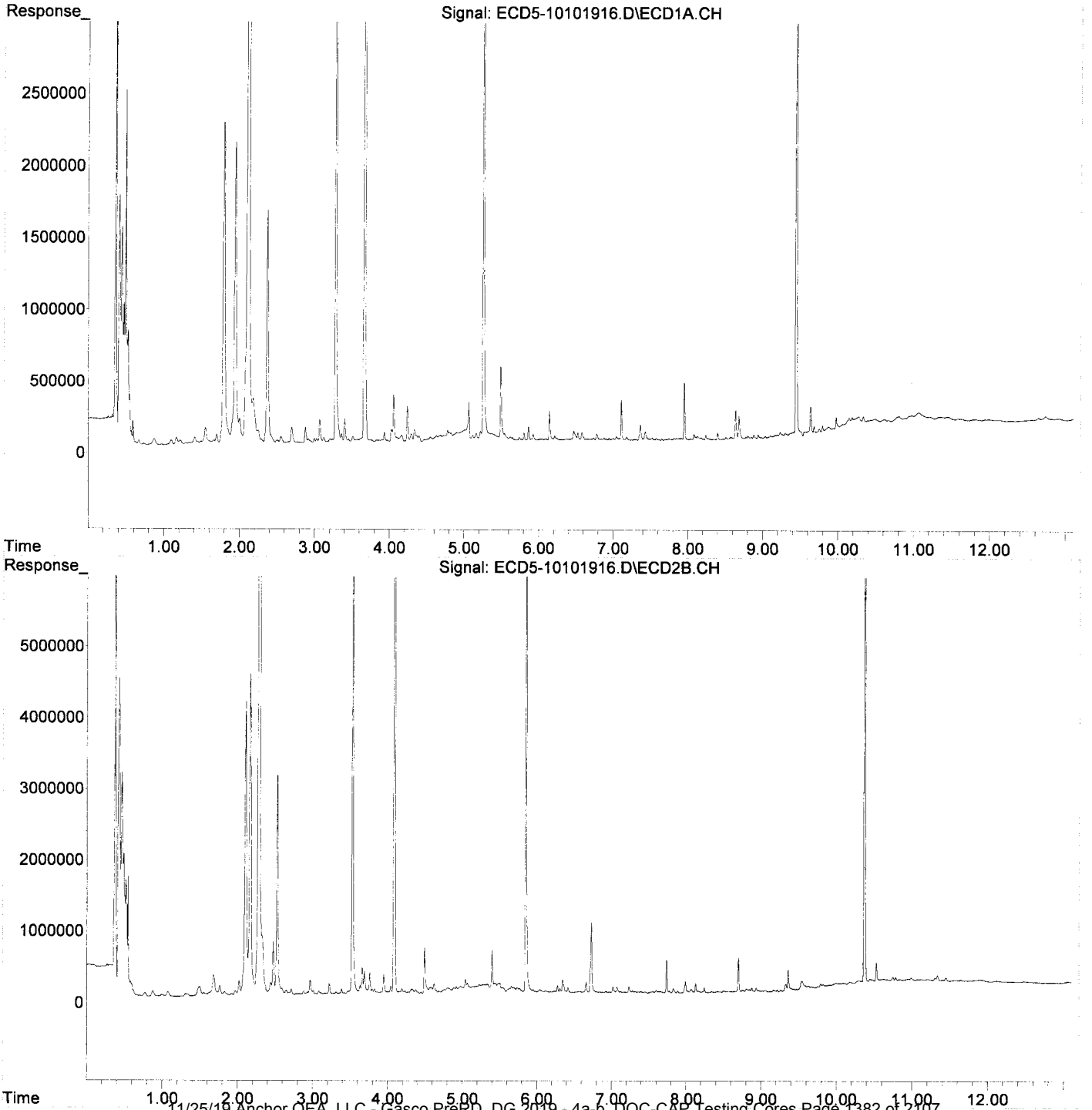
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.259	5.851	4800649	8618776	28.924	29.379	
22)	S	DCBP (S)	9.444	10.372	6436092	8465750	45.614	47.094	
		Target Compounds							
2)		a-BHC	5.802	0.000	57860	0	0.252	N.D.	#
3)		g-BHC	6.085	0.000	17249	0	0.085	N.D.	#
4)		b-BHC	6.146f	0.000	207050	0	2.291	N.D.	#
5)		Heptachlor	6.472f	7.166	66741	20357	0.368	0.067	#
6)		d-BHC	0.000	7.074f	0	86833	N.D.	0.246	#
7)		Aldrin	6.734	7.392	19362	26485	0.098	0.080	
8)		Heptachlo...	7.179	7.826f	24007	60047	0.130	0.200	#
9)		trans-Chl...	7.314f	7.990	8846	156544	0.048	0.500	#
10)		cis-Chlor...	7.364	8.067f	103828	48820	0.570	0.168	#
11)		Endosulfa...	0.000	8.160	0	27167	N.D.	0.099	#
12)		4,4'-DDE	7.430	8.218	58573	16231	0.311	0.052	#
13)		Dieldrin	7.649	8.337	8073	14089	0.042	0.046	
14)		Endrin	7.815	8.575	12098	14250	0.082	0.063	
15)		4,4'-DDD	7.853	8.640	11403	9989	0.073m	0.039m	#
16)		Endosulfa...	7.952	8.700	397821	475705	2.770	2.063	
17)		4,4'-DDT	8.083	8.844	35854	38641	0.300	0.187	
18)		Endrin Al...	8.240	8.935	31394	54833	BelowCal	BelowCal	
19)		Endosulfa...	8.568	9.165	14656	24508	0.095	0.098	
20)		Methoxychlor	8.398	9.331	43703	95199	0.746	0.995	
21)		Endrin Ke...	8.775f	9.541	12210	121849	0.073	0.474	#
23)		Hexachlor...	3.070	3.528	161407	7402026	0.883	19.690	#
24)		Hexachlor...	5.642	6.308	29599	78927	0.168	0.251	#
25)		Oxychlordane	7.109	7.773	277952	27812	1.689	0.102	#
26)		2,4'-DDE	7.179	7.990	24007	156544	0.187	0.738	#
27)		trans-Non...	7.364	8.067	103828	48820	0.263	0.162	
28)		2,4'-DDD	7.576	8.337	12189	13926	0.107	0.074m	
29)		2,4'-DDT	7.745	8.575	10602	14250	0.097	0.080	
30)		cis-Nonac...	7.847	8.575f	12247	14250	0.059	0.042	
31)		Mirex	8.510	9.541	11953	121849	0.095	0.655	#
32)		Chlordane...	7.364	8.067	103828	48820	5.273	1.349	#
33)		Chlordane...	7.430	8.160	58573	27167	2.337	0.895	#
34)		Chlordane...	7.952f	8.805	397821	43109	68.814	4.808	#
35)		Chlordane...	3.357	3.383f	66577	86473	NoCal	NoCal	
36)		Toxaphene...	7.430	8.360f	58573	8775	65.398	3.344	#
37)		Toxaphene...	7.697	8.744	7094	28719	4.393	8.726	#
38)		Toxaphene...	8.026	8.756	7242	26272	2.151	5.184	#
39)		Toxaphene...	8.240f	8.844	31394	38641	9.689	4.628	#
40)		Toxaphene...	8.510	0.000	11953	0	4.986	N.D.	#
41)		Toxaphene...	8.568	9.361f	14656	294593	4.631	62.017	#
42)		Toxaphene...	3.357	3.383f	66577	86473	NoCal	NoCal	

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:57
Operator : MJB
Sample : A9J0058-03RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

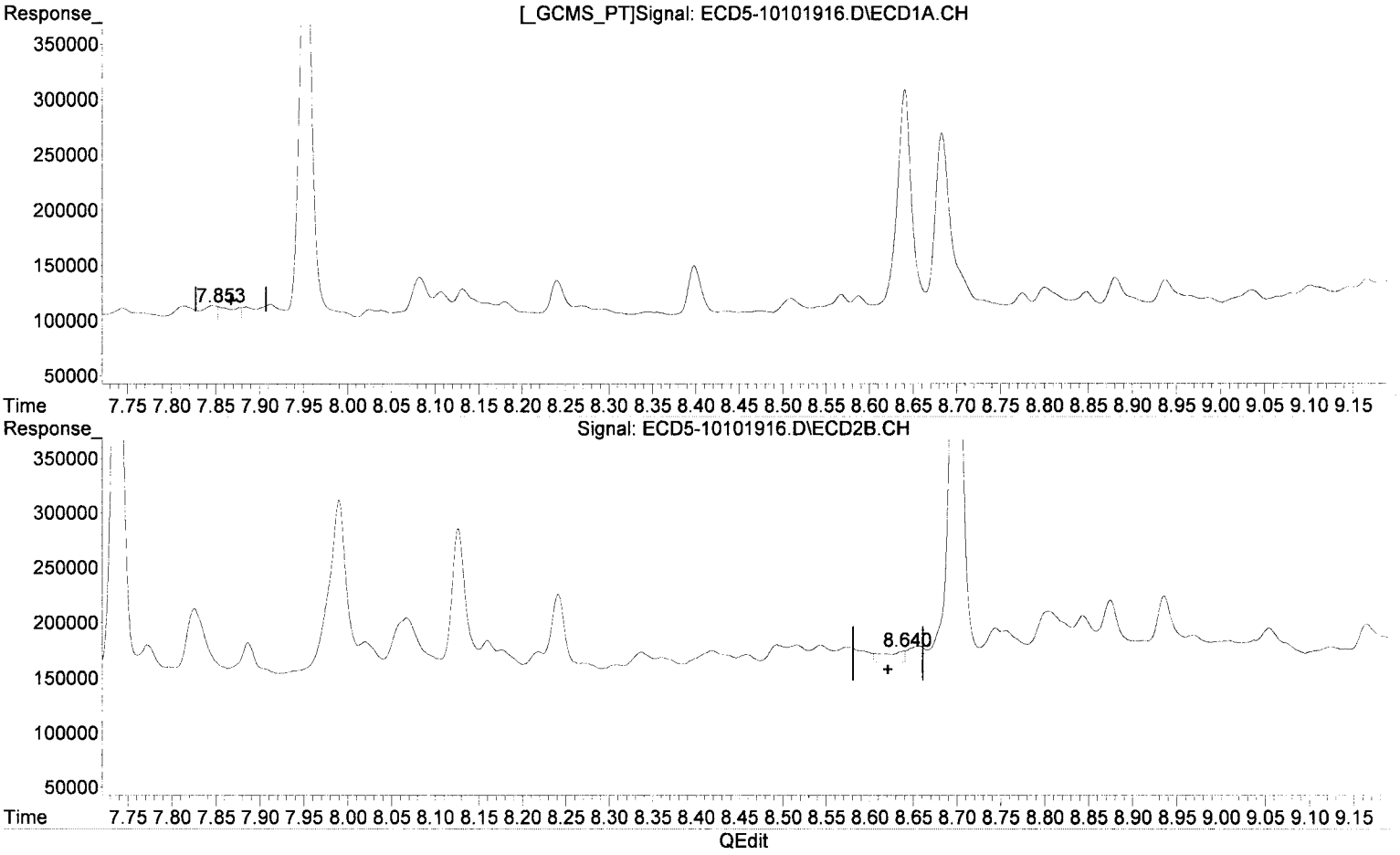
Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 16 10:33:21 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:57
Operator : MJB
Sample : A9J0058-03RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, 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: Oct 11 11:04:17 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(15) 4,4'-DDD

7.853min 0.073 ng/mL (m)

response 11403

MJB 10/16/19

(15) 4,4'-DDD #2

8.640min 0.039 ng/mL (m)

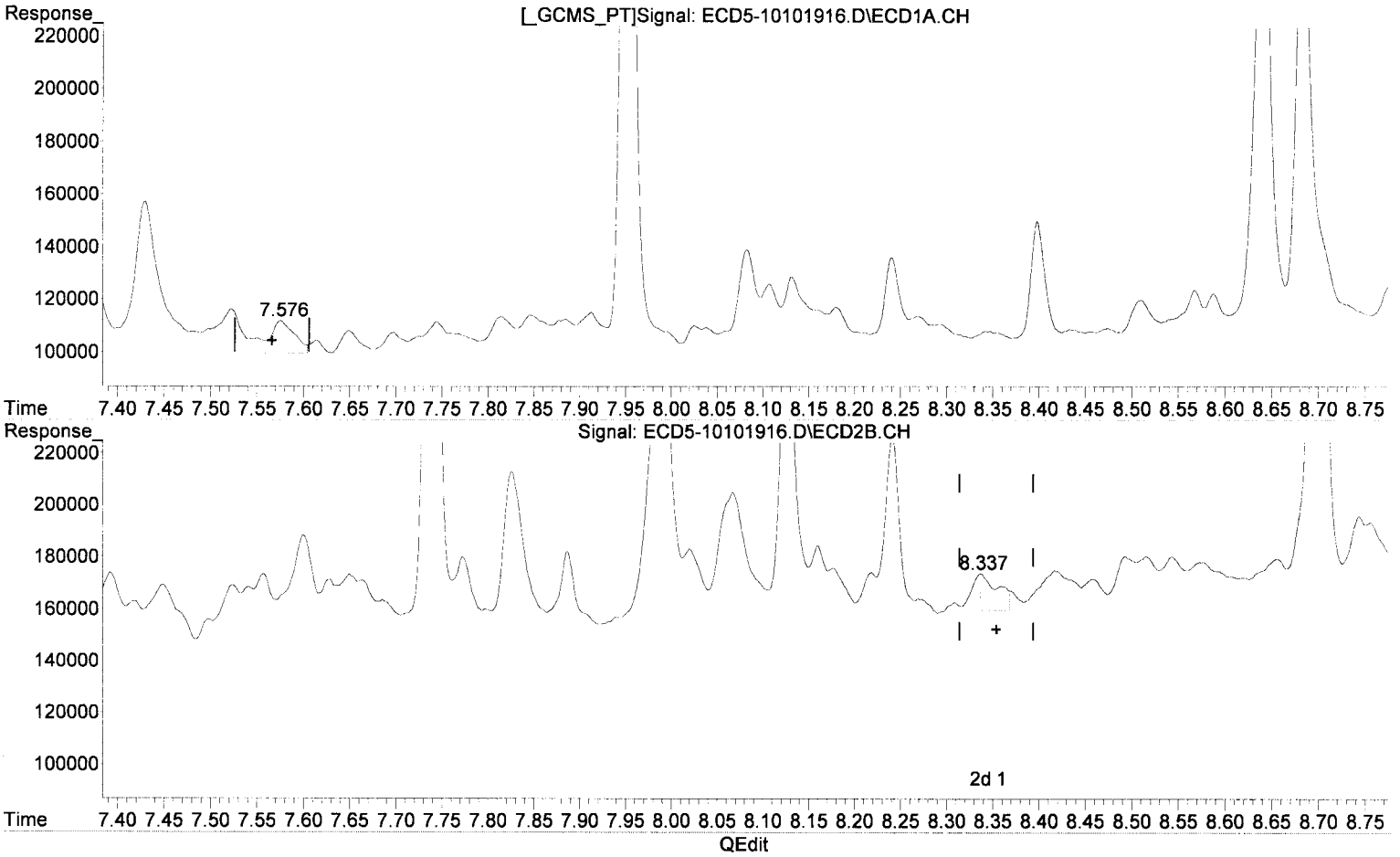
response 9989

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:57
Operator : MJB
Sample : A9J0058-03RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, 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: Oct 11 11:04:17 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(28) 2,4'-DDD

7.576min 0.107 ng/mL

response 12189

MJB 10/16/19

(28) 2,4'-DDD #2

8.337min 0.074 ng/mL

response 13926

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:57
Operator : MJB
Sample : A9J0058-03RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, 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: Oct 11 11:04:17 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJ MJB 11/6/19

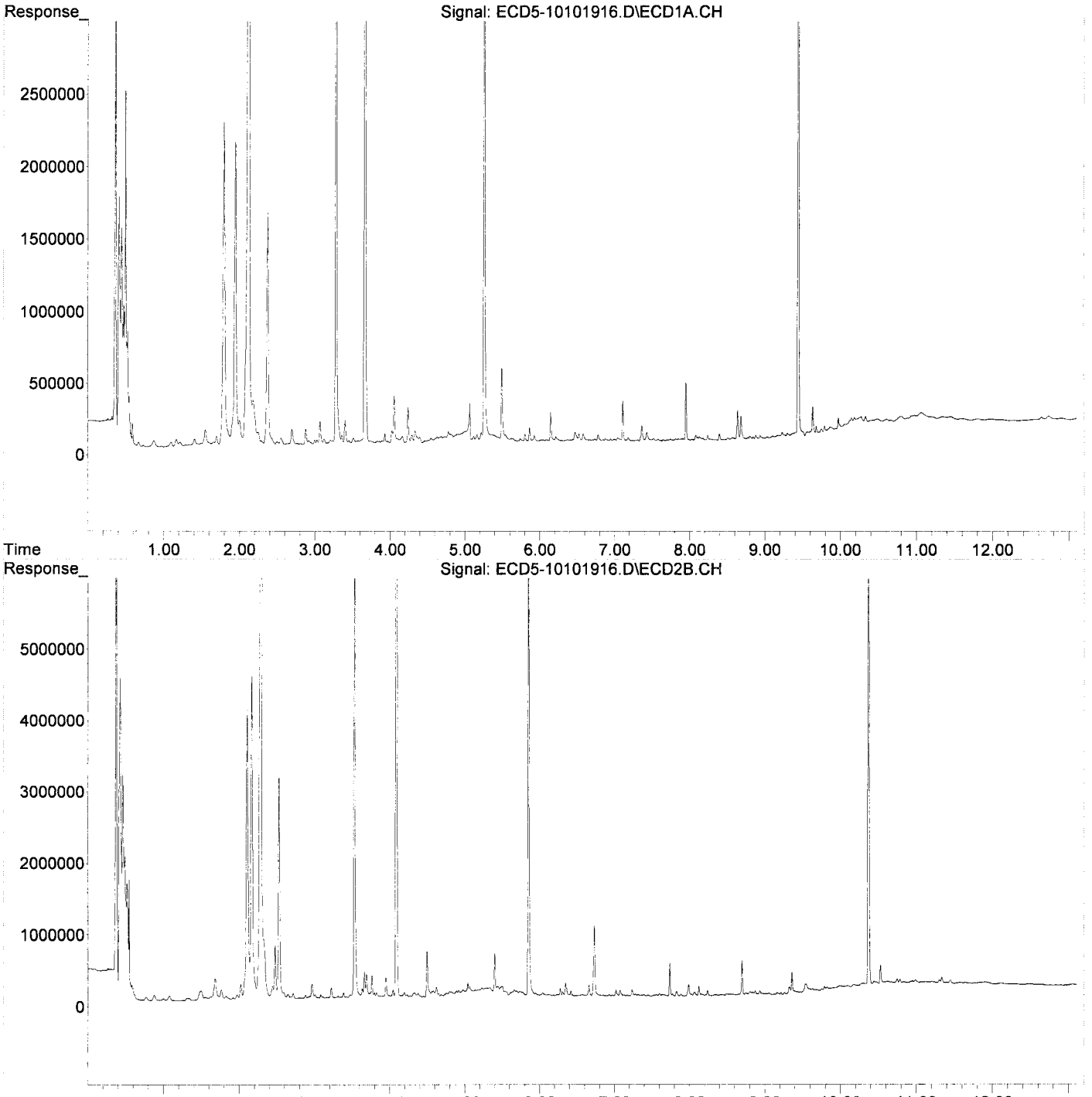
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.259	5.851	4800649	8618776	28.924	29.379	
22)	S	DCBP (S)	9.444	10.372	6436092	8465750	45.614	47.094	
		Target Compounds							
2)		a-BHC	5.802	0.000	57860	0	0.252	N.D.	#
3)		g-BHC	6.085	0.000	17249	0	0.085	N.D.	#
4)		b-BHC	6.146f	0.000	207050	0	2.291	N.D.	#
5)		Heptachlor	6.472f	7.166	66741	20357	0.368	0.067	#
6)		d-BHC	0.000	7.074f	0	86833	N.D.	0.246	#
7)		Aldrin	6.734	7.392	19362	26485	0.098	0.080	
8)		Heptachlo...	7.179	7.826f	24007	60047	0.130	0.200	#
9)		trans-Chl...	7.314f	7.990	8846	156544	0.048	0.500	#
10)		cis-Chlor...	7.364	8.067f	103828	48820	0.570	0.168	#
11)		Endosulfa...	0.000	8.160	0	27167	N.D.	0.099	#
12)		4,4'-DDE	7.430	8.218	58573	16231	0.311	0.052	#
13)		Dieldrin	7.649	8.337	8073	14089	0.042	0.046	
14)		Endrin	7.815	8.575	12098	14250	0.082	0.063	
15)		4,4'-DDD	7.884	8.656f	10789	14086	0.069	0.055	
16)		Endosulfa...	7.952	8.700	397821	475705	2.770	2.063	
17)		4,4'-DDT	8.083	8.844	35854	38641	0.300	0.187	
18)		Endrin Al...	8.240	8.935	31394	54833	BelowCal	BelowCal	
19)		Endosulfa...	8.568	9.165	14656	24508	0.095	0.098	
20)		Methoxychlor	8.398	9.331	43703	95199	0.746	0.995	
21)		Endrin Ke...	8.775f	9.541	12210	121849	0.073	0.474	#
23)		Hexachlor...	3.070	3.528	161407	7402026	0.883	19.690	#
24)		Hexachlor...	5.642	6.308	29599	78927	0.168	0.251	#
25)		Oxychlordane	7.109	7.773	277952	27812	1.689	0.102	#
26)		2,4'-DDE	7.179	7.990	24007	156544	0.187	0.738	#
27)		trans-Non...	7.364	8.067	103828	48820	0.263	0.162	
28)		2,4'-DDD	7.576	8.360	12189	8775	0.107	0.046	#
29)		2,4'-DDT	7.745	8.575	10602	14250	0.097	0.080	
30)		cis-Nonac...	7.847	8.575f	12247	14250	0.059	0.042	
31)		Mirex	8.510	9.541	11953	121849	0.095	0.655	#
32)		Chlordane...	7.364	8.067	103828	48820	5.273	1.349	#
33)		Chlordane...	7.430	8.160	58573	27167	2.337	0.895	#
34)		Chlordane...	7.952f	8.805	397821	43109	68.814	4.808	#
35)		Chlordane...	3.357	3.383f	66577	86473	NoCal	NoCal	
36)		Toxaphene...	7.430	8.360f	58573	8775	65.398	3.344	#
37)		Toxaphene...	7.697	8.744	7094	28719	4.393	8.726	#
38)		Toxaphene...	8.026	8.756	7242	26272	2.151	5.184	#
39)		Toxaphene...	8.240f	8.844	31394	38641	9.689	4.628	#
40)		Toxaphene...	8.510	0.000	11953	0	4.986	N.D.	#
41)		Toxaphene...	8.568	9.361f	14656	294593	4.631	62.017	#
42)		Toxaphene...	3.357	3.383f	66577	86473	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 15:57
Operator : MJB
Sample : A9J0058-03RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, 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: Oct 11 11:04:17 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 16:14
Operator : MJB
Sample : 9J10029-CCV3
Misc : A19H384, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:24 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/15/19

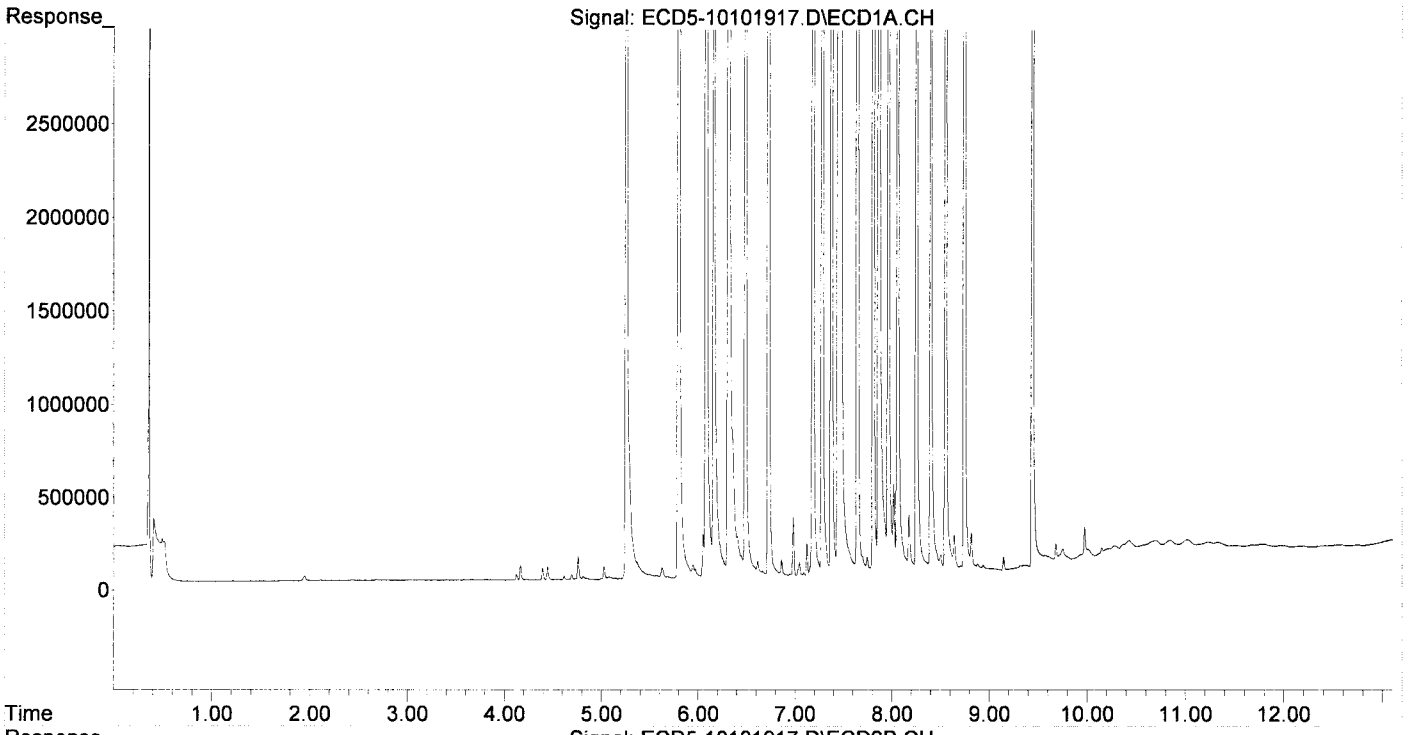
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.259	5.851	15848835	28461755	95.489	97.018	
22)	S	DCBP (S)	9.446	10.373	13598295	20134650	96.374	112.007	
		Target Compounds							
2)		a-BHC	5.799	6.459	22283471	45310154	97.168	110.421	
3)		g-BHC	6.084	6.777	18746867	38330398	92.909	107.457	
4)		b-BHC	6.164	6.843	6822313	14231440	75.482	89.921	
5)		Heptachlor	6.490	7.147	19639688	35828149	108.329	117.094	
6)		d-BHC	6.314	7.096	15683301	34358664	79.736	97.426	
7)		Aldrin	6.729	7.410	21058370	37594338	106.654	114.132	
8)		Heptachlo...	7.188	7.848	18532847	32638177	100.624	108.487	
9)		trans-Chl...	7.283	7.987	18767101	33260649	101.503	106.154	
10)		cis-Chlor...	7.379	8.094	18655427	32187464	102.462	110.516	
11)		Endosulfa...	7.476	8.144	18367053	29389727	107.927	106.803	
12)		4,4'-DDE	7.447	8.205	15729506	31086817	83.432	100.061	
13)		Dieldrin	7.647	8.343	20164796	35059508	105.036	115.270	
14)		Endrin	7.810	8.569	17391354	27542957	118.287	121.965	
15)		4,4'-DDD	7.866	8.619	12670551	25132213	80.632	98.091	
16)		Endosulfa...	7.967	8.716	14979849	25517852	104.308	110.656	
17)		4,4'-DDT	8.061	8.843	12900423	23438689	107.899	112.382	
18)		Endrin Al...	8.256	8.953	13017186	20902656	103.453	101.327	
19)		Endosulfa...	8.556	9.143	15849540	28105817	102.270	112.835	
20)		Methoxychlor	8.403	9.324	5748329	10792779	98.137	108.061	
21)		Endrin Ke...	8.749	9.538	17121660	28355019	102.673	110.195	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.628	0.000	56304	0	0.319	N.D.	#
25)		Oxychlordane	7.124	7.782	167198	8494	1.016	0.031	#
26)		2,4'-DDE	7.188	7.987	18532847	33260649	144.493	156.788	
27)		trans-Non...	7.379	8.044	18655427	141569	103.933	0.469	#
28)		2,4'-DDD	0.000	8.343	0	35059508	N.D.	185.634	#
29)		2,4'-DDT	7.747	8.569	87088	27542957	0.794	154.441	#
30)		cis-Nonac...	7.866f	8.619	12670551	25132213	61.029	74.921	
31)		Mirex	8.502	9.538	86924	28355019	0.693	152.386	#
32)		Chlordane...	7.379f	8.044	18655427	141569	947.476	3.912	#
33)		Chlordane...	7.447	8.144	15729506	29389727	627.566	967.911	#
34)		Chlordane...	7.967f	8.809	14979849	93383	2591.167	10.415	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.447f	0.000	15729506	0	17562.163	N.D.	#
37)		Toxaphene...	7.747f	8.716	87088	25517852	53.926	7753.770	#
38)		Toxaphene...	8.021	8.792f	473065	88709	140.480	17.503	#
39)		Toxaphene...	8.256	8.843	13017186	23438689	4017.461	2807.085	
40)		Toxaphene...	8.502	9.038f	86924	392295	36.262	84.177	#
41)		Toxaphene...	8.556	9.406	15849540	109253	5008.413	23.000	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

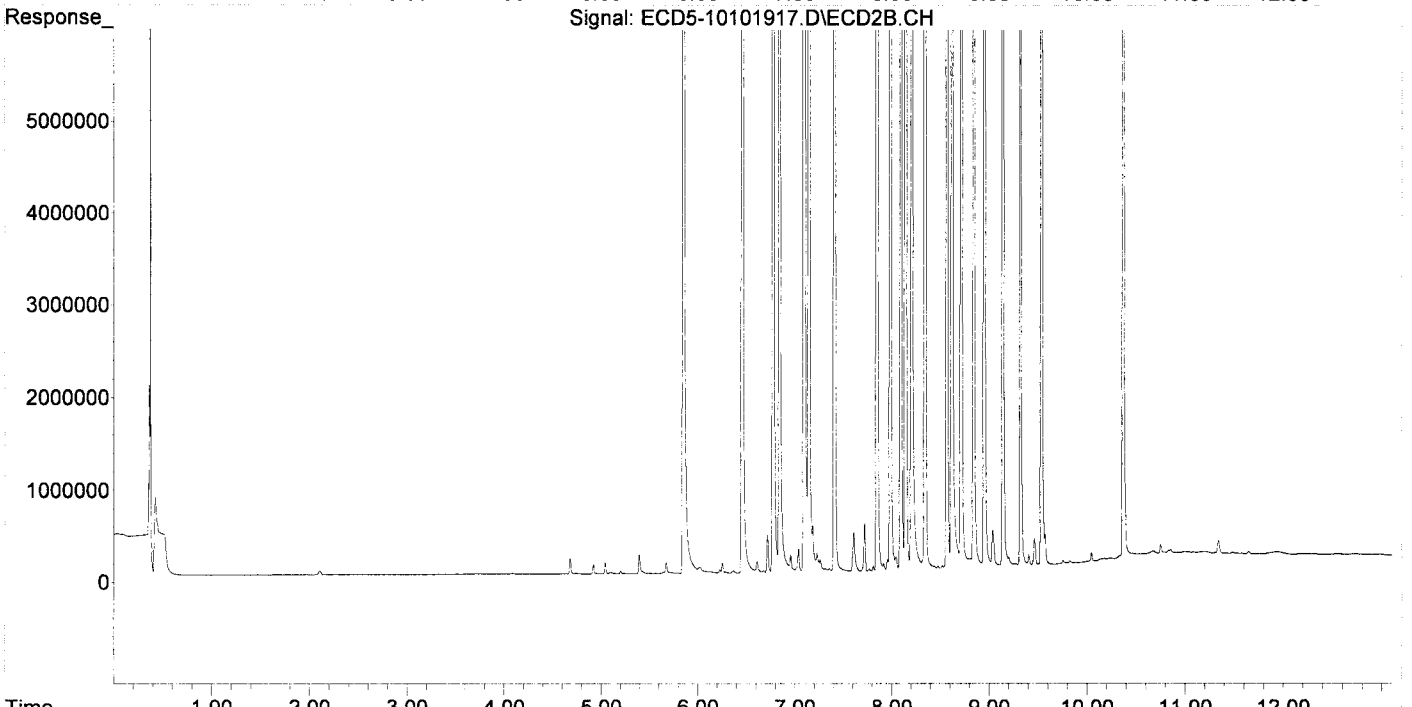
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 16:14
Operator : MJB
Sample : 9J10029-CCV3
Misc : A19H384, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:24 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 16:31
Operator : MJB
Sample : 9J10029-CCV4
Misc : A19E155, 9-42 100 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/11/19

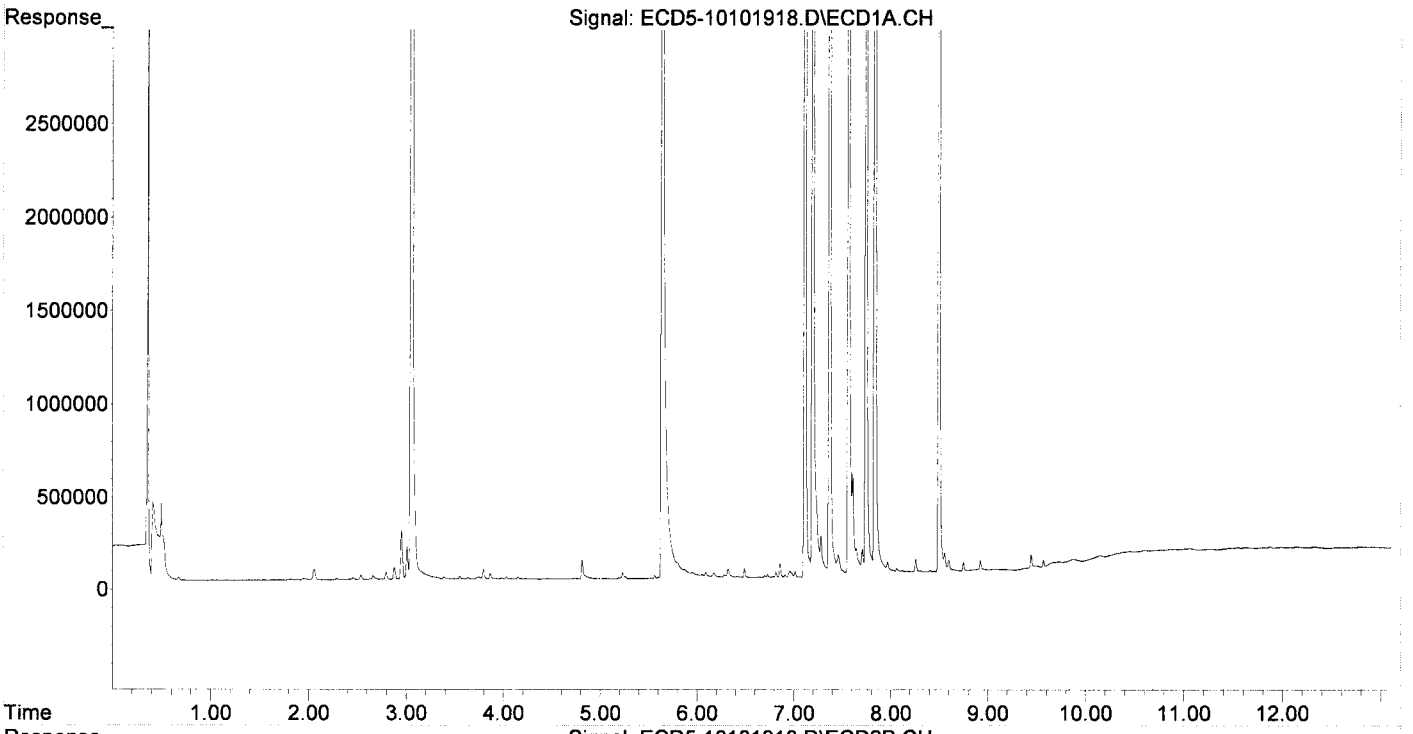
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.259	5.851	13222	21926	0.080	0.075	
22)	S	DCBP (S)	9.446	10.373	72905	122335	0.517	0.681	
		Target Compounds							
2)		a-BHC	5.797	6.457	88273	109117	0.385	0.266	
3)		g-BHC	6.091	6.778	30070	42860	0.149	0.120	
4)		b-BHC	6.175	6.848	26613	43644	0.294	0.276	
5)		Heptachlor	6.491	7.147	49995	81009	0.276	0.265	
6)		d-BHC	6.321	7.098	47448	94974	0.241	0.269	
7)		Aldrin	6.729	7.408	16669	35505	0.084	0.108	
8)		Heptachlo...	7.196	7.846	11146516	115325	60.520	0.383	#
9)		trans-Chl...	7.282	7.983	215847	21215624	1.167	67.711	#
10)		cis-Chlor...	7.371	8.091	19098402	193068	104.895	0.663	#
11)		Endosulfa...	7.461	8.157	111961	142728	0.658	0.519	
12)		4,4'-DDE	7.461	8.203	111961	42324	0.594	0.136	#
13)		Dieldrin	7.611f	8.355	546825	18633022	2.848	61.263	#
14)		Endrin	7.839f	8.577	22196656	18890937	150.970	83.652	#
15)		4,4'-DDD	7.839f	8.614	22196656	38686315	141.253	150.992	
16)		Endosulfa...	7.969	8.717	62793	86859	0.437	0.377	
17)		4,4'-DDT	8.063	8.843	25514	23228	0.213	0.097	#
18)		Endrin Al...	8.261	8.953	70296	97018	BelowCal	BelowCal	
19)		Endosulfa...	8.556	9.143	100825	108362	0.651	0.435	
20)		Methoxychlor	8.407	9.325	8111	21998	0.138	0.087	
21)		Endrin Ke...	8.750	9.525	48086	19557885	0.288	76.007	#
23)		Hexachlor...	3.056	3.549	20715681	45059864	113.362	119.862	
24)		Hexachlor...	5.640	6.317	14316735	28376523	81.210	90.346	
25)		Oxychlordane	7.116	7.777	16380631	28670779	99.555	104.675	
26)		2,4'-DDE	7.196	7.983	11146516	21215624	86.905	100.009	
27)		trans-Non...	7.371	8.051	19098402	32884448	106.412	109.020	
28)		2,4'-DDD	7.568	8.355	9715697	18633022	85.132	98.659	
29)		2,4'-DDT	7.748	8.577	10837208	18890937	98.801	105.927	
30)		cis-Nonac...	7.839	8.614	22196656	38686315	106.912	115.327	
31)		Mirex	8.499	9.525	12808247	19557885	102.166	105.108	
32)		Chlordane...	7.371f	8.051	19098402	32884448	969.973	908.797	
33)		Chlordane...	7.461f	8.157	111961	142728	4.467	4.701	
34)		Chlordane...	7.969	8.843f	62793	23228	10.862	2.591	#
35)		Chlordane...	3.387	3.389f	11674	135929	NoCal	NoCal	
36)		Toxaphene...	0.000	8.355f	0	18633022	N.D.	7100.301	#
37)		Toxaphene...	7.710	8.717	133888	86859	82.906	26.393	#
38)		Toxaphene...	8.063f	0.000	25514	0	7.577	N.D.	#
39)		Toxaphene...	8.261	8.843	70296	23228	21.695	2.782	#
40)		Toxaphene...	8.499	0.000	12808247	0	5343.132	N.D.	#
41)		Toxaphene...	8.556	0.000	100825	0	31.860	N.D.	#
42)		Toxaphene...	3.387	3.389f	11674	135929	NoCal	NoCal	

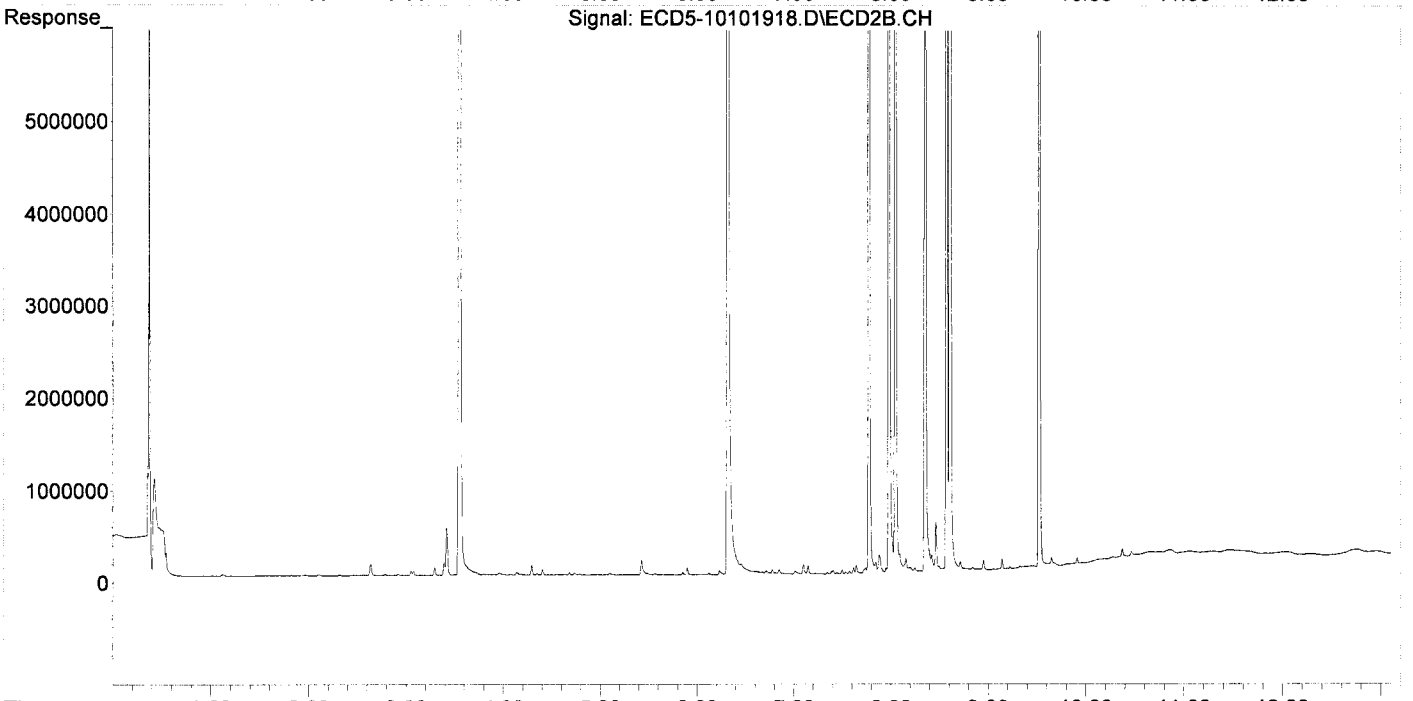
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 16:31
Operator : MJB
Sample : 9J10029-CCV4
Misc : A19E155, 9-42 100 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 16:48
Operator : MJB
Sample : 9J10029-CCB2
Misc : A19I233
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/18/19

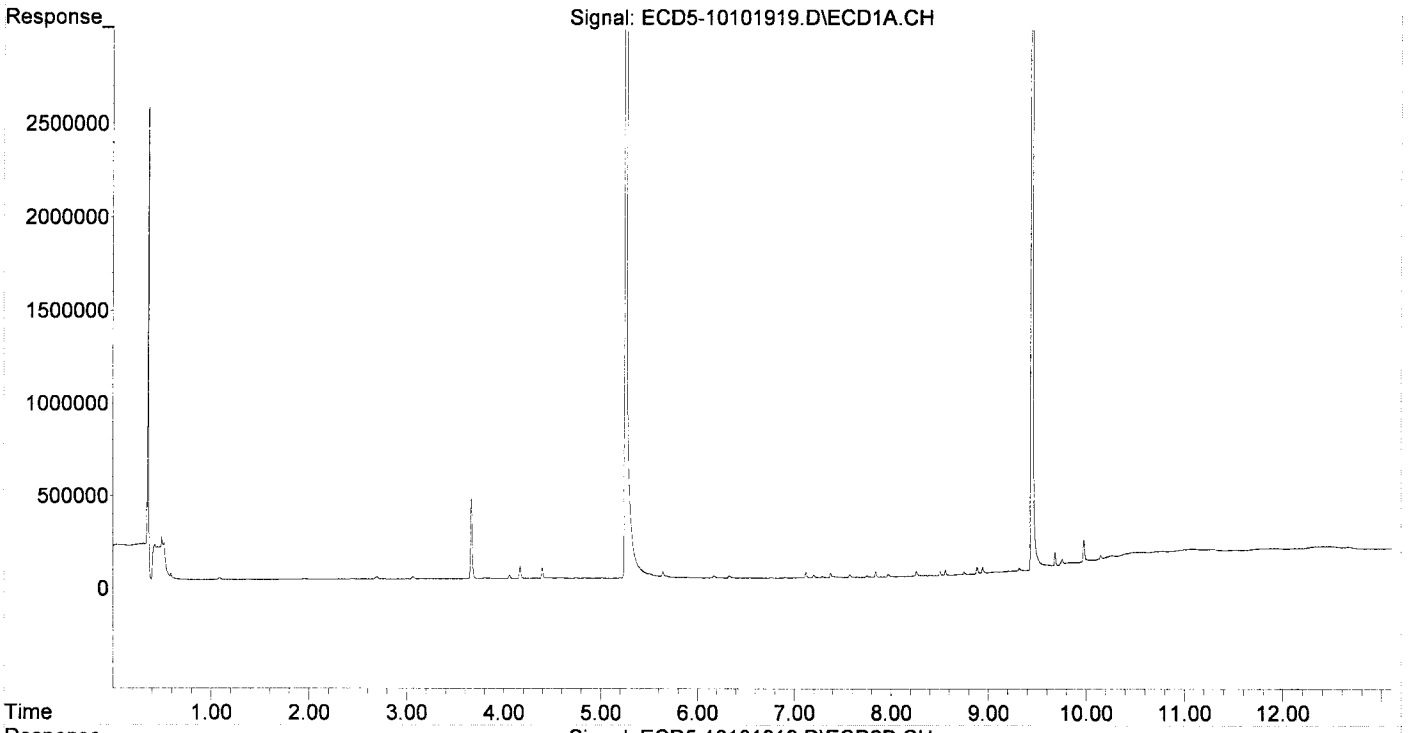
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.258	5.851	13134023	23417366	79.132	79.823	
22) S	DCBP (S)	9.446	10.373	11031227	16173083	78.181	89.969	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)	b-BHC	6.169	6.850	10282	7608	0.114	0.048	#
5)	Heptachlor	0.000	7.132	0	7116	N.D.	0.023	#
6)	d-BHC	6.327	7.100	11255	29920	0.057	0.085	#
7)	Aldrin	0.000	7.444f	0	6915	N.D.	0.021	#
8)	Heptachlo...	7.201	0.000	13989	0	0.076	N.D.	#
9)	trans-Chl...	7.286	7.986	5344	23670	0.029	0.076	#
10)	cis-Chlor...	7.375	0.000	25257	0	0.139	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	7.649	8.356	2548	26951	0.013	0.089	#
14)	Endrin	7.842f	8.577	30124	16096	0.205	0.071	#
15)	4,4'-DDD	7.842f	8.613	30124	49018	0.192	0.191	
16)	Endosulfa...	7.970	8.716	13719	18586	0.096	0.081	
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.261	8.954	26072	39421	BelowCal	BelowCal	
19)	Endosulfa...	8.559	9.143	27571	41176	0.178	0.165	
20)	Methoxychlor	8.400	0.000	4086	0	0.070	N.D.	#
21)	Endrin Ke...	8.752	9.536	13314	29999	0.080	0.117	#
23)	Hexachlor...	3.061	3.547	10507	17088	0.057	0.045	
24)	Hexachlor...	5.641	6.318	31602	27052	0.179	0.086	#
25)	Oxychlordane	7.120	7.777	27229	33975	0.165	0.124	
26)	2,4'-DDE	7.201	7.986	13989	23670	0.109	0.112	
27)	trans-Non...	7.375	8.050	25257	39176	87346.559	0.130	#
28)	2,4'-DDD	7.573	8.356	14379	26951	0.126	0.143	
29)	2,4'-DDT	7.751	8.577	8336	16096	0.076	0.090	
30)	cis-Nonac...	7.842	8.613	30124	49018	0.145	0.146	
31)	Mirex	8.503	9.536	22203	29999	0.177	0.161	
32)	Chlordane...	7.375f	8.050	25257	39176	1.283	1.083	
33)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
34)	Chlordane...	7.970	0.000	13719	0	2.373	N.D.	#
35)	Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)	Toxaphene...	0.000	8.356f	0	26951	N.D.	10.270	#
37)	Toxaphene...	7.751f	8.716	8336	18586	5.162	5.648	
38)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)	Toxaphene...	8.261	0.000	26072	0	8.047	N.D.	#
40)	Toxaphene...	8.503	0.000	22203	0	9.262	N.D.	#
41)	Toxaphene...	8.559	9.393	27571	13770	8.712	2.899	#
42)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

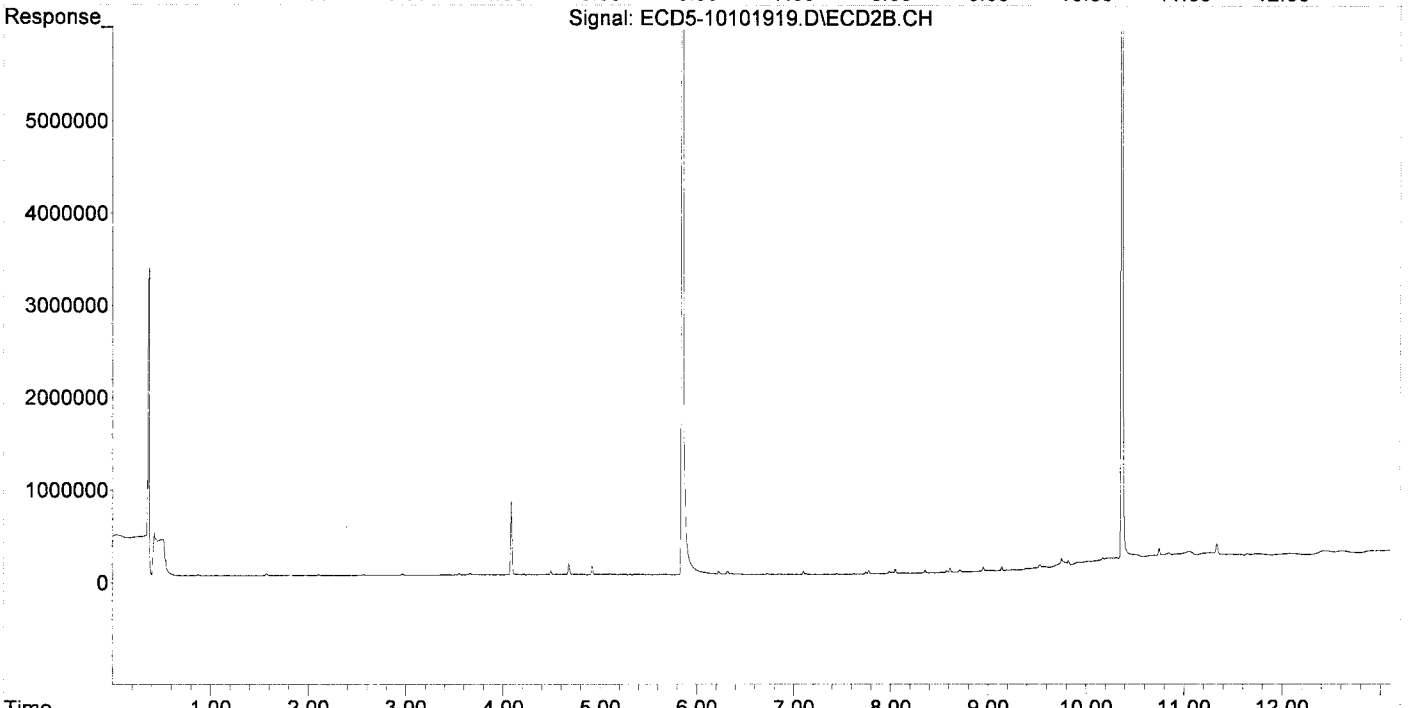
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101919.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 16:48
Operator : MJB
Sample : 9J10029-CCB2
Misc : A19I233
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:04:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:06
Operator : MJB
Sample : A9J0058-09RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, 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: Oct 16 10:37:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/16/19

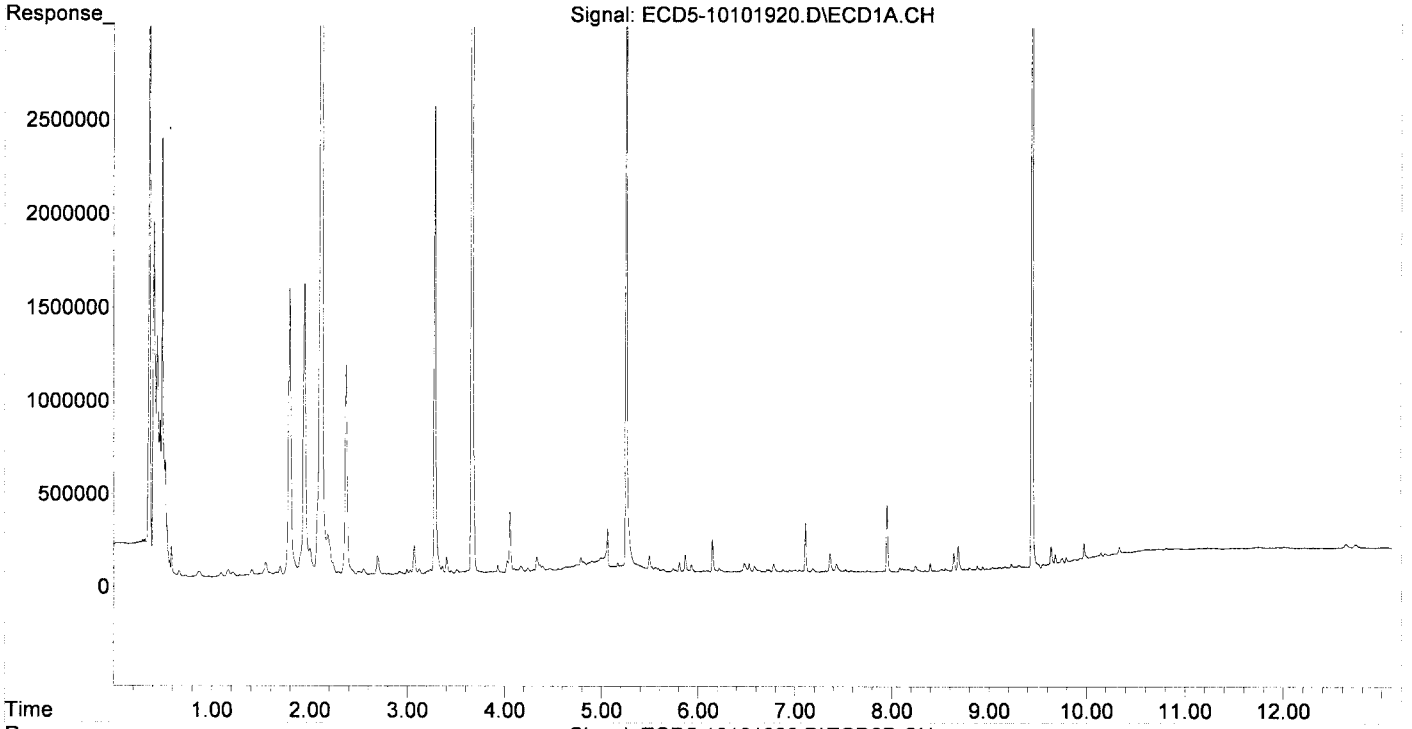
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1)	S TCMX (S)	5.258	5.850	3369286	5862025	20.300	19.982
22)	S DCBP (S)	9.443	10.371	6901364	9357919	48.912	52.057
	Target Compounds						
2)	a-BHC	5.806	0.000	57968	0	0.253	N.D. #
3)	g-BHC	6.089	0.000	15087	0	0.075	N.D. #
4)	b-BHC	6.148	6.843	180499	15076	1.997	0.095 #
5)	Heptachlor	6.476	7.121f	51168	16333	0.282	0.053 #
6)	d-BHC	6.312	7.076f	10989	68176	0.056	0.193 #
7)	Aldrin	6.734	7.394	17115	15732	0.087	0.048 #
8)	Heptachlo...	7.185	7.827f	21946	47719	0.119	0.159
9)	trans-Chl...	7.294	7.989	6936	153783	0.038	0.491 #
10)	cis-Chlor...	7.364	8.128f	99916	89796	0.549	0.308 #
11)	Endosulfa...	0.000	8.159	0	23528	N.D.	0.086 #
12)	4,4'-DDE	7.429	8.184f	43659	14653	0.232	0.047 #
13)	Dieldrin	7.650	8.344	5917	8141	0.031	0.027
14)	Endrin	7.852f	8.548f	5152	4024	0.035	0.018 #
15)	4,4'-DDD	7.851	0.000	5594	0	0.036m	N.D. #
16)	Endosulfa...	7.952	8.699	356117	455859	2.480	1.977
17)	4,4'-DDT	8.084f	8.844	22225	18394	0.186	0.069 #
18)	Endrin Al...	8.245	8.937	28087	42501	BelowCal	BelowCal
19)	Endosulfa...	8.555	9.141	13202	25028	0.085	0.100
20)	Methoxychlor	8.398	9.322	39926	65847	0.682	0.631
21)	Endrin Ke...	8.746	9.539	7288	115515	0.044	0.449 #
23)	Hexachlor...	3.070	3.528	161191	4389696	0.882	11.677 #
24)	Hexachlor...	5.639	6.308	22962	75153	0.130	0.239 #
25)	Oxychlordane	7.110	7.774	265125	22635	1.611	0.083 #
26)	2,4'-DDE	7.185	7.989	21946	153783	0.171	0.725 #
27)	trans-Non...	7.364	8.058	99916	35185	0.241	0.117 #
28)	2,4'-DDD	7.578	8.344	9960	8141	0.087	0.043 #
29)	2,4'-DDT	7.746	8.573	7318	3693	0.067	0.021m#
30)	cis-Nonac...	7.852	0.000	5152	0	0.025	N.D. #
31)	Mirex	8.516	9.539	9491	115515	0.076	0.621 #
32)	Chlordane...	7.364	8.058	99916	35185	5.075	0.972 #
33)	Chlordane...	7.429	8.159	43659	23528	1.742	0.775 #
34)	Chlordane...	7.952f	8.818	356117	16985	61.600	1.894 #
35)	Chlordane...	3.358	3.383f	49156	64720	NoCal	NoCal
36)	Toxaphene...	7.429	8.407f	43659	7910	48.746	3.014 #
37)	Toxaphene...	7.699	8.756f	6280	21596	3.889	6.562 #
38)	Toxaphene...	0.000	8.756	0	21596	N.D.	4.261 #
39)	Toxaphene...	8.245	8.844	28087	18394	8.668	2.203 #
40)	Toxaphene...	8.516f	0.000	9491	0	3.959	N.D. #
41)	Toxaphene...	8.555	9.361f	13202	143809	4.172	30.274 #
42)	Toxaphene...	3.358	3.383f	49156	64720	NoCal	NoCal

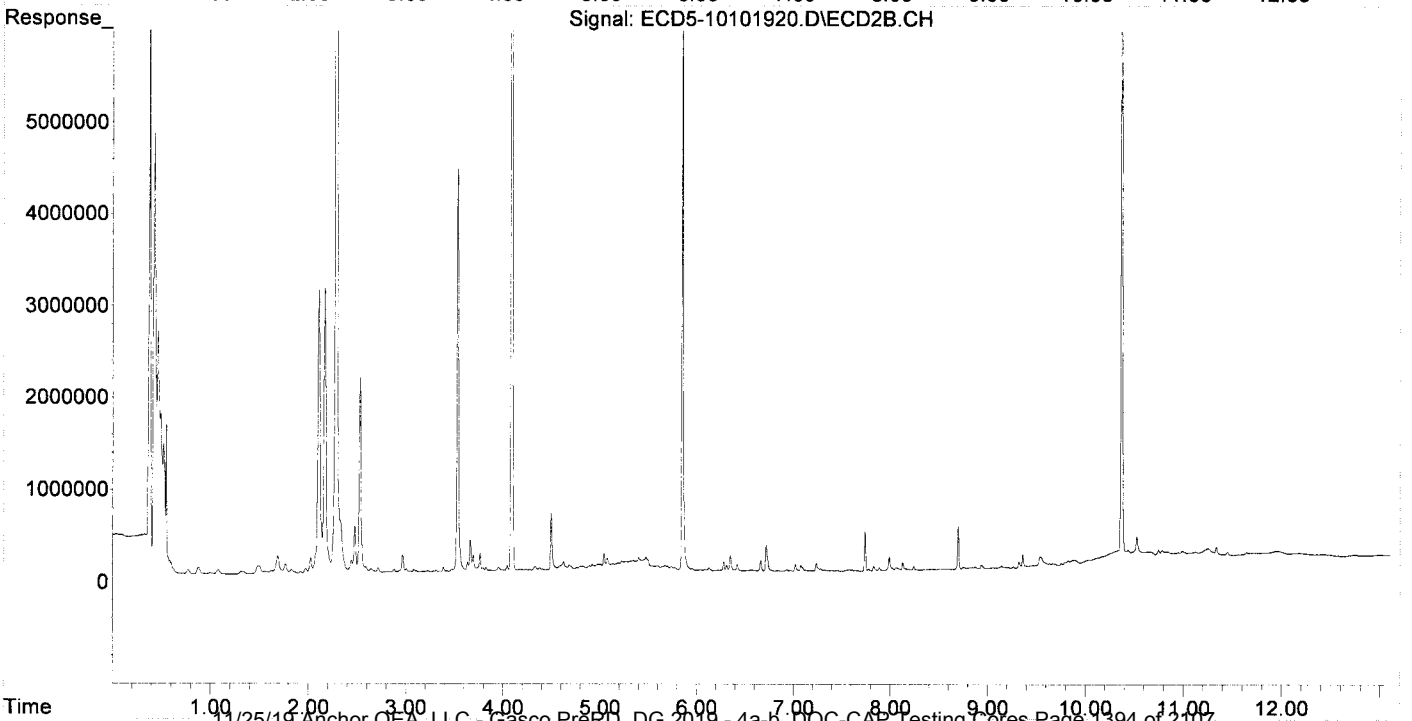
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:06
Operator : MJB
Sample : A9J0058-09RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, 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: Oct 16 10:37:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

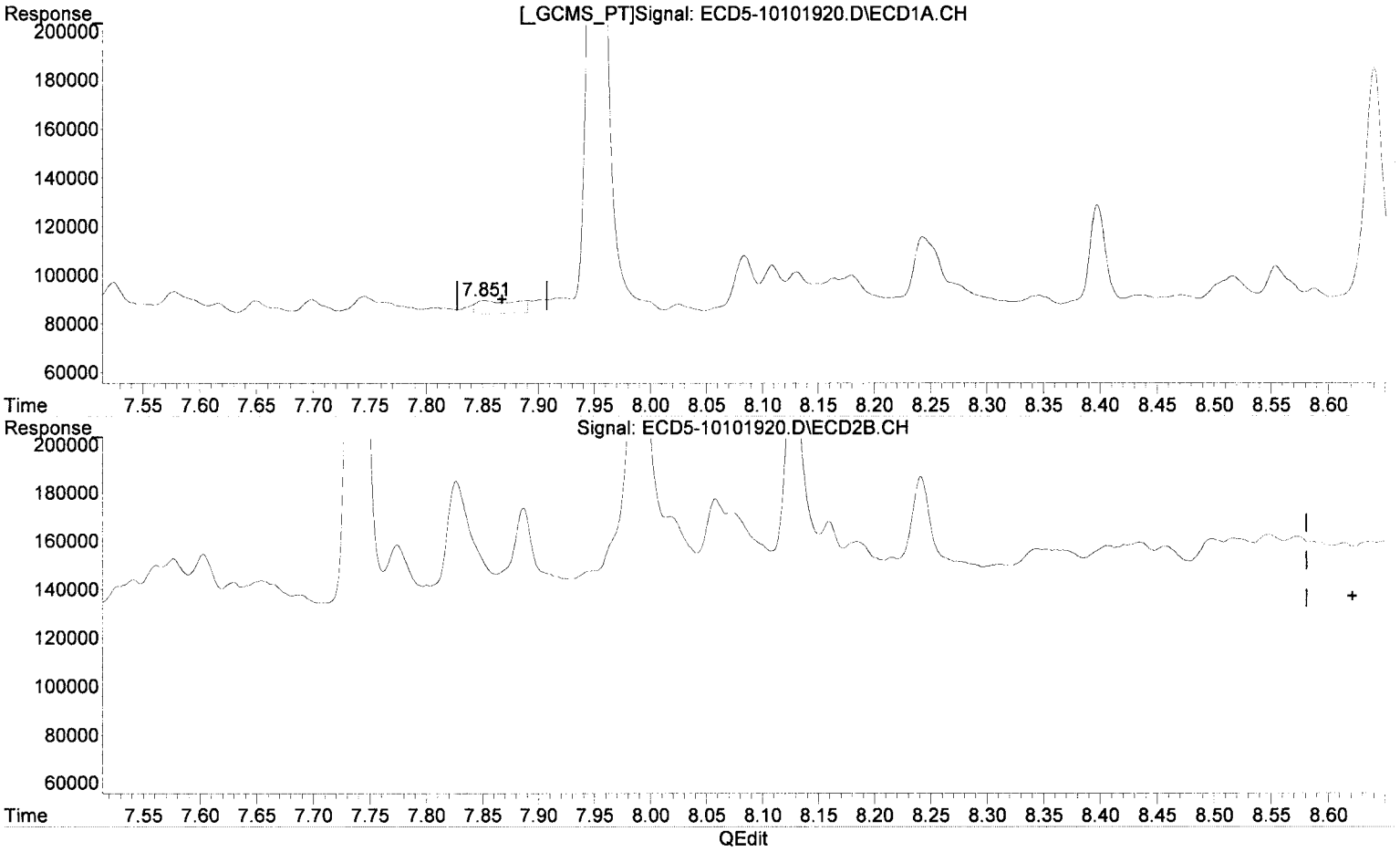




Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:06
Operator : MJB
Sample : A9J0058-09RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, 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: Oct 11 11:04:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(15) 4,4'-DDD

7.851min 0.036 ng/mL m

response 5594

MJB 12/16/19

(15) 4,4'-DDD #2

0.000min 0.000 ng/mL

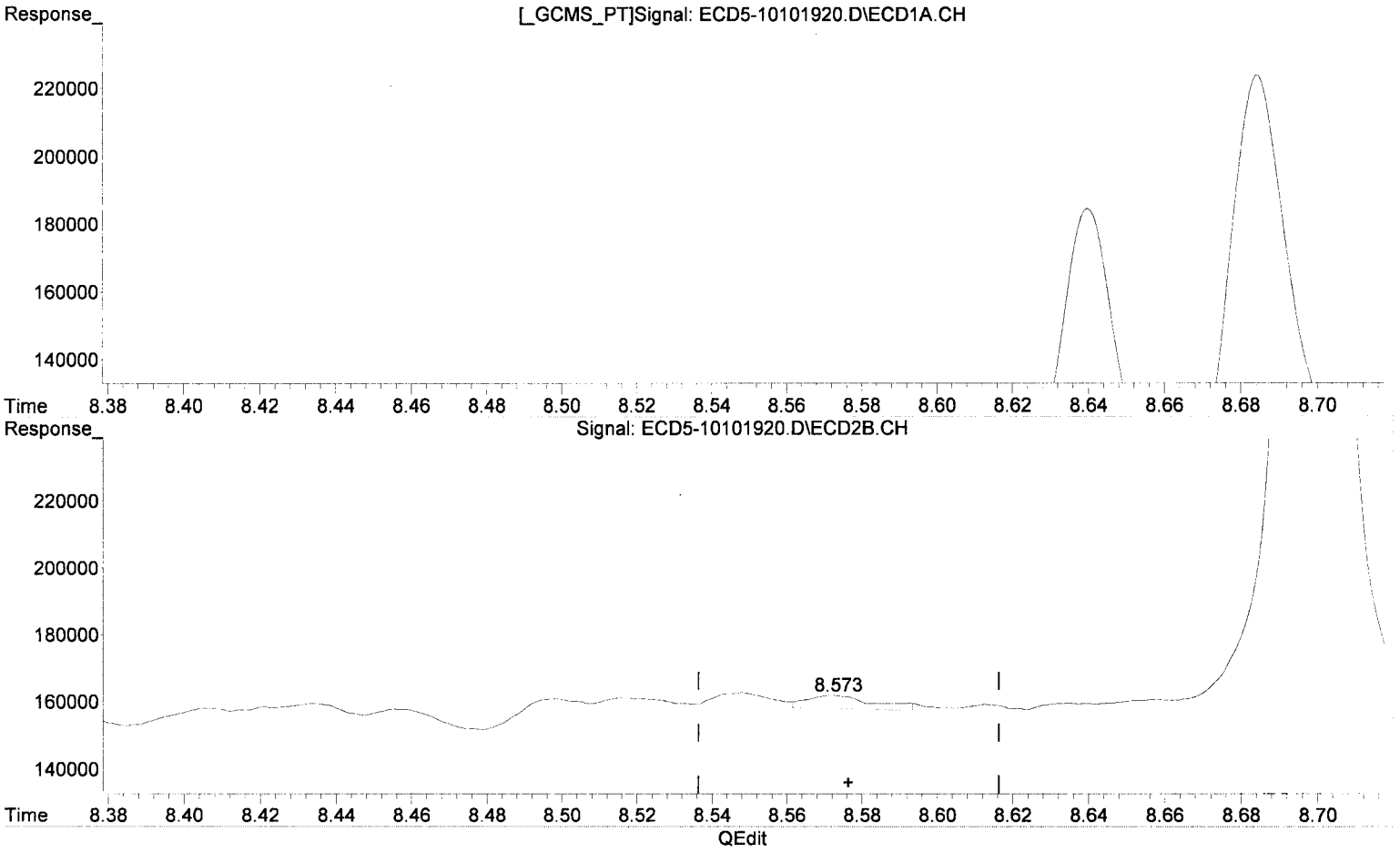
response 0

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:06
Operator : MJB
Sample : A9J0058-09RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, 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: Oct 11 11:04:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(29) 2,4'-DDT

7.746min 0.067 ng/mL

response 7318

MJB 10/16/19

(29) 2,4'-DDT #2

8.573min 0.021 ng/mL m

response 3693

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:06
Operator : MJB
Sample : A9J0058-09RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, 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: Oct 11 11:04:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MI MJB 10/16/19

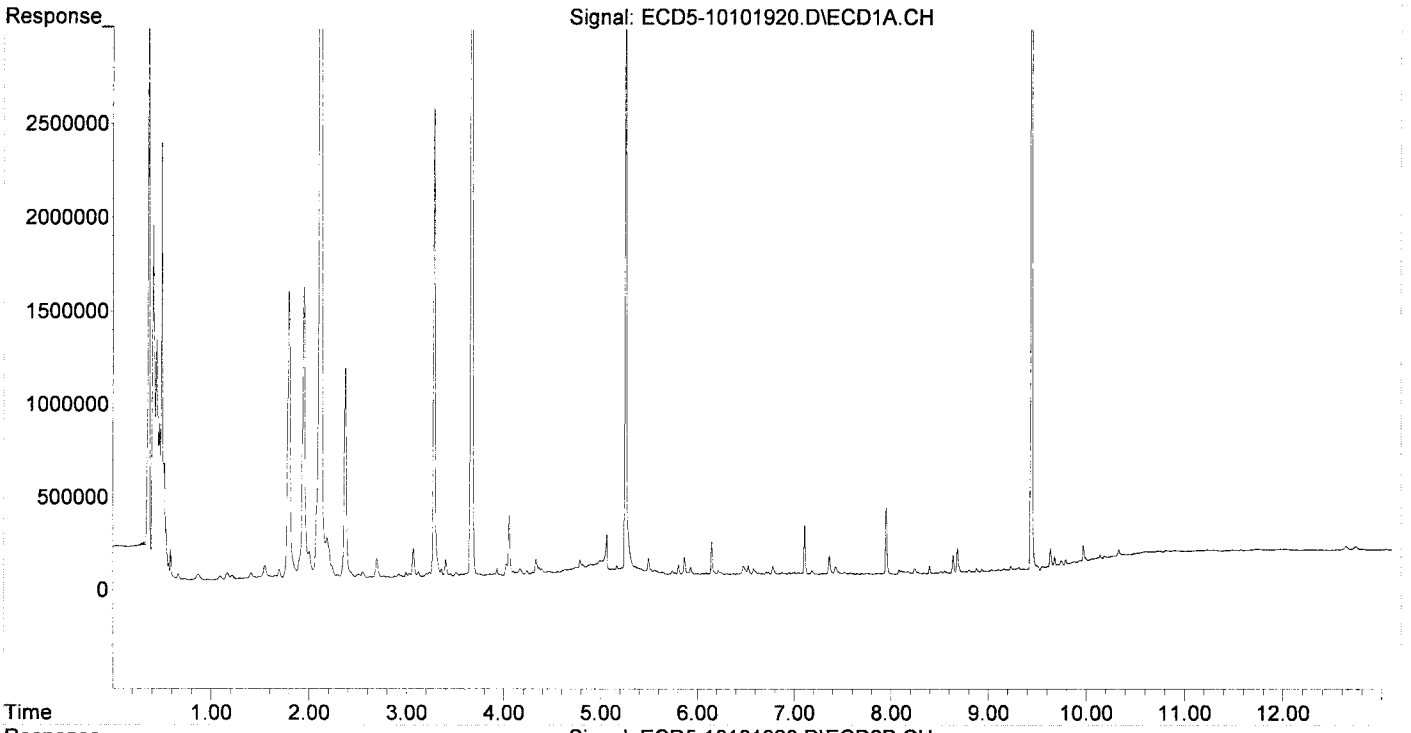
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.850	3369286	5862025	20.300	19.982	
22)	S	DCBP (S)	9.443	10.371	6901364	9357919	48.912	52.057	
		Target Compounds							
2)		a-BHC	5.806	0.000	57968	0	0.253	N.D.	#
3)		g-BHC	6.089	0.000	15087	0	0.075	N.D.	#
4)		b-BHC	6.148	6.843	180499	15076	1.997	0.095	#
5)		Heptachlor	6.476	7.121f	51168	16333	0.282	0.053	#
6)		d-BHC	6.312	7.076f	10989	68176	0.056	0.193	#
7)		Aldrin	6.734	7.394	17115	15732	0.087	0.048	#
8)		Heptachlo...	7.185	7.827f	21946	47719	0.119	0.159	
9)		trans-Chl...	7.294	7.989	6936	153783	0.038	0.491	#
10)		cis-Chlor...	7.364	8.128f	99916	89796	0.549	0.308	#
11)		Endosulfa...	0.000	8.159	0	23528	N.D.	0.086	#
12)		4,4'-DDE	7.429	8.184f	43659	14653	0.232	0.047	#
13)		Dieldrin	7.650	8.344	5917	8141	0.031	0.027	
14)		Endrin	7.852f	8.548f	5152	4024	0.035	0.018	#
15)		4,4'-DDD	7.852	0.000	5152	0	0.033	N.D.	#
16)		Endosulfa...	7.952	8.699	356117	455859	2.480	1.977	
17)		4,4'-DDT	8.084f	8.844	22225	18394	0.186	0.069	#
18)		Endrin Al...	8.245	8.937	28087	42501	BelowCal	BelowCal	
19)		Endosulfa...	8.555	9.141	13202	25028	0.085	0.100	
20)		Methoxychlor	8.398	9.322	39926	65847	0.682	0.631	
21)		Endrin Ke...	8.746	9.539	7288	115515	0.044	0.449	#
23)		Hexachlor...	3.070	3.528	161191	4389696	0.882	11.677	#
24)		Hexachlor...	5.639	6.308	22962	75153	0.130	0.239	#
25)		Oxychlordane	7.110	7.774	265125	22635	1.611	0.083	#
26)		2,4'-DDE	7.185	7.989	21946	153783	0.171	0.725	#
27)		trans-Non...	7.364	8.058	99916	35185	0.241	0.117	#
28)		2,4'-DDD	7.578	8.344	9960	8141	0.087	0.043	#
29)		2,4'-DDT	7.746	8.548f	7318	4024	0.067	0.023	#
30)		cis-Nonac...	7.852	0.000	5152	0	0.025	N.D.	#
31)		Mirex	8.516	9.539	9491	115515	0.076	0.621	#
32)		Chlordane...	7.364	8.058	99916	35185	5.075	0.972	#
33)		Chlordane...	7.429	8.159	43659	23528	1.742	0.775	#
34)		Chlordane...	7.952f	8.818	356117	16985	61.600	1.894	#
35)		Chlordane...	3.358	3.383f	49156	64720	NoCal	NoCal	
36)		Toxaphene...	7.429	8.407f	43659	7910	48.746	3.014	#
37)		Toxaphene...	7.699	8.756f	6280	21596	3.889	6.562	#
38)		Toxaphene...	0.000	8.756	0	21596	N.D.	4.261	#
39)		Toxaphene...	8.245	8.844	28087	18394	8.668	2.203	#
40)		Toxaphene...	8.516f	0.000	9491	0	3.959	N.D.	#
41)		Toxaphene...	8.555	9.361f	13202	143809	4.172	30.274	#
42)		Toxaphene...	3.358	3.383f	49156	64720	NoCal	NoCal	

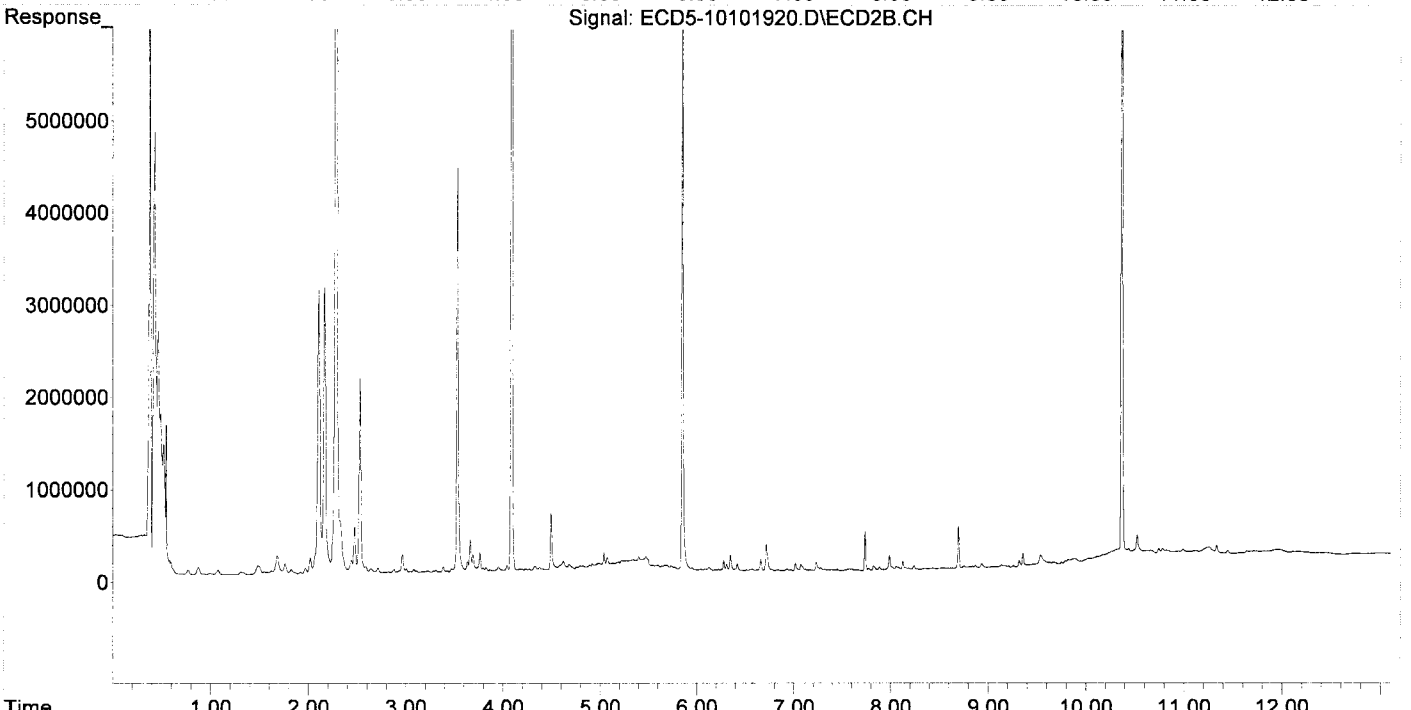
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101920.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:06
Operator : MJB
Sample : A9J0058-09RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, 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: Oct 11 11:04:45 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:23
Operator : MJB
Sample : A9J0058-10RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 16 10:39:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/16/19

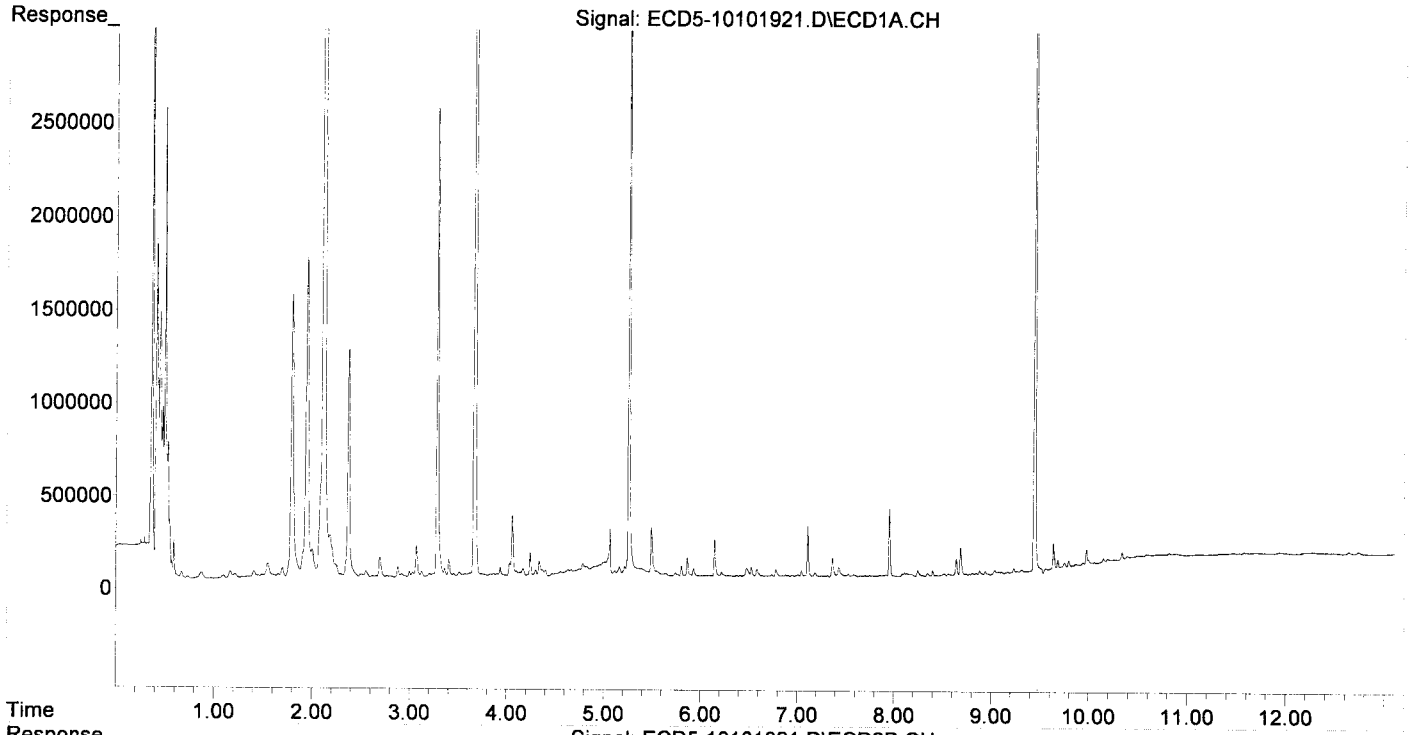
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.851	3613300	6165339	21.770	21.016	
22)	S	DCBP (S)	9.444	10.372	6780073	8692667	48.052	48.356	
		Target Compounds							
2)		a-BHC	5.804	0.000	57482	0	0.251	N.D.	#
3)		g-BHC	6.085	0.000	10841	0	0.054	N.D.	#
4)		b-BHC	6.147f	6.843	198253	18597	2.193	0.118	#
5)		Heptachlor	6.477	7.166	46682	17791	0.257	0.058	#
6)		d-BHC	0.000	7.076f	0	69527	N.D.	0.197	#
7)		Aldrin	6.735	7.393	14368	18616	0.073	0.057	
8)		Heptachlo...	7.183	7.830	21482	72513	0.117	0.241	#
9)		trans-Chl...	7.316f	7.990	7726	164791	0.042	0.526	#
10)		cis-Chlor...	7.365	8.072f	98886	36662	0.543	0.126	#
11)		Endosulfa...	0.000	8.160	0	23932	N.D.	0.087	#
12)		4,4'-DDE	7.431	8.192	47814	10860	0.254	0.035m	#
13)		Dieldrin	7.651	8.344	4932	12252	0.026	0.040	#
14)		Endrin	7.852f	8.546f	6562	10235	0.045	0.045	
15)		4,4'-DDD	7.852	0.000	6562	0	0.042	N.D.	#
16)		Endosulfa...	7.953	8.699	360562	466378	2.511	2.022	
17)		4,4'-DDT	8.085f	8.844	12647	16232	0.106	0.056	#
18)		Endrin Al...	8.244	8.936	28903	46449	BelowCal	BelowCal	
19)		Endosulfa...	8.557	9.141	8731	19582	0.056	0.079	
20)		Methoxychlor	8.399	9.323	28315	44224	0.483	0.363	
21)		Endrin Ke...	8.775f	9.541	5665	99456	0.034	0.387	#
23)		Hexachlor...	3.069	3.528	173029	4278141	0.947	11.380	#
24)		Hexachlor...	5.643	6.308	22147	76961	0.126	0.245	#
25)		Oxychlordane	7.110	7.775	266633	27718	1.620	0.101	#
26)		2,4'-DDE	7.183	7.990	21482	164791	0.167	0.777	#
27)		trans-Non...	7.365	8.060	98886	36402	0.236	0.121	#
28)		2,4'-DDD	7.580	8.344	10368	12252	0.091	0.065	
29)		2,4'-DDT	7.747	8.573	5967	8653	0.054	0.049m	
30)		cis-Nonac...	7.852	0.000	6562	0	0.032	N.D.	#
31)		Mirex	8.514	9.541	9475	99456	0.076	0.535	#
32)		Chlordane...	7.365	8.060	98886	36402	5.022	1.006	#
33)		Chlordane...	7.431	8.160	47814	23932	1.908	0.788	#
34)		Chlordane...	7.953f	8.817	360562	19251	62.369	2.147	#
35)		Chlordane...	3.357	3.383f	50631	79241	NoCal	NoCal	
36)		Toxaphene...	7.431	8.366	47814	9976	53.385	3.802	#
37)		Toxaphene...	7.699	8.749	7340	23700	4.545	7.201	#
38)		Toxaphene...	0.000	8.749	0	23700	N.D.	4.676	#
39)		Toxaphene...	8.244f	8.844	28903	16232	8.920	1.944	#
40)		Toxaphene...	8.514f	9.012	9475	6823	3.952	1.464	#
41)		Toxaphene...	8.557	9.390	8731	7757	2.759	1.633	#
42)		Toxaphene...	3.357	3.383f	50631	79241	NoCal	NoCal	

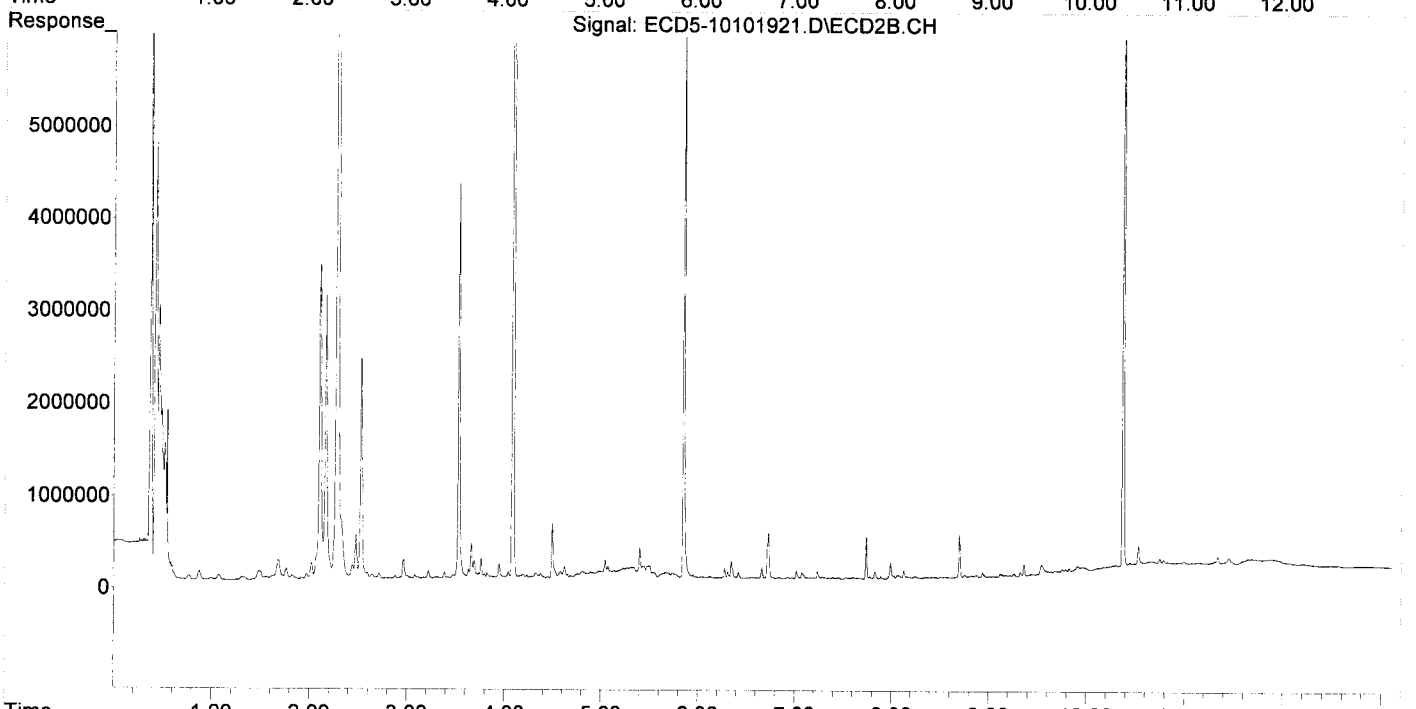
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:23
Operator : MJB
Sample : A9J0058-10RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 16 10:39:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

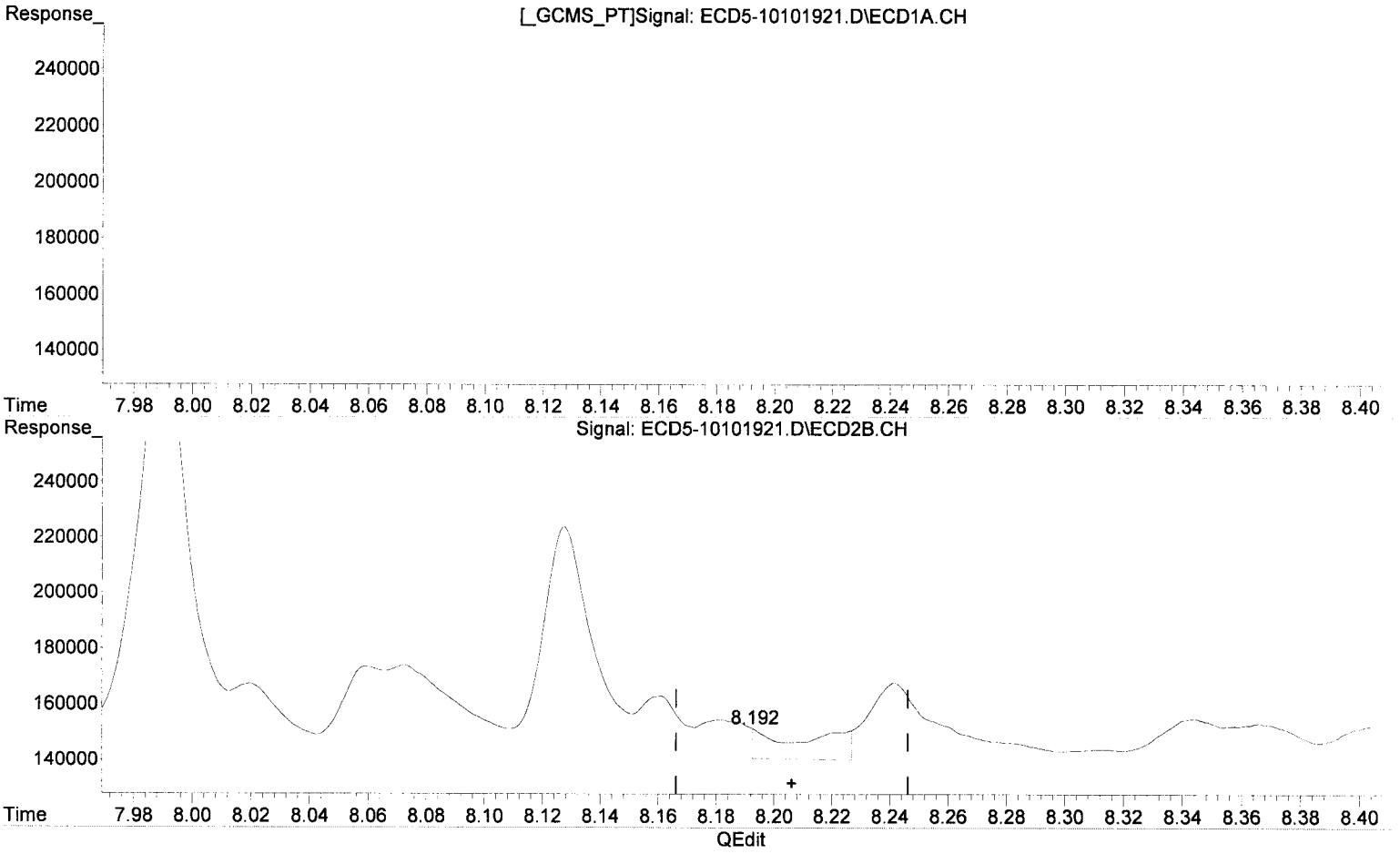




Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:23
Operator : MJB
Sample : A9J0058-10RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 11 11:04:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.431min 0.254 ng/mL

response 47814

MJB 10/16/19

(12) 4,4'-DDE #2

8.192min 0.035 ng/mL m

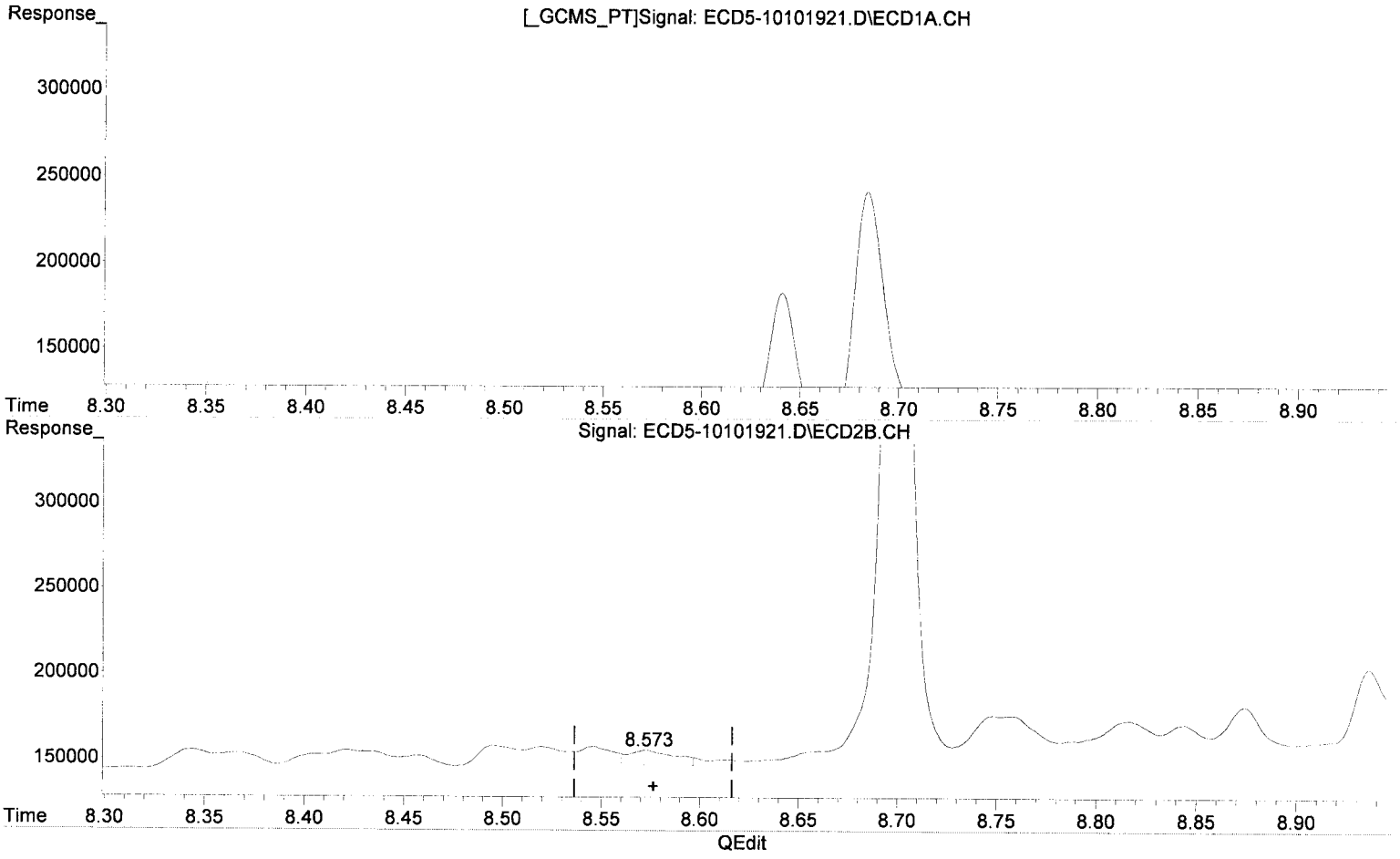
response 10860

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:23
Operator : MJB
Sample : A9J0058-10RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 11 11:04:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(29) 2,4'-DDT

7.747min 0.054 ng/mL

response 5967

MJB 10/16/19

(29) 2,4'-DDT #2

8.573min 0.049 ng/mL m

response 8653

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:23
Operator : MJB
Sample : A9J0058-10RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 11 11:04:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/16/19

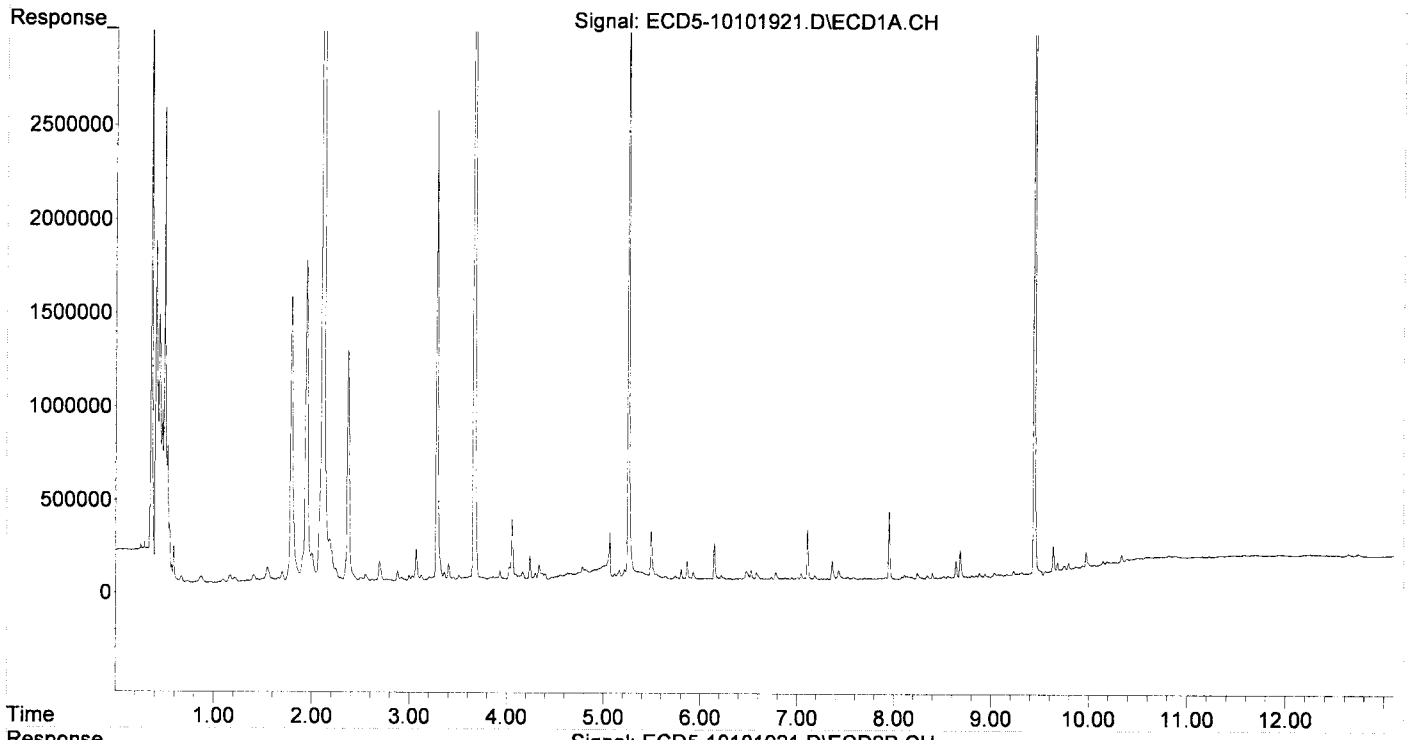
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.851	3613300	6165339	21.770	21.016	
22)	S	DCBP (S)	9.444	10.372	6780073	8692667	48.052	43.356	
		Target Compounds							
2)		a-BHC	5.804	0.000	57482	0	0.251	N.D.	#
3)		g-BHC	6.085	0.000	10841	0	0.054	N.D.	#
4)		b-BHC	6.147f	6.843	198253	18597	2.193	0.118	#
5)		Heptachlor	6.477	7.166	46682	17791	0.257	0.058	#
6)		d-BHC	0.000	7.076f	0	69527	N.D.	0.197	#
7)		Aldrin	6.735	7.393	14368	18616	0.073	0.057	
8)		Heptachlo...	7.183	7.830	21482	72513	0.117	0.241	#
9)		trans-Chl...	7.316f	7.990	7726	164791	0.042	0.526	#
10)		cis-Chlor...	7.365	8.072f	98886	36662	0.543	0.126	#
11)		Endosulfa...	0.000	8.160	0	23932	N.D.	0.087	#
12)		4,4'-DDE	7.431	8.242f	47814	27070	0.254	0.087	#
13)		Dieldrin	7.651	8.344	4932	12252	0.026	0.040	#
14)		Endrin	7.852f	8.546f	6562	10235	0.045	0.045	
15)		4,4'-DDD	7.852	0.000	6562	0	0.042	N.D.	#
16)		Endosulfa...	7.953	8.699	360562	466378	2.511	2.022	
17)		4,4'-DDT	8.085f	8.844	12647	16232	0.106	0.056	#
18)		Endrin Al...	8.244	8.936	28903	46449	BelowCal	BelowCal	
19)		Endosulfa...	8.557	9.141	8731	19582	0.056	0.079	
20)		Methoxychlor	8.399	9.323	28315	44224	0.483	0.363	
21)		Endrin Ke...	8.775f	9.541	5665	99456	0.034	0.387	#
23)		Hexachlor...	3.069	3.528	173029	4278141	0.947	11.380	#
24)		Hexachlor...	5.643	6.308	22147	76961	0.126	0.245	#
25)		Oxychlordane	7.110	7.775	266633	27718	1.620	0.101	#
26)		2,4'-DDE	7.183	7.990	21482	164791	0.167	0.777	#
27)		trans-Non...	7.365	8.060	98886	36402	0.236	0.121	#
28)		2,4'-DDD	7.580	8.344	10368	12252	0.091	0.065	
29)		2,4'-DDT	7.747	8.546f	5967	10235	0.054	0.057	
30)		cis-Nonac...	7.852	0.000	6562	0	0.032	N.D.	#
31)		Mirex	8.514	9.541	9475	99456	0.076	0.535	#
32)		Chlordane...	7.365	8.060	98886	36402	5.022	1.006	#
33)		Chlordane...	7.431	8.160	47814	23932	1.908	0.788	#
34)		Chlordane...	7.953f	8.817	360562	19251	62.369	2.147	#
35)		Chlordane...	3.357	3.383f	50631	79241	NoCal	NoCal	
36)		Toxaphene...	7.431	8.366	47814	9976	53.385	3.802	#
37)		Toxaphene...	7.699	8.749	7340	23700	4.545	7.201	#
38)		Toxaphene...	0.000	8.749	0	23700	N.D.	4.676	#
39)		Toxaphene...	8.244f	8.844	28903	16232	8.920	1.944	#
40)		Toxaphene...	8.514f	9.012	9475	6823	3.952	1.464	#
41)		Toxaphene...	8.557	9.390	8731	7757	2.759	1.633	#
42)		Toxaphene...	3.357	3.383f	50631	79241	NoCal	NoCal	

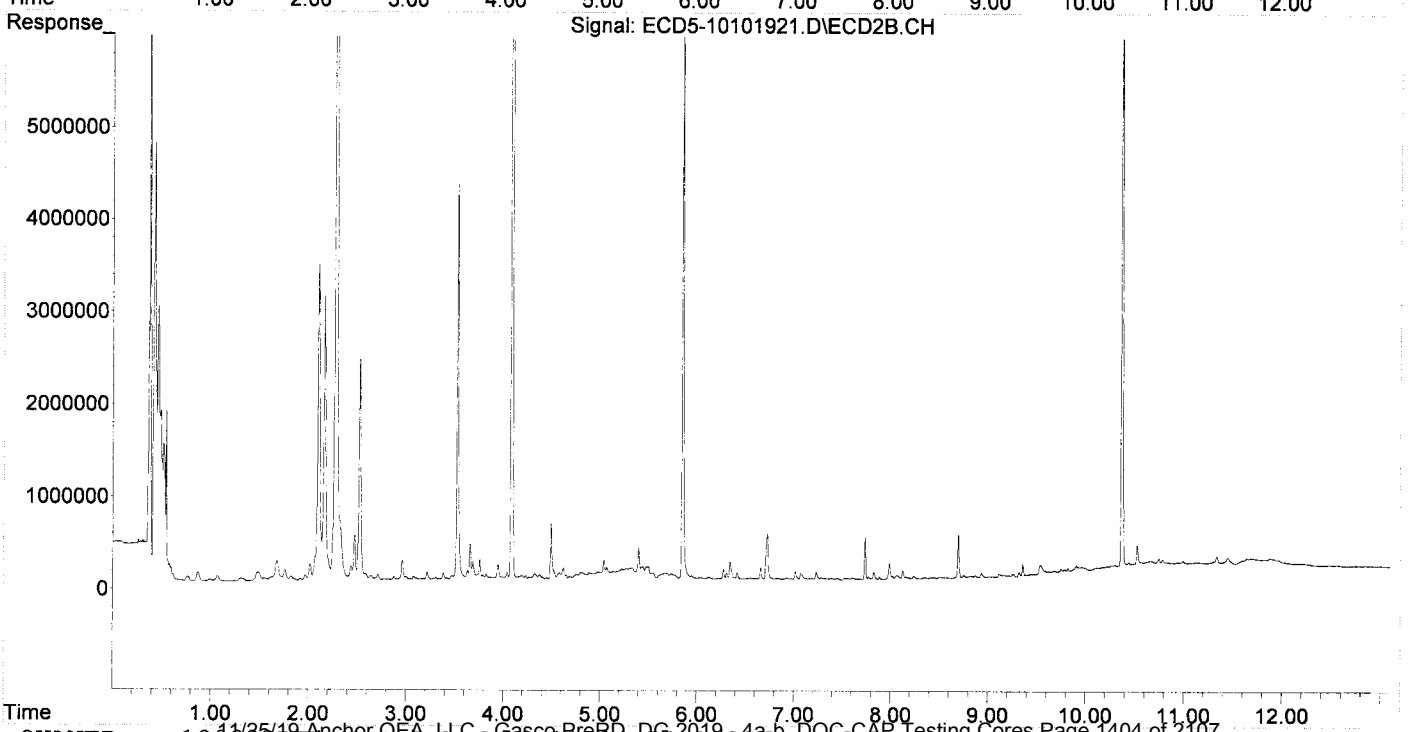
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101921.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:23
Operator : MJB
Sample : A9J0058-10RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 11 11:04:52 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:40
Operator : MJB
Sample : A9J0058-15RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 11 11:04:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/16/20

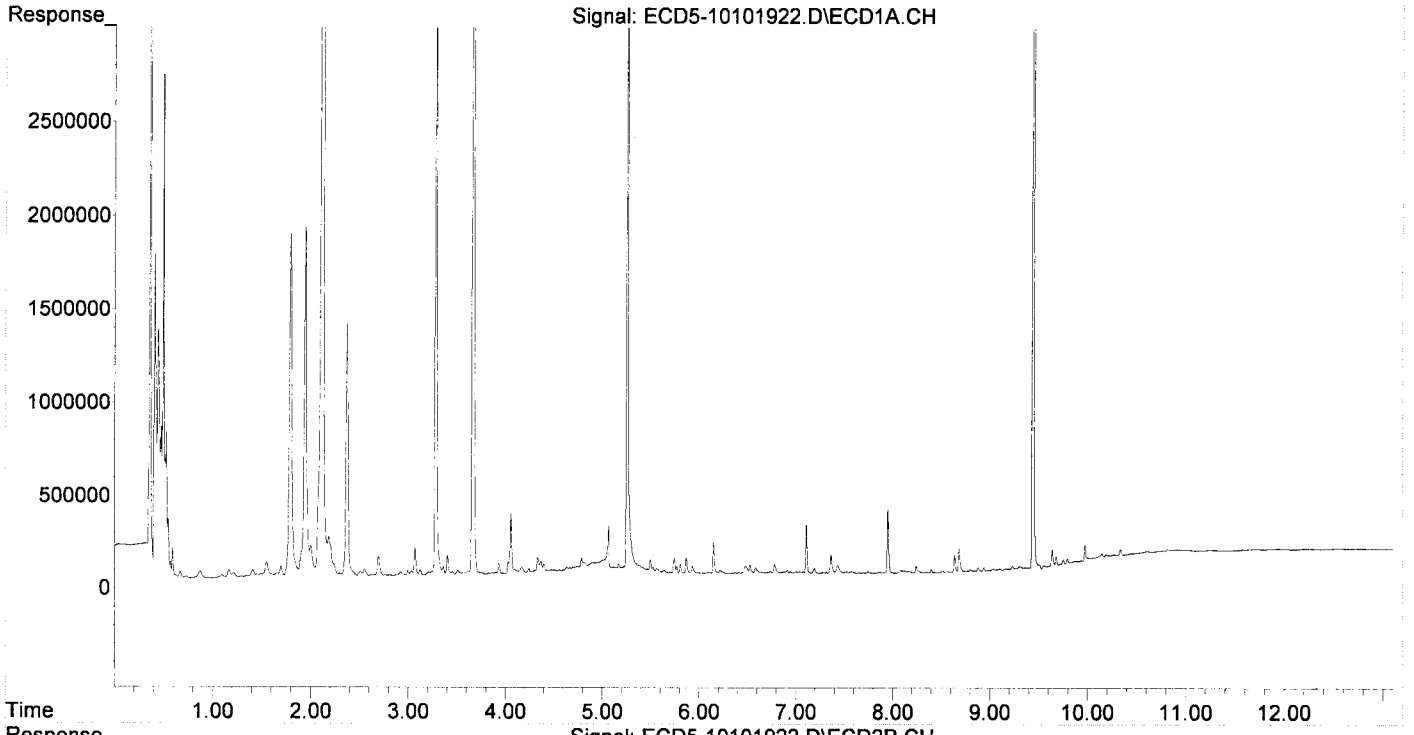
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.259	5.851	3877215	6726003	23.360	22.927	
22)	S	DCBP (S)	9.443	10.372	7013442	9504688	49.706	52.873	
		Target Compounds							
2)		a-BHC	5.807	0.000	45955	0	0.200	N.D.	#
3)		g-BHC	6.091	6.772	6630	22177	0.033	0.062	#
4)		b-BHC	6.150	6.843	165062	18489	1.826	0.117	#
5)		Heptachlor	6.479	7.167	39916	16575	0.220	0.054	#
6)		d-BHC	0.000	7.077f	0	75676	N.D.	0.215	#
7)		Aldrin	6.736	7.394	13693	19782	0.069	0.060	
8)		Heptachlo...	7.191	7.828f	28056	47171	0.152	0.157	
9)		trans-Chl...	7.277	7.990	5926	155059	0.032	0.495	#
10)		cis-Chlor...	7.365	8.129f	98674	83957	0.542	0.288	#
11)		Endosulfa...	0.000	8.160	0	22204	N.D.	0.081	#
12)		4,4'-DDE	7.432	8.202	42063	25755	0.223	0.083	#
13)		Dieldrin	7.651	8.354	3561	17064	0.019	0.056	#
14)		Endrin	0.000	8.575	0	16907	N.D.	0.075	#
15)		4,4'-DDD	7.862	8.616	7324	8044	0.047	0.031	
16)		Endosulfa...	7.952	8.699	339925	451624	2.367	1.958	
17)		4,4'-DDT	8.086f	8.842	17378	23706	0.145	0.100	
18)		Endrin Al...	8.244	8.936	36995	67176	BelowCal	BelowCal	
19)		Endosulfa...	8.558	9.141	7315	8968	0.047	0.036	
20)		Methoxychlor	8.398	9.323	20310	34441	0.347	0.242	
21)		Endrin Ke...	8.775f	9.541	5232	101864	0.031	0.396	#
23)		Hexachlor...	3.069	3.528	152724	5367880	0.836	14.279	#
24)		Hexachlor...	5.641	6.308	15261	73711	0.087	0.235	#
25)		Oxychlordane	7.110	7.774	257479	18602	1.565	0.068	#
26)		2,4'-DDE	7.191	7.990	28056	155059	0.219	0.731	#
27)		trans-Non...	7.365	8.059	98674	31801	0.235	0.105	#
28)		2,4'-DDD	7.575	8.354	9234	17064	0.081	0.090	
29)		2,4'-DDT	7.746	8.575	12706	16907	0.116	0.095	
30)		cis-Nonac...	7.862f	8.616	7324	8044	0.035	0.024	
31)		Mirex	8.518	9.541	8124	101864	0.065	0.547	#
32)		Chlordane...	7.365	8.059	98674	31801	5.011	0.879	#
33)		Chlordane...	7.432	8.160	42063	22204	1.678	0.731	#
34)		Chlordane...	7.952f	8.818	339925	19199	58.799	2.141	#
35)		Chlordane...	3.357	3.382f	50625	84459	NoCal	NoCal	
36)		Toxaphene...	7.432	8.408f	42063	7353	46.963	2.802	#
37)		Toxaphene...	7.699	8.757f	4760	19509	2.948	5.928	#
38)		Toxaphene...	0.000	8.757	0	19509	N.D.	3.849	#
39)		Toxaphene...	8.244f	8.842	36995	23706	11.418	2.839	#
40)		Toxaphene...	8.518f	0.000	8124	0	3.389	N.D.	#
41)		Toxaphene...	8.558	9.389	7315	10417	2.311	2.193	
42)		Toxaphene...	3.357	3.382f	50625	84459	NoCal	NoCal	

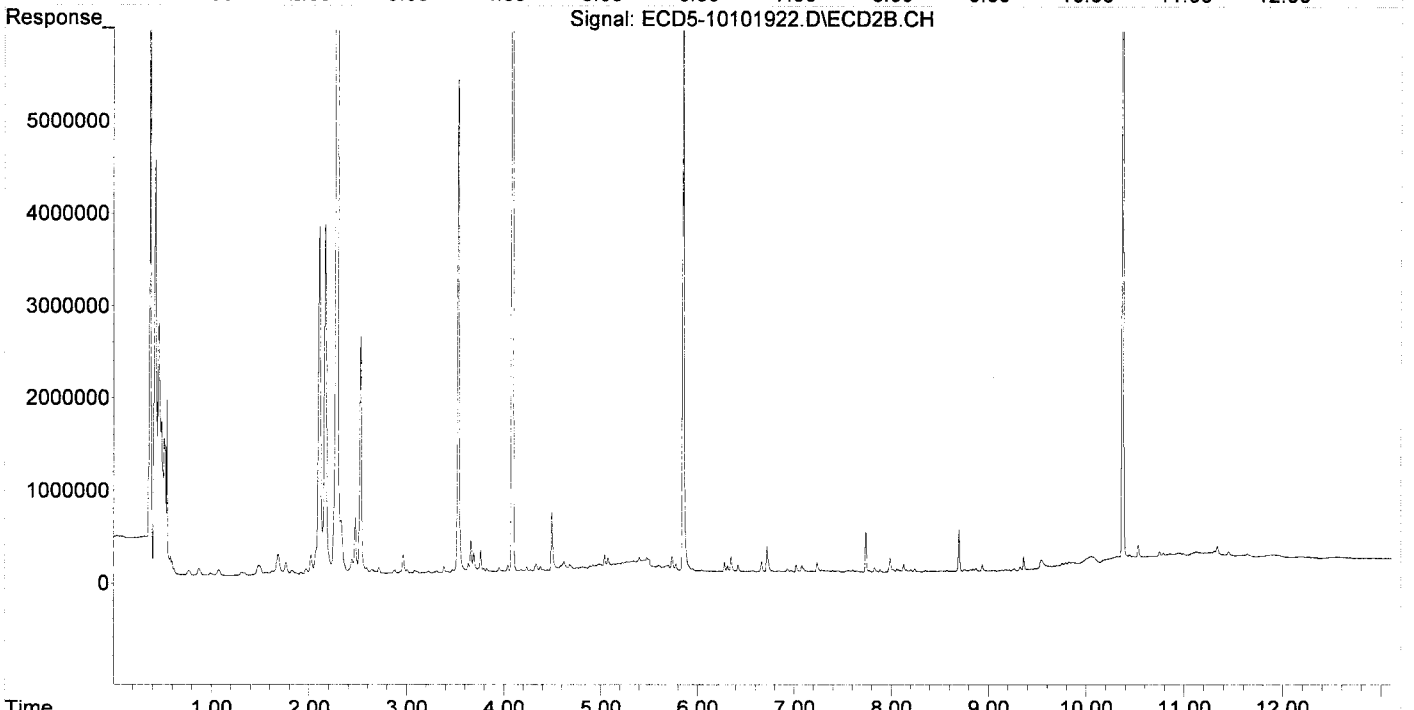
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:40
Operator : MJB
Sample : A9J0058-15RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 11 11:04:59 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:57
Operator : MJB
Sample : 9100817-MS1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 11 11:05:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/11/19

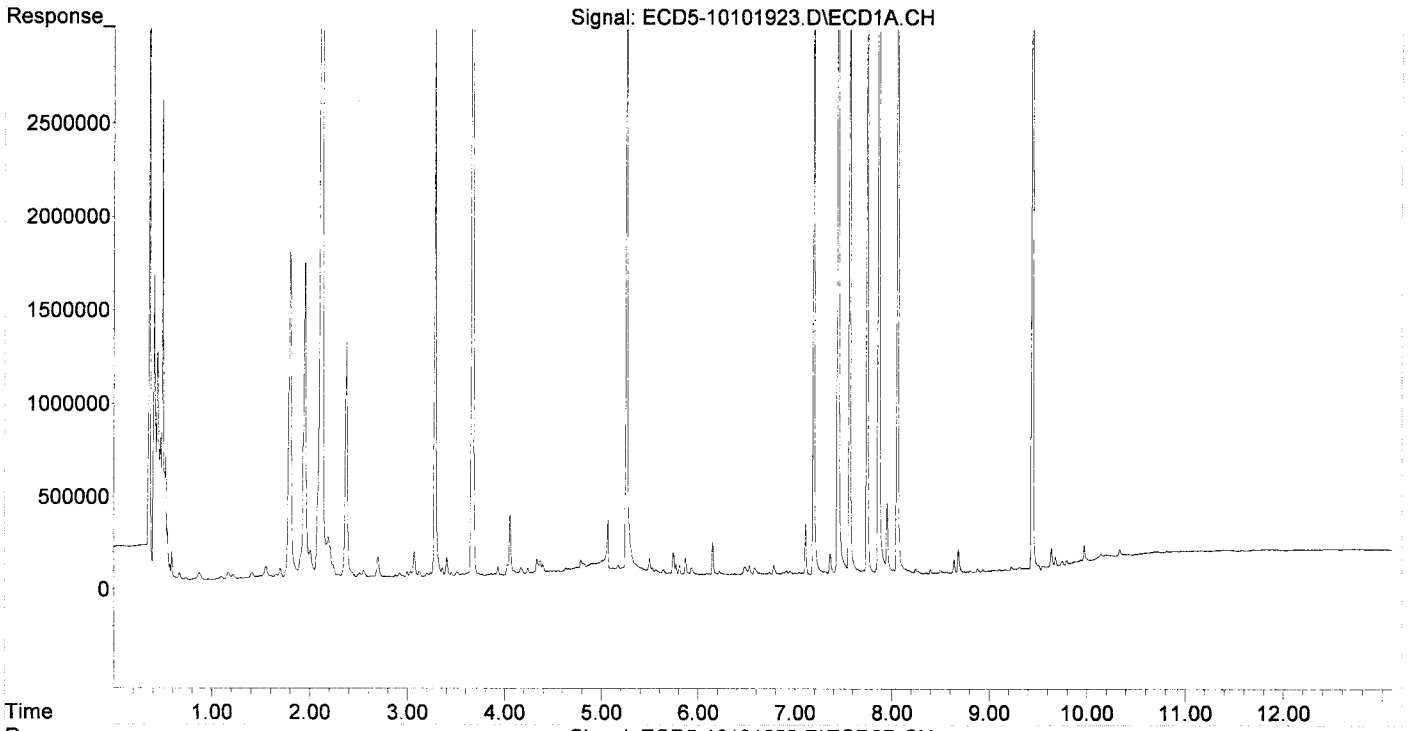
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.259	5.851	4092850	7194535	24.659	24.524	
22)	S	DCBP (S)	9.444	10.372	6811126	9279758	48.272	51.622	
		Target Compounds							
2)		a-BHC	5.806	0.000	54978	0	0.240	N.D.	#
3)		g-BHC	6.090	0.000	11233	0	0.056	N.D.	#
4)		b-BHC	6.150	6.844	173040	19988	1.915	0.126	#
5)		Heptachlor	6.480	7.167	42038	17926	0.232	0.059	#
6)		d-BHC	0.000	7.077f	0	77615	N.D.	0.220	#
7)		Aldrin	6.736	7.393	16117	20218	0.082	0.061	
8)		Heptachlo...	7.194	7.829f	4050915	49680	21.995	0.165	#
9)		trans-Chl...	7.310f	7.981	15282	6847616	0.083	21.855	#
10)		cis-Chlor...	7.365	8.129f	110030	89153	0.604	0.306	#
11)		Endosulfa...	7.444f	8.160	6480495	24252	38.080	0.088	#
12)		4,4'-DDE	7.444	8.203	6480495	11794947	34.374	37.965	
13)		Dieldrin	0.000	8.354	0	7350320	N.D.	24.167	#
14)		Endrin	0.000	8.576	0	8363324	N.D.	37.034	#
15)		4,4'-DDD	7.863	8.617	6209532	10879026	39.516	42.461	
16)		Endosulfa...	7.953	8.699	381037	487830	2.653	2.115	
17)		4,4'-DDT	8.059	8.842	6457981	10486423	54.014	55.260	
18)		Endrin Al...	8.245	8.966	23861	15886	BelowCal	BelowCal	
19)		Endosulfa...	8.556	9.142	4369	7463	0.028	0.030	
20)		Methoxychlor	8.399	9.322	20458	33010	0.349	0.224	
21)		Endrin Ke...	8.776f	9.540	3853	86047	0.023	0.334	#
23)		Hexachlor...	3.070	3.529	142494	5113351	0.780	13.602	#
24)		Hexachlor...	5.641	6.310	33370	81647	0.189	0.260	
25)		Oxychlordane	7.110	7.775	268270	32882	1.630	0.120	#
26)		2,4'-DDE	7.194	7.981	4050915	6847616	31.583	32.279	
27)		trans-Non...	7.365	8.054	110030	47938	0.298	0.159	#
28)		2,4'-DDD	7.564	8.354	4324042	7350320	37.889	38.919	
29)		2,4'-DDT	7.745	8.576	5035750	8363324	45.910	46.896	
30)		cis-Nonac...	7.863f	8.617	6209532	10879026	29.909	32.431	
31)		Mirex	8.499	9.540	18325	86047	0.146	0.462	#
32)		Chlordane...	7.365	8.054	110030	47938	5.588	1.325	#
33)		Chlordane...	7.444	8.160	6480495	24252	258.555	0.799	#
34)		Chlordane...	7.953f	8.842f	381037	10486423	65.911	1169.592	#
35)		Chlordane...	3.358	3.384f	53385	89882	NoCal	NoCal	
36)		Toxaphene...	7.444f	8.354f	6480495	7350320	7235.543	2800.914	#
37)		Toxaphene...	7.709	8.756f	20130	28581	12.465	8.684	
38)		Toxaphene...	8.059f	8.756	6457981	28581	1917.744	5.639	#
39)		Toxaphene...	8.245	8.842	23861	10486423	7.364	1255.884	#
40)		Toxaphene...	8.499	0.000	18325	0	7.644	N.D.	#
41)		Toxaphene...	8.556	9.391	4369	6801	1.381	1.432	
42)		Toxaphene...	3.358	3.384f	53385	89882	NoCal	NoCal	

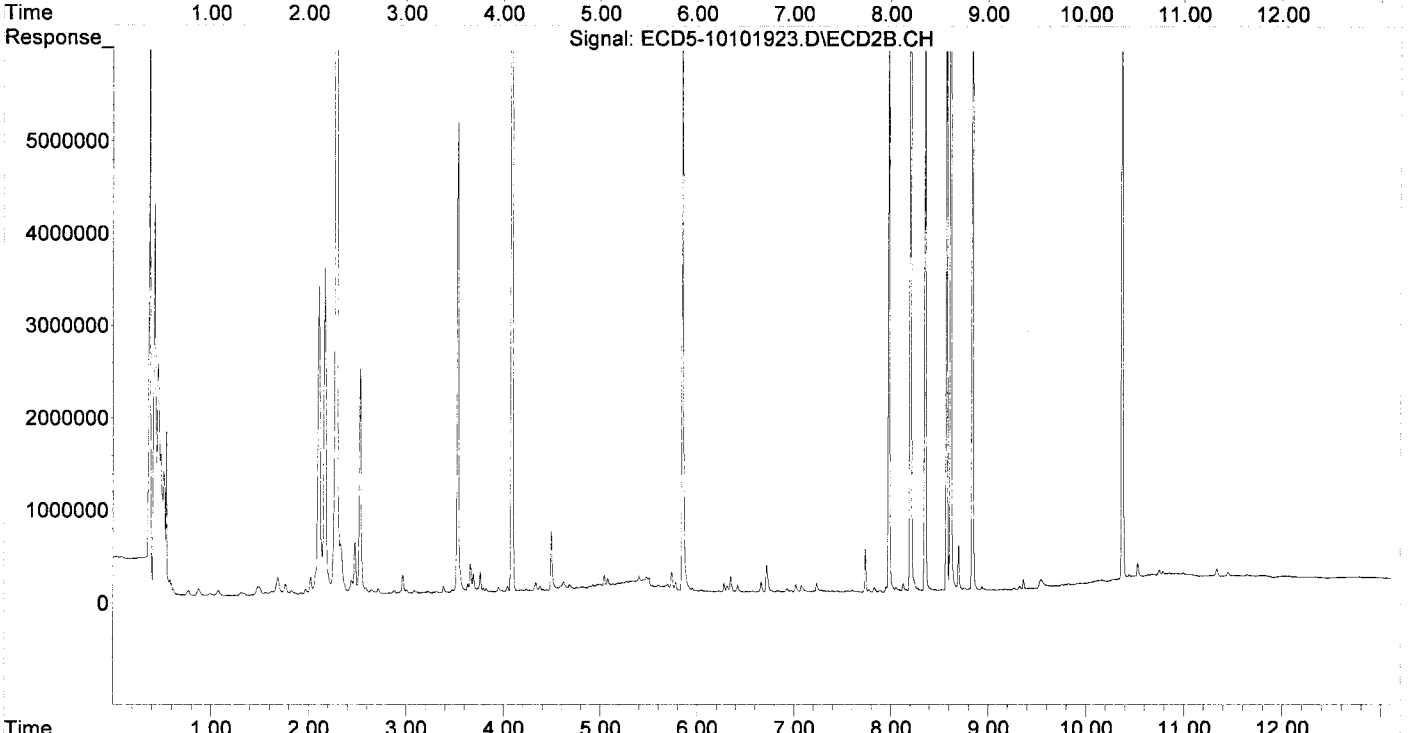
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 17:57
Operator : MJB
Sample : 9100817-MS1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 11 11:05:06 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 18:14
Operator : MJB
Sample : 9100817-MSD1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 11 11:05:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/16/19

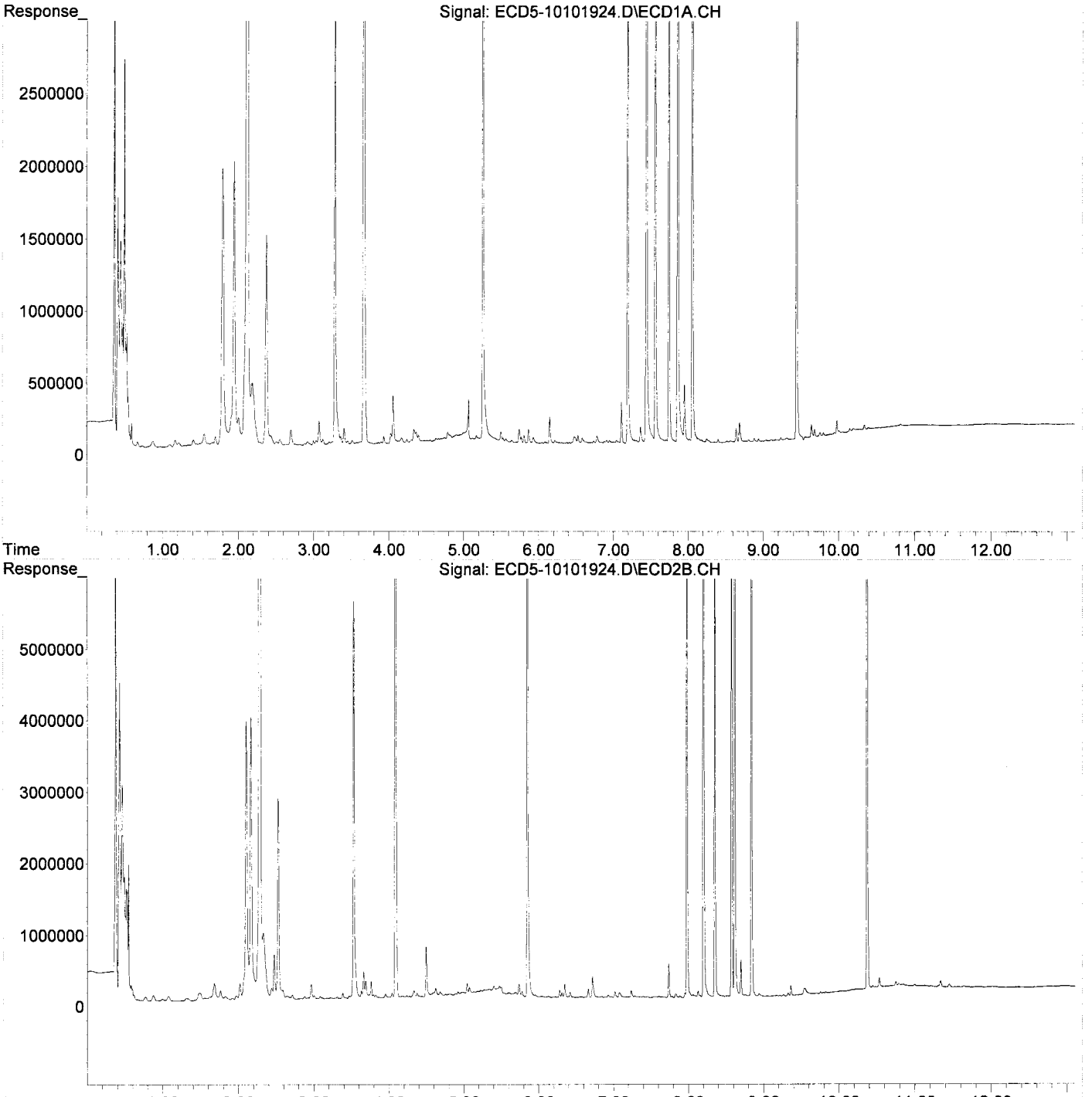
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.850	4775990	8320602	28.775	28.362	
22)	S	DCBP (S)	9.443	10.372	7143881	9410453	50.630	52.349	
		Target Compounds							
2)		a-BHC	5.806	0.000	60121	0	0.262	N.D.	#
3)		g-BHC	6.088	6.773	14049	26430	0.070	0.074	
4)		b-BHC	6.150	6.844	183318	27490	2.028	0.174	#
5)		Heptachlor	6.480	0.000	46512	0	0.257	N.D.	#
6)		d-BHC	0.000	7.077f	0	80430	N.D.	0.228	#
7)		Aldrin	6.736	7.394	17258	22248	0.087	0.068	
8)		Heptachlo...	7.193	7.830	4460897	60459	24.221	0.201	#
9)		trans-Chl...	7.307f	7.981	17536	7438739	0.095	23.741	#
10)		cis-Chlor...	7.365	8.129f	109858	88187	0.603	0.303	#
11)		Endosulfa...	7.444f	8.159	7100740	25033	41.725	0.091	#
12)		4,4'-DDE	7.444	8.203	7100740	12556068	37.664	40.415	
13)		Dieldrin	0.000	8.353	0	7551559	N.D.	24.828	#
14)		Endrin	0.000	8.575	0	8558261	N.D.	37.897	#
15)		4,4'-DDD	7.863	8.617	6440782	11556360	40.987	45.104	
16)		Endosulfa...	7.952	8.699	401346	514371	2.795	2.231	
17)		4,4'-DDT	8.058	8.841	6741854	10797351	56.389	56.752	
18)		Endrin Al...	8.246	8.965	23330	18371	BelowCal	BelowCal	
19)		Endosulfa...	8.568	9.141	9401	9790	0.061	0.039	
20)		Methoxychlor	8.399	9.323	23227	36481	0.397	0.267	
21)		Endrin Ke...	8.746	9.541	5924	88553	0.036	0.344	#
23)		Hexachlor...	3.069	3.527	171413	5583253	0.938	14.852	#
24)		Hexachlor...	5.640	6.308	26214	84668	0.149	0.270	#
25)		Oxychlordane	7.109	7.776	284854	20960	1.731	0.077	#
26)		2,4'-DDE	7.193	7.981	4460897	7438739	34.780	35.066	
27)		trans-Non...	7.365	8.058	109858	41997	0.297	0.139	#
28)		2,4'-DDD	7.564	8.353	4553945	7551559	39.903	39.984	
29)		2,4'-DDT	7.745	8.575	5278038	8558261	48.119	47.989	
30)		cis-Nonac...	7.863f	8.617	6440782	11556360	31.023	34.450	
31)		Mirex	8.518	9.541	9369	88553	0.075	0.476	#
32)		Chlordane...	7.365	8.058	109858	41997	5.579	1.161	#
33)		Chlordane...	7.444	8.159	7100740	25033	283.301	0.824	#
34)		Chlordane...	8.019f	8.841f	23213	10797351	4.015	1204.271	#
35)		Chlordane...	3.356	3.383f	62952	98497	NoCal	NoCal	
36)		Toxaphene...	7.444f	8.353f	7100740	7551559	7928.053	2877.598	#
37)		Toxaphene...	7.707	8.757f	21449	28448	13.282	8.644	
38)		Toxaphene...	8.019	8.757	23213	28448	6.893	5.613	
39)		Toxaphene...	8.246	8.841	23330	10797351	7.200	1293.122	#
40)		Toxaphene...	8.518f	0.000	9369	0	3.908	N.D.	#
41)		Toxaphene...	8.568	9.390	9401	5372	2.971	1.131	#
42)		Toxaphene...	3.356	3.383f	62952	98497	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 18:14
Operator : MJB
Sample : 9100817-MSD1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 11 11:05:12 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 18:32
Operator : MJB
Sample : A9J0058-16RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 16 10:44:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/16/19

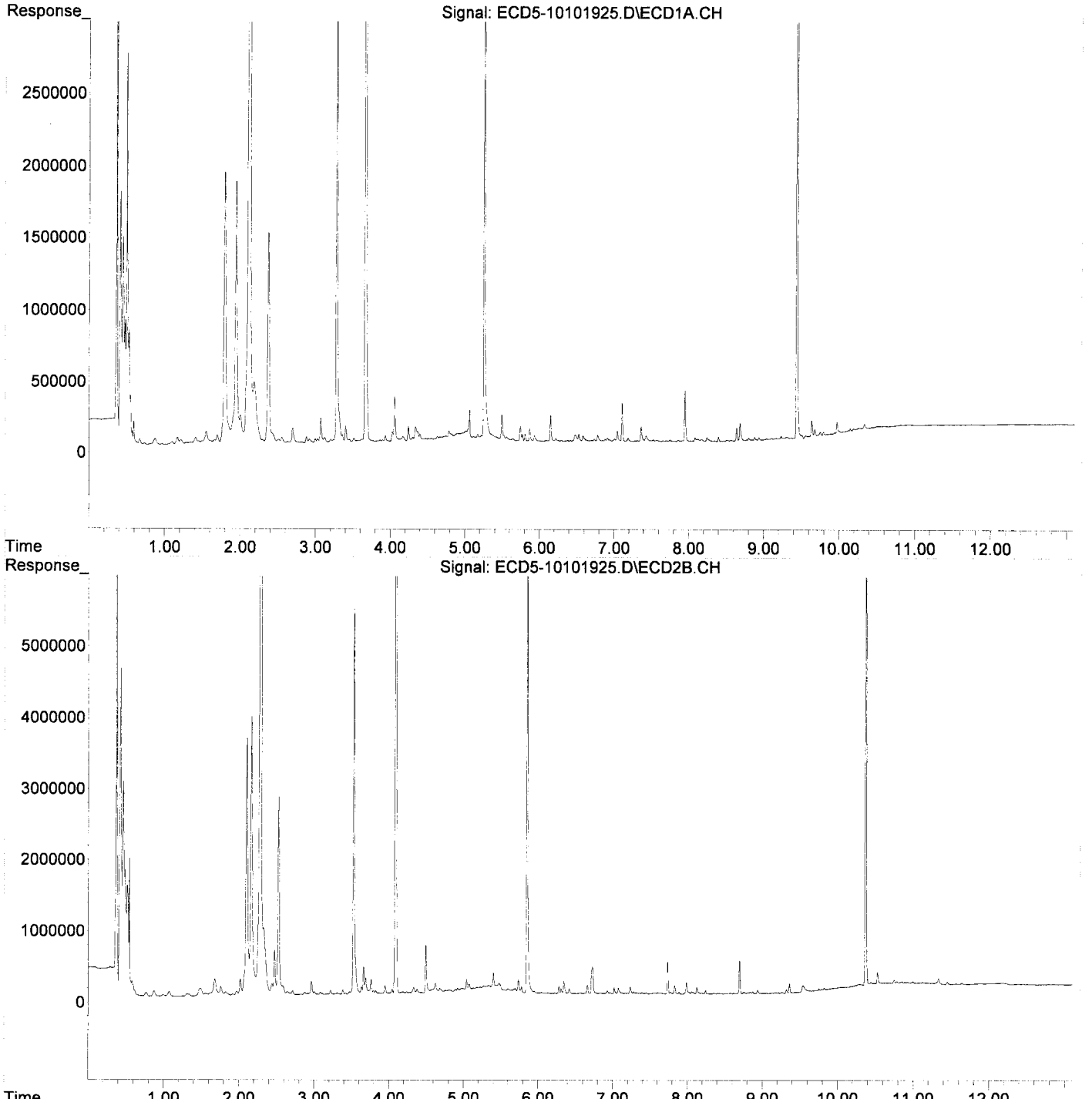
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.850	4279533	7208044	25.784	24.570	
22)	S	DCBP (S)	9.443	10.372	6209026	8392513	44.005	46.687	
		Target Compounds							
2)		a-BHC	5.806	0.000	59483	0	0.259	N.D.	#
3)		g-BHC	6.089	0.000	14010	0	0.069	N.D.	#
4)		b-BHC	6.148	6.843	189364	10507	2.095	0.066	#
5)		Heptachlor	6.476	7.165	50510	11561	0.279	0.038	#
6)		d-BHC	6.290f	7.075f	14635	77262	0.074	0.219	#
7)		Aldrin	6.734	7.393	20637	17698	0.105	0.054	#
8)		Heptachlo...	7.188	7.831	23372	121327	0.127	0.403	#
9)		trans-Chl...	7.275	7.989	7121	160184	0.039	0.511	#
10)		cis-Chlor...	7.363	8.129f	103043	92230	0.566	0.317	#
11)		Endosulfa...	0.000	8.159	0	22626	N.D.	0.082	#
12)		4,4'-DDE	7.430	8.200	41046	12324	0.218	0.040m	#
13)		Dieldrin	7.652	8.353	4853	12915	0.025	0.042	#
14)		Endrin	0.000	8.575	0	11855	N.D.	0.052	#
15)		4,4'-DDD	7.862	8.616	10421	11243	0.066	0.044	
16)		Endosulfa...	7.951	8.698	356772	468695	2.484	2.032	
17)		4,4'-DDT	8.086f	8.842	25592	26228	0.214	0.115	#
18)		Endrin Al...	8.244	8.937	27710	48483	BelowCal	BelowCal	
19)		Endosulfa...	8.567	9.127	5534	5834	0.036	0.023	
20)		Methoxychlor	8.398	9.322	30336	49674	0.518	0.431	
21)		Endrin Ke...	8.775f	9.542	6978	90468	0.042	0.352	#
23)		Hexachlor...	3.069	3.528	178981	5443207	0.979	14.479	#
24)		Hexachlor...	5.640	6.308	26833	65901	0.152	0.210	
25)		Oxychlordane	7.108	7.774	278137	26639	1.690	0.097	#
26)		2,4'-DDE	7.188	7.989	23372	160184	0.182	0.755	#
27)		trans-Non...	7.363	8.058	103043	34575	0.259	0.115	#
28)		2,4'-DDD	7.575	8.353	10682	12915	0.094	0.068	
29)		2,4'-DDT	7.745	8.575	11453	11855	0.104	0.066	
30)		cis-Nonac...	7.862f	8.616	10421	11243	0.050	0.034	
31)		Mirex	8.518	9.542	8071	90468	0.064	0.486	#
32)		Chlordane...	7.363	8.058	103043	34575	5.233	0.956	#
33)		Chlordane...	7.430	8.159	41046	22626	1.638	0.745	#
34)		Chlordane...	7.951f	8.817	356772	15513	61.713	1.730	#
35)		Chlordane...	3.402f	3.382f	119830	68753	NoCal	NoCal	
36)		Toxaphene...	7.430	8.407f	41046	7010	45.828	2.671	#
37)		Toxaphene...	7.698	8.758f	6908	23544	4.278	7.154	#
38)		Toxaphene...	0.000	8.758	0	23544	N.D.	4.645	#
39)		Toxaphene...	8.244f	8.842	27710	26228	8.552	3.141	#
40)		Toxaphene...	8.518f	0.000	8071	0	3.367	N.D.	#
41)		Toxaphene...	8.567	9.389	5534	7393	1.749	1.556	
42)		Toxaphene...	3.402f	3.382f	119830	68753	NoCal	NoCal	

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 18:32
Operator : MJB
Sample : A9J0058-16RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

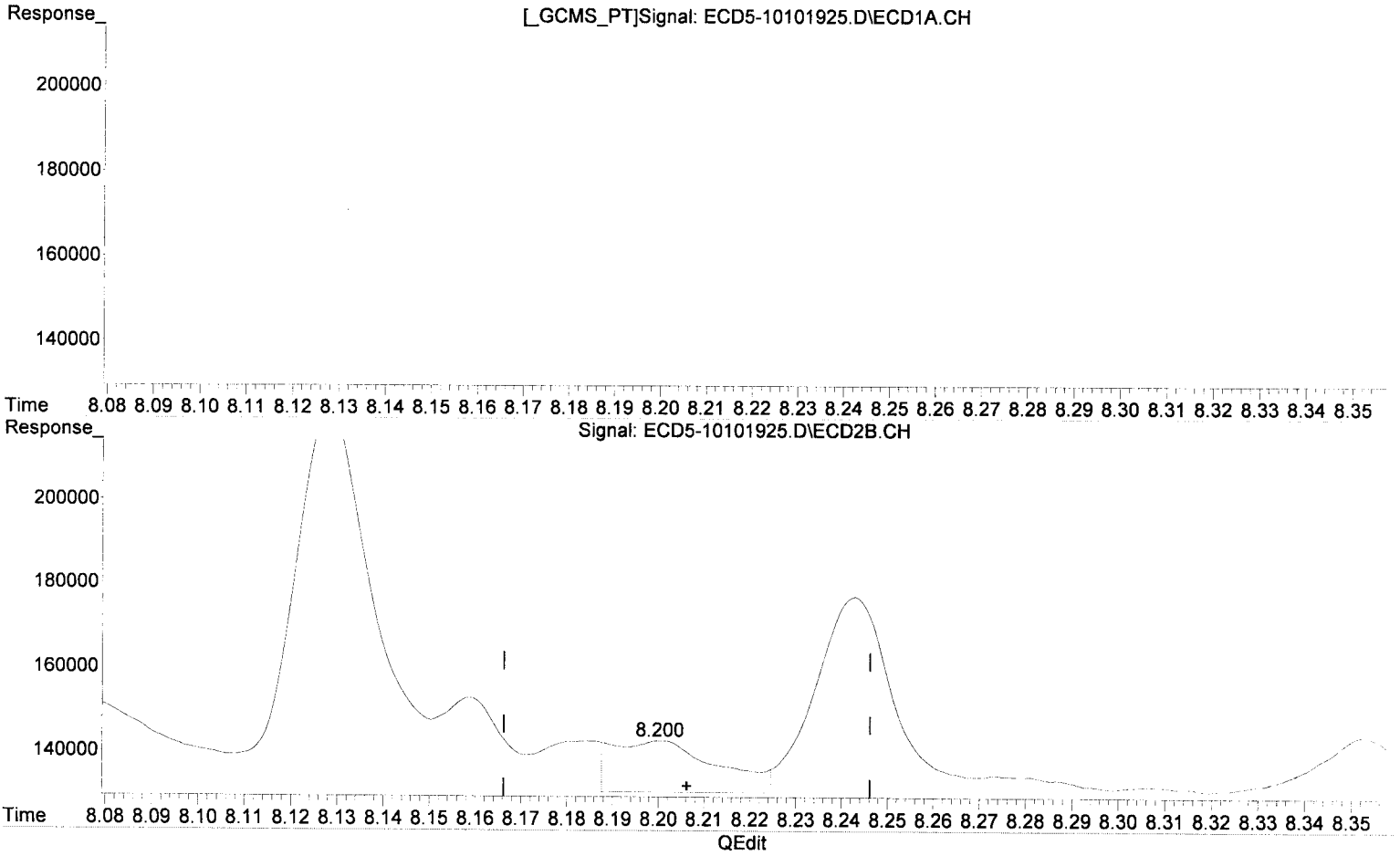
Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 16 10:44:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 18:32
Operator : MJB
Sample : A9J0058-16RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 11 11:05:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.430min 0.218 ng/mL

response 41046

MJB 10/16/19

(12) 4,4'-DDE #2

8.200min 0.040 ng/mL (m)

response 12324

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 18:32
Operator : MJB
Sample : A9J0058-16RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 11 11:05:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MT MJB 10/16/19

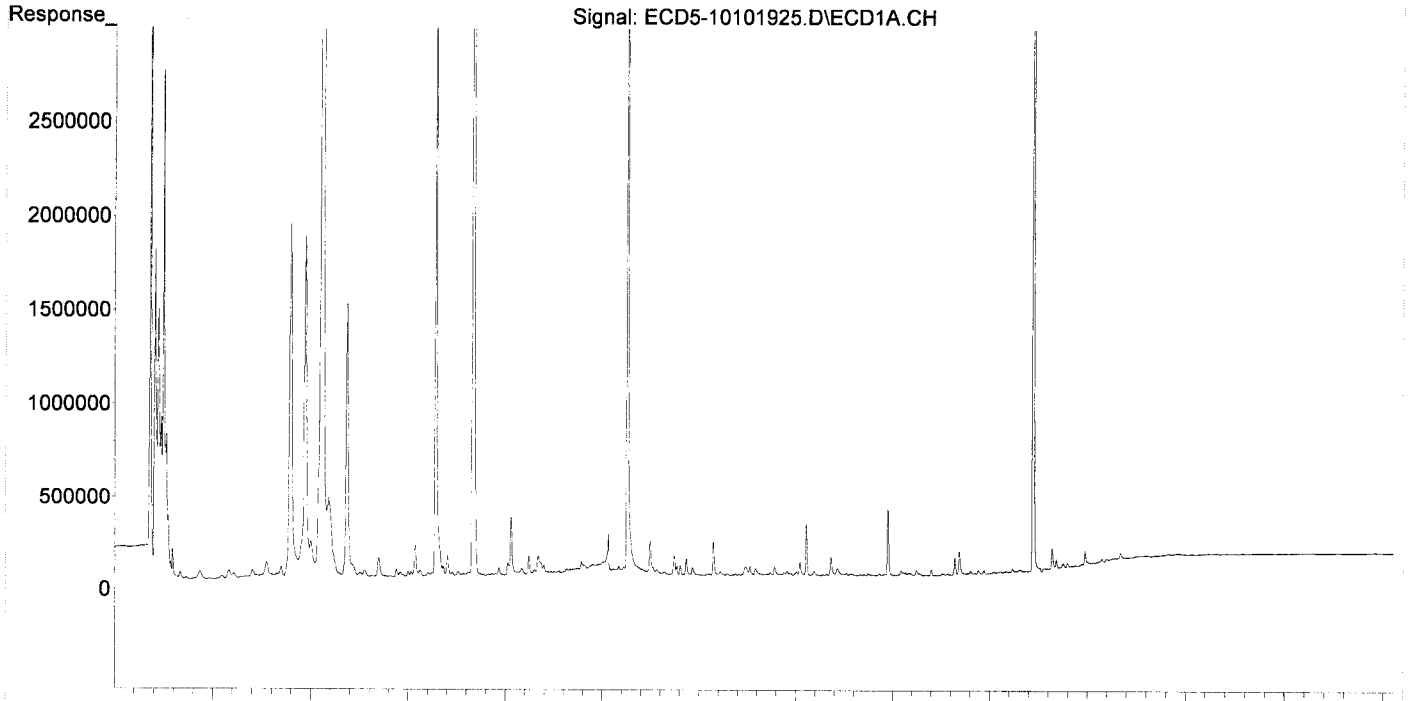
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.850	4279533	7208044	25.784	24.570	
22)	S	DCBP (S)	9.443	10.372	6209026	8392513	44.005	46.687	
		Target Compounds							
2)		a-BHC	5.806	0.000	59483	0	0.259	N.D.	#
3)		g-BHC	6.089	0.000	14010	0	0.069	N.D.	#
4)		b-BHC	6.148	6.843	189364	10507	2.095	0.066	#
5)		Heptachlor	6.476	7.165	50510	11561	0.279	0.038	#
6)		d-BHC	6.290f	7.075f	14635	77262	0.074	0.219	#
7)		Aldrin	6.734	7.393	20637	17698	0.105	0.054	#
8)		Heptachlo...	7.188	7.831	23372	121327	0.127	0.403	#
9)		trans-Chl...	7.275	7.989	7121	160184	0.039	0.511	#
10)		cis-Chlor...	7.363	8.129f	103043	92230	0.566	0.317	#
11)		Endosulfa...	0.000	8.159	0	22626	N.D.	0.082	#
12)		4,4'-DDE	7.430	8.243f	41046	46373	0.218	0.149	
13)		Dieldrin	7.652	8.353	4853	12915	0.025	0.042	#
14)		Endrin	0.000	8.575	0	11855	N.D.	0.052	#
15)		4,4'-DDD	7.862	8.616	10421	11243	0.066	0.044	
16)		Endosulfa...	7.951	8.698	356772	468695	2.484	2.032	
17)		4,4'-DDT	8.086f	8.842	25592	26228	0.214	0.115	#
18)		Endrin Al...	8.244	8.937	27710	48483	BelowCal	BelowCal	
19)		Endosulfa...	8.567	9.127	5534	5834	0.036	0.023	
20)		Methoxychlor	8.398	9.322	30336	49674	0.518	0.431	
21)		Endrin Ke...	8.775f	9.542	6978	90468	0.042	0.352	#
23)		Hexachlor...	3.069	3.528	178981	5443207	0.979	14.479	#
24)		Hexachlor...	5.640	6.308	26833	65901	0.152	0.210	
25)		Oxychlordane	7.108	7.774	278137	26639	1.690	0.097	#
26)		2,4'-DDE	7.188	7.989	23372	160184	0.182	0.755	#
27)		trans-Non...	7.363	8.058	103043	34575	0.259	0.115	#
28)		2,4'-DDD	7.575	8.353	10682	12915	0.094	0.068	
29)		2,4'-DDT	7.745	8.575	11453	11855	0.104	0.066	
30)		cis-Nonac...	7.862f	8.616	10421	11243	0.050	0.034	
31)		Mirex	8.518	9.542	8071	90468	0.064	0.486	#
32)		Chlordane...	7.363	8.058	103043	34575	5.233	0.956	#
33)		Chlordane...	7.430	8.159	41046	22626	1.638	0.745	#
34)		Chlordane...	7.951f	8.817	356772	15513	61.713	1.730	#
35)		Chlordane...	3.402f	3.382f	119830	68753	NoCal	NoCal	
36)		Toxaphene...	7.430	8.407f	41046	7010	45.828	2.671	#
37)		Toxaphene...	7.698	8.758f	6908	23544	4.278	7.154	#
38)		Toxaphene...	0.000	8.758	0	23544	N.D.	4.645	#
39)		Toxaphene...	8.244f	8.842	27710	26228	8.552	3.141	#
40)		Toxaphene...	8.518f	0.000	8071	0	3.367	N.D.	#
41)		Toxaphene...	8.567	9.389	5534	7393	1.749	1.556	
42)		Toxaphene...	3.402f	3.382f	119830	68753	NoCal	NoCal	

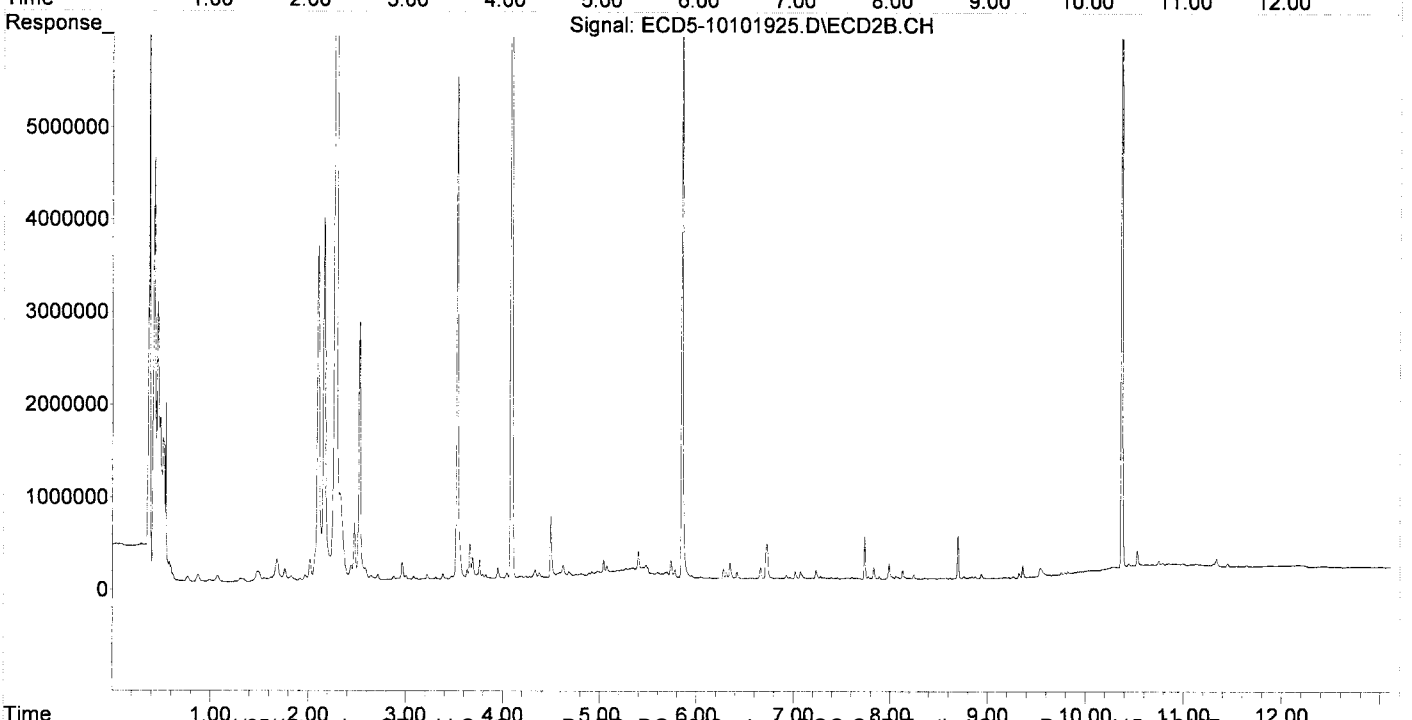
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 18:32
Operator : MJB
Sample : A9J0058-16RE1
Misc : 1x, 8081B 2,4+4,4-DDx Only, GPC
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: Oct 11 11:05:18 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 18:49
Operator : MJB
Sample : 9J10029-CCV5
Misc : A19H383, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:05:24 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/16/19

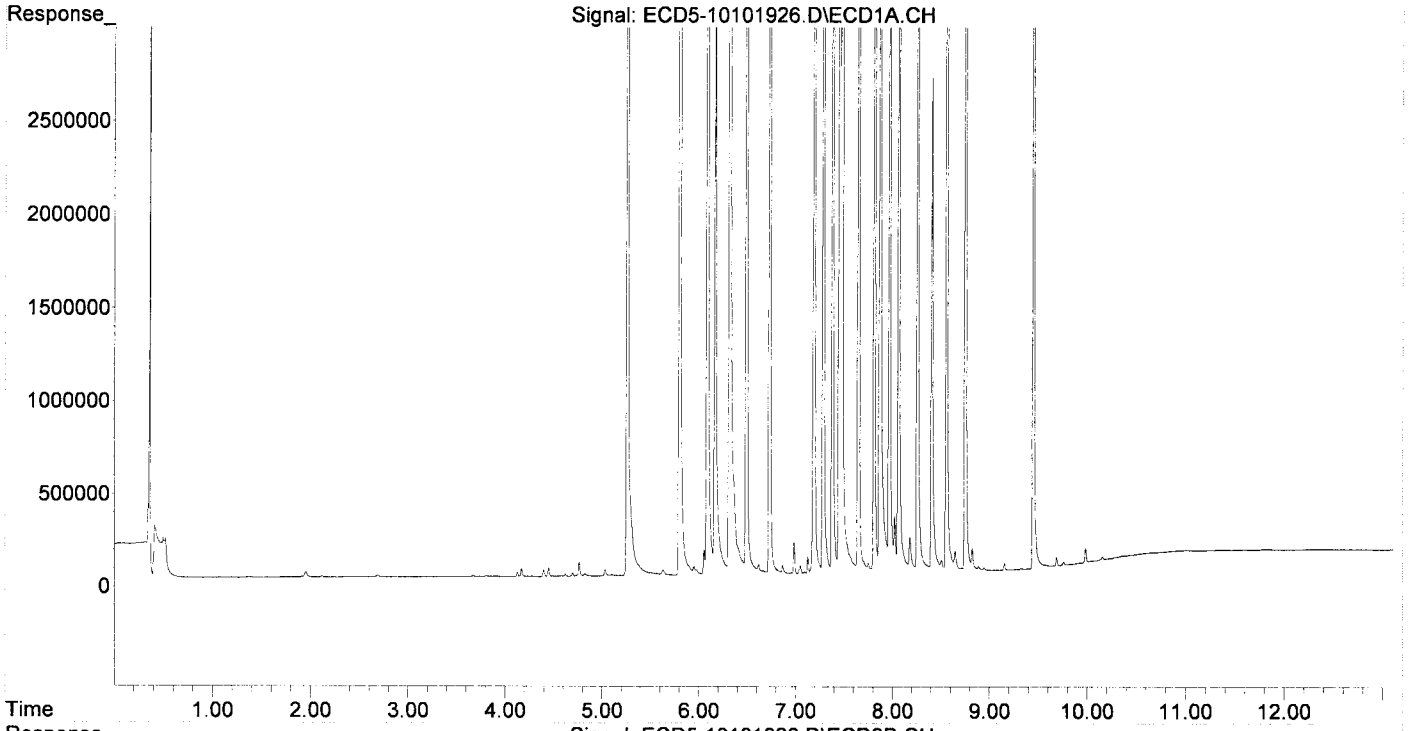
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.261	5.854	7305228	13135671	44.014	44.776	
22)	S	DCBP (S)	9.448	10.375	6577866	8998415	46.619	50.057	
		Target Compounds							
2)		a-BHC	5.802	6.461	10485743	20701305	45.724	50.449	
3)		g-BHC	6.088	6.779	8918045	17507949	44.198	49.083	
4)		b-BHC	6.169	6.846	3132129	6677538	34.654	42.192	
5)		Heptachlor	6.493	7.149	9376959	16636204	51.722	54.371	
6)		d-BHC	6.318	7.099	6885650	15926520	35.008	45.160	
7)		Aldrin	6.731	7.412	10625143	17988232	53.813	54.610	
8)		Heptachlo...	7.191	7.850	8844792	15197346	48.023	50.515	
9)		trans-Chl...	7.286	7.989	9467157	16161159	51.204	51.579	
10)		cis-Chlor...	7.382	8.096	9135254	15800181	50.174	54.250	
11)		Endosulfa...	7.478	8.145	9143181	13978863	53.727 Q-31	50.800	
12)		4,4'-DDE	7.451	8.208	6961583	13653915	46.926	43.949	
13)		Dieldrin	7.649	8.345	9967245	16504210	51.918	54.263	
14)		Endrin	7.813	8.571	8056848	12579347	54.798	55.703	
15)		4,4'-DDD	7.871	8.622	5662728	11526660	36.036 Q-21	44.988	
16)		Endosulfa...	7.970	8.718	6964389	11820191	48.495	51.257	
17)		4,4'-DDT	8.064	8.845	5632387	9717025	47.109	51.537	
18)		Endrin Al...	8.259	8.955	5985174	10256920	48.772	52.069	
19)		Endosulfa...	8.558	9.145	7348528	12965679	47.417	52.053	
20)		Methoxychlor	8.406	9.326	2641476	4696948	45.096	52.160	
21)		Endrin Ke...	8.751	9.541	7991624	13383298	47.923	52.011	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.630	0.000	27775	0	0.158	N.D.	#
25)		Oxychlordane	7.128	7.768	87910	14158	0.534	0.052	#
26)		2,4'-DDE	7.191	7.989	8844792	16161159	68.959	76.182	
27)		trans-Non...	7.382	8.045	9135254	97668	50.702	0.324	#
28)		2,4'-DDD	0.000	8.345	0	16504210	N.D.	87.387	#
29)		2,4'-DDT	7.750	8.571	50252	12579347	0.458	70.536	#
30)		cis-Nonac...	7.813f	8.622	8056848	11526660	38.807	34.362	
31)		Mirex	8.506	9.541	60817	13383298	0.485	71.925	#
32)		Chlordane...	7.382f	8.045	9135254	97668	463.963	2.699	#
33)		Chlordane...	7.451	8.145	6961583	13978863	277.749	460.375	#
34)		Chlordane...	7.970	8.812	6964389	63390	1204.678	7.070	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.451f	0.000	6961583	0	7772.682	N.D.	#
37)		Toxaphene...	7.750f	8.718	50252	11820191	31.117	3591.644	#
38)		Toxaphene...	8.024	0.000	295673	0	87.802	N.D.	#
39)		Toxaphene...	8.259	8.845	5985174	9717025	1847.189	1163.739	
40)		Toxaphene...	8.506	9.039f	60817	248491	25.371	53.320	#
41)		Toxaphene...	8.558	9.409	7348528	74129	2322.116	15.605	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

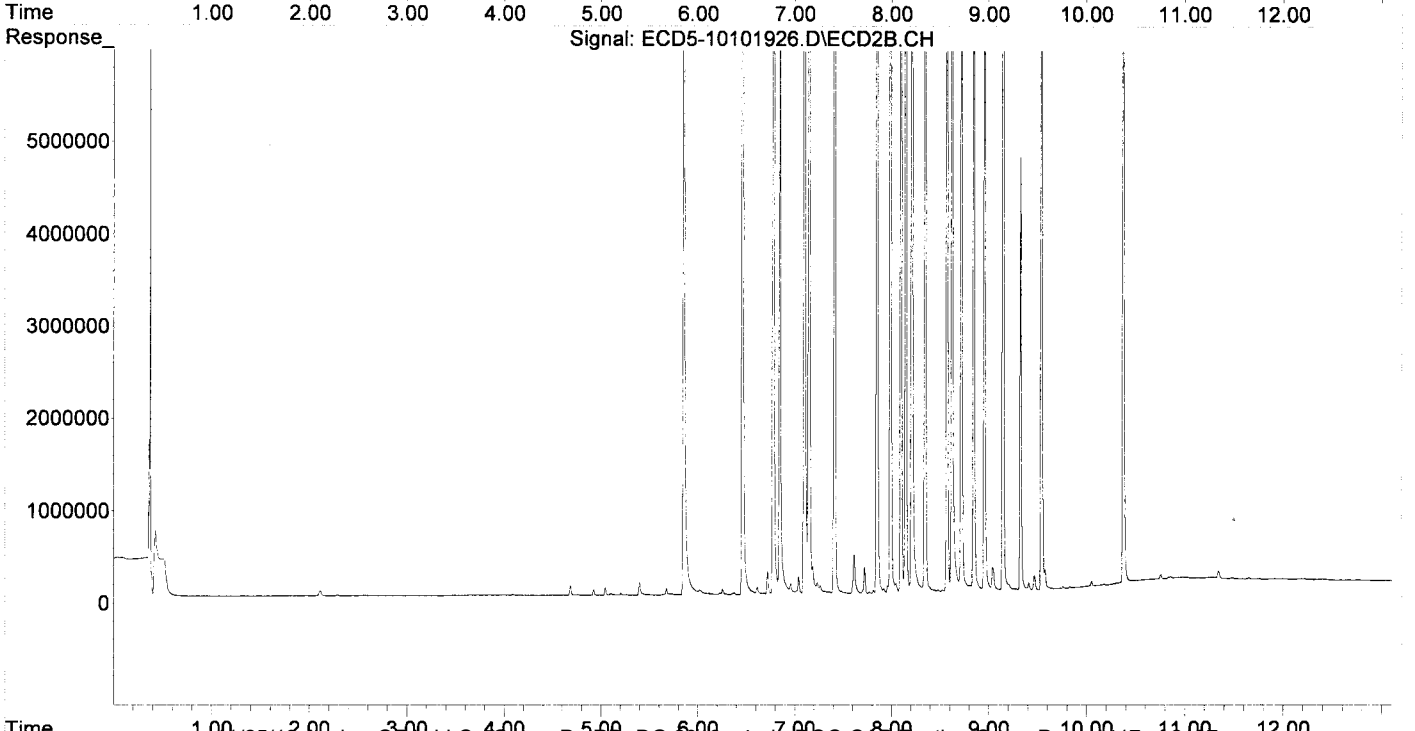
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 18:49
Operator : MJB
Sample : 9J10029-CCV5
Misc : A19H383, AB 50 ppb
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:05:24 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:06
Operator : MJB
Sample : 9J10029-CCV6
Misc : A19E154, 9-42 50 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:05:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/16/19

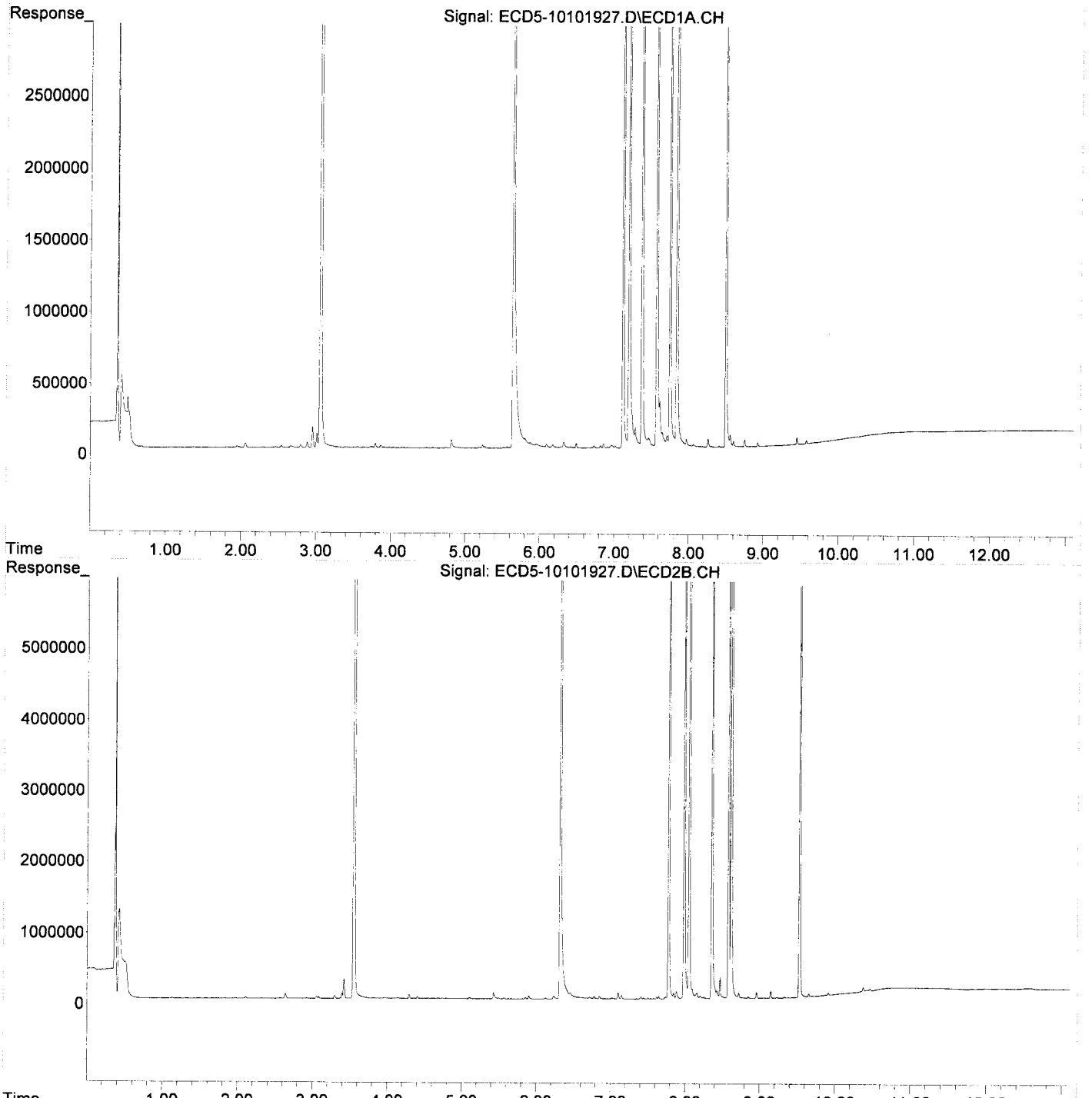
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.260	5.853	12636	20508	0.076	0.070	
22)	S	DCBP (S)	9.447	10.374	46889	68887	0.332	0.383	
		Target Compounds							
2)		a-BHC	0.000	6.460	0	73355	N.D.	0.179	#
3)		g-BHC	6.092	6.779	26256	32505	0.130	0.091	
4)		b-BHC	6.176	6.849	21996	33011	0.243	0.209	
5)		Heptachlor	6.492	7.147	33135	56813	0.183	0.186	
6)		d-BHC	6.323	7.100	40720	89510	0.207	0.254	
7)		Aldrin	6.730	7.410	15457	30263	0.078	0.092	
8)		Heptachlo...	7.199	7.848	5503870	82186	29.883	0.273	#
9)		trans-Chl...	7.284	7.984	142055	10055820	0.768	32.094	#
10)		cis-Chlor...	7.372	0.000	9638334	0	52.937	N.D.	#
11)		Endosulfa...	7.463	8.157	69553	81171	0.409	0.295	
12)		4,4'-DDE	7.463	8.206	69553	34801	0.369	0.112	#
13)		Dieldrin	0.000	8.356	0	8659919	N.D.	28.473	#
14)		Endrin	7.841f	8.578	11216065	9457048	76.286	41.877	#
15)		4,4'-DDD	7.841f	8.614	11216065	18297904	71.376	71.417	
16)		Endosulfa...	7.971	8.717	56518	73316	0.394	0.318	
17)		4,4'-DDT	8.064	8.844	20538	20243	0.172	0.080	#
18)		Endrin Al...	8.261	8.954	59008	82309	BelowCal	BelowCal	
19)		Endosulfa...	8.557	9.144	85249	102400	0.550	0.411	
20)		Methoxychlor	8.407	9.326	7441	13262	0.127	BelowCal	#
21)		Endrin Ke...	8.752	9.526	48155	9586767	0.289	37.257	#
23)		Hexachlor...	3.057	3.549	10857544	22631618	59.416	60.201	
24)		Hexachlor...	5.641	6.318	6633529	12994425	37.628	41.372	
25)		Oxychlordane	7.118	7.778	8598227	13700098	52.257	50.018	
26)		2,4'-DDE	7.199	7.984	5503870	10055820	42.911	47.402	
27)		trans-Non...	7.372	8.051	9638334	16585309	53.513	54.985	
28)		2,4'-DDD	7.569	8.356	4833701	8659919	42.354	45.853	
29)		2,4'-DDT	7.749	8.578	5519576	9457048	50.321	53.028	
30)		cis-Nonac...	7.841	8.614	11216065	18297904	54.023	54.547	
31)		Mirex	8.501	9.526	6291617	9586767	50.186	51.521	
32)		Chlordane...	7.372f	8.051	9638334	16585309	489.514	458.353	
33)		Chlordane...	7.463f	8.157	69553	81171	2.775	2.673	
34)		Chlordane...	7.971	8.844f	56518	20243	9.776	2.258	#
35)		Chlordane...	3.388	3.391f	6480	74792	NoCal	NoCal	
36)		Toxaphene...	0.000	8.356f	0	8659919	N.D.	3299.950	#
37)		Toxaphene...	7.711	8.717	82215	73316	50.909	22.278	#
38)		Toxaphene...	8.064f	0.000	20538	0	6.099	N.D.	#
39)		Toxaphene...	8.261	8.844	59008	20243	18.212	2.424	#
40)		Toxaphene...	8.501	9.049f	6291617	5807	2624.633	1.246	#
41)		Toxaphene...	8.557	0.000	85249	0	26.938	N.D.	#
42)		Toxaphene...	3.388	3.391f	6480	74792	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:06
Operator : MJB
Sample : 9J10029-CCV6
Misc : A19E154, 9-42 50 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:05:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:23
Operator : MJB
Sample : 9J10029-CCB3
Misc : A19I233
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:05:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJP 12/16/19

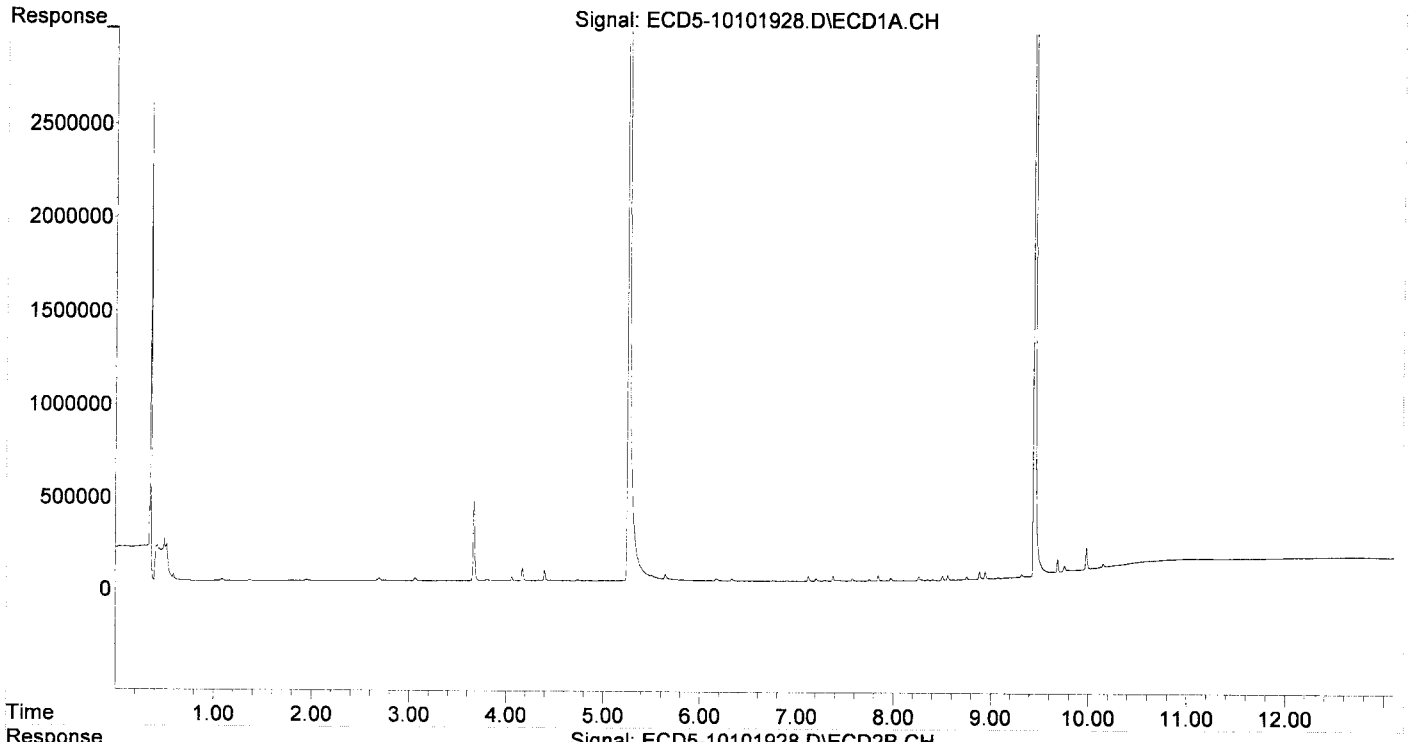
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.259	5.852	12867885	23271629	77.529	79.326	
22)	S	DCBP (S)	9.447	10.374	11007721	16108696	78.014	89.611	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.170	6.851	10734	7340	0.119	0.046	#
5)		Heptachlor	0.000	7.134	0	7406	N.D.	0.024	#
6)		d-BHC	6.329	7.101	10220	28009	0.052	0.079	#
7)		Aldrin	0.000	7.446f	0	6946	N.D.	0.021	#
8)		Heptachlo...	7.203	0.000	13595	0	0.074	N.D.	#
9)		trans-Chl...	7.289	7.987	5837	24814	0.032	0.079	#
10)		cis-Chlor...	7.376	0.000	25997	0	0.143	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	7.412f	0.000	5580	0	0.030	N.D.	#
13)		Dieldrin	0.000	8.358	0	26508	N.D.	0.087	#
14)		Endrin	7.843f	8.579	29709	17800	0.202	0.079	#
15)		4,4'-DDD	7.843f	8.615	29709	50353	0.189	0.197	
16)		Endosulfa...	7.972	8.718	14265	20104	0.099	0.087	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.262	8.955	21809	36211	BelowCal	BelowCal	
19)		Endosulfa...	8.561	9.145	26439	40644	0.171	0.163	
20)		Methoxychlor	8.402	0.000	4423	0	0.076	N.D.	#
21)		Endrin Ke...	8.753	9.538	13774	22672	0.083	0.088	
23)		Hexachlor...	3.059	3.548	13070	22925	0.072	0.061	
24)		Hexachlor...	5.642	6.319	31046	30559	0.176	0.097	#
25)		Oxychlordane	7.121	7.778	26895	35424	0.163	0.129	
26)		2,4'-DDE	7.203	7.987	13595	24814	0.106	0.117	
27)		trans-Non...	7.376	8.052	25997	42903	87346.555	0.142	#
28)		2,4'-DDD	7.575	8.358	13519	26508	0.118	0.140	
29)		2,4'-DDT	7.753	8.579	8371	17800	0.076	0.100	
30)		cis-Nonac...	7.843	8.615	29709	50353	0.143	0.150	
31)		Mirex	8.504	9.527	23527	24537	0.188	0.132	
32)		Chlordane...	7.376f	8.052	25997	42903	1.320	1.186	
33)		Chlordane...	7.412f	0.000	5580	0	0.223	N.D.	#
34)		Chlordane...	7.972	8.790f	14265	3016	2.468	0.336	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.412	8.358f	5580	26508	6.230	10.101	#
37)		Toxaphene...	0.000	8.718	0	20104	N.D.	6.109	#
38)		Toxaphene...	0.000	8.790f	0	3016	N.D.	0.595	#
39)		Toxaphene...	8.262	0.000	21809	0	6.731	N.D.	#
40)		Toxaphene...	8.504	0.000	23527	0	9.815	N.D.	#
41)		Toxaphene...	8.561	9.394	26439	10792	8.355	2.272	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

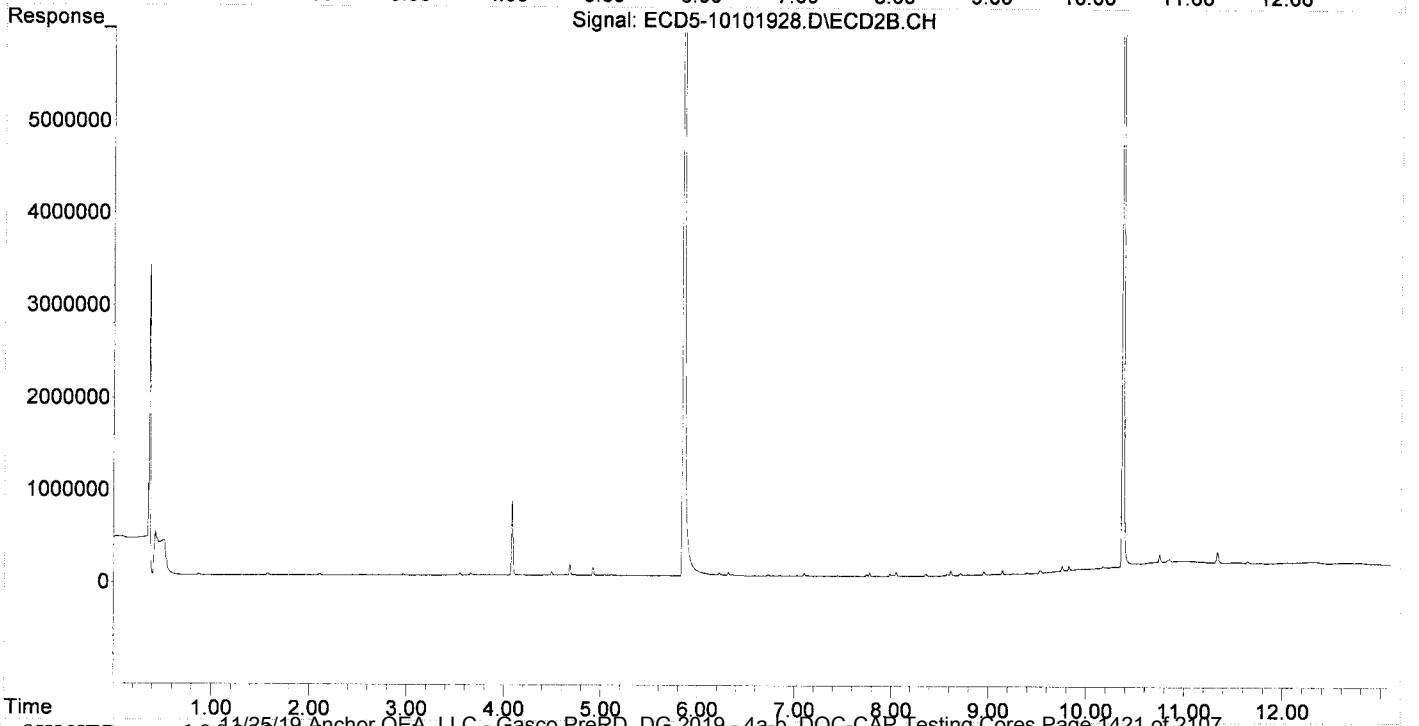
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:23
Operator : MJB
Sample : 9J10029-CCB3
Misc : A19I233
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:05:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:40
Operator : MJB
Sample : A9J0058-22RE1
Misc : 1x, 8081B 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: Oct 16 10:48:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/16/19

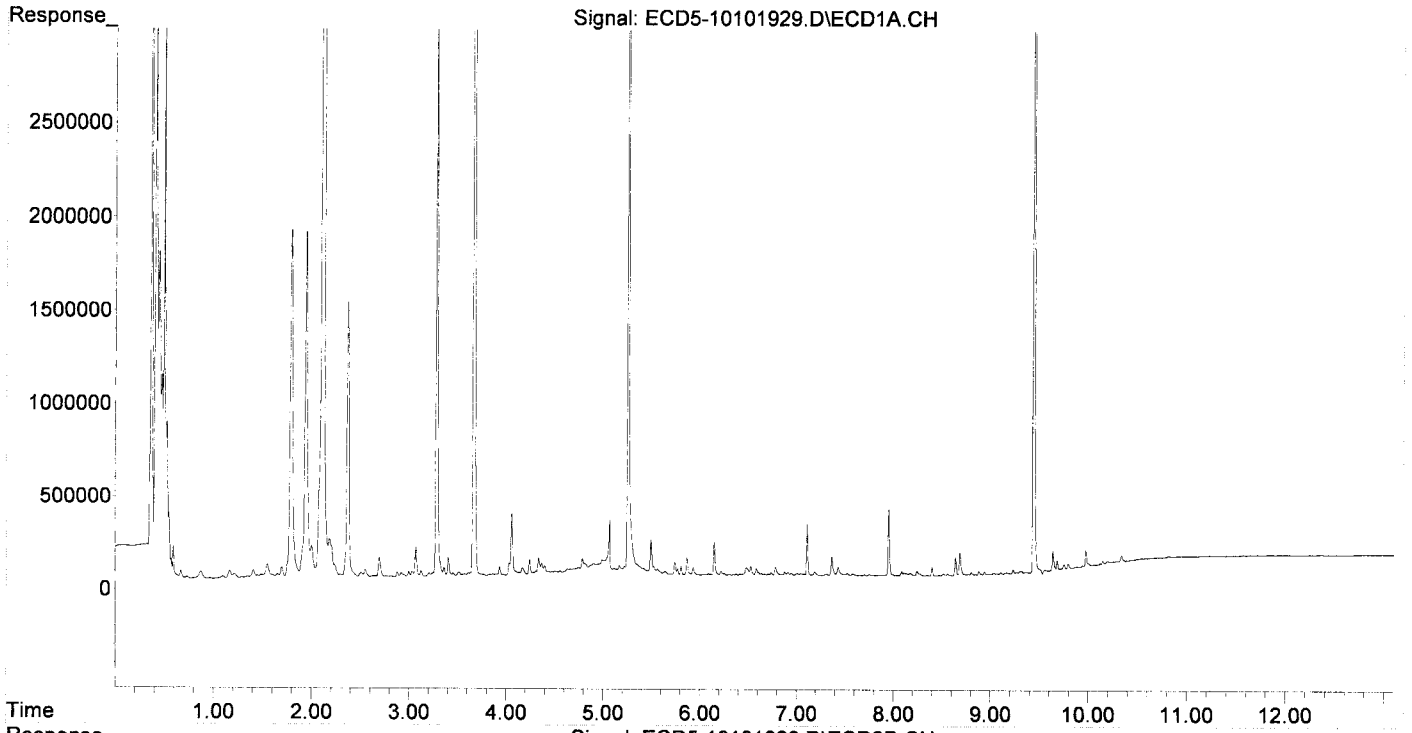
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.259	5.851	4392183	7663510	26.463	26.123	
22)	S	DCBP (S)	9.444	10.372	6807660	9136569	48.248	50.826	
		Target Compounds							
2)		a-BHC	5.806	0.000	59662	0	0.260	N.D.	#
3)		g-BHC	6.090	0.000	16735	0	0.083	N.D.	#
4)		b-BHC	6.149	6.843	182081	26062	2.015	0.165	#
5)		Heptachlor	6.479	7.166	48885	21011	0.270	0.069	#
6)		d-BHC	0.000	7.077f	0	80290	N.D.	0.228	#
7)		Aldrin	6.736	7.393	19948	26550	0.101	0.081	
8)		Heptachlo...	7.188	7.828f	23441	52182	0.127	0.173	
9)		trans-Chl...	7.315f	7.990	11648	159371	0.063	0.509	#
10)		cis-Chlor...	7.365	8.128f	104113	99826	0.572	0.343	#
11)		Endosulfa...	0.000	8.159	0	24360	N.D.	0.089	#
12)		4,4'-DDE	7.431	8.187	47892	13584	0.254	0.044	m#
13)		Dieldrin	7.651	8.353	6588	6922	0.034	0.023	
14)		Endrin	0.000	8.547f	0	7953	N.D.	0.035	#
15)		4,4'-DDD	7.856	0.000	5676	0	0.036	N.D.	#
16)		Endosulfa...	7.952	8.699	355890	475221	2.478	2.061	
17)		4,4'-DDT	8.086f	8.844	24551	19004	0.205	0.073	#
18)		Endrin Al...	8.245	8.937	25657	43439	BelowCal	BelowCal	
19)		Endosulfa...	8.555	9.141	9420	13774	0.061	0.055	
20)		Methoxychlor	8.398	9.322	47839	70038	0.817	0.683	
21)		Endrin Ke...	8.774f	9.539	7339	84166	0.044	0.327	#
23)		Hexachlor...	3.069	3.528	162751	5411251	0.891	14.394	#
24)		Hexachlor...	5.641	6.308	29720	80627	0.169	0.257	#
25)		Oxychlordane	7.110	7.774	272023	28356	1.653	0.104	#
26)		2,4'-DDE	7.188	7.990	23441	159371	0.183	0.751	#
27)		trans-Non...	7.365	8.058	104113	35328	0.265	0.117	#
28)		2,4'-DDD	7.578	8.353	11126	6922	0.097	0.037	#
29)		2,4'-DDT	7.748	8.571	8784	7050	0.080	0.040	m#
30)		cis-Nonac...	7.856	0.000	5676	0	0.027	N.D.	#
31)		Mirex	8.518	9.539	9577	84166	0.076	0.452	#
32)		Chlordane...	7.365	8.058	104113	35328	5.288	0.976	#
33)		Chlordane...	7.431	8.159	47892	24360	1.911	0.802	#
34)		Chlordane...	7.952f	8.818	355890	15479	61.561	1.726	#
35)		Chlordane...	3.358	3.383f	56816	91473	NoCal	NoCal	
36)		Toxaphene...	7.431	8.406f	47892	7500	53.472	2.858	#
37)		Toxaphene...	7.699	8.759f	7163	23753	4.436	7.217	#
38)		Toxaphene...	0.000	8.759	0	23753	N.D.	4.687	#
39)		Toxaphene...	8.245	8.844	25657	19004	7.918	2.276	#
40)		Toxaphene...	8.518f	0.000	9577	0	3.995	N.D.	#
41)		Toxaphene...	8.555	9.361f	9420	144155	2.977	30.347	#
42)		Toxaphene...	3.358	3.383f	56816	91473	NoCal	NoCal	

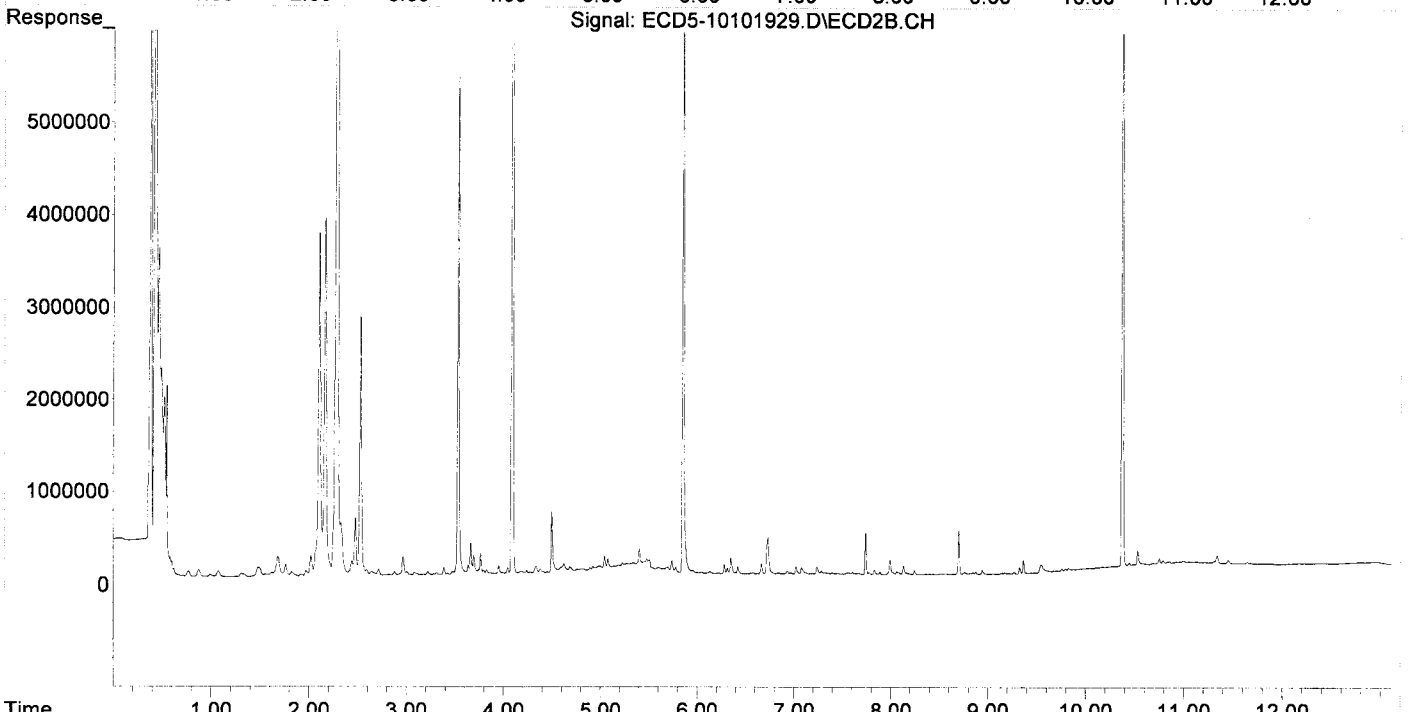
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:40
Operator : MJB
Sample : A9J0058-22RE1
Misc : 1x, 8081B 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: Oct 16 10:48:38 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

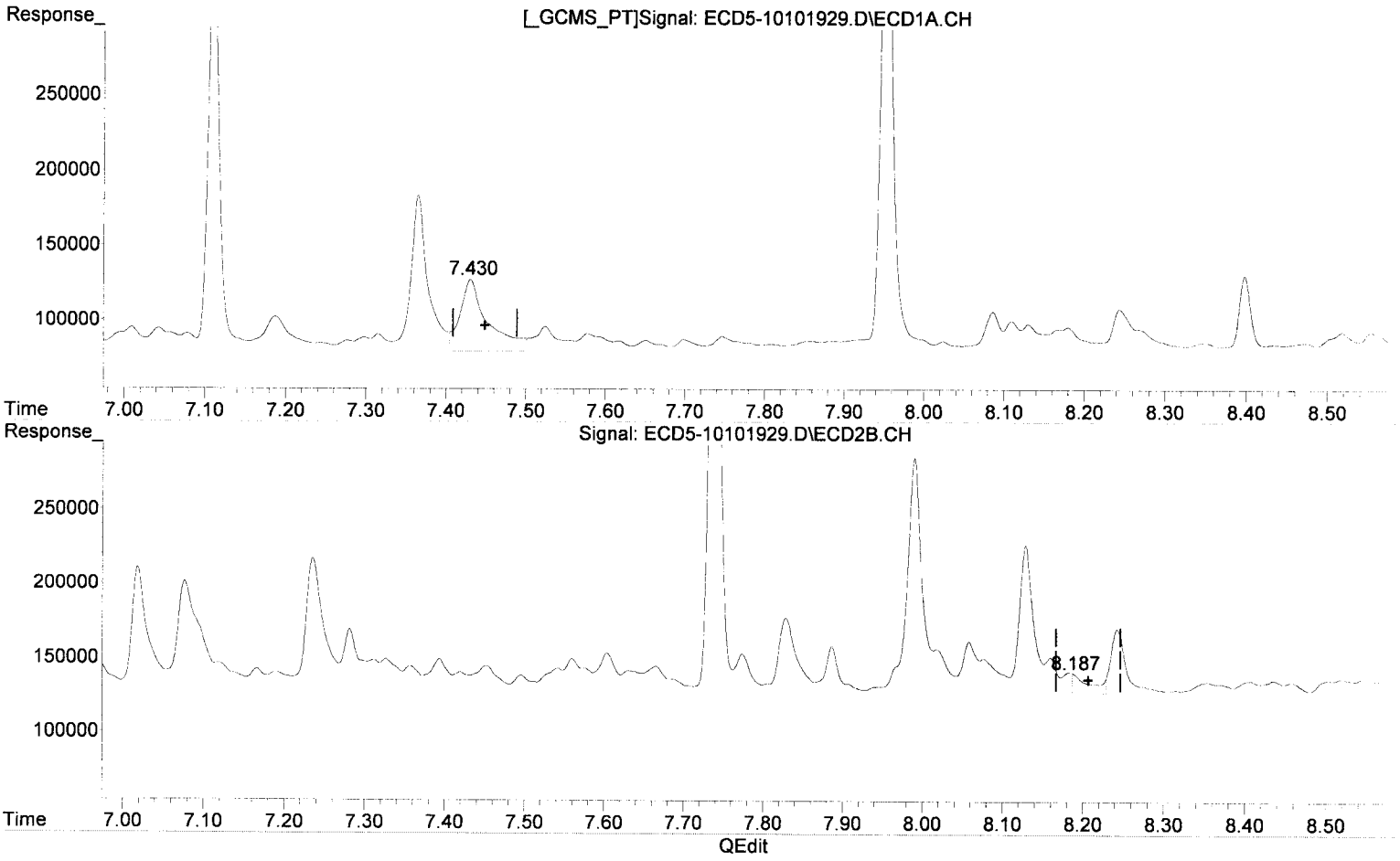




Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:40
Operator : MJB
Sample : A9J0058-22RE1
Misc : 1x, 8081B 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: Oct 11 11:05:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.431min 0.254 ng/mL

response 47892

WJB 10/16/19

(12) 4,4'-DDE #2

8.187min 0.044 ng/mL m

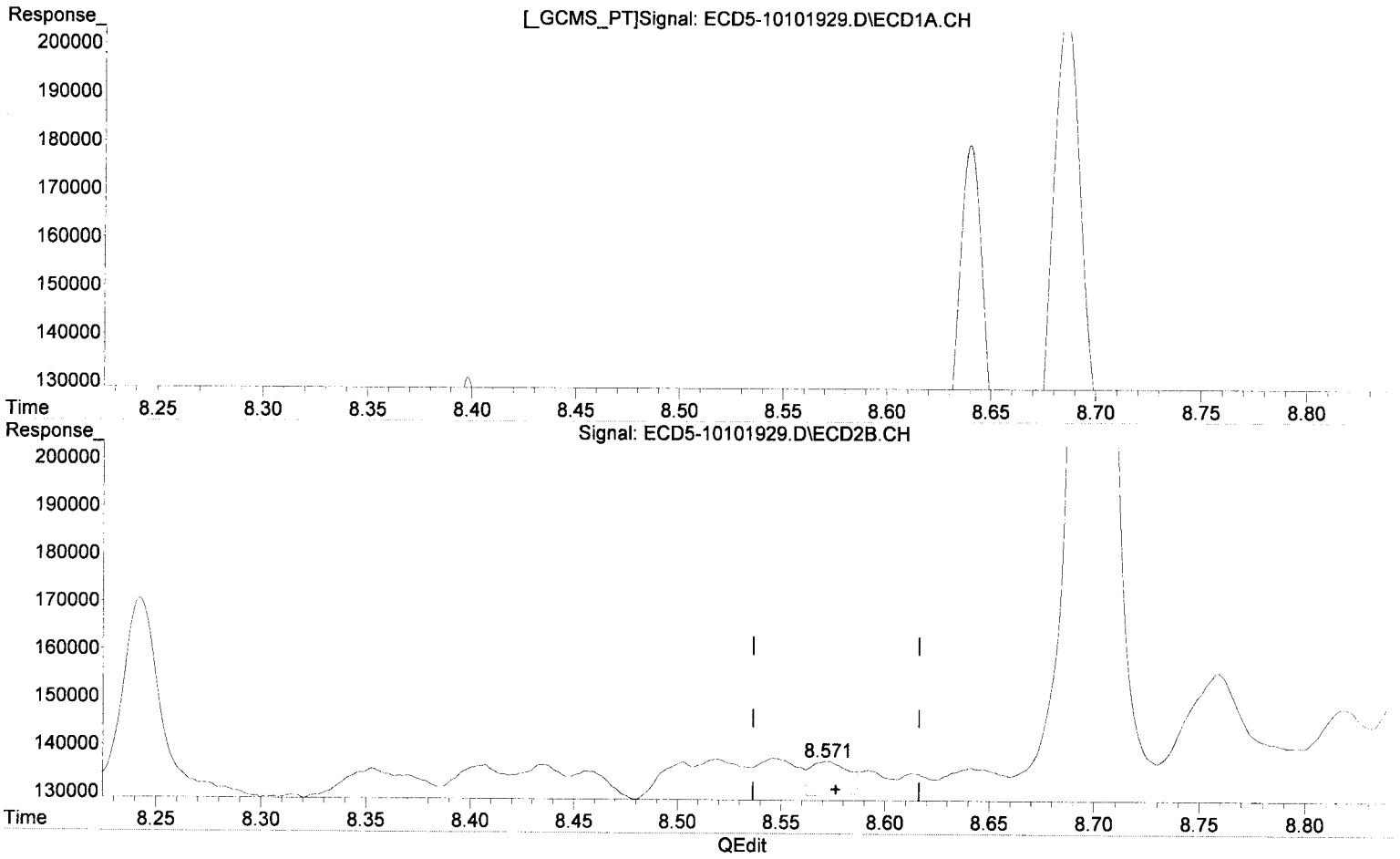
response 13584

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:40
Operator : MJB
Sample : A9J0058-22RE1
Misc : 1x, 8081B 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: Oct 11 11:05:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(29) 2,4'-DDT

7.748min 0.080 ng/mL

response 8784

MJB 10/16/19

(29) 2,4'-DDT #2

8.571min 0.040 ng/mL m

response 7050

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:40
Operator : MJB
Sample : A9J0058-22RE1
Misc : 1x, 8081B 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: Oct 11 11:05:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MF
MJB 10/16/19

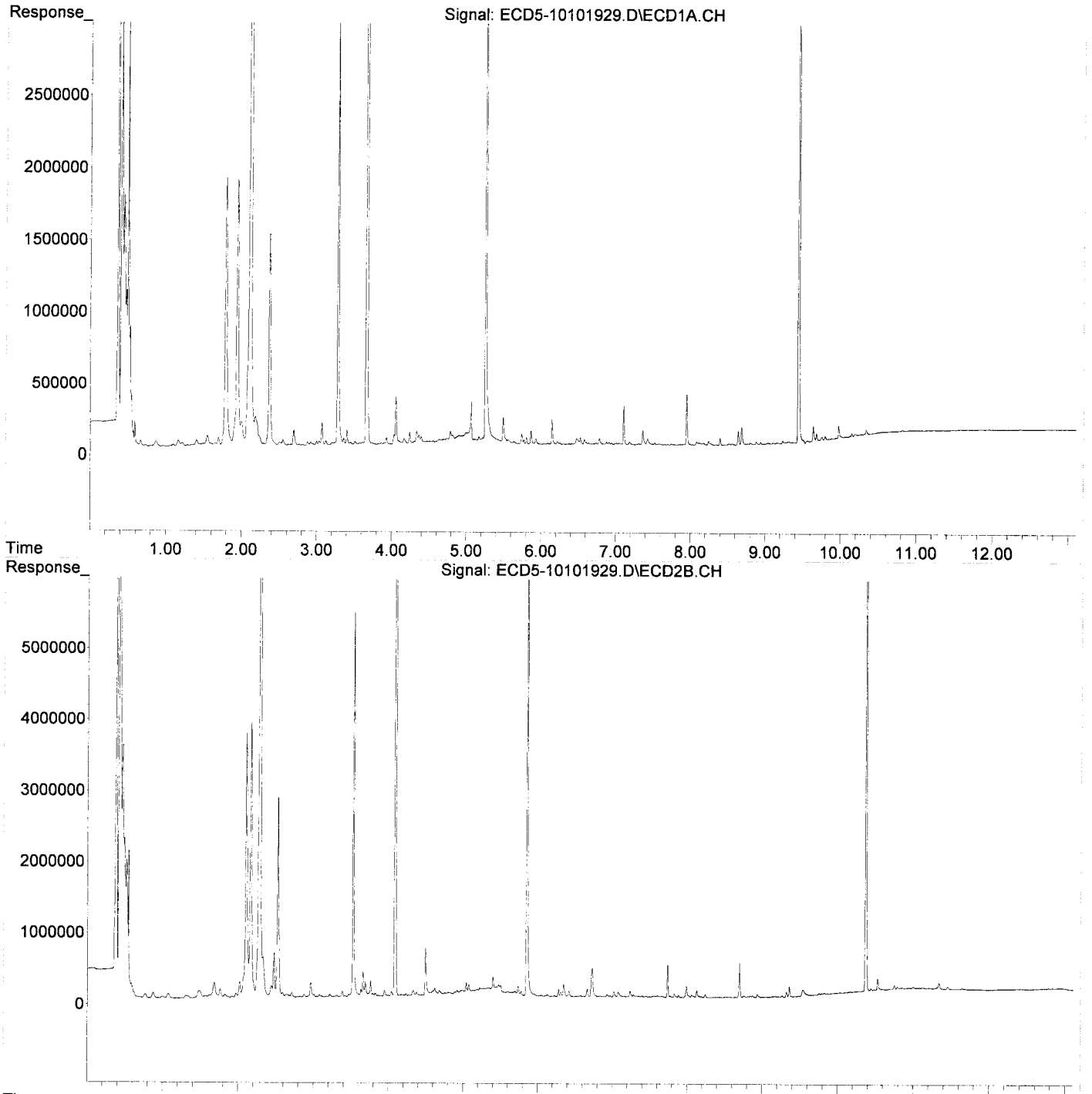
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.259	5.851	4392183	7663510	26.463	26.123	
22)	S	DCBP (S)	9.444	10.372	6807660	9136569	48.248	50.826	
		Target Compounds							
2)		a-BHC	5.806	0.000	59662	0	0.260	N.D.	#
3)		g-BHC	6.090	0.000	16735	0	0.083	N.D.	#
4)		b-BHC	6.149	6.843	182081	26062	2.015	0.165	#
5)		Heptachlor	6.479	7.166	48885	21011	0.270	0.069	#
6)		d-BHC	0.000	7.077f	0	80290	N.D.	0.228	#
7)		Aldrin	6.736	7.393	19948	26550	0.101	0.081	
8)		Heptachlo...	7.188	7.828f	23441	52182	0.127	0.173	
9)		trans-Chl...	7.315f	7.990	11648	159371	0.063	0.509	#
10)		cis-Chlor...	7.365	8.128f	104113	99826	0.572	0.343	#
11)		Endosulfa...	0.000	8.159	0	24360	N.D.	0.089	#
12)		4,4'-DDE	7.431	8.242f	47892	43017	0.254	0.138	#
13)		Dieldrin	7.651	8.353	6588	6922	0.034	0.023	
14)		Endrin	0.000	8.547f	0	7953	N.D.	0.035	#
15)		4,4'-DDD	7.856	0.000	5676	0	0.036	N.D.	#
16)		Endosulfa...	7.952	8.699	355890	475221	2.478	2.061	
17)		4,4'-DDT	8.086f	8.844	24551	19004	0.205	0.073	#
18)		Endrin Al...	8.245	8.937	25657	43439	BelowCal	BelowCal	
19)		Endosulfa...	8.555	9.141	9420	13774	0.061	0.055	
20)		Methoxychlor	8.398	9.322	47839	70038	0.817	0.683	
21)		Endrin Ke...	8.774f	9.539	7339	84166	0.044	0.327	#
23)		Hexachlor...	3.069	3.528	162751	5411251	0.891	14.394	#
24)		Hexachlor...	5.641	6.308	29720	80627	0.169	0.257	#
25)		Oxychlordane	7.110	7.774	272023	28356	1.653	0.104	#
26)		2,4'-DDE	7.188	7.990	23441	159371	0.183	0.751	#
27)		trans-Non...	7.365	8.058	104113	35328	0.265	0.117	#
28)		2,4'-DDD	7.578	8.353	11126	6922	0.097	0.037	#
29)		2,4'-DDT	7.748	8.547f	8784	7953	0.080	0.045	#
30)		cis-Nonac...	7.856	0.000	5676	0	0.027	N.D.	#
31)		Mirex	8.518	9.539	9577	84166	0.076	0.452	#
32)		Chlordane...	7.365	8.058	104113	35328	5.288	0.976	#
33)		Chlordane...	7.431	8.159	47892	24360	1.911	0.802	#
34)		Chlordane...	7.952f	8.818	355890	15479	61.561	1.726	#
35)		Chlordane...	3.358	3.383f	56816	91473	NoCal	NoCal	
36)		Toxaphene...	7.431	8.406f	47892	7500	53.472	2.858	#
37)		Toxaphene...	7.699	8.759f	7163	23753	4.436	7.217	#
38)		Toxaphene...	0.000	8.759	0	23753	N.D.	4.687	#
39)		Toxaphene...	8.245	8.844	25657	19004	7.918	2.276	#
40)		Toxaphene...	8.518f	0.000	9577	0	3.995	N.D.	#
41)		Toxaphene...	8.555	9.361f	9420	144155	2.977	30.347	#
42)		Toxaphene...	3.358	3.383f	56816	91473	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:40
Operator : MJB
Sample : A9J0058-22RE1
Misc : 1x, 8081B 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: Oct 11 11:05:43 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:58
Operator : MJB
Sample : A9J0058-23RE1
Misc : 1x, 8081B 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: Oct 16 10:51:39 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MB 10/16/19

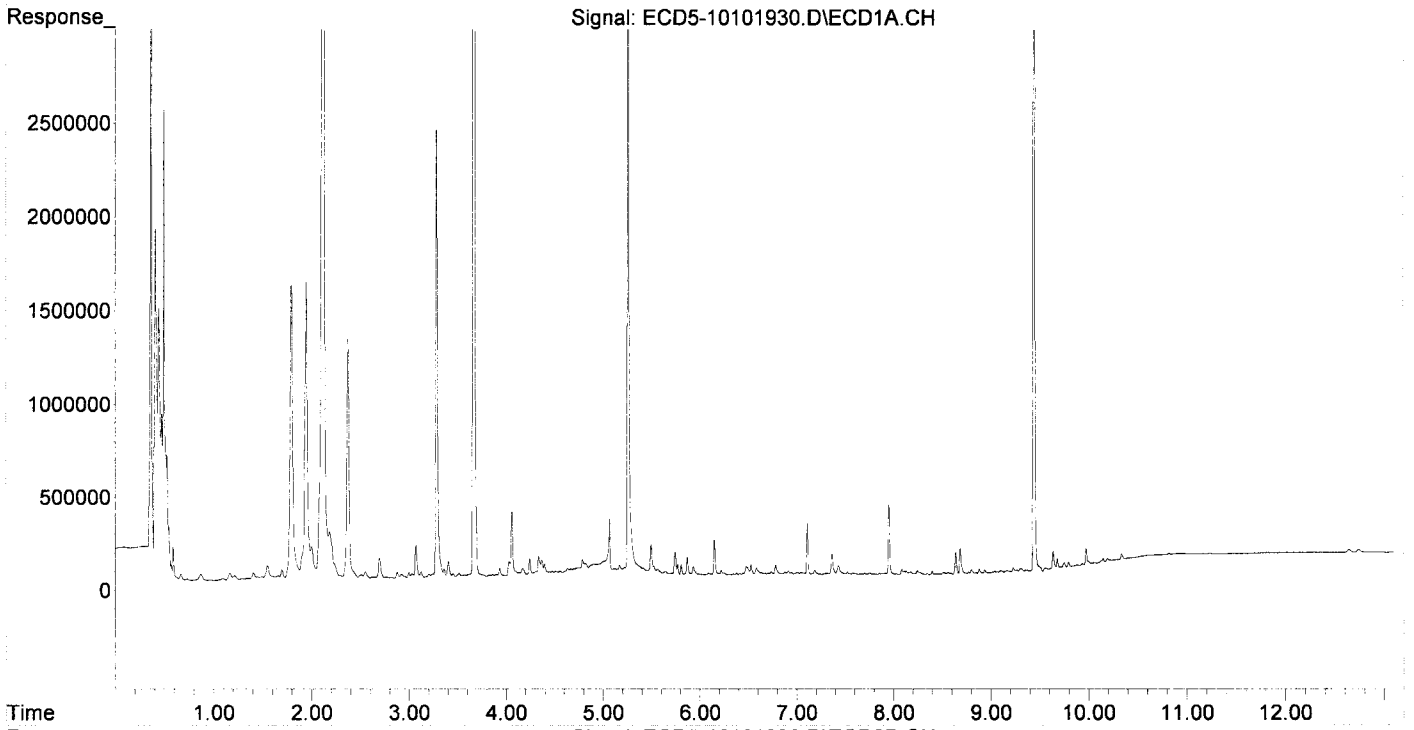
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.260	5.852	4083356	7159302	24.602	24.404	
22)	S	DCBP (S)	9.445	10.374	6968570	9044489	49.388	50.313	
		Target Compounds							
2)		a-BHC	5.807	0.000	62191	0	0.271	N.D.	#
3)		g-BHC	6.092	6.772	17191	29271	0.085	0.082	
4)		b-BHC	6.151	6.844	190934	21245	2.112	0.134	#
5)		Heptachlor	6.479	7.168	51772	18951	0.286	0.062	#
6)		d-BHC	6.345f	7.078	11801	83985	0.060	0.238	#
7)		Aldrin	6.737	7.395	23298	27359	0.118	0.083	
8)		Heptachlo...	7.187	7.829	25988	51445	0.141	0.171	
9)		trans-Chl...	7.317f	7.991	12547	164534	0.068	0.525	#
10)		cis-Chlor...	7.366	8.130f	111035	112689	0.610	0.387	
11)		Endosulfa...	0.000	8.130	0	112689	N.D.	0.410	#
12)		4,4'-DDE	7.432	8.188	51766	13127	0.275	0.042m	#
13)		Dieldrin	7.653	8.359	7650	6217	0.040	0.020	#
14)		Endrin	0.000	8.548f	0	7983	N.D.	0.035	#
15)		4,4'-DDD	7.854	0.000	7561	0	0.048	N.D.	#
16)		Endosulfa...	7.954	8.700	375114	488877	2.612	2.120	
17)		4,4'-DDT	8.086f	8.845	28095	25872	0.235	0.113	#
18)		Endrin Al...	8.246	8.938	20705	35255	BelowCal	BelowCal	
19)		Endosulfa...	8.565	9.143	8015	13327	0.052	0.054	
20)		Methoxychlor	8.399	9.327	17373	33477	0.297	0.230	
21)		Endrin Ke...	8.776f	9.550	8530	93759	0.051	0.364	#
23)		Hexachlor...	3.071	3.530	177665	4210556	0.972	11.200	#
24)		Hexachlor...	5.643	6.310	28947	80339	0.164	0.256	#
25)		Oxychlordane	7.111	7.776	277622	31325	1.687	0.114	#
26)		2,4'-DDE	7.187	7.991	25988	164534	0.203	0.776	#
27)		trans-Non...	7.366	8.061	111035	35868	0.303	0.119	#
28)		2,4'-DDD	7.580	8.359	12641	6217	0.111	0.033	#
29)		2,4'-DDT	7.750	8.548f	10477	7983	0.096	0.045	#
30)		cis-Nonac...	7.854	0.000	7561	0	0.036	N.D.	#
31)		Mirex	8.520f	9.550f	10161	93759	0.081	0.504	#
32)		Chlordane...	7.366	8.061	111035	35868	5.639	0.991	#
33)		Chlordane...	7.432	8.160	51766	25288	2.065	0.833	#
34)		Chlordane...	7.954f	8.820	375114	17132	64.886	1.911	#
35)		Chlordane...	3.359	3.384f	52401	60845	NoCal	NoCal	
36)		Toxaphene...	7.432	8.407f	51766	7852	57.798	2.992	#
37)		Toxaphene...	7.701	8.759f	9531	24800	5.902	7.536	
38)		Toxaphene...	8.026	8.759	6855	24800	2.035	4.893	#
39)		Toxaphene...	8.246	8.845	20705	25872	6.390	3.098	#
40)		Toxaphene...	8.520f	0.000	10161	0	4.239	N.D.	#
41)		Toxaphene...	8.565	9.391	8015	9892	2.533	2.083	
42)		Toxaphene...	3.359	3.384f	52401	60845	NoCal	NoCal	

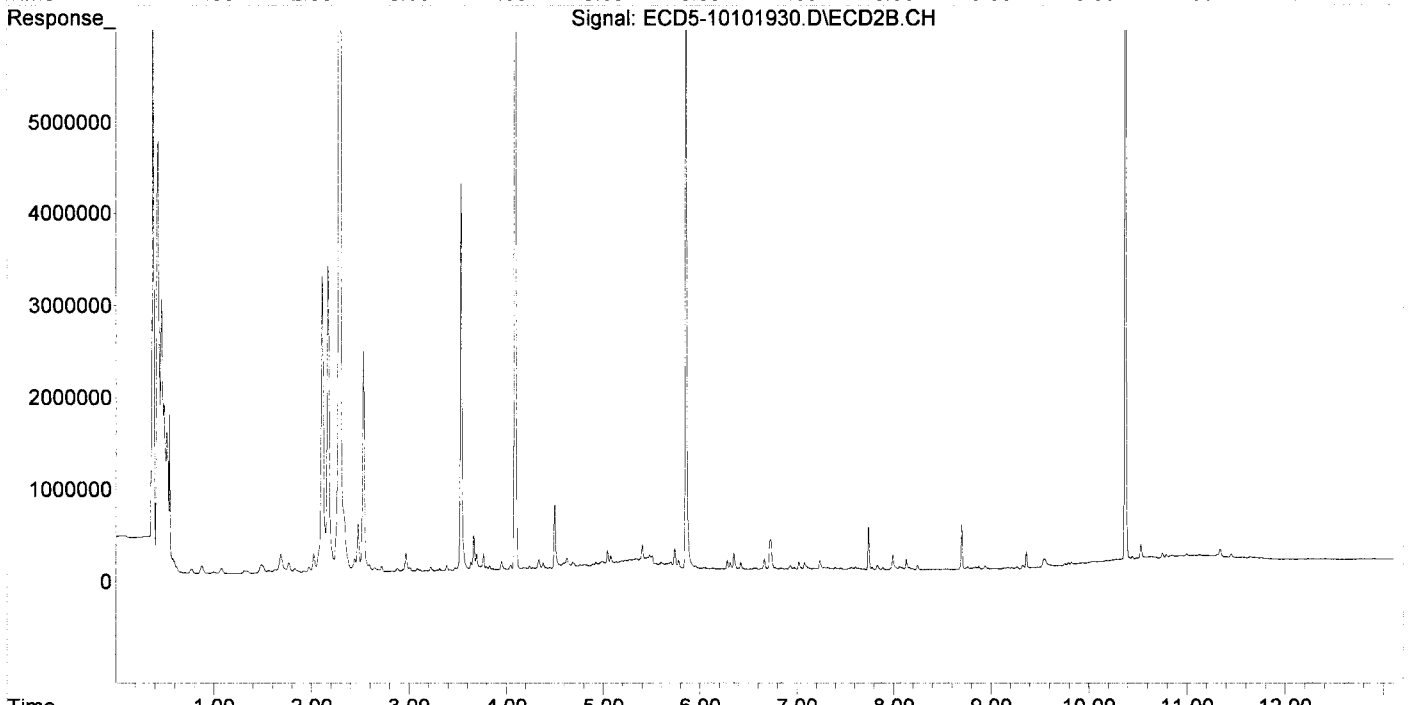
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:58
Operator : MJB
Sample : A9J0058-23RE1
Misc : 1x, 8081B 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: Oct 16 10:51:39 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

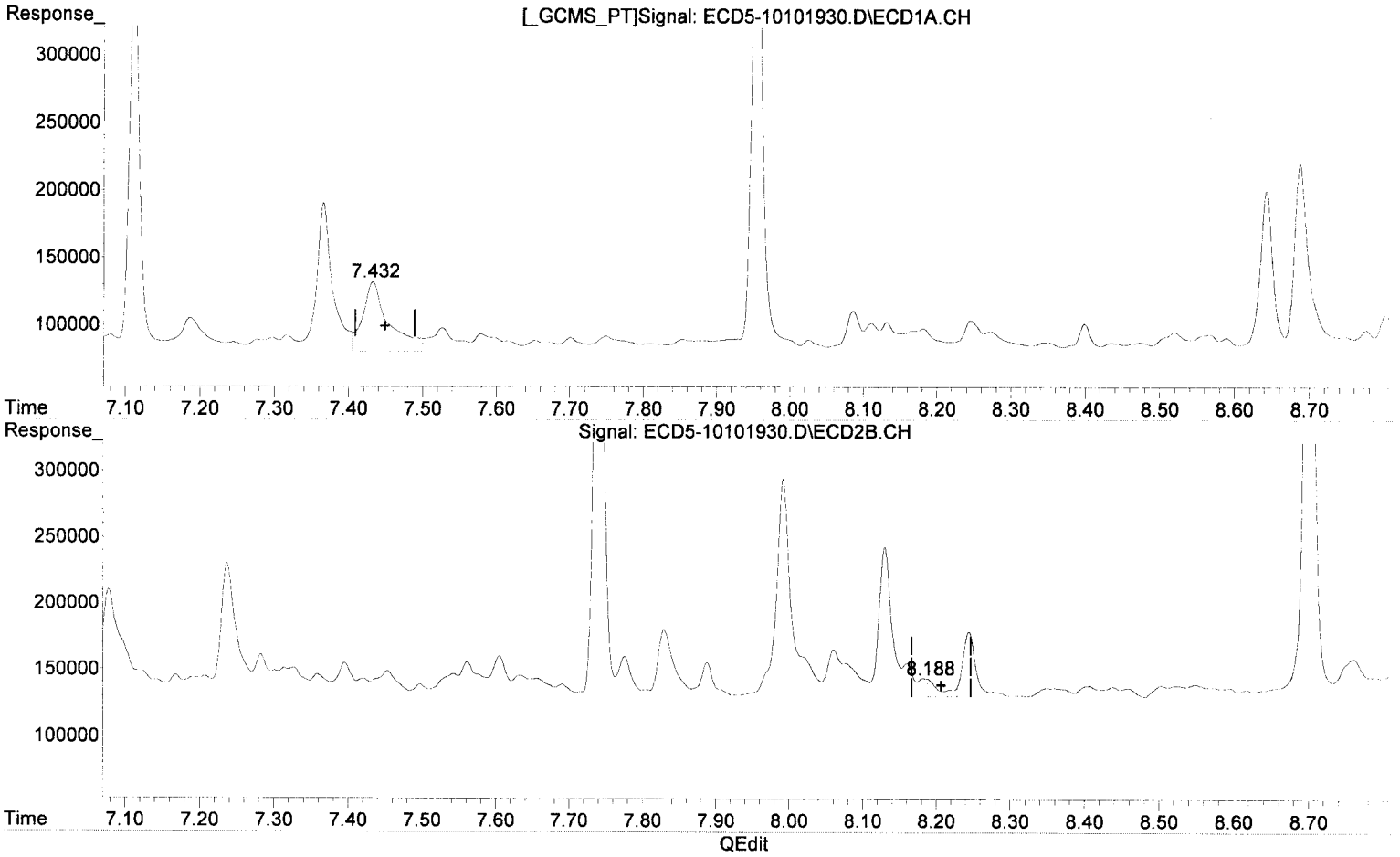




Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:58
Operator : MJB
Sample : A9J0058-23RE1
Misc : 1x, 8081B 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: Oct 11 11:05:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(12) 4,4'-DDE

7.432min 0.275 ng/mL

response 51766

MJB 12/16/19

(12) 4,4'-DDE #2

8.188min 0.042 ng/mL m

response 13127

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:58
Operator : MJB
Sample : A9J0058-23RE1
Misc : 1x, 8081B 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: Oct 11 11:05:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJ MJB pk6/19

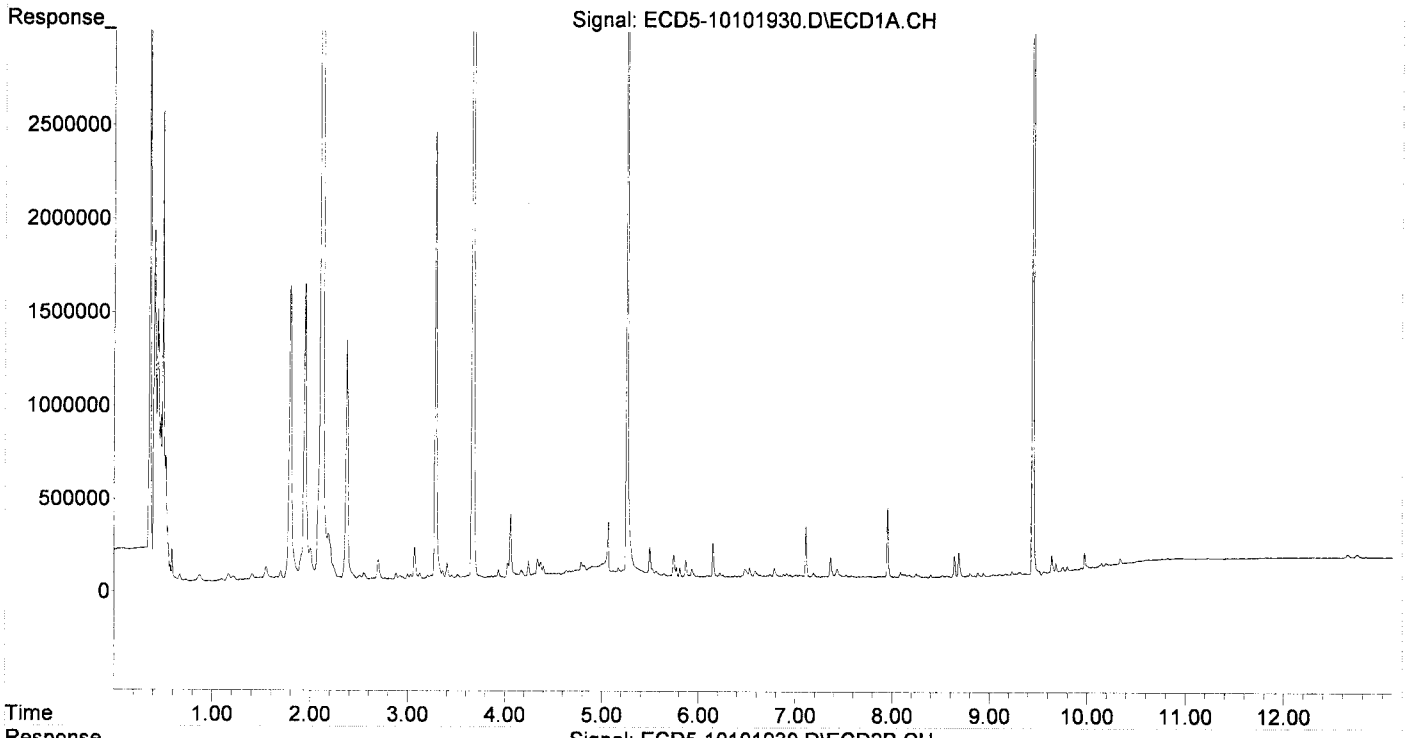
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.260	5.852	4083356	7159302	24.602	24.404	
22)	S	DCBP (S)	9.445	10.374	6968570	9014489	49.388	50.313	
		Target Compounds							
2)		a-BHC	5.807	0.000	62191	0	0.271	N.D.	#
3)		g-BHC	6.092	6.772	17191	29271	0.085	0.082	
4)		b-BHC	6.151	6.844	190934	21245	2.112	0.134	#
5)		Heptachlor	6.479	7.168	51772	18951	0.286	0.062	#
6)		d-BHC	6.345f	7.078	11801	83985	0.060	0.238	#
7)		Aldrin	6.737	7.395	23298	27359	0.118	0.083	
8)		Heptachlo...	7.187	7.829	25988	51445	0.141	0.171	
9)		trans-Chl...	7.317f	7.991	12547	164534	0.068	0.525	#
10)		cis-Chlor...	7.366	8.130f	111035	112689	0.610	0.387	
11)		Endosulfa...	0.000	8.130	0	112689	N.D.	0.410	#
12)		4,4'-DDE	7.432	8.244f	51766	48674	0.275	0.157	#
13)		Dieldrin	7.653	8.359	7650	6217	0.040	0.020	#
14)		Endrin	0.000	8.548f	0	7983	N.D.	0.033	#
15)		4,4'-DDD	7.854	0.000	7561	0	0.048	N.D.	#
16)		Endosulfa...	7.954	8.700	375114	488877	2.612	2.120	
17)		4,4'-DDT	8.086f	8.845	28095	25872	0.235	0.113	#
18)		Endrin Al...	8.246	8.938	20705	35255	BelowCal	BelowCal	
19)		Endosulfa...	8.565	9.143	8015	13327	0.052	0.054	
20)		Methoxychlor	8.399	9.327	17373	33477	0.297	0.230	
21)		Endrin Ke...	8.776f	9.550	8530	93759	0.051	0.364	#
23)		Hexachlor...	3.071	3.530	177665	4210556	0.972	11.200	#
24)		Hexachlor...	5.643	6.310	28947	80339	0.164	0.256	#
25)		Oxychlordane	7.111	7.776	277622	31325	1.687	0.114	#
26)		2,4'-DDE	7.187	7.991	25988	164534	0.203	0.776	#
27)		trans-Non...	7.366	8.061	111035	35868	0.303	0.119	#
28)		2,4'-DDD	7.580	8.359	12641	6217	0.111	0.033	#
29)		2,4'-DDT	7.750	8.548f	10477	7983	0.096	0.045	#
30)		cis-Nonac...	7.854	0.000	7561	0	0.036	N.D.	#
31)		Mirex	8.520f	9.550f	10161	93759	0.081	0.504	#
32)		Chlordane...	7.366	8.061	111035	35868	5.639	0.991	#
33)		Chlordane...	7.432	8.160	51766	25288	2.065	0.833	#
34)		Chlordane...	7.954f	8.820	375114	17132	64.886	1.911	#
35)		Chlordane...	3.359	3.384f	52401	60845	NoCal	NoCal	
36)		Toxaphene...	7.432	8.407f	51766	7852	57.798	2.992	#
37)		Toxaphene...	7.701	8.759f	9531	24800	5.902	7.536	
38)		Toxaphene...	8.026	8.759	6855	24800	2.035	4.893	#
39)		Toxaphene...	8.246	8.845	20705	25872	6.390	3.098	#
40)		Toxaphene...	8.520f	0.000	10161	0	4.239	N.D.	#
41)		Toxaphene...	8.565	9.391	8015	9892	2.533	2.083	
42)		Toxaphene...	3.359	3.384f	52401	60845	NoCal	NoCal	

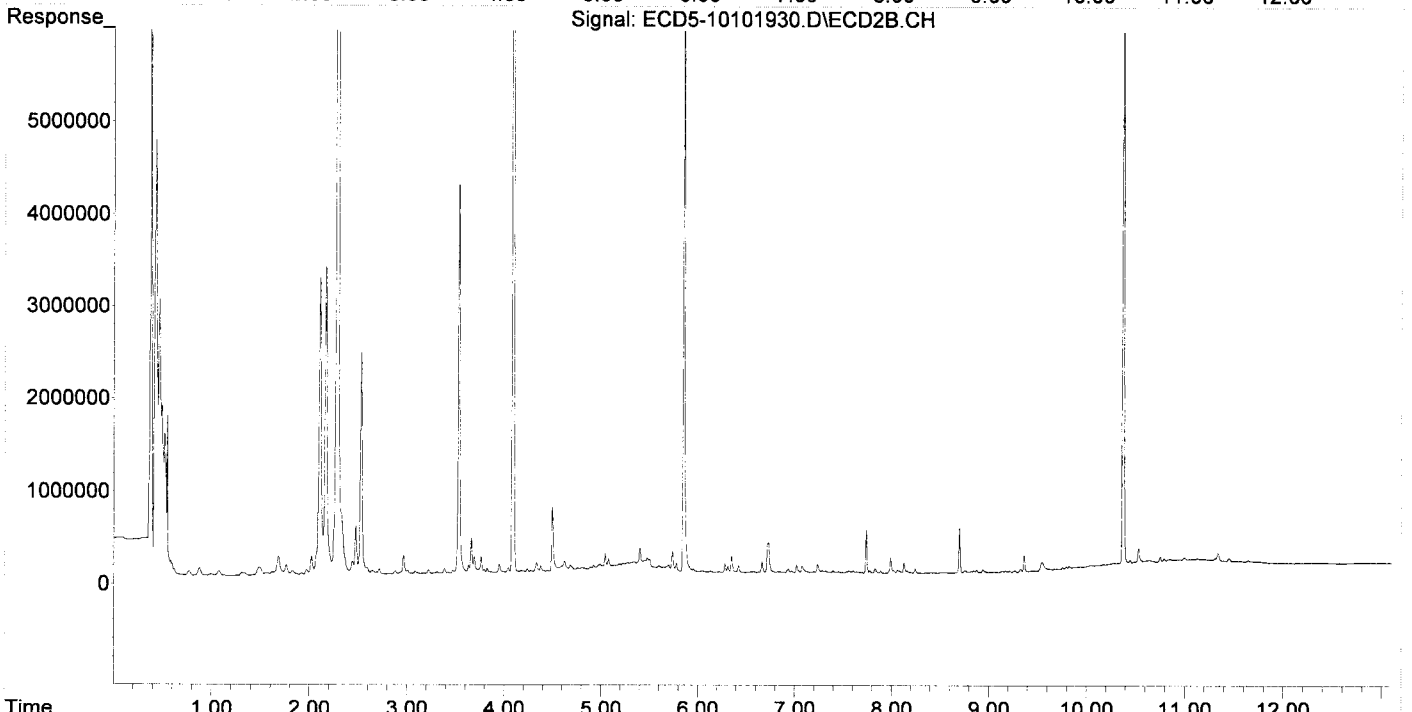
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 19:58
Operator : MJB
Sample : A9J0058-23RE1
Misc : 1x, 8081B 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: Oct 11 11:05:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 21:24
Operator : MJB
Sample : 9J10029-CCV7
Misc : A19H384, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:06:23 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/16/19

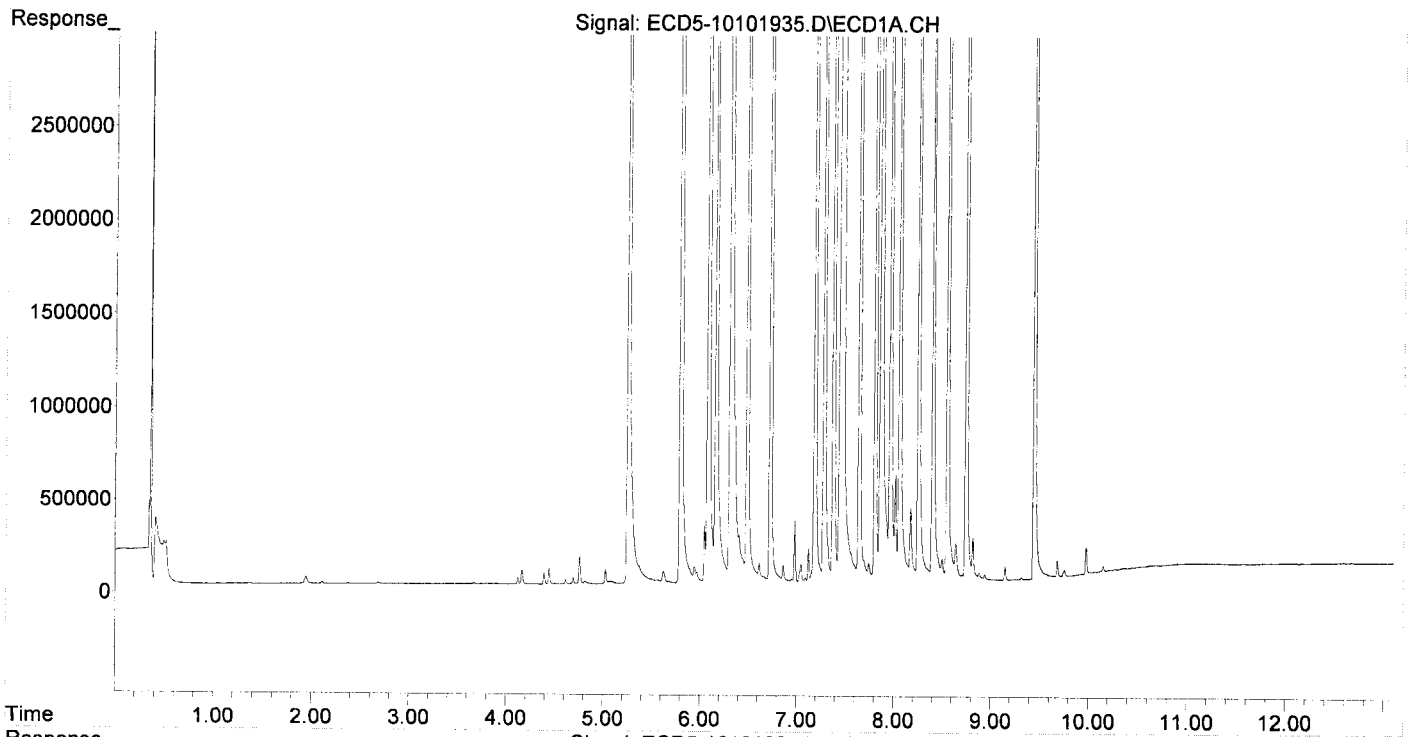
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.258	5.850	15453157	28528983	93.105	97.247	
22)	S	DCBP (S)	9.446	10.372	13288943	19678190	94.182	109.467	
		Target Compounds							
2)		a-BHC	5.798	6.458	22242048	43799022	96.987	106.739	
3)		g-BHC	6.083	6.776	18454932	37283005	91.462	104.521	
4)		b-BHC	6.163	6.842	6593570	14183592	72.951	89.619	
5)		Heptachlor	6.489	7.146	18698453	34551956	103.137	112.923	
6)		d-BHC	6.313	7.096	14679498	33417668	74.633	94.757	
7)		Aldrin	6.728	7.409	21699605	38666042	109.902	117.386	
8)		Heptachlo...	7.187	7.847	17810929	31543815	96.705	104.850	
9)		trans-Chl...	7.282	7.985	19108734	33535771	103.351	107.032	
10)		cis-Chlor...	7.378	8.093	18894106	32686824	103.773	112.231	
11)		Endosulfa...	7.475	8.142	18078758	29902678	106.233 Q-21	108.667	
12)		4,4'-DDE	7.447	8.204	14334657	30611406	76.034	98.531	
13)		Dieldrin	7.646	8.342	20180870	34415704	105.120	113.154	
14)		Endrin	7.810	8.568	15802755	25609323	107.482 Q-21	113.402	
15)		4,4'-DDD	7.866	8.619	11593924	24336808	73.781	94.986	
16)		Endosulfa...	7.967	8.715	14071113	25270174	97.980	109.582	
17)		4,4'-DDT	8.061	8.842	11748642	21505449	98.266	104.426	
18)		Endrin Al...	8.255	8.952	12208282	21068402	97.349	102.057	
19)		Endosulfa...	8.555	9.142	15372516	26018012	99.192	104.453	
20)		Methoxychlor	8.403	9.323	5333094	10066159	91.048	101.899	
21)		Endrin Ke...	8.748	9.538	16401817	27794866	98.357	108.018	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.626	0.000	64244	0	0.364	N.D.	#
25)		Oxychlordane	7.124	7.781	173067	11981	1.052	0.044	#
26)		2,4'-DDE	7.187	7.985	17810929	33535771	138.865	158.085	
27)		trans-Non...	7.378	8.041	18894106	175446	105.269	0.582	#
28)		2,4'-DDD	0.000	8.342	0	34415704	N.D.	182.225	#
29)		2,4'-DDT	7.747	8.568	96436	25609323	0.879	143.599	#
30)		cis-Nonac...	7.866f	8.619	11593924	24336808	55.843	72.550	
31)		Mirex	8.503	9.538	112820	27794866	0.900	149.376	#
32)		Chlordane...	7.378f	8.041	18894106	175446	959.598	4.849	#
33)		Chlordane...	7.447	8.142	14334657	29902678	571.915	984.805	#
34)		Chlordane...	7.967f	8.808	14071113	119602	2433.976	13.340	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	7.447f	0.000	14334657	0	16004.799	N.D.	#
37)		Toxaphene...	7.747f	8.715	96436	25270174	59.715	7678.511	#
38)		Toxaphene...	8.021	8.793f	567167	112790	168.424	22.254	#
39)		Toxaphene...	8.255	8.842	12208282	21505449	3767.811	2575.554	
40)		Toxaphene...	8.503	9.036f	112820	535777	47.064	114.965	#
41)		Toxaphene...	8.555	9.405	15372516	169811	4857.675	35.748	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

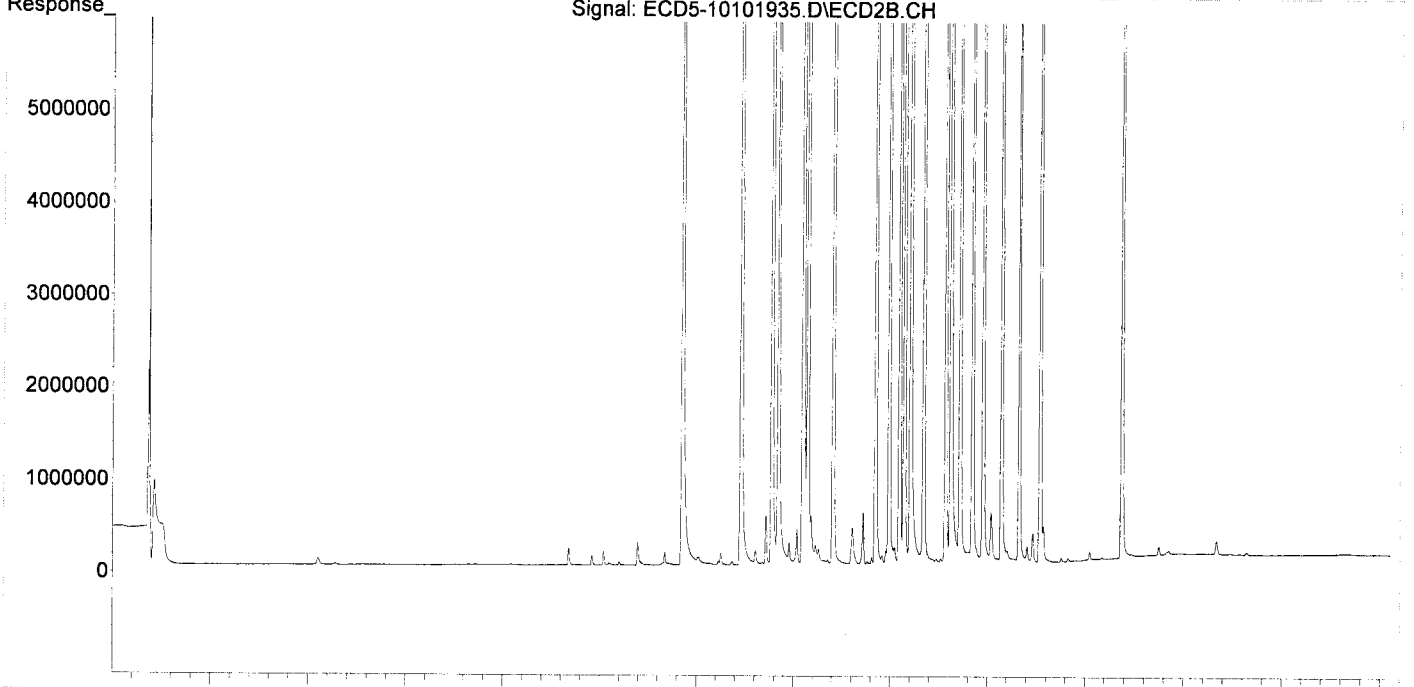
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 21:24
Operator : MJB
Sample : 9J10029-CCV7
Misc : A19H384, AB 100 ppb
ALS Vial : 5 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:06:23 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 21:41
Operator : MJB
Sample : 9J10029-CCV8
Misc : A19E155, 9-42 100 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:06:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/16/19

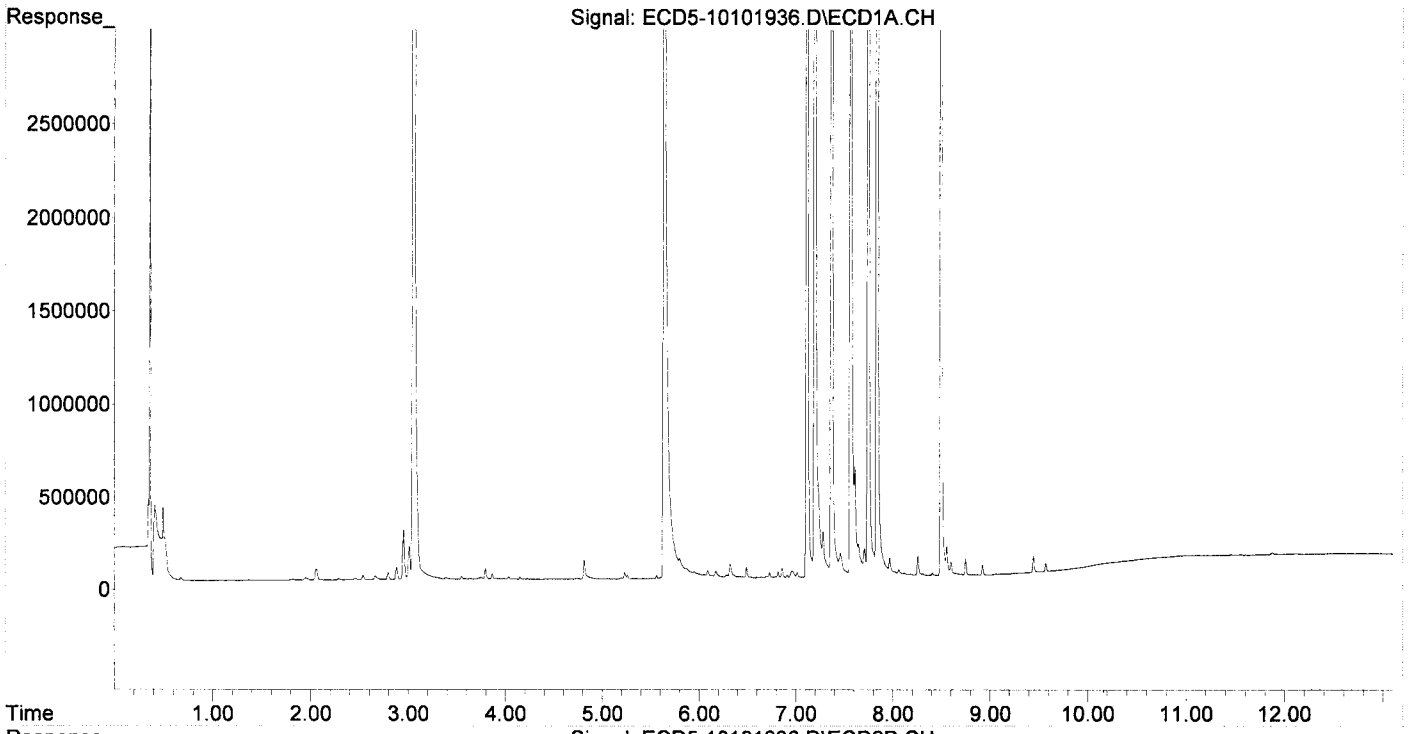
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.259	5.852	21142	34930	0.127	0.119	
22)	S	DCBP (S)	9.447	10.372	83404	107332	0.591	0.597	
		Target Compounds							
2)		a-BHC	5.799	6.457	106688	141652	0.465	0.345	
3)		g-BHC	6.091	6.778	42984	65337	0.213	0.183	
4)		b-BHC	6.175	6.848	37389	61898	0.414	0.391	
5)		Heptachlor	6.492	7.146	57115	95331	0.315	0.312	
6)		d-BHC	6.322	7.098	75765	169374	0.385	0.480	
7)		Aldrin	6.729	7.408	27023	53192	0.137	0.161	
8)		Heptachlo...	7.197	7.846	11184114	139538	60.724	0.464	#
9)		trans-Chl...	7.283	7.983	245920	21546038	1.330	68.766	#
10)		cis-Chlor...	7.372	8.091	19104672	225442	104.930	0.774	#
11)		Endosulfa...	7.462	8.156	123816	151177	0.728	0.549	
12)		4,4'-DDE	7.462	8.204	123816	64031	0.657	0.206	#
13)		Dieldrin	7.647	8.355	175448	19635218	0.914	64.558	#
14)		Endrin	7.839f	8.577	22264211	19686997	151.429	87.177	#
15)		4,4'-DDD	7.839f	8.614	22264211	38793831	141.683	151.412	
16)		Endosulfa...	7.970	8.716	96110	140376	0.669	0.609	
17)		4,4'-DDT	8.063	8.843	35120	36951	0.294	0.177	
18)		Endrin Al...	8.260	8.954	101777	146257	BelowCal	BelowCal	
19)		Endosulfa...	8.557	9.143	154435	185326	0.997	0.744	
20)		Methoxychlor	8.408	9.324	12521	22707	0.214	0.096	#
21)		Endrin Ke...	8.751	9.525	85130	20599884	0.511	80.057	#
23)		Hexachlor...	3.057	3.549	20970881	45382280	114.759	120.719	
24)		Hexachlor...	5.640	6.317	14243131	28358358	80.792	90.288	
25)		Oxychlordane	7.116	7.777	16950034	29496382	103.016	107.689	
26)		2,4'-DDE	7.197	7.983	11184114	21546038	87.198	101.566	
27)		trans-Non...	7.372	8.050	19104672	33663282	106.447	111.602	
28)		2,4'-DDD	7.568	8.355	9750786	19635218	85.439	103.965	
29)		2,4'-DDT	7.748	8.577	11378949	19686997	103.740	110.391	
30)		cis-Nonac...	7.839	8.614	22264211	38793831	107.238	115.647	
31)		Mirex	8.499	9.525	12814204	20599884	102.214	110.708	
32)		Chlordane...	7.372f	8.050	19104672	33663282	970.292	930.321	
33)		Chlordane...	7.462f	8.156	123816	151177	4.940	4.979	
34)		Chlordane...	7.970	8.843f	96110	36951	16.625	4.121	#
35)		Chlordane...	3.388	3.390f	11800	136844	NoCal	NoCal	
36)		Toxaphene...	0.000	8.355f	0	19635218	N.D.	7482.198	#
37)		Toxaphene...	7.710	8.716	149636	140376	92.658	42.654	#
38)		Toxaphene...	8.063f	0.000	35120	0	10.429	N.D.	#
39)		Toxaphene...	8.260	8.843	101777	36951	31.411	4.425	#
40)		Toxaphene...	8.499	9.049f	12814204	11890	5345.617	2.551	#
41)		Toxaphene...	8.557	0.000	154435	0	48.801	N.D.	#
42)		Toxaphene...	3.388	3.390f	11800	136844	NoCal	NoCal	

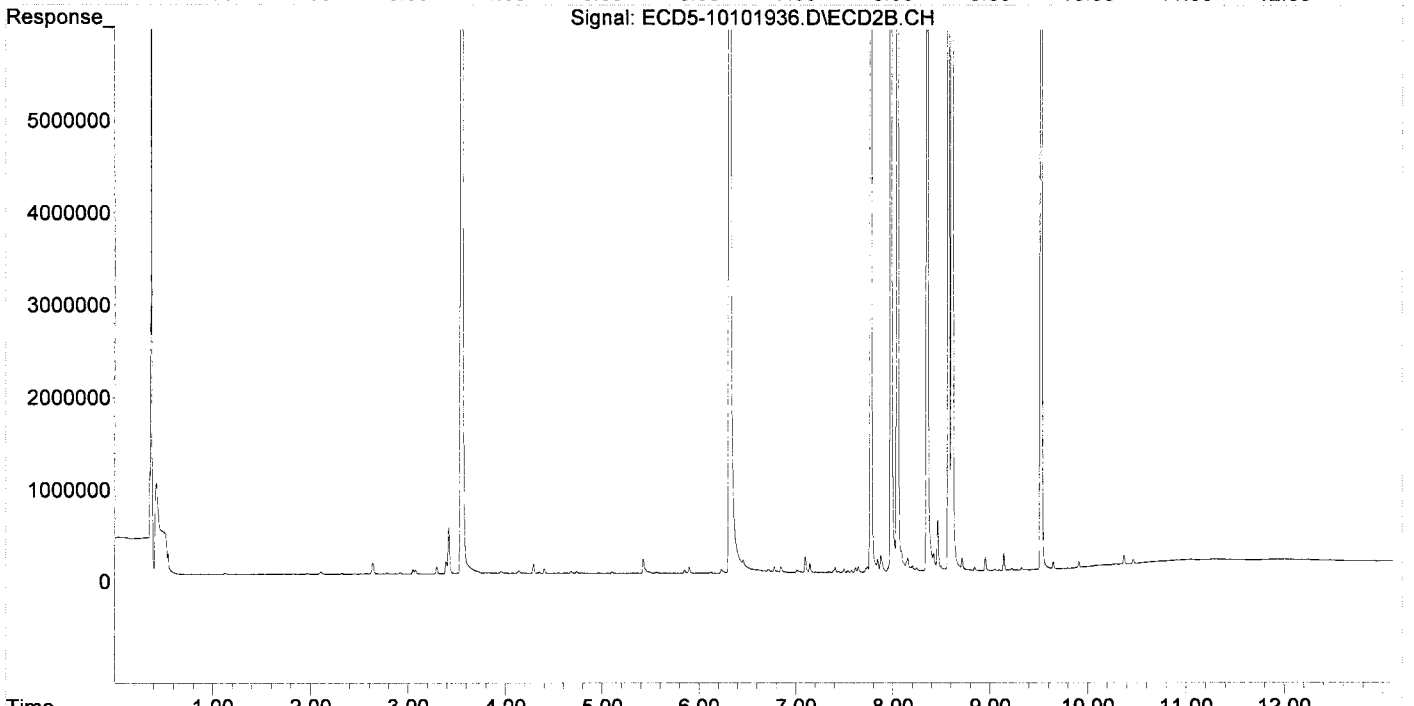
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101936.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 21:41
Operator : MJB
Sample : 9J10029-CCV8
Misc : A19E155, 9-42 100 ppb
ALS Vial : 6 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:06:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 21:58
Operator : MJB
Sample : 9J10029-CCB4
Misc : A19I233
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:06:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 10/16/19

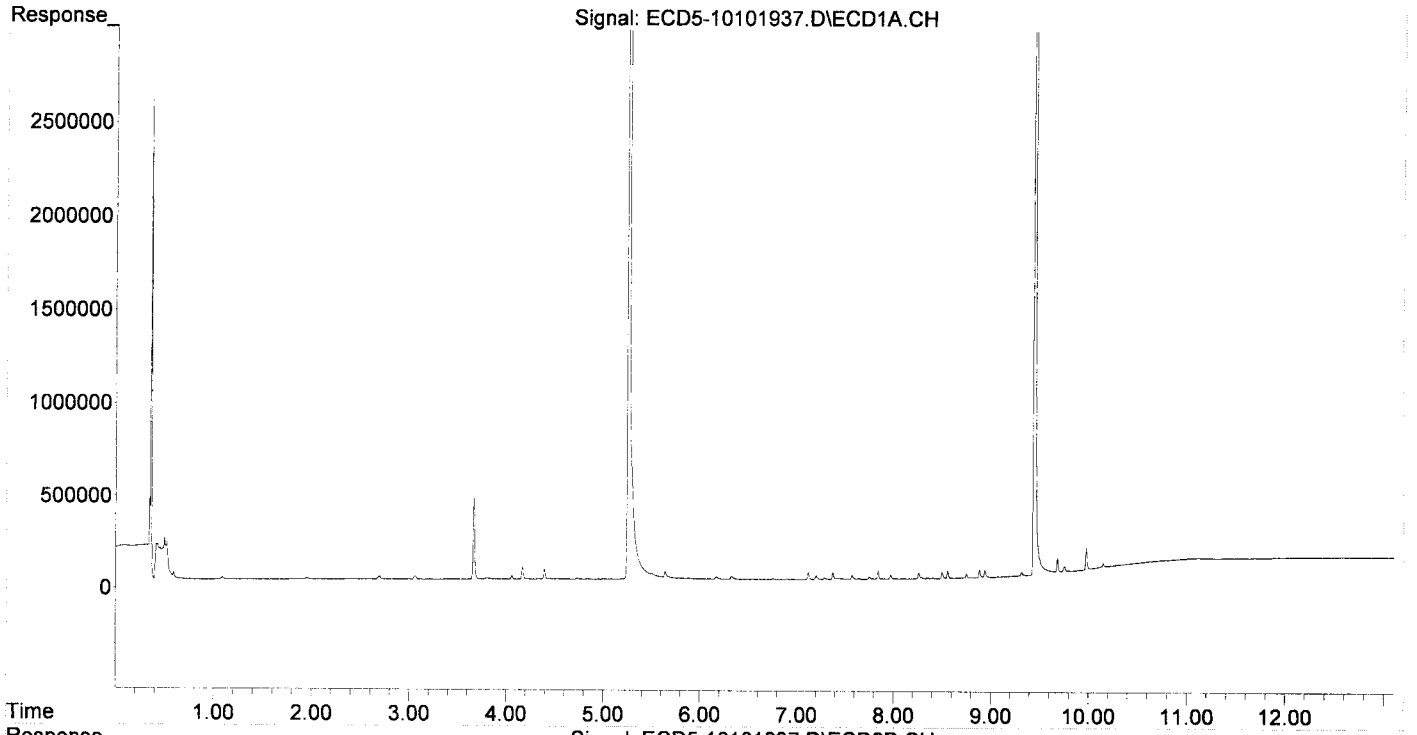
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.259	5.851	12895188	22961888	77.693	78.270	
22)	S	DCBP (S)	9.447	10.373	10817398	16227844	76.665	90.274	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	0.000	0.000	0	0	N.D.	N.D.	
4)		b-BHC	6.170	6.851	10915	10379	0.121	0.066	#
5)		Heptachlor	0.000	7.133	0	7911	N.D.	0.026	#
6)		d-BHC	6.328	7.101	14694	39843	0.075	0.113	#
7)		Aldrin	0.000	7.445f	0	6823	N.D.	0.021	#
8)		Heptachlo...	7.203	0.000	19355	0	0.105	N.D.	#
9)		trans-Chl...	7.288	7.986	6627	34716	0.036	0.111	#
10)		cis-Chlor...	7.375	0.000	36143	0	0.199	N.D.	#
11)		Endosulfa...	7.479	0.000	3272	0	0.019	N.D.	#
12)		4,4'-DDE	7.479f	0.000	3272	0	0.017	N.D.	#
13)		Dieldrin	7.649	8.357	3839	37593	0.020	0.124	#
14)		Endrin	7.842f	8.577	45822	26356	0.312	0.117	#
15)		4,4'-DDD	7.842f	8.613	45822	74019	0.292	0.289	
16)		Endosulfa...	7.972	8.717	18162	29345	0.126	0.127	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.262	8.954	31361	54398	BelowCal	BelowCal	
19)		Endosulfa...	8.559	9.144	39704	63471	0.256	0.255	
20)		Methoxychlor	8.402	0.000	4436	0	0.076	N.D.	#
21)		Endrin Ke...	8.752	9.527	21230	40057	0.127	0.156	
23)		Hexachlor...	3.058	3.547	17265	31207	0.094	0.083	
24)		Hexachlor...	5.642	6.318	38010	42388	0.216	0.135	
25)		Oxychlordane	7.120	7.777	35251	49995	0.214	0.183	
26)		2,4'-DDE	7.203	7.986	19355	34716	0.151	0.164	
27)		trans-Non...	7.375	8.050	36143	58964	87346.499	0.195	#
28)		2,4'-DDD	7.574	8.357	19452	37593	0.170	0.199	
29)		2,4'-DDT	7.752	8.577	12551	26356	0.114	0.148	
30)		cis-Nonac...	7.842	8.613	45822	74019	0.221	0.221	
31)		Mirex	8.502	9.527	32645	40057	0.260	0.215	
32)		Chlordane...	7.375f	8.050	36143	58964	1.836	1.630	
33)		Chlordane...	7.479f	0.000	3272	0	0.131	N.D.	#
34)		Chlordane...	7.972	0.000	18162	0	3.142	N.D.	#
35)		Chlordane...	0.000	0.000	0	0	N.D.	N.D.	
36)		Toxaphene...	0.000	8.357f	0	37593	N.D.	14.325	#
37)		Toxaphene...	7.752f	8.717	12551	29345	7.772	8.917	
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	8.262	0.000	31361	0	9.679	N.D.	#
40)		Toxaphene...	8.502	0.000	32645	0	13.618	N.D.	#
41)		Toxaphene...	8.559	9.393	39704	12299	12.546	2.589	#
42)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	

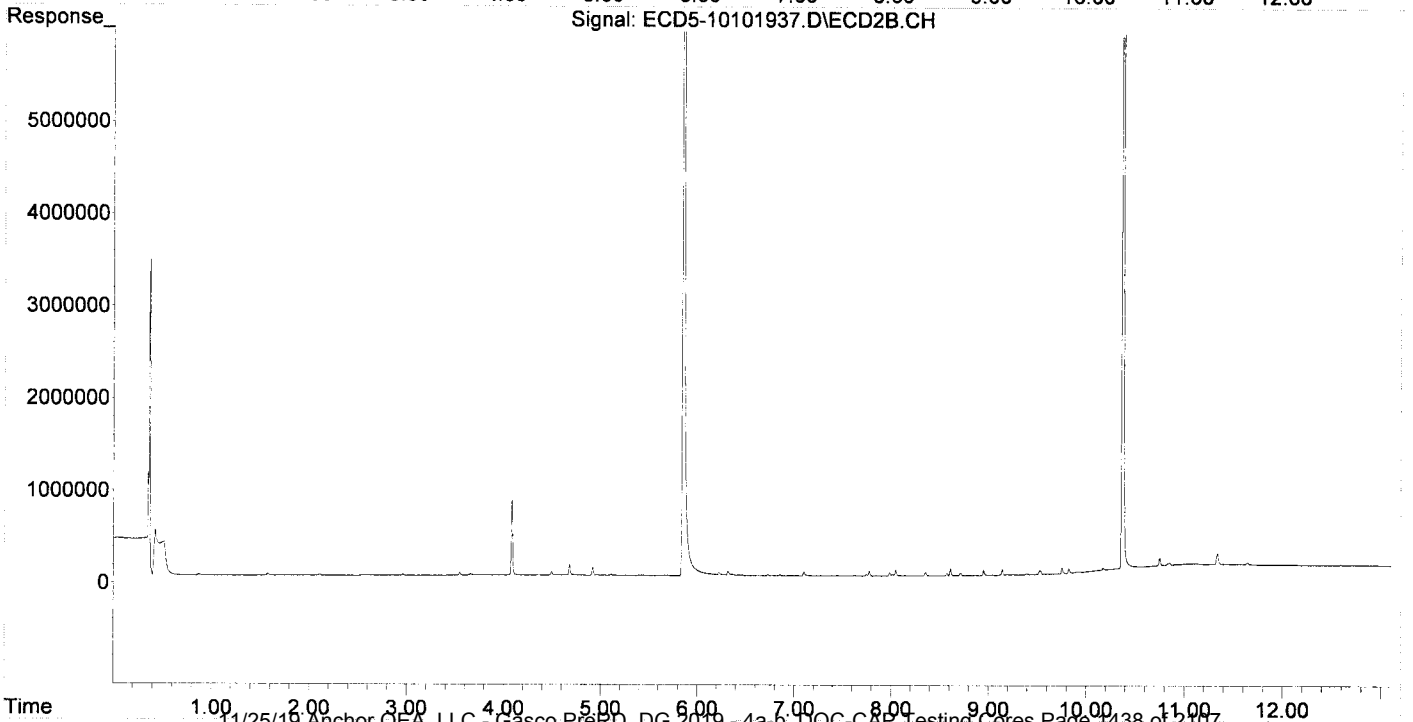
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J10029\
Data File : ECD5-10101937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Oct 2019 21:58
Operator : MJB
Sample : 9J10029-CCB4
Misc : A19I233
ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Oct 11 11:06:37 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823RT4.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





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

Organochloride Pesticides by EPA 8081B
Calibration Data

Sequence 9H23034 (Cal ID A9H2608) DualECD5F

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

MJB 5/26/19

		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

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

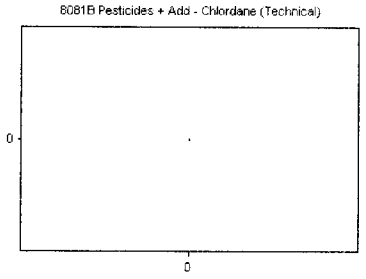
Element Calibration Review Sheet

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**

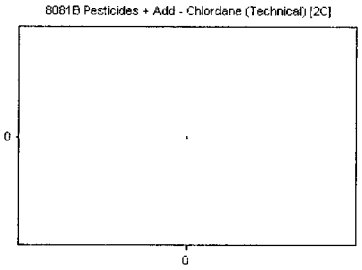


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~5365~~	~~107.300~~	~~3.45~~
~~9H23034-CALI~~	~~100~~	~~4938~~	~~49.380~~	~~3.45~~
~~9H23034-CALJ~~	~~200~~	~~4503~~	~~22.515~~	~~3.45~~
~~9H23034-CALK~~	~~500~~	~~4056~~	~~8.112~~	~~3.45~~
~~9H23034-CALL~~	~~1000~~	~~4825~~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

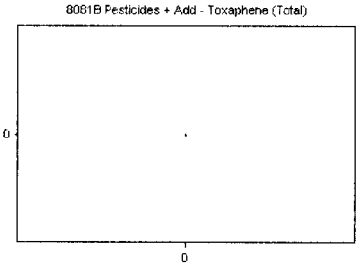


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALH~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALI~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALJ~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALK~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALL~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~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

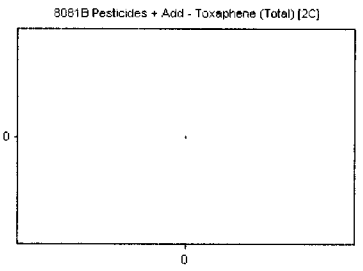


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~4023~~	~~80.460~~	~~3.45~~
~~9H23034-CALO~~	~~100~~	~~3536~~	~~35.360~~	~~3.45~~
~~9H23034-CALP~~	~~200~~	~~3919~~	~~19.595~~	~~3.45~~
~~9H23034-CALQ~~	~~500~~	~~4132~~	~~8.264~~	~~3.45~~
~~9H23034-CALR~~	~~1000~~	~~2687~~	~~2.687~~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

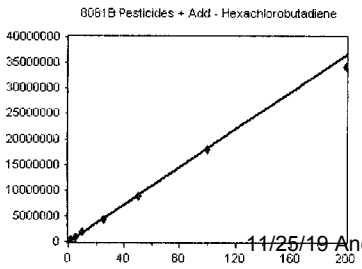


Standard	Concentration	Response	Response Factor	RT
~~9H23034-CALN~~	~~50~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALO~~	~~100~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALP~~	~~200~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALQ~~	~~500~~	~~0~~	~~0.000~~	~~0.00~~
~~9H23034-CALR~~	~~1000~~	~~0~~	~~0.000~~	~~0.00~~
~~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 **5.11** AVE RT **3.20**

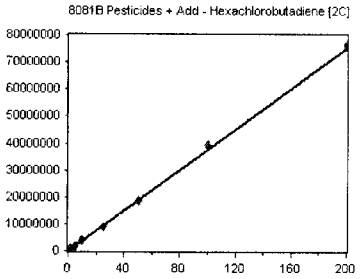
Element Calibration Review Sheet

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**

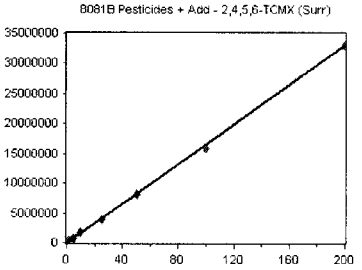


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	383198	383198.000	3.69
9H23034-CALA	2	754548	377274.000	3.69
9H23034-CALB	5	1877484	375496.800	3.69
9H23034-CALC	10	3701532	370153.200	3.69
9H23034-CALD	25	8892238	355689.500	3.69
9H23034-CALE	50	863562E+07	372712.400	3.69
9H23034-CALF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

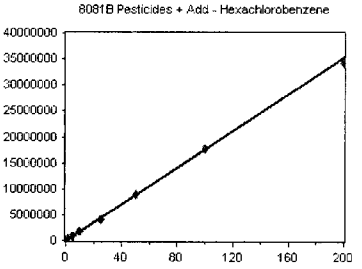


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176748	176748.000	5.40
9H23034-CAL2	2	349972	174986.000	5.40
9H23034-CAL3	5	834206	166841.200	5.40
9H23034-CAL4	10	1644447	164444.700	5.40
9H23034-CAL5	25	4015832	160633.300	5.39
9H23034-CAL6	50	8071481	161429.600	5.39
9H23034-CAL7	100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

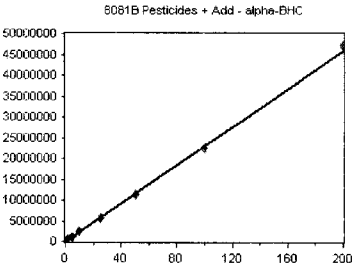


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	194679	194679.000	5.78
9H23034-CALA	2	362082	181041.000	5.78
9H23034-CALB	5	853793	170758.600	5.78
9H23034-CALC	10	1711884	171188.400	5.77
9H23034-CALD	25	4184551	167382.000	5.77
9H23034-CALE	50	8911624	178232.500	5.77
9H23034-CALF	100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

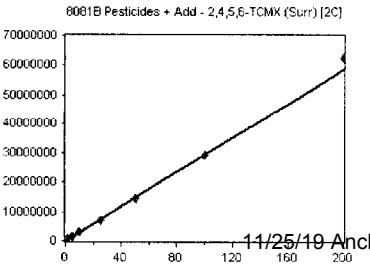


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	231994	231994.000	5.94
9H23034-CAL2	2	458365	229182.500	5.94
9H23034-CAL3	5	1147932	229586.400	5.94
9H23034-CAL4	10	2347065	234706.500	5.94
9H23034-CAL5	25	5553096	222123.800	5.94
9H23034-CAL6	50	136959E+07	227391.800	5.94
9H23034-CAL7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

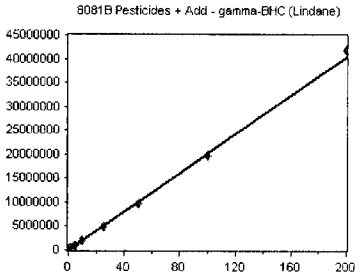
Element Calibration Review Sheet

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**

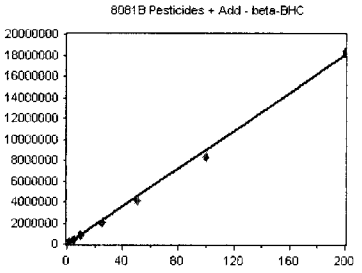


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	207427	207427.000	6.22
9H23034-CAL2	2	406027	203013.500	6.22
9H23034-CAL3	5	1020724	204144.800	6.22
9H23034-CAL4	10	2034859	203485.900	6.22
9H23034-CAL5	25	4875657	195026.300	6.22
9H23034-CAL6	50	9785999	195720.000	6.22
9H23034-CAL7	100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

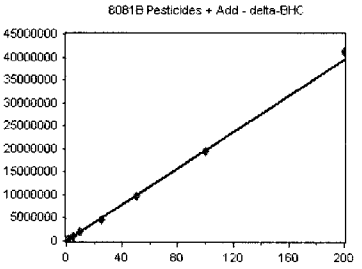


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	104326	104326.000	6.30
9H23034-CAL2	2	194168	97084.000	6.30
9H23034-CAL3	5	456954	91390.800	6.30
9H23034-CAL4	10	910875	91087.500	6.30
9H23034-CAL5	25	2060378	82415.120	6.30
9H23034-CAL6	50	4100858	82017.160	6.30
9H23034-CAL7	100	8355416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

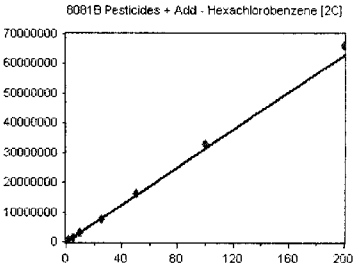


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	199840	199840.000	6.45
9H23034-CAL2	2	386980	193490.000	6.45
9H23034-CAL3	5	1004012	200802.400	6.45
9H23034-CAL4	10	2006493	200649.300	6.45
9H23034-CAL5	25	4667166	186686.600	6.45
9H23034-CAL6	50	9610742	192214.800	6.45
9H23034-CAL7	100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

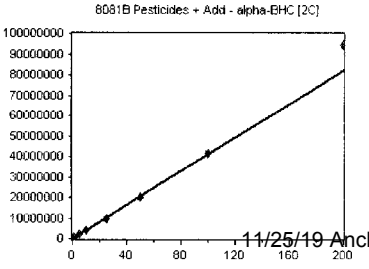


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	328025	328025.000	6.45
9H23034-CALA	2	632830	316415.000	6.45
9H23034-CALB	5	1485583	297116.600	6.45
9H23034-CALC	10	2936294	293629.400	6.45
9H23034-CALD	25	7416324	296653.000	6.45
9H23034-CALE	50	309416E+07	321883.200	6.45
9H23034-CALF	100	276671E+07	327667.100	6.46
9H23034-CALG	200	626197E+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 **416339.400** RF RSD **6.41** AVE RT **6.60**

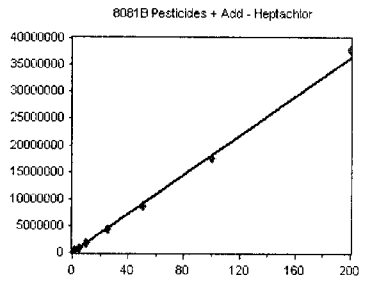
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Heptachlor

Curve Fit: **AVERAGE RF**

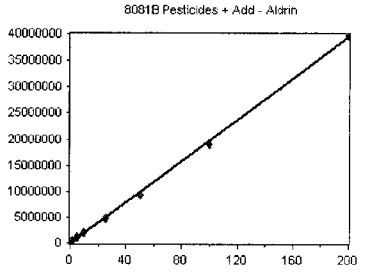


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	192066	192066.000	6.64
9H23034-CAL2	2	369615	184807.500	6.64
9H23034-CAL3	5	899091	179818.200	6.64
9H23034-CAL4	10	1819621	181962.100	6.63
9H23034-CAL5	25	4314306	172572.200	6.63
9H23034-CAL6	50	8735158	174703.200	6.63
9H23034-CAL7	100	755153E+07	175515.300	6.63
9H23034-CAL8	200	3.77857E+07	188928.500	6.63

AVE RF **181296.600** RF RSD **3.86** AVE RT **6.63**

Aldrin

Curve Fit: **AVERAGE RF**

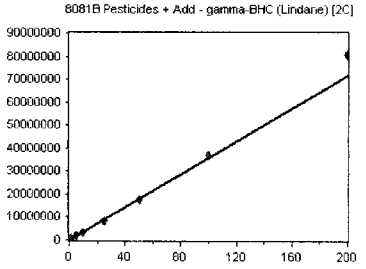


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	205523	205523.000	6.88
9H23034-CAL2	2	399550	199775.000	6.88
9H23034-CAL3	5	1012733	202546.600	6.88
9H23034-CAL4	10	2010802	201080.200	6.88
9H23034-CAL5	25	4845355	193814.200	6.87
9H23034-CAL6	50	9327672	186553.400	6.87
9H23034-CAL7	100	910807E+07	191080.700	6.87
9H23034-CAL8	200	3.98384E+07	199192.000	6.87

AVE RF **197445.600** RF RSD **3.23** AVE RT **6.87**

gamma-BHC (Lindane) [2C]

Curve Fit: **AVERAGE RF**

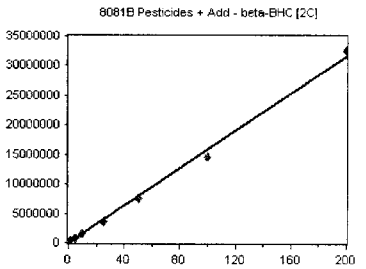


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	352286	352286.000	6.92
9H23034-CAL2	2	690922	345461.000	6.92
9H23034-CAL3	5	1742677	348535.400	6.92
9H23034-CAL4	10	3476733	347673.300	6.92
9H23034-CAL5	25	8508386	340335.400	6.91
9H23034-CAL6	50	738107E+07	347621.400	6.91
9H23034-CAL7	100	678899E+07	367889.900	6.91
9H23034-CAL8	200	076568E+07	403828.400	6.91

AVE RF **356703.900** RF RSD **5.79** AVE RT **6.91**

beta-BHC [2C]

Curve Fit: **AVERAGE RF**

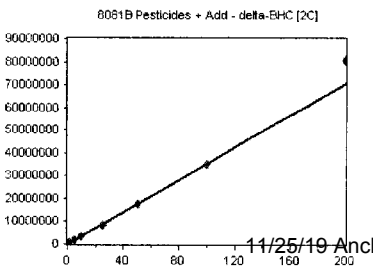


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176262	176262.000	6.98
9H23034-CAL2	2	335260	167630.000	6.98
9H23034-CAL3	5	788630	157726.000	6.98
9H23034-CAL4	10	1580847	158084.700	6.98
9H23034-CAL5	25	3677155	147086.200	6.98
9H23034-CAL6	50	7516011	150320.200	6.98
9H23034-CAL7	100	462518E+07	146251.800	6.98
9H23034-CAL8	200	255343E+07	162767.200	6.98

AVE RF **158266.000** RF RSD **6.60** AVE RT **6.98**

delta-BHC [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	349123	349123.000	7.23
9H23034-CAL2	2	669122	334561.000	7.23
9H23034-CAL3	5	1717450	343490.000	7.23
9H23034-CAL4	10	3613517	361351.700	7.23
9H23034-CAL5	25	8247775	329911.000	7.23
9H23034-CAL6	50	731126E+07	346225.200	7.23
9H23034-CAL7	100	517663E+07	351766.300	7.23
9H23034-CAL8	200	097975E+07	404898.800	7.23

AVE RF **382665.900** RF RSD **9.50** AVE RT **7.23**

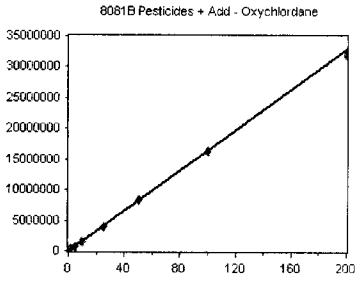
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Oxychlordane

Curve Fit: **AVERAGE RF**

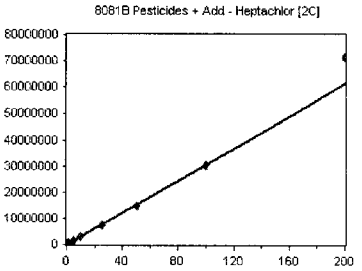


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	176844	176844.000	7.26
9H23034-CALA	2	339370	169685.000	7.26
9H23034-CALB	5	819748	163949.600	7.26
9H23034-CALC	10	1591613	159161.300	7.26
9H23034-CALD	25	3881255	155250.200	7.26
9H23034-CALE	50	8382873	167657.500	7.26
9H23034-CALF	100	535922E+07	163592.200	7.26
9H23034-CALG	200	203263E+07	160163.200	7.26

AVE RF **164537.900** RF RSD **4.13** AVE RT **7.26**

Heptachlor [2C]

Curve Fit: **AVERAGE RF**

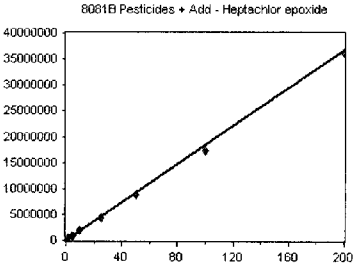


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	309811	309811.000	7.29
9H23034-CAL2	2	586765	293382.500	7.29
9H23034-CAL3	5	1508218	301643.600	7.29
9H23034-CAL4	10	3005915	300591.500	7.29
9H23034-CAL5	25	7282282	291291.300	7.29
9H23034-CAL6	50	459514E+07	291902.800	7.29
9H23034-CAL7	100	027782E+07	302778.200	7.29
9H23034-CAL8	200	128318E+07	356415.900	7.29

AVE RF **305977.100** RF RSD **6.98** AVE RT **7.29**

Heptachlor epoxide

Curve Fit: **AVERAGE RF**

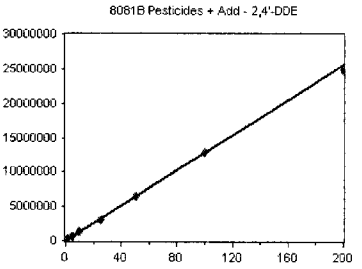


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	200503	200503.000	7.34
9H23034-CAL2	2	392052	196026.000	7.34
9H23034-CAL3	5	923620	184724.000	7.34
9H23034-CAL4	10	1865428	186542.800	7.34
9H23034-CAL5	25	4344286	173771.400	7.33
9H23034-CAL6	50	8869300	177386.000	7.33
9H23034-CAL7	100	731844E+07	173184.400	7.33
9H23034-CAL8	200	625817E+07	181290.800	7.33

AVE RF **184178.600** RF RSD **5.42** AVE RT **7.33**

2,4'-DDE

Curve Fit: **AVERAGE RF**

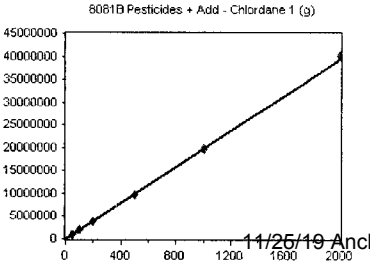


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	137947	137947.000	7.34
9H23034-CALA	2	265212	132606.000	7.33
9H23034-CALB	5	633168	126633.600	7.33
9H23034-CALC	10	1245265	124526.500	7.33
9H23034-CALD	25	3059421	122376.800	7.33
9H23034-CALE	50	6510588	130211.800	7.33
9H23034-CALF	100	276907E+07	127690.700	7.33
9H23034-CALG	200	1.48192E+07	124096.000	7.33

AVE RF **128261.100** RF RSD **4.01** AVE RT **7.33**

Chlordane 1 (g)

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1009143	20182.860	7.43
9H23034-CALI	100	1978897	19788.970	7.43
9H23034-CALJ	200	3849299	19246.490	7.43
9H23034-CALK	500	9628671	19257.340	7.43
9H23034-CALL	1000	964377E+07	19643.770	7.43
9H23034-CALM	2000	1.00365E+07	20018.250	7.43

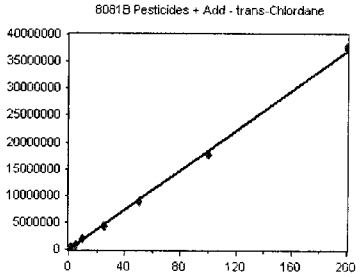
AVE RF **19689.810** RF RSD **1.96** AVE RT **7.43**

Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

trans-Chlordane

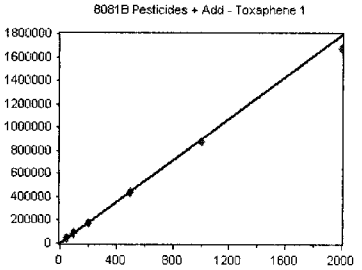


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	197202	197202.000	7.43
9H23034-CAL2	2	382271	191135.500	7.43
9H23034-CAL3	5	926577	185315.400	7.43
9H23034-CAL4	10	1847996	184799.600	7.43
9H23034-CAL5	25	4401456	176058.200	7.43
9H23034-CAL6	50	8959305	179186.100	7.43
9H23034-CAL7	100	773279E+07	177327.900	7.43
9H23034-CAL8	200	762141E+07	188107.000	7.43

AVE RF **184891.500** RF RSD **3.93** AVE RT **7.43**

Toxaphene 1

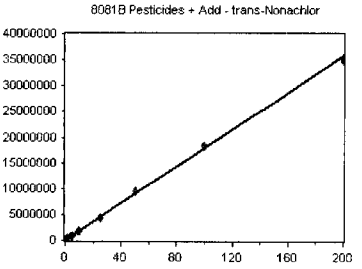


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	49250	985.000	7.51
9H23034-CALO	100	91576	915.760	7.50
9H23034-CALP	200	176047	880.235	7.50
9H23034-CALQ	500	441826	883.652	7.50
9H23034-CALR	1000	871889	871.889	7.50
9H23034-CALS	2000	1674674	837.337	7.50

AVE RF **895.646** RF RSD **5.63** AVE RT **7.50**

trans-Nonachlor

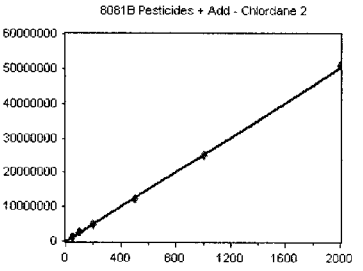


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	236836	236836.000	7.52
9H23034-CALA	2	415126	207563.000	7.52
9H23034-CALB	5	933222	186644.400	7.52
9H23034-CALC	10	1817552	181755.200	7.52
9H23034-CALD	25	4391046	175641.800	7.52
9H23034-CALE	50	9581794	191635.900	7.52
9H23034-CALF	100	835125E+07	183512.500	7.52
9H23034-CALG	200	502792E+07	175139.600	7.51

AVE RF **192341.100** RF RSD **10.78** AVE RT **7.52**

Chlordane 2

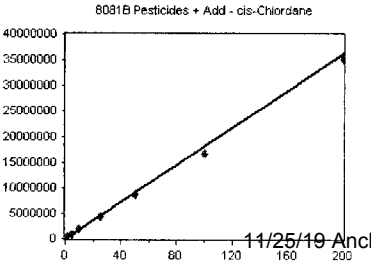


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1286655	25733.100	7.52
9H23034-CALI	100	2519520	25195.200	7.52
9H23034-CALJ	200	4906320	24531.600	7.52
9H23034-CALK	500	217652E+07	24353.040	7.52
9H23034-CALL	1000	508324E+07	25083.240	7.52
9H23034-CALM	2000	097914E+07	25489.570	7.52

AVE RF **25064.290** RF RSD **2.14** AVE RT **7.52**

cis-Chlordane



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	209780	209780.000	7.53
9H23034-CAL2	2	389999	194999.500	7.53
9H23034-CAL3	5	908795	181759.000	7.53
9H23034-CAL4	10	1843346	184334.600	7.53
9H23034-CAL5	25	4244413	169776.500	7.53
9H23034-CAL6	50	8622674	172453.500	7.52
9H23034-CAL7	100	574258E+07	167425.800	7.52
9H23034-CAL8	200	520794E+07	176039.700	7.52

AVE RF **182071.100** RF RSD **7.86** AVE RT **7.53**

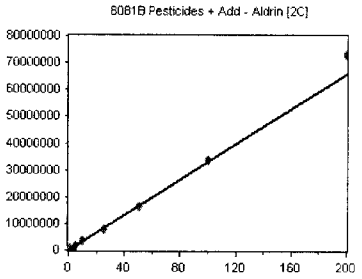
Element Calibration Review Sheet

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**

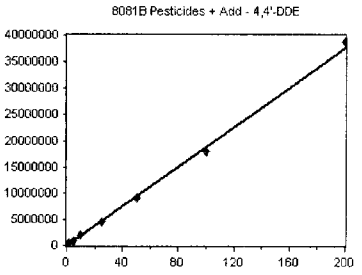


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	317466	317466.000	7.56
9H23034-CAL2	2	635458	317729.000	7.56
9H23034-CAL3	5	1600995	320199.000	7.56
9H23034-CAL4	10	3341093	334109.300	7.56
9H23034-CAL5	25	7878574	315143.000	7.56
9H23034-CAL6	50	526442E+07	325288.400	7.56
9H23034-CAL7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

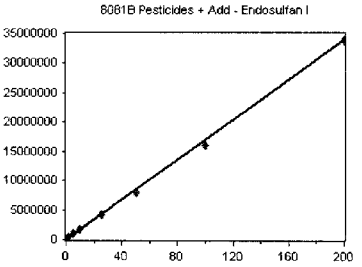


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	193435	193435.000	7.59
9H23034-CAL2	2	388618	194309.000	7.59
9H23034-CAL3	5	953351	190670.200	7.59
9H23034-CAL4	10	1890931	189093.100	7.59
9H23034-CAL5	25	4571066	182842.600	7.58
9H23034-CAL6	50	9177389	183547.800	7.58
9H23034-CAL7	100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

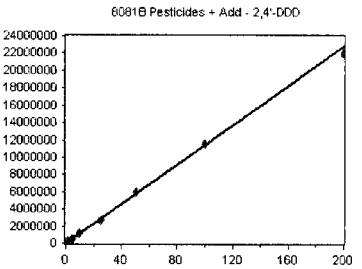


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	185217	185217.000	7.63
9H23034-CAL2	2	357368	178684.000	7.63
9H23034-CAL3	5	861509	172301.800	7.62
9H23034-CAL4	10	1709332	170933.200	7.62
9H23034-CAL5	25	4111285	164451.400	7.62
9H23034-CAL6	50	7984410	159688.200	7.62
9H23034-CAL7	100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

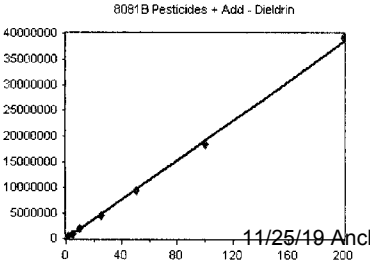


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	120240	120240.000	7.71
9H23034-CALA	2	233089	116544.500	7.71
9H23034-CALB	5	560942	112188.400	7.71
9H23034-CALC	10	1103587	110358.700	7.71
9H23034-CALD	25	2745178	109807.100	7.71
9H23034-CALE	50	5920095	118401.900	7.71
9H23034-CALF	100	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 **3.29** AVE RT **7.79**

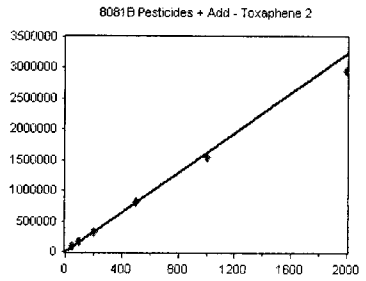
Element Calibration Review Sheet

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**

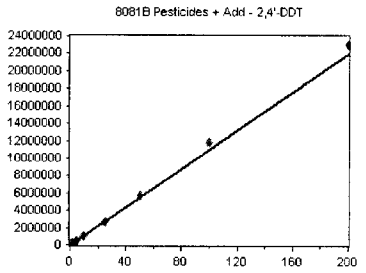


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	88321	1766.420	7.79
9H23034-CALO	100	166085	1660.850	7.80
9H23034-CALP	200	317587	1587.935	7.80
9H23034-CALQ	500	819454	1638.908	7.79
9H23034-CALR	1000	1556013	1556.013	7.79
9H23034-CALS	2000	2958997	1479.499	7.79

AVE RF **1614.937** RF RSD **6.08** AVE RT **7.79**

2,4'-DDT

Curve Fit: **AVERAGE RF**

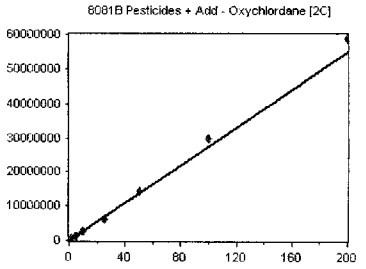


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	107110	107110.000	7.89
9H23034-CALA	2	204209	102104.500	7.89
9H23034-CALB	5	536967	107393.400	7.89
9H23034-CALC	10	1051565	105156.500	7.89
9H23034-CALD	25	2728794	109151.800	7.89
9H23034-CALE	50	5687323	113746.500	7.89
9H23034-CALF	100	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**

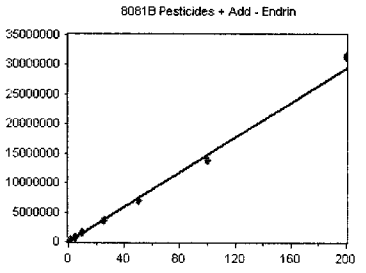


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	279143	279143.000	7.92
9H23034-CALA	2	541023	270511.500	7.92
9H23034-CALB	5	1325543	265108.600	7.92
9H23034-CALC	10	2538903	253890.300	7.92
9H23034-CALD	25	6202791	248111.600	7.92
9H23034-CALE	50	417254E+07	283450.800	7.92
9H23034-CALF	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**

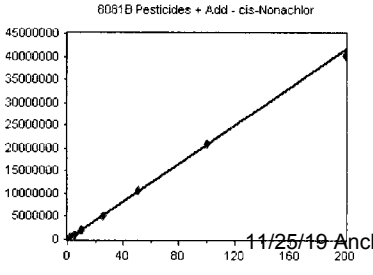


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	156412	156412.000	7.96
9H23034-CAL2	2	298515	149257.500	7.96
9H23034-CAL3	5	738953	147790.600	7.96
9H23034-CAL4	10	1475508	147550.800	7.96
9H23034-CAL5	25	3508904	140356.200	7.96
9H23034-CAL6	50	6979572	139591.400	7.96
9H23034-CAL7	100	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**

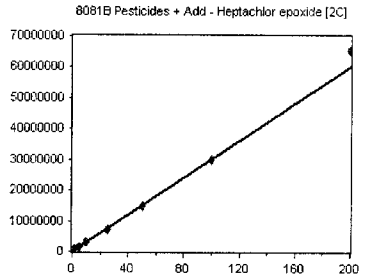
Element Calibration Review Sheet

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**

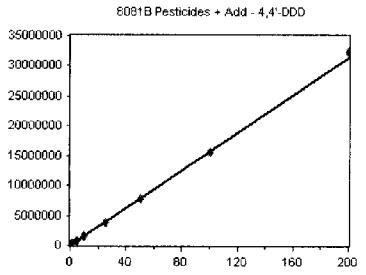


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	310098	310098.000	7.99
9H23034-CAL2	2	606240	303120.000	7.99
9H23034-CAL3	5	1455941	291188.200	7.99
9H23034-CAL4	10	2959301	295930.100	7.99
9H23034-CAL5	25	7064729	282589.200	7.99
9H23034-CAL6	50	483779E+07	296755.800	7.99
9H23034-CAL7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

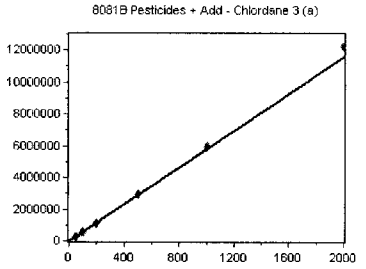


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	164956	164956.000	8.01
9H23034-CAL2	2	314622	157311.000	8.01
9H23034-CAL3	5	790498	158099.600	8.01
9H23034-CAL4	10	1565974	156597.400	8.01
9H23034-CAL5	25	3727035	149081.400	8.00
9H23034-CAL6	50	7726197	154523.900	8.00
9H23034-CAL7	100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

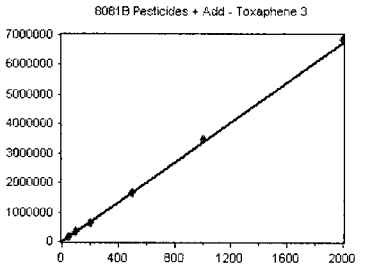


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	288087	5761.740	8.07
9H23034-CALI	100	548196	5481.960	8.07
9H23034-CALJ	200	1101677	5508.385	8.07
9H23034-CALK	500	2921278	5842.556	8.07
9H23034-CALL	1000	5987927	5987.927	8.07
9H23034-CALM	2000	220831E+07	6104.155	8.07

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

Toxaphene 3

Curve Fit: **AVERAGE RF**

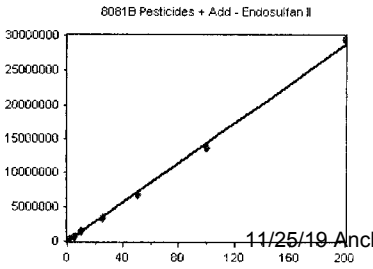


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	169381	3387.620	8.11
9H23034-CALO	100	332842	3328.420	8.11
9H23034-CALP	200	644464	3222.320	8.11
9H23034-CALQ	500	1677481	3354.962	8.11
9H23034-CALR	1000	3495877	3495.877	8.11
9H23034-CALS	2000	6831460	3415.730	8.10

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**

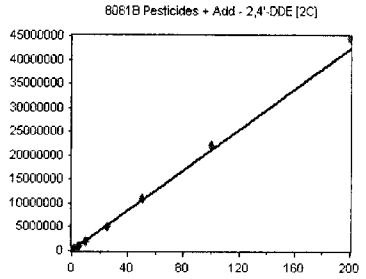
Element Calibration Review Sheet

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**

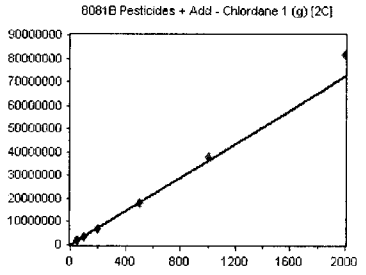


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	219164	219164.000	8.12
9H23034-CALA	2	411812	205906.000	8.12
9H23034-CALB	5	1029687	205937.400	8.12
9H23034-CALC	10	2018331	201833.100	8.12
9H23034-CALD	25	4999232	199969.300	8.12
9H23034-CALE	50	.10064E+07	220128.000	8.12
9H23034-CALF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

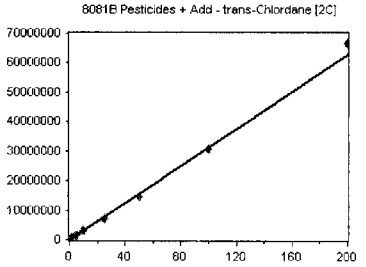


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1754707	35094.140	8.13
9H23034-CALI	100	3378388	33783.880	8.13
9H23034-CALJ	200	6751197	33755.980	8.13
9H23034-CALK	500	783043E+07	35660.860	8.13
9H23034-CALL	1000	796674E+07	37966.740	8.13
9H23034-CALM	2000	169171E+07	40845.860	8.13

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

trans-Chlordane [2C]

Curve Fit: **AVERAGE RF**

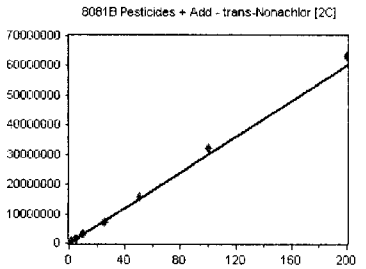


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	364142	364142.000	8.14
9H23034-CAL2	2	644454	322227.000	8.14
9H23034-CAL3	5	1502119	300423.800	8.13
9H23034-CAL4	10	3002782	300278.200	8.13
9H23034-CAL5	25	7157480	286299.200	8.13
9H23034-CAL6	50	467872E+07	293574.400	8.13
9H23034-CAL7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

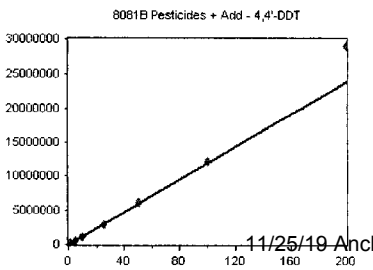


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	306202	306202.000	8.20
9H23034-CALA	2	587765	293882.500	8.19
9H23034-CALB	5	1467723	293544.600	8.19
9H23034-CALC	10	2844404	284440.400	8.19
9H23034-CALD	25	7092288	283691.500	8.19
9H23034-CALE	50	580771E+07	316154.200	8.19
9H23034-CALF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

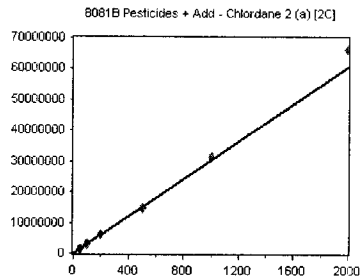
Element Calibration Review Sheet

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**

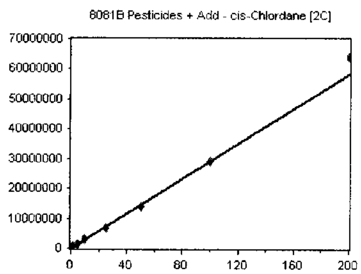


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	1472400	29448.000	8.24
9H23034-CALI	100	2905941	29059.410	8.24
9H23034-CALJ	200	5883615	29418.070	8.24
9H23034-CALK	500	481227E+07	29624.540	8.24
9H23034-CALL	1000	149368E+07	31493.680	8.24
9H23034-CALM	2000	628139E+07	33140.700	8.24

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

cis-Chlordane [2C]

Curve Fit: **AVERAGE RF**

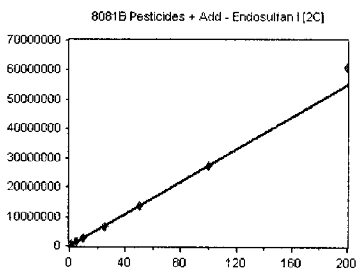


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	299422	299422.000	8.24
9H23034-CAL2	2	579667	289833.500	8.24
9H23034-CAL3	5	1434855	286971.000	8.24
9H23034-CAL4	10	2859573	285957.300	8.24
9H23034-CAL5	25	6935857	277434.300	8.24
9H23034-CAL6	50	400212E+07	280042.400	8.24
9H23034-CAL7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

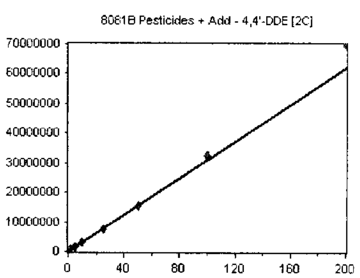


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	278874	278874.000	8.29
9H23034-CAL2	2	540442	270221.000	8.29
9H23034-CAL3	5	1327191	265438.200	8.29
9H23034-CAL4	10	2724272	272427.200	8.29
9H23034-CAL5	25	6571512	262860.500	8.29
9H23034-CAL6	50	371233E+07	274246.600	8.29
9H23034-CAL7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

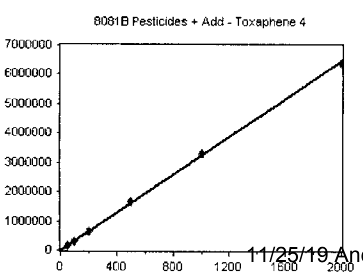


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	298463	298463.000	8.35
9H23034-CAL2	2	598066	299033.000	8.35
9H23034-CAL3	5	1487999	297599.800	8.35
9H23034-CAL4	10	3049792	304979.200	8.35
9H23034-CAL5	25	7501047	300041.900	8.34
9H23034-CAL6	50	555471E+07	311094.200	8.34
9H23034-CAL7	100	.24996E+07	324996.000	8.34
9H23034-CAL8	200	984235E+07	349211.800	8.34

AVE RF **310677.400** RF RSD **5.82** AVE RT **8.34**

Toxaphene 4

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164317	3286.340	8.35
9H23034-CALO	100	320313	3203.130	8.35
9H23034-CALP	200	632351	3161.755	8.35
9H23034-CALQ	500	1649569	3299.138	8.35
9H23034-CALR	1000	3287014	3287.014	8.35
9H23034-CALS	2000	6407070	3203.535	8.35

AVE RF **3240.152** RF RSD **1.78** AVE RT **8.35**

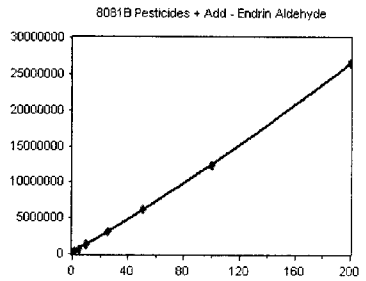
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Endrin Aldehyde

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

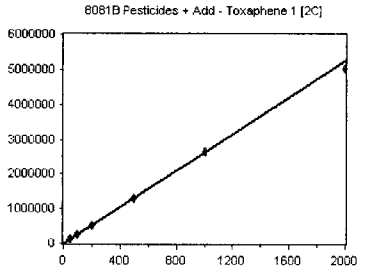


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	241285	241285.000	8.41
9H23034-CAL2	2	328182	164091.000	8.41
9H23034-CAL3	5	683393	136678.600	8.41
9H23034-CAL4	10	1375129	137512.900	8.41
9H23034-CAL5	25	3119767	124790.700	8.40
9H23034-CAL6	50	6224451	124489.000	8.40
9H23034-CAL7	100	236381E+07	123638.100	8.40
9H23034-CAL8	200	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**

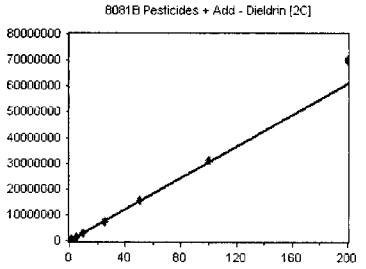


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	136848	2736.960	8.47
9H23034-CALO	100	267534	2675.340	8.47
9H23034-CALP	200	508983	2544.915	8.47
9H23034-CALQ	500	1308994	2617.988	8.47
9H23034-CALR	1000	2654886	2654.886	8.47
9H23034-CALS	2000	5030917	2515.458	8.47

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

Dieldrin [2C]

Curve Fit: **AVERAGE RF**

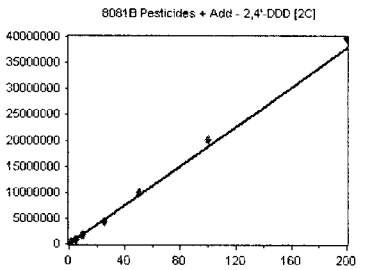


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	296684	296684.000	8.49
9H23034-CAL2	2	583812	291906.000	8.49
9H23034-CAL3	5	1462538	292507.600	8.49
9H23034-CAL4	10	2898866	289886.600	8.49
9H23034-CAL5	25	7333890	293355.600	8.49
9H23034-CAL6	50	543411E+07	308682.200	8.49
9H23034-CAL7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

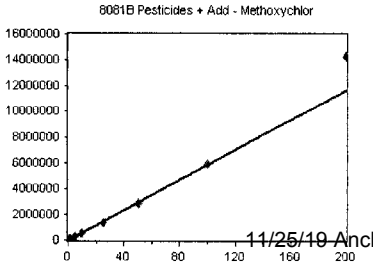


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	192040	192040.000	8.50
9H23034-CALA	2	373596	186798.000	8.50
9H23034-CALB	5	898697	179739.400	8.50
9H23034-CALC	10	1778790	177879.000	8.50
9H23034-CALD	25	4389185	175567.400	8.50
9H23034-CALE	50	9924934	198498.700	8.50
9H23034-CALF	100	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 **9.59** AVE RT **8.54**

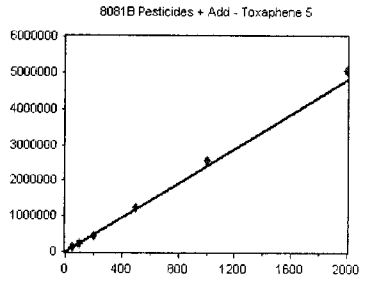
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Toxaphene 5

Curve Fit: **AVERAGE RF**

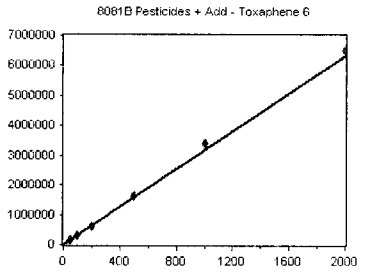


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	114720	2294.400	8.57
9H23034-CALO	100	228960	2289.600	8.57
9H23034-CALP	200	454431	2272.155	8.57
9H23034-CALQ	500	1221560	2443.120	8.57
9H23034-CALR	1000	2546293	2546.293	8.57
9H23034-CALS	2000	5074570	2537.285	8.57

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

Toxaphene 6

Curve Fit: **AVERAGE RF**

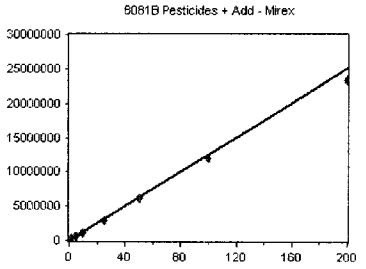


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	153138	3062.760	8.64
9H23034-CALO	100	302577	3025.770	8.64
9H23034-CALP	200	597991	2989.955	8.64
9H23034-CALQ	500	1623402	3246.804	8.64
9H23034-CALR	1000	3406737	3406.737	8.64
9H23034-CALS	2000	6510950	3255.475	8.64

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

Mirex

Curve Fit: **AVERAGE RF**

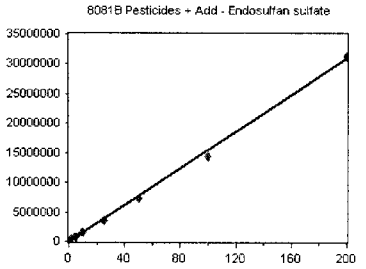


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	147356	147356.000	8.66
9H23034-CALA	2	266770	133385.000	8.66
9H23034-CALB	5	628618	125723.600	8.65
9H23034-CALC	10	1196365	119636.500	8.65
9H23034-CALD	25	2910818	116432.700	8.65
9H23034-CALE	50	6218341	124366.800	8.65
9H23034-CALF	100	196075E+07	119607.500	8.65
9H23034-CALG	200	2.3285E+07	116425.000	8.65

AVE RF **125366.600** RF RSD **8.39** AVE RT **8.65**

Endosulfan sulfate

Curve Fit: **AVERAGE RF**

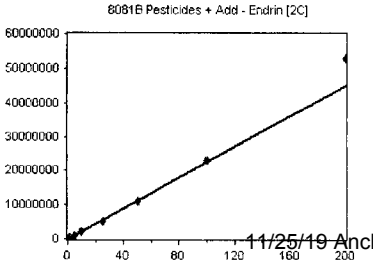


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	176097	176097.000	8.71
9H23034-CAL2	2	322163	161081.500	8.71
9H23034-CAL3	5	768798	153759.600	8.71
9H23034-CAL4	10	1553540	155354.000	8.71
9H23034-CAL5	25	3645411	145816.400	8.71
9H23034-CAL6	50	7420576	148411.500	8.71
9H23034-CAL7	100	436679E+07	143667.900	8.70
9H23034-CAL8	200	112652E+07	155632.600	8.70

AVE RF **154977.600** RF RSD **6.64** AVE RT **8.71**

Endrin [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	222882	222882.000	8.72
9H23034-CAL2	2	424889	212444.500	8.72
9H23034-CAL3	5	1092877	218575.400	8.72
9H23034-CAL4	10	2244483	224448.300	8.72
9H23034-CAL5	25	5325883	213035.300	8.72
9H23034-CAL6	50	101538E+07	220307.600	8.72
9H23034-CAL7	100	310241E+07	231024.100	8.72
9H23034-CAL8	200	277958E+07	263897.900	8.72

AVE RF **225826.900** RF RSD **7.92** AVE RT **8.72**

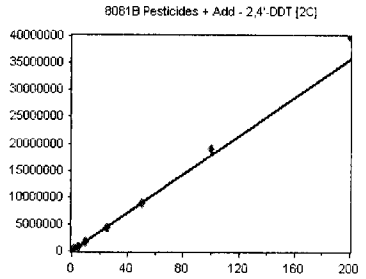
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

2,4'-DDT [2C]

Curve Fit: **AVERAGE RF**

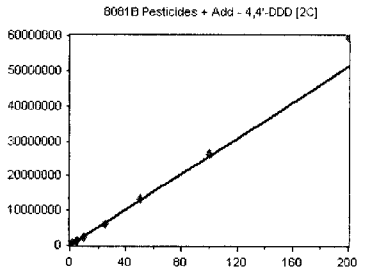


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	173338	173338.000	8.72
9H23034-CALA	2	332170	166085.000	8.72
9H23034-CALB	5	873074	174614.800	8.72
9H23034-CALC	10	1702568	170256.800	8.72
9H23034-CALD	25	4405554	176222.200	8.72
9H23034-CALE	50	8810591	176211.800	8.72
9H23034-CALF	100	899897E+07	189989.700	8.72
9H23034-CALG	200	999923E+07	199996.200	8.72

AVE RF **178339.300** RF RSD **6.24** AVE RT **8.72**

4,4'-DDD [2C]

Curve Fit: **AVERAGE RF**

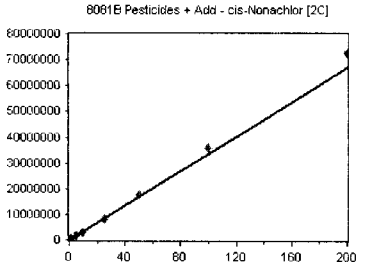


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	251549	251549.000	8.76
9H23034-CAL2	2	488120	244060.000	8.76
9H23034-CAL3	5	1208642	241728.400	8.76
9H23034-CAL4	10	2425496	242549.600	8.76
9H23034-CAL5	25	6146469	245858.800	8.76
9H23034-CAL6	50	315945E+07	263189.000	8.76
9H23034-CAL7	100	629748E+07	262974.800	8.76
9H23034-CAL8	200	956027E+07	297801.400	8.76

AVE RF **256213.900** RF RSD **7.37** AVE RT **8.76**

cis-Nonachlor [2C]

Curve Fit: **AVERAGE RF**

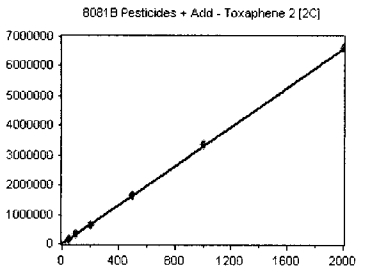


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	332745	332745.000	8.76
9H23034-CALA	2	624783	312391.500	8.76
9H23034-CALB	5	1587243	317448.600	8.76
9H23034-CALC	10	3148054	314805.400	8.76
9H23034-CALD	25	8219393	328775.700	8.76
9H23034-CALE	50	772123E+07	354424.600	8.76
9H23034-CALF	100	607264E+07	360726.400	8.76
9H23034-CALG	200	245582E+07	362279.100	8.76

AVE RF **335449.500** RF RSD **6.23** AVE RT **8.76**

Toxaphene 2 [2C]

Curve Fit: **AVERAGE RF**

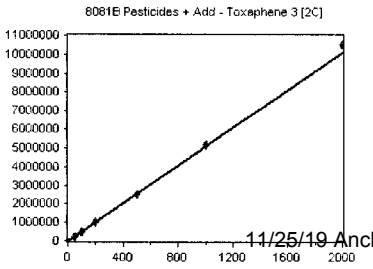


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	164706	3294.120	8.81
9H23034-CALO	100	324070	3240.700	8.81
9H23034-CALP	200	645322	3226.610	8.81
9H23034-CALQ	500	1647741	3295.482	8.81
9H23034-CALR	1000	3384036	3384.036	8.81
9H23034-CALS	2000	6610397	3305.198	8.81

AVE RF **3291.024** RF RSD **1.70** AVE RT **8.81**

Toxaphene 3 [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	254833	5096.660	8.85
9H23034-CALO	100	494430	4944.300	8.85
9H23034-CALP	200	995555	4977.775	8.85
9H23034-CALQ	500	2475022	4950.044	8.85
9H23034-CALR	1000	5168269	5168.269	8.85
9H23034-CALS	2000	054571E+07	5272.855	8.85

AVE RF **5068.317** RF RSD **2.65** AVE RT **8.85**

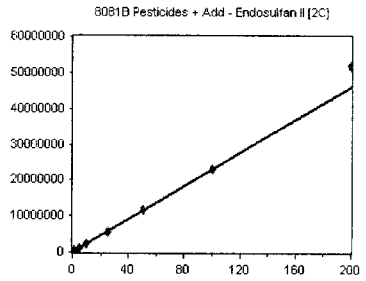
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Endosulfan II [2C]

Curve Fit: **AVERAGE RF**

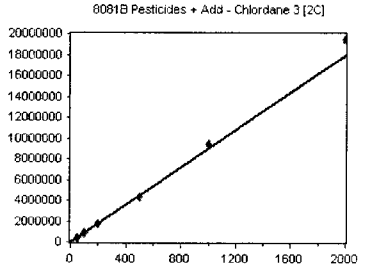


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	232156	232156.000	8.87
9H23034-CAL2	2	462256	231128.000	8.86
9H23034-CAL3	5	1096359	219271.800	8.87
9H23034-CAL4	10	2243610	224361.000	8.86
9H23034-CAL5	25	5447602	217904.100	8.86
9H23034-CAL6	50	153453E+07	230690.600	8.86
9H23034-CAL7	100	301637E+07	230163.700	8.86
9H23034-CAL8	200	183489E+07	259174.400	8.86

AVE RF **230606.200** RF RSD **5.55** AVE RT **8.86**

Chlordane 3 [2C]

Curve Fit: **AVERAGE RF**

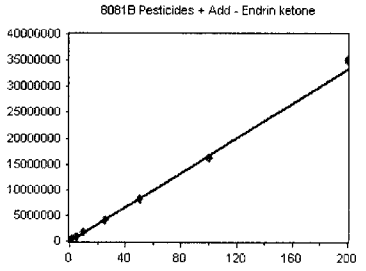


Standard	Concentration	Response	Response Factor	RT
9H23034-CALH	50	439020	8780.400	8.90
9H23034-CALI	100	874465	8744.650	8.90
9H23034-CALJ	200	1731727	8658.635	8.90
9H23034-CALK	500	4271709	8543.418	8.90
9H23034-CALL	1000	9358900	9358.900	8.90
9H23034-CALM	2000	941852E+07	9709.260	8.90

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

Endrin ketone

Curve Fit: **AVERAGE RF**

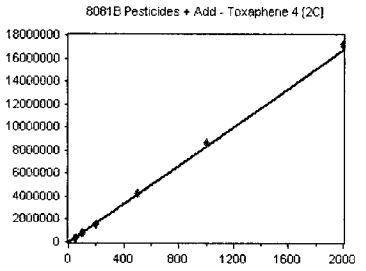


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	177552	177552.000	8.90
9H23034-CAL2	2	331269	165634.500	8.90
9H23034-CAL3	5	811384	162276.800	8.90
9H23034-CAL4	10	1664380	166438.000	8.90
9H23034-CAL5	25	4008958	160358.300	8.90
9H23034-CAL6	50	8190707	163814.100	8.90
9H23034-CAL7	100	525194E+07	162519.400	8.90
9H23034-CAL8	200	509472E+07	175473.600	8.90

AVE RF **166758.300** RF RSD **3.80** AVE RT **8.90**

Toxaphene 4 [2C]

Curve Fit: **AVERAGE RF**

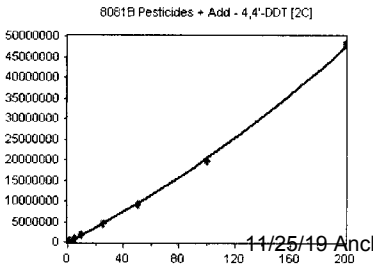


Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	416348	8326.960	8.92
9H23034-CALO	100	811948	8119.480	8.92
9H23034-CALP	200	1580436	7902.180	8.91
9H23034-CALQ	500	4252640	8505.280	8.92
9H23034-CALR	1000	8650068	8650.068	8.92
9H23034-CALS	2000	719004E+07	8595.020	8.91

AVE RF **8349.831** RF RSD **3.51** AVE RT **8.91**

4,4'-DDT [2C]

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



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	179700	179700.000	8.99
9H23034-CAL2	2	341782	170891.000	8.99
9H23034-CAL3	5	873653	174730.600	8.99
9H23034-CAL4	10	1841119	184111.900	8.99
9H23034-CAL5	25	4480388	179215.500	8.98
9H23034-CAL6	50	9285492	185709.800	8.99
9H23034-CAL7	100	.97895E+07	197895.000	8.98
9H23034-CAL8	200	820344E+07	241017.200	8.98

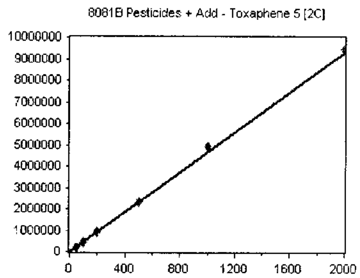
AVE RF **189156.900** RF RSD **11.88** AVE RT **8.99**

Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082:**

Toxaphene 5 [2C]

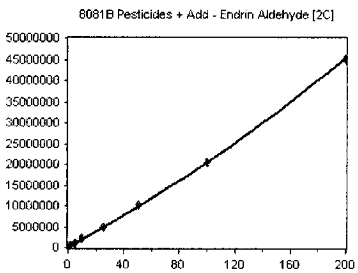


Curve Fit: **AVERAGE RF**

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

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

Endrin Aldehyde [2C]

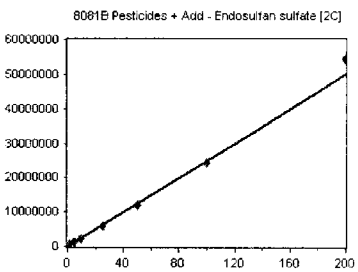


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	348624	348624.000	9.10
9H23034-CAL2	2	477694	238847.000	9.10
9H23034-CAL3	5	1045869	209173.800	9.10
9H23034-CAL4	10	2125028	212502.800	9.10
9H23034-CAL5	25	4848504	193940.200	9.10
9H23034-CAL6	50	020903E+07	204180.600	9.10
9H23034-CAL7	100	050274E+07	205027.400	9.10
9H23034-CAL8	200	508454E+07	225422.700	9.10

AVE RF **229714.800** RF RSD **21.77** AVE RT **9.10**

Endosulfan sulfate [2C]

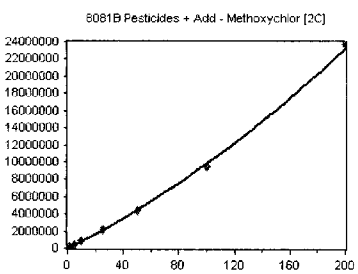


Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	265797	265797.000	9.29
9H23034-CAL2	2	498767	249383.500	9.29
9H23034-CAL3	5	1175908	235181.600	9.29
9H23034-CAL4	10	2424584	242458.400	9.29
9H23034-CAL5	25	5978906	239156.200	9.29
9H23034-CAL6	50	214929E+07	242985.800	9.29
9H23034-CAL7	100	447732E+07	244773.200	9.29
9H23034-CAL8	200	459279E+07	272964.000	9.29

AVE RF **249087.500** RF RSD **5.35** AVE RT **9.29**

Methoxychlor [2C]

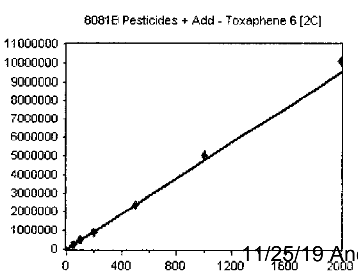


Curve Fit: **QUADRATIC: Weighting: (1/a^2), Origin: Ignore**

Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	95155	95155.000	9.47
9H23034-CAL2	2	178074	89037.000	9.47
9H23034-CAL3	5	413802	82760.400	9.47
9H23034-CAL4	10	883069	88306.900	9.47
9H23034-CAL5	25	2166659	86666.360	9.46
9H23034-CAL6	50	4346199	86923.980	9.46
9H23034-CAL7	100	9444987	94449.870	9.46
9H23034-CAL8	200	:.37141E+07	118570.500	9.46

AVE RF **92733.750** RF RSD **12.09** AVE RT **9.46**

Toxaphene 6 [2C]



Curve Fit: **AVERAGE RF**

Standard	Concentration	Response	Response Factor	RT
9H23034-CALN	50	230922	4618.440	9.47
9H23034-CALO	100	452485	4524.850	9.47
9H23034-CALP	200	905244	4526.220	9.47
9H23034-CALQ	500	2369795	4739.590	9.47
9H23034-CALR	1000	5046645	5046.645	9.47
9H23034-CALS	2000	009095E+07	5045.475	9.47

AVE RF **4750.203** RF RSD **5.10** AVE RT **9.47**

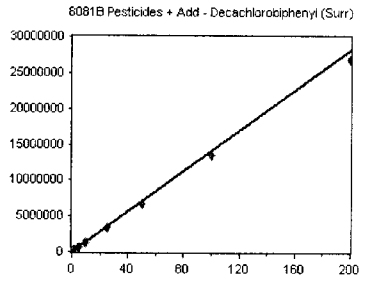
Element Calibration Review Sheet

Calibration ID: **A9H2608** Instrument: **DUALECD5** Calibration Date: **08/26/2019**

Analysis: **8081B Pesticides + Add** Instrument Cal ID: **ECD5_QUANTPEST_19082**

Decachlorobiphenyl (Surr)

Curve Fit: **AVERAGE RF**

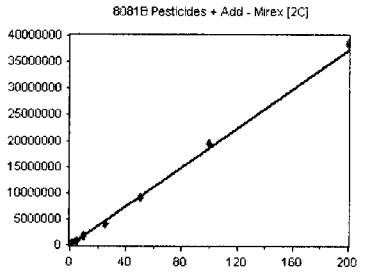


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	163865	163865.000	9.59
9H23034-CAL2	2	309904	154952.000	9.59
9H23034-CAL3	5	701050	140210.000	9.59
9H23034-CAL4	10	1335468	133546.800	9.59
9H23034-CAL5	25	3342634	133705.400	9.59
9H23034-CAL6	50	6678990	133579.800	9.59
9H23034-CAL7	100	.34054E+07	134054.000	9.59
9H23034-CAL8	200	697523E+07	134876.200	9.59

AVE RF **141098.600** RF RSD **8.33** AVE RT **9.59**

Mirex [2C]

Curve Fit: **AVERAGE RF**

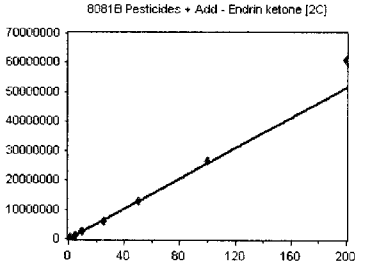


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL9	1	209783	209783.000	9.68
9H23034-CALA	2	388199	194099.500	9.68
9H23034-CALB	5	895523	179104.600	9.68
9H23034-CALC	10	1722960	172296.000	9.68
9H23034-CALD	25	4138115	165524.600	9.68
9H23034-CALE	50	9100959	182019.200	9.68
9H23034-CALF	100	.93632E+07	193632.000	9.68
9H23034-CALG	200	842553E+07	192127.600	9.68

AVE RF **186073.300** RF RSD **7.59** AVE RT **9.68**

Endrin ketone [2C]

Curve Fit: **AVERAGE RF**

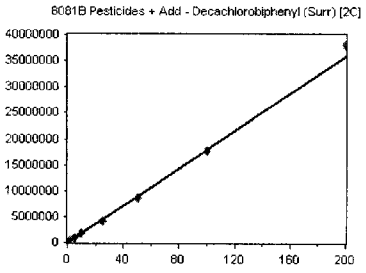


Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	255763	255763.000	9.69
9H23034-CAL2	2	493110	246555.000	9.69
9H23034-CAL3	5	1205004	241000.800	9.69
9H23034-CAL4	10	2496985	249698.500	9.69
9H23034-CAL5	25	5893691	235747.600	9.69
9H23034-CAL6	50	295457E+07	259091.400	9.69
9H23034-CAL7	100	563656E+07	266365.600	9.69
9H23034-CAL8	200	086138E+07	304306.900	9.69

AVE RF **257316.100** RF RSD **8.31** AVE RT **9.69**

Decachlorobiphenyl (Surr) [2C]

Curve Fit: **AVERAGE RF**



Standard	Concentration	Response	Response Factor	RT
9H23034-CAL1	1	191572	191572.000	10.54
9H23034-CAL2	2	390006	195003.000	10.54
9H23034-CAL3	5	870921	174184.200	10.54
9H23034-CAL4	10	1678728	167872.800	10.54
9H23034-CAL5	25	4163229	166529.200	10.54
9H23034-CAL6	50	8730692	174613.800	10.54
9H23034-CAL7	100	778407E+07	177840.700	10.54
9H23034-CAL8	200	809778E+07	190488.900	10.54

AVE RF **179763.100** RF RSD **6.18** AVE RT **10.54**

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

Analysis Included

1311/8081B TCLP Pest Reg List
1311/8081B TCLP Pest Reg List +ADD
1311/8081B TCLP Pesticides (All)
1311/8081B TCLP Pesticides + Add (All)
1312/8081B SPLP Pesticides
608 Additionals Only (QC)
608 Pest (Chlordane)
608 Pesticides
608 Pesticides (DDT Only)
608 Pesticides (SW)
608 Pesticides (SW) Full List
608 Pesticides (TTO)
608 Pesticides + Adds
608.3 Additionals - DEVELOPMENT
608.3 Chlordane - DEVELOPMENT
608.3 PCBs - DEVELOPMENT
608.3 Pesticides - DEVELOPMENT
608.3 Pesticides + Adds - DEVELOPMENT
608.3 Toxaphene - DEVELOPMENT
8081B Pesticides
8081B 2,4+4,4-DDx Only (+Add)
8081B Chlordane
8081B DDT Only
8081B Pesticides + Add
8081B RSET FW Sed (+Add) (2016)
8081B RSET Sediment List (+Add)
8081B RSET Sediment Marine (2016) (+Add)
8081B Toxaphene

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9H23034-ICB1	Initial Cal Blank	Water	A19H348		8/23/2019 1:33:00PM
9H23034-CAL1	Cal Standard	Water	A19E245	"	8/23/2019 1:51:00PM
9H23034-CAL2	Cal Standard	Water	A19E246	"	8/23/2019 2:08:00PM
9H23034-CAL3	Cal Standard	Water	A19E247	"	8/23/2019 2:25:00PM
9H23034-CAL4	Cal Standard	Water	A19E249	"	8/23/2019 2:42:00PM
9H23034-CAL5	Cal Standard	Water	A19E250	"	8/23/2019 3:00:00PM
9H23034-CAL6	Cal Standard	Water	A19H383	"	8/23/2019 3:17:00PM
9H23034-CAL7	Cal Standard	Water	A19H384	"	8/23/2019 3:34:00PM
9H23034-CAL8	Cal Standard	Water	A19E244	"	8/23/2019 3:52:00PM
9H23034-ICV1	Initial Cal Check	Water	A19E106	"	8/23/2019 4:26:00PM
9H23034-CAL9	Cal Standard	Water	A19E272	"	8/23/2019 4:44:00PM
9H23034-CALA	Cal Standard	Water	A19E273	"	8/23/2019 5:01:00PM
9H23034-CALB	Cal Standard	Water	A19E274	"	8/23/2019 5:18:00PM
9H23034-CALC	Cal Standard	Water	A19E275	"	8/23/2019 5:35:00PM
9H23034-CALD	Cal Standard	Water	A19E276	"	8/23/2019 5:53:00PM
9H23034-CALE	Cal Standard	Water	A19E154	"	8/23/2019 6:10:00PM
9H23034-CALF	Cal Standard	Water	A19E155	"	8/23/2019 6:27:00PM
9H23034-CALG	Cal Standard	Water	A19E271	"	8/23/2019 6:45:00PM
9H23034-ICV2	Initial Cal Check	Water	A19E043	"	8/23/2019 7:19:00PM
9H23034-CALH	Cal Standard	Water	A19F232	"	8/23/2019 7:36:00PM
9H23034-CALI	Cal Standard	Water	A19F233	"	8/23/2019 7:54:00PM
9H23034-CALJ	Cal Standard	Water	A19F234	"	8/23/2019 8:11:00PM
9H23034-CALK	Cal Standard	Water	A19F235	"	8/23/2019 8:28:00PM
9H23034-CALL	Cal Standard	Water	A19F236	"	8/23/2019 8:45:00PM
9H23034-CALM	Cal Standard	Water	A19F231	"	8/23/2019 9:02:00PM
9H23034-ICV3	Initial Cal Check	Water	A19E108	"	8/23/2019 9:37:00PM
9H23034-CALN	Cal Standard	Water	A19D122	"	8/23/2019 9:54:00PM
9H23034-CALO	Cal Standard	Water	A19D123	"	8/23/2019 10:11:00PM
9H23034-CALP	Cal Standard	Water	A19D124	"	8/23/2019 10:28:00PM
9H23034-CALQ	Cal Standard	Water	A19D125	"	8/23/2019 10:45:00PM
9H23034-CALR	Cal Standard	Water	A19D126	"	8/23/2019 11:03:00PM
9H23034-CALS	Cal Standard	Water	A19D121	"	8/23/2019 11:20:00PM
9H23034-ICV4	Initial Cal Check	Water	A19D127	"	8/23/2019 11:54:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9H2608** Instrument: **DualECD5F**

1311/8081B TCLP Pest Reg L Sequence: **9H23034** Matrix: **Water**

9H23034-CAL1	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL2	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL3	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL4	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**
9H23034-CAL5	**Inst. MRL**	**Recalc Res.**	**Cal Level**	**%Rec.**	**Qual**

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

9H23034-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALA	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALB	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALC	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALD	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALE	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALF	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALG	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALH	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALI	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALJ	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALK	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALL	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALM	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALN	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALO	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALP	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALQ	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALR	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9H23034-CALS	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual

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

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9H23034

Analytes With Quadratic Curve Fits

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

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

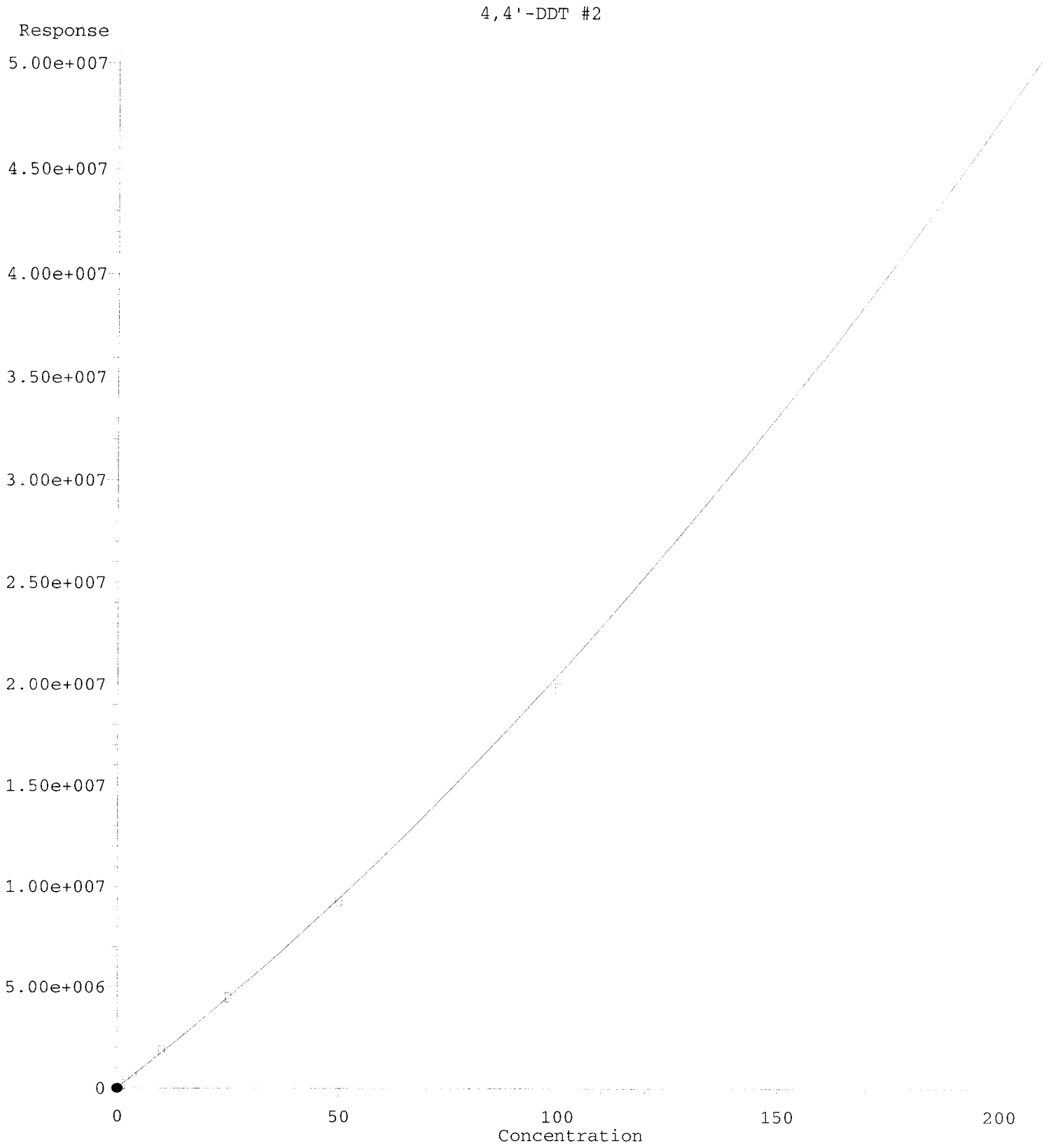
ICV RECOVERIES

Calibration: **A9H2608** Instrument: **DualECD5F**

608 Pesticides (SW) Full List Sequence: **9H23034** Matrix: **Water**

9H23034-ICV1	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV2	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV3	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**
9H23034-ICV4	**Inst. MRL**	**ICV Level**	**Result**	**%Rec.**	**Qual**

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

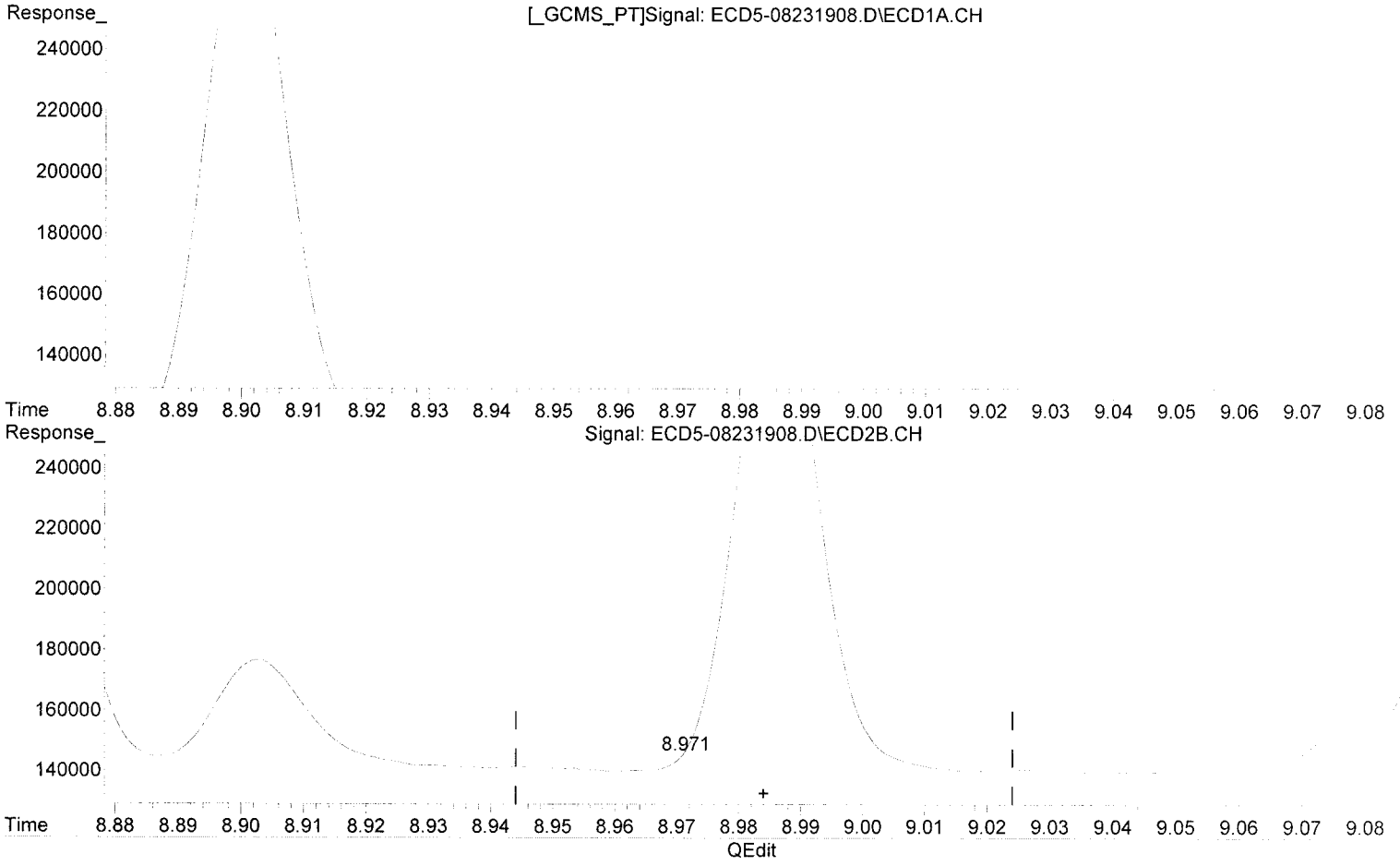


R = 3.30e+002 A*A + 1.71e+005 A + 6.57e+003
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(17) 4,4'-DDT

8.205min 0.953 ng/mL

response 113897

MJB 8/26/19

(17) 4,4'-DDT #2

8.971min -0.006 ng/mL m

response 5621

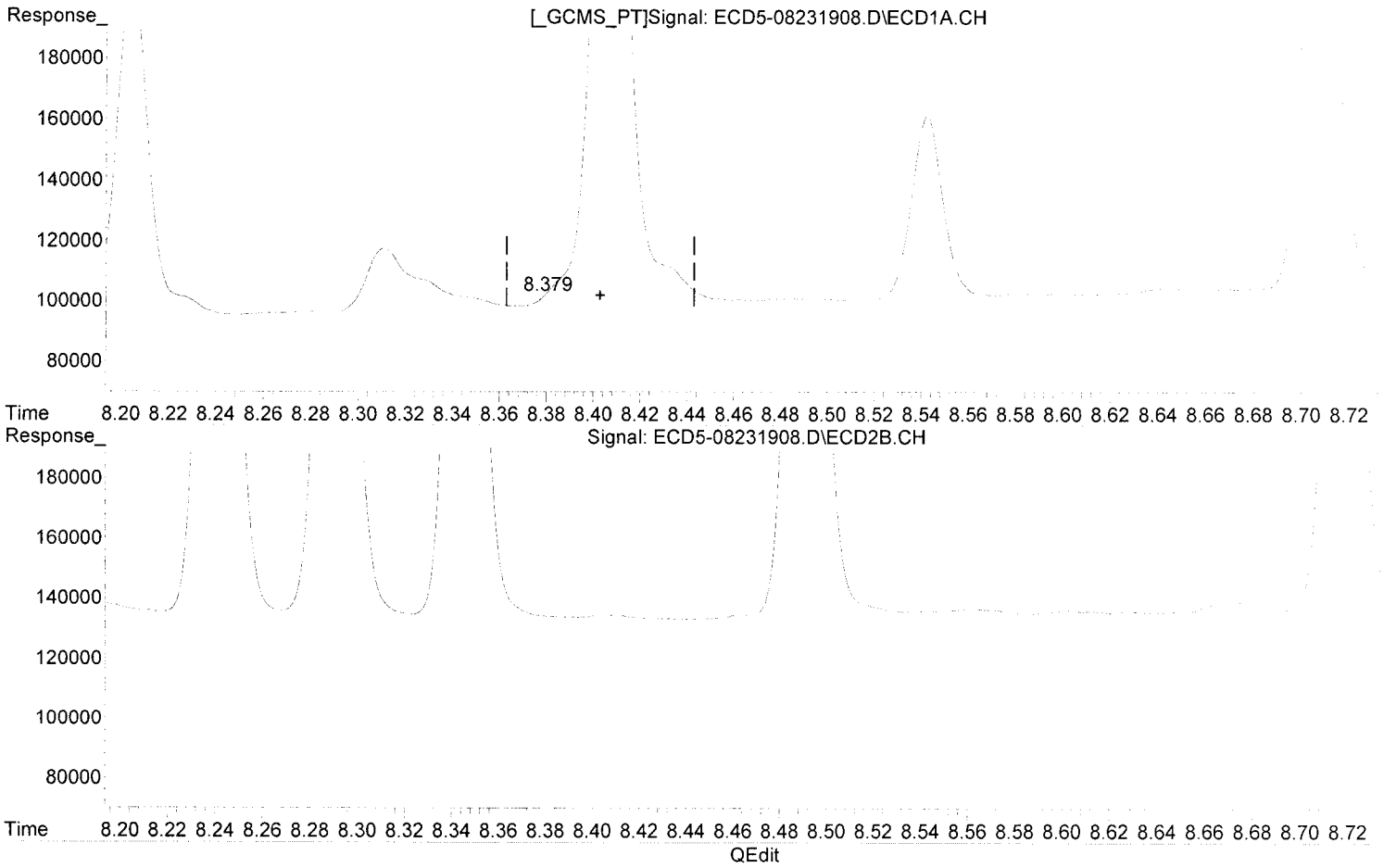
(+) = Expected Retention Time

R = 8.05e+001 A*A + 1.16e+005 A + 1.19e+005
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w/(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Endrin Aldehyde

8.379min -0.993 ng/mL (m)

response 3543

MJB 9/26/19

(18) Endrin Aldehyde #2

9.101min 1.058 ng/mL

response 348624

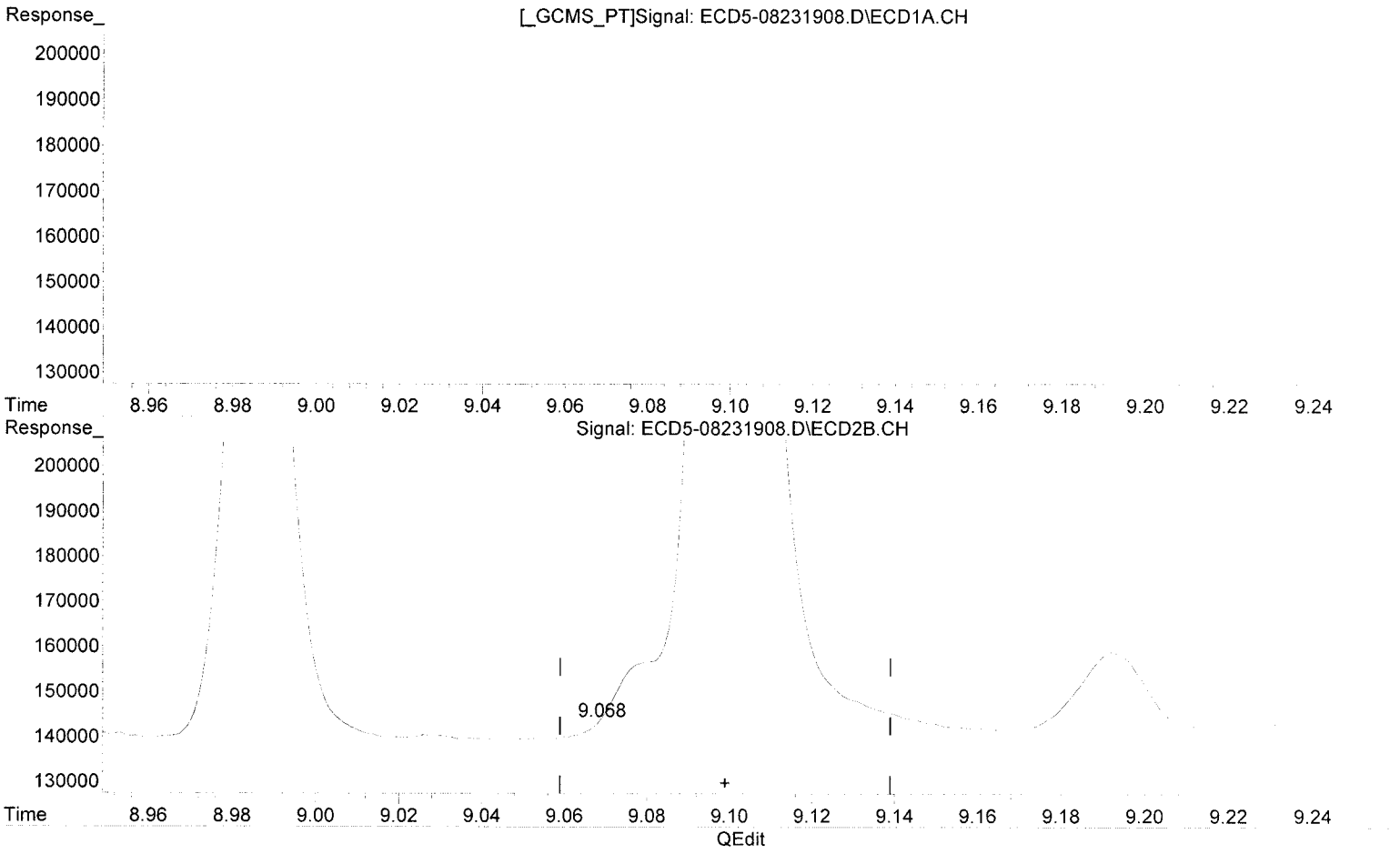
(+) = Expected Retention Time

R = 2.18e+002 A*A + 1.83e+005 A + 1.55e+005
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(18) Endrin Aldehyde

8.379min -0.993 ng/mL m

response 3543

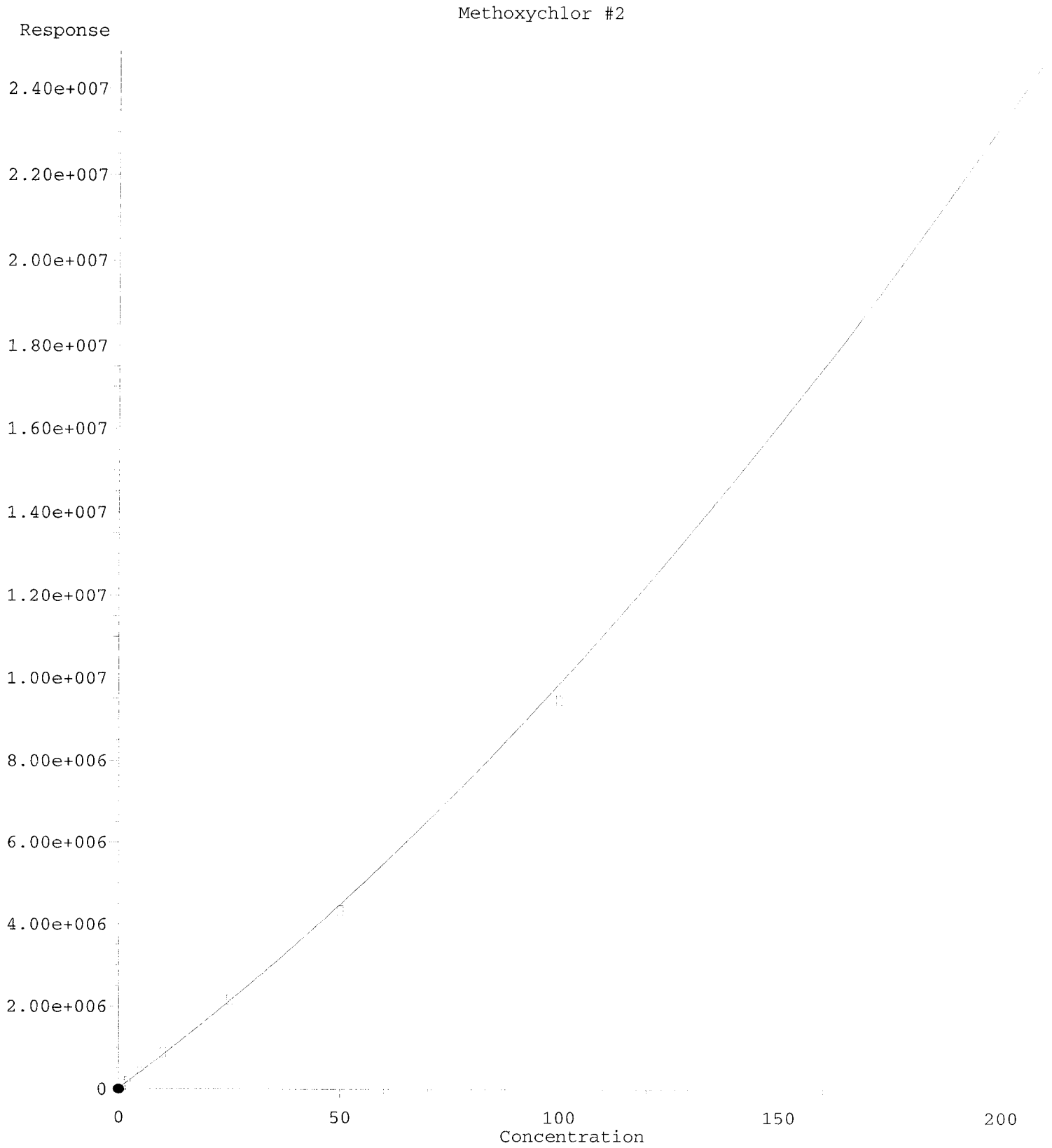
MJB 8/26/19

(18) Endrin Aldehyde #2

9.068min -0.831 ng/mL m

response 3374

(+) = Expected Retention Time

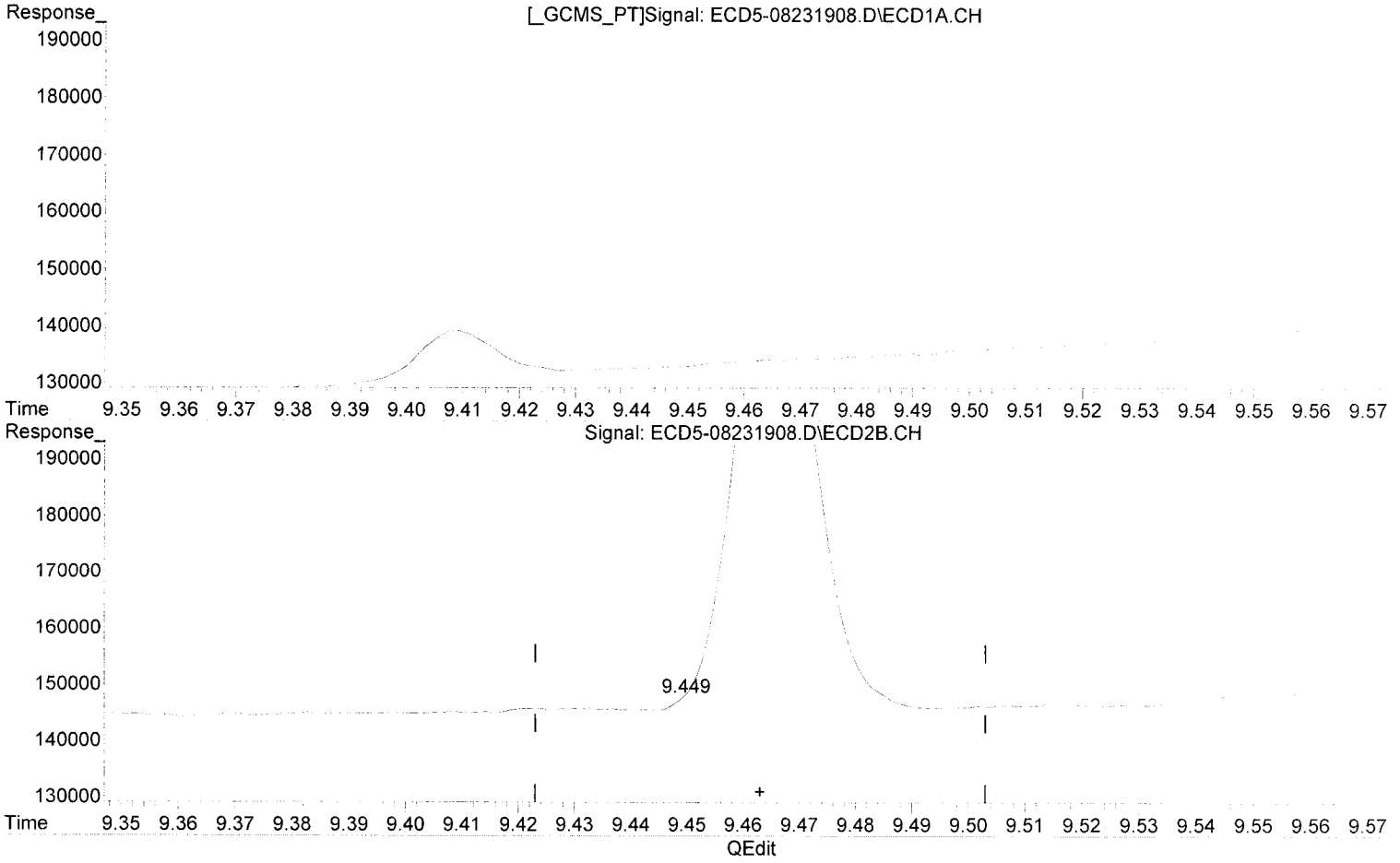


R = 1.78e+002 A*A + 8.05e+004 A + 1.50e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231908.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:51
Operator : MJB
Sample : 9H23034-CAL1
Misc : A19E245, AB 1 ppb
ALS Vial : 4 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:59:55 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(20) Methoxychlor

8.543min 1.019 ng/mL

response 59659

MJB 4/26/19

(20) Methoxychlor #2

9.449min -0.161 ng/mL (m)

response 2070

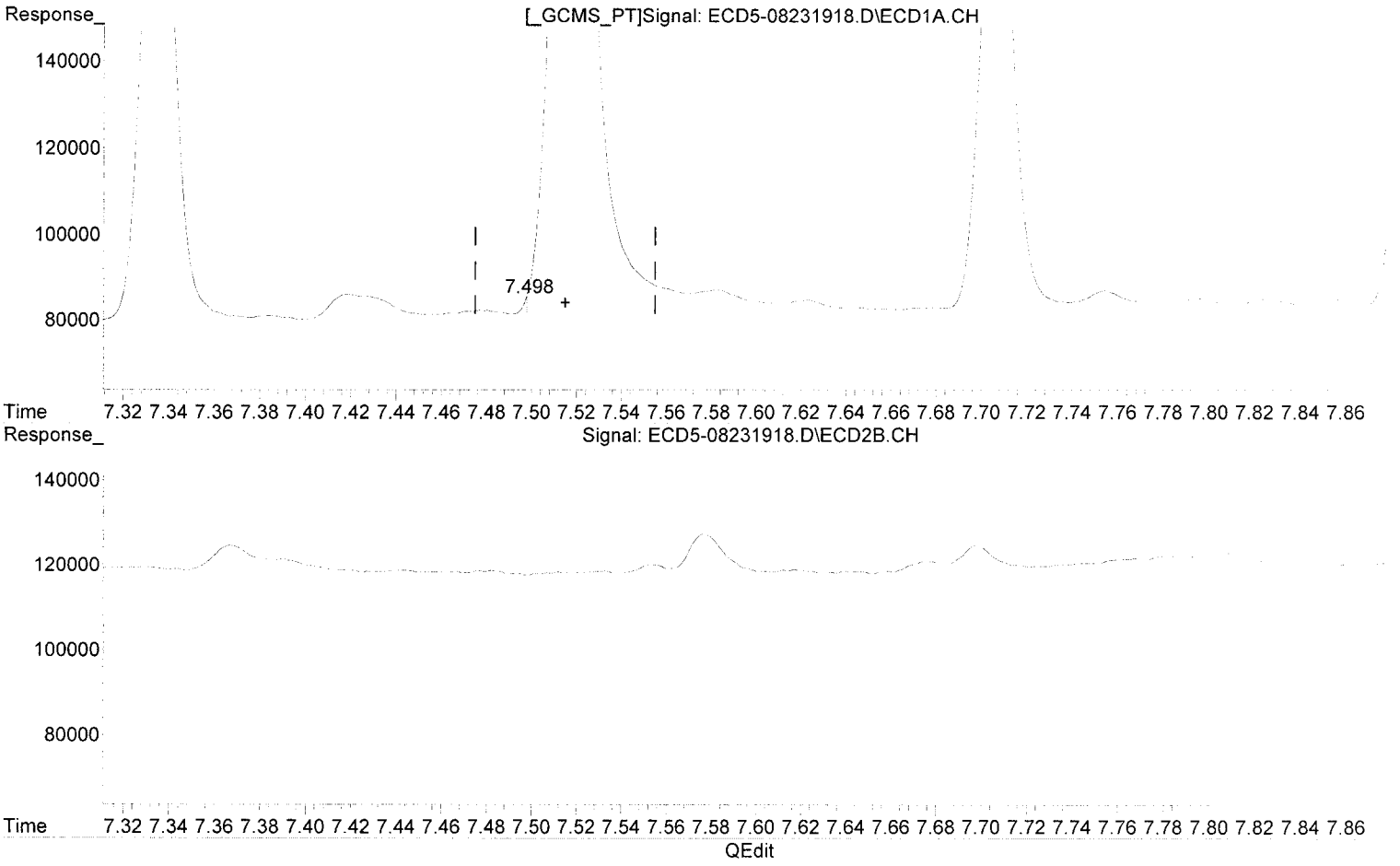
(+) = Expected Retention Time

R = -2.05e+000 A*A + 1.79e+005 A + 5.67e+004
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: R:\methods\ECD5_QUANTPEST_190823.M
Calibration Table Last Updated: Mon Aug 26 11:58:51 2019

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231918.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:44
Operator : MJB
Sample : 9H23034-CAL9
Misc : A19E272, 9-42 1 ppb
ALS Vial : 13 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:02:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(27) trans-Nonachlor

7.498min 87346.675 ng/mL (m)

response 4608

Q-011

MJB 8/26/19

(27) trans-Nonachlor #2

8.195min 1.015 ng/mL

response 306202

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:33
Operator : MJB
Sample : 9H23034-ICB1
Misc : A19H348
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

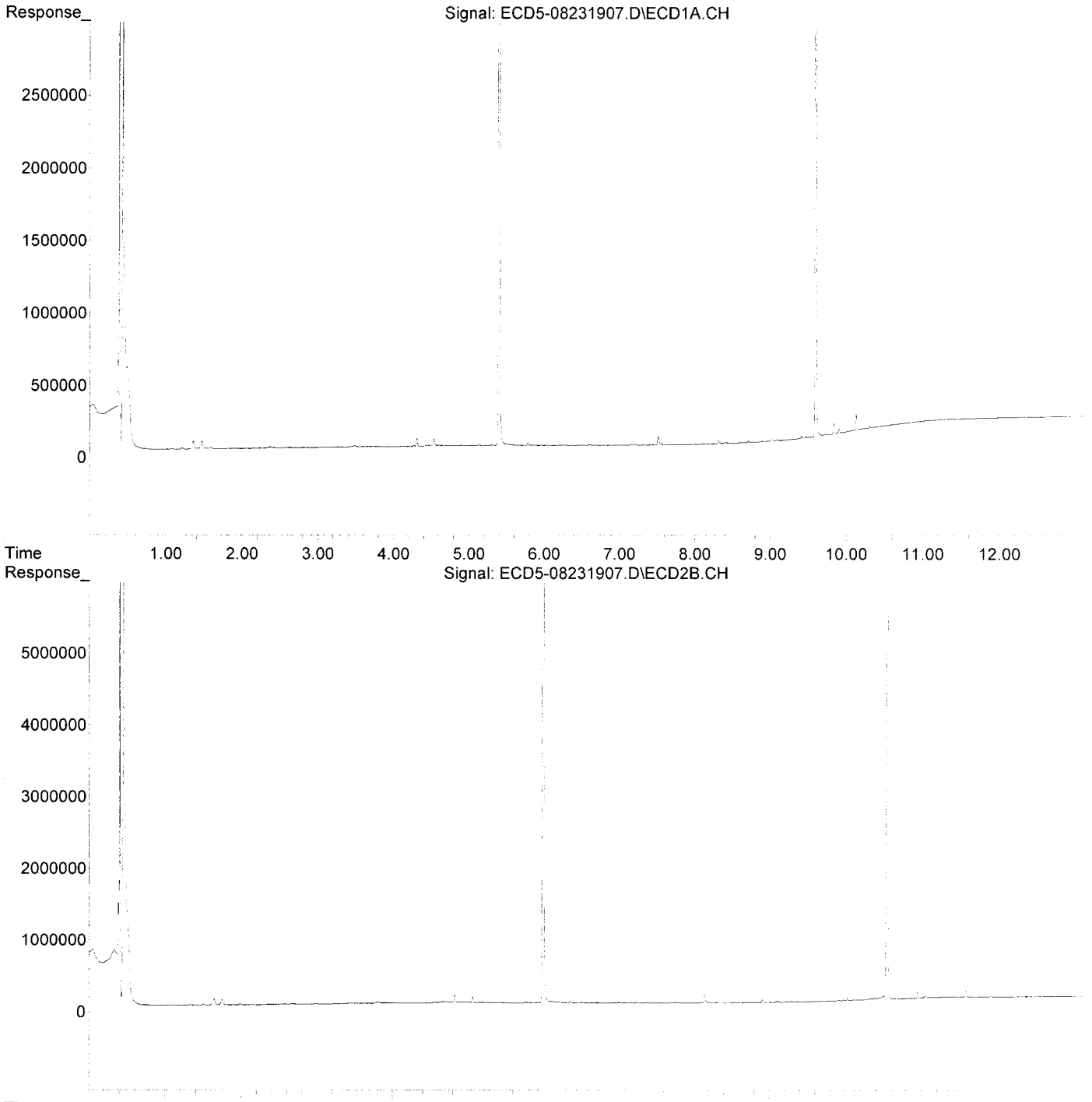
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.398	5.992	15096765	27637017	90.958	94.206	
22) S	DCBP (S)	9.594	10.543	12462090	16576085	88.322	92.211	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.253f	0.000	6973	0	0.035	N.D.	#
4)	b-BHC	0.000	7.003f	0	10802	N.D.	0.068	#
5)	Heptachlor	6.596f	0.000	8260	0	0.046	N.D.	#
6)	d-BHC	6.451	7.234	5541	7061	0.028	0.020	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	7.318	0.000	2356	0	0.013	N.D.	#
9)	trans-Chl...	0.000	8.140	0	104395	N.D.	0.333	#
10)	cis-Chlor...	7.514	0.000	58774	0	0.323	N.D.	#
11)	Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)	Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)	Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)	4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)	Endosulfa...	8.119	0.000	3735	0	0.026	N.D.	#
17)	4,4'-DDT	8.185	0.000	4049	0	0.034	N.D.	#
18)	Endrin Al...	8.408	9.102	14375	14948	BelowCal	BelowCal	
19)	Endosulfa...	8.709	9.292	12123	14809	0.078	0.059	
20)	Methoxychlor	8.542	0.000	4975	0	0.085	N.D.	#
21)	Endrin Ke...	8.903	9.690	4830	7943	0.029	0.031	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.779	0.000	21656	0	0.123	N.D.	#
25)	Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)	2,4'-DDE	7.318	8.140	2356	104395	0.018	0.492	#
27)	trans-Non...	7.514	0.000	58774	0	0.012	N.D.	#
28)	2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)	2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)	cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)	Mirex	8.652	9.690	4544	7943	0.036	0.043	
32)	Chlordane...	0.000	8.140	0	104395	N.D.	2.885	#
33)	Chlordane...	7.514	0.000	58774	0	2.345	N.D.	#
34)	Chlordane...	0.000	8.904	0	37260	N.D.	4.156	#
35)	Chlordane...	3.445	0.000	6677	0	NoCal	N.D.	
36)	Toxaphene...	7.514	0.000	58774	0	65.621	N.D.	#
37)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)	Toxaphene...	8.119	0.000	3735	0	1.109	N.D.	#
39)	Toxaphene...	8.312f	8.904	24186	37260	7.464	4.462	#
40)	Toxaphene...	8.542f	9.102	4975	14948	2.075	3.207	#
41)	Toxaphene...	8.652	0.000	4544	0	1.436	N.D.	#
42)	Toxaphene...	3.445	0.000	6677	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231907.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 13:33
Operator : MJB
Sample : 9H23034-ICB1
Misc : A19H348
ALS Vial : 3 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:44 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:09
Operator : MJB
Sample : 9H23034-IBL1
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Clean

MJB 8/26/19

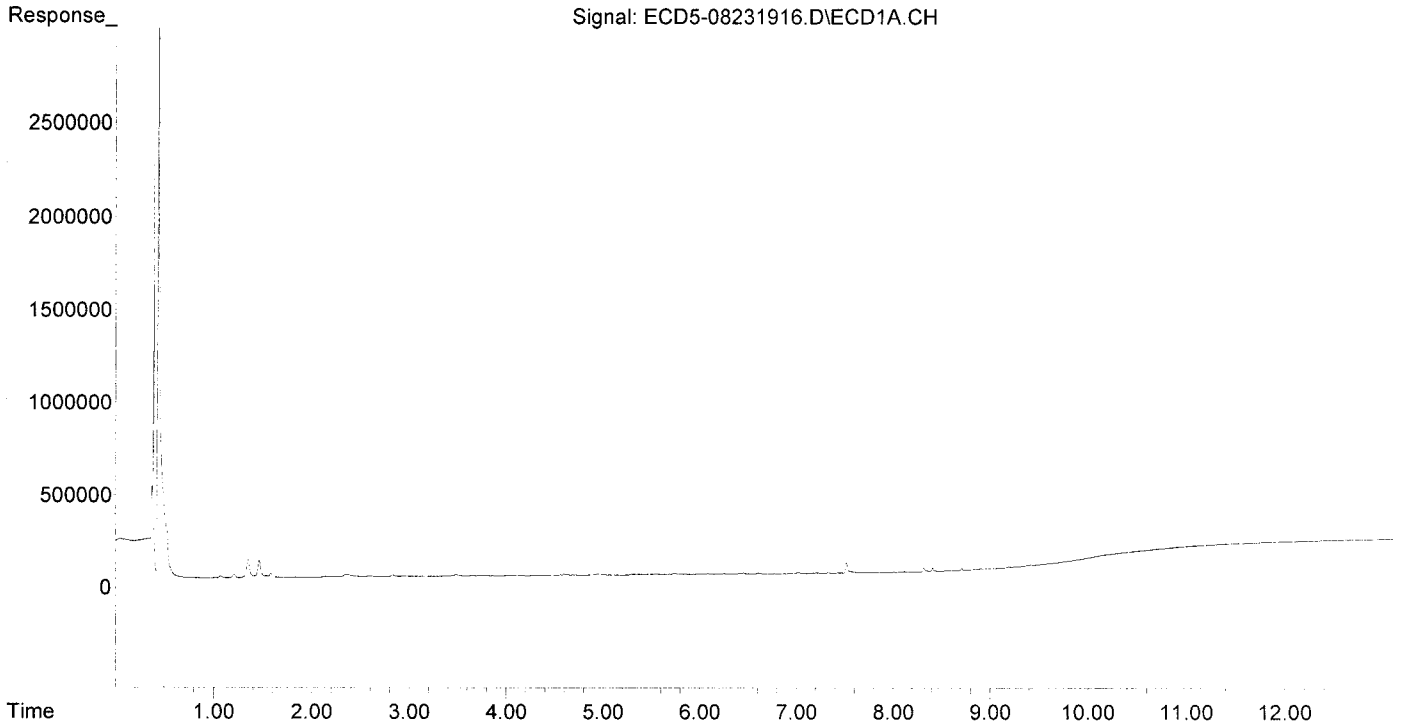
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	7755	N.D.	0.026	#
22)	S	DCBP (S)	9.595	10.540	5550	5660	0.039	0.031	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4370	0	0.022	N.D.	#
4)		b-BHC	0.000	7.003f	0	7432	N.D.	0.047	#
5)		Heptachlor	6.602f	0.000	4945	0	0.027	N.D.	#
6)		d-BHC	6.450	7.233	6336	9226	0.032	0.026	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	8.142	0	99412	N.D.	0.317	#
10)		cis-Chlor...	7.516	0.000	56525	0	0.310	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	8.007	0.000	1177	0	0.007	N.D.	#
16)		Endosulfa...	8.117	8.865	3391	6280	0.024	0.027	
17)		4,4'-DDT	8.226f	0.000	1460	0	0.012	N.D.	#
18)		Endrin Al...	8.407	9.100	21929	28697	BelowCal	BelowCal	
19)		Endosulfa...	8.707	9.291	12087	18257	0.078	0.073	
20)		Methoxychlor	8.544	0.000	4198	0	0.072	N.D.	#
21)		Endrin Ke...	8.901	9.686	4385	18734	0.026	0.073	#
23)		Hexachlor...	0.000	3.689	0	2782	N.D.	0.007	#
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	0.000	8.142	0	99412	N.D. Q ok	0.469	#
27)		trans-Non...	7.516	0.000	56525	0 ~~87346.385~~		N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	8.007f	0.000	1177	0	0.006	N.D.	#
31)		Mirex	0.000	9.686	0	18734	N.D.	0.101	#
32)		Chlordane...	0.000	8.142	0	99412	N.D.	2.747	#
33)		Chlordane...	7.516	0.000	56525	0	2.255	N.D.	#
34)		Chlordane...	8.065	8.904	2775	39801	0.480	4.439	#
35)		Chlordane...	3.447	0.000	4520	0	NoCal	N.D.	
36)		Toxaphene...	7.516	0.000	56525	0	63.111	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.117	8.865	3391	6280	1.007	1.239	
39)		Toxaphene...	8.314f	8.904	23317	39801	7.196	4.767	
40)		Toxaphene...	8.583	9.100	2463	28697	1.028	6.158	#
41)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)		Toxaphene...	3.447	0.000	4520	0	NoCal	N.D.	

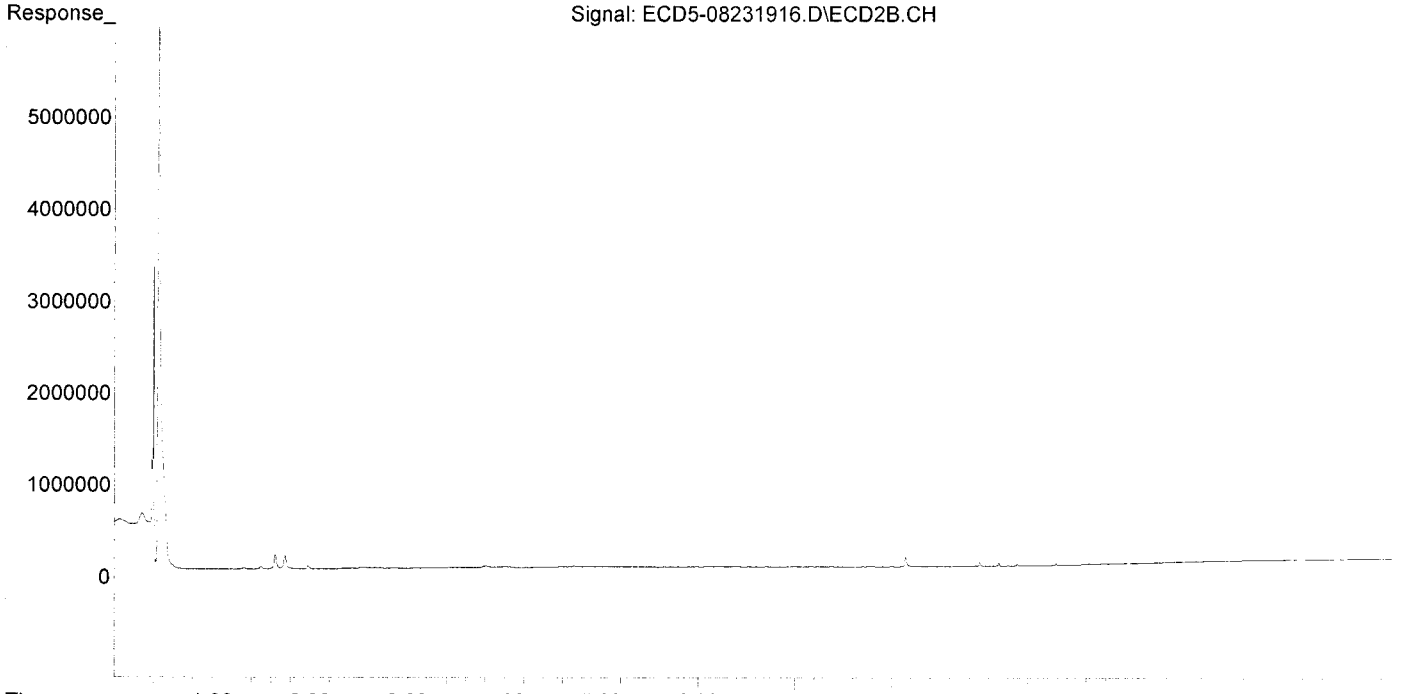
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231916.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:09
Operator : MJB
Sample : 9H23034-IBL1
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:50 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:26
Operator : MJB
Sample : 9H23034-ICV1
Misc : A19E106, AB 50 ppb
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

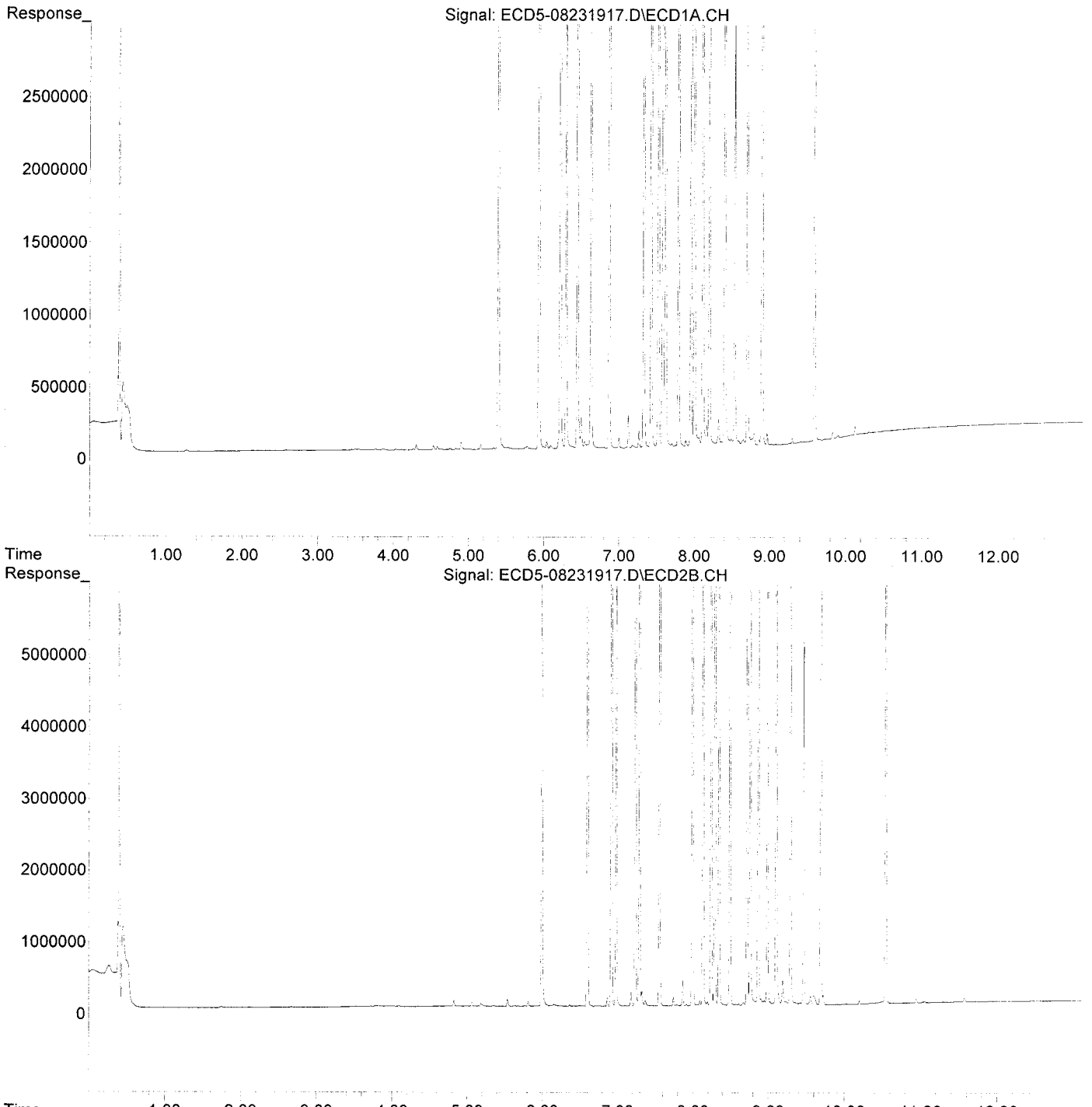
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	8209928	14467910	49.465	49.317	
22)	S	DCBP (S)	9.589	10.539	6928381	8667079	49.103	48.214	
		Target Compounds							
2)		a-BHC	5.935	6.596	11712240	21507667	51.072	52.414	
3)		g-BHC	6.218	6.913	10370774	18809716	51.397	52.732	
4)		b-BHC	6.296	6.977	4410789	7929442	48.801	50.102	
5)		Heptachlor	6.629	7.288	9286546	15998647	51.223	52.287	
6)		d-BHC	6.446	7.231	10162400	18561571	51.667	52.632	
7)		Aldrin	6.870	7.553	10415223	17743229	52.750	53.867	
8)		Heptachlo...	7.330	7.991	9218950	15454788	50.054	51.371	
9)		trans-Chl...	7.427	8.130	9449748	15882363	51.110	50.690	
10)		cis-Chlor...	7.523	8.238	8891439	15040020	48.835	51.640	
11)		Endosulfa...	7.620	8.288	8454858	14042285	49.682	51.030	
12)		4,4'-DDE	7.583	8.343	9669653	16358741	51.290	52.655	
13)		Dieldrin	7.792	8.489	9566646	15751562	49.832	51.789	
14)		Endrin	7.957	8.715	7744641	11999227	52.675	53.135	
15)		4,4'-DDD	8.003	8.758	8044313	14118585	51.192	55.105	
16)		Endosulfa...	8.114	8.862	7639079	12307624	53.193	53.371	
17)		4,4'-DDT	8.201	8.984	6427421	10243965	53.759	54.092	
18)		Endrin Al...	8.403	9.098	7471981	12138603	60.652	61.144	
19)		Endosulfa...	8.704	9.289	8022310	12945664	51.764	51.972	
20)		Methoxychlor	8.537	9.463	3243218	5107379	55.369	56.272	
21)		Endrin Ke...	8.898	9.687	8897553	13958232	53.356	54.245	
23)		Hexachlor...	0.000	3.713f	0	6424	N.D.	0.017	#
24)		Hexachlor...	5.778	6.482f	19713	11218	0.112	0.036	#
25)		Oxychlordane	7.266	7.916	116203	18640	0.706	0.068	#
26)		2,4'-DDE	7.330	8.130	9218950	15882363	71.876	74.868	
27)		trans-Non...	7.523	8.193	8891439	52587	49.340	0.174	#
28)		2,4'-DDD	7.704	8.489	22276	15751562	0.195	83.402	#
29)		2,4'-DDT	7.889	8.715	44366	11999227	0.404	67.283	#
30)		cis-Nonac...	8.003	8.758	8044313	14118585	38.746	42.089	
31)		Mirex	8.653	9.687	40409	13958232	0.322	75.015	#
32)		Chlordane...	7.427	8.130	9449748	15882363	479.936	438.926	
33)		Chlordane...	7.523	8.238	8891439	15040020	354.745	495.323	
34)		Chlordane...	0.000	8.899	0	79876	N.D.	8.909	#
35)		Chlordane...	3.446	0.000	5075	0	NoCal	N.D.	
36)		Toxaphene...	7.523f	8.489f	8891439	15751562	9927.388	6002.292	
37)		Toxaphene...	7.792	0.000	9566646	0	5923.845	N.D.	#
38)		Toxaphene...	8.114	8.862	7639079	12307624	2268.479	2428.346	
39)		Toxaphene...	8.324f	8.899	184731	79876	57.013	9.566	#
40)		Toxaphene...	8.537f	9.098	3243218	12138603	1352.952	2604.650	#
41)		Toxaphene...	8.653	9.463	40409	5107379	12.769	1075.192	#
42)		Toxaphene...	3.446	0.000	5075	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231917.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 16:26
Operator : MJB
Sample : 9H23034-ICV1
Misc : A19E106, AB 50 ppb
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:02:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:02
Operator : MJB
Sample : 9H23034-IBL2
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:03 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

clean
MJB 8/26/19

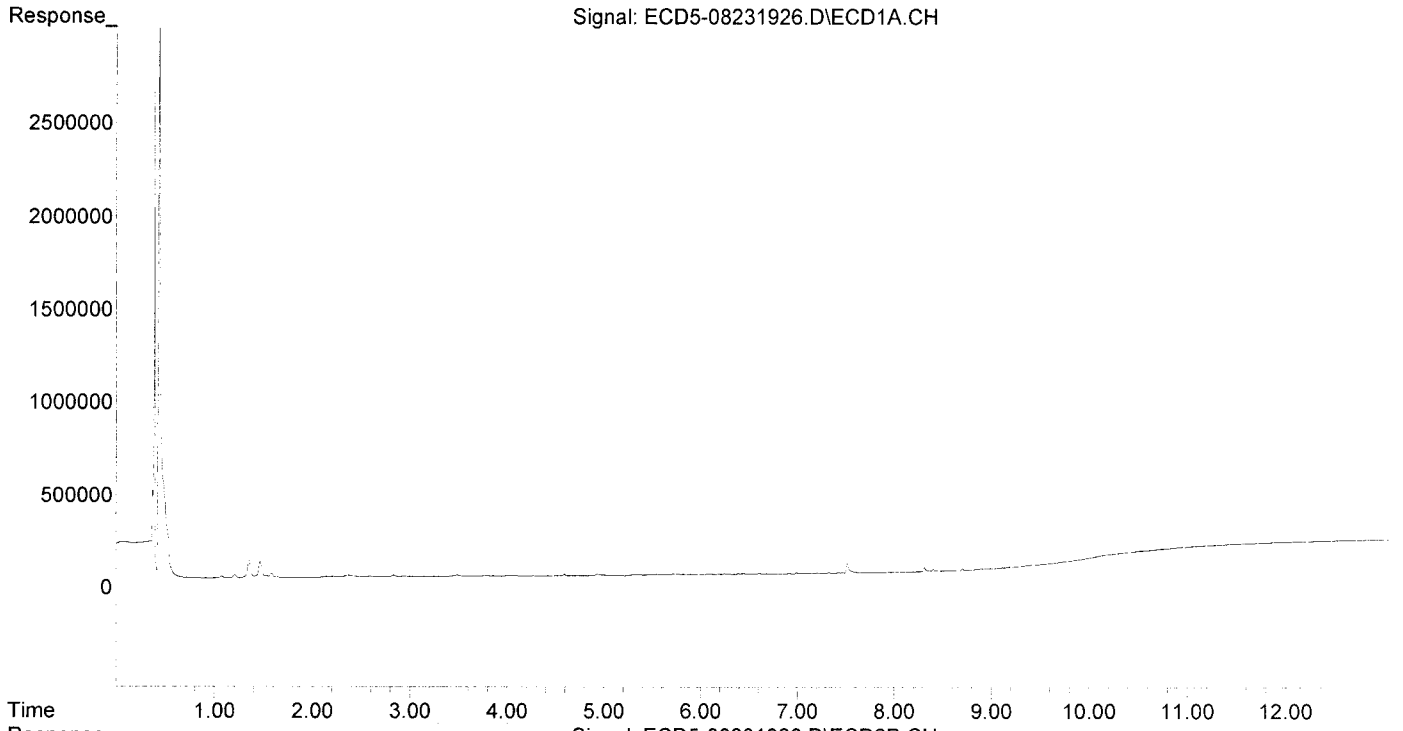
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.979	0	6612	N.D.	0.023	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.246f	0.000	5266	0	0.026	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	6.606f	0.000	2965	0	0.016	N.D.	#
6)		d-BHC	6.448	7.230	6262	8744	0.032	0.025	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)		trans-Chl...	0.000	8.141	0	95737	N.D.	0.306	#
10)		cis-Chlor...	7.516	0.000	51171	0	0.281	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	8.115	8.861	2908	5919	0.020	0.026	
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.404	9.098	11210	14199	BelowCal	BelowCal	
19)		Endosulfa...	8.705	9.288	9669	15528	0.062	0.062	
20)		Methoxychlor	8.535	0.000	2114	0	0.036	N.D.	#
21)		Endrin Ke...	8.899	9.685	4160	14028	0.025	0.055	#
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	0.000	8.141	0	95737	N.D. Q-pu	0.451	#
27)		trans-Non...	7.516	0.000	51171	0	~~87346.415~~	N.D.	#
28)		2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)		2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)		cis-Nonac...	0.000	0.000	0	0	N.D.	N.D.	
31)		Mirex	8.653	9.685	1197	14028	0.010	0.075	#
32)		Chlordane...	0.000	8.141	0	95737	N.D.	2.646	#
33)		Chlordane...	7.516	0.000	51171	0	2.042	N.D.	#
34)		Chlordane...	8.051	8.903	2776	42860	0.480	4.780	#
35)		Chlordane...	3.446	0.000	4206	0	NoCal	N.D.	
36)		Toxaphene...	7.516	0.000	51171	0	57.133	N.D.	#
37)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)		Toxaphene...	8.115	8.861	2908	5919	0.863	1.168	
39)		Toxaphene...	8.313f	8.903	23619	42860	7.290	5.133	
40)		Toxaphene...	8.535f	9.098	2114	14199	0.882	3.047	#
41)		Toxaphene...	8.653	0.000	1197	0	0.378	N.D.	#
42)		Toxaphene...	3.446	0.000	4206	0	NoCal	N.D.	

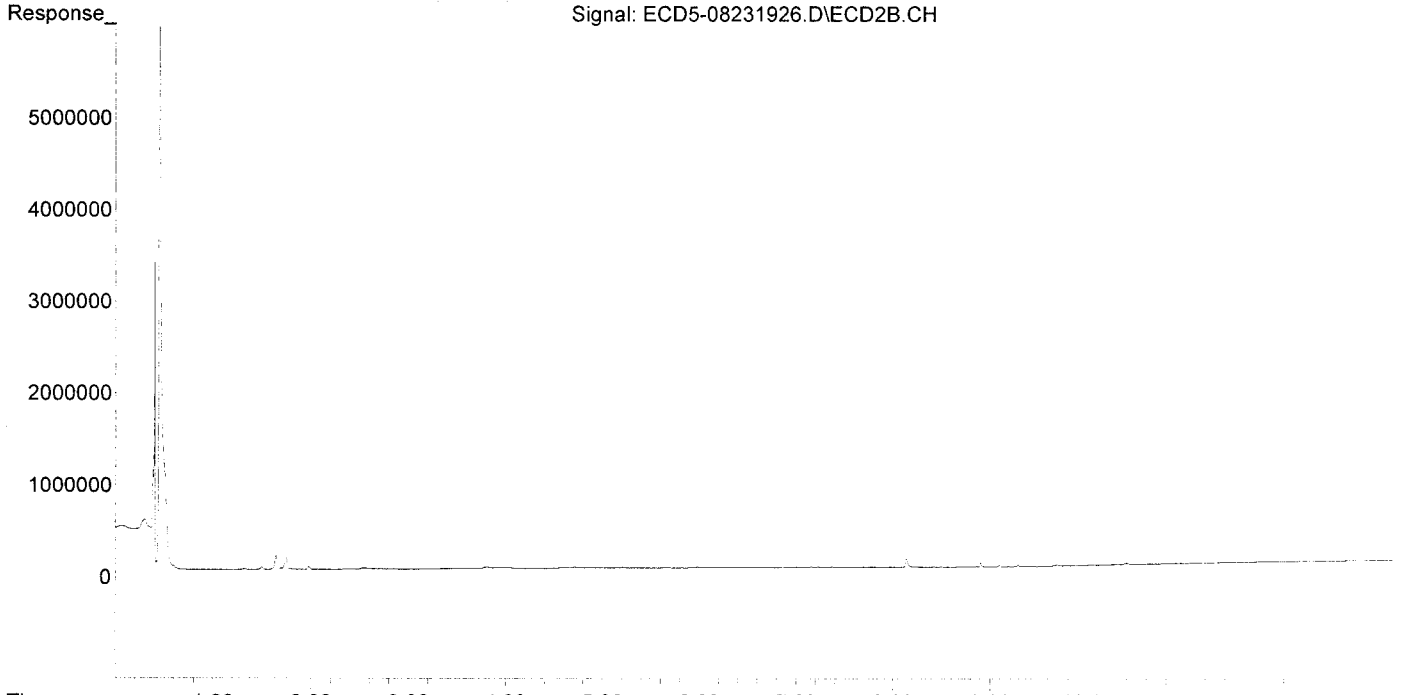
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231926.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:02
Operator : MJB
Sample : 9H23034-IBL2
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:03 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:19
Operator : MJB
Sample : 9H23034-ICV2
Misc : A19E043, 9-42 50 ppb
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

WP 8/26/19

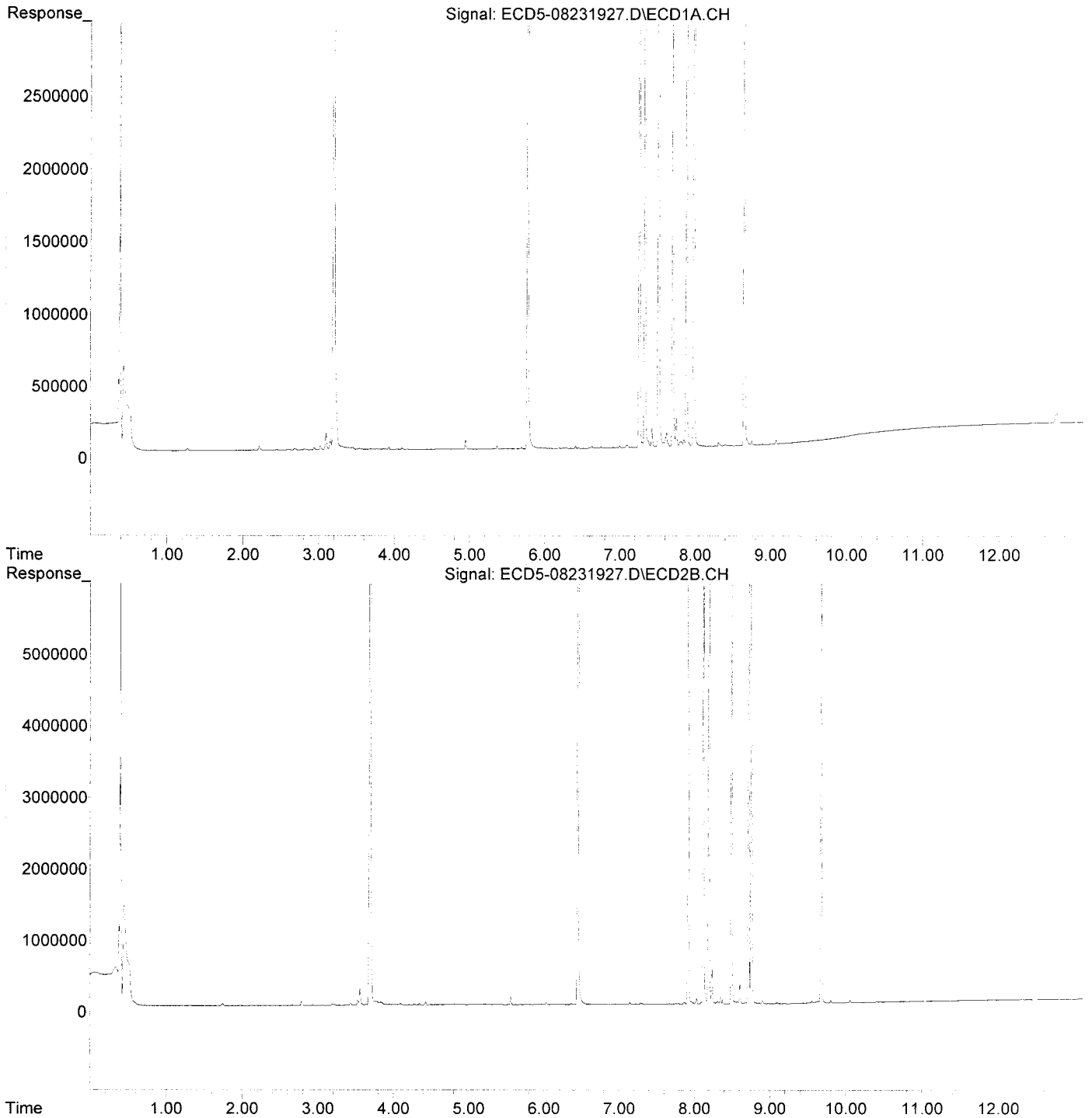
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.979	21795	7434	0.131	0.025	#
22)	S	DCBP (S)	9.593	0.000	5164	0	0.037	N.D.	#
		Target Compounds							
2)		a-BHC	5.944	0.000	7626	0	0.033	N.D.	#
3)		g-BHC	6.193f	6.950f	4309	4488	0.021	0.013	#
4)		b-BHC	6.276f	6.950f	4448	4488	0.049	0.028	#
5)		Heptachlor	6.631	7.288	13910	18612	0.077	0.061	
6)		d-BHC	6.450	7.231	4193	7280	0.021	0.021	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.333	7.969f	6044730	30442	32.820	0.101	#
9)		trans-Chl...	7.428	8.122	135885	10152421	0.735	32.402	#
10)		cis-Chlor...	7.515	8.238	9079715	499411	49.869	1.715	#
11)		Endosulfa...	7.623	8.313f	100346	33305	0.590	0.121	#
12)		4,4'-DDE	7.585	8.350	33793	99515	0.179	0.320	#
13)		Dieldrin	7.801	8.494	35090	9221128	0.183	30.318	#
14)		Endrin	7.985f	8.719	9530740	8396212	64.823	37.180	#
15)		4,4'-DDD	7.985	8.758	9530740	16410440	60.651	64.050	
16)		Endosulfa...	0.000	8.903f	0	43832	N.D.	0.190	#
17)		4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)		Endrin Al...	8.400	9.100	6045	8867	BelowCal	BelowCal	
19)		Endosulfa...	0.000	9.288	0	6758	N.D.	0.027	#
20)		Methoxychlor	0.000	0.000	0	0	N.D.	N.D.	
21)		Endrin Ke...	8.897	9.678	3909	8640754	0.023	33.580	#
23)		Hexachlor...	3.197	3.687	8657262	18235302	47.375	48.507	
24)		Hexachlor...	5.774	6.453	8419764	15057280	47.760	47.940	
25)		Oxychlordane	7.260	7.920	8060765	13729255	48.990	50.125	
26)		2,4'-DDE	7.333	8.122	6044730	10152421	47.128	47.858	
27)		trans-Non...	7.515	8.194	9079715	15314695	50.392	50.772	
28)		2,4'-DDD	7.704	8.494	5439144	9221128	47.659	48.824	
29)		2,4'-DDT	7.888	8.719	5329154	8396212	48.585	47.080	
30)		cis-Nonac...	7.985	8.758	9530740	16410440	45.906	48.921	
31)		Mirex	8.652	9.678	5900124	8640754	47.063	46.437	
32)		Chlordane...	7.428	8.122	135885	10152421	6.901	280.573	#
33)		Chlordane...	7.515	8.238	9079715	499411	362.257	16.447	#
34)		Chlordane...	0.000	8.903	0	43832	N.D.	4.889	#
35)		Chlordane...	3.444	3.433	15163	32758	NoCal	NoCal	
36)		Toxaphene...	7.515	8.494f	9079715	9221128	10137.600	3513.804	#
37)		Toxaphene...	7.801	0.000	35090	0	21.729	N.D.	#
38)		Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
39)		Toxaphene...	8.313f	8.903	24546	43832	7.576	5.249	
40)		Toxaphene...	0.000	9.100	0	8867	N.D.	1.903	#
41)		Toxaphene...	8.652	0.000	5900124	0	1864.424	N.D.	#
42)		Toxaphene...	3.444	3.433	15163	32758	NoCal	NoCal	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:19
Operator : MJB
Sample : 9H23034-ICV2
Misc : A19E043, 9-42 50 ppb
ALS Vial : 21 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:09 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:20
Operator : MJB
Sample : 9H23034-IBL3
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

clear MJB 8/26/19

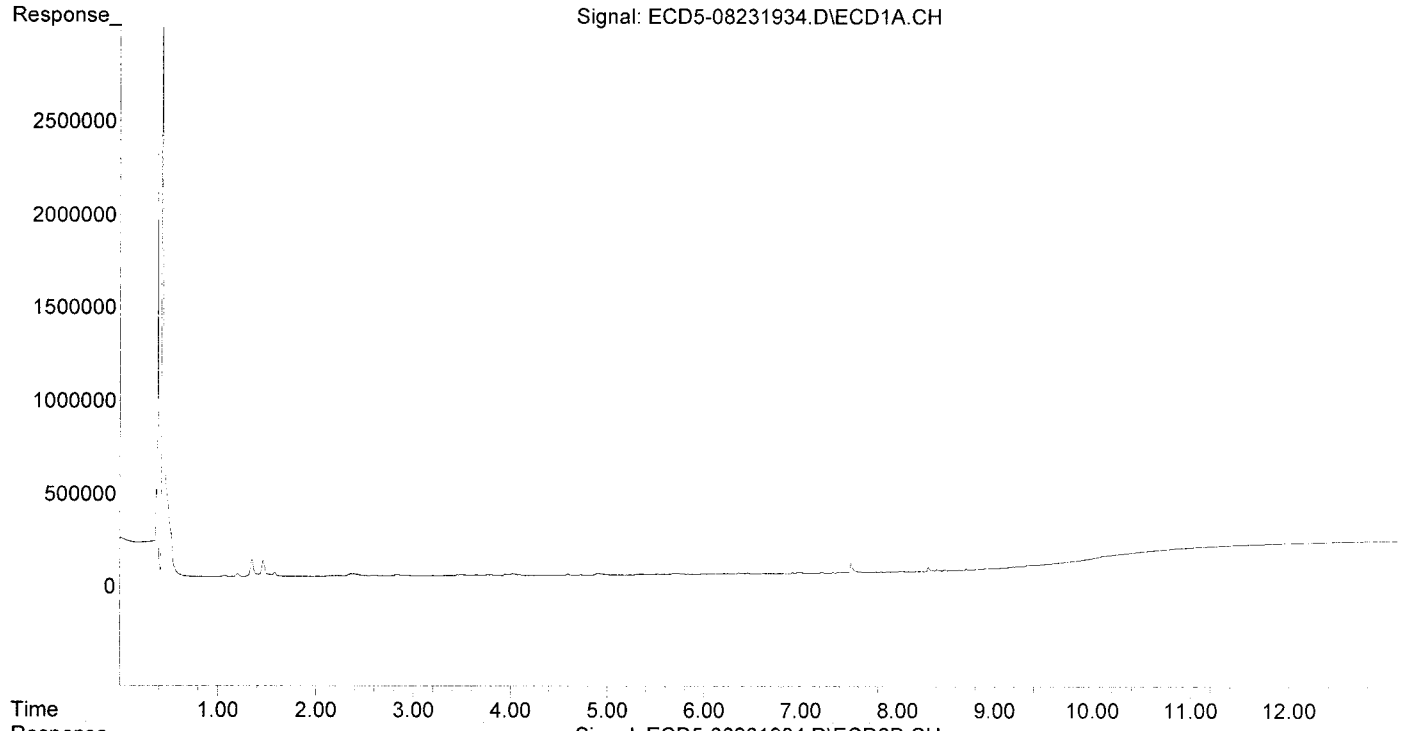
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.976	0	5923	N.D.	0.020	#
22) S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.207	0.000	3774	0	0.019	N.D.	#
4)	b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)	Heptachlor	6.609f	0.000	2731	0	0.015	N.D.	#
6)	d-BHC	6.450	7.231	5497	6832	0.028	0.019	
7)	Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)	Heptachlo...	0.000	0.000	0	0	N.D.	N.D.	
9)	trans-Chl...	0.000	8.142	0	83130	N.D.	0.265	#
10)	cis-Chlor...	7.519	0.000	51396	0	0.282	N.D.	#
11)	Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)	4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)	Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)	Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)	4,4'-DDD	8.023f	0.000	4578	0	0.029	N.D.	#
16)	Endosulfa...	8.116	8.861	1913	3871	0.013	0.017	
17)	4,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
18)	Endrin Al...	8.405	9.098	8970	10610	BelowCal	BelowCal	
19)	Endosulfa...	8.706	9.288	7044	10525	0.045	0.042	
20)	Methoxychlor	8.536	0.000	1701	0	0.029	N.D.	#
21)	Endrin Ke...	8.919f	9.686	4032	9735	0.024	0.038	#
23)	Hexachlor...	0.000	3.679	0	2600	N.D.	0.007	#
24)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)	Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)	2,4'-DDE	0.000	8.142	0	83130	N.D. RDel	0.392	#
27)	trans-Non...	7.519	0.000	51396	0 ~~87346.414~~		N.D.	#
28)	2,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
29)	2,4'-DDT	0.000	0.000	0	0	N.D.	N.D.	
30)	cis-Nonac...	8.023f	0.000	4578	0	0.022	N.D.	#
31)	Mirex	0.000	9.686	0	9735	N.D.	0.052	#
32)	Chlordane...	0.000	8.142	0	83130	N.D.	2.297	#
33)	Chlordane...	7.519	0.000	51396	0	2.051	N.D.	#
34)	Chlordane...	0.000	8.904	0	38172	N.D.	4.258	#
35)	Chlordane...	3.449	0.000	3828	0	NoCal	N.D.	
36)	Toxaphene...	7.519	0.000	51396	0	57.384	N.D.	#
37)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
38)	Toxaphene...	8.116	8.861	1913	3871	0.568	0.764	
39)	Toxaphene...	8.316f	8.904	21302	38172	6.574	4.572	
40)	Toxaphene...	8.536f	9.098	1701	10610	0.709	2.277	#
41)	Toxaphene...	0.000	0.000	0	0	N.D.	N.D.	
42)	Toxaphene...	3.449	0.000	3828	0	NoCal	N.D.	

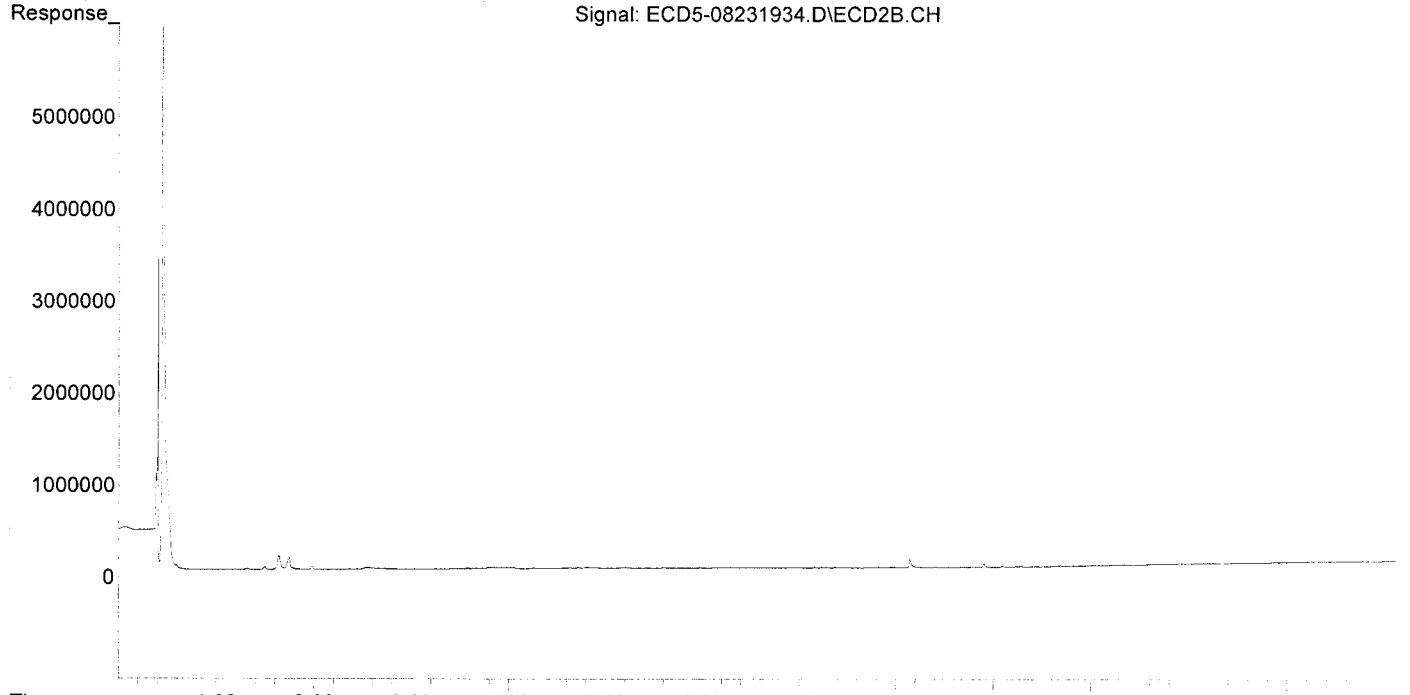
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231934.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:20
Operator : MJB
Sample : 9H23034-IBL3
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:15 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:37
Operator : MJB
Sample : 9H23034-ICV3
Misc : A19F108, CHLOR 500 ppb
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.975	0	8961	N.D.	0.031	#
22)	S	DCBP (S)	9.601	10.507f	18796	7616	0.133	0.042	#
		Target Compounds							
2)		a-BHC	5.934	6.622f	9141	348363	0.040	0.849	#
3)		g-BHC	6.194f	6.923	92353	182619	0.458	0.512	
4)		b-BHC	6.323f	7.017f	112667	560662	1.247	3.543	#
5)		Heptachlor	6.630	7.288	4625489	7814185	25.513	25.538	
6)		d-BHC	6.412f	7.222	337700	61064	1.717	0.173	#
7)		Aldrin	6.874	7.557	83911	133681	0.425	0.406	
8)		Heptachlo...	7.336	8.010	771372	473989	4.188	1.576	#
9)		trans-Chl...	7.427	8.130	10721056	19872286	57.986	63.424	
10)		cis-Chlor...	7.520	8.238	13401062	16289264	73.603	55.929	
11)		Endosulfa...	7.639	8.310f	285254	253033	1.676	0.920	#
12)		4,4'-DDE	7.578	8.333	311083	429833	1.650	1.384	
13)		Dieldrin	7.806	8.488	355046	1298858	1.849	4.270	#
14)		Endrin	7.984f	8.713	1829350	383068	12.442	1.696	#
15)		4,4'-DDD	7.984	8.759	1829350	3046940	11.641	11.892	
16)		Endosulfa...	8.118	8.873	216170	351371	1.505	1.524	
17)		4,4'-DDT	0.000	8.994	0	130946	N.D.	0.725	#
18)		Endrin Al...	8.427f	9.128f	55387	802635	BelowCal	3.530	
19)		Endosulfa...	8.708	9.290	120383	34589	0.777	0.139	#
20)		Methoxychlor	8.552	9.463	53824	27882	0.919	0.160	#
21)		Endrin Ke...	8.894	9.687	19548	156351	0.117	0.608	#
23)		Hexachlor...	3.198	3.688	5435	10087	0.030	0.027	
24)		Hexachlor...	5.768	6.431f	8591	38244	0.049	0.122	#
25)		Oxychlordane	7.253	7.933	114695	258636	0.697	0.944	
26)		2,4'-DDE	7.336	8.130	771372	19872286	6.014	93.676	#
27)		trans-Non...	7.520	8.195	13401062	14312099	74.546	47.448	
28)		2,4'-DDD	7.674f	8.488	831029	1298858	7.282	6.877	
29)		2,4'-DDT	7.913f	8.713	254540	383068	2.321	2.148	
30)		cis-Nonac...	7.984	8.759	1829350	3046940	8.811	9.083	
31)		Mirex	8.643	9.687	16477	156351	0.131	0.840	#
32)		Chlordane...	7.427	8.130	10721056	19872286	544.503	549.192	
33)		Chlordane...	7.520	8.238	13401062	16289264	534.667	536.465	
34)		Chlordane...	8.068	8.898	3177144	4850138	549.572	540.955	
35)		Chlordane...	3.448	0.000	3889	0	NoCal	N.D.	
36)		Toxaphene...	7.520	8.488f	13401062	1298858	14962.430	494.943	#
37)		Toxaphene...	7.806	8.814	355046	496679	219.851	150.919	
38)		Toxaphene...	8.118	8.851	216170	383467	64.193	75.660	
39)		Toxaphene...	8.347	8.898	132572	4850138	40.915	580.866	#
40)		Toxaphene...	8.552f	9.068f	53824	98957	22.453	21.234	
41)		Toxaphene...	8.643	9.463	16477	27882	5.207	5.870	
42)		Toxaphene...	3.448	0.000	3889	0	NoCal	N.D.	

A 542.91

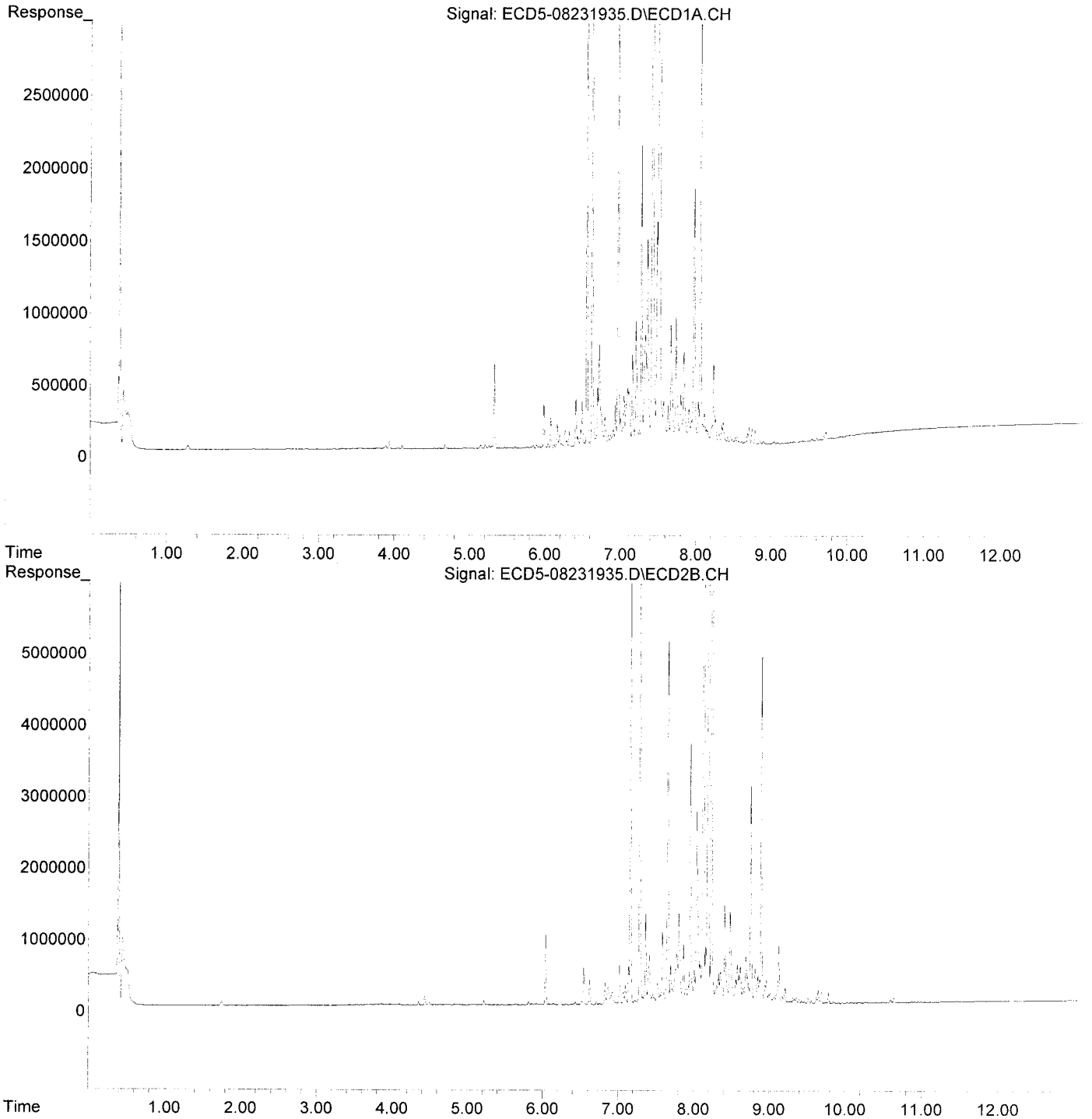
E 542.20

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231935.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 21:37
Operator : MJB
Sample : 9H23034-ICV3
Misc : A19F108, CHLOR 500 ppb
ALS Vial : 28 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231942.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:37
Operator : MJB
Sample : 9H23034-IBL4
Misc : Instrument Blank
ALS Vial : 1 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 15:03:28 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/12/19

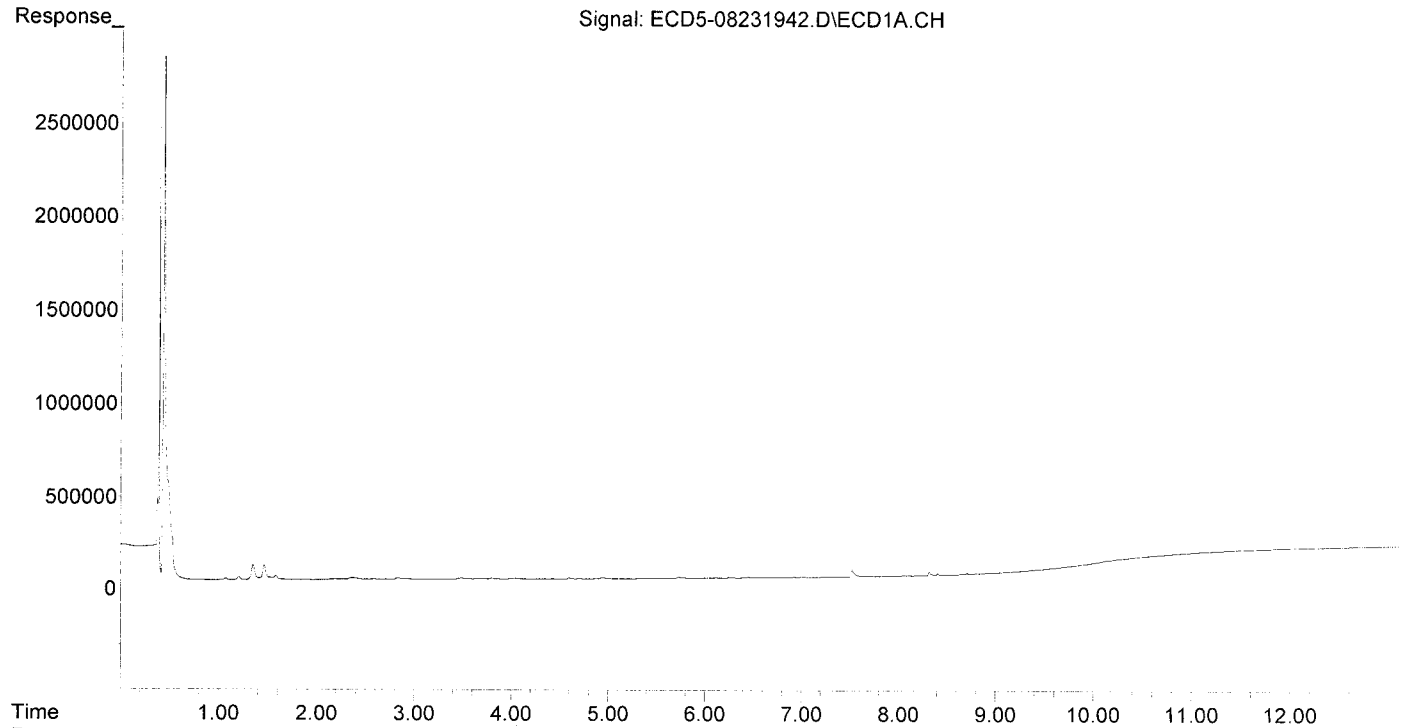
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.983	0	6142	N.D.	0.021	#
22)	S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.248f	0.000	4243	0	0.021	N.D.	#
4)		b-BHC	0.000	0.000	0	0	N.D.	N.D.	
5)		Heptachlor	0.000	0.000	0	0	N.D.	N.D.	
6)		d-BHC	6.450	7.232	5264	7410	0.027	0.021	
7)		Aldrin	0.000	0.000	0	0	N.D.	N.D.	
8)		Heptachlo...	7.334	0.000	1978	0	0.011	N.D.	#
9)		trans-Chl...	7.425	8.145	1693	72982	0.009	0.233	#
10)		cis-Chlor...	7.522	0.000	38316	0	0.210	N.D.	#
11)		Endosulfa...	0.000	0.000	0	0	N.D.	N.D.	
12)		4,4'-DDE	0.000	0.000	0	0	N.D.	N.D.	
13)		Dieldrin	0.000	0.000	0	0	N.D.	N.D.	
14)		Endrin	0.000	0.000	0	0	N.D.	N.D.	
15)		4,4'-DDD	0.000	0.000	0	0	N.D.	N.D.	
16)		Endosulfa...	8.117	0.000	2505	0	0.017	N.D.	#
17)		4,4'-DDT	8.194	0.000	767	0	0.006	N.D.	#
18)		Endrin Al...	8.406	9.100	10140	13686	BelowCal	BelowCal	
19)		Endosulfa...	8.707	9.290	7273	12897	0.047	0.052	
20)		Methoxychlor	8.540	0.000	2018	0	0.034	N.D.	#
21)		Endrin Ke...	8.901	9.687	3565	7207	0.021	0.028	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
25)		Oxychlordane	0.000	0.000	0	0	N.D.	N.D.	
26)		2,4'-DDE	7.334	8.145f	1978	72982	0.015 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.	

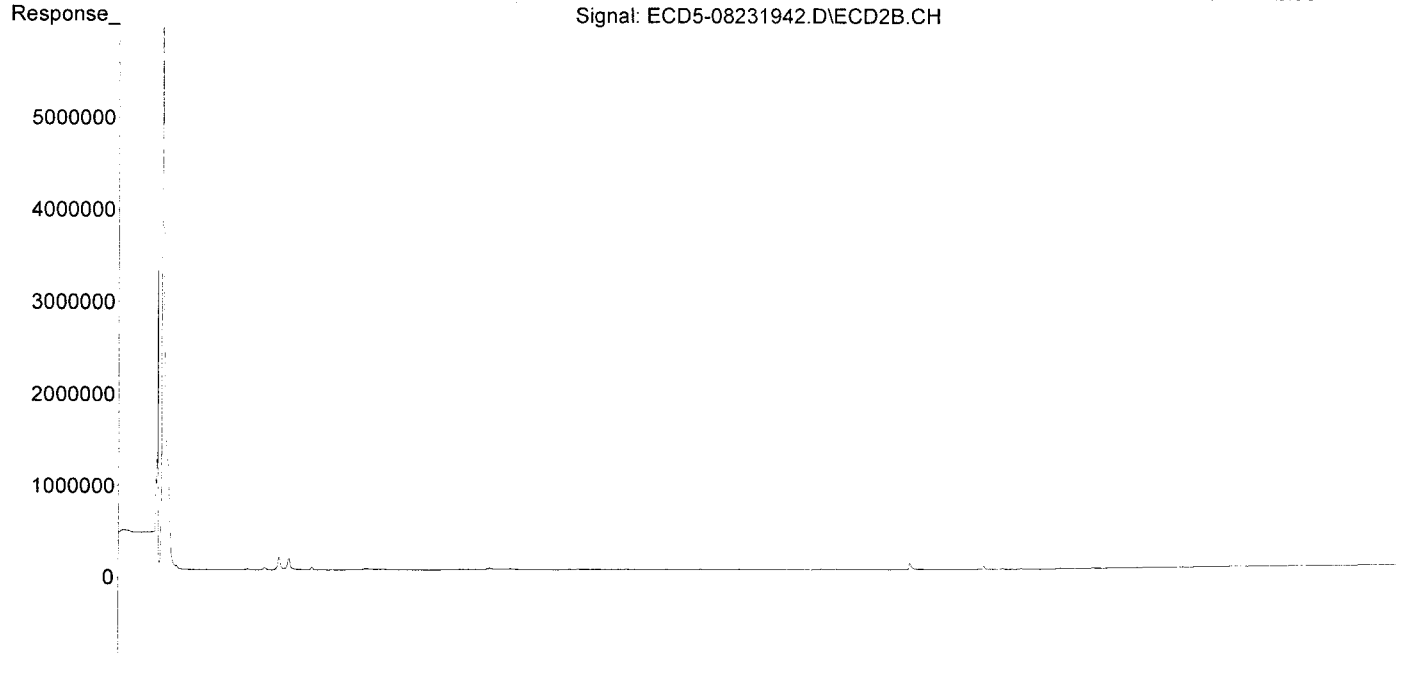
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

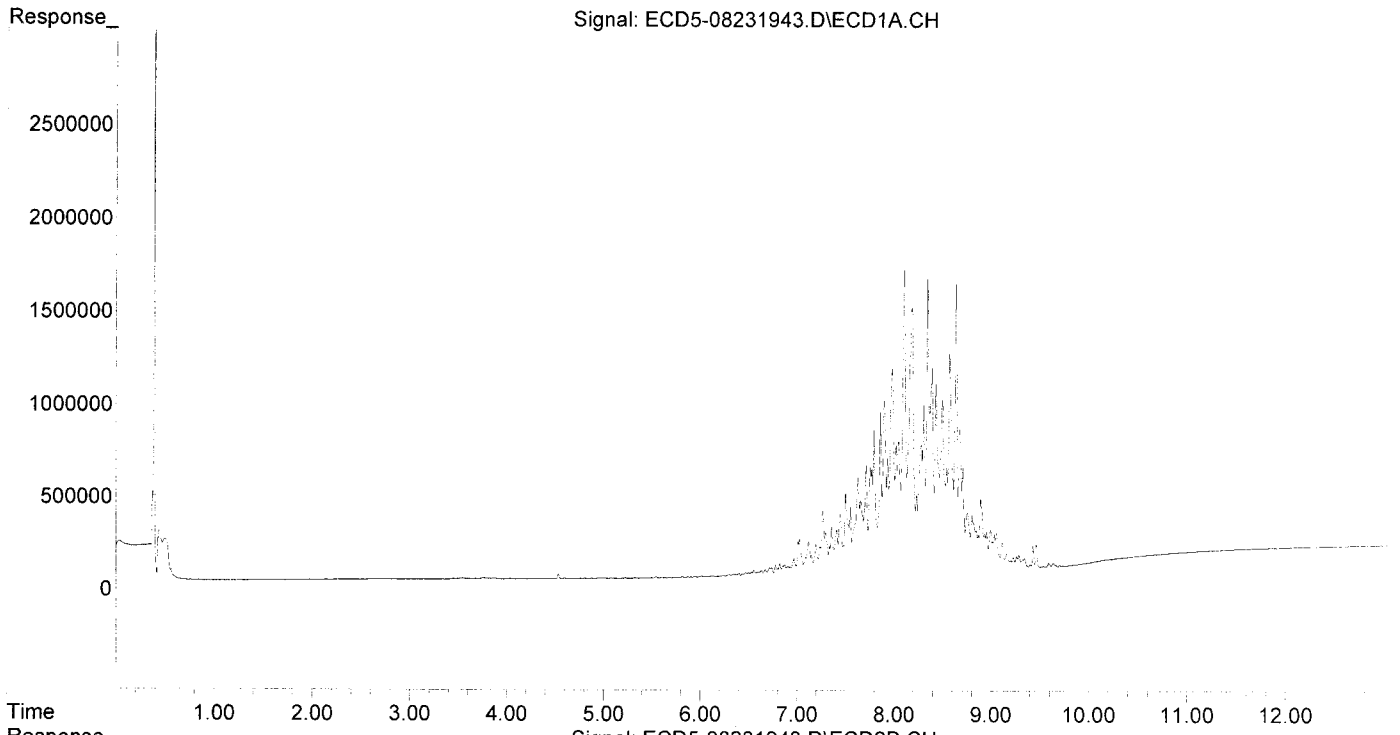
484.22 487.07

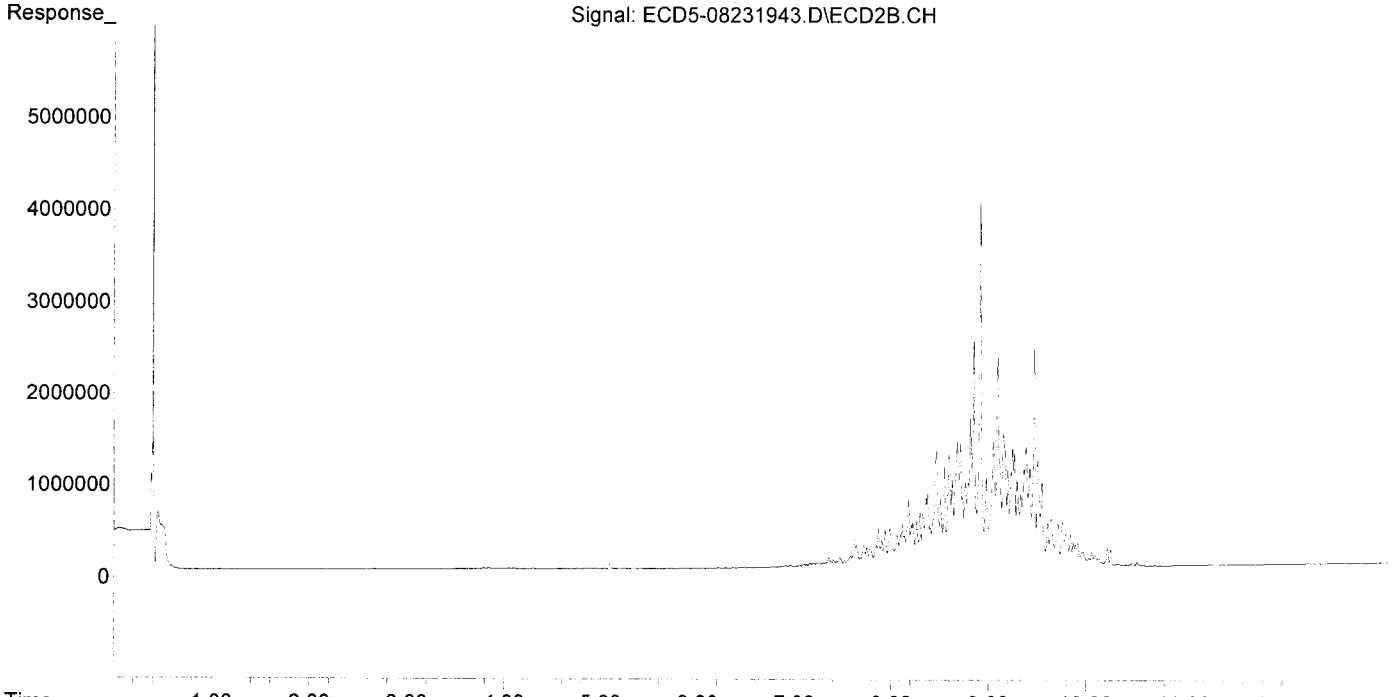
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

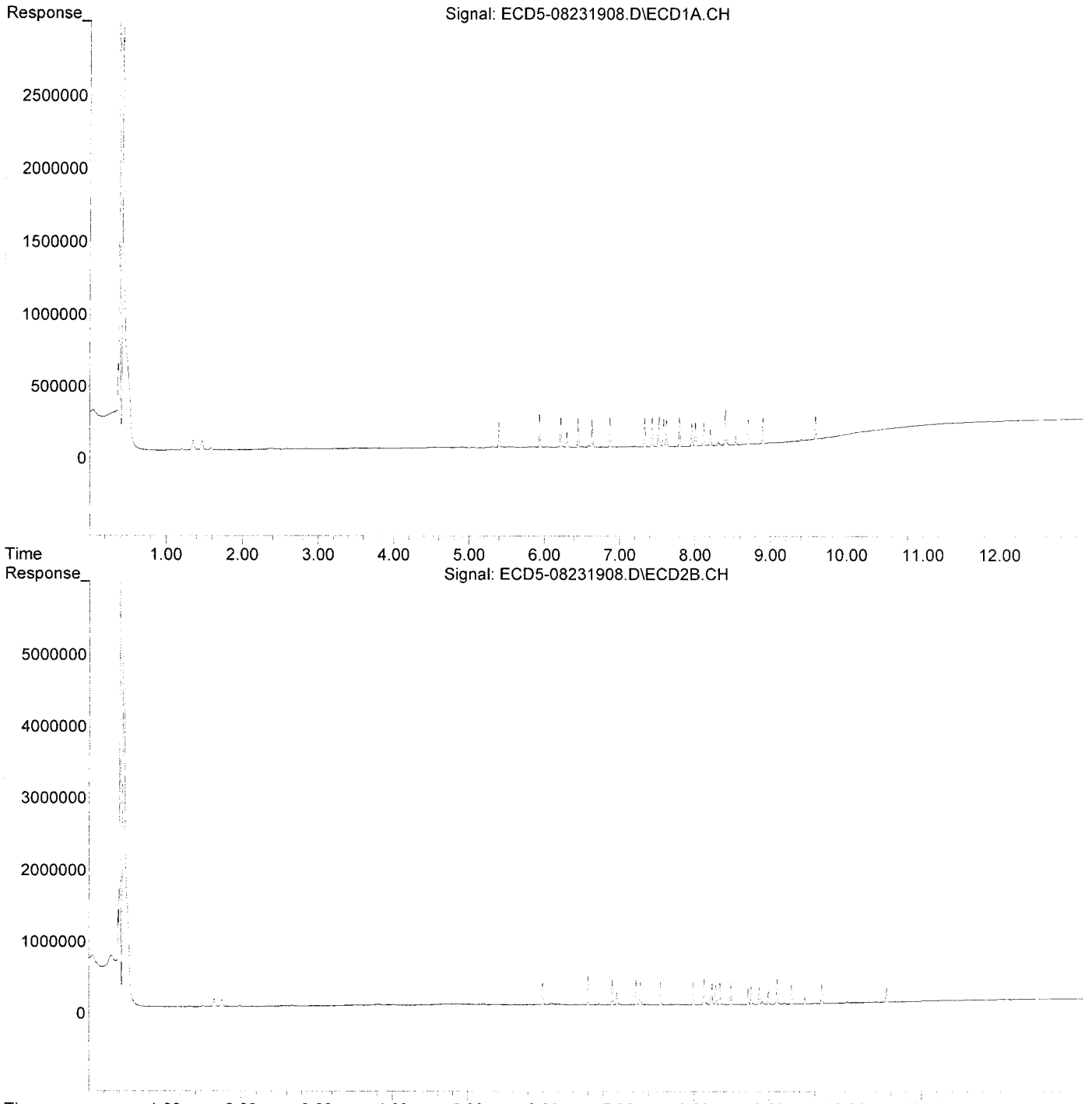
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.397	5.991	176748	300053	1.065	1.023	
22)	S	DCBP (S)	9.593	10.541	163865	191572	1.161	1.066	
		Target Compounds							
2)		a-BHC	5.937	6.597	231994	393119	1.012	0.958	
3)		g-BHC	6.221	6.915	207427	352286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

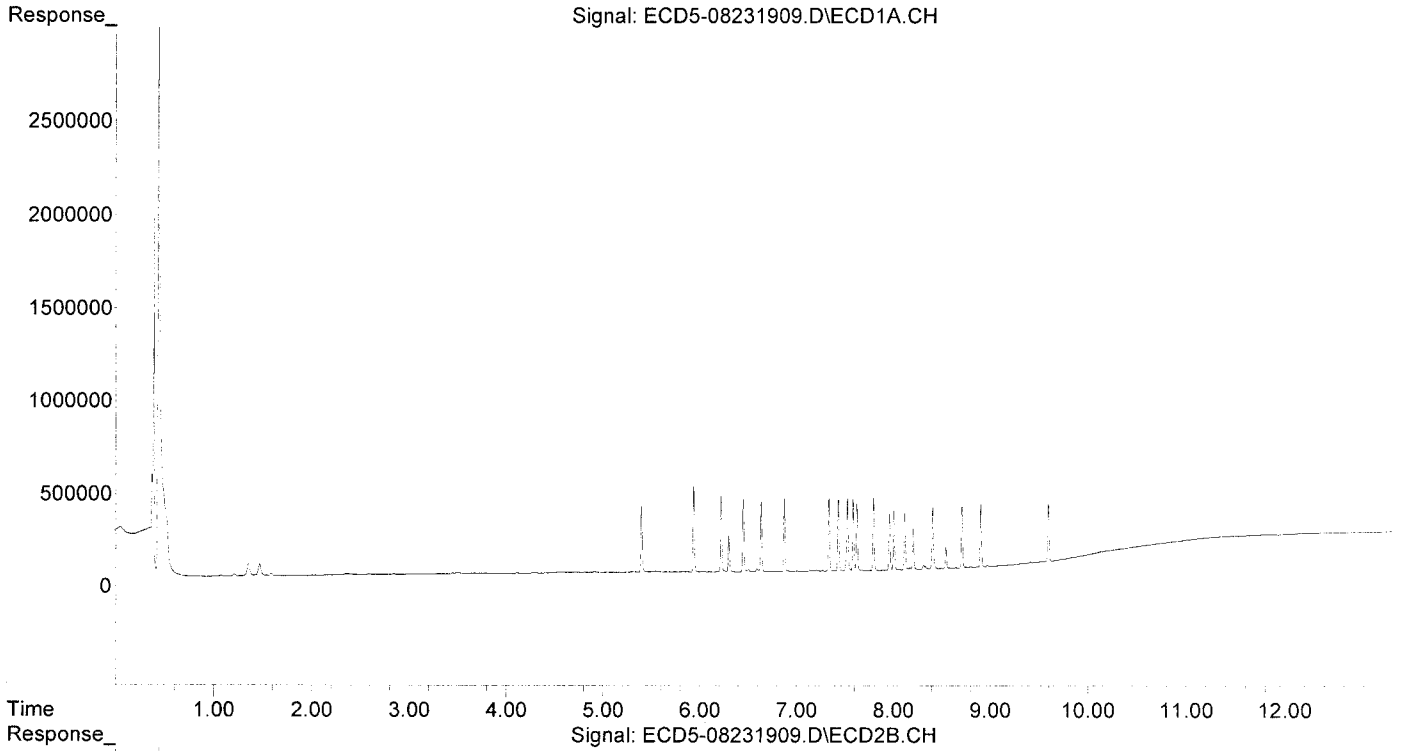
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.396	5.990	349972	600766	2.109	2.048	
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.196	2.170	
		Target Compounds							
2)		a-BHC	5.936	6.597	458365	784586	1.999	1.912	
3)		g-BHC	6.220	6.915	406027	690922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

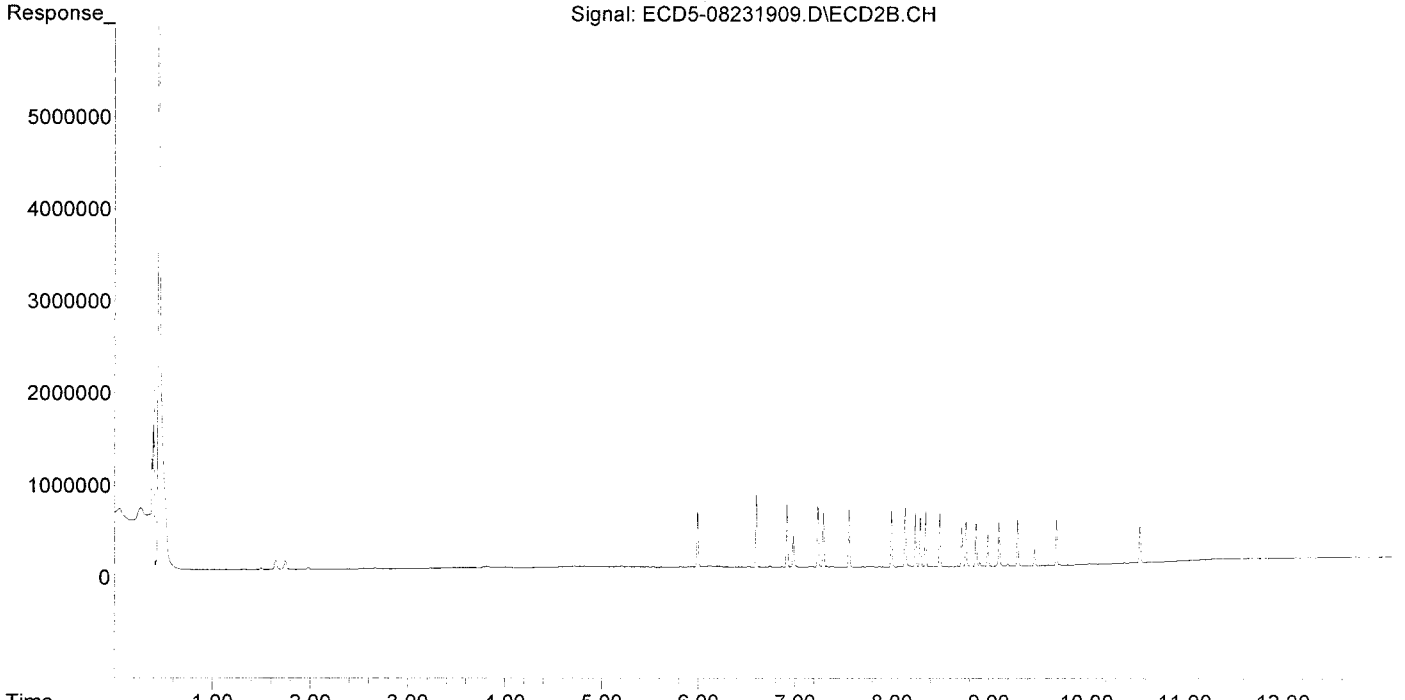
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

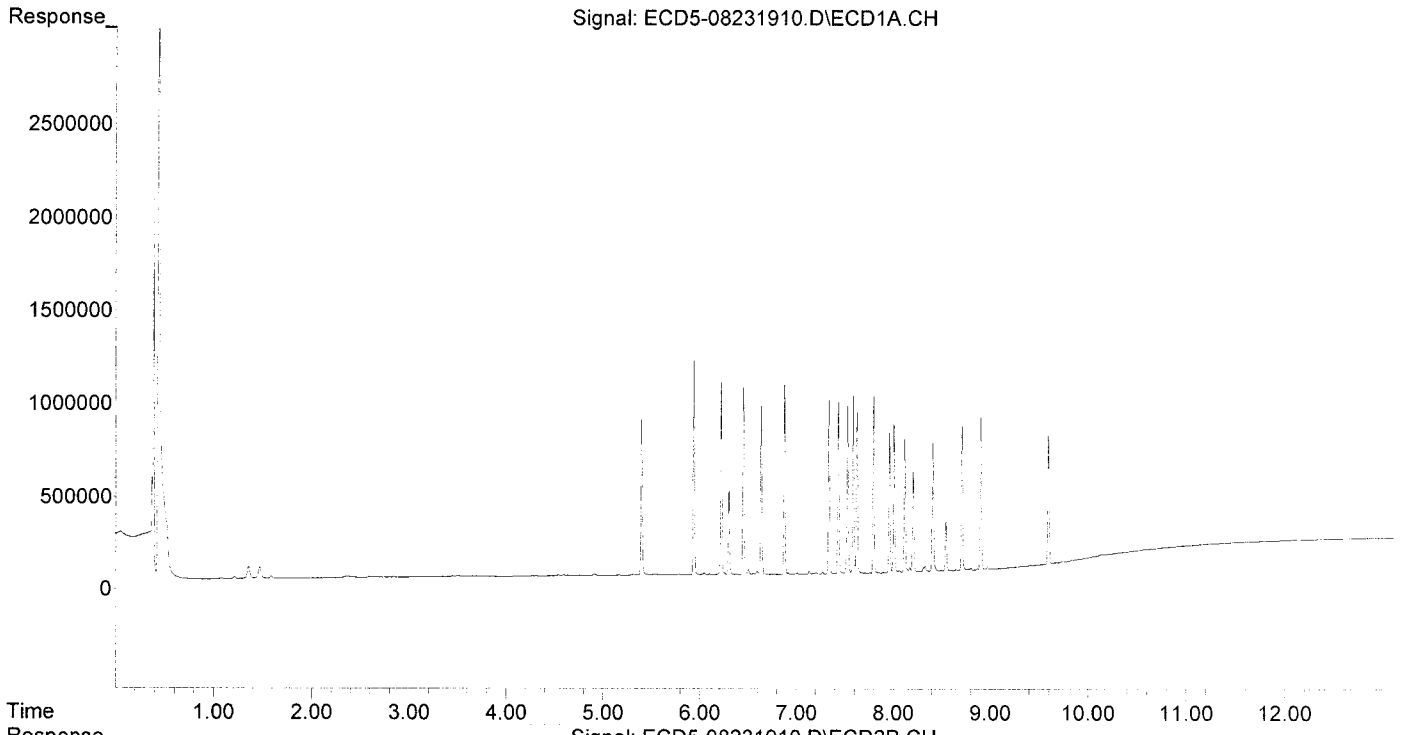
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.396	5.990	834206	1437876	5.026	4.901	
22) S	DCBP (S)	9.594	10.542	701050	870921	4.969	4.845	
	Target Compounds							
2)	a-BHC	5.937	6.597	1147932	1985438	5.006	4.839	
3)	g-BHC	6.220	6.915	1020724	1742677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

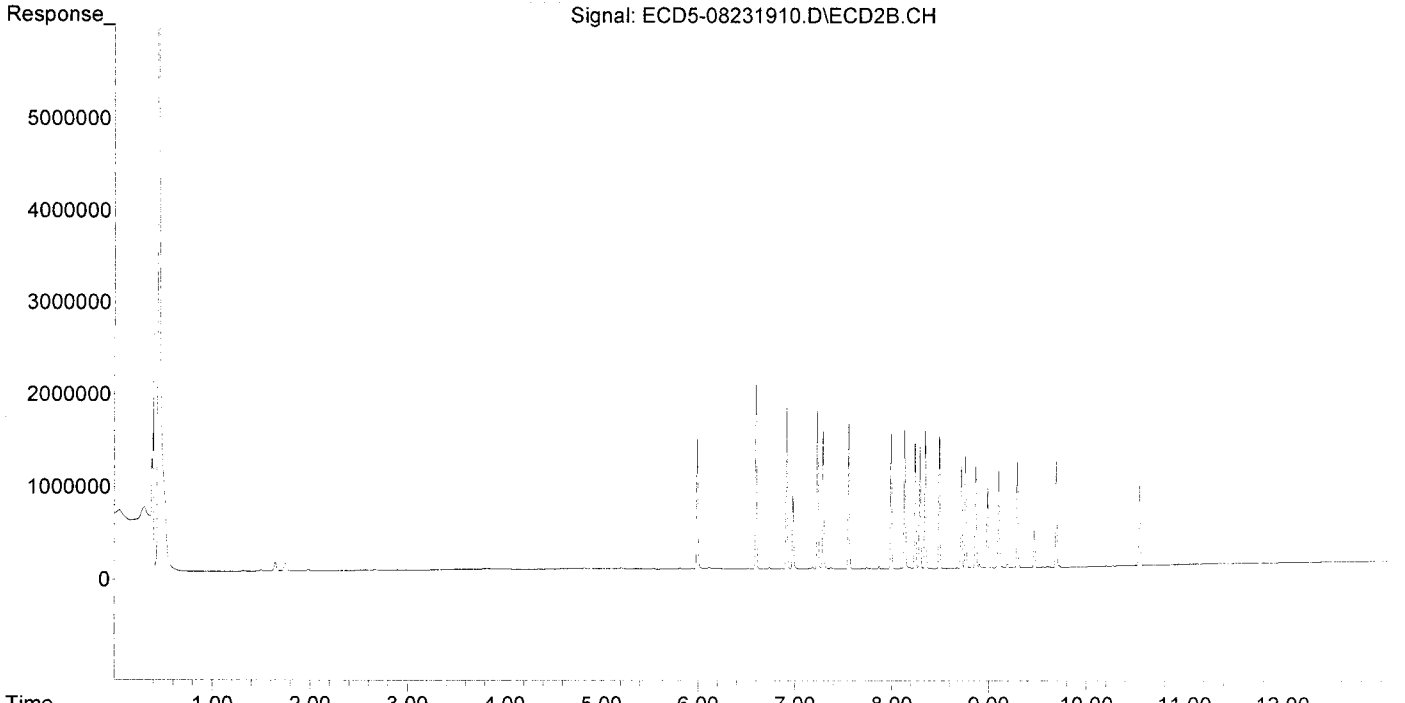
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

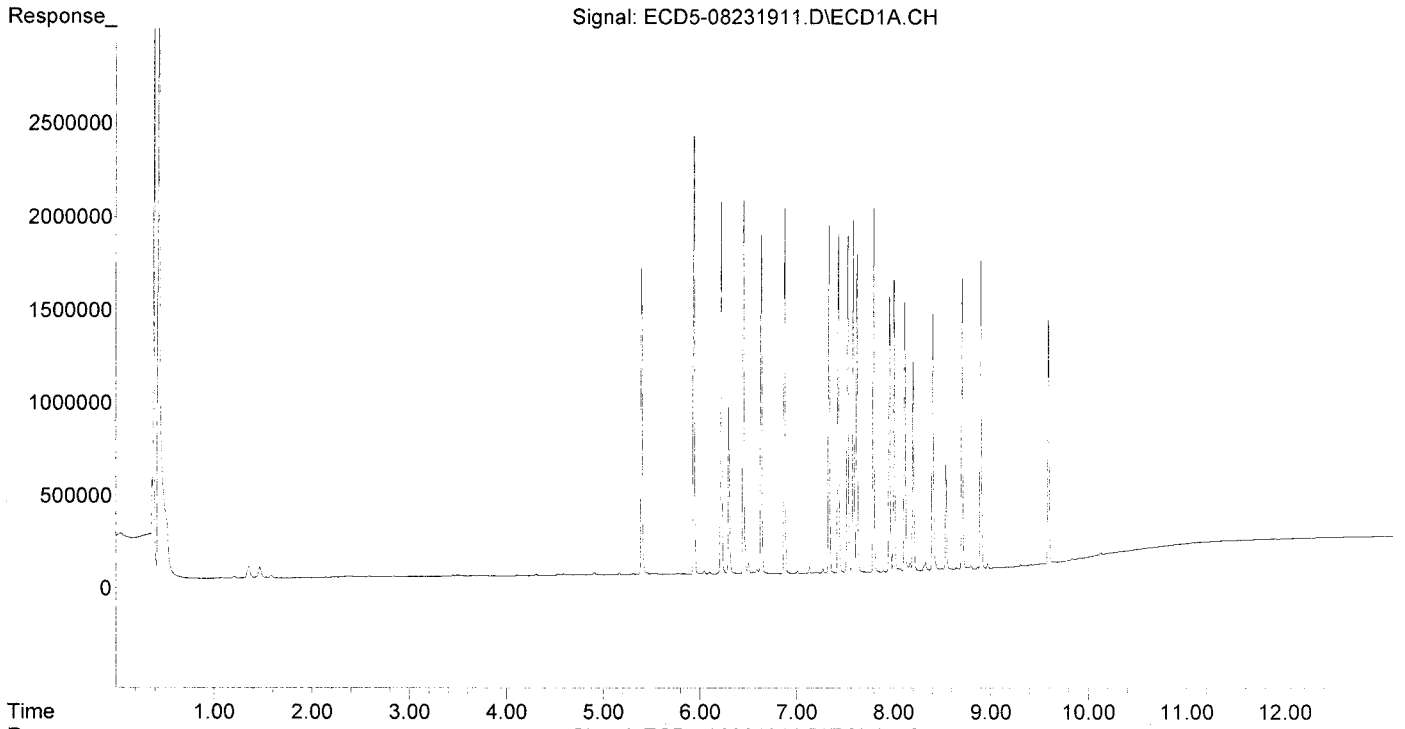
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.396	5.990	1644447	2865854	9.908	9.769	
22) S	DCBP (S)	9.593	10.541	1335468	1678728	9.465	9.339	
	Target Compounds							
2)	a-BHC	5.936	6.597	2347065	4095890	10.234	9.982	
3)	g-BHC	6.220	6.915	2034859	3476733	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.	

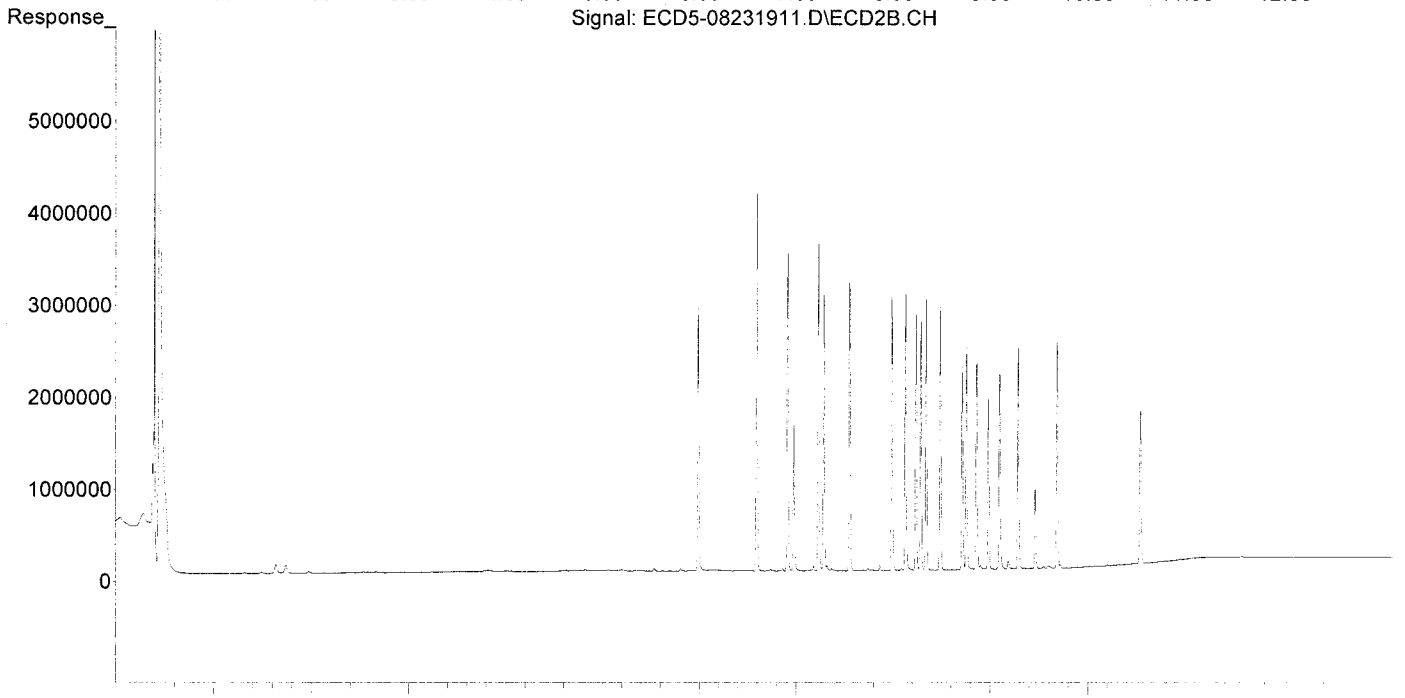
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

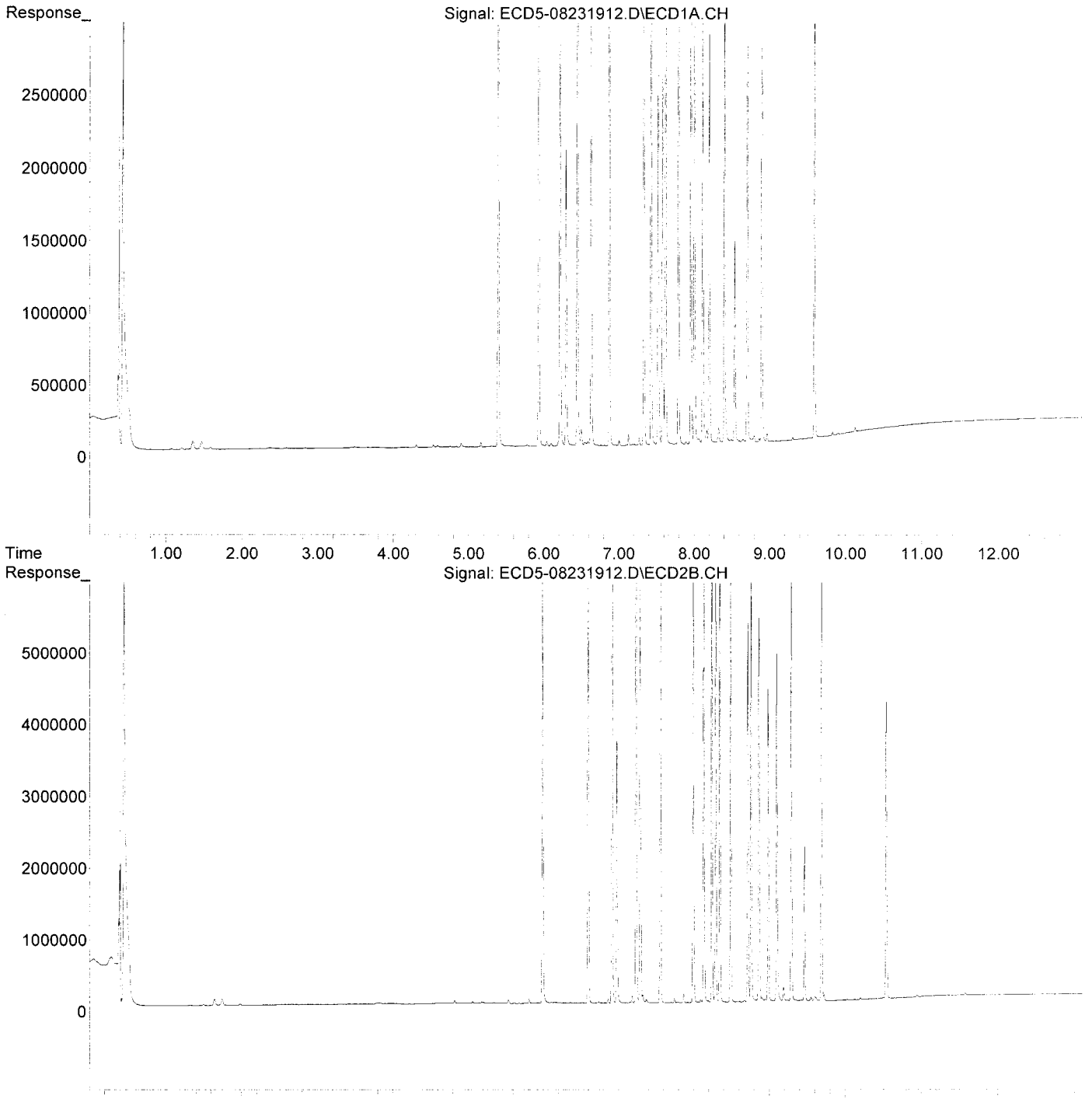
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	4015832	7072923	24.195	24.109	
22)	S	DCBP (S)	9.592	10.539	3342634	4163229	23.690	23.160	
		Target Compounds							
2)		a-BHC	5.935	6.596	5553096	9910863	24.215	24.153	
3)		g-BHC	6.218	6.913	4875657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

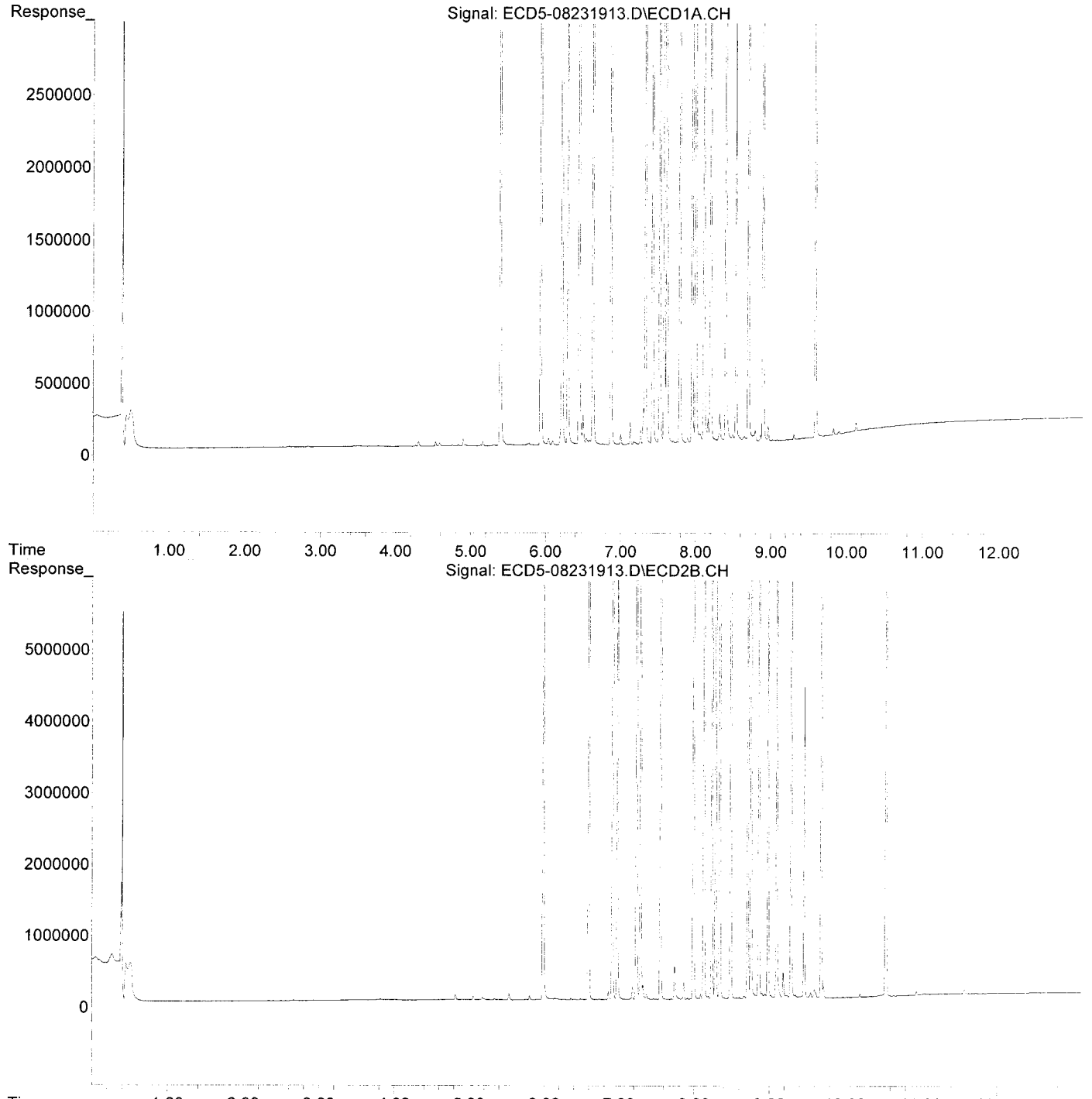
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.989	8071481	14196745	48.631	48.392	
22)	S	DCBP (S)	9.592	10.541	6678990	8730692	47.336	48.568	
		Target Compounds							
2)		a-BHC	5.935	6.596	11369592	20265817	49.578	49.388	
3)		g-BHC	6.218	6.914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

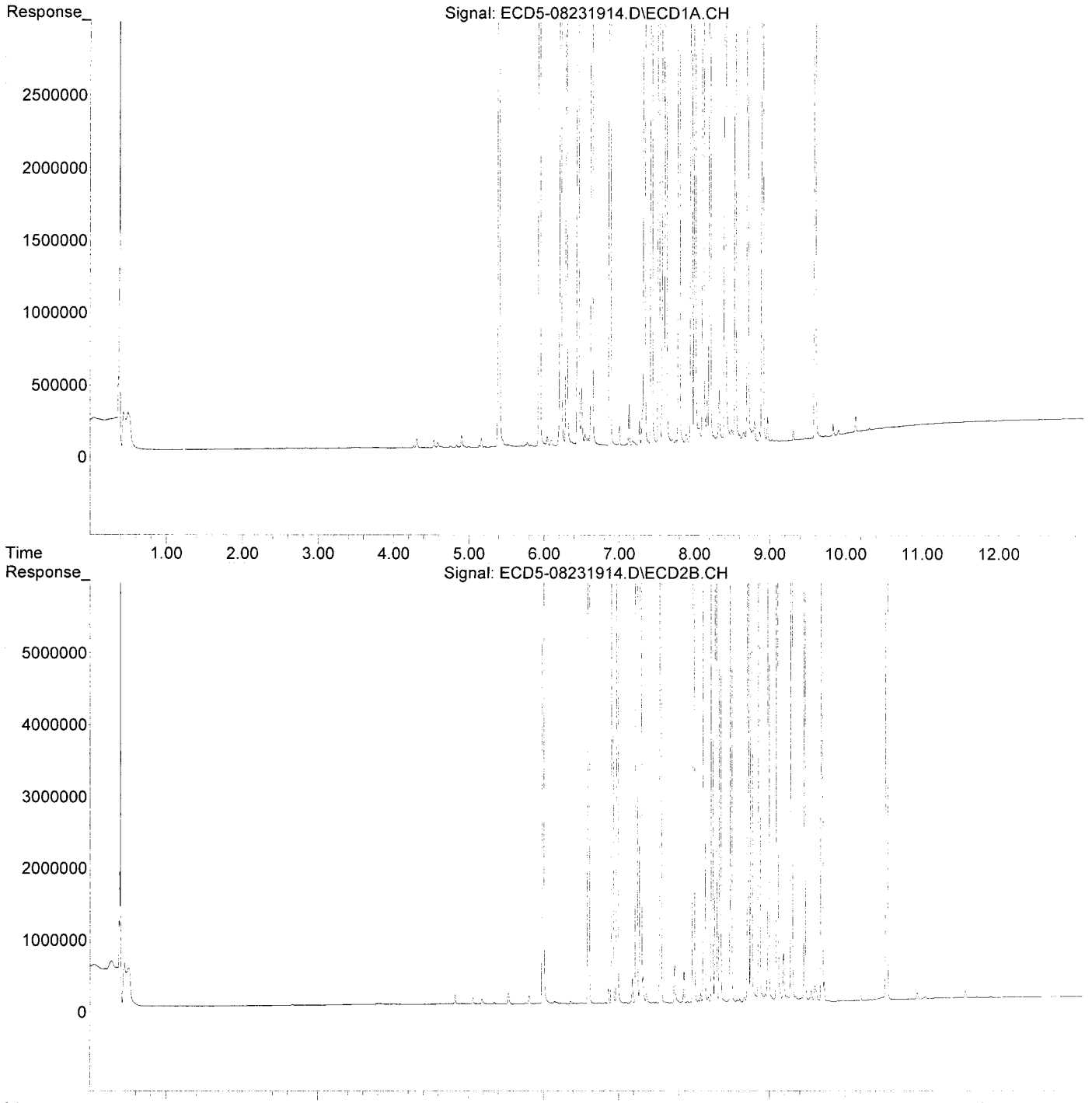
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	95.502	99.726	
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	95.007	98.931	
		Target Compounds							
2)		a-BHC	5.935	6.596	22363584	41699210	97.517	101.621	
3)		g-BHC	6.218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

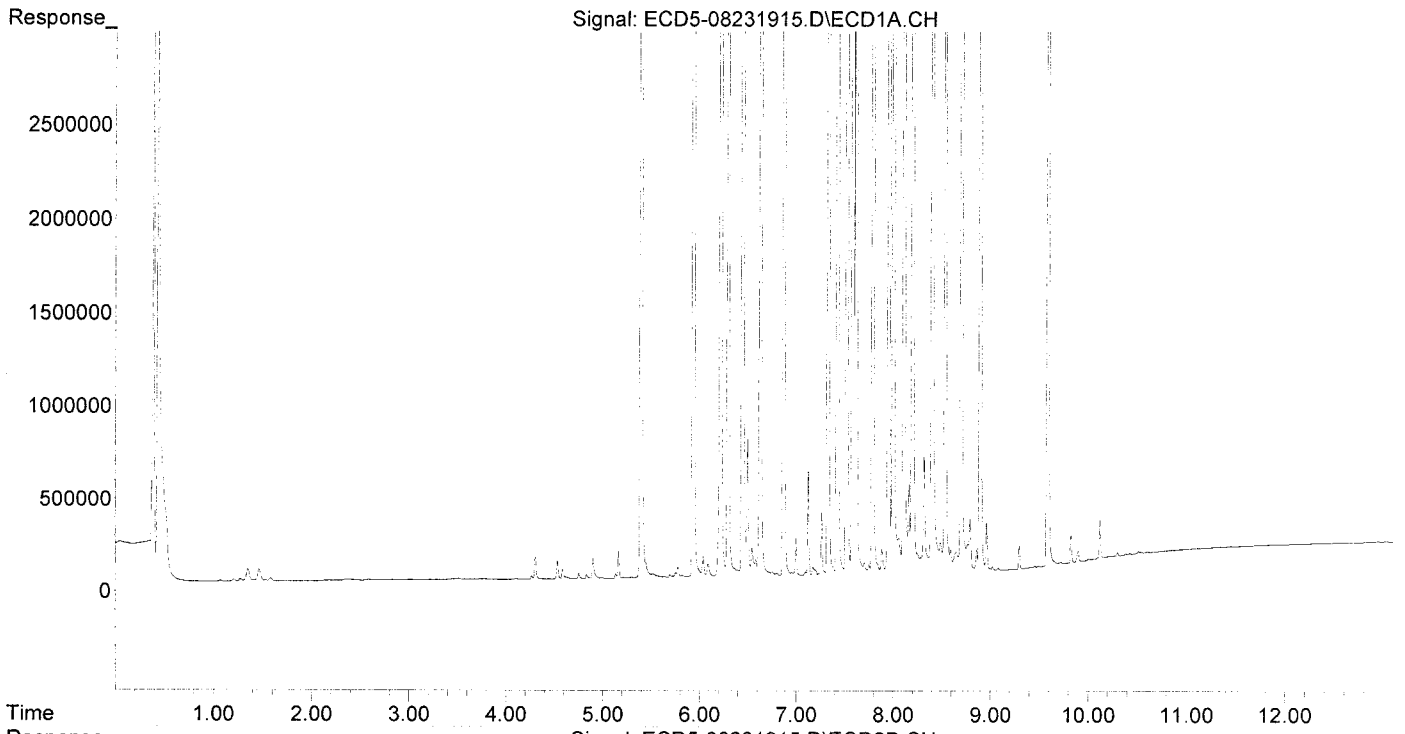
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	197.876	213.332	
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	191.180	211.933	
		Target Compounds							
2)		a-BHC	5.935	6.597	47202252	94376748	205.828	229.997	
3)		g-BHC	6.218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

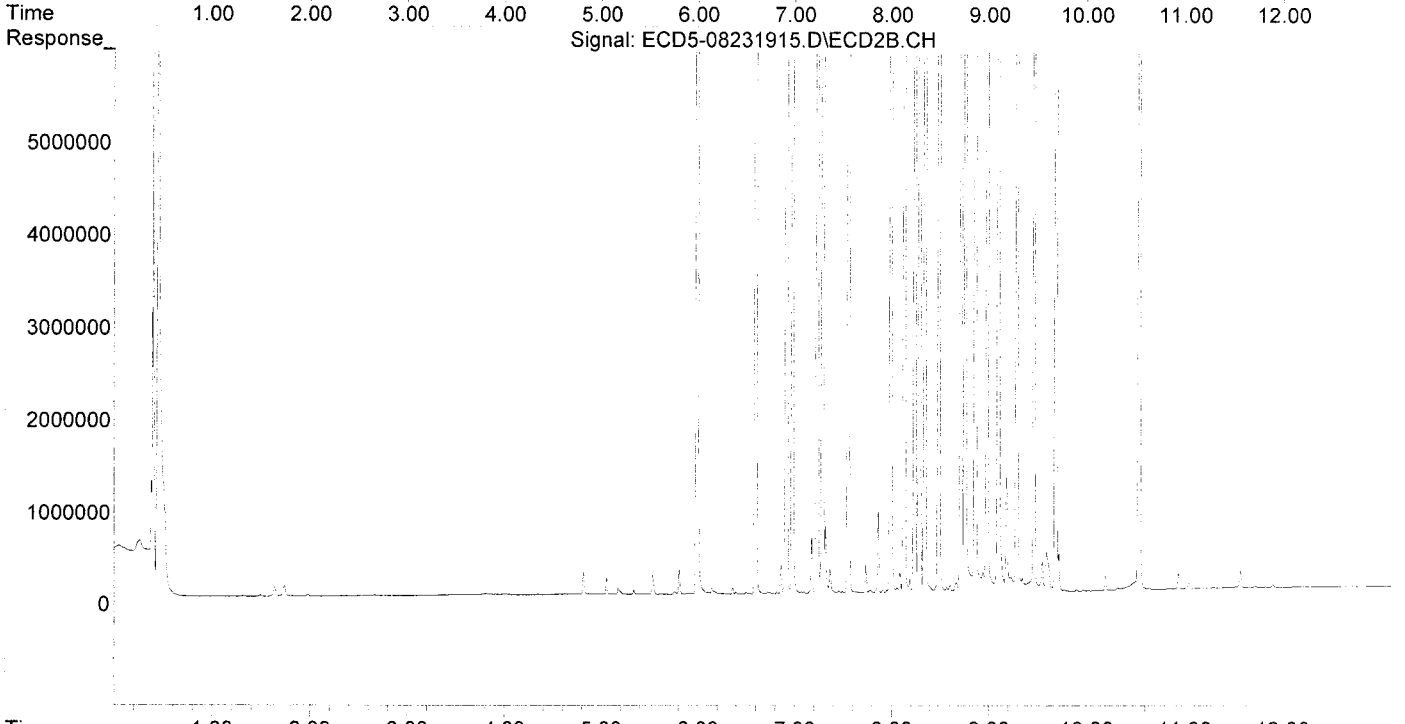
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

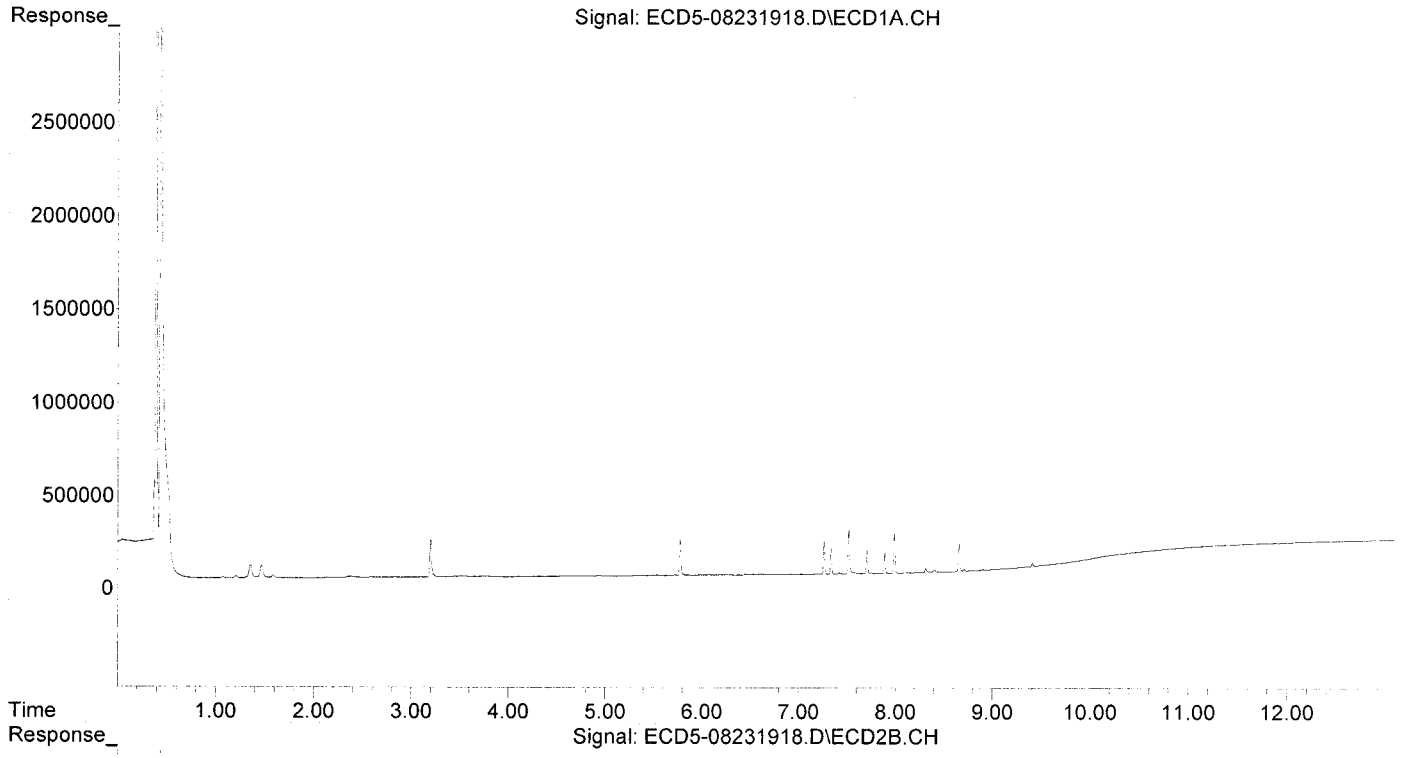
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6576	N.D.	0.022	#
22)	S	DCBP (S)	9.593	10.540	2255	5805	0.016	0.032	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.249f	0.000	4648	0	0.023	N.D.	#
4)		b-BHC	0.000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

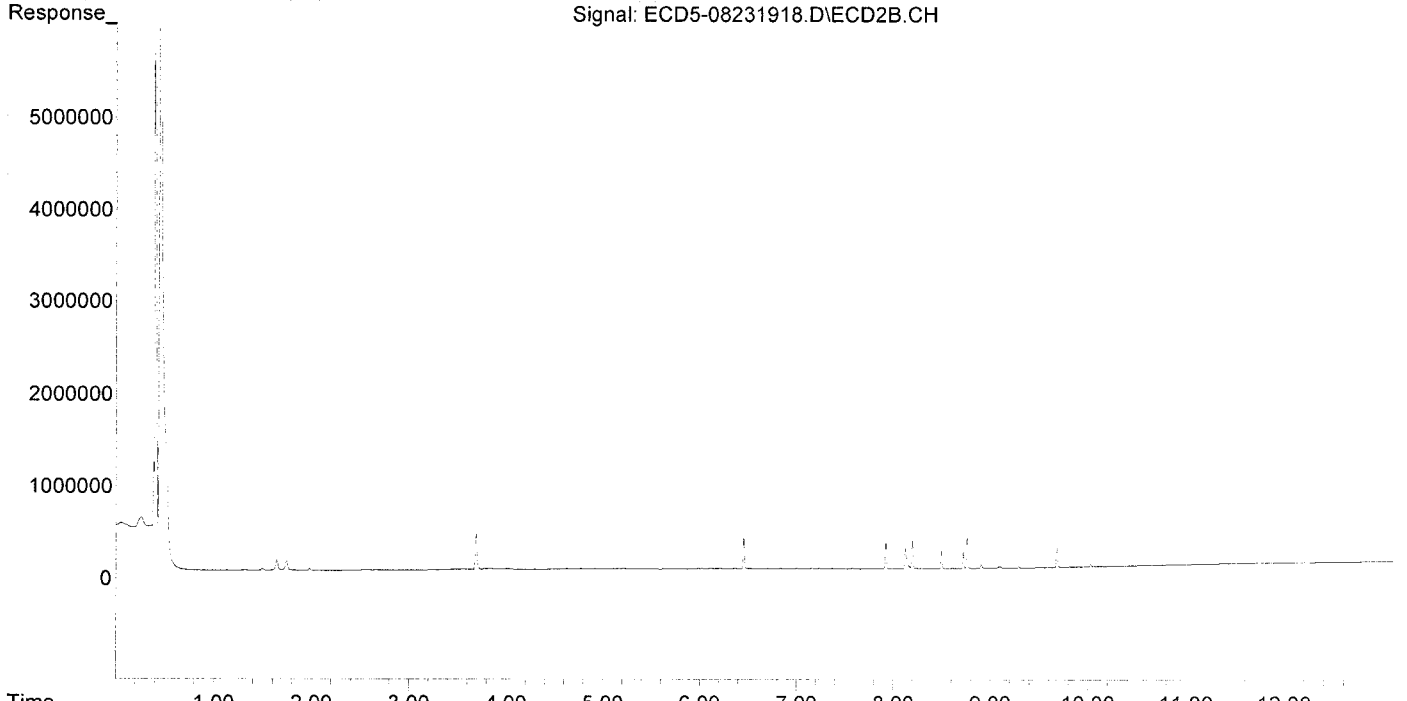
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

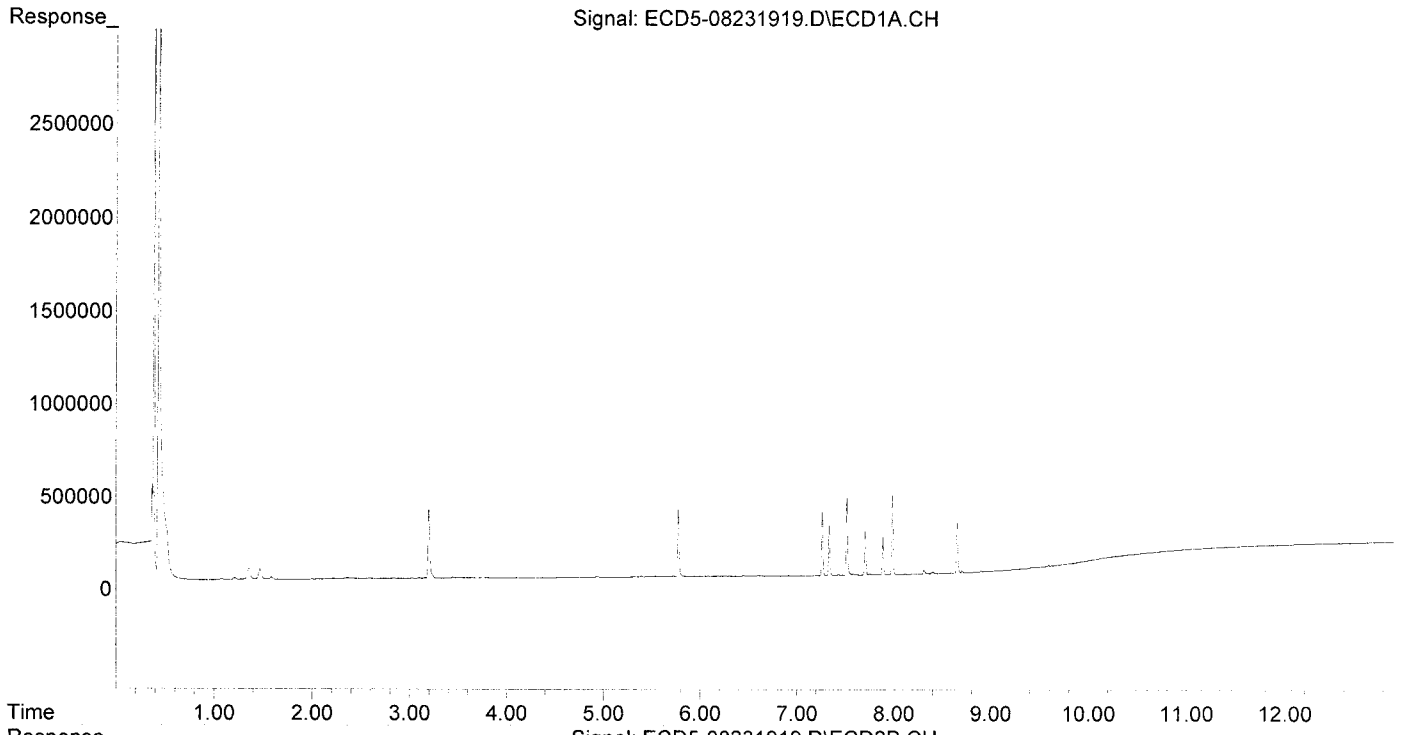
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.394	5.986	6323	13044	0.038	0.044	
22)	S	DCBP (S)	9.592	10.539	6116	7474	0.043	0.042	
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.248f	0.000	3811	0	0.019	N.D.	#
4)		b-BHC	0.000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

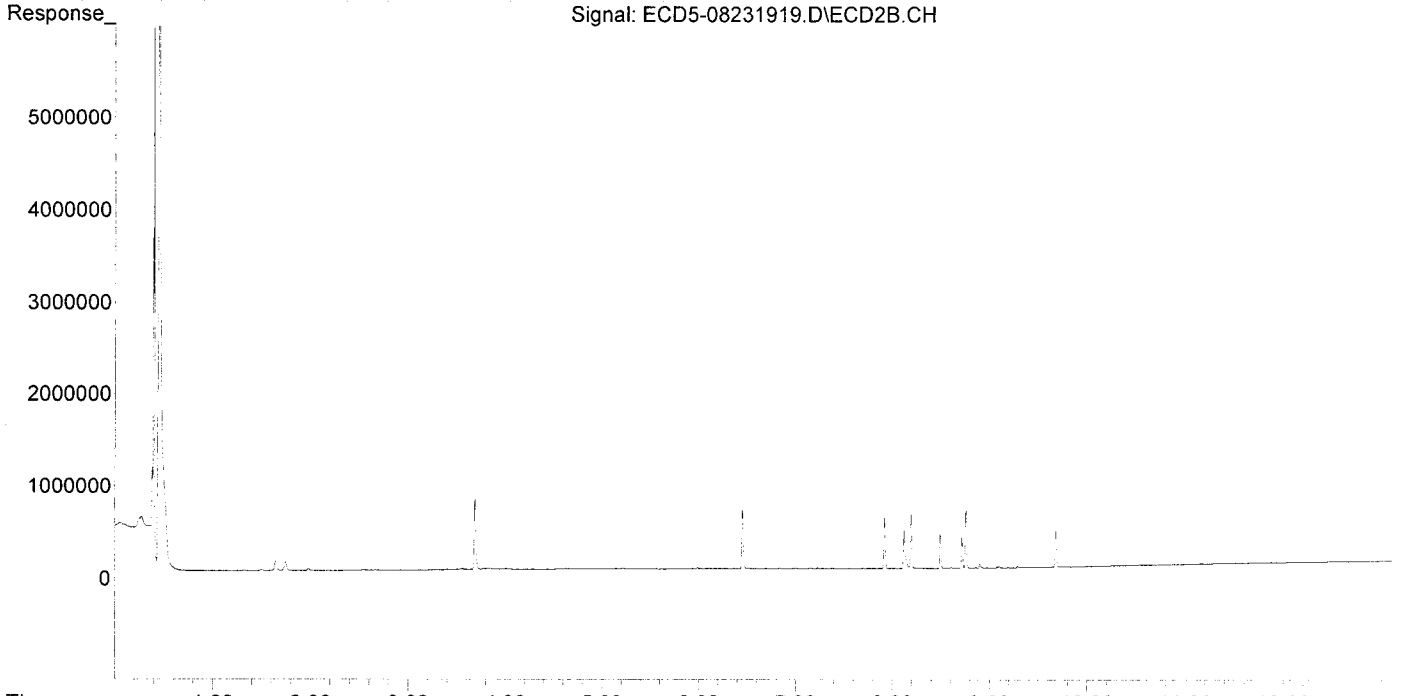
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

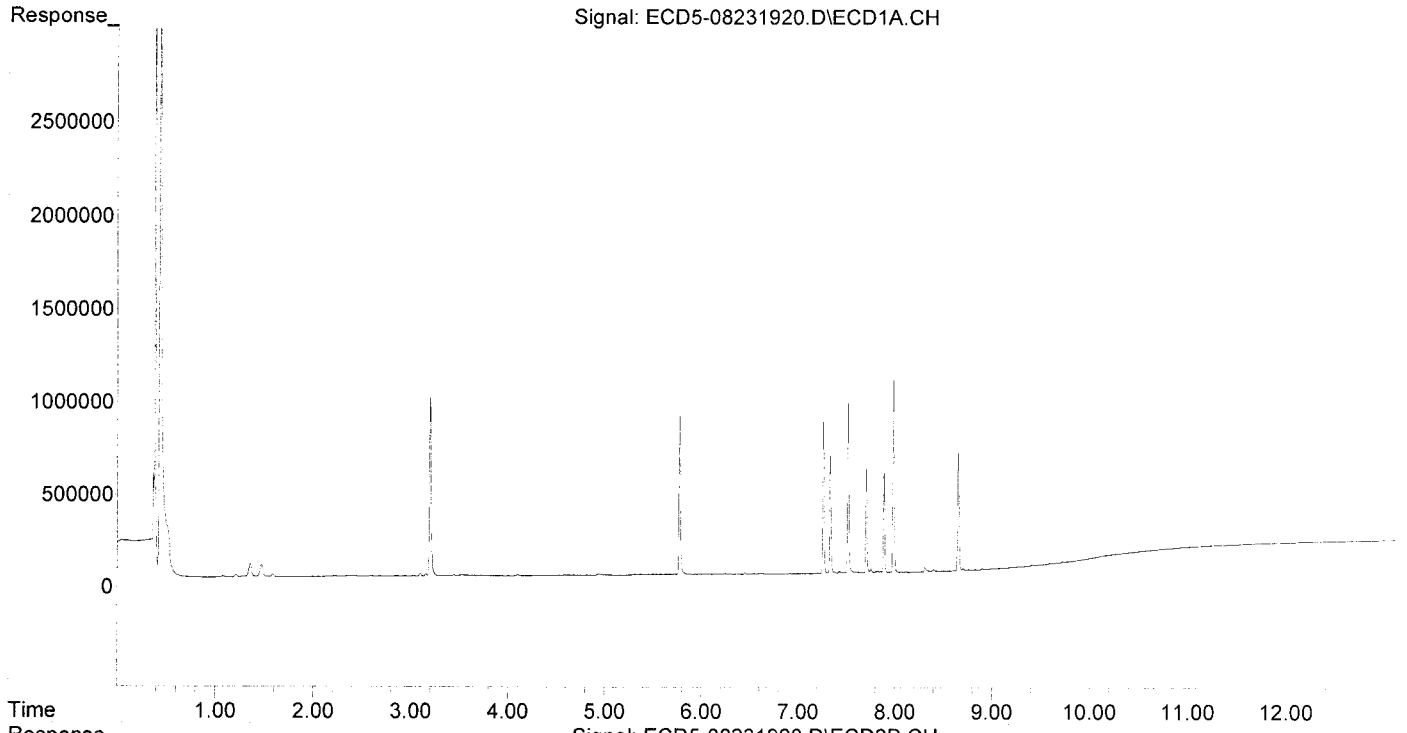
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.982	4403	6341	0.027	0.022	
22)	S	DCBP (S)	9.592	10.539	7940	5412	0.056	0.030	#
		Target Compounds							
2)		a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)		g-BHC	6.247f	0.000	5412	0	0.027	N.D.	#
4)		b-BHC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

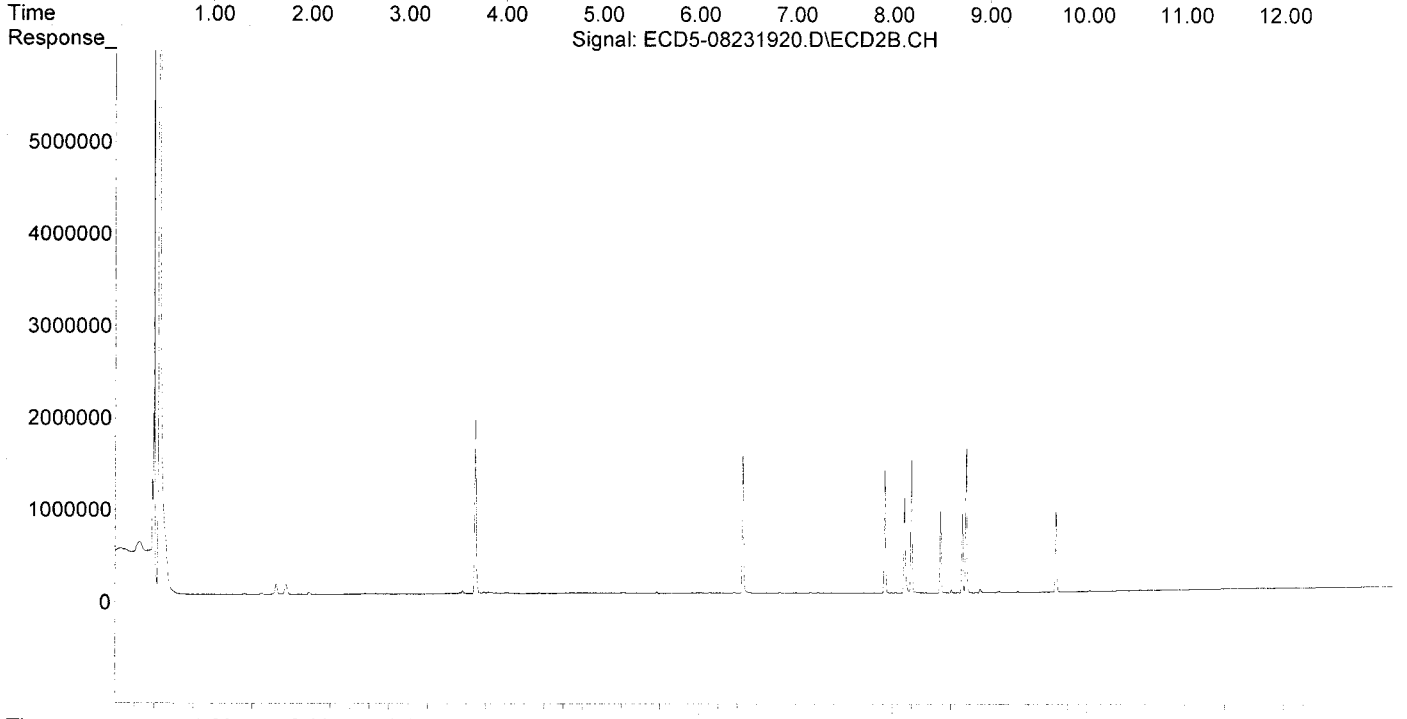
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

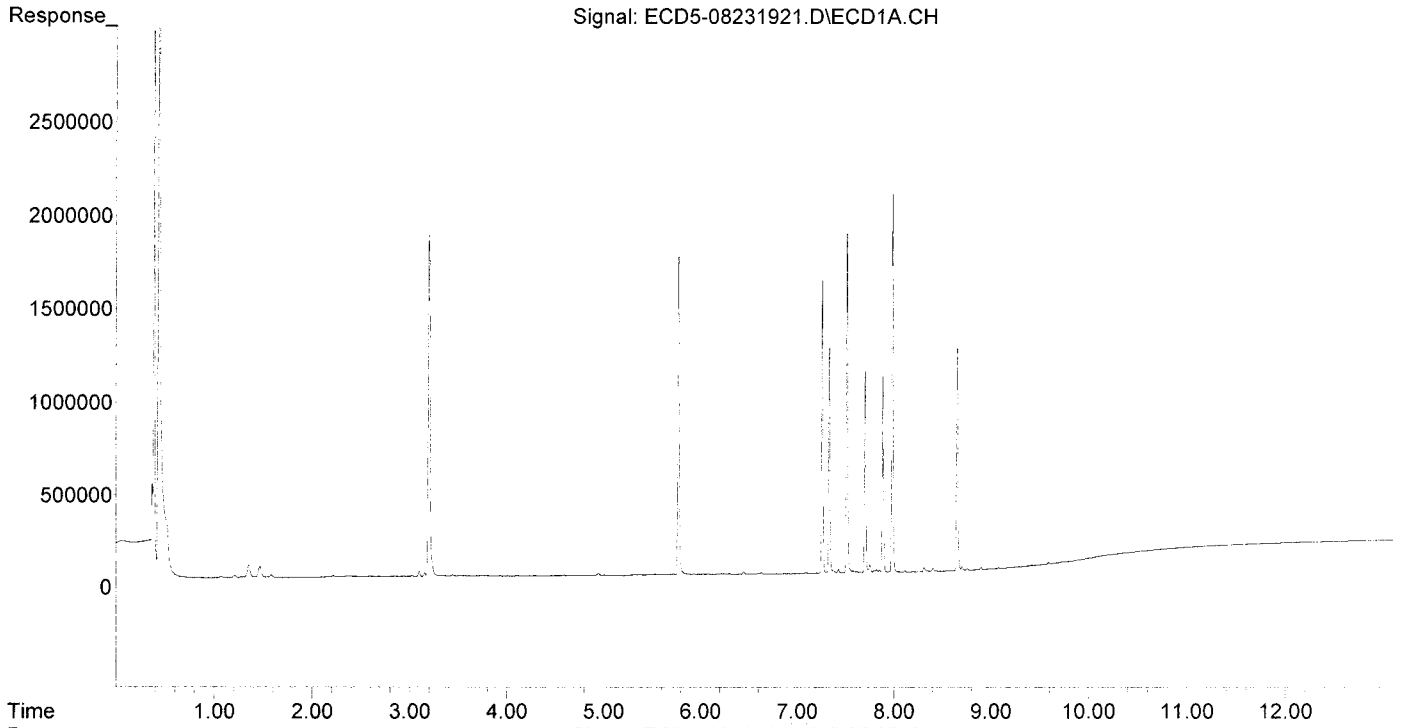
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.983	5244	8048	0.032	0.027	
22)	S	DCBP (S)	9.591	10.539	8426	10511	0.060	0.058	
		Target Compounds							
2)		a-BHC	5.934	6.594	5268	9085	0.023	0.022	
3)		g-BHC	6.219	6.912	5161	7308	0.026	0.020	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

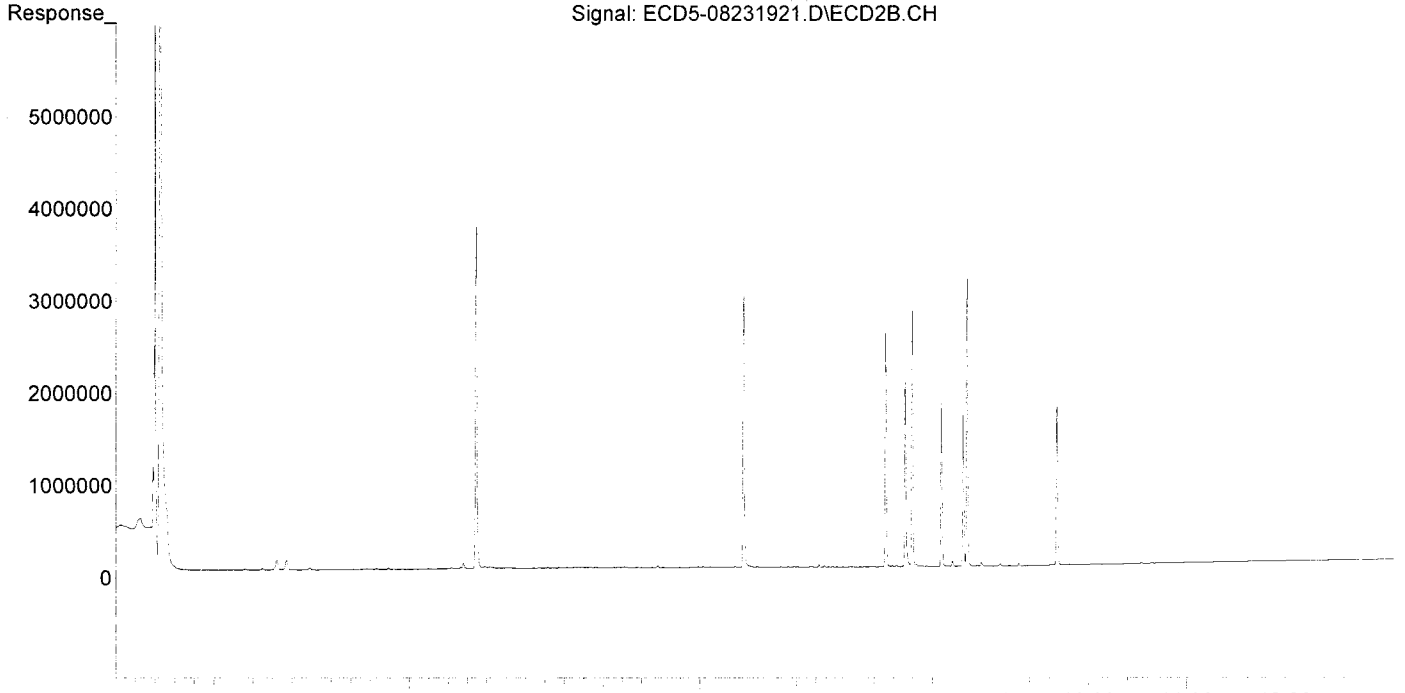
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

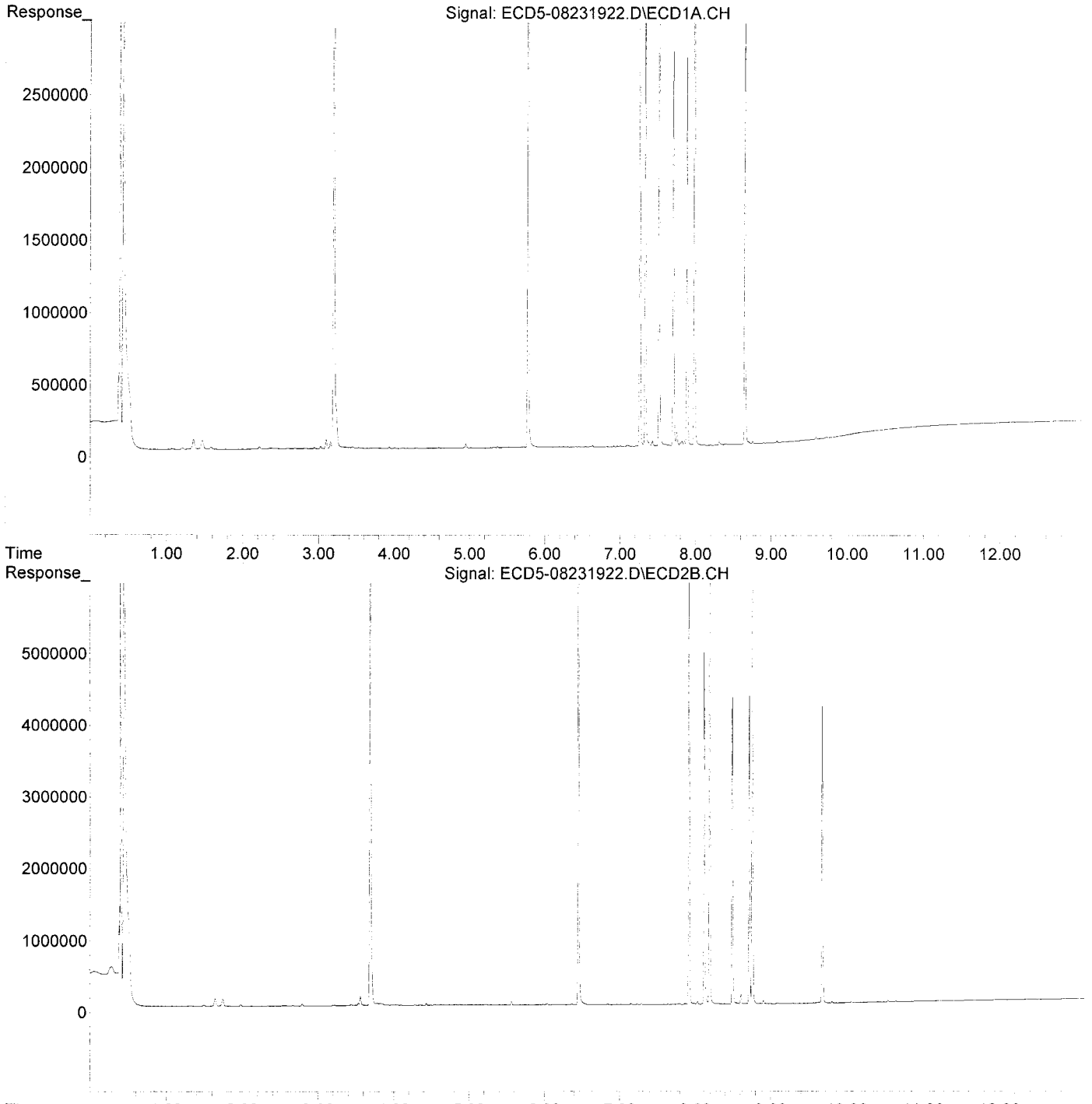
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	5.367f	5.981	10828	6833	0.065	0.023	#
22) S	DCBP (S)	9.592	10.539	20297	20262	0.144	0.113	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.248f	0.000	5786	0	0.029	N.D.	#
4)	b-BHC	0.000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

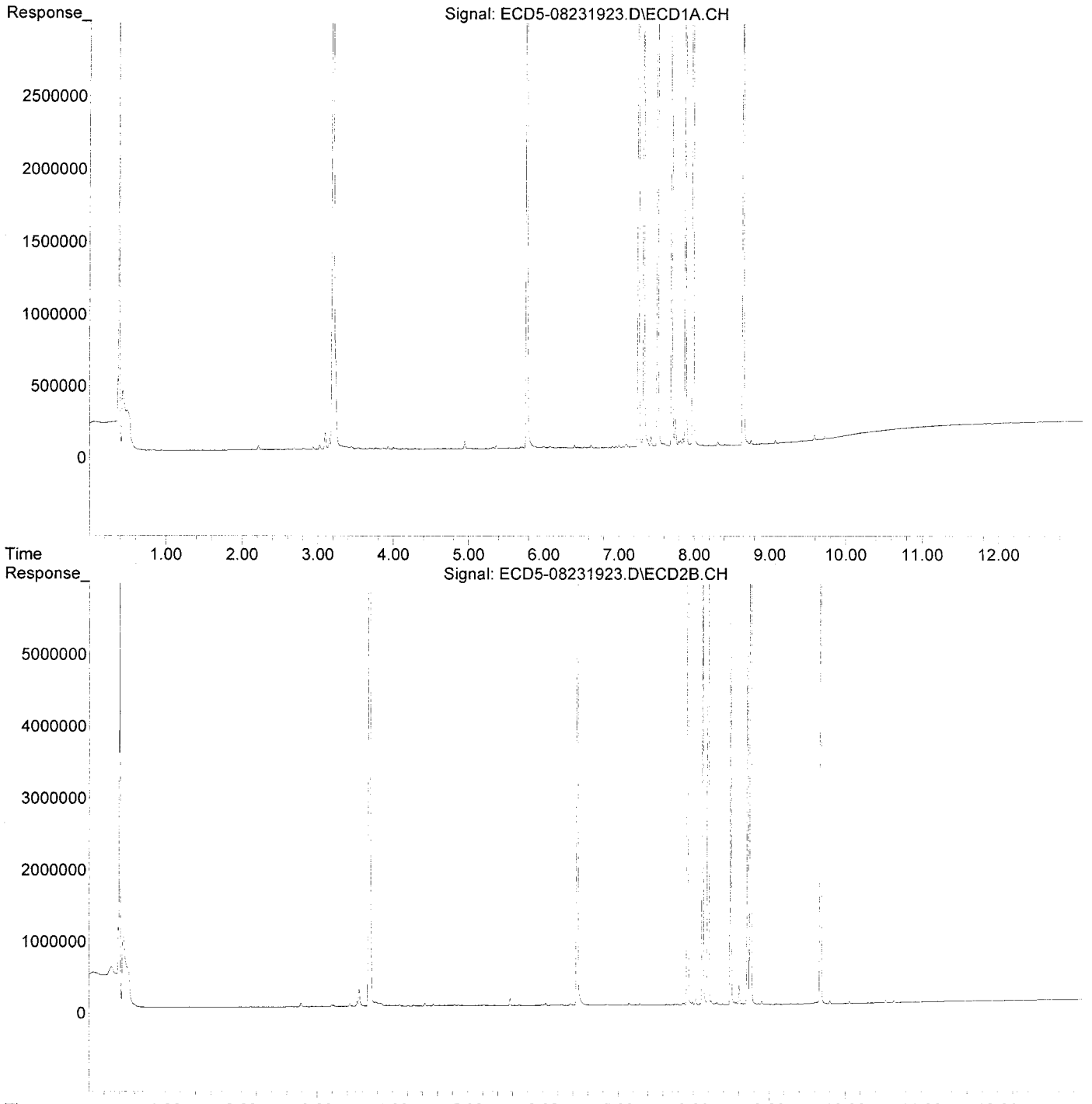
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.981	19019	8441	0.115	0.029	#
22)	S	DCBP (S)	9.591	10.538	35203	39503	0.249	0.220	
		Target Compounds							
2)		a-BHC	5.949	0.000	5252	0	0.023	N.D.	#
3)		g-BHC	6.196f	6.951f	4084	3735	0.020	0.010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

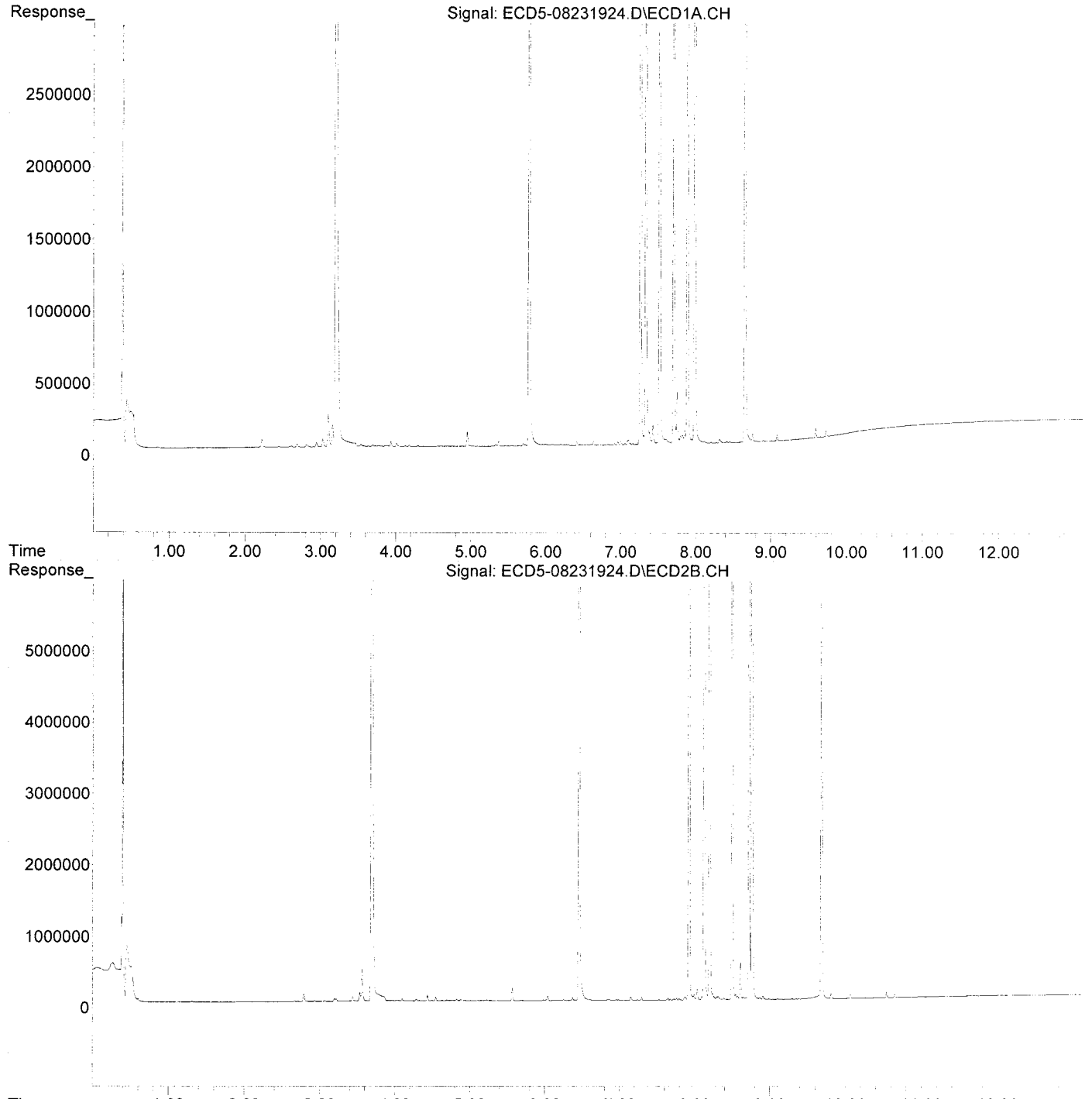
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.368f	5.981	33988	9402	0.205	0.032	#
22)	S	DCBP (S)	9.592	10.540	62236	73549	0.441	0.409	
		Target Compounds							
2)		a-BHC	5.950	0.000	8055	0	0.035	N.D.	#
3)		g-BHC	6.198	6.952f	8435	9250	0.042	0.026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

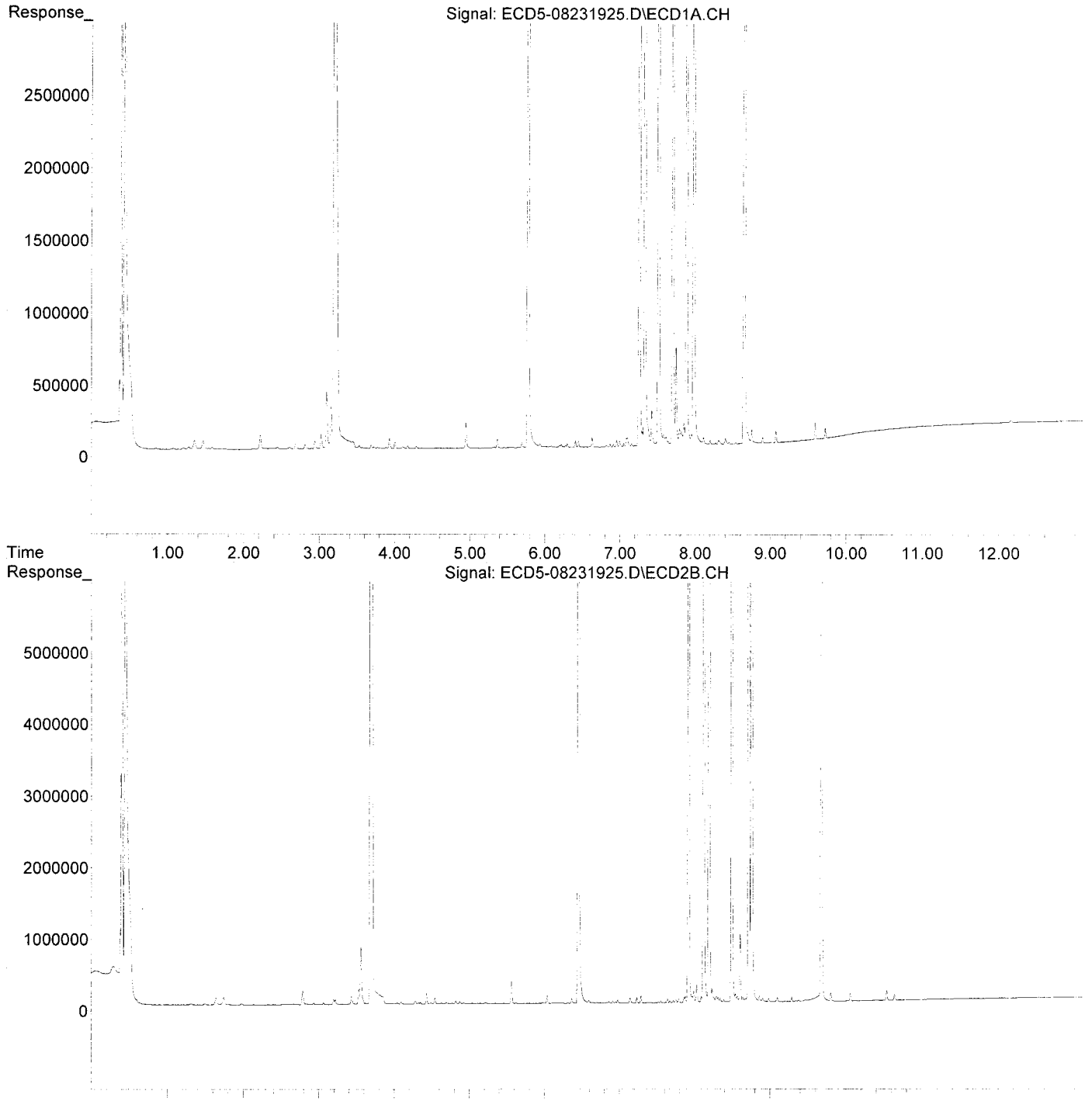
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.367f	5.980	60549	10992	0.365	0.037	#
22)	S	DCBP (S)	9.590	10.538	118766	140925	0.842	0.784	
		Target Compounds							
2)		a-BHC	5.933	6.593	27118	40902	0.118	0.100	
3)		g-BHC	6.218	6.912	21255	30993	0.105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

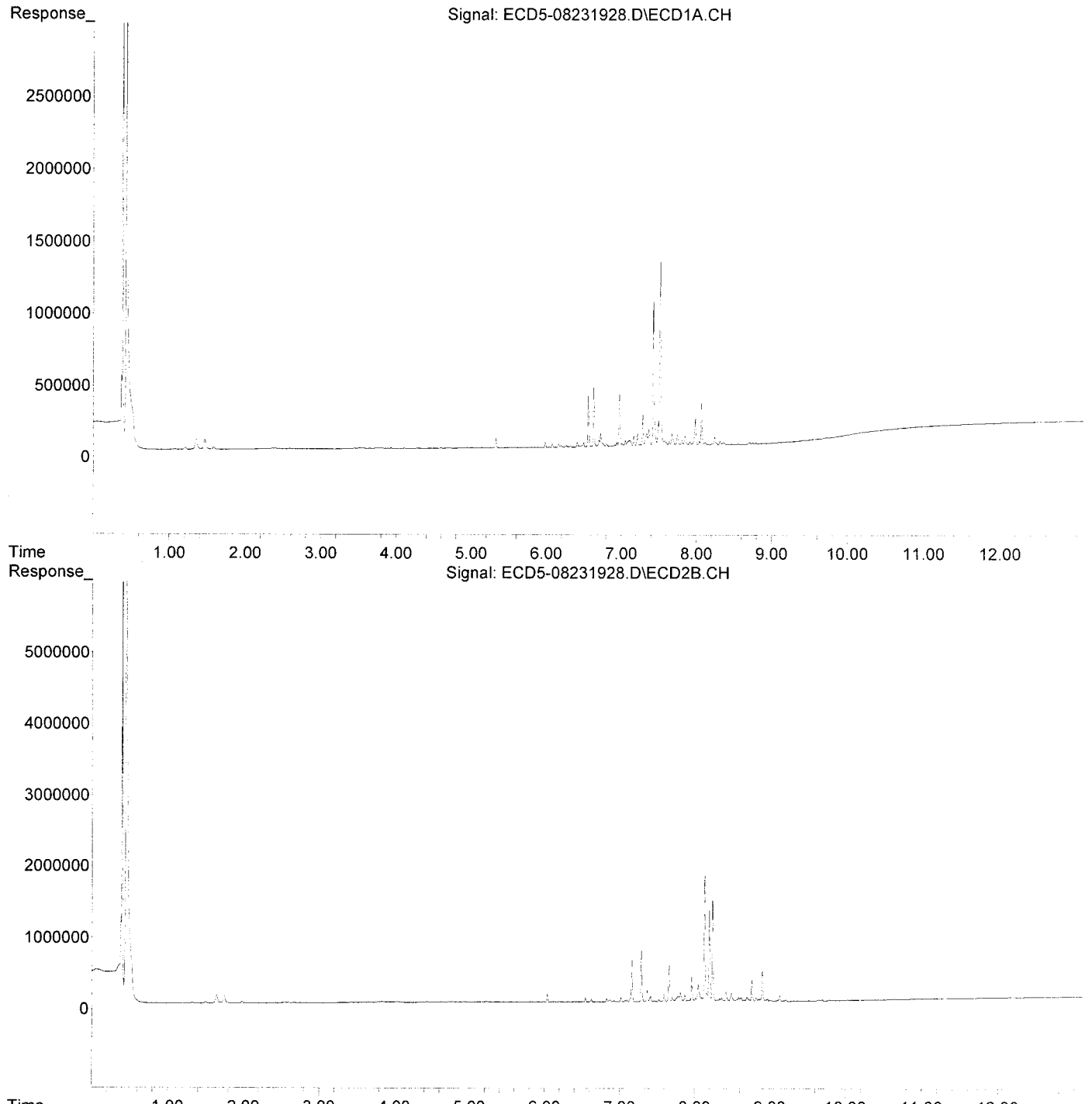
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.606	0.000	5901	0	0.042	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	41997	N.D.	0.102	#
3)		g-BHC	6.194f	6.924	13212	19652	0.065	0.055	
4)		b-BHC	6.323f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

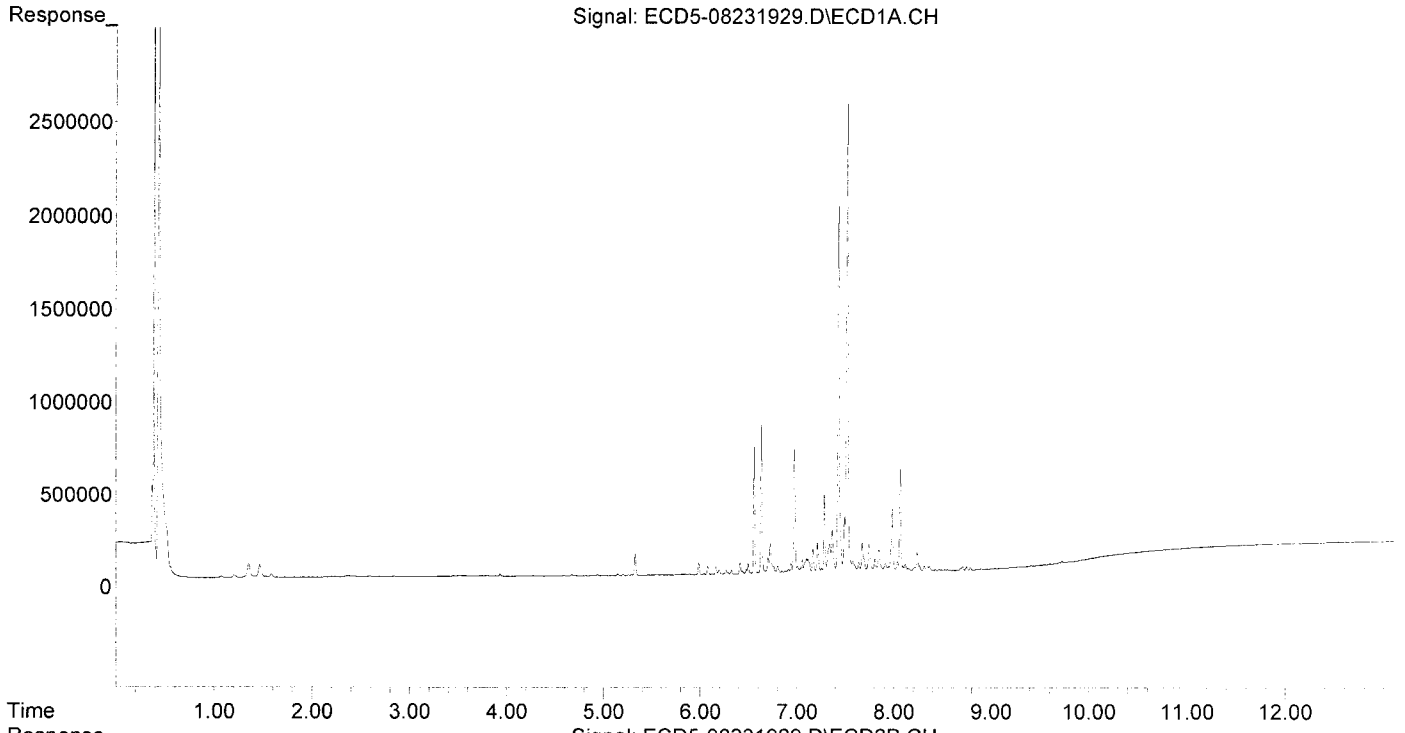
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	5943	N.D.	0.020	#
22) S	DCBP (S)	9.606	0.000	7472	0	0.053	N.D.	#
	Target Compounds							
2)	a-BHC	0.000	6.622f	0	77932	N.D.	0.190	#
3)	g-BHC	6.194f	6.923	23514	36662	0.117	0.103	
4)	b-BHC	6.323f	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.	

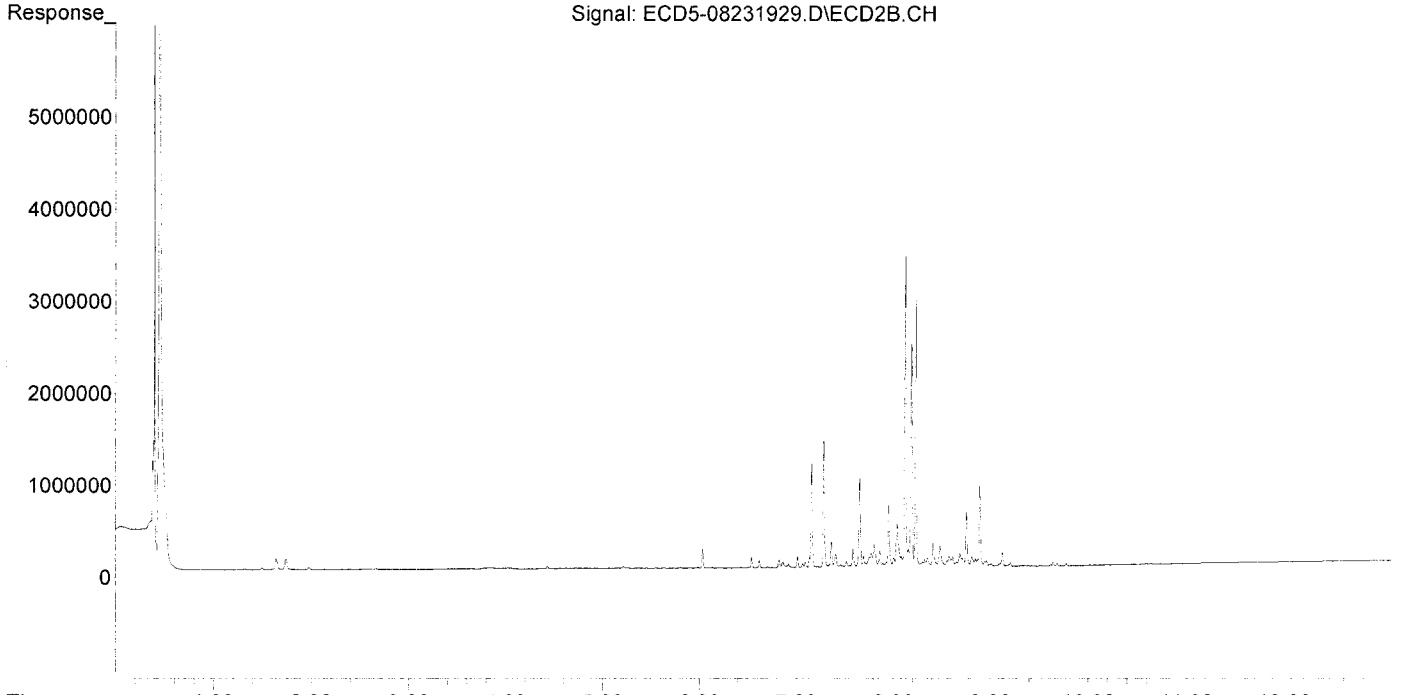
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

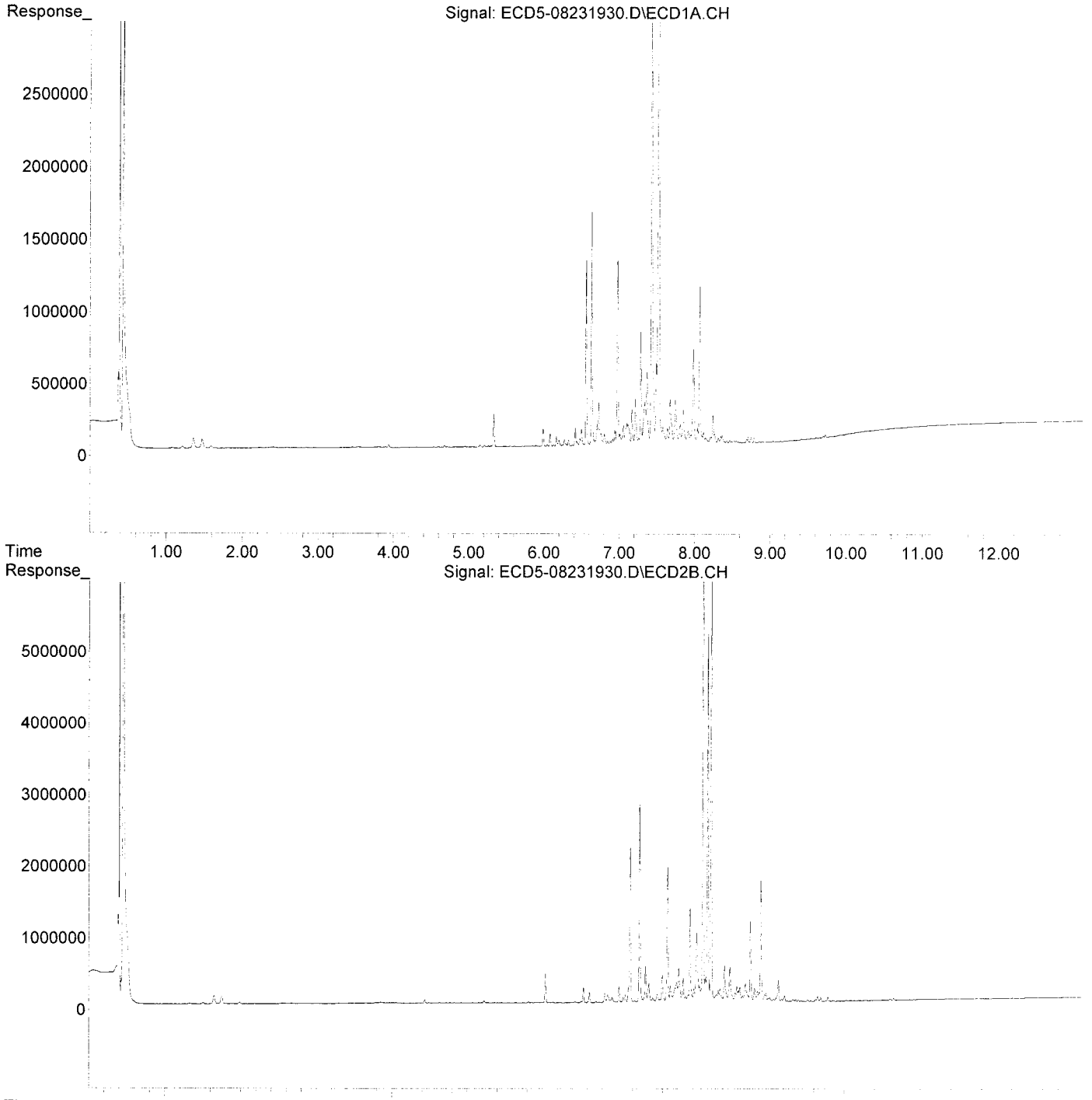
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	0.000	0	0	N.D.	N.D.	
22)	S	DCBP (S)	9.605	0.000	9631	0	0.068	N.D.	#
		Target Compounds							
2)		a-BHC	0.000	6.623f	0	141009	N.D.	0.344	#
3)		g-BHC	6.197f	6.925	44236	70355	0.219	0.197	
4)		b-BHC	6.269f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

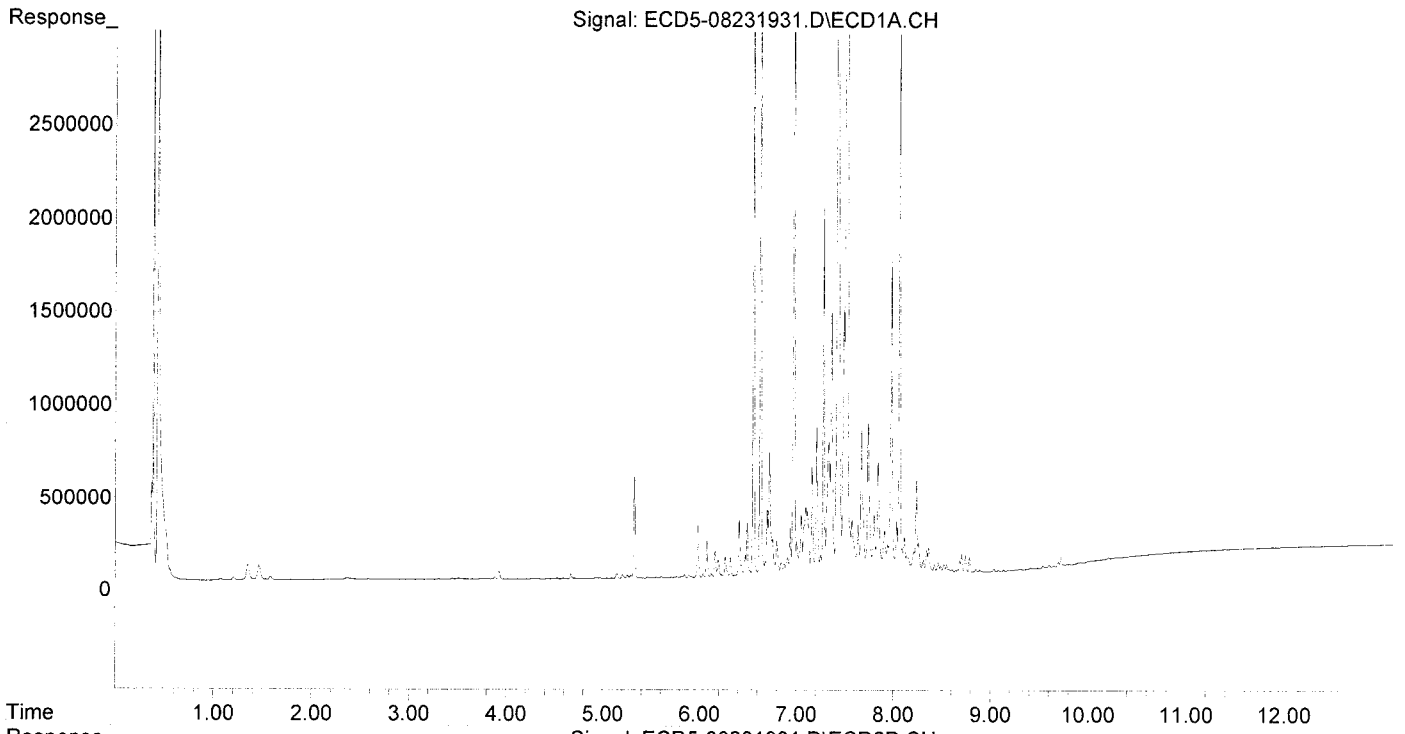
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.982	0	9372	N.D.	0.032	#
22) S	DCBP (S)	9.605	10.512f	13871	6664	0.098	0.037	#
	Target Compounds							
2)	a-BHC	0.000	6.621f	0	314411	N.D.	0.766	#
3)	g-BHC	6.194f	6.923	92958	161395	0.461	0.452	
4)	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.	

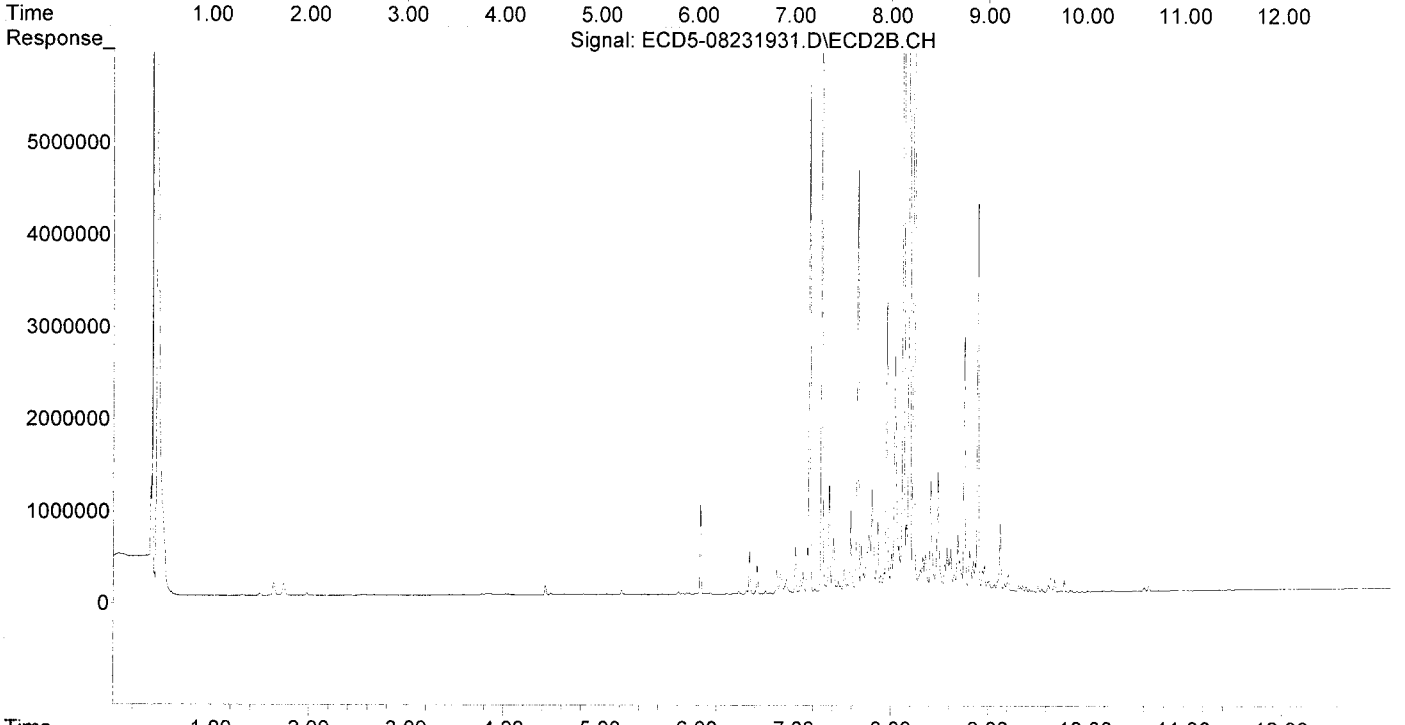
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

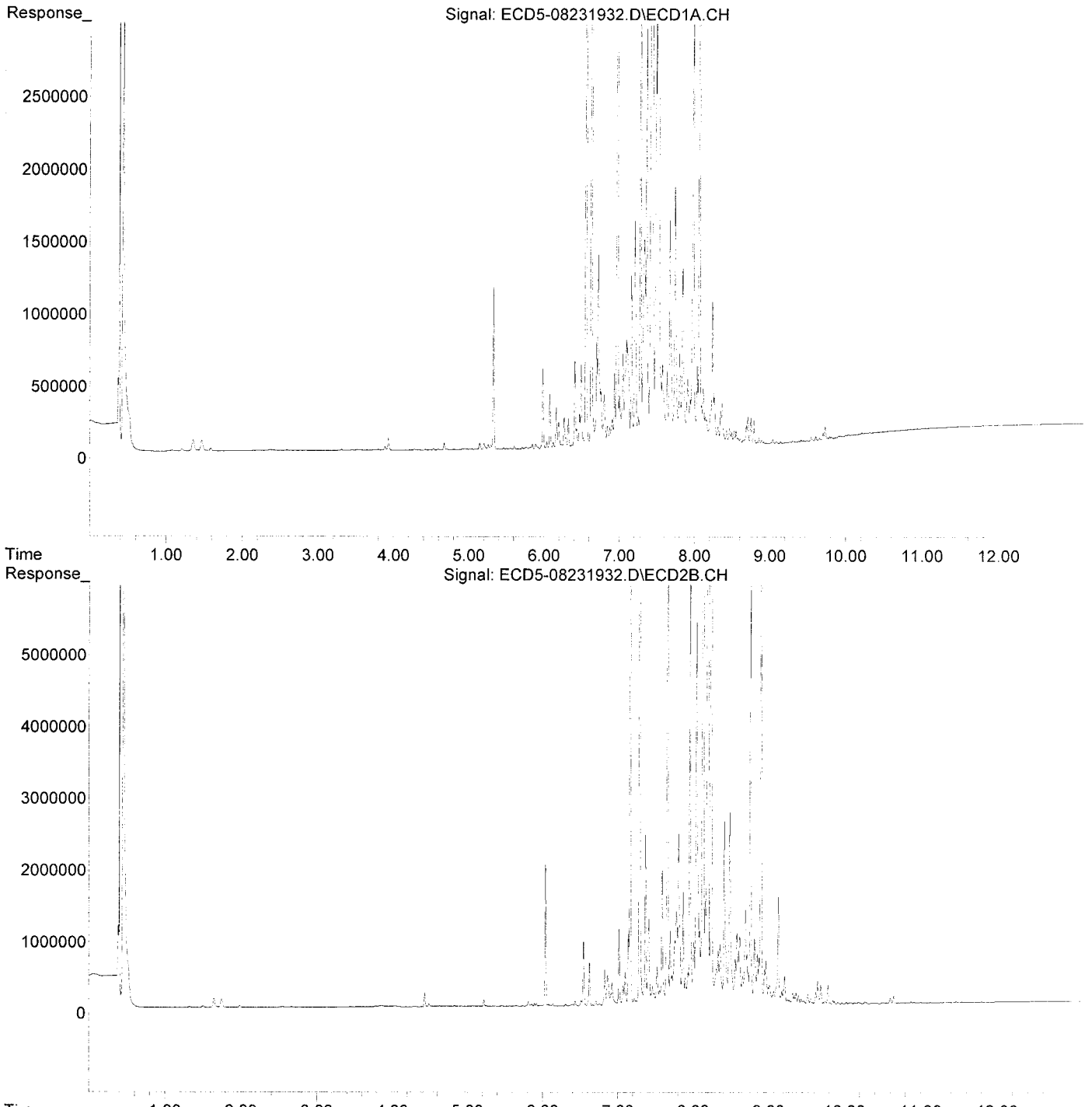
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.980	6433	11040	0.039	0.038	
22)	S	DCBP (S)	9.604	10.553	33011	8716	0.234	0.048	#
		Target Compounds							
2)		a-BHC	0.000	6.622f	0	610263	N.D.	1.487	#
3)		g-BHC	6.194f	6.923	179715	319626	0.891	0.896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

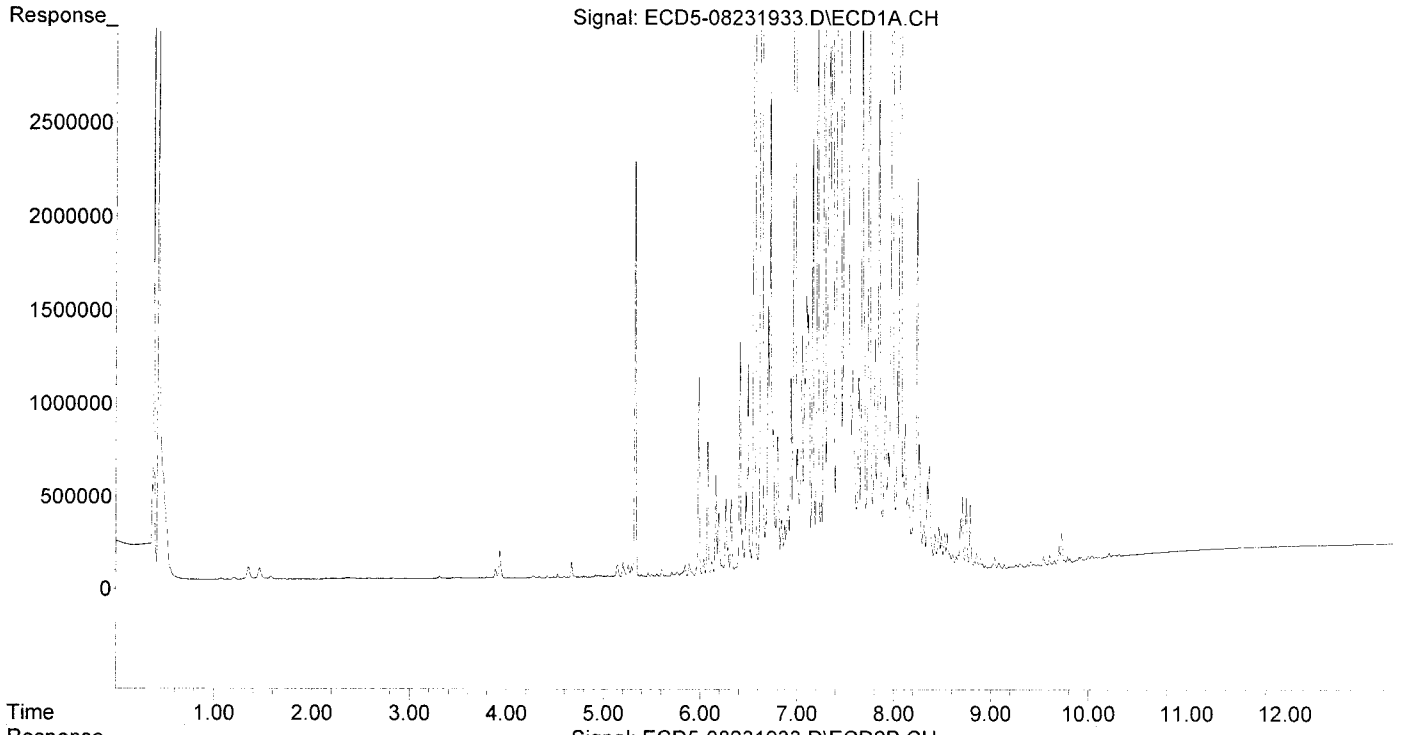
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.393	5.971	11655	15748	0.070	0.054	
22)	S	DCBP (S)	9.604	10.552	57777	17575	0.409	0.098	#
		Target Compounds							
2)		a-BHC	0.000	6.621f	0	1174704	N.D.	2.863	#
3)		g-BHC	6.193f	6.922	334417	594314	1.657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

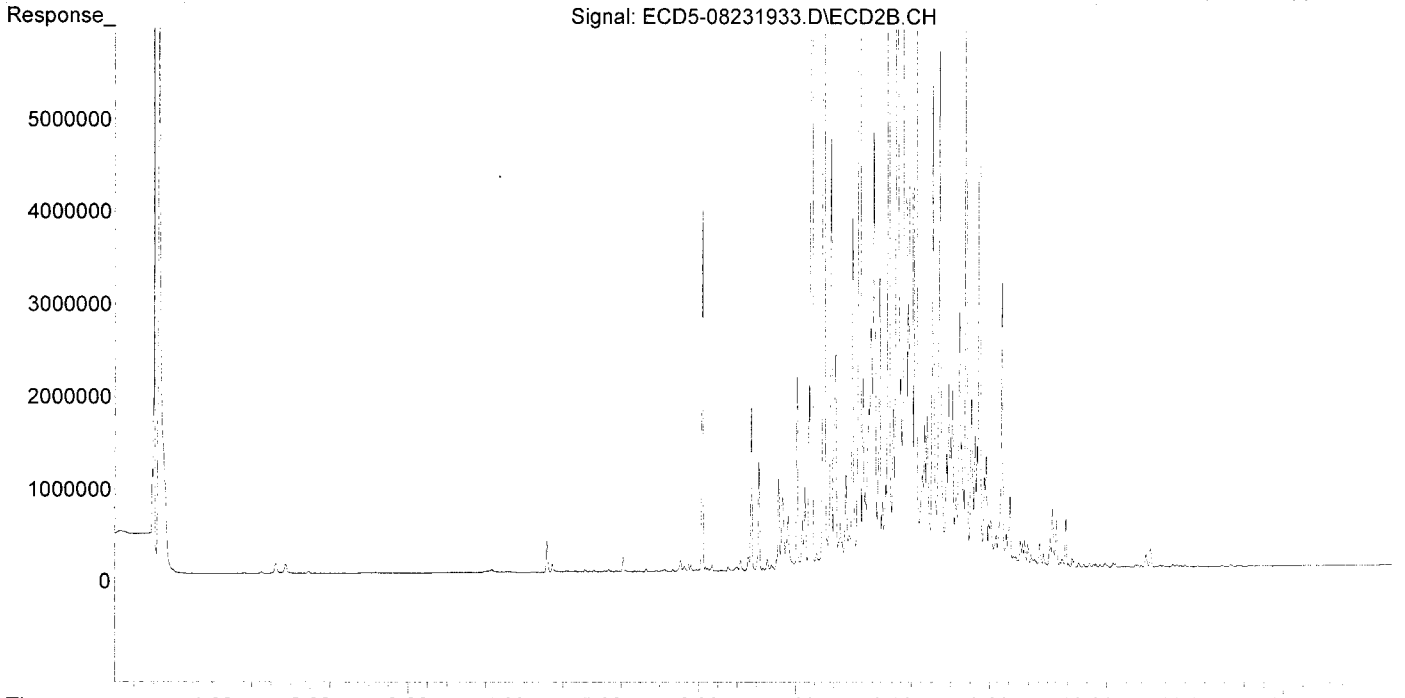
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

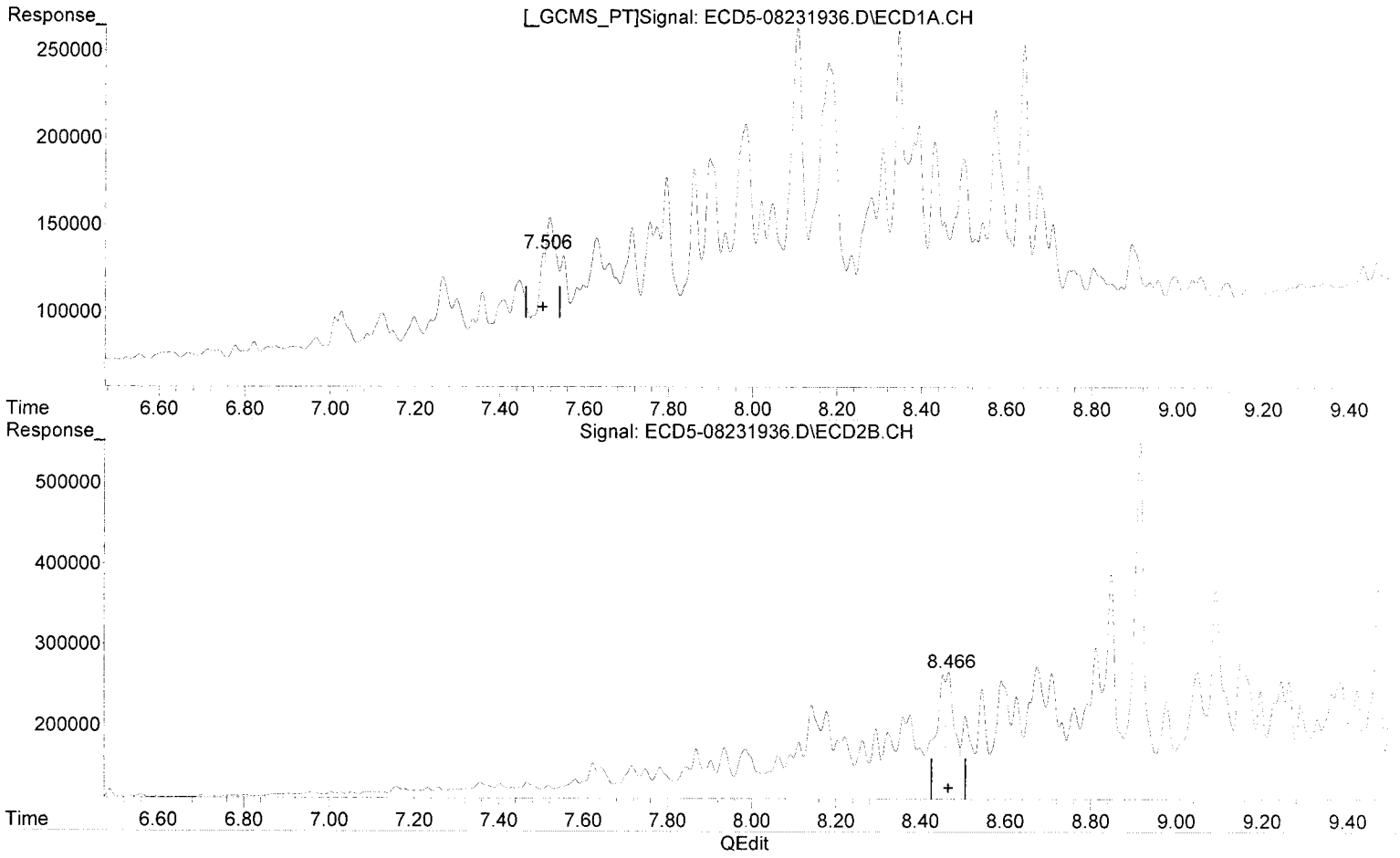
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	6201	N.D.	0.021	#
22) S	DCBP (S)	0.000	0.000	0	0	N.D.	N.D.	
	Target Compounds							
2)	a-BHC	0.000	0.000	0	0	N.D.	N.D.	
3)	g-BHC	6.249f	0.000	4430	0	0.022	N.D.	#
4)	b-BHC	6.297	0.000	3017	0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

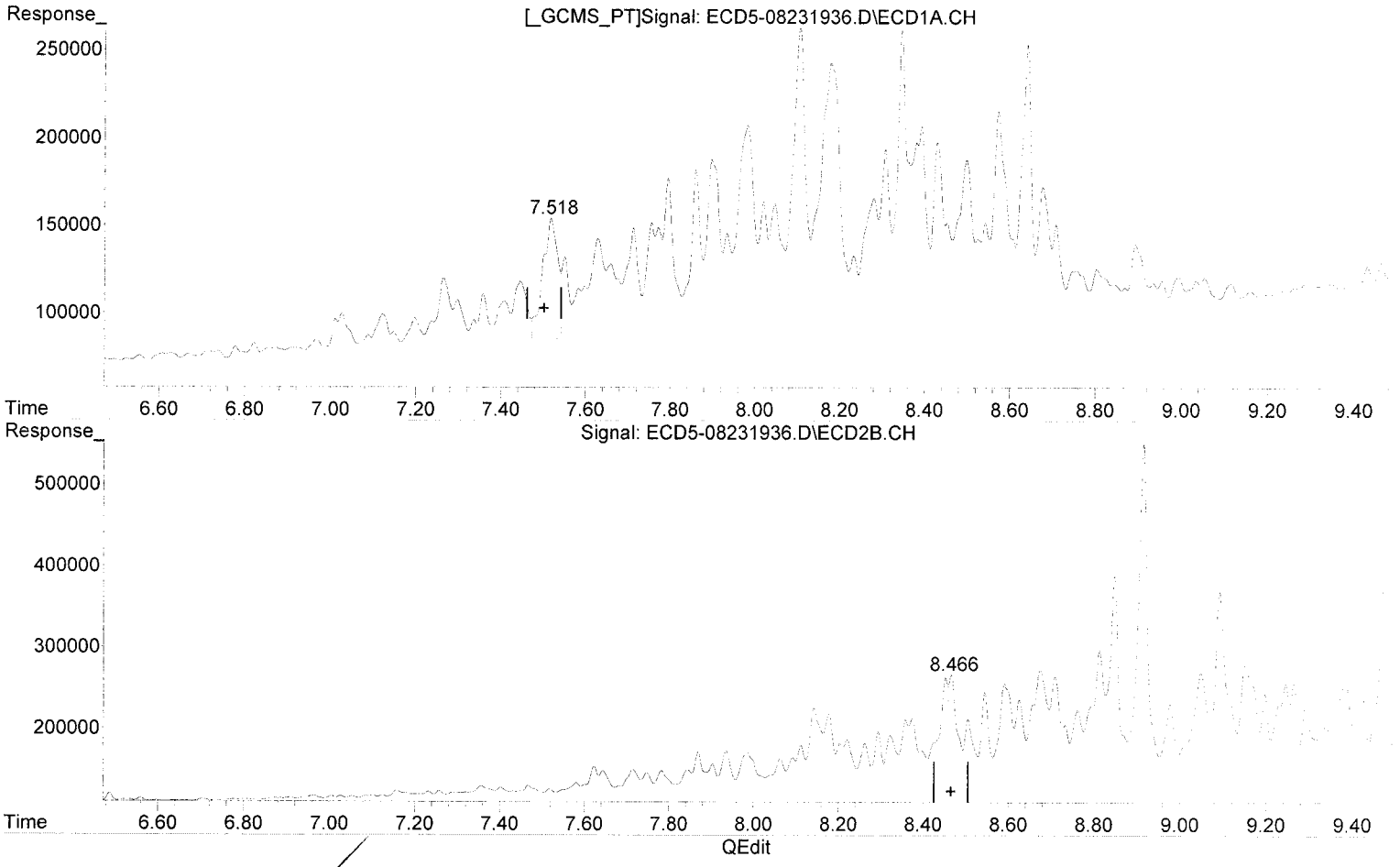
response 136848

(+) = 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

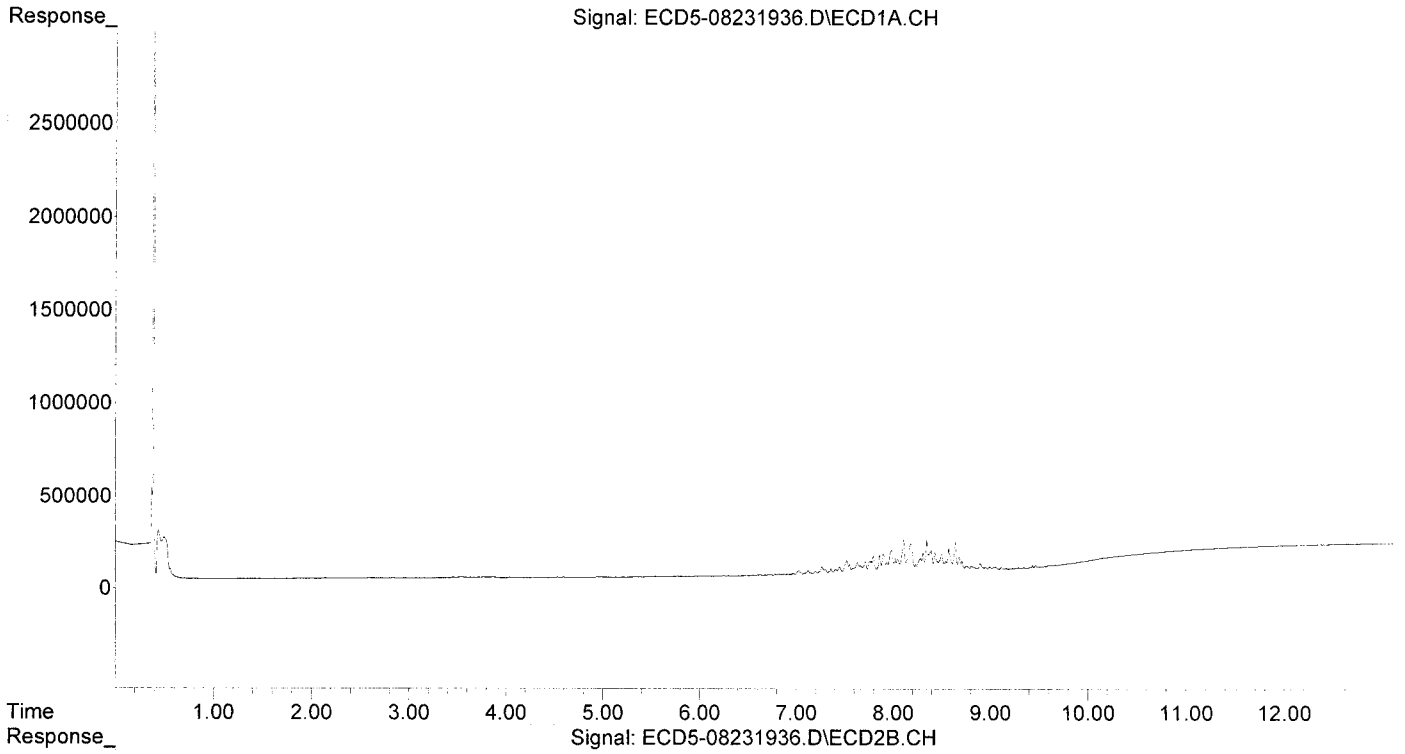
response 136848

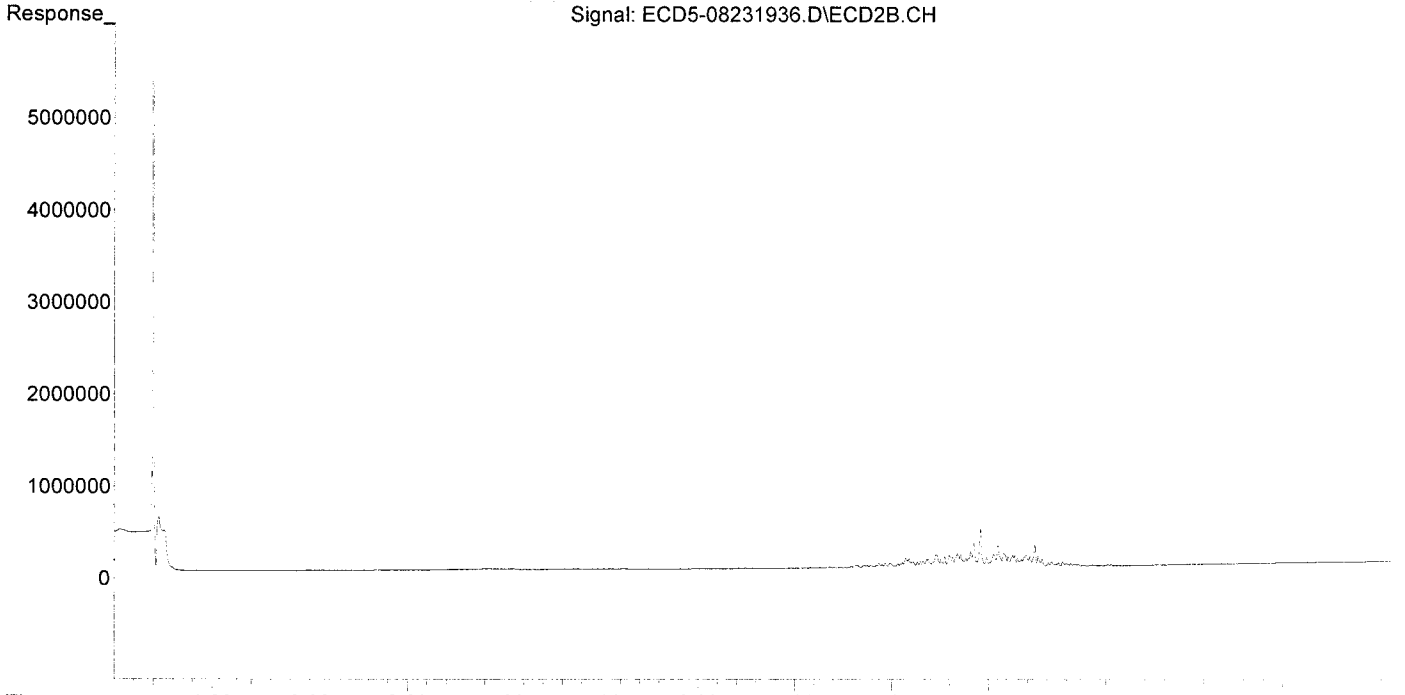
(+) = Expected Retention Time

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

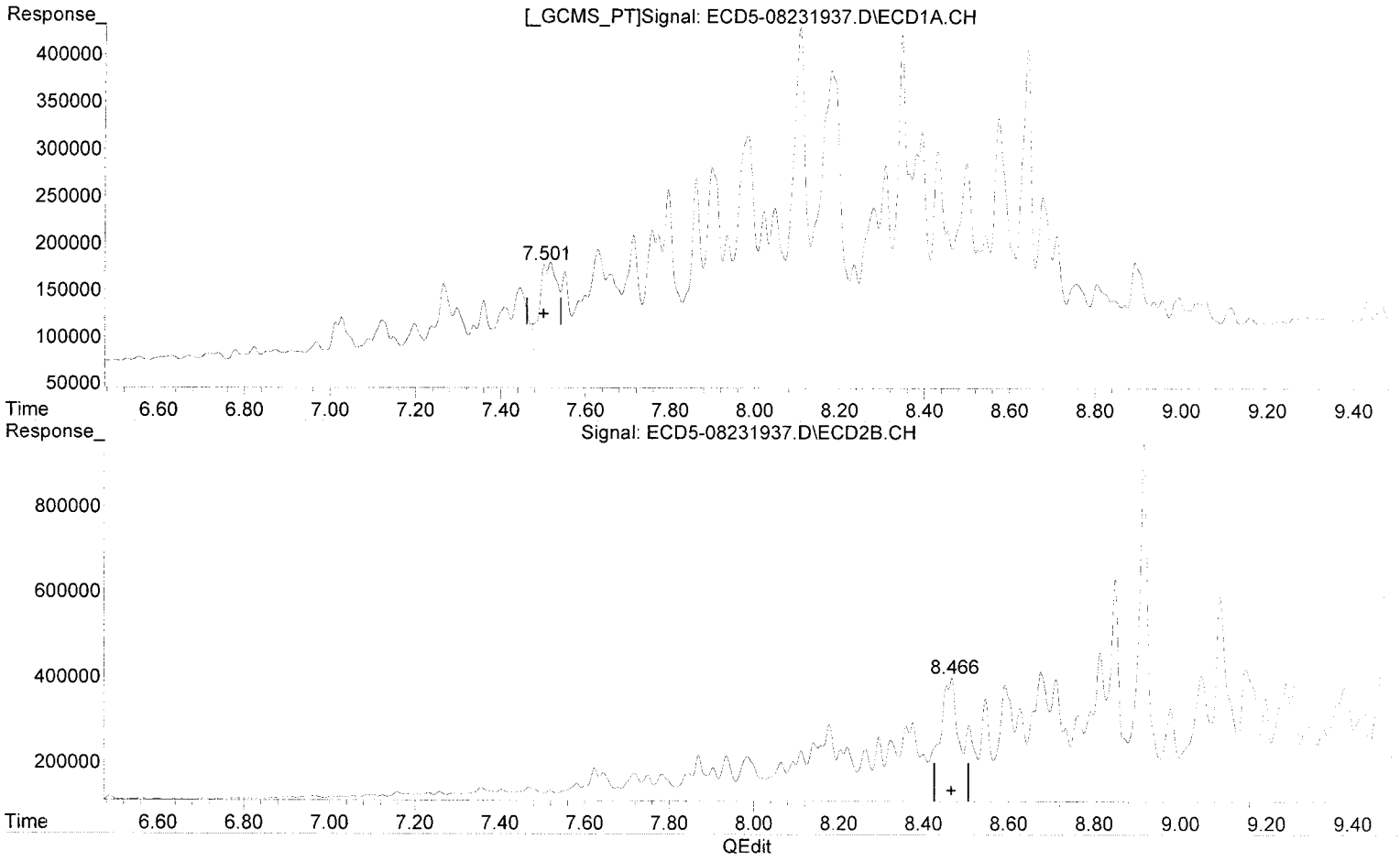
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.985	0	6562	N.D.	0.022	#
22)	S	DCBP (S)	9.592	0.000	4802	0	0.034	N.D.	#
		Target Compounds							
2)		a-BHC	5.952	0.000	2451	0	0.011	N.D.	#
3)		g-BHC	6.250f	0.000	4208	0	0.021	N.D.	#
4)		b-BHC	6.297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

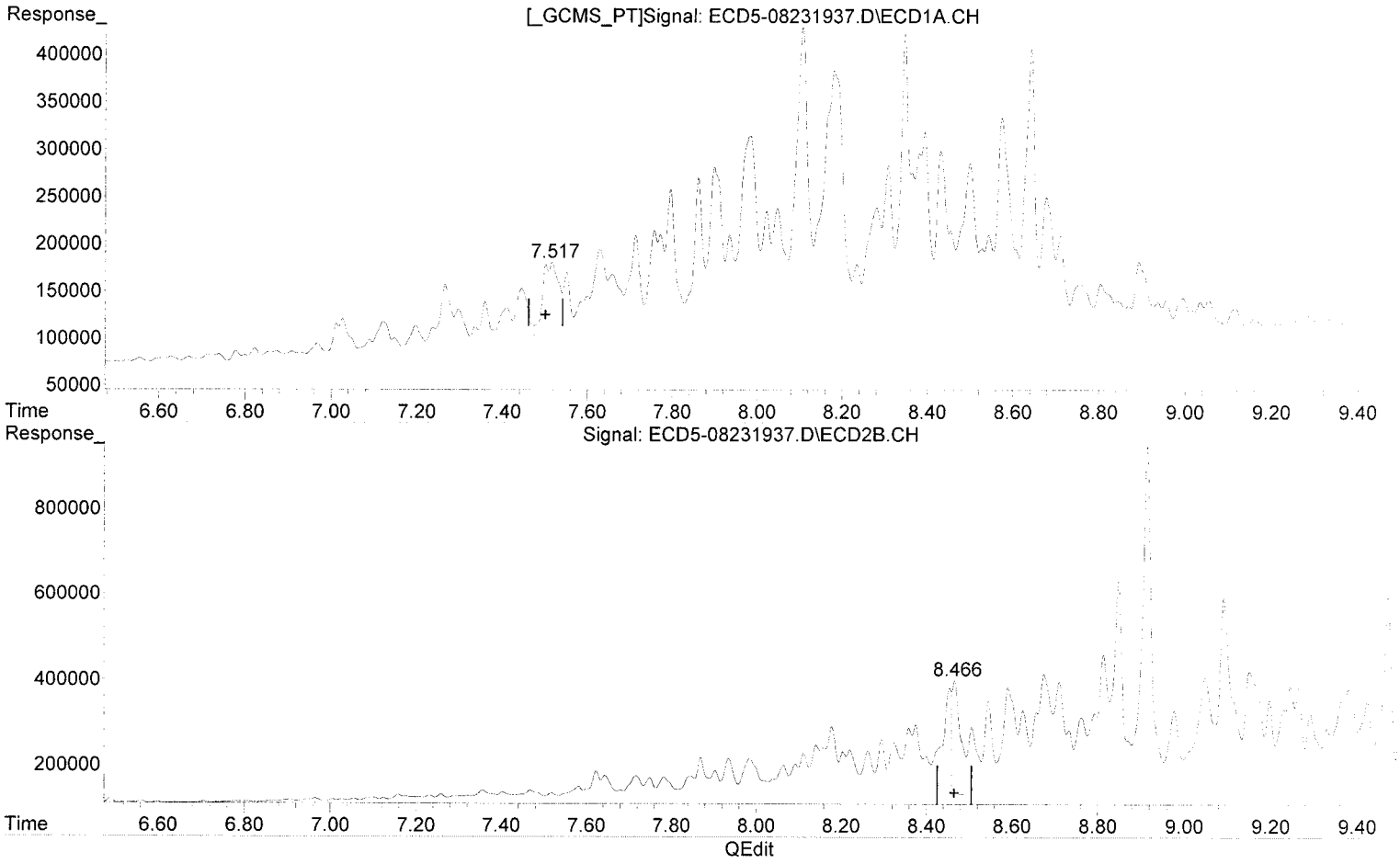
MD 6/26/19 MMB 6/26/19

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:06:39 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



(36) Toxaphene (1)

7.517min 103.998 ng/mL

response 93146

MJB 8/26/19

(36) Toxaphene (1) #2

8.466min 101.946 ng/mL

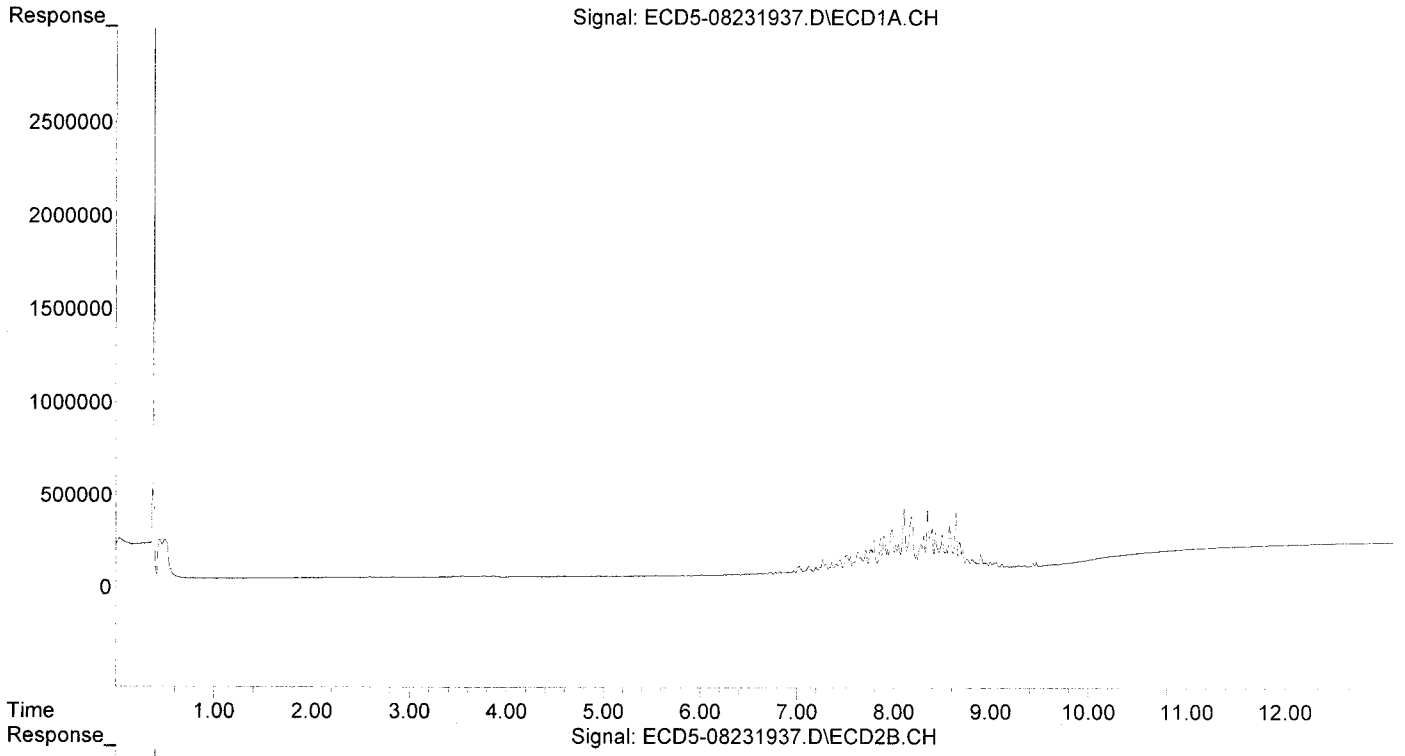
response 267534

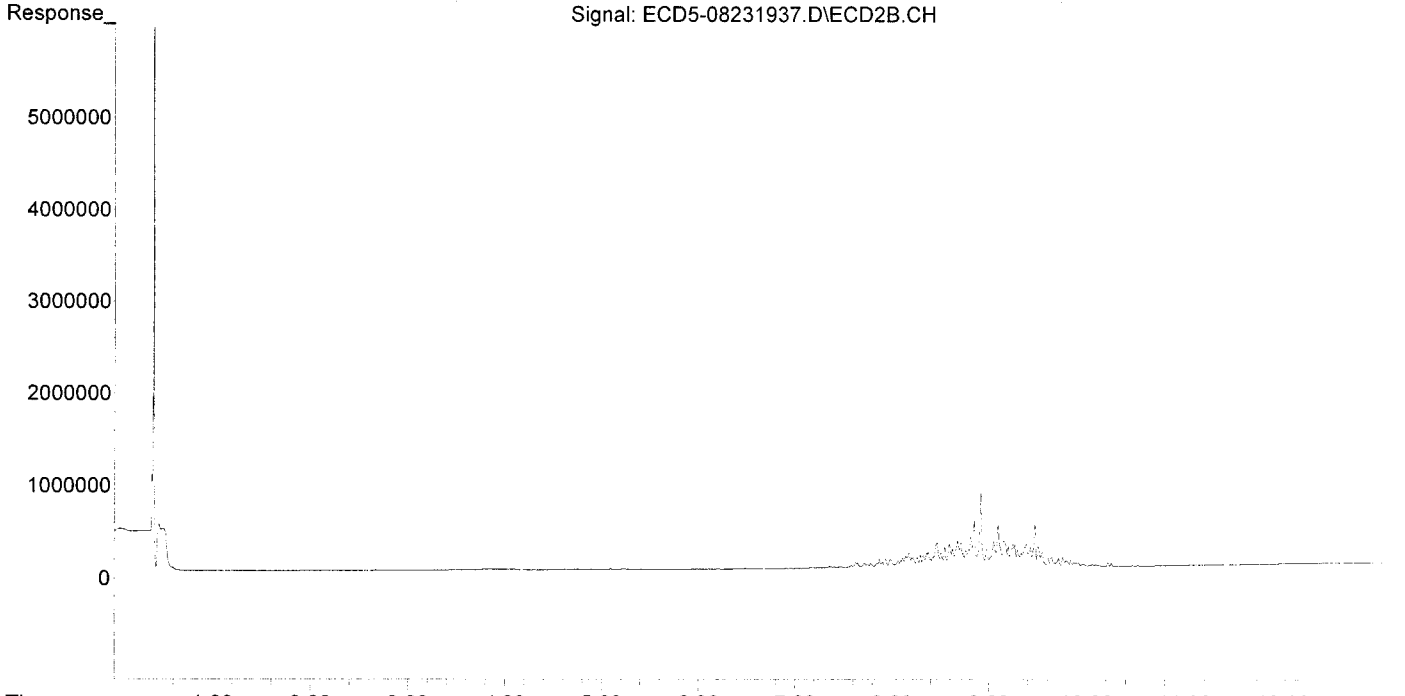
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231937.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:11
Operator : MJB
Sample : 9H23034-CALO
Misc : A19D123, TOX 100 ppb
ALS Vial : 30 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MWB 8/26/19

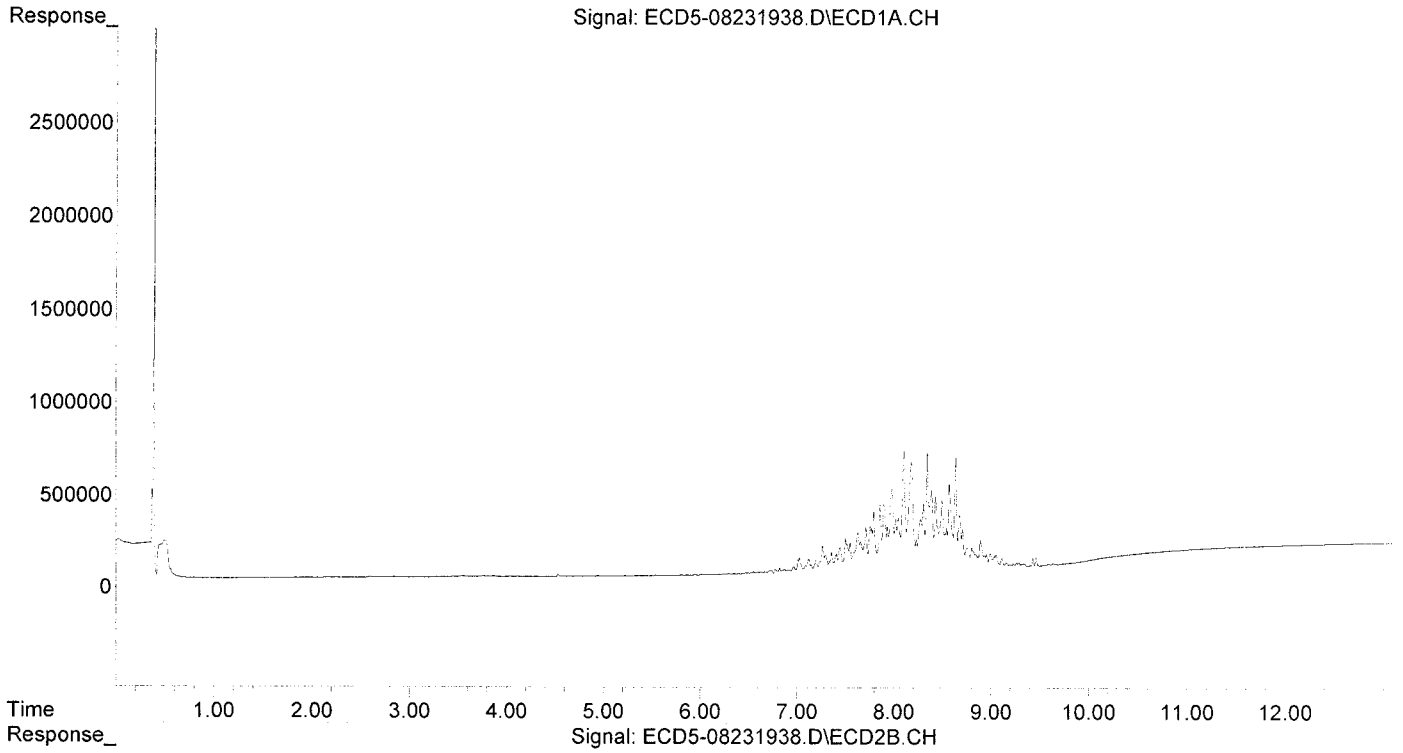
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	0.000	5.984	0	6031	N.D.	0.021	#
22)	S	DCBP (S)	9.591	10.521	8317	11024	0.059	0.061	
		Target Compounds							
2)		a-BHC	5.950	0.000	2445	0	0.011	N.D.	#
3)		g-BHC	6.249f	6.906	4762	8484	0.024	0.024	
4)		b-BHC	6.297	6.965	5553	11866	0.061	0.075	
5)		Heptachlor	6.630	7.292	9834	18991	0.054	0.062	
6)		d-BHC	6.469f	7.232	7279	22404	0.037	0.064	#
7)		Aldrin	6.872	7.582f	20475	52234	0.104	0.159	#
8)		Heptachlo...	7.336	7.984	58943	180203	0.320	0.599	#
9)		trans-Chl...	7.445	8.139	130754	171469	0.707	0.547	
10)		cis-Chlor...	7.502f	8.220	176047	207038	0.967	0.711	
11)		Endosulfa...	7.629	8.294	203563	255143	1.196	0.927	
12)		4,4'-DDE	7.551f	8.358	153844	307212	0.816	0.989	
13)		Dieldrin	7.795	8.506	317587	302159	1.654	0.993	
14)		Endrin	7.934f	8.709	233827	517355	1.590	2.291	#
15)		4,4'-DDD	8.021	8.761	271844	361076	1.730	1.409	
16)		Endosulfa...	8.105	8.847	644464	995555	4.488	4.317	
17)		4,4'-DDT	8.182f	8.976	572615	378347	4.789	2.160	#
18)		Endrin Al...	8.392	9.090	423151	895397	2.609	4.034	#
19)		Endosulfa...	8.709	9.290	207483	368442	1.339	1.479	
20)		Methoxychlor	8.543	9.469	215126	905244	3.673	10.806	#
21)		Endrin Ke...	8.893	9.711f	142657	173912	0.855	0.676	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.811f	6.487f	2563	8587	0.015	0.027	#
25)		Oxychlordane	7.266	7.935	140581	179085	0.854	0.654	
26)		2,4'-DDE	7.336	8.112	58943	198883	0.460	0.938	#
27)		trans-Non...	7.502	8.205	176047	199265	0.666	0.661	
28)		2,4'-DDD	7.713	8.506	232393	302159	2.036	1.600	
29)		2,4'-DDT	7.899	8.709	356627	517355	3.251	2.901	
30)		cis-Nonac...	7.982	8.761	437778	361076	2.109	1.076	#
31)		Mirex	8.640	9.711f	597991	173912	4.770	0.935	#
32)		Chlordane...	7.445	8.139	130754	171469	6.641	4.739	
33)		Chlordane...	7.502	8.220	176047	207038	7.024	6.819	
34)		Chlordane...	8.047f	8.914	280898	1580436	48.589	176.272	#
35)		Chlordane...	3.451	0.000	3919	0	NoCal	N.D.	
36)		Toxaphene...	7.502	8.466	176047	508983	196.559	193.953	
37)		Toxaphene...	7.795	8.812	317587	645322	196.656	196.085	
38)		Toxaphene...	8.105	8.847	644464	995555	191.378	196.427	
39)		Toxaphene...	8.346	8.914	632351	1580436	195.161	189.278	
40)		Toxaphene...	8.574	9.090	454431	895397	189.572	192.130	
41)		Toxaphene...	8.640	9.469	597991	905244	188.964	190.570	
42)		Toxaphene...	3.451	0.000	3919	0	NoCal	N.D.	

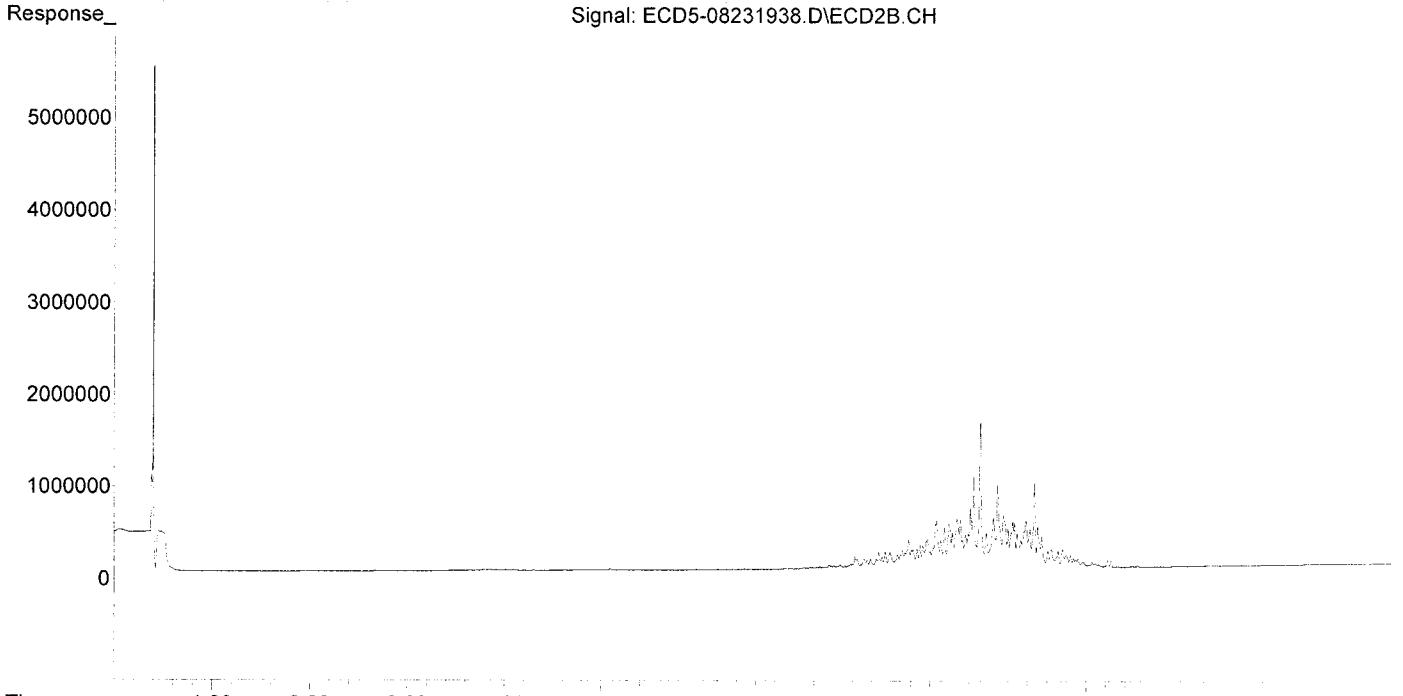
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231938.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:28
Operator : MJB
Sample : 9H23034-CALP
Misc : A19D124, TOX 200 ppb
ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:22 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

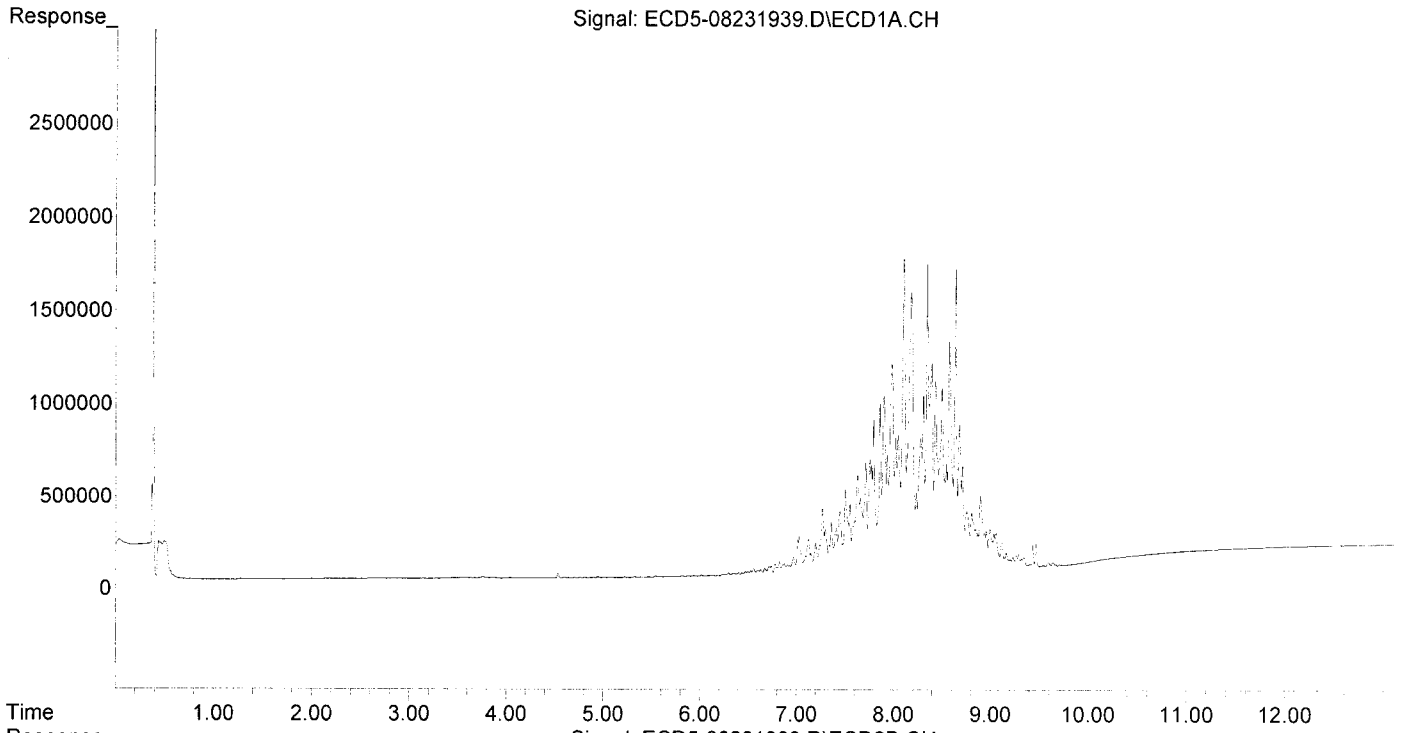
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	TCMX (S)	0.000	5.984	0	5601	N.D.	0.019	#
22) S	DCBP (S)	9.591	10.521	21035	39647	0.149	0.221	#
	Target Compounds							
2)	a-BHC	5.938	6.598	3646	8422	0.016	0.021	
3)	g-BHC	6.246f	6.908	6276	21315	0.031	0.060	#
4)	b-BHC	6.296	6.966	12656	26420	0.140	0.167	
5)	Heptachlor	6.631	7.291	26275	48687	0.145	0.159	
6)	d-BHC	6.434	7.233	12949	50866	0.066	0.144	#
7)	Aldrin	6.871	7.582f	54986	128738	0.278	0.391	#
8)	Heptachlo...	7.337	7.985	148782	431601	0.808	1.435	#
9)	trans-Chl...	7.445	8.136	326510	348418	1.766	1.112	
10)	cis-Chlor...	7.502f	8.220	441826	492762	2.427	1.692	
11)	Endosulfa...	7.629	8.295	523361	619890	3.075	2.253	
12)	4,4'-DDE	7.551f	8.358	370244	790371	1.964	2.544	
13)	Dieldrin	7.794	8.506	819454	752423	4.268	2.474	#
14)	Endrin	7.934f	8.711	624315	1366705	4.246	6.052	#
15)	4,4'-DDD	8.021	8.761	715456	940917	4.553	3.672	
16)	Endosulfa...	8.105	8.848	1677481	2475022	11.681	10.733	
17)	4,4'-DDT	8.182f	8.977	1480674	1000646	12.384	5.736	#
18)	Endrin Al...	8.392	9.091	1117641	2340668	8.532	11.800	
19)	Endosulfa...	8.709	9.290	555797	952729	3.586	3.825	
20)	Methoxychlor	8.574f	9.470	1221560	2369795	20.855	27.582	
21)	Endrin Ke...	8.894	9.711f	386326	477017	2.317	1.854	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.814f	6.461	4241	6767	0.024	0.022	
25)	Oxychlordane	7.265	7.936	350487	422818	2.130	1.544	
26)	2,4'-DDE	7.337	8.112	148782	485681	1.160	2.289	#
27)	trans-Non...	7.502	8.205	441826	487255	2.150	1.615	
28)	2,4'-DDD	7.713	8.506	583556	752423	5.113	3.984	
29)	2,4'-DDT	7.899	8.711	935213	1366705	8.526	7.664	
30)	cis-Nonac...	7.981	8.761	1117997	940917	5.385	2.805	#
31)	Mirex	8.640	9.711f	1623402	477017	12.949	2.564	#
32)	Chlordane...	7.408	8.136	238293	348418	12.102	9.629	
33)	Chlordane...	7.502	8.220	441826	492762	17.628	16.228	
34)	Chlordane...	8.046f	8.915	731630	4252640	126.555	474.314	#
35)	Chlordane...	3.450	0.000	4132	0	NoCal	N.D.	
36)	Toxaphene...	7.502	8.466	441826	1308994	493.303	498.805	
37)	Toxaphene...	7.794	8.812	819454	1647741	507.421	500.677	
38)	Toxaphene...	8.105	8.848	1677481	2475022	498.140	488.332	
39)	Toxaphene...	8.346	8.915	1649569	4252640	509.102	509.308	
40)	Toxaphene...	8.574	9.091	1221560	2340668	509.590	502.251	
41)	Toxaphene...	8.640	9.470	1623402	2369795	512.991	498.883	
42)	Toxaphene...	3.450	0.000	4132	0	NoCal	N.D.	

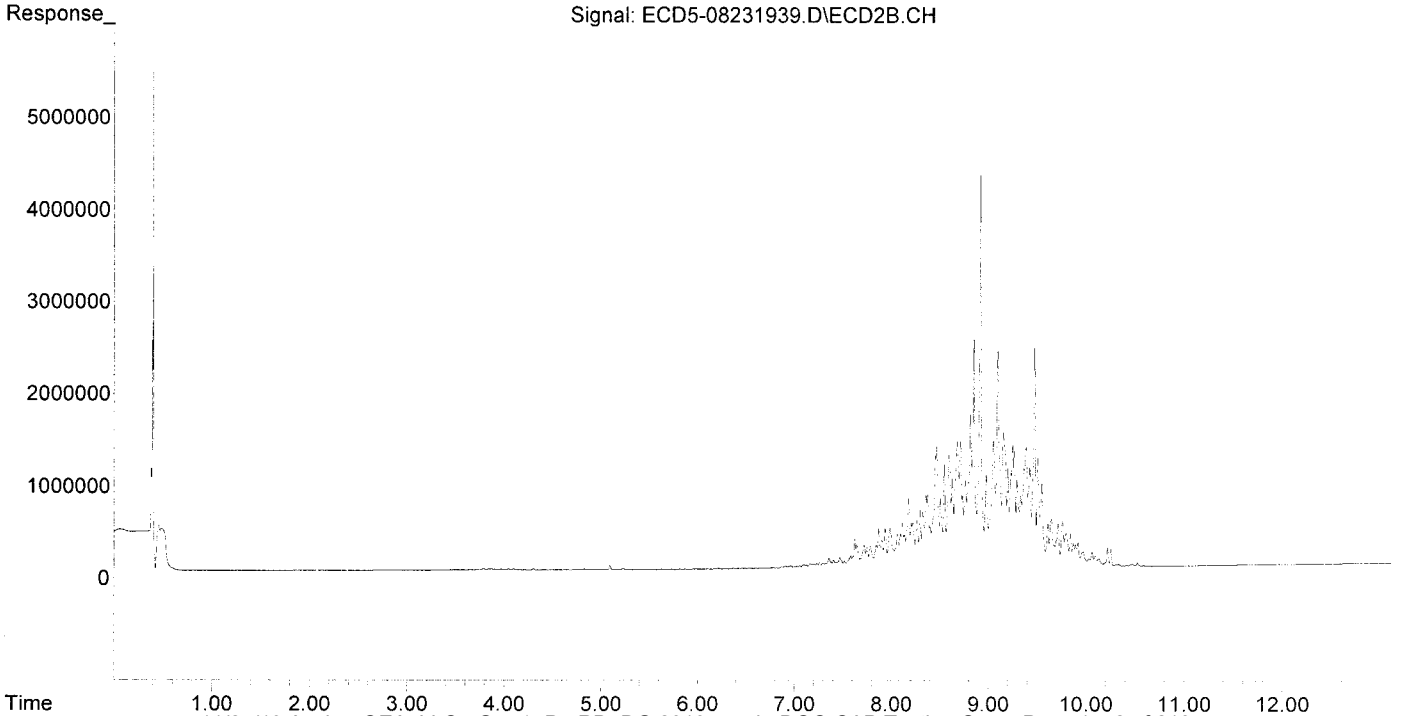
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231939.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 22:45
Operator : MJB
Sample : 9H23034-CALQ
Misc : A19D125, TOX 500 ppb
ALS Vial : 32 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:35 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MB 8/26/19

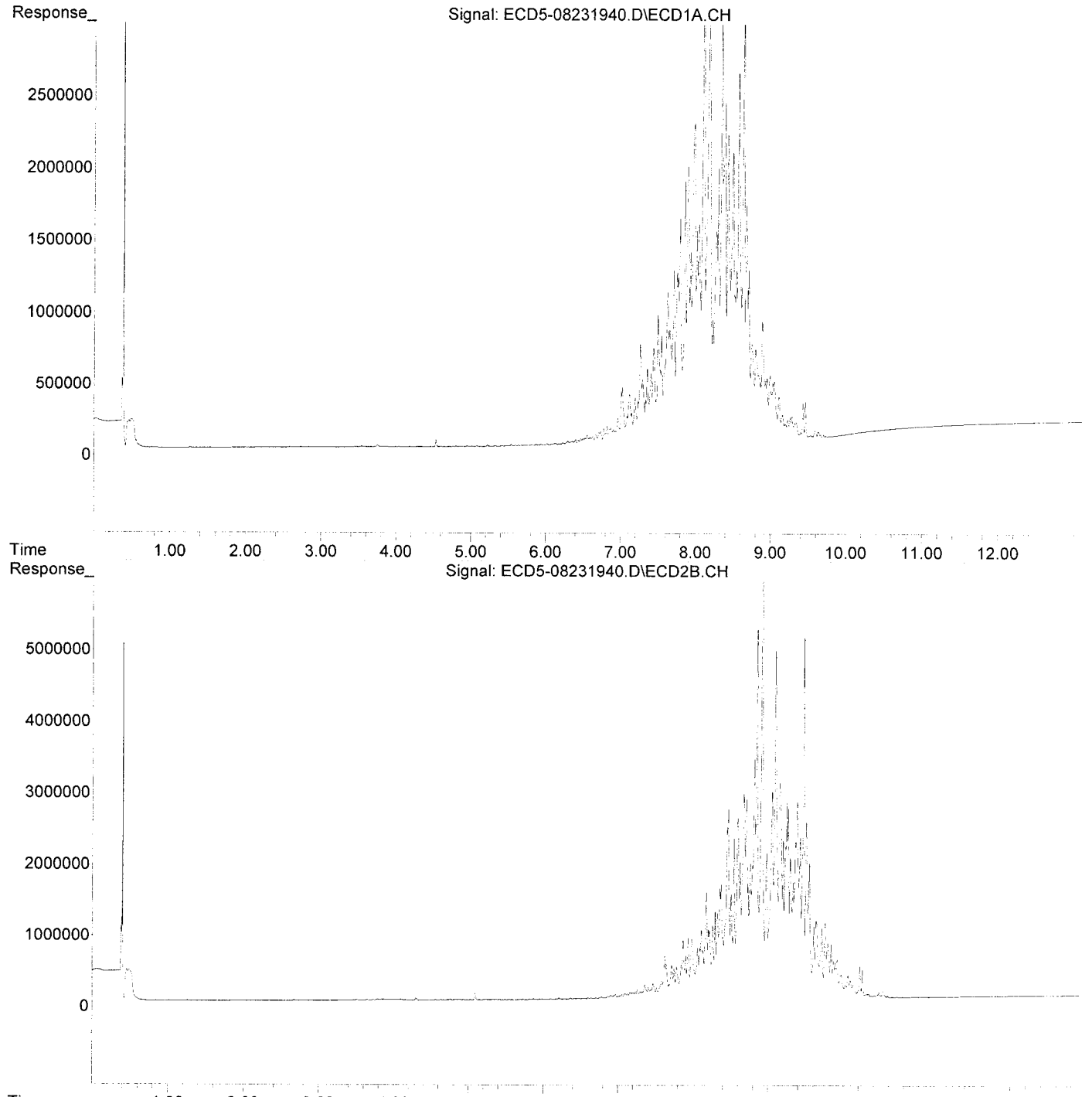
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S TCMX (S)	5.415f	5.982	2381	5264	0.014	0.018	
22)	S DCBP (S)	9.591	10.522	47060	86882	0.334	0.483	#
	Target Compounds							
2)	a-BHC	5.937	6.597	7133	14957	0.031	0.036	
3)	g-BHC	6.231	6.907	12268	49388	0.061	0.138	#
4)	b-BHC	6.296	6.967	24041	58985	0.266	0.373	#
5)	Heptachlor	6.632	7.293	48435	95609	0.267	0.312	
6)	d-BHC	6.434	7.233	28416	100471	0.144	0.285	#
7)	Aldrin	6.871	7.551	108360	147580	0.549	0.448	
8)	Heptachlo...	7.336	7.985	294905	840940	1.601	2.795	#
9)	trans-Chl...	7.445	8.111f	659823	964498	3.569	3.078	
10)	cis-Chlor...	7.501f	8.220	871889	947518	4.789	3.253	
11)	Endosulfa...	7.628	8.295	1038833	1226540	6.104	4.457	
12)	4,4'-DDE	7.550f	8.358	746675	1543581	3.961	4.968	
13)	Dieldrin	7.793	8.506	1556013	1462579	8.105	4.809	#
14)	Endrin	7.933f	8.711	1312768	2786774	8.929	12.340	
15)	4,4'-DDD	8.020	8.762	1452045	1895471	9.240	7.398	
16)	Endosulfa...	8.105	8.848	3495877	5168269	24.343	22.412	
17)	4,4'-DDT	8.183	8.977	2996314	2028436	25.061	11.540	#
18)	Endrin Al...	8.391	9.091	2338006	4900430	18.826	25.221	
19)	Endosulfa...	8.709	9.291	1188299	2002950	7.668	8.041	
20)	Methoxychlor	8.543	9.470	1177404	5046645	20.101	55.668	#
21)	Endrin Ke...	8.893	9.712f	829327	990858	4.973	3.851	
23)	Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)	Hexachlor...	5.745f	6.463	2404	9221	0.014	0.029	#
25)	Oxychlordane	7.265	7.936	684836	845822	4.162	3.088	
26)	2,4'-DDE	7.336	8.111	294905	964498	2.299	4.547	#
27)	trans-Non...	7.501	8.204	871889	963521	4.550	3.194	
28)	2,4'-DDD	7.712	8.506	1203385	1462579	10.544	7.744	
29)	2,4'-DDT	7.898	8.711	1885482	2786774	17.190	15.626	
30)	cis-Nonac...	7.981	8.762	2207076	1895471	10.631	5.651	#
31)	Mirex	8.640	9.712f	3406737	990858	27.174	5.325	#
32)	Chlordane...	7.445	8.111	659823	964498	33.511	26.655	
33)	Chlordane...	7.501	8.220	871889	947518	34.786	31.205	
34)	Chlordane...	8.045f	8.915	1508434	8650068	260.924	964.776	#
35)	Chlordane...	3.451	0.000	2687	0	NoCal	N.D.	
36)	Toxaphene...	7.501	8.467	871889	2654886	973.473	1011.671	
37)	Toxaphene...	7.793	8.813	1556013	3384036	963.512	1028.262	
38)	Toxaphene...	8.105	8.848	3495877	5168269	1038.126	1019.721	
39)	Toxaphene...	8.345	8.915	3287014	8650068	1014.463	1035.957	
40)	Toxaphene...	8.573	9.091	2546293	4900430	1062.220	1051.514	
41)	Toxaphene...	8.640	9.470	3406737	5046645	1076.520	1062.406	
42)	Toxaphene...	3.451	0.000	2687	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231940.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:03
Operator : MJB
Sample : 9H23034-CALR
Misc : A19D126, TOX 1000 ppb
ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:46 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:58 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

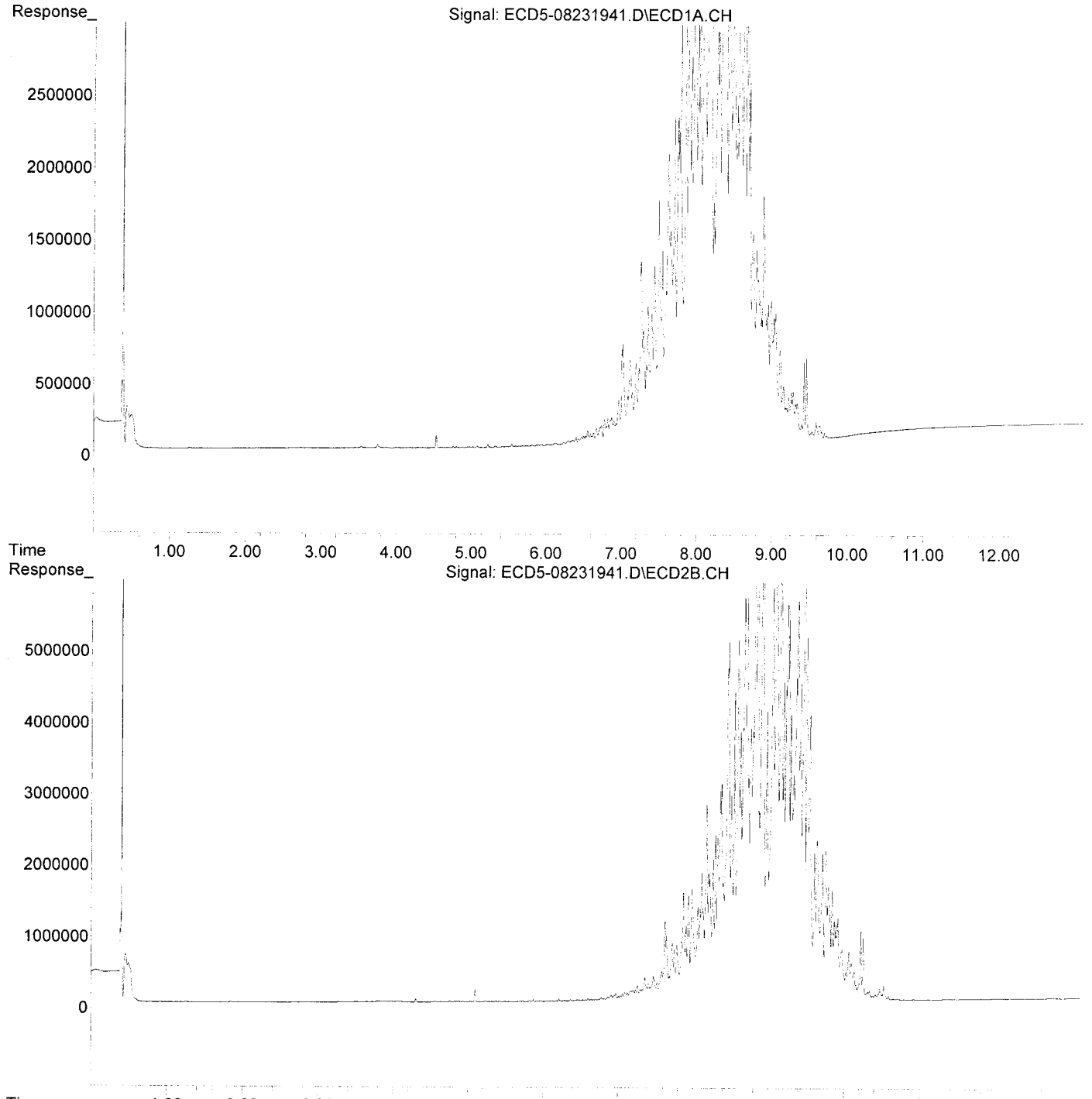
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	TCMX (S)	5.416f	5.979	3411	9459	0.021	0.032	#
22)	S	DCBP (S)	9.591	10.521	106938	194794	0.758	1.084	#
		Target Compounds							
2)		a-BHC	5.935	6.596	13246	39719	0.058	0.097	#
3)		g-BHC	6.231	6.908	20790	85564	0.103	0.240	#
4)		b-BHC	6.295	6.967	35592	107682	0.394	0.680	#
5)		Heptachlor	6.633	7.293	79787	161818	0.440	0.529	
6)		d-BHC	6.433	7.233	46116	159995	0.234	0.454	#
7)		Aldrin	6.871	7.581f	182635	424827	0.925	1.290	
8)		Heptachlo...	7.357f	7.984	952857	1568607	5.174	5.214	
9)		trans-Chl...	7.444	8.111f	1223688	1798529	6.618	5.740	
10)		cis-Chlor...	7.500f	8.218f	1674674	1710240	9.198	5.872	
11)		Endosulfa...	7.627	8.294	1999949	2341198	11.752	8.508	
12)		4,4'-DDE	7.549f	8.357	1335034	2938735	7.081	9.459	
13)		Dieldrin	7.792	8.505	2958997	2895788	15.413	9.521	
14)		Endrin	7.981f	8.711	4441487	5651216	30.209	25.025	
15)		4,4'-DDD	8.020	8.761	2883315	3832878	18.349	14.960	
16)		Endosulfa...	8.104	8.848	6831460	10545708	47.569	45.730	
17)		4,4'-DDT	8.183	8.977	5897786	4051156	49.329	22.612	#
18)		Endrin Al...	8.391	9.091	4718611	9435236	38.506	48.051	
19)		Endosulfa...	8.708	9.291	2483005	4046643	16.022	16.246	
20)		Methoxychlor	8.542	9.471	2322878	10090951	39.657	102.111	#
21)		Endrin Ke...	8.893	9.712f	1725359	2080010	10.346	8.083	
23)		Hexachlor...	0.000	0.000	0	0	N.D.	N.D.	
24)		Hexachlor...	5.744f	6.462	3614	25550	0.021	0.081	#
25)		Oxychlordane	7.264	7.935	1262060	1485955	7.670	5.425	
26)		2,4'-DDE	7.357f	8.111	952857	1798529	7.429	8.478	
27)		trans-Non...	7.500	8.204	1674674	1791431	9.032	5.939	
28)		2,4'-DDD	7.712	8.505	2255144	2895788	19.760	15.333	
29)		2,4'-DDT	7.898	8.711	3633258	5651216	33.124	31.688	
30)		cis-Nonac...	7.981	8.761	4441487	3832878	21.393	11.426	#
31)		Mirex	8.640	9.712f	6510950	2080010	51.935	11.178	#
32)		Chlordane...	7.444	8.111	1223688	1798529	62.149	49.704	
33)		Chlordane...	7.500	8.218	1674674	1710240	66.815	56.324	
34)		Chlordane...	8.044f	8.914	2935856	17190037	507.835	1917.273	#
35)		Chlordane...	3.452	0.000	4166	0	NoCal	N.D.	
36)		Toxaphene...	7.500	8.466	1674674	5030917	1869.791	1917.082	
37)		Toxaphene...	7.792	8.813	2958997	6610397	1832.266	2008.613	
38)		Toxaphene...	8.104	8.848	6831460	10545708	2028.651	2080.712	
39)		Toxaphene...	8.345	8.914	6407070	17190037	1977.398	2058.728	
40)		Toxaphene...	8.572	9.091	5074570	9435236	2116.925	2024.573	
41)		Toxaphene...	8.640	9.471	6510950	10090951	2057.443	2124.320	
42)		Toxaphene...	3.452	0.000	4166	0	NoCal	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-08\9H23034\REQUANT\
Data File : ECD5-08231941.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 23:20
Operator : MJB
Sample : 9H23034-CALS
Misc : A19D121, TOX 2000 ppb
ALS Vial : 34 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 12:07:58 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:48:23 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Sequence Name: C:\msdchem\4\sequence\9H23034.s
Comment: Pesticides
Operator: MJB
Data Path: C:\MSDCHEM\4\DATA\2019-08\9H23034\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info
1)	Sample	100	CONDITIONING RUN
	Datafile		ECD5-08231901
	Method		ECD5_AQUPEST_160111
2)	Sample	100	CONDITIONING RUN
	Datafile		ECD5-08231902
	Method		ECD5_AQUPEST_160111
3)	Sample	1	Hexane
	Datafile		ECD5-08231903
	Method		ECD5_AQUPEST_160111
4)	Sample	2	9H23034-BKD1
	Datafile		ECD5-08231904
	Method		ECD5_AQUPEST_160111
5)	Sample	1	Hexane
	Datafile		ECD5-08231905
	Method		ECD5_AQUPEST_160111
6)	Sample	2	9H23034-BKD2
	Datafile		ECD5-08231906
	Method		ECD5_AQUPEST_160111
7)	Sample	3	9H23034-ICB1
	Datafile		ECD5-08231907
	Method		ECD5_AQUPEST_160111
8)	Sample	4	9H23034-CAL1
	Datafile		ECD5-08231908
	Method		ECD5_AQUPEST_160111
9)	Sample	5	9H23034-CAL2
	Datafile		ECD5-08231909
	Method		ECD5_AQUPEST_160111
10)	Sample	6	9H23034-CAL3
	Datafile		ECD5-08231910
	Method		ECD5_AQUPEST_160111
11)	Sample	7	9H23034-CAL4
	Datafile		ECD5-08231911
	Method		ECD5_AQUPEST_160111
12)	Sample	8	9H23034-CAL5
	Datafile		ECD5-08231912
	Method		ECD5_AQUPEST_160111
13)	Sample	9	9H23034-CAL6
	Datafile		ECD5-08231913
	Method		ECD5_AQUPEST_160111
14)	Sample	10	9H23034-CAL7
	Datafile		ECD5-08231914
	Method		ECD5_AQUPEST_160111
15)	Sample	11	9H23034-CAL8
	Datafile		ECD5-08231915
	Method		ECD5_AQUPEST_160111
16)	Sample	1	9H23034-IBL1
	Datafile		ECD5-08231916
	Method		ECD5_AQUPEST_160111
17)	Sample	12	9H23034-ICV1
	Datafile		ECD5-08231917
	Method		ECD5_AQUPEST_160111
18)	Sample	13	9H23034-CAL9
	Datafile		ECD5-08231918
	Method		ECD5_AQUPEST_160111
19)	Sample	14	9H23034-CALA
	Datafile		ECD5-08231919
	Method		ECD5_AQUPEST_160111
20)	Sample	15	9H23034-CALB

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	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.

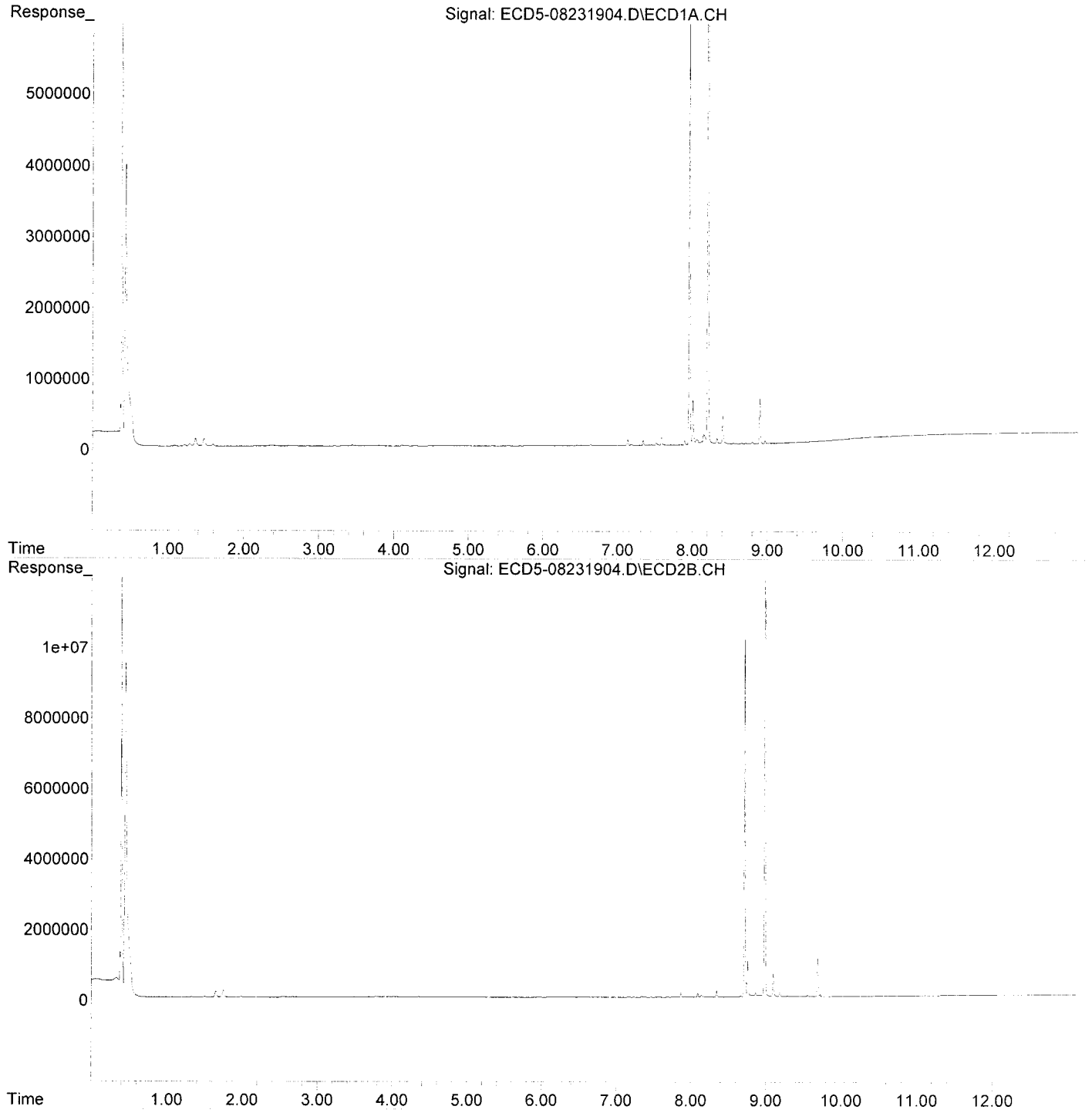
Breakdown passing, but ~~the~~ High. maintenance performed
MJB 8/26/19

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

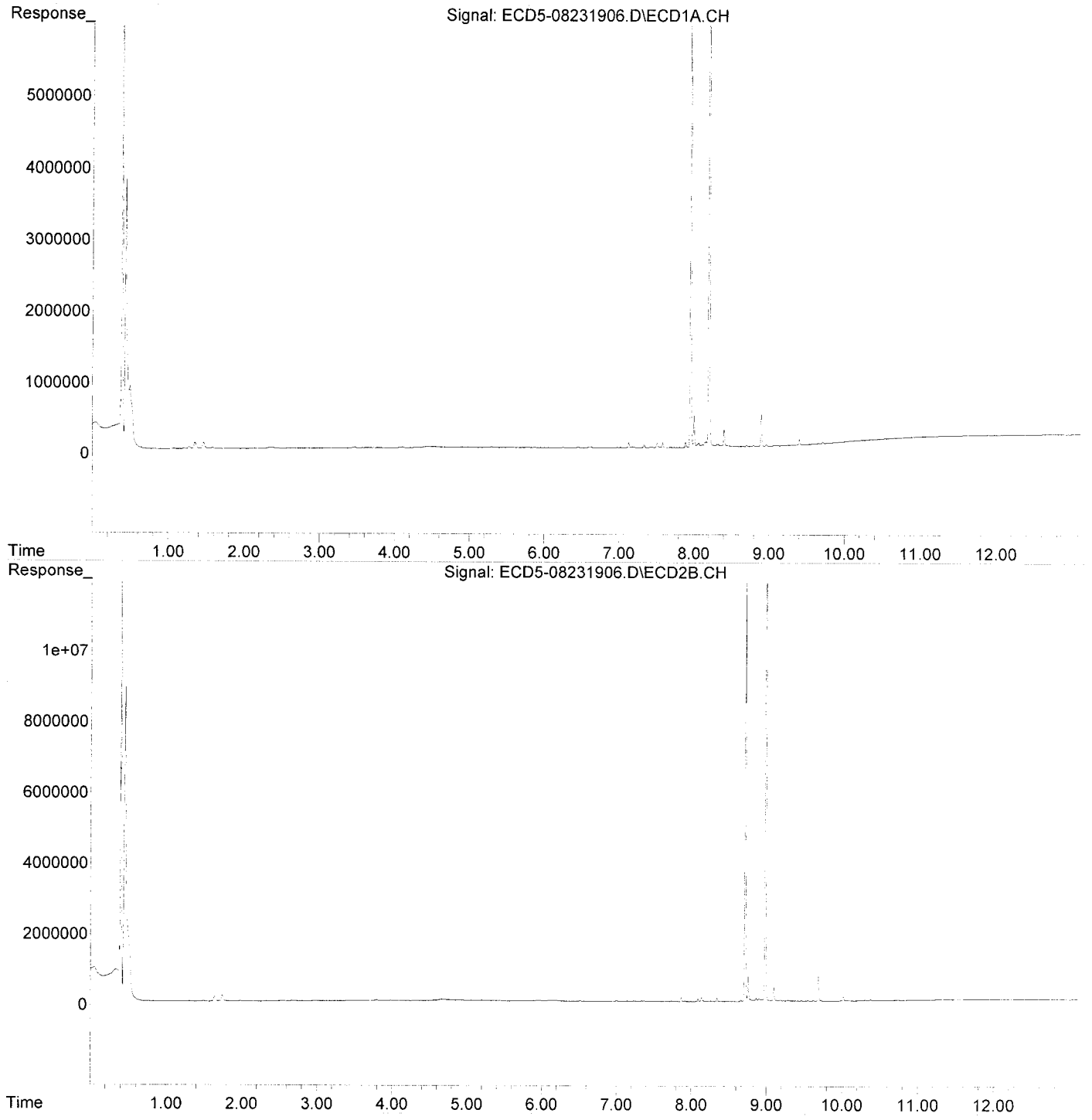
(f)=RT Delta > 1/2 Window (m)=manual int.

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

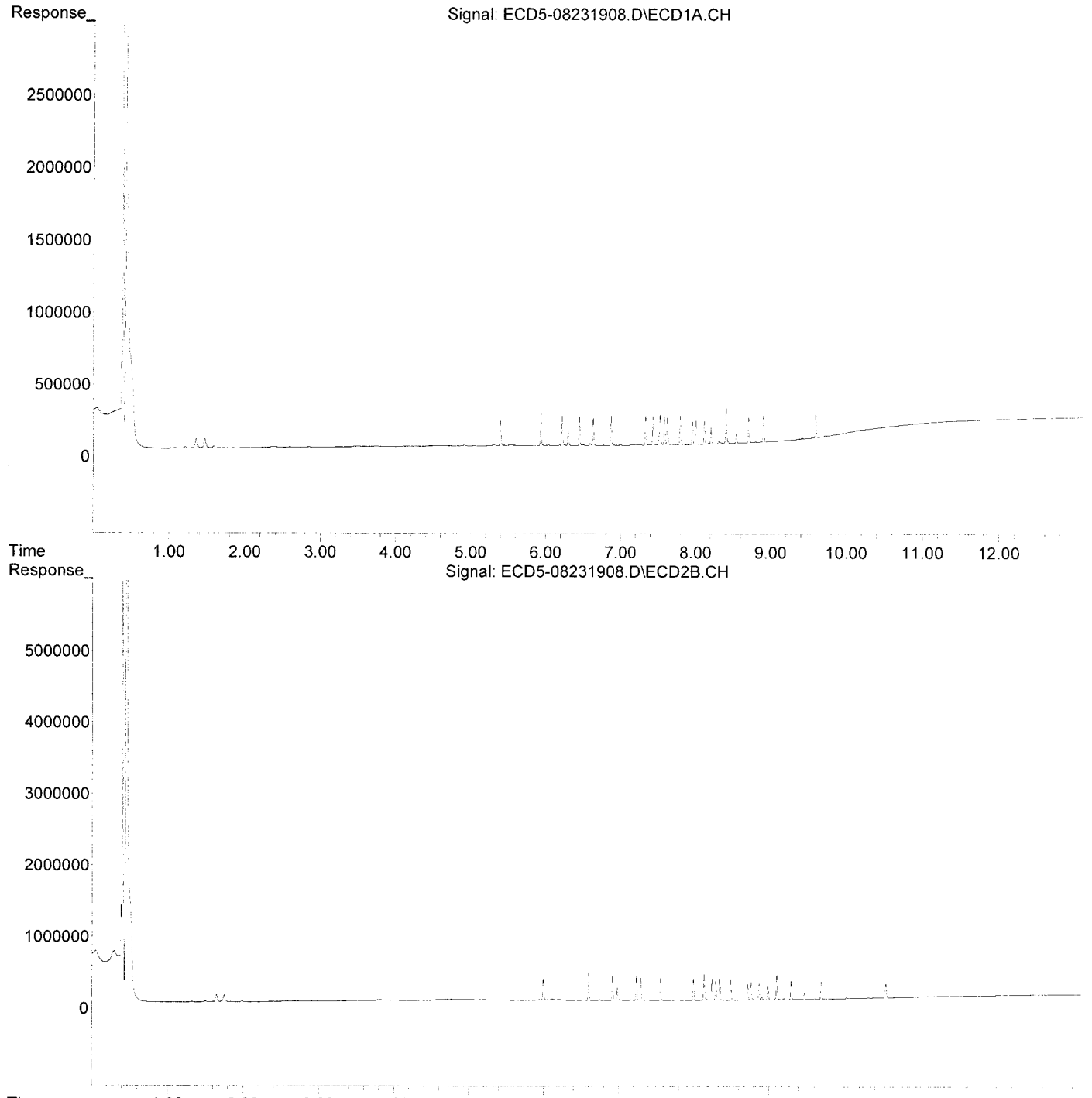
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.397	5.991	176748	300053	1.633	1.607
22) S	DCBP (S)	9.593	10.541	163865	191572	1.202	1.206
	Target Compounds						
2)	a-BHC	5.937	6.597	231994	393119	1.665	1.296
3)	g-BHC	6.221	6.915	207427	352286	1.380	1.170
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

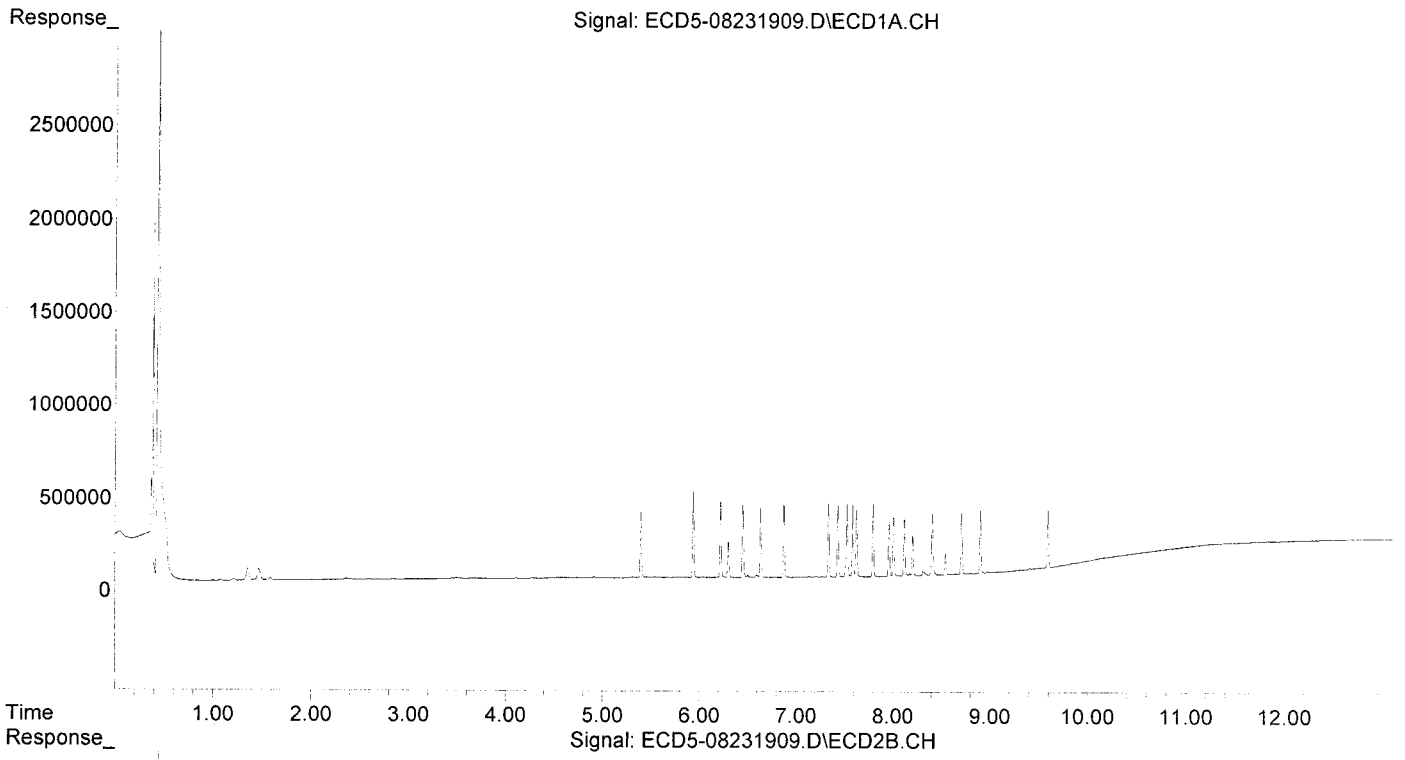
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.396	5.990	349972	600766	3.233	3.230
22)	S	DCBP (S)	9.593	10.542	309904	390006	2.547	2.456
		Target Compounds						
2)		a-BHC	5.936	6.597	458365	784586	3.177	2.540
3)		g-BHC	6.220	6.915	406027	690922	2.702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

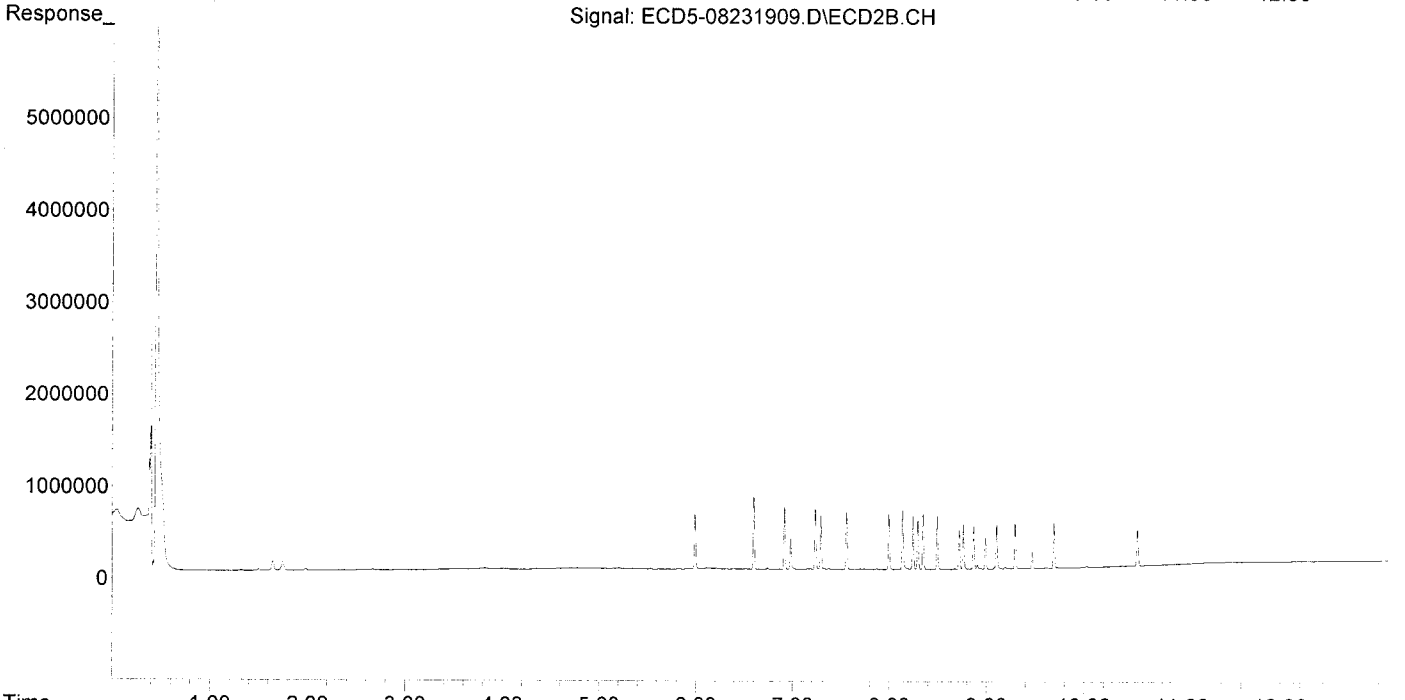
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

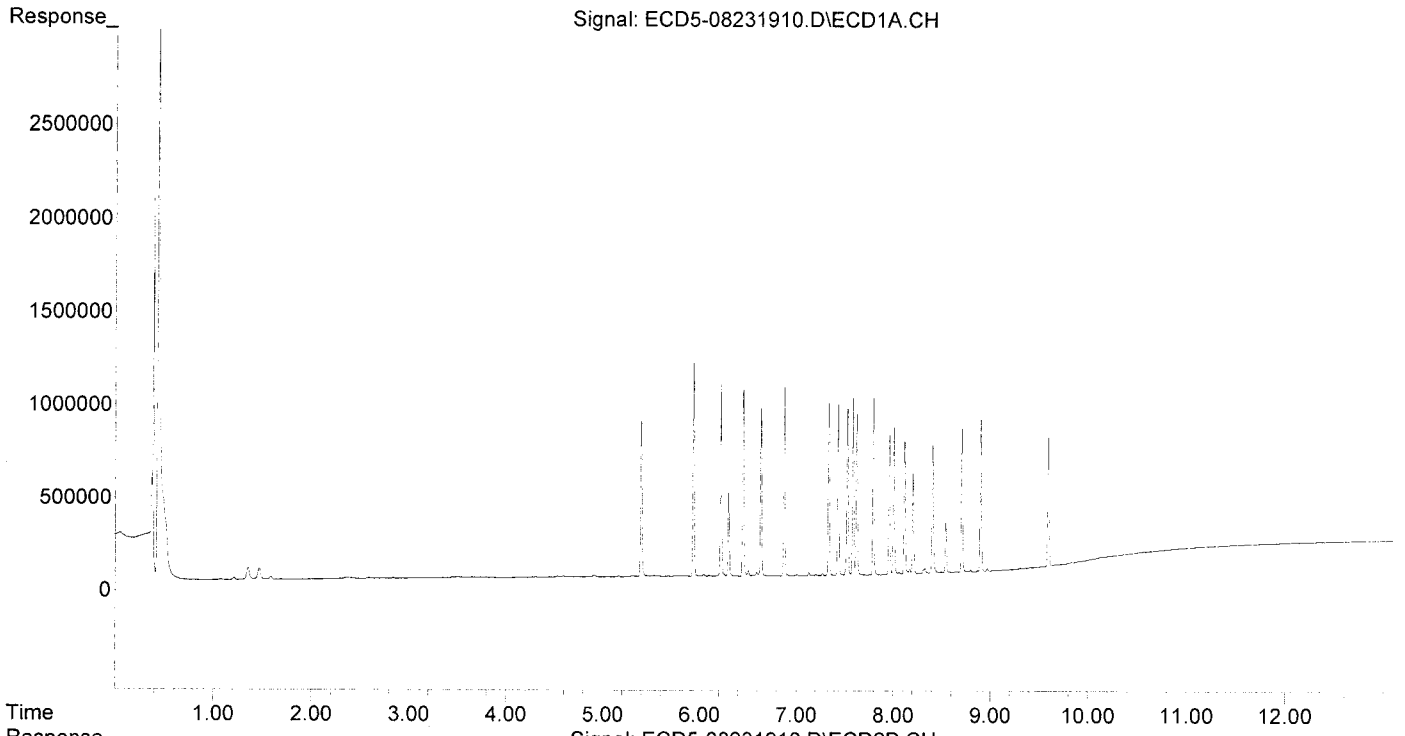
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.396	5.990	834206	1437876	7.707	7.700
22) S	DCBP (S)	9.594	10.542	701050	870921	6.146	5.485
	Target Compounds						
2)	a-BHC	5.937	6.597	1147932	1985438	7.742	6.328
3)	g-BHC	6.220	6.915	1020724	1742677	6.792	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

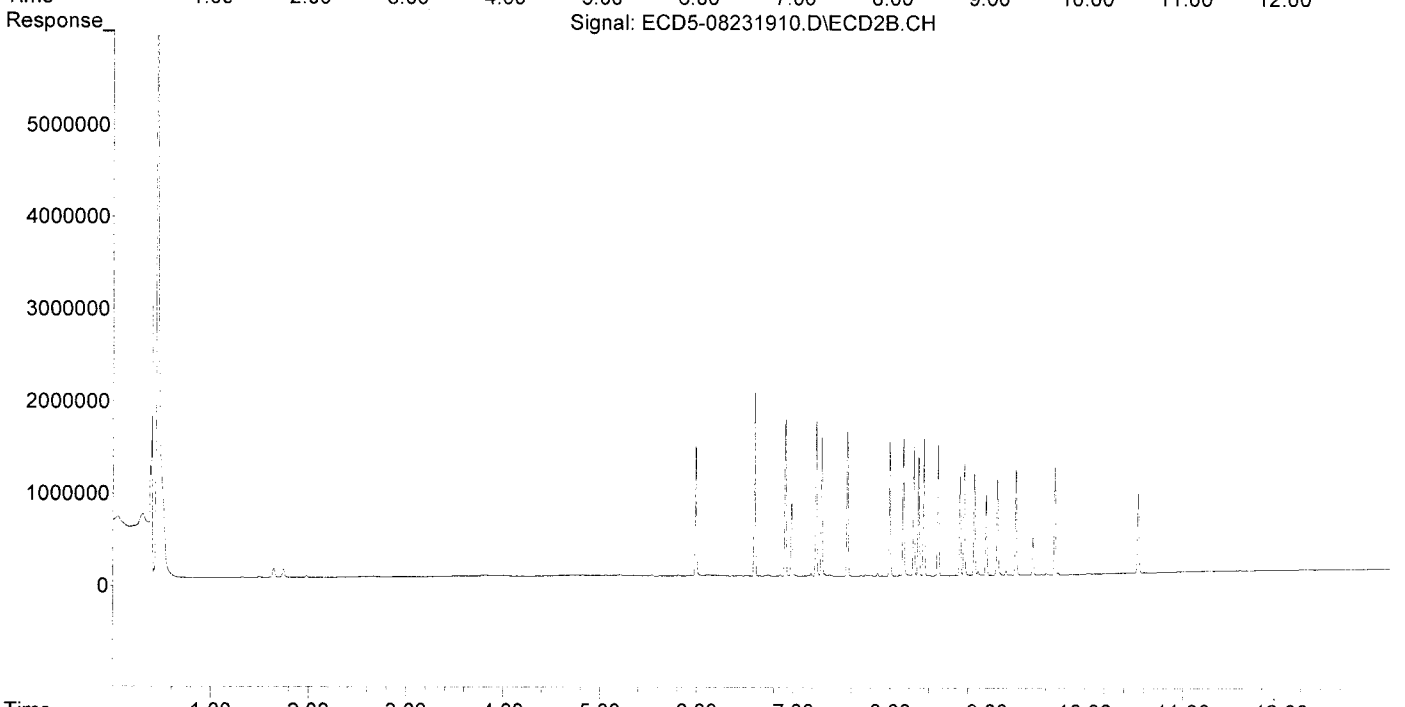
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

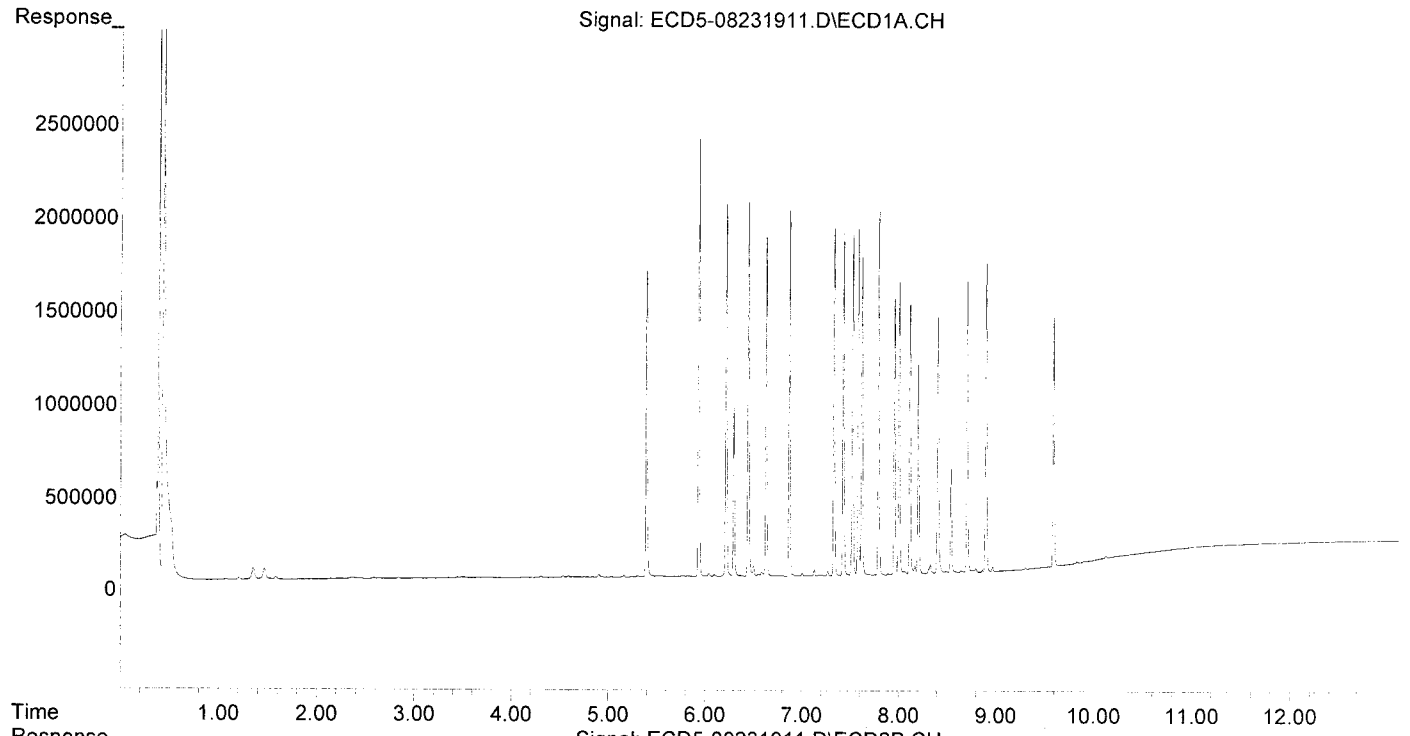
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.396	5.990	1644447	2865854	15.193	15.177
22) S	DCBP (S)	9.593	10.541	1335468	1678728	11.976	10.572
	Target Compounds						
2)	a-BHC	5.936	6.597	2347065	4095890	15.530	12.883
3)	g-BHC	6.220	6.915	2034859	3476733	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

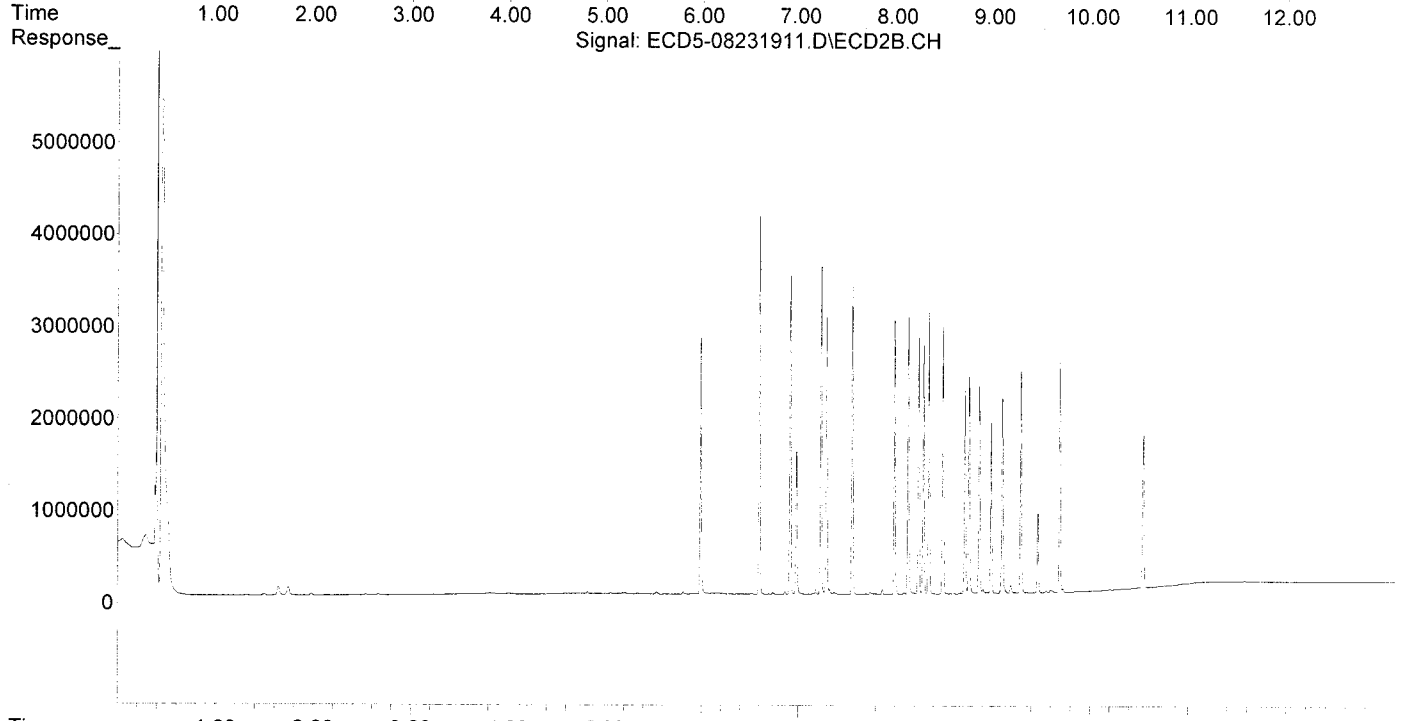
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

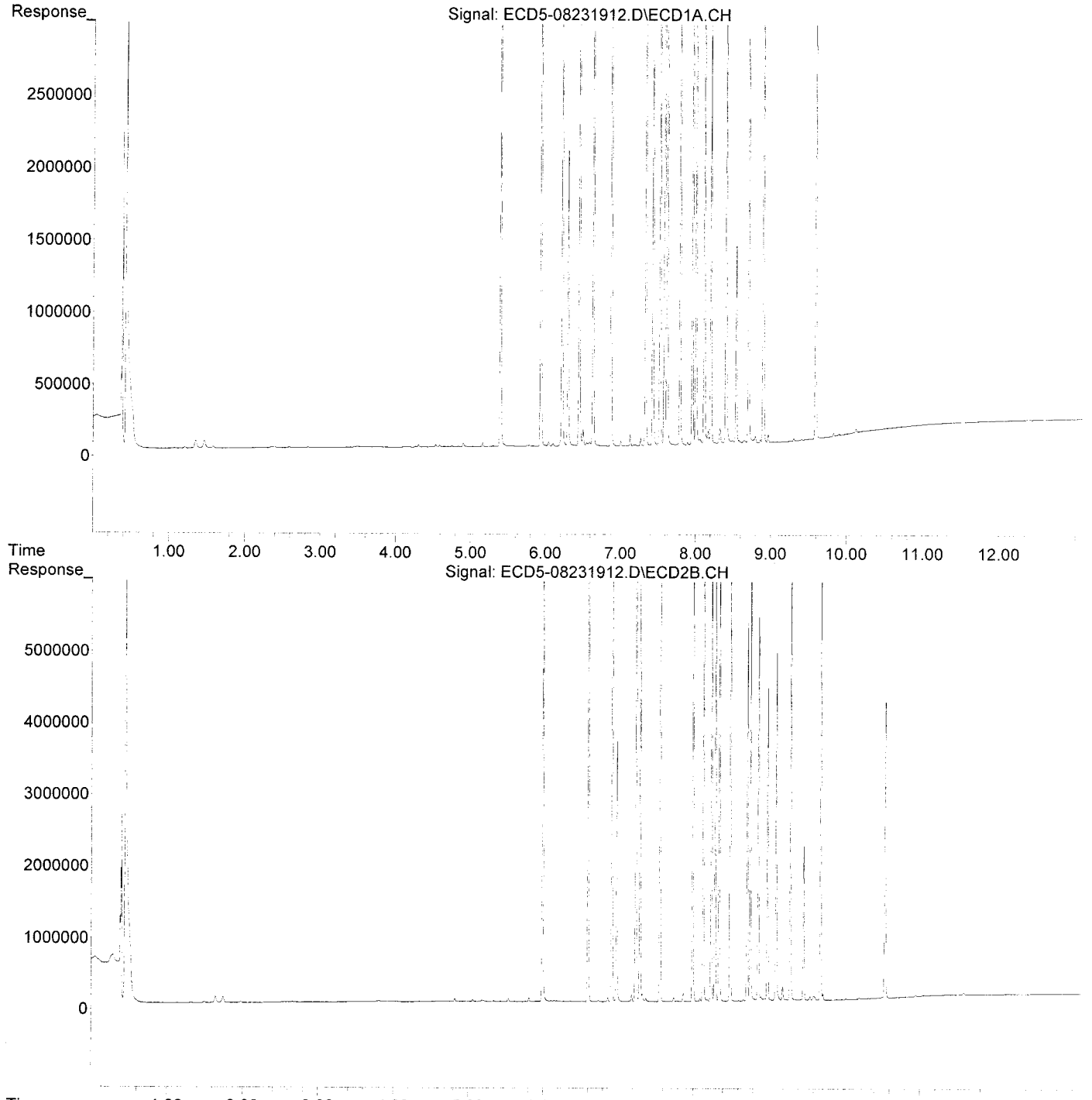
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1)	S TCMX (S)	5.394	5.989	4015832	7072923	37.101	36.221
22)	S DCBP (S)	9.592	10.539	3342634	4163229	30.365	26.219
	Target Compounds						
2)	a-BHC	5.935	6.596	5553096	9910863	35.515	30.324
3)	g-BHC	6.218	6.913	4875657	8508386	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

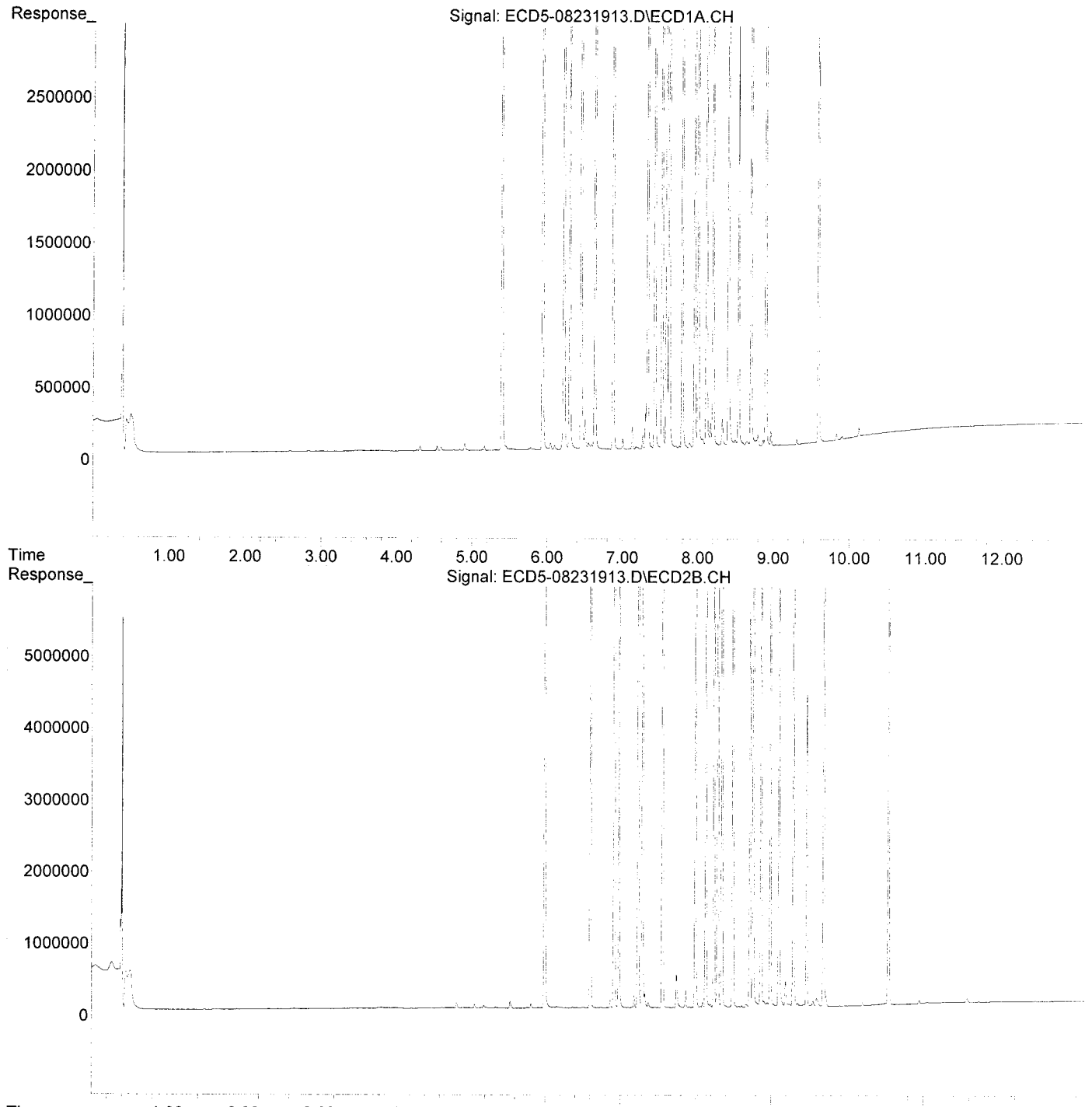
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	5.394	5.989	8071481	14196745	74.571	69.077
22) S	DCBP (S)	9.592	10.541	6678990	8730692	60.740	54.984
	Target Compounds						
2)	a-BHC	5.935	6.596	11369592	20265817	69.154	59.445
3)	g-BHC	6.218	6.914	9785999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

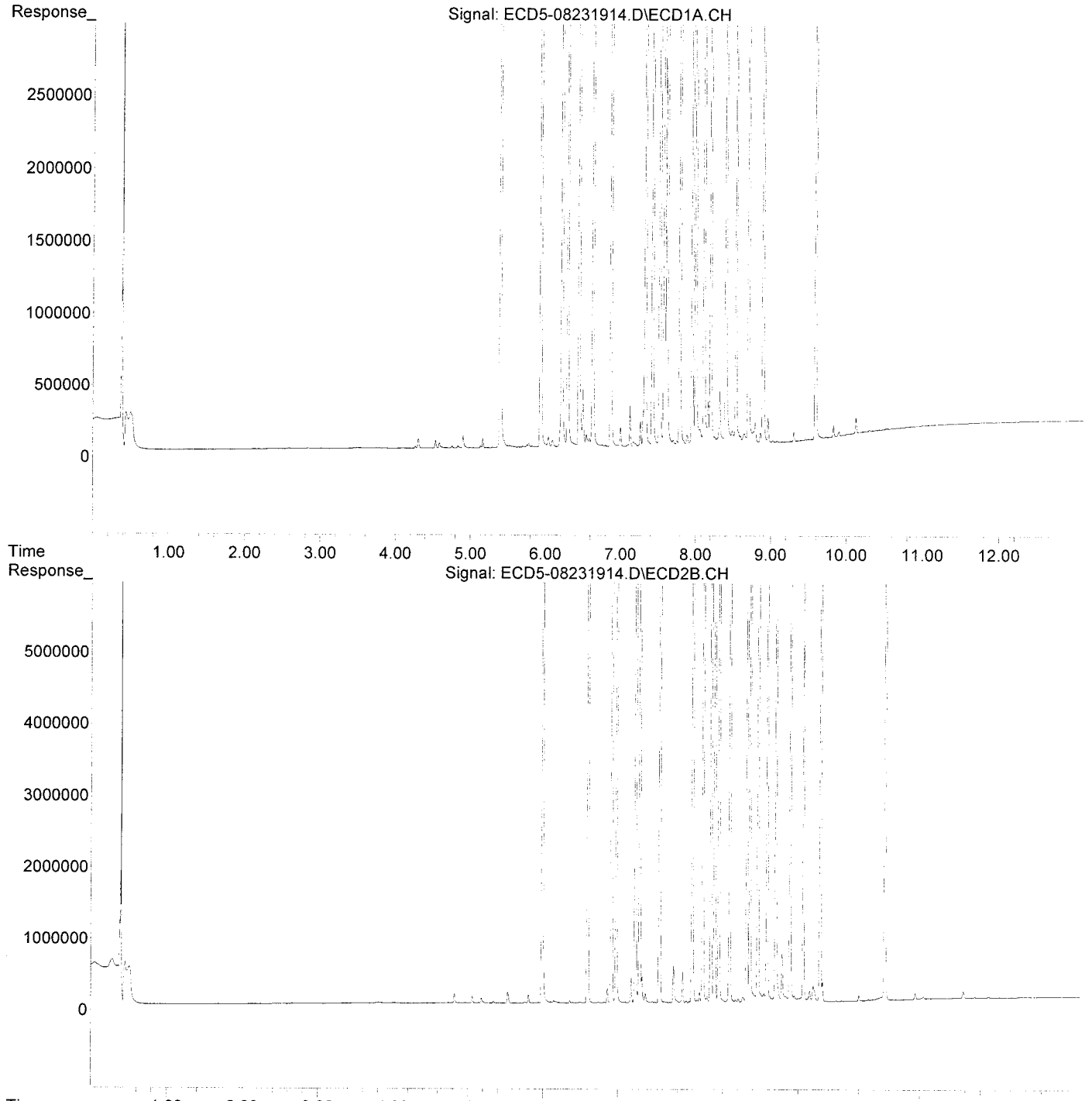
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.395	5.989	15850922	29256334	146.444	130.224
22)	S	DCBP (S)	9.592	10.540	13405396	17784069	121.277	111.999
		Target Compounds						
2)		a-BHC	5.935	6.596	22363584	41699210	125.842	113.668
3)		g-BHC	6.218	6.914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

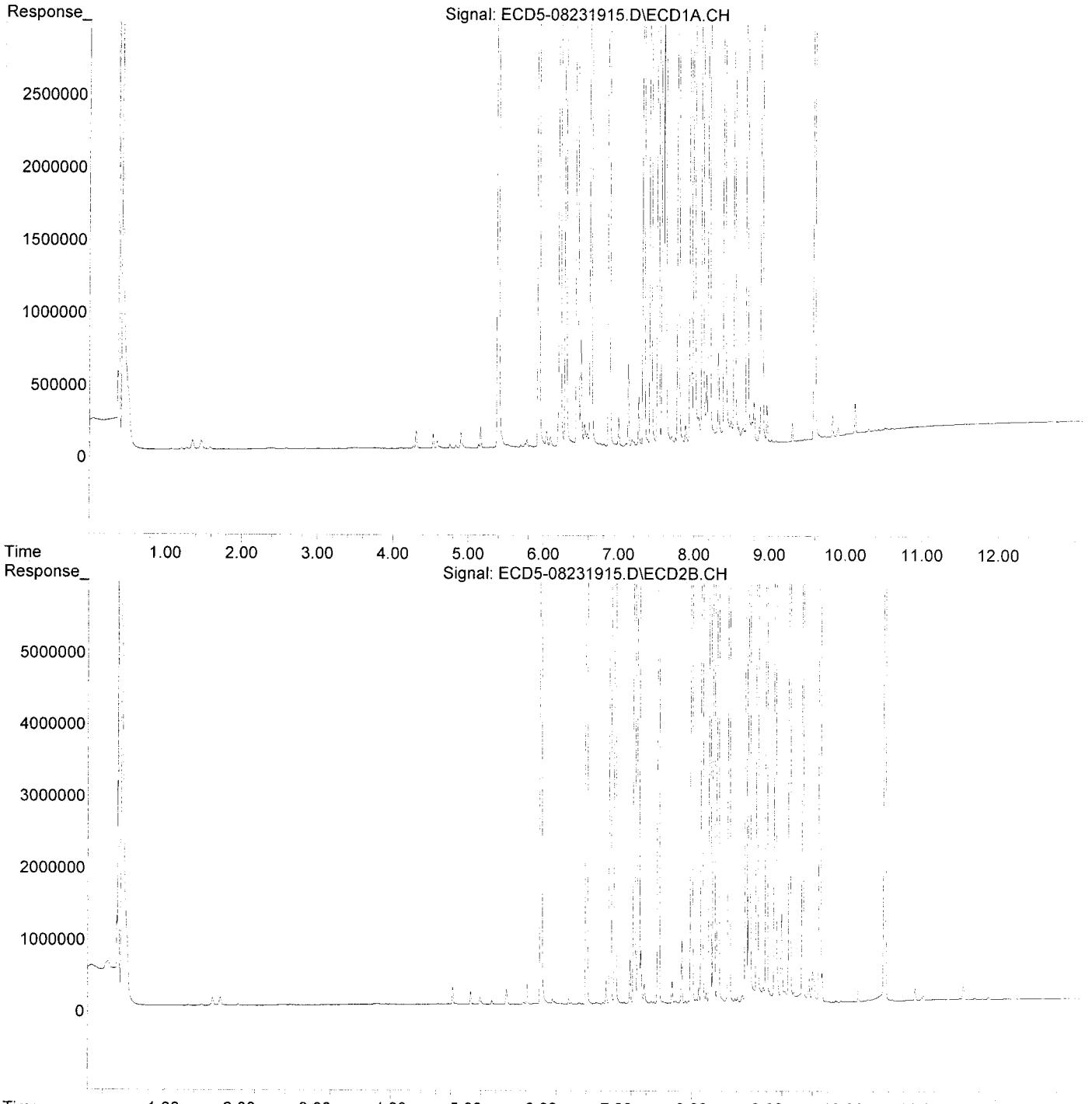
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	5.394	5.990	32842535	62584449	303.426	241.228
22)	S	DCBP (S)	9.591	10.539	26975231	38097779	240.687	239.929
		Target Compounds						
2)		a-BHC	5.935	6.597	47202252	94376748	232.879	224.790
3)		g-BHC	6.218	6.914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

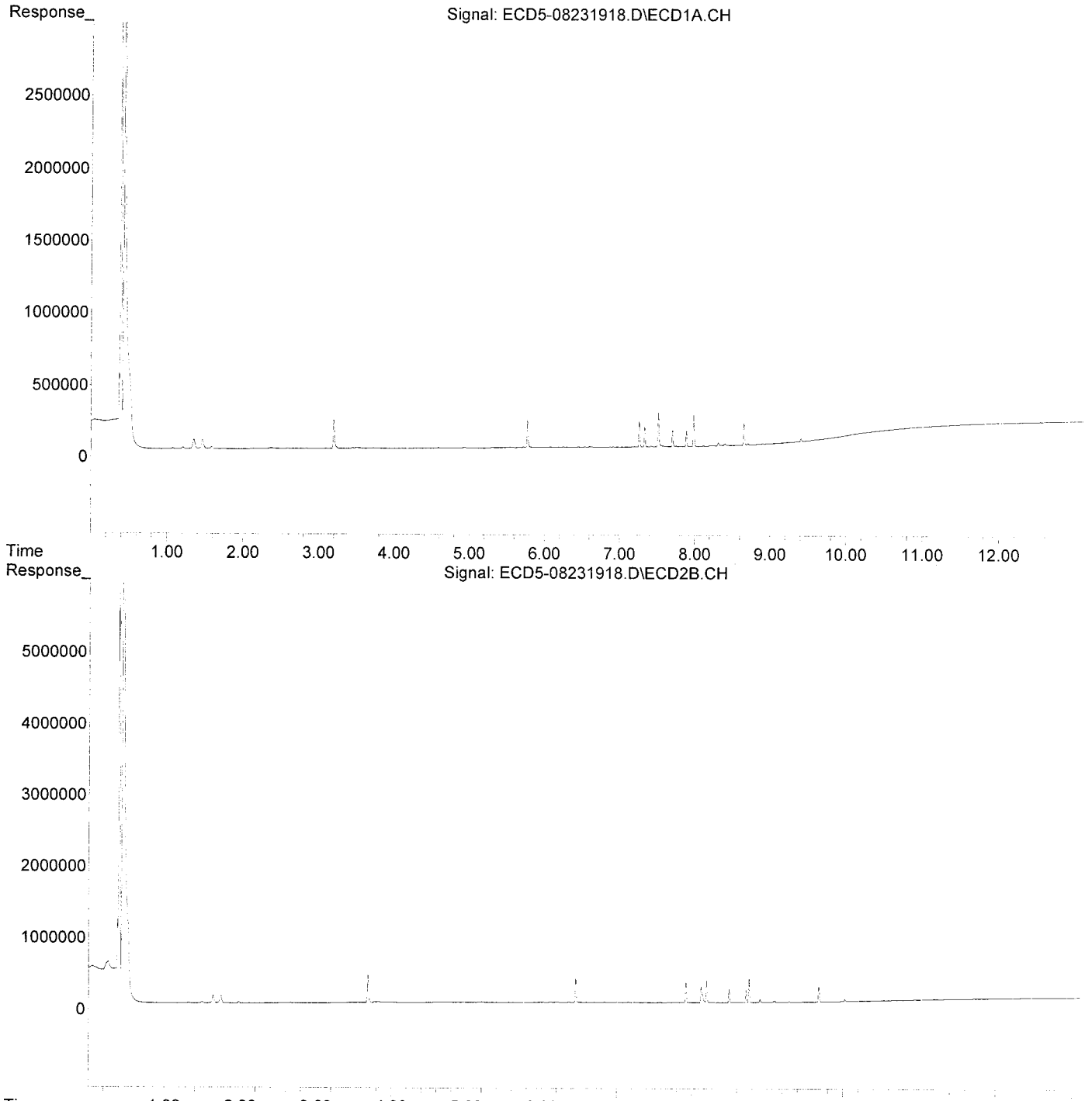
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

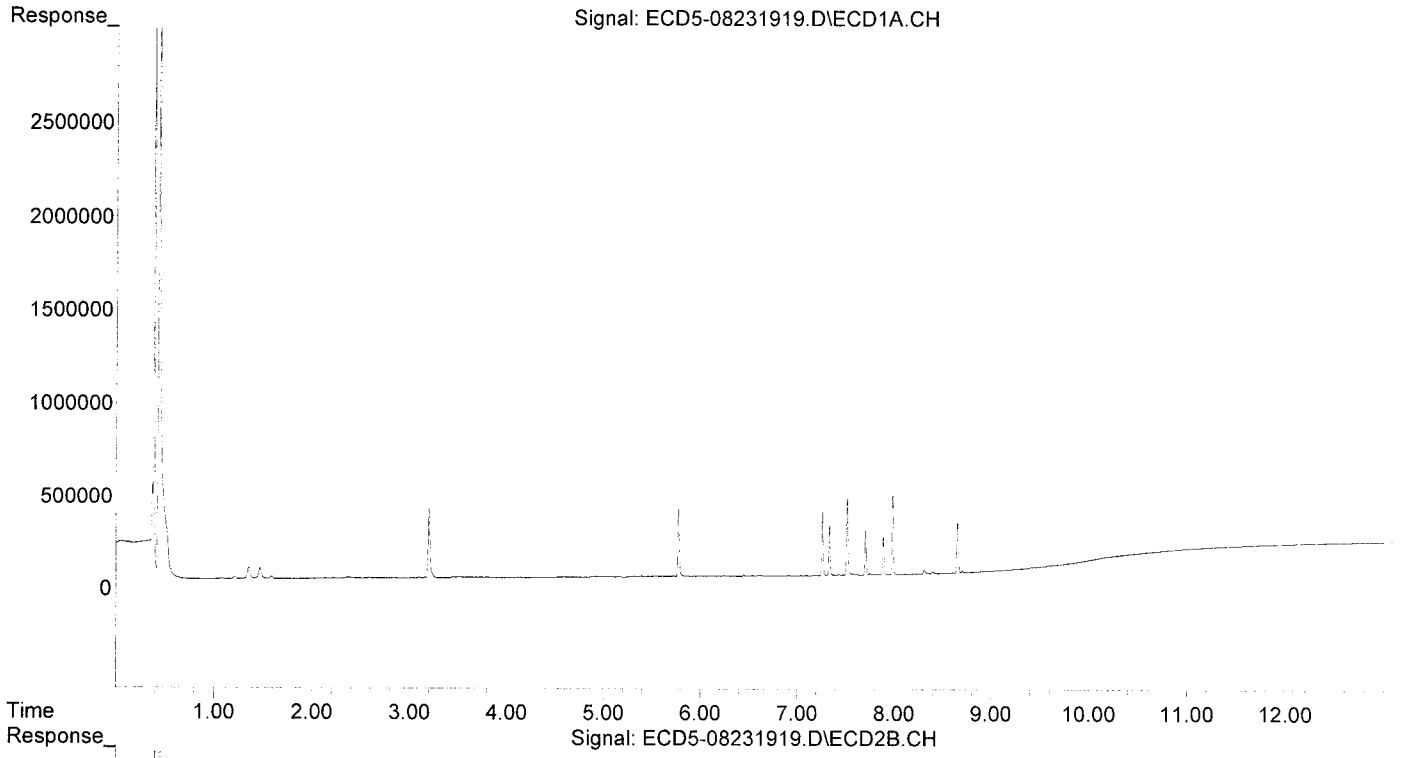
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

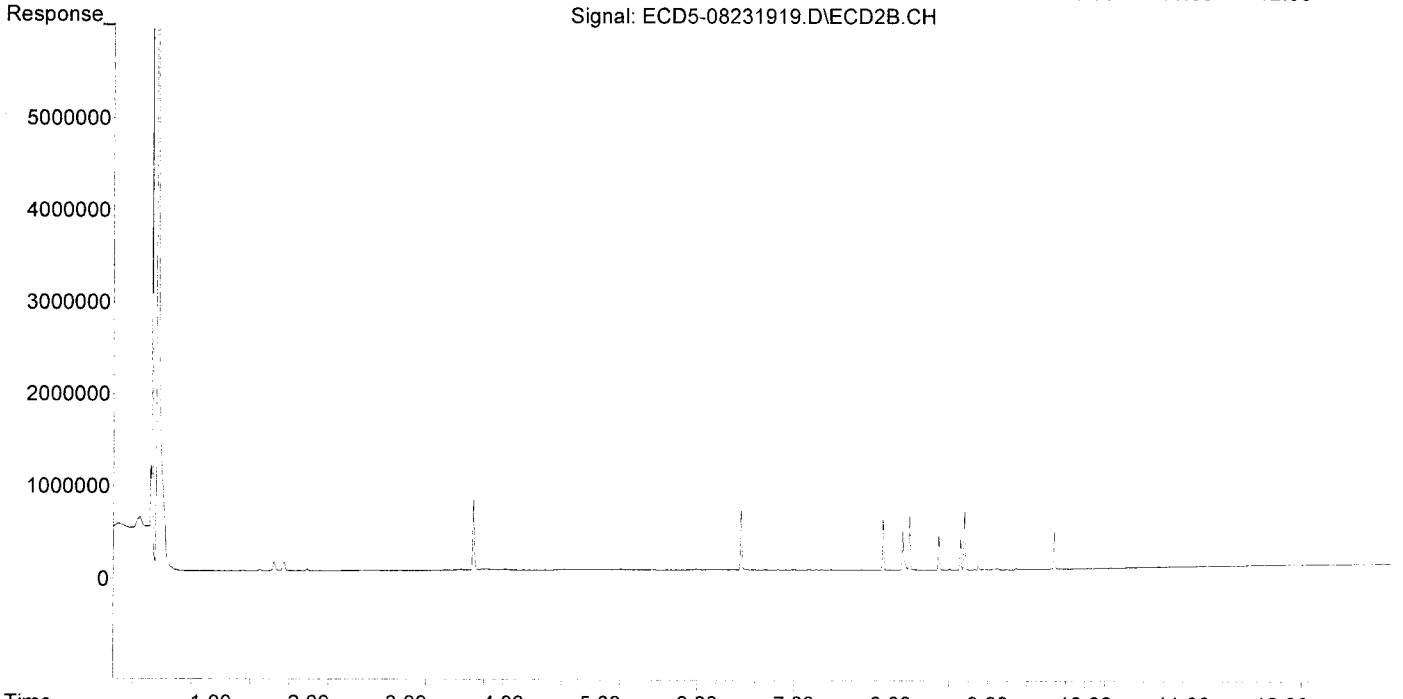
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

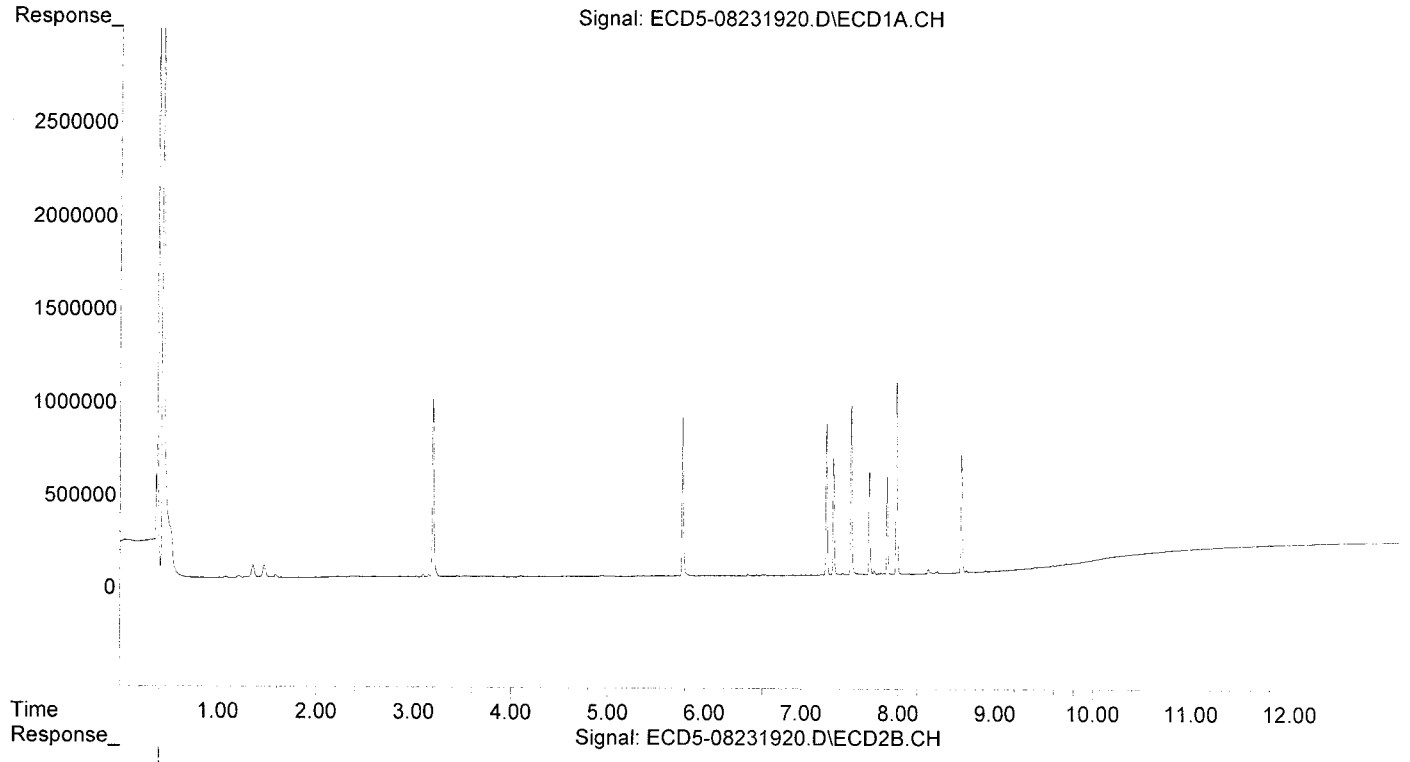
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

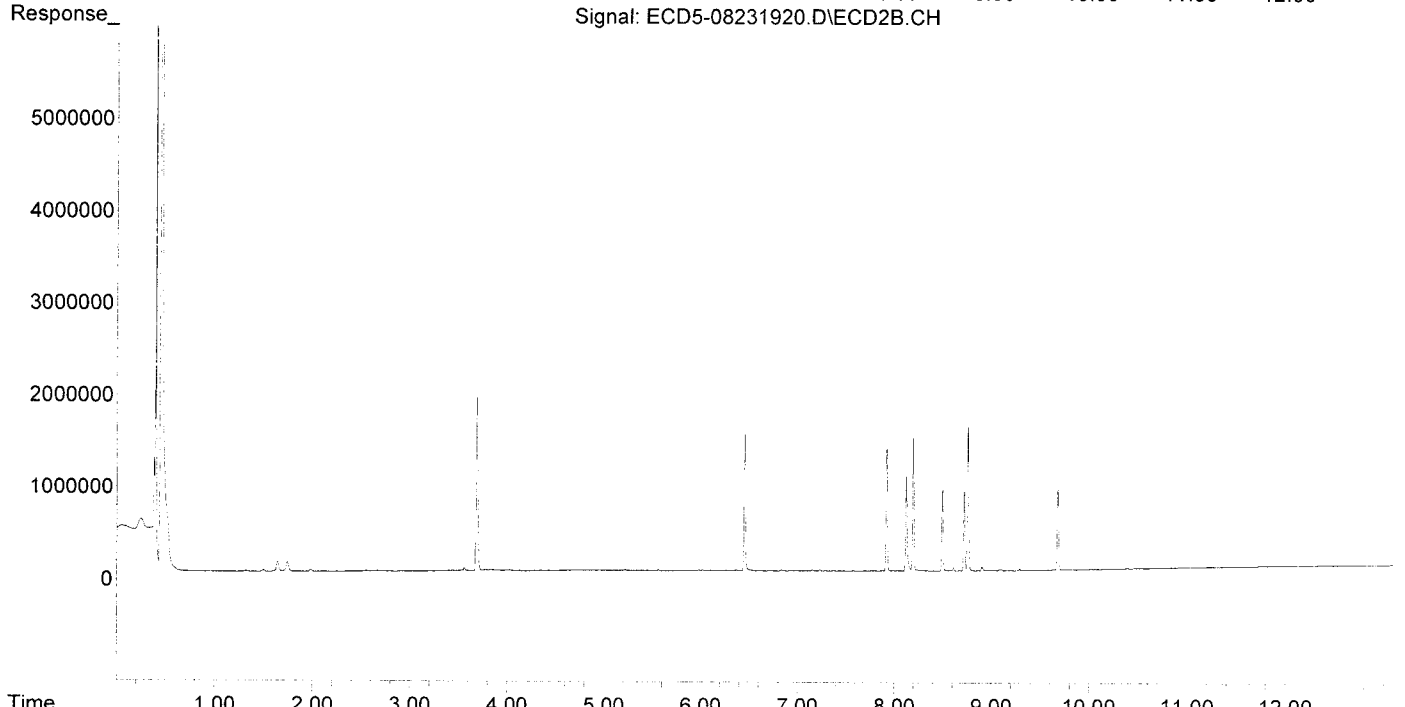
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

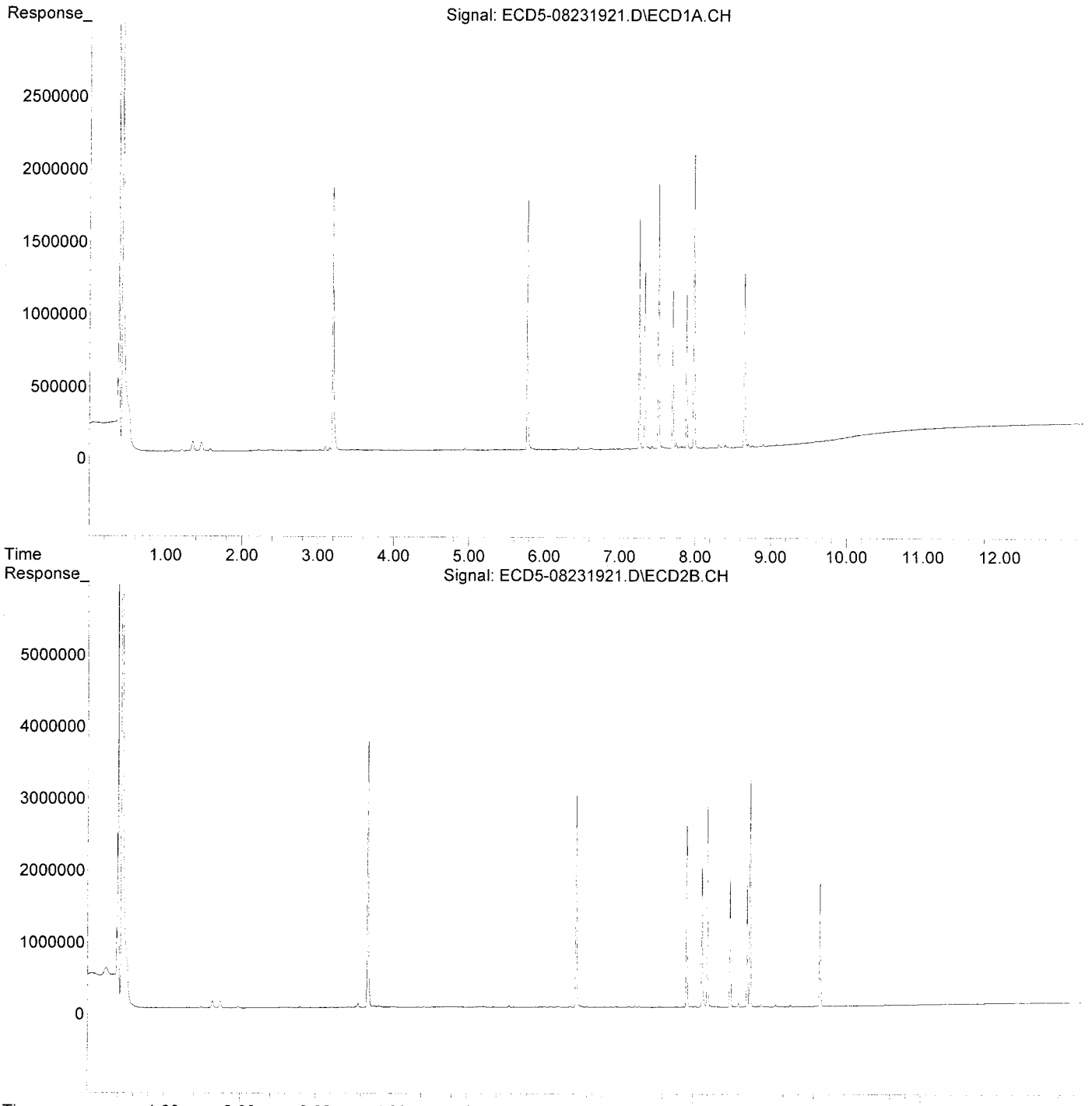
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. 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 9/26/19

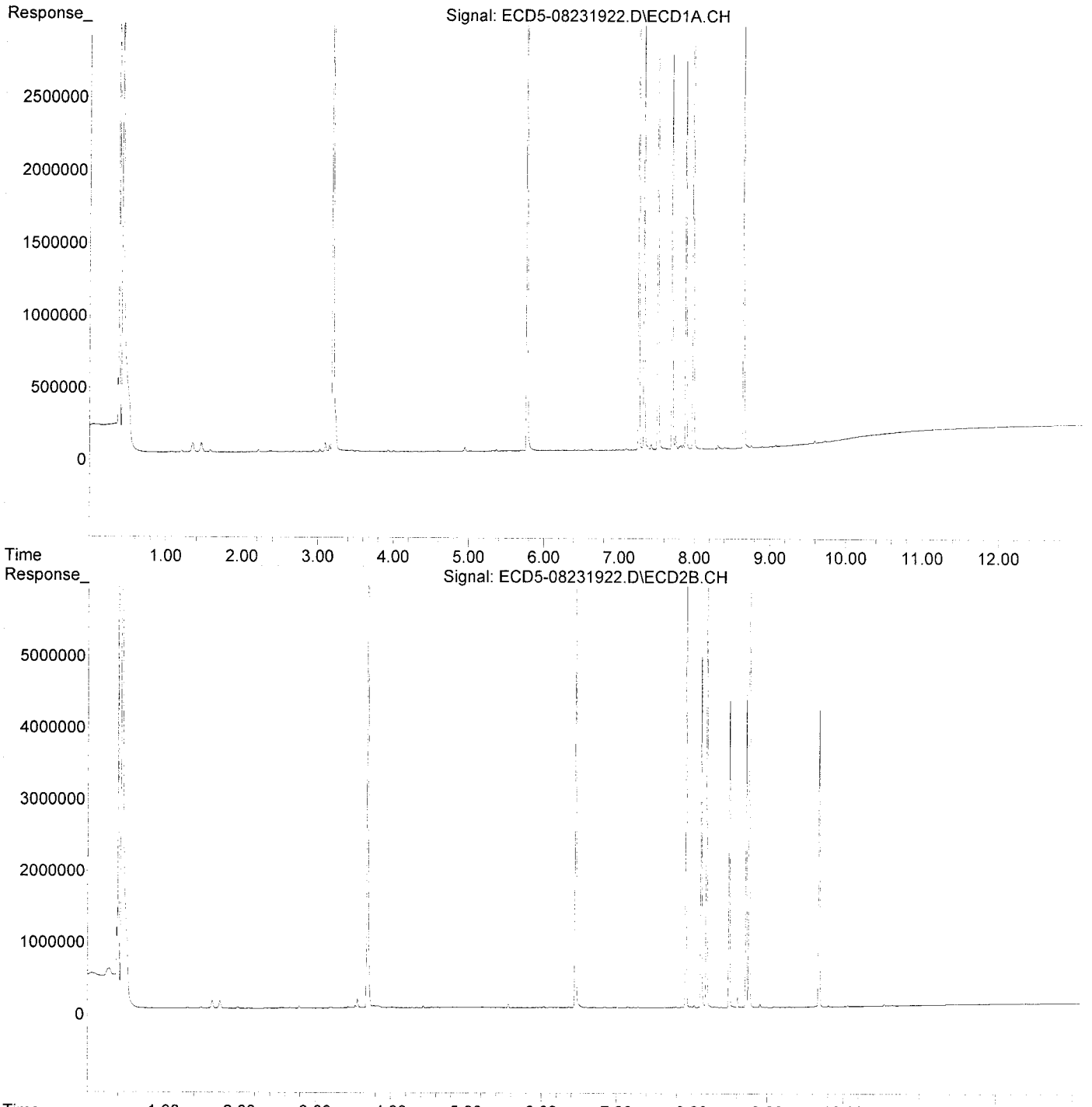
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.687	4363988	8892238	29.278	28.282
24)	Hexachlor...	5.774	6.453	4184551	7416324	34.066	33.080
25)	Oxychlordane	7.261	7.920	3881255	6202791	29.926	29.471
26)	2,4'-DDE	7.333	8.122	3059421	4999232	32.558	32.042
27)	trans-Non...	7.516	8.194	4391046	7092288	30.631	30.877
28)	2,4'-DDD	7.705	8.495	2745178	4389185	32.844	32.200
29)	2,4'-DDT	7.888	8.719	2728794	4405554	33.278	32.676
30)	cis-Nonac...	7.986	8.759	4993110	8219393	31.032	32.361
31)	Mirex	8.654	9.679	2910818	4138115	29.738	28.753
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231922.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 17:53
Operator : MJB
Sample : 9H23034-CALD
Misc : A19E276, 9-42 25 ppb
ALS Vial : 17 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:25:49 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:22:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

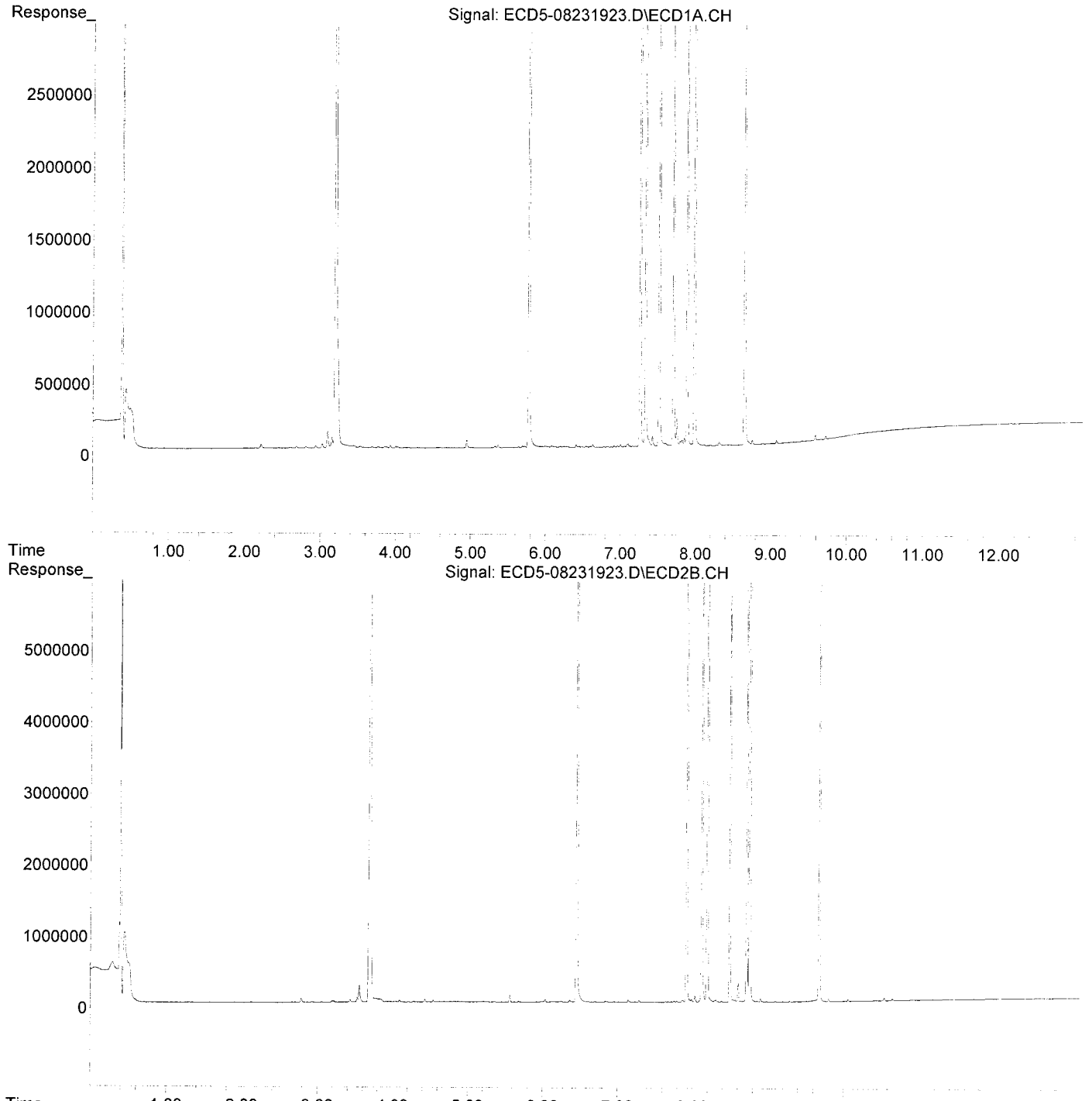
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	3.198	3.688	8761747	18635615	58.783	59.271
24)	Hexachlor...	5.774	6.454	8911624	16094159	72.549	71.786
25)	Oxychlordane	7.261	7.920	8382873	14172543	64.636	67.337
26)	2,4'-DDE	7.333	8.122	6510588	11006400	69.284	70.544
27)	trans-Non...	7.516	8.194	9581794	15807712	66.841	68.821
28)	2,4'-DDD	7.705	8.495	5920095	9924934	70.829	72.811
29)	2,4'-DDT	7.888	8.718	5687323	8810591	66.398	62.033
30)	cis-Nonac...	7.985	8.758	10616019	17721229	65.978	69.771
31)	Mirex	8.652	9.679	6218341	9100959	62.528	63.235
32)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)	Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231923.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:10
Operator : MJB
Sample : 9H23034-CALE
Misc : A19E154, 9-42 50 ppb
ALS Vial : 18 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:22:32 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 10:58:24 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:26:27 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/27/19

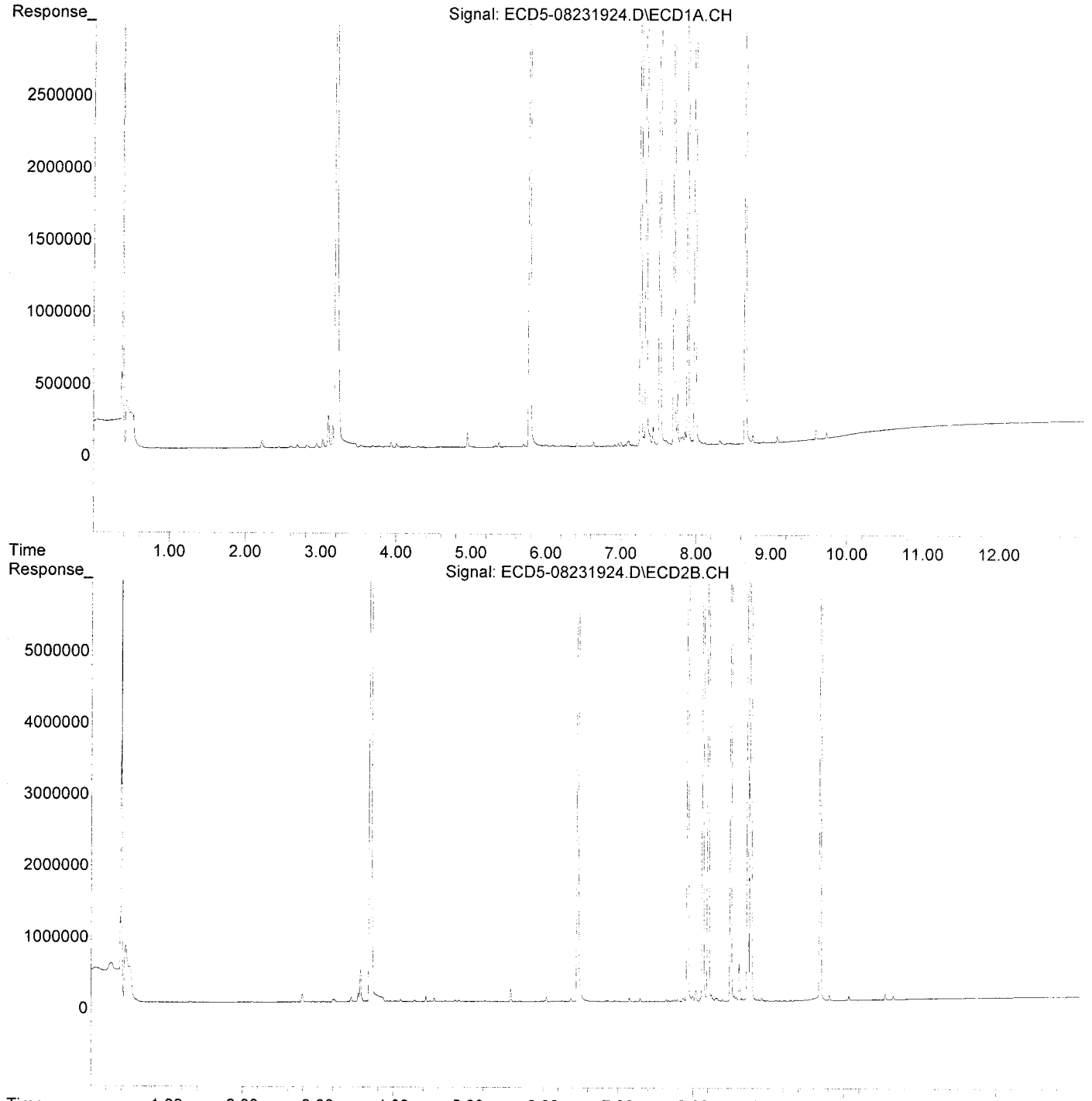
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	3.199	3.690	17952134	39298885	120.443	124.991
24)		Hexachlor...	5.776	6.455	17670025	32766708	143.851	146.152
25)		Oxychlordane	7.261	7.922	16359215	29732149	126.137	141.263
26)		2,4'-DDE	7.334	8.123	12769067	22164400	135.886	142.059
27)		trans-Non...	7.516	8.195	18351251	31975271	128.015	139.210
28)		2,4'-DDD	7.705	8.496	11587554	20118925	138.635	147.597
29)		2,4'-DDT	7.888	8.721	11771354	18998968	127.689	121.350
30)		cis-Nonac...	7.986	8.760	20932641	36072644	130.096	142.024
31)		Mirex	8.653	9.680	11960753	19363200	122.194	134.540
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231924.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:27
Operator : MJB
Sample : 9H23034-CALF
Misc : A19E155, 9-42 100 ppb
ALS Vial : 19 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:26:27 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:27:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

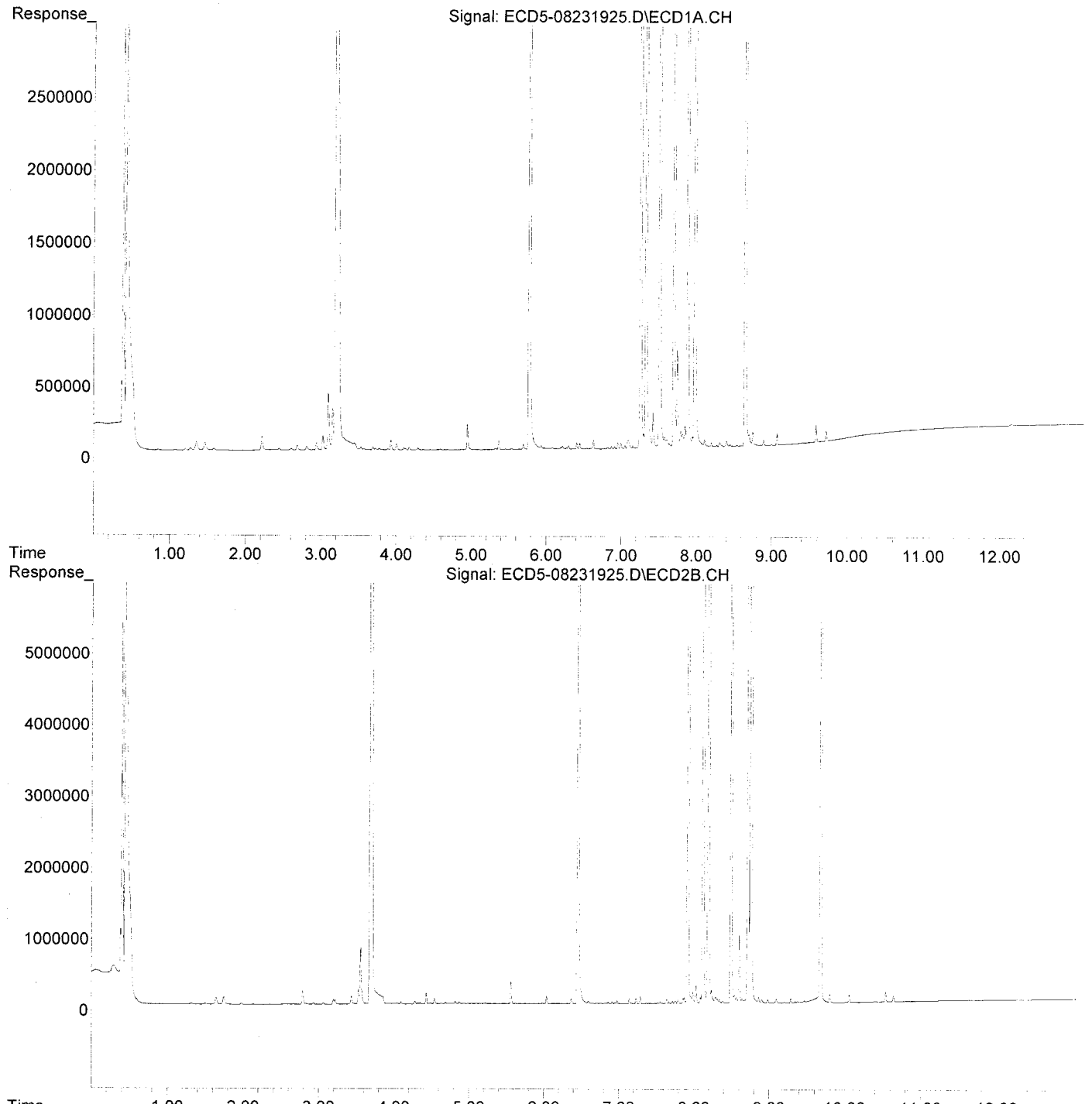
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)		d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)		Hexachlor...	3.199	3.689	34166533	75988565	229.227	241.683
24)		Hexachlor...	5.774	6.454	34073459	66261966	277.392	295.553
25)		Oxychlordane	7.258	7.920	32032634	58736982	246.986	279.071
26)		2,4'-DDE	7.331	8.122	24819199	44504592	264.121	285.245
27)		trans-Non...	7.514	8.194	35027918	63083636	244.348	274.645
28)		2,4'-DDD	7.703	8.494	21916962	39839303	262.217	292.269
29)		2,4'-DDT	7.887	8.719	23024956	39999231	224.761	221.024
30)		cis-Nonac...	7.984	8.759	40046185	72455823	248.887	285.271
31)		Mirex	8.652	9.679	23284997	38425530	237.885	266.989
32)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
33)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
34)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
35)		Chlordane...	0.000	0.000	0	0	N.D. d	N.D. d
36)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)		Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231925.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 18:45
Operator : MJB
Sample : 9H23034-CALG
Misc : A19E271, 9-42 200 ppb
ALS Vial : 20 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:27:05 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:31:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MP 8/26/19

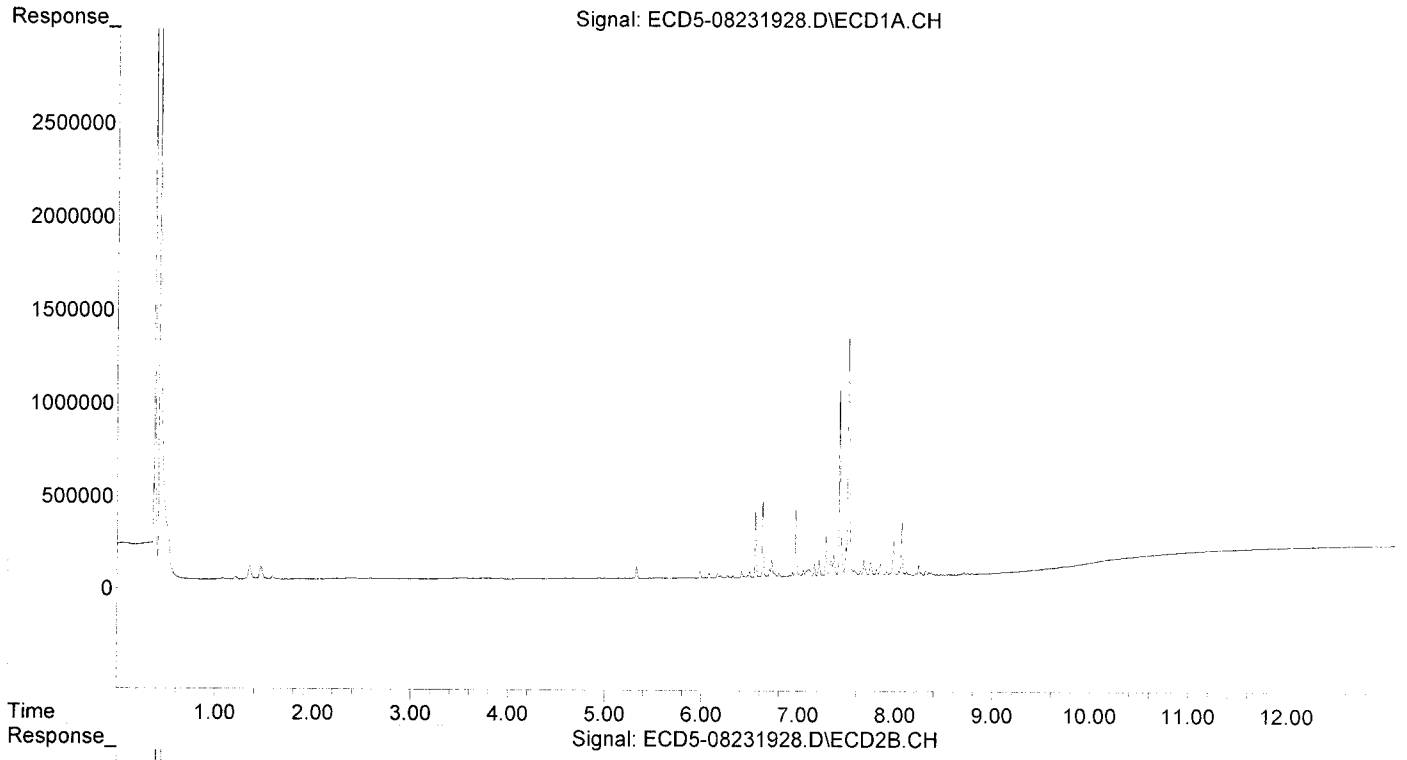
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.429	8.131	1009143	1754707	65.443	66.784
33)	Chlordane...	7.521	8.237	1286655	1472400	62.192	67.669
34)	Chlordane...	8.068	8.897	288087	439020	60.282	67.059
35)	Chlordane...	3.446	0.000	5365	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

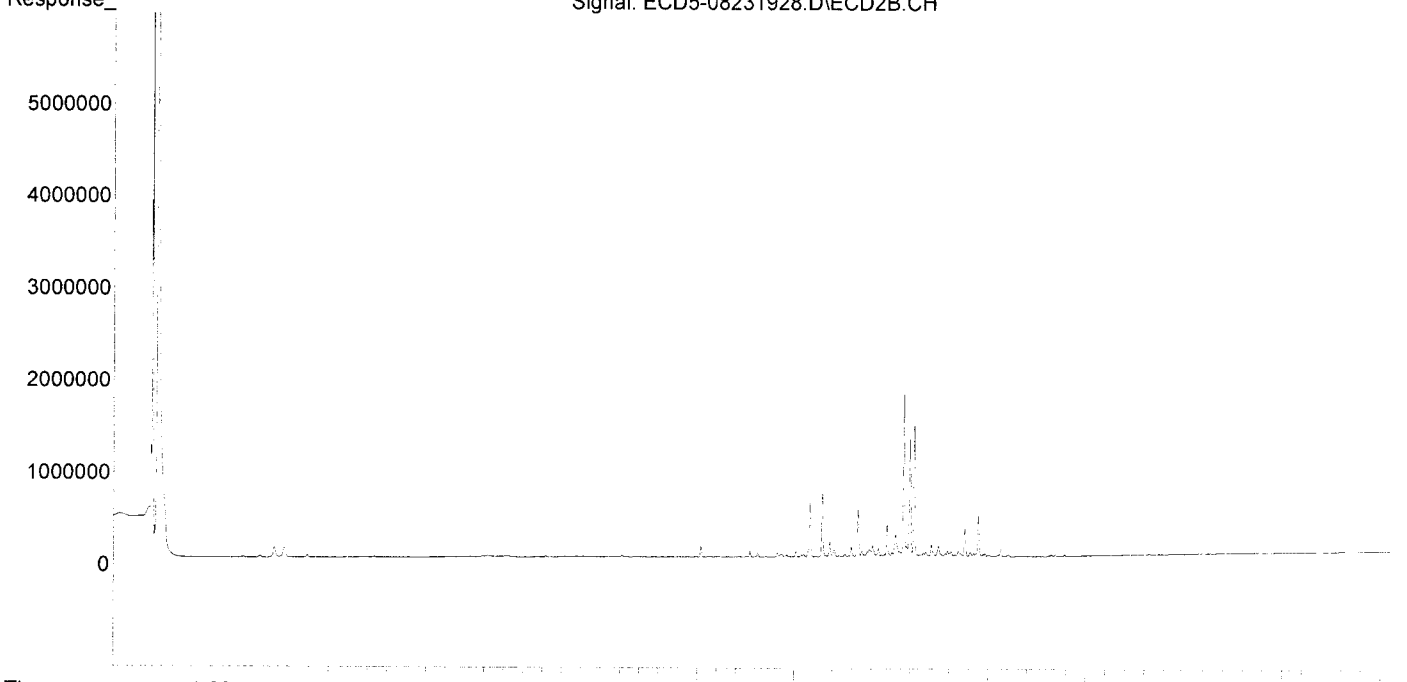
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:36
Operator : MJB
Sample : 9H23034-CALH
Misc : A19F232, CHLOR 50 ppb
ALS Vial : 22 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:31:56 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:32:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

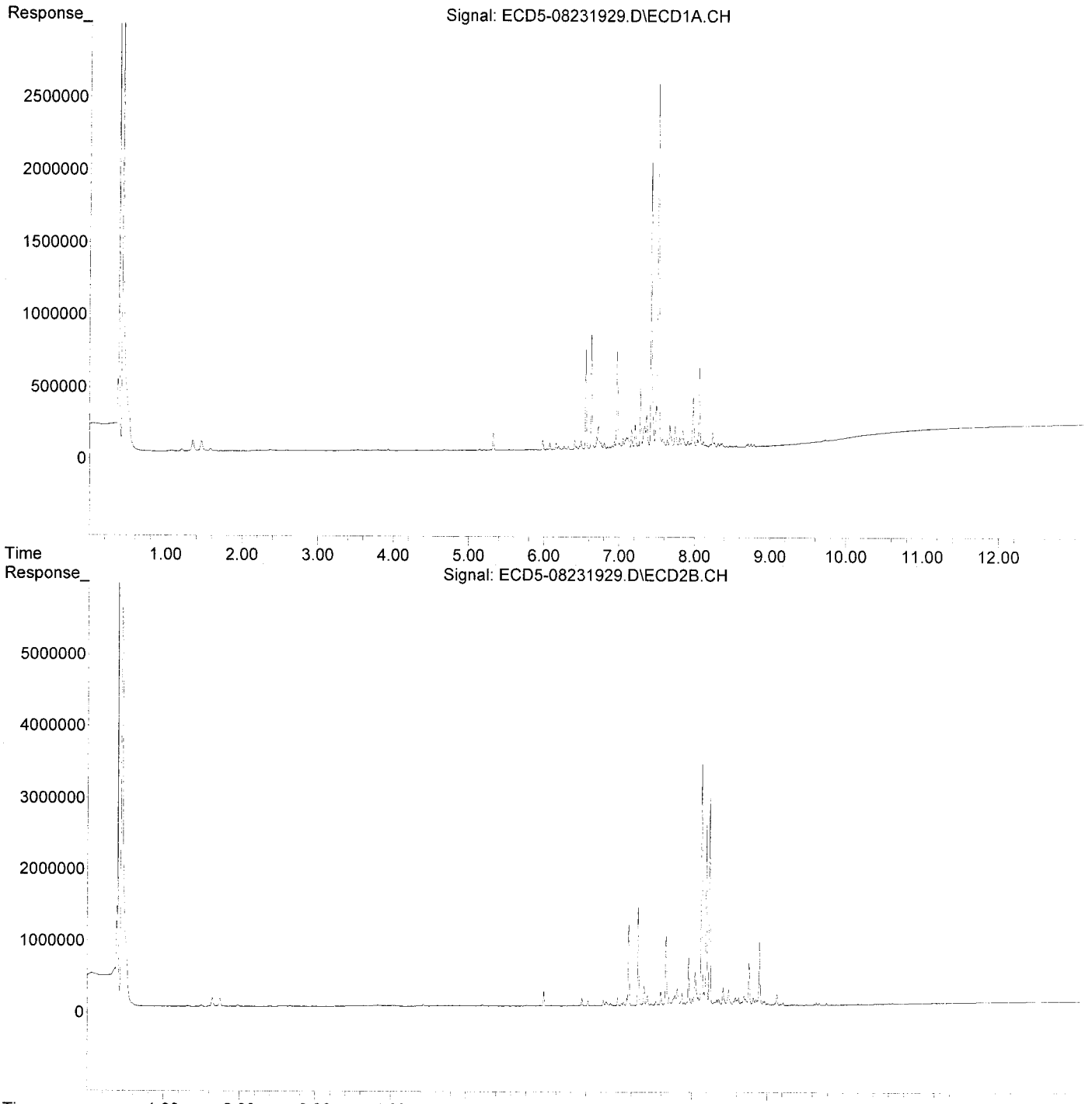
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.429	8.130	1978897	3378388	128.331	127.866
33)	Chlordane...	7.521	8.238	2519520	2905941	121.784	133.934
34)	Chlordane...	8.068	8.898	548196	874465	114.710	133.920
35)	Chlordane...	3.446	0.000	4938	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 19:54
Operator : MJB
Sample : 9H23034-CALI
Misc : A19F233, CHLOR 100 ppb
ALS Vial : 23 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:32:31 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

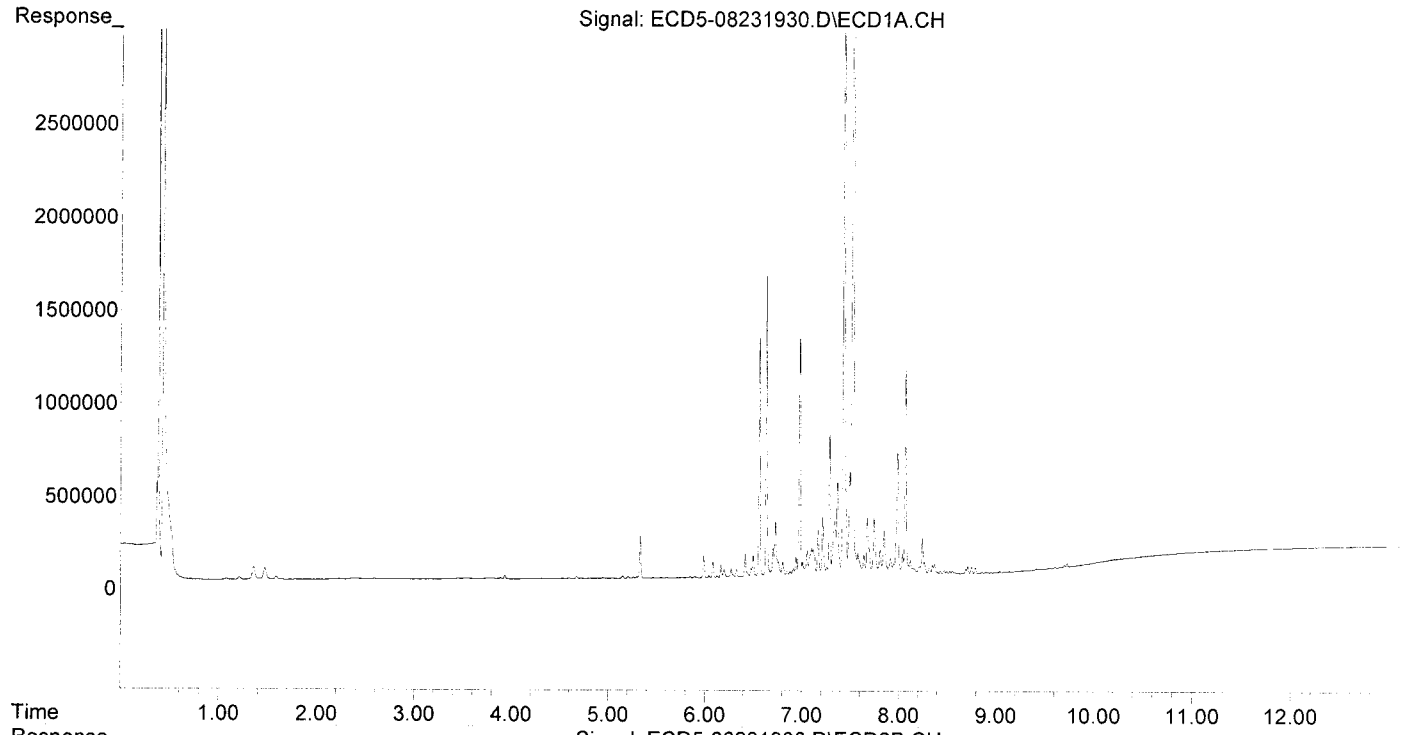
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.429	8.131	3849299	6751197	249.627	251.318
33)	Chlordane...	7.522	8.239	4906320	5883615	237.153	267.927
34)	Chlordane...	8.069	8.898	1101677	1731727	230.526	261.800
35)	Chlordane...	3.448	0.000	4503	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

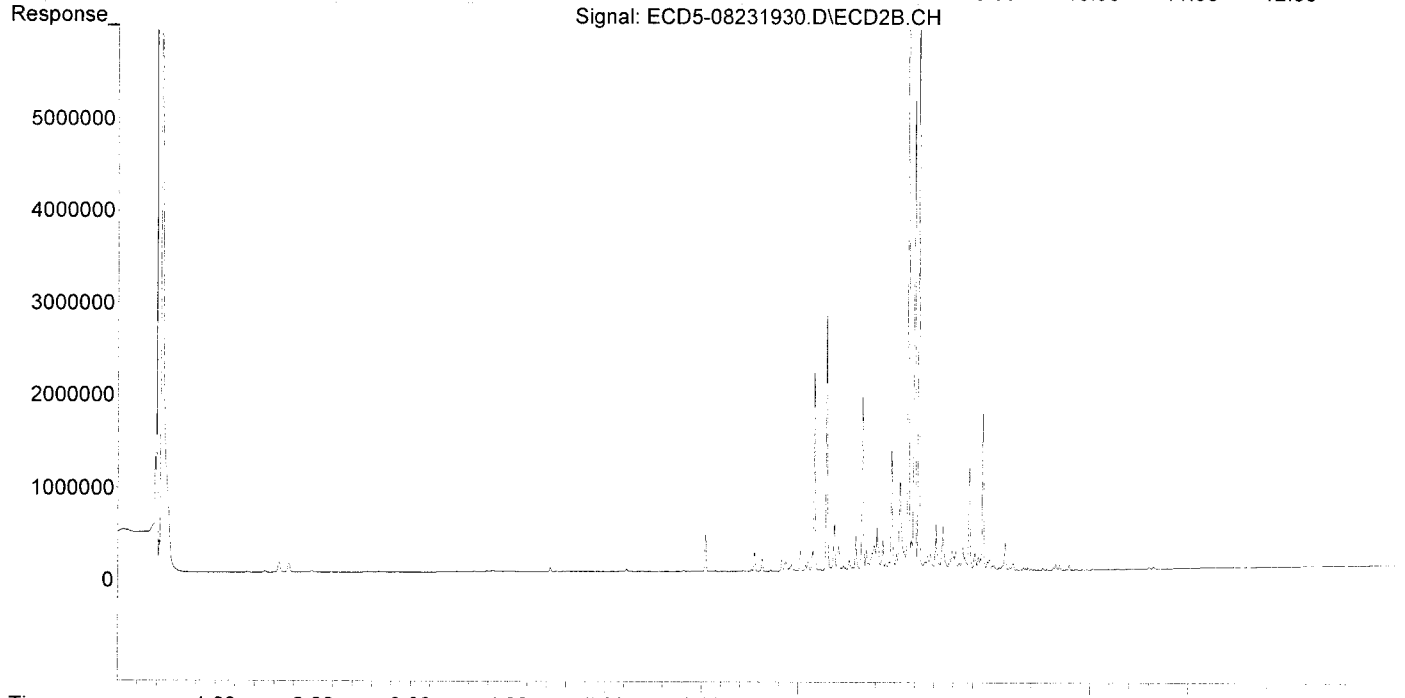
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:11
Operator : MJB
Sample : 9H23034-CALJ
Misc : A19F234, CHLOR 200 ppb
ALS Vial : 24 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:08 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:29:20 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped





Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:28:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 9/26/19

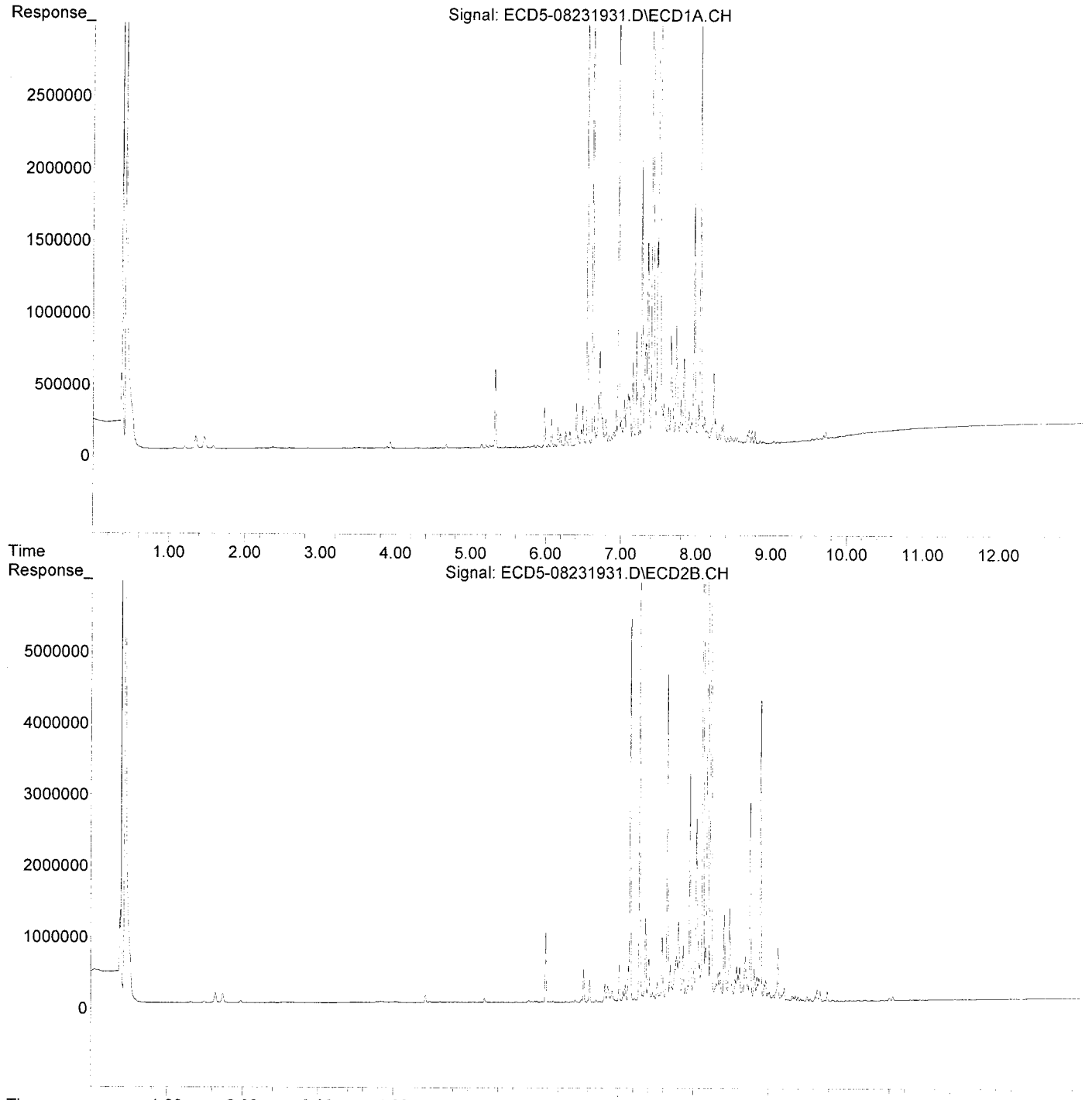
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
6)	d-BHC	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	trans-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	cis-Chlor...	0.000	0.000	0	0	N.D. d	N.D. d
11)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
12)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
20)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
23)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
24)	Hexachlor...	0.000	0.000	0	0	N.D. d	N.D. d
25)	Oxychlordane	0.000	0.000	0	0	N.D. d	N.D. d
26)	2,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
27)	trans-Non...	0.000	0.000	0	0	N.D. d	N.D. d
28)	2,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
29)	2,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
30)	cis-Nonac...	0.000	0.000	0	0	N.D. d	N.D. d
31)	Mirex	0.000	0.000	0	0	N.D. d	N.D. d
32)	Chlordane...	7.427	8.129	9628671	17830433	624.419	629.093
33)	Chlordane...	7.520	8.237	12176524	14812273	588.567	644.287
34)	Chlordane...	8.067	8.896	2921278	4271709	611.277	615.748
35)	Chlordane...	3.447	0.000	4056	0	NoCal	N.D.
36)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
37)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
38)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
39)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
40)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
41)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d
42)	Toxaphene...	0.000	0.000	0	0	N.D. d	N.D. d

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

Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:28
Operator : MJB
Sample : 9H23034-CALK
Misc : A19F235, CHLOR 500 ppb
ALS Vial : 25 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:28:33 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped



Quantitation Report (QT Reviewed)

Data Path : R:\data\2019-08\9H23034\
Data File : ECD5-08231932.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 23 Aug 2019 20:45
Operator : MJB
Sample : 9H23034-CALL
Misc : A19F236, CHLOR 1000 ppb
ALS Vial : 26 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: PEST1.e
Integration File signal 2: PEST2.e
Quant Time: Aug 26 11:33:36 2019
Quant Method : R:\methods\ECD5_QUANTPEST_190823.M
Quant Title : Instrument: DualECD5
QLast Update : Mon Aug 26 11:22:42 2019
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

MJB 8/26/19

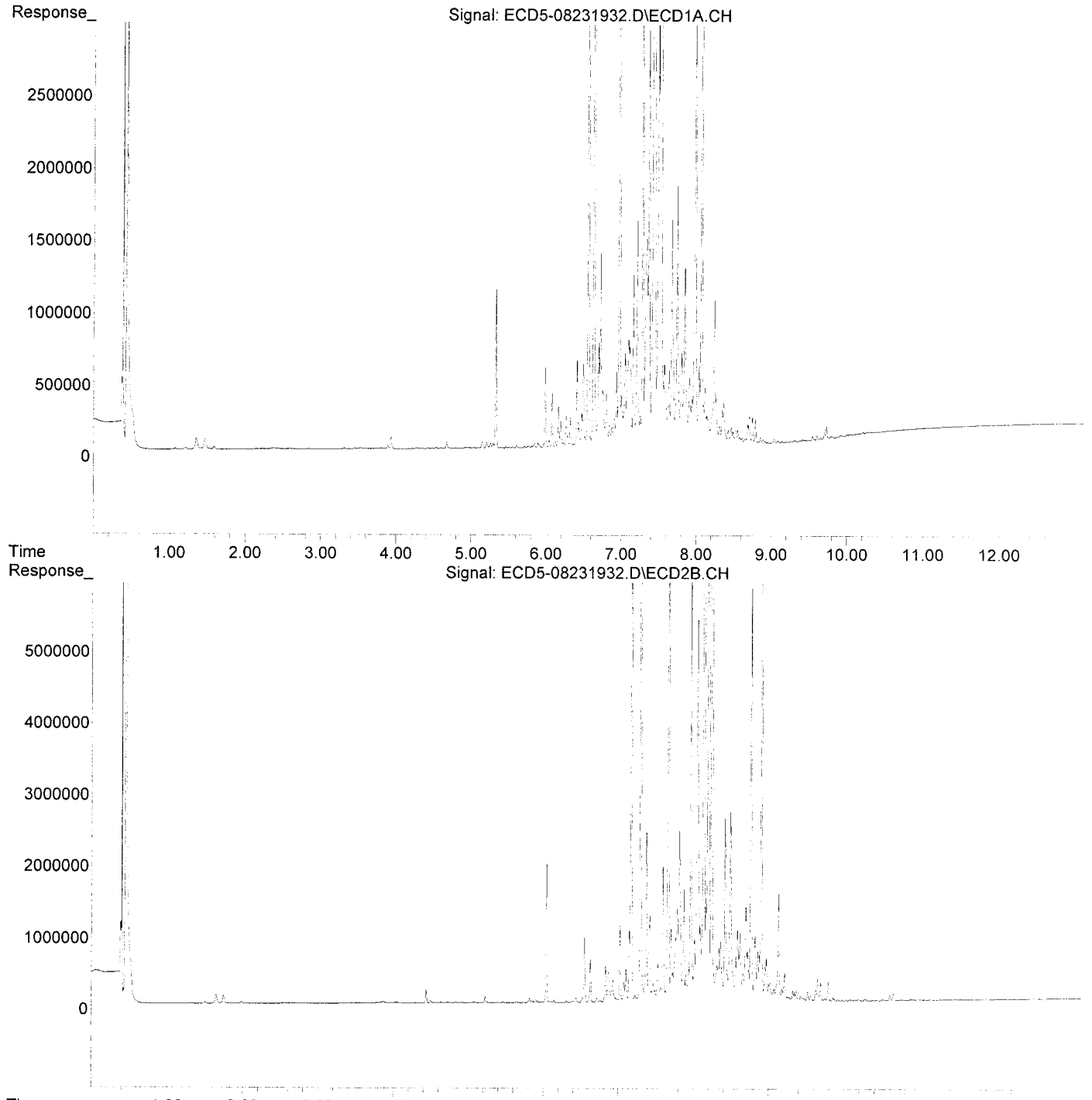
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

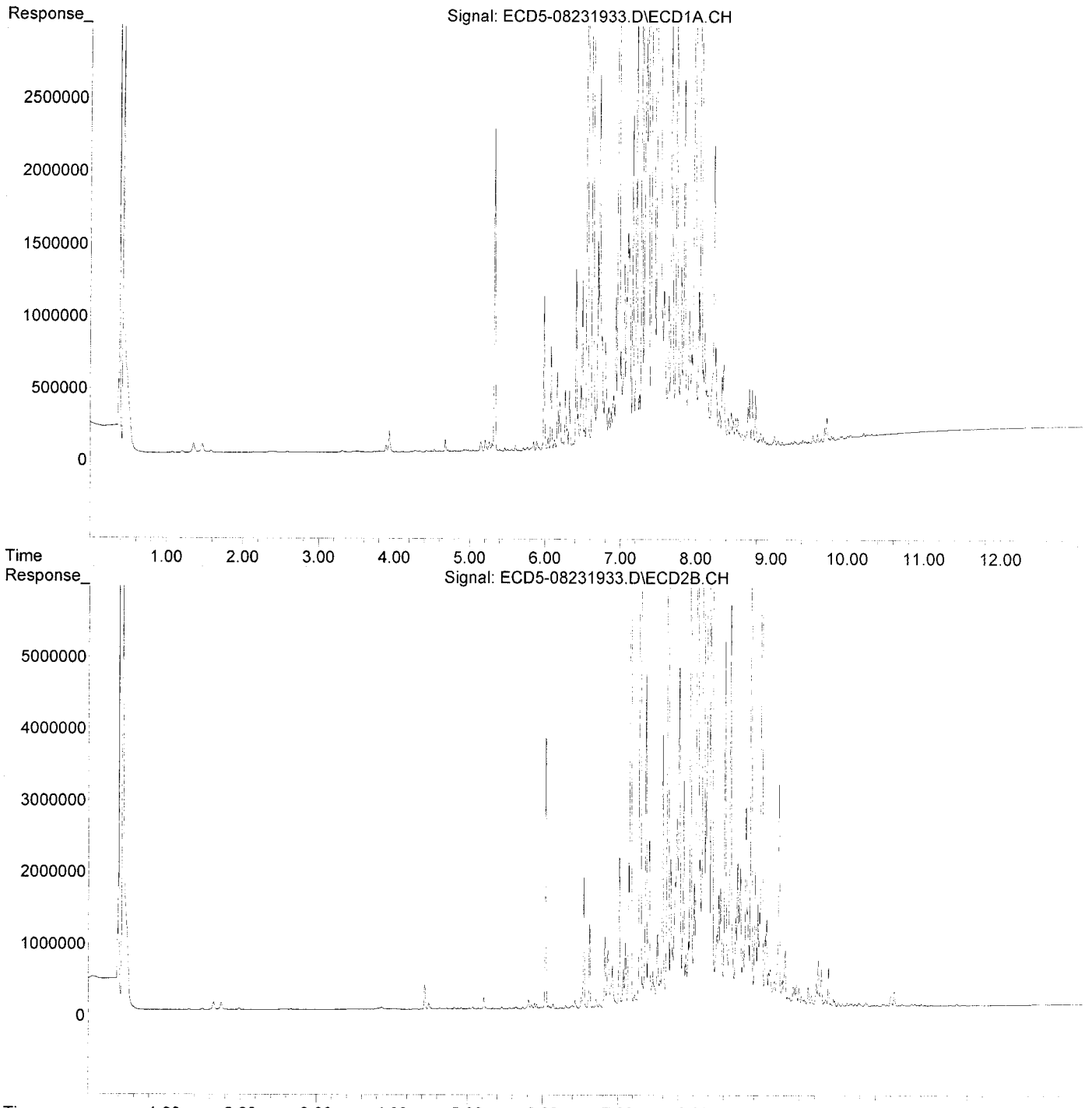
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

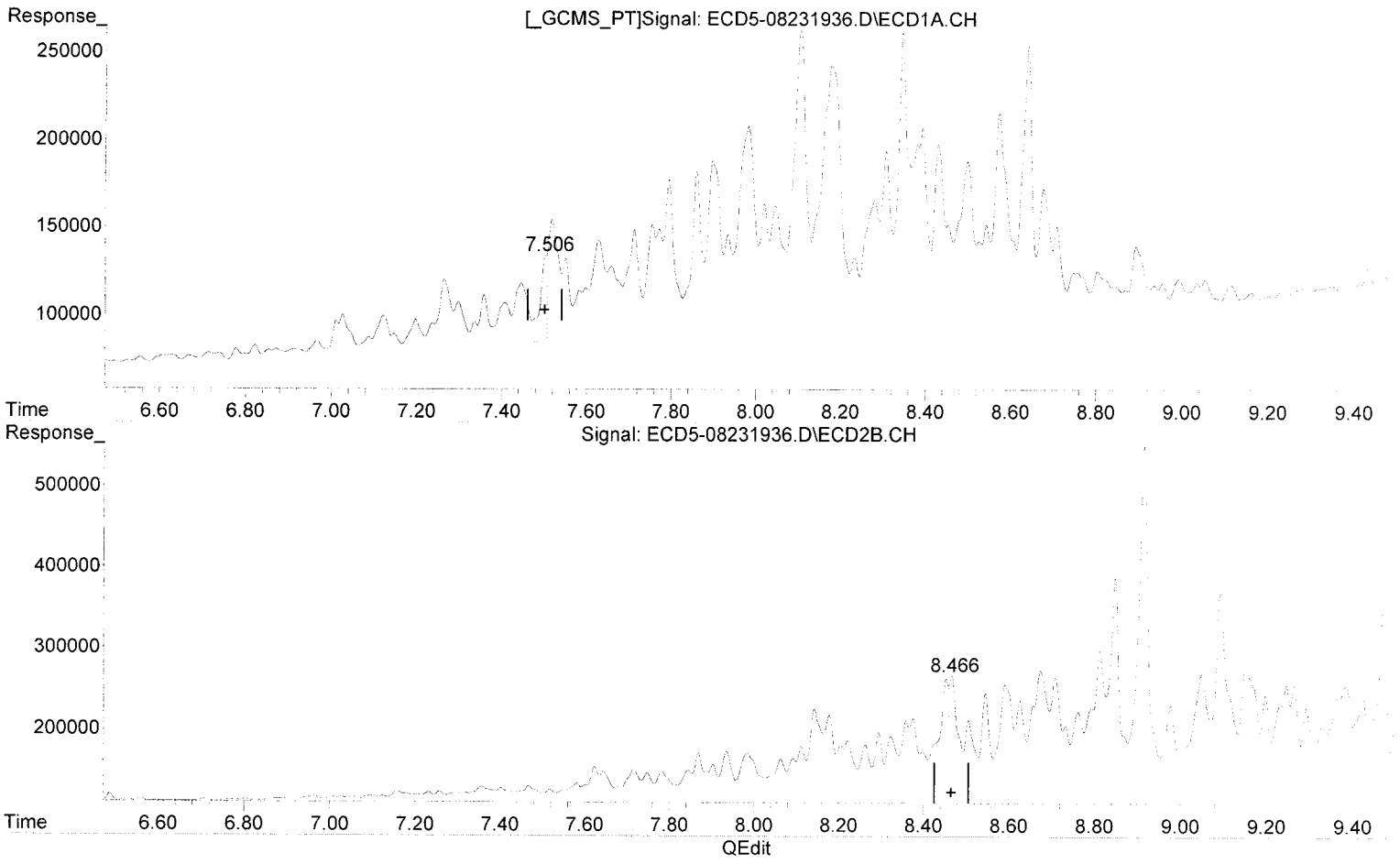
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

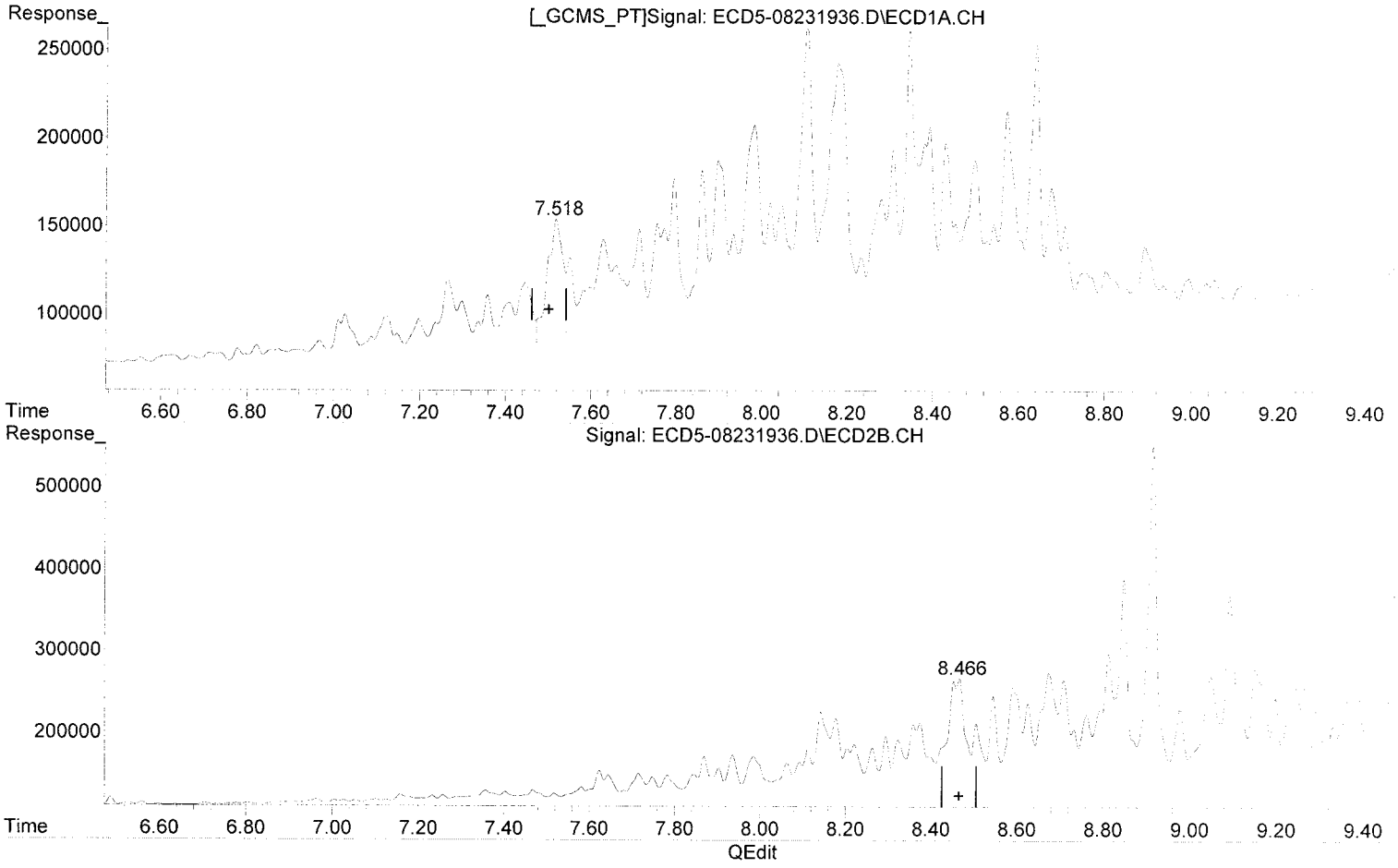
response 136848

(+) = 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

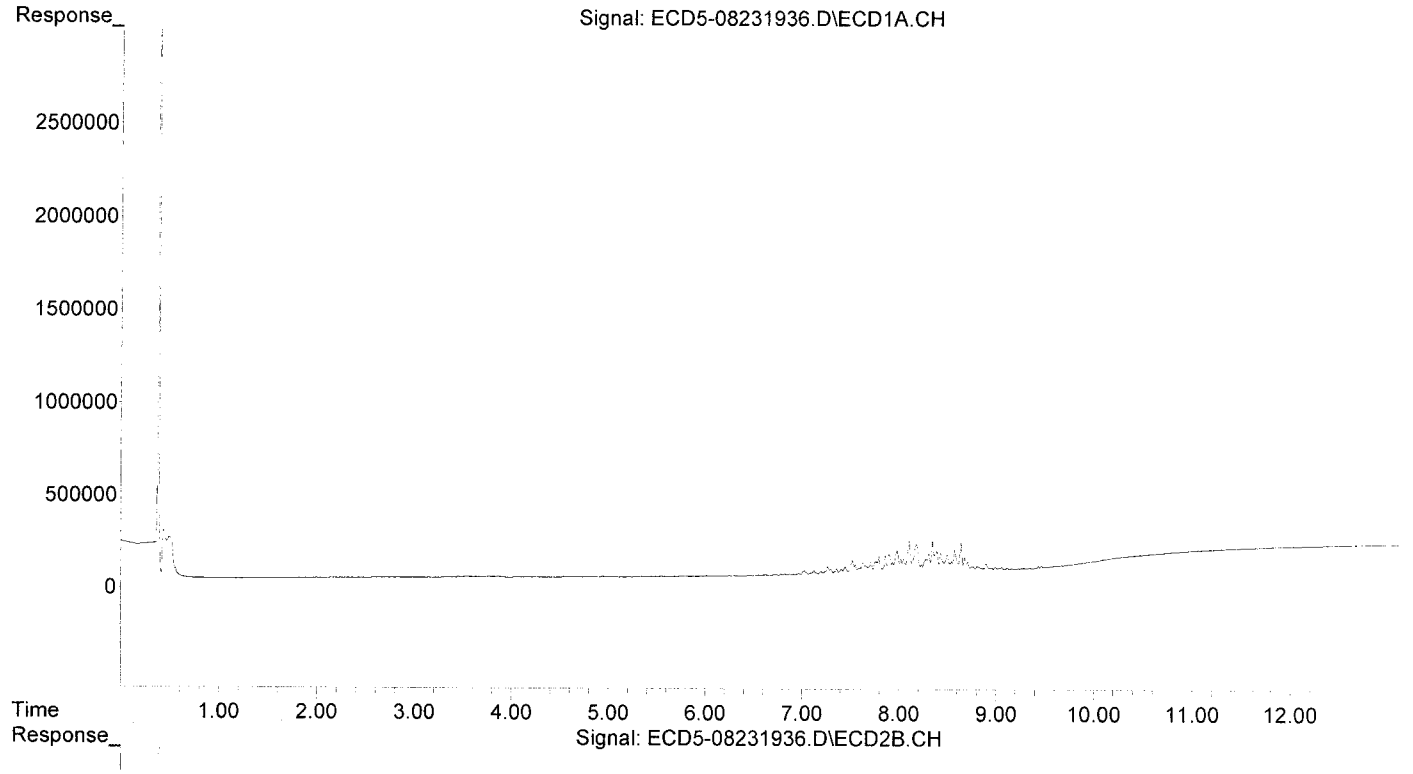
response 136848

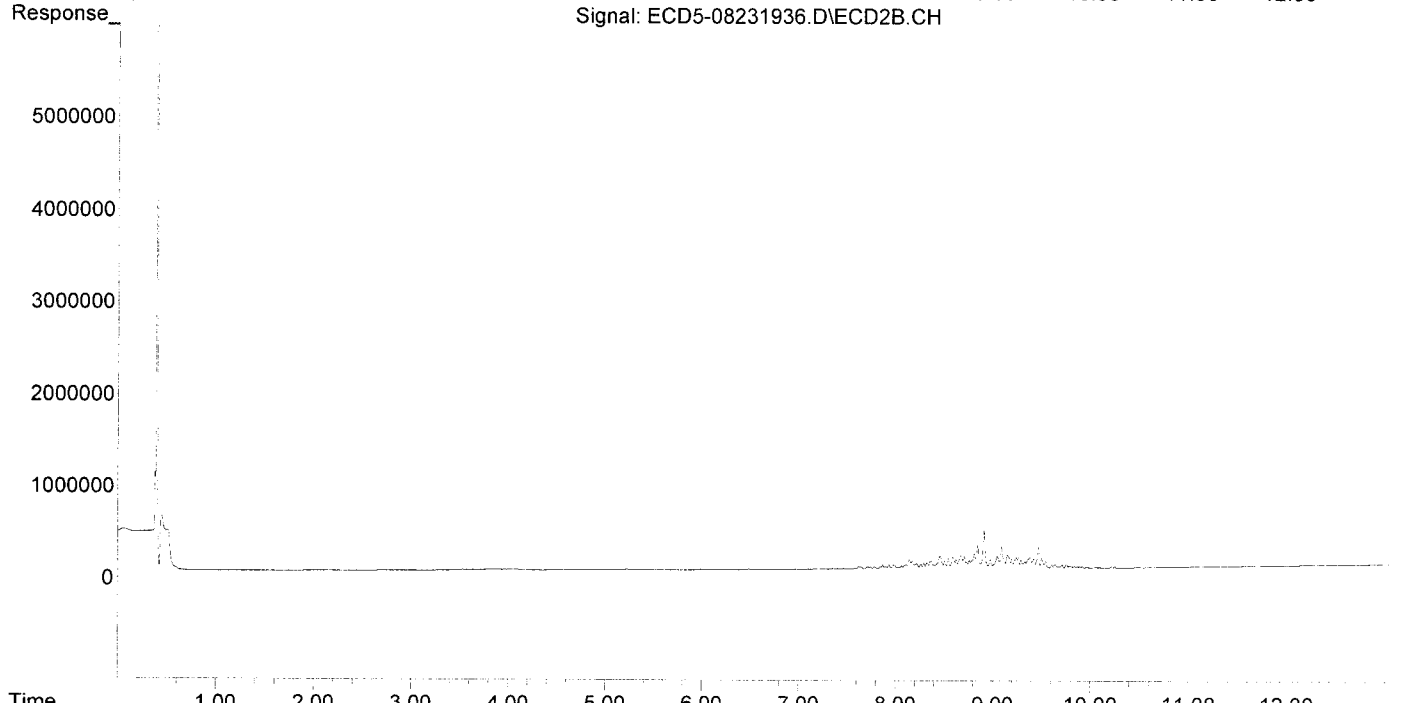
(+) = Expected Retention Time

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

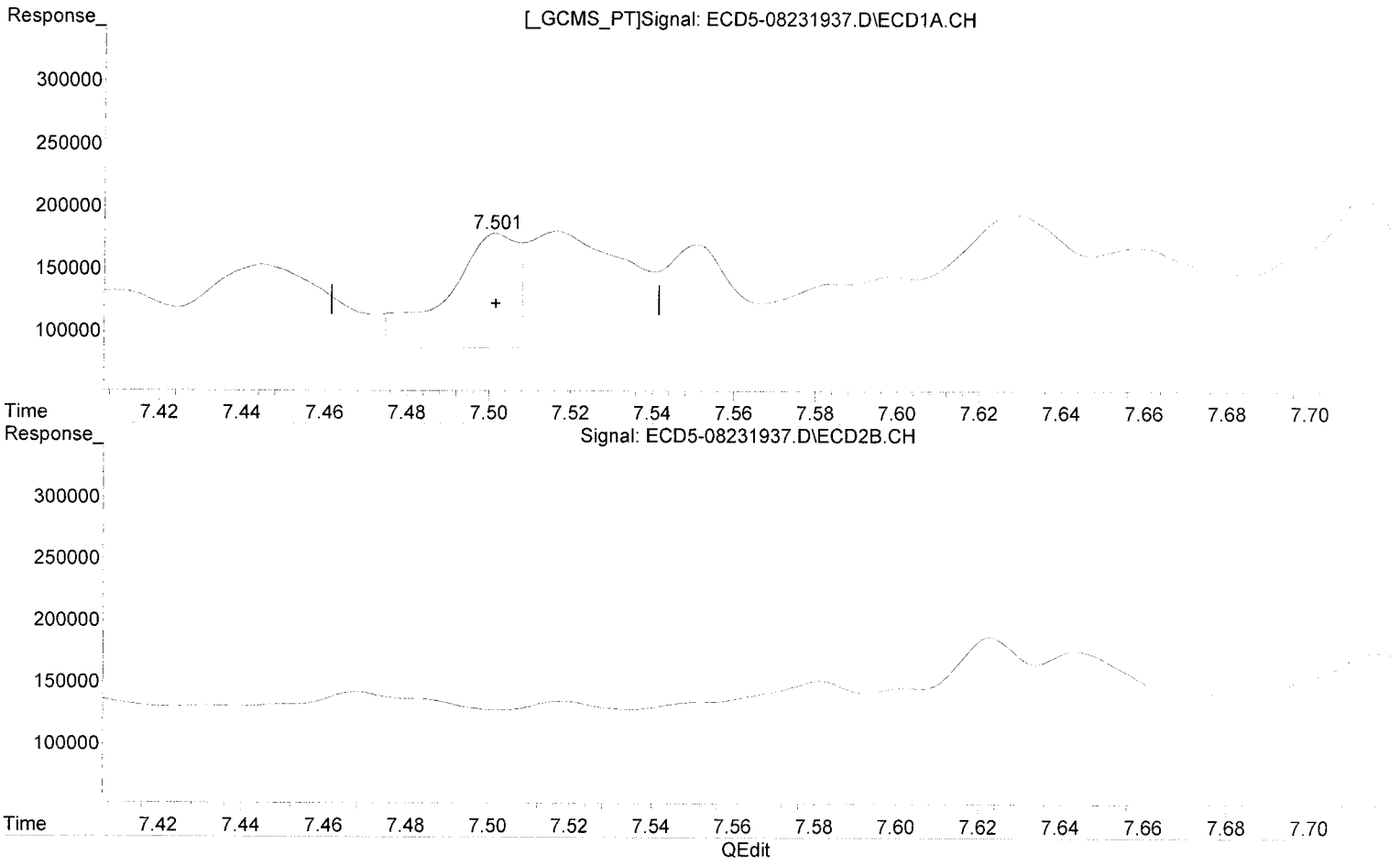
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

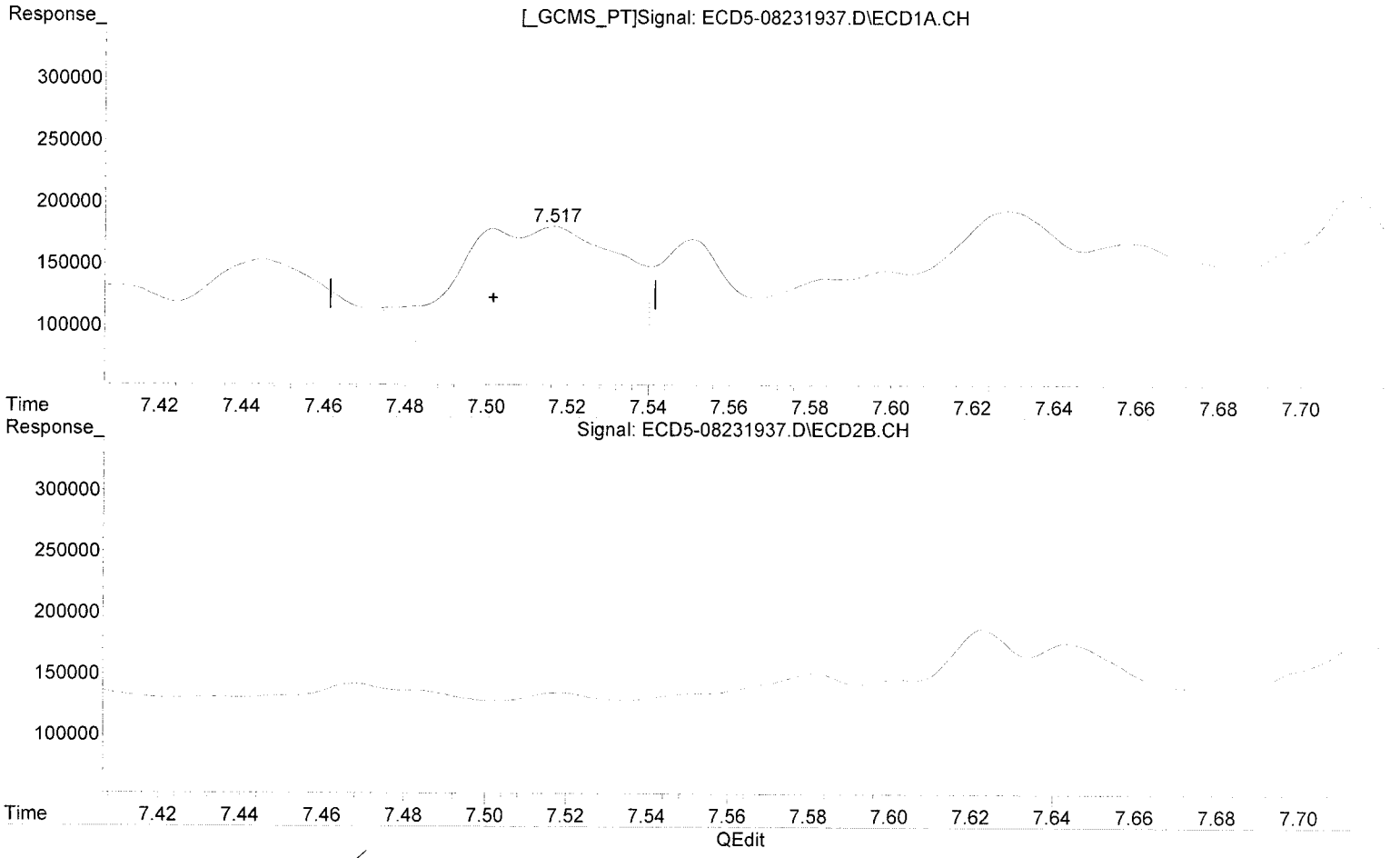
response 267534

(+) = 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

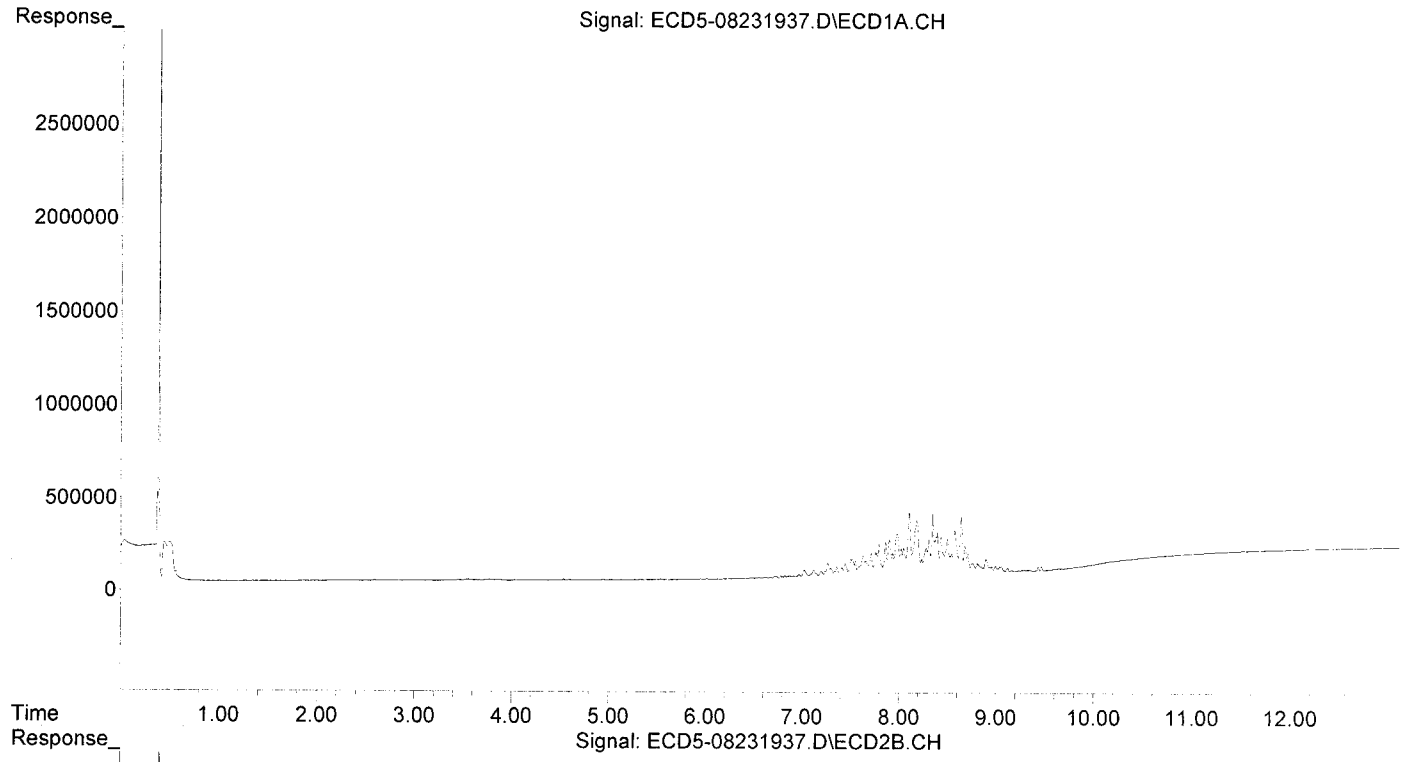
response 267534

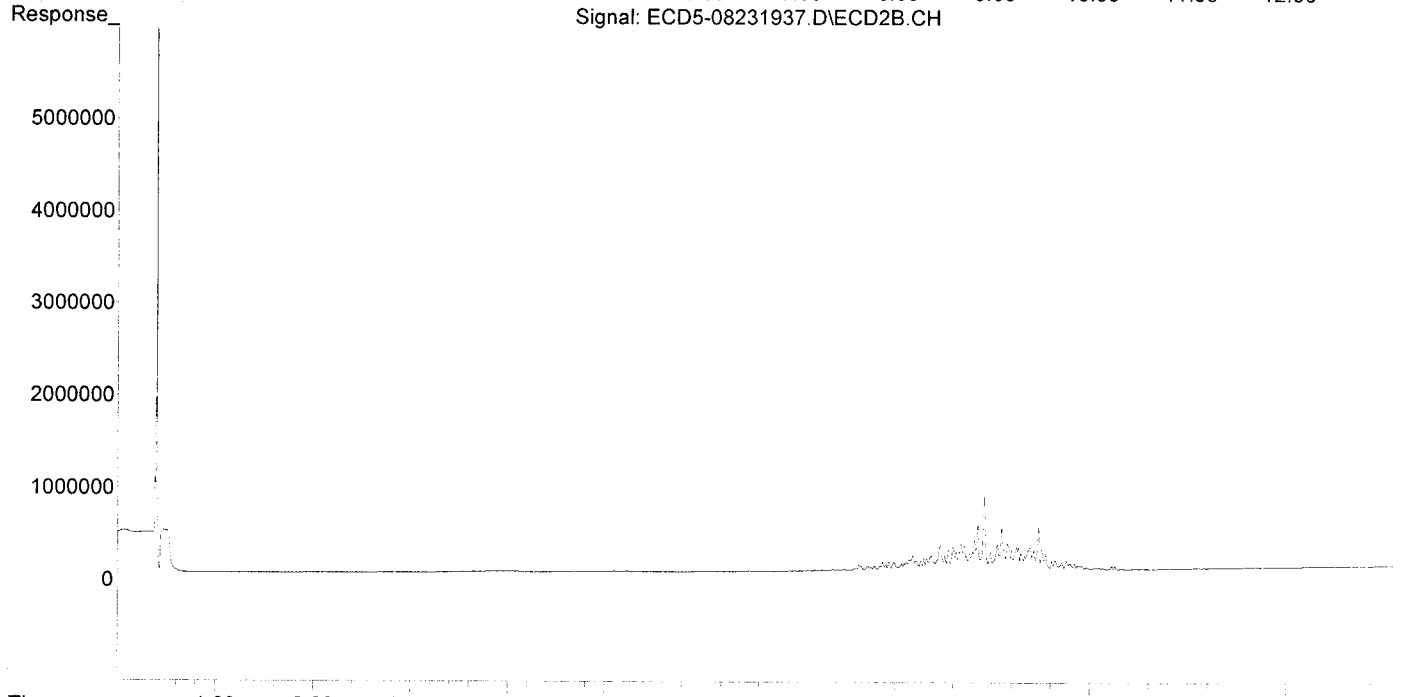
(+) = Expected Retention Time

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

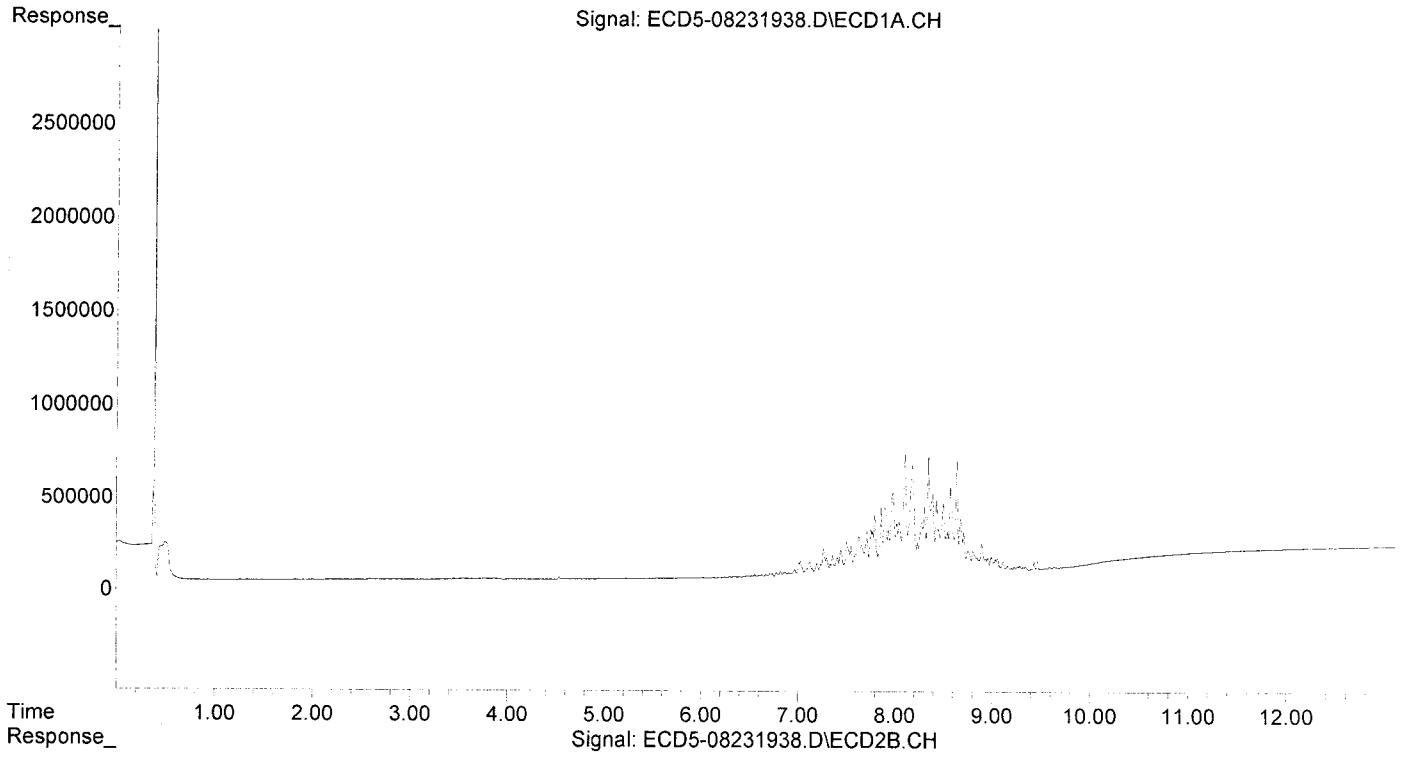
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

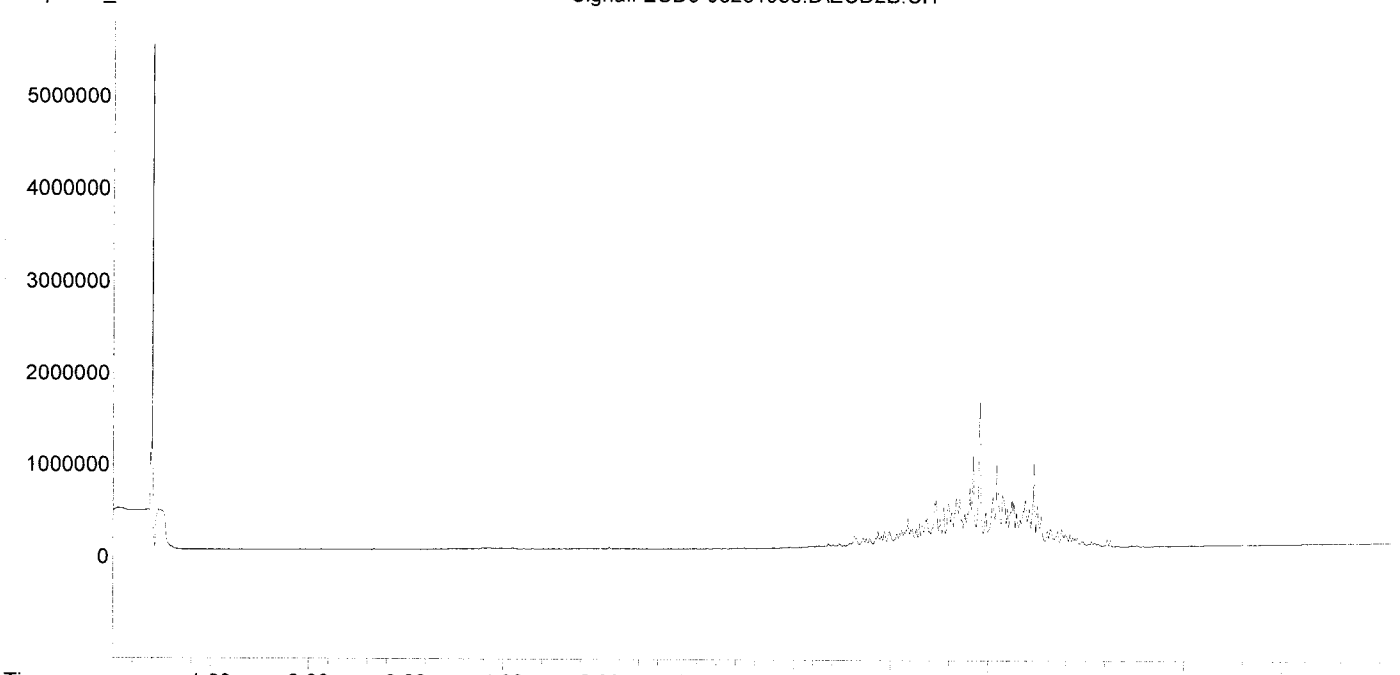
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

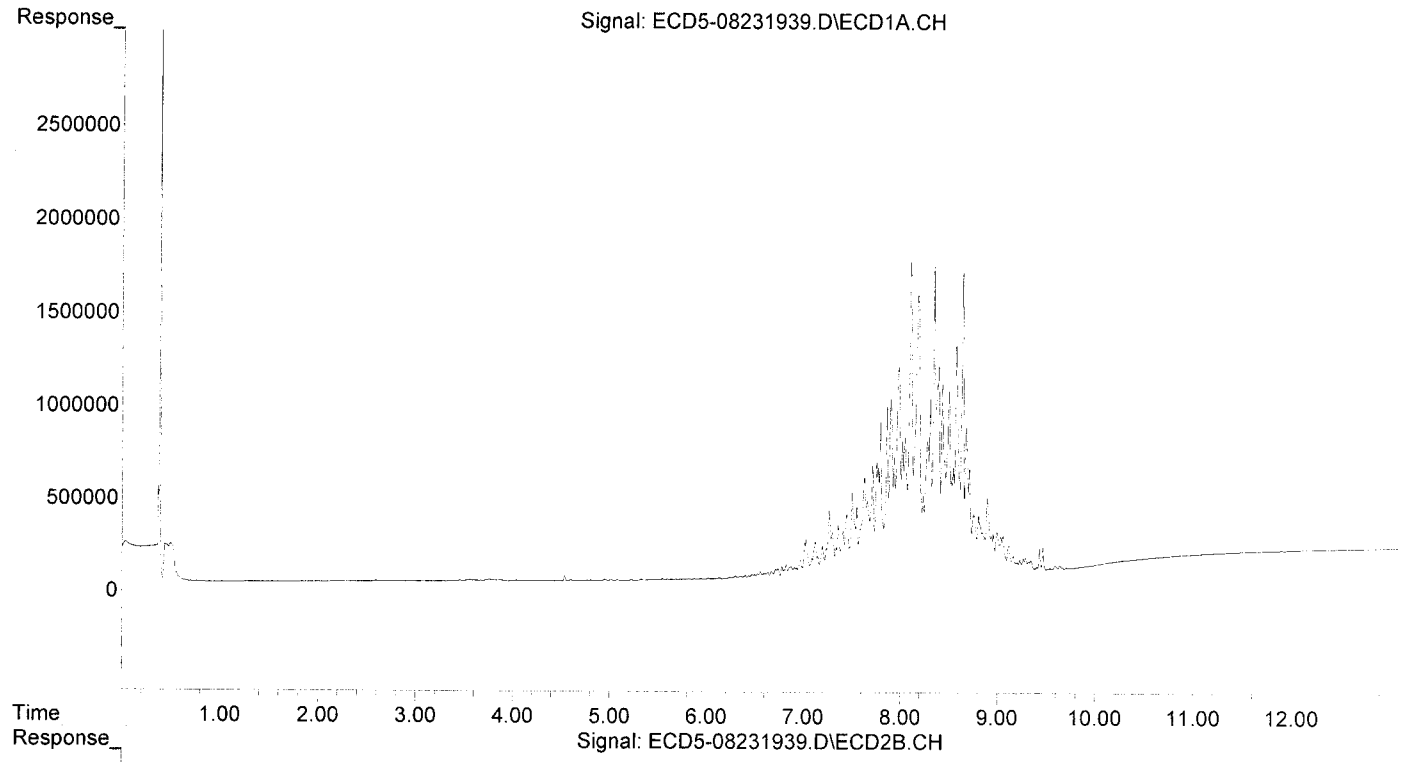
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22) S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
	Target Compounds						
2)	a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)	b-BHC	0.000	0.000	0	0	N.D.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

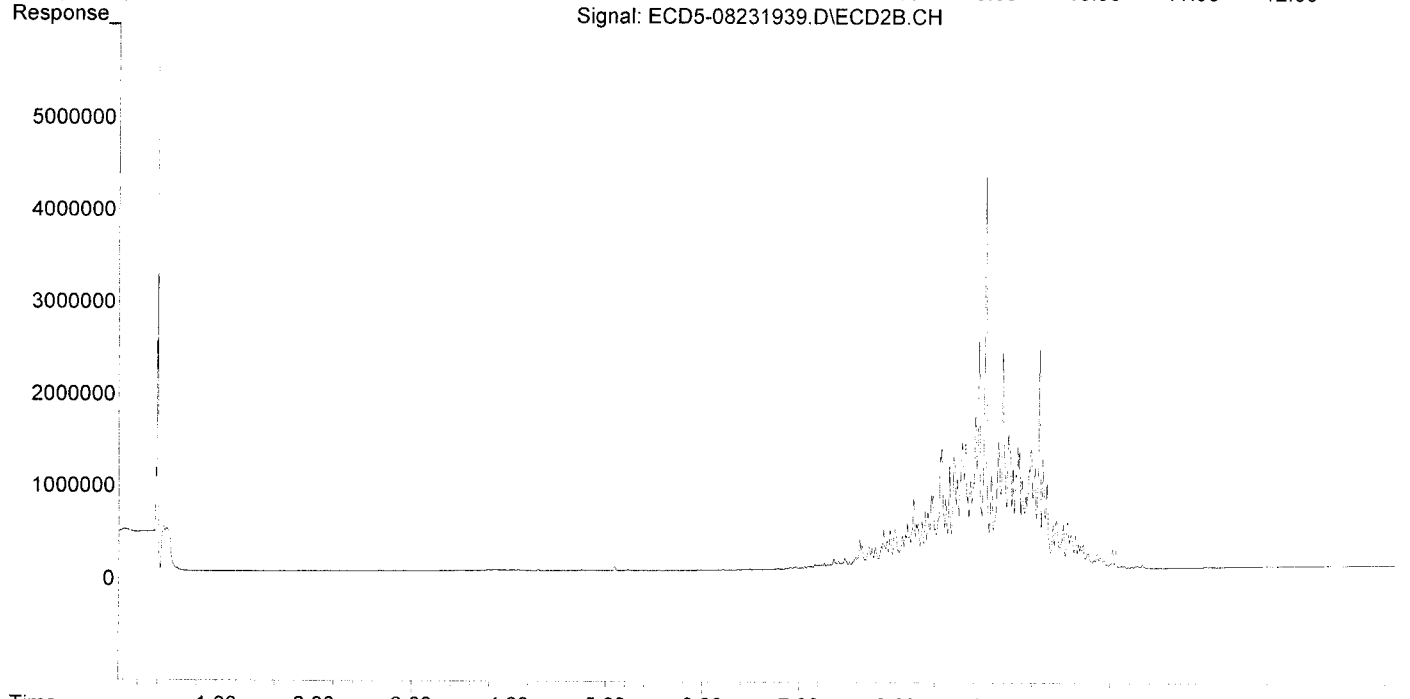
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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 9/26/19

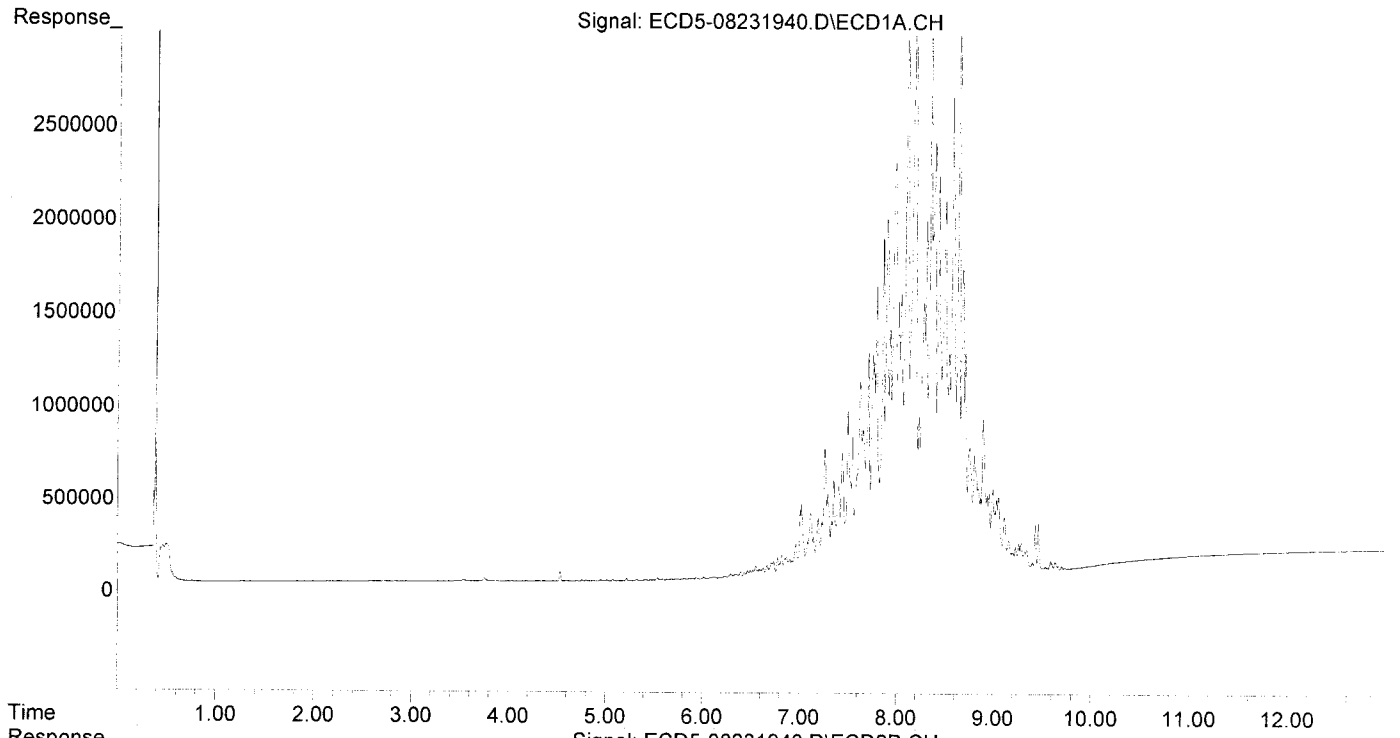
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0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

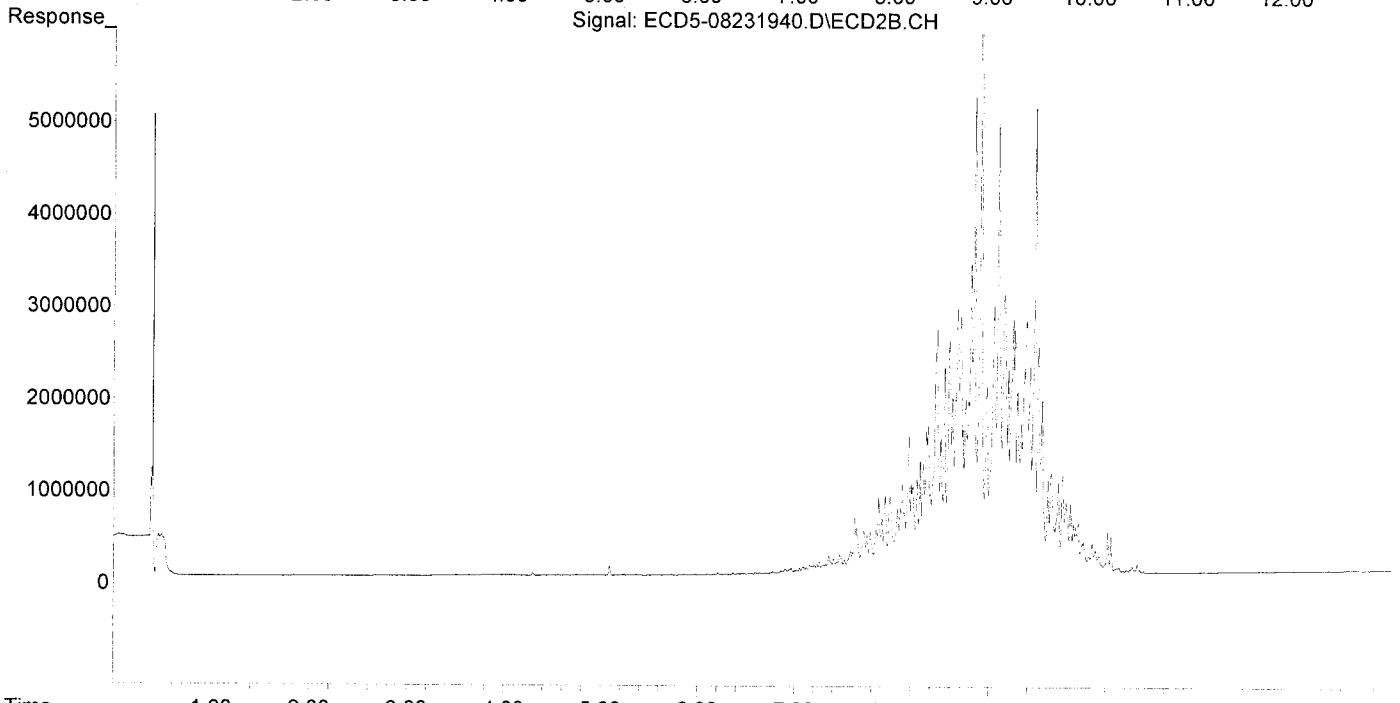
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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

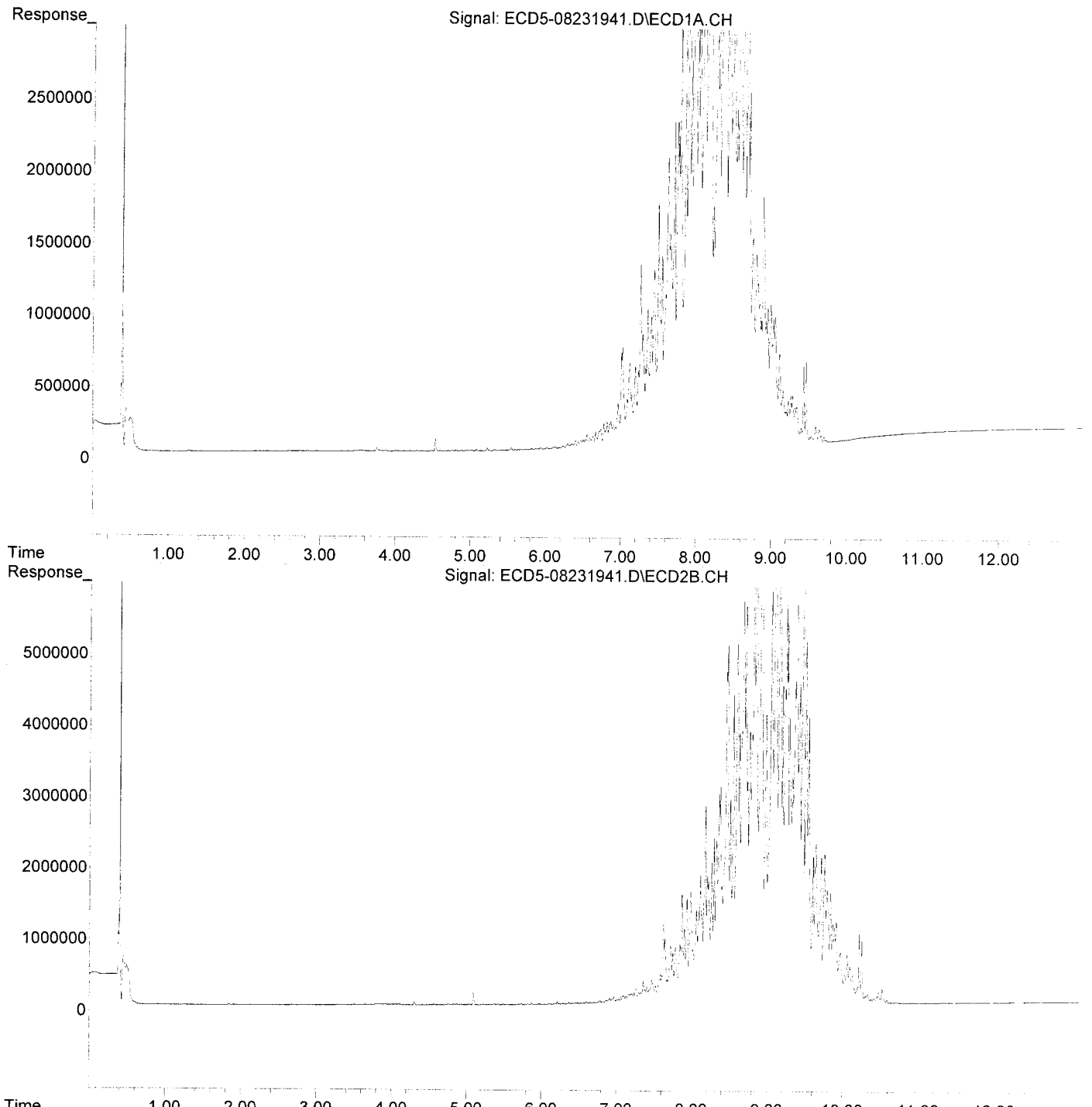
		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
		System Monitoring Compounds						
1)	S	TCMX (S)	0.000	0.000	0	0	N.D. d	N.D. d
22)	S	DCBP (S)	0.000	0.000	0	0	N.D. d	N.D. d
		Target Compounds						
2)		a-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		g-BHC	0.000	0.000	0	0	N.D. d	N.D. d
4)		b-BHC	0.000	0.000	0	0	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 (PAHs) by EPA 8270D
Benchsheet & Analysis Sequence Data

Batch 9100706
Batch 9100712
Sequence 9J07048 (A9J0058-01,02,03,04,05,06,07,12)

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100706 (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
	9100706-BLK1		QC	10/06/19 07:51	11	5				100					
	9100706-BS1		QC	10/06/19 07:51	10	5	A19H078		100	100					
	A9I0922-16	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.33	5				100	PDI-036SC-B-8.2-10.2-190929				
	A9I0922-17	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.71	5				100	PDI-064SC-B-8-10-190929				
	A9I0922-18	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.86	5				100	PDI-064SC-B-10-12-190929				
	A9I0922-19	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.54	5				100	PDI-064SC-B-12-14-190929				
	A9I0922-19RE1	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.54	5				100	PDI-064SC-B-12-14-190929	RR-1, 1x. Added 10/8/2019 By jk			
	A9I0922-20	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.93	5				100	PDI-064SC-B-14-15.8-190929				
	A9I0922-20RE1	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.93	5				100	PDI-064SC-B-14-15.8-190929	Added 10/8/2019 By hml			
	A9I0922-21	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.13	5				100	PDI-1064SC-B-08-10-190929				
	A9I0936-03RE1	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.84	5				100	PDI-024SC-A-10-11-190927	Due to blank contamination. Added 10/4/2019 By jk			
	A9I0936-18RE1	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.49	5				100	PDI-064SC-A-14-15-190929	SURR FAILURE, Added 10/4/2019 By hml			
	A9J0058-01	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.61	5				100	PDI-039SC-A-12-13-190930				
	A9J0058-02	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.23	5				100	PDI-039SC-A-13-13.7-190930				
	A9J0058-03	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.41	5				100	PDI-1039SC-A-12-13-190930				
	A9J0058-04	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.83	5				100	PDI-039SC-B-11.8-13.7-190930				
	A9J0058-05	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.73	5				100	PDI-039SC-B-3.8-5.8-190930				
	A9J0058-06	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.49	5				100	PDI-039SC-B-5.8-7.8-190930				
	A9J0058-07	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.19	5				100	PDI-039SC-B-7.8-9.8-190930				

Prepared By: Date

Reviewed By: 10/10/19 Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100706 (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
	A9J0058-08	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.09	5				100	PDI-039SC-B-9.8-11.8-190930				
	A9J0058-09	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.61	5				100	PDI-040SC-A-09-10-190930				
	A9J0058-10	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.86	5				100	PDI-040SC-A-10-11.3-190930				
	A9J0058-11	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10.21	5				100	PDI-040SC-B-5.3-7.3-190930				
	A9J0058-12	H	8270D LL PAH Only (Scan)	10/06/19 07:51	10.36	5				100	PDI-040SC-B-7.3-9.3-190930	MS/MSD			
	9100706-MS1		QC	10/06/19 07:51	10.4	5	A19H078	A9J0058-12	100	100					
	9100706-MSD1		QC	10/06/19 07:51	10.6	5	A19H078	A9J0058-12	100	100					

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19H436	07/31/21	Sodium Sulfate Lot # 190116
A19I027	01/01/22	DCM CHEM PROD. 190351

Analyte Spike(s)

Std ID	Exp. Date	Description
A19H078	02/02/20	LVI PAH Spike @2000ng/ml

Surrogate(s)

Std ID	Exp. Date	Description
A19I094	03/03/20	8270D LL PAH Only Surr. (5ppm)

Method 3546 digestion time and temperture achieved.
Initial:

Witness:_____

Prepared By: Date

Reviewed By: Date

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100706 (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	9100706-BLK1		QC	10/06/19 07:51	10 11	5 ✓				100					
2	9100706-BS1		QC	10/06/19 07:51	10	5 ✓	A19H078		100	100					
3	A9I0922-16	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.33	5 ✓				100	PDI-036SC-B-8.2-10.2-190929	Sand			
4	A9I0922-17	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.71	5 ✓				100	PDI-064SC-B-8-10-190929	Mud			
5	A9I0922-18	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.86	5 ✓				100	PDI-064SC-B-10-12-190929	Sand			
6	A9I0922-19	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.54	5 ✓				100	PDI-064SC-B-12-14-190929	Sand			
7	A9I0922-20	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.93	5 ✓				100	PDI-064SC-B-14-15.8-190929	Wet Sand			
8	A9I0922-21	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.13	5 ✓				100	PDI-1064SC-B-08-10-190929	Mud			
9	A9I0936-03RE1	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.84	5 ✓				100	PDI-024SC-A-10-11-190927	Due to blank contamination. Added 10/4/2019 By jk Sand			
10	A9I0936-18RE1	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.49	5 ✓				100	PDI-064SC-A-14-15-190929	SURR FAILURE. Added 10/4/2019 By hml Mud			
11	A9J0058-01	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.61	5 ✓				100	PDI-039SC-A-12-13-190930	Sand			
12	A9J0058-02	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.23	5 ✓				100	PDI-039SC-A-13-13.7-190930	Sand			
13	A9J0058-03	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.41	5 ✓				100	PDI-1039SC-A-12-13-190930	Sand			
14	A9J0058-04	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.83	5 ✓				100	PDI-039SC-B-11.8-13.7-190930	Sand			
15	A9J0058-05	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.73	5 ✓				100	PDI-039SC-B-3.8-5.8-190930	Sand			
16	A9J0058-06	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.49	5 ✓				100	PDI-039SC-B-5.8-7.8-190930	Sand			
17	A9J0058-07	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.19	5 ✓				100	PDI-039SC-B-7.8-9.8-190930	Sand			
18	A9J0058-08	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.09	5 ✓				100	PDI-039SC-B-9.8-11.8-190930	Sand			
19	A9J0058-09	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 10.61	5 ✓				100	PDI-040SC-A-09-10-190930	Sand			

JC 10/6/19
Prepared By: Date

CAS 10/6/19
Reviewed By: Date

JAG 10/6/19

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100706 (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
20	A9J0058-10	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 / 10.86	5 ✓				100	PDI-040SC-A-10 -11.3-190930	Sand			
21	A9J0058-11	D	8270D LL PAH Only (Scan)	10/06/19 07:51	10 / 10.21	5 ✓				100	PDI-040SC-B-5. 3-7.3-190930	Sand			
22	A9J0058-12	H	8270D LL PAH Only (Scan)	10/06/19 07:51	10 / 10.36	5 ✓				100	PDI-040SC-B-7. 3-9.3-190930	MS/MSD Sand			
23	9100706-MS1		QC	10/06/19 07:51	10 / 10.40	5 ✓	A19H078	A9J0058-12	100	100		Sand			
24	9100706-MSD1		QC	10/06/19 07:51	10 / 10.600	5 ✓	A19H078	A9J0058-12	100	100		Sand			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19H436	07/31/21	Sodium Sulfate Lot # 190116
~~A19I262~~ A19IC27	~~08/30/22~~	DCM CHEM PROD ~~186806~~

JC 10/6/19

Analyte Spike(s)

Std ID	Exp. Date	Description
A19H078	02/02/20	LVI PAH Spike @2000ng/ml

JC

Surrogate(s)

Std ID	Exp. Date	Description
A19I094	03/03/20	8270D LL PAH Only Surr. (5ppm)

JC

Method 3546 digestion time and temperture achieved.

Initial: JAG

Witness: JAG 10/6/19

Prepared By: JAG Date: 10/6/19

Reviewed By: Date

APEX LABORATORIES

Apex Laboratories

PREPARATION BENCH SHEET

OCT 11 2019

BATCH #: 9100712 (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
	9100712-BLK1		QC	10/07/19 06:54	11	5				100					
	9100712-BS1		QC	10/07/19 06:54	10	5	A19H078		100	100					
	A9J0058-13	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.67	5				100	PDI-040SC-B-9.3-11.3-190930				
	A9J0058-14	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.36	5				100	PDI-1040SC-B-5.3-7.3-190930				
	A9J0058-15	I	8270D LL PAH Only (Scan)	10/07/19 06:54	10.24	5				100	PDI-042SC-A-12-13-190930	MS/MSD			
	9100712-MS1		QC	10/07/19 06:54	10.2	5	A19H078	A9J0058-15	100	100					
	9100712-MSD1		QC	10/07/19 06:55	10.22	5	A19H078	A9J0058-15	100	100					
	A9J0058-16	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.33	5				100	PDI-042SC-A-13-13.8-190930				
	A9J0058-17	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.17	5				100	PDI-042SC-B-11.9-13.8-190930				
	A9J0058-18	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.29	5				100	PDI-042SC-B-3.9-5.9-190930				
	A9J0058-19	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.51	5				100	PDI-042SC-B-5.9-7.9-190930				
	A9J0058-20	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.19	5				100	PDI-042SC-B-7.9-9.9-190930				
	A9J0058-21	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.54	5				100	PDI-042SC-B-9.9-11.9-190930				
	A9J0058-22	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.37	5				100	PDI-044SC-A-11-12-190930				
	A9J0058-23	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.85	5				100	PDI-044SC-A-12-12.8-190930				
	A9J0058-24	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.21	5				100	PDI-044SC-B-11.1-12.8-190930				
	A9J0058-25	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.97	5				100	PDI-044SC-B-7.1-9.1-190930				
	A9J0058-26	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.34	5				100	PDI-044SC-B-9.1-11.1-190930				
	A9J0063-02	D	8270D LL PAH Only (Scan)	10/07/19 06:54	10.16	5				100	PDI-046SC-A-12-13-191001				
	A9J0063-03	D	8270D LL PAH Only (Scan)	10/07/19 06:55	10.19	5				100	PDI-046SC-A-13-13.5-191001				

Prepared By: Date

DTH 10/11/19

Reviewed By: Date

Printed: 10/11/2019 11:44:02AM

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100712 (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
	A9J0063-04	D	8270D LL PAH Only (Scan)	10/07/19 06:55	10.72	5				100	PDI-046SC-B-11.8-13.5-191001				
	A9J0063-05	D	8270D LL PAH Only (Scan)	10/07/19 06:55	10.55	5				100	PDI-046SC-B-7.8-9.8-191001				
	A9J0063-06	D	8270D LL PAH Only (Scan)	10/07/19 06:55	10.34	5				100	PDI-046SC-B-9.8-11.8-191001				
	A9J0063-06RE1	D	8270D LL PAH Only (Scan)	10/07/19 06:55	10.34	5				100	PDI-046SC-B-9.8-11.8-191001	Added 10/10/2019 by ams			
	A9J0063-07	D	8270D LL PAH Only (Scan)	10/07/19 06:55	10.39	5				100	PDI-047SC-A-11-12-191001				

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19H436	07/31/21	Sodium Sulfate Lot # 190116
A19I027	01/01/22	DCM CHEM PROD. 190351

Analyte Spike(s)

Std ID	Exp. Date	Description
A19H078	02/02/20	LVI PAH Spike @2000ng/ml

Surrogate(s)

Std ID	Exp. Date	Description
A19I094	03/03/20	8270D LL PAH Only Surr. (5ppm)

Method 3546 digestion time and temperture achieved.
Initial:

Witness:_____

Prepared By: Date

Reviewed By: Date

Printed: 10/11/2019 11:44:02AM

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100712 (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	9100712-BLK1		QC	10/07/19 06:54	~~10~~ 11	5				100					
2	9100712-BS1		QC	10/07/19 06:54	10	5	A19H078		100	100					
3	A9J0058-13	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.67	5				100	PDI-040SC-B-9.3-11.3-190930	Soil			
4	A9J0058-14	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.36	5				100	PDI-1040SC-B-5.3-7.3-190930	Soil			
5	A9J0058-15	I	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.24	5				100	PDI-042SC-A-12-13-190930	MS/MSD Soil			
6	9100712-MS1		QC	10/07/19 06:54	~~10~~ 10.20	5	A19H078	A9J0058-15	100	100		Soil			
7	9100712-MSD1		QC	10/07/19 06:55	~~10~~ 10.22	5	A19H078	A9J0058-15	100	100		Soil			
8	A9J0058-16	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.33	5				100	PDI-042SC-A-13-13.8-190930	Soil			
9	A9J0058-17	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.17	5				100	PDI-042SC-B-11.9-13.8-190930	Soil			
10	A9J0058-18	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.29	5				100	PDI-042SC-B-3.9-5.9-190930	Soil			
11	A9J0058-19	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.51	5				100	PDI-042SC-B-5.9-7.9-190930	Soil			
12	A9J0058-20	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.19	5				100	PDI-042SC-B-7.9-9.9-190930	Soil			
13	A9J0058-21	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.54	5				100	PDI-042SC-B-9.9-11.9-190930	Soil			
14	A9J0058-22	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.37	5				100	PDI-044SC-A-11-12-190930	Soil			
15	A9J0058-23	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.85	5				100	PDI-044SC-A-12-12.8-190930	Soil			
16	A9J0058-24	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.21	5				100	PDI-044SC-B-11.1-12.8-190930	Soil			
17	A9J0058-25	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.97	5				100	PDI-044SC-B-7.1-9.1-190930	Soil			
18	A9J0058-26	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.34	5				100	PDI-044SC-B-9.1-11.1-190930	Soil			
19	A9J0063-02	D	8270D LL PAH Only (Scan)	10/07/19 06:54	~~10~~ 10.10	5				100	PDI-046SC-A-12-13-191001	Soil			
20	A9J0063-03	D	8270D LL PAH Only (Scan)	10/07/19 06:55	~~10~~ 10.19	5				100	PDI-046SC-A-13-13.5-191001	Soil			

JAG 10/7/19
Prepared By: Date

Reviewed By: 10/7/19 Date

Printed: 10/7/2019 6:57:44AM

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100712 (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
21	A9J0063-04	D	8270D LL PAH Only (Scan)	10/07/19 06:55	~~10~~ 10.72	5				100	PDI-046SC-B-11.8-13.5-191001	Soil			
22	A9J0063-05	D	8270D LL PAH Only (Scan)	10/07/19 06:55	~~10~~ 10.55	5				100	PDI-046SC-B-7.8-9.8-191001	Soil			
23	A9J0063-06	D	8270D LL PAH Only (Scan)	10/07/19 06:55	~~10~~ 10.34	5				100	PDI-046SC-B-9.8-11.8-191001	Soil			
24	A9J0063-07	D	8270D LL PAH Only (Scan)	10/07/19 06:55	~~10~~ 10.39	5				100	PDI-047SC-A-11-12-191001	Soil			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L219	11/30/23	Extractions Balance
A18K311	12/31/20	Glass Wool
A19H436	07/31/21	Sodium Sulfate Lot # 190116
A19I027	01/01/22	DCM CHEM PROD. 190351

Analyte Spike(s)

Std ID	Exp. Date	Description
A19H078	02/02/20	LVI PAH Spike @2000ng/ml

JAG

Surrogate(s)

Std ID	Exp. Date	Description
A19I094	03/03/20	8270D LL PAH Only Surr. (5ppm)

JAG

Method 3546 digestion time and temperture achieved.
Initial: JAG

Witness: MCB 10/7/19

JAG 10/7/19
Prepared By: Date

Reviewed By: Date

Printed: 10/7/2019 6:57:44AM

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9J07048** Instrument: **SV-GCMS14**

Date: **10/07/19 11:44** Calibration: **A9I1001**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J07048-TUN1	Water	QC	QC			A19I102	A19J016
2	9J07048-CCV1	Water	QC	QC			A19I102	A19I020
3	9J07048-CCB1	Water	QC	QC			A19I102	
4	9100706-BLK1	Sediment	QC	QC		9100706	A19I102	
5	9100706-BS1	Sediment	QC	QC		9100706	A19I102	
6	A9J0058-12	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100706	A19I102	
7	9100706-MS1	Sediment	QC	QC		9100706	A19I102	
8	9100706-MSD1	Sediment	QC	QC		9100706	A19I102	
9	A9I0922-17	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100706	A19I102	
10	A9I0922-21	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100706	A19I102	
11	A9I0922-19	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100706	A19I102	
12	A9I0922-20	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100706	A19I102	
13	A9I0922-16	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100706	A19I102	
14	A9I0922-18	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100706	A19I102	
15	A9I0936-03RE1	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100706	A19I102	
16	A9I0936-18RE1	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100706	A19I102	
17	A9J0058-01	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100706	A19I102	
18	A9J0058-02	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100706	A19I102	
19	A9J0058-03	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100706	A19I102	
20	A9J0058-04	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100706	A19I102	
21	A9J0058-05	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100706	A19I102	
22	A9J0058-06	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100706	A19I102	
23	A9J0058-07	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100706	A19I102	
24	9J07048-IBL1	Water	QC	QC			A19I102	

Data Entered By: Jeml 10/8/18

Data Reviewed By: [signature] 10/8/19

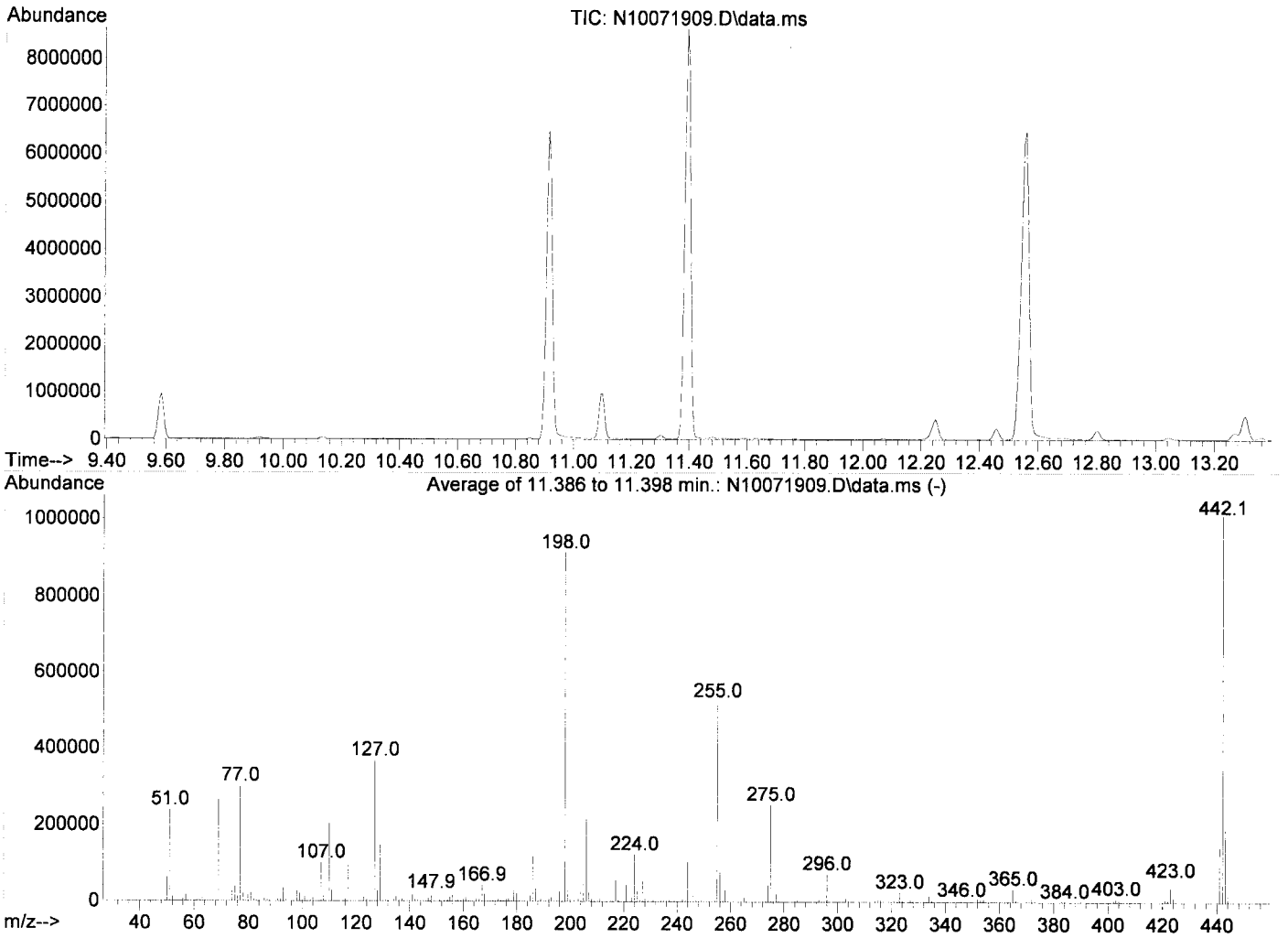
Comments:

Data Path : U:\data\2019-10\9J07048\
Data File : N10071909.D
Acq On : 07 Oct 2019 11:51 am
Operator : JK/ AMS/ DTH
Sample : 9J07048-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

DTH 10/7/19

Method : S:\methods\DFTPP.M
Title : 8270 DFTPP Tune Method
Last Update : Thu Sep 05 08:50:46 2019



AutoFind: Scans 1217, 1218, 1219; Background Corrected with Scan 1211

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.6	4347	PASS
69	69	100	100	100.0	264197	PASS
70	69	0.00	2	0.5	1333	PASS
197	198	0.00	2	0.5	4418	PASS
198	198	100	100	100.0	912875	PASS
199	198	5	9	6.7	61179	PASS
365	198	1	100	3.8	34824	PASS
441	443	0.01	150	76.7	151333	PASS
442	198	0.10	200	110.7	1010795	PASS
443	442	15	24	19.5	197248	PASS

Data Path : U:\data\2019-10\9J07048\
Data File : N10071909.D
Acq On : 07 Oct 2019 11:51 am
Operator : JK/ AMS/ DTH
Sample : 9J07048-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 07 16:10:38 2019
Quant Method : S:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14

DMT 10/7/19

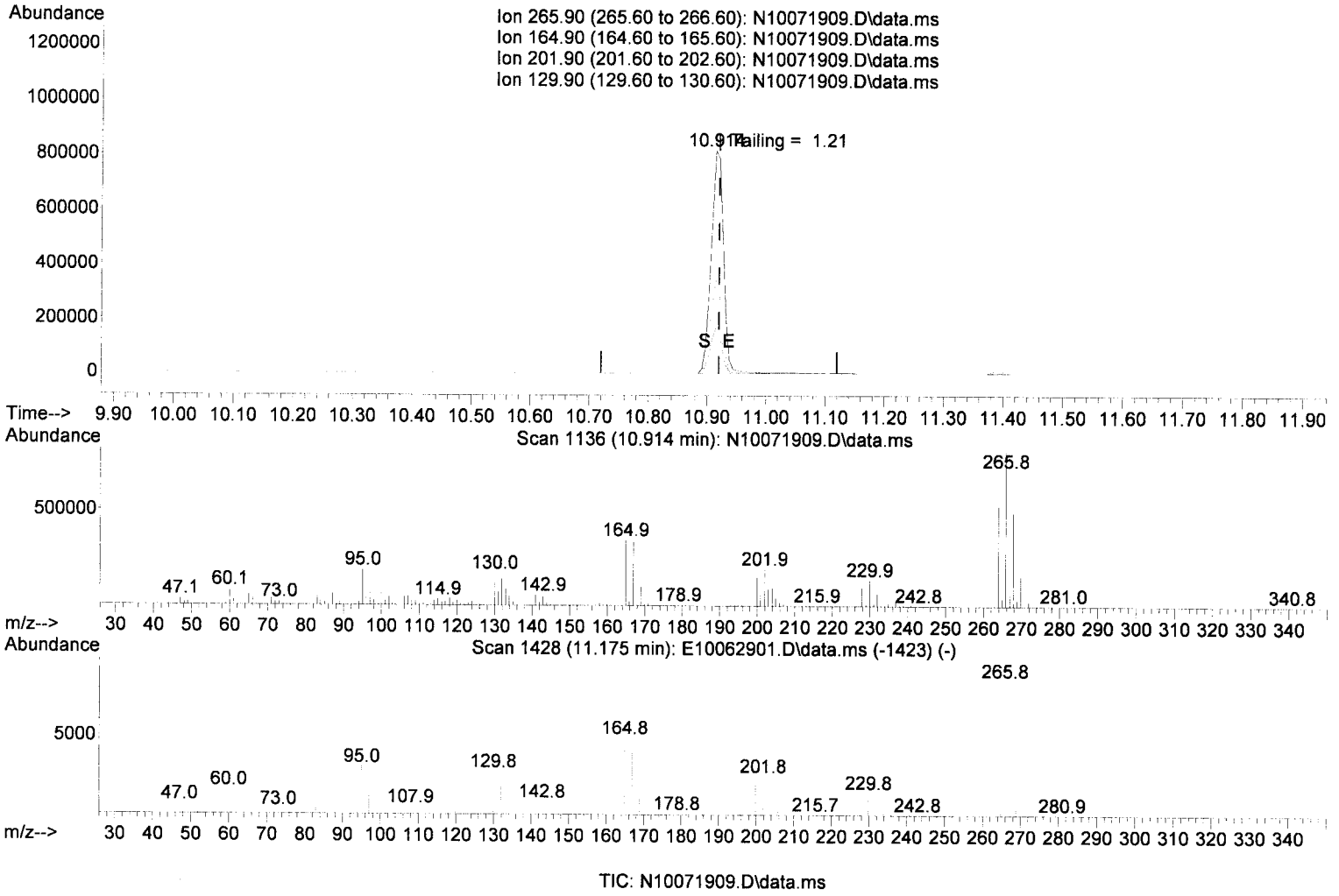
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.612	150	196913	2.00	ug/mL	0.00
2) Naphthalene-d8	7.819	136	540588	2.00	ug/mL	0.00
3) Acenaphthene-d10	9.585	162	277105	2.00	ug/mL	0.00
5) Phenanthrene-d10	11.101	188	508624	2.00	ug/mL	0.00
11) Chrysene-d12	14.773	240	400954	2.00	ug/mL	-0.01
12) Perylene-d12	16.818	264	357781	2.00	ug/mL	-0.02
13) Dibenz(a,h)anthracene-...	18.042	292	314370	2.00	ug/mL	#-0.02
Target Compounds						Qvalue
4) Pentachlorophenol	10.914	266	1175004	44.90	ug/mL	89
6) DFTPP	11.398	442	1642881	40.01	ug/mL	78
7) Benzidine	12.558	184	5092304	28.14	ug/mL	98
8) 4,4-DDE	12.803	TIC	272749	No Calib		
9) 4,4-DDD	13.304	TIC	789224	No Calib		
10) 4,4-DDT	13.863	TIC	16245138	31.15	ug/mL	96

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

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071909.D
Acq On : 07 Oct 2019 11:51 am
Operator : JK/ AMS/ DTH
Sample : 9J07048-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 07 16:10:38 2019
Quant Method : S:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10071909.D\data.ms

(4) Pentachlorophenol

10.914min (-0.006) 44.90 ug/mL

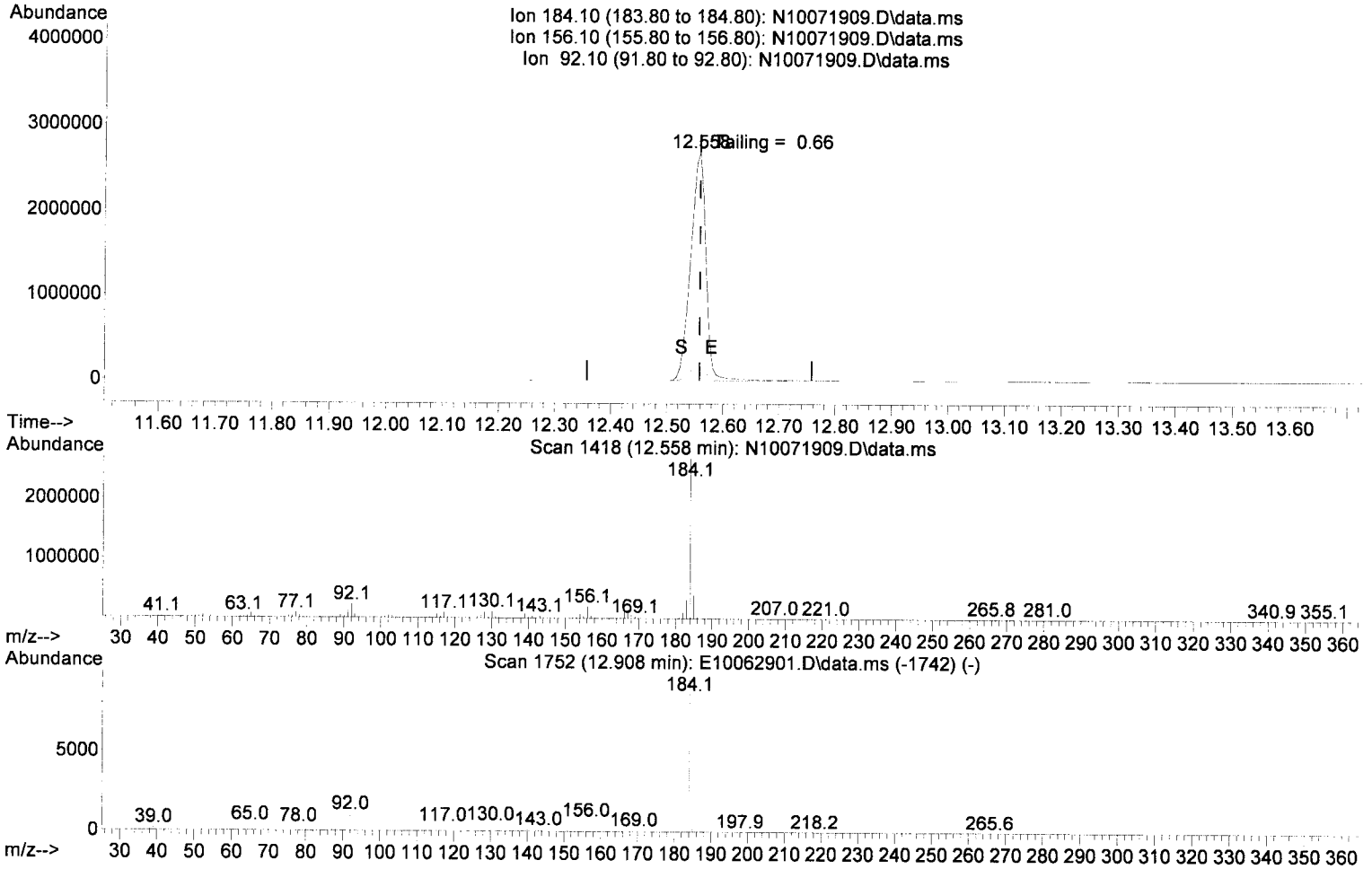
response 1175004

Ion	Exp%	Act%
265.90	100.00	100.00
164.90	50.60	41.78
201.90	25.80	23.28
129.90	27.30	20.42

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071909.D
Acq On : 07 Oct 2019 11:51 am
Operator : JK/ AMS/ DTH
Sample : 9J07048-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 07 16:10:38 2019
Quant Method : S:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10071909.D\data.ms

(7) Benzidine

12.558min (+ 0.000) 28.14 ug/mL

response 5092304

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	8.50	7.22
92.10	8.20	8.36
0.00	0.00	0.00

DDT Breakdown Check (Validated 5/1/2013)

From:
9J07048-TUN1
SV-GCMS14

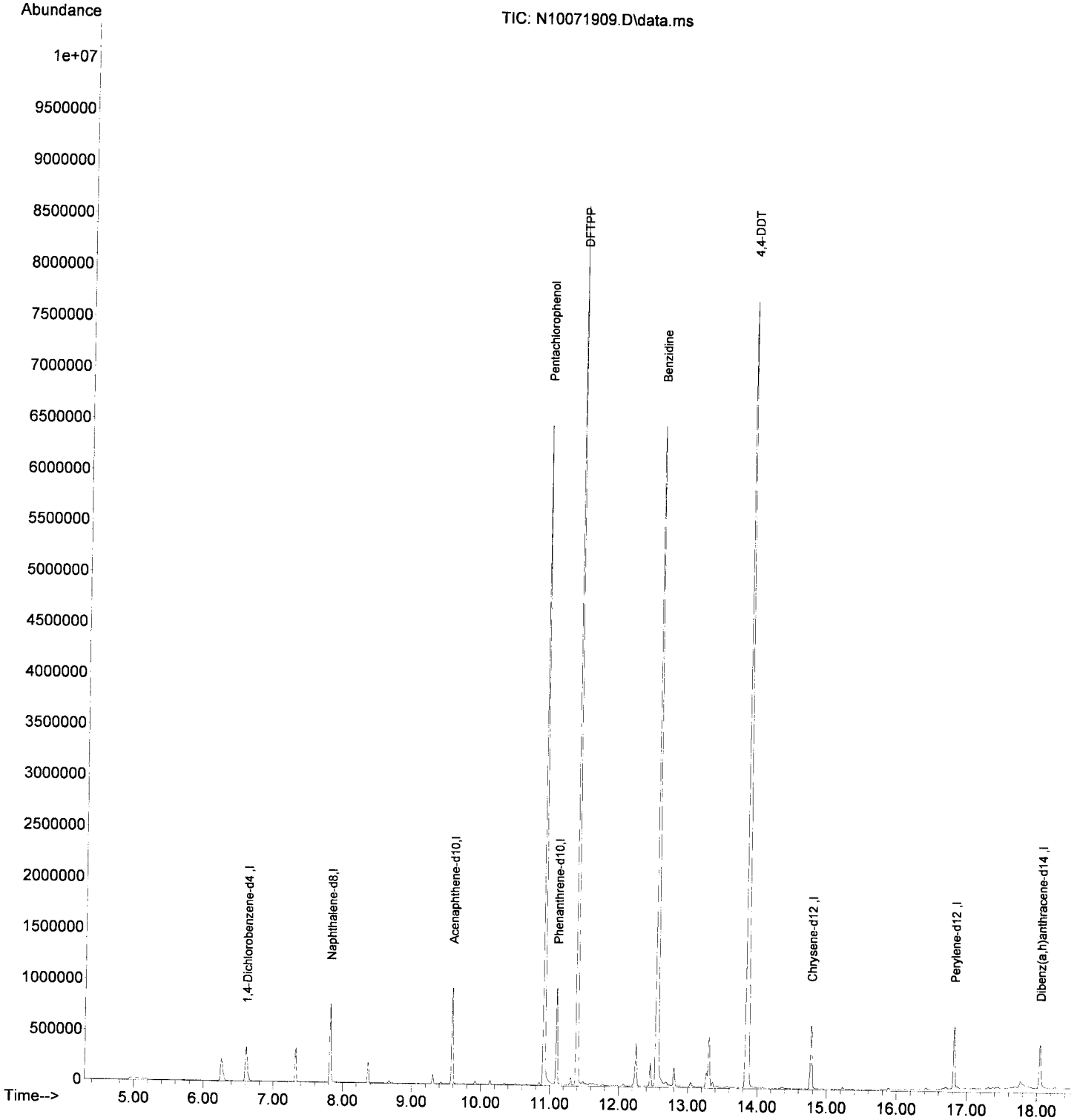
First Column Area Counts		Percent Breakdown	
DDE	272749		
DDD	789224		
DDT	16245138	**6.14**	**PASS**

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071909.D
Acq On : 07 Oct 2019 11:51 am
Operator : JK/ AMS/ DTH
Sample : 9J07048-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 07 16:10:38 2019
Quant Method : S:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Evaluate Continuing Calibration Report

Data Path : U:\data\2019-10\9J07048\
Data File : N10071910.D
Acq On : 07 Oct 2019 12:19 pm
Operator : JK/ AMS/ DTH
Sample : 9J07048-CCV1
Misc : 1x, A19I020@50
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:13:31 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

DTH 10/7/19

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	Naphthalene-d8 (ISTD)	100.000	100.000	0.0	155	0.00
2	S	Nitrobenzene-d5 (Surr)	50.000	49.007	2.0	156	0.00
3	T	Decalin	50.000	24.962	50.1#	77	0.00
4	T	Naphthalene	50.000	48.592	2.8	153	0.00
5	T	2-Methylnaphthalene	50.000	41.485	17.0	127	0.00
6	T	1-Methylnaphthalene	50.000	39.356	21.3#	118	0.00
7	T	1,1'-Biphenyl	50.000	38.990	22.0#	121	0.00
8	T	2,6-Dimethylnaphthalene	50.000	38.482	23.0#	116	0.00
9	I	Acenaphthene-d10 (ISTD)	100.000	100.000	0.0	112	0.00
10	S	2-Fluorobiphenyl (Surr)	50.000	52.419	-4.8	118	0.00
11	S	Acenaphthylene d-8 (Surr)	50.000	47.391	5.2	108	0.00
12	T	Acenaphthylene	50.000	48.980	2.0	110	0.00
13	T	Acenaphthene	50.000	49.267	1.5	113	0.00
14	T	Dibenzofuran	50.000	51.561	-3.1	116	0.00
15	T	1,6,7-Trimethylnaphthalene	50.000	48.351	3.3	111	0.00
16	T	Fluorene	50.000	50.114	-0.2	113	0.00
17	I	Phenanthrene-d10 (ISTD)	100.000	100.000	0.0	112	0.00
18	T	Dibenzothiopene	50.000	49.681	0.6	112	0.00
19	T	Phenanthrene	50.000	48.462	3.1	110	0.00
20	T	Anthracene	50.000	48.698	2.6	110	0.00
21	T	Carbazole	50.000	46.718	6.6	106	0.00
22	T	1-Methylphenanthrene	50.000	49.340	1.3	111	0.00
23	T	Fluoranthene	50.000	48.131	3.7	108	0.00
24	I	Chrysene-d12 (ISTD)	100.000	100.000	0.0	111	0.00
25	T	Pyrene	50.000	48.877	2.2	108	0.00
26	S	Terphenyl-d14 (Surr)	50.000	49.287	1.4	110	0.00
27	T	Benz(a)anthracene	50.000	44.754	10.5	105	0.00
28	T	Chrysene	50.000	47.901	4.2	108	0.00
29	I	Perylene-d12 (ISTD)	100.000	100.000	0.0	110	0.00
30	T	Benzo(b)fluoranthene	50.000	48.533	2.9	106	0.00
31	T	Benzo(k)fluoranthene	50.000	49.739	0.5	112	0.00
32	T	Benzo(b+k)fluoranthene	100.000	98.834	1.2	109	0.00
33	S	Benzo(a)pyrene d-12 (Surr)	50.000	51.498	-3.0	112	0.00
34	T	Benzo(e)pyrene	50.000	48.250	3.5	108	0.00
35	T	Benzo(a)pyrene	50.000	50.362	-0.7	109	0.00
36	T	Perylene	50.000	50.100	-0.2	110	0.00
37	I	Dibenz(a,h)Anthrcene-d14(IS	100.000	100.000	0.0	132	0.00
38	T	Indeno(1,2,3-cd)Pyrene	50.000	46.079	7.8	122	0.01
39	T	Dibenz(a,h)anthracene	50.000	47.820	4.4	128	0.00
40	T	Benzo(g,h,i)perylene	50.000	46.531	6.9	121	0.00

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

U

No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071910.D
Acq On : 07 Oct 2019 12:19 pm
Operator : JK/ AMS/ DTH
Sample : 9J07048-CCV1
Misc : 1x, A19I020@50
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

DTH 10/7/19

Quant Time: Oct 07 16:13:31 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	229540	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	132113	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	245549	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	188539	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.380	264	157182	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.770	292	122824	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	37380	49.01	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	103314	52.42	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	128773	47.39	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	97731	49.29	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.182	264	64733	51.50	ng/ml	0.00
Target Compounds						Qvalue
3) Decalin	7.359	138	4266	24.96	ng/ml	92
4) Naphthalene	7.901	128	123019	48.59	ng/ml	100
5) 2-Methylnaphthalene	8.588	142	88998	41.48	ng/ml	98
6) 1-Methylnaphthalene	8.687	142	84416	39.36	ng/ml	97
7) 1,1'-Biphenyl	9.049	154	112499	38.99	ng/ml	98
8) 2,6-Dimethylnaphthalene	9.212	156	81089	38.48	ng/ml	97
12) Acenaphthylene	9.492	152	140481	48.98	ng/ml	99
13) Acenaphthene	9.667	153	92553	49.27	ng/ml	98
14) Dibenzofuran	9.842	168	121325	51.56	ng/ml	98
15) 1,6,7-Trimethylnaphtha...	10.051	170	76177	48.35	ng/ml	97
16) Fluorene	10.191	166	96337	50.11	ng/ml	99
18) Dibenzothiopene	11.042	184	127587	49.68	ng/ml	96
19) Phenanthrene	11.170	178	139249	48.46	ng/ml	99
20) Anthracene	11.223	178	130154	48.70	ng/ml	99
21) Carbazole	11.380	167	101033	46.72	ng/ml	99
22) 1-Methylphenanthrene	11.794	192	98485	49.34	ng/ml	99
23) Fluoranthene	12.435	202	139338	48.13	ng/ml	97
25) Pyrene	12.721	202	143973	48.88	ng/ml	99
27) Benz(a)anthracene	14.883	228	97966	44.75	ng/ml	100
28) Chrysene	14.965	228	99226	47.90	ng/ml	100
30) Benzo(b)fluoranthene	17.471	252	88024	48.53	ng/ml	94
31) Benzo(k)fluoranthene	17.535	252	88821	49.74	ng/ml	94
32) Benzo(b+k)fluoranthene	17.535	252	183353	98.83	ng/ml	94
34) Benzo(e)pyrene	18.118	252	88489	48.25	ng/ml	97
35) Benzo(a)pyrene	18.241	252	78181	50.36	ng/ml	97
36) Perylene	18.439	252	95793	50.10	ng/ml	100
38) Indeno(1,2,3-cd)Pyrene	20.770	276	69800	46.08	ng/ml	84
39) Dibenz(a,h)anthracene	20.834	278	68065	47.82	ng/ml	85
40) Benzo(g,h,i)perylene	21.301	276	74772	46.53	ng/ml	83

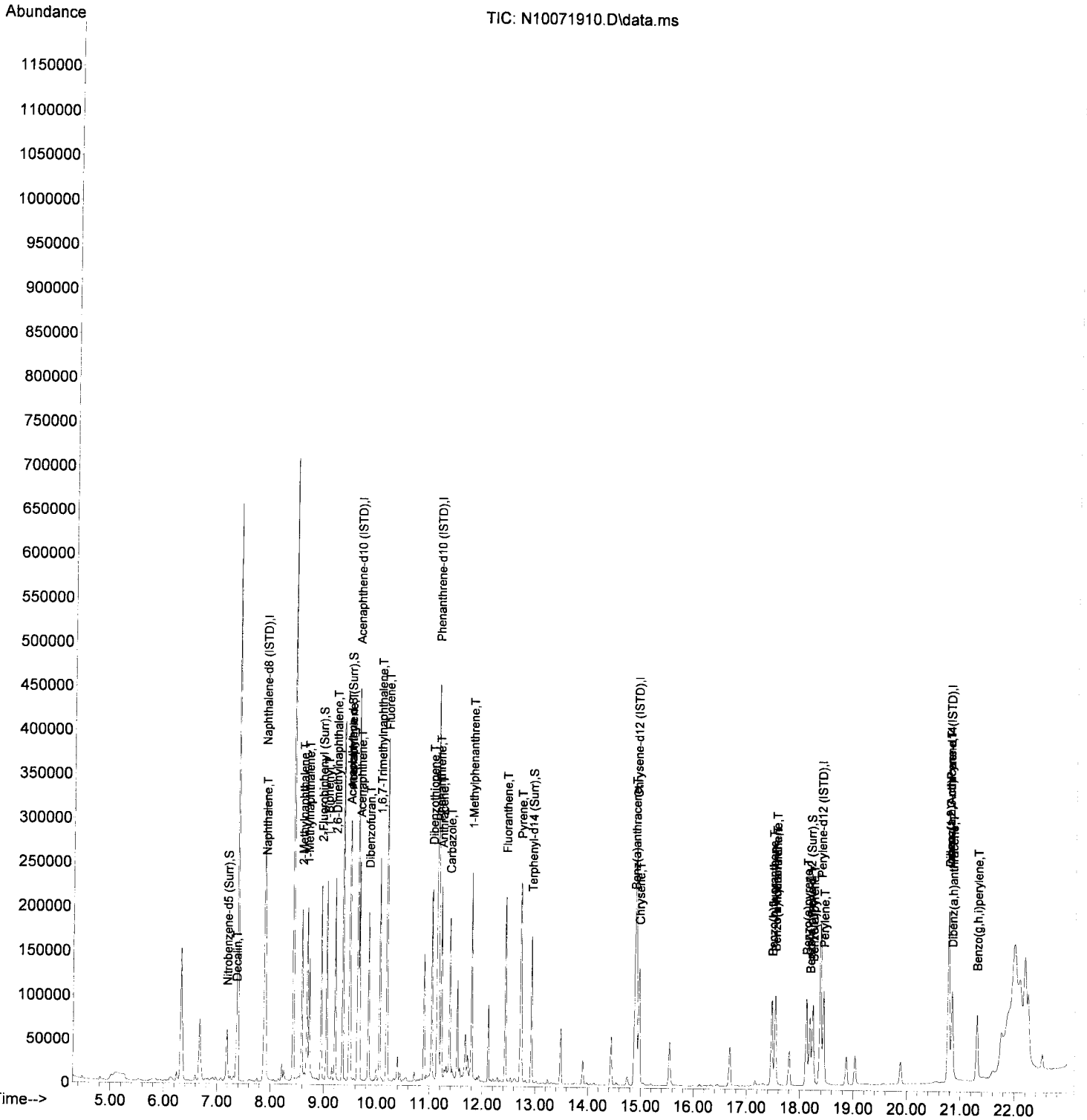
J

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071910.D
Acq On : 07 Oct 2019 12:19 pm
Operator : JK/ AMS/ DTH
Sample : 9J07048-CCV1
Misc : 1x, A19I020@50
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:13:31 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071911.D
Acq On : 07 Oct 2019 12:51 pm
Operator : JK/ AMS/ DTH
Sample : 9J07048-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:13 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

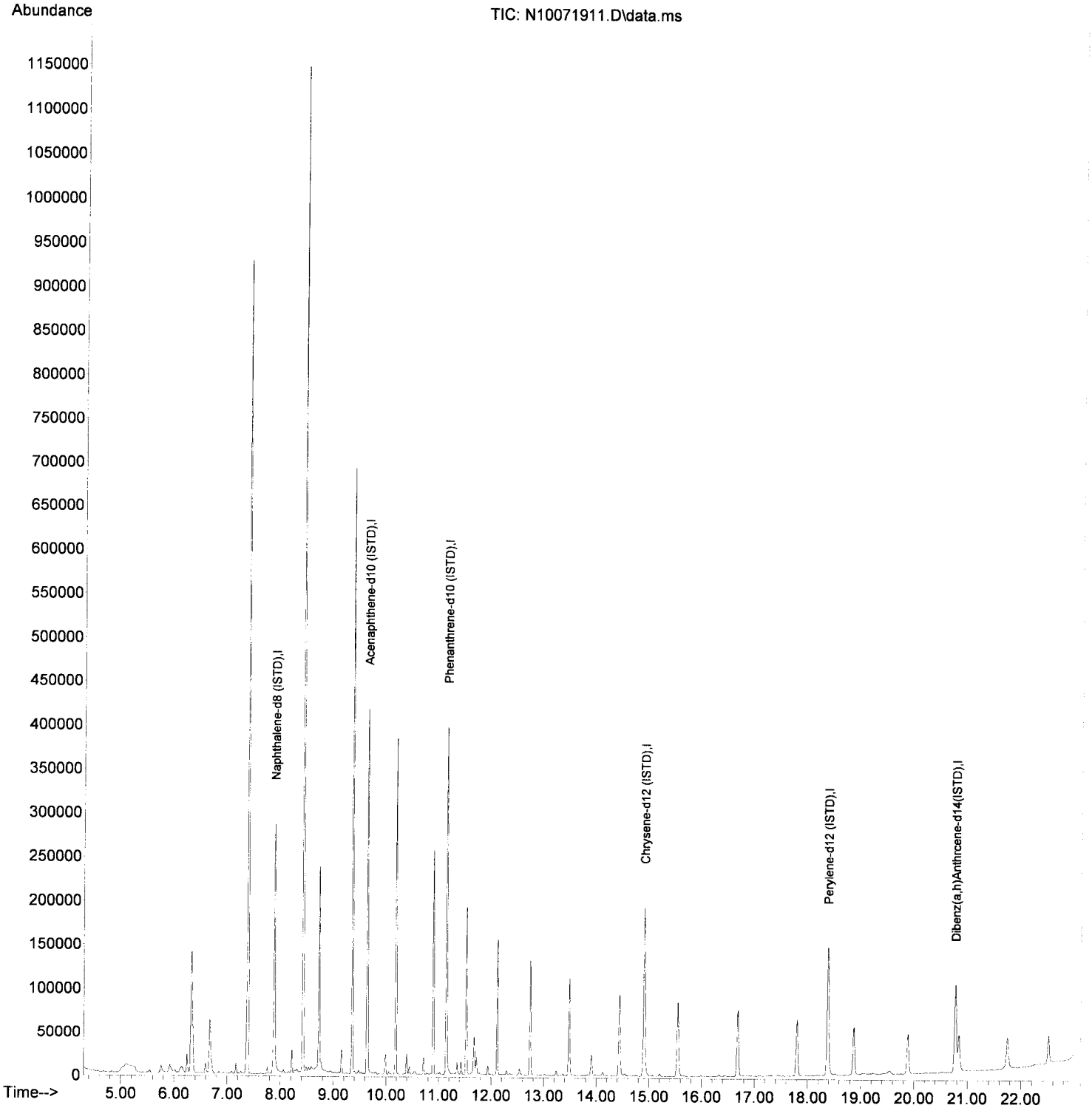
DTH 10/7/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.883	136	220954	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	130308	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	224511	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	151035	100.00 ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	129496	100.00 ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.770	292	103251	100.00 ng/ml	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.265	82	50	0.07 ng/ml	0.08
10) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00 ng/ml	
11) Acenaphthylene d-8 (Surr)	9.480	160	2484	-1.00 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	182	0.11 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	0.000		0	N.D.	
4) Naphthalene	7.907	128	231	N.D.	
5) 2-Methylnaphthalene	0.000		0	N.D.	
6) 1-Methylnaphthalene	0.000		0	N.D.	
7) 1,1'-Biphenyl	9.061	154	84	N.D.	
8) 2,6-Dimethylnaphthalene	0.000		0	N.D.	
12) Acenaphthylene	9.498	152	154	N.D.	
13) Acenaphthene	9.678	153	75	N.D.	
14) Dibenzofuran	0.000		0	N.D.	
15) 1,6,7-Trimethylnaphtha...	0.000		0	N.D.	
16) Fluorene	0.000		0	N.D.	
18) Dibenzothiopene	11.042	184	76	N.D.	
19) Phenanthrene	11.171	178	271	N.D.	
20) Anthracene	11.223	178	62	N.D.	
21) Carbazole	11.392	167	63	N.D.	
22) 1-Methylphenanthrene	0.000		0	N.D.	
23) Fluoranthene	12.441	202	214	N.D.	
25) Pyrene	12.727	202	293	N.D.	
27) Benz(a)anthracene	14.901	228	442	N.D.	
28) Chrysene	14.959	228	103	N.D.	
30) Benzo(b)fluoranthene	0.000		0	N.D.	
31) Benzo(k)fluoranthene	0.000		0	N.D.	
32) Benzo(b+k)fluoranthene	0.000		0	N.D.	
34) Benzo(e)pyrene	18.381	252	445	N.D.	
35) Benzo(a)pyrene	0.000		0	N.D.	
36) Perylene	18.439	252	70	N.D.	
38) Indeno(1,2,3-cd)Pyrene	0.000		0	N.D.	
39) Dibenz(a,h)anthracene	0.000		0	N.D.	
40) Benzo(g,h,i)perylene	0.000		0	N.D.	

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

Data Path : U:\data\2019-10\9J07048\
Data File : N10071911.D
Acq On : 07 Oct 2019 12:51 pm
Operator : JK/ AMS/ DTH
Sample : 9J07048-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:13 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Data Path : U:\data\2019-10\9J07048\
Data File : N10071912.D
Acq On : 07 Oct 2019 01:22 pm
Operator : JK/ AMS/ DTH
Sample : 9100706-BLK1
Misc : 1x, 8270D LL PAH Only
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:16 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

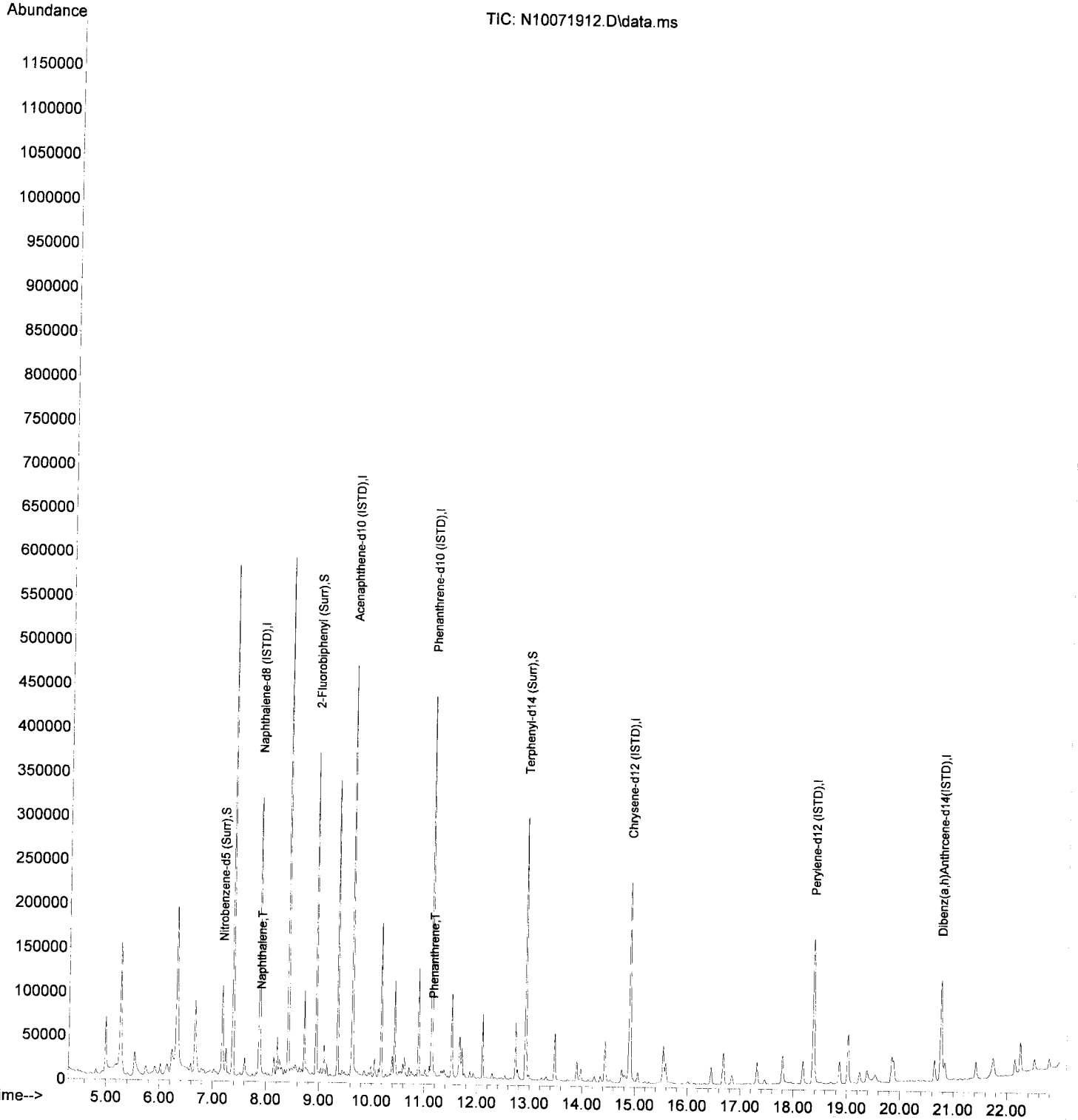
SMK 10/7/19

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.883	136	228641	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	133662	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	240732	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	171761	100.00 ng/ml	0.00
29) Perylene-d12 (ISTD)	18.380	264	142801	100.00 ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.764	292	113855	100.00 ng/ml	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.184	82	62717	82.55 ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	172270	86.39 ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	2152	-1.00 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	172979	95.76 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	0.000		0	N.D.	
4) Naphthalene	7.901	128	1969	0.78 ng/ml	98
5) 2-Methylnaphthalene	8.588	142	587	N.D.	
6) 1-Methylnaphthalene	8.687	142	411	N.D.	
7) 1,1'-Biphenyl	9.049	154	653	N.D.	
8) 2,6-Dimethylnaphthalene	9.212	156	376	N.D.	
12) Acenaphthylene	9.492	152	308	N.D.	
13) Acenaphthene	9.667	153	504	N.D.	
14) Dibenzofuran	9.847	168	161	N.D.	
15) 1,6,7-Trimethylnaphtha...	10.051	170	198	N.D.	
16) Fluorene	10.191	166	409	N.D.	
18) Dibenzothiopene	11.042	184	255	N.D.	
19) Phenanthrene	11.165	178	2092	0.74 ng/ml	94
20) Anthracene	11.217	178	409	N.D.	
21) Carbazole	11.386	167	207	N.D.	
22) 1-Methylphenanthrene	11.794	192	245	N.D.	
23) Fluoranthene	12.435	202	721	N.D.	
25) Pyrene	12.721	202	728	N.D.	
27) Benz(a)anthracene	14.907	228	592	N.D.	
28) Chrysene	14.965	228	206	N.D.	
30) Benzo(b)fluoranthene	17.471	252	60	N.D.	
31) Benzo(k)fluoranthene	17.471	252	60	N.D.	
32) Benzo(b+k)fluoranthene	17.500	252	106	N.D.	
34) Benzo(e)pyrene	18.380	252	419	N.D.	
35) Benzo(a)pyrene	0.000		0	N.D.	
36) Perylene	18.380	252	428	N.D.	
38) Indeno(1,2,3-cd)Pyrene	0.000		0	N.D.	
39) Dibenz(a,h)anthracene	0.000		0	N.D.	
40) Benzo(g,h,i)perylene	0.000		0	N.D.	

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

Data Path : U:\data\2019-10\9J07048\
Data File : N10071912.D
Acq On : 07 Oct 2019 01:22 pm
Operator : JK/ AMS/ DTH
Sample : 9100706-BLK1
Misc : 1x, 8270D LL PAH Only
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:16 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071913.D
Acq On : 07 Oct 2019 01:54 pm
Operator : JK/ AMS/ DTH
Sample : 9100706-BS1
Misc : 1x, 8270D LL PAH Only
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:19 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

DTH 10/7/19

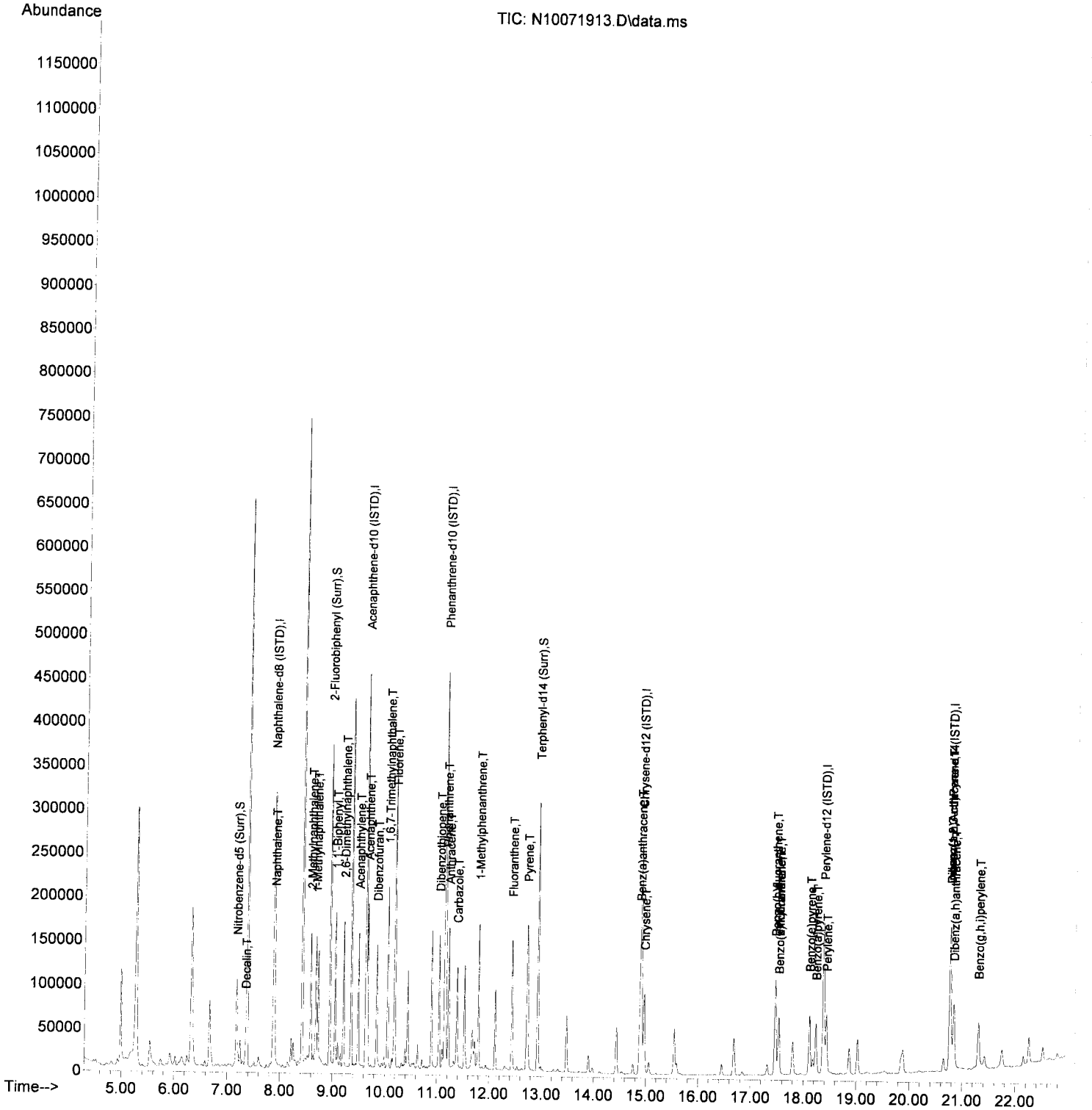
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	224354	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.637	162	133653	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	244445	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	177788	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.375	264	147208	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.764	292	114528	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.178	82	61163	82.04	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	176504	88.52	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	1546	-1.00	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.925	244	173973	93.04	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.353	138	3020	18.08	ng/ml	98
4) Naphthalene	7.901	128	89301	36.09	ng/ml	100
5) 2-Methylnaphthalene	8.582	142	65019	31.01	ng/ml	98
6) 1-Methylnaphthalene	8.682	142	62154	29.65	ng/ml	97
7) 1,1'-Biphenyl	9.049	154	82666	29.31	ng/ml	97
8) 2,6-Dimethylnaphthalene	9.212	156	58870	28.58	ng/ml	98
12) Acenaphthylene	9.492	152	98846	34.07	ng/ml	99
13) Acenaphthene	9.667	153	67915	35.74	ng/ml	99
14) Dibenzofuran	9.841	168	86277	36.24	ng/ml	97
15) 1,6,7-Trimethylnaphtha...	10.051	170	56373	35.37	ng/ml	98
16) Fluorene	10.191	166	69791	35.89	ng/ml	97
18) Dibenzothiopene	11.036	184	89828	35.14	ng/ml	97
19) Phenanthrene	11.165	178	101284	35.41	ng/ml	99
20) Anthracene	11.217	178	92513	34.77	ng/ml	99
21) Carbazole	11.380	167	71153	33.05	ng/ml	99
22) 1-Methylphenanthrene	11.794	192	70612	35.54	ng/ml	98
23) Fluoranthene	12.429	202	98152	34.06	ng/ml	97
25) Pyrene	12.721	202	100658	36.24	ng/ml	99
27) Benz(a)anthracene	14.883	228	68071	32.98	ng/ml	98
28) Chrysene	14.965	228	70499	36.09	ng/ml	100
30) Benzo(b)fluoranthene	17.465	252	61477	36.19	ng/ml	94
31) Benzo(k)fluoranthene	17.529	252	60249	36.03	ng/ml	94
32) Benzo(b+k)fluoranthene	17.529	252	126467	72.79	ng/ml	94
34) Benzo(e)pyrene	18.118	252	59560	34.68	ng/ml	98
35) Benzo(a)pyrene	18.235	252	51503	35.42	ng/ml	97
36) Perylene	18.433	252	62666	35.00	ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.764	276	47725	33.79	ng/ml	85
39) Dibenz(a,h)anthracene	20.834	278	44867	33.81	ng/ml	86
40) Benzo(g,h,i)perylene	21.301	276	50302	33.57	ng/ml	84

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071913.D
Acq On : 07 Oct 2019 01:54 pm
Operator : JK/ AMS/ DTH
Sample : 9100706-BS1
Misc : 1x, 8270D LL PAH Only
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:19 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071914.D
Acq On : 07 Oct 2019 02:26 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-12
Misc : 1x, 8270D LL PAH Only
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:22 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

DTH 10/7/19

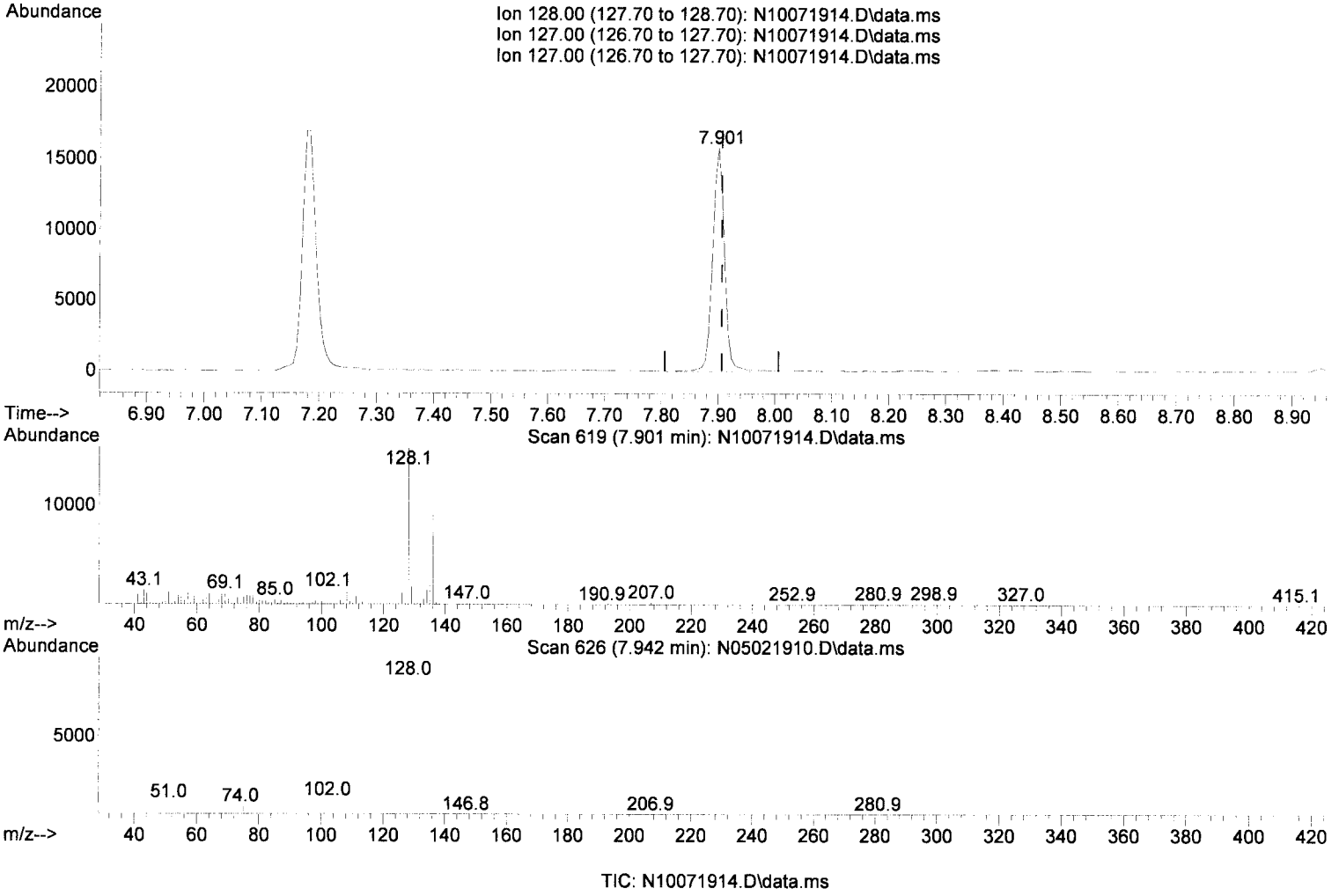
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.877	136	230136	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.637	162	138041	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	250301	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	183060	100.00 ng/ml	0.00
29) Perylene-d12 (ISTD)	18.375	264	151532	100.00 ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.764	292	119164	100.00 ng/ml	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.178	82	58992	77.14 ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	166643	80.92 ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	1779	-1.00 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.925	244	180608	93.81 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	7.347	138	50	N.D.	
4) Naphthalene	7.901	128	22789	8.98 ng/ml	100
5) 2-Methylnaphthalene	8.582	142	6200	2.88 ng/ml	98
6) 1-Methylnaphthalene	8.682	142	4303	2.00 ng/ml	99
7) 1,1'-Biphenyl	9.049	154	2768	0.96 ng/ml	96
8) 2,6-Dimethylnaphthalene	9.218	156	2673	1.27 ng/ml	99
12) Acenaphthylene	9.492	152	1030	N.D.	
13) Acenaphthene	9.667	153	10885	5.55 ng/ml	100
14) Dibenzofuran	9.841	168	1215	0.49 ng/ml#	79
15) 1,6,7-Trimethylnaphtha...	10.051	170	896	0.54 ng/ml#	22
16) Fluorene	10.191	166	5496	2.74 ng/ml	96
18) Dibenzothiopene	11.036	184	6121	2.34 ng/ml	97
19) Phenanthrene	11.165	178	22628	7.73 ng/ml	99
20) Anthracene	11.217	178	3881	1.42 ng/ml	95
21) Carbazole	11.380	167	537	N.D.	
22) 1-Methylphenanthrene	11.794	192	698	N.D.	
23) Fluoranthene	12.435	202	10975	3.72 ng/ml	97
25) Pyrene	12.721	202	13411	4.69 ng/ml	98
27) Benz(a)anthracene	14.883	228	2003	0.94 ng/ml	77
28) Chrysene	14.965	228	2159	1.07 ng/ml	95
30) Benzo(b)fluoranthene	17.471	252	1302	0.74 ng/ml	91
31) Benzo(k)fluoranthene	17.471	252	1779	1.03 ng/ml	89
32) Benzo(b+k)fluoranthene	17.471	252	1812	1.01 ng/ml	89
34) Benzo(e)pyrene	18.118	252	918	0.52 ng/ml	88
35) Benzo(a)pyrene	18.235	252	1284	0.86 ng/ml	89
36) Perylene	18.439	252	2803	1.52 ng/ml	96
38) Indeno(1,2,3-cd)Pyrene	20.764	276	702	0.48 ng/ml	50
39) Dibenz(a,h)anthracene	20.823	278	172	N.D.	
40) Benzo(g,h,i)perylene	21.306	276	779	0.50 ng/ml	96

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

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071914.D
Acq On : 07 Oct 2019 02:26 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-12
Misc : 1x, 8270D LL PAH Only
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:22 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10071914.D\data.ms

(4) Naphthalene (T)

7.901min (-0.006) 8.98 ng/ml

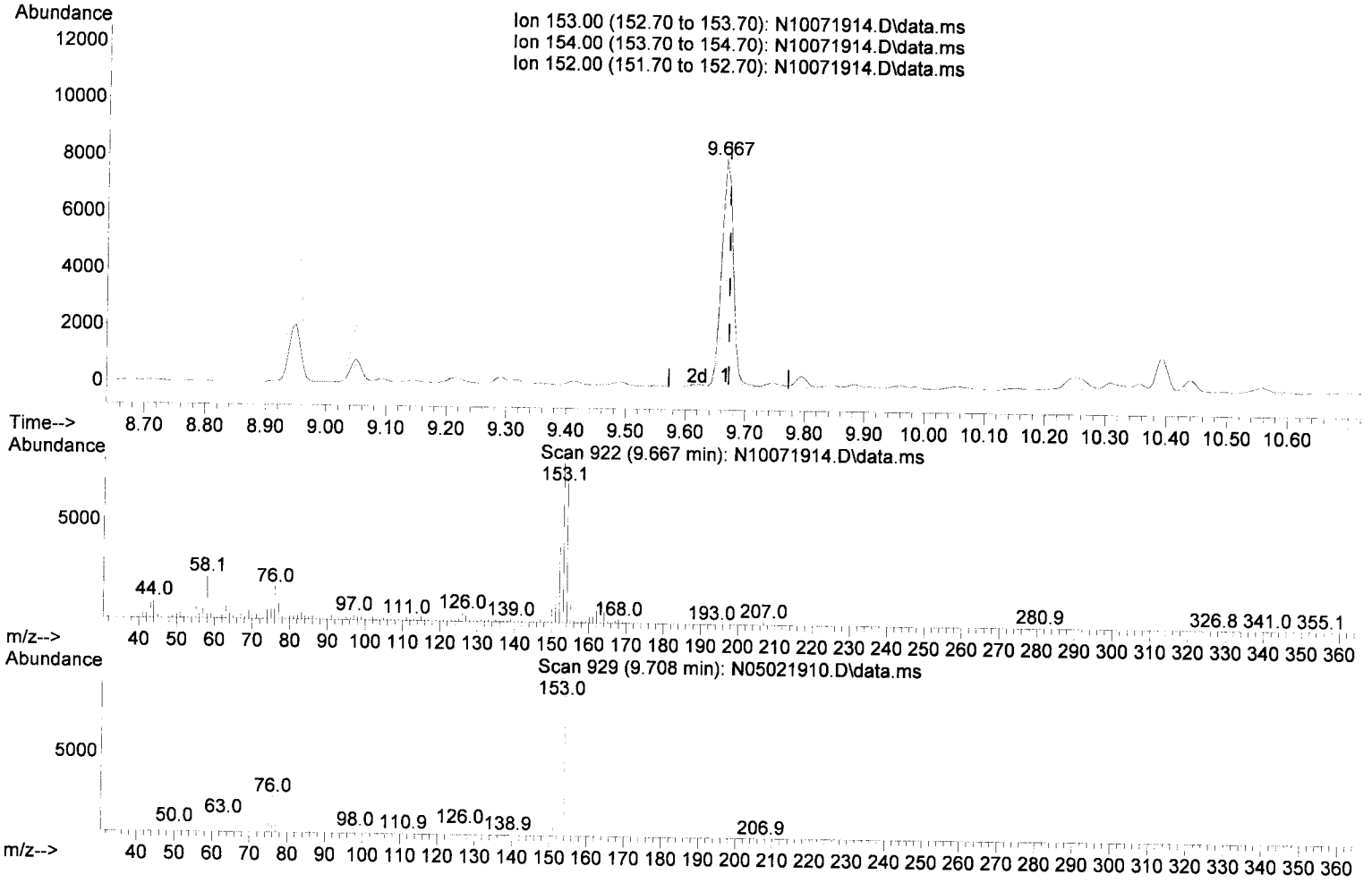
response 22789

Ion	Exp%	Act%
128.00	100.00	100.00
127.00	12.60	12.69
127.00	12.60	12.69
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071914.D
Acq On : 07 Oct 2019 02:26 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-12
Misc : 1x, 8270D LL PAH Only
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:22 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10071914.D\data.ms

(13) Acenaphthene (T)

9.667min (-0.006) 5.55 ng/ml

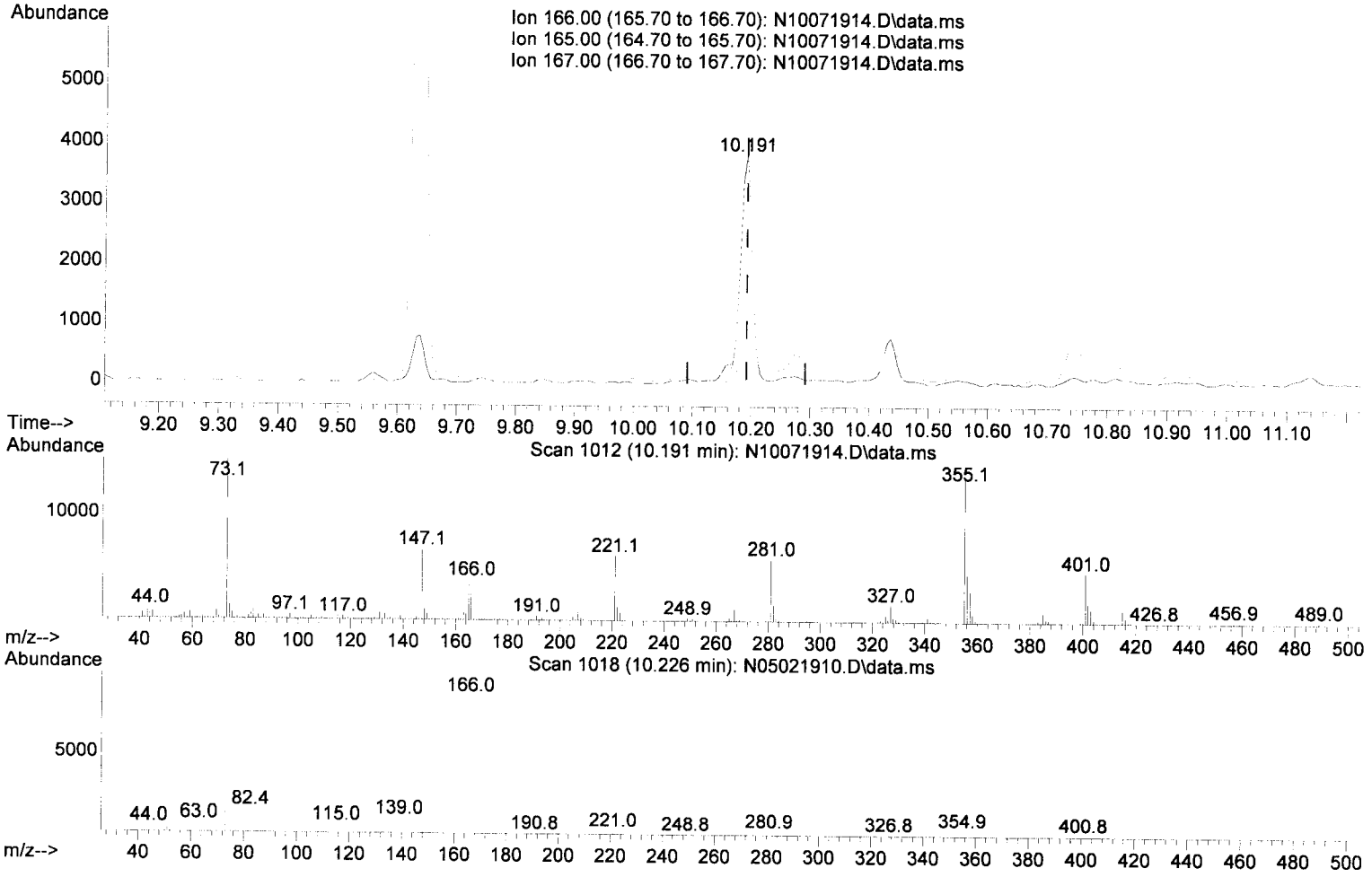
response 10885

Ion	Exp%	Act%
153.00	100.00	100.00
154.00	90.70	91.04
152.00	46.80	47.28
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071914.D
Acq On : 07 Oct 2019 02:26 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-12
Misc : 1x, 8270D LL PAH Only
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:22 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10071914.D\data.ms

(16) Fluorene (T)

10.191min (-0.000) 2.74 ng/ml J

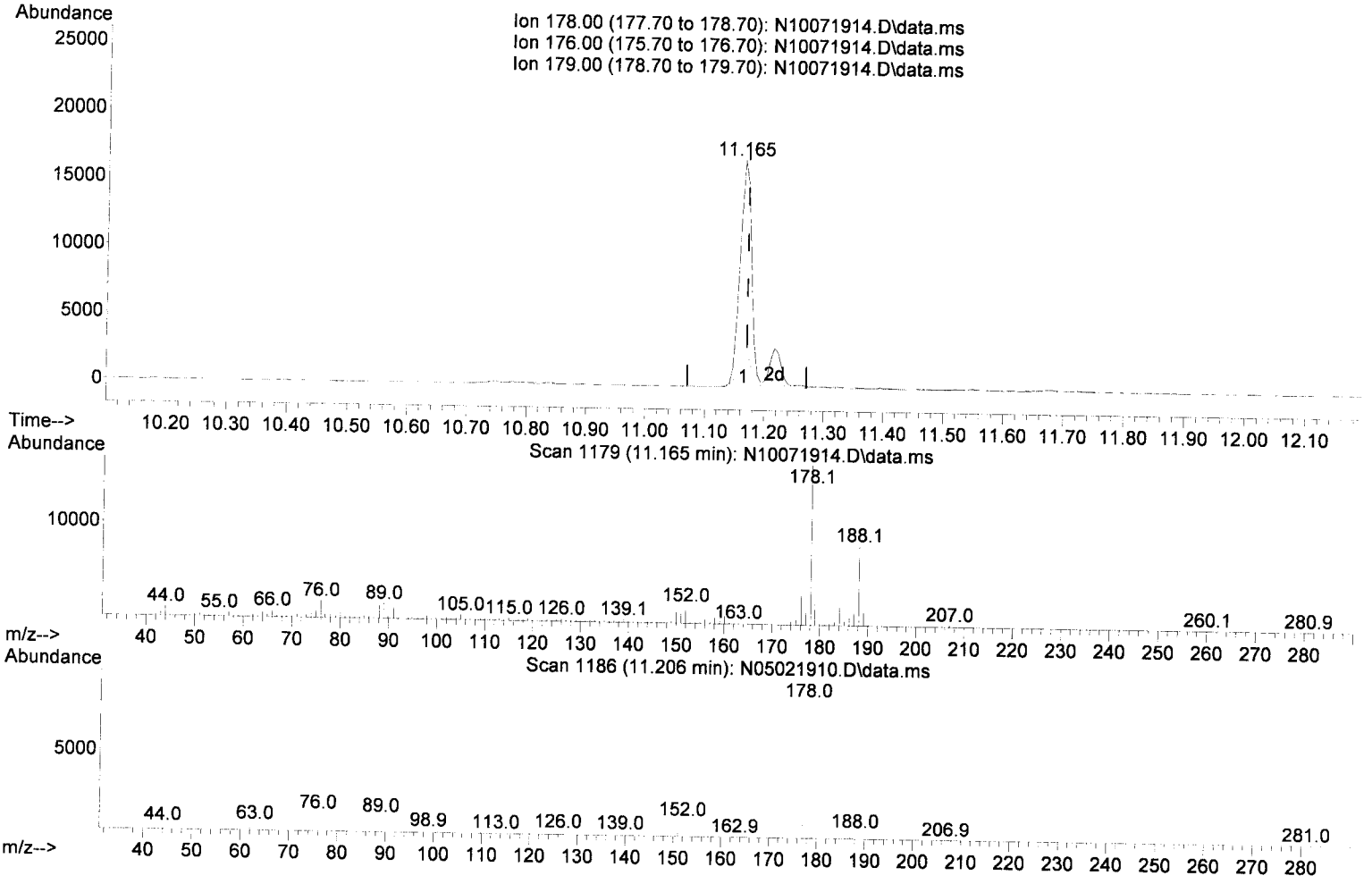
response 5496

Ion	Exp%	Act%
166.00	100.00	100.00
165.00	95.70	99.29
167.00	13.60	16.13
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071914.D
Acq On : 07 Oct 2019 02:26 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-12
Misc : 1x, 8270D LL PAH Only
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:22 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10071914.D\data.ms

(19) Phenanthrene (T)

11.165min (-0.006) 7.73 ng/ml

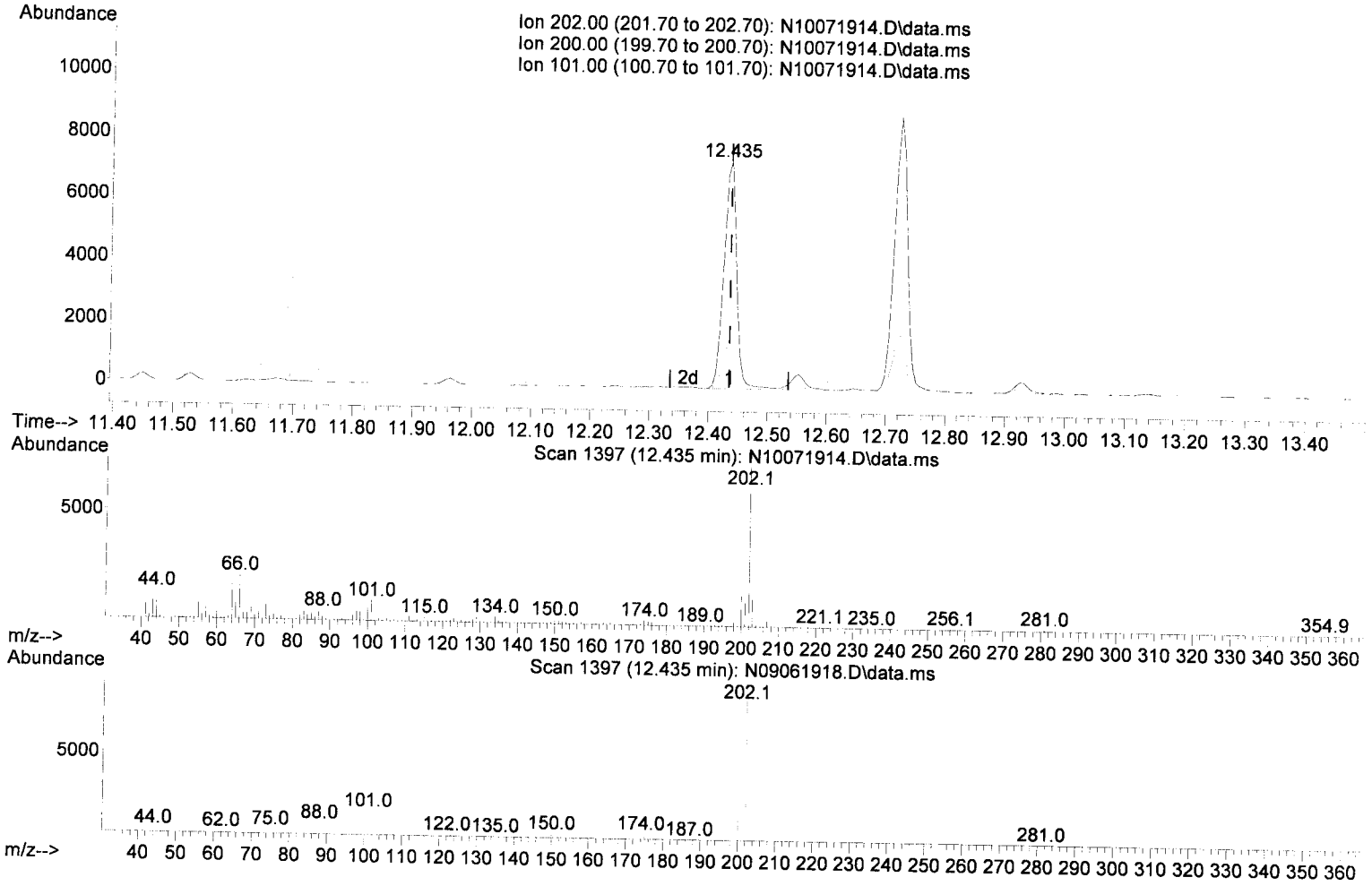
response 22628

Ion	Exp%	Act%
178.00	100.00	100.00
176.00	19.00	18.77
179.00	15.10	15.57
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071914.D
Acq On : 07 Oct 2019 02:26 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-12
Misc : 1x, 8270D LL PAH Only
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:22 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10071914.D\data.ms

(23) Fluoranthene (T)

12.435min (+ 0.000) 3.72 ng/ml J

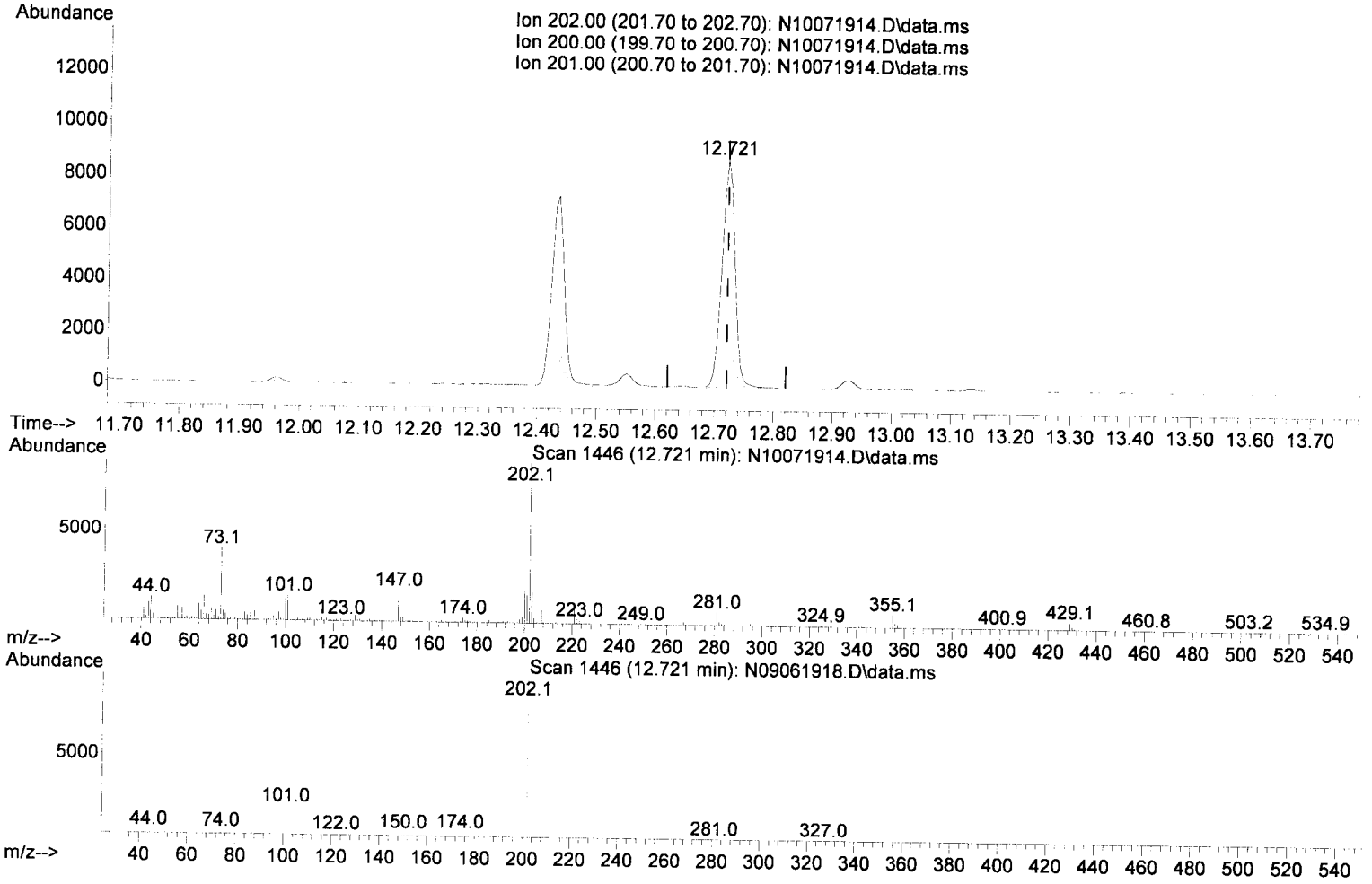
response 10975

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	19.70	19.34
101.00	15.30	12.90
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071914.D
Acq On : 07 Oct 2019 02:26 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-12
Misc : 1x, 8270D LL PAH Only
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:22 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10071914.D\data.ms

(25) Pyrene (T)

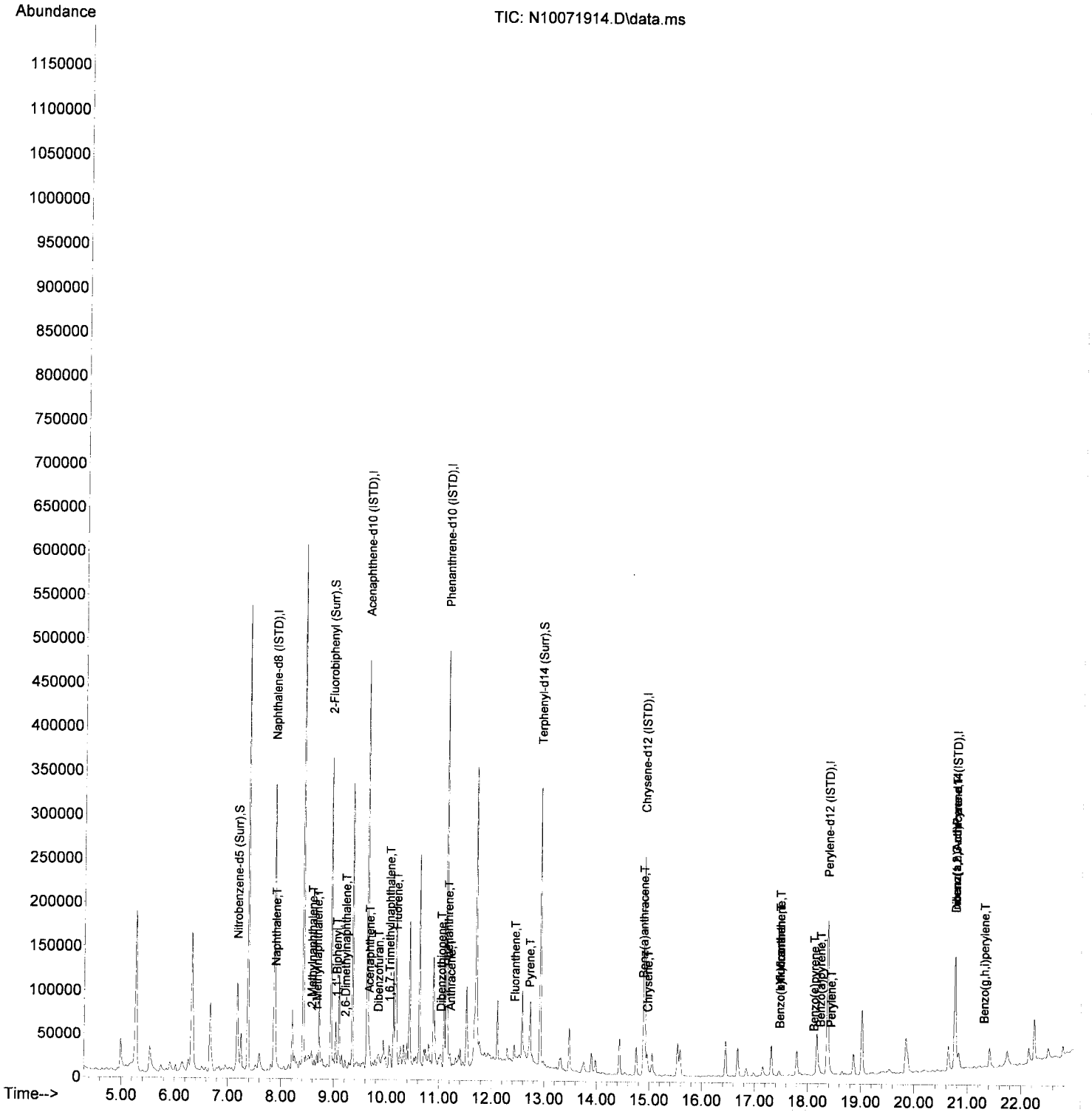
12.721min (-0.000) 4.69 ng/ml J

response 13411

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	20.70	21.24
201.00	16.80	17.74
0.00	0.00	0.00

Data Path : U:\data\2019-10\9J07048\
Data File : N10071914.D
Acq On : 07 Oct 2019 02:26 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-12
Misc : 1x, 8270D LL PAH Only
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:22 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071915.D
Acq On : 07 Oct 2019 02:58 pm
Operator : JK/ AMS/ DTH
Sample : 9100706-MS1
Misc : 1x, 8270D LL PAH Only
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:25 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

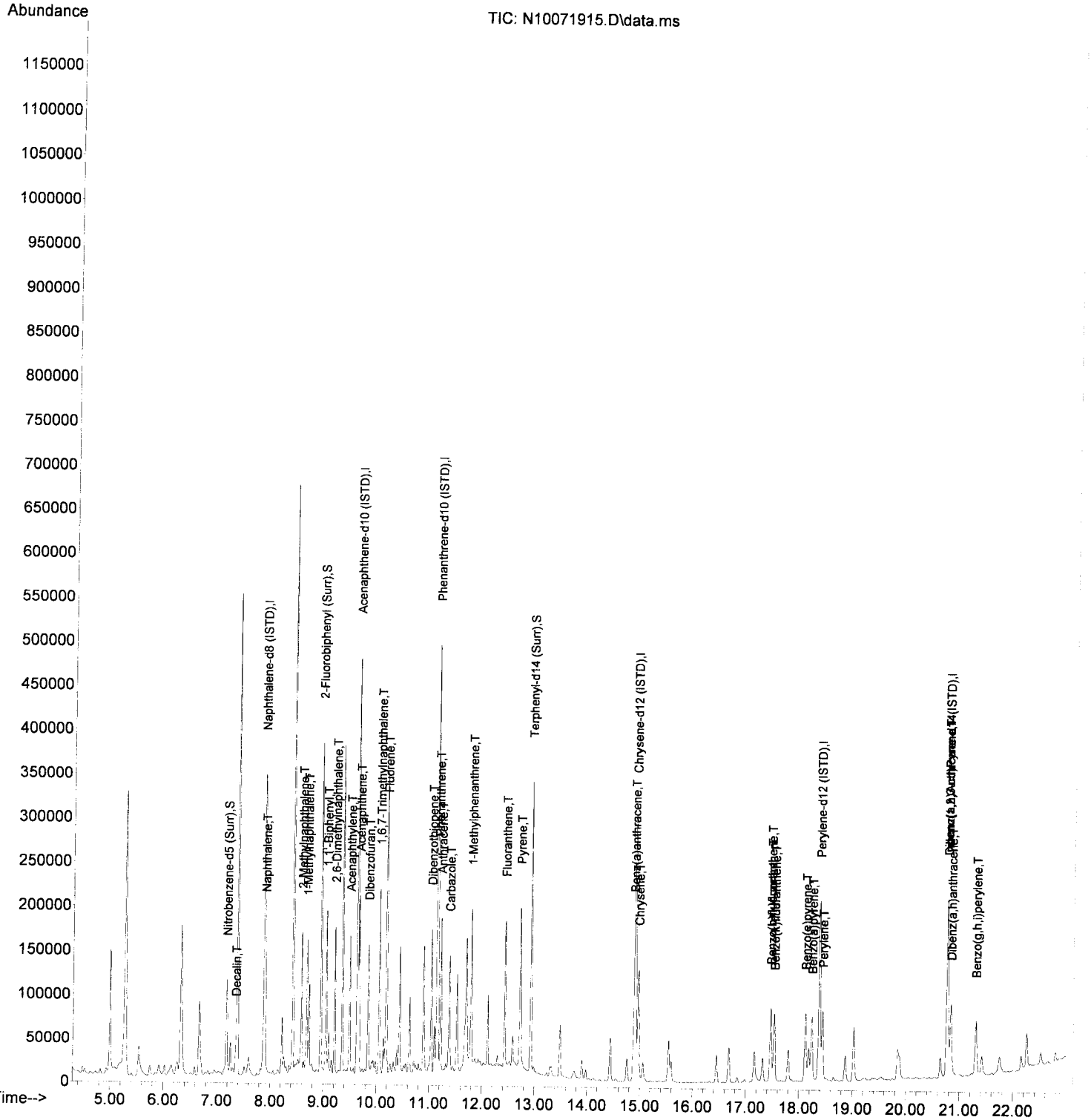
DTH 10/7/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	237122	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	140526	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	261269	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	206041	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	177557	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.765	292	139203	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.178	82	60972	77.38	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	178734	85.26	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	1435	-1.00	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.925	244	190463	87.89	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.353	138	3004	17.02	ng/ml	96
4) Naphthalene	7.901	128	93542	35.77	ng/ml	100
5) 2-Methylnaphthalene	8.583	142	67698	30.55	ng/ml	98
6) 1-Methylnaphthalene	8.682	142	63527	28.67	ng/ml	97
7) 1,1'-Biphenyl	9.049	154	83458	28.00	ng/ml	97
8) 2,6-Dimethylnaphthalene	9.212	156	59500	27.33	ng/ml	97
12) Acenaphthylene	9.492	152	99149	32.50	ng/ml	98
13) Acenaphthene	9.667	153	72055	36.06	ng/ml	98
14) Dibenzofuran	9.842	168	87245	34.86	ng/ml	98
15) 1,6,7-Trimethylnaphtha...	10.051	170	56897	33.95	ng/ml	99
16) Fluorene	10.191	166	73409	35.90	ng/ml	98
18) Dibenzothiopene	11.037	184	94424	34.56	ng/ml	97
19) Phenanthrene	11.165	178	109859	35.93	ng/ml	99
20) Anthracene	11.217	178	99184	34.88	ng/ml	100
21) Carbazole	11.380	167	78427	34.08	ng/ml	99
22) 1-Methylphenanthrene	11.794	192	74249	34.96	ng/ml	98
23) Fluoranthene	12.435	202	108380	35.18	ng/ml	97
25) Pyrene	12.721	202	111520	34.64	ng/ml	99
27) Benz(a)anthracene	14.883	228	78114	32.65	ng/ml	99
28) Chrysene	14.965	228	79619	35.17	ng/ml	99
30) Benzo(b)fluoranthene	17.466	252	71049	34.68	ng/ml	95
31) Benzo(k)fluoranthene	17.530	252	68716	34.06	ng/ml	95
32) Benzo(b+k)fluoranthene	17.466	252	144638	69.02	ng/ml	93
34) Benzo(e)pyrene	18.118	252	69850	33.72	ng/ml	97
35) Benzo(a)pyrene	18.235	252	60927	34.74	ng/ml	97
36) Perylene	18.439	252	72541	33.59	ng/ml	100
38) Indeno(1,2,3-cd)Pyrene	20.765	276	55464	32.31	ng/ml	85
39) Dibenz(a,h)anthracene	20.834	278	52469	32.53	ng/ml	85
40) Benzo(g,h,i)perylene	21.301	276	59563	32.71	ng/ml	86

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

Data Path : U:\data\2019-10\9J07048\
Data File : N10071915.D
Acq On : 07 Oct 2019 02:58 pm
Operator : JK/ AMS/ DTH
Sample : 9100706-MS1
Misc : 1x, 8270D LL PAH Only
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:25 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071916.D
Acq On : 07 Oct 2019 03:31 pm
Operator : JK/ AMS/ DTH
Sample : 9100706-MSD1
Misc : 1x, 8270D LL PAH Only
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:28 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

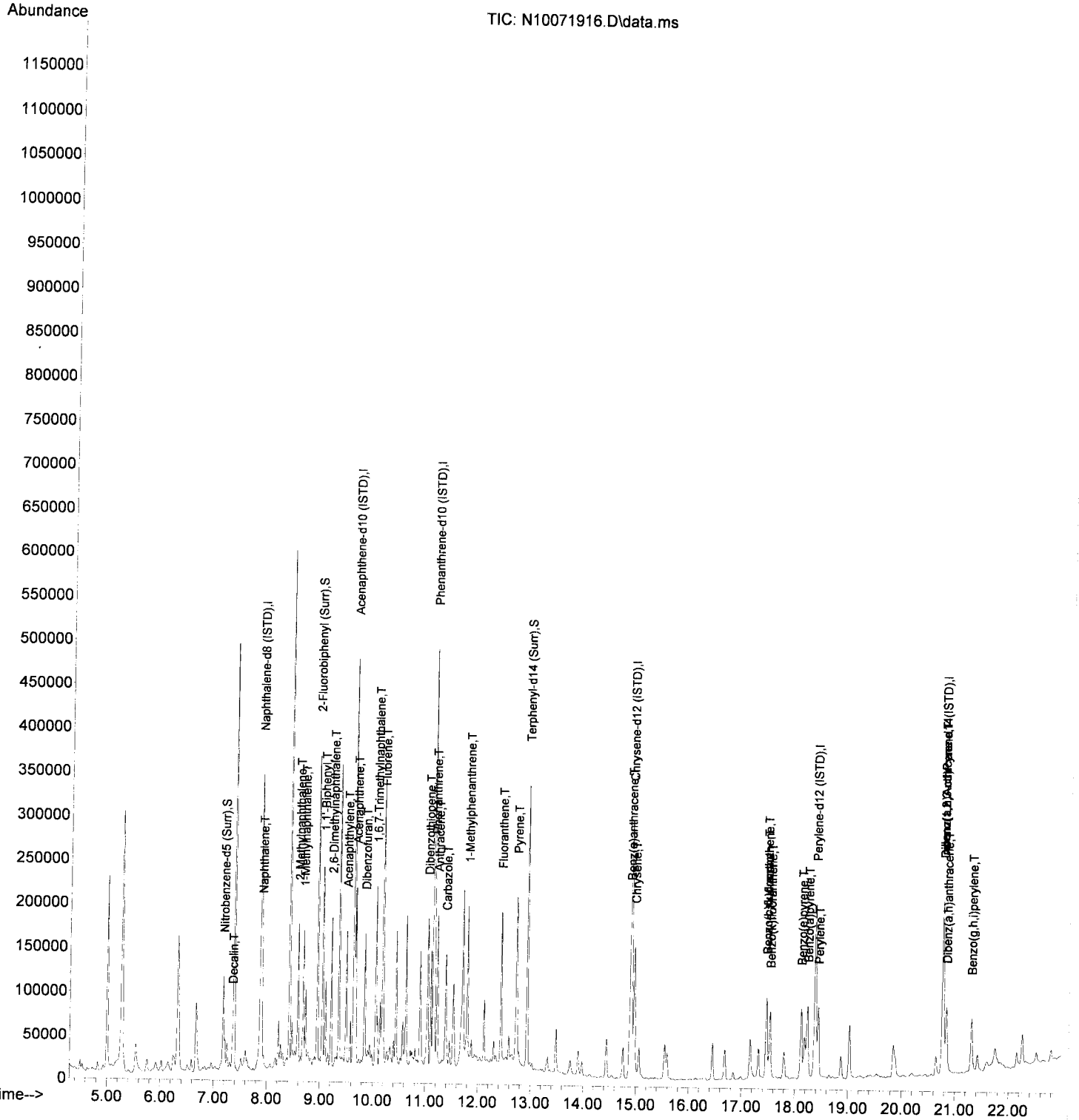
DTH 10/7/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	228465	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.637	162	137897	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	253618	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	203316	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.380	264	173910	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.764	292	137005	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.178	82	58811	77.47	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	173725	84.45	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	1460	-1.00	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.925	244	187085	87.49	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.353	138	2866	16.85	ng/ml	98
4) Naphthalene	7.901	128	91697	36.39	ng/ml	100
5) 2-Methylnaphthalene	8.582	142	70108	32.83	ng/ml	98
6) 1-Methylnaphthalene	8.682	142	63531	29.76	ng/ml	98
7) 1,1'-Biphenyl	9.049	154	83157	28.96	ng/ml	97
8) 2,6-Dimethylnaphthalene	9.212	156	62131	29.62	ng/ml	98
12) Acenaphthylene	9.492	152	100237	33.48	ng/ml	99
13) Acenaphthene	9.667	153	71882	36.66	ng/ml	99
14) Dibenzofuran	9.841	168	86986	35.42	ng/ml	98
15) 1,6,7-Trimethylnaphtha...	10.051	170	56779	34.53	ng/ml	99
16) Fluorene	10.191	166	73619	36.69	ng/ml	99
18) Dibenzothiopene	11.036	184	94858	35.76	ng/ml	97
19) Phenanthrene	11.165	178	109156	36.78	ng/ml	100
20) Anthracene	11.217	178	97243	35.23	ng/ml	99
21) Carbazole	11.380	167	77460	34.68	ng/ml	99
22) 1-Methylphenanthrene	11.794	192	73447	35.63	ng/ml	99
23) Fluoranthene	12.429	202	113279	37.88	ng/ml	98
25) Pyrene	12.721	202	118402	37.27	ng/ml	99
27) Benz(a)anthracene	14.883	228	82340	34.88	ng/ml	99
28) Chrysene	14.965	228	83472	37.37	ng/ml	98
30) Benzo(b)fluoranthene	17.465	252	76230	37.99	ng/ml	94
31) Benzo(k)fluoranthene	17.529	252	69027	34.94	ng/ml	95
32) Benzo(b+k)fluoranthene	17.465	252	150956	73.54	ng/ml	92
34) Benzo(e)pyrene	18.118	252	71884	35.43	ng/ml	99
35) Benzo(a)pyrene	18.235	252	63123	36.75	ng/ml	98
36) Perylene	18.439	252	75242	35.57	ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.764	276	57006	33.74	ng/ml	86
39) Dibenz(a,h)anthracene	20.834	278	50695	31.93	ng/ml	86
40) Benzo(g,h,i)perylene	21.301	276	61216	34.15	ng/ml	84

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

Data Path : U:\data\2019-10\9J07048\
Data File : N10071916.D
Acq On : 07 Oct 2019 03:31 pm
Operator : JK/ AMS/ DTH
Sample : 9100706-MSD1
Misc : 1x, 8270D LL PAH Only
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 07 16:14:28 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071925.D
Acq On : 07 Oct 2019 08:16 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-01
Misc : 1x, 8270D LL PAH Only
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

tem 10/8/14

Quant Time: Oct 08 07:36:15 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.889	136	226303	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.643	162	132665	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.153	188	243754	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.924	240	193656	100.00 ng/ml	0.02
29) Perylene-d12 (ISTD)	18.398	264	164812	100.00 ng/ml	0.02
37) Dibenz(a,h)Anthrcene-d...	20.782	292	134811	100.00 ng/ml	0.02
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.195	82	55113	73.29 ng/ml	0.01
10) 2-Fluorobiphenyl (Surr)	8.956	172	154900	78.27 ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.486	160	1092	-1.00 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.942	244	162973	80.02 ng/ml	0.01
33) Benzo(a)pyrene d-12 (S...	18.258	264	52	0.04 ng/ml	0.08
Target Compounds					Qvalue
3) Decalin	7.359	138	149	0.88 ng/ml#	34
4) Naphthalene	7.912	128	5610	2.25 ng/ml	93
5) 2-Methylnaphthalene	8.594	142	1635	0.77 ng/ml	92
6) 1-Methylnaphthalene	8.693	142	1099	0.52 ng/ml	85
7) 1,1'-Biphenyl	9.061	154	1130	N.D.	
8) 2,6-Dimethylnaphthalene	9.224	156	850	0.41 ng/ml	93
12) Acenaphthylene	9.504	152	322	N.D.	
13) Acenaphthene	9.678	153	667	N.D.	
14) Dibenzofuran	9.853	168	249	N.D.	
15) 1,6,7-Trimethylnaphtha...	10.057	170	160	N.D.	
16) Fluorene	10.203	166	827	0.43 ng/ml	89
18) Dibenzothiopene	11.048	184	368	N.D.	
19) Phenanthrene	11.176	178	1806	0.63 ng/ml	91
20) Anthracene	11.229	178	268	N.D.	
21) Carbazole	11.392	167	268	N.D.	
22) 1-Methylphenanthrene	11.800	192	225	N.D.	
23) Fluoranthene	12.447	202	1047	N.D.	
25) Pyrene	12.733	202	1273	0.42 ng/ml	77
27) Benz(a)anthracene	14.930	228	738	N.D.	
28) Chrysene	14.983	228	487	N.D.	
30) Benzo(b)fluoranthene	17.500	252	462	N.D.	
31) Benzo(k)fluoranthene	17.553	252	187	N.D.	
32) Benzo(b+k)fluoranthene	17.500	252	649	N.D.	
34) Benzo(e)pyrene	18.136	252	188	N.D.	
35) Benzo(a)pyrene	18.247	252	293	N.D.	
36) Perylene	18.456	252	13171	6.57 ng/ml	100
38) Indeno(1,2,3-cd)Pyrene	20.776	276	287	N.D.	
39) Dibenz(a,h)anthracene	20.852	278	57	N.D.	
40) Benzo(g,h,i)perylene	21.312	276	340	N.D.	

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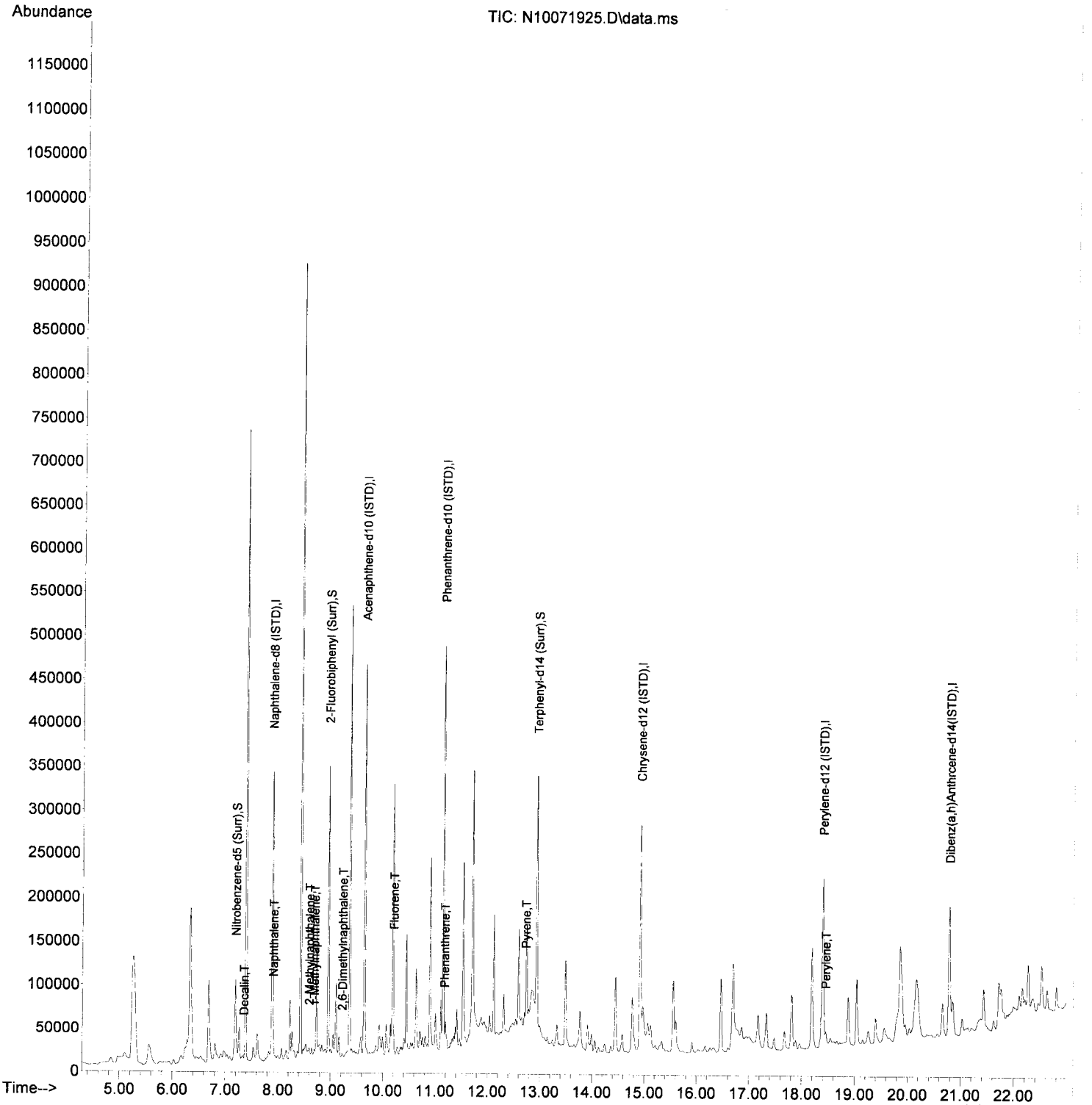
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : U:\data\2019-10\9J07048\
Data File : N10071925.D
Acq On : 07 Oct 2019 08:16 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-01
Misc : 1x, 8270D LL PAH Only
ALS Vial : 17 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 08 07:36:15 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071926.D
Acq On : 07 Oct 2019 08:47 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-02
Misc : 1x, 8270D LL PAH Only
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

HAM 10/8/19

Quant Time: Oct 08 07:36:18 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

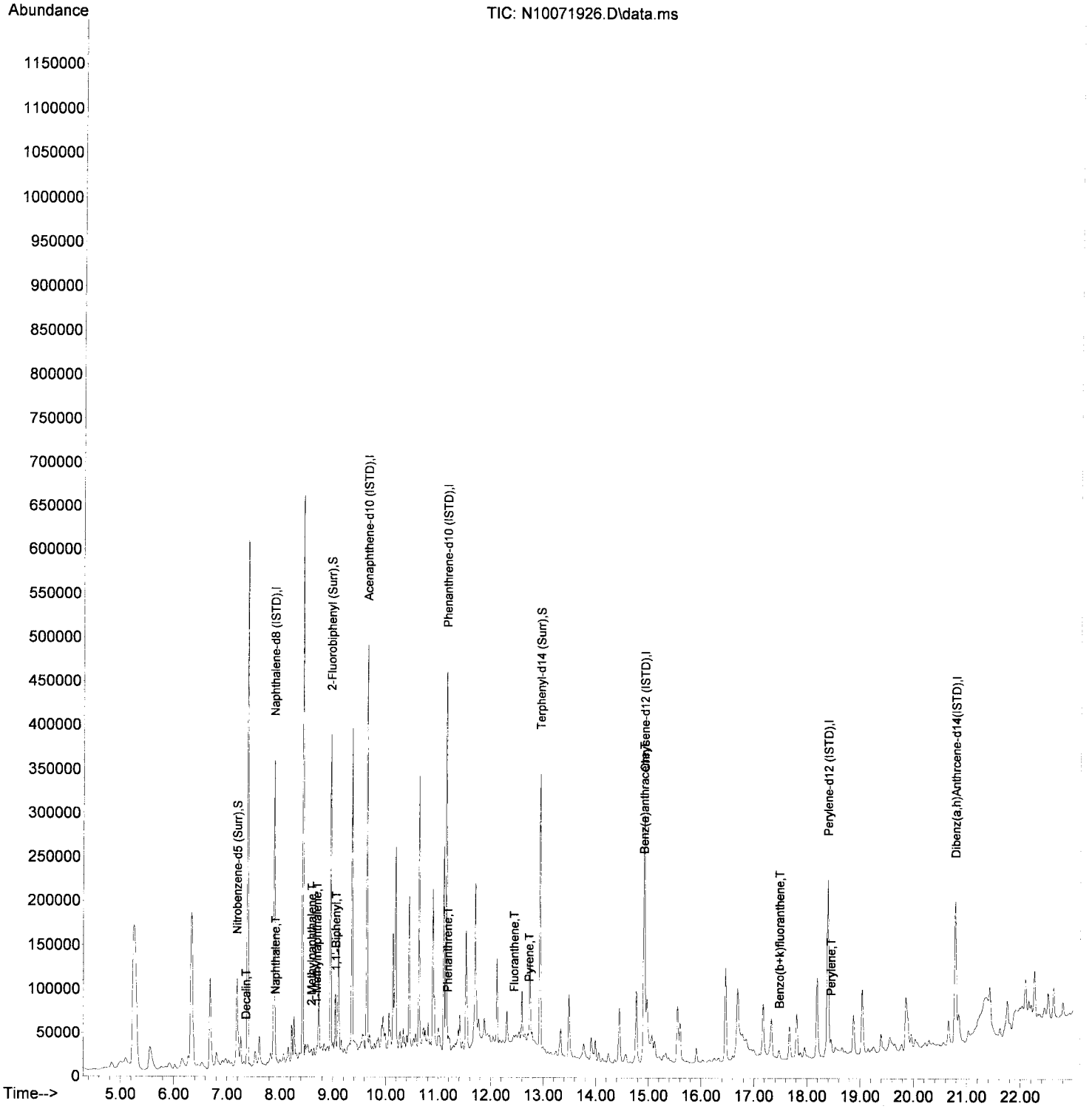
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.889	136	229541	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.643	162	131099	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.153	188	238409	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.918	240	196449	100.00 ng/ml	0.01
29) Perylene-d12 (ISTD)	18.392	264	171789	100.00 ng/ml	0.02
37) Dibenz(a,h)Anthrcene-d...	20.782	292	145893	100.00 ng/ml	0.02
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.189	82	58196	76.30 ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.956	172	164178	83.94 ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.486	160	1303	-1.00 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.936	244	178828	86.55 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	7.358	138	247	1.45 ng/ml#	62
4) Naphthalene	7.912	128	3317	1.31 ng/ml	82
5) 2-Methylnaphthalene	8.594	142	1182	0.55 ng/ml	86
6) 1-Methylnaphthalene	8.693	142	958	0.45 ng/ml#	40
7) 1,1'-Biphenyl	9.055	154	1296	0.45 ng/ml	93
8) 2,6-Dimethylnaphthalene	9.224	156	675	N.D.	
12) Acenaphthylene	9.503	152	436	N.D.	
13) Acenaphthene	9.672	153	434	N.D.	
14) Dibenzofuran	9.853	168	260	N.D.	
15) 1,6,7-Trimethylnaphtha...	10.069	170	524	N.D.	
16) Fluorene	10.197	166	617	N.D.	
18) Dibenzothiopene	11.048	184	465	N.D.	
19) Phenanthrene	11.176	178	2827	1.01 ng/ml	92
20) Anthracene	11.223	178	471	N.D.	
21) Carbazole	11.386	167	202	N.D.	
22) 1-Methylphenanthrene	11.800	192	192	N.D.	
23) Fluoranthene	12.441	202	1855	0.66 ng/ml	92
25) Pyrene	12.727	202	2373	0.77 ng/ml	94
27) Benz(a)anthracene	14.907	228	1128	0.49 ng/ml	86
28) Chrysene	14.977	228	720	N.D.	
30) Benzo(b)fluoranthene	17.483	252	647	N.D.	
31) Benzo(k)fluoranthene	17.547	252	213	N.D.	
32) Benzo(b+k)fluoranthene	17.483	252	882	0.44 ng/ml	86
34) Benzo(e)pyrene	18.136	252	403	N.D.	
35) Benzo(a)pyrene	18.252	252	325	N.D.	
36) Perylene	18.450	252	12007	5.75 ng/ml	97
38) Indeno(1,2,3-cd)Pyrene	20.776	276	461	N.D.	
39) Dibenz(a,h)anthracene	20.782	278	59	N.D.	
40) Benzo(g,h,i)perylene	21.318	276	446	N.D.	

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071926.D
Acq On : 07 Oct 2019 08:47 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-02
Misc : 1x, 8270D LL PAH Only
ALS Vial : 18 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 08 07:36:18 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071927.D
Acq On : 07 Oct 2019 09:19 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-03
Misc : 1x, 8270D LL PAH Only
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

jdm 10/8/19

Quant Time: Oct 08 07:36:21 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

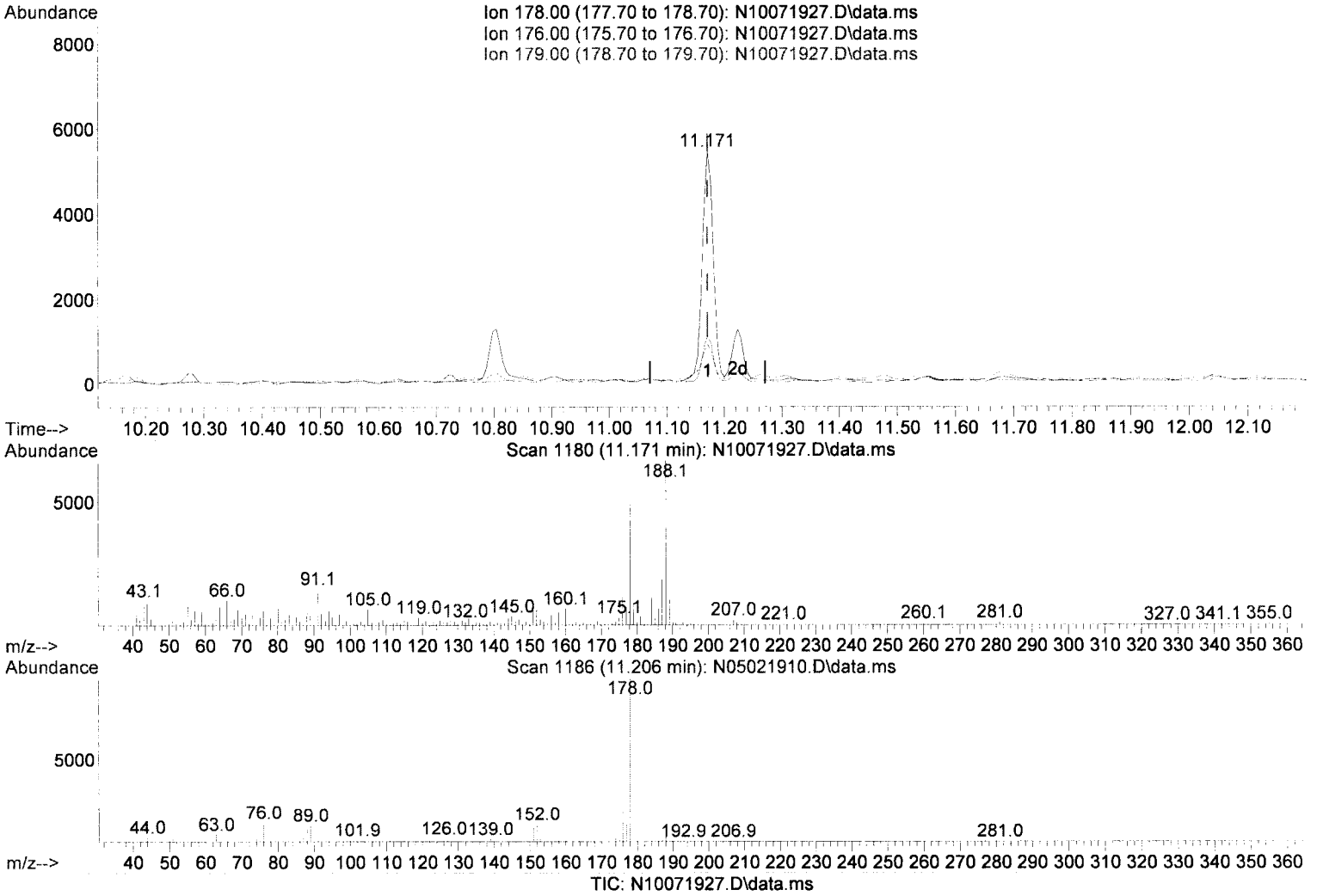
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Naphthalene-d8 (ISTD)	7.883	136	237095	100.00	ng/ml	0.00	
9) Acenaphthene-d10 (ISTD)	9.643	162	134040	100.00	ng/ml	0.00	
17) Phenanthrene-d10 (ISTD)	11.147	188	245582	100.00	ng/ml	0.00	
24) Chrysene-d12 (ISTD)	14.913	240	197889	100.00	ng/ml	0.00	
29) Perylene-d12 (ISTD)	18.386	264	171299	100.00	ng/ml	0.01	
37) Dibenz(a,h)Anthrcene-d...	20.776	292	142483	100.00	ng/ml	0.01	
System Monitoring Compounds							
2) Nitrobenzene-d5 (Surr)	7.190	82	59415	75.41	ng/ml	0.00	
10) 2-Fluorobiphenyl (Surr)	8.950	172	153808	76.92	ng/ml	0.00	
11) Acenaphthylene d-8 (Surr)	9.486	160	1560	-1.00	ng/ml	0.00	
26) Terphenyl-d14 (Surr)	12.931	244	145548	69.93	ng/ml	0.00	
33) Benzo(a)pyrene d-12 (S...	18.217	264	50	0.04	ng/ml	0.04	
Target Compounds						Qvalue	
3) Decalin	7.347	138	235	1.33	ng/ml#	66	
4) Naphthalene	7.907	128	4822	1.84	ng/ml	95	
5) 2-Methylnaphthalene	8.589	142	1025	0.46	ng/ml	85	
6) 1-Methylnaphthalene	8.688	142	662	N.D.			
7) 1,1'-Biphenyl	9.055	154	1233	0.41	ng/ml	91	
8) 2,6-Dimethylnaphthalene	9.218	156	555	N.D.			
12) Acenaphthylene	9.498	152	885	N.D.			
13) Acenaphthene	9.673	153	1487	0.78	ng/ml	91	J
14) Dibenzofuran	9.848	168	371	N.D.			
15) 1,6,7-Trimethylnaphtha...	10.063	170	309	N.D.			
16) Fluorene	10.197	166	862	0.44	ng/ml	89	
18) Dibenzothiopene	11.042	184	1015	N.D.			
19) Phenanthrene	11.171	178	7218	(2.51)	ng/ml	96	j
20) Anthracene	11.223	178	1609	0.60	ng/ml	87	
21) Carbazole	11.386	167	289	N.D.			
22) 1-Methylphenanthrene	11.777	192	958	0.48	ng/ml	72	
23) Fluoranthene	12.441	202	6987	2.41	ng/ml	95	
25) Pyrene	12.727	202	10792	(3.49)	ng/ml	97	j
27) Benz(a)anthracene	14.889	228	3881	1.69	ng/ml#	57	
28) Chrysene	14.971	228	4773	2.20	ng/ml	93	
30) Benzo(b)fluoranthene	17.483	252	6083	(3.08)	ng/ml	94	j
31) Benzo(k)fluoranthene	17.483	252	7184	~~3.69~~	~~ng/ml~~	~~92~~	MF
32) Benzo(b+k)fluoranthene	17.483	252	8108	4.01	ng/ml	92	
34) Benzo(e)pyrene	18.130	252	4228	2.12	ng/ml	95	
35) Benzo(a)pyrene	18.247	252	3753	2.22	ng/ml	90	
36) Perylene	18.445	252	19178	9.20	ng/ml	99	
38) Indeno(1,2,3-cd)Pyrene	20.776	276	5200	(2.96)	ng/ml	93	j
39) Dibenz(a,h)anthracene	20.840	278	628	N.D.			
40) Benzo(g,h,i)perylene	21.312	276	7017	(3.76)	ng/ml	91	j

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

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071927.D
Acq On : 07 Oct 2019 09:19 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-03
Misc : 1x, 8270D LL PAH Only
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 08 07:36:21 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(19) Phenanthrene (T)

11.171min (0.000) 2.51 ng/ml

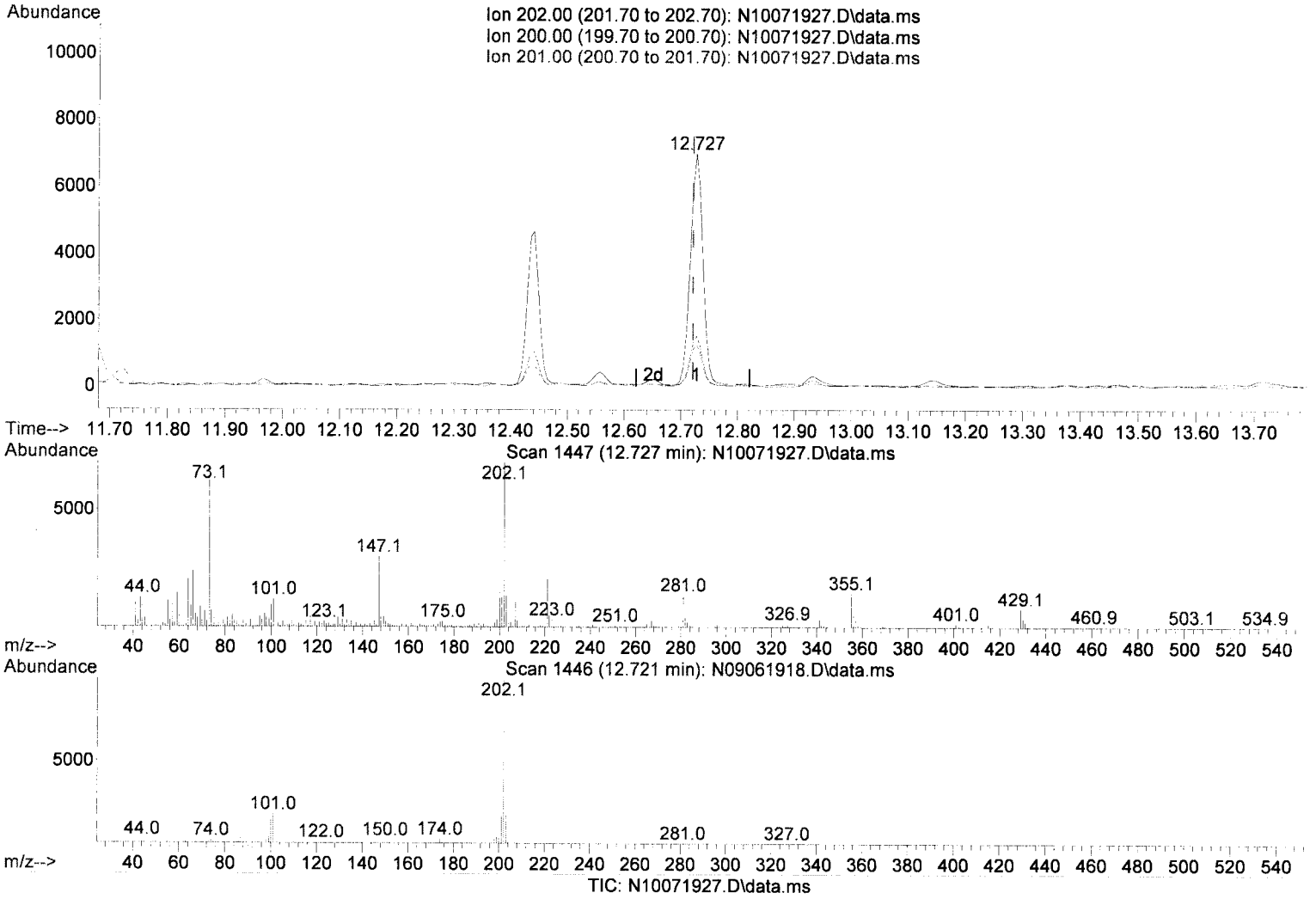
response 7218

Ion	Exp%	Act%
178.00	100.00	100.00
176.00	19.00	20.55
179.00	15.10	16.96
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071927.D
Acq On : 07 Oct 2019 09:19 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-03
Misc : 1x, 8270D LL PAH Only
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 08 07:36:21 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(25) Pyrene (T)

12.727min (+ 0.006) 3.49 ng/ml

j

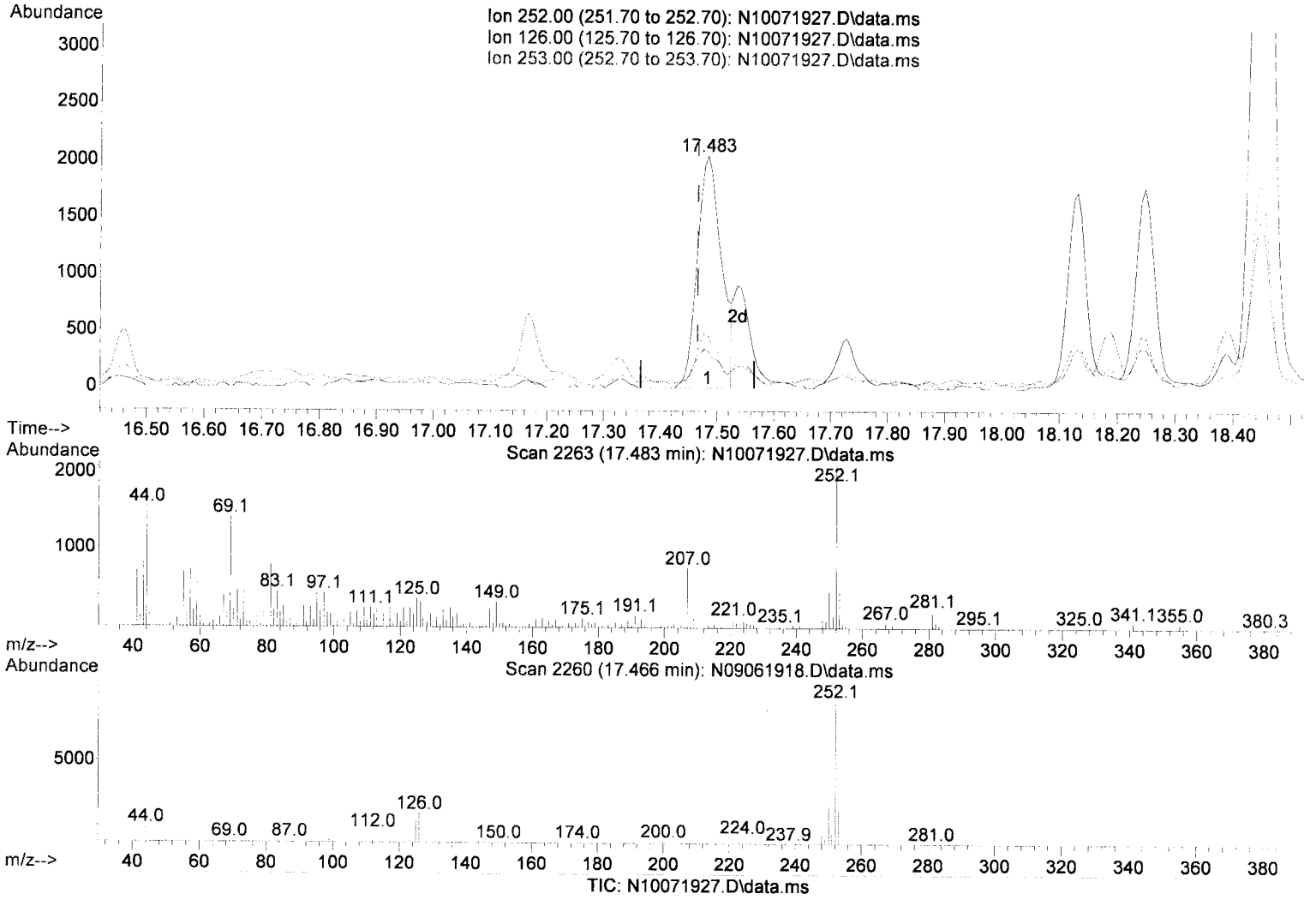
response 10792

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	20.70	21.80
201.00	16.80	18.37
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071927.D
Acq On : 07 Oct 2019 09:19 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-03
Misc : 1x, 8270D LL PAH Only
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 08 07:36:21 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(30) Benzo(b)fluoranthene (T)

17.483min (+ 0.018) 3.08 ng/ml

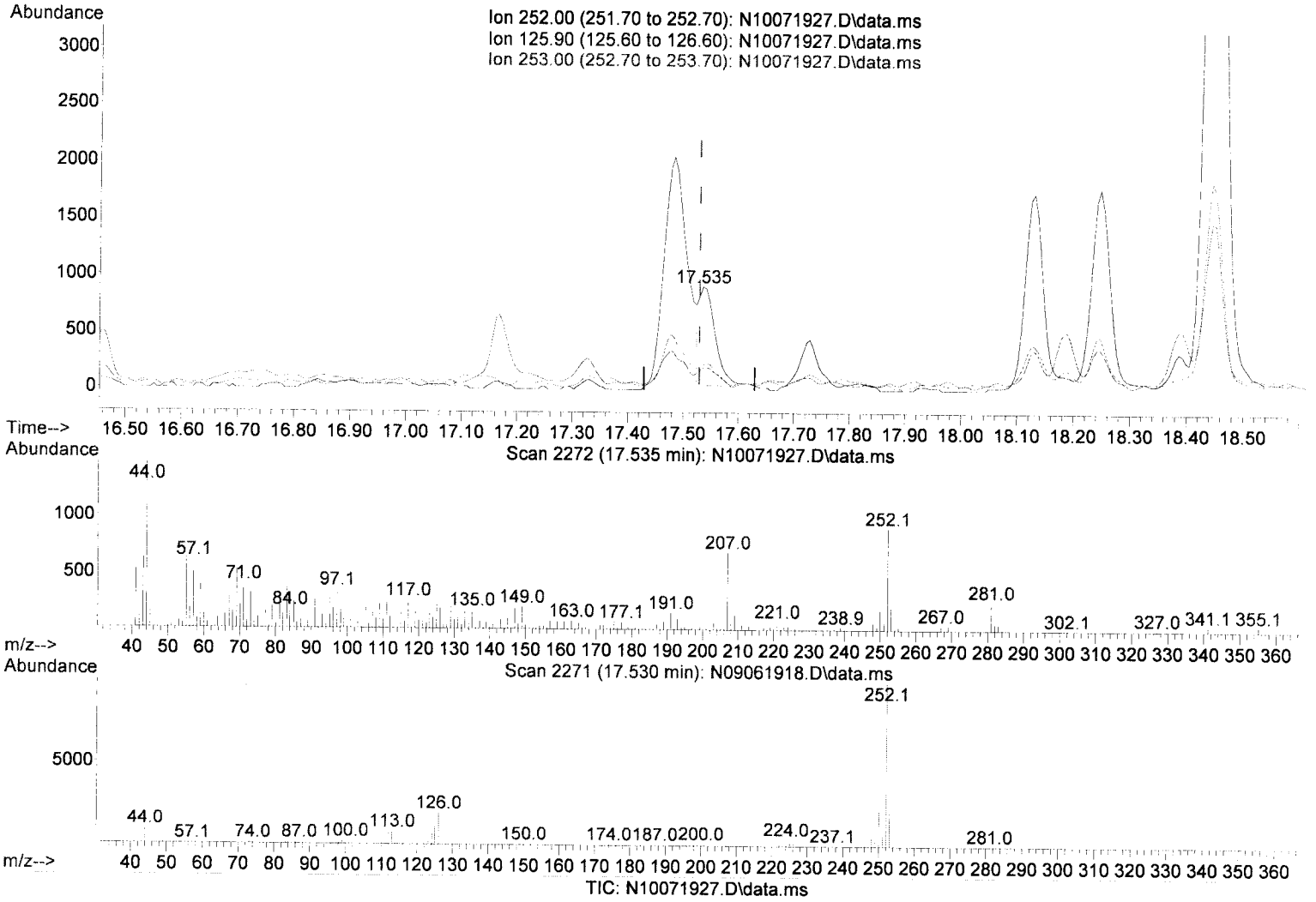
response 6083

Ion	Exp%	Act%
252.00	100.00	100.00
126.00	20.00	15.98
253.00	21.10	22.60
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071927.D
Acq On : 07 Oct 2019 09:19 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-03
Misc : 1x, 8270D LL PAH Only
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 08 07:36:21 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(31) Benzo(k)fluoranthene (T)

17.535min (+ 0.006) 0.89 ng/ml (m) tear 10/8/19

response 1727

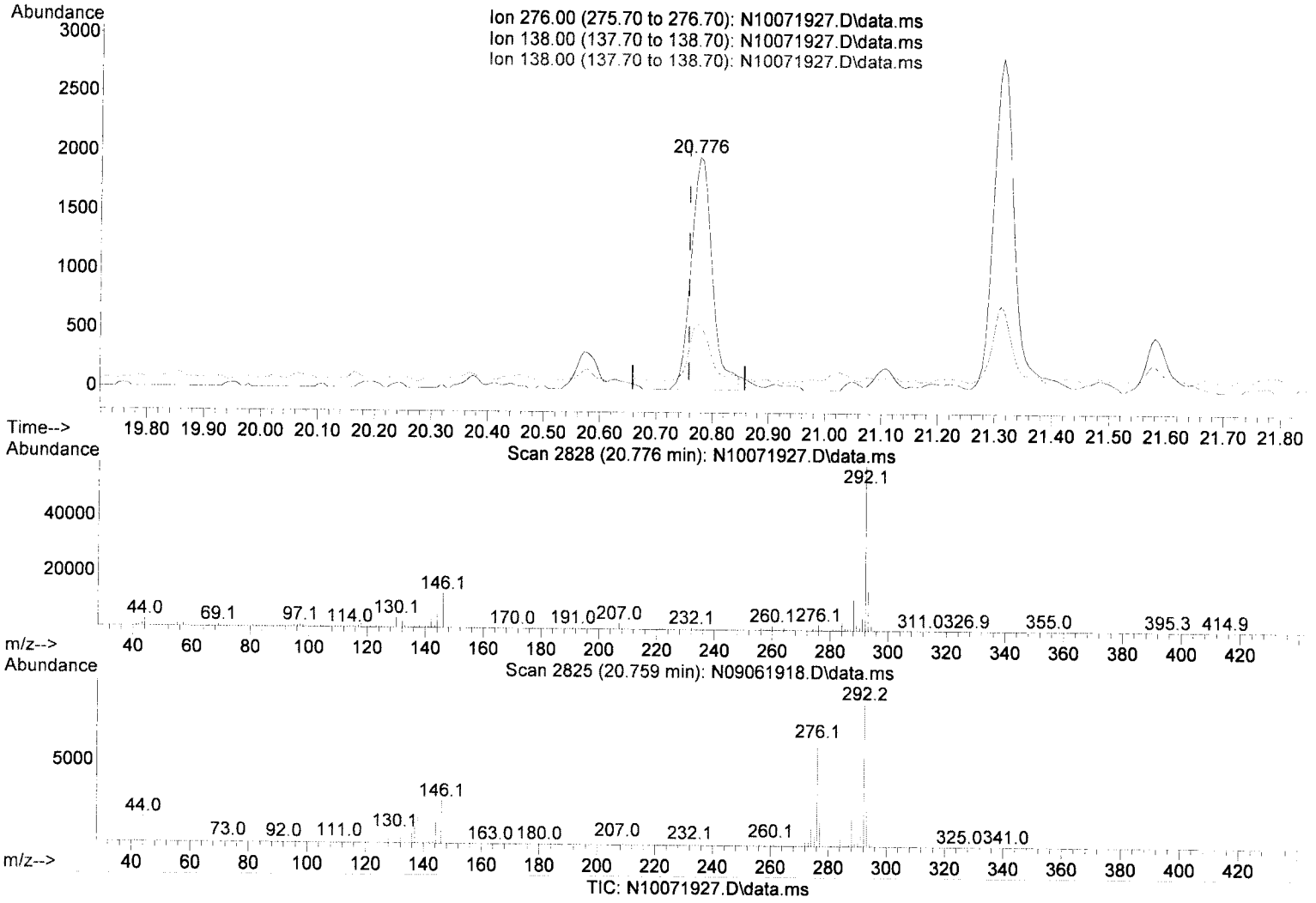
Ion	Exp%	Act%
252.00	100.00	100.00
125.90	22.10	21.37
253.00	21.50	24.34
0.00	0.00	0.00

J

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071927.D
Acq On : 07 Oct 2019 09:19 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-03
Misc : 1x, 8270D LL PAH Only
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 08 07:36:21 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(38) Indeno(1,2,3-cd)Pyrene (T)

20.776min (+ 0.018) 2.96 ng/ml

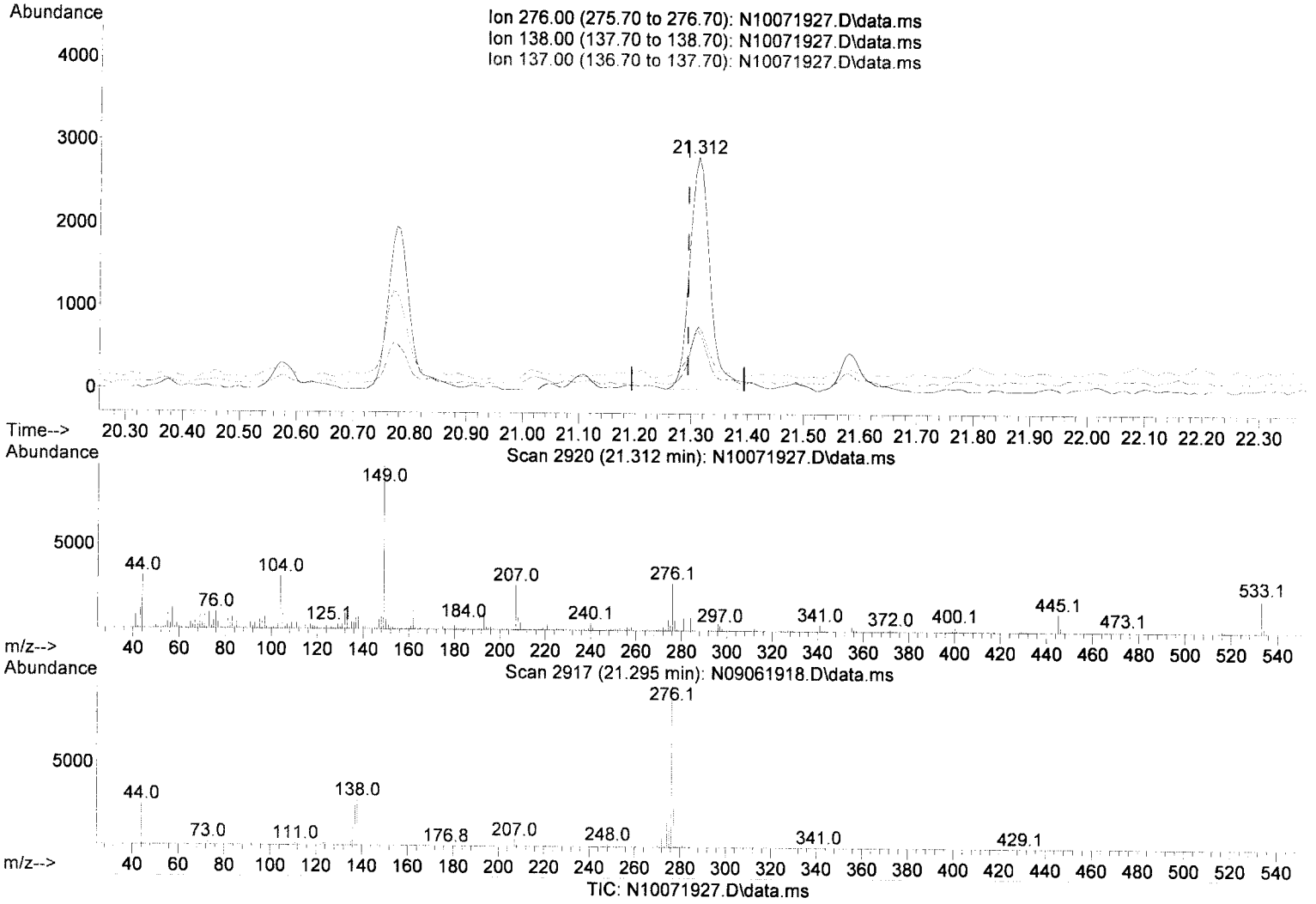
response 5200

Ion	Exp%	Act%
276.00	100.00	100.00
138.00	31.60	27.94
138.00	31.60	27.94
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071927.D
Acq On : 07 Oct 2019 09:19 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-03
Misc : 1x, 8270D LL PAH Only
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 08 07:36:21 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(40) Benzo(g,h,i)perylene (T)

21.312min (+ 0.018) 3.76 ng/ml

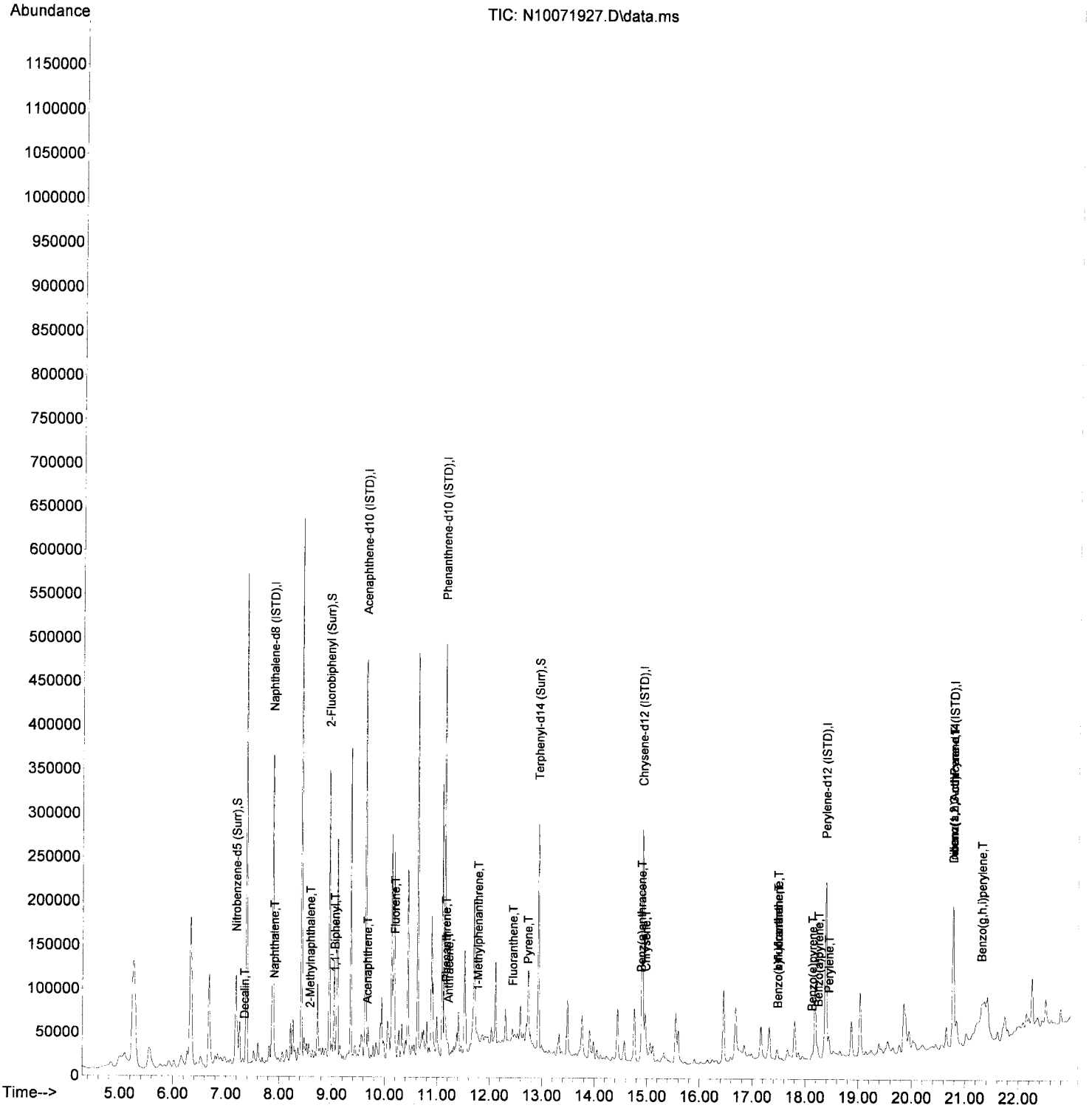
J

response 7017

Ion	Exp%	Act%
276.00	100.00	100.00
138.00	34.40	25.59
137.00	28.60	27.54
0.00	0.00	0.00

Data Path : U:\data\2019-10\9J07048\
Data File : N10071927.D
Acq On : 07 Oct 2019 09:19 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-03
Misc : 1x, 8270D LL PAH Only
ALS Vial : 19 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 08 07:36:21 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071928.D
Acq On : 07 Oct 2019 09:50 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-04
Misc : 1x, 8270D LL PAH Only
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

tem 10/8/19

Quant Time: Oct 08 07:36:24 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.889	136	227551	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.643	162	131792	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	240955	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.918	240	196779	100.00	ng/ml	0.01
29) Perylene-d12 (ISTD)	18.392	264	171679	100.00	ng/ml	0.02
37) Dibenz(a,h)Anthrcene-d...	20.782	292	141233	100.00	ng/ml	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.190	82	57935	76.62	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.956	172	162233	82.51	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.486	160	1216	-1.00	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.937	244	182677	88.27	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.347	138	159	0.94	ng/ml#	63
4) Naphthalene	7.907	128	2907	1.16	ng/ml	81
5) 2-Methylnaphthalene	8.594	142	1086	0.51	ng/ml	87
6) 1-Methylnaphthalene	8.693	142	1121	0.53	ng/ml#	64
7) 1,1'-Biphenyl	9.055	154	1479	0.52	ng/ml	91
8) 2,6-Dimethylnaphthalene	9.218	156	689	N.D.		
12) Acenaphthylene	9.498	152	306	N.D.		
13) Acenaphthene	9.678	153	701	N.D.		
14) Dibenzofuran	9.847	168	489	N.D.		
15) 1,6,7-Trimethylnaphtha...	10.069	170	347	N.D.		
16) Fluorene	10.197	166	459	N.D.		
18) Dibenzothiopene	11.042	184	276	N.D.		
19) Phenanthrene	11.171	178	2469	0.88	ng/ml	92
20) Anthracene	11.223	178	321	N.D.		
21) Carbazole	11.386	167	254	N.D.		
22) 1-Methylphenanthrene	11.800	192	1534	0.78	ng/ml	92
23) Fluoranthene	12.441	202	1838	0.65	ng/ml	81
25) Pyrene	12.727	202	2001	0.65	ng/ml	93
27) Benz(a)anthracene	14.913	228	914	0.40	ng/ml	82
28) Chrysene	14.971	228	727	N.D.		
30) Benzo(b)fluoranthene	17.489	252	457	N.D.		
31) Benzo(k)fluoranthene	17.489	252	704	N.D.		
32) Benzo(b+k)fluoranthene	17.489	252	835	0.41	ng/ml#	22
34) Benzo(e)pyrene	18.130	252	384	N.D.		
35) Benzo(a)pyrene	18.252	252	339	N.D.		
36) Perylene	18.451	252	23779	11.39	ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.782	276	386	N.D.		
39) Dibenz(a,h)anthracene	20.817	278	57	N.D.		
40) Benzo(g,h,i)perylene	21.324	276	331	N.D.		

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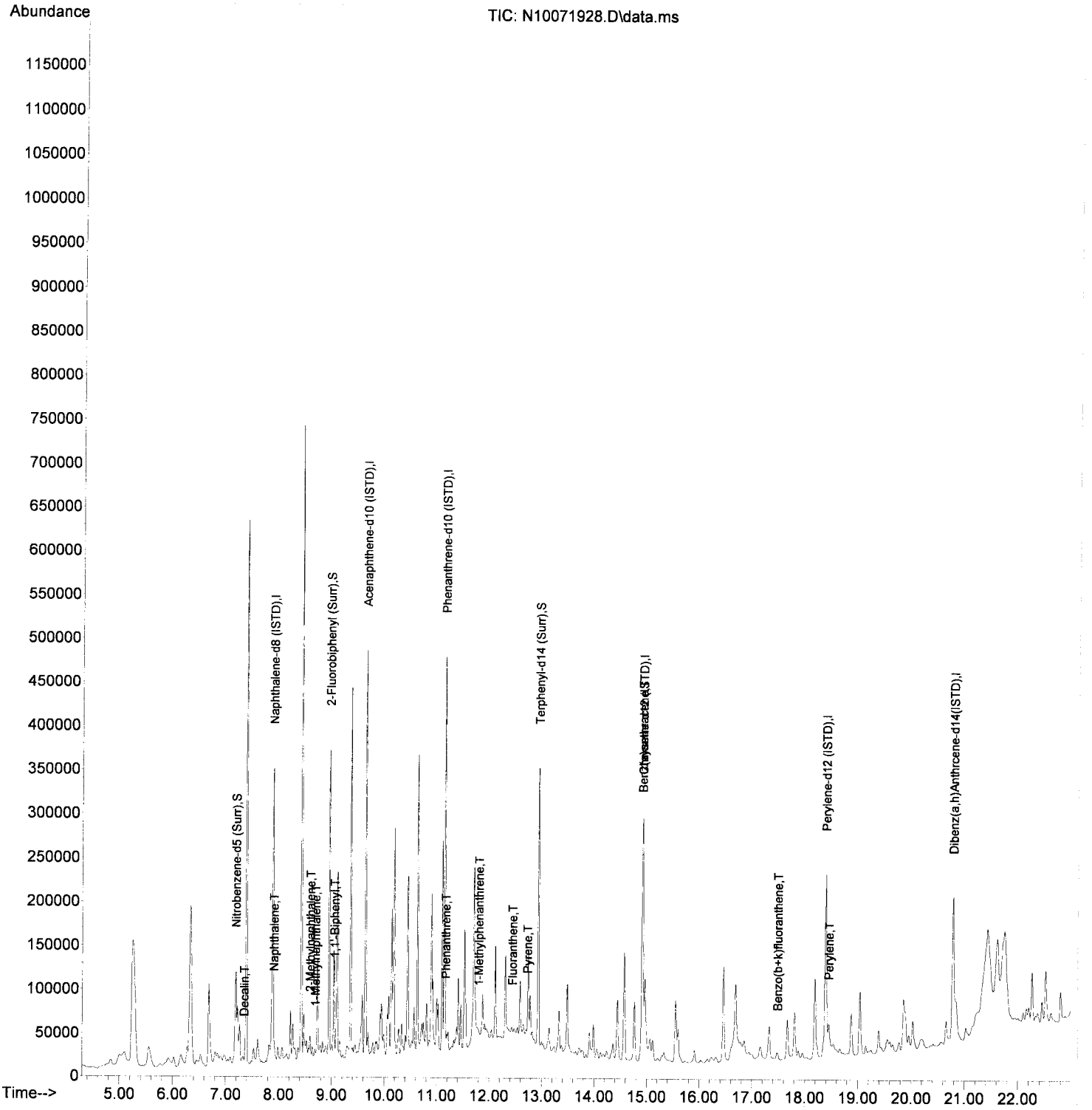
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : U:\data\2019-10\9J07048\
Data File : N10071928.D
Acq On : 07 Oct 2019 09:50 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-04
Misc : 1x, 8270D LL PAH Only
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 08 07:36:24 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071929.D
Acq On : 07 Oct 2019 10:22 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-05
Misc : 1x, 8270D LL PAH Only
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

HEM 10/8/19

Quant Time: Oct 08 07:36:27 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	240982	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	140368	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	264413	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.913	240	233329	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.386	264	209420	100.00	ng/ml	0.01
37) Dibenz(a,h)Anthrcene-d...	20.776	292	173068	100.00	ng/ml	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	60379	75.40	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	170831	81.58	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	902	-1.00	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	207813	84.68	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.353	138	98	0.55	ng/ml#	66
4) Naphthalene	7.901	128	18214	6.85	ng/ml	98
5) 2-Methylnaphthalene	8.588	142	3269	1.45	ng/ml	99
6) 1-Methylnaphthalene	8.688	142	1899	0.84	ng/ml	89
7) 1,1'-Biphenyl	9.055	154	2038	0.67	ng/ml	95
8) 2,6-Dimethylnaphthalene	9.218	156	1311	0.59	ng/ml	94
12) Acenaphthylene	9.498	152	2028	0.67	ng/ml	83
13) Acenaphthene	9.673	153	6529	(3.27)	ng/ml	99
14) Dibenzofuran	9.847	168	524	N.D.		
15) 1,6,7-Trimethylnaphtha...	10.069	170	392	N.D.		
16) Fluorene	10.191	166	2161	1.06	ng/ml	92
18) Dibenzothiopene	11.042	184	1279	0.46	ng/ml	82
19) Phenanthrene	11.171	178	7628	2.47	ng/ml	98
20) Anthracene	11.223	178	864	N.D.		
21) Carbazole	11.386	167	567	N.D.		
22) 1-Methylphenanthrene	11.771	192	576	N.D.		
23) Fluoranthene	12.435	202	3072	0.99	ng/ml	93
25) Pyrene	12.727	202	3655	1.00	ng/ml	92
27) Benz(a)anthracene	14.895	228	1665	0.61	ng/ml	79
28) Chrysene	14.971	228	1377	0.54	ng/ml	84
30) Benzo(b)fluoranthene	17.483	252	1640	0.68	ng/ml	91
31) Benzo(k)fluoranthene	17.483	252	1921	0.81	ng/ml	94
32) Benzo(b+k)fluoranthene	17.483	252	2233	0.90	ng/ml	94
34) Benzo(e)pyrene	18.124	252	998	0.41	ng/ml	86
35) Benzo(a)pyrene	18.247	252	1388	0.67	ng/ml	82
36) Perylene	18.445	252	2298	0.90	ng/ml	91
38) Indeno(1,2,3-cd)Pyrene	20.776	276	1371	0.64	ng/ml#	45
39) Dibenz(a,h)anthracene	20.846	278	166	N.D.		
40) Benzo(g,h,i)perylene	21.312	276	1483	0.65	ng/ml	75

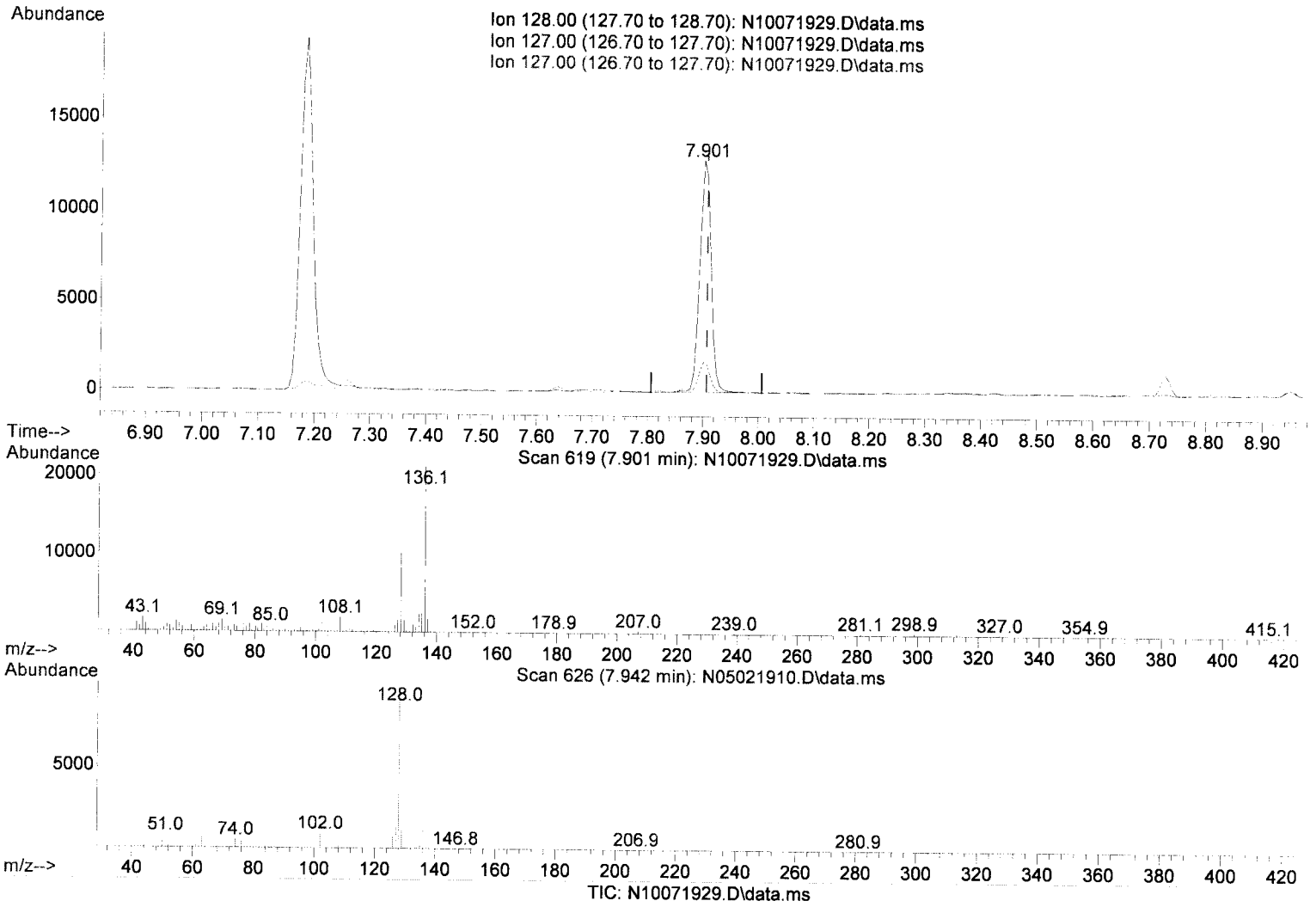
(#) = qualifier out of range (m) = manual integration (+) = signals summed

J

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071929.D
Acq On : 07 Oct 2019 10:22 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-05
Misc : 1x, 8270D LL PAH Only
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 08 07:36:27 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(4) Naphthalene (T)

7.901min (-0.006) 6.85 ng/ml

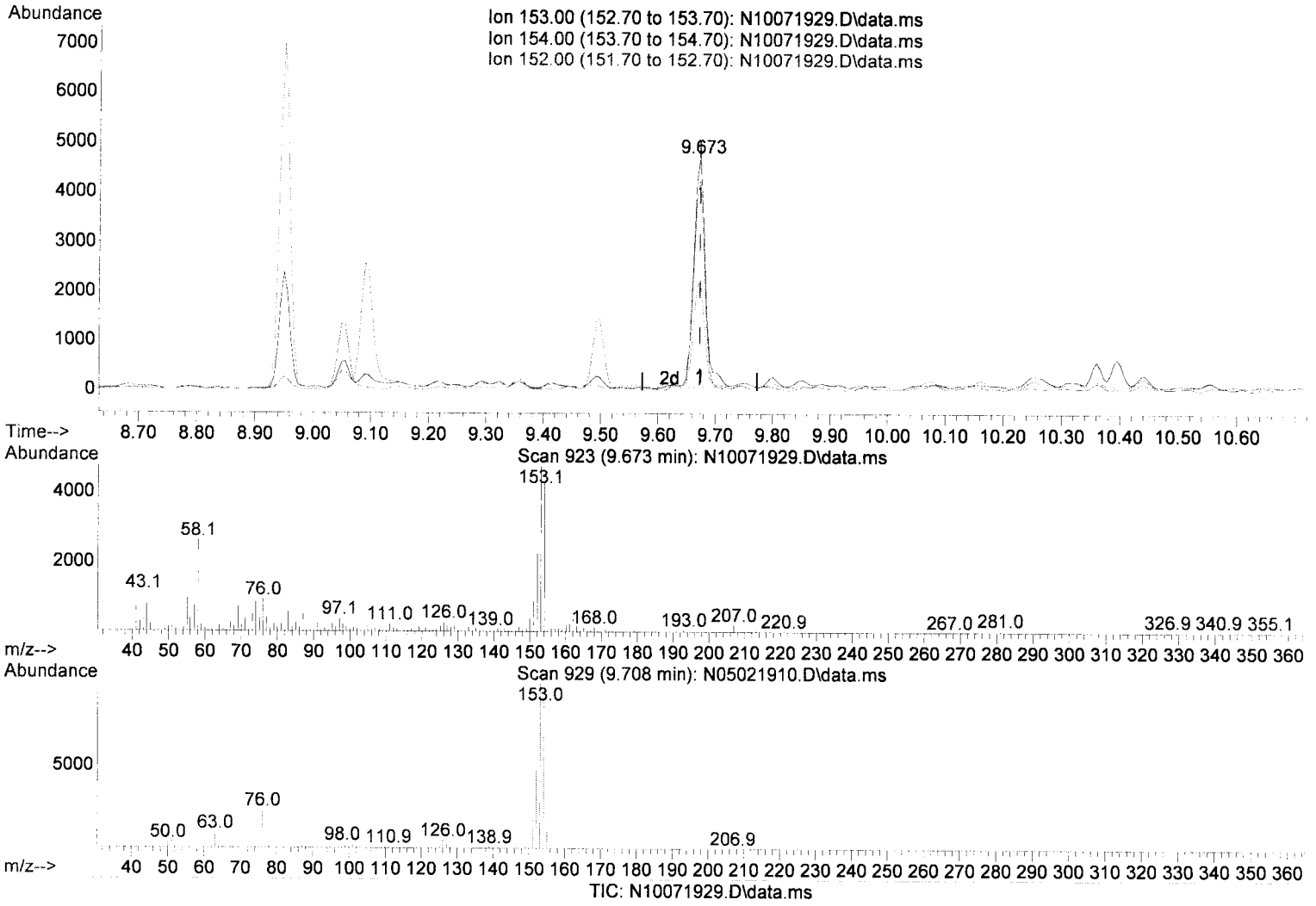
response 18214

Ion	Exp%	Act%
128.00	100.00	100.00
127.00	12.60	13.26
127.00	12.60	13.26
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071929.D
Acq On : 07 Oct 2019 10:22 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-05
Misc : 1x, 8270D LL PAH Only
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 08 07:36:27 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(13) Acenaphthene (T)

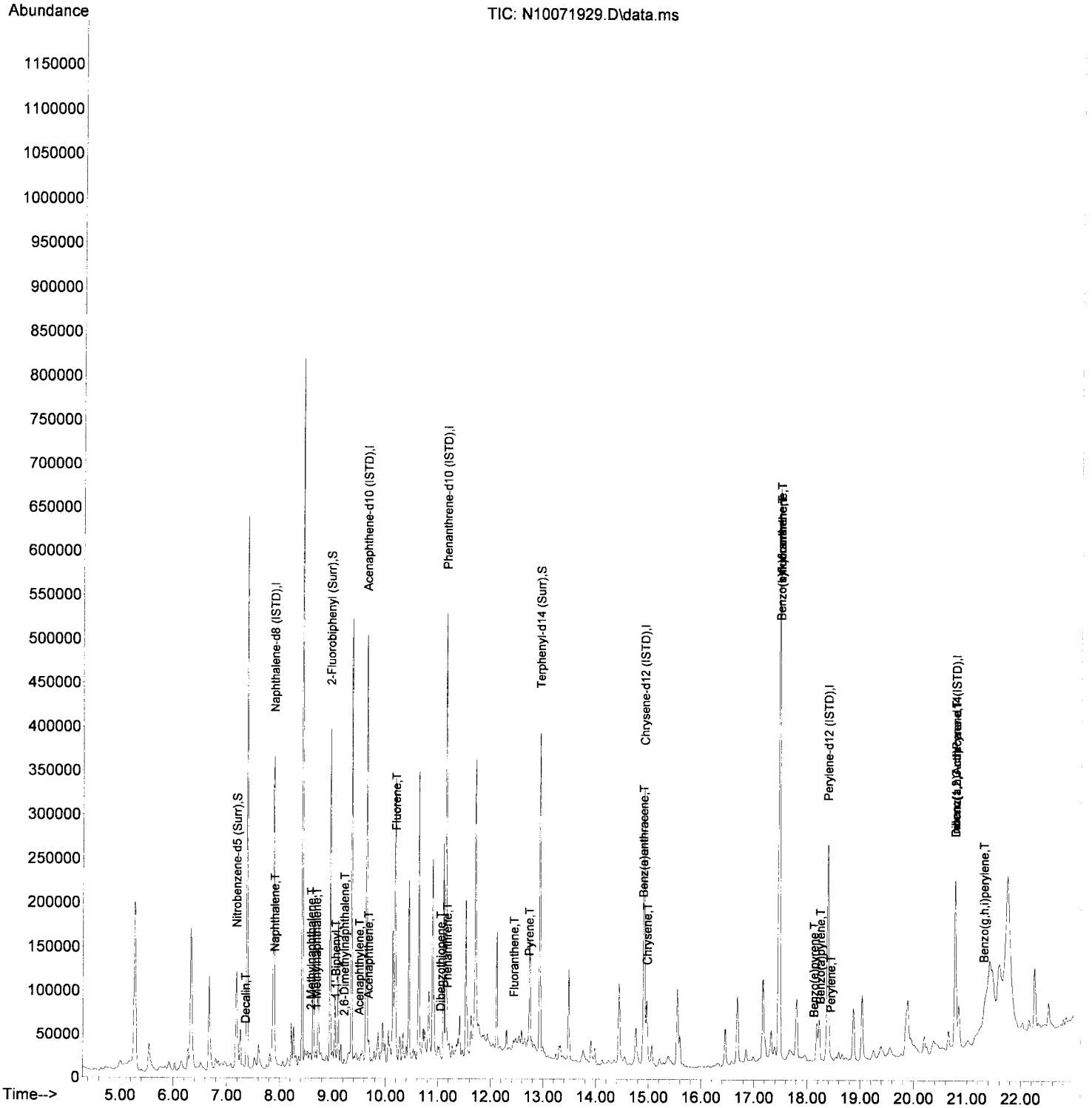
9.673min (-0.000) 3.27 ng/ml

response 6529

Ion	Exp%	Act%
153.00	100.00	100.00
154.00	90.70	90.04
152.00	46.80	47.41
0.00	0.00	0.00

Data Path : U:\data\2019-10\9J07048\
Data File : N10071929.D
Acq On : 07 Oct 2019 10:22 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-05
Misc : 1x, 8270D LL PAH Only
ALS Vial : 21 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 08 07:36:27 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071930.D
Acq On : 07 Oct 2019 10:55 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-06
Misc : 1x, 8270D LL PAH Only
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

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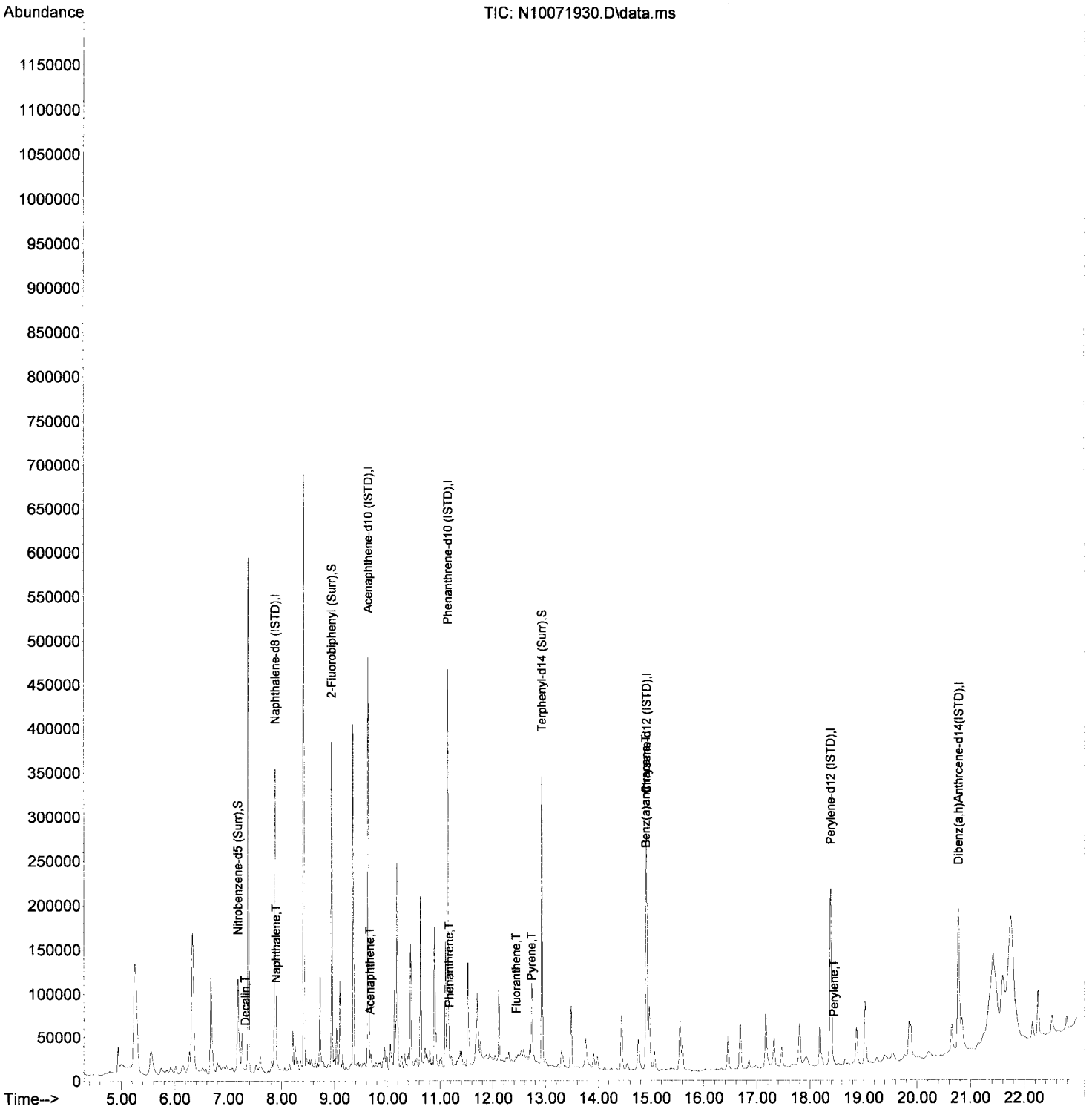
Quant Time: Oct 08 07:36:30 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.883	136	243594	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.637	162	135458	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	245546	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.912	240	197870	100.00 ng/ml	0.00
29) Perylene-d12 (ISTD)	18.386	264	171922	100.00 ng/ml	0.01
37) Dibenz(a,h)Anthrcene-d...	20.776	292	142312	100.00 ng/ml	0.01
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.184	82	62220	76.87 ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	171738	84.98 ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	2023	-1.00 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	186235	89.49 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	7.318	138	172	0.95 ng/ml#	1
4) Naphthalene	7.901	128	2868	1.07 ng/ml	85
5) 2-Methylnaphthalene	8.588	142	825	N.D.	
6) 1-Methylnaphthalene	8.687	142	613	N.D.	
7) 1,1'-Biphenyl	9.049	154	964	N.D.	
8) 2,6-Dimethylnaphthalene	9.218	156	285	N.D.	
12) Acenaphthylene	9.492	152	897	N.D.	
13) Acenaphthene	9.667	153	2396	1.24 ng/ml	99
14) Dibenzofuran	9.841	168	305	N.D.	
15) 1,6,7-Trimethylnaphtha...	10.057	170	164	N.D.	
16) Fluorene	10.191	166	547	N.D.	
18) Dibenzothiopene	11.042	184	313	N.D.	
19) Phenanthrene	11.170	178	3050	1.06 ng/ml	94
20) Anthracene	11.223	178	538	N.D.	
21) Carbazole	11.386	167	293	N.D.	
22) 1-Methylphenanthrene	11.777	192	454	N.D.	
23) Fluoranthene	12.435	202	2474	0.85 ng/ml	94
25) Pyrene	12.727	202	2885	0.93 ng/ml	96
27) Benz(a)anthracene	14.901	228	953	0.41 ng/ml	81
28) Chrysene	14.965	228	855	N.D.	
30) Benzo(b)fluoranthene	17.477	252	586	N.D.	
31) Benzo(k)fluoranthene	17.541	252	212	N.D.	
32) Benzo(b+k)fluoranthene	17.477	252	798	N.D.	
34) Benzo(e)pyrene	18.124	252	351	N.D.	
35) Benzo(a)pyrene	18.241	252	358	N.D.	
36) Perylene	18.445	252	1780	0.85 ng/ml	91
38) Indeno(1,2,3-cd)Pyrene	20.776	276	408	N.D.	
39) Dibenz(a,h)anthracene	20.846	278	86	N.D.	
40) Benzo(g,h,i)perylene	21.318	276	342	N.D.	

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

Data Path : U:\data\2019-10\9J07048\
Data File : N10071930.D
Acq On : 07 Oct 2019 10:55 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-06
Misc : 1x, 8270D LL PAH Only
ALS Vial : 22 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 08 07:36:30 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J07048\
Data File : N10071931.D
Acq On : 07 Oct 2019 11:27 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-07
Misc : 1x, 8270D LL PAH Only
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

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Quant Time: Oct 08 07:36:33 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.889	136	245060	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.643	162	149199	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.153	188	253658	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.924	240	215922	100.00 ng/ml	0.02
29) Perylene-d12 (ISTD)	18.398	264	189213	100.00 ng/ml	0.02
37) Dibenz(a,h)Anthrcene-d...	20.782	292	150175	100.00 ng/ml	0.02
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.189	82	65908	80.94 ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.956	172	166893	74.98 ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.486	160	1672	-1.00 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.937	244	163348	71.93 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	7.358	138	266	1.46 ng/ml#	72
4) Naphthalene	7.906	128	7614	(2.82) ng/ml	94 J
5) 2-Methylnaphthalene	8.594	142	1437	0.63 ng/ml	93
6) 1-Methylnaphthalene	8.693	142	1259	0.55 ng/ml	78
7) 1,1'-Biphenyl	9.055	154	1455	0.47 ng/ml	97
8) 2,6-Dimethylnaphthalene	9.218	156	1131	0.50 ng/ml	98
12) Acenaphthylene	9.498	152	938	N.D.	
13) Acenaphthene	9.678	153	3325	1.57 ng/ml	94
14) Dibenzofuran	9.847	168	541	N.D.	
15) 1,6,7-Trimethylnaphtha...	10.069	170	347	N.D.	
16) Fluorene	10.197	166	861	N.D.	
18) Dibenzothiopene	11.048	184	1000	N.D.	
19) Phenanthrene	11.176	178	6063	2.04 ng/ml	93
20) Anthracene	11.223	178	1699	0.62 ng/ml	79
21) Carbazole	11.386	167	788	N.D.	
22) 1-Methylphenanthrene	11.800	192	339	N.D.	
23) Fluoranthene	12.441	202	14082	(4.71) ng/ml	98 J
25) Pyrene	12.732	202	19339	[5.73] ng/ml	99
27) Benz(a)anthracene	14.901	228	6181	2.47 ng/ml	64
28) Chrysene	14.977	228	8481	(3.57) ng/ml	96 J
30) Benzo(b)fluoranthene	17.489	252	9344	(4.28) ng/ml	90 J
31) Benzo(k)fluoranthene	17.489	252	11015	~~5.12 ng/ml~~	~~89~~ MC
32) Benzo(b+k)fluoranthene	17.489	252	13545	6.07 ng/ml	89
34) Benzo(e)pyrene	18.136	252	6126	2.77 ng/ml	96
35) Benzo(a)pyrene	18.252	252	6908	(3.70) ng/ml	95 J
36) Perylene	18.456	252	20133	8.75 ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.788	276	6385	(3.45) ng/ml	94 J
39) Dibenz(a,h)anthracene	20.846	278	738	0.42 ng/ml#	1
40) Benzo(g,h,i)perylene	21.318	276	7691	(3.91) ng/ml	93 J

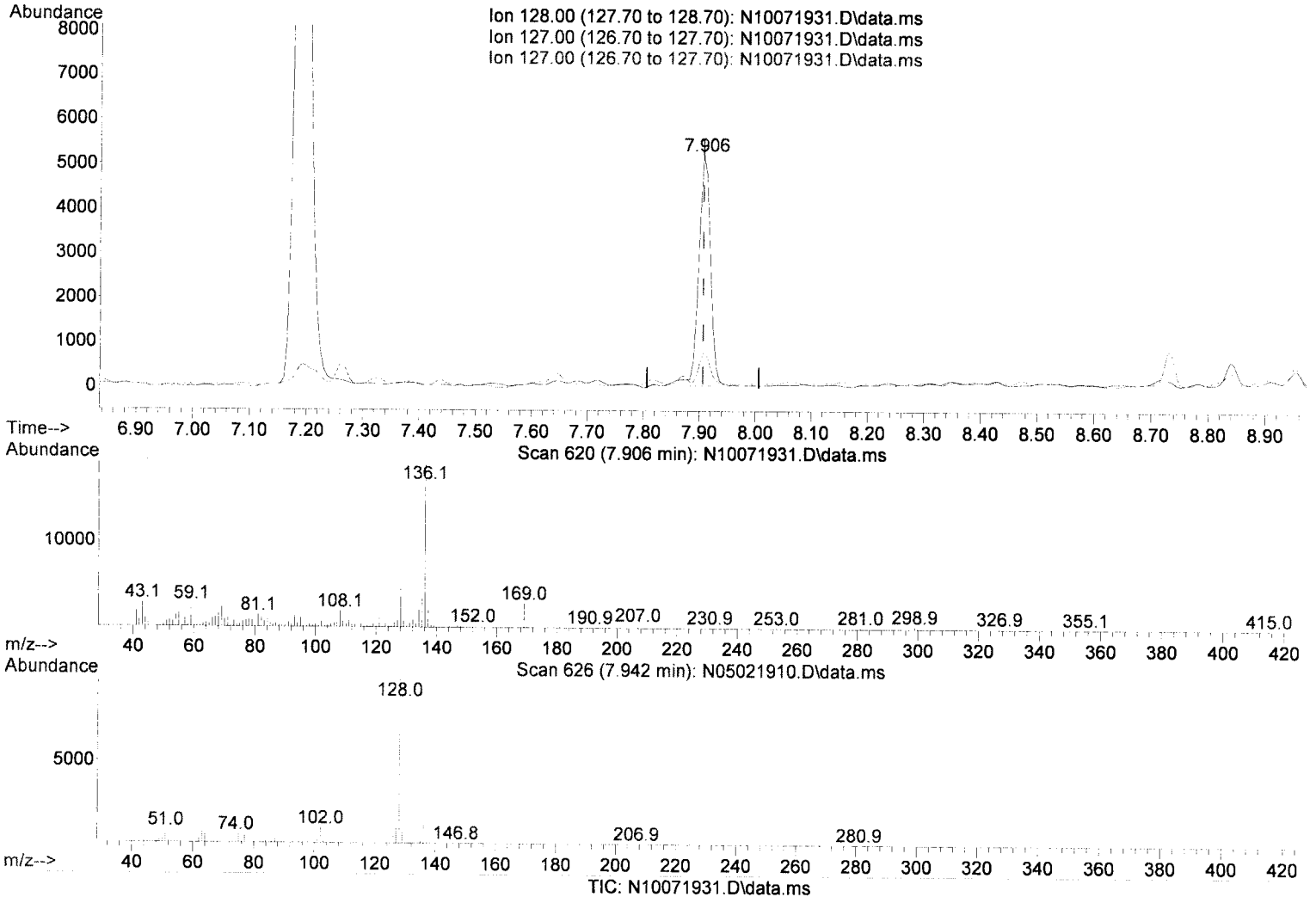
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071931.D
Acq On : 07 Oct 2019 11:27 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-07
Misc : 1x, 8270D LL PAH Only
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 08 07:36:33 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(4) Naphthalene (T)

7.906min (-0.000) 2.82 ng/ml

response 7614

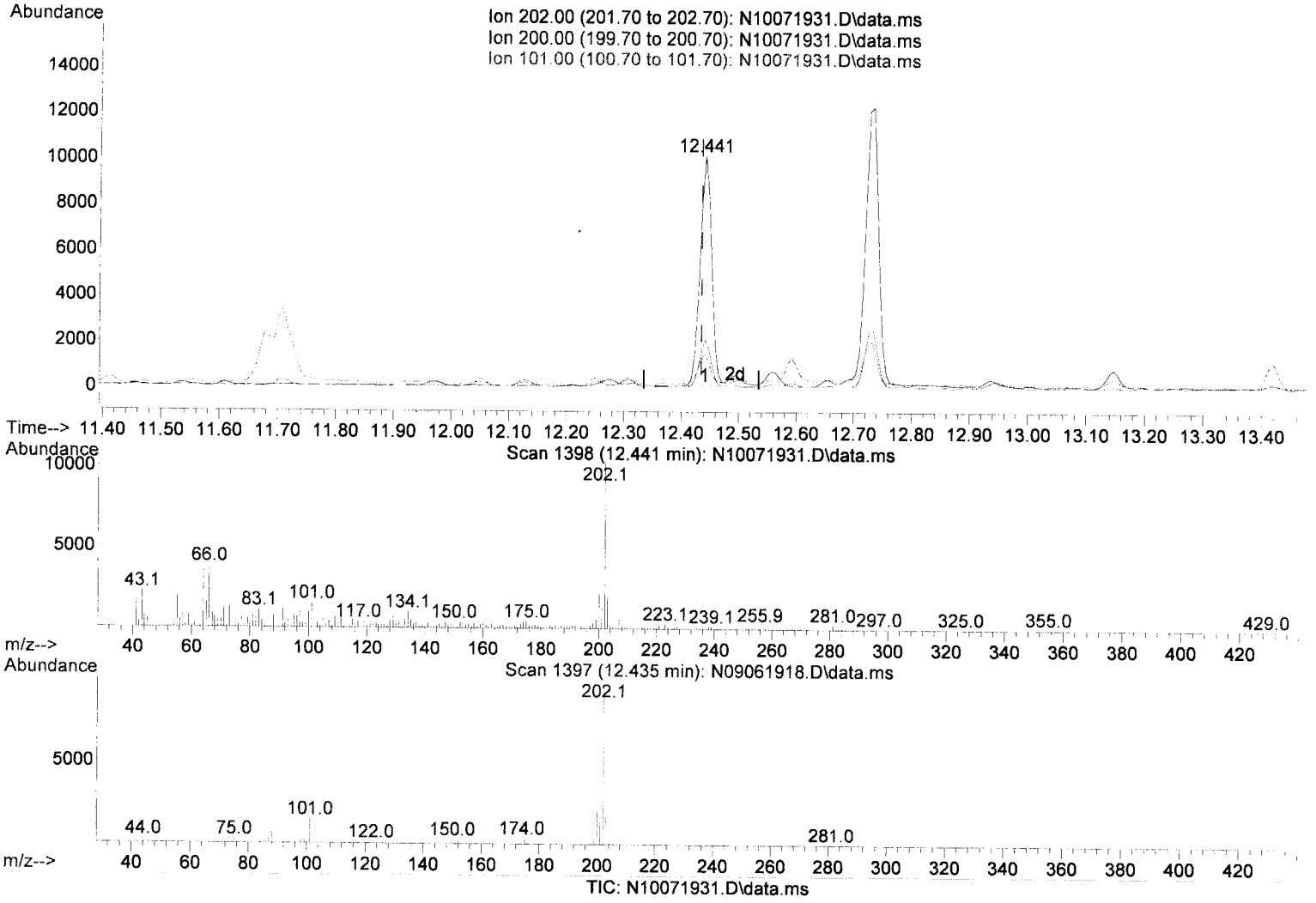
Ion	Exp%	Act%
128.00	100.00	100.00
127.00	12.60	15.04
127.00	12.60	15.04
0.00	0.00	0.00

J

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071931.D
Acq On : 07 Oct 2019 11:27 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-07
Misc : 1x, 8270D LL PAH Only
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 08 07:36:33 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(23) Fluoranthene (T)

12.441min (+ 0.006) 4.71 ng/ml

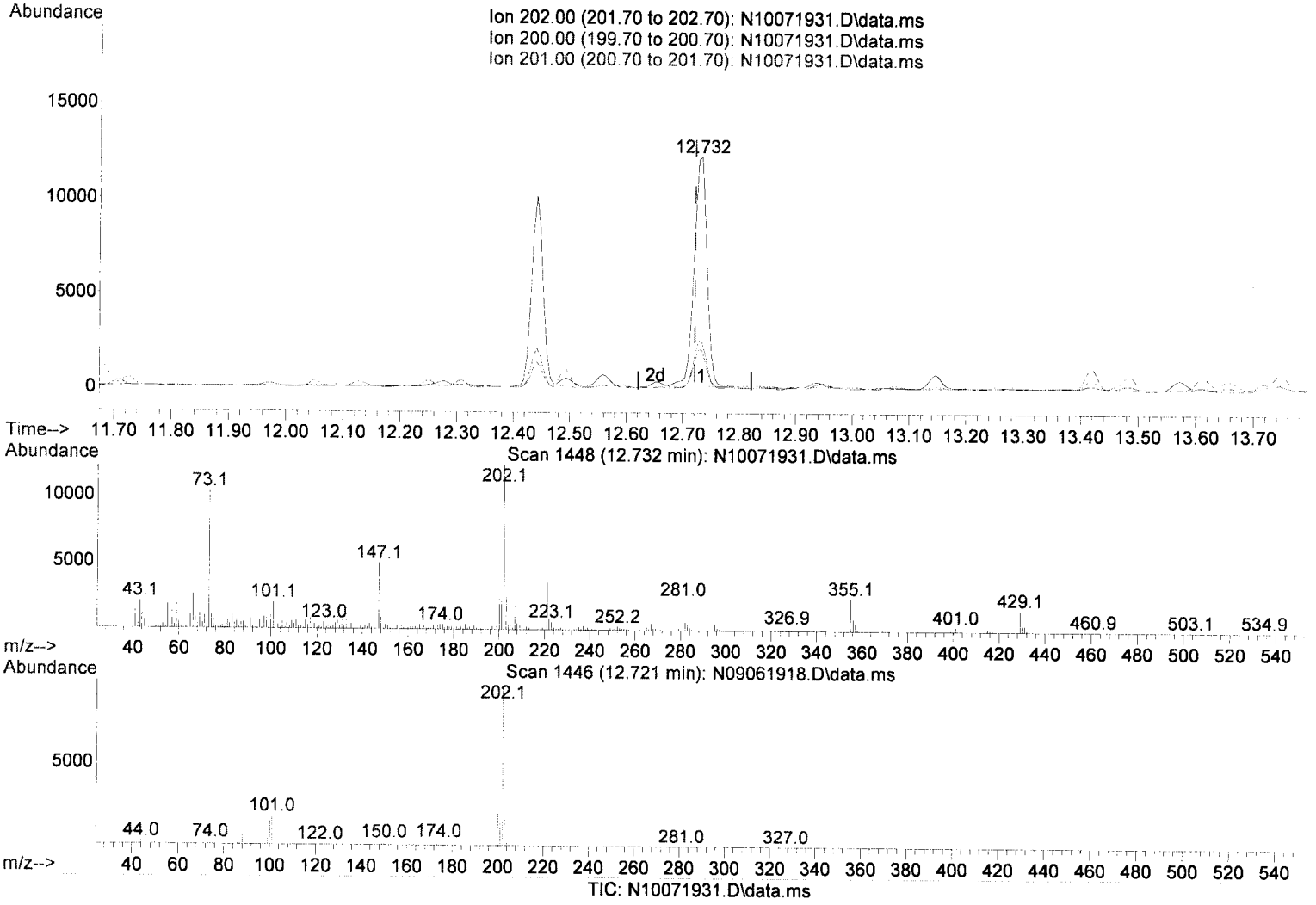
response 14082

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	19.70	20.89
101.00	15.30	14.75
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071931.D
Acq On : 07 Oct 2019 11:27 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-07
Misc : 1x, 8270D LL PAH Only
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 08 07:36:33 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(25) Pyrene (T)

12.732min (+ 0.011) 5.73 ng/ml

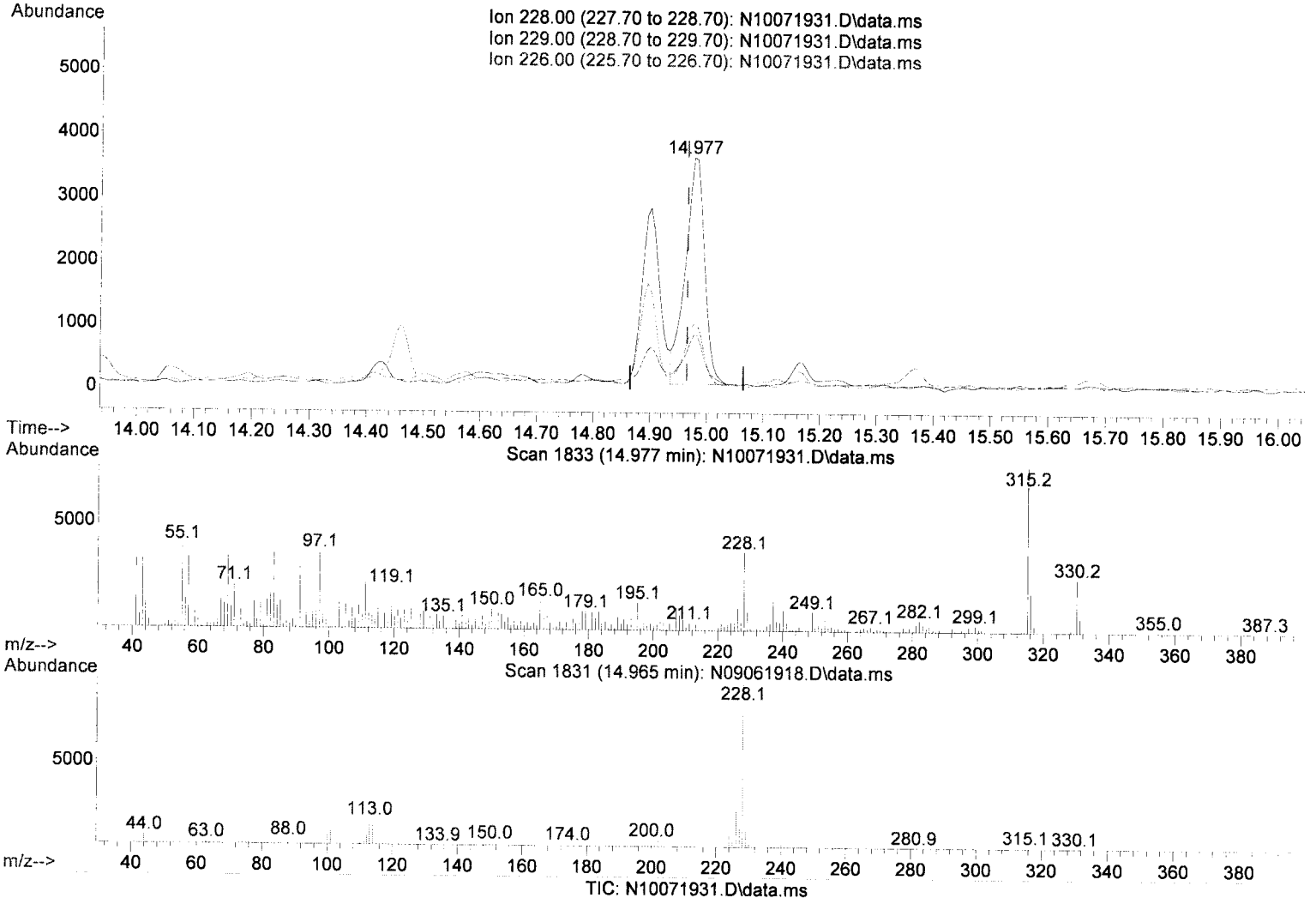
response 19339

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	20.70	21.17
201.00	16.80	17.22
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071931.D
Acq On : 07 Oct 2019 11:27 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-07
Misc : 1x, 8270D LL PAH Only
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 08 07:36:33 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(28) Chrysene (T)

14.977min (+ 0.012) 3.57 ng/ml

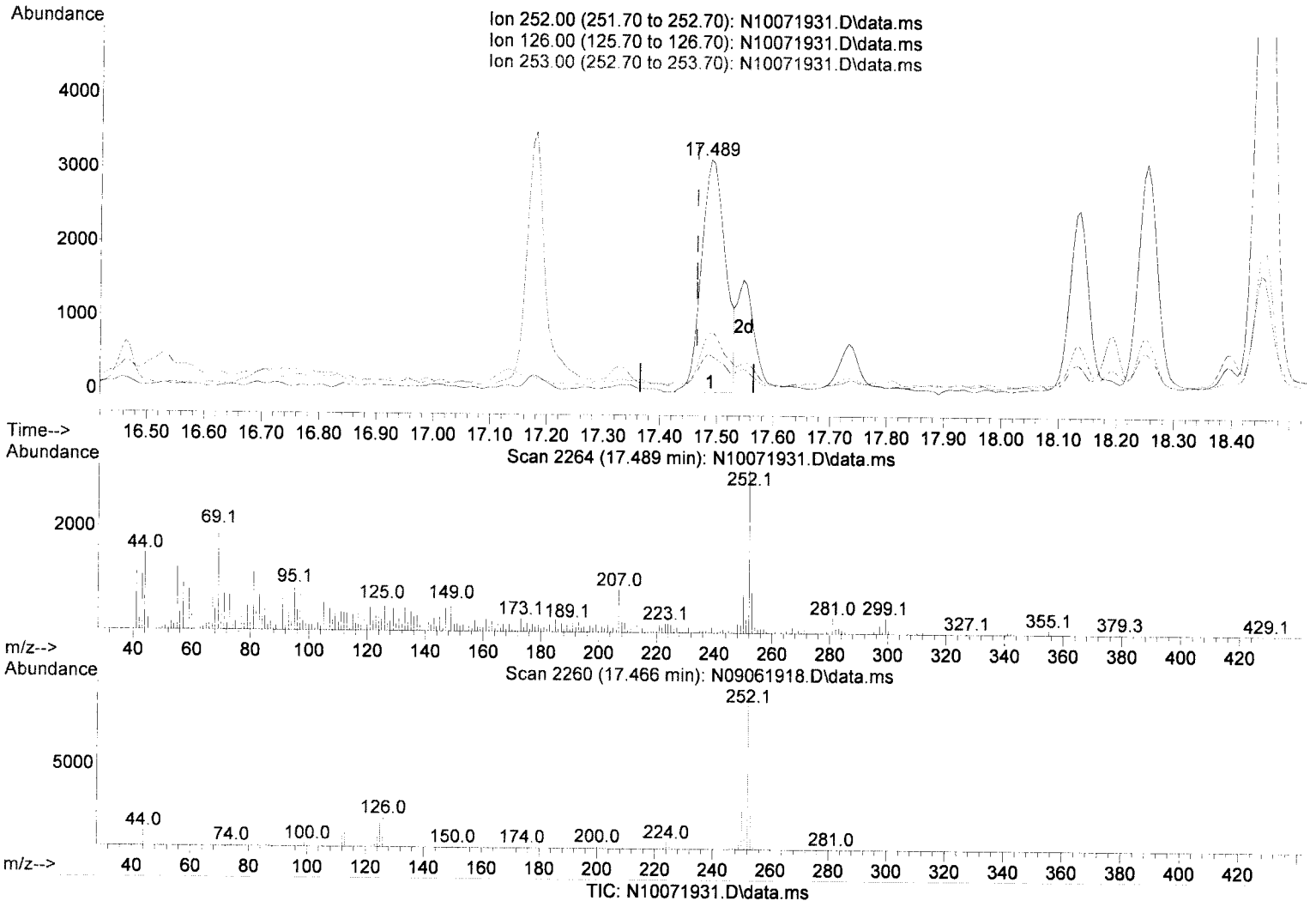
response 8481

Ion	Exp%	Act%
228.00	100.00	100.00
229.00	19.60	23.59
226.00	28.60	28.66
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071931.D
Acq On : 07 Oct 2019 11:27 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-07
Misc : 1x, 8270D LL PAH Only
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 08 07:36:33 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(30) Benzo(b)fluoranthene (T)

17.489min (+ 0.024) 4.28 ng/ml

response 9344

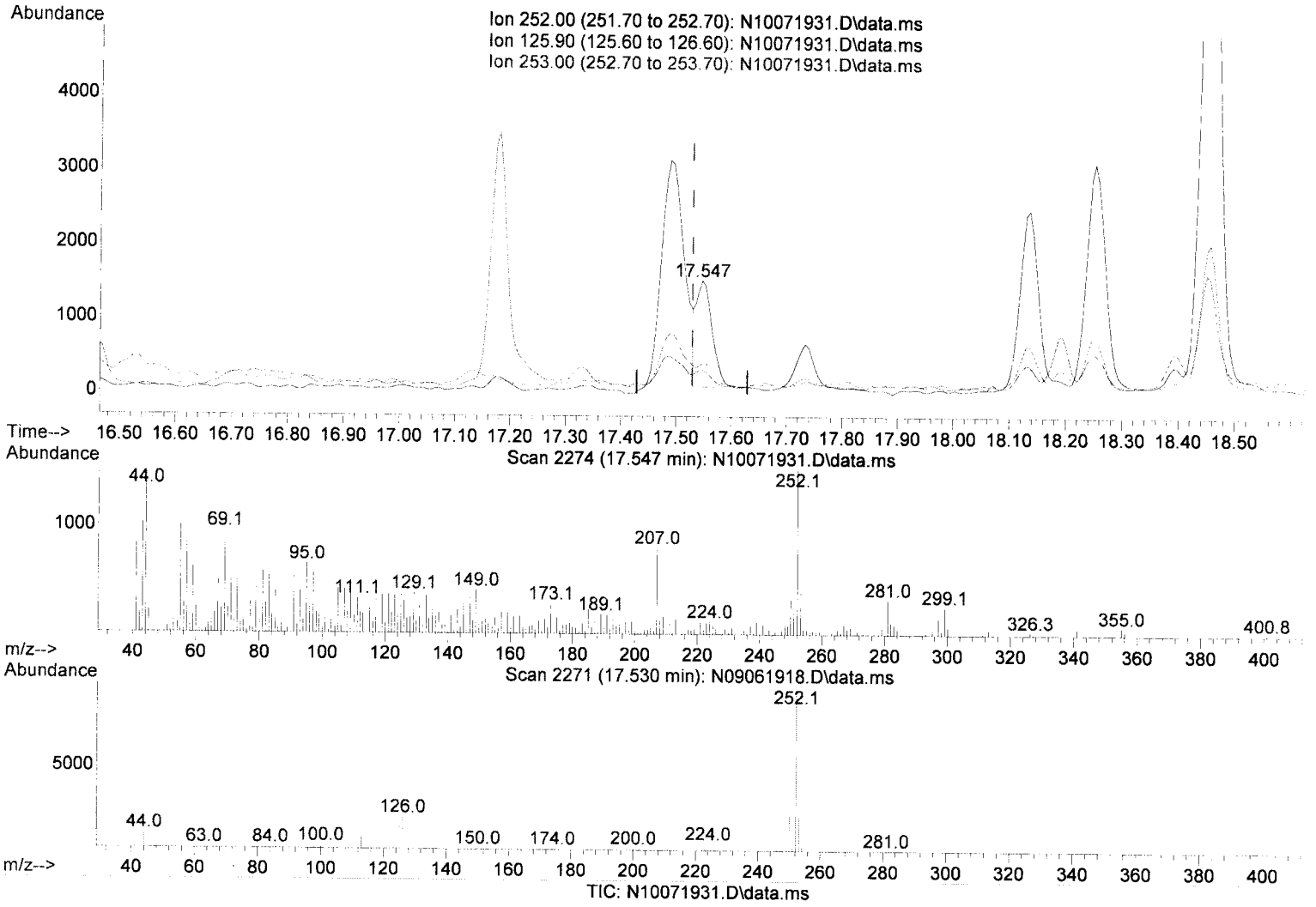
Ion	Exp%	Act%
252.00	100.00	100.00
126.00	20.00	15.76
253.00	21.10	25.71
0.00	0.00	0.00

J

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071931.D
Acq On : 07 Oct 2019 11:27 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-07
Misc : 1x, 8270D LL PAH Only
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 08 07:36:33 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(31) Benzo(k)fluoranthene (T)

17.547min (+ 0.018) 1.34 ng/ml m

response 2879

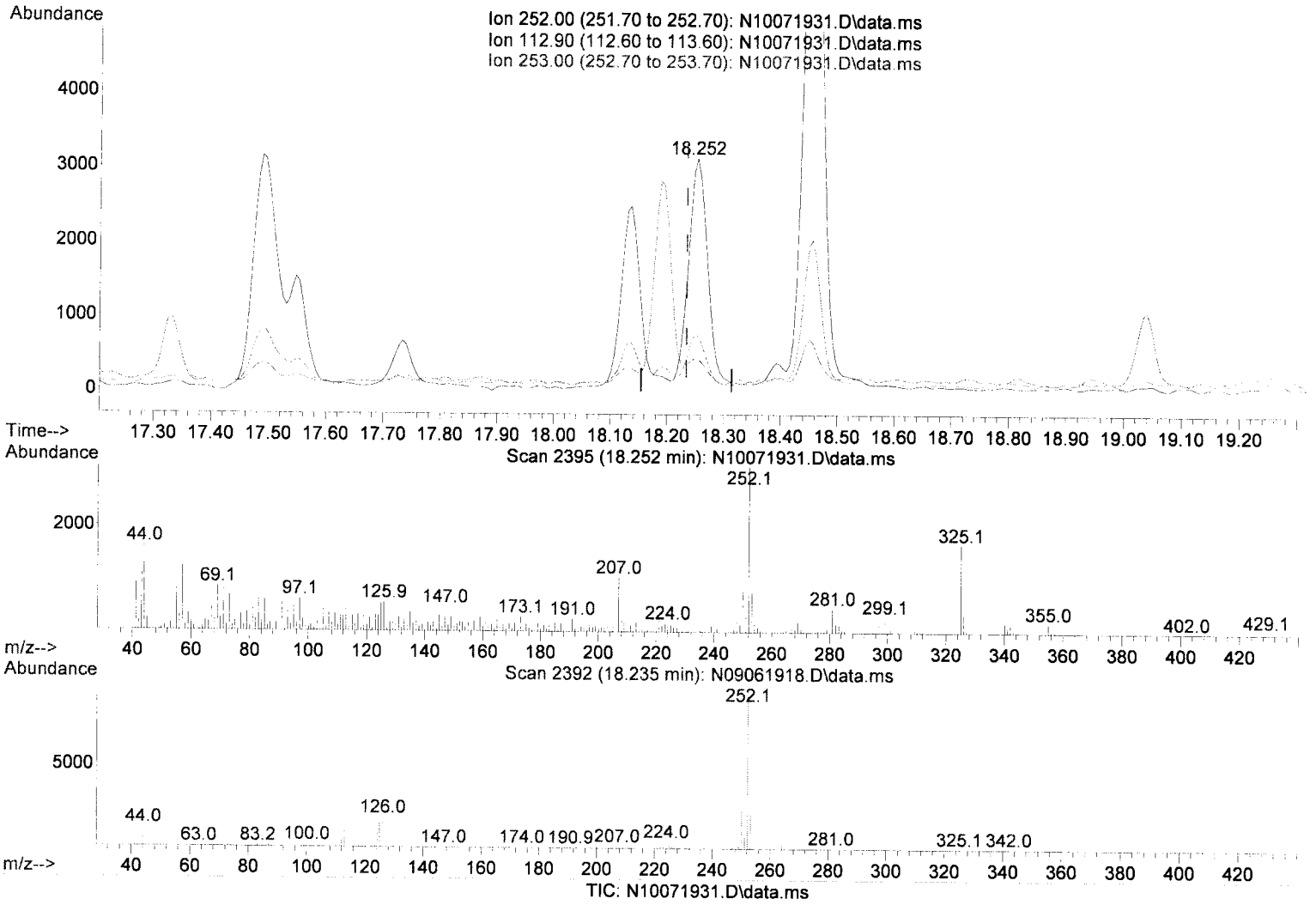
Ion	Exp%	Act%
252.00	100.00	100.00
125.90	22.10	20.62
253.00	21.50	26.44
0.00	0.00	0.00

HEM 10/8/19

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071931.D
Acq On : 07 Oct 2019 11:27 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-07
Misc : 1x, 8270D LL PAH Only
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 08 07:36:33 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(35) Benzo(a)pyrene (T)

18.252min (+ 0.018) 3.70 ng/ml

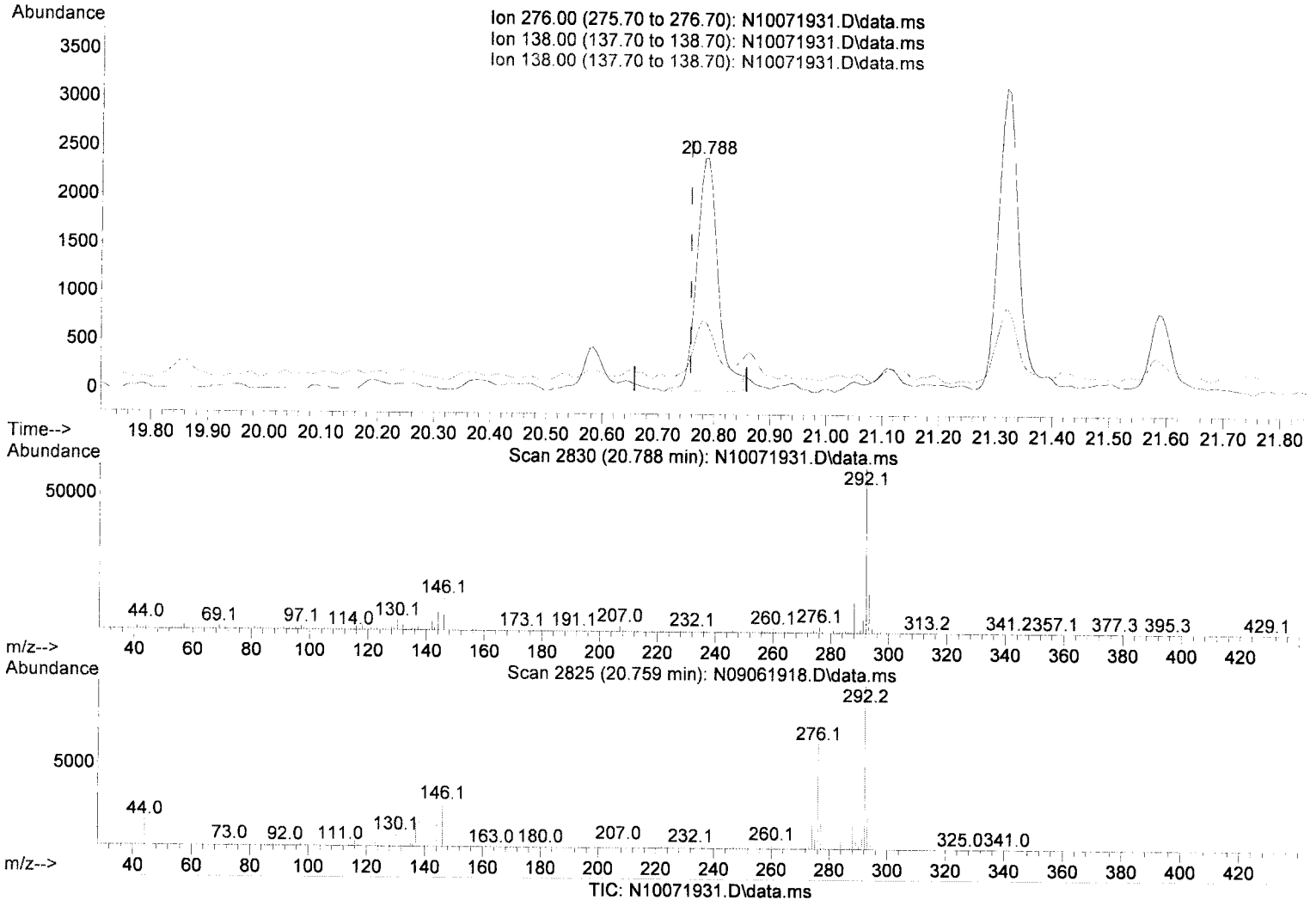
response 6908

Ion	Exp%	Act%
252.00	100.00	100.00
112.90	12.70	14.07
253.00	21.90	24.35
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071931.D
Acq On : 07 Oct 2019 11:27 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-07
Misc : 1x, 8270D LL PAH Only
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 08 07:36:33 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(38) Indeno(1,2,3-cd)Pyrene (T)

20.788min (+ 0.030) 3.45 ng/ml

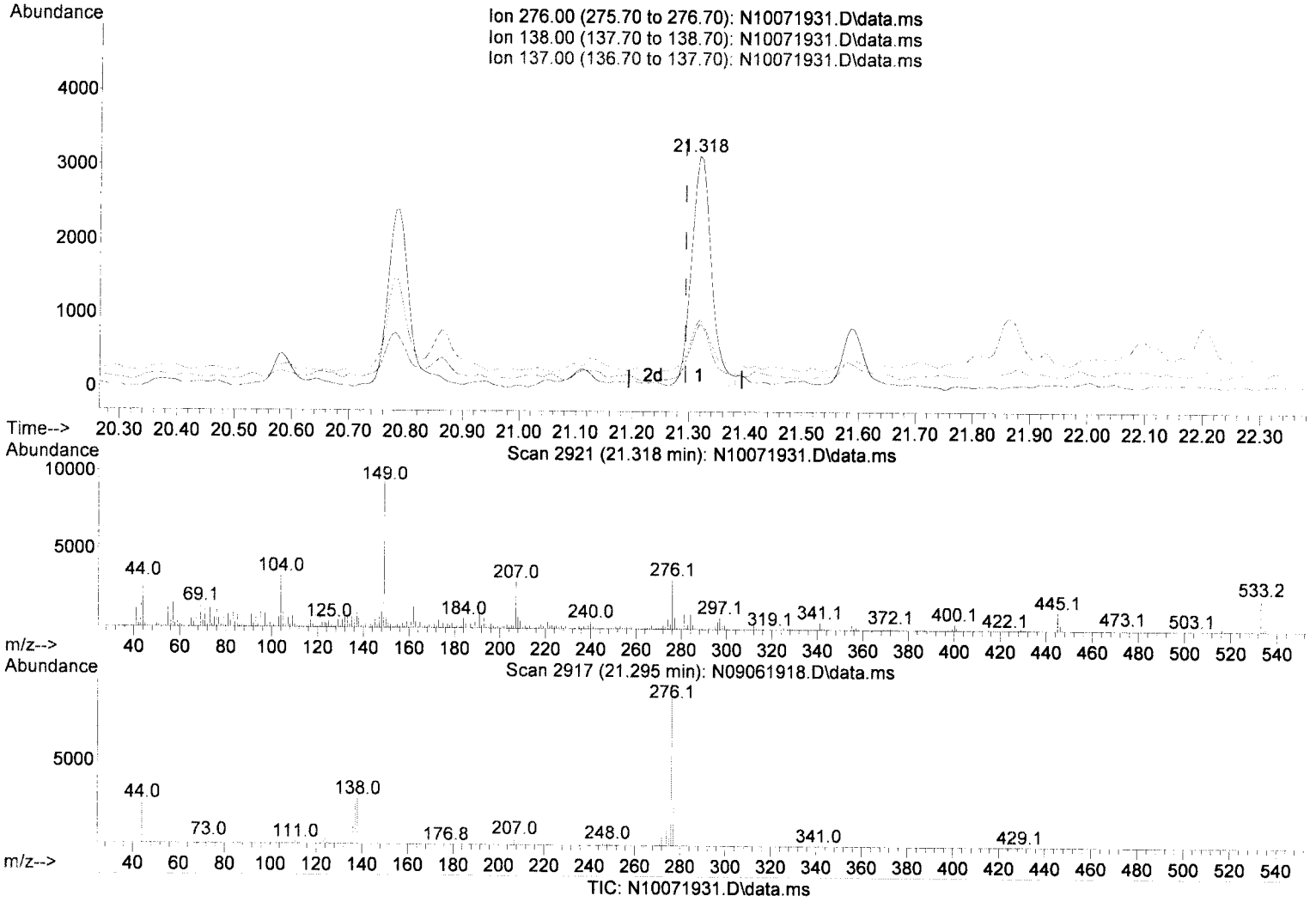
response 6385

Ion	Exp%	Act%
276.00	100.00	100.00
138.00	31.60	28.28
138.00	31.60	28.28
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J07048\
Data File : N10071931.D
Acq On : 07 Oct 2019 11:27 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-07
Misc : 1x, 8270D LL PAH Only
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 08 07:36:33 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(40) Benzo(g,h,i)perylene (T)

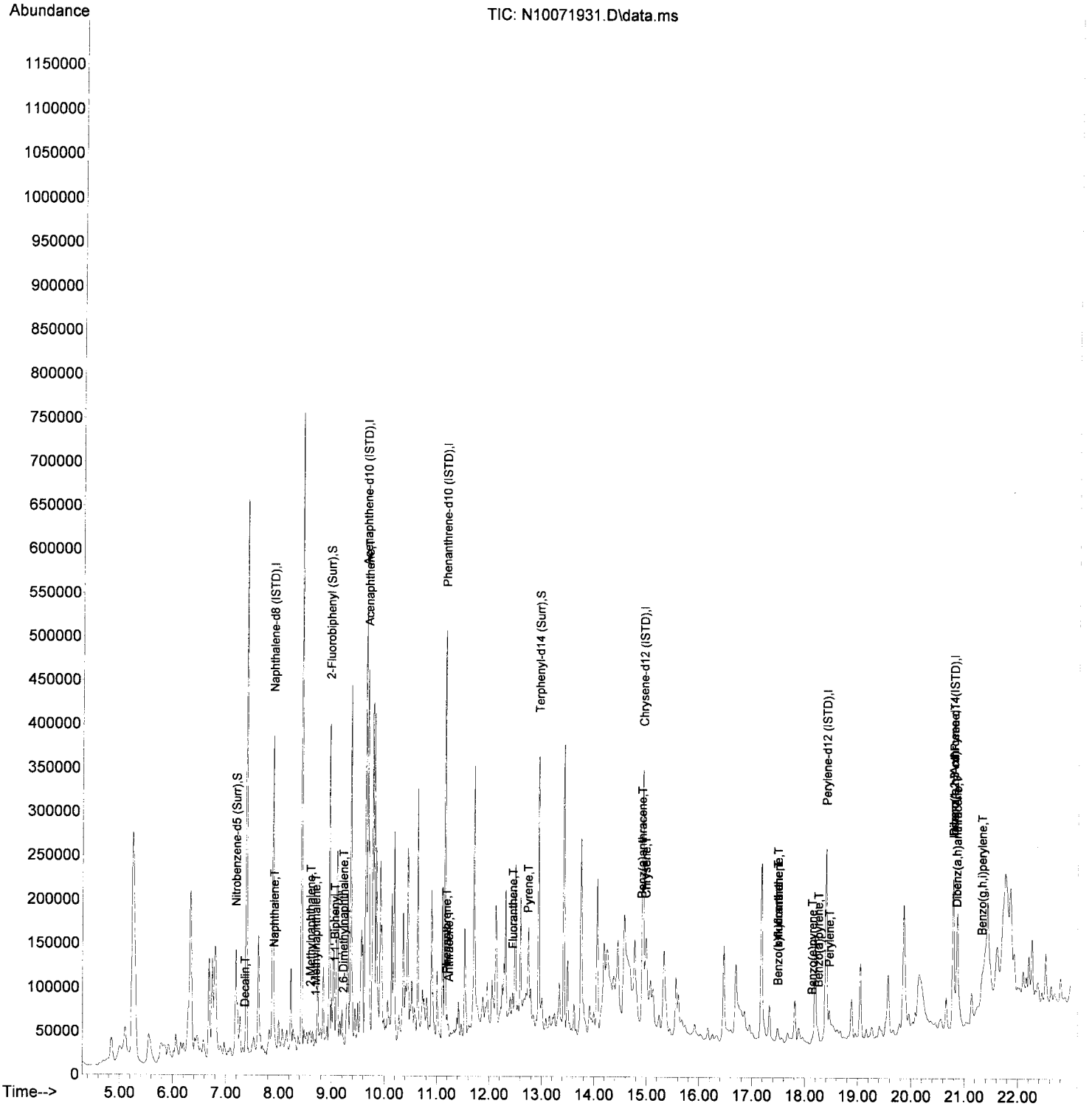
21.318min (+ 0.024) 3.91 ng/ml

response 7691

Ion	Exp%	Act%
276.00	100.00	100.00
138.00	34.40	27.67
137.00	28.60	29.57
0.00	0.00	0.00

Data Path : U:\data\2019-10\9J07048\
Data File : N10071931.D
Acq On : 07 Oct 2019 11:27 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-07
Misc : 1x, 8270D LL PAH Only
ALS Vial : 23 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 08 07:36:33 2019
Quant Method : S:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



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

Semivolatile Organic Compounds (PAHs) by EPA 8270D
Benchsheet & Analysis Sequence Data

Sequence 9J08040 (A9J0058-08,09,10,11,13,14,15,16,17)

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9J08040** Instrument: **SV-GCMS14**

Date: **10/08/19 08:12** Calibration: **A9I1001**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J08040-TUN1	Water	QC	QC			A19I102	A19J016
2	9J08040-CCV1	Water	QC	QC			A19I102	A19I020
3	9J08040-CCB1	Water	QC	QC			A19I102	
4	9100712-BLK1	Sediment	QC	QC		9100712	A19I102	
5	9100712-BS1	Sediment	QC	QC		9100712	A19I102	
6	A9J0058-15	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
7	9100712-MS1	Sediment	QC	QC		9100712	A19I102	
8	9100712-MSD1	Sediment	QC	QC		9100712	A19I102	
9	9100775-BLK1	Sediment	QC	QC		9100775	A19I102	
10	9100775-BS1	Sediment	QC	QC		9100775	A19I102	
11	9100775-BSD1	Sediment	QC	QC		9100775		
12	A9I0936-11RE1	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100775	A19I102	
13	A9I0936-16RE1	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100775	A19I102	
14	A9I0936-17RE1	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100775	A19I102	
15	A9I0922-20RE1	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100706	A19I102	
16	A9J0058-08	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100706	A19I102	
17	A9J0058-09	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100706	A19I102	
18	A9J0058-10	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100706	A19I102	
19	A9J0058-11	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100706	A19I102	
20	A9J0058-13	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
21	A9J0058-14	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
22	A9J0058-16	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
23	A9J0058-17	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
24	9J08040-IBL1	Water	QC	QC			A19I102	

Data Entered By: [signature] 10/9/19

Data Reviewed By: [signature] 10/9/19

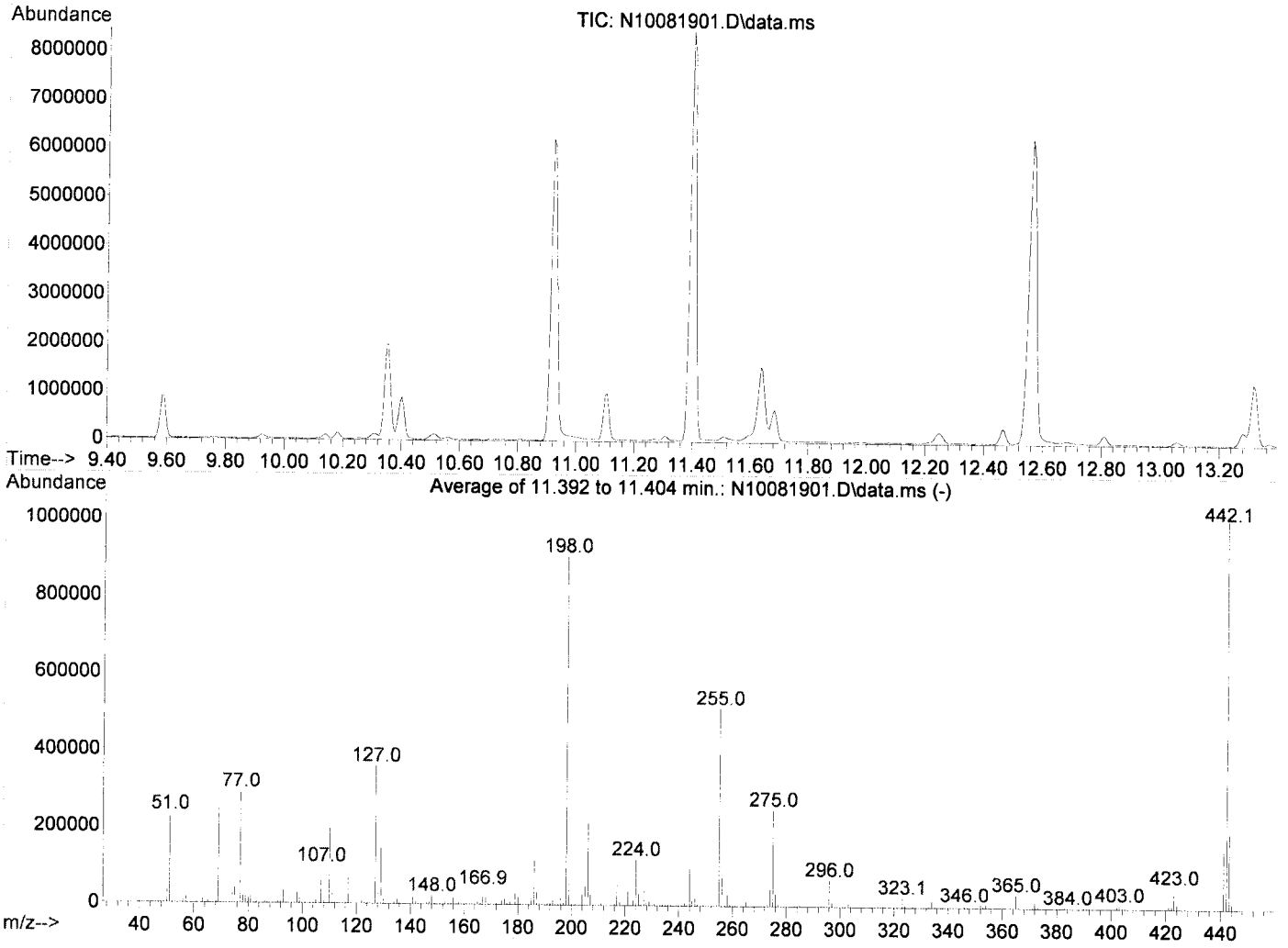
Comments:

Data Path : R:\data\2019-10\9J08040\
Data File : N10081901.D
Acq On : 08 Oct 2019 08:19 am
Operator : JK/ AMS/ DTH
Sample : 9J08040-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

tem 10/8/19

Integration File: rteint.p

Method : R:\methods\DFTPP.M
Title : 8270 DFTPP Tune Method
Last Update : Thu Sep 05 08:50:46 2019



AutoFind: Scans 1218, 1219, 1220; Background Corrected with Scan 1212

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.7	4320	PASS
69	69	100	100	100.0	254747	PASS
70	69	0.00	2	0.5	1378	PASS
197	198	0.00	2	0.5	4664	PASS
198	198	100	100	100.0	905117	PASS
199	198	5	9	6.8	61867	PASS
365	198	1	100	3.7	33896	PASS
441	443	0.01	150	76.8	149461	PASS
442	198	0.10	200	111.3	1007723	PASS
443	442	15	24	19.3	194603	PASS

✓

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081901.D
Acq On : 08 Oct 2019 08:19 am
Operator : JK/ AMS/ DTH
Sample : 9J08040-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 08 14:34:52 2019
Quant Method : R:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14

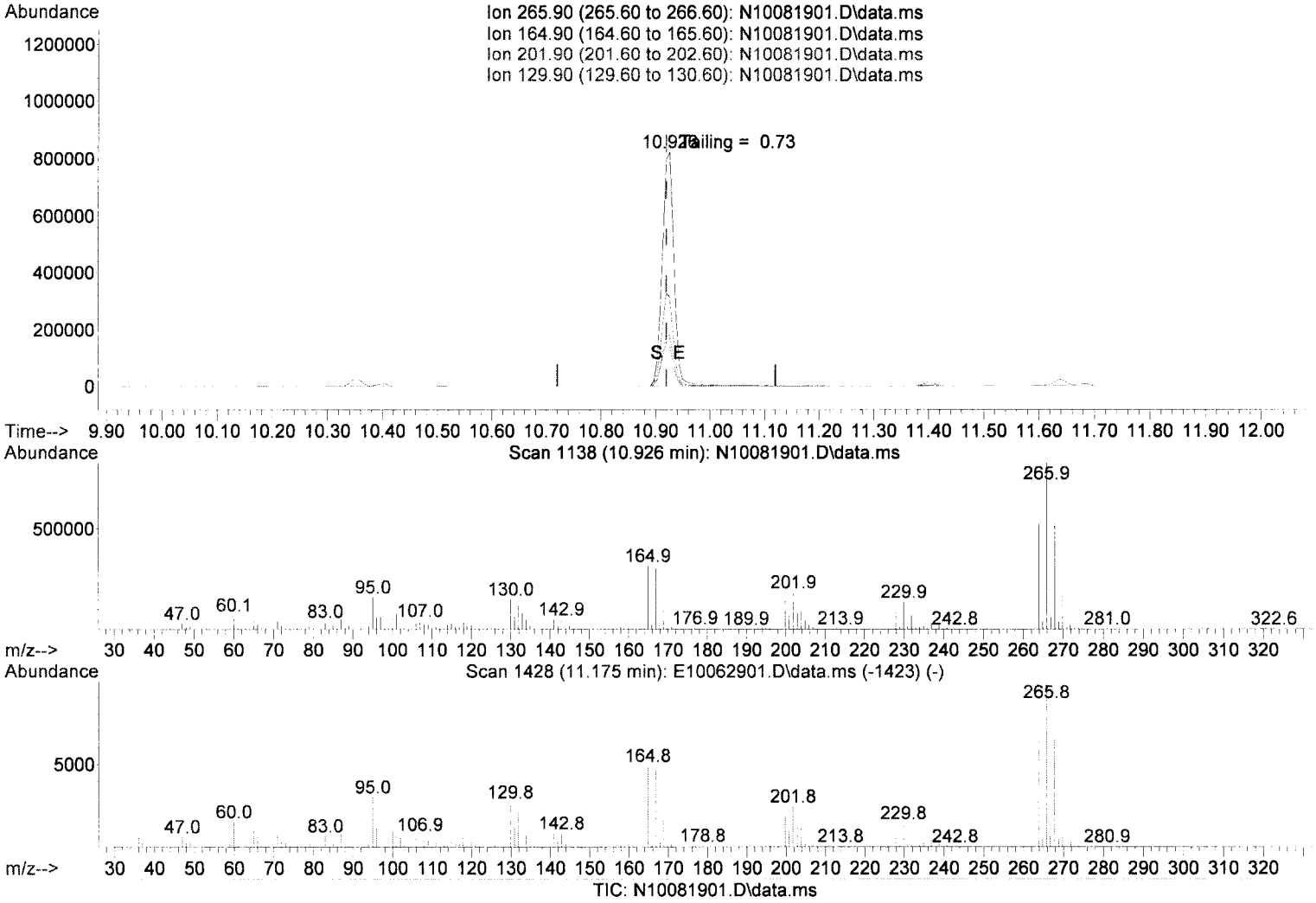
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.613	150	192488	2.00	ug/mL	0.00
2) Naphthalene-d8	7.825	136	513531	2.00	ug/mL	0.00
3) Acenaphthene-d10	9.585	162	262679	2.00	ug/mL	0.00
5) Phenanthrene-d10	11.106	188	508564	2.00	ug/mL	0.00
11) Chrysene-d12	14.790	240	439153	2.00	ug/mL	0.00
12) Perylene-d12	16.836	264	399234	2.00	ug/mL	0.00
13) Dibenz(a,h)anthracene-...	18.066	292	329602	2.00	ug/mL	# 0.00
Target Compounds						Qvalue
4) Pentachlorophenol	10.926	266	1254537	50.58	ug/mL	84
6) DFTPP	11.404	442	1681260	40.95	ug/mL	77
7) Benzidine	12.564	184	4958604	27.41	ug/mL	98
8) 4,4-DDE	12.808	TIC	262165	No Calib		
9) 4,4-DDD	13.315	TIC	1983951	No Calib		
10) 4,4-DDT	13.869	TIC	14222074	27.27	ug/mL	96

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

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081901.D
Acq On : 08 Oct 2019 08:19 am
Operator : JK/ AMS/ DTH
Sample : 9J08040-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 08 14:34:52 2019
Quant Method : R:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(4) Pentachlorophenol

10.926min (+ 0.006) 50.58 ug/mL

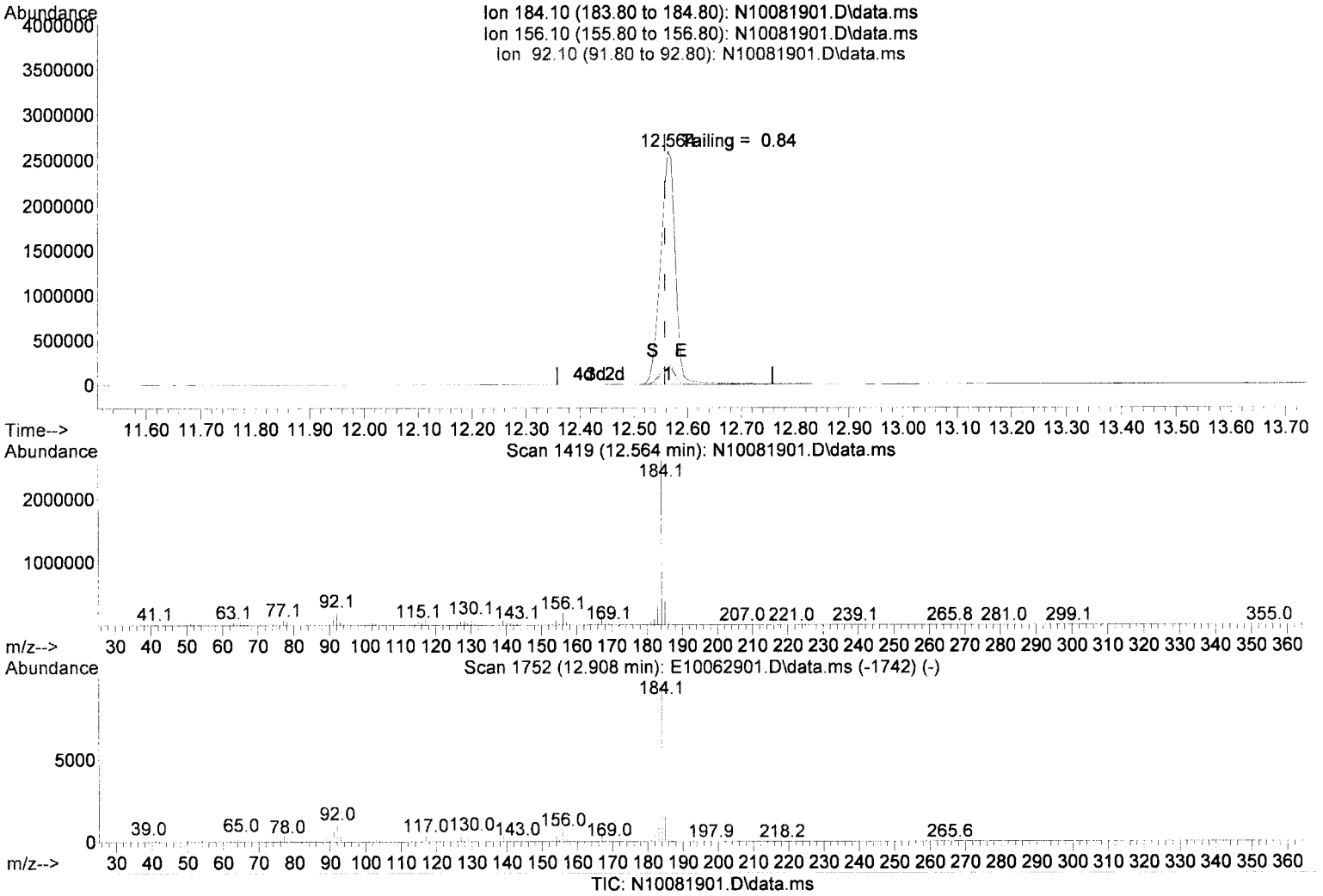
response 1254537

Ion	Exp%	Act%
265.90	100.00	100.00
164.90	50.60	37.98
201.90	25.80	21.92
129.90	27.30	17.83

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081901.D
Acq On : 08 Oct 2019 08:19 am
Operator : JK/ AMS/ DTH
Sample : 9J08040-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 08 14:34:52 2019
Quant Method : R:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(7) Benzidine

12.564min (+ 0.006) 27.37 ug/mL m

response 4951071

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	8.50	7.19
92.10	8.20	8.52
0.00	0.00	0.00

DDT Breakdown Check (Validated 5/1/2013)

From:
9J08040-TUN1
SV-GCMS14

First Column	Area Counts	Percent Breakdown	
DDE	262165		
DDD	1983951		
DDT	14222074	**13.64**	**PASS**

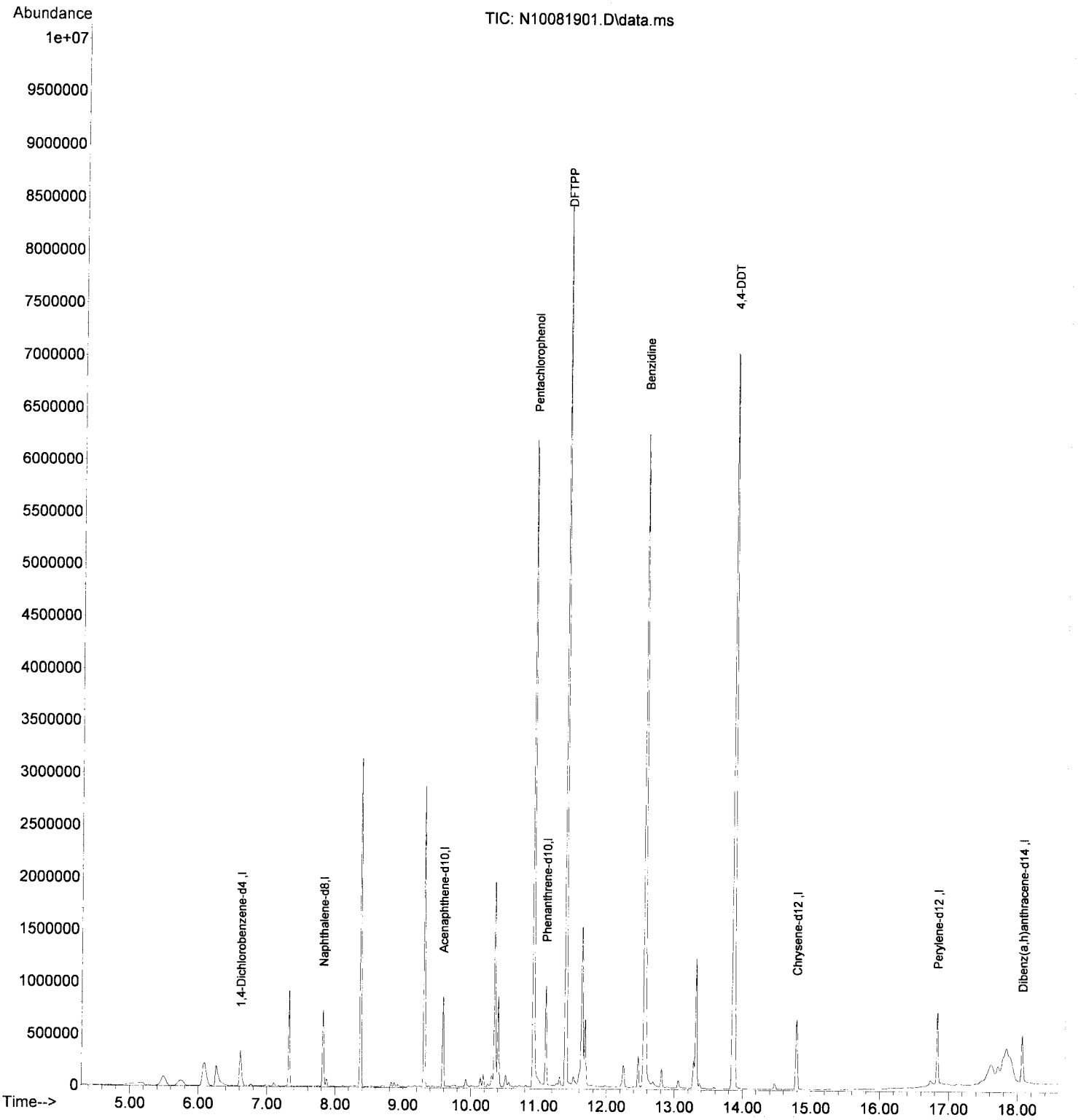
Breakdown must be less than 20% to accept sample data.

J

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081901.D
Acq On : 08 Oct 2019 08:19 am
Operator : JK/ AMS/ DTH
Sample : 9J08040-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 08 14:34:52 2019
Quant Method : R:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Evaluate Continuing Calibration Report

Data Path : R:\data\2019-10\9J08040\
Data File : N10081902.D
Acq On : 08 Oct 2019 08:47 am
Operator : JK/ AMS/ DTH
Sample : 9J08040-CCV1
Misc : 1x, A19I020@50
ALS Vial : 2 Sample Multiplier: 1

tem 10/8/19

Quant Time: Oct 08 09:10:18 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

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	Naphthalene-d8 (ISTD)	100.000	100.000	0.0	146	0.00
2	S	Nitrobenzene-d5 (Surr)	50.000	47.760	4.5	143	0.00
3	T	Decalin	50.000	37.241	25.5#	108	-0.01
4	T	Naphthalene	50.000	48.940	2.1	146	0.00
5	T	2-Methylnaphthalene	50.000	40.054	19.9	116	0.00
6	T	1-Methylnaphthalene	50.000	38.827	22.3#	110	0.00
7	T	1,1'-Biphenyl	50.000	36.881	26.2#	108	0.00
8	T	2,6-Dimethylnaphthalene	50.000	36.788	26.4#	105	0.00
9	I	Acenaphthene-d10 (ISTD)	100.000	100.000	0.0	102	0.00
10	S	2-Fluorobiphenyl (Surr)	50.000	52.354	-4.7	108	0.00
11	S	Acenaphthylene d-8 (Surr)	50.000	47.486	5.0	99	0.00
12	T	Acenaphthylene	50.000	49.209	1.6	101	0.00
13	T	Acenaphthene	50.000	49.461	1.1	103	0.00
14	T	Dibenzofuran	50.000	49.785	0.4	102	0.00
15	T	1,6,7-Trimethylnaphthalene	50.000	48.141	3.7	101	0.00
16	T	Fluorene	50.000	48.483	3.0	100	0.00
17	I	Phenanthrene-d10 (ISTD)	100.000	100.000	0.0	98	0.00
18	T	Dibenzothiopene	50.000	49.860	0.3	99	0.00
19	T	Phenanthrene	50.000	49.014	2.0	98	0.00
20	T	Anthracene	50.000	48.336	3.3	96	0.00
21	T	Carbazole	50.000	45.007	10.0	89	0.00
22	T	1-Methylphenanthrene	50.000	49.713	0.6	98	0.00
23	T	Fluoranthene	50.000	48.640	2.7	96	0.00
24	I	Chrysene-d12 (ISTD)	100.000	100.000	0.0	95	0.00
25	T	Pyrene	50.000	50.033	-0.1	95	0.00
26	S	Terphenyl-d14 (Surr)	50.000	50.559	-1.1	97	0.00
27	T	Benz(a)anthracene	50.000	45.656	8.7	92	0.00
28	T	Chrysene	50.000	48.023	4.0	93	0.00
29	I	Perylene-d12 (ISTD)	100.000	100.000	0.0	97	0.00
30	T	Benzo(b)fluoranthene	50.000	49.417	1.2	95	0.00
31	T	Benzo(k)fluoranthene	50.000	48.952	2.1	96	0.00
32	T	Benzo(b+k)fluoranthene	100.000	98.937	1.1	96	-0.06
33	S	Benzo(a)pyrene d-12 (Surr)	50.000	51.553	-3.1	99	0.00
34	T	Benzo(e)pyrene	50.000	47.780	4.4	94	0.00
35	T	Benzo(a)pyrene	50.000	50.606	-1.2	96	0.00
36	T	Perylene	50.000	49.120	1.8	95	0.01
37	I	Dibenz(a,h)Anthrcene-d14(IS	100.000	100.000	0.0	118	0.00
38	T	Indeno(1,2,3-cd)Pyrene	50.000	46.108	7.8	110	0.01
39	T	Dibenz(a,h)anthracene	50.000	47.790	4.4	115	0.01
40	T	Benzo(g,h,i)perylene	50.000	46.202	7.6	108	0.01

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081902.D
Acq On : 08 Oct 2019 08:47 am
Operator : JK/ AMS/ DTH
Sample : 9J08040-CCV1
Misc : 1x, A19I020@50
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 08 14:39:13 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

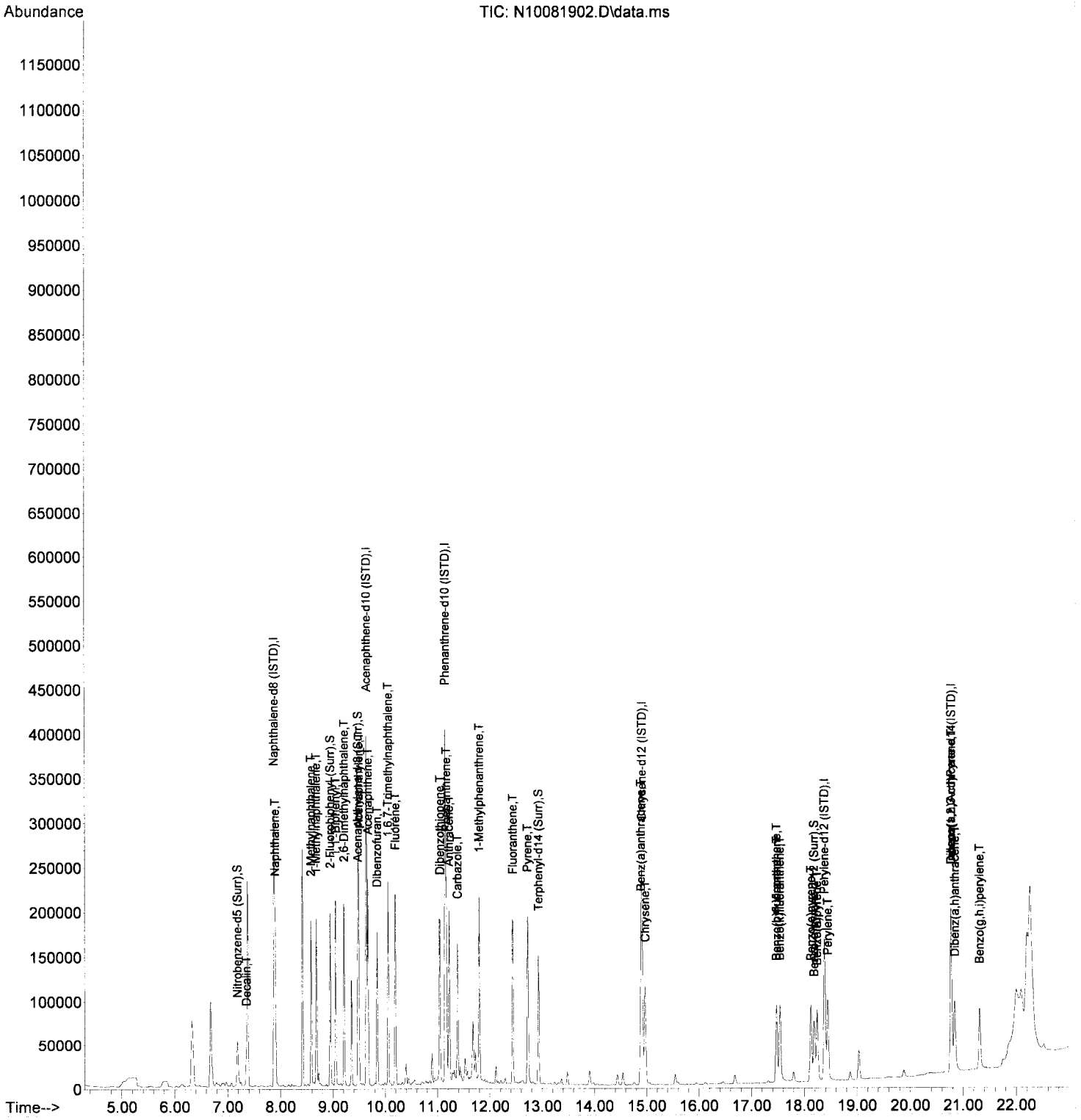
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	216725	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	120632	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	215468	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	161629	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	137691	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.770	292	110477	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	34395	47.76	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	94218	52.35	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.474	160	117810	47.49	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	85945	50.56	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.182	264	56766	51.55	ng/ml	0.00
Target Compounds						Qvalue
3) Decalin	7.353	138	6009	37.24	ng/ml	92
4) Naphthalene	7.901	128	116983	48.94	ng/ml	100
5) 2-Methylnaphthalene	8.583	142	81132	40.05	ng/ml	98
6) 1-Methylnaphthalene	8.682	142	78631	38.83	ng/ml	98
7) 1,1'-Biphenyl	9.049	154	100473	36.88	ng/ml	97
8) 2,6-Dimethylnaphthalene	9.212	156	73191	36.79	ng/ml	97
12) Acenaphthylene	9.492	152	128874	49.21	ng/ml	99
13) Acenaphthene	9.667	153	84842	49.46	ng/ml	99
14) Dibenzofuran	9.842	168	106965	49.79	ng/ml	97
15) 1,6,7-Trimethylnaphtha...	10.051	170	69255	48.14	ng/ml	99
16) Fluorene	10.191	166	85102	48.48	ng/ml	98
18) Dibenzothiopene	11.042	184	112361	49.86	ng/ml	96
19) Phenanthrene	11.165	178	123582	49.01	ng/ml	99
20) Anthracene	11.217	178	113360	48.34	ng/ml	99
21) Carbazole	11.380	167	85410	45.01	ng/ml	99
22) 1-Methylphenanthrene	11.794	192	87073	49.71	ng/ml	99
23) Fluoranthene	12.435	202	123562	48.64	ng/ml	96
25) Pyrene	12.721	202	126342	50.03	ng/ml	99
27) Benz(a)anthracene	14.889	228	85676	45.66	ng/ml	100
28) Chrysene	14.971	228	85280	48.02	ng/ml	100
30) Benzo(b)fluoranthene	17.471	252	78514	49.42	ng/ml	94
31) Benzo(k)fluoranthene	17.535	252	76576	48.95	ng/ml	93
32) Benzo(b+k)fluoranthene	17.471	252	160784	98.94	ng/ml	92
34) Benzo(e)pyrene	18.124	252	76761	47.78	ng/ml	97
35) Benzo(a)pyrene	18.241	252	68819	50.61	ng/ml	98
36) Perylene	18.445	252	82273	49.12	ng/ml	100
38) Indeno(1,2,3-cd)Pyrene	20.770	276	62823	46.11	ng/ml	83
39) Dibenz(a,h)anthracene	20.840	278	61184	47.79	ng/ml	83
40) Benzo(g,h,i)perylene	21.307	276	66779	46.20	ng/ml	84

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081902.D
Acq On : 08 Oct 2019 08:47 am
Operator : JK/ AMS/ DTH
Sample : 9J08040-CCV1
Misc : 1x, A19I020@50
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 08 14:39:13 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081903.D
Acq On : 08 Oct 2019 09:19 am
Operator : JK/ AMS/ DTH
Sample : 9J08040-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1

tem 10/8/19

Quant Time: Oct 08 14:40:30 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

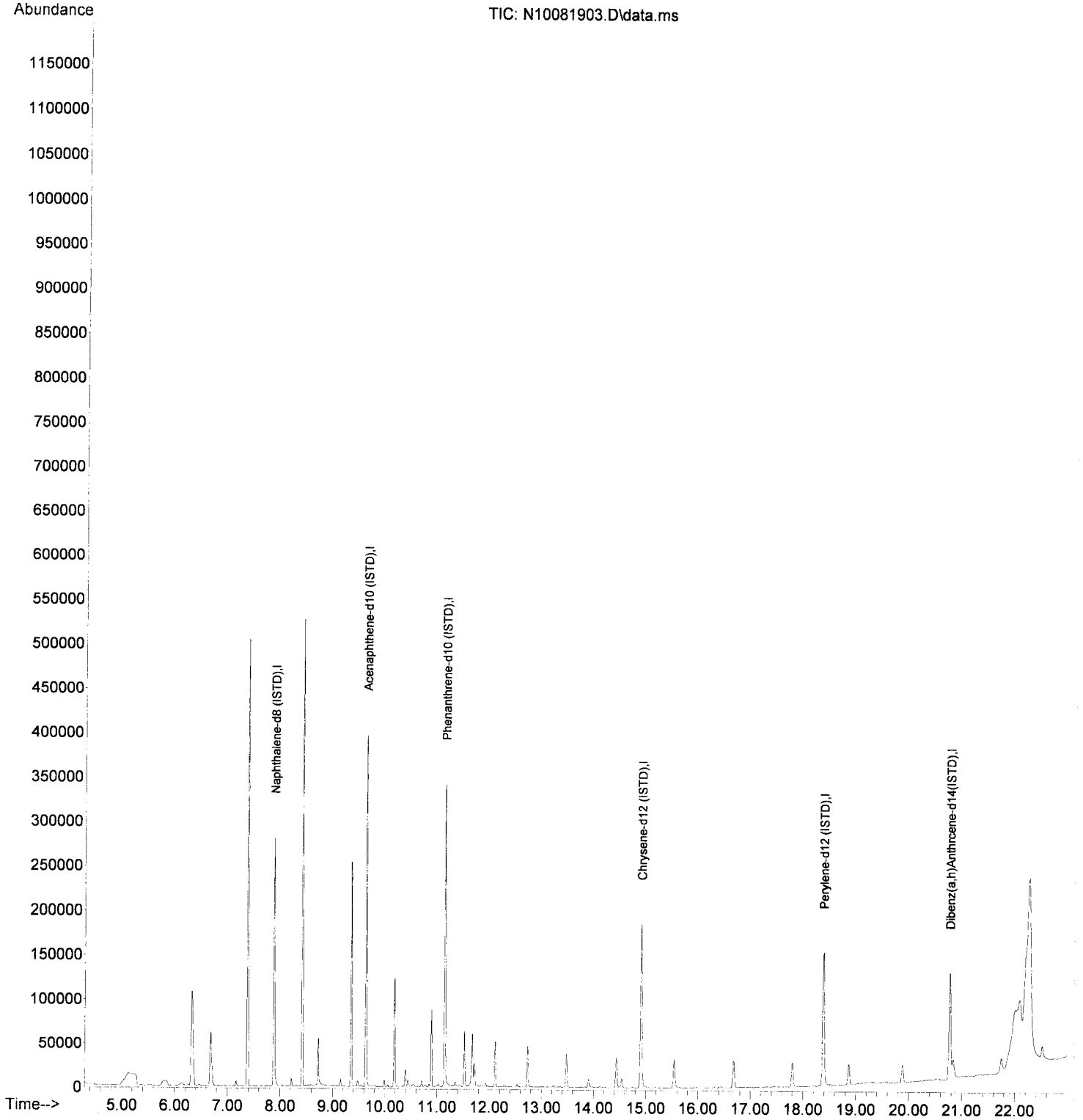
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.883	136	201981	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.637	162	118531	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	195468	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.912	240	142208	100.00 ng/ml	0.00
29) Perylene-d12 (ISTD)	18.386	264	130719	100.00 ng/ml	0.01
37) Dibenz(a,h)Anthrcene-d...	20.770	292	114295	100.00 ng/ml	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.248	82	53	0.08 ng/ml	0.06
10) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00 ng/ml	
11) Acenaphthylene d-8 (Surr)	9.480	160	4189	0.31 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.936	244	55	0.04 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	0.000		0	N.D.	
4) Naphthalene	7.906	128	311	N.D.	
5) 2-Methylnaphthalene	8.588	142	68	N.D.	
6) 1-Methylnaphthalene	8.687	142	57	N.D.	
7) 1,1'-Biphenyl	9.055	154	162	N.D.	
8) 2,6-Dimethylnaphthalene	0.000		0	N.D.	
12) Acenaphthylene	0.000		0	N.D.	
13) Acenaphthene	0.000		0	N.D.	
14) Dibenzofuran	0.000		0	N.D.	
15) 1,6,7-Trimethylnaphtha...	0.000		0	N.D.	
16) Fluorene	0.000		0	N.D.	
18) Dibenzothiopene	0.000		0	N.D.	
19) Phenanthrene	11.170	178	134	N.D.	
20) Anthracene	11.223	178	104	N.D.	
21) Carbazole	0.000		0	N.D.	
22) 1-Methylphenanthrene	11.771	192	50	N.D.	
23) Fluoranthene	0.000		0	N.D.	
25) Pyrene	0.000		0	N.D.	
27) Benz(a)anthracene	14.907	228	412	N.D.	
28) Chrysene	14.907	228	377	N.D.	
30) Benzo(b)fluoranthene	0.000		0	N.D.	
31) Benzo(k)fluoranthene	0.000		0	N.D.	
32) Benzo(b+k)fluoranthene	0.000		0	N.D.	
34) Benzo(e)pyrene	18.380	252	425	N.D.	
35) Benzo(a)pyrene	0.000		0	N.D.	
36) Perylene	18.380	252	445	N.D.	
38) Indeno(1,2,3-cd)Pyrene	20.782	276	62	N.D.	
39) Dibenz(a,h)anthracene	0.000		0	N.D.	
40) 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 : R:\data\2019-10\9J08040\
Data File : N10081903.D
Acq On : 08 Oct 2019 09:19 am
Operator : JK/ AMS/ DTH
Sample : 9J08040-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 08 14:40:30 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081904.D
Acq On : 08 Oct 2019 09:51 am
Operator : JK/ AMS/ DTH
Sample : 9100712-BLK1
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 4 Sample Multiplier: 1

team W18119

Quant Time: Oct 08 14:40:33 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

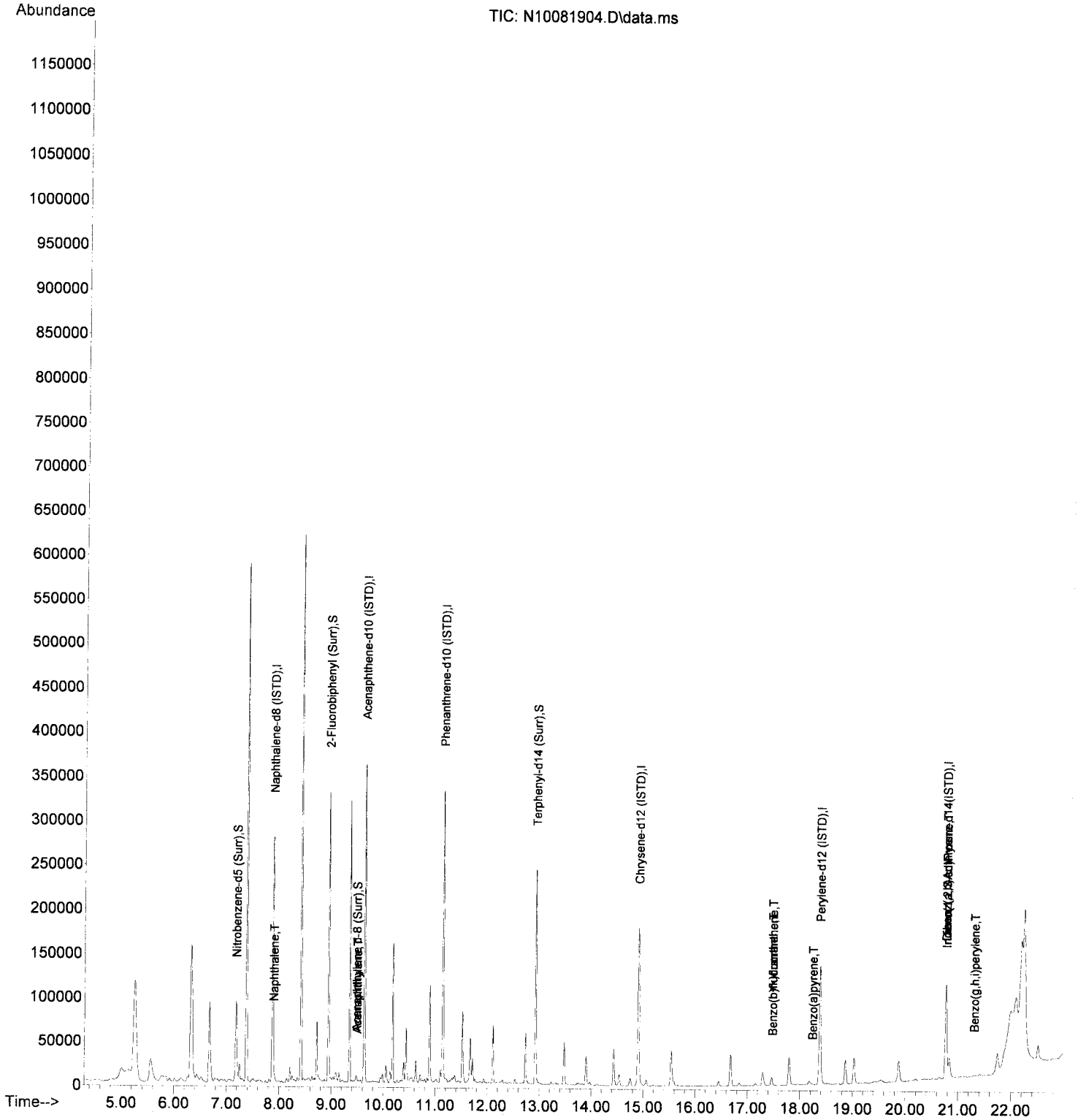
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.883	136	204209	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	109271	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	185110	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	132747	100.00 ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	115576	100.00 ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.770	292	99534	100.00 ng/ml	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.184	82	59857	88.21 ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	157146	96.40 ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	4159	0.44 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	142943	102.38 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	0.000		0	N.D.	
4) Naphthalene	7.901	128	2884	1.28 ng/ml	97
5) 2-Methylnaphthalene	8.583	142	676	N.D.	
6) 1-Methylnaphthalene	8.687	142	437	N.D.	
7) 1,1'-Biphenyl	9.049	154	574	N.D.	
8) 2,6-Dimethylnaphthalene	9.212	156	280	N.D.	
12) Acenaphthylene	9.492	152	1049	0.44 ng/ml	89
13) Acenaphthene	9.667	153	241	N.D.	
14) Dibenzofuran	9.842	168	117	N.D.	
15) 1,6,7-Trimethylnaphtha...	10.051	170	112	N.D.	
16) Fluorene	10.191	166	185	N.D.	
18) Dibenzothiopene	0.000		0	N.D.	
19) Phenanthrene	11.165	178	813	N.D.	
20) Anthracene	11.223	178	254	N.D.	
21) Carbazole	11.386	167	100	N.D.	
22) 1-Methylphenanthrene	11.794	192	84	N.D.	
23) Fluoranthene	12.435	202	614	N.D.	
25) Pyrene	12.721	202	747	N.D.	
27) Benz(a)anthracene	14.895	228	583	N.D.	
28) Chrysene	14.965	228	329	N.D.	
30) Benzo(b)fluoranthene	17.477	252	580	0.43 ng/ml	73
31) Benzo(k)fluoranthene	17.541	252	155	N.D.	
32) Benzo(b+k)fluoranthene	17.477	252	759	0.56 ng/ml	76
34) Benzo(e)pyrene	18.124	252	467	N.D.	
35) Benzo(a)pyrene	18.241	252	535	0.47 ng/ml	83
36) Perylene	18.445	252	146	N.D.	
38) Indeno(1,2,3-cd)Pyrene	20.776	276	674	0.55 ng/ml	47
39) Dibenz(a,h)anthracene	0.000		0	N.D.	
40) Benzo(g,h,i)perylene	21.306	276	817	0.63 ng/ml	85

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081904.D
Acq On : 08 Oct 2019 09:51 am
Operator : JK/ AMS/ DTH
Sample : 9100712-BLK1
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 08 14:40:33 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081905.D
Acq On : 08 Oct 2019 10:23 am
Operator : JK/ AMS/ DTH
Sample : 9100712-BS1
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 5 Sample Multiplier: 1

HML 10/8/19

Quant Time: Oct 08 14:40:38 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	200121	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	120373	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	217350	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.913	240	157387	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	133272	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.770	292	105704	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	57837	86.97	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	169456	94.36	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	1676	-1.00	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	163654	98.87	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.353	138	3309	22.21	ng/ml	89
4) Naphthalene	7.901	128	80453	36.45	ng/ml	100
5) 2-Methylnaphthalene	8.583	142	58662	31.36	ng/ml	98
6) 1-Methylnaphthalene	8.688	142	55619	29.74	ng/ml	97
7) 1,1'-Biphenyl	9.049	154	73562	29.24	ng/ml	96
8) 2,6-Dimethylnaphthalene	9.212	156	52557	28.61	ng/ml	97
12) Acenaphthylene	9.492	152	87933	33.65	ng/ml	99
13) Acenaphthene	9.667	153	61850	36.13	ng/ml	99
14) Dibenzofuran	9.842	168	77900	36.34	ng/ml	97
15) 1,6,7-Trimethylnaphtha...	10.051	170	50154	34.94	ng/ml	98
16) Fluorene	10.191	166	62214	35.52	ng/ml	99
18) Dibenzothiopene	11.042	184	79349	34.91	ng/ml	96
19) Phenanthrene	11.171	178	88540	34.81	ng/ml	100
20) Anthracene	11.223	178	82111	34.71	ng/ml	99
21) Carbazole	11.380	167	61220	31.98	ng/ml	99
22) 1-Methylphenanthrene	11.794	192	62147	35.17	ng/ml	100
23) Fluoranthene	12.435	202	88798	34.65	ng/ml	97
25) Pyrene	12.727	202	89179	36.27	ng/ml	99
27) Benz(a)anthracene	14.889	228	60711	33.22	ng/ml	99
28) Chrysene	14.971	228	62214	35.98	ng/ml	99
30) Benzo(b)fluoranthene	17.471	252	55448	36.06	ng/ml	94
31) Benzo(k)fluoranthene	17.541	252	53969	35.64	ng/ml	93
32) Benzo(b+k)fluoranthene	17.541	252	113789	72.34	ng/ml	93
34) Benzo(e)pyrene	18.124	252	54711	35.18	ng/ml	99
35) Benzo(a)pyrene	18.241	252	47366	35.99	ng/ml	96
36) Perylene	18.445	252	57148	35.25	ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.776	276	43857	33.64	ng/ml	84
39) Dibenz(a,h)anthracene	20.840	278	41318	33.73	ng/ml	85
40) Benzo(g,h,i)perylene	21.307	276	46877	33.90	ng/ml	84

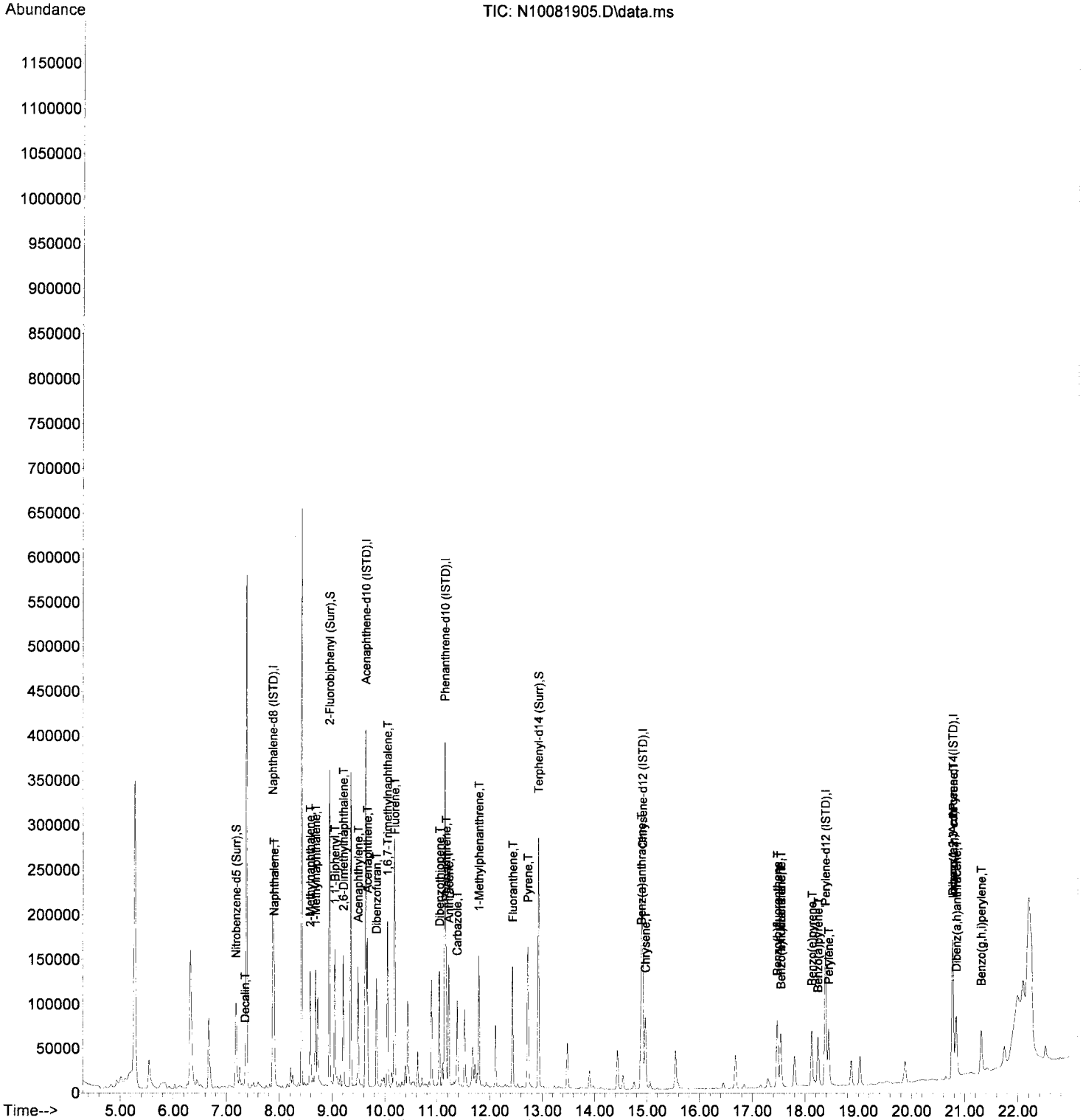
J

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081905.D
Acq On : 08 Oct 2019 10:23 am
Operator : JK/ AMS/ DTH
Sample : 9100712-BS1
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 08 14:40:38 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081906.D
Acq On : 08 Oct 2019 10:55 am
Operator : JK/ AMS/ DTH
Sample : A9J0058-15
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 6 Sample Multiplier: 1

tem 10/8/19

Quant Time: Oct 08 14:40:42 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

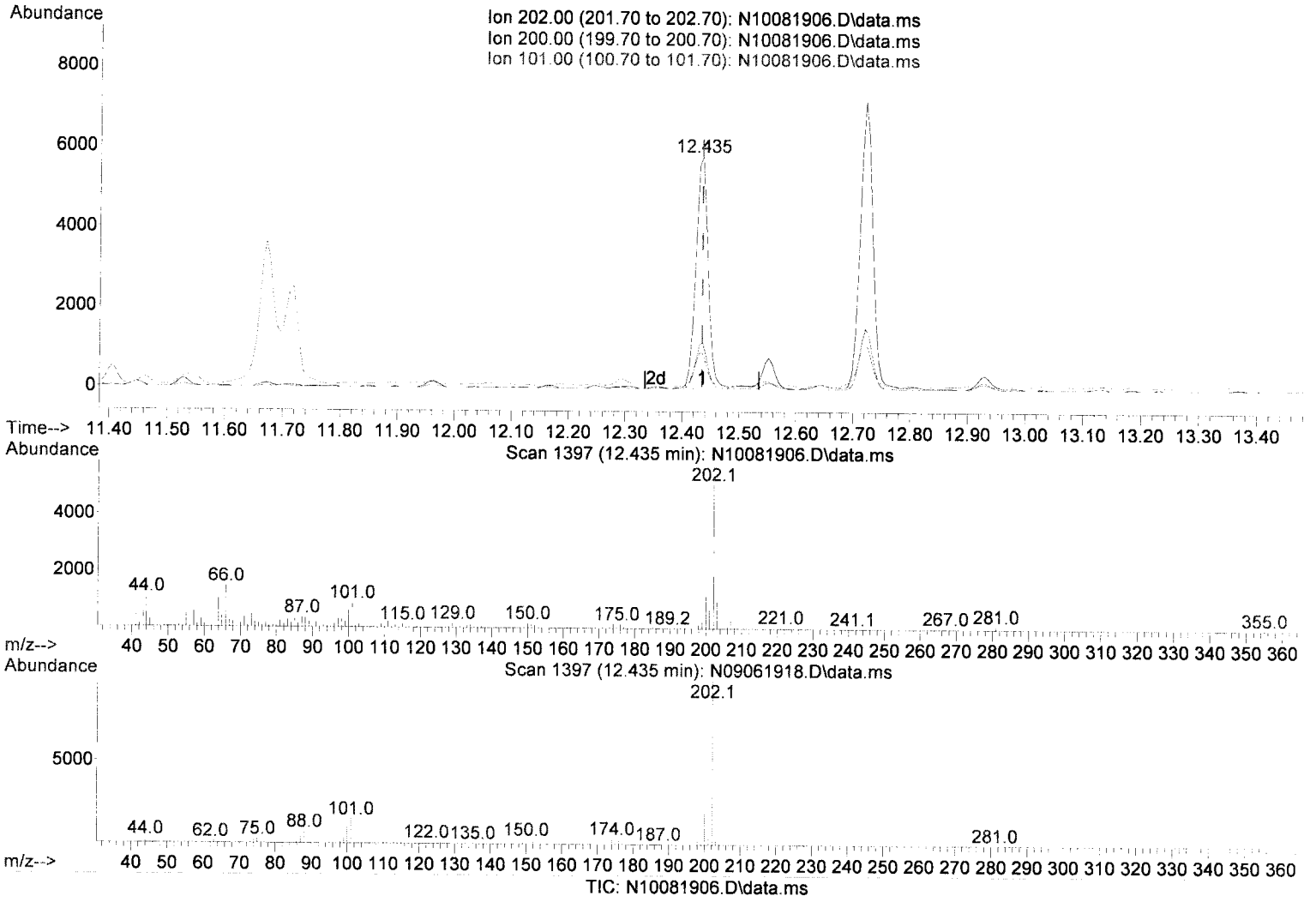
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	206425	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	115766	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	203856	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	151383	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	126518	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.770	292	104937	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	56953	83.03	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	157890	91.42	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.475	160	2992	-1.00	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.925	244	153892	96.66	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.353	138	64	0.42	ng/ml#	60
4) Naphthalene	7.901	128	3354	1.47	ng/ml	86
5) 2-Methylnaphthalene	8.583	142	1451	0.75	ng/ml	90
6) 1-Methylnaphthalene	8.682	142	936	0.49	ng/ml	99
7) 1,1'-Biphenyl	9.049	154	982	N.D.		
8) 2,6-Dimethylnaphthalene	9.218	156	578	N.D.		
12) Acenaphthylene	9.492	152	3554	1.41	ng/ml	94
13) Acenaphthene	9.667	153	910	0.55	ng/ml	91
14) Dibenzofuran	9.842	168	380	N.D.		
15) 1,6,7-Trimethylnaphtha...	10.052	170	375	N.D.		
16) Fluorene	10.191	166	654	N.D.		
18) Dibenzothiopene	11.037	184	734	N.D.		
19) Phenanthrene	11.165	178	5548	2.33	ng/ml	96
20) Anthracene	11.217	178	1122	0.51	ng/ml	82
21) Carbazole	11.380	167	439	N.D.		
22) 1-Methylphenanthrene	11.794	192	387	N.D.		
23) Fluoranthene	12.435	202	8754	(3.64)	ng/ml	100 J
25) Pyrene	12.721	202	11017	(4.66)	ng/ml	98 J
27) Benz(a)anthracene	14.883	228	2475	1.41	ng/ml#	54
28) Chrysene	14.965	228	2964	1.78	ng/ml	90
30) Benzo(b)fluoranthene	17.471	252	2795	1.91	ng/ml	98
31) Benzo(k)fluoranthene	17.471	252	3621	~~2.52 ng/ml~~		~~96~~ MI
32) Benzo(b+k)fluoranthene	17.471	252	3787	2.54	ng/ml	96
34) Benzo(e)pyrene	18.124	252	1965	1.33	ng/ml	96
35) Benzo(a)pyrene	18.241	252	2426	1.94	ng/ml	96
36) Perylene	18.439	252	2492	1.62	ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.770	276	2146	1.66	ng/ml	82
39) Dibenz(a,h)anthracene	20.829	278	366	N.D.		
40) Benzo(g,h,i)perylene	21.307	276	2651	1.93	ng/ml	96

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

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081906.D
Acq On : 08 Oct 2019 10:55 am
Operator : JK/ AMS/ DTH
Sample : A9J0058-15
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 08 14:40:42 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(23) Fluoranthene (T)

12.435min (+ 0.000) 3.64 ng/ml

j

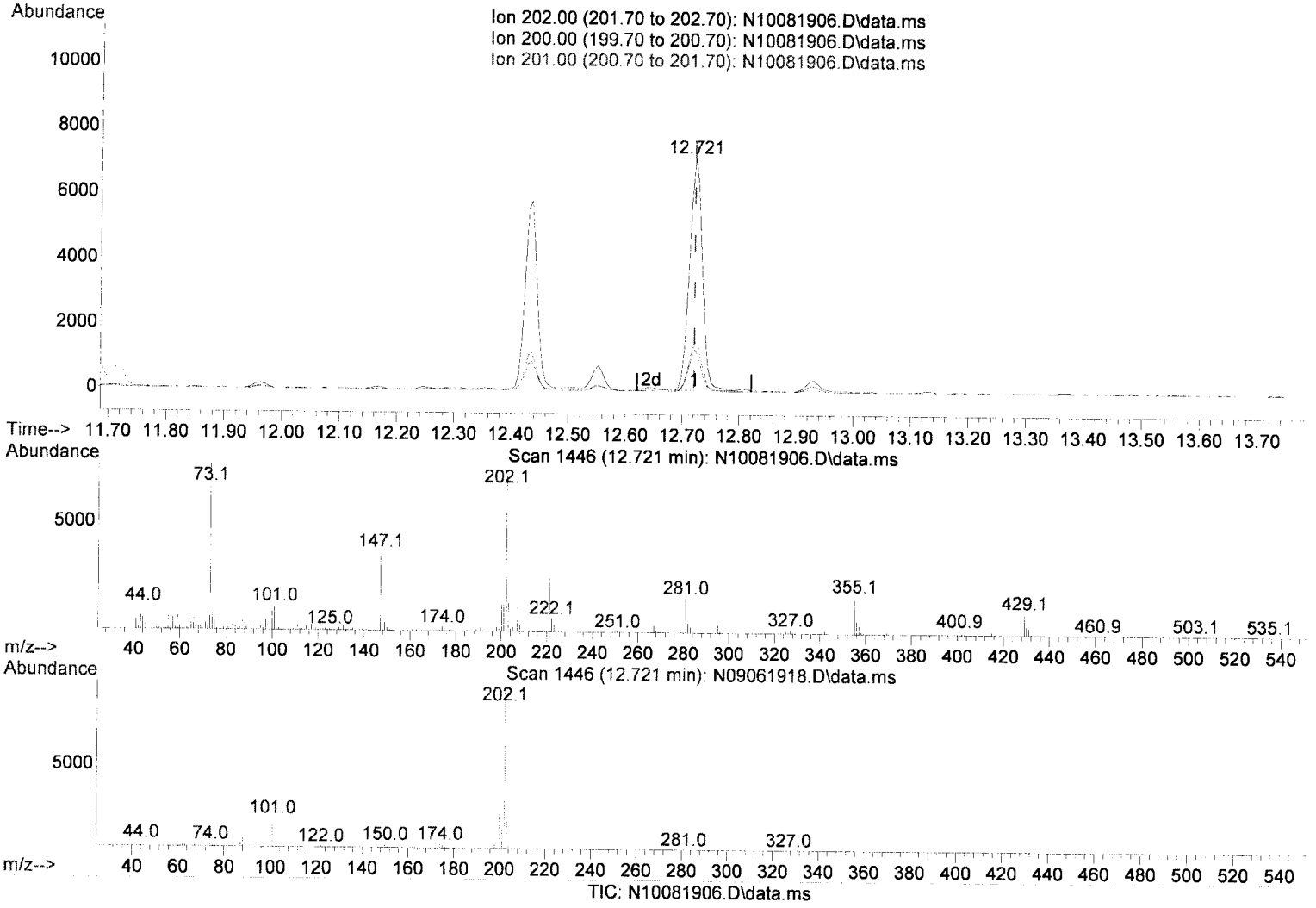
response 8754

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	19.70	19.78
101.00	15.30	15.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081906.D
Acq On : 08 Oct 2019 10:55 am
Operator : JK/ AMS/ DTH
Sample : A9J0058-15
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 08 14:40:42 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(25) Pyrene (T)

12.721min (+ 0.000) 4.66 ng/ml

response 11017

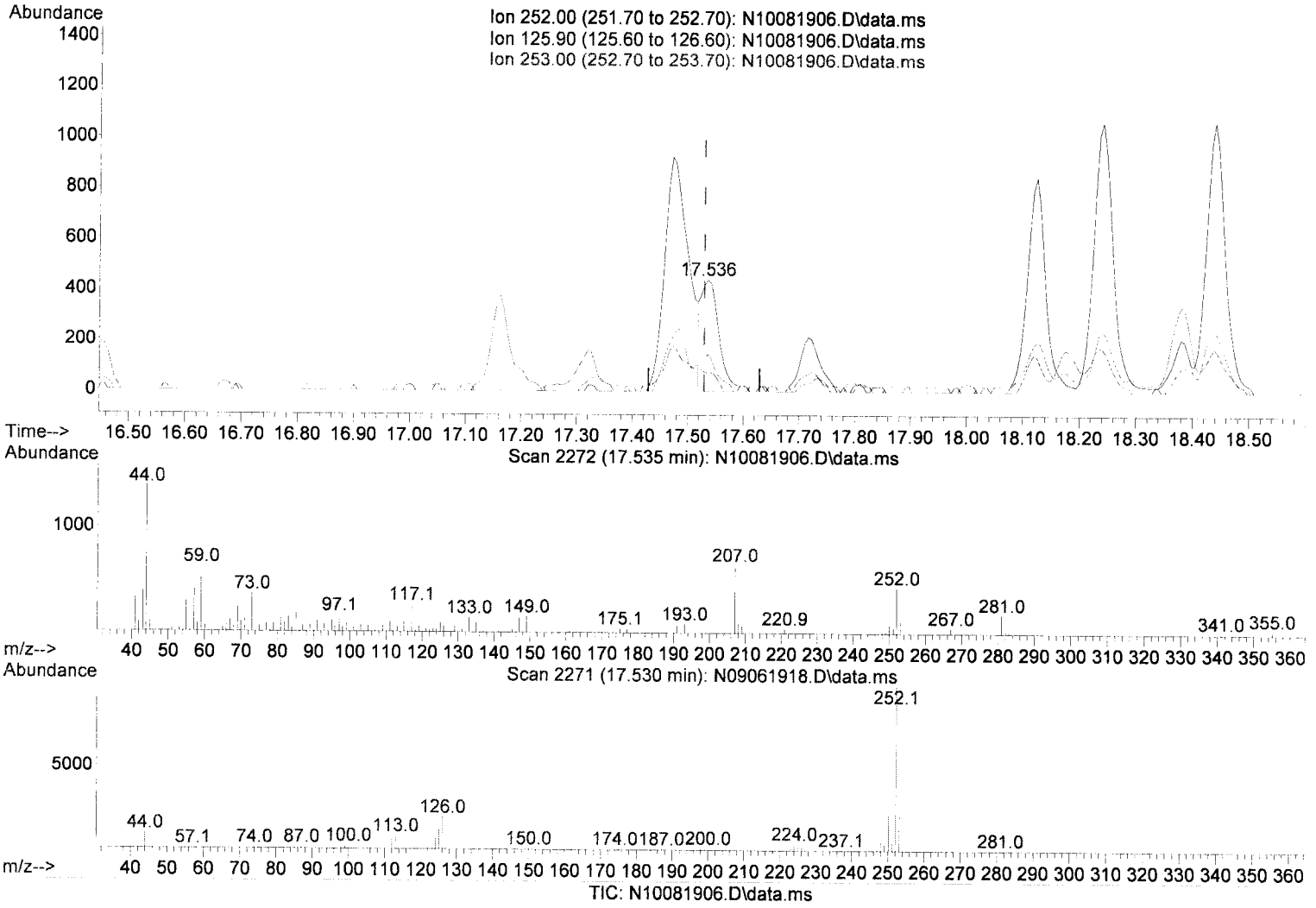
Ion	Exp%	Act%
202.00	100.00	100.00
200.00	20.70	21.16
201.00	16.80	17.86
0.00	0.00	0.00

J

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081906.D
Acq On : 08 Oct 2019 10:55 am
Operator : JK/ AMS/ DTH
Sample : A9J0058-15
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 08 14:40:42 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(31) Benzo(k)fluoranthene (T)

17.535min (+ 0.006) 0.69 ng/ml (m) HRM 10/18/19

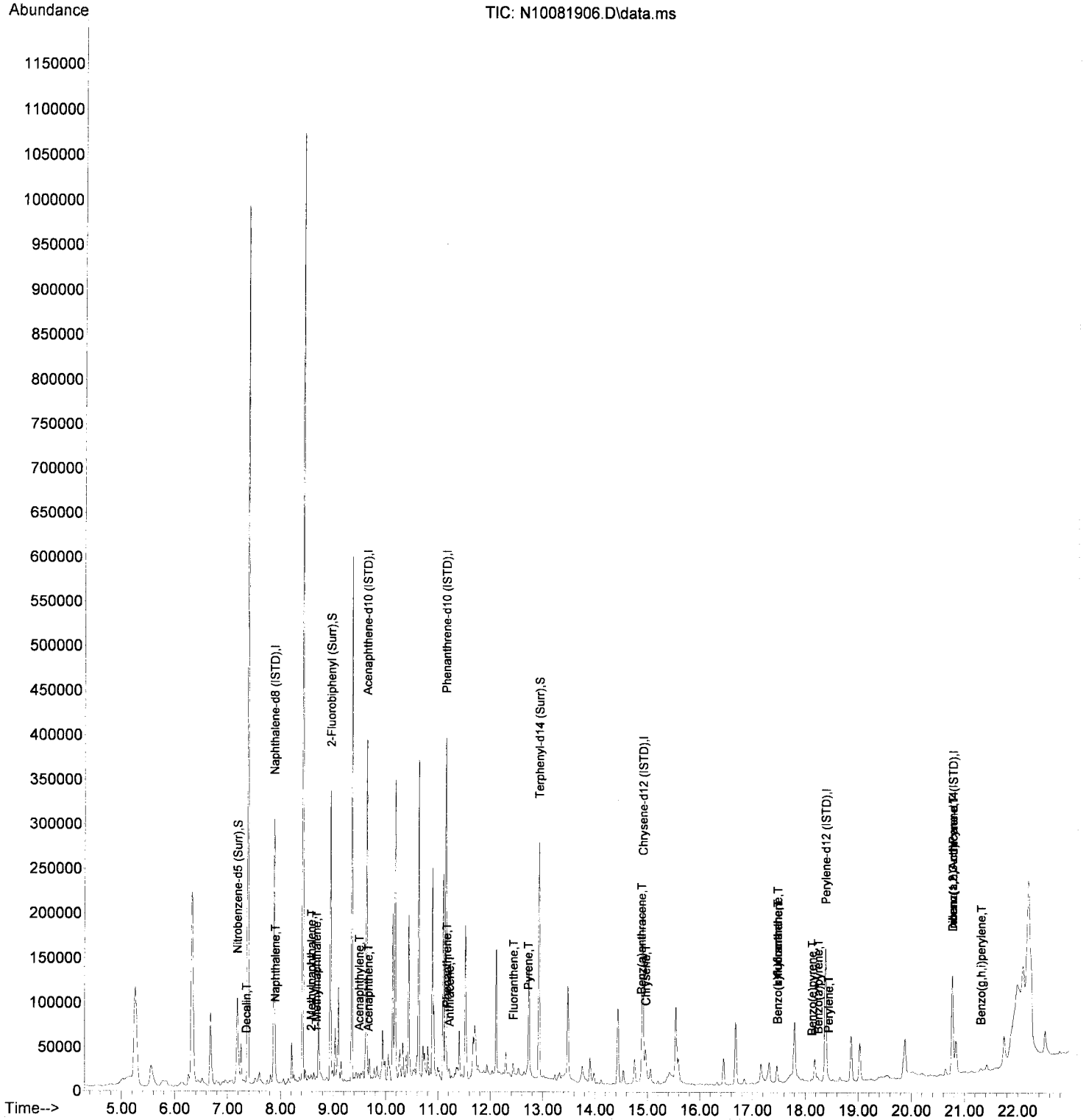
response 992

Ion	Exp%	Act%
252.00	100.00	100.00
125.90	22.10	16.44
253.00	21.50	33.33
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081906.D
Acq On : 08 Oct 2019 10:55 am
Operator : JK/ AMS/ DTH
Sample : A9J0058-15
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 08 14:40:42 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081907.D
Acq On : 08 Oct 2019 11:37 am
Operator : JK/ AMS/ DTH
Sample : 9100712-MS1
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 7 Sample Multiplier: 1

HPM 10/8/19

Quant Time: Oct 08 14:40:45 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

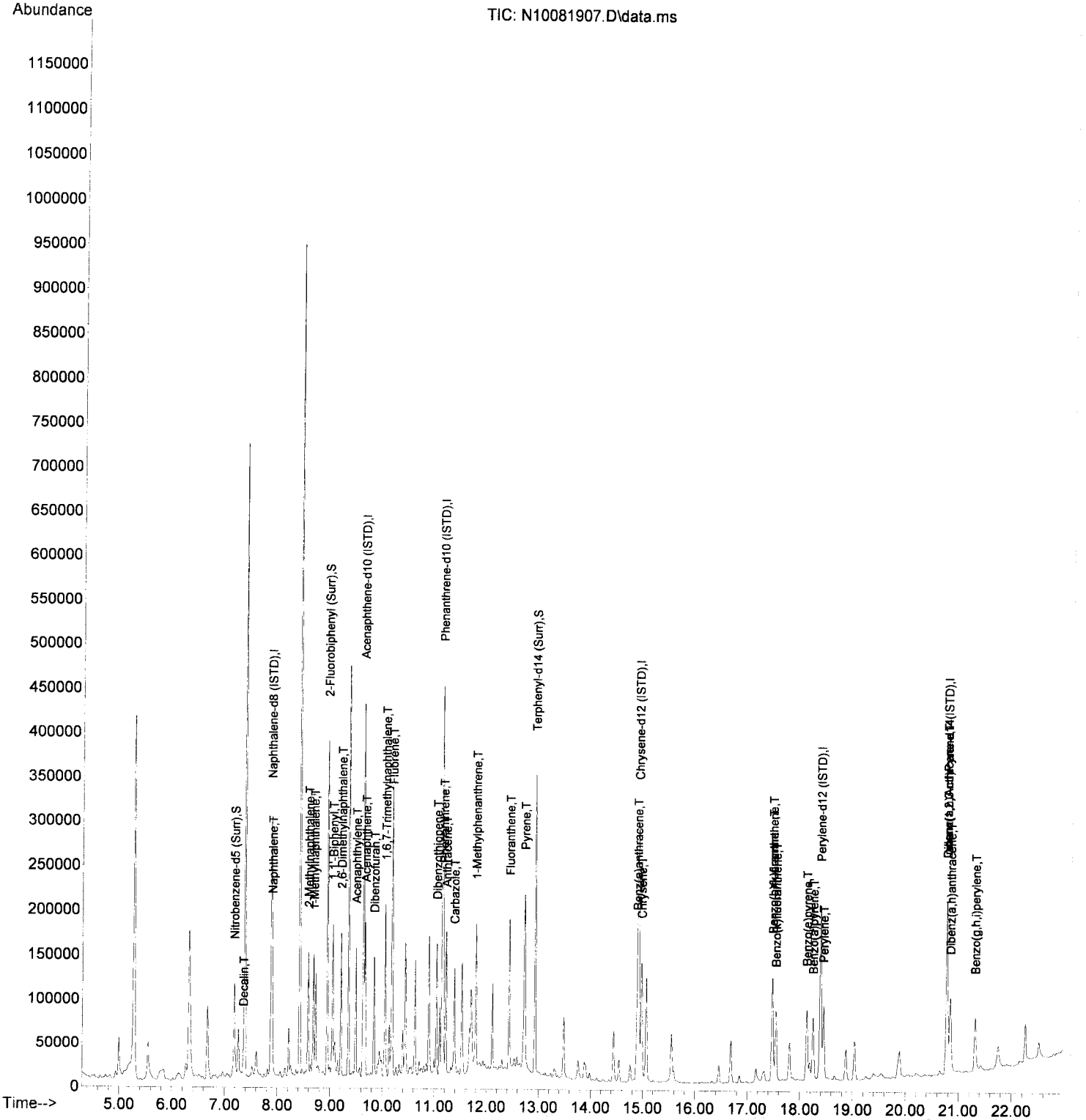
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	205609	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.637	162	121468	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	227721	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.912	240	195085	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.386	264	167640	100.00	ng/ml	0.01
37) Dibenz(a,h)Anthrcene-d...	20.776	292	128594	100.00	ng/ml	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.178	82	60395	88.40	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	173851	95.94	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	1510	-1.00	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	190854	93.02	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.353	138	3130	20.45	ng/ml	91
4) Naphthalene	7.901	128	85949	37.90	ng/ml	100
5) 2-Methylnaphthalene	8.588	142	61797	32.16	ng/ml	96
6) 1-Methylnaphthalene	8.687	142	58623	30.51	ng/ml	97
7) 1,1'-Biphenyl	9.049	154	78125	30.23	ng/ml	97
8) 2,6-Dimethylnaphthalene	9.212	156	55462	29.38	ng/ml	98
12) Acenaphthylene	9.492	152	96070	36.43	ng/ml	99
13) Acenaphthene	9.672	153	64551	37.37	ng/ml	100
14) Dibenzofuran	9.841	168	83728	38.70	ng/ml	96
15) 1,6,7-Trimethylnaphtha...	10.057	170	53554	36.97	ng/ml	99
16) Fluorene	10.191	166	67591	38.24	ng/ml	98
18) Dibenzothiopene	11.042	184	88224	37.04	ng/ml	96
19) Phenanthrene	11.170	178	101526	38.10	ng/ml	99
20) Anthracene	11.223	178	94140	37.98	ng/ml	100
21) Carbazole	11.380	167	74171	36.98	ng/ml	99
22) 1-Methylphenanthrene	11.794	192	70762	38.23	ng/ml	98
23) Fluoranthene	12.435	202	107329	39.98	ng/ml	97
25) Pyrene	12.727	202	110484	36.25	ng/ml	100
27) Benz(a)anthracene	14.889	228	80225	35.42	ng/ml	96
28) Chrysene	14.971	228	79584	37.13	ng/ml	99
30) Benzo(b)fluoranthene	17.477	252	74168	38.34	ng/ml	94
31) Benzo(k)fluoranthene	17.541	252	68340	35.88	ng/ml	93
32) Benzo(b+k)fluoranthene	17.477	252	147571	74.58	ng/ml	92
34) Benzo(e)pyrene	18.124	252	70889	36.24	ng/ml	98
35) Benzo(a)pyrene	18.246	252	61036	36.86	ng/ml	97
36) Perylene	18.445	252	74038	36.31	ng/ml	100
38) Indeno(1,2,3-cd)Pyrene	20.776	276	55383	34.92	ng/ml	84
39) Dibenz(a,h)anthracene	20.840	278	51481	34.55	ng/ml	85
40) Benzo(g,h,i)perylene	21.312	276	57831	34.37	ng/ml	84

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081907.D
Acq On : 08 Oct 2019 11:37 am
Operator : JK/ AMS/ DTH
Sample : 9100712-MS1
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 08 14:40:45 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081908.D
Acq On : 08 Oct 2019 12:09 pm
Operator : JK/ AMS/ DTH
Sample : 9100712-MSD1
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 8 Sample Multiplier: 1

tem 10/8/18

Quant Time: Oct 08 14:40:49 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

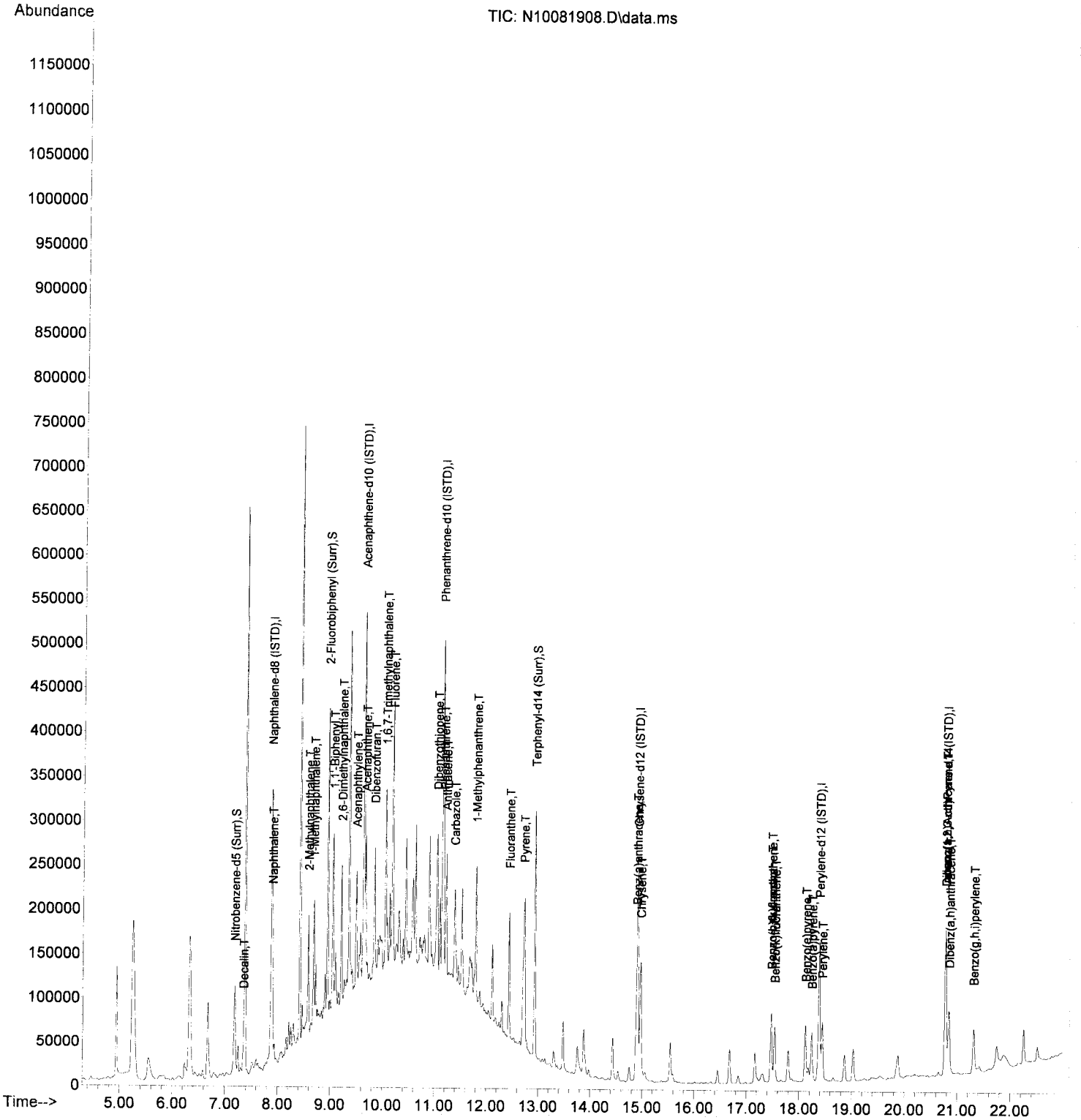
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	216641	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	116925	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	209534	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	161947	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	138641	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.770	292	112485	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	61280	85.12	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	167803	96.20	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	2188	-1.00	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	167696	98.46	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.353	138	3112	19.29	ng/ml	98
4) Naphthalene	7.901	128	86973	36.40	ng/ml	99
5) 2-Methylnaphthalene	8.583	142	60088	29.68	ng/ml	99
6) 1-Methylnaphthalene	8.682	142	58088	28.69	ng/ml	98
7) 1,1'-Biphenyl	9.049	154	74091	27.21	ng/ml	96
8) 2,6-Dimethylnaphthalene	9.212	156	54318	27.31	ng/ml	97
12) Acenaphthylene	9.492	152	90263	35.56	ng/ml	98
13) Acenaphthene	9.667	153	62327	37.49	ng/ml	99
14) Dibenzofuran	9.842	168	76520	36.74	ng/ml	98
15) 1,6,7-Trimethylnaphtha...	10.051	170	52346	37.54	ng/ml	98
16) Fluorene	10.191	166	62281	36.61	ng/ml	99
18) Dibenzothiopene	11.042	184	79298	36.18	ng/ml	96
19) Phenanthrene	11.171	178	89180	36.37	ng/ml	98
20) Anthracene	11.217	178	82859	36.33	ng/ml	98
21) Carbazole	11.380	167	63632	34.48	ng/ml	99
22) 1-Methylphenanthrene	11.794	192	64356	37.78	ng/ml	98
23) Fluoranthene	12.435	202	92083	37.28	ng/ml	97
25) Pyrene	12.721	202	95858	37.89	ng/ml	100
27) Benz(a)anthracene	14.889	228	65740	34.96	ng/ml	99
28) Chrysene	14.965	228	65573	36.85	ng/ml	100
30) Benzo(b)fluoranthene	17.471	252	59624	37.27	ng/ml	93
31) Benzo(k)fluoranthene	17.535	252	56398	35.81	ng/ml	93
32) Benzo(b+k)fluoranthene	17.471	252	119853	73.25	ng/ml	91
34) Benzo(e)pyrene	18.124	252	57106	35.30	ng/ml	98
35) Benzo(a)pyrene	18.241	252	49628	36.24	ng/ml	97
36) Perylene	18.439	252	60144	35.66	ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.770	276	46901	33.81	ng/ml	85
39) Dibenz(a,h)anthracene	20.840	278	45158	34.64	ng/ml	84
40) Benzo(g,h,i)perylene	21.307	276	49293	33.50	ng/ml	82

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081908.D
Acq On : 08 Oct 2019 12:09 pm
Operator : JK/ AMS/ DTH
Sample : 9100712-MSD1
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 08 14:40:49 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081916.D
Acq On : 08 Oct 2019 04:26 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-08
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 08 18:33:51 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

DTH 10/8/19

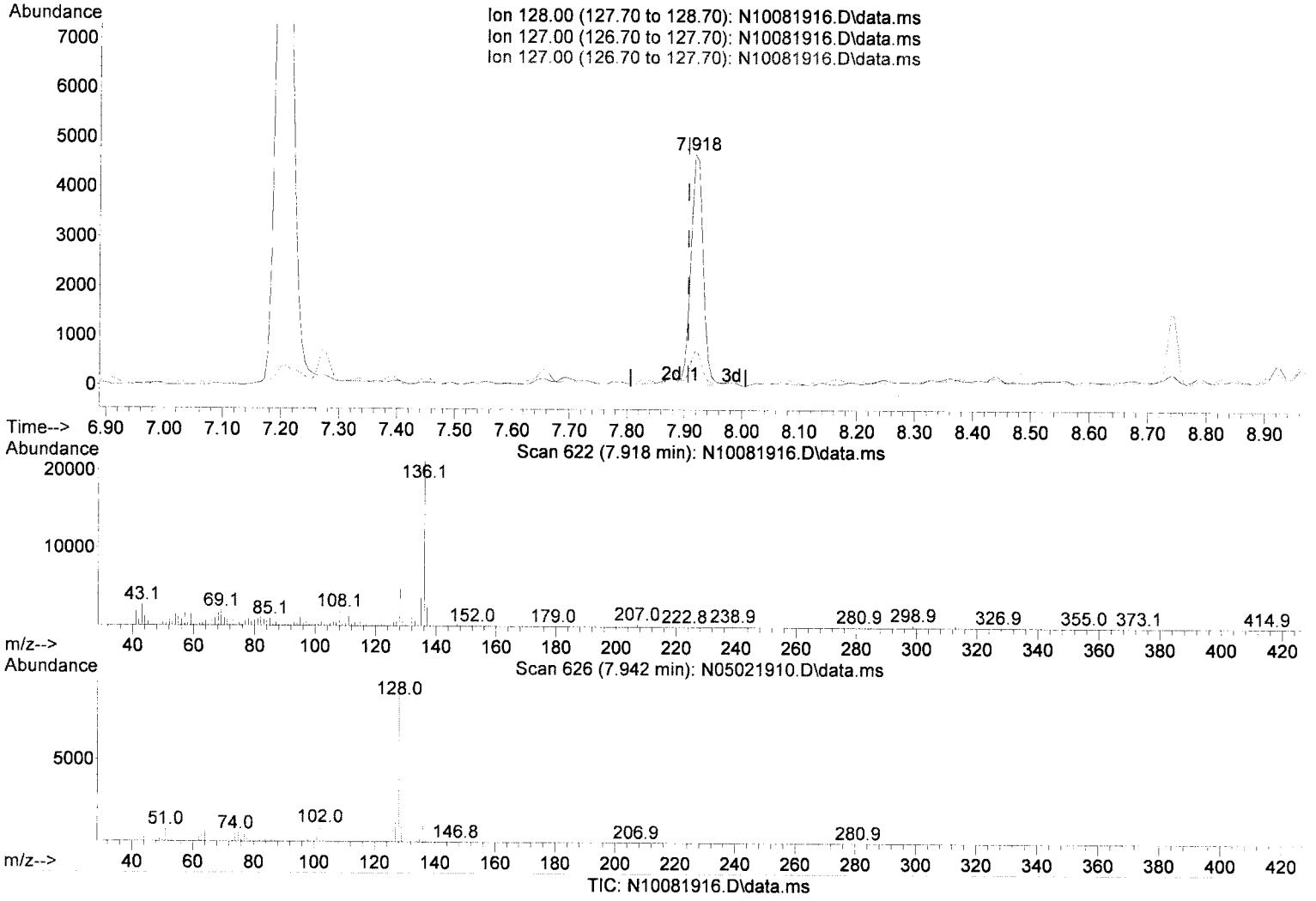
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.901	136	233583	100.00	ng/ml	0.02
9) Acenaphthene-d10 (ISTD)	9.655	162	130198	100.00	ng/ml	0.02
17) Phenanthrene-d10 (ISTD)	11.159	188	237626	100.00	ng/ml	0.01
24) Chrysene-d12 (ISTD)	14.936	240	195102	100.00	ng/ml	0.03
29) Perylene-d12 (ISTD)	18.415	264	160482	100.00	ng/ml	0.04
37) Dibenz(a,h)Anthrcene-d...	20.805	292	131532	100.00	ng/ml	0.04
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.201	82	55861	71.97	ng/ml	0.02
10) 2-Fluorobiphenyl (Surr)	8.967	172	153102	78.82	ng/ml	0.02
11) Acenaphthylene d-8 (Surr)	9.498	160	956	-1.00	ng/ml	0.02
26) Terphenyl-d14 (Surr)	12.948	244	165477	80.64	ng/ml	0.02
33) Benzo(a)pyrene d-12 (S...	18.211	264	228	0.18	ng/ml	0.04
Target Compounds						Qvalue
3) Decalin	7.364	138	289	1.66	ng/ml#	71
4) Naphthalene	7.918	128	6886	2.67	ng/ml	93
5) 2-Methylnaphthalene	8.600	142	1585	0.73	ng/ml	93
6) 1-Methylnaphthalene	8.705	142	1941	0.89	ng/ml	90
7) 1,1'-Biphenyl	9.066	154	1568	0.53	ng/ml	97
8) 2,6-Dimethylnaphthalene	9.229	156	947	0.44	ng/ml	86
12) Acenaphthylene	9.509	152	945	N.D.		
13) Acenaphthene	9.684	153	411	N.D.		
14) Dibenzofuran	9.859	168	601	N.D.		
15) 1,6,7-Trimethylnaphtha...	10.086	170	684	0.44	ng/ml#	60
16) Fluorene	10.209	166	824	0.43	ng/ml	77
18) Dibenzothiopene	11.054	184	534	N.D.		
19) Phenanthrene	11.182	178	3455	1.24	ng/ml	84
20) Anthracene	11.235	178	514	N.D.		
21) Carbazole	11.398	167	603	N.D.		
22) 1-Methylphenanthrene	11.812	192	666	N.D.		
23) Fluoranthene	12.453	202	2642	0.94	ng/ml	73
25) Pyrene	12.744	202	3388	1.11	ng/ml	76
27) Benz(a)anthracene	14.918	228	1461	0.64	ng/ml	54
28) Chrysene	14.994	228	1651	0.77	ng/ml	61
30) Benzo(b)fluoranthene	17.506	252	1847	1.00	ng/ml	62
31) Benzo(k)fluoranthene	17.506	252	2534	1.39	ng/ml	66
32) Benzo(b+k)fluoranthene	17.506	252	2685	1.42	ng/ml	66
34) Benzo(e)pyrene	18.153	252	995	0.53	ng/ml#	67
35) Benzo(a)pyrene	18.276	252	762	0.48	ng/ml#	1
36) Perylene	18.474	252	61366	31.43	ng/ml	98
38) Indeno(1,2,3-cd)Pyrene	20.811	276	1373	0.85	ng/ml#	1
39) Dibenz(a,h)anthracene	20.869	278	166	N.D.		
40) Benzo(g,h,i)perylene	21.341	276	1292	0.75	ng/ml#	1

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

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081916.D
Acq On : 08 Oct 2019 04:26 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-08
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 08 18:33:51 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(4) Naphthalene (T)

7.918min (+ 0.011) 2.67 ng/ml J

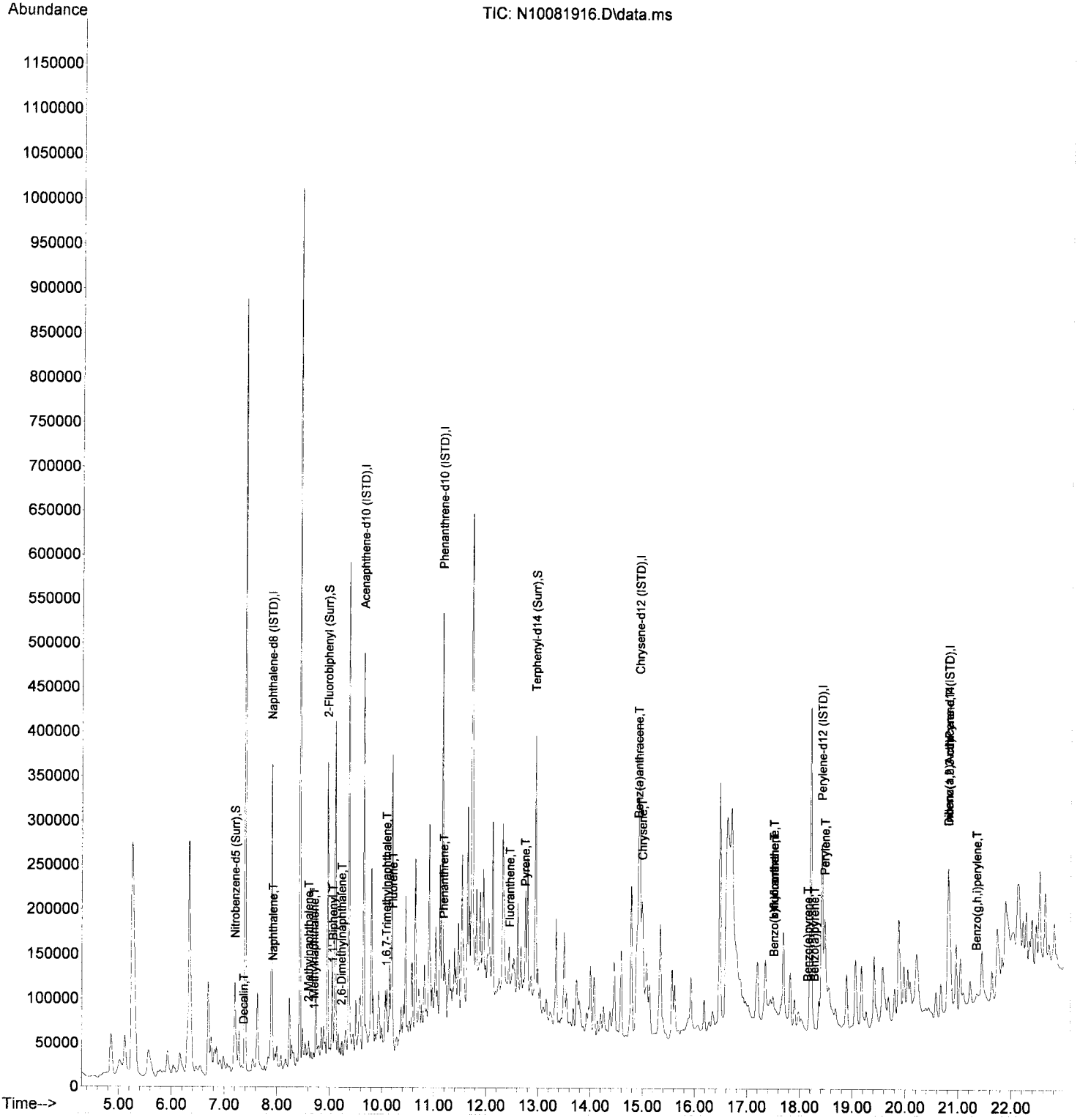
response 6886

Ion	Exp%	Act%
128.00	100.00	100.00
127.00	12.60	15.22
127.00	12.60	15.22
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081916.D
Acq On : 08 Oct 2019 04:26 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-08
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 08 18:33:51 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081917.D
Acq On : 08 Oct 2019 04:58 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-09
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 08 18:34:01 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

DTH 10/8/19

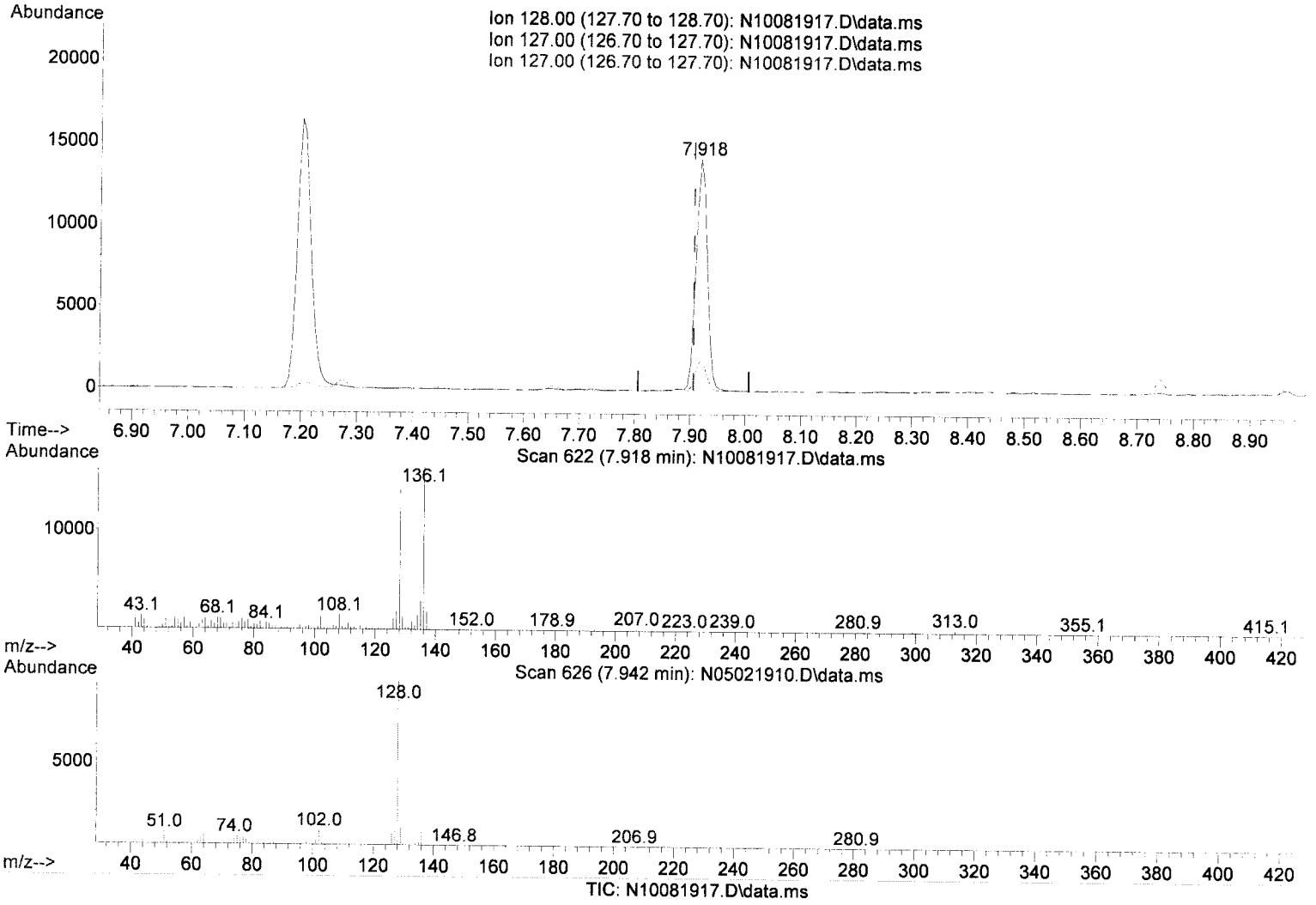
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.901	136	219346	100.00	ng/ml	0.02
9) Acenaphthene-d10 (ISTD)	9.649	162	123588	100.00	ng/ml	0.01
17) Phenanthrene-d10 (ISTD)	11.159	188	224671	100.00	ng/ml	0.01
24) Chrysene-d12 (ISTD)	14.936	240	167658	100.00	ng/ml	0.03
29) Perylene-d12 (ISTD)	18.410	264	145174	100.00	ng/ml	0.04
37) Dibenz(a,h)Anthrcene-d...	20.800	292	122301	100.00	ng/ml	0.04
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.201	82	55051	75.53	ng/ml	0.02
10) 2-Fluorobiphenyl (Surr)	8.962	172	156445	84.85	ng/ml	0.01
11) Acenaphthylene d-8 (Surr)	9.498	160	1381	-1.00	ng/ml	0.02
26) Terphenyl-d14 (Surr)	12.948	244	166121	94.21	ng/ml	0.02
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.370	138	124	0.76	ng/ml#	56
4) Naphthalene	7.918	128	19980	8.26	ng/ml	98
5) 2-Methylnaphthalene	8.600	142	9086	(4.43)	ng/ml	97
6) 1-Methylnaphthalene	8.699	142	5004	2.44	ng/ml	99
7) 1,1'-Biphenyl	9.066	154	5271	1.91	ng/ml	98
8) 2,6-Dimethylnaphthalene	9.230	156	2823	1.40	ng/ml	98
12) Acenaphthylene	9.509	152	1053	N.D.		
13) Acenaphthene	9.684	153	12789	7.28	ng/ml	100
14) Dibenzofuran	9.859	168	1333	0.61	ng/ml	85
15) 1,6,7-Trimethylnaphtha...	10.063	170	867	0.59	ng/ml#	38
16) Fluorene	10.209	166	8736	(4.86)	ng/ml	96
18) Dibenzothiopene	11.054	184	7523	3.20	ng/ml	98
19) Phenanthrene	11.182	178	15812	6.01	ng/ml	98
20) Anthracene	11.235	178	1593	0.65	ng/ml	93
21) Carbazole	11.398	167	910	0.46	ng/ml	82
22) 1-Methylphenanthrene	11.812	192	451	N.D.		
23) Fluoranthene	12.453	202	4173	1.58	ng/ml	96
25) Pyrene	12.739	202	4869	1.86	ng/ml	97
27) Benz(a)anthracene	14.913	228	1382	0.71	ng/ml	59
28) Chrysene	14.994	228	1347	0.73	ng/ml	82
30) Benzo(b)fluoranthene	17.506	252	1094	0.65	ng/ml	80
31) Benzo(k)fluoranthene	17.506	252	1434	0.87	ng/ml	84
32) Benzo(b+k)fluoranthene	17.506	252	2048	1.20	ng/ml	84
34) Benzo(e)pyrene	18.148	252	686	0.40	ng/ml	87
35) Benzo(a)pyrene	18.270	252	873	0.61	ng/ml	69
36) Perylene	18.468	252	3062	1.73	ng/ml	97
38) Indeno(1,2,3-cd)Pyrene	20.800	276	842	0.56	ng/ml#	29
39) Dibenz(a,h)anthracene	20.858	278	261	N.D.		
40) Benzo(g,h,i)perylene	21.336	276	1042	0.65	ng/ml#	1

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

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081917.D
Acq On : 08 Oct 2019 04:58 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-09
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 08 18:34:01 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(4) Naphthalene (T)

7.918min (+ 0.012) 8.26 ng/ml

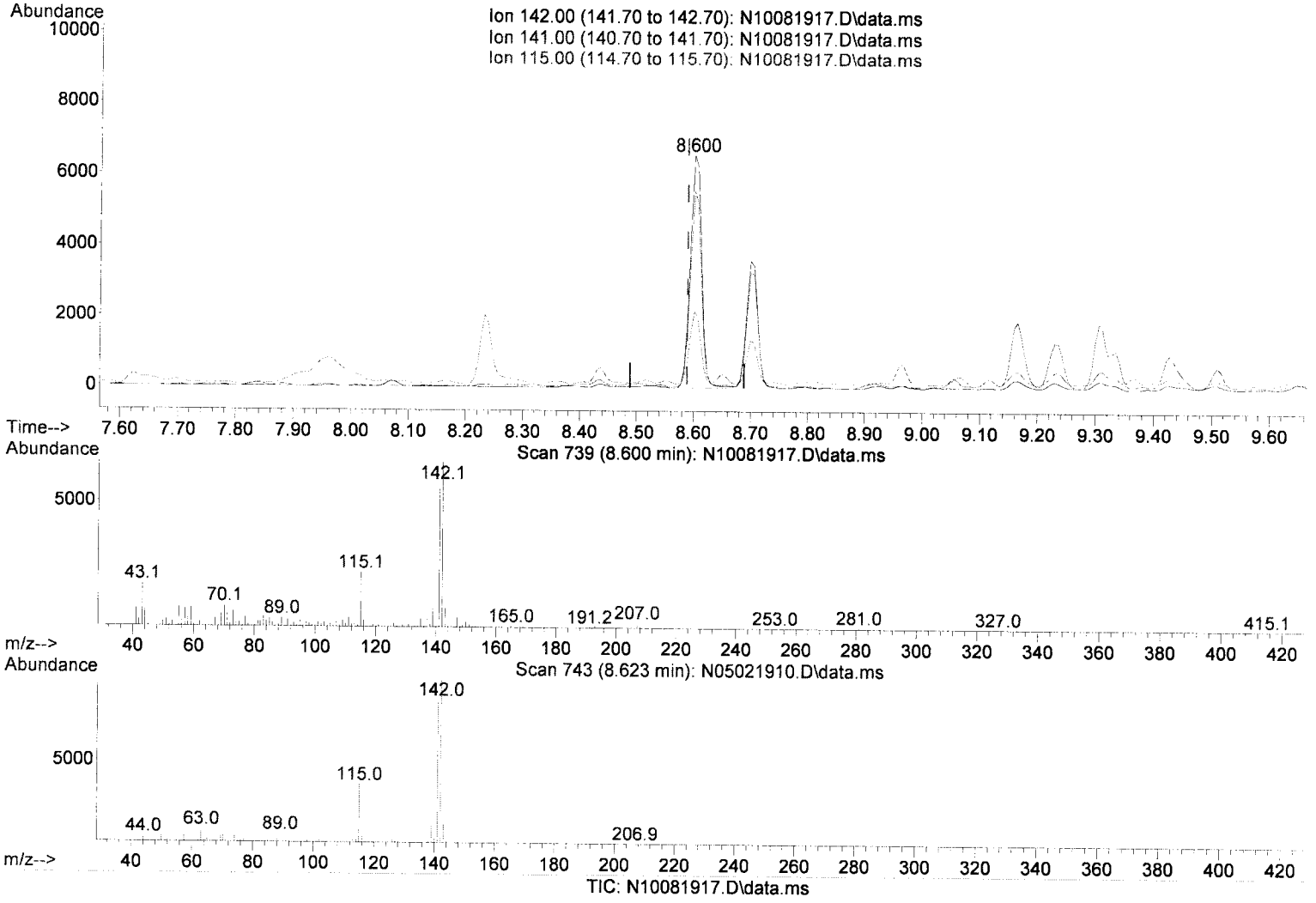
response 19980

Ion	Exp%	Act%
128.00	100.00	100.00
127.00	12.60	13.47
127.00	12.60	13.47
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081917.D
Acq On : 08 Oct 2019 04:58 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-09
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 08 18:34:01 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(5) 2-Methylnaphthalene (T)

8.600min (+ 0.012) 4.43 ng/ml J

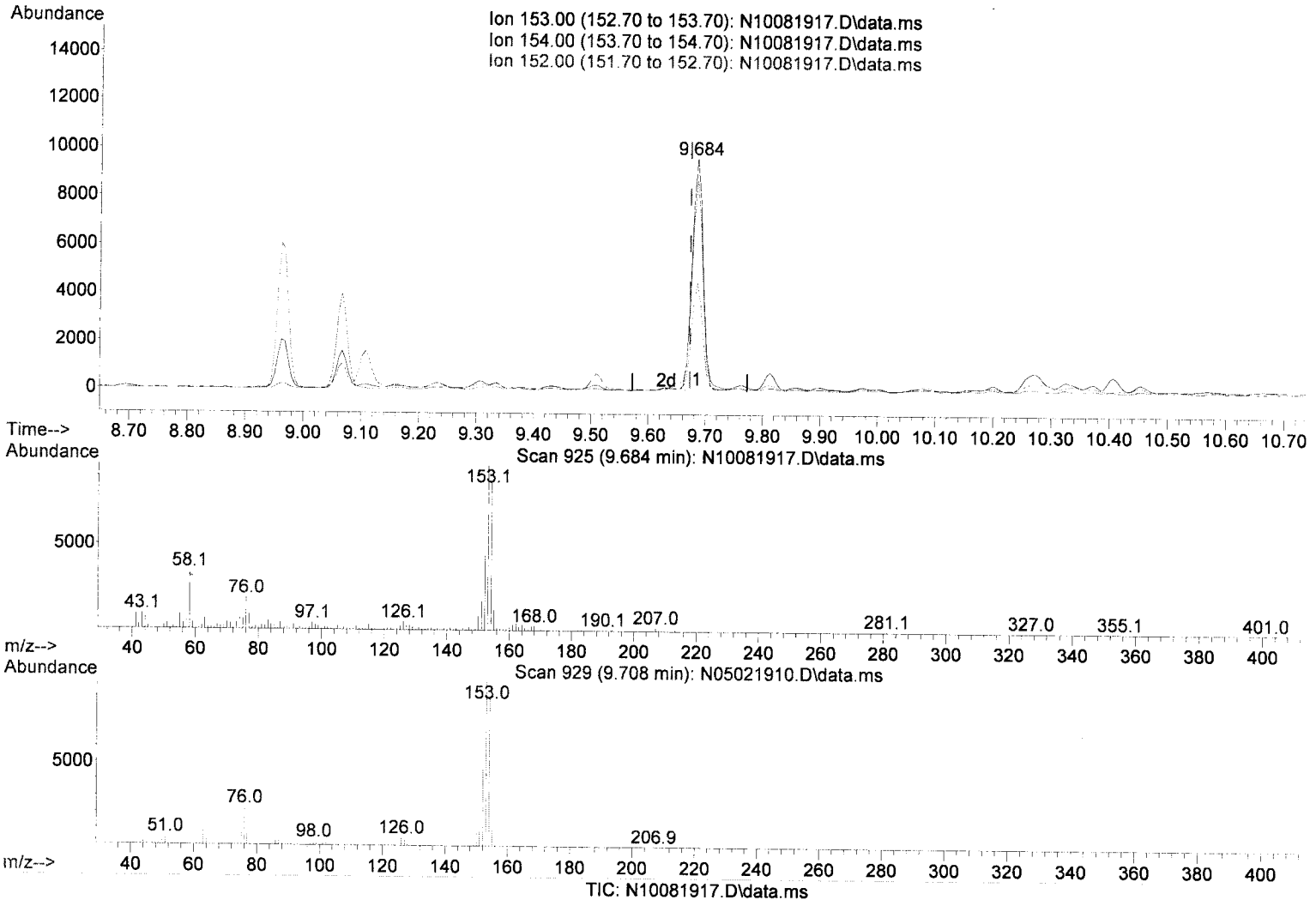
response 9086

Ion	Exp%	Act%
142.00	100.00	100.00
141.00	86.60	84.67
115.00	35.70	33.04
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081917.D
Acq On : 08 Oct 2019 04:58 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-09
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 08 18:34:01 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(13) Acenaphthene (T)

9.684min (+ 0.012) 7.28 ng/ml

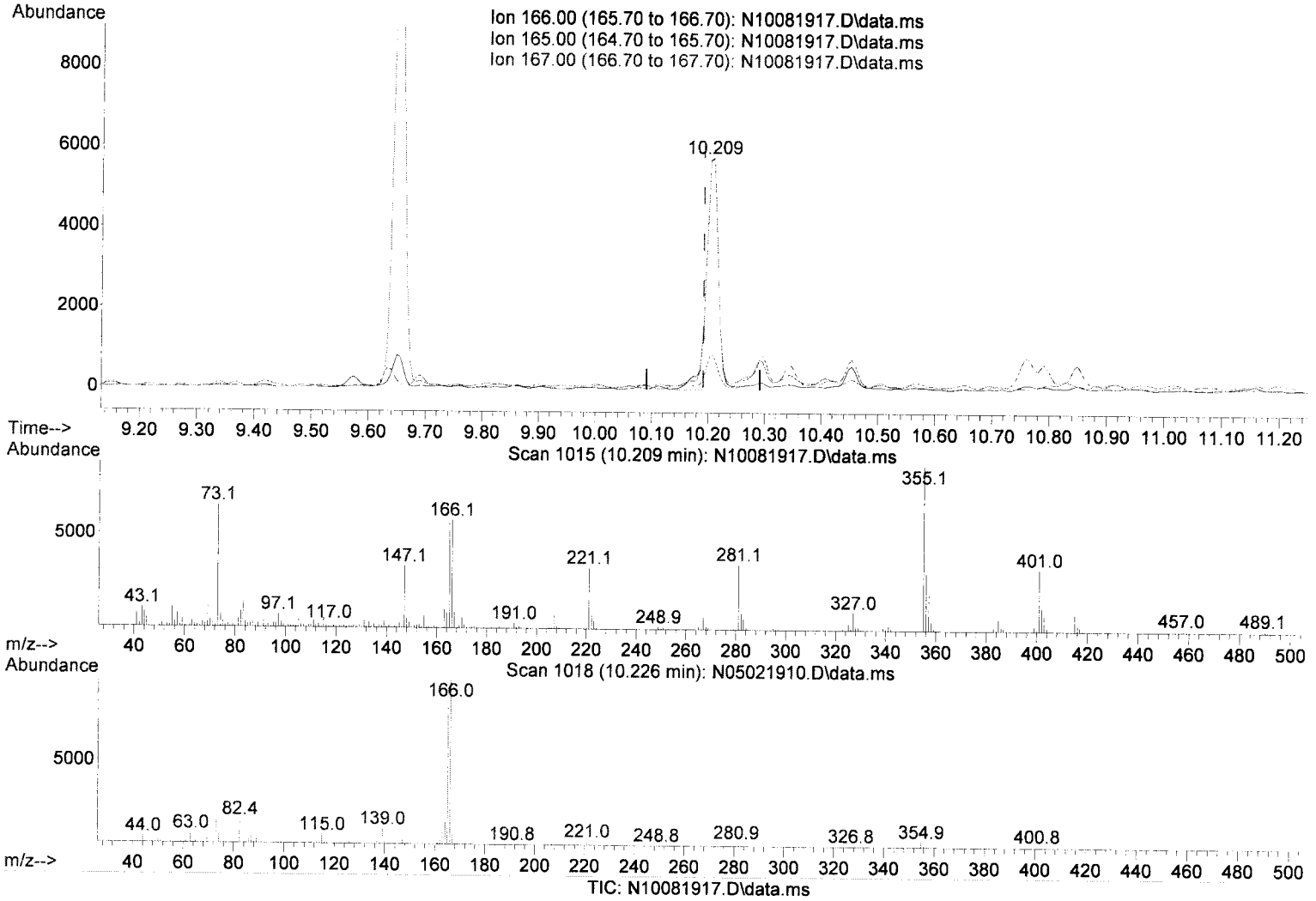
response 12789

Ion	Exp%	Act%
153.00	100.00	100.00
154.00	90.70	90.62
152.00	46.80	46.61
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081917.D
Acq On : 08 Oct 2019 04:58 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-09
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 08 18:34:01 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(16) Fluorene (T)

10.209min (+ 0.018) 4.86 ng/ml J

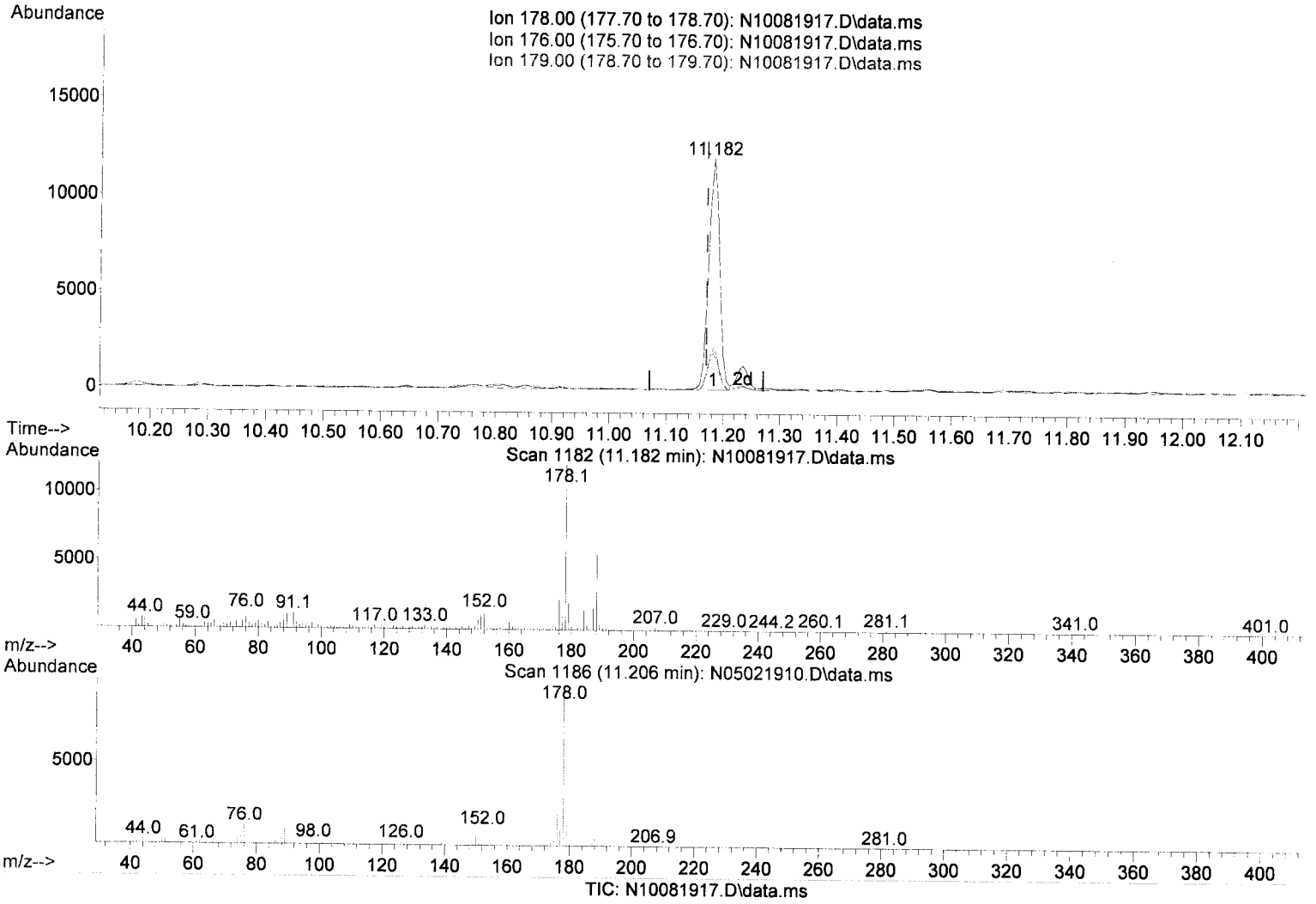
response 8736

Ion	Exp%	Act%
166.00	100.00	100.00
165.00	95.70	99.64
167.00	13.60	14.75
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081917.D
Acq On : 08 Oct 2019 04:58 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-09
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 08 18:34:01 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(19) Phenanthrene (T)

11.182min (+ 0.012) 6.01 ng/ml

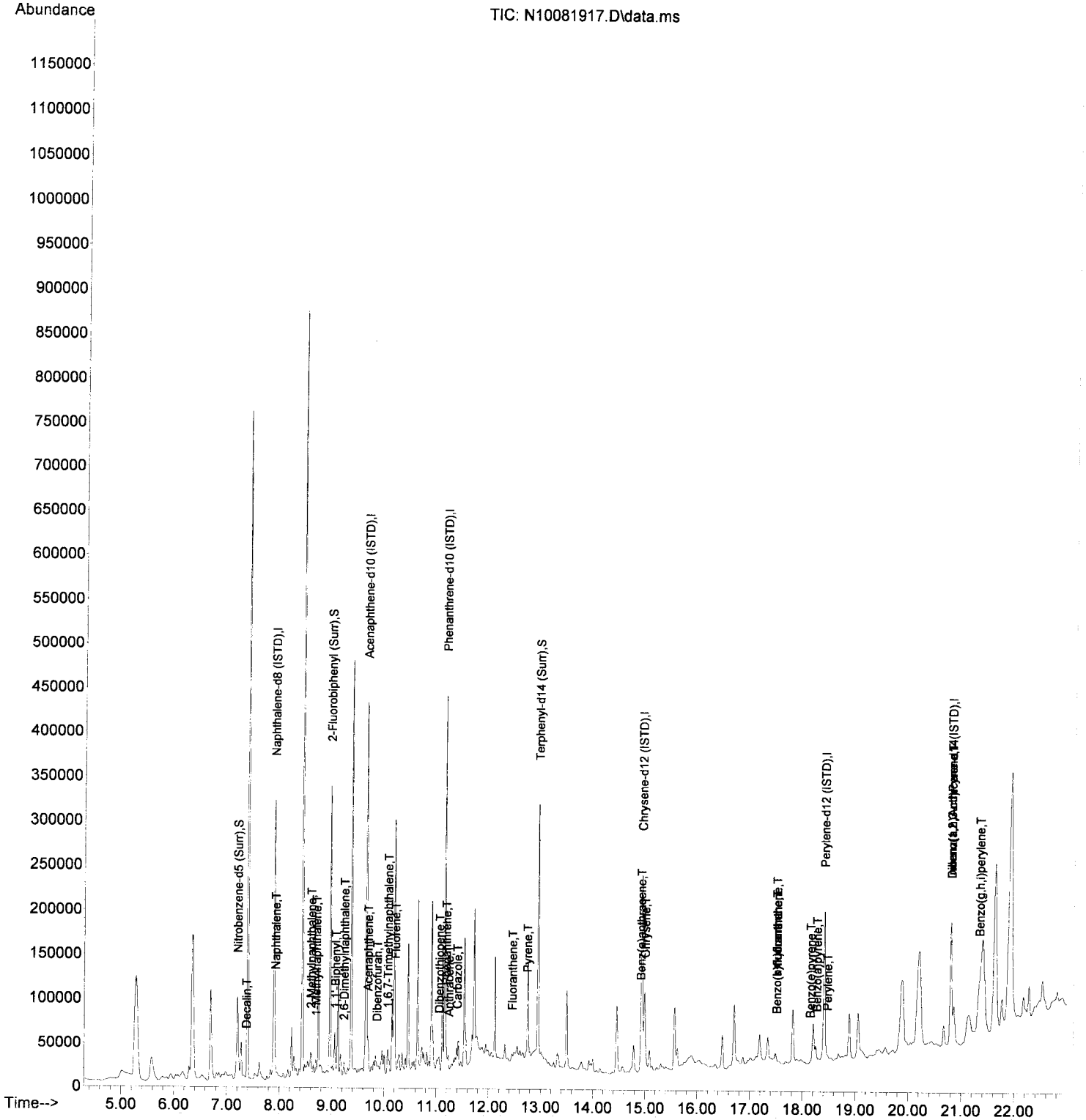
response 15812

Ion	Exp%	Act%
178.00	100.00	100.00
176.00	19.00	18.40
179.00	15.10	16.28
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081917.D
Acq On : 08 Oct 2019 04:58 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-09
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 08 18:34:01 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081918.D
Acq On : 08 Oct 2019 05:31 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-10
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 08 18:34:12 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

DTH 10/8/19

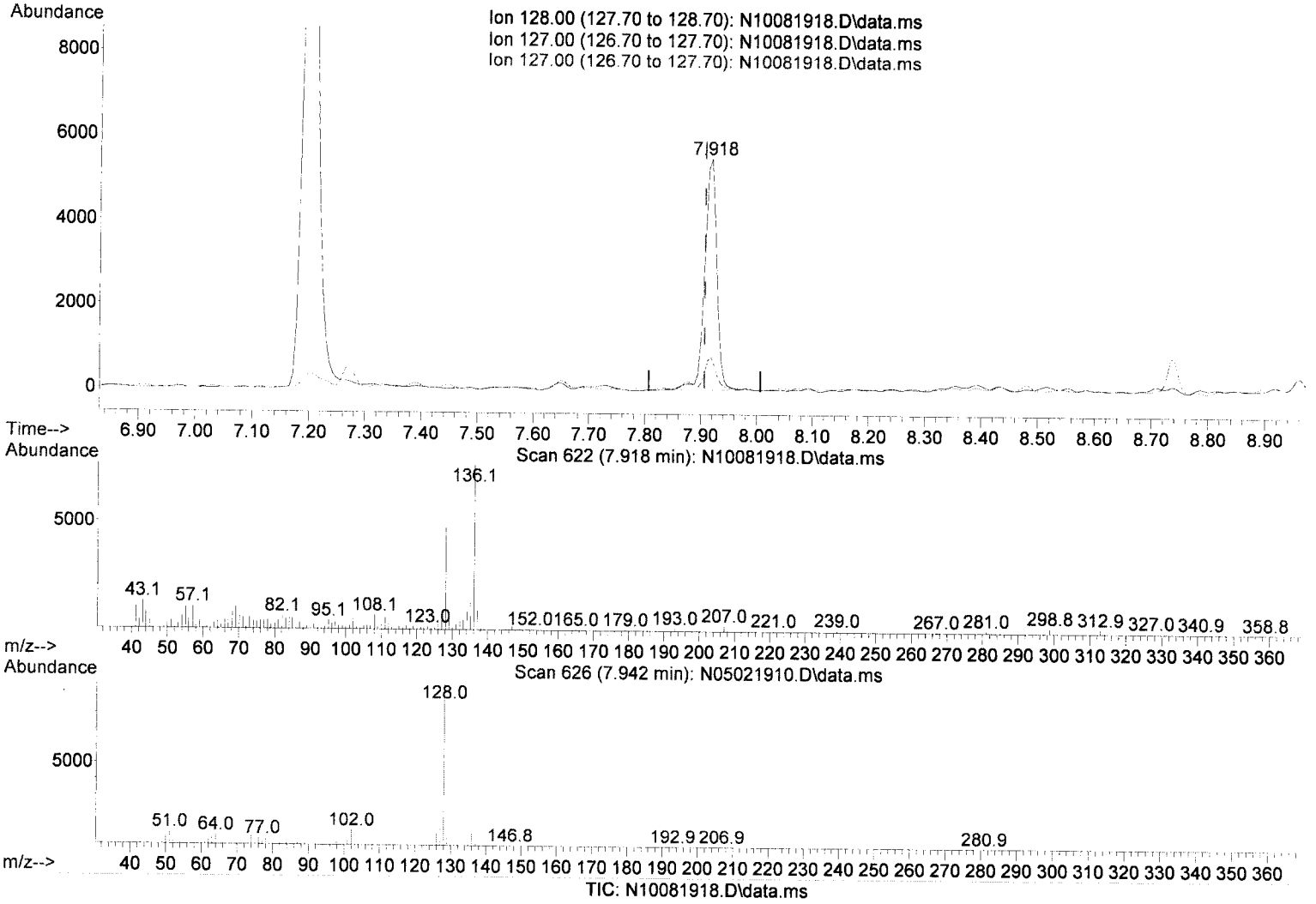
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.895	136	215101	100.00	ng/ml	0.01
9) Acenaphthene-d10 (ISTD)	9.649	162	122209	100.00	ng/ml	0.01
17) Phenanthrene-d10 (ISTD)	11.159	188	220580	100.00	ng/ml	0.01
24) Chrysene-d12 (ISTD)	14.930	240	161163	100.00	ng/ml	0.02
29) Perylene-d12 (ISTD)	18.404	264	135758	100.00	ng/ml	0.03
37) Dibenz(a,h)Anthrcene-d...	20.794	292	114709	100.00	ng/ml	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.201	82	51032	71.40	ng/ml	0.02
10) 2-Fluorobiphenyl (Surr)	8.961	172	144803	79.42	ng/ml	0.01
11) Acenaphthylene d-8 (Surr)	9.492	160	1880	-1.00	ng/ml	0.01
26) Terphenyl-d14 (Surr)	12.942	244	159653	94.19	ng/ml	0.01
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.364	138	120	0.75	ng/ml#	63
4) Naphthalene	7.918	128	8195	(3.45)	ng/ml	96
5) 2-Methylnaphthalene	8.600	142	3220	1.60	ng/ml	97
6) 1-Methylnaphthalene	8.699	142	2026	1.01	ng/ml	93
7) 1,1'-Biphenyl	9.060	154	2097	0.78	ng/ml	99
8) 2,6-Dimethylnaphthalene	9.230	156	1317	0.67	ng/ml	97
12) Acenaphthylene	9.503	152	832	N.D.		
13) Acenaphthene	9.684	153	8881	5.11	ng/ml	98
14) Dibenzofuran	9.853	168	742	N.D.		
15) 1,6,7-Trimethylnaphtha...	10.057	170	853	0.59	ng/ml#	40
16) Fluorene	10.203	166	8471	(4.76)	ng/ml	94
18) Dibenzothiopene	11.054	184	5337	2.31	ng/ml	98
19) Phenanthrene	11.182	178	7773	3.01	ng/ml	96
20) Anthracene	11.229	178	1199	0.50	ng/ml	86
21) Carbazole	11.392	167	521	N.D.		
22) 1-Methylphenanthrene	11.806	192	418	N.D.		
23) Fluoranthene	12.447	202	5190	2.00	ng/ml	96
25) Pyrene	12.738	202	6208	2.47	ng/ml	96
27) Benz(a)anthracene	14.907	228	1649	0.88	ng/ml#	62
28) Chrysene	14.988	228	1715	0.97	ng/ml	92
30) Benzo(b)fluoranthene	17.506	252	1557	0.99	ng/ml	91
31) Benzo(k)fluoranthene	17.506	252	2015	1.31	ng/ml	93
32) Benzo(b+k)fluoranthene	17.506	252	2472	1.54	ng/ml	93
34) Benzo(e)pyrene	18.147	252	913	0.58	ng/ml	82
35) Benzo(a)pyrene	18.264	252	1225	0.91	ng/ml	83
36) Perylene	18.462	252	2542	1.54	ng/ml	95
38) Indeno(1,2,3-cd)Pyrene	20.799	276	985	0.70	ng/ml	50
39) Dibenz(a,h)anthracene	20.852	278	174	N.D.		
40) Benzo(g,h,i)perylene	21.330	276	1065	0.71	ng/ml	68

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

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081918.D
Acq On : 08 Oct 2019 05:31 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-10
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 08 18:34:12 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(4) Naphthalene (T)

7.918min (+ 0.011) 3.45 ng/ml J

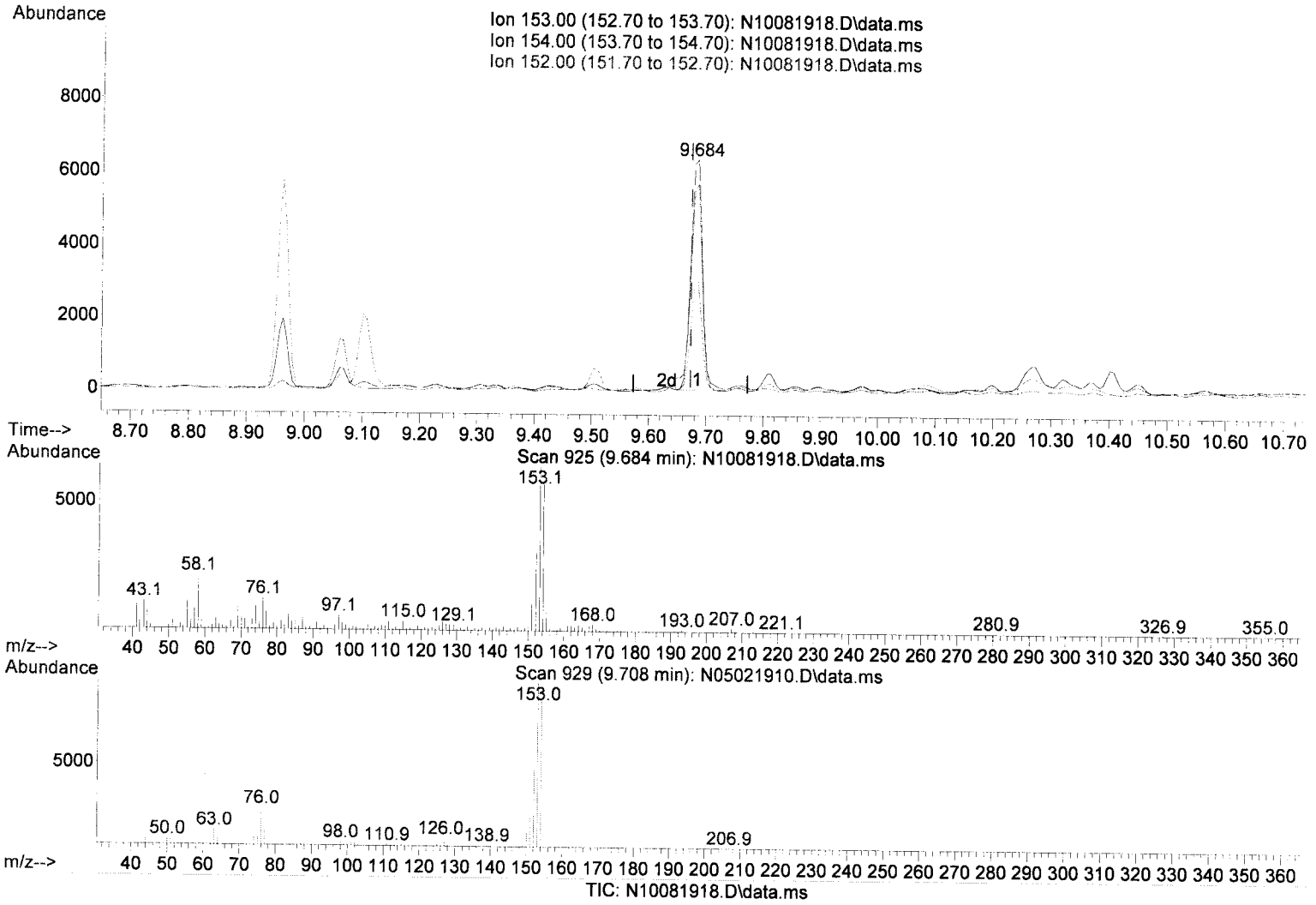
response 8195

Ion	Exp%	Act%
128.00	100.00	100.00
127.00	12.60	14.31
127.00	12.60	14.31
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081918.D
Acq On : 08 Oct 2019 05:31 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-10
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 08 18:34:12 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(13) Acenaphthene (T)

9.684min (+ 0.012) 5.11 ng/ml

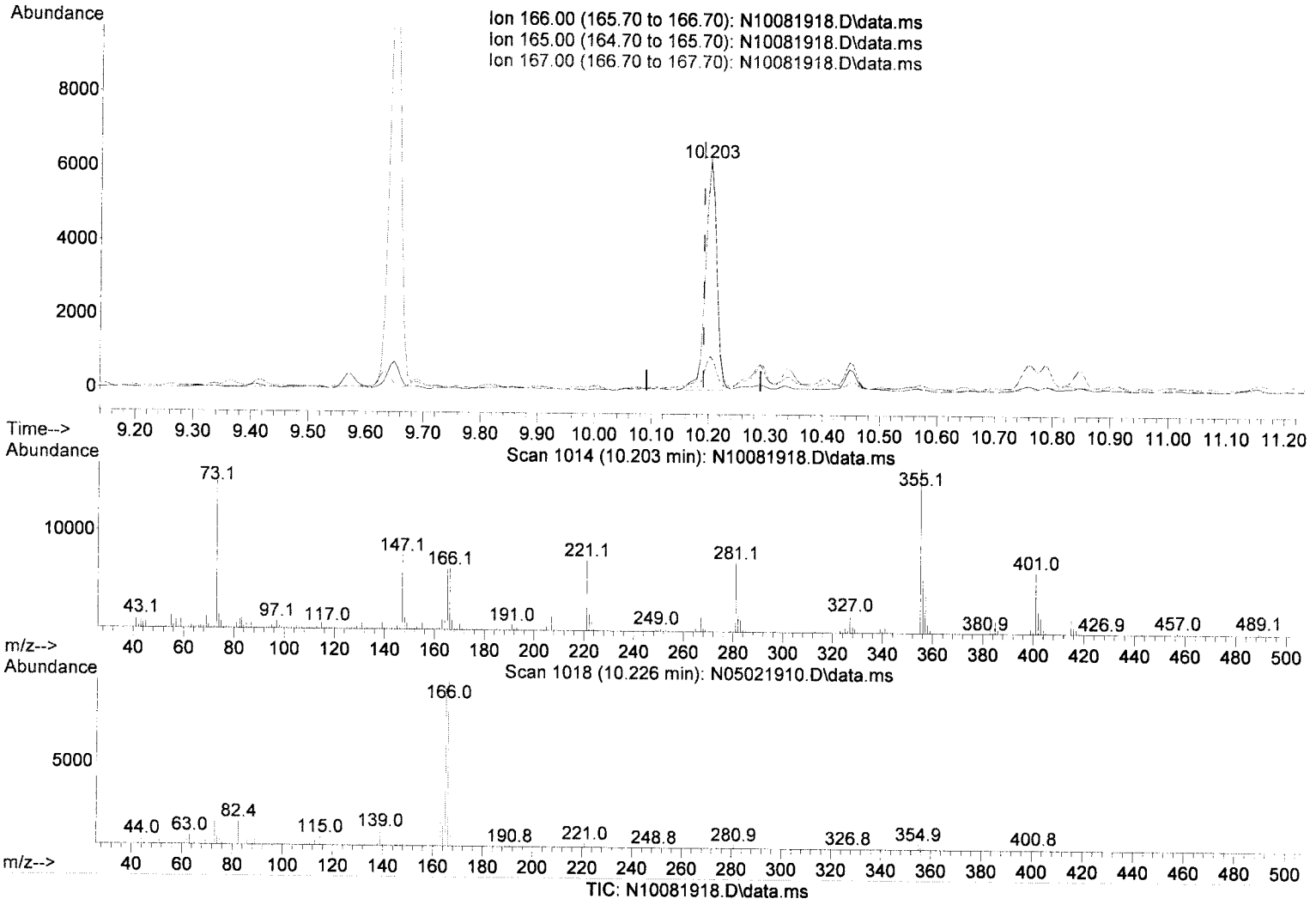
response 8881

Ion	Exp%	Act%
153.00	100.00	100.00
154.00	90.70	89.28
152.00	46.80	47.88
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081918.D
Acq On : 08 Oct 2019 05:31 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-10
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 08 18:34:12 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(16) Fluorene (T)

10.203min (+ 0.012) 4.76 ng/ml J

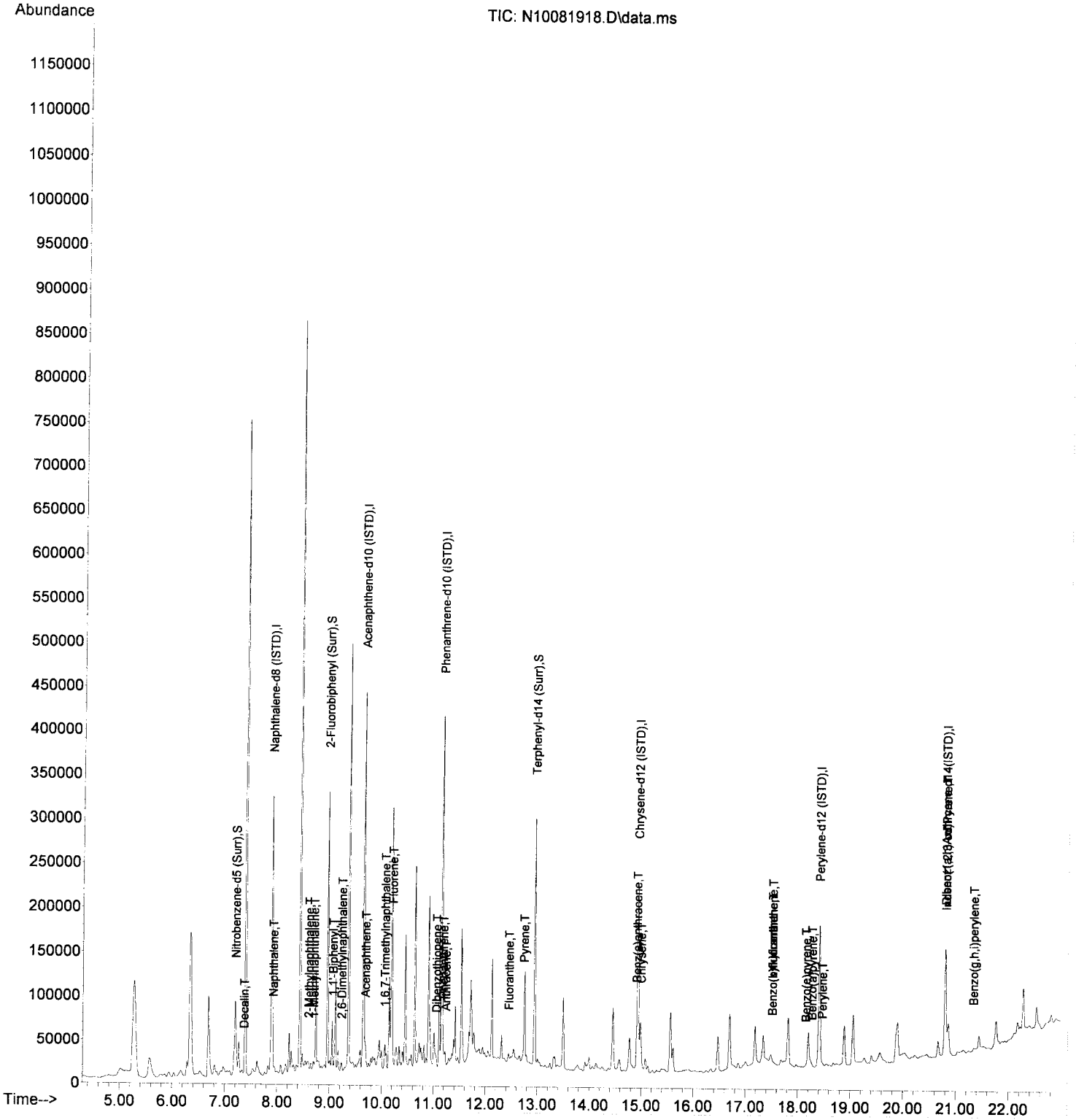
response 8471

Ion	Exp%	Act%
166.00	100.00	100.00
165.00	95.70	101.42
167.00	13.60	15.27
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081918.D
Acq On : 08 Oct 2019 05:31 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-10
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 08 18:34:12 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081919.D
Acq On : 08 Oct 2019 06:03 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-11
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 08 18:34:23 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

DTH 10/8/19

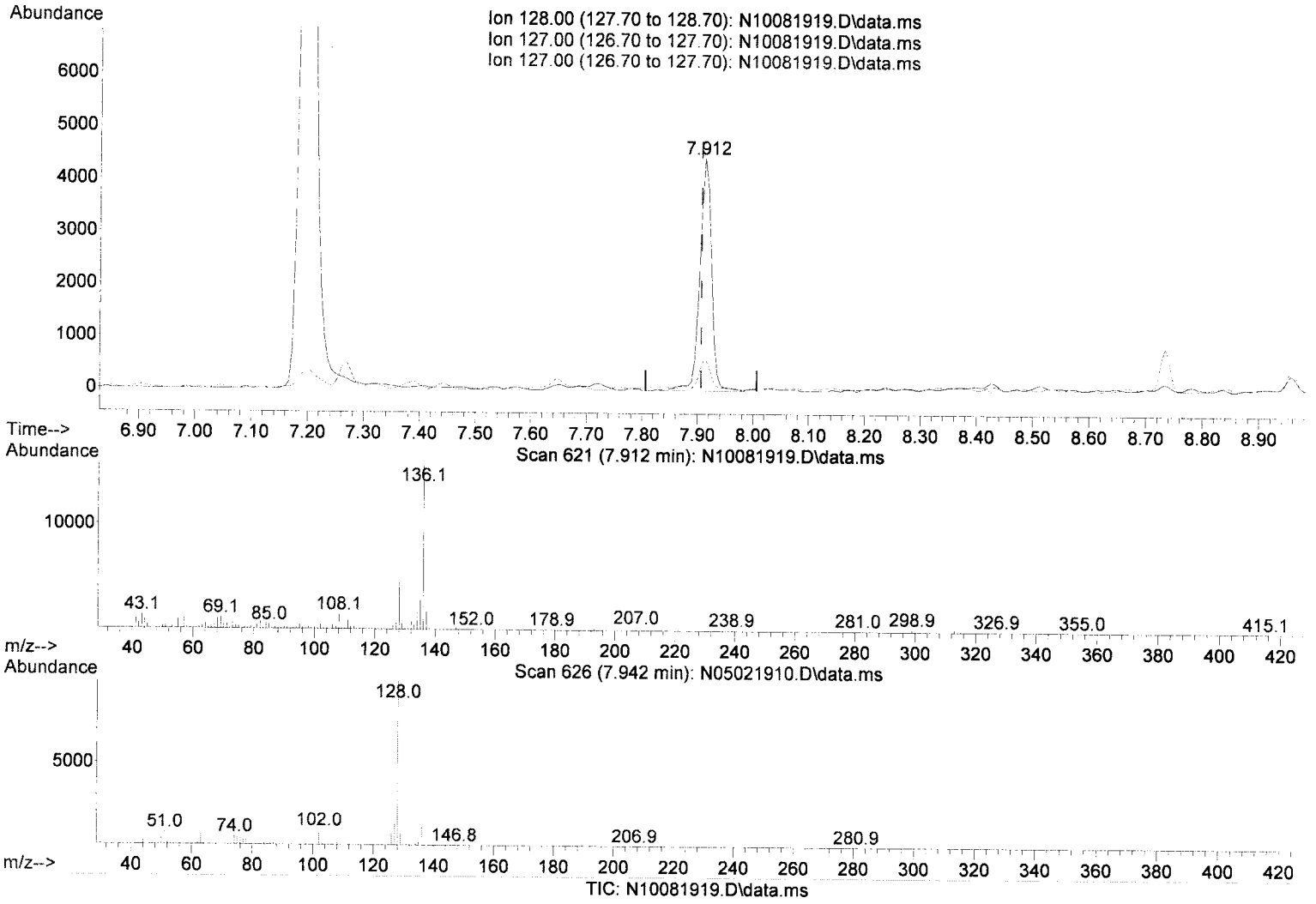
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.889	136	229305	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.649	162	129106	100.00 ng/ml	0.01
17) Phenanthrene-d10 (ISTD)	11.153	188	230894	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.924	240	171638	100.00 ng/ml	0.02
29) Perylene-d12 (ISTD)	18.404	264	148671	100.00 ng/ml	0.03
37) Dibenz(a,h)Anthrcene-d...	20.793	292	125509	100.00 ng/ml	0.03
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.195	82	54892	72.04 ng/ml	0.01
10) 2-Fluorobiphenyl (Surr)	8.956	172	156613	81.31 ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.492	160	2100	-1.00 ng/ml	0.01
26) Terphenyl-d14 (Surr)	12.942	244	166141	92.04 ng/ml	0.01
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	7.364	138	117	0.69 ng/ml#	49
4) Naphthalene	7.912	128	6526	(2.58) ng/ml	97
5) 2-Methylnaphthalene	8.594	142	2475	1.15 ng/ml	97
6) 1-Methylnaphthalene	8.693	142	1544	0.72 ng/ml	97
7) 1,1'-Biphenyl	9.060	154	1832	0.64 ng/ml	98
8) 2,6-Dimethylnaphthalene	9.224	156	1017	0.48 ng/ml	92
12) Acenaphthylene	9.503	152	735	N.D.	
13) Acenaphthene	9.678	153	5911	(3.22) ng/ml	99
14) Dibenzofuran	9.853	168	640	N.D.	
15) 1,6,7-Trimethylnaphtha...	10.069	170	471	N.D.	
16) Fluorene	10.203	166	3070	1.63 ng/ml	93
18) Dibenzothiopene	11.048	184	3922	1.62 ng/ml	96
19) Phenanthrene	11.176	178	9602	(3.55) ng/ml	98
20) Anthracene	11.229	178	1334	0.53 ng/ml	88
21) Carbazole	11.392	167	576	N.D.	
22) 1-Methylphenanthrene	11.800	192	963	0.51 ng/ml	62
23) Fluoranthene	12.447	202	4874	1.79 ng/ml	99
25) Pyrene	12.732	202	12734	(4.75) ng/ml	98
27) Benz(a)anthracene	14.918	228	1060	0.53 ng/ml	88
28) Chrysene	14.988	228	887	0.47 ng/ml	88
30) Benzo(b)fluoranthene	17.500	252	643	N.D.	
31) Benzo(k)fluoranthene	17.500	252	1055	0.62 ng/ml	75
32) Benzo(b+k)fluoranthene	17.500	252	1312	0.75 ng/ml	75
34) Benzo(e)pyrene	18.147	252	429	N.D.	
35) Benzo(a)pyrene	18.264	252	543	N.D.	
36) Perylene	18.462	252	2829	1.56 ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.793	276	417	N.D.	
39) Dibenz(a,h)anthracene	20.858	278	65	N.D.	
40) Benzo(g,h,i)perylene	21.336	276	523	N.D.	

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

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081919.D
Acq On : 08 Oct 2019 06:03 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-11
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 08 18:34:23 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(4) Naphthalene (T)

7.912min (+ 0.006) 2.58 ng/ml J

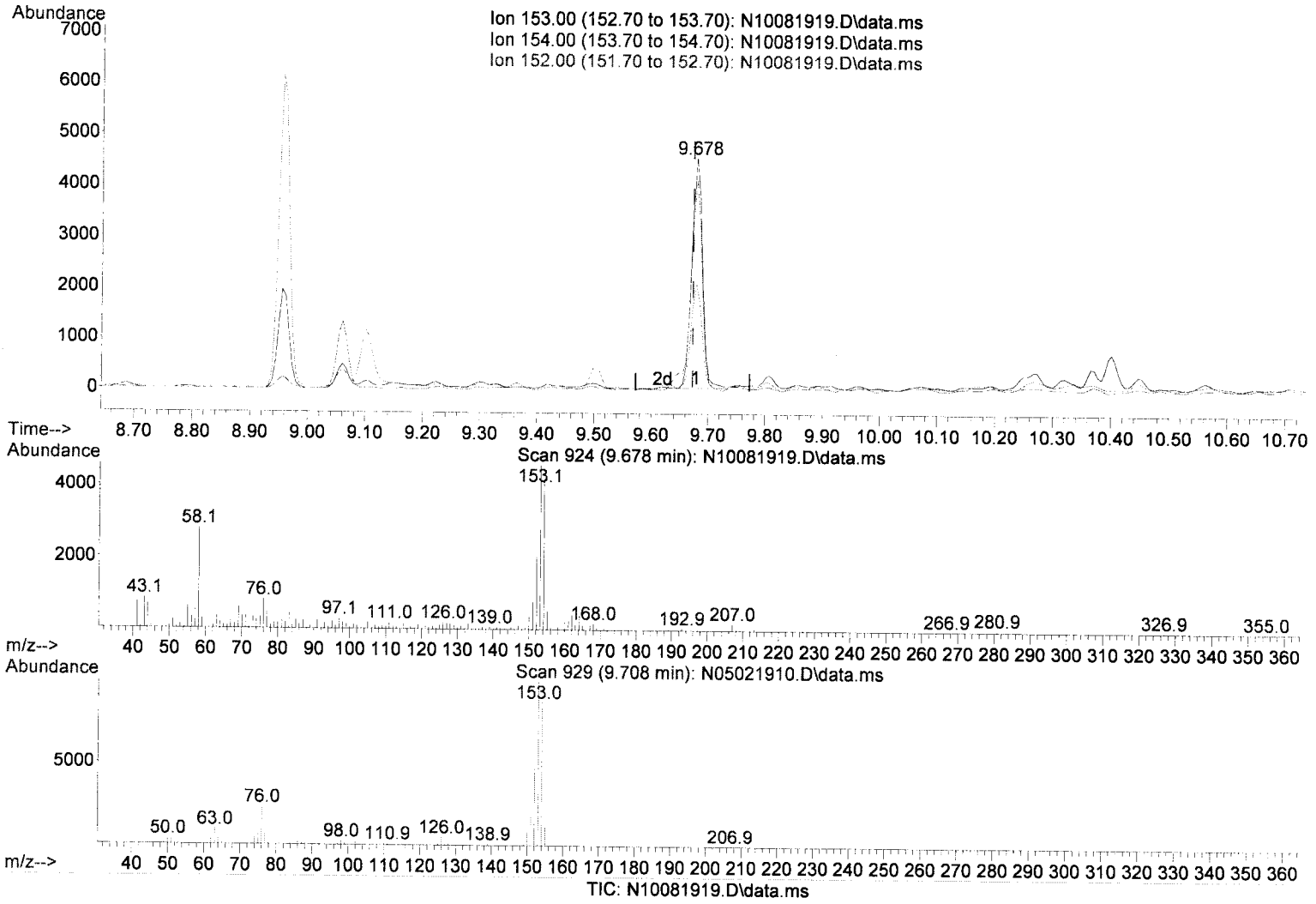
response 6526

Ion	Exp%	Act%
128.00	100.00	100.00
127.00	12.60	13.71
127.00	12.60	13.71
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081919.D
Acq On : 08 Oct 2019 06:03 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-11
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 08 18:34:23 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(13) Acenaphthene (T)

9.678min (+ 0.006) 3.22 ng/ml J

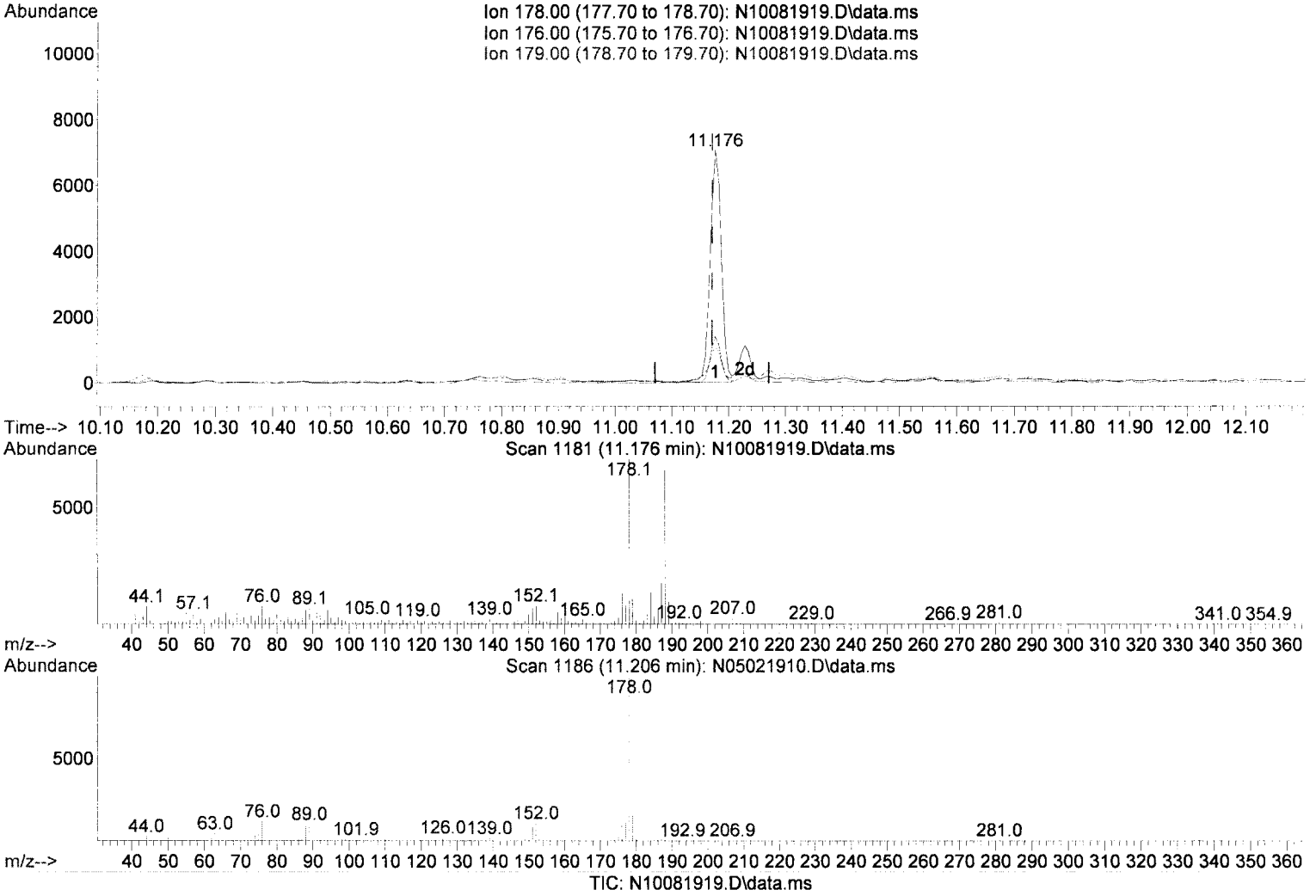
response 5911

Ion	Exp%	Act%
153.00	100.00	100.00
154.00	90.70	90.52
152.00	46.80	45.95
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081919.D
Acq On : 08 Oct 2019 06:03 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-11
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 08 18:34:23 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(19) Phenanthrene (T)

11.176min (+ 0.006) 3.55 ng/ml J

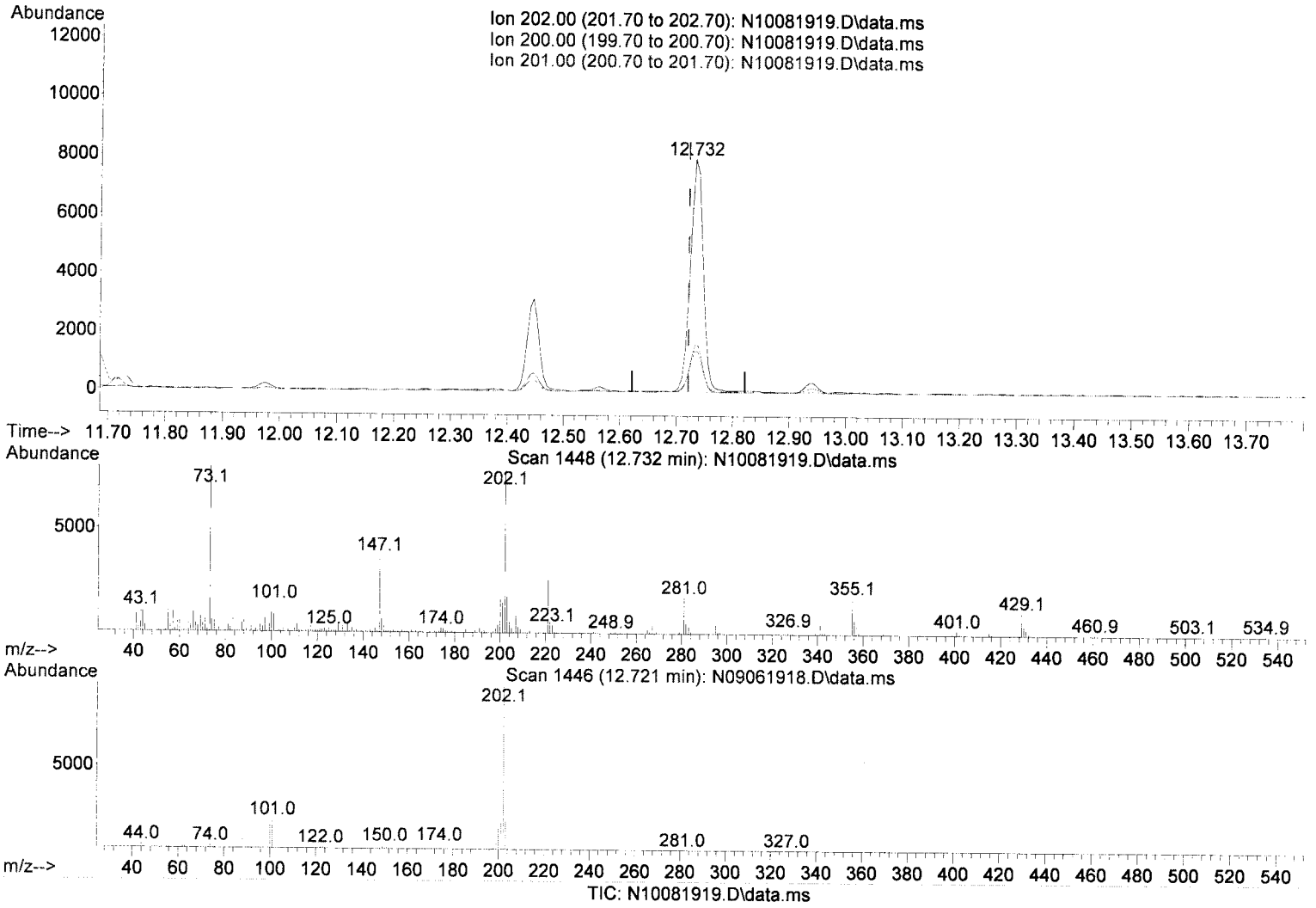
response 9602

Ion	Exp%	Act%
178.00	100.00	100.00
176.00	19.00	19.94
179.00	15.10	15.61
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081919.D
Acq On : 08 Oct 2019 06:03 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-11
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 08 18:34:23 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(25) Pyrene (T)

12.732min (+ 0.011) 4.75 ng/ml J

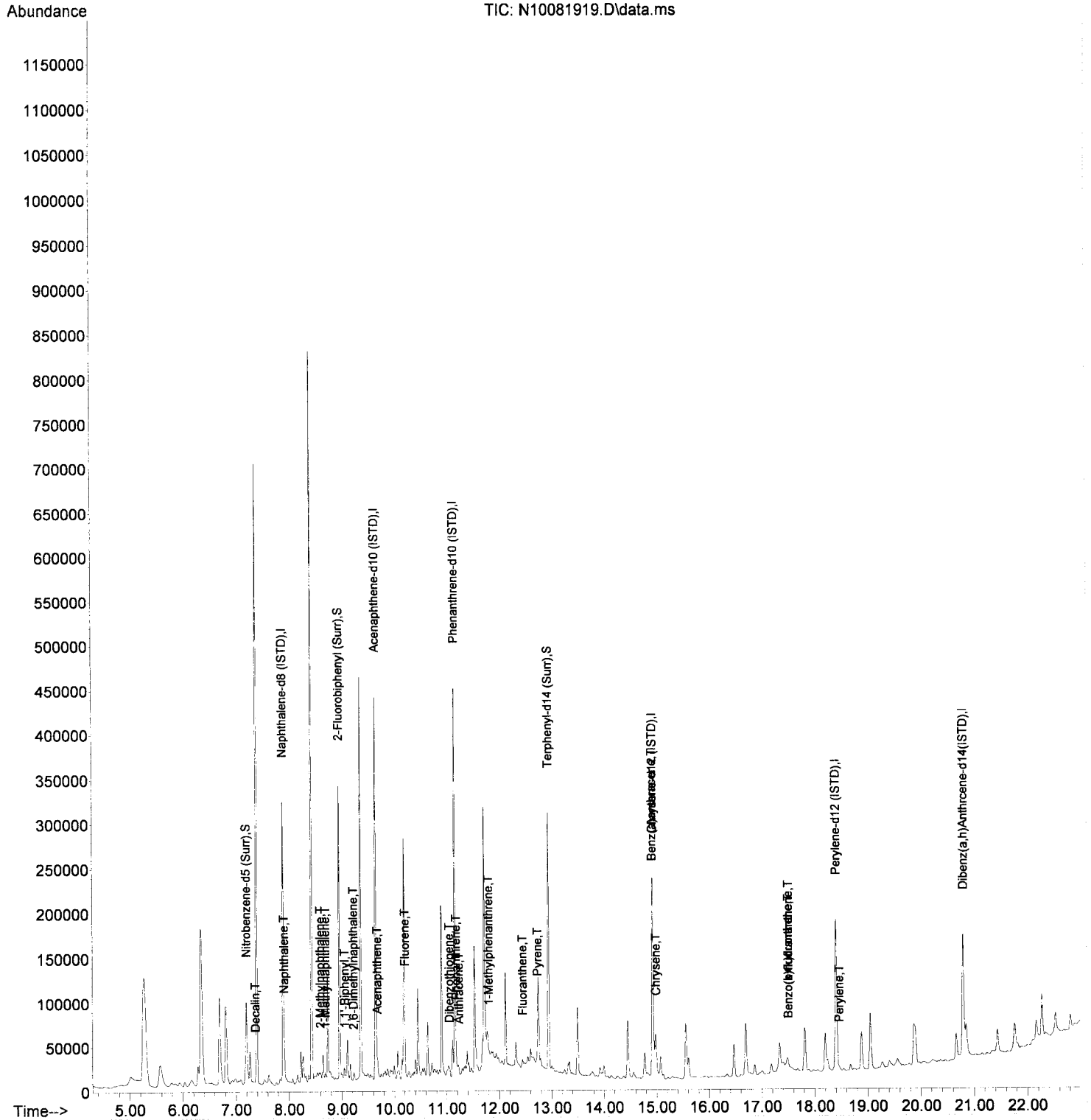
response 12734

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	20.70	20.68
201.00	16.80	18.26
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081919.D
Acq On : 08 Oct 2019 06:03 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-11
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 08 18:34:23 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1

AMS 10/9/19

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.889	136	226588	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.649	162	126163	100.00	ng/ml	0.01
17) Phenanthrene-d10 (ISTD)	11.153	188	223353	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.924	240	162274	100.00	ng/ml	0.02
29) Perylene-d12 (ISTD)	18.404	264	138222	100.00	ng/ml	0.03
37) Dibenz(a,h)Anthrcene-d...	20.794	292	114138	100.00	ng/ml	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.195	82	58895	78.22	ng/ml	0.01
10) 2-Fluorobiphenyl (Surr)	8.962	172	162006	86.07	ng/ml	0.01
11) Acenaphthylene d-8 (Surr)	9.492	160	2350	-1.00	ng/ml	0.01
26) Terphenyl-d14 (Surr)	12.943	244	161807	94.81	ng/ml	0.01
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.364	138	108	0.64	ng/ml#	2
4) Naphthalene	7.912	128	8030	(3.21)	ng/ml	98
5) 2-Methylnaphthalene	8.594	142	4061	1.92	ng/ml	98
6) 1-Methylnaphthalene	8.693	142	2453	1.16	ng/ml	92
7) 1,1'-Biphenyl	9.061	154	2580	0.91	ng/ml	95
8) 2,6-Dimethylnaphthalene	9.224	156	1749	0.84	ng/ml	97
12) Acenaphthylene	9.504	152	3179	1.16	ng/ml	92
13) Acenaphthene	9.678	153	8838	(4.93)	ng/ml	99
14) Dibenzofuran	9.853	168	722	N.D.		
15) 1,6,7-Trimethylnaphtha...	10.057	170	869	0.58	ng/ml#	12
16) Fluorene	10.203	166	8237	(4.49)	ng/ml	100
18) Dibenzothiopene	11.048	184	6632	2.84	ng/ml	98
19) Phenanthrene	11.176	178	13804	5.28	ng/ml	100
20) Anthracene	11.229	178	2416	0.99	ng/ml	94
21) Carbazole	11.392	167	652	N.D.		
22) 1-Methylphenanthrene	11.800	192	1465	0.81	ng/ml	100
23) Fluoranthene	12.447	202	16214	6.16	ng/ml	96
25) Pyrene	12.733	202	19673	7.76	ng/ml	99
27) Benz(a)anthracene	14.907	228	5058	(2.68)	ng/ml	71
28) Chrysene	14.983	228	6243	(3.50)	ng/ml	95
30) Benzo(b)fluoranthene	17.495	252	5254	(3.29)	ng/ml	94
31) Benzo(k)fluoranthene	~~17.495~~	252	6617	4.21	ng/ml	93
32) Benzo(b+k)fluoranthene	17.495	252	7498	4.60	ng/ml	93
34) Benzo(e)pyrene	18.142	252	3791	2.35	ng/ml	94
35) Benzo(a)pyrene	18.264	252	4945	(3.62)	ng/ml	91
36) Perylene	18.462	252	4320	2.57	ng/ml	97
38) Indeno(1,2,3-cd)Pyrene	20.794	276	3867	(2.75)	ng/ml	99
39) Dibenz(a,h)anthracene	20.852	278	464	N.D.		
40) Benzo(g,h,i)perylene	21.330	276	4443	(2.98)	ng/ml	91

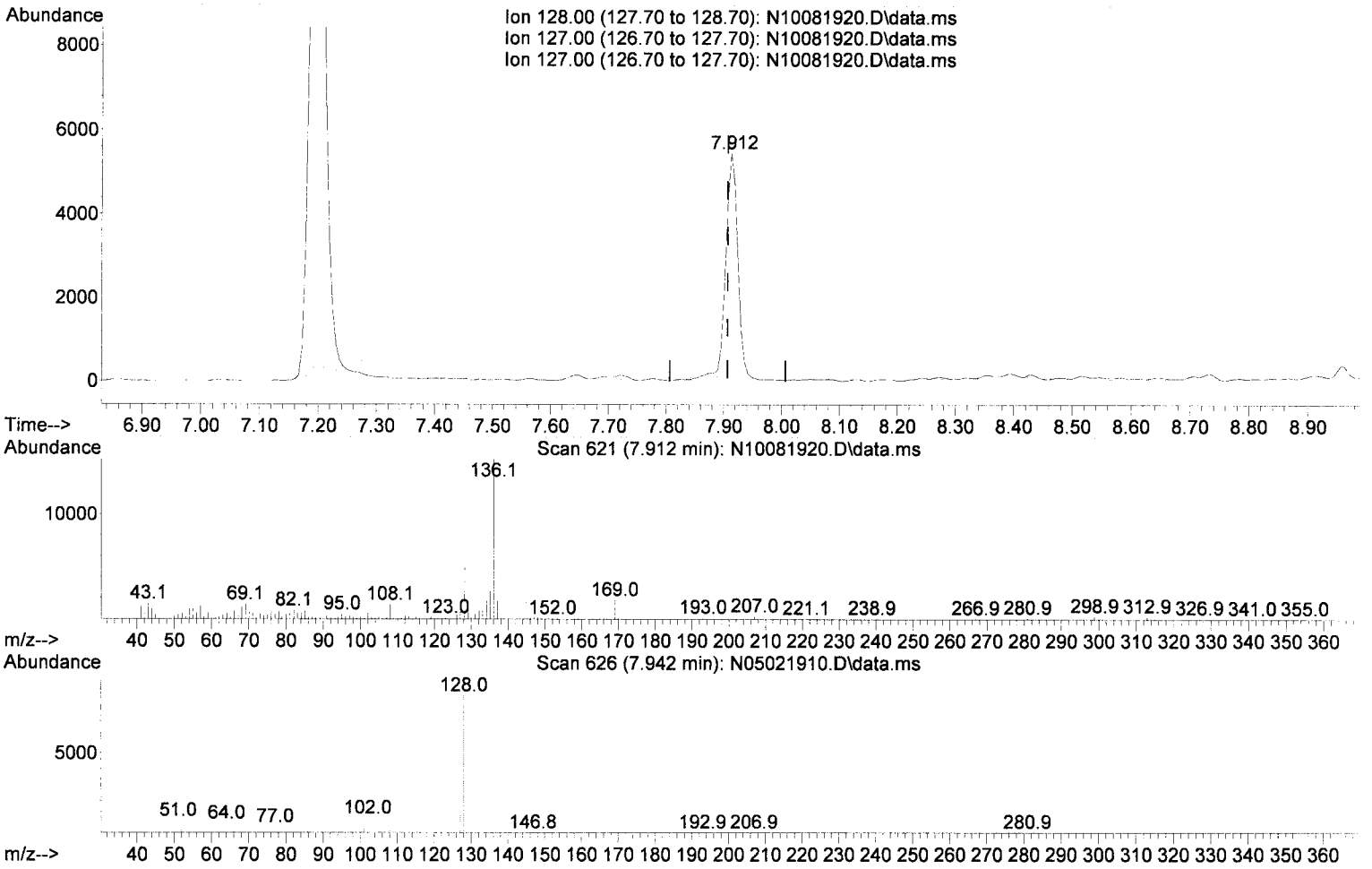
MI-ND

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

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10081920.D\data.ms

(4) Naphthalene (T)

7.912min (+ 0.006) 3.21 ng/ml

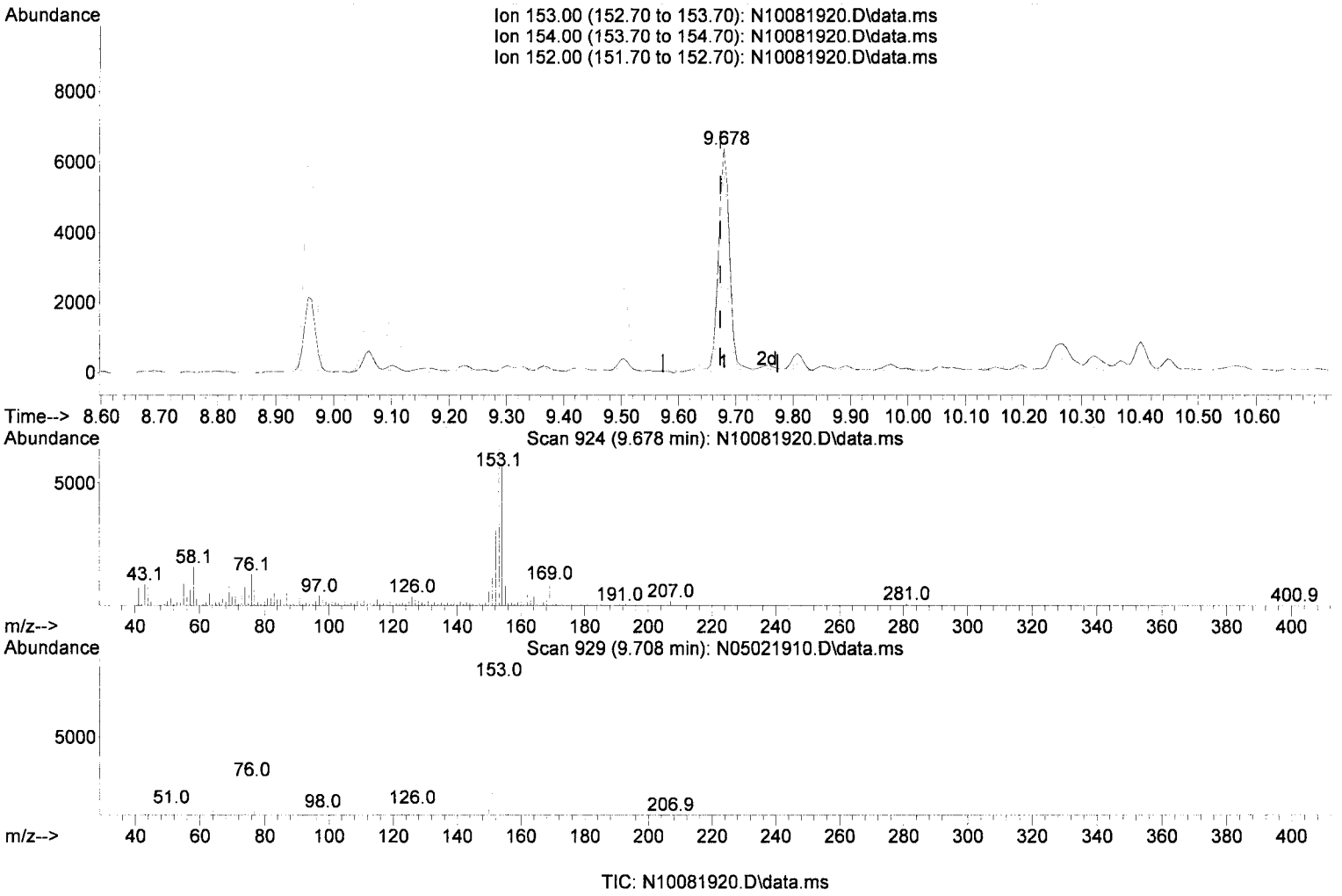
response 8030

Ion	Exp%	Act%
128.00	100.00	100.00
127.00	12.60	13.38
127.00	12.60	13.38
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10081920.D\data.ms

(13) Acenaphthene (T)

9.678min (+ 0.006) 4.93 ng/ml

response 8838

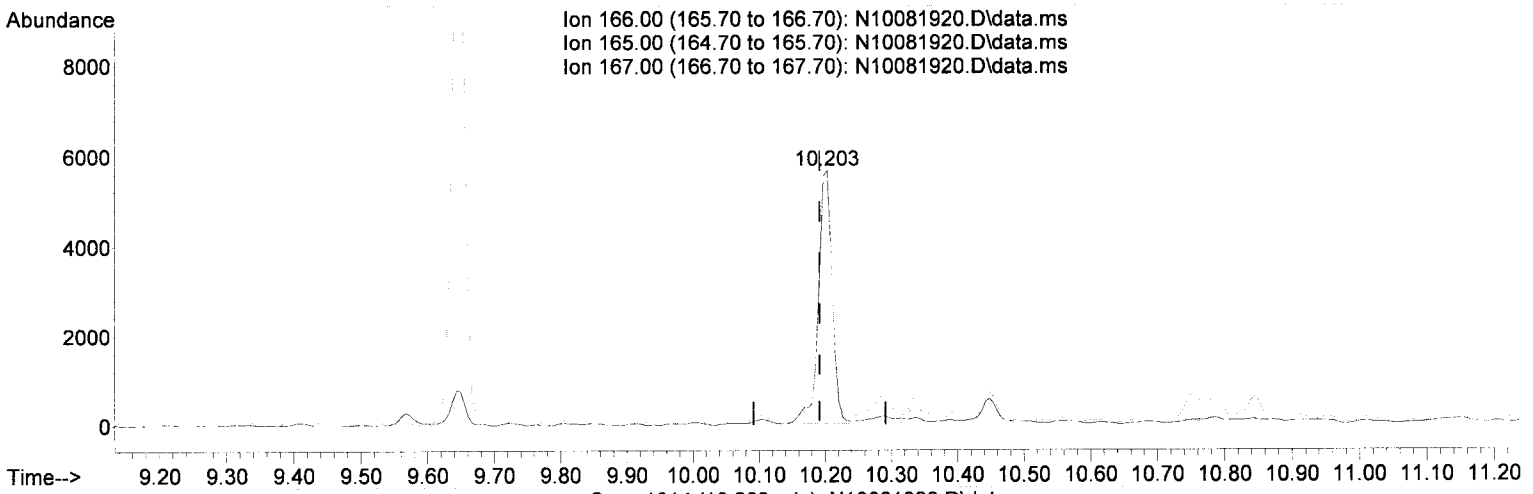
Ion	Exp%	Act%
153.00	100.00	100.00
154.00	90.70	90.20
152.00	46.80	48.03
0.00	0.00	0.00

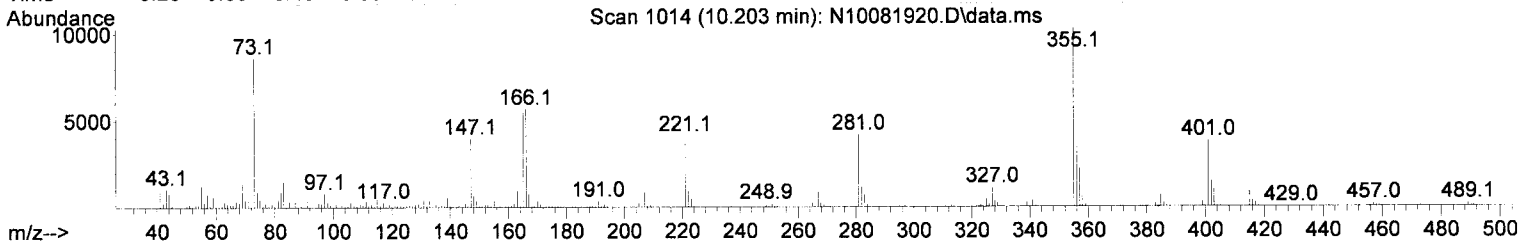
J

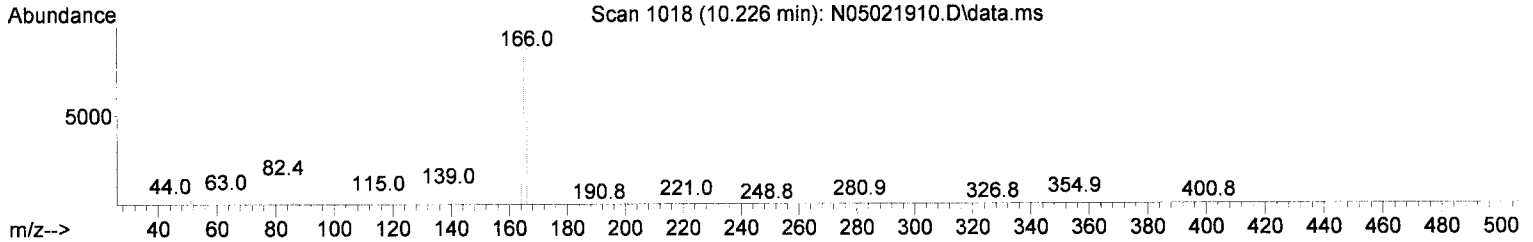
Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14







TIC: N10081920.D\data.ms

(16) Fluorene (T)

10.203min (+ 0.012) 4.49 ng/ml

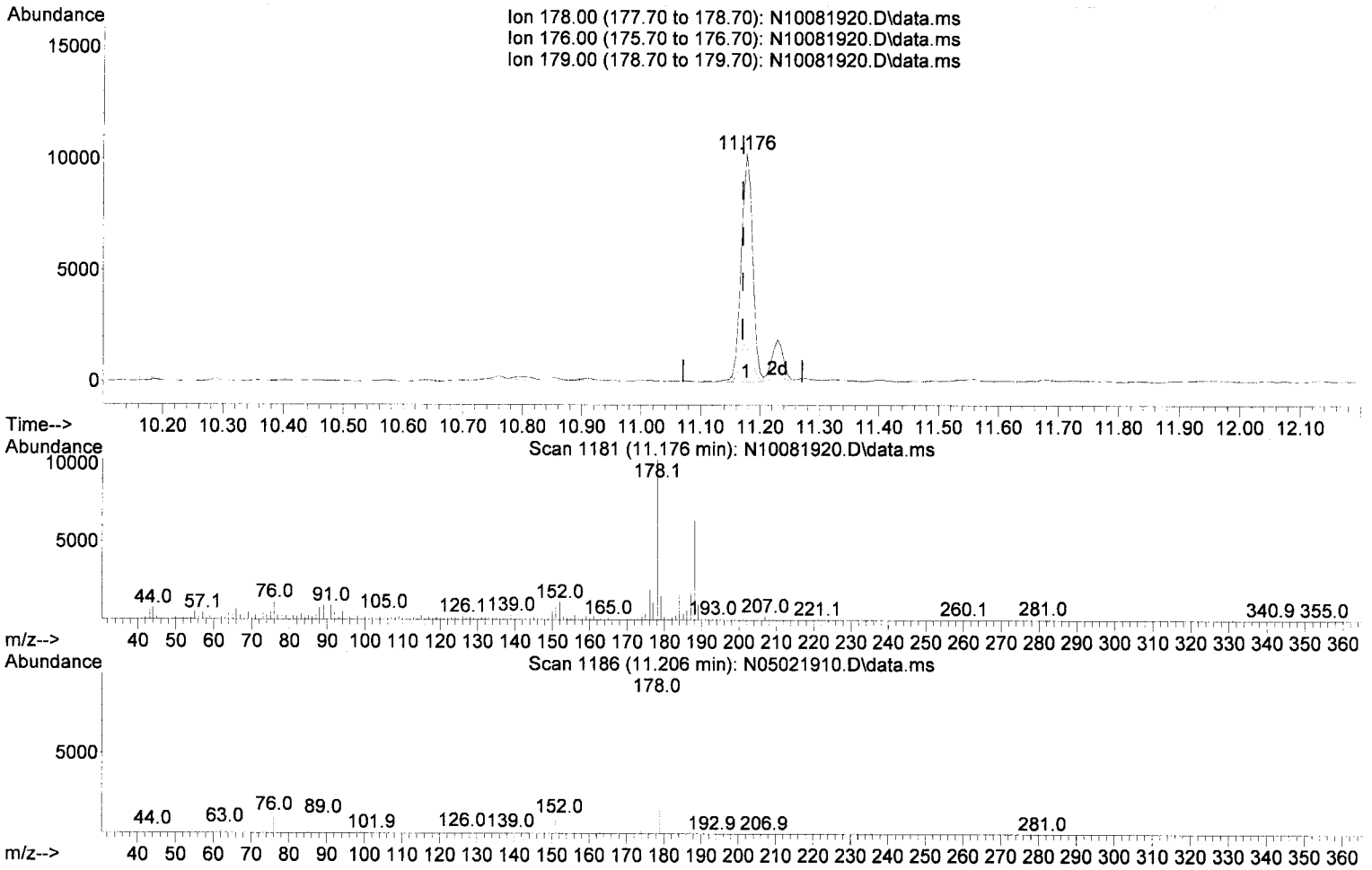
response 8237

Ion	Exp%	Act%
166.00	100.00	100.00
165.00	95.70	96.12
167.00	13.60	13.28
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10081920.D\data.ms

(19) Phenanthrene (T)

11.176min (+ 0.006) 5.28 ng/ml

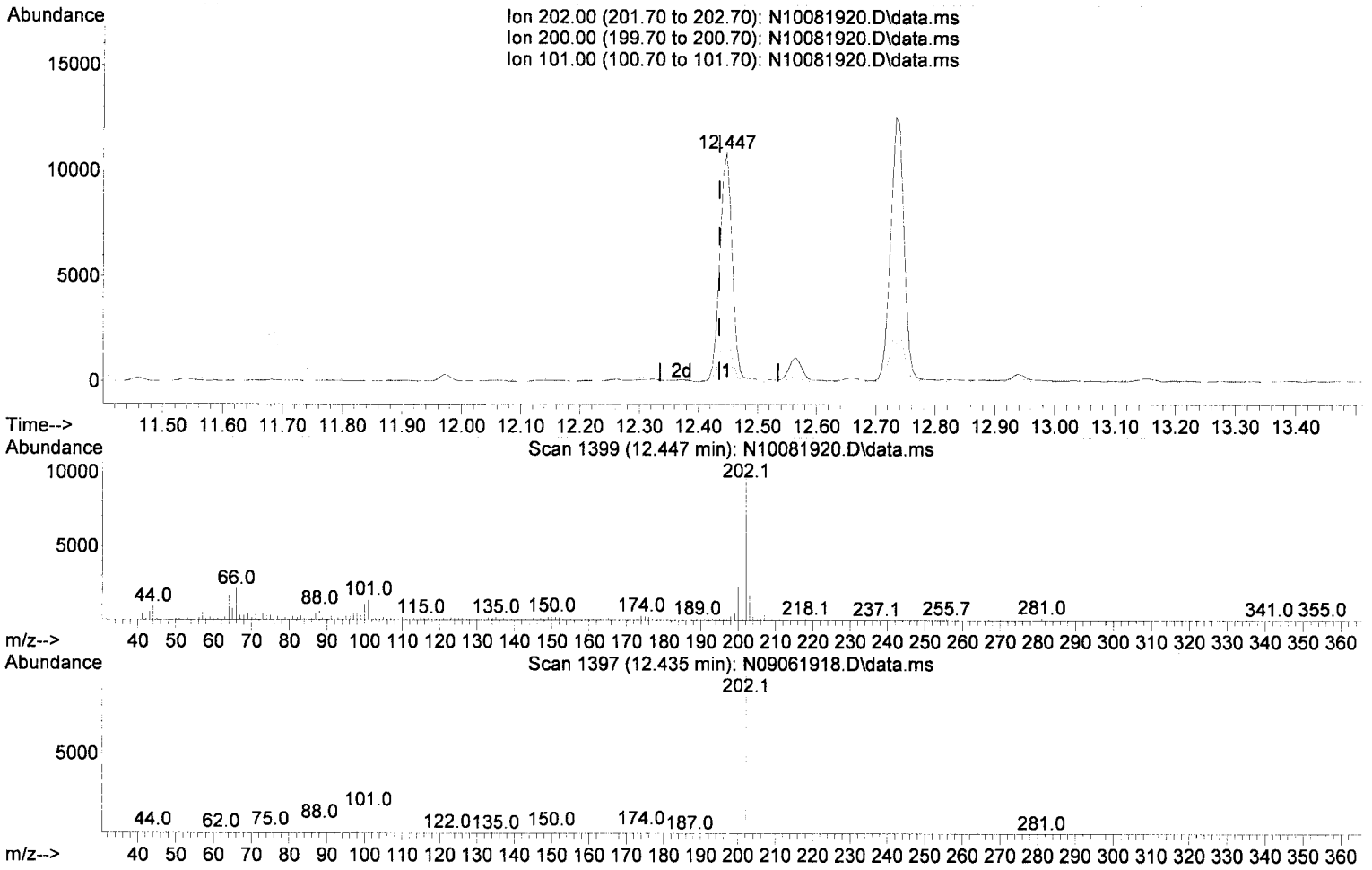
response 13804

Ion	Exp%	Act%
178.00	100.00	100.00
176.00	19.00	18.92
179.00	15.10	15.24
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10081920.D\data.ms

(23) Fluoranthene (T)

12.447min (+ 0.012) 6.16 ng/ml

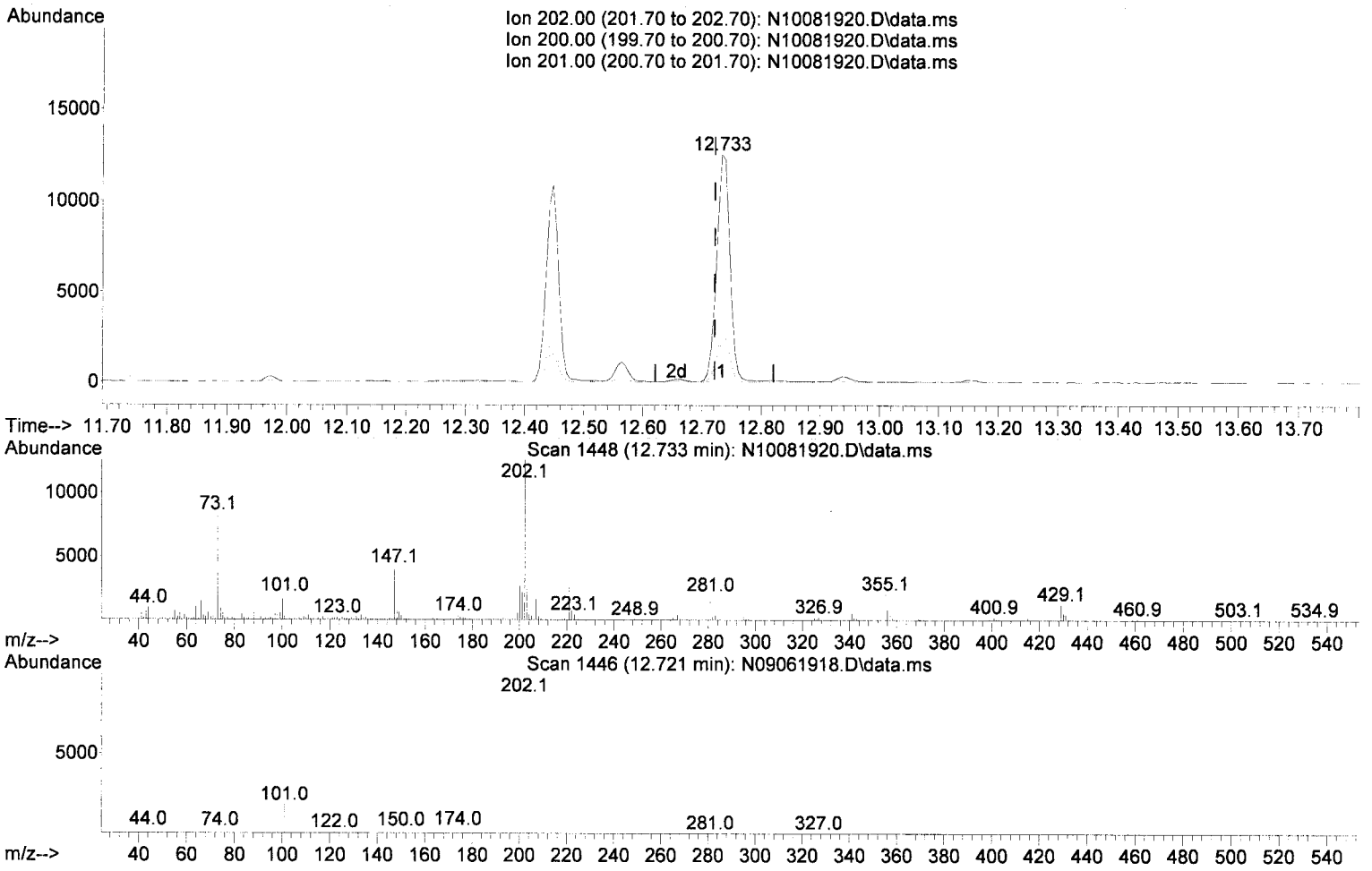
response 16214

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	19.70	20.84
101.00	15.30	12.86
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10081920.D\data.ms

(25) Pyrene (T)

12.733min (+ 0.012) 7.76 ng/ml

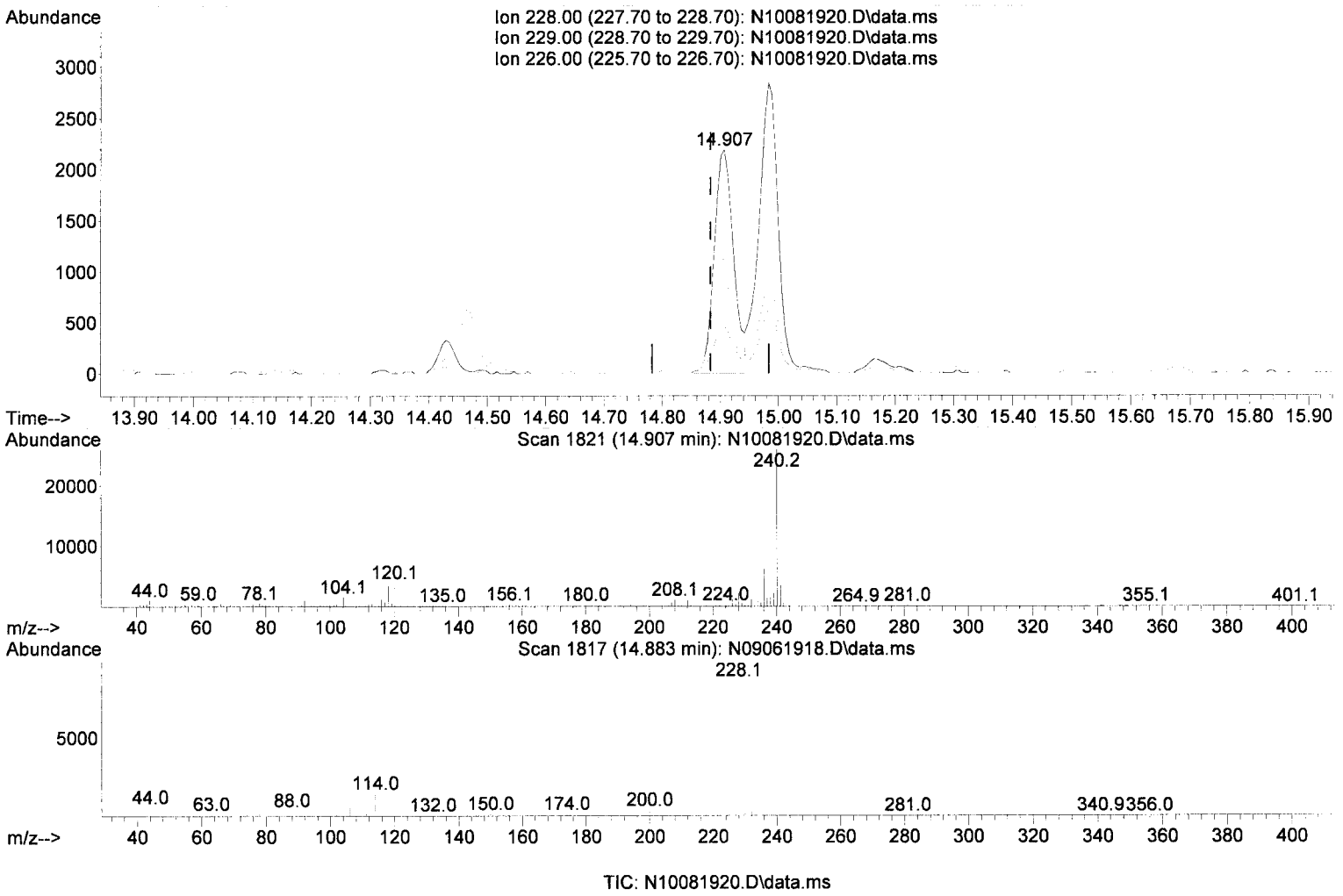
response 19673

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	20.70	21.02
201.00	16.80	17.26
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10081920.D\data.ms

(27) Benz(a)anthracene (T)

14.907min (+ 0.024) 2.68 ng/ml

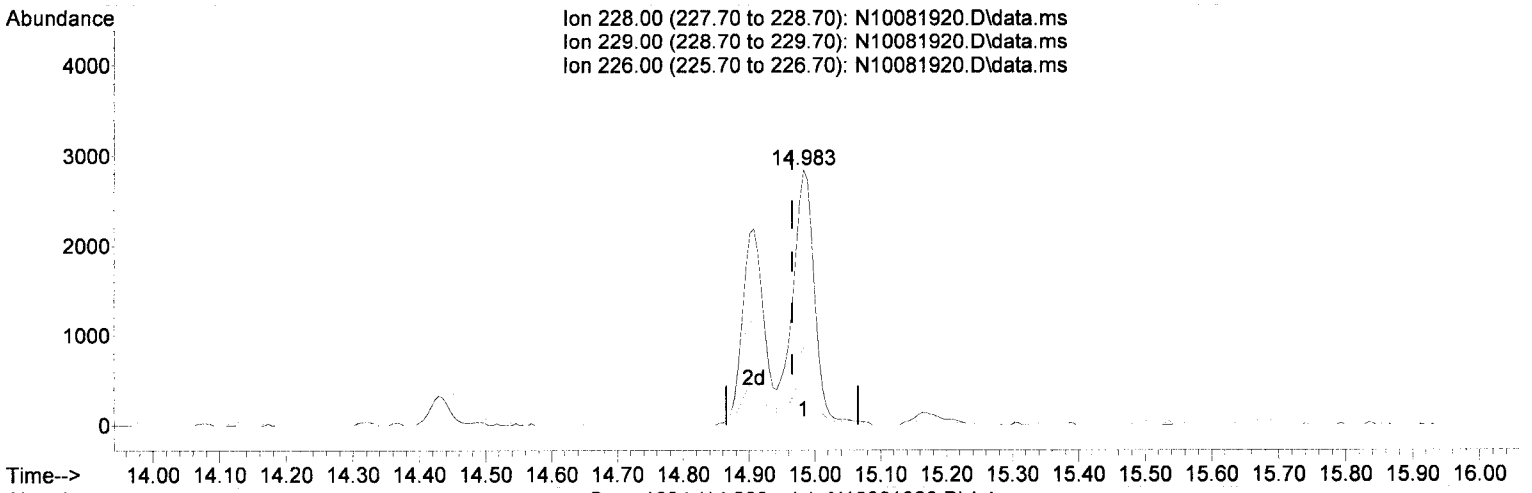
response 5058

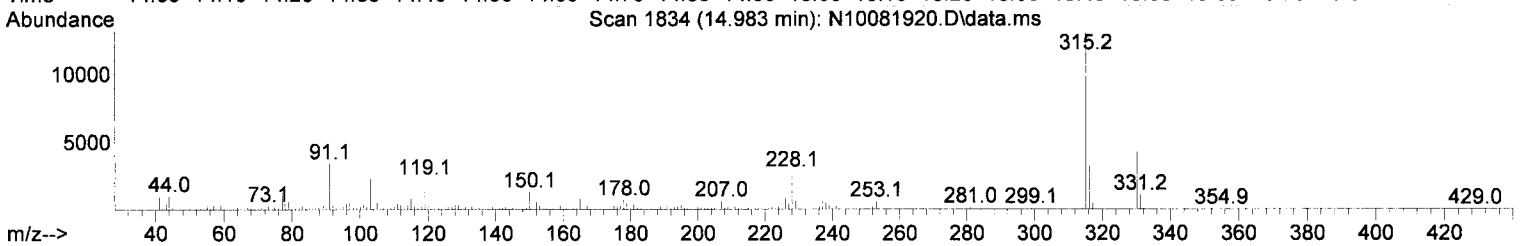
Ion	Exp%	Act%
228.00	100.00	100.00
229.00	19.40	21.47
226.00	26.20	50.07
0.00	0.00	0.00

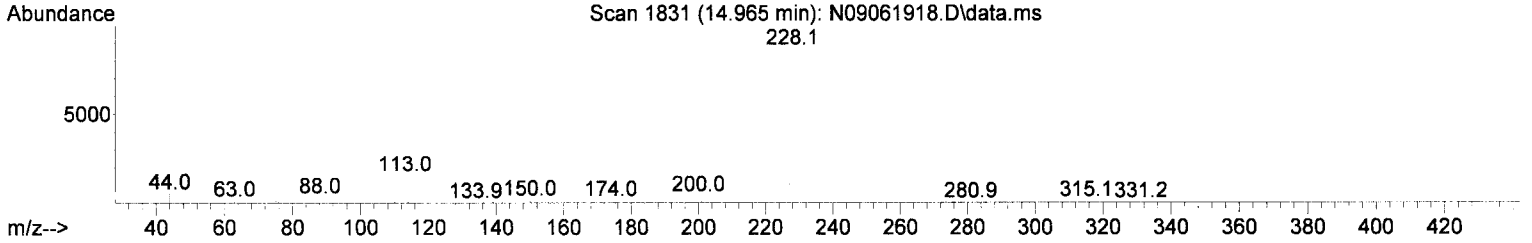
Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14







TIC: N10081920.D\data.ms

(28) Chrysene (T)

14.983min (+ 0.018) 3.50 ng/ml

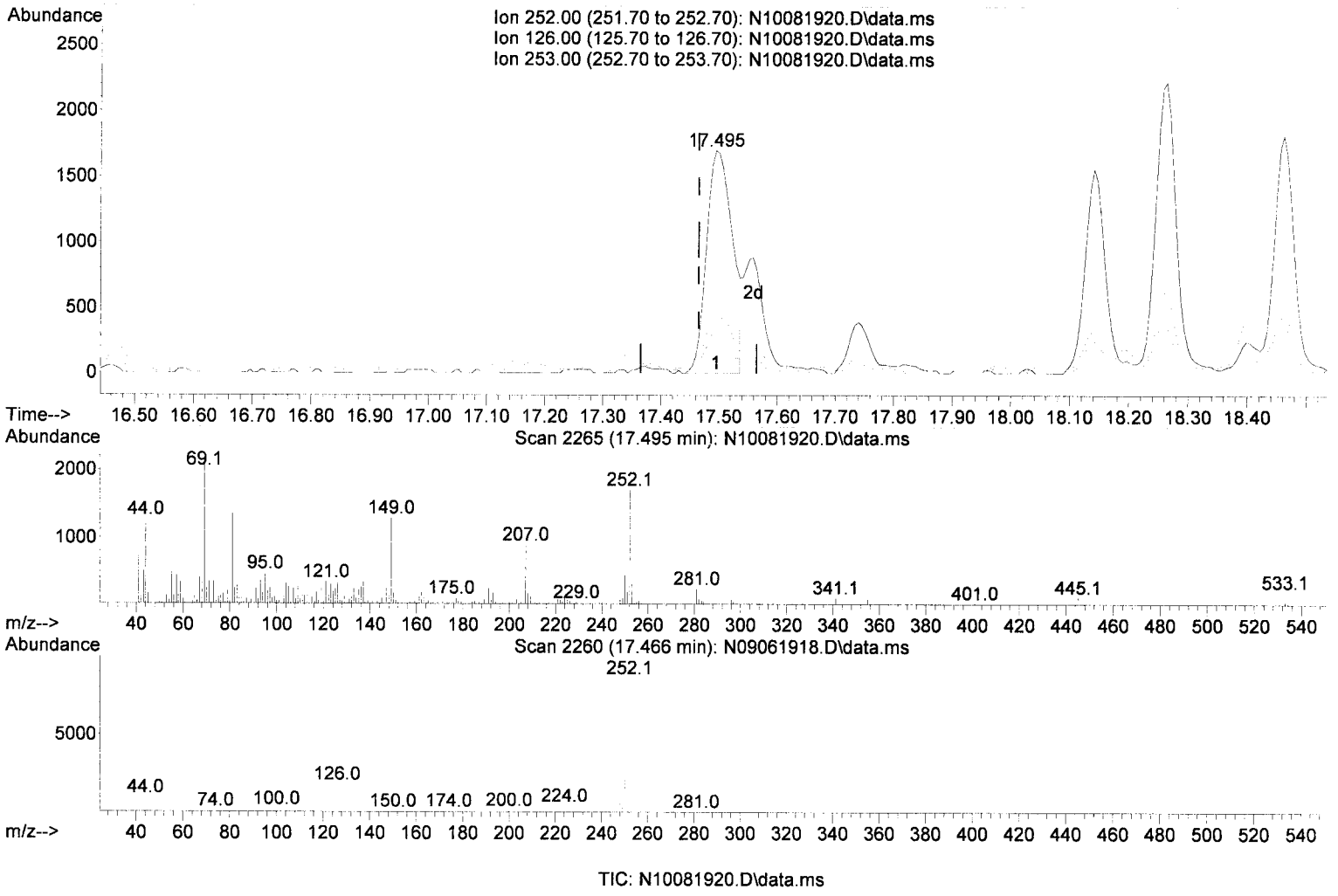
response 6243

Ion	Exp%	Act%
228.00	100.00	100.00
229.00	19.60	22.43
226.00	28.60	30.38
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10081920.D\data.ms

(30) Benzo(b)fluoranthene (T)

17.495min (+ 0.030) 3.29 ng/ml

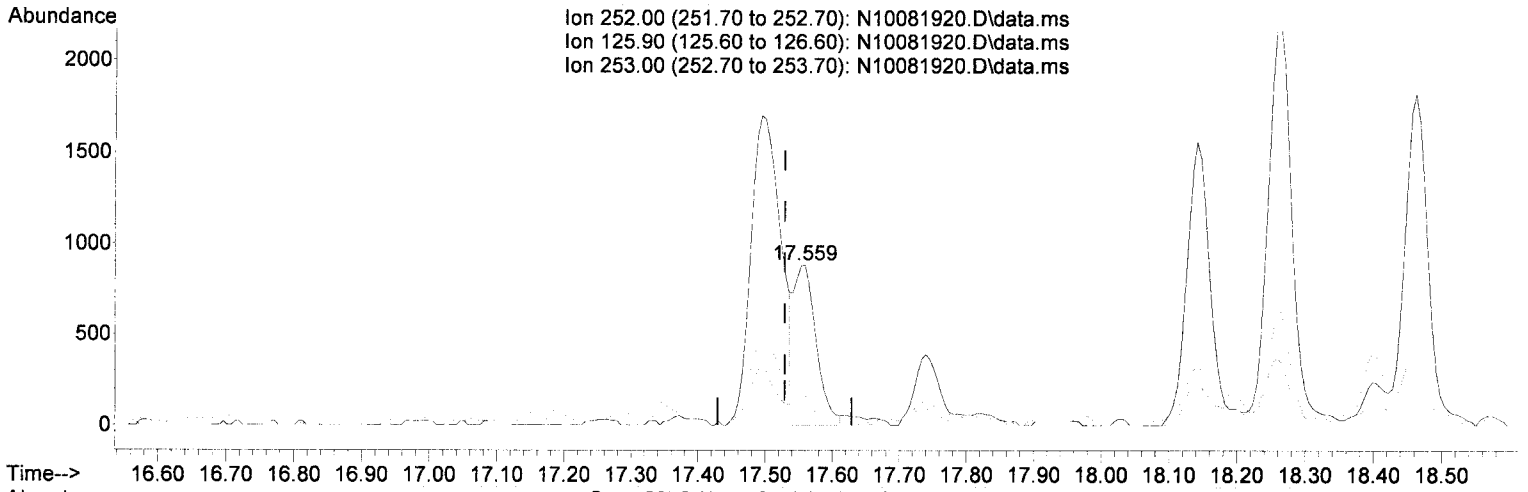
response 5254

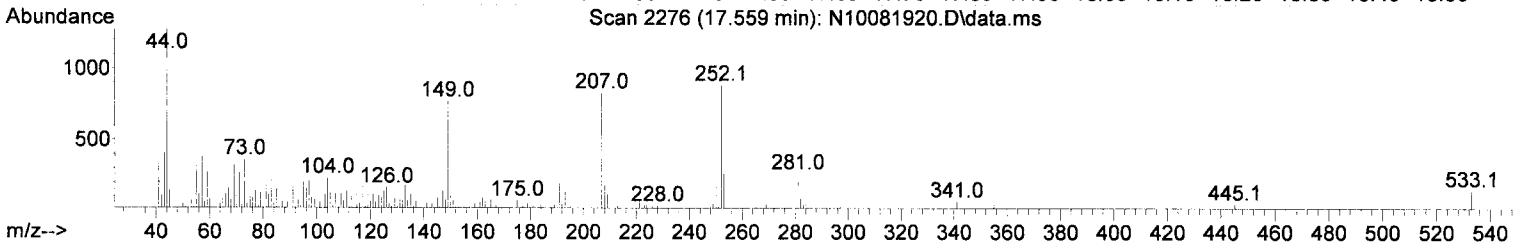
Ion	Exp%	Act%
252.00	100.00	100.00
126.00	20.00	18.98
253.00	21.10	25.21
0.00	0.00	0.00

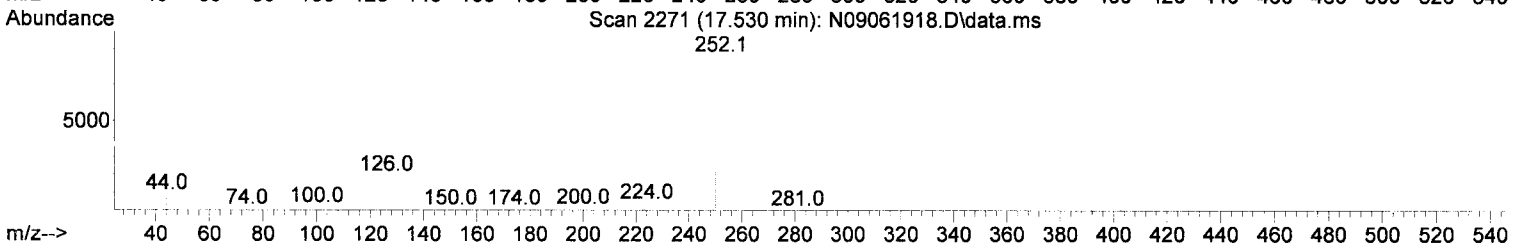
Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14







TIC: N10081920.D\data.ms

(31) Benzo(k)fluoranthene (T)

17.559min (+ 0.030) 1.32 ng/ml m

response 2080

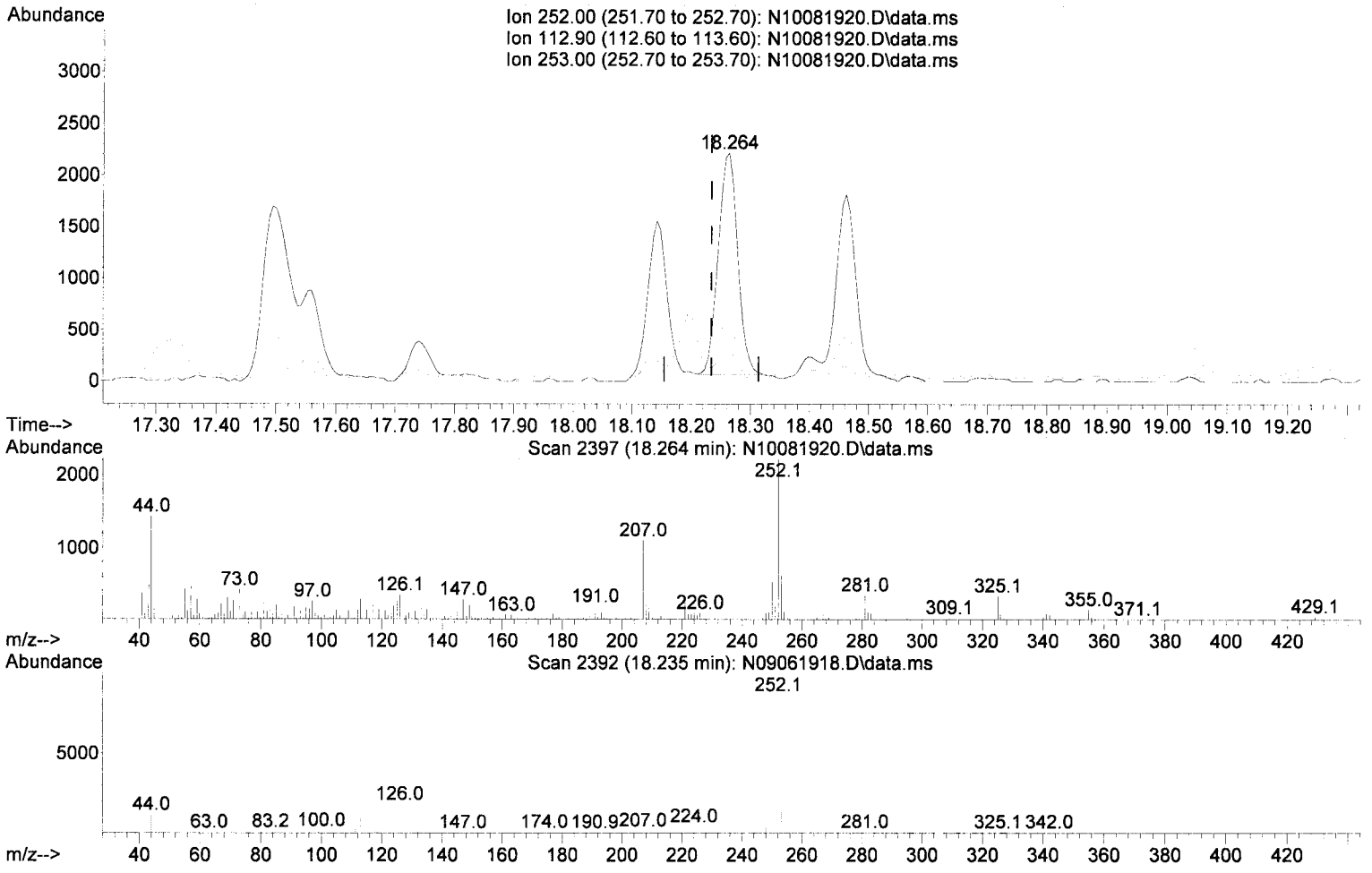
Ion	Exp%	Act%
252.00	100.00	100.00
125.90	22.10	18.59
253.00	21.50	29.59
0.00	0.00	0.00

AMS 10/9/19

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10081920.D\data.ms

(35) Benzo(a)pyrene (T)

18.264min (+ 0.030) 3.62 ng/ml

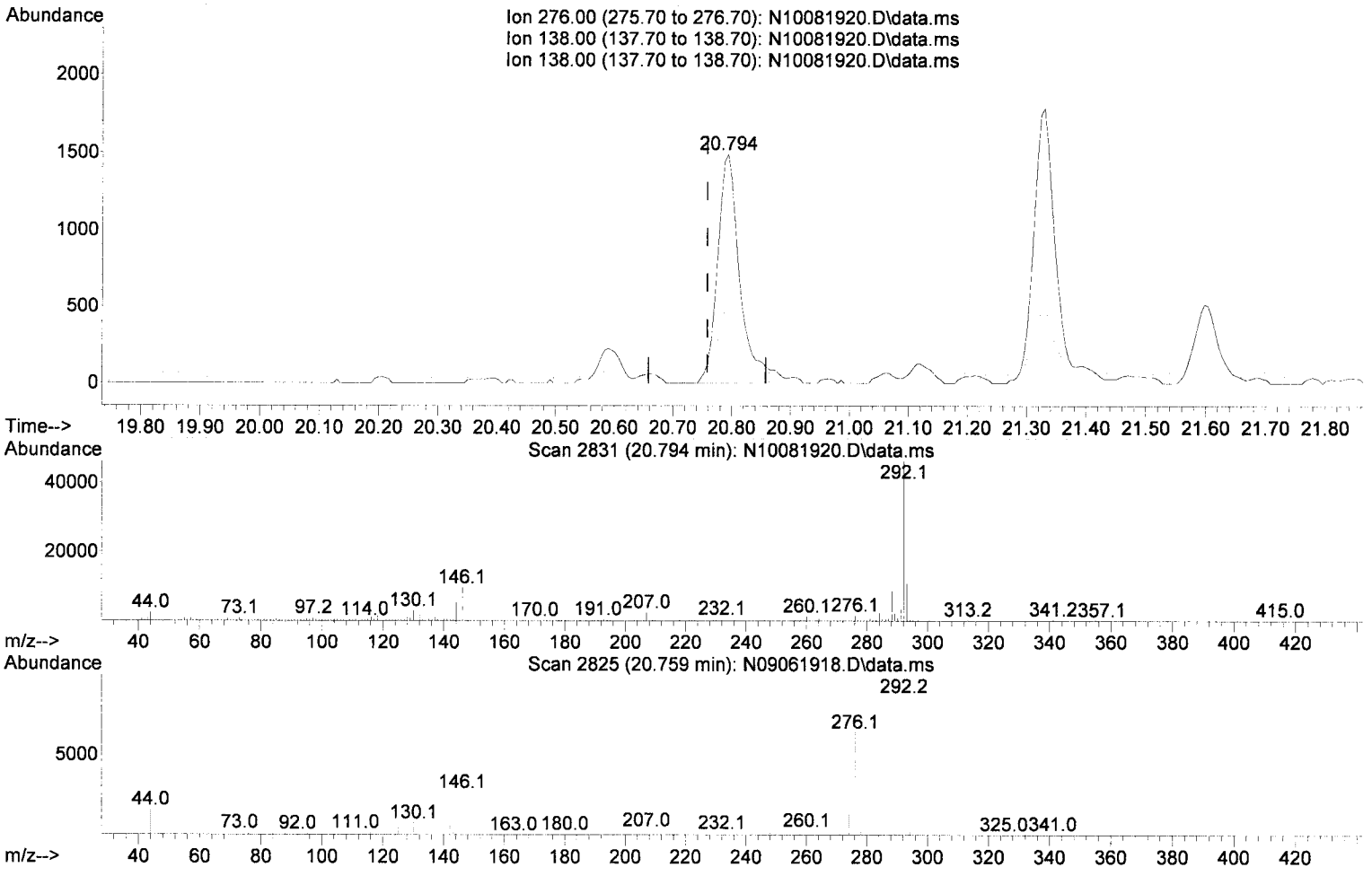
response 4945

Ion	Exp%	Act%
252.00	100.00	100.00
112.90	12.70	13.15
253.00	21.90	28.23
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10081920.D\data.ms

(38) Indeno(1,2,3-cd)Pyrene (T)

20.794min (+ 0.036) 2.75 ng/ml

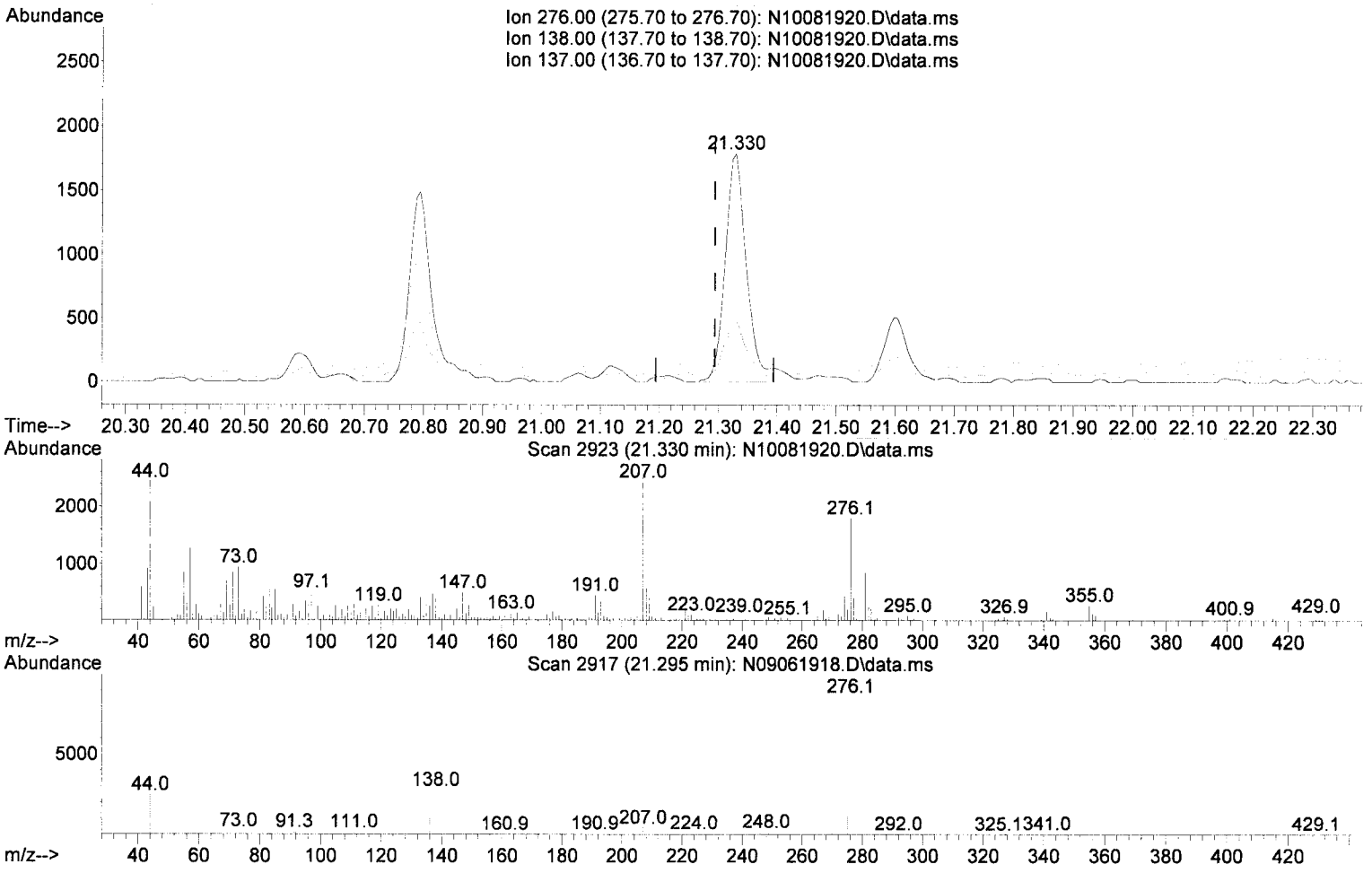
response 3867

Ion	Exp%	Act%
276.00	100.00	100.00
138.00	31.60	31.32
138.00	31.60	31.32
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10081920.D\data.ms

(40) Benzo(g,h,i)perylene (T)

21.330min (+ 0.036) 2.98 ng/ml

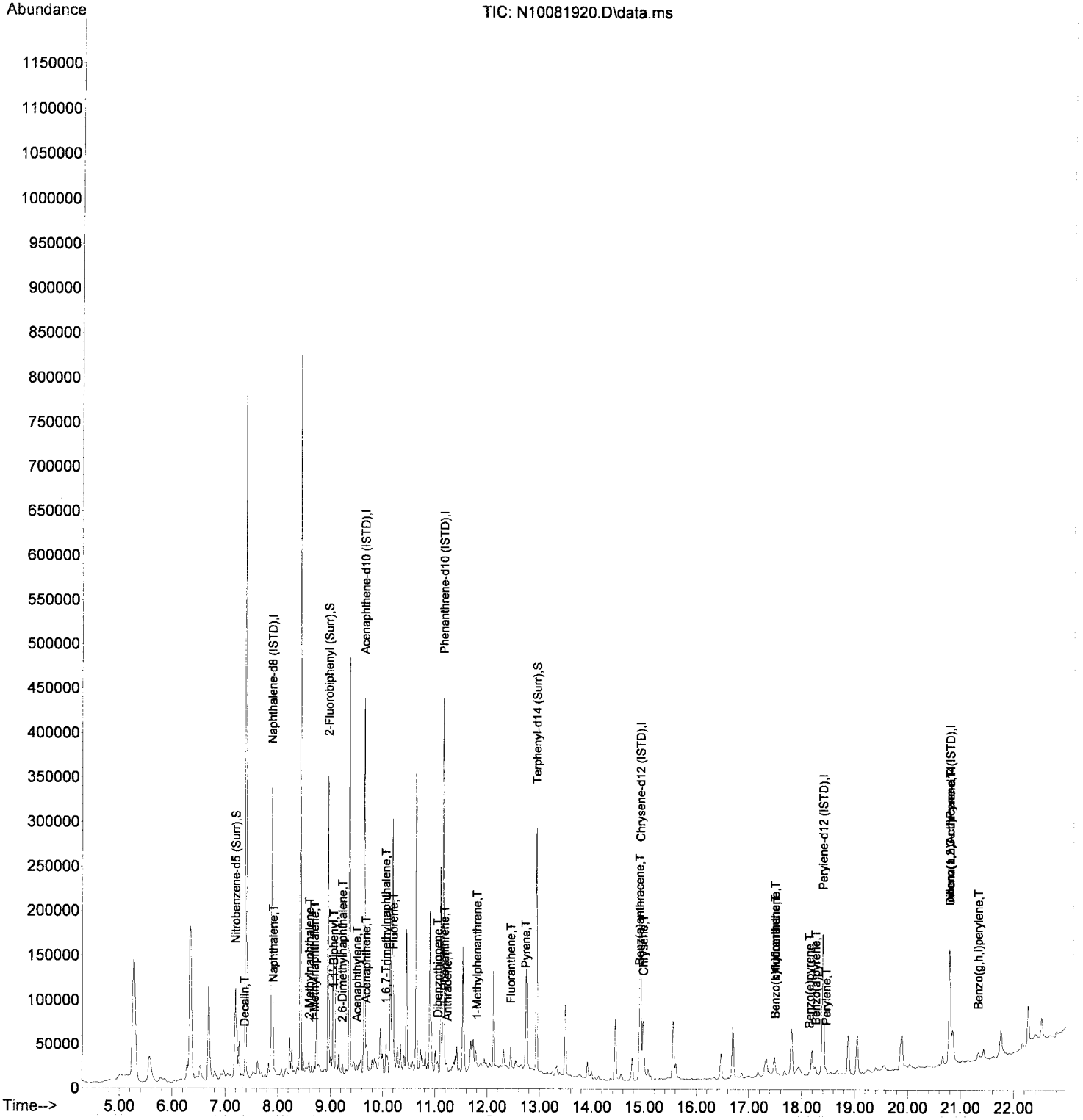
response 4443

Ion	Exp%	Act%
276.00	100.00	100.00
138.00	34.40	26.94
137.00	28.60	26.61
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081920.D
Acq On : 08 Oct 2019 06:35 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-13
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 09 07:42:10 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081921.D
Acq On : 08 Oct 2019 07:08 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-14
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 21 Sample Multiplier: 1

HEM 10/9/19

Quant Time: Oct 09 07:42:13 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

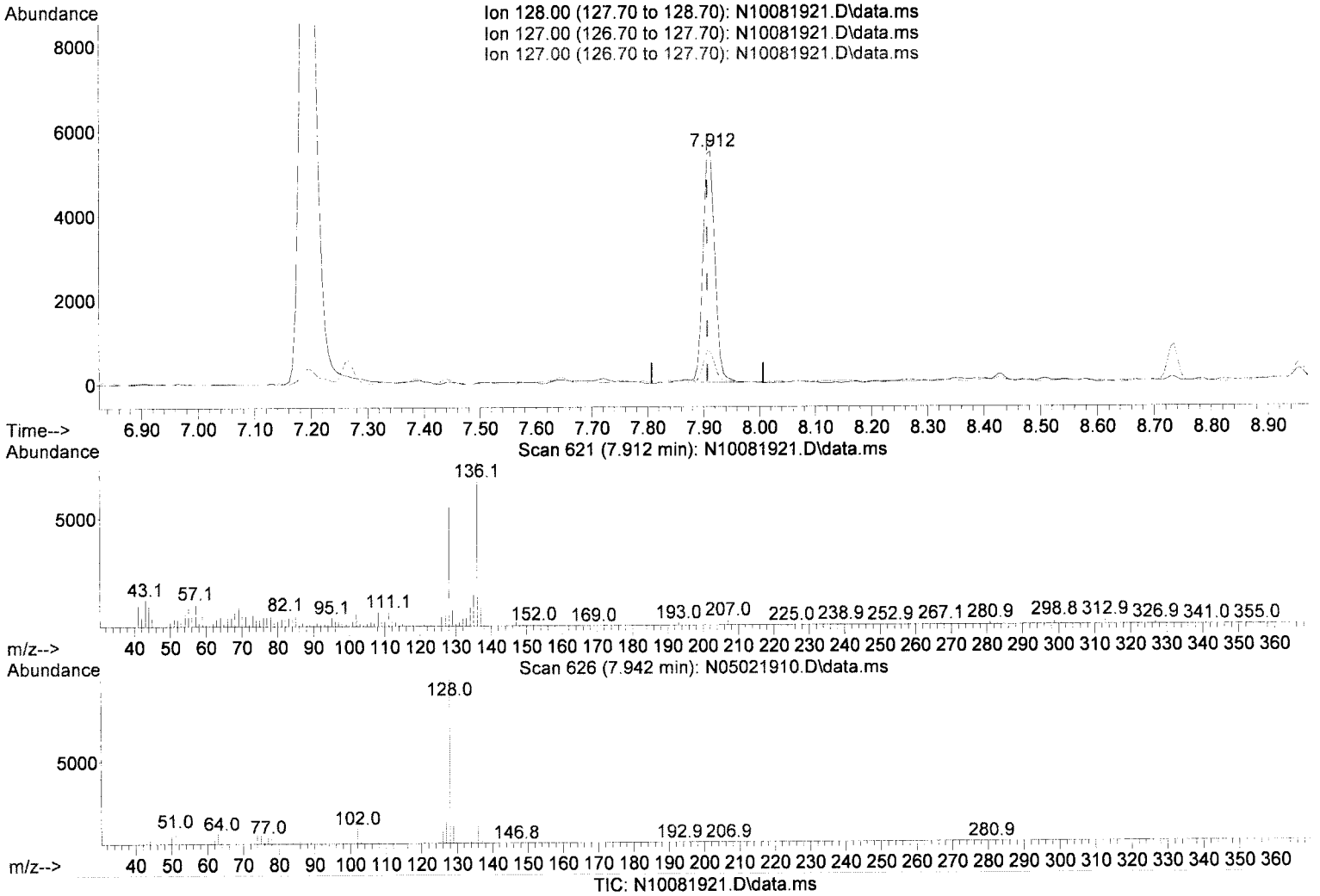
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Naphthalene-d8 (ISTD)	7.889	136	229825	100.00	ng/ml	0.00	
9) Acenaphthene-d10 (ISTD)	9.643	162	128435	100.00	ng/ml	0.00	
17) Phenanthrene-d10 (ISTD)	11.153	188	228998	100.00	ng/ml	0.00	
24) Chrysene-d12 (ISTD)	14.924	240	168170	100.00	ng/ml	0.02	
29) Perylene-d12 (ISTD)	18.398	264	146716	100.00	ng/ml	0.02	
37) Dibenz(a,h)Anthrcene-d...	20.788	292	123690	100.00	ng/ml	0.02	
System Monitoring Compounds							
2) Nitrobenzene-d5 (Surr)	7.195	82	62159	81.39	ng/ml	0.01	
10) 2-Fluorobiphenyl (Surr)	8.956	172	163620	85.39	ng/ml	0.00	
11) Acenaphthylene d-8 (Surr)	9.486	160	2301	-1.00	ng/ml	0.00	
26) Terphenyl-d14 (Surr)	12.937	244	163104	92.22	ng/ml	0.00	
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml		
Target Compounds						Qvalue	
3) Decalin	7.353	138	75	0.44	ng/ml#	44	
4) Naphthalene	7.912	128	8223	(3.24)	ng/ml	97	J
5) 2-Methylnaphthalene	8.594	142	3150	1.47	ng/ml	95	
6) 1-Methylnaphthalene	8.693	142	1797	0.84	ng/ml	92	
7) 1,1'-Biphenyl	9.055	154	1956	0.68	ng/ml	91	
8) 2,6-Dimethylnaphthalene	9.224	156	1207	0.57	ng/ml	98	
12) Acenaphthylene	9.504	152	960	N.D.			
13) Acenaphthene	9.678	153	8175	(4.48)	ng/ml	98	J
14) Dibenzofuran	9.847	168	706	N.D.			
15) 1,6,7-Trimethylnaphtha...	10.057	170	620	0.40	ng/ml#	1	
16) Fluorene	10.197	166	4097	2.19	ng/ml	98	
18) Dibenzothiopene	11.048	184	5593	2.34	ng/ml	98	
19) Phenanthrene	11.176	178	10552	(3.94)	ng/ml	98	J
20) Anthracene	11.229	178	1616	0.65	ng/ml	87	
21) Carbazole	11.392	167	463	N.D.			
22) 1-Methylphenanthrene	11.783	192	1301	0.70	ng/ml#	10	
23) Fluoranthene	12.441	202	6579	2.44	ng/ml	98	
25) Pyrene	12.733	202	15111	5.75	ng/ml	99	
27) Benz(a)anthracene	14.913	228	1193	0.61	ng/ml	88	
28) Chrysene	14.983	228	1094	0.59	ng/ml	83	
30) Benzo(b)fluoranthene	17.495	252	909	0.54	ng/ml	70	
31) Benzo(k)fluoranthene	17.553	252	326	N.D.			
32) Benzo(b+k)fluoranthene	17.495	252	1715	0.99	ng/ml	74	
34) Benzo(e)pyrene	18.142	252	603	N.D.			
35) Benzo(a)pyrene	18.258	252	785	0.54	ng/ml	73	
36) Perylene	18.456	252	5322	(2.98)	ng/ml	99	J
38) Indeno(1,2,3-cd)Pyrene	20.788	276	686	0.45	ng/ml#	23	
39) Dibenz(a,h)anthracene	20.852	278	106	N.D.			
40) Benzo(g,h,i)perylene	21.330	276	843	0.52	ng/ml	75	

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

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081921.D
Acq On : 08 Oct 2019 07:08 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-14
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 09 07:42:13 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(4) Naphthalene (T)

7.912min (+ 0.006) 3.24 ng/ml

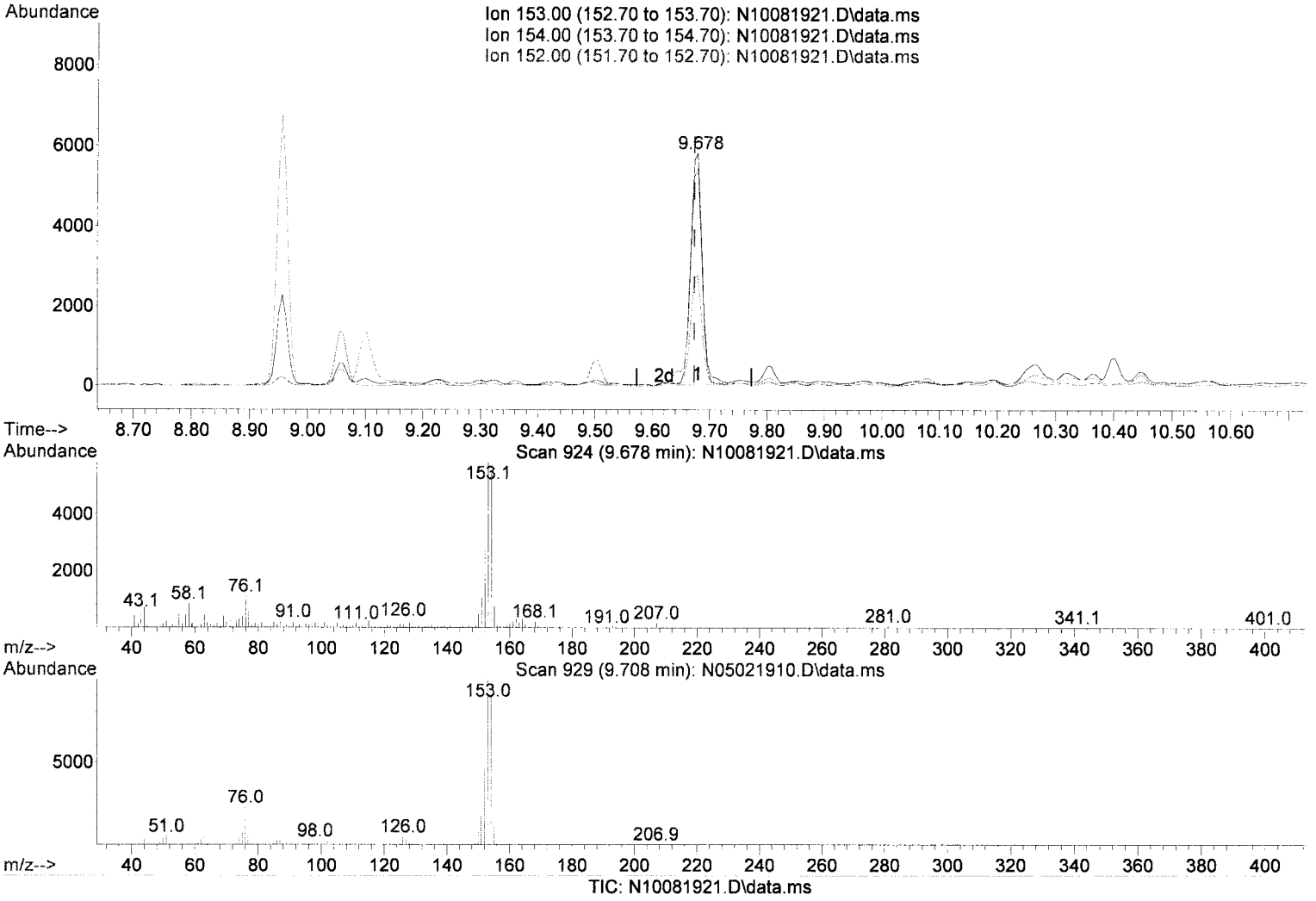
response 8223

Ion	Exp%	Act%
128.00	100.00	100.00
127.00	12.60	13.61
127.00	12.60	13.61
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081921.D
Acq On : 08 Oct 2019 07:08 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-14
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 09 07:42:13 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10081921.D\data.ms

(13) Acenaphthene (T)

9.678min (+ 0.006) 4.48 ng/ml

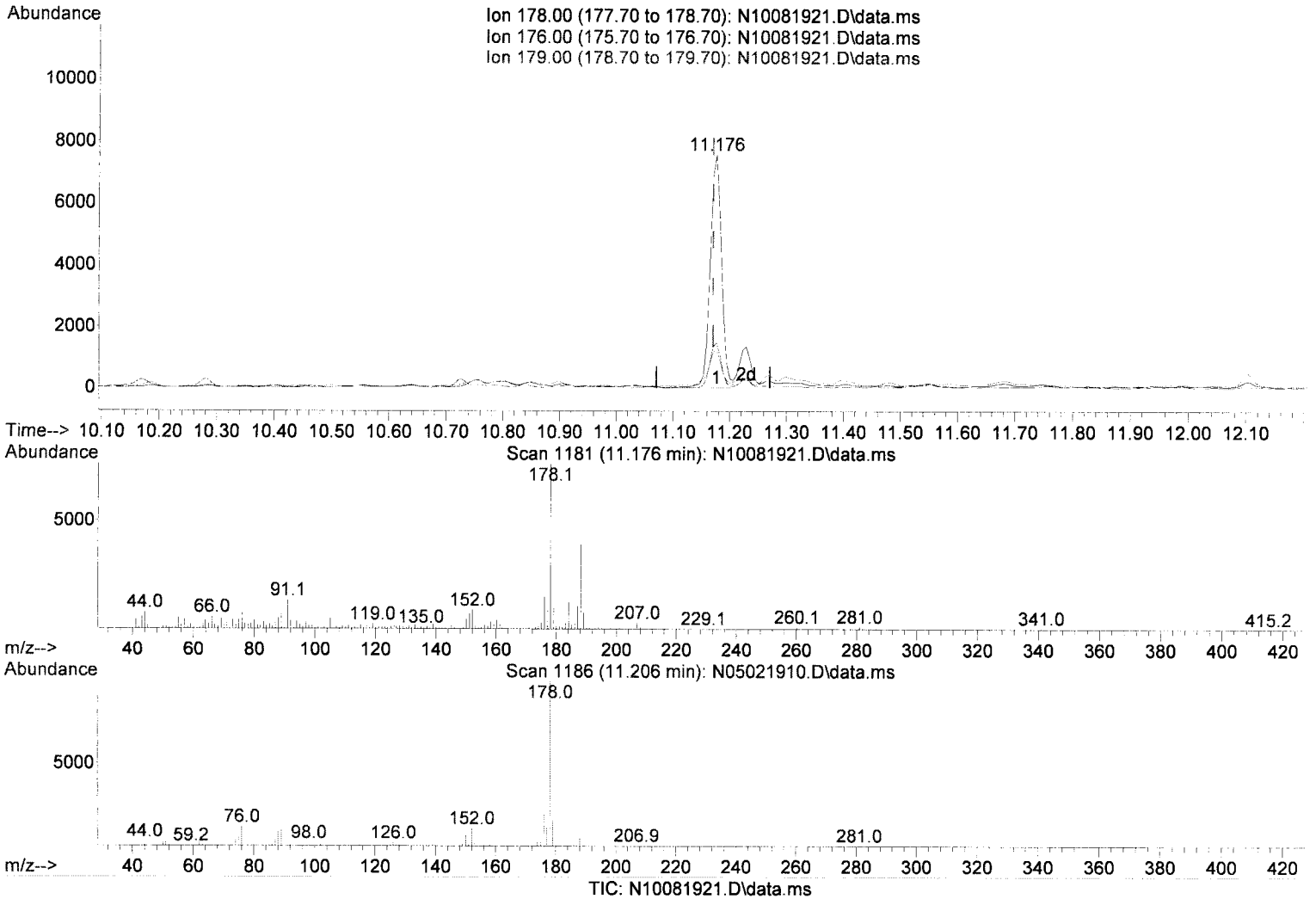
response 8175

Ion	Exp%	Act%
153.00	100.00	100.00
154.00	90.70	93.27
152.00	46.80	47.52
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081921.D
Acq On : 08 Oct 2019 07:08 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-14
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 09 07:42:13 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(19) Phenanthrene (T)

11.176min (+ 0.006) 3.94 ng/ml

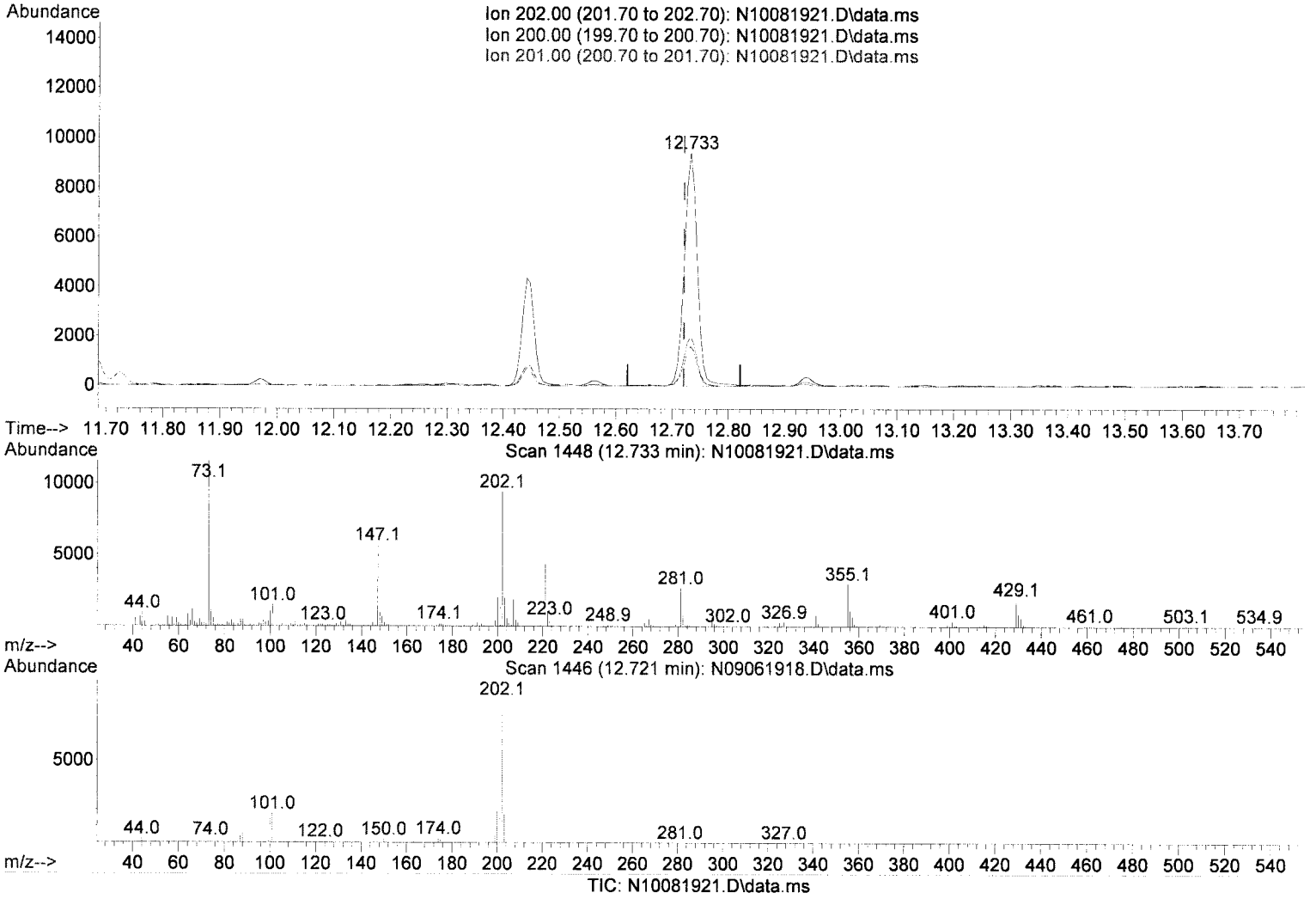
response 10552

Ion	Exp%	Act%
178.00	100.00	100.00
176.00	19.00	19.62
179.00	15.10	16.36
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081921.D
Acq On : 08 Oct 2019 07:08 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-14
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 09 07:42:13 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



(25) Pyrene (T)

12.733min (+ 0.012) 5.75 ng/ml

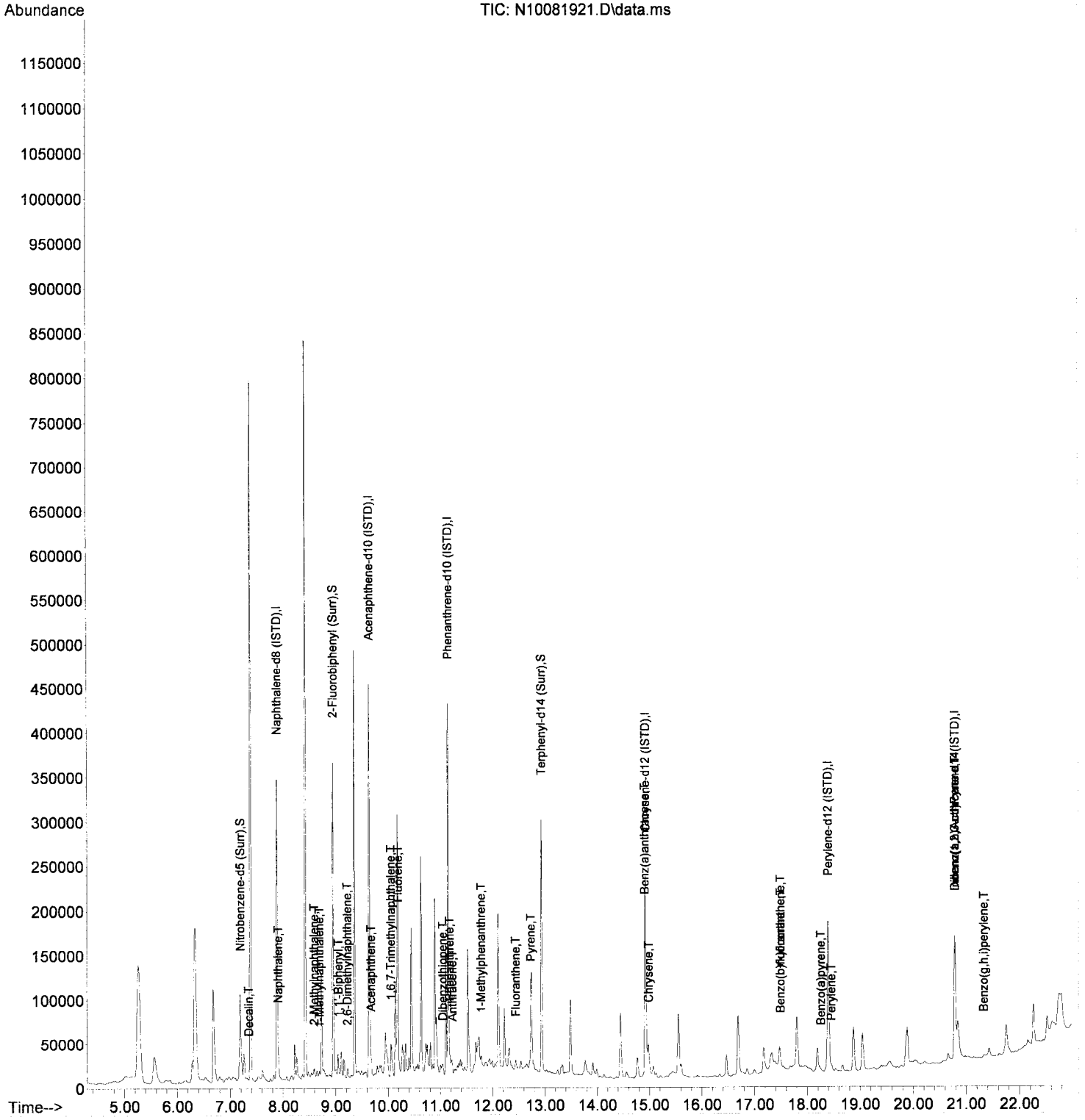
response 15111

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	20.70	21.28
201.00	16.80	16.94
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081921.D
Acq On : 08 Oct 2019 07:08 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-14
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 09 07:42:13 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081922.D
Acq On : 08 Oct 2019 07:40 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-16
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 22 Sample Multiplier: 1

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Quant Time: Oct 09 07:42:17 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

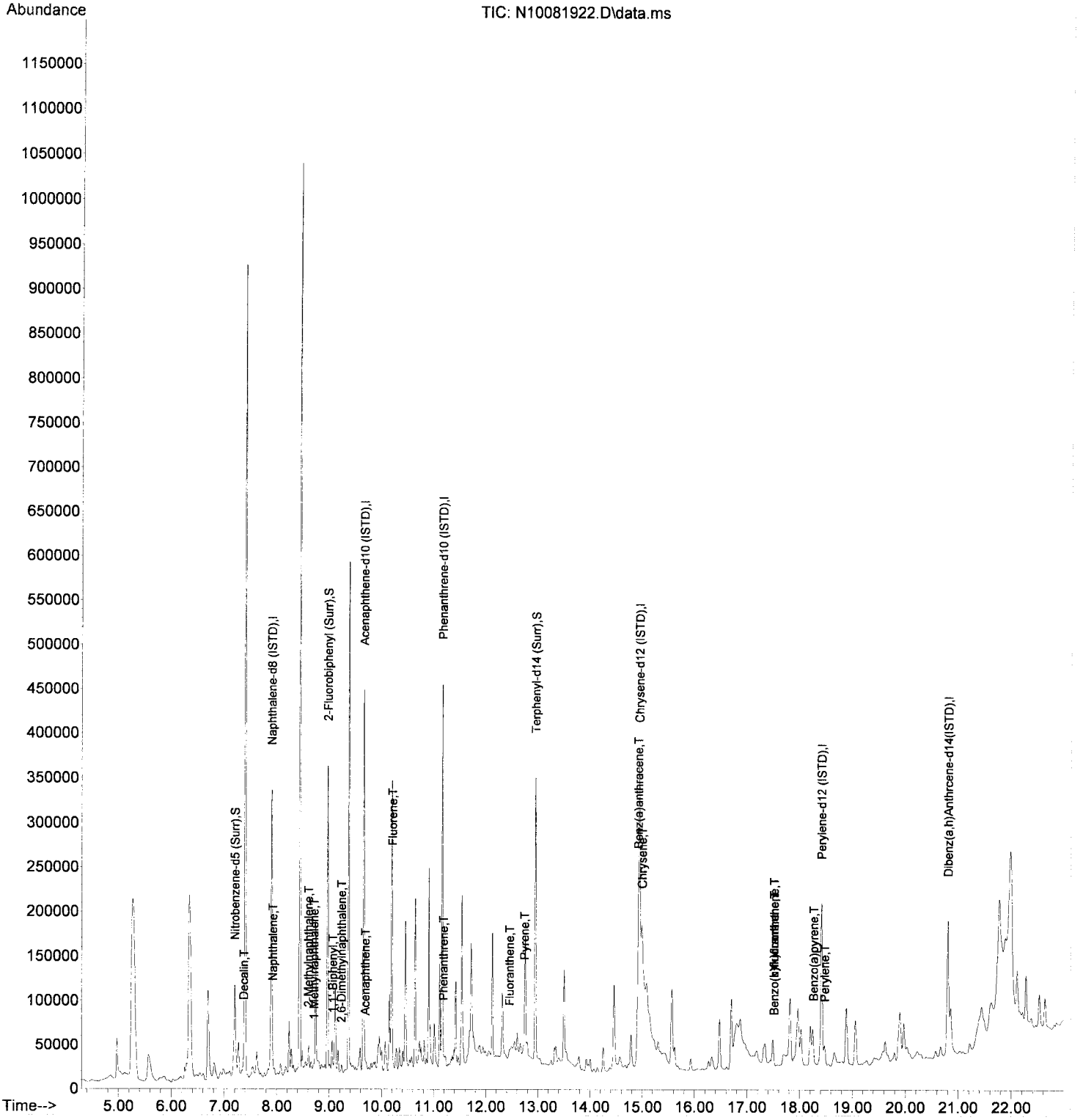
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.901	136	230668	100.00	ng/ml	0.02
9) Acenaphthene-d10 (ISTD)	9.655	162	127369	100.00	ng/ml	0.02
17) Phenanthrene-d10 (ISTD)	11.159	188	232562	100.00	ng/ml	0.01
24) Chrysene-d12 (ISTD)	14.936	240	185939	100.00	ng/ml	0.03
29) Perylene-d12 (ISTD)	18.410	264	160223	100.00	ng/ml	0.04
37) Dibenz(a,h)Anthrcene-d...	20.799	292	135688	100.00	ng/ml	0.04
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.201	82	61678	80.47	ng/ml	0.02
10) 2-Fluorobiphenyl (Surr)	8.967	172	168590	88.72	ng/ml	0.02
11) Acenaphthylene d-8 (Surr)	9.498	160	2067	-1.00	ng/ml	0.02
26) Terphenyl-d14 (Surr)	12.948	244	185573	94.89	ng/ml	0.02
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.370	138	202	1.18	ng/ml#	48
4) Naphthalene	7.918	128	3643	1.43	ng/ml	91
5) 2-Methylnaphthalene	8.600	142	2116	0.98	ng/ml	97
6) 1-Methylnaphthalene	8.705	142	1554	0.72	ng/ml	89
7) 1,1'-Biphenyl	9.066	154	1194	0.41	ng/ml	84
8) 2,6-Dimethylnaphthalene	9.229	156	1056	0.50	ng/ml	89
12) Acenaphthylene	9.509	152	384	N.D.		
13) Acenaphthene	9.684	153	1124	0.62	ng/ml	84
14) Dibenzofuran	9.859	168	476	N.D.		
15) 1,6,7-Trimethylnaphtha...	10.069	170	496	N.D.		
16) Fluorene	10.203	166	788	0.43	ng/ml	92
18) Dibenzothiopene	11.054	184	605	N.D.		
19) Phenanthrene	11.182	178	3700	1.36	ng/ml	92
20) Anthracene	11.234	178	620	N.D.		
21) Carbazole	11.398	167	309	N.D.		
22) 1-Methylphenanthrene	11.806	192	280	N.D.		
23) Fluoranthene	12.453	202	2419	0.88	ng/ml	94
25) Pyrene	12.738	202	3063	1.05	ng/ml	93
27) Benz(a)anthracene	14.918	228	1108	0.51	ng/ml	80
28) Chrysene	14.994	228	1132	0.55	ng/ml	83
30) Benzo(b)fluoranthene	17.512	252	851	0.46	ng/ml	64
31) Benzo(k)fluoranthene	17.512	252	1115	0.61	ng/ml	68
32) Benzo(b+k)fluoranthene	17.512	252	1163	0.62	ng/ml	68
34) Benzo(e)pyrene	18.153	252	578	N.D.		
35) Benzo(a)pyrene	18.264	252	671	0.42	ng/ml#	40
36) Perylene	18.474	252	19256	9.88	ng/ml	98
38) Indeno(1,2,3-cd)Pyrene	20.799	276	496	N.D.		
39) Dibenz(a,h)anthracene	20.799	278	63	N.D.		
40) Benzo(g,h,i)perylene	21.336	276	571	N.D.		

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081922.D
Acq On : 08 Oct 2019 07:40 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-16
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 09 07:42:17 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081923.D
Acq On : 08 Oct 2019 08:12 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-17
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 23 Sample Multiplier: 1

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Quant Time: Oct 09 07:42:21 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

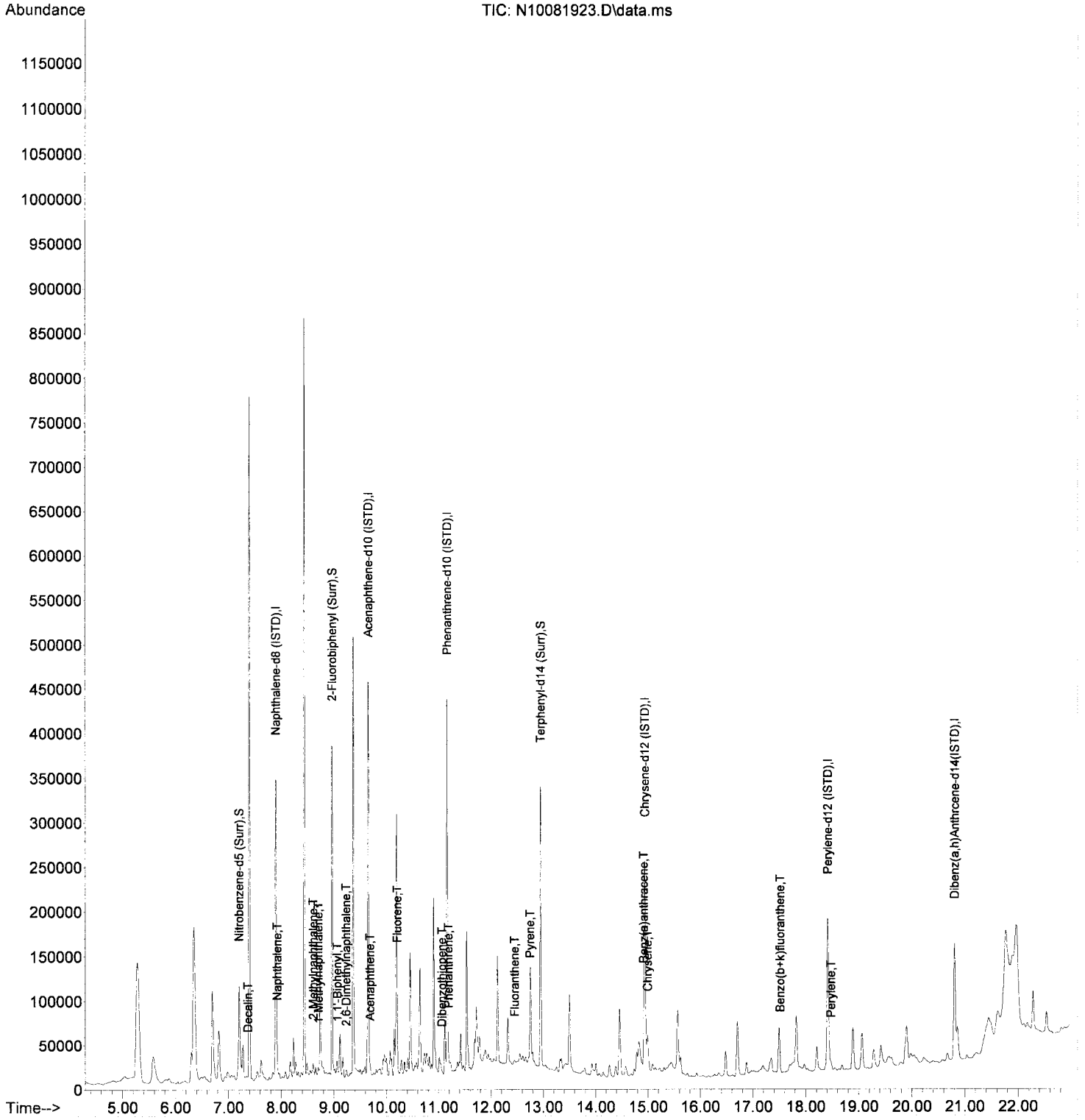
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.901	136	228134	100.00 ng/ml	0.02
9) Acenaphthene-d10 (ISTD)	9.655	162	127135	100.00 ng/ml	0.02
17) Phenanthrene-d10 (ISTD)	11.159	188	226445	100.00 ng/ml	0.01
24) Chrysene-d12 (ISTD)	14.942	240	176094	100.00 ng/ml	0.04
29) Perylene-d12 (ISTD)	18.416	264	148455	100.00 ng/ml	0.04
37) Dibenz(a,h)Anthrcene-d...	20.805	292	120554	100.00 ng/ml	0.04
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.207	82	63120	83.26 ng/ml	0.02
10) 2-Fluorobiphenyl (Surr)	8.967	172	171152	90.24 ng/ml	0.02
11) Acenaphthylene d-8 (Surr)	9.498	160	2151	-1.00 ng/ml	0.02
26) Terphenyl-d14 (Surr)	12.948	244	179117	96.71 ng/ml	0.02
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	7.370	138	124	0.73 ng/ml#	63
4) Naphthalene	7.924	128	4501	1.79 ng/ml	90
5) 2-Methylnaphthalene	8.606	142	4127	1.94 ng/ml	96
6) 1-Methylnaphthalene	8.705	142	2557	1.20 ng/ml	95
7) 1,1'-Biphenyl	9.066	154	1212	0.42 ng/ml	93
8) 2,6-Dimethylnaphthalene	9.236	156	1459	0.70 ng/ml	97
12) Acenaphthylene	9.515	152	438	N.D.	
13) Acenaphthene	9.690	153	2965	1.64 ng/ml	94
14) Dibenzofuran	9.859	168	570	N.D.	
15) 1,6,7-Trimethylnaphtha...	10.069	170	480	N.D.	
16) Fluorene	10.209	166	1818	0.98 ng/ml	98
18) Dibenzothiopene	11.060	184	960	0.41 ng/ml	83
19) Phenanthrene	11.188	178	6109	2.31 ng/ml	98
20) Anthracene	11.235	178	825	N.D.	
21) Carbazole	11.398	167	460	N.D.	
22) 1-Methylphenanthrene	11.806	192	606	N.D.	
23) Fluoranthene	12.453	202	2555	0.96 ng/ml	92
25) Pyrene	12.744	202	3045	1.11 ng/ml	99
27) Benz(a)anthracene	14.918	228	842	0.41 ng/ml	85
28) Chrysene	14.994	228	866	0.45 ng/ml	88
30) Benzo(b)fluoranthene	17.512	252	595	N.D.	
31) Benzo(k)fluoranthene	17.570	252	188	N.D.	
32) Benzo(b+k)fluoranthene	17.512	252	814	0.46 ng/ml	90
34) Benzo(e)pyrene	18.153	252	461	N.D.	
35) Benzo(a)pyrene	18.276	252	484	N.D.	
36) Perylene	18.474	252	7022	3.89 ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.800	276	451	N.D.	
39) Dibenz(a,h)anthracene	0.000		0	N.D.	
40) Benzo(g,h,i)perylene	21.342	276	429	N.D.	

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

Quantitation Report (Not Reviewed)

Data Path : R:\data\2019-10\9J08040\
Data File : N10081923.D
Acq On : 08 Oct 2019 08:12 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-17
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 09 07:42:21 2019
Quant Method : R:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



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

Semivolatile Organic Compounds (PAHs) by EPA 8270D
Benchsheet & Analysis Sequence Data

Sequence 9J09031 (A9J0058-18,19,20,21,22,23,24,25,26)

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	**9J09031**	Instrument:	**SV-GCMS14**
Date:	**10/09/19 08:07**	Calibration:	**A9I1001**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J09031-TUN1	Sediment	QC	QC			A19I102	A19J016
2	9J09031-CCV1	Sediment	QC	QC			A19I102	A19I020
3	9J09031-IBL1	Sediment	QC	QC			A19I102	
4	9J09031-TUN2	Sediment	QC	QC			A19I102	A19J016
5	9J09031-CCV2	Sediment	QC	QC			A19I102	A19I020
6	9J09031-CCB1	Sediment	QC	QC			A19I102	
7	A9J0058-18	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
8	A9J0058-19	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
9	A9J0058-20	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
10	A9J0058-21	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
11	A9J0058-22	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
12	A9J0058-23	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
13	A9J0058-24	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
14	A9J0058-25	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
15	A9J0058-26	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
16	A9J0063-02	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
17	A9J0063-03	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
18	A9J0063-04	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
19	A9J0063-05	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
20	A9J0063-06	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
21	A9J0063-07	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100712	A19I102	
22	A9I0936-17RE2	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100775	A19I102	
23	A9J0063-08	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100775	A19I102	
24	A9J0063-13	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100775	A19I102	
25	A9J0063-14	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100775	A19I102	
26	A9I0922-19RE1	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/11/19	9100706	A19I102	
27	A9J0063-16	Sediment	8270D LL PAH Only (Scan)	Anchor QEA, LLC	10/15/19	9100775	A19I102	
28	9J09031-IBL2	Sediment	QC	QC			A19I102	

Data Entered By: AMS 10/10/19

Data Reviewed By: 10/10/19

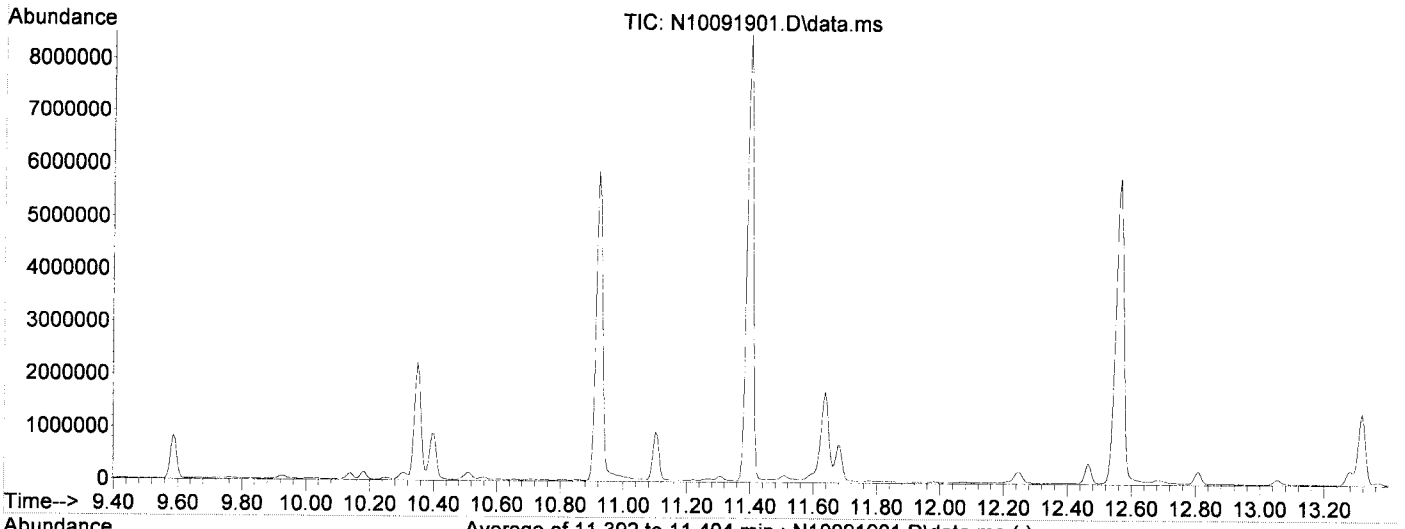
Comments:

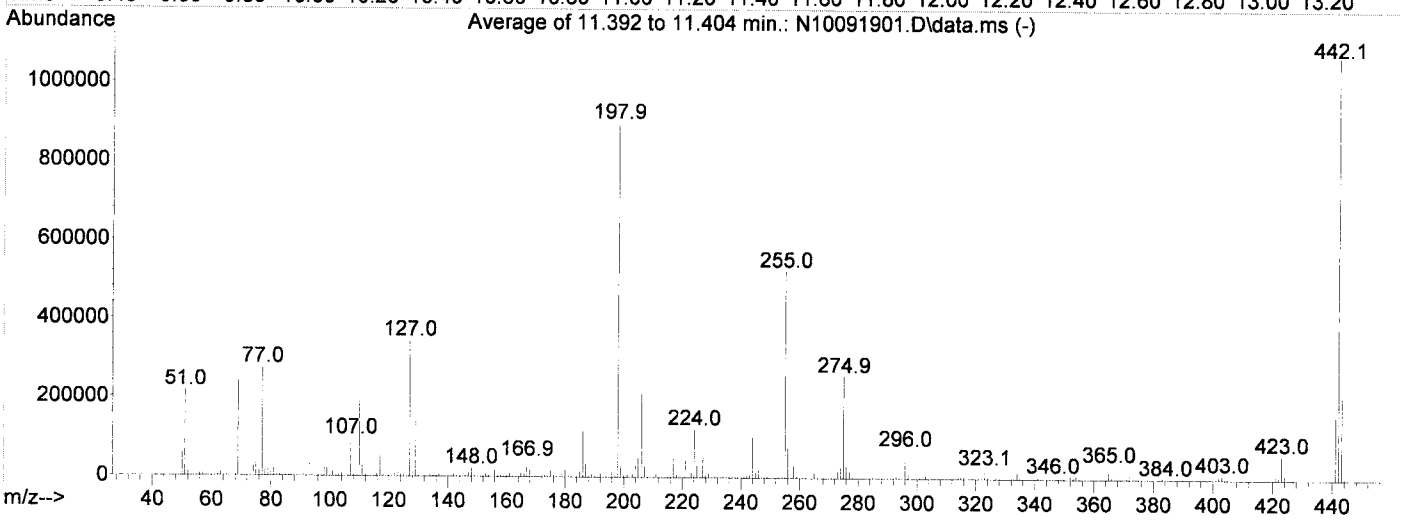
Data Path : U:\data\2019-10\9J09031\
Data File : N10091901.D
Acq On : 09 Oct 2019 08:15 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : U:\methods\DFTPP.M
Title : 8270 DFTPP Tune Method
Last Update : Thu Sep 05 08:50:46 2019

Q-14
AMS
10/9/19





AutoFind: Scans 1218, 1219, 1220; Background Corrected with Scan 1212

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.6	3941	PASS
69	69	100	100	100.0	239942	PASS
70	69	0.00	2	0.5	1278	PASS
197	198	0.00	2	0.5	4748	PASS
198	198	100	100	100.0	896208	PASS
199	198	5	9	6.8	60887	PASS
365	198	1	100	3.9	34757	PASS
441	443	0.01	150	77.2	158869	PASS
442	198	0.10	200	119.2	1068480	PASS
443	442	15	24	19.3	205867	PASS

No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091901.D
Acq On : 09 Oct 2019 08:15 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 09 14:22:58 2019
Quant Method : U:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14

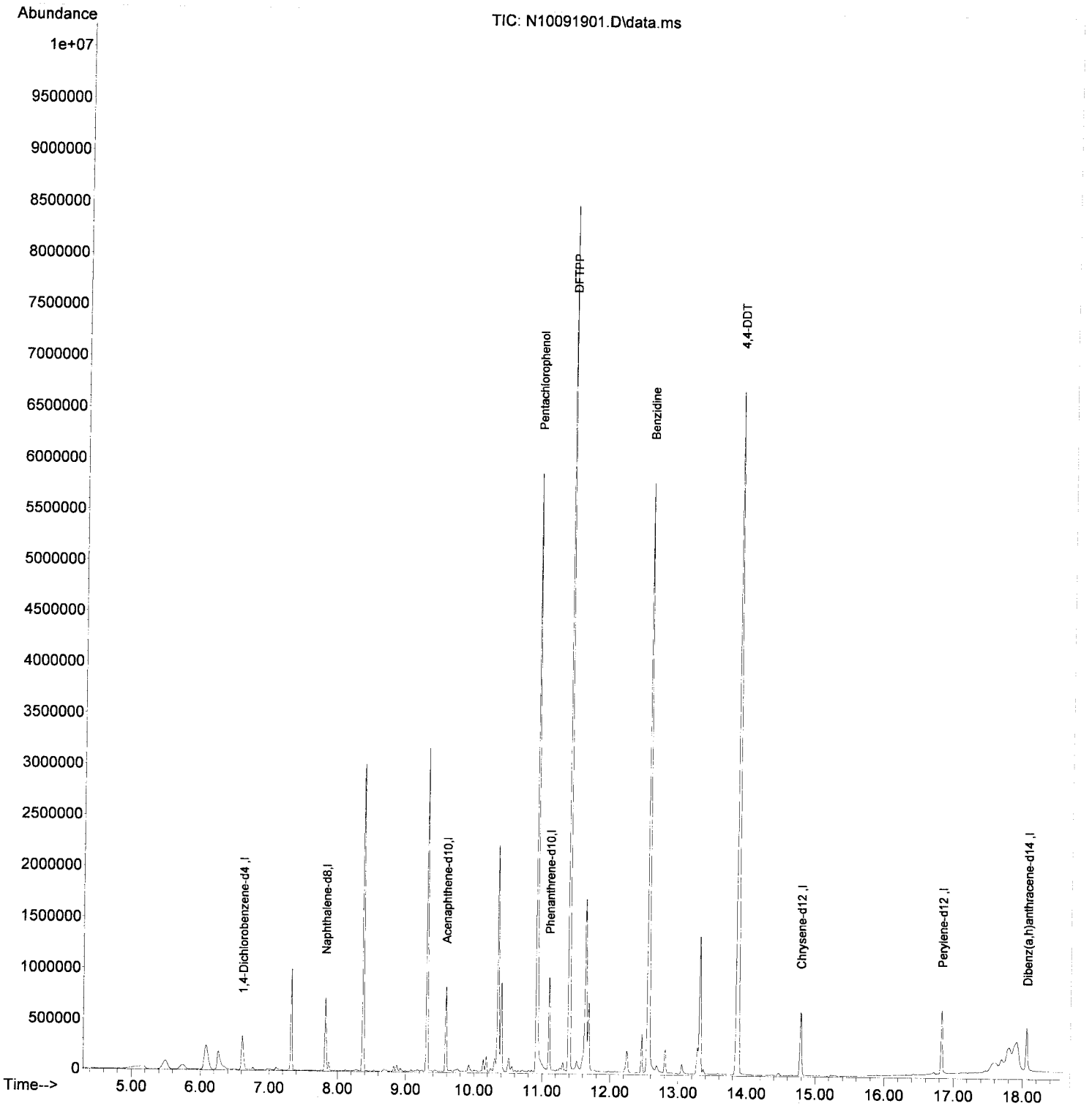
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.613	150	191335	2.00	ug/mL		0.00
2) Naphthalene-d8	7.819	136	496291	2.00	ug/mL		0.00
3) Acenaphthene-d10	9.585	162	251003	2.00	ug/mL		0.00
5) Phenanthrene-d10	11.101	188	479801	2.00	ug/mL		0.00
11) Chrysene-d12	14.784	240	417525	2.00	ug/mL		0.00
12) Perylene-d12	16.830	264	366328	2.00	ug/mL		0.00
13) Dibenz(a,h)anthracene-...	18.060	292	304901	2.00	ug/mL	#	0.00
Target Compounds							Qvalue
4) Pentachlorophenol	10.920	266	1163280	49.08	ug/mL		87
6) DFTPP	11.398	442	1657389	42.79	ug/mL		84
7) Benzidine	12.564	184	4410868	25.84	ug/mL		98
8) 4,4-DDE	12.808	TIC	340676	No Calib			
9) 4,4-DDD	13.316	TIC	2175483	No Calib			
10) 4,4-DDT	13.869	TIC	13256081	26.94	ug/mL		96

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

✓

Data Path : U:\data\2019-10\9J09031\
Data File : N10091901.D
Acq On : 09 Oct 2019 08:15 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-TUN1
Misc : 1x, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 09 14:22:58 2019
Quant Method : U:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091902.D
Acq On : 09 Oct 2019 08:42 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-CCV1
Misc : 1x, A19I020@50
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Q-14

AMS 10/9/19

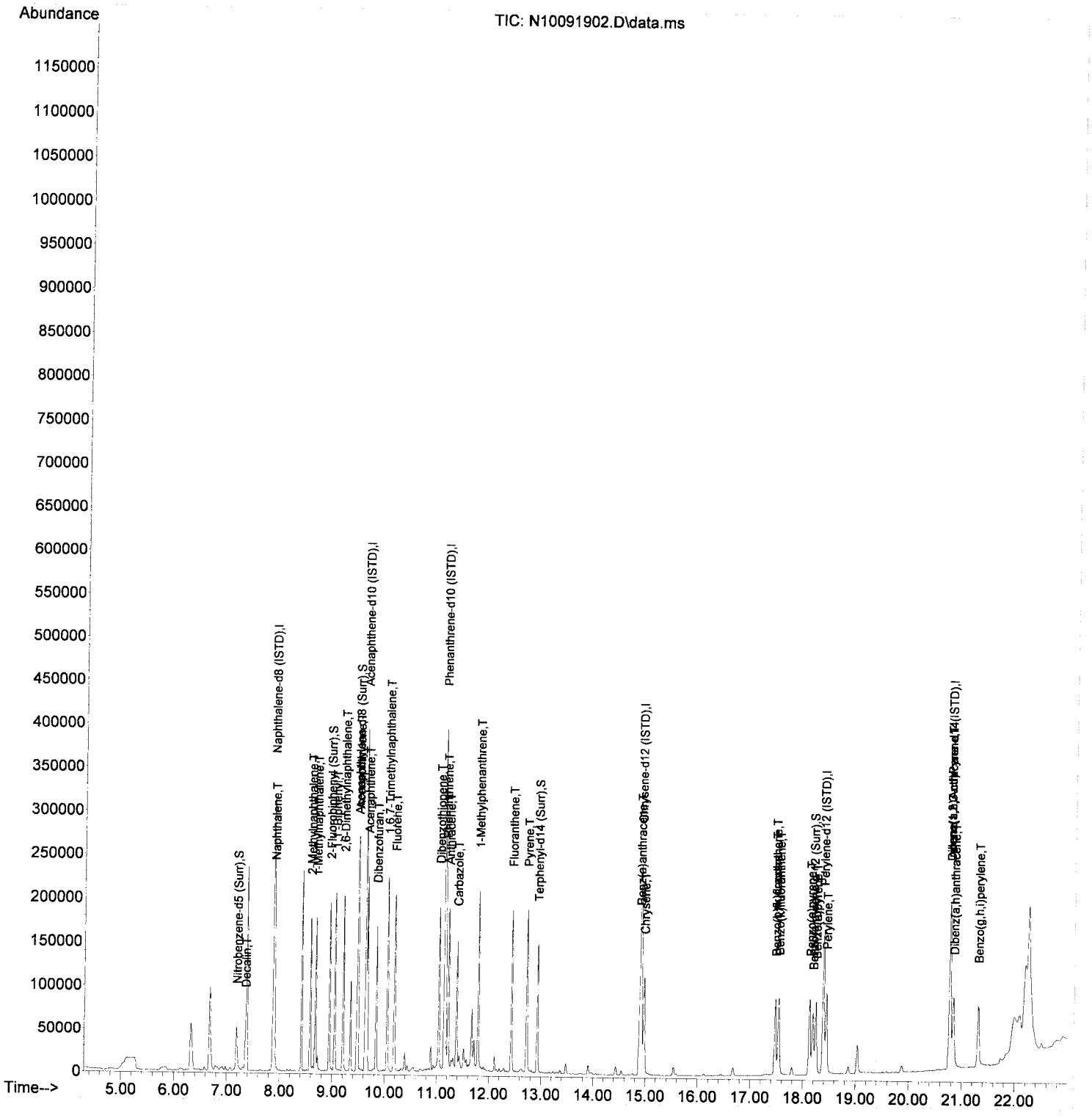
Quant Time: Oct 09 14:23:24 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	217768	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	119099	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	216200	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.913	240	163651	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.386	264	142134	100.00	ng/ml	0.01
37) Dibenz(a,h)Anthrcene-d...	20.776	292	118657	100.00	ng/ml	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.190	82	34003	46.99	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	94155	52.99	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	117200	47.86	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	86363	50.18	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.188	264	59405	52.26	ng/ml	0.01
Target Compounds						Qvalue
3) Decalin	7.353	138	6020	37.13	ng/ml	91
4) Naphthalene	7.901	128	117577	48.95	ng/ml	100
5) 2-Methylnaphthalene	8.583	142	81030	39.81	ng/ml	98
6) 1-Methylnaphthalene	8.688	142	77634	38.15	ng/ml	97
7) 1,1'-Biphenyl	9.049	154	100596	36.75	ng/ml	97
8) 2,6-Dimethylnaphthalene	9.212	156	71604	35.82	ng/ml	98
12) Acenaphthylene	9.492	152	128303	49.62	ng/ml	100
13) Acenaphthene	9.667	153	82067	48.46	ng/ml	99
14) Dibenzofuran	9.842	168	106893	50.39	ng/ml	97
15) 1,6,7-Trimethylnaphtha...	10.051	170	69137	48.68	ng/ml	98
16) Fluorene	10.191	166	83848	48.38	ng/ml	98
18) Dibenzothiopene	11.042	184	112289	49.66	ng/ml	96
19) Phenanthrene	11.171	178	122055	48.24	ng/ml	100
20) Anthracene	11.223	178	113813	48.36	ng/ml	99
21) Carbazole	11.386	167	85659	44.99	ng/ml	99
22) 1-Methylphenanthrene	11.794	192	87321	49.69	ng/ml	98
23) Fluoranthene	12.435	202	122504	48.06	ng/ml	97
25) Pyrene	12.727	202	125328	49.02	ng/ml	99
27) Benz(a)anthracene	14.889	228	85813	45.16	ng/ml	99
28) Chrysene	14.971	228	85638	47.63	ng/ml	99
30) Benzo(b)fluoranthene	17.477	252	79227	48.31	ng/ml	93
31) Benzo(k)fluoranthene	17.541	252	79843	49.45	ng/ml	92
32) Benzo(b+k)fluoranthene	17.477	252	164534	98.08	ng/ml	91
34) Benzo(e)pyrene	18.130	252	79155	47.73	ng/ml	97
35) Benzo(a)pyrene	18.247	252	71023	50.59	ng/ml	96
36) Perylene	18.445	252	85021	49.17	ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.776	276	66948	45.75	ng/ml	82
39) Dibenz(a,h)anthracene	20.846	278	65774	47.83	ng/ml	82
40) Benzo(g,h,i)perylene	21.312	276	71259	45.90	ng/ml	82

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

Data Path : U:\data\2019-10\9J09031\
Data File : N10091902.D
Acq On : 09 Oct 2019 08:42 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-CCV1
Misc : 1x, A19I020@50
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:23:24 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

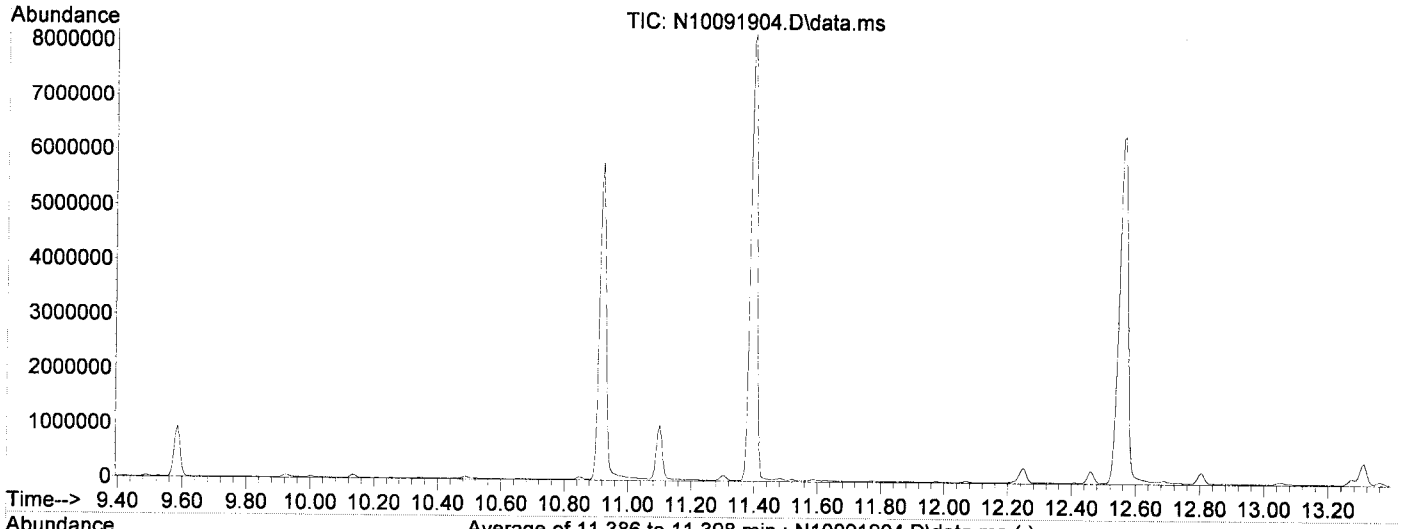


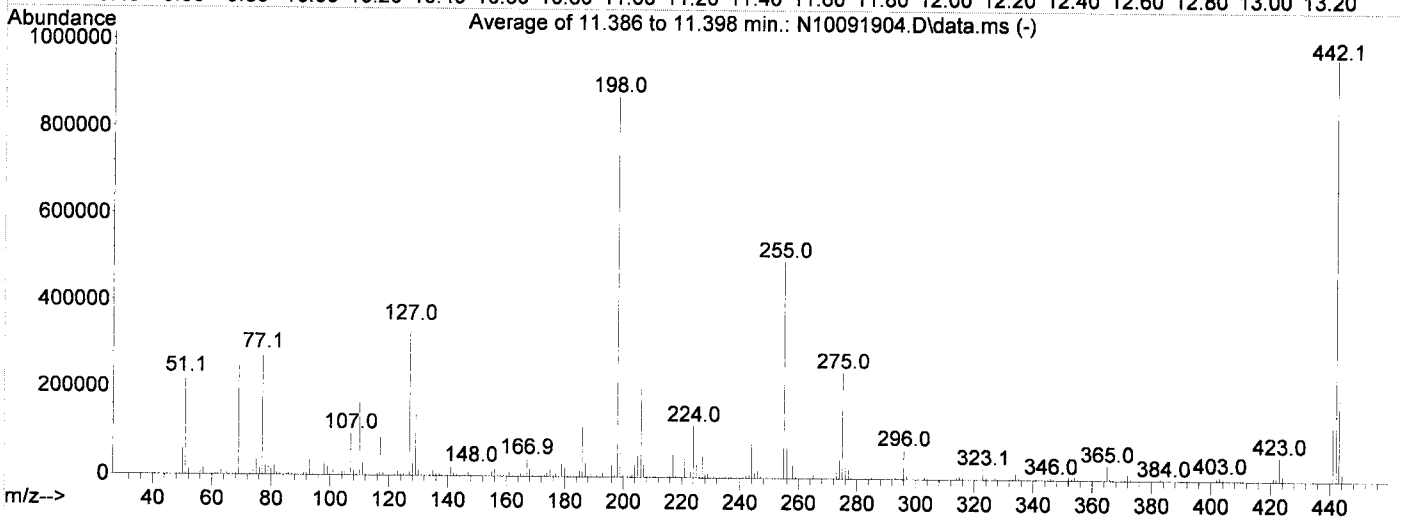
Data Path : U:\data\2019-10\9J09031\
Data File : N10091904.D
Acq On : 09 Oct 2019 10:05 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-TUN2
Misc : 1x, Replaced liner, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

AMS 10/9/19

Integration File: rteint.p

Method : U:\methods\DFTPP.M
Title : 8270 DFTPP Tune Method
Last Update : Thu Sep 05 08:50:46 2019





AutoFind: Scans 1217, 1218, 1219; Background Corrected with Scan 1211

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.6	3960	PASS
69	69	100	100	100.0	246506	PASS
70	69	0.00	2	0.5	1161	PASS
197	198	0.00	2	0.5	4716	PASS
198	198	100	100	100.0	871872	PASS
199	198	5	9	6.8	59200	PASS
365	198	1	100	3.7	32480	PASS
441	443	0.01	150	76.9	145019	PASS
442	198	0.10	200	110.8	965696	PASS
443	442	15	24	19.5	188616	PASS

No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091904.D
Acq On : 09 Oct 2019 10:05 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-TUN2
Misc : 1x, Replaced liner, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 09 14:23:50 2019
Quant Method : U:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14

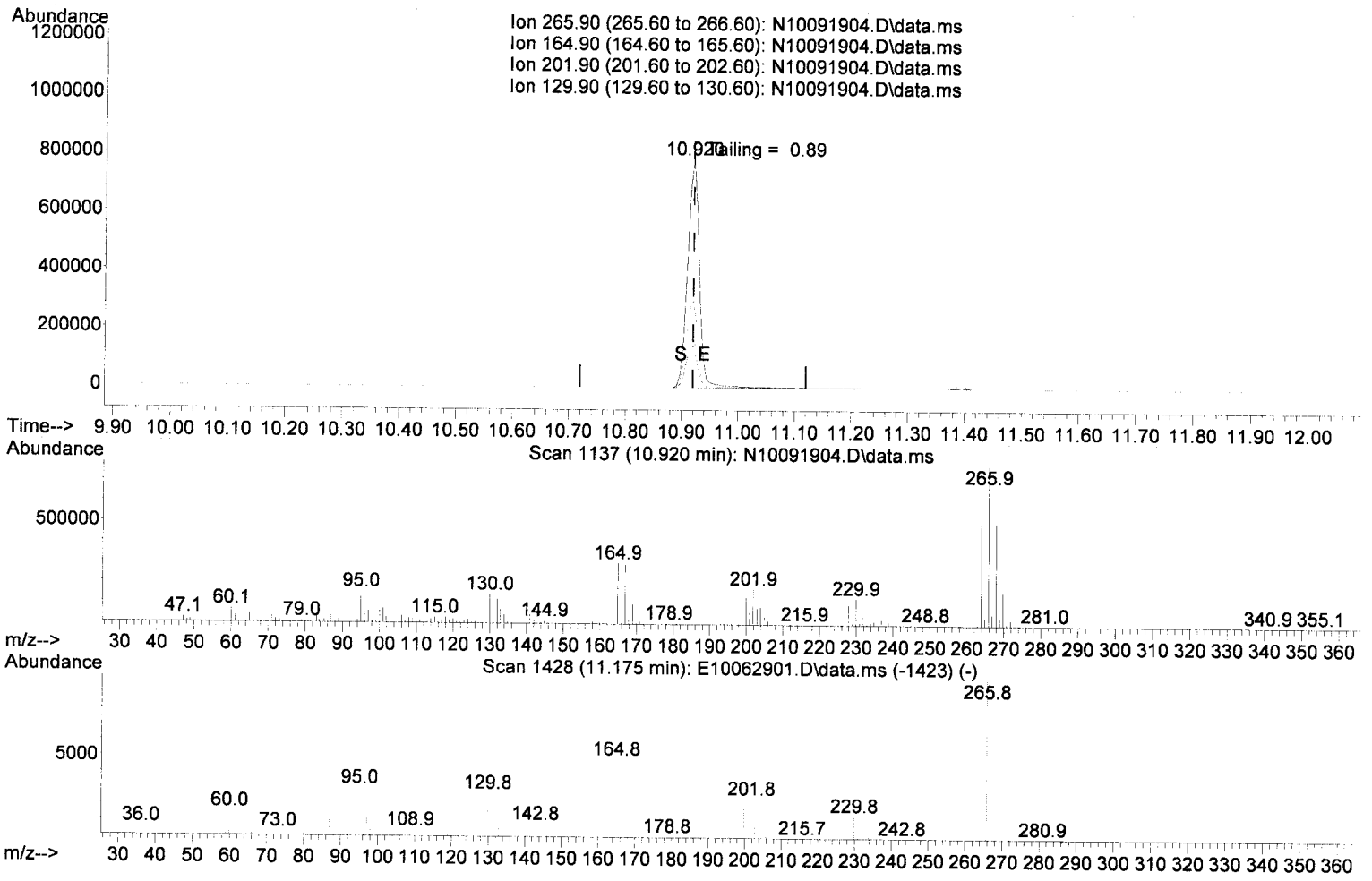
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.612	150	176592	2.00	ug/mL	0.00
2) Naphthalene-d8	7.819	136	508595	2.00	ug/mL	0.00
3) Acenaphthene-d10	9.585	162	276132	2.00	ug/mL	0.00
5) Phenanthrene-d10	11.101	188	514266	2.00	ug/mL	0.00
11) Chrysene-d12	14.778	240	407711	2.00	ug/mL	0.00
12) Perylene-d12	16.818	264	371590	2.00	ug/mL	-0.02
13) Dibenz(a,h)anthracene-...	18.048	292	338367	2.00	ug/mL	#-0.02
Target Compounds						Qvalue
4) Pentachlorophenol	10.920	266	1139438	43.70	ug/mL	85
6) DFTPP	11.398	442	1706560	41.11	ug/mL	78
7) Benzidine	12.564	184	5153778	28.17	ug/mL	98
8) 4,4-DDE	12.803	TIC	285222	No Calib		
9) 4,4-DDD	13.310	TIC	605571	No Calib		
10) 4,4-DDT	13.863	TIC	15854938	30.06	ug/mL	96

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

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091904.D
Acq On : 09 Oct 2019 10:05 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-TUN2
Misc : 1x, Replaced liner, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 09 14:23:50 2019
Quant Method : U:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091904.D\data.ms

(4) Pentachlorophenol

10.920min (+ 0.000) 43.70 ug/mL

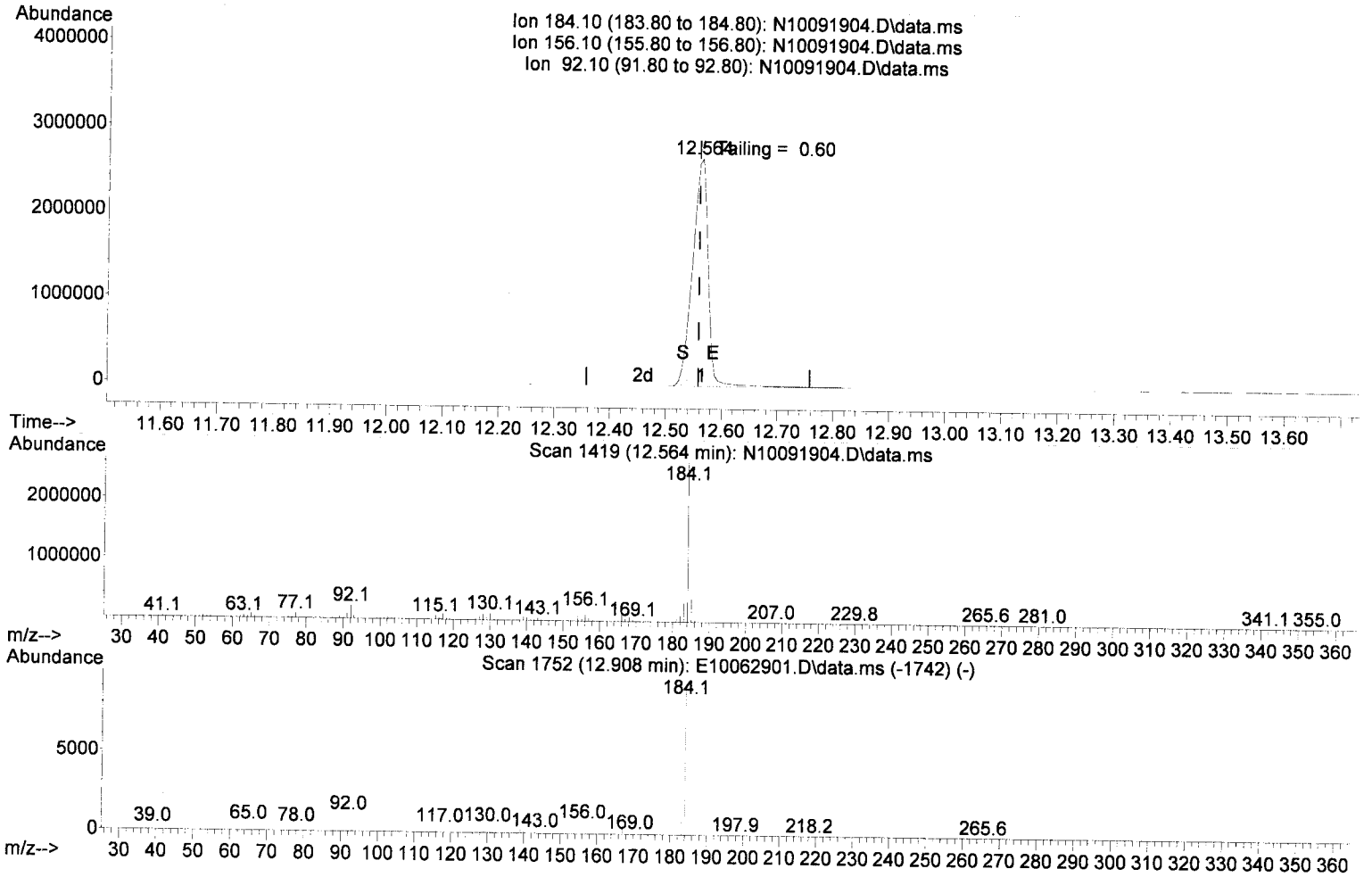
response 1139438

Ion	Exp%	Act%
265.90	100.00	100.00
164.90	50.60	38.04
201.90	25.80	22.03
129.90	27.30	18.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091904.D
Acq On : 09 Oct 2019 10:05 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-TUN2
Misc : 1x, Replaced liner, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 09 14:23:50 2019
Quant Method : U:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091904.D\data.ms

(7) Benzidine

12.564min (+ 0.006) 28.17 ug/mL

response 5153778

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	8.50	7.12
92.10	8.20	7.96
0.00	0.00	0.00

DDT Breakdown Check (Validated 5/1/2013)

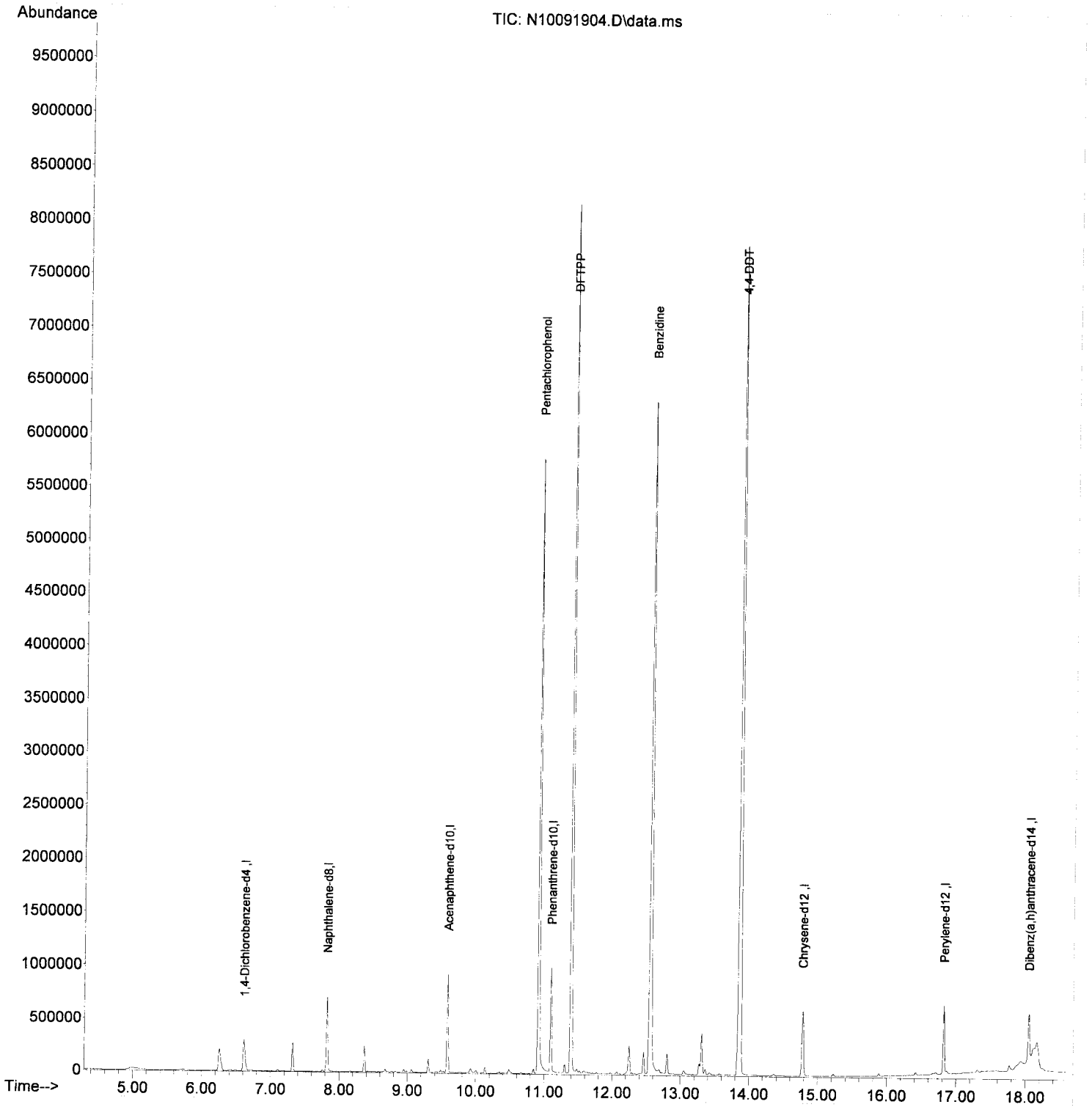
From:
9J09031-TUN2
SV-GCMS14

First Column Area Counts		Percent Breakdown	
DDE	285222		
DDD	605571		
DDT	15854938	**5.32**	**PASS**

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

Data Path : U:\data\2019-10\9J09031\
Data File : N10091904.D
Acq On : 09 Oct 2019 10:05 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-TUN2
Misc : 1x, Replaced liner, A19J016 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Oct 09 14:23:50 2019
Quant Method : U:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Evaluate Continuing Calibration Report

Data Path : U:\data\2019-10\9J09031\
Data File : N10091905.D
Acq On : 09 Oct 2019 10:33 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-CCV2
Misc : 1x, A19I020@50
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

AMS 10/9/19

Quant Time: Oct 09 14:25:31 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

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	Naphthalene-d8 (ISTD)	100.000	100.000	0.0	139	0.00
2	S	Nitrobenzene-d5 (Surr)	50.000	48.149	3.7	138	0.00
3	T	Decalin	50.000	41.416	17.2	114	-0.01
4	T	Naphthalene	50.000	49.036	1.9	139	0.00
5	T	2-Methylnaphthalene	50.000	42.888	14.2	119	0.00
6	T	1-Methylnaphthalene	50.000	41.048	17.9	111	0.00
7	T	1,1'-Biphenyl	50.000	40.103	19.8	112	0.00
8	T	2,6-Dimethylnaphthalene	50.000	40.643	18.7	110	0.00
9	I	Acenaphthene-d10 (ISTD)	100.000	100.000	0.0	107	0.00
10	S	2-Fluorobiphenyl (Surr)	50.000	52.077	-4.2	112	0.00
11	S	Acenaphthylene d-8 (Surr)	50.000	47.104	5.8	102	0.00
12	T	Acenaphthylene	50.000	48.166	3.7	103	0.00
13	T	Acenaphthene	50.000	49.764	0.5	108	0.00
14	T	Dibenzofuran	50.000	51.029	-2.1	109	0.00
15	T	1,6,7-Trimethylnaphthalene	50.000	49.416	1.2	107	0.00
16	T	Fluorene	50.000	51.023	-2.0	109	0.00
17	I	Phenanthrene-d10 (ISTD)	100.000	100.000	0.0	107	0.00
18	T	Dibenzothiopene	50.000	49.627	0.7	108	0.00
19	T	Phenanthrene	50.000	48.659	2.7	106	0.00
20	T	Anthracene	50.000	49.332	1.3	107	0.00
21	T	Carbazole	50.000	48.405	3.2	105	0.00
22	T	1-Methylphenanthrene	50.000	50.303	-0.6	109	0.00
23	T	Fluoranthene	50.000	49.105	1.8	106	0.00
24	I	Chrysene-d12 (ISTD)	100.000	100.000	0.0	112	0.00
25	T	Pyrene	50.000	47.127	5.7	105	0.00
26	S	Terphenyl-d14 (Surr)	50.000	49.932	0.1	113	0.00
27	T	Benz(a)anthracene	50.000	46.317	7.4	110	0.00
28	T	Chrysene	50.000	47.675	4.7	109	0.00
29	I	Perylene-d12 (ISTD)	100.000	100.000	0.0	118	0.00
30	T	Benzo(b)fluoranthene	50.000	48.910	2.2	114	0.00
31	T	Benzo(k)fluoranthene	50.000	48.582	2.8	116	0.00
32	T	Benzo(b+k)fluoranthene	100.000	97.960	2.0	116	0.00
33	S	Benzo(a)pyrene d-12 (Surr)	50.000	52.610	-5.2	123	0.00
34	T	Benzo(e)pyrene	50.000	46.706	6.6	112	0.00
35	T	Benzo(a)pyrene	50.000	51.160	-2.3	119	0.00
36	T	Perylene	50.000	49.878	0.2	117	0.01
37	I	Dibenz(a,h)Anthrcene-d14(IS	100.000	100.000	0.0	149	0.00
38	T	Indeno(1,2,3-cd)Pyrene	50.000	47.213	5.6	141	0.02
39	T	Dibenz(a,h)anthracene	50.000	48.070	3.9	145	0.01
40	T	Benzo(g,h,i)perylene	50.000	46.125	7.8	135	0.02

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

No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091905.D
Acq On : 09 Oct 2019 10:33 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-CCV2
Misc : 1x, A19I020@50
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

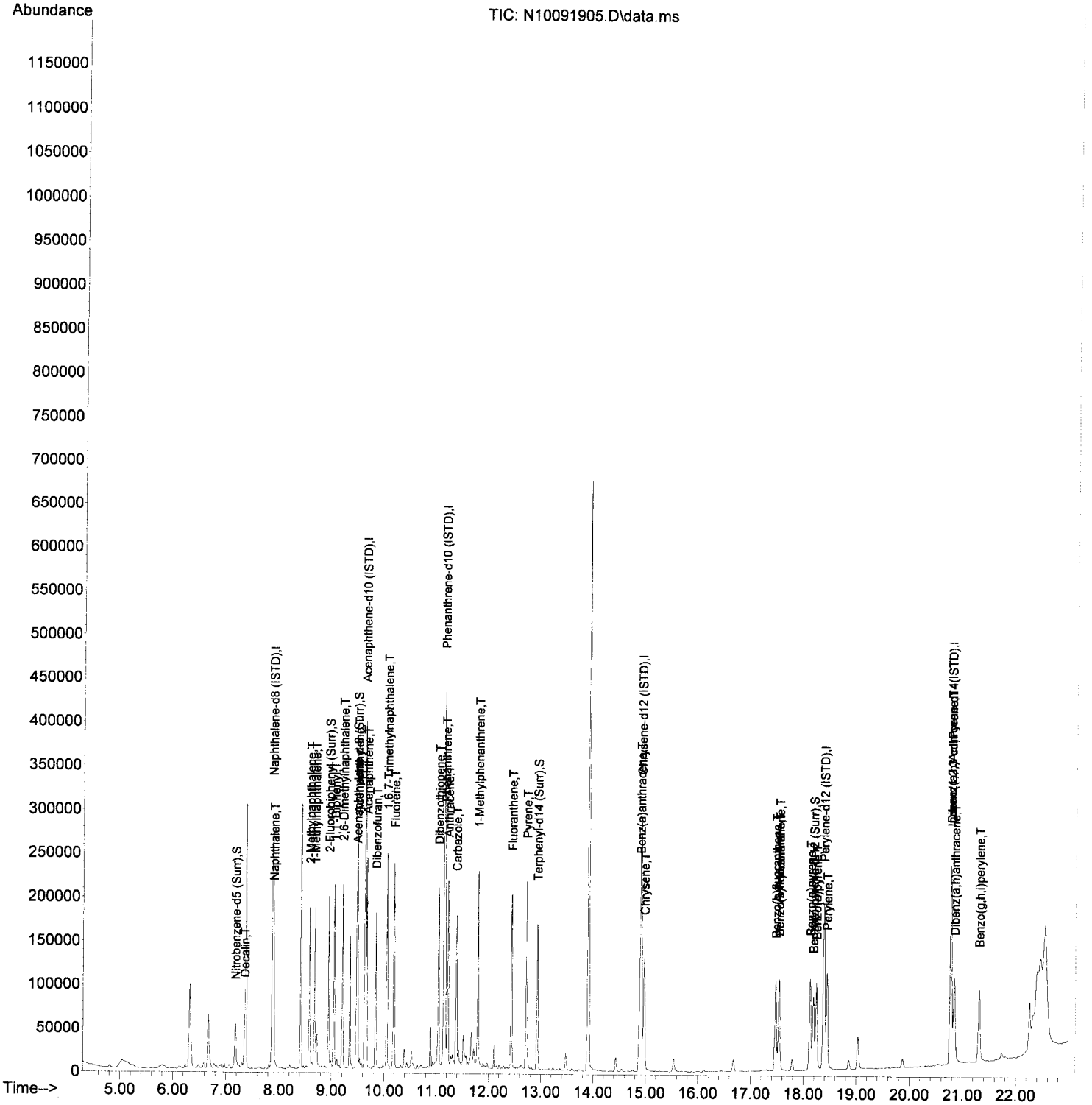
Quant Time: Oct 09 14:25:31 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	206747	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.632	162	125621	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	235020	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	190734	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	167849	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.770	292	138526	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.178	82	33079	48.15	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.944	172	97597	52.08	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.474	160	121724	47.10	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.925	244	100164	49.93	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.182	264	70618	52.61	ng/ml	0.00
Target Compounds						Qvalue
3) Decalin	7.353	138	6375	41.42	ng/ml	90
4) Naphthalene	7.901	128	111816	49.04	ng/ml	100
5) 2-Methylnaphthalene	8.583	142	82873	42.89	ng/ml	97
6) 1-Methylnaphthalene	8.682	142	79302	41.05	ng/ml	97
7) 1,1'-Biphenyl	9.049	154	104222	40.10	ng/ml	97
8) 2,6-Dimethylnaphthalene	9.206	156	77139	40.64	ng/ml	98
12) Acenaphthylene	9.492	152	131359	48.17	ng/ml	99
13) Acenaphthene	9.667	153	88892	49.76	ng/ml	100
14) Dibenzofuran	9.842	168	114172	51.03	ng/ml	96
15) 1,6,7-Trimethylnaphtha...	10.051	170	74028	49.42	ng/ml	99
16) Fluorene	10.191	166	93265	51.02	ng/ml	99
18) Dibenzothiopene	11.037	184	121985	49.63	ng/ml	97
19) Phenanthrene	11.165	178	133820	48.66	ng/ml	100
20) Anthracene	11.217	178	126195	49.33	ng/ml	99
21) Carbazole	11.380	167	100194	48.41	ng/ml	99
22) 1-Methylphenanthrene	11.794	192	96100	50.30	ng/ml	98
23) Fluoranthene	12.435	202	136061	49.10	ng/ml	96
25) Pyrene	12.721	202	140434	47.13	ng/ml	99
27) Benz(a)anthracene	14.889	228	102568	46.32	ng/ml	99
28) Chrysene	14.971	228	99907	47.67	ng/ml	99
30) Benzo(b)fluoranthene	17.471	252	94728	48.91	ng/ml	94
31) Benzo(k)fluoranthene	17.535	252	92642	48.58	ng/ml	94
32) Benzo(b+k)fluoranthene	17.535	252	194064	97.96	ng/ml	94
34) Benzo(e)pyrene	18.124	252	91469	46.71	ng/ml	97
35) Benzo(a)pyrene	18.241	252	84810	51.16	ng/ml	97
36) Perylene	18.445	252	101840	49.88	ng/ml	100
38) Indeno(1,2,3-cd)Pyrene	20.776	276	80661	47.21	ng/ml	81
39) Dibenz(a,h)anthracene	20.840	278	77168	48.07	ng/ml	85
40) Benzo(g,h,i)perylene	21.312	276	83594	46.12	ng/ml	81

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

Data Path : U:\data\2019-10\9J09031\
Data File : N10091905.D
Acq On : 09 Oct 2019 10:33 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-CCV2
Misc : 1x, A19I020@50
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:25:31 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091906.D
Acq On : 09 Oct 2019 11:05 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

AMS 10/9/19

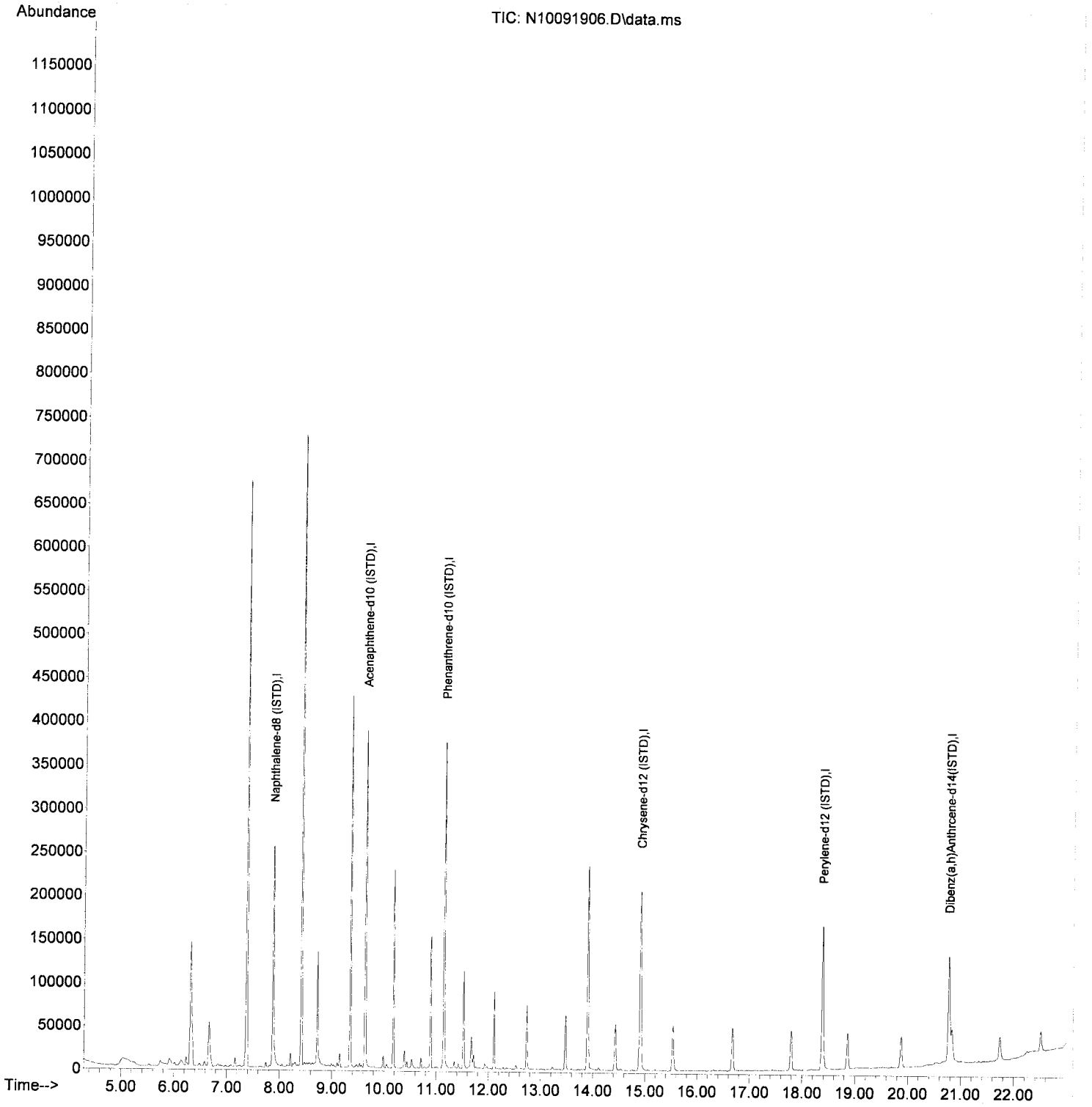
Quant Time: Oct 09 14:25:56 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.877	136	205914	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	123345	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	216729	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	165104	100.00 ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	146553	100.00 ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.770	292	124942	100.00 ng/ml	0.00
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.166	82	85	0.12 ng/ml	-0.02
10) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00 ng/ml	
11) Acenaphthylene d-8 (Surr)	9.480	160	1928	-1.00 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	69	0.04 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	0.000		0	N.D.	
4) Naphthalene	7.907	128	413	N.D.	
5) 2-Methylnaphthalene	0.000		0	N.D.	
6) 1-Methylnaphthalene	8.688	142	54	N.D.	
7) 1,1'-Biphenyl	9.055	154	148	N.D.	
8) 2,6-Dimethylnaphthalene	0.000		0	N.D.	
12) Acenaphthylene	9.492	152	73	N.D.	
13) Acenaphthene	0.000		0	N.D.	
14) Dibenzofuran	0.000		0	N.D.	
15) 1,6,7-Trimethylnaphtha...	0.000		0	N.D.	
16) Fluorene	10.191	166	106	N.D.	
18) Dibenzothiopene	0.000		0	N.D.	
19) Phenanthrene	11.165	178	381	N.D.	
20) Anthracene	11.217	178	120	N.D.	
21) Carbazole	11.392	167	144	N.D.	
22) 1-Methylphenanthrene	0.000		0	N.D.	
23) Fluoranthene	12.435	202	190	N.D.	
25) Pyrene	12.727	202	183	N.D.	
27) Benz(a)anthracene	14.907	228	642	N.D.	
28) Chrysene	14.965	228	213	N.D.	
30) Benzo(b)fluoranthene	17.477	252	243	N.D.	
31) Benzo(k)fluoranthene	17.541	252	240	N.D.	
32) Benzo(b+k)fluoranthene	17.477	252	482	N.D.	
34) Benzo(e)pyrene	18.241	252	186	N.D.	
35) Benzo(a)pyrene	18.241	252	186	N.D.	
36) Perylene	18.386	252	481	N.D.	
38) Indeno(1,2,3-cd)Pyrene	20.776	276	201	N.D.	
39) Dibenz(a,h)anthracene	20.846	278	169	N.D.	
40) Benzo(g,h,i)perylene	21.324	276	228	N.D.	

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

Data Path : U:\data\2019-10\9J09031\
Data File : N10091906.D
Acq On : 09 Oct 2019 11:05 am
Operator : JK/ AMS/ DTH
Sample : 9J09031-CCB1
Misc : 1x, DCM + ISTD
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:25:56 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091907.D
Acq On : 09 Oct 2019 11:37 am
Operator : JK/ AMS/ DTH
Sample : A9J0058-18
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

AMS 10/9/19

Quant Time: Oct 09 14:25:59 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

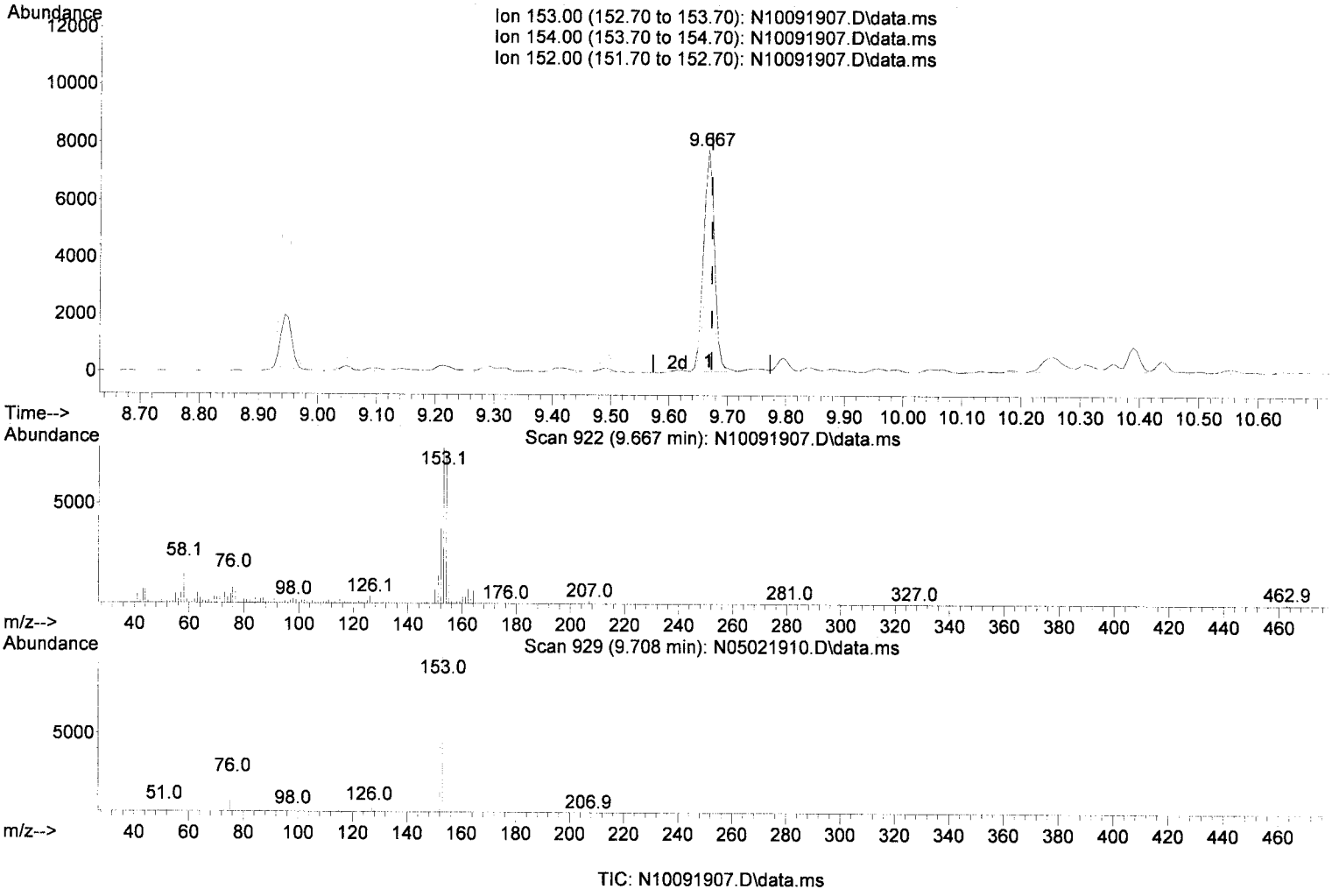
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	215788	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.632	162	128102	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	230265	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	183910	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	164415	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.770	292	136934	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.178	82	56807	79.22	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.944	172	165689	86.70	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.474	160	1773	-1.00	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.925	244	180071	93.10	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.271	138	59	N.D.		
4) Naphthalene	7.901	128	2904	1.22	ng/ml	90
5) 2-Methylnaphthalene	8.583	142	3112	1.54	ng/ml	98
6) 1-Methylnaphthalene	8.682	142	2126	1.05	ng/ml	97
7) 1,1'-Biphenyl	9.049	154	698	N.D.		
8) 2,6-Dimethylnaphthalene	9.212	156	2074	1.05	ng/ml	98
12) Acenaphthylene	9.492	152	920	N.D.		
13) Acenaphthene	9.667	153	10230	5.62	ng/ml	97
14) Dibenzofuran	9.842	168	883	N.D.		
15) 1,6,7-Trimethylnaphtha...	10.052	170	953	0.62	ng/ml#	26
16) Fluorene	10.191	166	5237	2.81	ng/ml	94
18) Dibenzothiopene	11.037	184	5462	2.27	ng/ml	98
19) Phenanthrene	11.165	178	19773	7.34	ng/ml	99
20) Anthracene	11.217	178	3160	1.26	ng/ml	95
21) Carbazole	11.386	167	583	N.D.		
22) 1-Methylphenanthrene	11.794	192	2372	1.27	ng/ml	84
23) Fluoranthene	12.435	202	11660	4.30	ng/ml	96
25) Pyrene	12.721	202	14021	4.88	ng/ml	98
27) Benz(a)anthracene	14.889	228	2688	1.26	ng/ml	81
28) Chrysene	14.965	228	2614	1.29	ng/ml	91
30) Benzo(b)fluoranthene	17.483	252	2188	1.15	ng/ml	94
31) Benzo(k)fluoranthene	17.535	252	731	N.D.		
32) Benzo(b+k)fluoranthene	17.483	252	3008	1.55	ng/ml	91
34) Benzo(e)pyrene	18.118	252	1390	0.72	ng/ml	96
35) Benzo(a)pyrene	18.241	252	2040	1.26	ng/ml	91
36) Perylene	18.445	252	2925	1.46	ng/ml	97
38) Indeno(1,2,3-cd)Pyrene	20.776	276	1429	0.85	ng/ml	83
39) Dibenz(a,h)anthracene	20.834	278	260	N.D.		
40) Benzo(g,h,i)perylene	21.312	276	1683	0.94	ng/ml	90

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

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091907.D
Acq On : 09 Oct 2019 11:37 am
Operator : JK/ AMS/ DTH
Sample : A9J0058-18
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:25:59 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091907.D\data.ms

(13) Acenaphthene (T)

9.667min (-0.006) 5.62 ng/ml

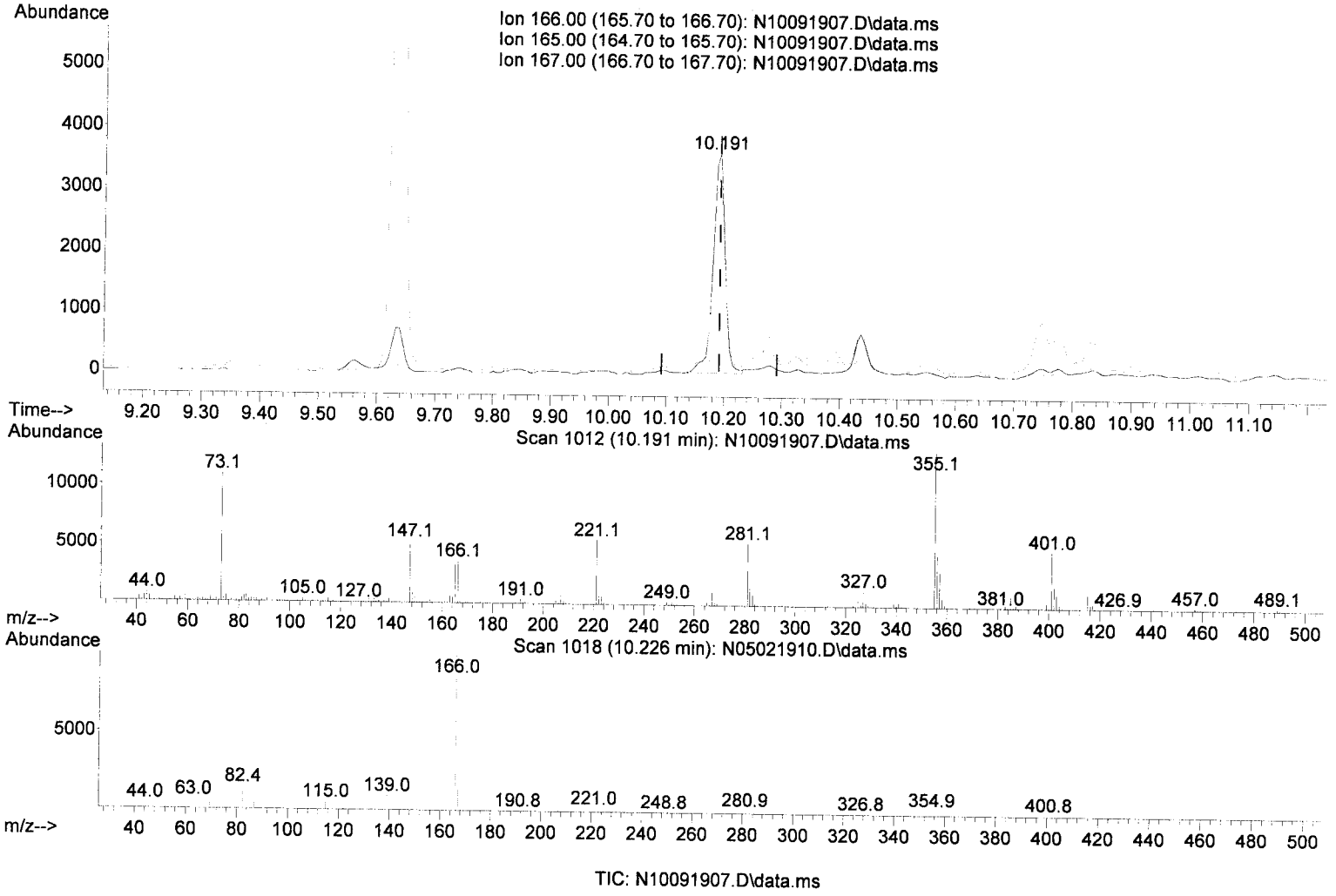
response 10230

Ion	Exp%	Act%
153.00	100.00	100.00
154.00	90.70	93.34
152.00	46.80	48.15
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091907.D
Acq On : 09 Oct 2019 11:37 am
Operator : JK/ AMS/ DTH
Sample : A9J0058-18
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:25:59 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091907.D\data.ms

(16) Fluorene (T)

10.191min (+ 0.000) 2.81 ng/ml

response 5237

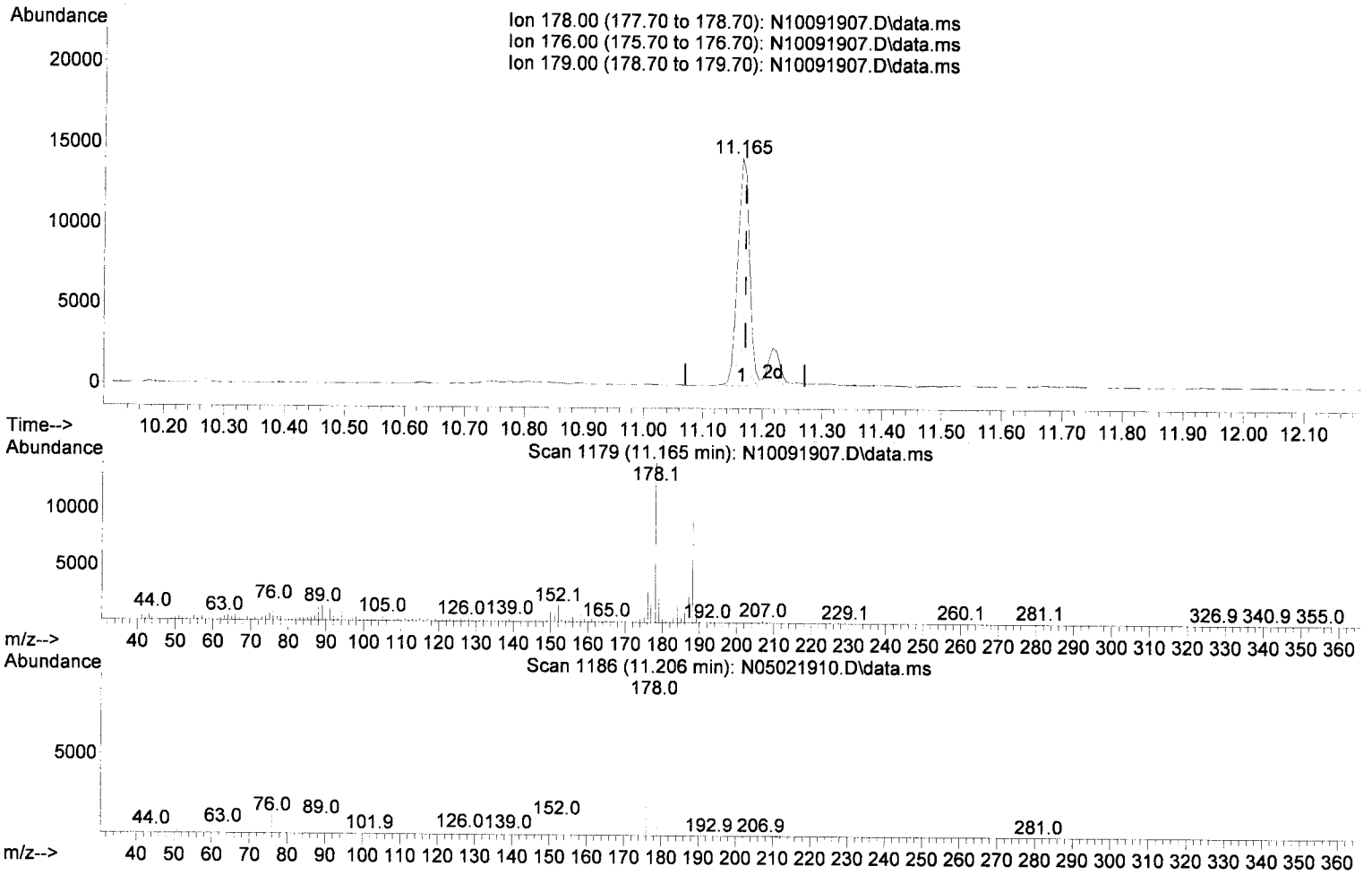
Ion	Exp%	Act%
166.00	100.00	100.00
165.00	95.70	90.04
167.00	13.60	15.85
0.00	0.00	0.00

J

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091907.D
Acq On : 09 Oct 2019 11:37 am
Operator : JK/ AMS/ DTH
Sample : A9J0058-18
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:25:59 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091907.D\data.ms

(19) Phenanthrene (T)

11.165min (-0.006) 7.34 ng/ml

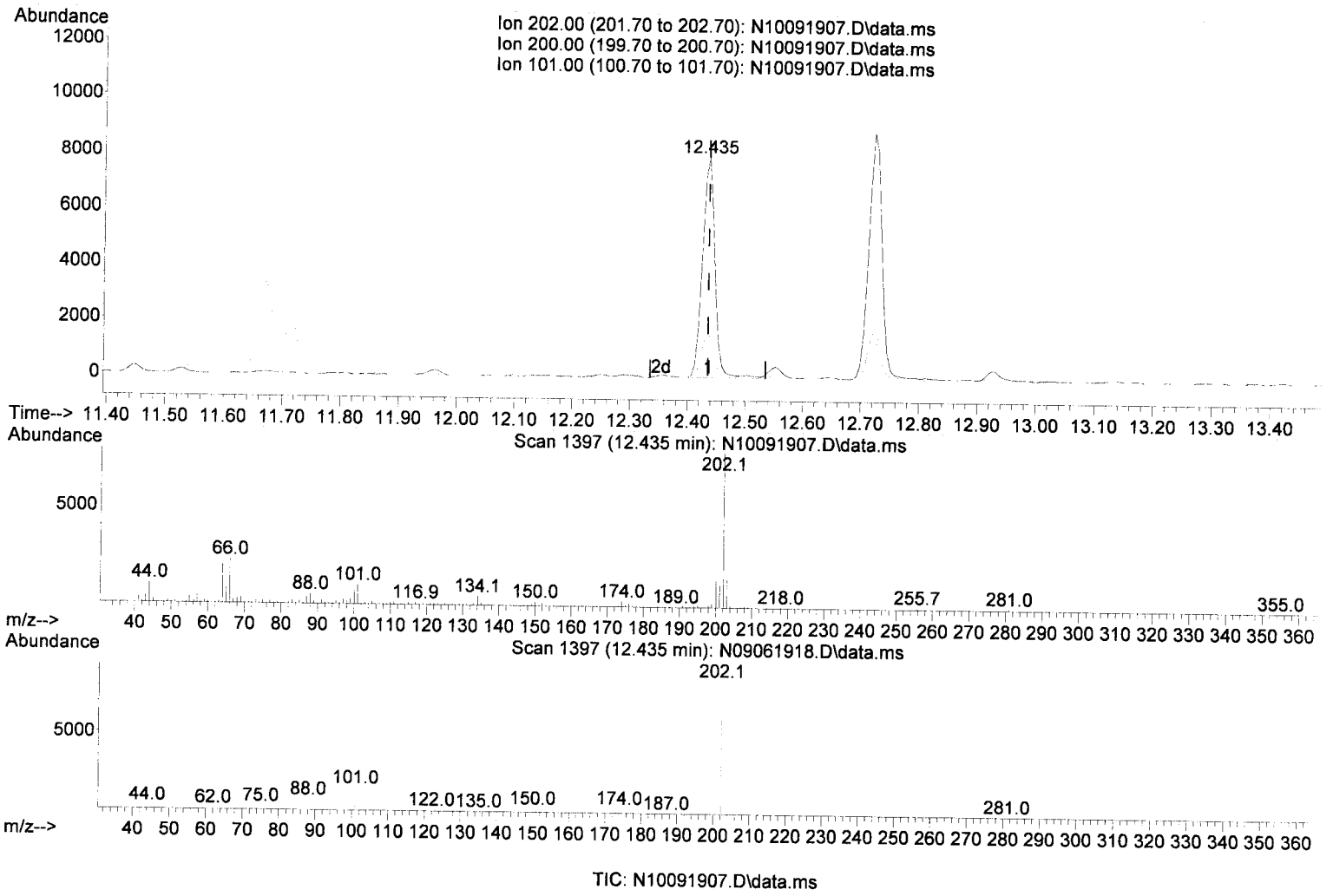
response 19773

Ion	Exp%	Act%
178.00	100.00	100.00
176.00	19.00	18.99
179.00	15.10	16.26
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091907.D
Acq On : 09 Oct 2019 11:37 am
Operator : JK/ AMS/ DTH
Sample : A9J0058-18
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:25:59 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091907.D\data.ms

(23) Fluoranthene (T)

12.435min (+ 0.000) 4.30 ng/ml

response 11660

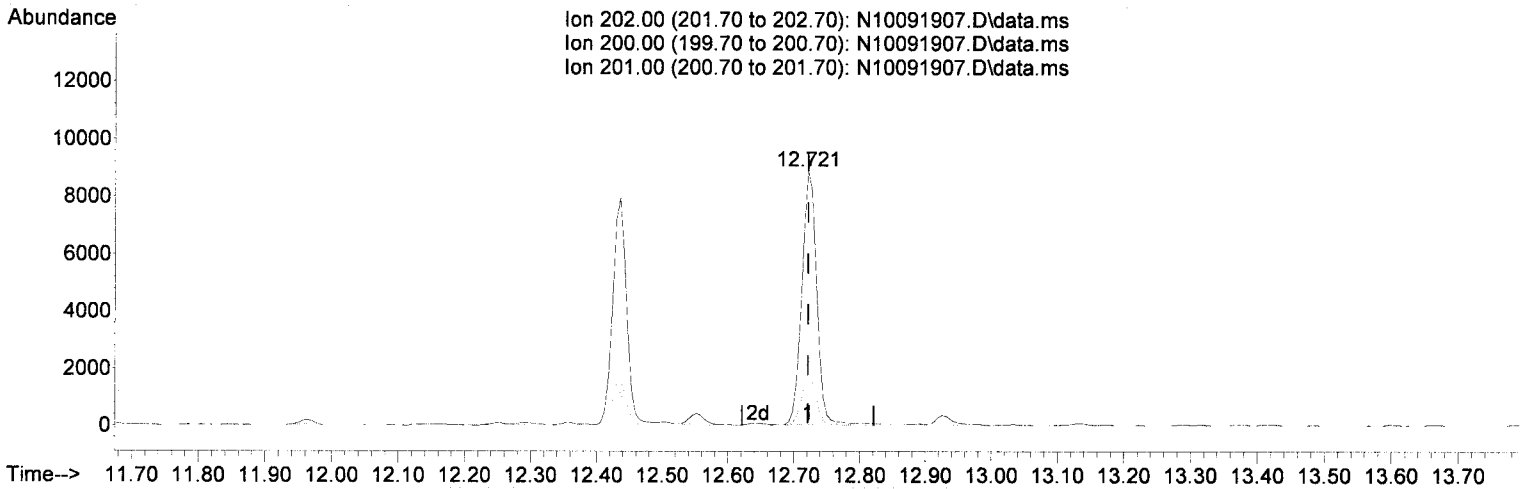
Ion	Exp%	Act%
202.00	100.00	100.00
200.00	19.70	20.40
101.00	15.30	12.72
0.00	0.00	0.00

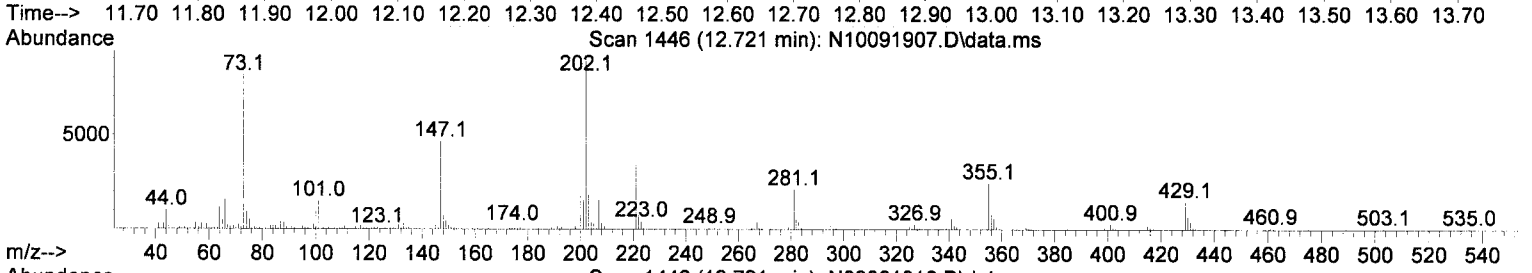
J

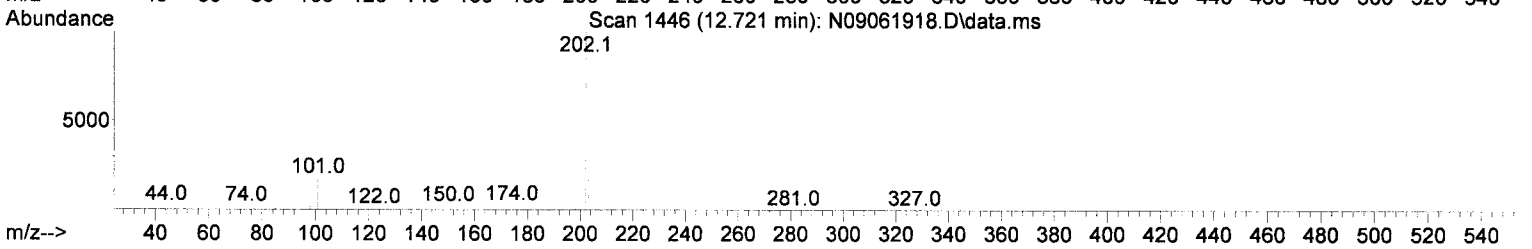
Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091907.D
Acq On : 09 Oct 2019 11:37 am
Operator : JK/ AMS/ DTH
Sample : A9J0058-18
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:25:59 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14







TIC: N10091907.D\data.ms

(25) Pyrene (T)

12.721min (+ 0.000) 4.88 ng/ml

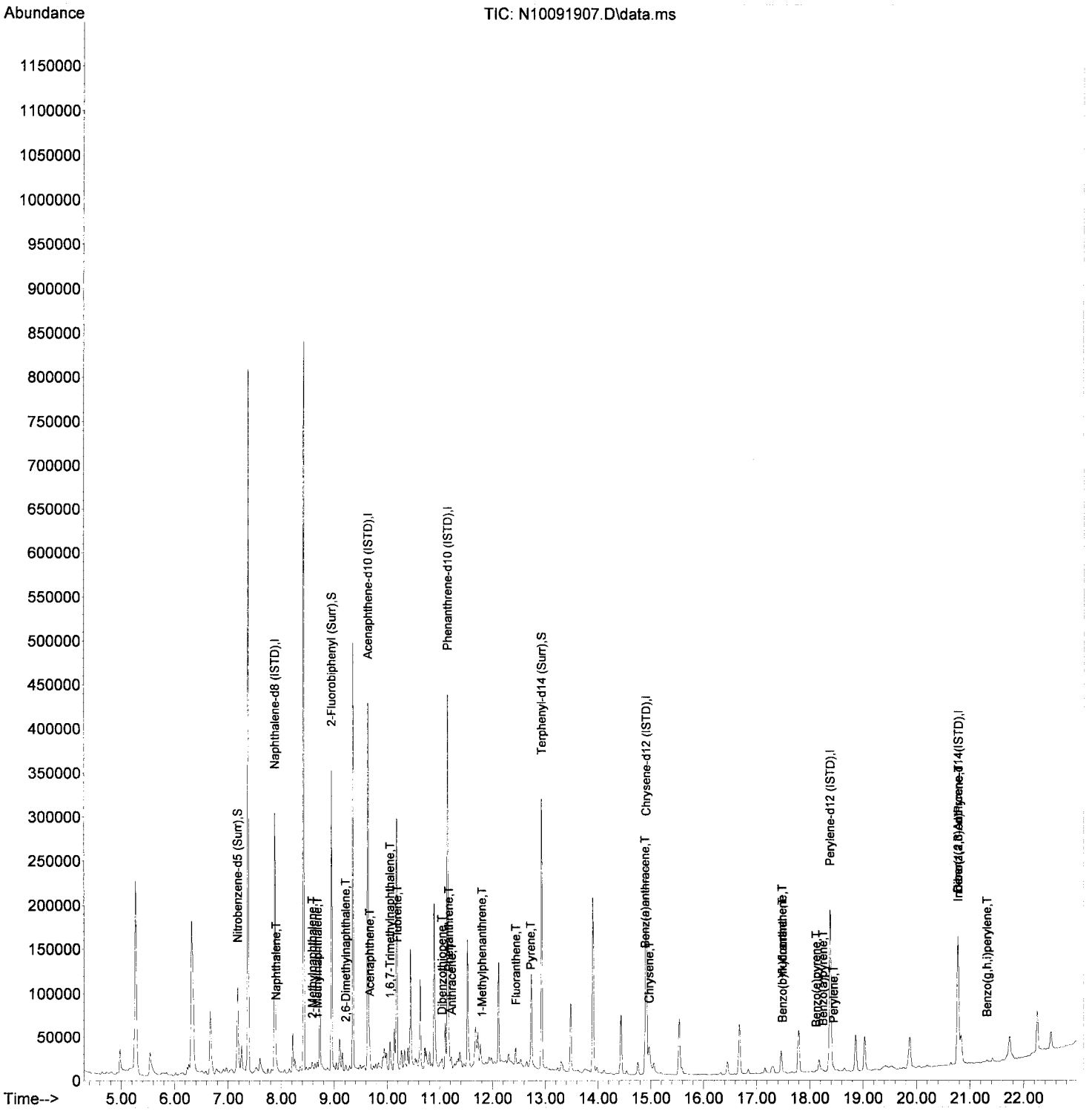
response 14021

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	20.70	20.15
201.00	16.80	17.62
0.00	0.00	0.00

J

Data Path : U:\data\2019-10\9J09031\
Data File : N10091907.D
Acq On : 09 Oct 2019 11:37 am
Operator : JK/ AMS/ DTH
Sample : A9J0058-18
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:25:59 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091908.D
Acq On : 09 Oct 2019 12:10 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-19
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

AMS
10/9/19

Quant Time: Oct 09 14:26:02 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

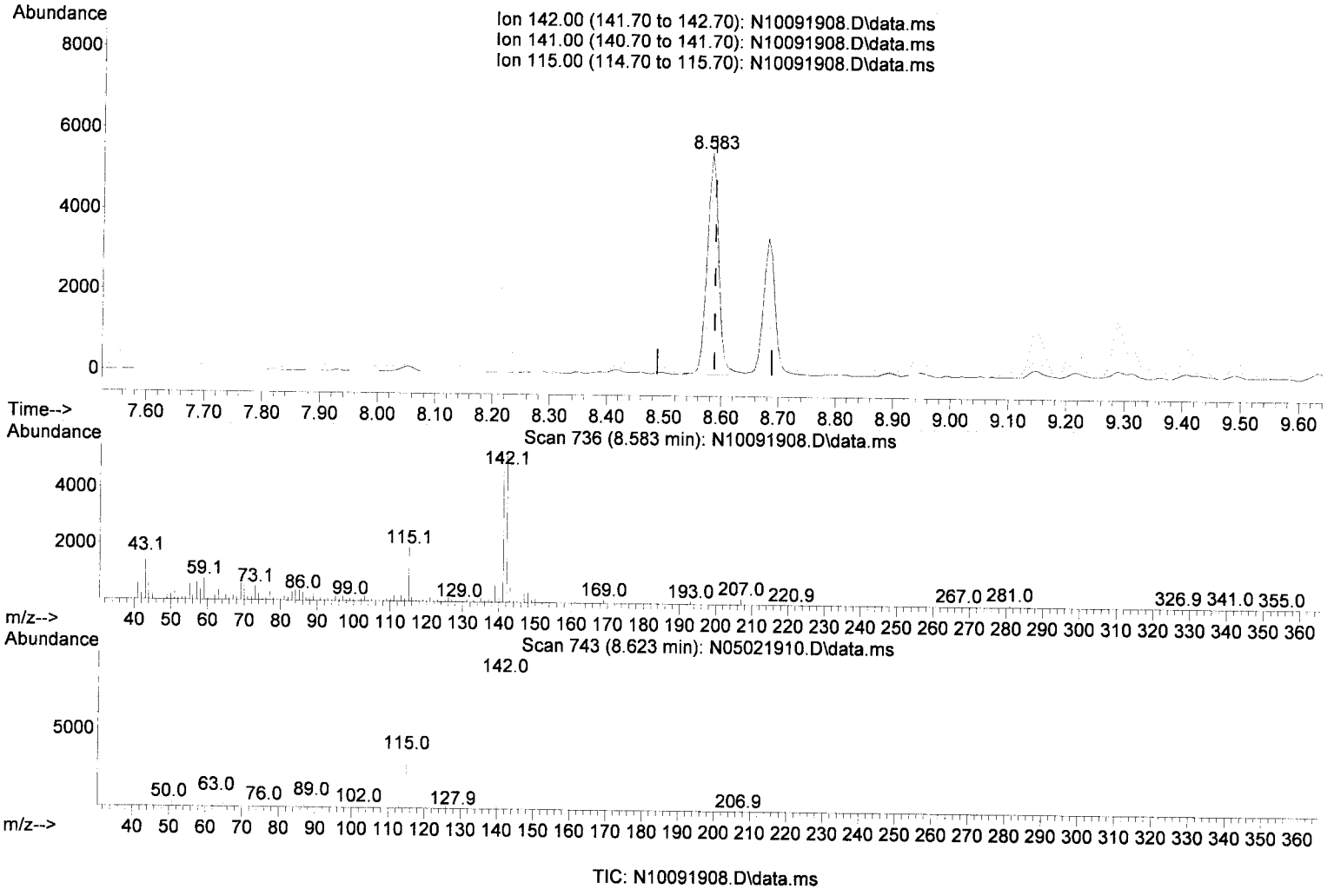
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	214668	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.632	162	129732	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	243122	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	194730	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	177014	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.770	292	147320	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.178	82	56980	79.88	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.944	172	163884	84.68	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	1763	-1.00	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.925	244	180394	88.08	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.353	138	81	0.51	ng/ml#	59
4) Naphthalene	7.901	128	4776	2.02	ng/ml	97
5) 2-Methylnaphthalene	8.583	142	7829	3.90	ng/ml	98
6) 1-Methylnaphthalene	8.682	142	4922	2.45	ng/ml	99
7) 1,1'-Biphenyl	9.049	154	863	N.D.		
8) 2,6-Dimethylnaphthalene	9.212	156	2049	1.04	ng/ml	95
12) Acenaphthylene	9.492	152	1033	N.D.		
13) Acenaphthene	9.667	153	21147	11.46	ng/ml	99
14) Dibenzofuran	9.842	168	1025	0.44	ng/ml#	74
15) 1,6,7-Trimethylnaphtha...	10.051	170	698	0.45	ng/ml#	1
16) Fluorene	10.191	166	4055	2.15	ng/ml	98
18) Dibenzothiopene	11.036	184	3003	1.18	ng/ml	95
19) Phenanthrene	11.165	178	17506	6.15	ng/ml	98
20) Anthracene	11.217	178	2112	0.80	ng/ml	94
21) Carbazole	11.380	167	801	N.D.		
22) 1-Methylphenanthrene	11.788	192	526	N.D.		
23) Fluoranthene	12.435	202	3454	1.21	ng/ml	96
25) Pyrene	12.721	202	3885	1.28	ng/ml	99
27) Benz(a)anthracene	14.901	228	1120	0.50	ng/ml	87
28) Chrysene	14.965	228	610	N.D.		
30) Benzo(b)fluoranthene	17.471	252	457	N.D.		
31) Benzo(k)fluoranthene	17.535	252	157	N.D.		
32) Benzo(b+k)fluoranthene	17.471	252	662	N.D.		
34) Benzo(e)pyrene	18.124	252	288	N.D.		
35) Benzo(a)pyrene	18.235	252	451	N.D.		
36) Perylene	18.439	252	8561	3.98	ng/ml	98
38) Indeno(1,2,3-cd)Pyrene	20.770	276	373	N.D.		
39) Dibenz(a,h)anthracene	20.840	278	93	N.D.		
40) Benzo(g,h,i)perylene	21.312	276	275	N.D.		

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

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091908.D
Acq On : 09 Oct 2019 12:10 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-19
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:26:02 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091908.D\data.ms

(5) 2-Methylnaphthalene (T)

8.583min (-0.006) 3.90 ng/ml

response 7829

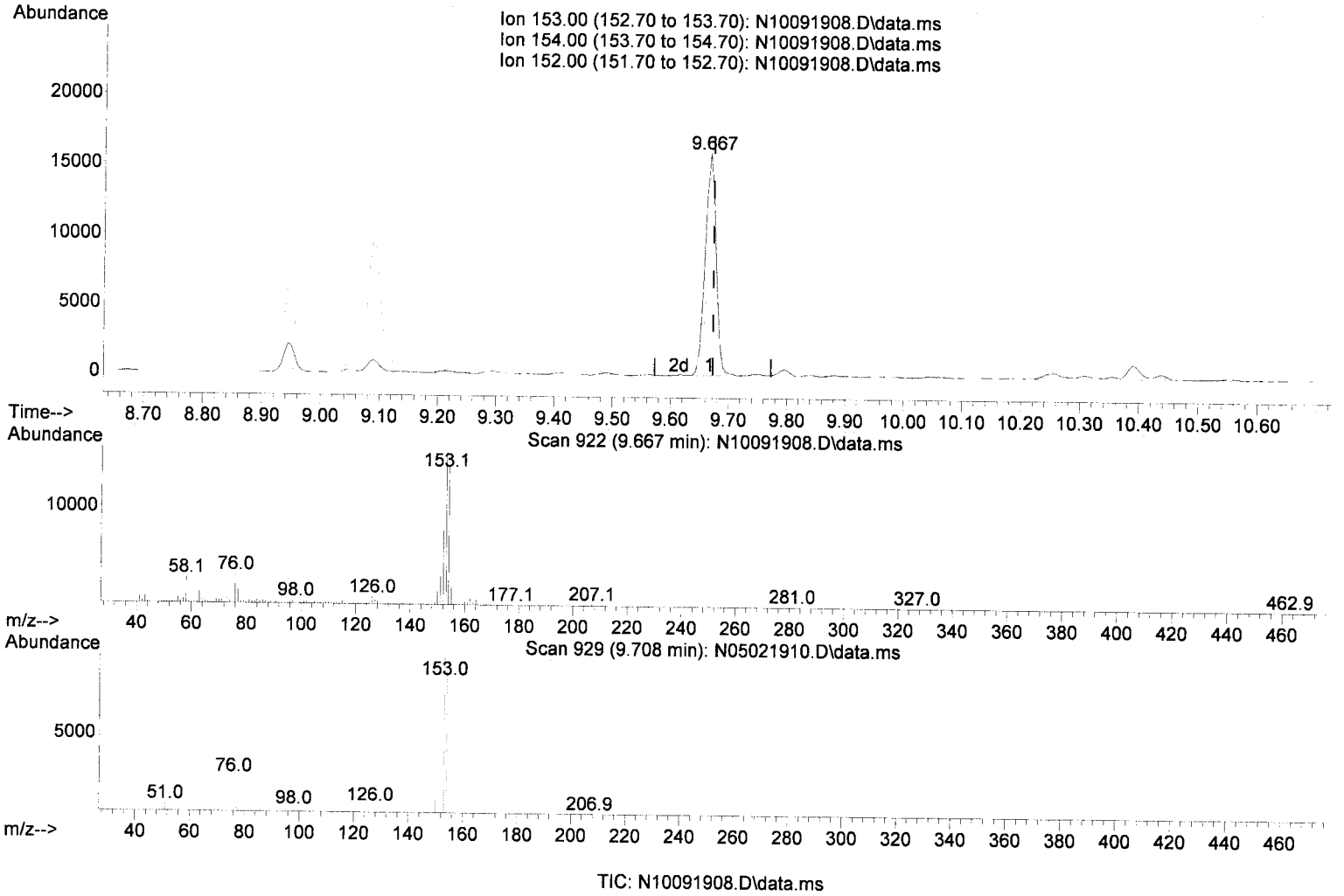
Ion	Exp%	Act%
142.00	100.00	100.00
141.00	86.60	84.47
115.00	35.70	34.80
0.00	0.00	0.00

J

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091908.D
Acq On : 09 Oct 2019 12:10 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-19
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:26:02 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091908.D\data.ms

(13) Acenaphthene (T)

9.667min (-0.006) 11.46 ng/ml

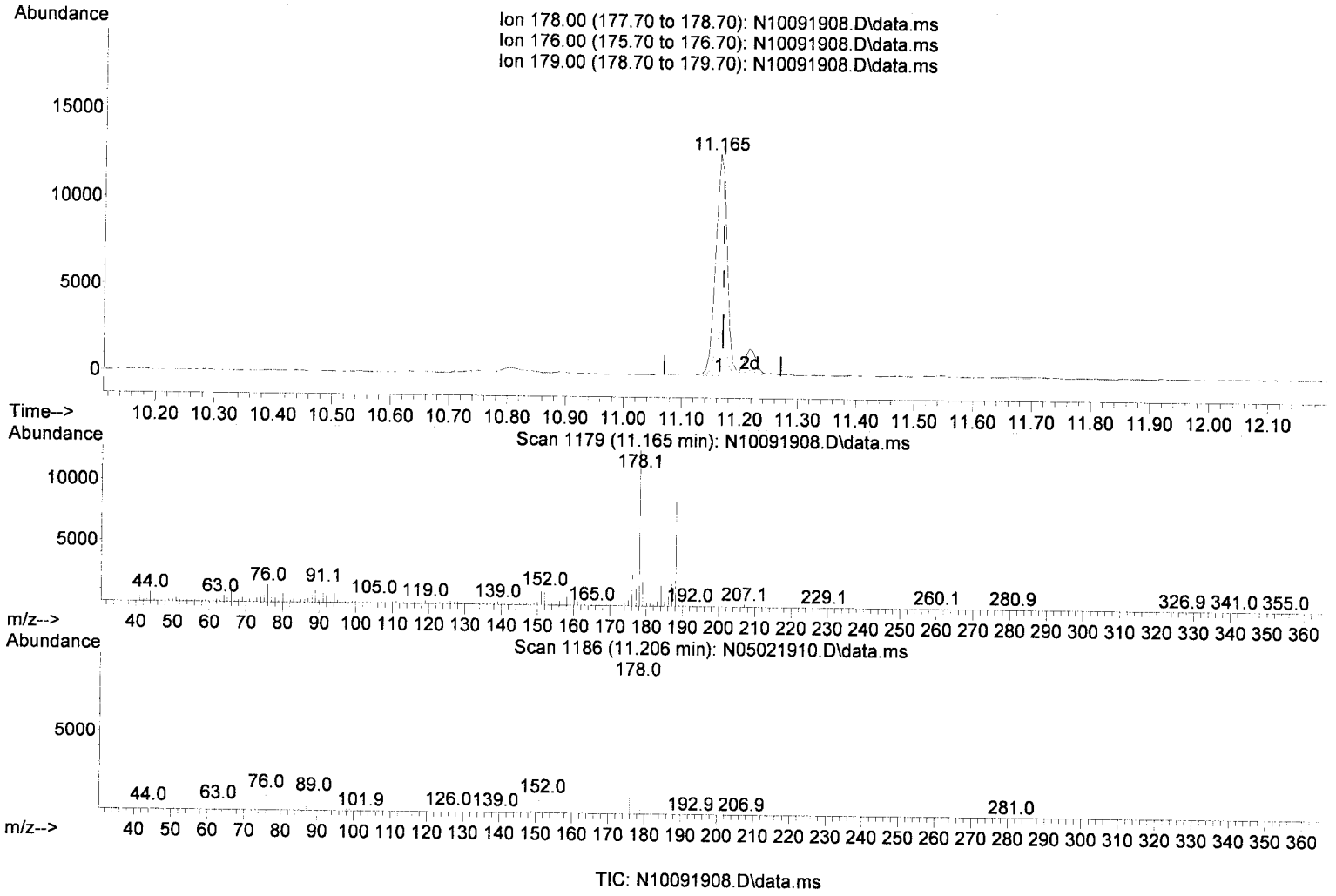
response 21147

Ion	Exp%	Act%
153.00	100.00	100.00
154.00	90.70	89.49
152.00	46.80	47.88
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091908.D
Acq On : 09 Oct 2019 12:10 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-19
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:26:02 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091908.D\data.ms

(19) Phenanthrene (T)

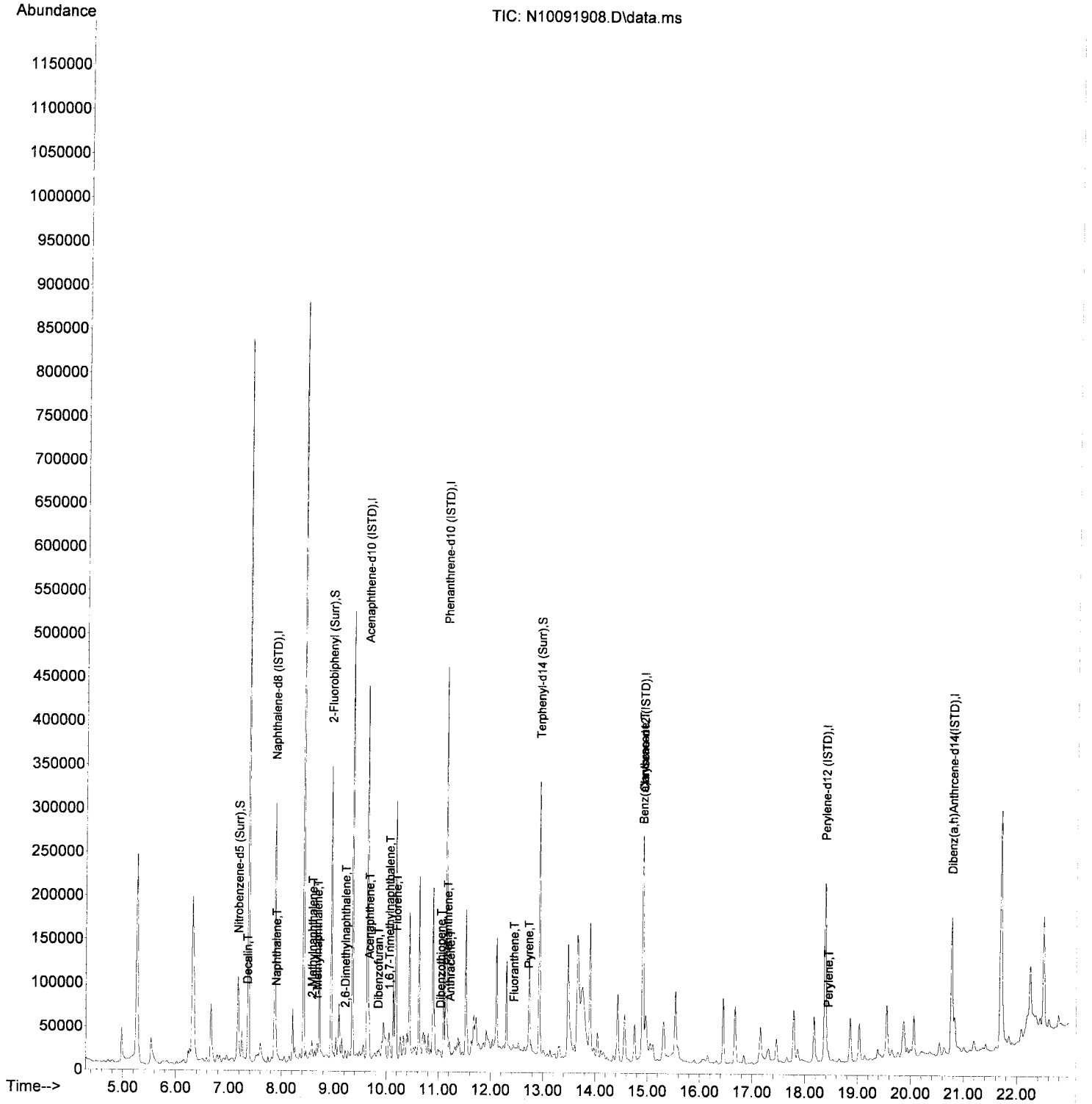
11.165min (-0.006) 6.15 ng/ml

response 17506

Ion	Exp%	Act%
178.00	100.00	100.00
176.00	19.00	20.28
179.00	15.10	15.77
0.00	0.00	0.00

Data Path : U:\data\2019-10\9J09031\
Data File : N10091908.D
Acq On : 09 Oct 2019 12:10 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-19
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:26:02 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091909.D
Acq On : 09 Oct 2019 12:42 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-20
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

AMS 10/9/19

Quant Time: Oct 09 14:26:05 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

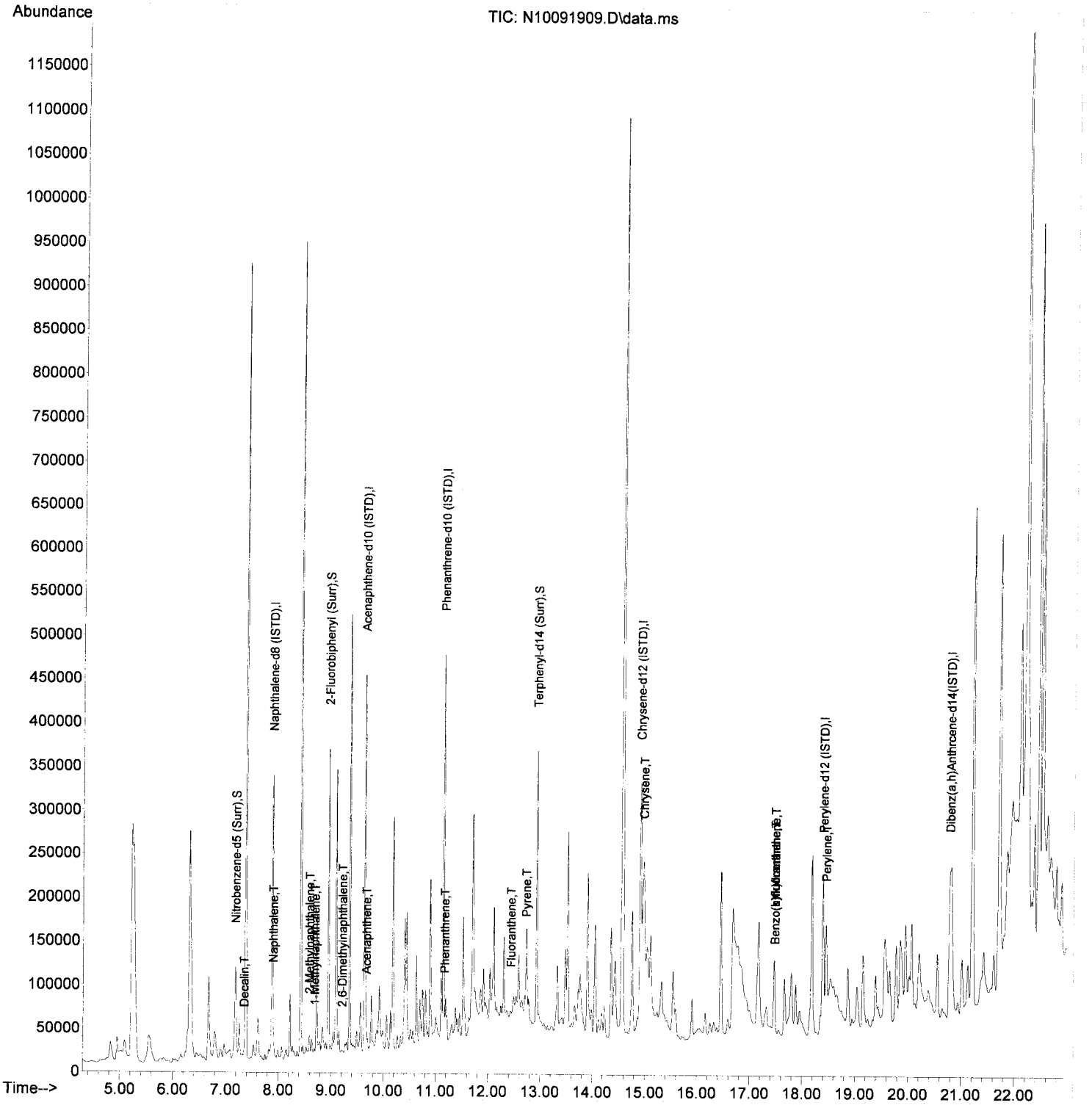
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	228977	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.637	162	126831	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	230185	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.912	240	186611	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.392	264	160229	100.00	ng/ml	0.02
37) Dibenz(a,h)Anthrcene-d...	20.782	292	131579	100.00	ng/ml	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	60381	79.36	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	161408	85.31	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	2295	-1.00	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	176500	89.93	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.206	264	118	0.09	ng/ml	0.03
Target Compounds						Qvalue
3) Decalin	7.347	138	155	0.91	ng/ml#	53
4) Naphthalene	7.900	128	3451	1.37	ng/ml	89
5) 2-Methylnaphthalene	8.588	142	1958	0.91	ng/ml	89
6) 1-Methylnaphthalene	8.687	142	1552	0.73	ng/ml	93
7) 1,1'-Biphenyl	9.049	154	901	N.D.		
8) 2,6-Dimethylnaphthalene	9.212	156	959	0.46	ng/ml	98
12) Acenaphthylene	9.498	152	444	N.D.		
13) Acenaphthene	9.672	153	2484	1.38	ng/ml	94
14) Dibenzofuran	9.841	168	450	N.D.		
15) 1,6,7-Trimethylnaphtha...	10.051	170	280	N.D.		
16) Fluorene	10.191	166	657	N.D.		
18) Dibenzothiopene	11.042	184	515	N.D.		
19) Phenanthrene	11.170	178	2749	1.02	ng/ml	82
20) Anthracene	11.217	178	608	N.D.		
21) Carbazole	11.386	167	398	N.D.		
22) 1-Methylphenanthrene	11.794	192	533	N.D.		
23) Fluoranthene	12.435	202	2420	0.89	ng/ml	83
25) Pyrene	12.727	202	2868	0.98	ng/ml	89
27) Benz(a)anthracene	14.895	228	747	N.D.		
28) Chrysene	14.976	228	864	0.42	ng/ml	50
30) Benzo(b)fluoranthene	17.483	252	796	0.43	ng/ml	59
31) Benzo(k)fluoranthene	17.483	252	943	0.52	ng/ml	63
32) Benzo(b+k)fluoranthene	17.483	252	1366	0.72	ng/ml	63
34) Benzo(e)pyrene	18.130	252	658	N.D.		
35) Benzo(a)pyrene	18.252	252	397	N.D.		
36) Perylene	18.450	252	102995	52.84	ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.782	276	547	N.D.		
39) Dibenz(a,h)anthracene	20.846	278	163	N.D.		
40) Benzo(g,h,i)perylene	21.318	276	574	N.D.		

J

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

Data Path : U:\data\2019-10\9J09031\
Data File : N10091909.D
Acq On : 09 Oct 2019 12:42 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-20
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:26:05 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091910.D
Acq On : 09 Oct 2019 01:14 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-21
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

AMS 10/9/19

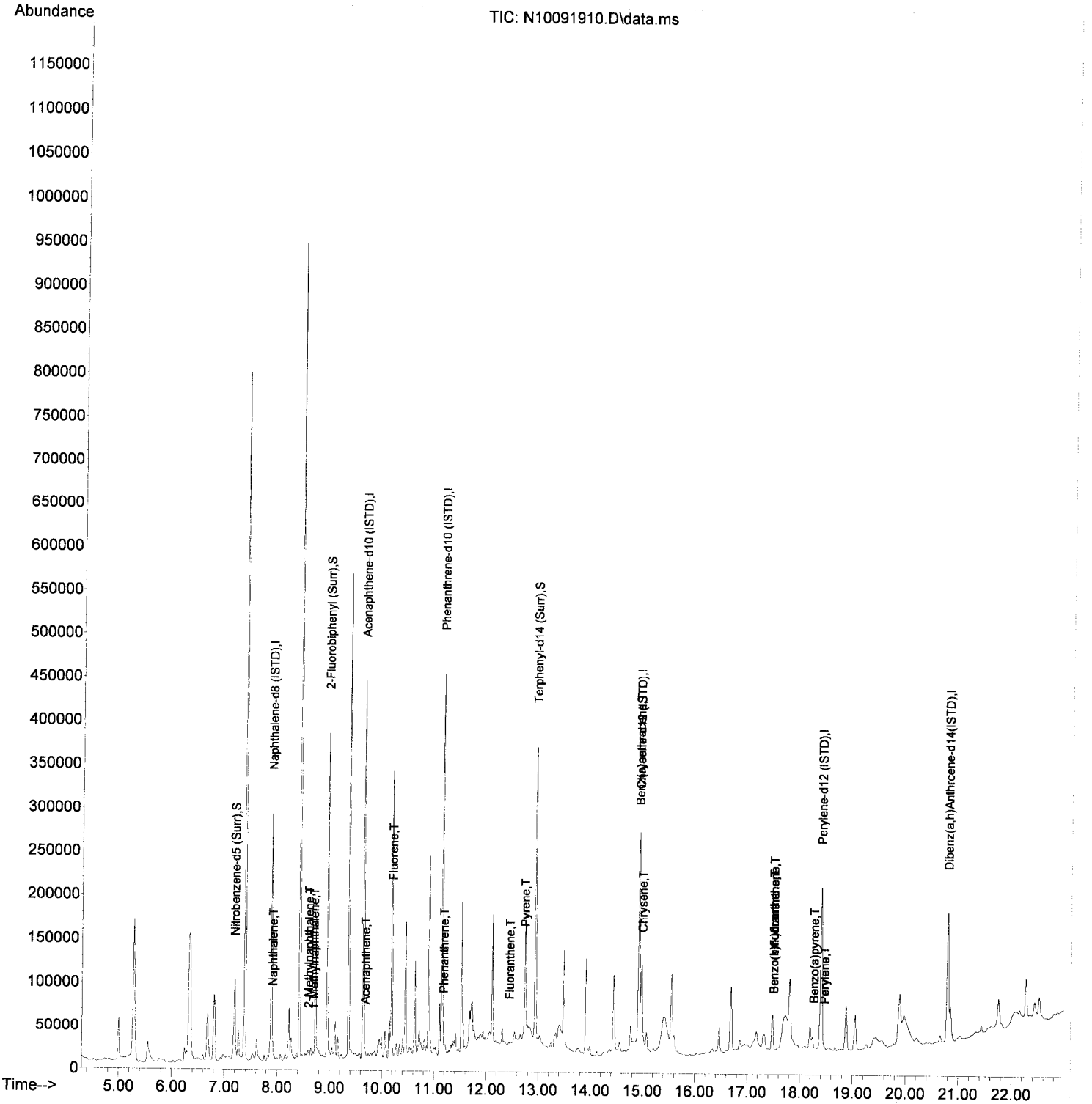
Quant Time: Oct 09 14:26:08 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.889	136	205906	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.643	162	127316	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.153	188	238206	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.924	240	188722	100.00 ng/ml	0.02
29) Perylene-d12 (ISTD)	18.398	264	166921	100.00 ng/ml	0.02
37) Dibenz(a,h)Anthrcene-d...	20.788	292	137005	100.00 ng/ml	0.02
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.190	82	56719	82.90 ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.956	172	177441	93.42 ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.486	160	1171	-1.00 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.937	244	198542	100.03 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	7.522	138	61	N.D.	
4) Naphthalene	7.912	128	2503	1.10 ng/ml	80
5) 2-Methylnaphthalene	8.594	142	1801	0.94 ng/ml	96
6) 1-Methylnaphthalene	8.693	142	1020	0.53 ng/ml	80
7) 1,1'-Biphenyl	9.061	154	829	N.D.	
8) 2,6-Dimethylnaphthalene	9.224	156	589	N.D.	
12) Acenaphthylene	9.504	152	318	N.D.	
13) Acenaphthene	9.678	153	2332	1.29 ng/ml	97
14) Dibenzofuran	9.853	168	418	N.D.	
15) 1,6,7-Trimethylnaphtha...	10.075	170	290	N.D.	
16) Fluorene	10.197	166	1322	0.71 ng/ml	94
18) Dibenzothiopene	11.048	184	521	N.D.	
19) Phenanthrene	11.176	178	2978	1.07 ng/ml	96
20) Anthracene	11.229	178	309	N.D.	
21) Carbazole	11.392	167	502	N.D.	
22) 1-Methylphenanthrene	11.800	192	340	N.D.	
23) Fluoranthene	12.441	202	2121	0.76 ng/ml	90
25) Pyrene	12.733	202	2397	0.81 ng/ml	94
27) Benz(a)anthracene	14.918	228	1060	0.48 ng/ml	72
28) Chrysene	14.982	228	1063	0.51 ng/ml	76
30) Benzo(b)fluoranthene	17.495	252	987	0.51 ng/ml	85
31) Benzo(k)fluoranthene	17.495	252	1185	0.62 ng/ml	88
32) Benzo(b+k)fluoranthene	17.495	252	1231	0.62 ng/ml	88
34) Benzo(e)pyrene	18.142	252	641	N.D.	
35) Benzo(a)pyrene	18.258	252	774	0.47 ng/ml#	57
36) Perylene	18.462	252	2697	1.33 ng/ml	93
38) Indeno(1,2,3-cd)Pyrene	20.794	276	589	N.D.	
39) Dibenz(a,h)anthracene	20.846	278	78	N.D.	
40) Benzo(g,h,i)perylene	21.330	276	660	N.D.	

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

Data Path : U:\data\2019-10\9J09031\
Data File : N10091910.D
Acq On : 09 Oct 2019 01:14 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-21
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:26:08 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091911.D
Acq On : 09 Oct 2019 01:46 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-22
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

AMS 10/9/19

Quant Time: Oct 09 14:26:11 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

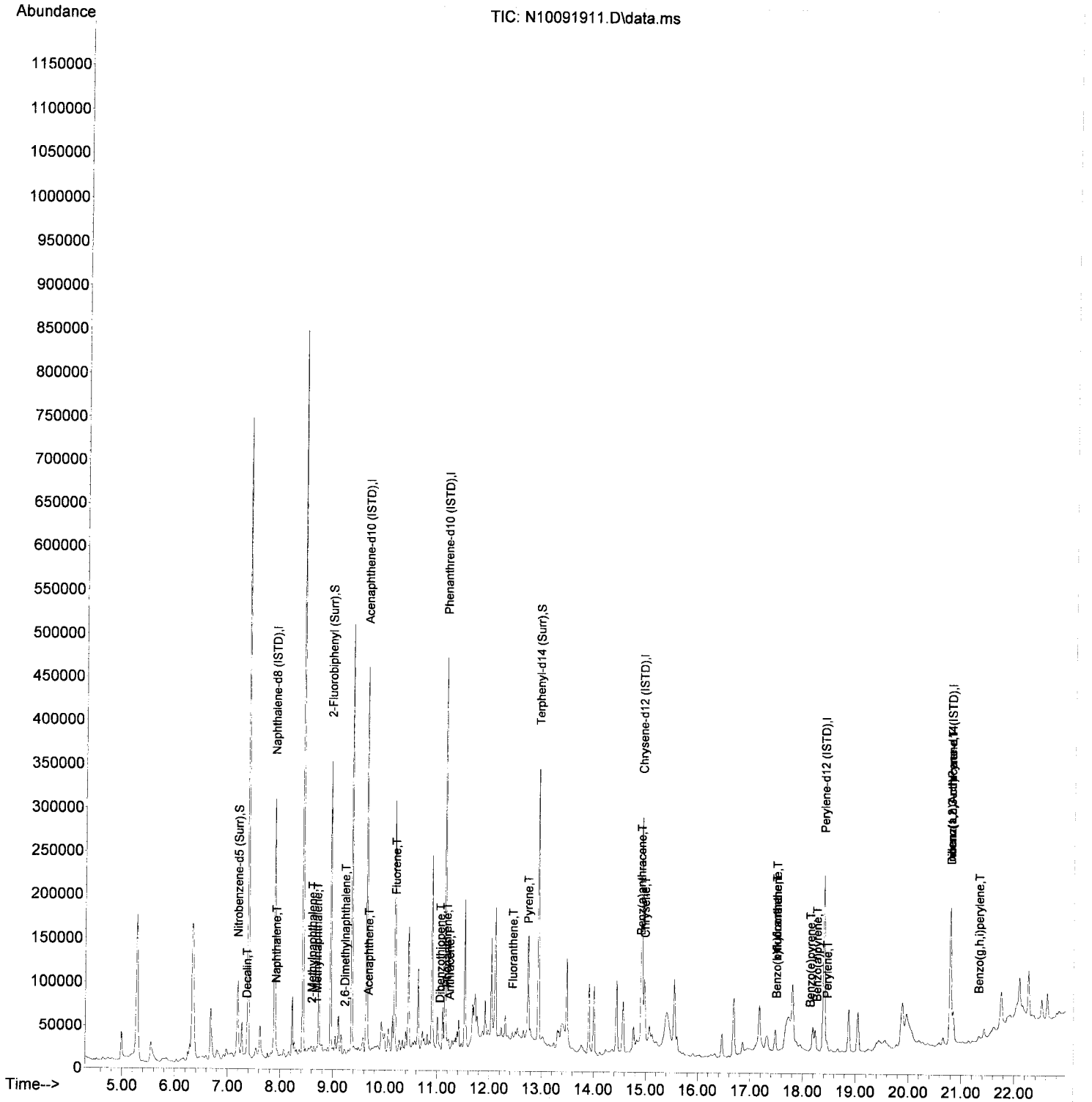
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.889	136	210180	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.643	162	130041	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.153	188	245301	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.924	240	198082	100.00 ng/ml	0.02
29) Perylene-d12 (ISTD)	18.398	264	174296	100.00 ng/ml	0.02
37) Dibenz(a,h)Anthrcene-d...	20.788	292	143681	100.00 ng/ml	0.02
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.190	82	51274	73.41 ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.956	172	159009	81.96 ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.486	160	1592	-1.00 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.937	244	180691	86.73 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	7.359	138	98	0.63 ng/ml#	1
4) Naphthalene	7.912	128	3747	1.62 ng/ml	91
5) 2-Methylnaphthalene	8.594	142	2211	1.13 ng/ml	96
6) 1-Methylnaphthalene	8.693	142	1540	0.78 ng/ml	88
7) 1,1'-Biphenyl	9.061	154	963	N.D.	
8) 2,6-Dimethylnaphthalene	9.224	156	1111	0.58 ng/ml	93
12) Acenaphthylene	9.504	152	940	N.D.	
13) Acenaphthene	9.678	153	2449	1.32 ng/ml	97
14) Dibenzofuran	9.853	168	442	N.D.	
15) 1,6,7-Trimethylnaphtha...	10.057	170	574	N.D.	
16) Fluorene	10.197	166	1614	0.85 ng/ml	96
18) Dibenzothiopene	11.048	184	1029	0.40 ng/ml	69
19) Phenanthrene	11.176	178	3941	1.37 ng/ml	92
20) Anthracene	11.229	178	2451	0.92 ng/ml	95
21) Carbazole	11.392	167	406	N.D.	
22) 1-Methylphenanthrene	11.800	192	548	N.D.	
23) Fluoranthene	12.441	202	5238	1.81 ng/ml	98
25) Pyrene	12.733	202	6472	2.09 ng/ml	98
27) Benz(a)anthracene	14.901	228	2015	0.88 ng/ml	84
28) Chrysene	14.977	228	2296	1.05 ng/ml	81
30) Benzo(b)fluoranthene	17.495	252	1854	0.92 ng/ml	88
31) Benzo(k)fluoranthene	17.495	252	2474	1.25 ng/ml	91
32) Benzo(b+k)fluoranthene	17.495	252	2549	1.24 ng/ml	91
34) Benzo(e)pyrene	18.136	252	1366	0.67 ng/ml	93
35) Benzo(a)pyrene	18.258	252	1638	0.95 ng/ml	81
36) Perylene	18.456	252	9286	4.38 ng/ml	96
38) Indeno(1,2,3-cd)Pyrene	20.788	276	1237	0.70 ng/ml	60
39) Dibenz(a,h)anthracene	20.852	278	271	N.D.	
40) Benzo(g,h,i)perylene	21.324	276	1434	0.76 ng/ml	88

J

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

Data Path : U:\data\2019-10\9J09031\
Data File : N10091911.D
Acq On : 09 Oct 2019 01:46 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-22
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:26:11 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091912.D
Acq On : 09 Oct 2019 02:18 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-23
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

AMS
10/9/19

Quant Time: Oct 09 14:44:20 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	212723	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.637	162	131017	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	238593	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	186663	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.386	264	161732	100.00	ng/ml	0.01
37) Dibenz(a,h)Anthrcene-d...	20.776	292	131833	100.00	ng/ml	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.178	82	56623	80.10	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	173711	88.87	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	1402	-1.00	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	177371	90.35	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	7.347	138	159	1.00	ng/ml#	59
4) Naphthalene	7.901	128	5499	2.34	ng/ml	93
5) 2-Methylnaphthalene	8.582	142	4358	2.19	ng/ml	97
6) 1-Methylnaphthalene	8.682	142	2349	1.18	ng/ml	92
7) 1,1'-Biphenyl	9.049	154	910	N.D.		
8) 2,6-Dimethylnaphthalene	9.212	156	2103	1.08	ng/ml	98
12) Acenaphthylene	9.492	152	1387	0.49	ng/ml	83
13) Acenaphthene	9.667	153	2412	1.29	ng/ml	92
14) Dibenzofuran	9.841	168	957	0.41	ng/ml#	60
15) 1,6,7-Trimethylnaphtha...	10.051	170	876	0.56	ng/ml#	32
16) Fluorene	10.191	166	2909	1.53	ng/ml	96
18) Dibenzothiopene	11.042	184	3397	1.36	ng/ml	94
19) Phenanthrene	11.165	178	5959	2.13	ng/ml	97
20) Anthracene	11.217	178	2131	0.82	ng/ml	90
21) Carbazole	11.380	167	459	N.D.		
22) 1-Methylphenanthrene	11.788	192	3351	1.73	ng/ml	89
23) Fluoranthene	12.435	202	30090	10.70	ng/ml	97
25) Pyrene	12.721	202	39556	13.56	ng/ml	99
27) Benz(a)anthracene	14.889	228	6484	2.99	ng/ml	86
28) Chrysene	14.965	228	7559	3.69	ng/ml	93
30) Benzo(b)fluoranthene	17.477	252	4752	2.55	ng/ml	94
31) Benzo(k)fluoranthene	~~17.477~~	~~252~~	~~5645~~	~~3.07~~	~~ng/ml~~	~~92~~ MI-ND
32) Benzo(b+k)fluoranthene	17.477	252	6678	3.50	ng/ml	92
34) Benzo(e)pyrene	18.124	252	3050	1.62	ng/ml	94
35) Benzo(a)pyrene	18.241	252	4023	2.52	ng/ml	95
36) Perylene	18.445	252	6448	3.28	ng/ml	97
38) Indeno(1,2,3-cd)Pyrene	20.776	276	2328	1.43	ng/ml	97
39) Dibenz(a,h)anthracene	20.834	278	287	N.D.		
40) Benzo(g,h,i)perylene	21.312	276	2836	1.64	ng/ml	94

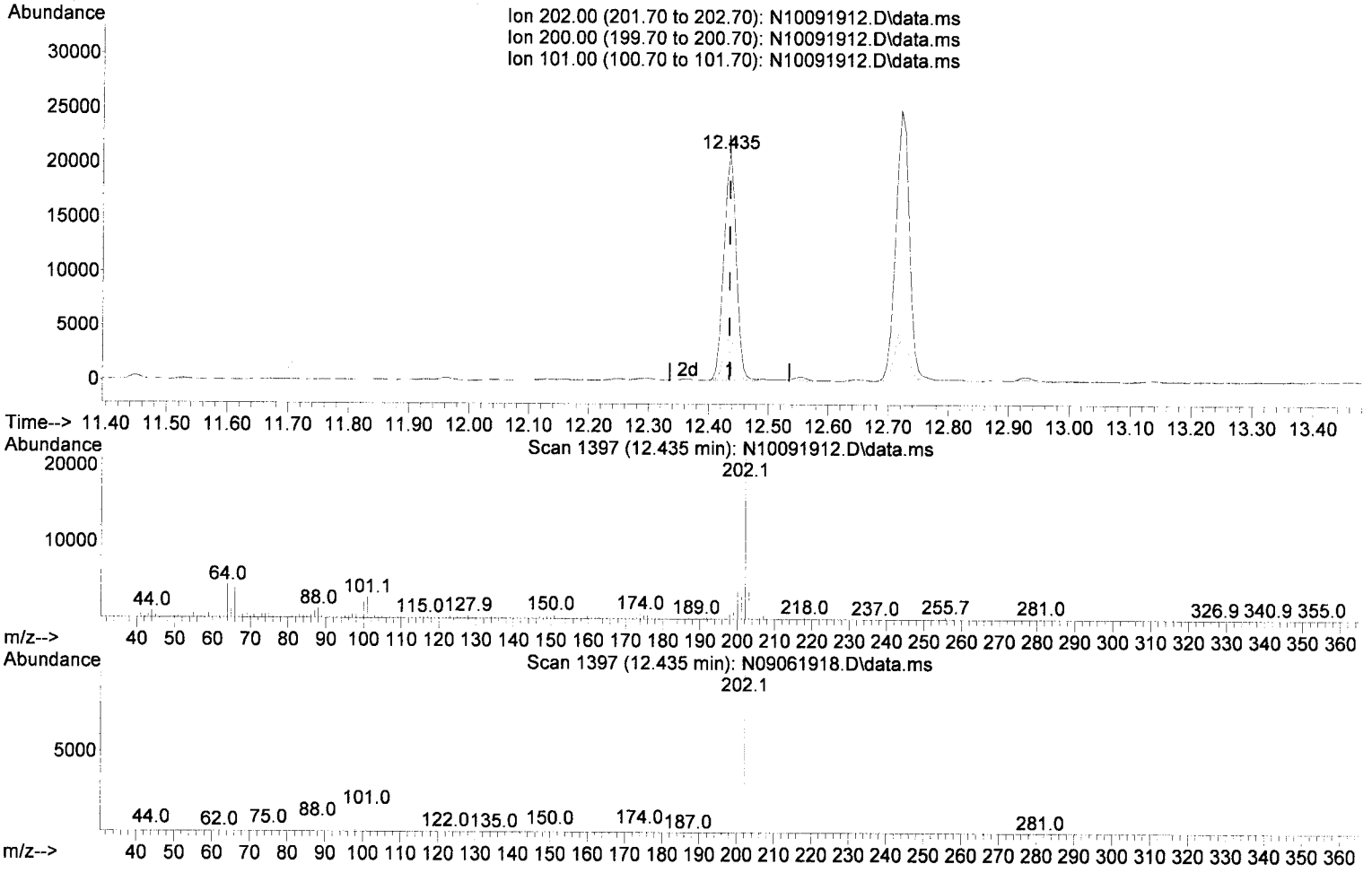
J

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

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091912.D
Acq On : 09 Oct 2019 02:18 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-23
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:44:20 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091912.D\data.ms

(23) Fluoranthene (T)

12.435min (+ 0.000) 10.70 ng/ml

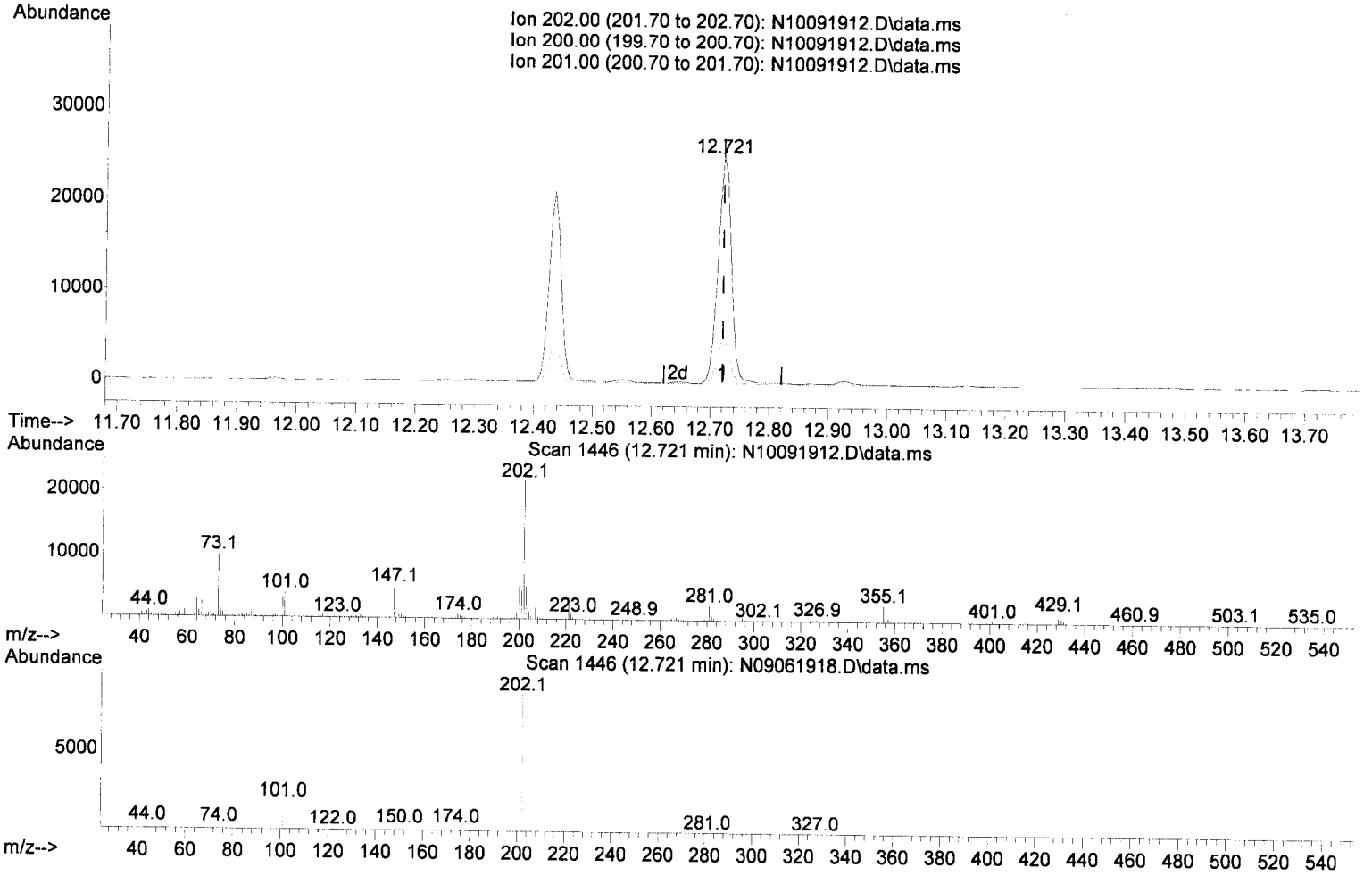
response 30090

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	19.70	19.73
101.00	15.30	12.86
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091912.D
Acq On : 09 Oct 2019 02:18 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-23
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:44:20 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091912.D\data.ms

(25) Pyrene (T)

12.721min (-0.000) 13.56 ng/ml

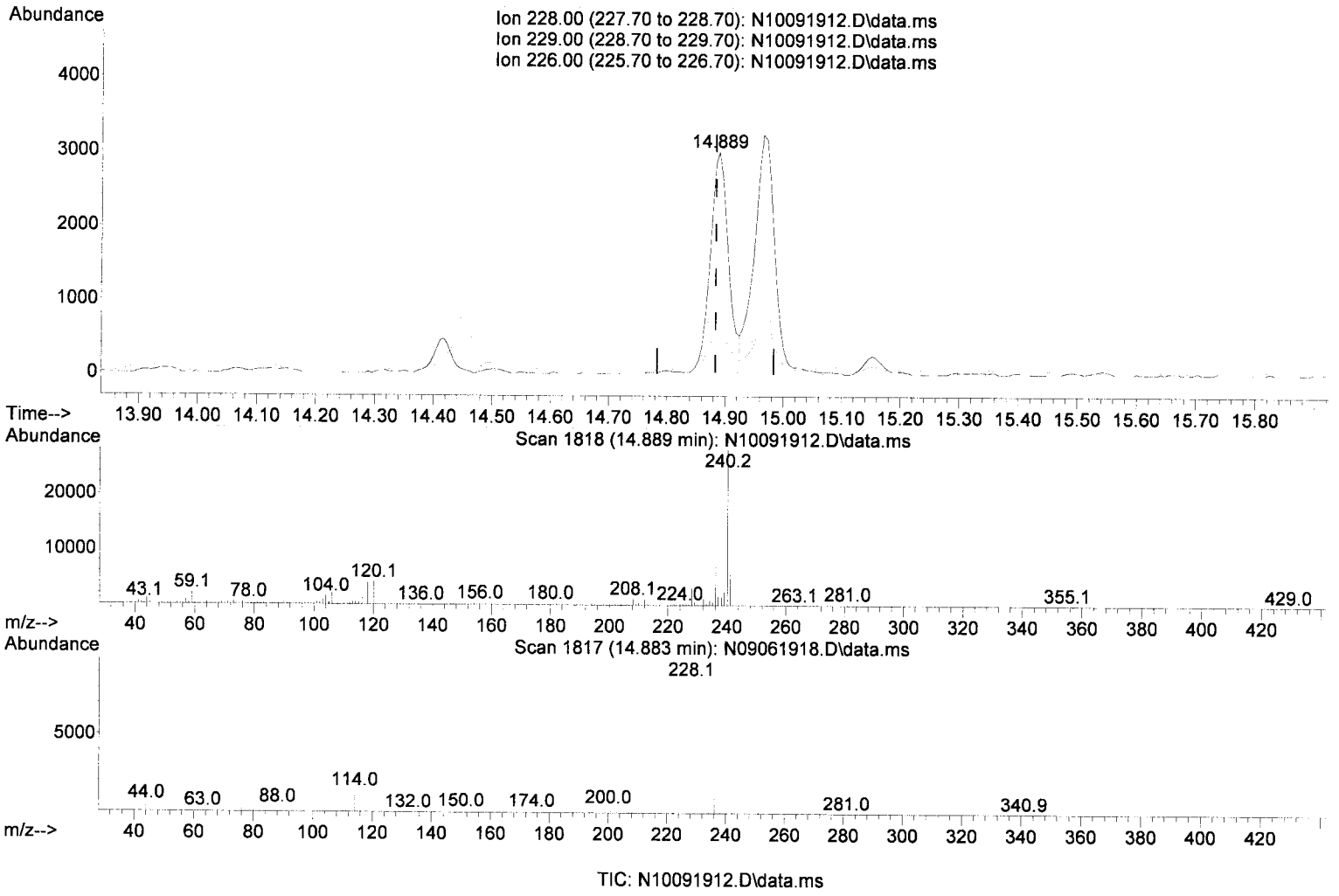
response 39556

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	20.70	20.19
201.00	16.80	17.39
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091912.D
Acq On : 09 Oct 2019 02:18 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-23
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:44:20 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091912.D\data.ms

(27) Benz(a)anthracene (T)

14.889min (+ 0.006) 2.99 ng/ml

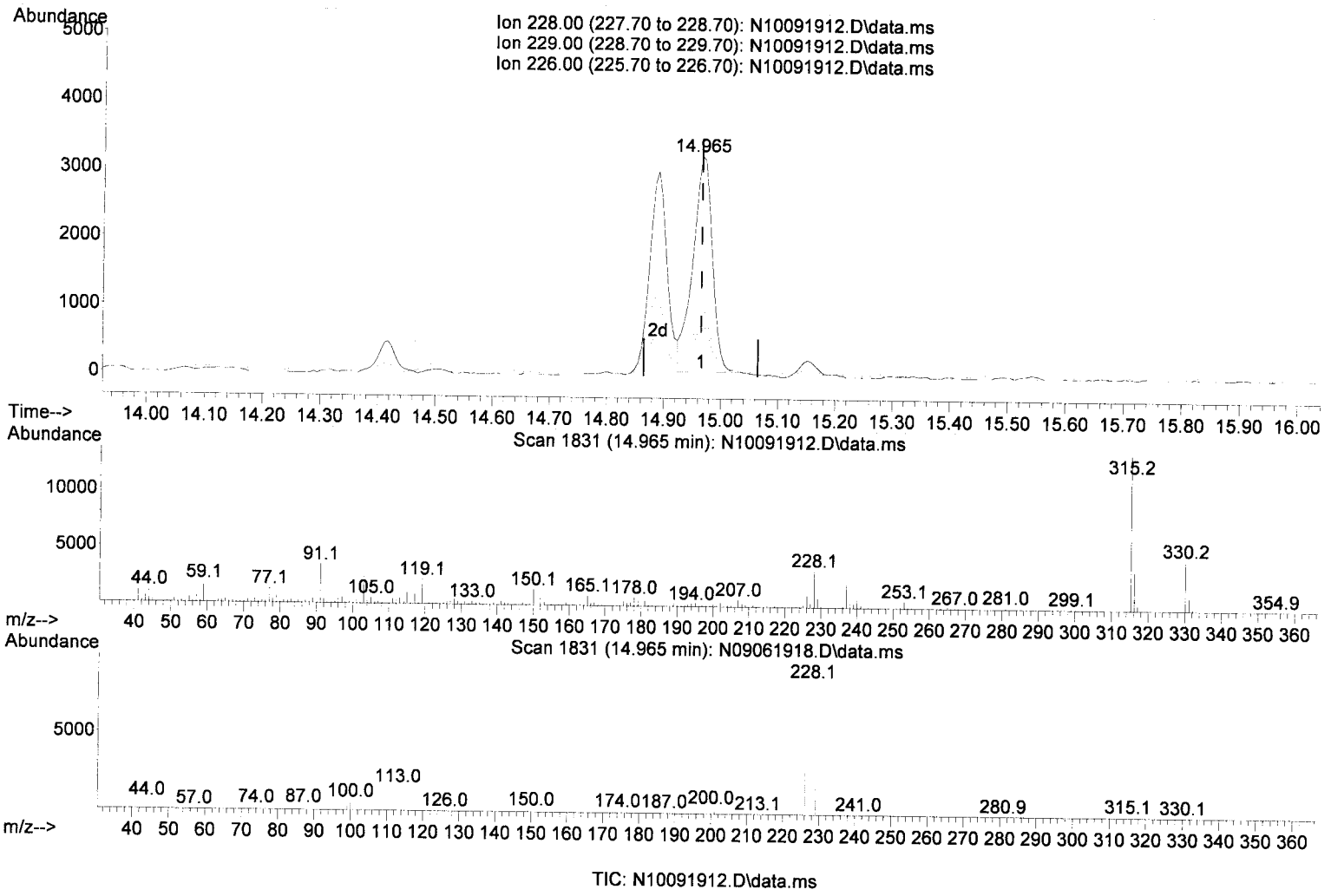
response 6484

Ion	Exp%	Act%
228.00	100.00	100.00
229.00	19.40	20.15
226.00	26.20	38.11
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091912.D
Acq On : 09 Oct 2019 02:18 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-23
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:44:20 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091912.D\data.ms

(28) Chrysene (T)

14.965min (-0.000) 3.69 ng/ml

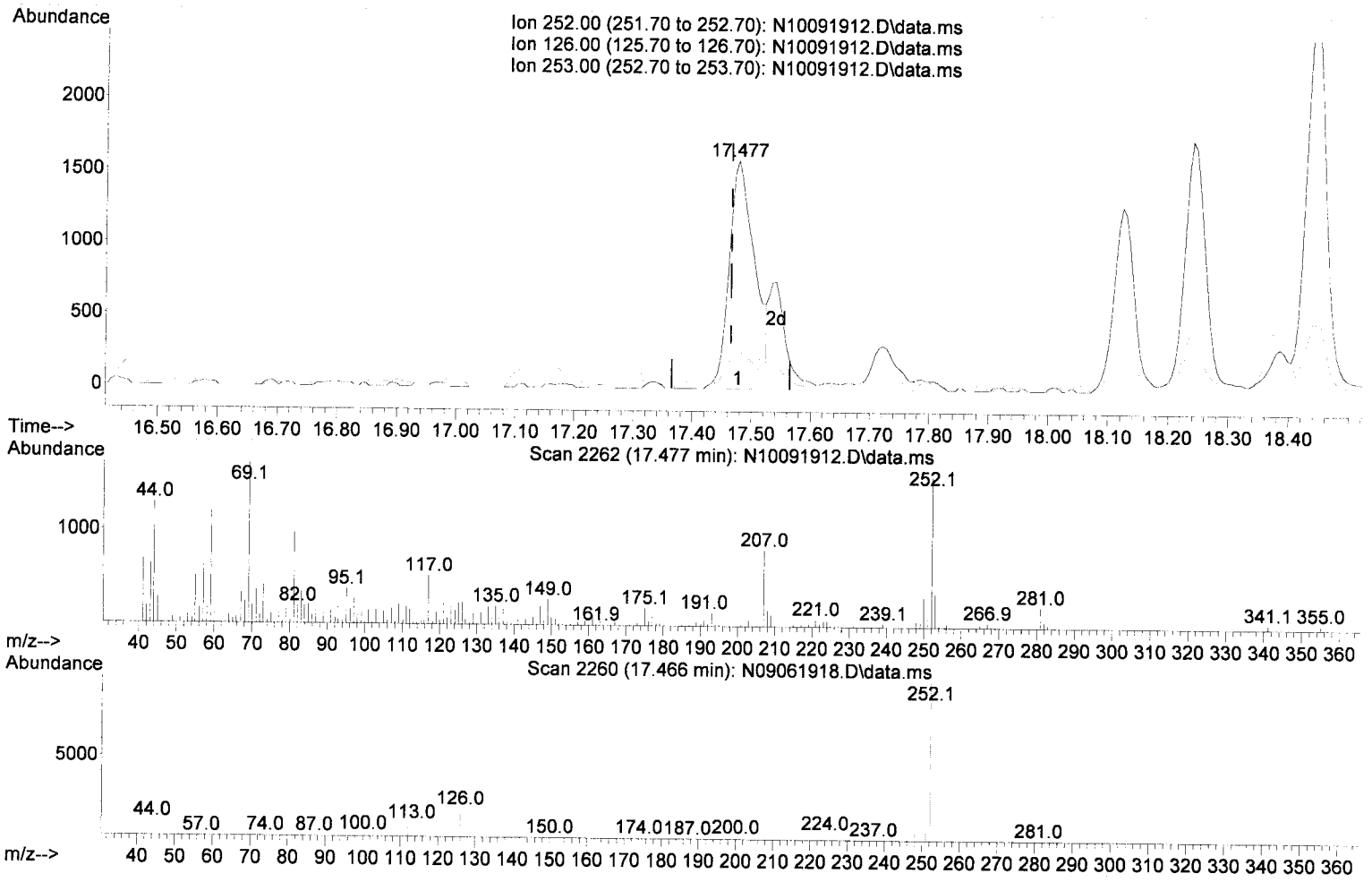
response 7559

Ion	Exp%	Act%
228.00	100.00	100.00
229.00	19.60	23.78
226.00	28.60	31.66
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091912.D
Acq On : 09 Oct 2019 02:18 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-23
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:44:20 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091912.D\data.ms

(30) Benzo(b)fluoranthene (T)

17.477min (+ 0.012) 2.55 ng/ml

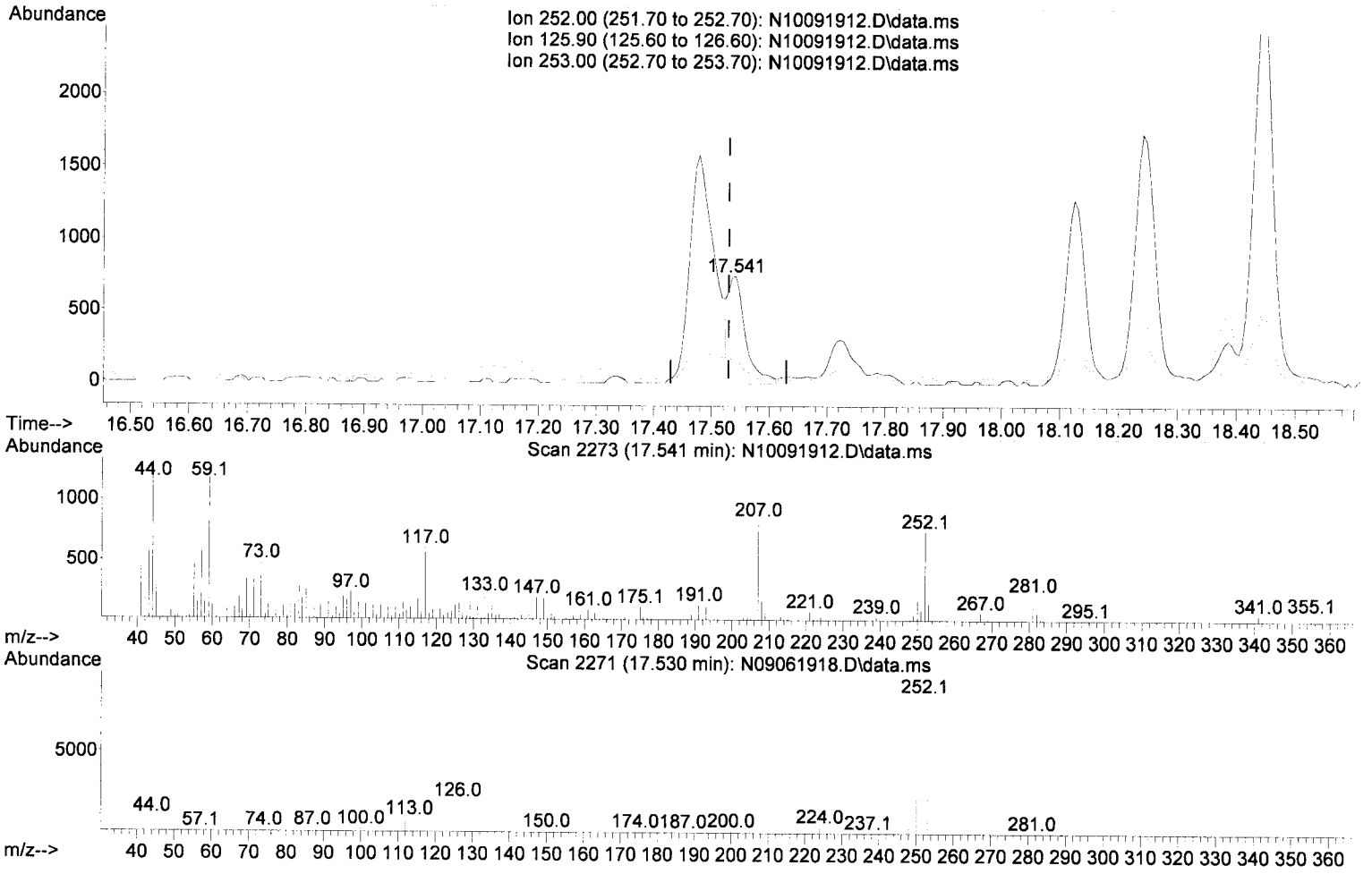
response 4752

Ion	Exp%	Act%
252.00	100.00	100.00
126.00	20.00	16.03
253.00	21.10	22.94
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091912.D
Acq On : 09 Oct 2019 02:18 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-23
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:44:20 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091912.D\data.ms

(31) Benzo(k)fluoranthene (T)

17.541min (+ 0.012) 0.82 ng/ml m

response 1515

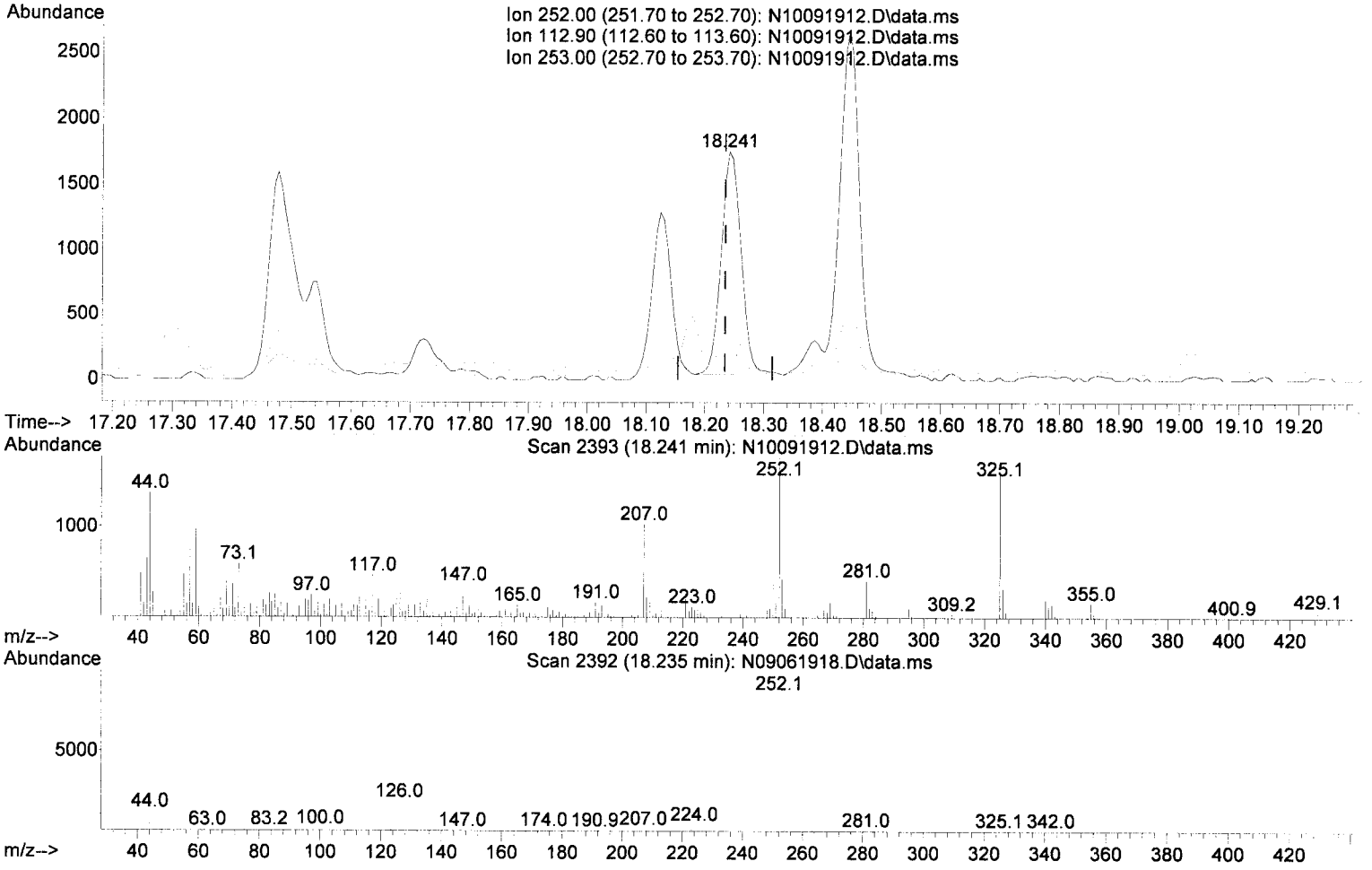
Ion	Exp%	Act%
252.00	100.00	100.00
125.90	22.10	20.08
253.00	21.50	20.35
0.00	0.00	0.00

AMS 10/9/19 ✓

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091912.D
Acq On : 09 Oct 2019 02:18 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-23
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:44:20 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091912.D\data.ms

(35) Benzo(a)pyrene (T)

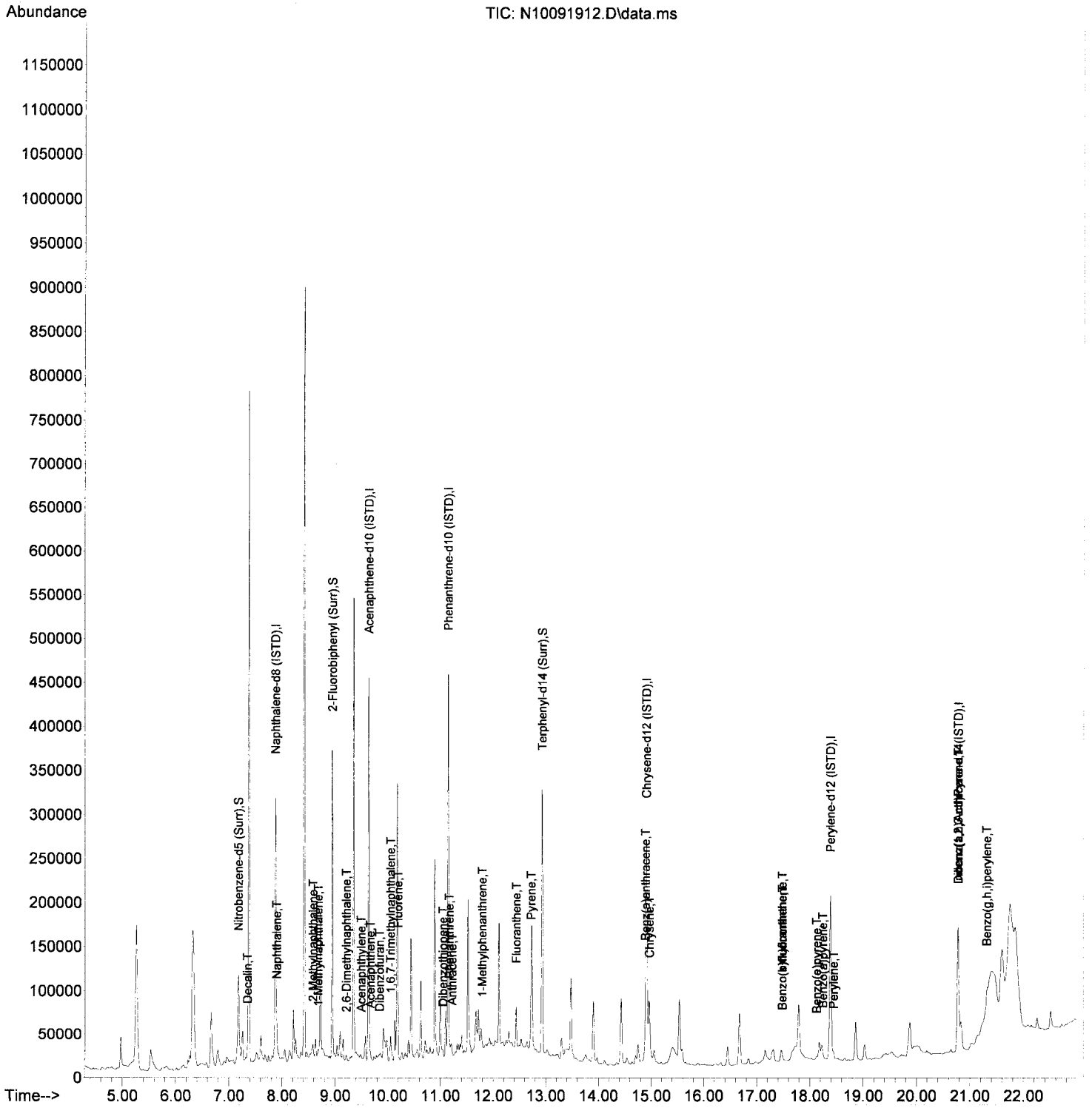
18.241min (+ 0.007) 2.52 ng/ml

response 4023

Ion	Exp%	Act%
252.00	100.00	100.00
112.90	12.70	13.63
253.00	21.90	24.76
0.00	0.00	0.00

Data Path : U:\data\2019-10\9J09031\
Data File : N10091912.D
Acq On : 09 Oct 2019 02:18 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-23
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 14:44:20 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091913.D
Acq On : 09 Oct 2019 02:50 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-24
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

AMS 10/9/19

Quant Time: Oct 09 15:14:12 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

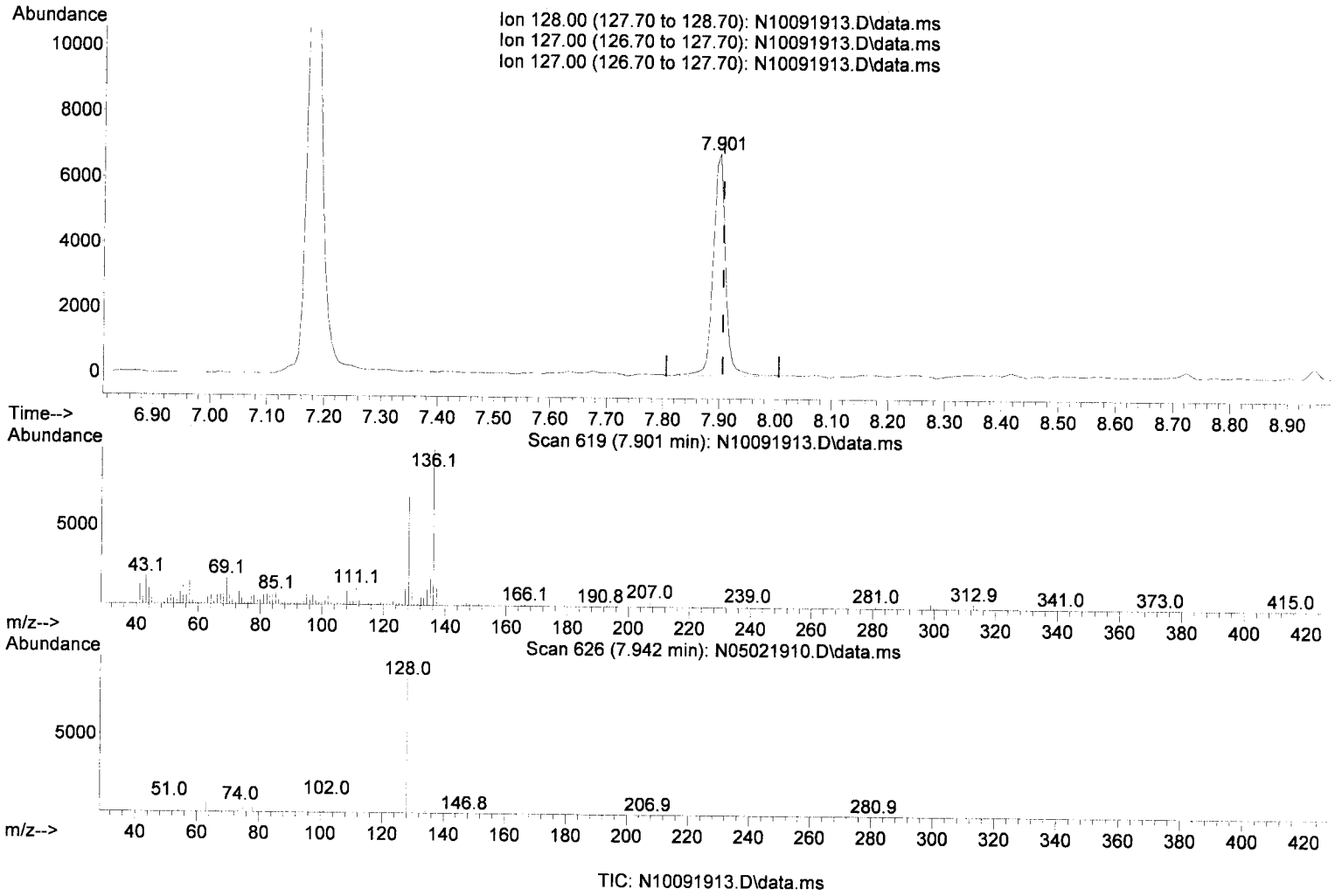
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.877	136	208871	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	130073	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	238130	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.912	240	191760	100.00 ng/ml	0.00
29) Perylene-d12 (ISTD)	18.386	264	171384	100.00 ng/ml	0.01
37) Dibenz(a,h)Anthrcene-d...	20.776	292	140830	100.00 ng/ml	0.01
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.178	82	51283	73.89 ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	159993	82.45 ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	1661	-1.00 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.925	244	178306	88.41 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	7.347	138	135	0.87 ng/ml#	69
4) Naphthalene	7.901	128	10392	(4.51) ng/ml	94
5) 2-Methylnaphthalene	8.583	142	4762	2.44 ng/ml	97
6) 1-Methylnaphthalene	8.682	142	2416	1.24 ng/ml	93
7) 1,1'-Biphenyl	9.049	154	1981	0.75 ng/ml	93
8) 2,6-Dimethylnaphthalene	9.212	156	1387	0.72 ng/ml	97
12) Acenaphthylene	9.492	152	865	N.D.	
13) Acenaphthene	9.667	153	2264	1.22 ng/ml	90
14) Dibenzofuran	9.842	168	698	N.D.	
15) 1,6,7-Trimethylnaphtha...	10.051	170	524	N.D.	
16) Fluorene	10.191	166	1728	0.91 ng/ml	94
18) Dibenzothiopene	11.036	184	1012	0.41 ng/ml	72
19) Phenanthrene	11.165	178	8730	(3.13) ng/ml	95
20) Anthracene	11.217	178	1540	0.59 ng/ml	93
21) Carbazole	11.380	167	547	N.D.	
22) 1-Methylphenanthrene	11.794	192	354	N.D.	
23) Fluoranthene	12.435	202	5100	1.82 ng/ml	98
25) Pyrene	12.721	202	5840	1.95 ng/ml	97
27) Benz(a)anthracene	14.889	228	1681	0.76 ng/ml	79
28) Chrysene	14.965	228	1968	0.93 ng/ml	92
30) Benzo(b)fluoranthene	17.477	252	1620	0.82 ng/ml#	40
31) Benzo(k)fluoranthene	17.477	252	1983	1.02 ng/ml#	43
32) Benzo(b+k)fluoranthene	17.477	252	2093	1.03 ng/ml#	43
34) Benzo(e)pyrene	18.124	252	947	0.47 ng/ml#	76
35) Benzo(a)pyrene	18.246	252	1164	0.69 ng/ml	79
36) Perylene	18.445	252	2922	1.40 ng/ml	98
38) Indeno(1,2,3-cd)Pyrene	20.776	276	1058	0.61 ng/ml	47
39) Dibenz(a,h)anthracene	20.846	278	169	N.D.	
40) Benzo(g,h,i)perylene	21.318	276	1214	0.66 ng/ml	89

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

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091913.D
Acq On : 09 Oct 2019 02:50 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-24
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 15:14:12 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091913.D\data.ms

(4) Naphthalene (T)

7.901min (-0.006) 4.51 ng/ml

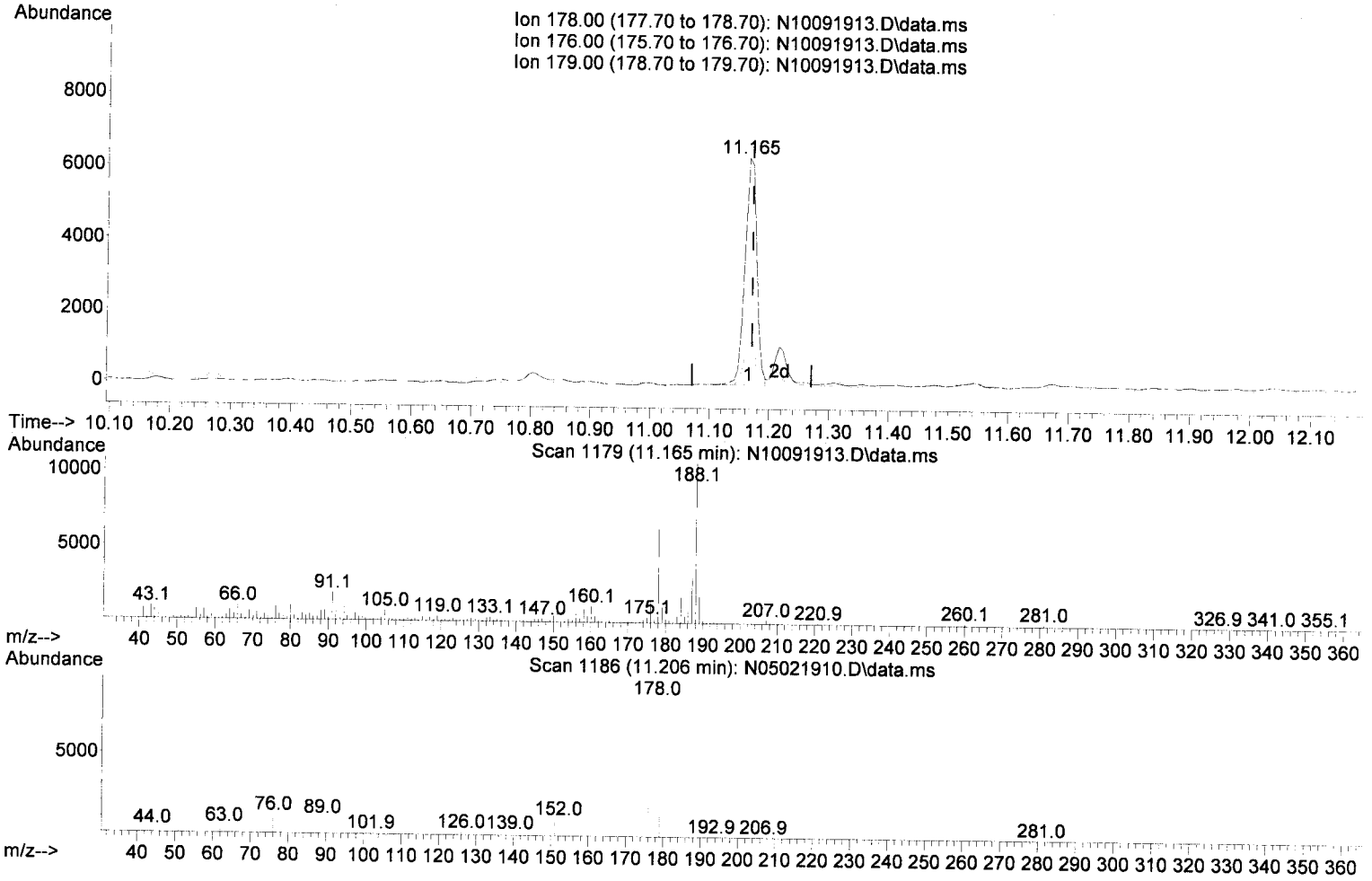
response 10392

Ion	Exp%	Act%
128.00	100.00	100.00
127.00	12.60	15.01
127.00	12.60	15.01
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091913.D
Acq On : 09 Oct 2019 02:50 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-24
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 15:14:12 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091913.D\data.ms

(19) Phenanthrene (T)

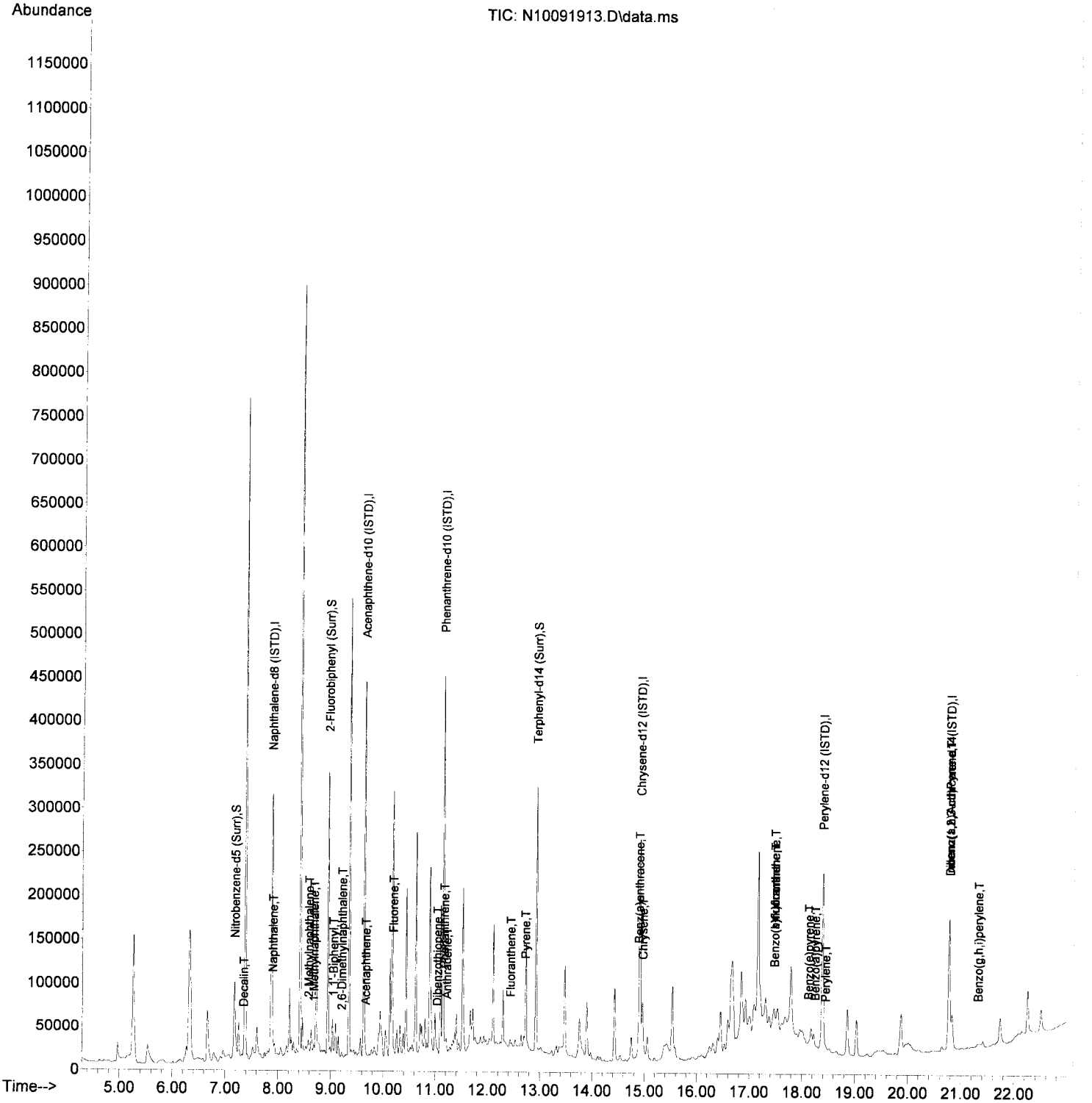
11.165min (-0.006) 3.13 ng/ml

response 8730

Ion	Exp%	Act%
178.00	100.00	100.00
176.00	19.00	21.51
179.00	15.10	16.87
0.00	0.00	0.00

Data Path : U:\data\2019-10\9J09031\
Data File : N10091913.D
Acq On : 09 Oct 2019 02:50 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-24
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 09 15:14:12 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Data Path : U:\data\2019-10\9J09031\
Data File : N10091914.D
Acq On : 09 Oct 2019 03:22 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-25
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

AMS 10/10/19

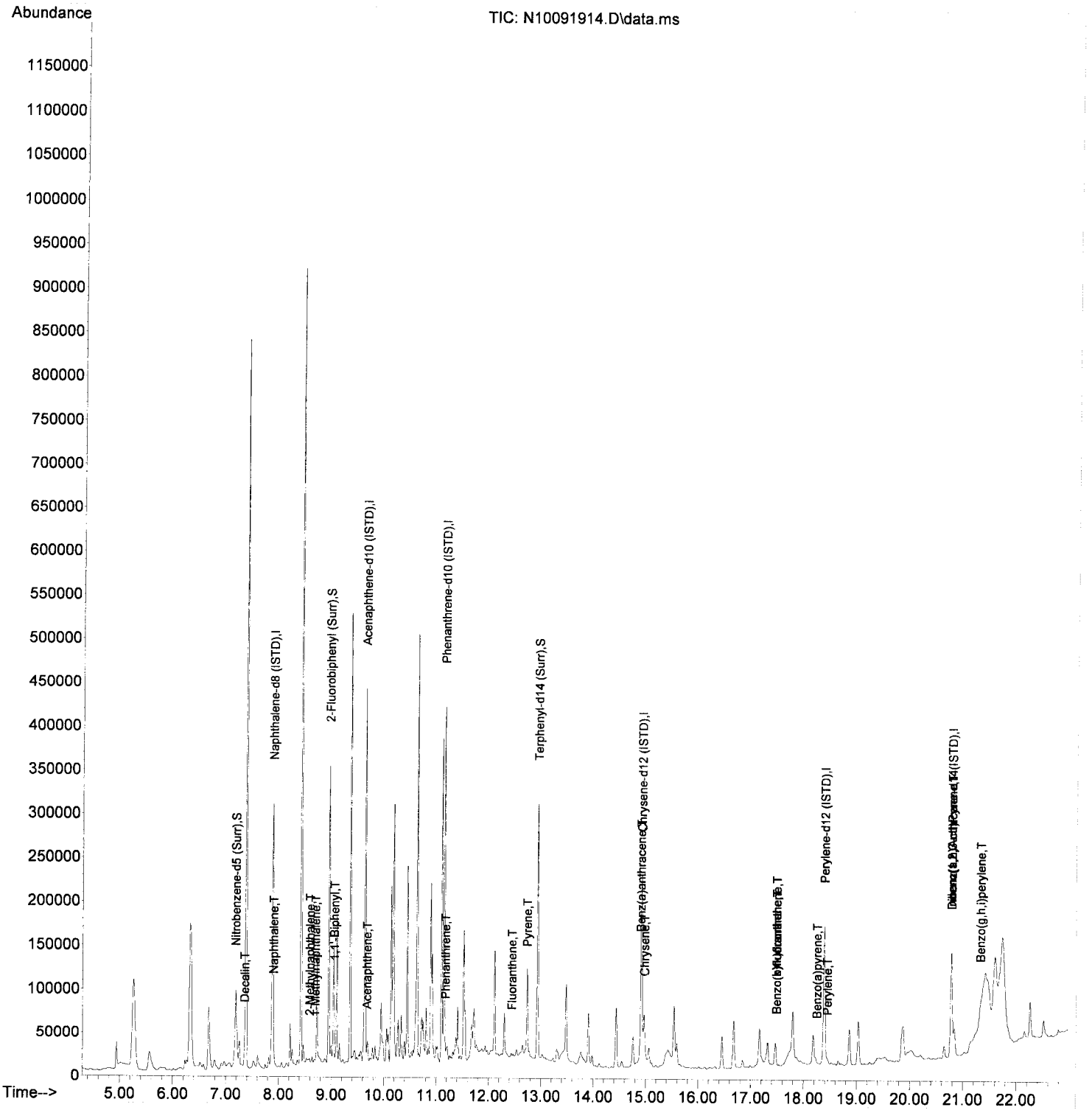
Quant Time: Oct 10 08:38:26 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.883	136	212133	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	123307	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	222428	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.912	240	161009	100.00 ng/ml	0.00
29) Perylene-d12 (ISTD)	18.386	264	135131	100.00 ng/ml	0.01
37) Dibenz(a,h)Anthrcene-d...	20.776	292	113570	100.00 ng/ml	0.01
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.184	82	55006	78.03 ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	160353	87.17 ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	3003	-1.00 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	169429	100.05 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	7.353	138	105	0.66 ng/ml#	66
4) Naphthalene	7.901	128	3171	1.36 ng/ml	86
5) 2-Methylnaphthalene	8.588	142	1337	0.67 ng/ml	93
6) 1-Methylnaphthalene	8.687	142	841	0.42 ng/ml	90
7) 1,1'-Biphenyl	9.049	154	1106	0.41 ng/ml	94
8) 2,6-Dimethylnaphthalene	9.218	156	648	N.D.	
12) Acenaphthylene	9.492	152	403	N.D.	
13) Acenaphthene	9.672	153	2001	1.14 ng/ml	94
14) Dibenzofuran	9.847	168	401	N.D.	
15) 1,6,7-Trimethylnaphtha...	10.063	170	396	N.D.	
16) Fluorene	10.191	166	560	N.D.	
18) Dibenzothiopene	11.042	184	542	N.D.	
19) Phenanthrene	11.170	178	2580	0.99 ng/ml	91
20) Anthracene	11.223	178	493	N.D.	
21) Carbazole	11.386	167	245	N.D.	
22) 1-Methylphenanthrene	11.794	192	545	N.D.	
23) Fluoranthene	12.435	202	2506	0.96 ng/ml	100
25) Pyrene	12.727	202	2821	1.12 ng/ml	95
27) Benz(a)anthracene	14.895	228	971	0.52 ng/ml	78
28) Chrysene	14.971	228	1092	0.62 ng/ml	88
30) Benzo(b)fluoranthene	17.483	252	1047	0.67 ng/ml	95
31) Benzo(k)fluoranthene	17.483	252	1277	0.83 ng/ml	97
32) Benzo(b+k)fluoranthene	17.483	252	1339	0.84 ng/ml	97
34) Benzo(e)pyrene	18.124	252	608	N.D.	
35) Benzo(a)pyrene	18.246	252	687	0.51 ng/ml	71
36) Perylene	18.445	252	4905	2.98 ng/ml	98
38) Indeno(1,2,3-cd)Pyrene	20.776	276	739	0.53 ng/ml	61
39) Dibenz(a,h)anthracene	20.840	278	57	N.D.	
40) Benzo(g,h,i)perylene	21.318	276	725	0.49 ng/ml	64

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

Data Path : U:\data\2019-10\9J09031\
Data File : N10091914.D
Acq On : 09 Oct 2019 03:22 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-25
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 10 08:38:26 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



No Name Entered Quantitation Report (Not Reviewed)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091915.D
Acq On : 09 Oct 2019 03:54 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-26
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

AMS 10/10/19

Quant Time: Oct 10 08:38:29 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

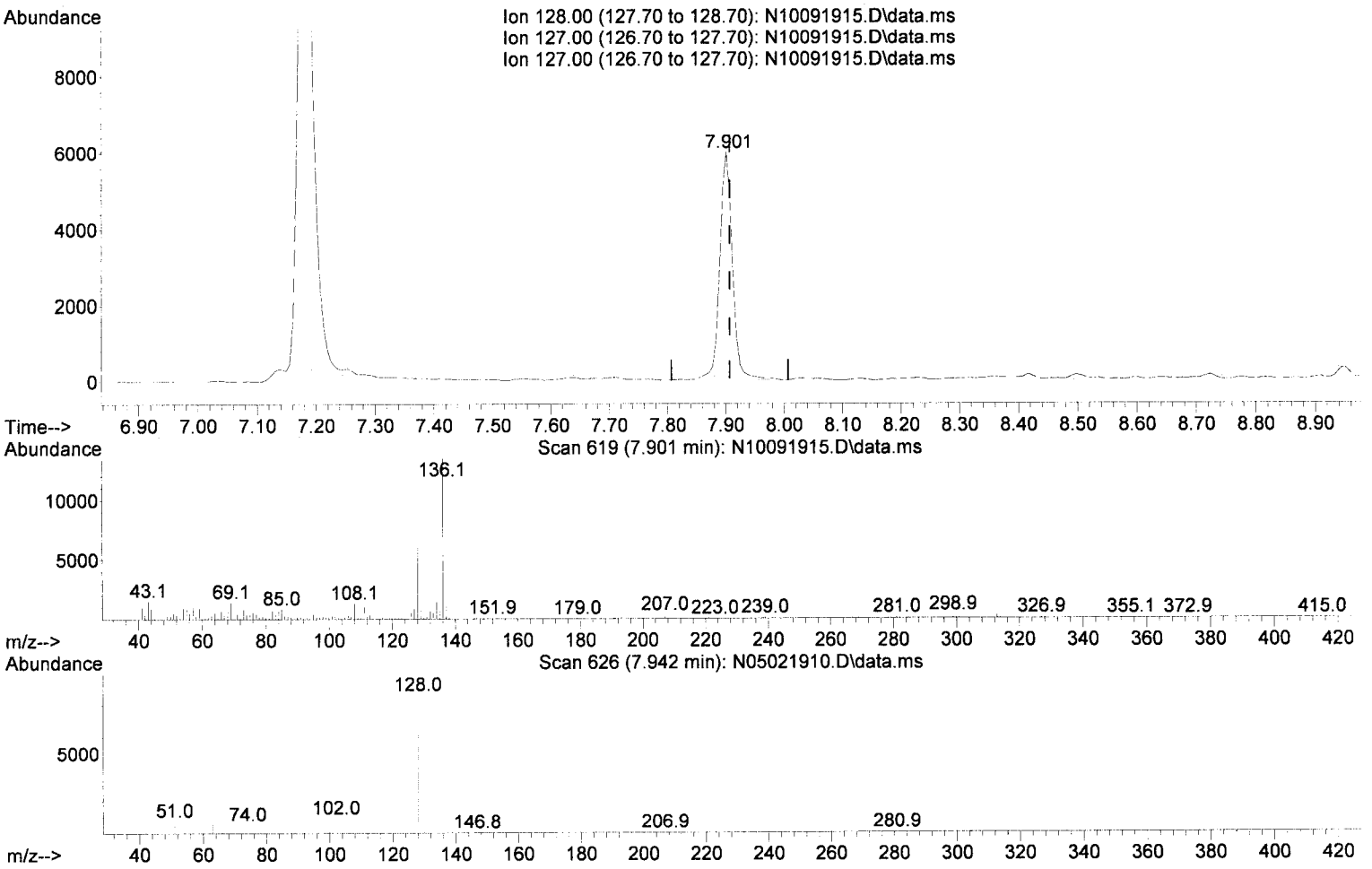
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Naphthalene-d8 (ISTD)	7.877	136	212369	100.00 ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	130303	100.00 ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	241392	100.00 ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.913	240	198011	100.00 ng/ml	0.00
29) Perylene-d12 (ISTD)	18.386	264	180743	100.00 ng/ml	0.01
37) Dibenz(a,h)Anthrcene-d...	20.776	292	153316	100.00 ng/ml	0.01
System Monitoring Compounds					
2) Nitrobenzene-d5 (Surr)	7.178	82	58156	82.41 ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	172525	88.75 ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	1742	-1.00 ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	189042	90.78 ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00 ng/ml	
Target Compounds					Qvalue
3) Decalin	7.347	138	58	N.D.	
4) Naphthalene	7.901	128	9005	(3.84) ng/ml	95
5) 2-Methylnaphthalene	8.583	142	1776	0.89 ng/ml	90
6) 1-Methylnaphthalene	8.688	142	1345	0.68 ng/ml	97
7) 1,1'-Biphenyl	9.049	154	978	N.D.	
8) 2,6-Dimethylnaphthalene	9.212	156	671	N.D.	
12) Acenaphthylene	9.492	152	1116	N.D.	
13) Acenaphthene	9.667	153	4239	2.29 ng/ml	98
14) Dibenzofuran	9.842	168	452	N.D.	
15) 1,6,7-Trimethylnaphtha...	10.057	170	286	N.D.	
16) Fluorene	10.191	166	1395	0.74 ng/ml	96
18) Dibenzothiopene	11.042	184	1101	0.44 ng/ml	88
19) Phenanthrene	11.171	178	7791	(2.76) ng/ml	98
20) Anthracene	11.217	178	1139	0.43 ng/ml	84
21) Carbazole	11.386	167	440	N.D.	
22) 1-Methylphenanthrene	11.794	192	289	N.D.	
23) Fluoranthene	12.435	202	6535	2.30 ng/ml	97
25) Pyrene	12.727	202	7904	(2.55) ng/ml	97
27) Benz(a)anthracene	14.895	228	2003	0.87 ng/ml	78
28) Chrysene	14.971	228	2343	1.08 ng/ml	96
30) Benzo(b)fluoranthene	17.483	252	2108	1.01 ng/ml	93
31) Benzo(k)fluoranthene	17.483	252	2662	1.30 ng/ml	92
32) Benzo(b+k)fluoranthene	17.483	252	2802	1.31 ng/ml	92
34) Benzo(e)pyrene	18.124	252	1451	0.69 ng/ml	93
35) Benzo(a)pyrene	18.241	252	1706	0.96 ng/ml	87
36) Perylene	18.445	252	8851	4.03 ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.776	276	1589	0.84 ng/ml	66
39) Dibenz(a,h)anthracene	20.846	278	221	N.D.	
40) Benzo(g,h,i)perylene	21.318	276	1830	0.91 ng/ml	89

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

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091915.D
Acq On : 09 Oct 2019 03:54 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-26
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 10 08:38:29 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091915.D\data.ms

(4) Naphthalene (T)

7.901min (-0.006) 3.84 ng/ml

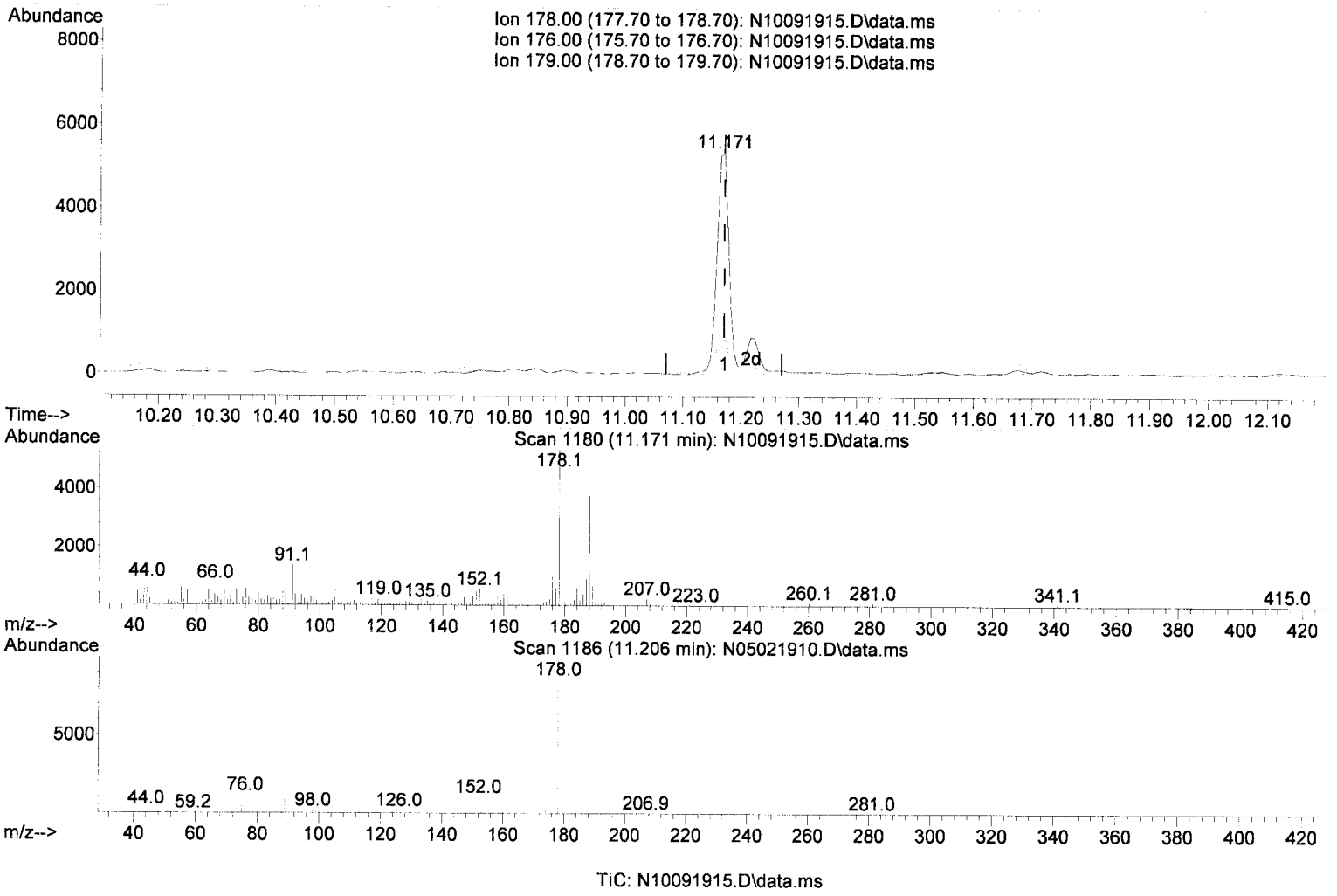
response 9005

Ion	Exp%	Act%
128.00	100.00	100.00
127.00	12.60	14.45
127.00	12.60	14.45
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091915.D
Acq On : 09 Oct 2019 03:54 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-26
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 10 08:38:29 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TiC: N10091915.D\data.ms

(19) Phenanthrene (T)

11.171min (0.000) 2.76 ng/ml

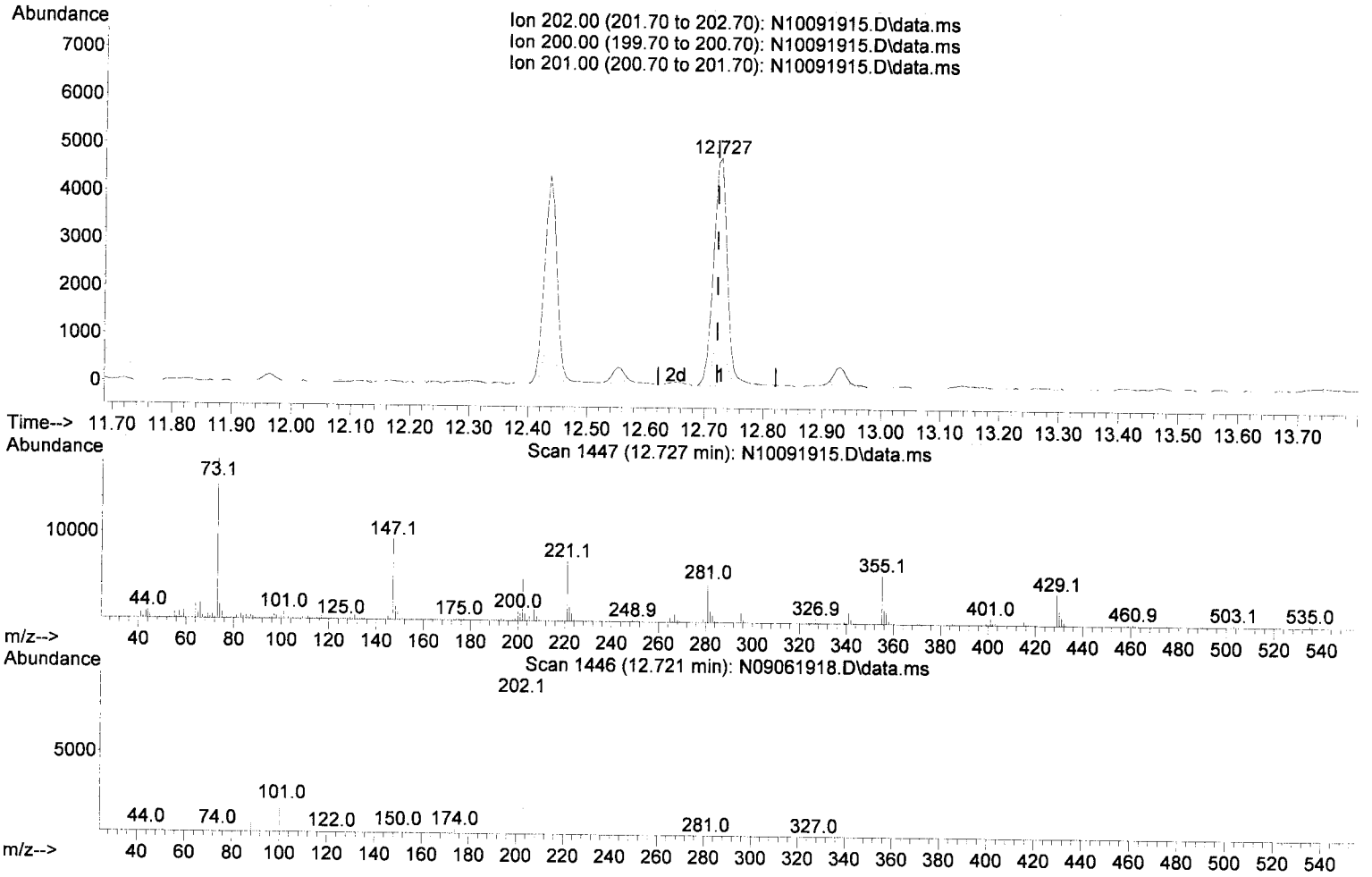
response 7791

Ion	Exp%	Act%
178.00	100.00	100.00
176.00	19.00	18.70
179.00	15.10	16.28
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : U:\data\2019-10\9J09031\
Data File : N10091915.D
Acq On : 09 Oct 2019 03:54 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-26
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 10 08:38:29 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N10091915.D\data.ms

(25) Pyrene (T)

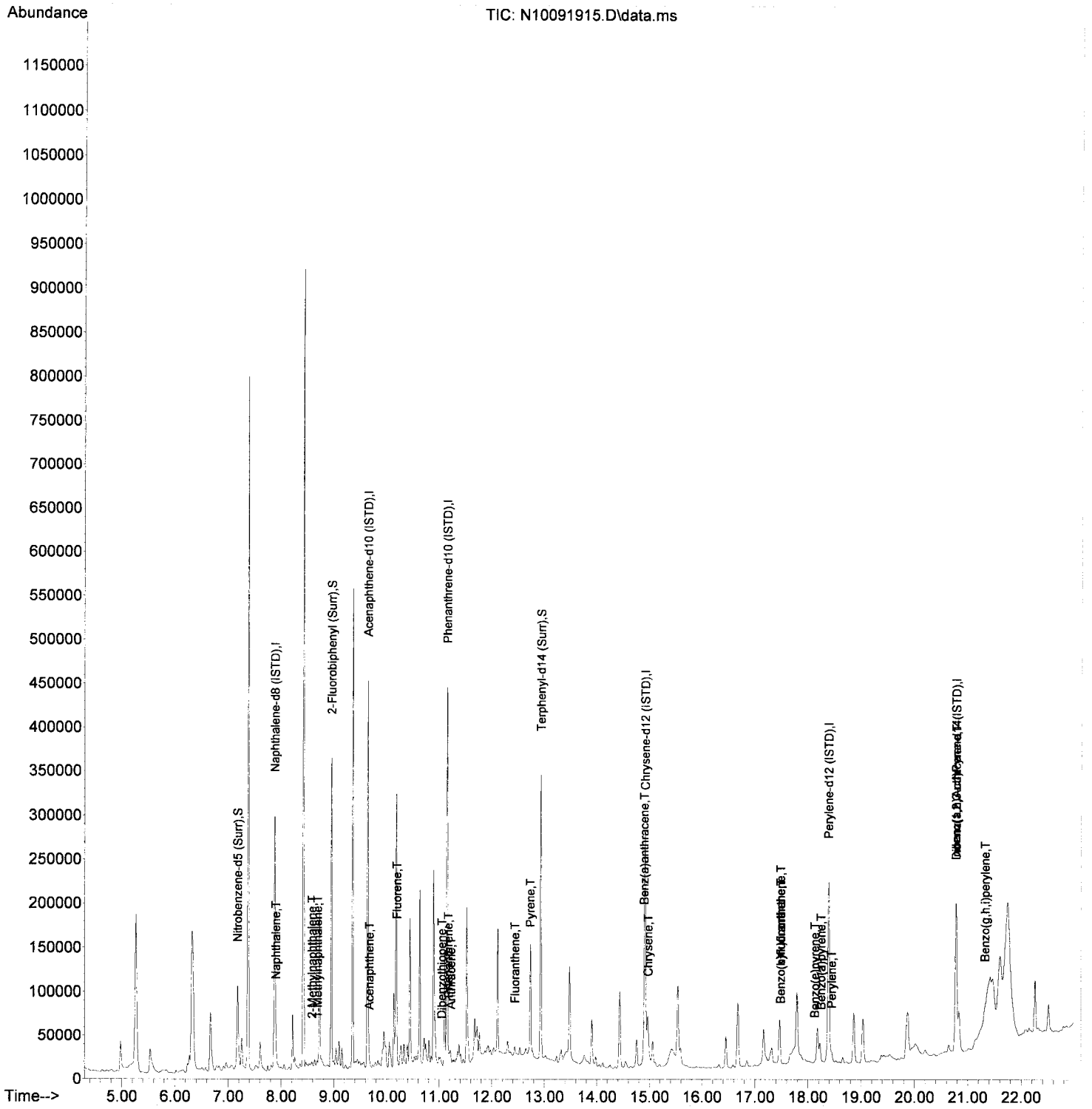
12.727min (+ 0.006) 2.55 ng/ml

response 7904

Ion	Exp%	Act%
202.00	100.00	100.00
200.00	20.70	22.02
201.00	16.80	17.85
0.00	0.00	0.00

Data Path : U:\data\2019-10\9J09031\
Data File : N10091915.D
Acq On : 09 Oct 2019 03:54 pm
Operator : JK/ AMS/ DTH
Sample : A9J0058-26
Misc : 1x, 8270D LL PAH ONLY
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Oct 10 08:38:29 2019
Quant Method : U:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



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

Semivolatile Organic Compounds by EPA 8270D
Calibration Data

Sequence 9I06028 (Cal ID A9I1001) SV-GCMS14

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence:	9I06028	Instrument:	SV-GCMS14
Date:	09/06/19 15:37	Calibration:	A9I1001

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9I06028-TUN1	Sediment	QC	QC			A19I102	A19H414
2	9I06028-ICB1	Sediment	QC	QC			A19I102	
3	9I06028-CAL1	Sediment	QC	QC			A19I102	A19I015
4	9I06028-CAL2	Sediment	QC	QC			A19I102	A19I016
5	9I06028-CAL3	Sediment	QC	QC			A19I102	A19I017
6	9I06028-CAL4	Sediment	QC	QC			A19I102	A19I018
7	9I06028-CAL5	Sediment	QC	QC			A19I102	A19I019
8	9I06028-CAL6	Sediment	QC	QC			A19I102	A19I020
9	9I06028-CAL7	Sediment	QC	QC			A19I102	A19I021
10	9I06028-CAL8	Sediment	QC	QC			A19I102	A19I022
11	9I06028-CAL9	Sediment	QC	QC			A19I102	A19I023
12	9I06028-CALA	Sediment	QC	QC			A19I102	A19I024
13	9I06028-IBL1	Sediment	QC	QC			A19I102	
14	9I06028-ICV1	Sediment	QC	QC			A19I102	A19I025
15	9I06028-IBL2	Sediment	QC	QC			A19I102	

Data Entered By: 9/10/19

Data Reviewed By: 9/11/19

Comments:

Calibration Status Report SV-GCMS14

Method Path : N:\methods\
Method File : SV14_090619_PAH.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Mon Sep 09 14:58:53 2019
Response Via : Initial Calibration

A9I1001
9/9/19

#	ID	Conc	ISTD Conc	Path\File
1	1.0	1	100	N:\data\2019-09\9I06028\N09061913.D
2	2.5	3	100	N:\data\2019-09\9I06028\N09061914.D
3	5.0	5	100	N:\data\2019-09\9I06028\N09061915.D
4	10.0	10	100	N:\data\2019-09\9I06028\N09061916.D
5	25.0	25	100	N:\data\2019-09\9I06028\N09061917.D
6	50.0	50	100	N:\data\2019-09\9I06028\N09061918.D
7	100	100	100	N:\data\2019-09\9I06028\N09061919.D
8	200	200	100	N:\data\2019-09\9I06028\N09061920.D
9	300	300	100	N:\data\2019-09\9I06028\N09061921.D
10	400	400	100	N:\data\2019-09\9I06028\N09061922.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1.0	Sep 09 14:58 2019	Sep 09 14:46 2019	06 Sep 2019 04:51 pm
2	2.5	Sep 09 14:58 2019	Sep 09 14:46 2019	06 Sep 2019 05:23 pm
3	5.0	Sep 09 14:58 2019	Sep 09 14:47 2019	06 Sep 2019 05:55 pm
4	10.0	Sep 09 14:58 2019	Sep 09 14:47 2019	06 Sep 2019 06:27 pm
5	25.0	Sep 09 14:58 2019	Sep 09 14:47 2019	06 Sep 2019 07:00 pm
6	50.0	Sep 09 14:58 2019	Sep 09 14:47 2019	06 Sep 2019 07:32 pm
7	100	Sep 09 14:58 2019	Sep 09 14:47 2019	06 Sep 2019 08:04 pm
8	200	Sep 09 14:58 2019	Sep 09 14:47 2019	06 Sep 2019 08:37 pm
9	300	Sep 09 14:58 2019	Sep 09 14:47 2019	06 Sep 2019 09:09 pm
10	400	Sep 09 14:58 2019	Sep 09 14:47 2019	06 Sep 2019 09:41 pm

SV14_090619_PAH.M Mon Sep 09 15:05:37 2019

Compound List Report SV-GCMS14

Method Path : N:\methods\
Method File : SV14_090619_PAH.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Mon Sep 09 14:58:53 2019
Response Via : Initial Calibration

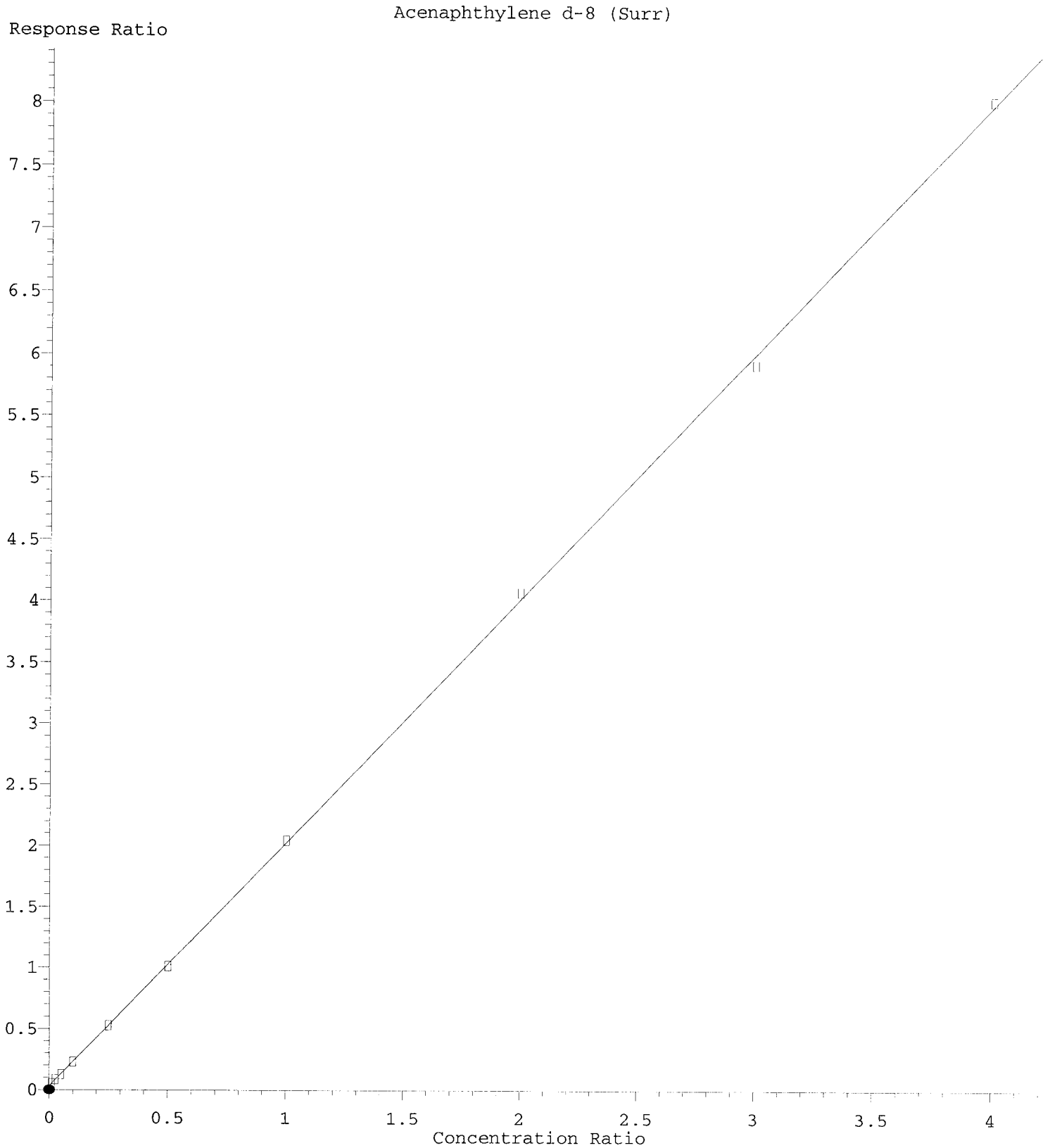
9/9/19

Total Cpnds : 40

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Naphthalene-d8 (ISTD)	136	7.883	1.000	A	2	A	B
2	S	Nitrobenzene-d5 (Surr)	82	7.184	0.911	A	1	A	R
3	T	Decalin	138	7.364	0.934	A	2	A	B
4	T	Naphthalene	128	7.907	1.003	A	2	A	R
5	T	2-Methylnaphthalene	142	8.589	1.089	A	2	A	R
6	T	1-Methylnaphthalene	142	8.688	1.102	A	2	A	R
7	T	1,1'-Biphenyl	154	9.055	1.149	A	2	A	B
8	T	2,6-Dimethylnaphthalene	156	9.212	1.169	A	2	A	R
9	I	Acenaphthene-d10 (ISTD)	162	9.638	1.000	A	2	A	R
10	S	2-Fluorobiphenyl (Surr)	172	8.950	0.929	A	2	A	R
11	S	Acenaphthylene d-8 (Surr)	160	9.480	0.984	Q	2	A	R
12	T	Acenaphthylene	152	9.498	0.985	A	2	A	R
13	T	Acenaphthene	153	9.673	1.004	A	2	A	R
14	T	Dibenzofuran	168	9.848	1.022	A	2	A	R
15	T	1,6,7-Trimethylnaphthalene	170	10.057	1.044	A	2	A	R
16	T	Fluorene	166	10.191	1.057	A	2	A	R
17	I	Phenanthrene-d10 (ISTD)	188	11.147	1.000	A	2	A	R
18	T	Dibenzothiopene	184	11.042	0.991	A	3	A	R
19	T	Phenanthrene	178	11.171	1.002	A	2	A	R
20	T	Anthracene	178	11.223	1.007	A	2	A	R
21	T	Carbazole	167	11.390	1.022	A	2	A	R
22	T	1-Methylphenanthrene	192	11.794	1.058	A	2	A	R
23	T	Fluoranthene	202	12.435	1.116	A	2	A	R
24	I	Chrysene-d12 (ISTD)	240	14.906	1.000	A	2	A	R
25	T	Pyrene	202	12.721	0.853	A	2	A	R
26	S	Terphenyl-d14 (Surr)	244	12.930	0.867	A	2	A	R
27	T	Benz(a)anthracene	228	14.883	0.998	A	2	A	R
28	T	Chrysene	228	14.965	1.004	A	2	A	R
29	I	Perylene-d12 (ISTD)	264	18.374	1.000	A	2	A	R
30	T	Benzo(b)fluoranthene	252	17.465	0.951	A	2	A	R
31	T	Benzo(k)fluoranthene	252	17.529	0.954	A	2	A	R
32	T	Benzo(b+k)fluoranthene	252	17.529	0.954	A	2	A	R
33	S	Benzo(a)pyrene d-12 (Surr)	264	18.176	0.989	A	2	A	B
34	T	Benzo(e)pyrene	252	18.118	0.986	A	2	A	R
35	T	Benzo(a)pyrene	252	18.234	0.992	A	2	A	R
36	T	Perylene	252	18.433	1.003	A	2	A	R
37	I	Dibenz(a,h)Anthrcene-d14(ISTD)	292	20.764	1.000	A	2	A	R
38	T	Indeno(1,2,3-cd)Pyrene	276	20.758	1.000	A	2	A	R
39	T	Dibenz(a,h)anthracene	278	20.828	1.003	A	2	A	R
40	T	Benzo(g,h,i)perylene	276	21.294	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

SV14_090619_PAH.M Mon Sep 09 15:05:30 2019

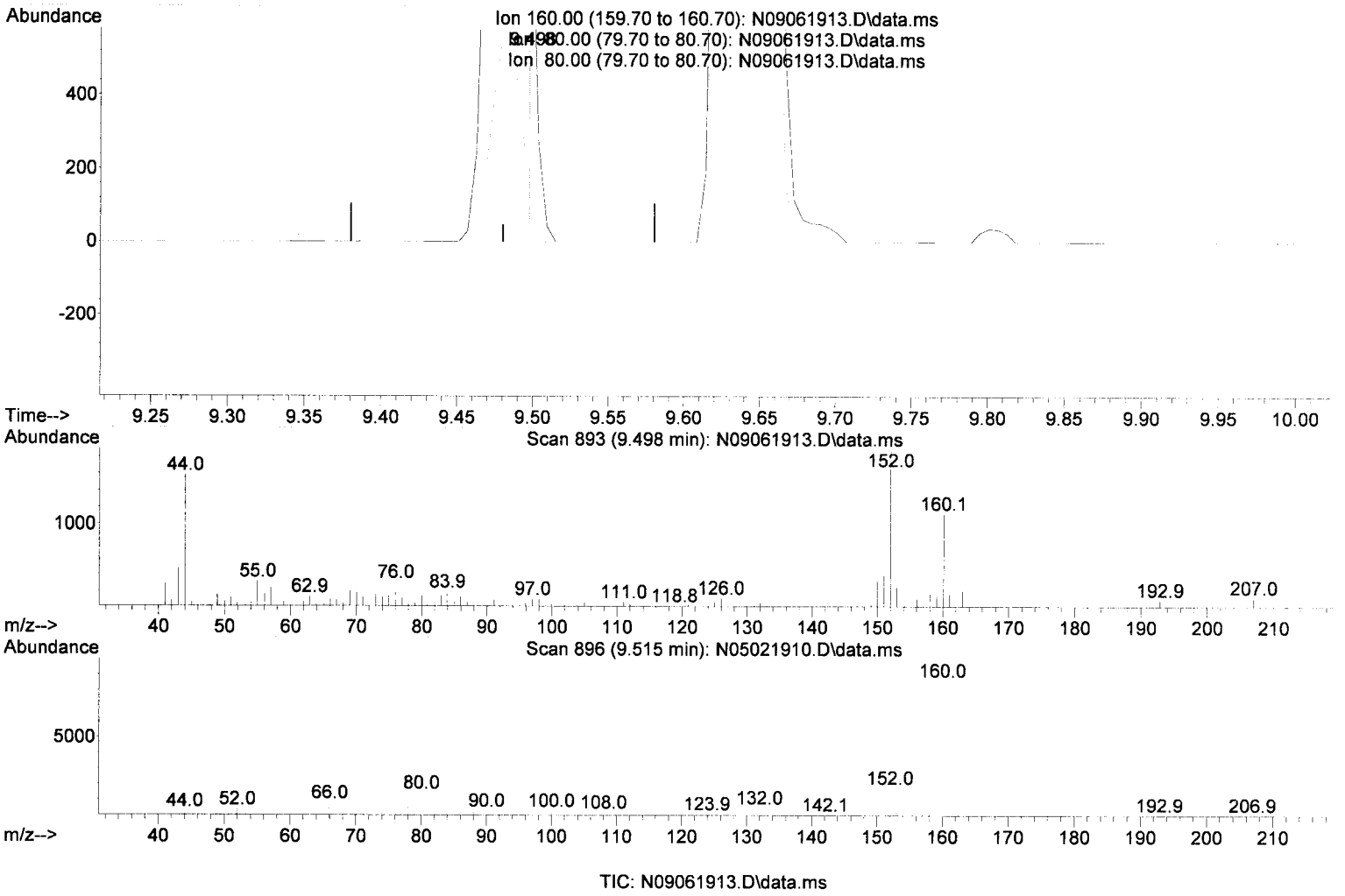


R = -2.27e-003 A*A + 2.00e+000 A + 2.92e-002
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a^2)
Method Name: N:\methods\SV14_090619_PAH.M_
Calibration Table Last Updated: Mon Sep 09 15:00:15 2019

Quantitation Report (Qedit)

Data Path : N:\data\2019-09\9I06028\REQUANT\
Data File : N09061913.D
Acq On : 06 Sep 2019 04:51 pm
Operator :
Sample : 9I06028-CAL1
Misc : 1x, A19I015@1
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 15:06:04 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N09061913.D\data.ms

(11) Acenaphthylene d-8 (Surr) (S)

9.498min (+ 0.017) -1.00 ng/ml m

response 111

Ion	Exp%	Act%
160.00	100.00	100.00
80.00	14.40	12.44
80.00	14.40	12.44
0.00	0.00	0.00

Response Factor Report SV-GCMS14

Method Path : N:\methods\
Method File : SV14_090619_PAH.M
Title : EPA 8270D: Semivolatile Organics
Last Update : Mon Sep 09 14:58:53 2019
Response Via : Initial Calibration

9/9/19

Calibration Files
1.0 =N09061913.D 2.5 =N09061914.D 5.0 =N09061915.D 10.0=N09061916.D 25.0=N09061917.D 50.0=N09061918.D 100 =N09061919.D
200 =N09061920.D 300 =N09061921.D 400 =N09061922.D

		Compound	1.0	2.5	5.0	10.0	25.0	50.0	100	200	300	400	Avg	%RSD	
															6.52
1)	I	Naphthalene-d8 (ISTD)	----------ISTD----------												
2)	S	Nitrobenzene-d...	0.391	0.340	0.316	0.315	0.306	0.324	0.323	0.334	0.338	0.337	0.332	7.09	Not used
3)	T	Decalin		0.076	0.070	0.069	0.070	0.075	0.077	0.077	0.075	0.081	0.074	5.47	Not used
4)	T	Naphthalene	1.158	1.135	1.098	1.123	1.090	1.083	1.082	1.092	1.078	1.090	1.103	2.42	✓
5)	T	2-Methylnaphth...	0.893	0.907	0.881	0.886	0.895	0.941	0.965	1.001	1.001	0.975	0.935	5.16	✓
6)	T	1-Methylnaphth...	0.821	0.875	0.837	0.916	0.923	0.964	0.986	1.025	1.016	0.981	0.934	7.70	✓
7)	T	1,1'-Biphenyl	1.222	1.201	1.123	1.186	1.195	1.259	1.326	1.389	1.390	1.279	1.257	7.10	Not used
8)	T	2,6-Dimethylna...	0.823	0.850	0.815	0.851	0.892	0.943	0.994	1.034	1.033	0.946	0.918	9.12	Not used
															2.97
9)	I	Acenaphthene-d10 (...	----------ISTD----------												
10)	S	2-Fluorobiphen...	1.424	1.562	1.481	1.499	1.500	1.482	1.499	1.496	1.477	1.498	1.492	2.26	✓
11)	S	Acenaphthylene...	4.877	3.301	2.497	2.282	2.108	2.021	2.043	2.031	1.970	2.004	2.513	36.74	Not used (Surrogate)
12)	T	Acenaphthylene	2.050	2.174	2.139	2.171	2.195	2.172	2.248	2.243	2.161	2.158	2.171	2.55	✓
13)	T	Acenaphthene	1.439	1.487	1.404	1.417	1.419	1.394	1.443	1.431	1.388	1.396	1.422	2.10	✓
14)	T	Dibenzofuran	1.760	1.773	1.736	1.780	1.790	1.777	1.831	1.827	1.771	1.765	1.781	1.63	✓
15)	T	1,6,7-Trimethy...	1.249	1.207	1.173	1.178	1.169	1.168	1.213	1.212	1.178	1.178	1.193	2.23	Not used
16)	T	Fluorene	1.369	1.405	1.409	1.422	1.461	1.447	1.526	1.545	1.493	1.476	1.455	3.85	✓
															5.33
17)	I	Phenanthrene-d10 (...	----------ISTD----------												
18)	T	Dibenzothiopene	1.030	1.080	1.056	1.038	1.030	1.033	1.050	1.056	1.042	1.043	1.046	1.46	Not used
19)	T	Phenanthrene	1.287	1.194	1.137	1.165	1.154	1.152	1.158	1.178	1.134	1.143	1.170	3.85	✓
20)	T	Anthracene	1.097	1.089	1.049	1.062	1.069	1.076	1.110	1.115	1.102	1.115	1.088	2.16	✓
21)	T	Carbazole	0.872	0.830	0.810	0.818	0.866	0.871	0.905	0.945	0.940	0.950	0.881	5.99	✓
22)	T	1-Methylphenan...	0.803	0.804	0.781	0.794	0.802	0.805	0.824	0.842	0.826	0.847	0.813	2.60	Not used
23)	T	Fluoranthene	1.194	1.127	1.104	1.124	1.162	1.171	1.202	1.227	1.218	1.261	1.179	4.30	✓
															15.52
24)	I	Chrysene-d12 (ISTD)	----------ISTD----------												
25)	T	Pyrene	1.634	1.742	1.585	1.636	1.580	1.571	1.560	1.478	1.416	1.421	1.562	6.48	✓
26)	S	Terphenyl-d14 ...	1.150	1.092	1.037	1.058	1.060	1.046	1.049	1.021	0.993	1.012	1.052	4.22	✓
27)	T	Benz(a)anthracene	1.394	1.221	1.088	1.093	1.114	1.098	1.142	1.149	1.139	1.173	1.161	7.87	✓
28)	T	Chrysene	1.134	1.107	1.087	1.087	1.098	1.082	1.095	1.103	1.080	1.114	1.099	1.52	✓
															18.95
29)	I	Perylene-d12 (ISTD)	----------ISTD----------												
30)	T	Benzo(b)fluora...	1.117	1.085	1.065	1.092	1.128	1.164	1.194	1.231	1.217	1.246	1.154	5.68	✓
31)	T	Benzo(k)fluora...	1.067	1.082	1.086	1.036	1.128	1.118	1.196	1.221	1.198	1.228	1.136	6.13	✓
32)	T	Benzo(b+k)fluo...	2.224	2.236	2.233	2.230	2.344	2.357	2.457	2.518	2.473	2.532	2.361	5.36	✓
33)	S	Benzo(a)pyrene...	0.639	0.751	0.745	0.759	0.782	0.808	0.845	0.885	0.880	0.902	0.800	10.15	Not used (Surrogate)
34)	T	Benzo(e)pyrene	1.244	1.173	1.075	1.091	1.139	1.151	1.184	1.213	1.188	1.210	1.167	4.61	Not used
35)	T	Benzo(a)pyrene	0.983	0.860	0.859	0.902	0.977	1.004	1.043	1.085	1.068	1.095	0.988	9.00	✓
36)	T	Perylene	1.038	1.226	1.199	1.189	1.232	1.218	1.248	1.282	1.254	1.278	1.216	5.74	Not used

Method Path : N:\methods\
Method File : SV14_090619_PAH.M
Title : EPA 8270D: Semivolatile Organics

~~2.69~~ 2.60 JL 9/10/19

37)	I	Dibenz(a,h)Anthrce...	----------ISTD----------										
38)	T	Indeno(1,2,3-c...	1.208	1.280	1.185	1.191	1.192	1.223	1.260	1.262	1.249	1.283	1.233	3.08
39)	T	Dibenz(a,h)ant...	1.173	1.144	1.121	1.116	1.120	1.144	1.178	1.194	1.182	1.217	1.159	3.01
40)	T	Benzo(g,h,i)pe...	1.245	1.185	1.241	1.251	1.289	1.328	1.388	1.395	1.368	1.394	1.308	5.85

(#) = Out of Range

CALIBRATION SEQUENCE REVIEW SHEET

SEQUENCE: 9I06028

Analysis Included
8270D LL PAH Only (Scan)

INSTRUMENT SEQUENCE LOG

SampleID	SampleName	Matrix	STDID	ISTD_ID	Analyzed
9I06028-TUN1	MS Tune	Sediment	A19H414	A19I102	9/6/2019 3:51:00PM
9I06028-ICB1	Initial Cal Blank	Sediment		A19I102	9/6/2019 4:18:00PM
9I06028-CAL1	Cal Standard	Sediment	A19I015	"	9/6/2019 4:51:00PM
9I06028-CAL2	Cal Standard	Sediment	A19I016	"	9/6/2019 5:23:00PM
9I06028-CAL3	Cal Standard	Sediment	A19I017	"	9/6/2019 5:55:00PM
9I06028-CAL4	Cal Standard	Sediment	A19I018	"	9/6/2019 6:27:00PM
9I06028-CAL5	Cal Standard	Sediment	A19I019	"	9/6/2019 7:00:00PM
9I06028-CAL6	Cal Standard	Sediment	A19I020	"	9/6/2019 7:32:00PM
9I06028-CAL7	Cal Standard	Sediment	A19I021	"	9/6/2019 8:04:00PM
9I06028-CAL8	Cal Standard	Sediment	A19I022	"	9/6/2019 8:37:00PM
9I06028-CAL9	Cal Standard	Sediment	A19I023	"	9/6/2019 9:09:00PM
9I06028-CALA	Cal Standard	Sediment	A19I024	"	9/6/2019 9:41:00PM
9I06028-ICV1	Initial Cal Check	Sediment	A19I025	"	9/6/2019 10:45:00PM

CALIBRATION STANDARD RECOVERIES

Calibration: **A9I1001** Instrument: **SV-GCMS14**

8270D LL PAH Only (Scan) Sequence: **9I06028** Matrix: **Sediment**

9I06028-CAL1	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I06028-CAL2	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I06028-CAL3	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I06028-CAL4	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I06028-CAL5	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I06028-CAL6	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I06028-CAL7	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I06028-CAL8	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I06028-CAL9	Inst. MRL	Recalc Res.	Cal Level	%Rec.	Qual
9I06028-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: 9I06028

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: **A9I1001** Instrument: **SV-GCMS14**

8270D LL PAH Only (Scan) Sequence: **9I06028** Matrix: **Sediment**

9I06028-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 : N:\data\2019-09\9I06028\
Data File : N09061924.D
Acq On : 06 Sep 2019 10:45 pm
Operator :
Sample : 9I06028-ICV1
Misc : 1x, A19I025@50
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 10 10:28:40 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/10/19

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	Naphthalene-d8 (ISTD)	100.000	100.000	0.0	123	0.00
2	S	Nitrobenzene-d5 (Surr)	50.000	46.212	7.6	116	0.00
3	T	Decalin	50.000	48.753	2.5	118	0.00
4	T	Naphthalene	50.000	49.942	0.1	125	0.00
5	T	2-Methylnaphthalene	50.000	46.827	6.3	114	0.00
6	T	1-Methylnaphthalene	50.000	47.766	4.5	113	0.00
7	T	1,1'-Biphenyl	50.000	46.341	7.3	113	0.00
8	T	2,6-Dimethylnaphthalene	50.000	45.797	8.4	109	0.00
9	I	Acenaphthene-d10 (ISTD)	100.000	100.000	0.0	106	0.00
10	S	2-Fluorobiphenyl (Surr)	50.000	49.669	0.7	106	0.00
11	S	Acenaphthylene d-8 (Surr)	50.000	49.308	1.4	106	0.00
12	T	Acenaphthylene	50.000	51.950	-3.9	110	0.00
13	T	Acenaphthene	50.000	50.335	-0.7	109	0.00
14	T	Dibenzofuran	50.000	50.914	-1.8	108	0.00
15	T	1,6,7-Trimethylnaphthalene	50.000	50.151	-0.3	109	0.00
16	T	Fluorene	50.000	50.867	-1.7	109	0.00
17	I	Phenanthrene-d10 (ISTD)	100.000	100.000	0.0	107	0.00
18	T	Dibenzothiopene	50.000	49.794	0.4	108	0.00
19	T	Phenanthrene	50.000	50.398	-0.8	110	0.00
20	T	Anthracene	50.000	51.792	-3.6	112	0.00
21	T	Carbazole	50.000	50.683	-1.4	110	-0.02
22	T	1-Methylphenanthrene	50.000	51.441	-2.9	111	0.00
23	T	Fluoranthene	50.000	50.556	-1.1	109	0.00
24	I	Chrysene-d12 (ISTD)	100.000	100.000	0.0	111	0.00
25	T	Pyrene	50.000	49.139	1.7	109	0.00
26	S	Terphenyl-d14 (Surr)	50.000	48.699	2.6	109	0.00
27	T	Benz(a)anthracene	50.000	48.477	3.0	114	0.00
28	T	Chrysene	50.000	52.375	-4.8	118	0.00
29	I	Perylene-d12 (ISTD)	100.000	100.000	0.0	114	0.00
30	T	Benzo(b)fluoranthene	50.000	50.587	-1.2	115	0.00
31	T	Benzo(k)fluoranthene	50.000	49.972	0.1	116	0.00
32	T	Benzo(b+k)fluoranthene	100.000	100.734	-0.7	115	0.00
33	S	Benzo(a)pyrene d-12 (Surr)	50.000	53.210	-6.4	120	0.00
34	T	Benzo(e)pyrene	50.000	50.277	-0.6	117	0.00
35	T	Benzo(a)pyrene	50.000	51.177	-2.4	115	0.00
36	T	Perylene	50.000	50.891	-1.8	116	0.00
37	I	Dibenz(a,h)Anthrcene-d14(IS	100.000	100.000	0.0	117	0.00
38	T	Indeno(1,2,3-cd)Pyrene	50.000	49.977	0.0	118	0.00
39	T	Dibenz(a,h)anthracene	50.000	49.339	1.3	117	0.00
40	T	Benzo(g,h,i)perylene	50.000	53.580	-7.2	123	0.00

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061911.D
Acq On : 06 Sep 2019 03:51 pm
Operator :
Sample : 9I06028-TUN1
Misc : 1x, A19H414 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 06 17:15:52 2019
Quant Method : N:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/9/19

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.613	150	163761	2.00	ug/mL	# 0.00
2) Naphthalene-d8	7.825	136	486548	2.00	ug/mL	0.00
3) Acenaphthene-d10	9.585	162	255378	2.00	ug/mL	0.00
5) Phenanthrene-d10	11.101	188	470705	2.00	ug/mL	0.00
11) Chrysene-d12	14.779	240	413133	2.00	ug/mL	# 0.00
12) Perylene-d12	16.830	264	372325	2.00	ug/mL	# 0.00
13) Dibenz(a,h)anthracene-...	18.060	292	295670	2.00	ug/mL	0.00
Target Compounds						Qvalue
4) Pentachlorophenol	10.920	266	1134816	47.06	ug/mL	93
6) DFTPP	11.404	442	1326743	34.91	ug/mL	90
7) Benzidine	12.558	184	4304187	25.70	ug/mL	97
8) 4,4-DDE	12.808	TIC	375170	No Calib		
9) 4,4-DDD	13.310	TIC	188617	No Calib		
10) 4,4-DDT	13.869	TIC	15944082	33.03	ug/mL	98

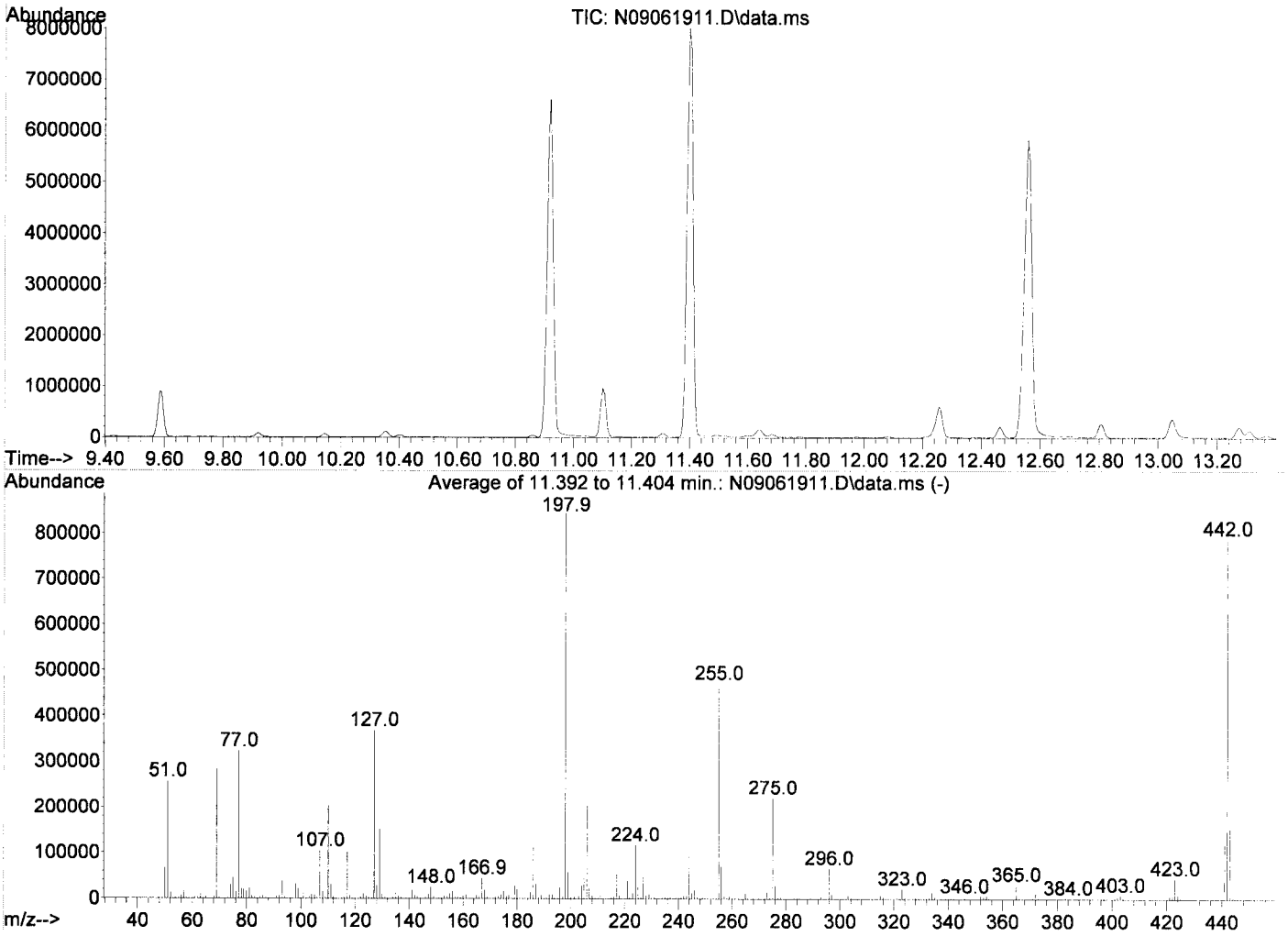
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : N:\data\2019-09\9I06028\
Data File : N09061911.D
Acq On : 06 Sep 2019 03:51 pm
Operator :
Sample : 9I06028-TUN1
Misc : 1x, A19H414 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : N:\methods\DFTPP.M
Title : 8270 DFTPP Tune Method
Last Update : Thu Sep 05 08:50:46 2019

9/9/19



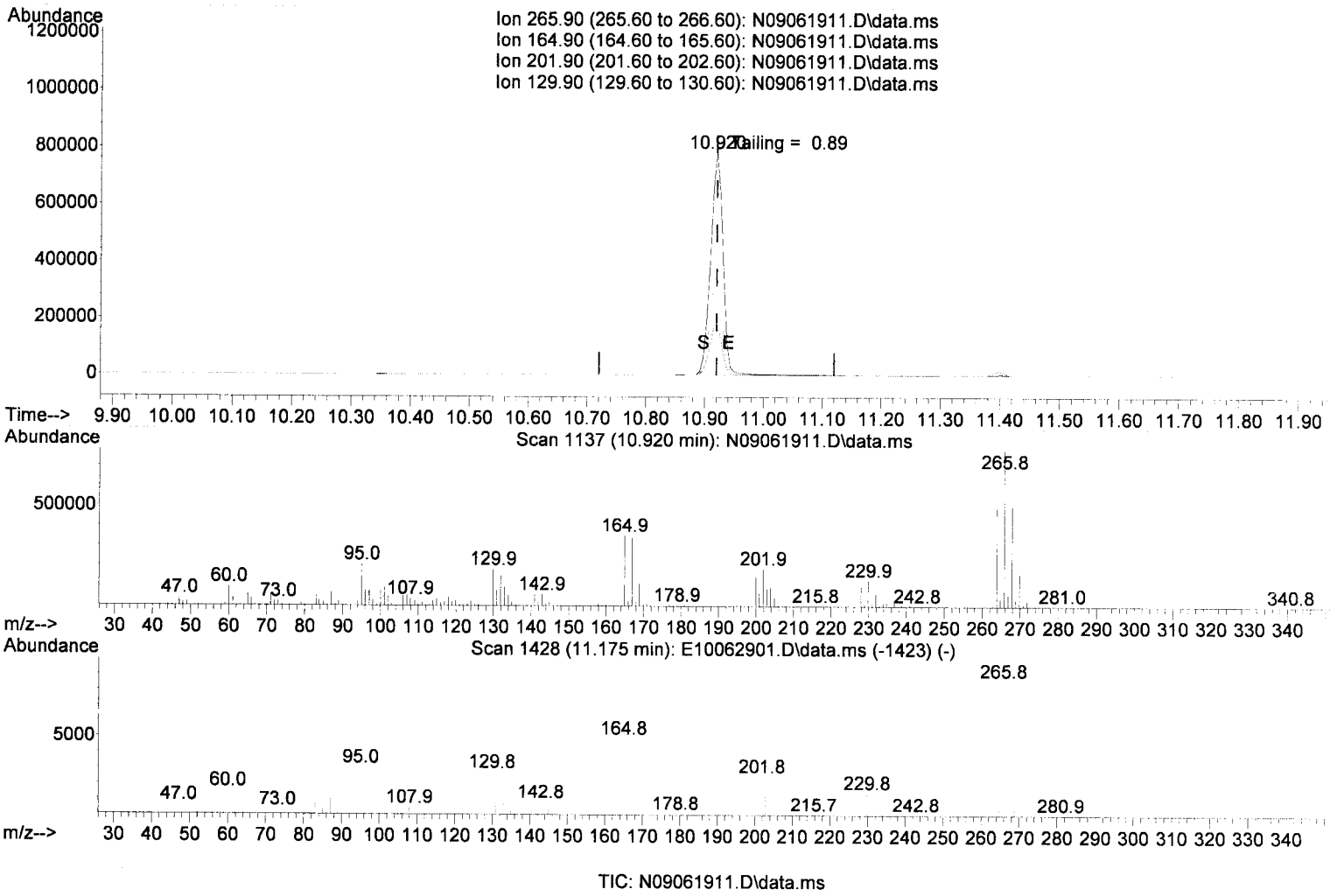
AutoFind: Scans 1218, 1219, 1220; Background Corrected with Scan 1212

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
68	69	0.00	2	1.5	4348	PASS
69	69	100	100	100.0	283608	PASS
70	69	0.00	2	0.5	1319	PASS
197	198	0.00	2	0.5	4054	PASS
198	198	100	100	100.0	845182	PASS
199	198	5	9	6.9	57976	PASS
365	198	1	100	3.6	30576	PASS
441	443	0.01	150	78.0	120320	PASS
442	198	0.10	200	93.1	787179	PASS
443	442	15	24	19.6	154213	PASS

Quantitation Report (Qedit)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061911.D
Acq On : 06 Sep 2019 03:51 pm
Operator :
Sample : 9I06028-TUN1
Misc : 1x, A19H414 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 06 17:15:52 2019
Quant Method : N:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N09061911.D\data.ms

(4) Pentachlorophenol

10.920min (+ 0.000) 47.06 ug/mL

response 1134816

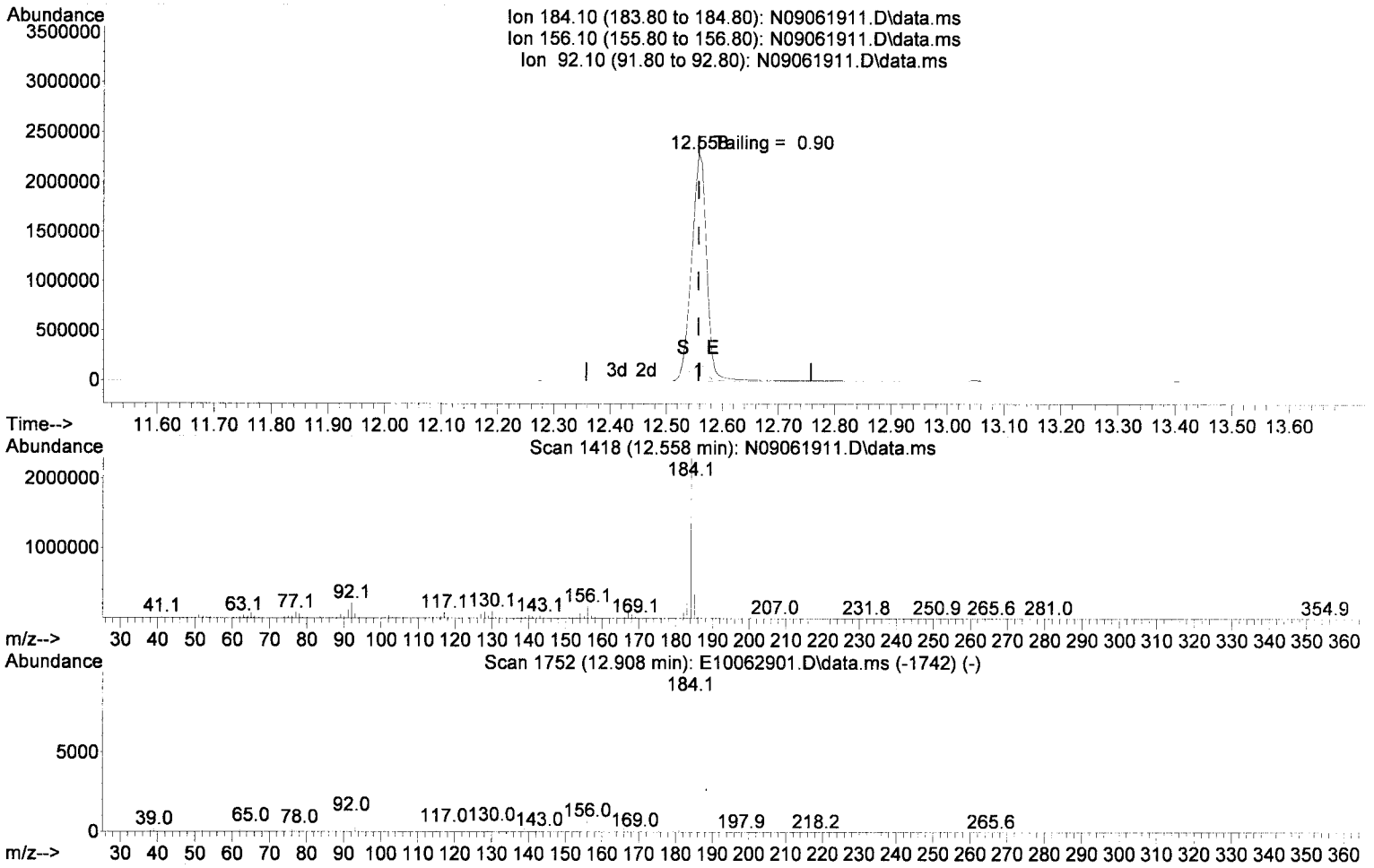
Ion	Exp%	Act%
265.90	100.00	100.00
164.90	50.60	44.95
201.90	25.80	23.85
129.90	27.30	23.19

9/9/19

Quantitation Report (Qedit)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061911.D
Acq On : 06 Sep 2019 03:51 pm
Operator :
Sample : 9I06028-TUN1
Misc : 1x, A19H414 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 06 17:15:52 2019
Quant Method : N:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14



TIC: N09061911.D\data.ms

(7) Benzidine

12.558min (+ 0.000) 25.70 ug/mL

response 4304187

Ion	Exp%	Act%
184.10	100.00	100.00
156.10	8.50	7.39
92.10	8.20	9.56
0.00	0.00	0.00

9/9/19

DDT Breakdown Check (Validated 5/1/2013)

From:
9I06028-TUN1
SV-GCMS14

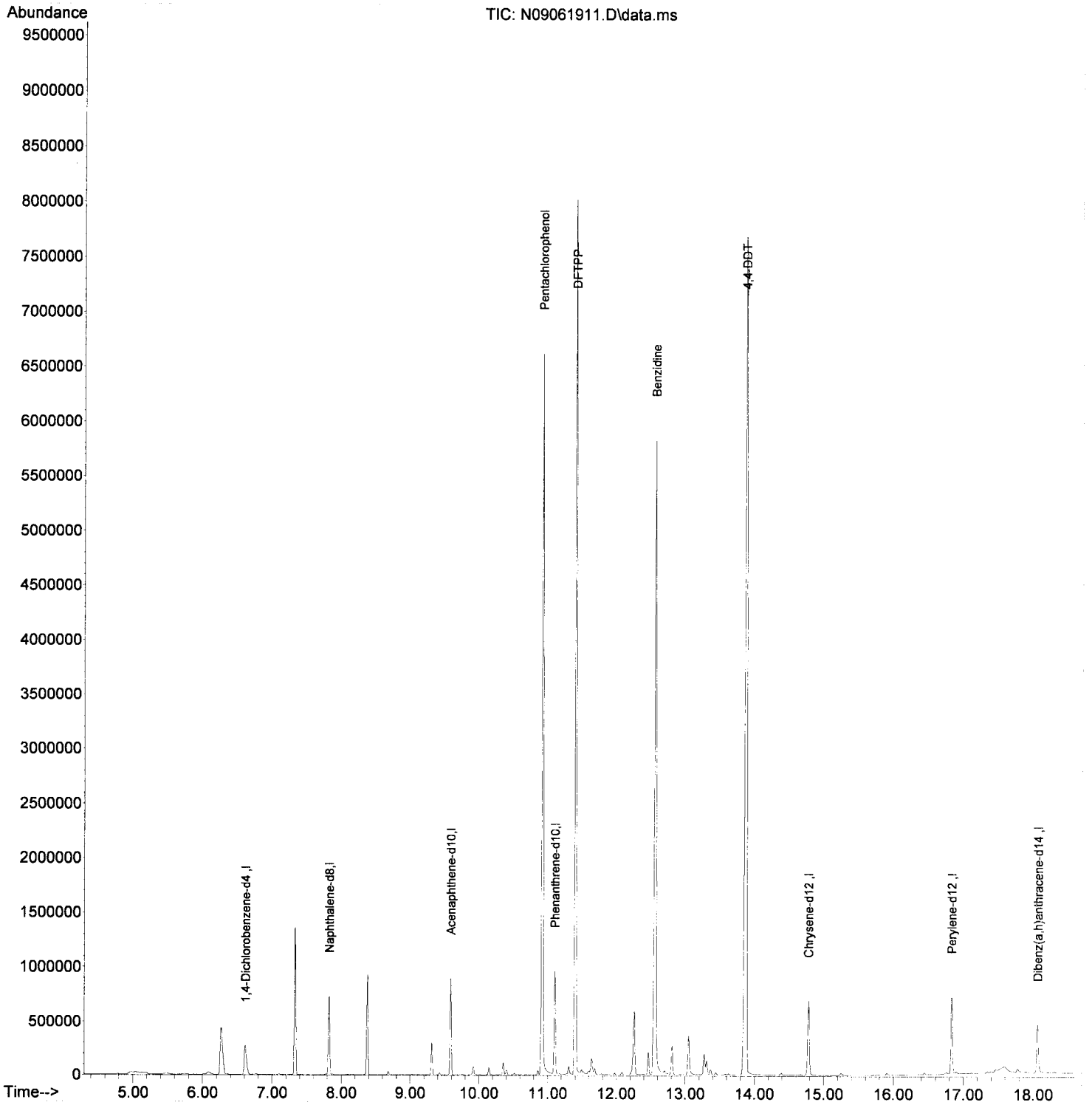
First Column Area Counts		Percent Breakdown	
DDE	375170		
DDD	188617		
DDT	15944082	**3.42**	**PASS**

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061911.D
Acq On : 06 Sep 2019 03:51 pm
Operator :
Sample : 9I06028-TUN1
Misc : 1x, A19H414 DFTPP@45
ALS Vial : 1 Sample Multiplier: 1
DataAcq Meth:DFTPP.M

Quant Time: Sep 06 17:15:52 2019
Quant Method : N:\methods\DFTPP.M
Quant Title : 8270 DFTPP Tune Method
QLast Update : Thu Sep 05 08:50:46 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061912.D
Acq On : 06 Sep 2019 04:18 pm
Operator :
Sample : 9I06028-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:46:43 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/9/19

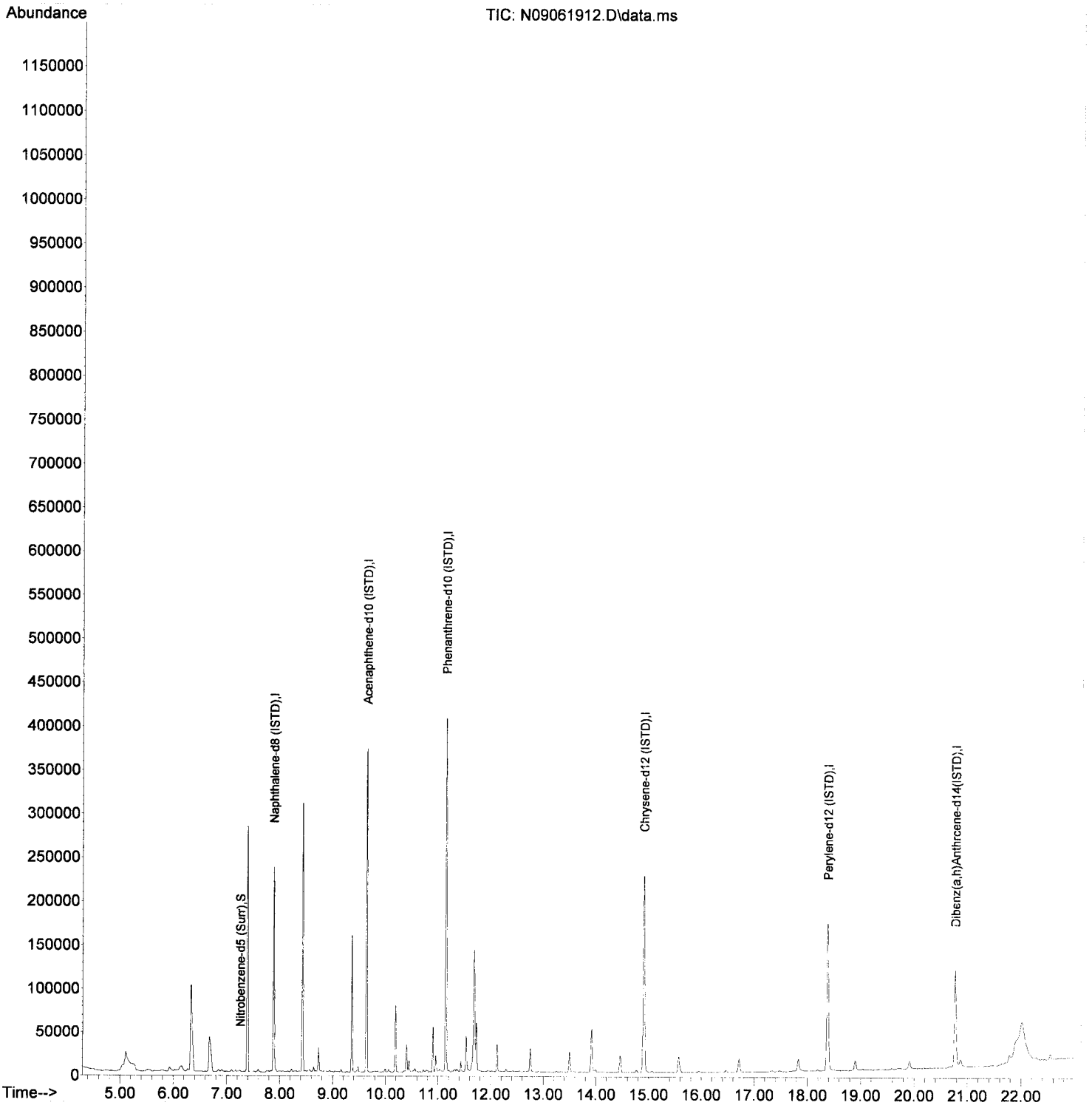
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	153621	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.643	162	109411	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	203705	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	156122	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	131660	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.765	292	95634	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.254	82	241	0.47	ng/ml	0.07
10) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
11) Acenaphthylene d-8 (Surr)	9.486	160	3573	0.17	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	228	0.14	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	0.000		0	N.D.		
4) Naphthalene	7.907	128	157	N.D.		
5) 2-Methylnaphthalene	0.000		0	N.D.		
6) 1-Methylnaphthalene	0.000		0	N.D.		
7) 1,1'-Biphenyl	0.000		0	N.D.		
8) 2,6-Dimethylnaphthalene	0.000		0	N.D.		
12) Acenaphthylene	9.498	152	86	N.D.		
13) Acenaphthene	0.000		0	N.D.		
14) Dibenzofuran	0.000		0	N.D.		
15) 1,6,7-Trimethylnaphtha...	0.000		0	N.D.		
16) Fluorene	0.000		0	N.D.		
18) Dibenzothiopene	11.042	184	87	N.D.		
19) Phenanthrene	11.171	178	288	N.D.		
20) Anthracene	11.223	178	75	N.D.		
21) Carbazole	11.380	167	333	No Calib		
22) 1-Methylphenanthrene	11.800	192	131	N.D.		
23) Fluoranthene	12.435	202	251	N.D.		
25) Pyrene	12.727	202	195	N.D.		
27) Benz(a)anthracene	14.901	228	646	N.D.		
28) Chrysene	14.965	228	290	N.D.		
30) Benzo(b)fluoranthene	17.466	252	208	N.D.		
31) Benzo(k)fluoranthene	17.524	252	168	N.D.		
32) Benzo(b+k)fluoranthene	17.524	252	168	N.D.		
34) Benzo(e)pyrene	18.113	252	178	N.D.		
35) Benzo(a)pyrene	0.000		0	N.D.		
36) Perylene	18.439	252	178	N.D.		
38) Indeno(1,2,3-cd)Pyrene	20.770	276	158	N.D.		
39) Dibenz(a,h)anthracene	20.834	278	121	N.D.		
40) Benzo(g,h,i)perylene	21.301	276	89	N.D.		

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061912.D
Acq On : 06 Sep 2019 04:18 pm
Operator :
Sample : 9I06028-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:46:43 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061912.D
Acq On : 06 Sep 2019 04:18 pm
Operator :
Sample : 9I06028-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Final Reagent

Quant Time: Sep 10 10:28:34 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/10/19

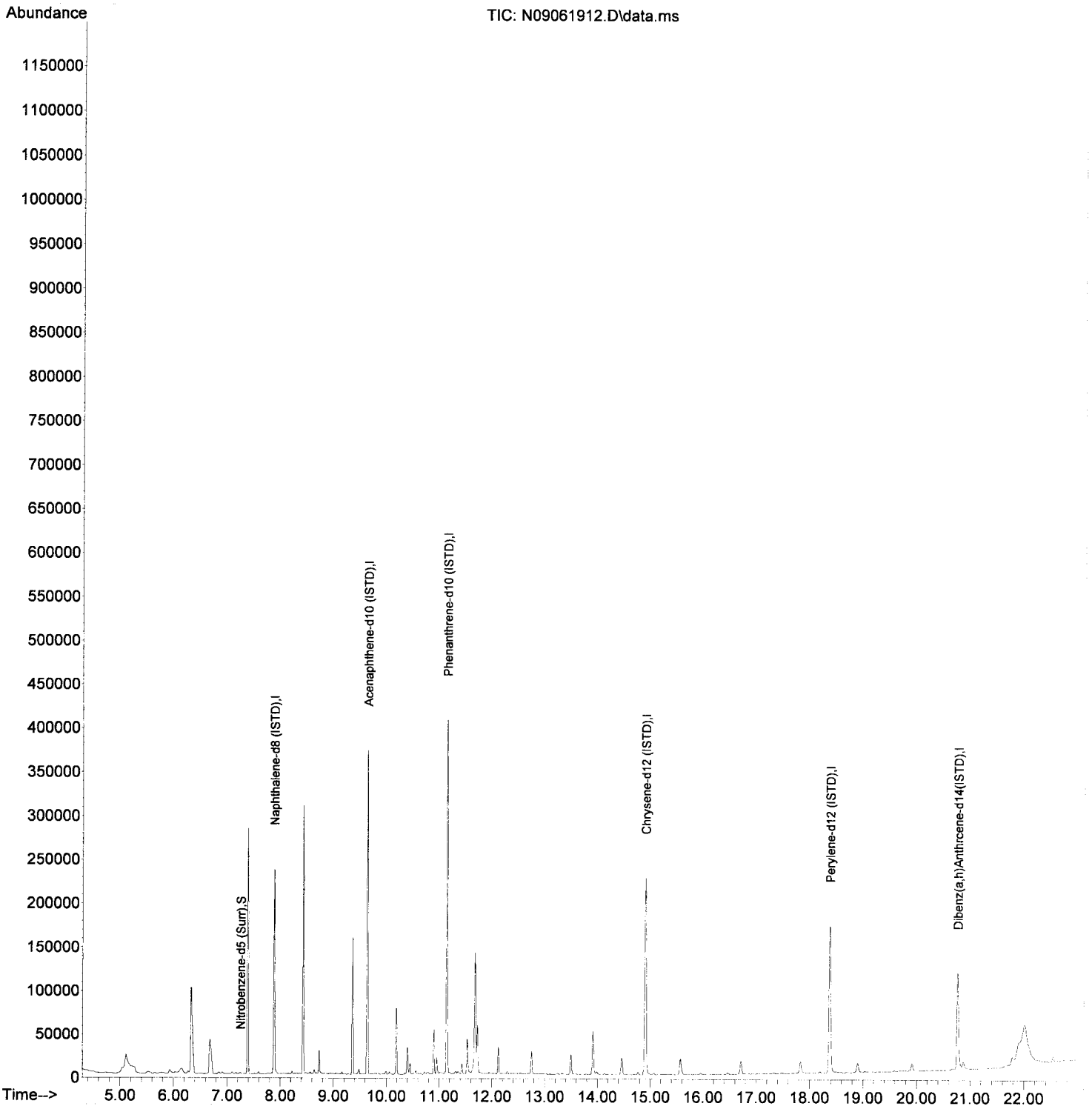
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	153621	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.643	162	109411	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	203705	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	156122	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	131660	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.765	292	95634	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.254	82	241	0.47	ng/ml	0.07
10) 2-Fluorobiphenyl (Surr)	0.000	172	0	0.00	ng/ml	
11) Acenaphthylene d-8 (Surr)	9.486	160	3573	0.17	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	228	0.14	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	0.000	264	0	0.00	ng/ml	
Target Compounds						Qvalue
3) Decalin	0.000		0	N.D.		
4) Naphthalene	7.907	128	157	N.D.		
5) 2-Methylnaphthalene	0.000		0	N.D.		
6) 1-Methylnaphthalene	0.000		0	N.D.		
7) 1,1'-Biphenyl	0.000		0	N.D.		
8) 2,6-Dimethylnaphthalene	0.000		0	N.D.		
12) Acenaphthylene	9.498	152	86	N.D.		
13) Acenaphthene	0.000		0	N.D.		
14) Dibenzofuran	0.000		0	N.D.		
15) 1,6,7-Trimethylnaphtha...	0.000		0	N.D.		
16) Fluorene	0.000		0	N.D.		
18) Dibenzothiopene	11.042	184	87	N.D.		
19) Phenanthrene	11.171	178	288	N.D.		
20) Anthracene	11.223	178	75	N.D.		
21) Carbazole	11.380	167	333	N.D.		
22) 1-Methylphenanthrene	11.800	192	131	N.D.		
23) Fluoranthene	12.435	202	251	N.D.		
25) Pyrene	12.727	202	195	N.D.		
27) Benz(a)anthracene	14.901	228	646	N.D.		
28) Chrysene	14.965	228	290	N.D.		
30) Benzo(b)fluoranthene	17.466	252	208	N.D.		
31) Benzo(k)fluoranthene	17.524	252	168	N.D.		
32) Benzo(b+k)fluoranthene	17.524	252	168	N.D.		
34) Benzo(e)pyrene	18.113	252	178	N.D.		
35) Benzo(a)pyrene	0.000		0	N.D.		
36) Perylene	18.439	252	178	N.D.		
38) Indeno(1,2,3-cd)Pyrene	20.770	276	158	N.D.		
39) Dibenz(a,h)anthracene	20.834	278	121	N.D.		
40) Benzo(g,h,i)perylene	21.301	276	89	N.D.		

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061912.D
Acq On : 06 Sep 2019 04:18 pm
Operator :
Sample : 9I06028-ICB1
Misc : 1x, DCM + ISTD
ALS Vial : 2 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 10 10:28:34 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061913.D
Acq On : 06 Sep 2019 04:51 pm
Operator :
Sample : 9I06028-CAL1
Misc : 1x, A19I015@1
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:46:51 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/9/19

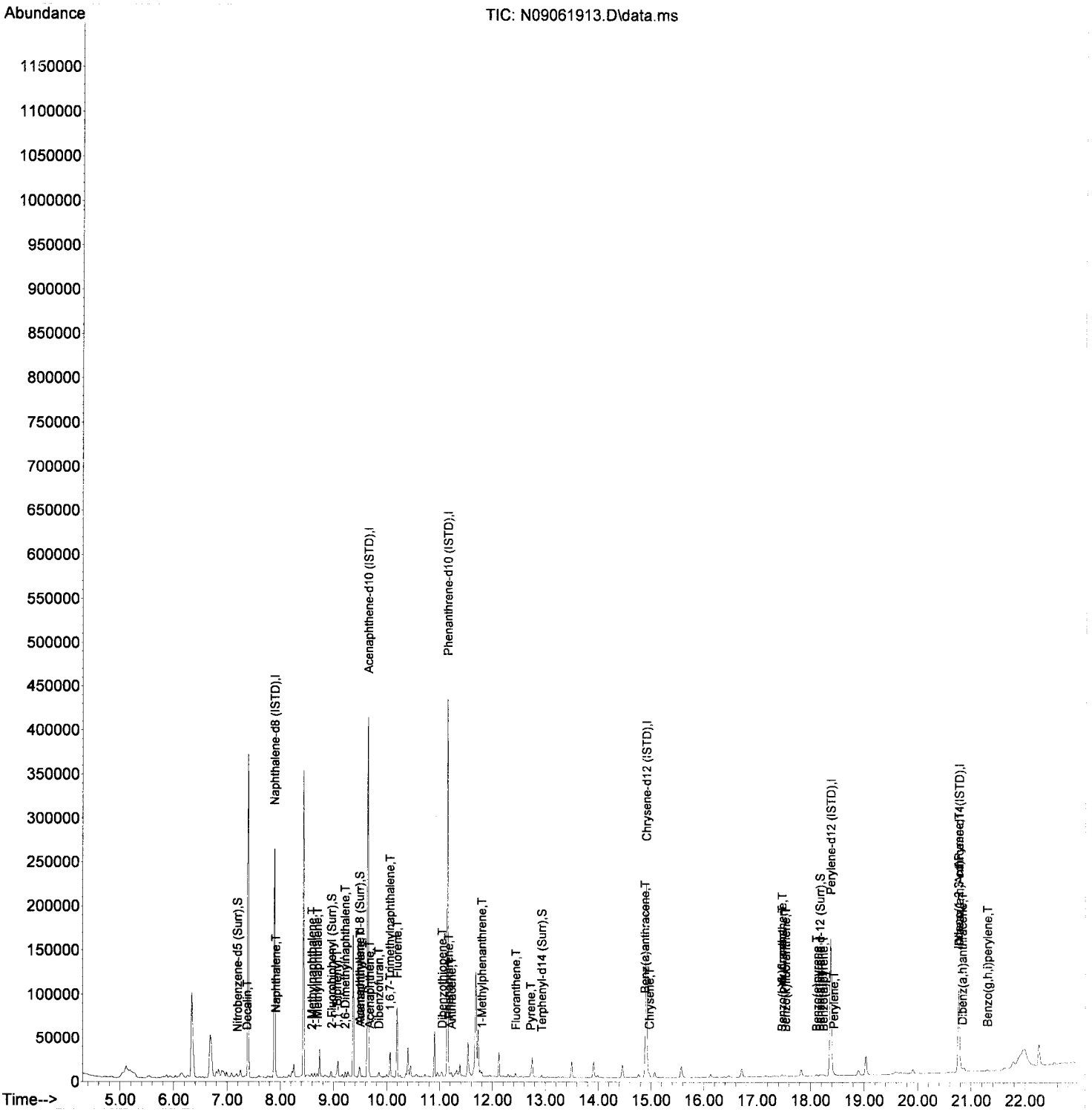
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	173610	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.643	162	119749	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	214815	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	149008	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.375	264	120943	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.764	292	80323	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.189	82	679	1.18	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.956	172	1705	0.95	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.486	160	5840	0.98	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	1714	1.09	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.176	264	773	0.80	ng/ml	0.00
Target Compounds						Qvalue
3) Decalin	7.364	138	87	0.67	ng/ml#	38
4) Naphthalene	7.906	128	2011	1.05	ng/ml	99
5) 2-Methylnaphthalene	8.588	142	1551	0.96	ng/ml	94
6) 1-Methylnaphthalene	8.687	142	1426	0.88	ng/ml	100
7) 1,1'-Biphenyl	9.055	154	2122	0.97	ng/ml	93
8) 2,6-Dimethylnaphthalene	9.212	156	1429	0.90	ng/ml	93
12) Acenaphthylene	9.498	152	2455	0.94	ng/ml	98
13) Acenaphthene	9.672	153	1723	1.01	ng/ml	97
14) Dibenzofuran	9.847	168	2108	0.99	ng/ml	91
15) 1,6,7-Trimethylnaphtha...	10.057	170	1496	1.05	ng/ml	75
16) Fluorene	10.197	166	1639	0.94	ng/ml	98
18) Dibenzothiopene	11.042	184	2213	0.99	ng/ml	95
19) Phenanthrene	11.170	178	2765	1.10	ng/ml	99
20) Anthracene	11.223	178	2357	1.01	ng/ml	97
21) Carbazole	11.380	167	1874	No Calib		
22) 1-Methylphenanthrene	11.794	192	1725	0.99	ng/ml	92
23) Fluoranthene	12.435	202	2565	1.01	ng/ml	98
25) Pyrene	12.721	202	2435	1.05	ng/ml	96
27) Benz(a)anthracene	14.883	228	2077	1.20	ng/ml	98
28) Chrysene	14.965	228	1690	1.03	ng/ml	96
30) Benzo(b)fluoranthene	17.465	252	1351	0.97	ng/ml	95
31) Benzo(k)fluoranthene	17.529	252	1291	0.94	ng/ml	96
32) Benzo(b+k)fluoranthene	17.465	252	2690	0.94	ng/ml	97
34) Benzo(e)pyrene	18.112	252	1505	1.07	ng/ml	94
35) Benzo(a)pyrene	18.235	252	1189	1.00	ng/ml	99
36) Perylene	18.433	252	1255	0.85	ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.759	276	970	0.98	ng/ml	74
39) Dibenz(a,h)anthracene	20.828	278	942	1.01	ng/ml	86
40) Benzo(g,h,i)perylene	21.295	276	1000	0.95	ng/ml	93

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061913.D
Acq On : 06 Sep 2019 04:51 pm
Operator :
Sample : 9I06028-CAL1
Misc : 1x, A19I015@1
ALS Vial : 3 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:46:51 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061914.D
Acq On : 06 Sep 2019 05:23 pm
Operator :
Sample : 9I06028-CAL2
Misc : 1x, A19I016@2.5
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:46:55 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/9/19

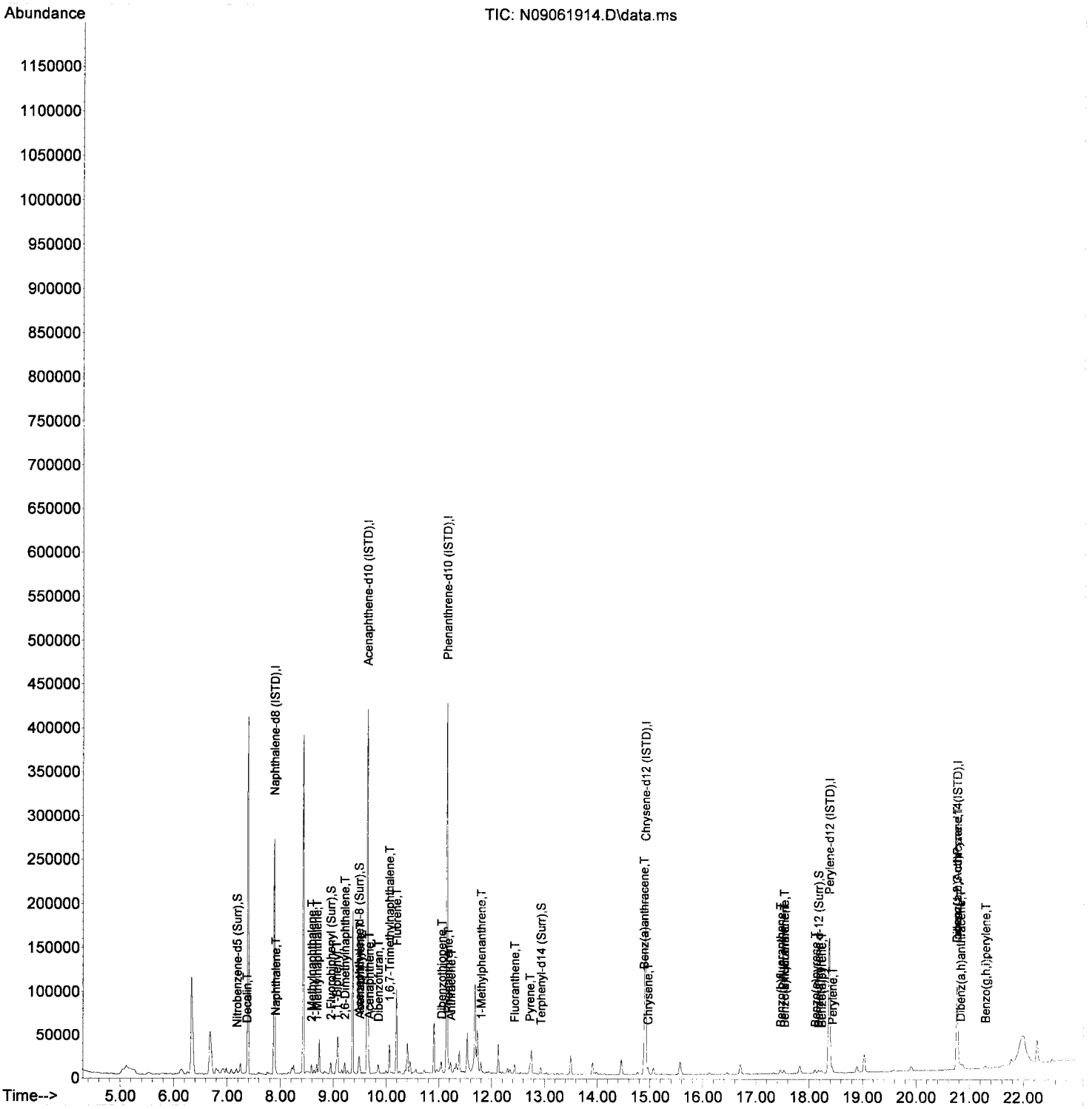
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	170471	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	119278	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	215482	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	151986	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.375	264	123595	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.759	292	82584	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	1447	2.55	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	4658	2.62	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	9843	2.67	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	4151	2.60	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.171	264	2322	2.35	ng/ml	0.00
Target Compounds						Qvalue
3) Decalin	7.364	138	323	2.54	ng/ml	87
4) Naphthalene	7.906	128	4837	2.57	ng/ml	98
5) 2-Methylnaphthalene	8.588	142	3865	2.43	ng/ml	96
6) 1-Methylnaphthalene	8.688	142	3730	2.34	ng/ml	97
7) 1,1'-Biphenyl	9.055	154	5118	2.39	ng/ml	97
8) 2,6-Dimethylnaphthalene	9.212	156	3622	2.31	ng/ml	97
12) Acenaphthylene	9.498	152	6483	2.50	ng/ml	98
13) Acenaphthene	9.673	153	4435	2.61	ng/ml	96
14) Dibenzofuran	9.847	168	5286	2.49	ng/ml	95
15) 1,6,7-Trimethylnaphtha...	10.057	170	3598	2.53	ng/ml	87
16) Fluorene	10.191	166	4189	2.41	ng/ml	94
18) Dibenzothiopene	11.042	184	5817	2.58	ng/ml	97
19) Phenanthrene	11.171	178	6430	2.55	ng/ml	99
20) Anthracene	11.223	178	5868	2.50	ng/ml	98
21) Carbazole	11.380	167	4473	No Calib		
22) 1-Methylphenanthrene	11.794	192	4331	2.47	ng/ml	98
23) Fluoranthene	12.429	202	6070	2.39	ng/ml	95
25) Pyrene	12.721	202	6620	2.79	ng/ml	98
27) Benz(a)anthracene	14.883	228	4639	2.63	ng/ml	97
28) Chrysene	14.959	228	4207	2.52	ng/ml	99
30) Benzo(b)fluoranthene	17.460	252	3353	2.35	ng/ml	96
31) Benzo(k)fluoranthene	17.530	252	3343	2.38	ng/ml	93
32) Benzo(b+k)fluoranthene	17.530	252	6909	2.37	ng/ml	93
34) Benzo(e)pyrene	18.112	252	3623	2.51	ng/ml	97
35) Benzo(a)pyrene	18.229	252	2658	2.18	ng/ml	100
36) Perylene	18.433	252	3787	2.52	ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.759	276	2642	2.59	ng/ml	100
39) Dibenz(a,h)anthracene	20.823	278	2361	2.47	ng/ml	87
40) Benzo(g,h,i)perylene	21.289	276	2446	2.26	ng/ml	97

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061914.D
Acq On : 06 Sep 2019 05:23 pm
Operator :
Sample : 9I06028-CAL2
Misc : 1x, A19I016@2.5
ALS Vial : 4 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:46:55 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061915.D
Acq On : 06 Sep 2019 05:55 pm
Operator :
Sample : 9I06028-CAL3
Misc : 1x, A19I017@5
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:00 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/9/19

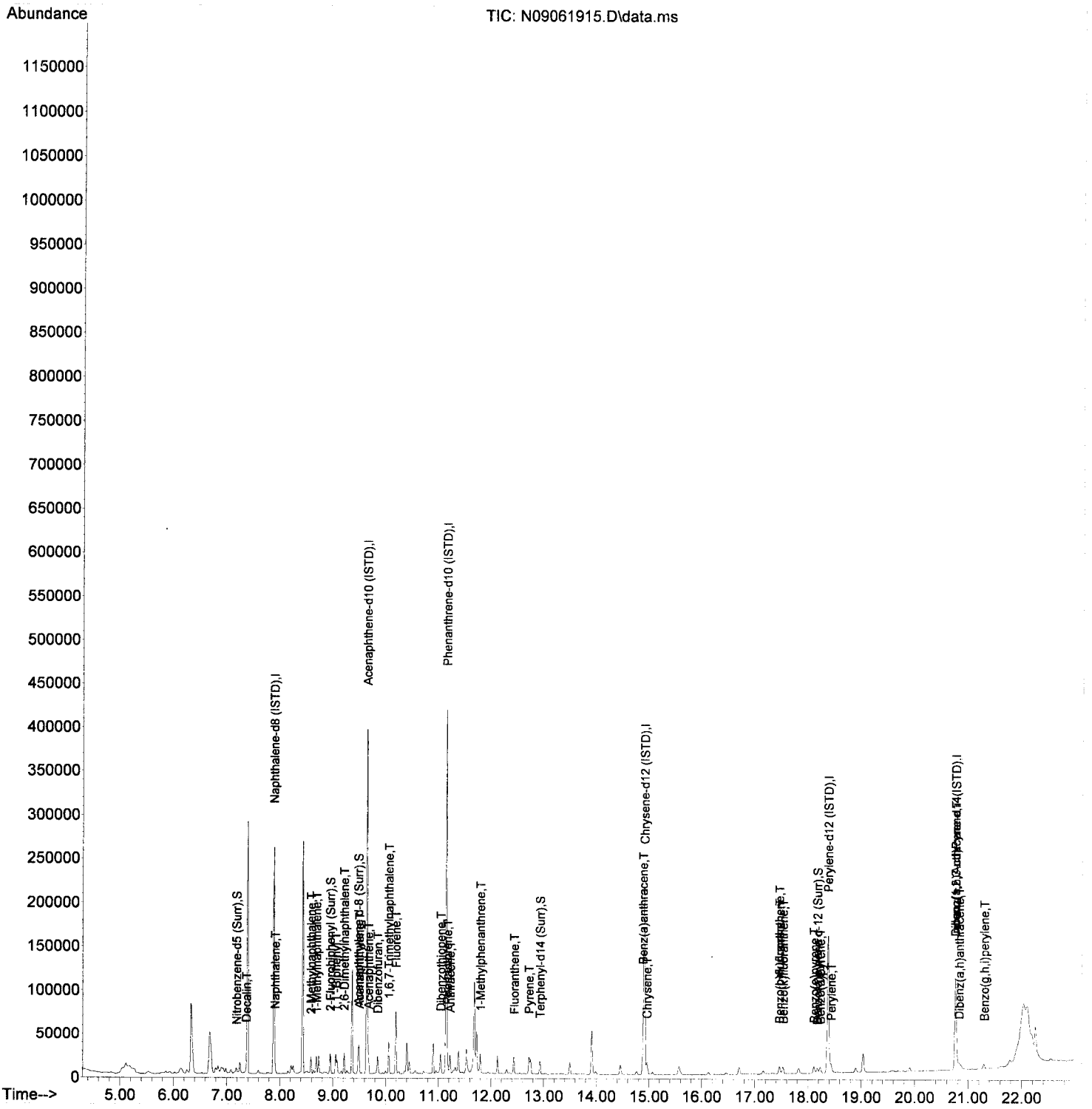
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	165670	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	115422	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	210311	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	150233	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.375	264	124460	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.759	292	83358	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	2621	4.76	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	8548	4.96	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	14409	4.79	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	7787	4.93	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.177	264	4638	4.66	ng/ml	0.00
Target Compounds						Qvalue
3) Decalin	7.364	138	582	4.72	ng/ml	91
4) Naphthalene	7.906	128	9092	4.98	ng/ml	99
5) 2-Methylnaphthalene	8.588	142	7294	4.71	ng/ml	97
6) 1-Methylnaphthalene	8.688	142	6937	4.48	ng/ml	96
7) 1,1'-Biphenyl	9.055	154	9300	4.47	ng/ml	96
8) 2,6-Dimethylnaphthalene	9.212	156	6755	4.44	ng/ml	99
12) Acenaphthylene	9.498	152	12342	4.93	ng/ml	99
13) Acenaphthene	9.673	153	8103	4.94	ng/ml	98
14) Dibenzofuran	9.847	168	10021	4.87	ng/ml	99
15) 1,6,7-Trimethylnaphtha...	10.057	170	6769	4.92	ng/ml	98
16) Fluorene	10.191	166	8130	4.84	ng/ml	99
18) Dibenzothiopene	11.042	184	11105	5.05	ng/ml	97
19) Phenanthrene	11.171	178	11957	4.86	ng/ml	98
20) Anthracene	11.223	178	11026	4.82	ng/ml	99
21) Carbazole	11.380	167	8513	No Calib		
22) 1-Methylphenanthrene	11.794	192	8212	4.80	ng/ml	99
23) Fluoranthene	12.435	202	11610	4.68	ng/ml	98
25) Pyrene	12.721	202	11908	5.07	ng/ml	100
27) Benz(a)anthracene	14.883	228	8173	4.69	ng/ml	96
28) Chrysene	14.959	228	8164	4.95	ng/ml	96
30) Benzo(b)fluoranthene	17.460	252	6625	4.61	ng/ml	95
31) Benzo(k)fluoranthene	17.530	252	6760	4.78	ng/ml	96
32) Benzo(b+k)fluoranthene	17.460	252	13896	4.73	ng/ml	93
34) Benzo(e)pyrene	18.112	252	6692	4.61	ng/ml	98
35) Benzo(a)pyrene	18.229	252	5344	4.35	ng/ml	99
36) Perylene	18.433	252	7462	4.93	ng/ml	97
38) Indeno(1,2,3-cd)Pyrene	20.759	276	4940	4.80	ng/ml	95
39) Dibenz(a,h)anthracene	20.829	278	4673	4.84	ng/ml	98
40) Benzo(g,h,i)perylene	21.295	276	5171	4.74	ng/ml	92

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061915.D
Acq On : 06 Sep 2019 05:55 pm
Operator :
Sample : 9I06028-CAL3
Misc : 1x, A19I017@5
ALS Vial : 5 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:00 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061916.D
Acq On : 06 Sep 2019 06:27 pm
Operator :
Sample : 9I06028-CAL4
Misc : 1x, A19I018@10
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:05 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/9/19

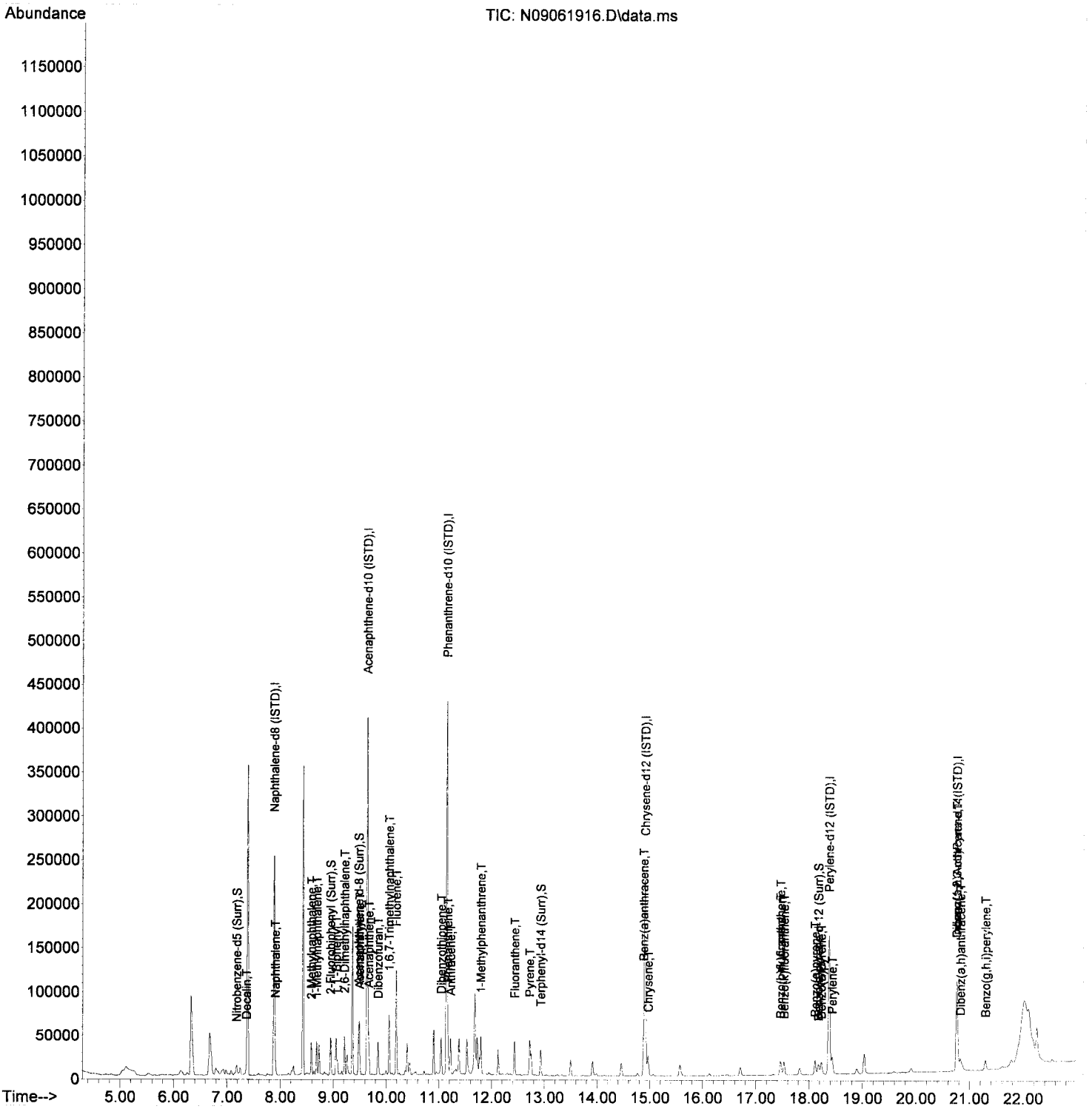
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	160906	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	118305	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	216396	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	153303	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.375	264	125859	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.759	292	82058	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	5073	9.49	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	17737	10.05	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	27001	9.97	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	16215	10.06	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.177	264	9551	9.49	ng/ml	0.00
Target Compounds						Qvalue
3) Decalin	7.365	138	1106	9.23	ng/ml	96
4) Naphthalene	7.907	128	18065	10.18	ng/ml	98
5) 2-Methylnaphthalene	8.589	142	14250	9.48	ng/ml	98
6) 1-Methylnaphthalene	8.688	142	14747	9.81	ng/ml	97
7) 1,1'-Biphenyl	9.055	154	19088	9.44	ng/ml	99
8) 2,6-Dimethylnaphthalene	9.212	156	13690	9.27	ng/ml	97
12) Acenaphthylene	9.498	152	25683	10.00	ng/ml	98
13) Acenaphthene	9.673	153	16768	9.97	ng/ml	99
14) Dibenzofuran	9.848	168	21062	10.00	ng/ml	97
15) 1,6,7-Trimethylnaphtha...	10.057	170	13937	9.88	ng/ml	99
16) Fluorene	10.191	166	16819	9.77	ng/ml	100
18) Dibenzothiopene	11.042	184	22465	9.93	ng/ml	98
19) Phenanthrene	11.171	178	25204	9.95	ng/ml	100
20) Anthracene	11.223	178	22988	9.76	ng/ml	100
21) Carbazole	11.380	167	17697	No Calib		
22) 1-Methylphenanthrene	11.794	192	17190	9.77	ng/ml	100
23) Fluoranthene	12.435	202	24321	9.53	ng/ml	98
25) Pyrene	12.721	202	25073	10.47	ng/ml	99
27) Benz(a)anthracene	14.883	228	16760	9.42	ng/ml	97
28) Chrysene	14.965	228	16658	9.89	ng/ml	99
30) Benzo(b)fluoranthene	17.466	252	13743	9.46	ng/ml	97
31) Benzo(k)fluoranthene	17.530	252	13038	9.12	ng/ml	95
32) Benzo(b+k)fluoranthene	17.466	252	28065	9.45	ng/ml	95
34) Benzo(e)pyrene	18.113	252	13726	9.35	ng/ml	98
35) Benzo(a)pyrene	18.229	252	11353	9.13	ng/ml	99
36) Perylene	18.433	252	14964	9.77	ng/ml	97
38) Indeno(1,2,3-cd)Pyrene	20.759	276	9774	9.66	ng/ml	91
39) Dibenz(a,h)anthracene	20.829	278	9159	9.63	ng/ml	90
40) Benzo(g,h,i)perylene	21.295	276	10267	9.56	ng/ml	92

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061916.D
Acq On : 06 Sep 2019 06:27 pm
Operator :
Sample : 9I06028-CAL4
Misc : 1x, A19I018@10
ALS Vial : 6 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:05 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061917.D
Acq On : 06 Sep 2019 07:00 pm
Operator :
Sample : 9I06028-CAL5
Misc : 1x, A19I019@25
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:10 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/9/19

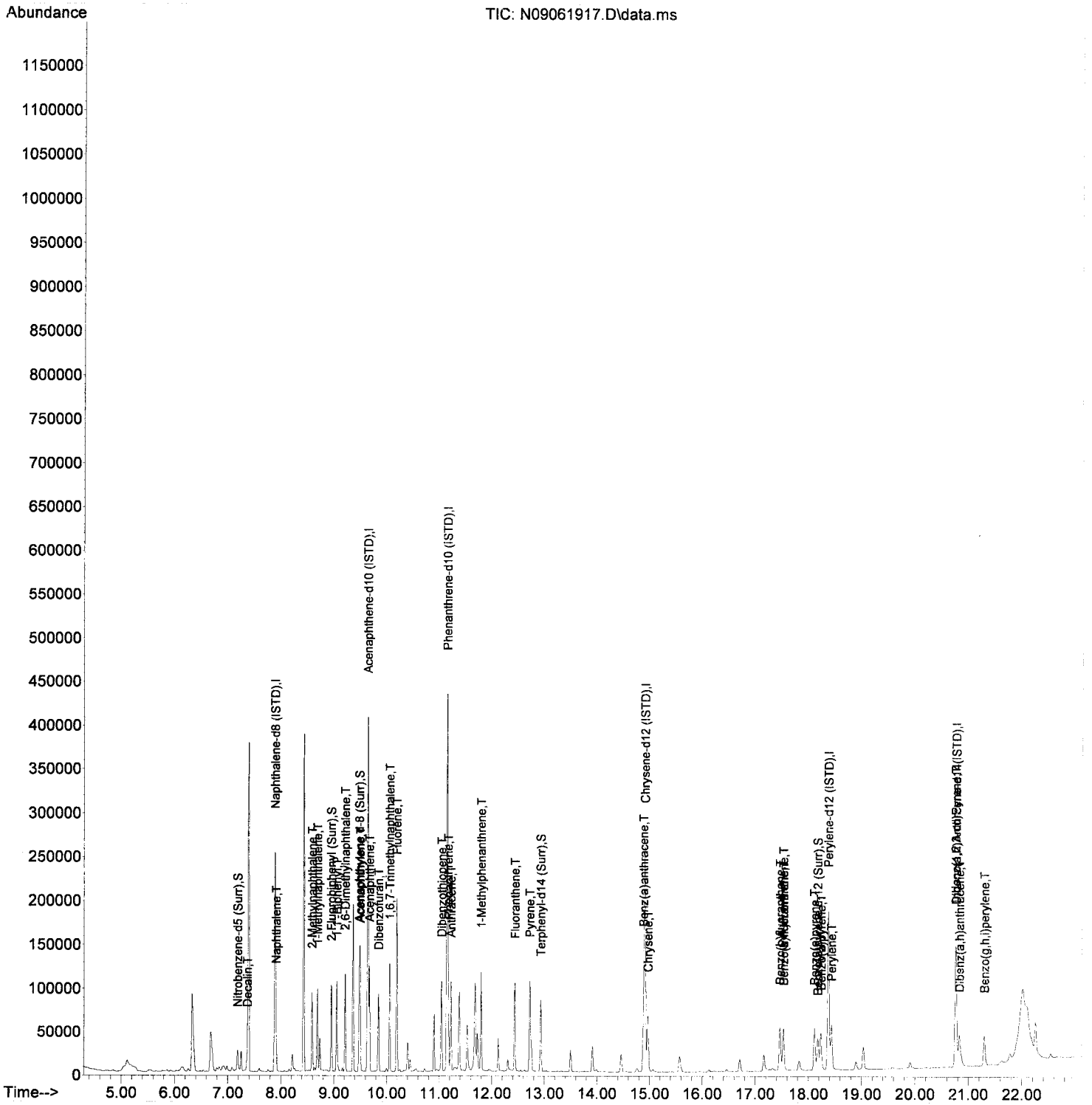
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	158689	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	118239	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	219818	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	167298	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.375	264	142122	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.765	292	96960	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	12124	22.99	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	44333	25.13	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	62320	24.95	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	44339	25.20	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.177	264	27791	24.45	ng/ml	0.00
Target Compounds						Qvalue
3) Decalin	7.365	138	2777	23.50	ng/ml	94
4) Naphthalene	7.907	128	43246	24.71	ng/ml	99
5) 2-Methylnaphthalene	8.589	142	35507	23.94	ng/ml	98
6) 1-Methylnaphthalene	8.688	142	36615	24.69	ng/ml	98
7) 1,1'-Biphenyl	9.055	154	47414	23.77	ng/ml	98
8) 2,6-Dimethylnaphthalene	9.212	156	35377	24.28	ng/ml	98
12) Acenaphthylene	9.498	152	64887	25.28	ng/ml	98
13) Acenaphthene	9.673	153	41951	24.95	ng/ml	100
14) Dibenzofuran	9.848	168	52926	25.13	ng/ml	98
15) 1,6,7-Trimethylnaphtha...	10.057	170	34543	24.50	ng/ml	99
16) Fluorene	10.191	166	43186	25.10	ng/ml	99
18) Dibenzothiopene	11.042	184	56622	24.63	ng/ml	98
19) Phenanthrene	11.171	178	63419	24.66	ng/ml	100
20) Anthracene	11.223	178	58731	24.55	ng/ml	99
21) Carbazole	11.380	167	47604	No Calib		
22) 1-Methylphenanthrene	11.794	192	44094	24.68	ng/ml	99
23) Fluoranthene	12.435	202	63845	24.64	ng/ml	99
25) Pyrene	12.721	202	66093	25.29	ng/ml	99
27) Benz(a)anthracene	14.883	228	46578	23.98	ng/ml	99
28) Chrysene	14.965	228	45910	24.98	ng/ml	99
30) Benzo(b)fluoranthene	17.466	252	40093	24.45	ng/ml	97
31) Benzo(k)fluoranthene	17.530	252	40088	24.83	ng/ml	98
32) Benzo(b+k)fluoranthene	17.530	252	83294	24.83	ng/ml	98
34) Benzo(e)pyrene	18.113	252	40463	24.40	ng/ml	98
35) Benzo(a)pyrene	18.235	252	34709	24.73	ng/ml	99
36) Perylene	18.433	252	43783	25.33	ng/ml	100
38) Indeno(1,2,3-cd)Pyrene	20.759	276	28895	24.16	ng/ml	94
39) Dibenz(a,h)anthracene	20.829	278	27156	24.16	ng/ml	92
40) Benzo(g,h,i)perylene	21.295	276	31234	24.62	ng/ml	92

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061917.D
Acq On : 06 Sep 2019 07:00 pm
Operator :
Sample : 9I06028-CAL5
Misc : 1x, A19I019@25
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:10 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061918.D
Acq On : 06 Sep 2019 07:32 pm
Operator :
Sample : 9I06028-CAL6
Misc : 1x, A19I020@50
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:15 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/9/19

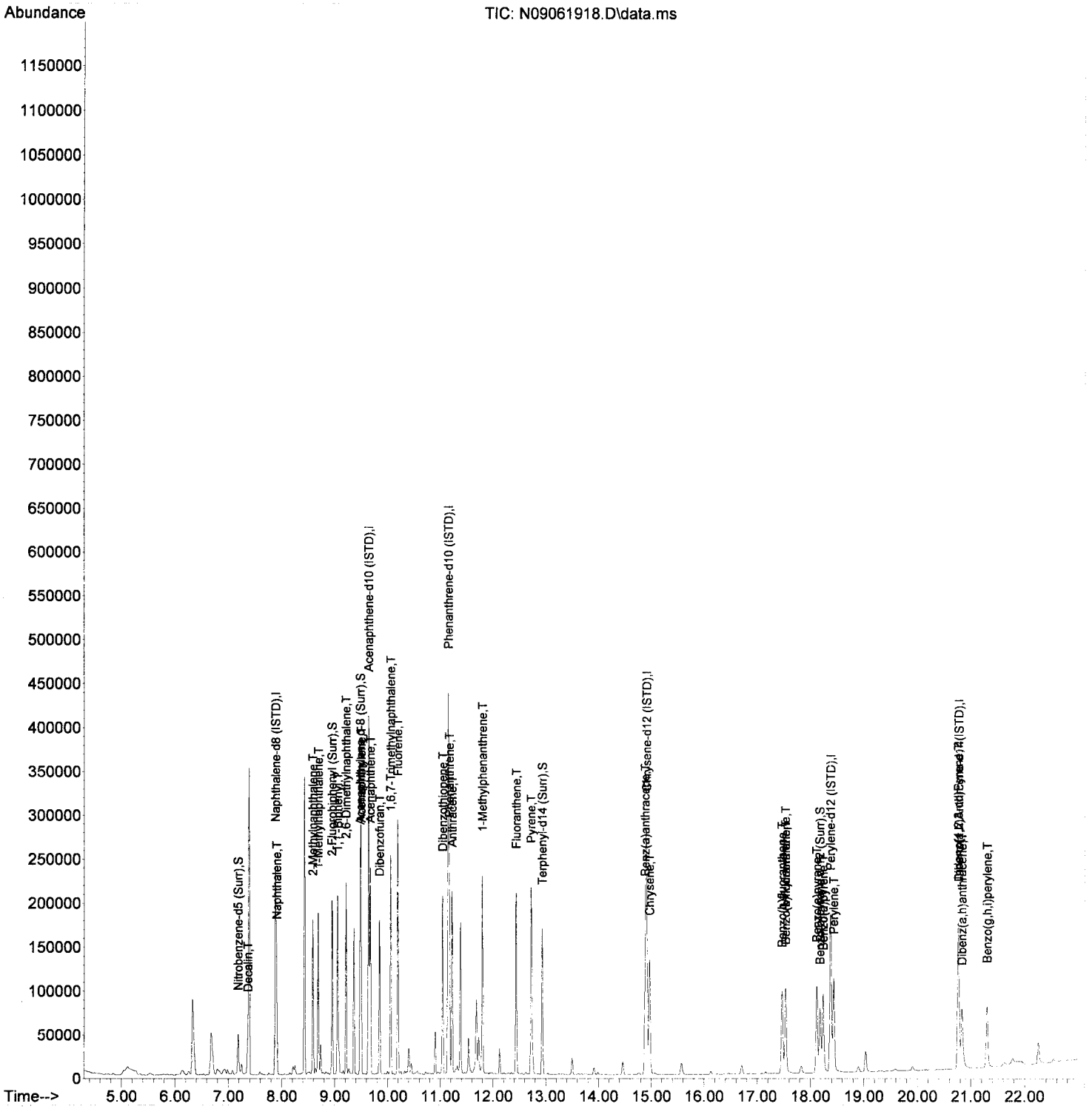
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	148351	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	117951	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	219661	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	169841	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.375	264	142416	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.765	292	93265	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	23996	48.68	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	87417	49.68	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	119179	49.18	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	88785	49.70	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.177	264	57544	50.53	ng/ml	0.00
Target Compounds						Qvalue
3) Decalin	7.364	138	5568	50.41	ng/ml	97
4) Naphthalene	7.907	128	80326	49.09	ng/ml	99
5) 2-Methylnaphthalene	8.589	142	69811	50.35	ng/ml	98
6) 1-Methylnaphthalene	8.688	142	71477	51.56	ng/ml	97
7) 1,1'-Biphenyl	9.055	154	93359	50.06	ng/ml	98
8) 2,6-Dimethylnaphthalene	9.212	156	69912	51.34	ng/ml	97
12) Acenaphthylene	9.498	152	128075	50.02	ng/ml	99
13) Acenaphthene	9.673	153	82212	49.02	ng/ml	100
14) Dibenzofuran	9.848	168	104783	49.88	ng/ml	98
15) 1,6,7-Trimethylnaphtha...	10.057	170	68907	48.99	ng/ml	99
16) Fluorene	10.191	166	85319	49.71	ng/ml	100
18) Dibenzothiopene	11.042	184	113451	49.38	ng/ml	98
19) Phenanthrene	11.171	178	126501	49.21	ng/ml	100
20) Anthracene	11.223	178	118187	49.43	ng/ml	99
21) Carbazole	11.380	167	95634	No Calib		
22) 1-Methylphenanthrene	11.794	192	88417	49.52	ng/ml	99
23) Fluoranthene	12.435	202	128587	49.65	ng/ml	99
25) Pyrene	12.721	202	133393	50.27	ng/ml	100
27) Benz(a)anthracene	14.883	228	93207	47.27	ng/ml	100
28) Chrysene	14.965	228	91866	49.23	ng/ml	99
30) Benzo(b)fluoranthene	17.466	252	82867	50.43	ng/ml	98
31) Benzo(k)fluoranthene	17.530	252	79638	49.22	ng/ml	97
32) Benzo(b+k)fluoranthene	17.530	252	167848	49.93	ng/ml	97
34) Benzo(e)pyrene	18.118	252	81957	49.32	ng/ml	99
35) Benzo(a)pyrene	18.235	252	71520	50.85	ng/ml	98
36) Perylene	18.433	252	86757	50.08	ng/ml	100
38) Indeno(1,2,3-cd)Pyrene	20.759	276	57046	49.59	ng/ml	90
39) Dibenz(a,h)anthracene	20.829	278	53335	49.34	ng/ml	90
40) Benzo(g,h,i)perylene	21.295	276	61905	50.73	ng/ml	90

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061918.D
Acq On : 06 Sep 2019 07:32 pm
Operator :
Sample : 9I06028-CAL6
Misc : 1x, A19I020@50
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:15 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061919.D
Acq On : 06 Sep 2019 08:04 pm
Operator :
Sample : 9I06028-CAL7
Misc : 1x, A19I021@100
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:19 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/9/19

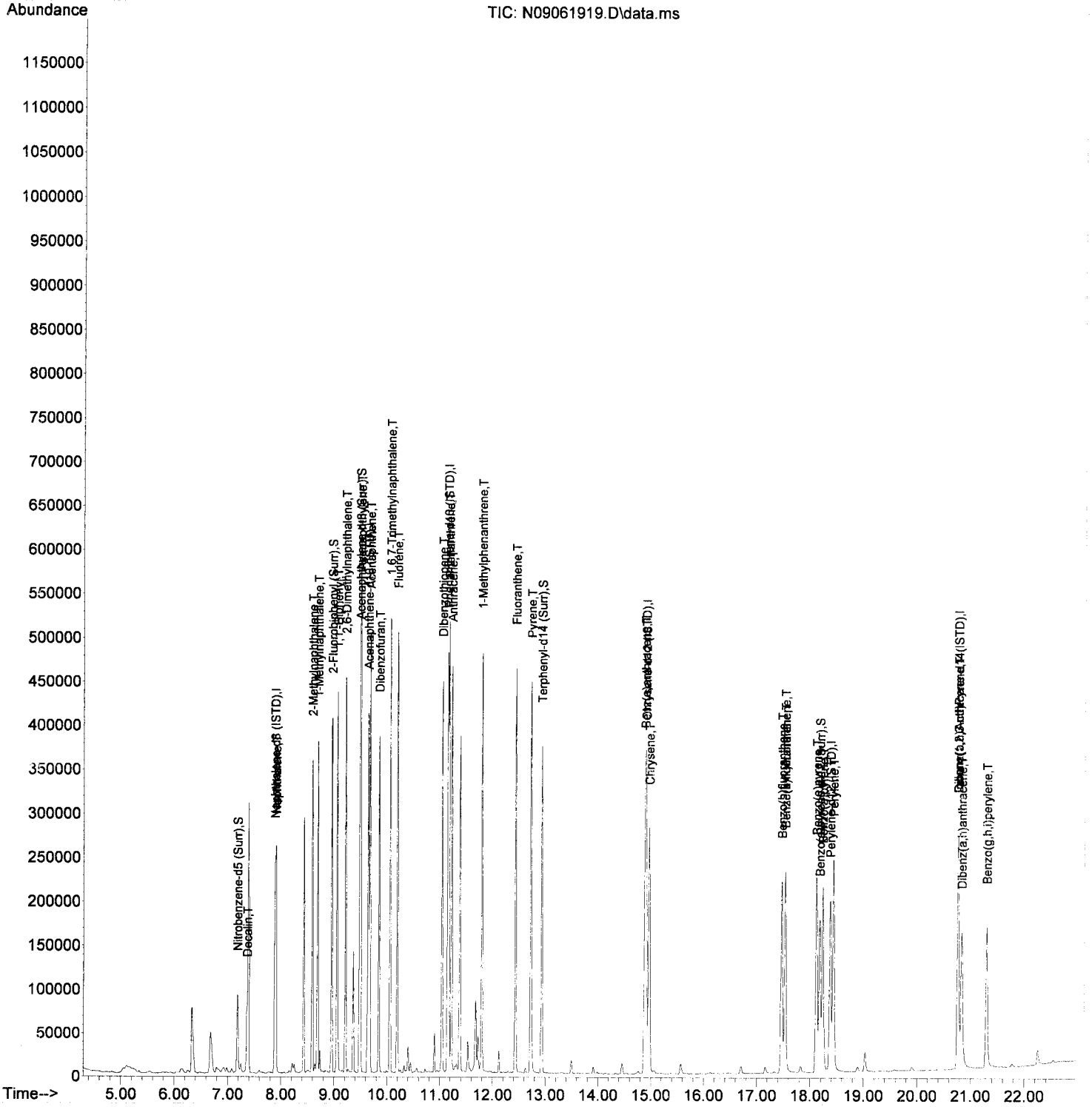
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	148917	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	121411	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	233582	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.907	240	187274	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	159070	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.764	292	103600	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	48056	97.11	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.956	172	182001	100.48	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	248072	101.01	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	196418	99.72	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.182	264	134446	105.69	ng/ml	0.00
Target Compounds						Qvalue
3) Decalin	7.364	138	11430	103.09	ng/ml	94
4) Naphthalene	7.906	128	161201	98.15	ng/ml	100
5) 2-Methylnaphthalene	8.588	142	143766	103.29	ng/ml	99
6) 1-Methylnaphthalene	8.687	142	146804	105.50	ng/ml	98
7) 1,1'-Biphenyl	9.055	154	197491	105.50	ng/ml	99
8) 2,6-Dimethylnaphthalene	9.212	156	148070	108.31	ng/ml	97
12) Acenaphthylene	9.498	152	272913	103.54	ng/ml	99
13) Acenaphthene	9.672	153	175245	101.51	ng/ml	100
14) Dibenzofuran	9.847	168	222327	102.81	ng/ml	98
15) 1,6,7-Trimethylnaphtha...	10.057	170	147218	101.68	ng/ml	100
16) Fluorene	10.191	166	185216	104.84	ng/ml	99
18) Dibenzothiopene	11.042	184	245278	100.40	ng/ml	98
19) Phenanthrene	11.170	178	270427	98.94	ng/ml	100
20) Anthracene	11.223	178	259236	101.96	ng/ml	99
21) Carbazole	11.380	167	211369	No Calib		
22) 1-Methylphenanthrene	11.794	192	192550	101.41	ng/ml	98
23) Fluoranthene	12.435	202	280652	101.91	ng/ml	99
25) Pyrene	12.727	202	292089	99.83	ng/ml	99
27) Benz(a)anthracene	14.889	228	213884	98.37	ng/ml	99
28) Chrysene	14.971	228	205074	99.67	ng/ml	99
30) Benzo(b)fluoranthene	17.471	252	189979	103.50	ng/ml	97
31) Benzo(k)fluoranthene	17.535	252	190175	105.23	ng/ml	97
32) Benzo(b+k)fluoranthene	17.535	252	390913	104.11	ng/ml	97
34) Benzo(e)pyrene	18.124	252	188367	101.49	ng/ml	98
35) Benzo(a)pyrene	18.241	252	165951	105.63	ng/ml	99
36) Perylene	18.439	252	198533	102.60	ng/ml	100
38) Indeno(1,2,3-cd)Pyrene	20.764	276	130568	102.18	ng/ml	90
39) Dibenz(a,h)anthracene	20.834	278	122057	101.65	ng/ml	90
40) Benzo(g,h,i)perylene	21.301	276	143780	106.06	ng/ml	91

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061919.D
Acq On : 06 Sep 2019 08:04 pm
Operator :
Sample : 9I06028-CAL7
Misc : 1x, A19I021@100
ALS Vial : 9 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:19 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061920.D
Acq On : 06 Sep 2019 08:37 pm
Operator :
Sample : 9I06028-CAL8
Misc : 1x, A19I022@200
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:30 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/9/19

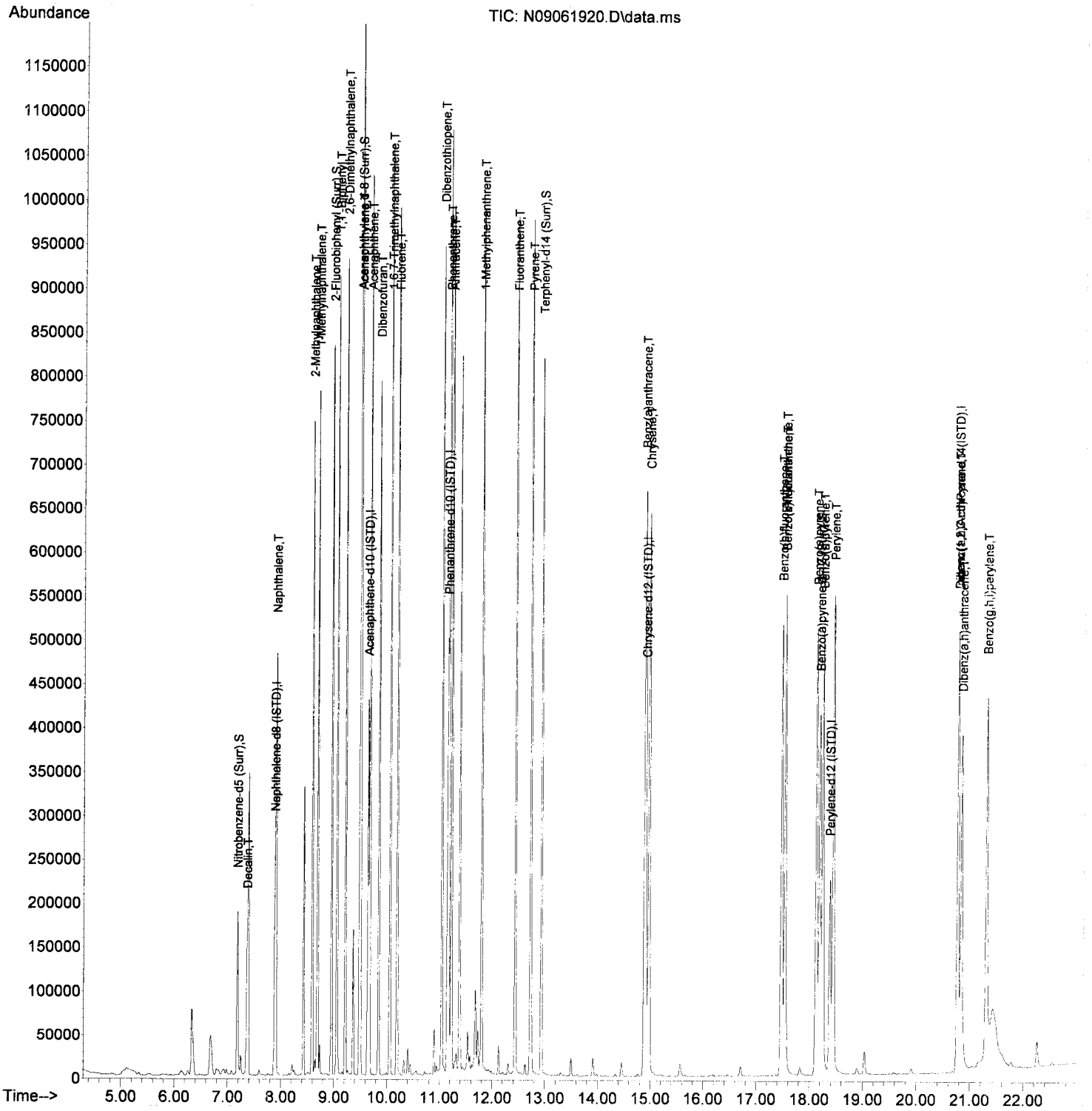
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	148783	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	126650	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	244292	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.913	240	211033	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.381	264	182214	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.770	292	126578	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	99288	200.83	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.956	172	378966	200.57	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.486	160	514554	202.58	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	430770	194.09	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.188	264	322602	221.39	ng/ml	0.01
Target Compounds						Qvalue
3) Decalin	7.364	138	22829	206.09	ng/ml	95
4) Naphthalene	7.907	128	324908	198.00	ng/ml	100
5) 2-Methylnaphthalene	8.588	142	297992	214.30	ng/ml	98
6) 1-Methylnaphthalene	8.688	142	304942	219.34	ng/ml	98
7) 1,1'-Biphenyl	9.055	154	413306	220.99	ng/ml	98
8) 2,6-Dimethylnaphthalene	9.212	156	307564	225.18	ng/ml	99
12) Acenaphthylene	9.498	152	568160	206.64	ng/ml	99
13) Acenaphthene	9.673	153	362489	201.28	ng/ml	100
14) Dibenzofuran	9.848	168	462691	205.12	ng/ml	99
15) 1,6,7-Trimethylnaphtha...	10.057	170	307091	203.33	ng/ml	98
16) Fluorene	10.197	166	391380	212.38	ng/ml	99
18) Dibenzothiopene	11.042	184	515882	201.91	ng/ml	98
19) Phenanthrene	11.171	178	575793	201.42	ng/ml	100
20) Anthracene	11.223	178	544931	204.94	ng/ml	99
21) Carbazole	11.380	167	461912	No Calib		
22) 1-Methylphenanthrene	11.800	192	411489	207.21	ng/ml	99
23) Fluoranthene	12.435	202	599723	208.23	ng/ml	99
25) Pyrene	12.727	202	623857	189.22	ng/ml	100
27) Benz(a)anthracene	14.889	228	484834	197.88	ng/ml	99
28) Chrysene	14.971	228	465584	200.80	ng/ml	99
30) Benzo(b)fluoranthene	17.477	252	448476	213.30	ng/ml	96
31) Benzo(k)fluoranthene	17.541	252	445148	215.03	ng/ml	97
32) Benzo(b+k)fluoranthene	17.541	252	917698	213.36	ng/ml	97
34) Benzo(e)pyrene	18.130	252	441980	207.89	ng/ml	99
35) Benzo(a)pyrene	18.247	252	395245	219.63	ng/ml	98
36) Perylene	18.451	252	467343	210.85	ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.770	276	319524	204.65	ng/ml	89
39) Dibenz(a,h)anthracene	20.840	278	302142	205.95	ng/ml	89
40) Benzo(g,h,i)perylene	21.307	276	353209	213.26	ng/ml	90

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061920.D
Acq On : 06 Sep 2019 08:37 pm
Operator :
Sample : 9I06028-CAL8
Misc : 1x, A19I022@200
ALS Vial : 10 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:30 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061921.D
Acq On : 06 Sep 2019 09:09 pm
Operator :
Sample : 9I06028-CAL9
Misc : 1x, A19I023@300
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:34 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/d 9/9/19

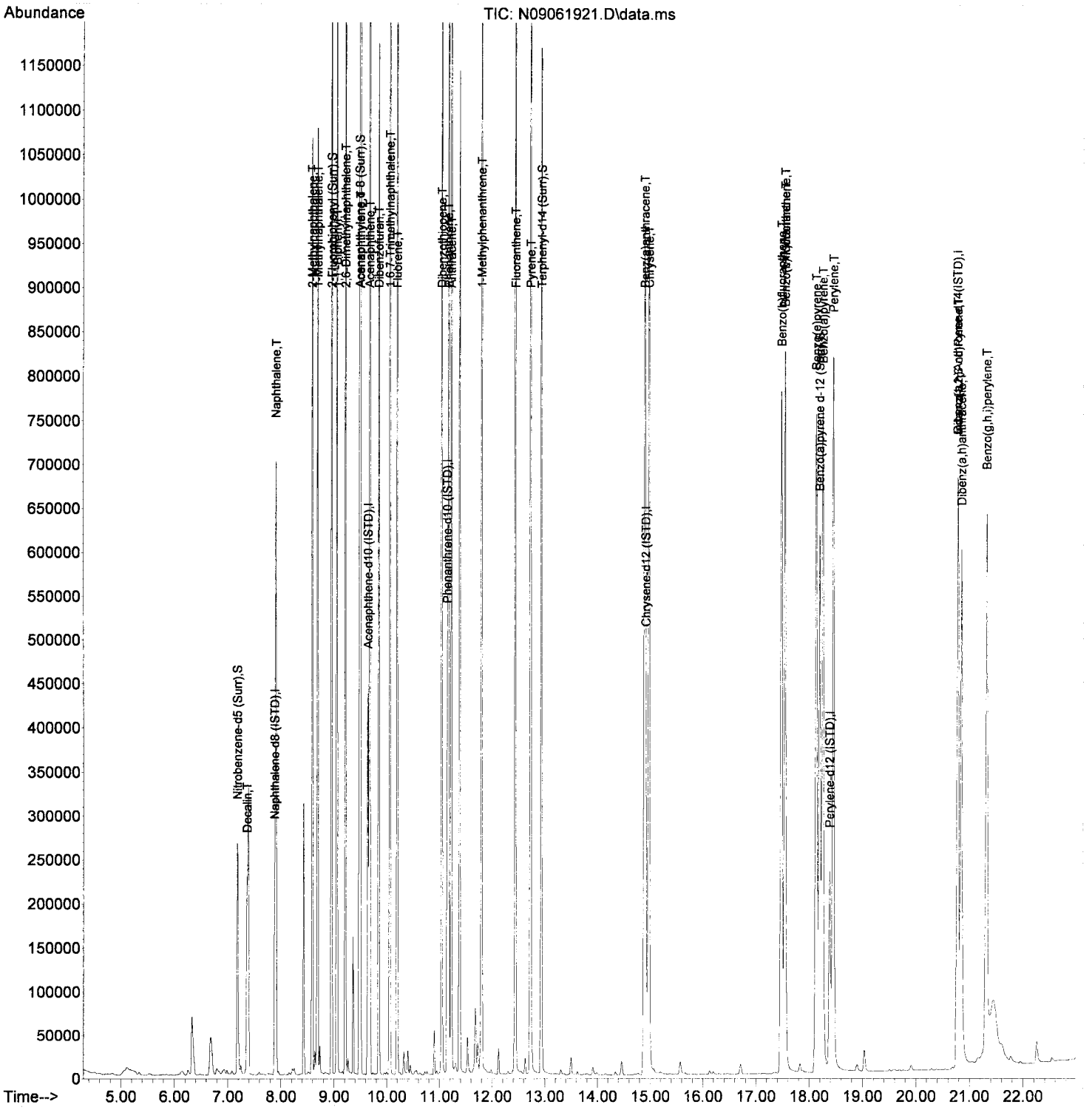
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.883	136	144322	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.643	162	126204	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	242216	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.918	240	215566	100.00	ng/ml	0.01
29) Perylene-d12 (ISTD)	18.386	264	189767	100.00	ng/ml	0.01
37) Dibenz(a,h)Anthrcene-d...	20.776	292	133133	100.00	ng/ml	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.184	82	146381	305.23	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.955	172	559316	297.07	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.486	160	745779	295.55	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.936	244	642064	283.20	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.194	264	500951	330.10	ng/ml	0.02
Target Compounds						Qvalue
3) Decalin	7.364	138	32583	303.24	ng/ml	97
4) Naphthalene	7.906	128	466678	293.18	ng/ml	100
5) 2-Methylnaphthalene	8.588	142	433604	321.46	ng/ml	99
6) 1-Methylnaphthalene	8.693	142	439781	326.10	ng/ml	99
7) 1,1'-Biphenyl	9.055	154	601929	331.80	ng/ml	98
8) 2,6-Dimethylnaphthalene	9.218	156	447080	337.45	ng/ml	99
12) Acenaphthylene	9.498	152	818063	298.58	ng/ml	99
13) Acenaphthene	9.672	153	525474	292.81	ng/ml	99
14) Dibenzofuran	9.847	168	670519	298.30	ng/ml	100
15) 1,6,7-Trimethylnaphtha...	10.057	170	446194	296.47	ng/ml	97
16) Fluorene	10.197	166	565155	307.76	ng/ml	99
18) Dibenzothiopene	11.042	184	757296	298.94	ng/ml	98
19) Phenanthrene	11.170	178	823752	290.63	ng/ml	99
20) Anthracene	11.223	178	800967	303.81	ng/ml	100
21) Carbazole	11.380	167	683176	No Calib		
22) 1-Methylphenanthrene	11.800	192	600130	304.80	ng/ml	99
23) Fluoranthene	12.441	202	885026	309.92	ng/ml	98
25) Pyrene	12.727	202	915663	271.88	ng/ml	100
27) Benz(a)anthracene	14.895	228	736689	294.35	ng/ml	100
28) Chrysene	14.976	228	698605	294.96	ng/ml	99
30) Benzo(b)fluoranthene	17.483	252	692733	316.36	ng/ml	96
31) Benzo(k)fluoranthene	17.547	252	681890	316.29	ng/ml	97
32) Benzo(b+k)fluoranthene	17.547	252	1407871	314.29	ng/ml	97
34) Benzo(e)pyrene	18.136	252	676479	305.53	ng/ml	99
35) Benzo(a)pyrene	18.258	252	607972	324.39	ng/ml	98
36) Perylene	18.456	252	713926	309.27	ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.782	276	498760	303.72	ng/ml	88
39) Dibenz(a,h)anthracene	20.846	278	471957	305.86	ng/ml	90
40) Benzo(g,h,i)perylene	21.318	276	546350	313.63	ng/ml	89

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061921.D
Acq On : 06 Sep 2019 09:09 pm
Operator :
Sample : 9I06028-CAL9
Misc : 1x, A19I023@300
ALS Vial : 11 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:34 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061922.D
Acq On : 06 Sep 2019 09:41 pm
Operator :
Sample : 9I06028-CALA
Misc : 1x, A19I024@400
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:40 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/9/19

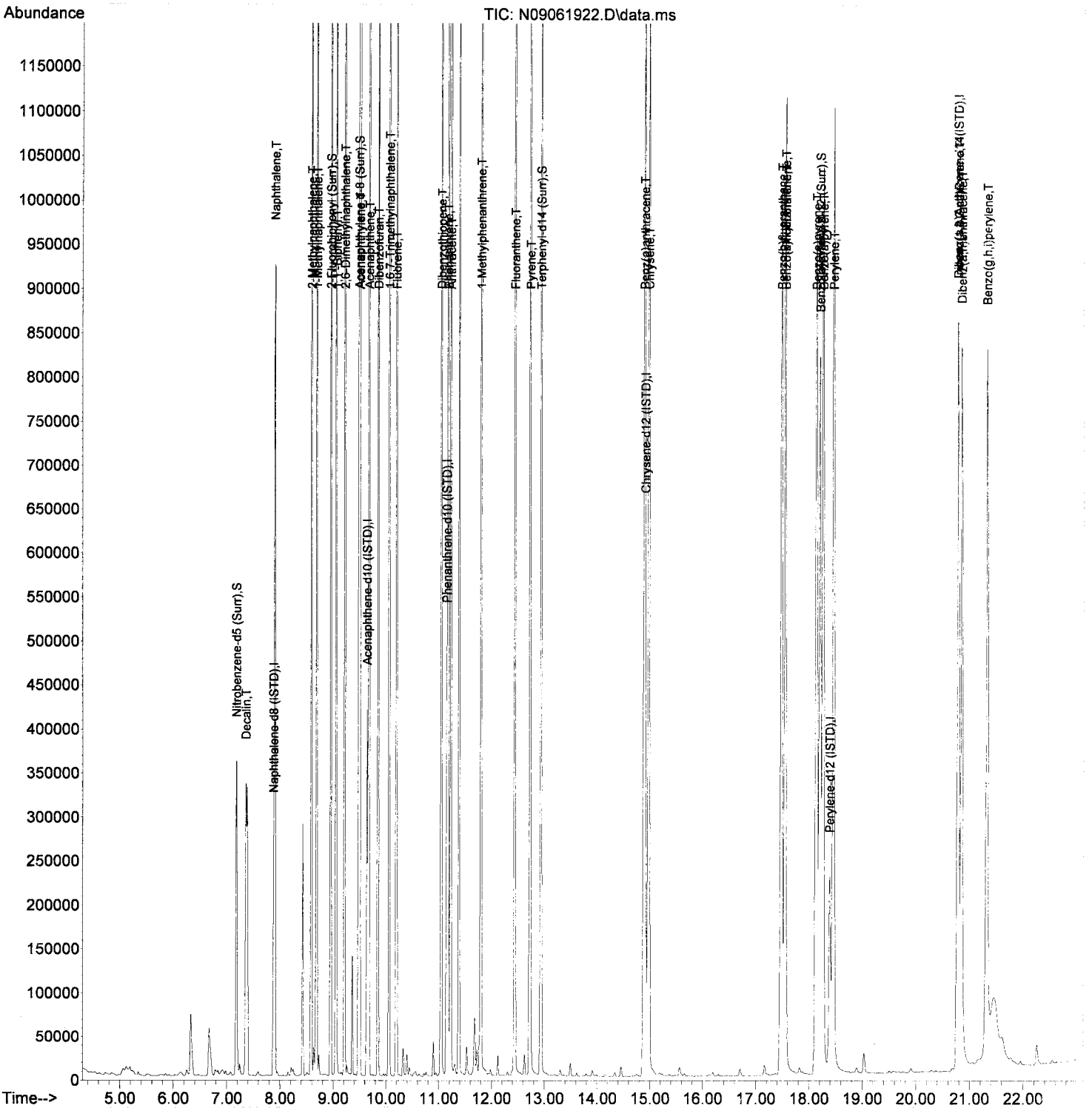
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	151798	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	120378	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.147	188	227701	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.913	240	211373	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.387	264	191099	100.00	ng/ml	0.01
37) Dibenz(a,h)Anthrcene-d...	20.776	292	134738	100.00	ng/ml	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.178	82	204654	405.72	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	721151	401.56	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.480	160	964800	401.86	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.931	244	855839	384.98	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.200	264	689197	450.98	ng/ml	0.02
Target Compounds						Qvalue
3) Decalin	7.359	138	49479	437.80	ng/ml	96
4) Naphthalene	7.901	128	662079	395.46	ng/ml	100
5) 2-Methylnaphthalene	8.589	142	592165	417.39	ng/ml	99
6) 1-Methylnaphthalene	8.688	142	595669	419.94	ng/ml	98
7) 1,1'-Biphenyl	9.055	154	776505	406.95	ng/ml	98
8) 2,6-Dimethylnaphthalene	9.212	156	574431	412.22	ng/ml	99
12) Acenaphthylene	9.498	152	1039006	397.57	ng/ml	99
13) Acenaphthene	9.673	153	672408	392.83	ng/ml	99
14) Dibenzofuran	9.848	168	849810	396.36	ng/ml	99
15) 1,6,7-Trimethylnaphtha...	10.057	170	567245	395.14	ng/ml	98
16) Fluorene	10.191	166	710688	405.74	ng/ml	99
18) Dibenzothiopene	11.042	184	950081	398.95	ng/ml	98
19) Phenanthrene	11.171	178	1041489	390.88	ng/ml	99
20) Anthracene	11.223	178	1015402	409.70	ng/ml	100
21) Carbazole	11.380	167	865078	No Calib		
22) 1-Methylphenanthrene	11.794	192	771189	416.65	ng/ml	99
23) Fluoranthene	12.435	202	1148955	427.99	ng/ml	98
25) Pyrene	12.727	202	1201811	363.93	ng/ml	100
27) Benz(a)anthracene	14.889	228	991720	404.11	ng/ml	99
28) Chrysene	14.977	228	942172	405.69	ng/ml	99
30) Benzo(b)fluoranthene	17.483	252	952609	432.01	ng/ml	96
31) Benzo(k)fluoranthene	17.553	252	938589	432.32	ng/ml	96
32) Benzo(b+k)fluoranthene	17.553	252	1935514	429.07	ng/ml	96
34) Benzo(e)pyrene	18.136	252	924774	414.75	ng/ml	99
35) Benzo(a)pyrene	18.258	252	837229	443.59	ng/ml	98
36) Perylene	18.456	252	976822	420.21	ng/ml	99
38) Indeno(1,2,3-cd)Pyrene	20.782	276	691371	416.00	ng/ml	88
39) Dibenz(a,h)anthracene	20.846	278	656172	420.18	ng/ml	89
40) Benzo(g,h,i)perylene	21.318	276	751545	426.28	ng/ml	89

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061922.D
Acq On : 06 Sep 2019 09:41 pm
Operator :
Sample : 9I06028-CALA
Misc : 1x, A19I024@400
ALS Vial : 12 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:40 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061924.D
Acq On : 06 Sep 2019 10:45 pm
Operator :
Sample : 9I06028-ICV1
Misc : 1x, A19I025@50
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:49 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14

9/9/19

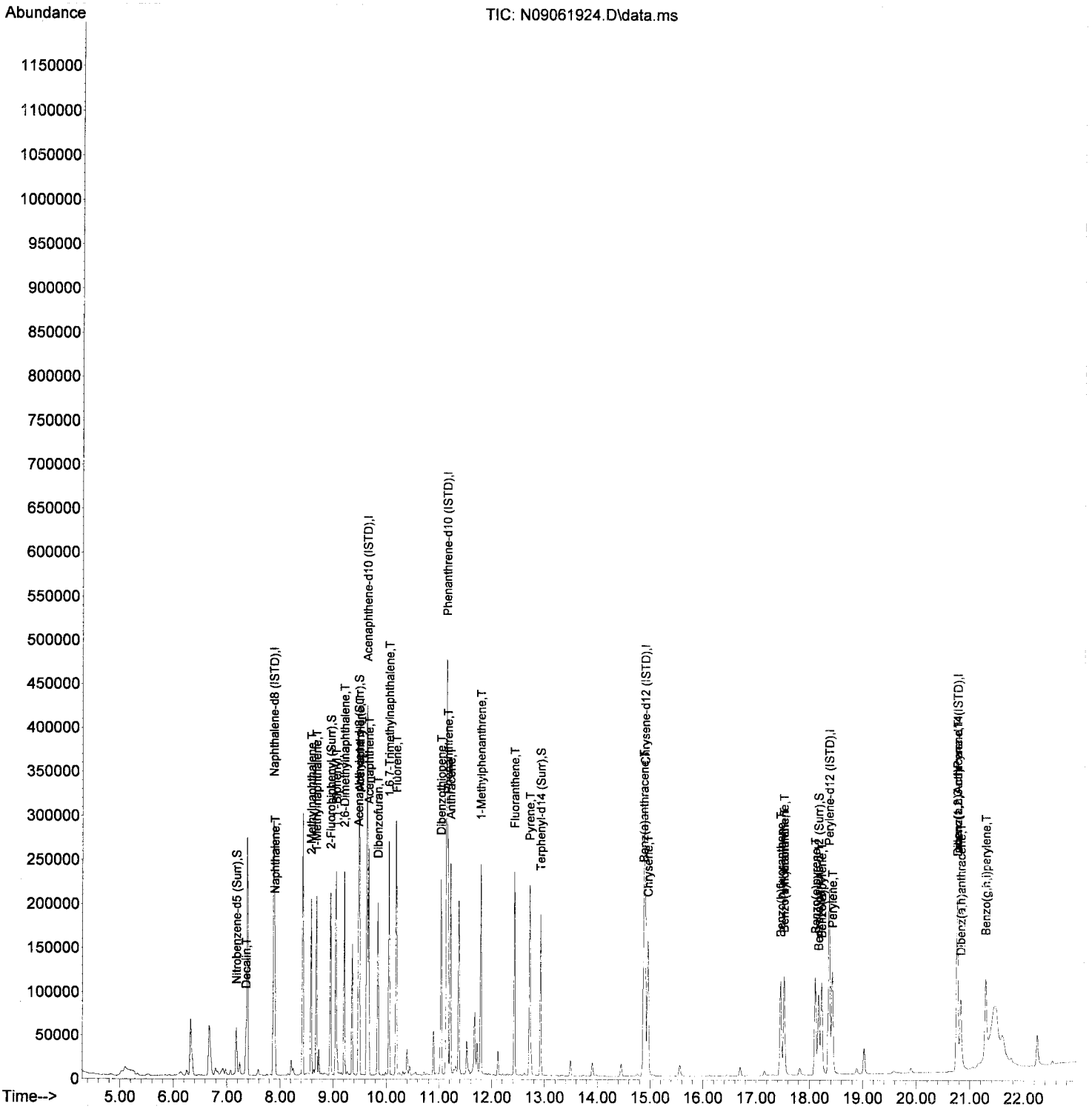
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	181748	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	125177	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	235054	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.901	240	188693	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.369	264	162940	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.759	292	108931	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.178	82	27909	46.21	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	92755	49.67	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.474	160	126796	49.31	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.925	244	96645	48.70	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.171	264	69335	53.21	ng/ml	0.00
Target Compounds						Qvalue
3) Decalin	7.359	138	6597	48.75	ng/ml	96
4) Naphthalene	7.901	128	100112	49.94	ng/ml	99
5) 2-Methylnaphthalene	8.583	142	79542	46.83	ng/ml	99
6) 1-Methylnaphthalene	8.682	142	81122	47.77	ng/ml	98
7) 1,1'-Biphenyl	9.049	154	105870	46.34	ng/ml	98
8) 2,6-Dimethylnaphthalene	9.206	156	76410	45.80	ng/ml	98
12) Acenaphthylene	9.492	152	141177	51.95	ng/ml	99
13) Acenaphthene	9.667	153	89594	50.33	ng/ml	100
14) Dibenzofuran	9.842	168	113513	50.91	ng/ml	98
15) 1,6,7-Trimethylnaphtha...	10.052	170	74864	50.15	ng/ml	99
16) Fluorene	10.191	166	92650	50.87	ng/ml	98
18) Dibenzothiopene	11.037	184	122412	49.79	ng/ml	98
19) Phenanthrene	11.165	178	138621	50.40	ng/ml	100
20) Anthracene	11.217	178	132505	51.79	ng/ml	99
21) Carbazole	11.375	167	104923	No Calib		
22) 1-Methylphenanthrene	11.788	192	98289	51.44	ng/ml	100
23) Fluoranthene	12.430	202	140103	50.56	ng/ml	99
25) Pyrene	12.721	202	144864	49.14	ng/ml	99
27) Benz(a)anthracene	14.878	228	106201	48.48	ng/ml	99
28) Chrysene	14.959	228	108583	52.38	ng/ml	99
30) Benzo(b)fluoranthene	17.460	252	95110	50.59	ng/ml	97
31) Benzo(k)fluoranthene	17.524	252	92505	49.97	ng/ml	97
32) Benzo(b+k)fluoranthene	17.524	252	193724	50.37	ng/ml	97
34) Benzo(e)pyrene	18.113	252	95583	50.28	ng/ml	98
35) Benzo(a)pyrene	18.229	252	82357	51.18	ng/ml	99
36) Perylene	18.427	252	100869	50.89	ng/ml	100
38) Indeno(1,2,3-cd)Pyrene	20.759	276	67142	49.97	ng/ml	89
39) Dibenz(a,h)anthracene	20.823	278	62283	49.33	ng/ml	90
40) Benzo(g,h,i)perylene	21.289	276	76359	53.57	ng/ml	91

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061924.D
Acq On : 06 Sep 2019 10:45 pm
Operator :
Sample : 9I06028-ICV1
Misc : 1x, A19I025@50
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 09 14:47:49 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 10:14:28 2019
Response via : Initial Calibration
InstName : SV-GCMS14



Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061924.D
Acq On : 06 Sep 2019 10:45 pm
Operator :
Sample : 9I06028-ICV1
Misc : 1x, A19I025@50
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Final Reqmart

Quant Time: Sep 10 10:28:40 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14

JK 9/10/19

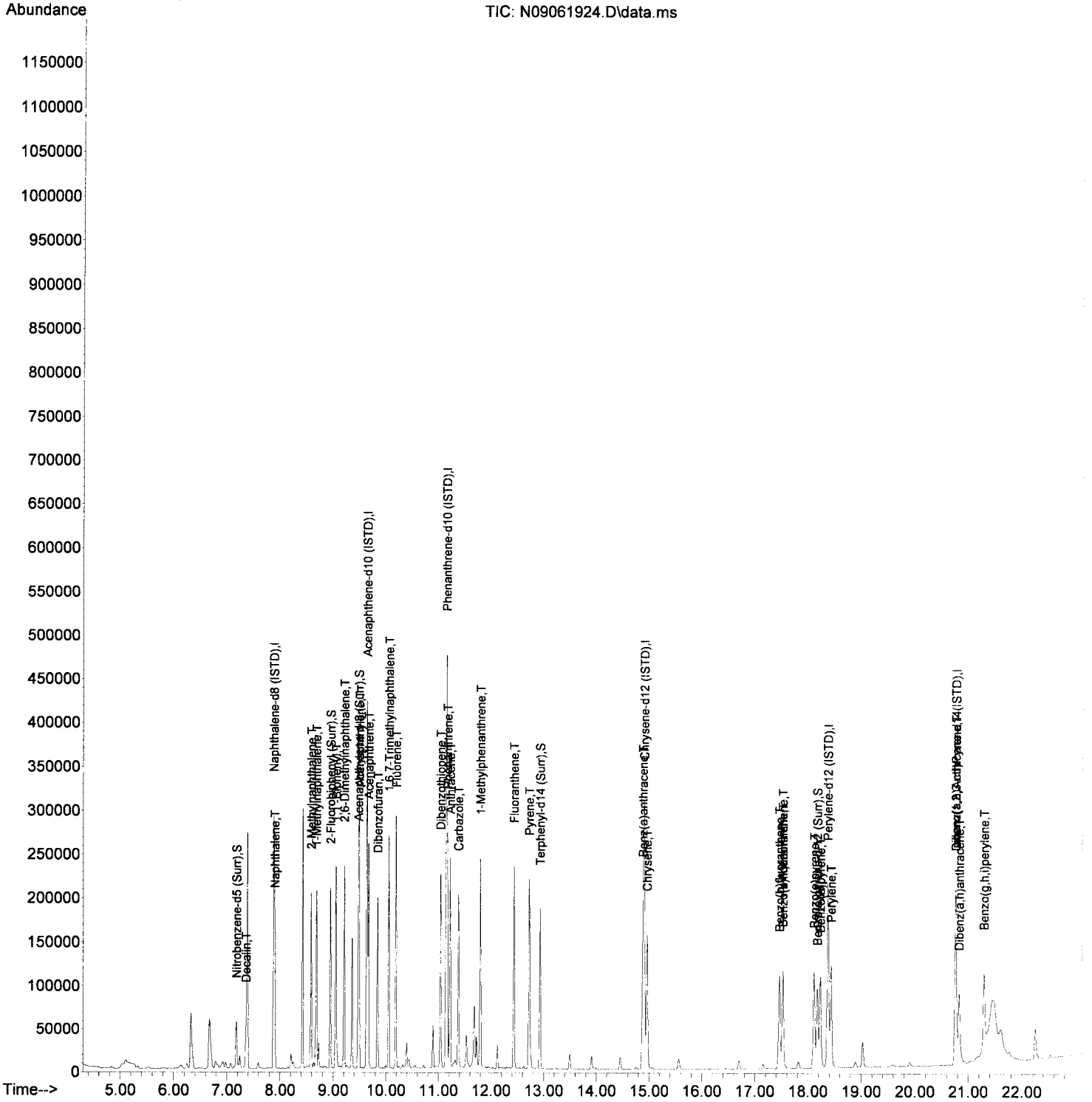
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8 (ISTD)	7.877	136	181748	100.00	ng/ml	0.00
9) Acenaphthene-d10 (ISTD)	9.638	162	125177	100.00	ng/ml	0.00
17) Phenanthrene-d10 (ISTD)	11.141	188	235054	100.00	ng/ml	0.00
24) Chrysene-d12 (ISTD)	14.901	240	188693	100.00	ng/ml	0.00
29) Perylene-d12 (ISTD)	18.369	264	162940	100.00	ng/ml	0.00
37) Dibenz(a,h)Anthrcene-d...	20.759	292	108931	100.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5 (Surr)	7.178	82	27909	46.21	ng/ml	0.00
10) 2-Fluorobiphenyl (Surr)	8.950	172	92755	49.67	ng/ml	0.00
11) Acenaphthylene d-8 (Surr)	9.474	160	126796	49.31	ng/ml	0.00
26) Terphenyl-d14 (Surr)	12.925	244	96645	48.70	ng/ml	0.00
33) Benzo(a)pyrene d-12 (S...	18.171	264	69335	53.21	ng/ml	0.00
Target Compounds						Qvalue
3) Decalin	7.359	138	6597	48.75	ng/ml	96
4) Naphthalene	7.901	128	100112	49.94	ng/ml	99
5) 2-Methylnaphthalene	8.583	142	79542	46.83	ng/ml	99
6) 1-Methylnaphthalene	8.682	142	81122	47.77	ng/ml	98
7) 1,1'-Biphenyl	9.049	154	105870	46.34	ng/ml	98
8) 2,6-Dimethylnaphthalene	9.206	156	76410	45.80	ng/ml	98
12) Acenaphthylene	9.492	152	141177	51.95	ng/ml	99
13) Acenaphthene	9.667	153	89594	50.33	ng/ml	100
14) Dibenzofuran	9.842	168	113513	50.91	ng/ml	98
15) 1,6,7-Trimethylnaphtha...	10.052	170	74864	50.15	ng/ml	99
16) Fluorene	10.191	166	92650	50.87	ng/ml	98
18) Dibenzothiopene	11.037	184	122412	49.79	ng/ml	98
19) Phenanthrene	11.165	178	138621	50.40	ng/ml	100
20) Anthracene	11.217	178	132505	51.79	ng/ml	99
21) Carbazole	11.375	167	104923	50.68	ng/ml	99
22) 1-Methylphenanthrene	11.788	192	98289	51.44	ng/ml	100
23) Fluoranthene	12.430	202	140103	50.56	ng/ml	99
25) Pyrene	12.721	202	144864	49.14	ng/ml	99
27) Benz(a)anthracene	14.878	228	106201	48.48	ng/ml	99
28) Chrysene	14.959	228	108583	52.38	ng/ml	99
30) Benzo(b)fluoranthene	17.460	252	95110	50.59	ng/ml	97
31) Benzo(k)fluoranthene	17.524	252	92505	49.97	ng/ml	97
32) Benzo(b+k)fluoranthene	17.524	252	193724	100.73	ng/ml	97
34) Benzo(e)pyrene	18.113	252	95583	50.28	ng/ml	98
35) Benzo(a)pyrene	18.229	252	82357	51.18	ng/ml	99
36) Perylene	18.427	252	100869	50.89	ng/ml	100
38) Indeno(1,2,3-cd)Pyrene	20.759	276	67142	49.98	ng/ml	89
39) Dibenz(a,h)anthracene	20.823	278	62283	49.34	ng/ml	90
40) Benzo(g,h,i)perylene	21.289	276	76359	53.58	ng/ml	91

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

Quantitation Report (Not Reviewed)

Data Path : N:\data\2019-09\9I06028\
Data File : N09061924.D
Acq On : 06 Sep 2019 10:45 pm
Operator :
Sample : 9I06028-ICV1
Misc : 1x, A19I025@50
ALS Vial : 13 Sample Multiplier: 1
DataAcq Meth:LVI14_BNA_ACQ.M

Quant Time: Sep 10 10:28:40 2019
Quant Method : N:\methods\SV14_090619_PAH.M
Quant Title : EPA 8270D: Semivolatile Organics
QLast Update : Mon Sep 09 14:58:53 2019
Response via : Initial Calibration
InstName : SV-GCMS14



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 9100666
Sequence 9J07068

APEX LABORATORIES

As (Arsenic) - 6020 - Total

PREPARATION BENCH SHEET

9100666

Apex Laboratories

BATCH #: 9100666 (Sediment)

Prep Method: EPA 3051A

Lab Number	Due	Prepared	Initial (g)	Final (mL)	Client	ClientID / Sample	Extraction Comments
9100666-BLK1	---	10/04/19 10:27	0.52	50	*QC Sample*		
9100666-BS1	---	10/04/19 10:27	0.5	50	*QC Sample*		
	Spike 1: 2500 uL of A19I253		Spike 2: 250 uL of A19I359				
A9I0922-16	*10/11/19*	10/04/19 10:27	~~0.5~~ .496	50	Anchor QEA, LLC	PDI-036SC-B-8.2-10.2-1909	
☐ As (Arsenic) - 6020 - Total			MJG 10/4/19				
A9I0922-17	*10/11/19*	10/04/19 10:27	~~0.5~~ .469	50	Anchor QEA, LLC	PDI-064SC-B-8-10-190929	
☐ As (Arsenic) - 6020 - Total							
A9I0922-18	*10/11/19*	10/04/19 10:27	~~0.5~~ .459	50	Anchor QEA, LLC	PDI-064SC-B-10-12-190929	
☐ As (Arsenic) - 6020 - Total							
A9I0922-19	*10/11/19*	10/04/19 10:27	~~0.5~~ .494	50	Anchor QEA, LLC	PDI-064SC-B-12-14-190929	
☐ As (Arsenic) - 6020 - Total							
A9I0922-20	*10/11/19*	10/04/19 10:27	~~0.5~~ .490	50	Anchor QEA, LLC	PDI-064SC-B-14-15.8-1909	
☐ As (Arsenic) - 6020 - Total							
A9I0922-21	*10/11/19*	10/04/19 10:27	~~0.5~~ .494	50	Anchor QEA, LLC	PDI-1064SC-B-08-10-19092	
☐ As (Arsenic) - 6020 - Total							
A9I0936-20	*10/11/19*	10/04/19 10:27	~~0.5~~ .506	50	Anchor QEA, LLC	PDI-064SC-B-00-02-190929	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9I0936-21	*10/11/19*	10/04/19 10:27	~~0.5~~ .513	50	Anchor QEA, LLC	PDI-064SC-B-02-04-190929	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9I0936-22	*10/11/19*	10/04/19 10:27	~~0.5~~ .487	50	Anchor QEA, LLC	PDI-064SC-B-04-06-190929	MS/MSD, CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
9100666-MS1	---	10/04/19 10:27	~~0.5~~ .502	50	*QC Sample*		
	Source: A9I0936-22		Spike 1: 2500 uL of A19I253		Spike 2: 250 uL of A19I359		
9100666-MSD1	---	10/04/19 10:27	~~0.5~~ .497	50	*QC Sample*		
	Source: A9I0936-22		Spike 1: 2500 uL of A19I253		Spike 2: 250 uL of A19I359		
A9I0936-23	*10/11/19*	10/04/19 10:27	~~0.5~~ .509	50	Anchor QEA, LLC	PDI-064SC-B-06-08-190929	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0058-04	*10/15/19*	10/04/19 10:27	~~0.5~~ .485	50	Anchor QEA, LLC	PDI-039SC-B-11.8-13.7-190	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0058-05	*10/15/19*	10/04/19 10:27	~~0.5~~ .504	50	Anchor QEA, LLC	PDI-039SC-B-3.8-5.8-19093	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							

MJG 10/4/19
Prepared By: Date

ESS 10/8/19
Reviewed By: Date

APEX LABORATORIES

Apex Laboratories
BATCH #: 9100666 (Sediment)
Prep Method: EPA 3051A

Lab Number	Due	Prepared	Initial (g)	Final (mL)	Client	ClientID / Sample	Extraction Comments
A9J0058-06	*10/15/19*	**10/04/19 10:27**	~~0.5~~ .514	**50**	**Anchor QEA, LLC**	**PDI-039SC-B-5.8-7.8-19093**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0058-07	*10/15/19*	**10/04/19 10:27**	~~0.5~~ .497	**50**	**Anchor QEA, LLC**	**PDI-039SC-B-7.8-9.8-19093**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0058-08	*10/15/19*	**10/04/19 10:27**	~~0.5~~ .486	**50**	**Anchor QEA, LLC**	**PDI-039SC-B-9.8-11.8-1909**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0058-11	*10/15/19*	**10/04/19 10:27**	~~0.5~~ .495	**50**	**Anchor QEA, LLC**	**PDI-040SC-B-5.3-7.3-19093**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0058-12	*10/15/19*	**10/04/19 10:27**	~~0.5~~ .509	**50**	**Anchor QEA, LLC**	**PDI-040SC-B-7.3-9.3-19093**	MS/MSD, CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
9100666-MS2	---	**10/04/19 10:27**	~~0.5~~ .499	**50**	*QC Sample*		
Source: **A9J0058-12**		Spike 1: **2500 uL of A19I253**			Spike 2: **250 uL of A19I359**		
9100666-MSD2	---	**10/04/19 10:27**	~~0.5~~ .509	**50**	*QC Sample*		
Source: **A9J0058-12**		Spike 1: **2500 uL of A19I253**			Spike 2: **250 uL of A19I359**		
A9J0058-13	*10/15/19*	**10/04/19 10:27**	~~0.5~~ .503	**50**	**Anchor QEA, LLC**	**PDI-040SC-B-9.3-11.3-1909**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0058-14	*10/15/19*	**10/04/19 10:27**	~~0.5~~ .493	**50**	**Anchor QEA, LLC**	**PDI-1040SC-B-5.3-7.3-1909**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0058-17	*10/15/19*	**10/04/19 10:27**	~~0.5~~ .485	**50**	**Anchor QEA, LLC**	**PDI-042SC-B-11.9-13.8-190**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							

MJG 10/4/19

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L213	11/30/23	Metals Prep Balance 2
A17F264	06/23/23	Mars-6 Microwave
A19F065	10/31/19	30% hydrogen peroxide
A19F120	06/12/20	Conc. HCl - Omnitrace
A19I106	03/08/20	Conc. HNO3 - Omnitrace

Analyte Spike(s) MJG 10/4/19

Std ID	Exp. Date	Description
A19I253	12/11/19	**Combo Spike** A+B+C
A19I359	03/08/20	Hg Spiking Standard

A) A19I210 } 1250 µL
B) A19I123 } 625 µL
C) A19I124 625 µL

Digestion time and temperature achieved?
Initials: MJG yes

MJG 10/4/19
Prepared By: Date

Reviewed By: Date

Batch #: 9100666

If observed weight loss < 0.2g Digestion is within control limits

If observed weight loss > 0.2g Enter data in to electronic VWW. Acceptance limit 1.0% sample loss.

Date: 10/04/19 Prepared by: MJG

#	Mars Tube ID	Sample ID	Pre-digestion Vessel + Sample Wt. (g)	Post-digestion Vessel + Sample Wt. (g)	Sample Wt. Loss (%)* *Formula only used if sample loss >0.2g*
1	S73	9100666-BLK1	185.20	185.19	n/a
2	S81	9100666-BS1	182.72	182.70	n/a
3	S2	A9I0922-16	183.39	183.36	n/a
4	S69	A9I0922-17	187.01	187.00	n/a
5	S101	A9I0922-18	189.60	189.58	MJG n/a
6	S18	A9I0922-19	186.00	~~186~~ 185.98	10/14/19 n/a
7	S27	A9I0922-20	185.68	185.65	n/a
8	S45	A9I0922-21	185.13	185.02	n/a
9	S105	A9I0936-20	186.58	186.57	n/a
10	S94	A9I0936-21	184.64	184.62	n/a
11	S72	A9I0936-22	186.54	186.48	n/a
12	~~S62~~ S13	9100666-MS1	184.14	184.03	n/a
13	S90	9100666-MSD1	184.36	184.22	n/a
14	~~S19~~ S62	A9I0936-23	186.15	186.13	n/a
15	S54	A9J0058-04	187.08	187.06	n/a
16	S17	A9J0058-05	187.09	187.08	n/a
17	S91	A9J0058-06	185.52	185.50	n/a
18	S83	A9J0058-07	186.96	186.95	n/a
19	S56	A9J0058-08	186.07	186.05	n/a
20	S38	A9J0058-11	186.19	186.17	n/a
21	S59	A9J0058-12	185.67	185.65	n/a
22	S12	9100666-MS2	185.03	184.97	n/a
23	S67	9100666-MSD2	184.20	184.18	n/a
24	S16	A9J0058-13	186.89	186.83	n/a
25	S10	A9J0058-14	186.65	186.62	n/a

MJG 10/4/19

*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.

Batch #: 9100666 part 2

If observed weight loss < 0.2g Digestion is within control limits

If observed weight loss > 0.2g Enter data in to electronic VWW. Acceptance limit 1.0% sample loss.

Date: 10/04/19 Prepared by: MJG

#	Mars Tube ID	Sample ID	Pre-digestion Vessel + Sample Wt. (g)	Post-digestion Vessel + Sample Wt. (g)	Sample Wt. Loss (%)* *Formula only used if sample loss >0.2g*
1	540	A9J0058-17	185.55	185.46	n/a
2					n/a
3					n/a
4					n/a
5					n/a
6					n/a
7					n/a
8					n/a
9					n/a
10					n/a
11					n/a
12					n/a
13					n/a
14					n/a
15					n/a
16					n/a
17					n/a
18					n/a
19					n/a
20					n/a
21					n/a
22					n/a
23					n/a
24					n/a
25					n/a

*Example Calculation: (Pre(g) – Post(g))/(Post(g) – 159.32g) This represents the mean weight of the empty digestion vessels. By factoring in the mean digestion vessel weight, we observe weight loss from only the sample, rather than as a percentage of the sample+vessel weight.

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9J07068** Instrument: **ICPMS5**

Date: **10/07/19 17:58** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J07068-CAL1	Water	QC	QC			A19G402	A19J030
2	9J07068-CAL2	Water	QC	QC			A19G402	A19J031
3	9J07068-CAL3	Water	QC	QC			A19G402	A19J032
4	9J07068-CAL4	Water	QC	QC			A19G402	A19J033
5	9J07068-CAL5	Water	QC	QC			A19G402	A19J035
6	9J07068-CAL6	Water	QC	QC			A19G402	A19J034
7	9J07068-CAL7	Water	QC	QC			A19G402	A19J036
8	9J07068-CAL8	Water	QC	QC			A19G402	A19I054
9	9J07068-CAL9	Water	QC	QC			A19G402	A19I053
10	9J07068-ICV1	Water	QC	QC			A19G402	A19J037
11	9J07068-ICB1	Water	QC	QC			A19G402	
12	9J07068-CRL1	Water	QC	QC			A19G402	A19J030
13	9J07068-CRL2	Water	QC	QC			A19G402	A19J031
14	9J07068-CRL3	Water	QC	QC			A19G402	A19J032
15	9J07068-CRL4	Water	QC	QC			A19G402	A19J033
16	9J07068-IFA1	Water	QC	QC			A19G402	A19I356
17	9J07068-IFB1	Water	QC	QC			A19G402	A19I357
18	9100588-MS5	Water	QC	QC		9100588	A19G402	
19	A9J0027-02RE1	Water	Cu (Copper) - 200.8 - Total		10/14/19	9100588	A19G402	
20	"	Water	Mg (Magnesium) - 200.8 - Total		10/14/19	9100588	A19G402	
21	A9J0027-07RE1	Water	Cu (Copper) - 200.8 - Total		10/14/19	9100588	A19G402	
22	"	Water	Mg (Magnesium) - 200.8 - Total		10/14/19	9100588	A19G402	
23	A9J0056-01RE1	Water	Cu (Copper) - 200.8 - Total		10/09/19	9100588	A19G402	
24	A9J0091-01RE1	Water	Cu (Copper) - 200.8 - Total		10/09/19	9100588	A19G402	
25	9100531-BLK1	Sediment	QC	QC		9100531	A19G402	
26	9100531-BS1	Sediment	QC	QC		9100531	A19G402	
27	A9I0885-01	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/10/19	9100531	A19G402	
28	A9I0885-02	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/10/19	9100531	A19G402	
29	A9I0885-04	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/10/19	9100531	A19G402	
30	9J07068-CCV1	Water	QC	QC			A19G402	A19J037
31	9J07068-CCV2	Water	QC	QC			A19G402	A19J037
32	9J07068-CCB1	Water	QC	QC			A19G402	
33	9J07068-CCB2	Water	QC	QC			A19G402	
34	A9I0885-05	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/10/19	9100531	A19G402	
35	A9I0885-06	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/10/19	9100531	A19G402	
36	A9I0885-07	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/10/19	9100531	A19G402	
37	A9I0922-01	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	
38	A9I0922-02	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	
39	A9I0922-03	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	
40	A9I0922-04	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	
41	A9I0922-05	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	
42	A9I0922-07	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	
43	A9I0922-08	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	
44	9J07068-CCV3	Water	QC	QC			A19G402	A19J037
45	9J07068-CCB3	Water	QC	QC			A19G402	
46	A9I0922-09	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	
47	9100531-MS1	Sediment	QC	QC		9100531	A19G402	
48	9100531-MSD1	Sediment	QC	QC		9100531	A19G402	
49	A9I0922-10	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	
50	A9I0922-11	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	
51	A9I0922-12	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	

Sequence: **9J07068** Instrument: **ICPMS5**

Date: **10/07/19 17:58** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
52	A9I0922-13	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	
53	A9I0922-14	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	
54	A9I0922-15	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100531	A19G402	
55	9100666-BLK1	Sediment	QC	QC		9100666	A19G402	
56	9J07068-CCV4	Water	QC	QC			A19G402	A19J037
57	9J07068-CCB4	Water	QC	QC			A19G402	
58	9100666-BS1	Sediment	QC	QC		9100666	A19G402	
59	A9I0922-16	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100666	A19G402	
60	A9I0922-17	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100666	A19G402	
61	A9I0922-18	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100666	A19G402	
62	A9I0922-19	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100666	A19G402	
63	A9I0922-20	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100666	A19G402	
64	A9I0922-21	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100666	A19G402	
65	A9I0936-20	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100666	A19G402	
66	A9I0936-21	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100666	A19G402	
67	A9I0936-22	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100666	A19G402	
68	9J07068-CCV5	Water	QC	QC			A19G402	A19J037
69	9J07068-CCB5	Water	QC	QC			A19G402	
70	9100666-MS1	Sediment	QC	QC		9100666	A19G402	
71	9100666-MSD1	Sediment	QC	QC		9100666	A19G402	
72	A9I0936-23	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/11/19	9100666	A19G402	
73	A9J0058-04	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100666	A19G402	
74	A9J0058-05	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100666	A19G402	
75	A9J0058-06	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100666	A19G402	
76	A9J0058-07	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100666	A19G402	
77	A9J0058-08	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100666	A19G402	
78	A9J0058-11	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100666	A19G402	
79	A9J0058-12	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100666	A19G402	
80	9J07068-CCV6	Water	QC	QC			A19G402	A19J037
81	9J07068-CCB6	Water	QC	QC			A19G402	
82	9100666-MS2	Sediment	QC	QC		9100666	A19G402	
83	9100666-MSD2	Sediment	QC	QC		9100666	A19G402	
84	A9J0058-13	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100666	A19G402	
85	A9J0058-14	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100666	A19G402	
86	A9J0058-17	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100666	A19G402	
87	9J07068-CCV7	Water	QC	QC			A19G402	A19J037
88	9J07068-CCB7	Water	QC	QC			A19G402	
89	9J07068-CRL5	Water	QC	QC			A19G402	A19J030
90	9J07068-CRL6	Water	QC	QC			A19G402	A19J031
91	9J07068-CRL7	Water	QC	QC			A19G402	A19J032
92	9J07068-CRL8	Water	QC	QC			A19G402	A19J033
93	9100715-BLK1	Solid	QC	QC		9100715	A19G402	
94	9100715-BS1	Solid	QC	QC		9100715	A19G402	
95	A9J0169-01	Solid	Ag (Silver) - 6020 - Total		10/08/19	9100715	A19G402	
96	"	Solid	As (Arsenic) - 6020 - Total		10/08/19	9100715	A19G402	
97	"	Solid	Ba (Barium) - 6020 - Total		10/08/19	9100715	A19G402	
98	"	Solid	Cd (Cadmium) - 6020 - Total		10/08/19	9100715	A19G402	
99	"	Solid	Cr (Chromium) - 6020 - Total		10/08/19	9100715	A19G402	
100	"	Solid	Hg (Mercury) - 6020 - Total		10/08/19	9100715	A19G402	
101	"	Solid	Pb (Lead) - 6020 - Total		10/08/19	9100715	A19G402	
102	"	Solid	Se (Selenium) - 6020 - Total		10/08/19	9100715	A19G402	
103	9100715-DUP1	Solid	QC	QC		9100715	A19G402	
104	9100715-MS1	Solid	QC	QC		9100715	A19G402	
105	A9J0169-01RE1	Solid	Ag (Silver) - 6020 - Total		10/08/19	9100715	A19G402	
106	"	Solid	As (Arsenic) - 6020 - Total		10/08/19	9100715	A19G402	

Sequence: **9J07068** Instrument: **ICPMS5**

Date: **10/07/19 17:58** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
107	"	Solid	Ba (Barium) - 6020 - Total	"	10/08/19	9100715	A19G402	
108	"	Solid	Cd (Cadmium) - 6020 - Total	"	10/08/19	9100715	A19G402	
109	"	Solid	Cr (Chromium) - 6020 - Total	"	10/08/19	9100715	A19G402	
110	"	Solid	Hg (Mercury) - 6020 - Total	"	10/08/19	9100715	A19G402	
111	"	Solid	Pb (Lead) - 6020 - Total	"	10/08/19	9100715	A19G402	
112	"	Solid	Se (Selenium) - 6020 - Total	"	10/08/19	9100715	A19G402	
113	9100715-DUP2	Solid	QC	QC		9100715	A19G402	
114	9100715-MS2	Solid	QC	QC		9100715	A19G402	
115	9J07068-CCV8	Water	QC	QC			A19G402	A19J037
116	9J07068-CCV9	Water	QC	QC			A19G402	A19J037
117	9J07068-CCB8	Water	QC	QC			A19G402	
118	9J07068-CRL9	Water	QC	QC			A19G402	A19J030
119	9J07068-CRLA	Water	QC	QC			A19G402	A19J031
120	9J07068-CRLB	Water	QC	QC			A19G402	A19J032
121	9J07068-CRLC	Water	QC	QC			A19G402	A19J033

Data Entered By: ESS 10/8/19 Comments:

Data Reviewed By: [signature] 10/08/19

Tune Report

copy for 9J07068 ESS 10/8/19

Batch Folder	C:\Agilent\ICPMH\1\DATA\9J07033.b
Acq. Date-Time	10/7/2019 10:35
Report Comment	9J07033 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		2547	25468.96	1000.00	
89		11430	114300.32	1000.00	
78		3			

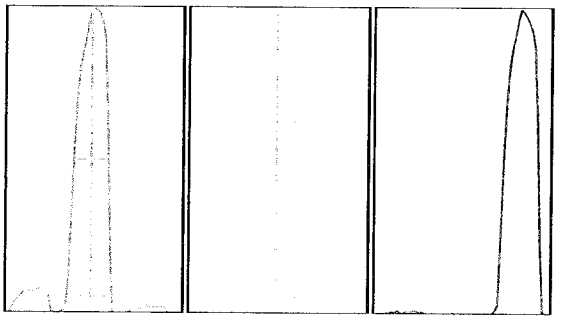
Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	2.80	5.00	
89	0.89	5.00	
78	36.78		

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	2426	2545	2605	2589	2569
89	11287	11364	11532	11501	11466
78	4	2	2	5	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)
59	468.82	59.00	58.9 - 59.1		0.57	0.766	0.900	

Tune Report

89	2114.73	89.00	88.9 - 89.1	0.56	0.761	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	1.09 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	10.0 V	Plate Bias	-60 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	0.0 mL/min	OctP RF	200 V
H2 Flow	3.4 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		3023	30226.24	1000.00	
89		3952	39521.26	1000.00	
205		6162	61621.86	1000.00	
75		18			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	1.89	5.00	
89	2.74	5.00	
205	1.33	5.00	
75	23.65		

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	2957	2998	2993	3069	3095
89	3800	3878	4007	4017	4058
205	6038	6131	6175	6232	6235
75	19	20	23	11	18

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	528.74	58.95	58.9 - 59.1		0.58	0.768	0.900	
89	757.13	89.05	88.9 - 89.1		0.55	0.734	0.900	
205	1171.41	205.00	204.9 - 205.1		0.54	0.743	0.900	
75	2.50	74.95	-		0.62	0.774		

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	1.09 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	10.0 V	Plate Bias	-60 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	3.3 mL/min	OctP RF	200 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		4827	48267.52	1000.00	
89		18143	181425.20	1000.00	
205		15184	151840.01	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	1.48	5.00	
89	1.64	5.00	
205	2.77	5.00	
102	96.66		

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	4734	4857	4789	4924	4831
89	17632	18134	18296	18367	18284
205	14689	15019	14976	15524	15711
102	2	0	3	0	4

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-5% (Actual)	W-5% (Required)	W-5% (Flag)
7	821.60	7.00	6.9 - 7.1		0.61	0.777	0.900	
89	3400.31	89.05	88.9 - 89.1		0.56	0.762	0.900	
205	2867.20	204.95	204.9 - 205.1		0.54	0.742	0.900	
102			-					

Integration Time [sec] 0.1 **Acquisition Time [sec]** 135.3 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.94 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.09 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	10.0 V	Plate Bias	-60 V

Cell Parameters

Use Gas	false	OctP Bias	-8.0 V

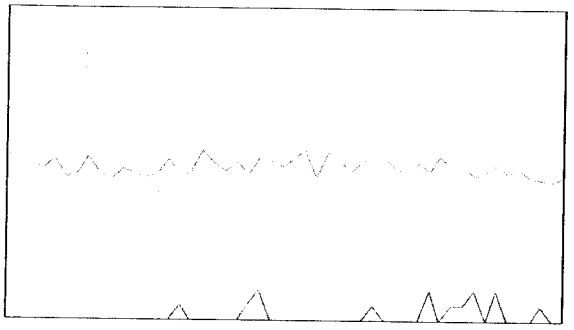
Tune Report

He Flow	0.0 mL/min	OctP RF	200 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\9J07033.b
Acq. Date-Time	10/7/2019 10:25
Report Comment	9J07033 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	494	4940.09	1000.00	
89	5000	2143	21425.99	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	5.59	5.00	[F]
89	2.51	5.00	
78	216.94		

see EPA report for RSDs
ESS 10/8/19

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	1.09 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	1.0 V
Omega Lens	10.0 V	Plate Bias	-60 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	0.0 mL/min	OctP RF	200 V
H2 Flow	3.4 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	558	5584.88	1000.00	
89	1000	782	7823.36	1000.00	
205	2000	1205	12048.98	1000.00	
75	20	3			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	6.11	5.00	[F]
89	5.34	5.00	[F]
205	6.43	5.00	[F]
75	66.88		

see EPA report for RSDs ESS 10/8/19

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	1.09 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	10.0 V	Plate Bias	-60 V

Cell Parameters

Use Gas	true	OctP Bias	-18.0 V
He Flow	3.3 mL/min	OctP RF	200 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	1000	797	7972.51	1000.00	
89	5000	3212	32115.03	1000.00	
205	5000	2730	27296.80	1000.00	
102	20	0			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
7		-	
89		-	
205		-	
102		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	4.87	5.00	
89	2.49	5.00	
205	2.53	5.00	
102	522.73		

Mass	Background (Actual)	Background (Required)	Background (Flag)
7			
89			
205			
102			

Ratio (oxide)	156/140	1.195 %	✓
Ratio (2+)	69/138	1.487 %	✓

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	1.09 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	10.0 V	Plate Bias	-60 V

Cell Parameters

Use Gas	false	OctP Bias	-8.0 V
He Flow	0.0 mL/min	OctP RF	200 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: 9J07068-ICV1
Data File: 013_ICV.d
Acquired: 10/7/2019 19:01:46

Detector Parameters and P/A Factors

Discriminator: 4.5 mV
AnalogHV: 1868 V
PulseHV: 1676 V

Acquired: 10/7/2019 12:11:31

Mass[u]	Element	P/A Factor
6	Li	0.090004
7	Li	0.094505
11	B	0.102443
28	Si	0.098675
31	P	0.124270
45	Sc	0.126554
74	Ge	0.139907
88	Sr	0.140736
90	Zr	0.138257
103	Rh	0.144407
118	Sn	0.146234
159	Tb	0.148391
209	Bi	0.152692
197	Au	Signal too low
238	U	Signal too low

Independent Detector Parameters and P/A Factors

Tune Mode Name: H2
Discriminator: 4.5 mV
AnalogHV: 1868 V
PulseHV: 1676 V

Acquired: 10/7/2019 18:52:20

Mass[u]	Element	P/A Factor
23	Na	0.115907
44	Ca	0.130997
45	Sc	0.130390
56	Fe	0.137747
57	Fe	0.137751
74	Ge	Signal too low
78	Se	Signal too low

Tune Mode Name: He
Discriminator: 4.5 mV
AnalogHV: 1868 V
PulseHV: 1676 V

Acquired: 10/7/2019 18:58:01

Mass[u]	Element	P/A Factor
23	Na	0.116281
24	Mg	0.122646
27	Al	0.126707
39	K	0.131153
44	Ca	0.131207
51	V	0.132142
52	Cr	0.136143
55	Mn	0.138520
59	Co	0.142488
60	Ni	0.142014
65	Cu	0.145922
66	Zn	0.145358
138	Ba	0.151363

159	Tb	0.154307
205	Tl	0.156554
45	Sc	Signal too low
74	Ge	Signal too low
75	As	Signal too low
95	Mo	Signal too low
103	Rh	Signal too low
107	Ag	Signal too low
111	Cd	Signal too low
121	Sb	Signal too low
209	Bi	Signal too low

Tune Mode Name: NoGas
Discriminator: 4.5 mV
AnalogHV: 1868 V
PulseHV: 1676 V

Acquired: 10/7/2019 18:59:25

Mass[u]	Element	P/A Factor
45	Sc	0.129121
47	Ti	0.128850
65	Cu	0.145331
103	Rh	0.147411
111	Cd	0.150193
159	Tb	0.152519
182	W	0.153738
206	Pb	0.156768
207	Pb	0.157295
208	Pb	0.158755
209	Bi	0.158023
6	Li	Signal too low
7	Li	Signal too low
9	Be	Signal too low
74	Ge	Signal too low
106	[Cd]	Signal too low
108	[Cd]	Signal too low
201	Hg	Signal too low

Created: 10/8/2019 13:08:37

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	001RINS.d	Vial:	3
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Rinse
Acq Time:	10/7/2019 18:03:33		
Comment:	**cal blank check**	Last Calib:	N/A

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas		ppb		778	0.18	
Na	23	45	He		ppb		8,272	90	
Mg	24	45	He		ppb		4,124	90	
Al	27	45	He		ppb		2,810	45	
K	39	45	He		ppb		25,127	90	
Ca	44	45	H2		ppb		1,318	90	
[Ca]	44	45	He		ppb		454		
Ti	47	45	NoGas		ppb		895	0.9	
V	51	74	He		ppb		1,105	0.9	
Cr	52	74	He		ppb		827	0.9	
Mn	55	74	He		ppb		531	0.9	
Fe	56	74	H2		ppb		49,885	45	
Co	59	74	He		ppb		797	0.18	
Ni	60	74	He		ppb		273	0.9	
Cu	65	74	He		ppb		484	0.9	
Zn	66	74	He		ppb		292	3.6	
As	75	74	He		ppb		67	0.9	
Se	78	74	H2		ppb		10	0.9	
Mo	95	103	He		ppb		162	0.9	
Ag	107	103	He		ppb		262	0.18	
Cd	111	103	He		ppb		143		
[Cd]	111	103	NoGas		ppb		2,071	0.18	
Sb	121	103	He		ppb		279	0.9	
Ba	138	159	He		ppb		1,799	0.9	
W	182	159	NoGas		ppb		32		
Hg	201	159	NoGas		ppt		34	72	
Tl	205	159	He		ppb		1,047	0.18	
Pb	208	159	NoGas		ppb		30,652	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	404,768	0.3	0	Pulse		
Sc	45	H2	1,073,924	0.2	0	Pulse		
Sc	45	He	182,456	0.5	0	Pulse		
Sc	45	NoGas	1,722,970	0.9	0	Analog		
Ge	74	H2	370,846	0.6	0	Pulse		
Ge	74	He	121,045	0.4	0	Pulse		
Ge	74	NoGas	529,308	0.9	0	Pulse		
Rh	103	He	290,696	0.8	0	Pulse		
Rh	103	NoGas	633,892	0.4	0	Pulse		
Tb	159	He	586,432	0.8	0	Pulse		
Tb	159	NoGas	1,516,817	2.2	0	Mix		
Bi	209	He	379,098	0.2	0	Pulse		
Bi	209	NoGas	943,543	1.0	0	Pulse		

Quantitation Report - ICPMS5

Sample Name:	**Rinse**	Total Dilution:	**1.0000**
File Name:	002RINS.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Rinse
Acq Time:	10/7/2019 18:08:15		
Comment:	**cal blank check**	Last Calib:	N/A

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas		ppb		3	0.18	
Na	23	45	He		ppb		2,691	90	
Mg	24	45	He		ppb		356	90	
Al	27	45	He		ppb		83	45	
K	39	45	He		ppb		22,568	90	
Ca	44	45	H2		ppb		383	90	
[Ca]	44	45	He		ppb		208		
Ti	47	45	NoGas		ppb		25	0.9	
V	51	74	He		ppb		612	0.9	
Cr	52	74	He		ppb		1,375	0.9	
Mn	55	74	He		ppb		90	0.9	
Fe	56	74	H2		ppb		22,209	45	
Co	59	74	He		ppb		33	0.18	
Ni	60	74	He		ppb		50	0.9	
Cu	65	74	He		ppb		119	0.9	
Zn	66	74	He		ppb		81	3.6	
As	75	74	He		ppb		15	0.9	
Se	78	74	H2		ppb		1	0.9	
Mo	95	103	He		ppb		121	0.9	
Ag	107	103	He		ppb		7	0.18	
Cd	111	103	He		ppb		4		
[Cd]	111	103	NoGas		ppb		11	0.18	
Sb	121	103	He		ppb		24	0.9	
Ba	138	159	He		ppb		99	0.9	
W	182	159	NoGas		ppb		23		
Hg	201	159	NoGas		ppt		5	72	
Tl	205	159	He		ppb		68	0.18	
Pb	208	159	NoGas		ppb		813	0.18	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	402,268	0.4	0	Pulse		
Sc	45	H2	1,029,483	0.6	0	Pulse		
Sc	45	He	176,880	0.4	0	Pulse		
Sc	45	NoGas	1,720,432	0.2	0	Analog		
Ge	74	H2	355,032	0.6	0	Pulse		
Ge	74	He	117,635	0.2	0	Pulse		
Ge	74	NoGas	525,624	0.9	0	Pulse		
Rh	103	He	285,488	0.1	0	Pulse		
Rh	103	NoGas	632,651	0.3	0	Pulse		
Tb	159	He	573,200	0.5	0	Pulse		
Tb	159	NoGas	1,506,173	1.5	0	Mix		
Bi	209	He	371,006	0.2	0	Pulse		
Bi	209	NoGas	941,193	1.0	0	Pulse		

Calibration Standard Report - ICPMS5

Sample Name:	**9J07068-CAL0**	Total Dilution:	**1.0000**
File Name:	003CALB.d	Vial:	1
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	CalBlk
Acq Time:	10/7/2019 18:12:56		
Comment:	**3.5%HNO3+0.4%HCl**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0	ppb	N/A	10	57.7	
Na	23	45	He	0	ppb	N/A	2,656	5.9	
Mg	24	45	He	0	ppb	N/A	327	4.7	
Al	27	45	He	0	ppb	N/A	109	8.8	
K	39	45	He	0	ppb	N/A	21,730	3.8	
Ca	44	45	H2	0	ppb	N/A	421	7.1	
[Ca]	44	45	He	0	ppb	N/A	209	11.3	
Ti	47	45	NoGas	0	ppb	N/A	33	85.3	
V	51	74	He	0	ppb	N/A	579	6.9	
Cr	52	74	He	0	ppb	N/A	1,302	10.2	
Mn	55	74	He	0	ppb	N/A	93	17.9	
Fe	56	74	H2	0	ppb	N/A	21,548	2.6	
Co	59	74	He	0	ppb	N/A	30	101.9	
Ni	60	74	He	0	ppb	N/A	34	31.1	
Cu	65	74	He	0	ppb	N/A	123	7.1	
Zn	66	74	He	0	ppb	N/A	91	24.9	
As	75	74	He	0	ppb	N/A	14	8.1	
Se	78	74	H2	0	ppb	N/A	1	43.3	
Mo	95	103	He	0	ppb	N/A	141	7.6	
Ag	107	103	He	0	ppb	N/A	9	43.3	
Cd	111	103	He	0	ppb	N/A	4	66.1	
[Cd]	111	103	NoGas	0	ppb	N/A	24	16.3	
Sb	121	103	He	0	ppb	N/A	23	14.3	
Ba	138	159	He	0	ppb	N/A	100	17.6	
W	182	159	NoGas	0	ppb	N/A	31	65.5	
Hg	201	159	NoGas	-11.307	ppt	N/A	6	35.7	
Tl	205	159	He	0	ppb	N/A	41	20.4	
Pb	208	159	NoGas	0	ppb	N/A	720	13.8	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	390,560	0.4	390560.36	Pulse	100.0	
Sc	45	H2	995,917	0.1	995916.946666667	Pulse	100.0	
Sc	45	He	171,648	0.8	171648.27	Pulse	100.0	
Sc	45	NoGas	1,663,179	0.9	1663179.33	Analog	100.0	
Ge	74	H2	344,346	0.4	344345.643333333	Pulse	100.0	
Ge	74	He	114,795	0.3	114794.926666667	Pulse	100.0	
Ge	74	NoGas	511,960	1.2	511960.473333333	Pulse	100.0	
Rh	103	He	279,071	0.5	279070.866666667	Pulse	100.0	
Rh	103	NoGas	619,166	0.9	619166.366666667	Pulse	100.0	
Tb	159	He	563,986	0.9	563985.973333333	Pulse	100.0	
Tb	159	NoGas	1,490,879	1.6	1490879.07333333	Mix	100.0	
Bi	209	He	365,535	0.6	365534.536666667	Pulse	100.0	
Bi	209	NoGas	928,203	0.7	928203.173333333	Pulse	100.0	

Calibration Standard Report - ICPMS5

Sample Name:	**9J07068-CAL1**	Total Dilution:	**1.0000**
File Name:	004CALS.d	Vial:	1102
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	CalStd
Acq Time:	10/7/2019 18:17:35		
Comment:	**A19J030 - ESS 10/07**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.163	ppb	18.0	200	17.4	
Na	23	45	He	9.252	ppb	3.7	7,492	3.0	
Mg	24	45	He	9.405	ppb	5.5	3,079	4.3	
Al	27	45	He	9.174	ppb	6.7	1,628	6.2	
K	39	45	He	8.366	ppb	15.6	24,044	1.0	
Ca	44	45	H2	8.425	ppb	10.5	1,356	7.1	
[Ca]	44	45	He	8.015	ppb	59.3	321	21.4	
Ti	47	45	NoGas	0.221	ppb	31.4	168	24.9	
V	51	74	He	0.224	ppb	0.5	958	0.5	
Cr	52	74	He	1.063	ppb	1.6	3,443	1.6	
Mn	55	74	He	0.175	ppb	3.9	373	2.4	
Fe	56	74	H2	12.151	ppb	1.6	85,730	1.1	
Co	59	74	He	0.184	ppb	5.9	544	4.9	
Ni	60	74	He	0.18	ppb	24.3	157	18.4	
Cu	65	74	He	0.152	ppb	8.4	251	4.3	
Zn	66	74	He	0.119	ppb	23.7	130	6.8	
As	75	74	He	0.178	ppb	56.2	56	42.2	
Se	78	74	H2	0.193	ppb	19.9	32	19.3	
Mo	95	103	He	0.295	ppb	28.2	452	19.4	
Ag	107	103	He	0.182	ppb	8.4	593	7.9	
Cd	111	103	He	0.199	ppb	4.8	123	4.3	
[Cd]	111	103	NoGas	0.196	ppb	15.2	353	14.0	
Sb	121	103	He	0.175	ppb	16.1	312	15.0	
Ba	138	159	He	0.175	ppb	3.4	888	3.1	
W	182	159	NoGas	0.002	ppb	99.9	49	37.5	
Hg	201	159	NoGas	-3.146	ppt	N/A	13	17.7	
Tl	205	159	He	0.183	ppb	0.9	1,426	0.7	
Pb	208	159	NoGas	0.186	ppb	2.0	5,288	1.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	389,665	0.6	390560.36	Pulse	99.8	
Sc	45	H2	986,077	0.2	995916.946666667	Pulse	99.0	
Sc	45	He	169,397	0.7	171648.27	Pulse	98.7	
Sc	45	NoGas	1,671,867	0.5	1663179.33	Analog	100.5	
Ge	74	H2	341,093	0.3	344345.643333333	Pulse	99.1	
Ge	74	He	113,182	0.6	114794.926666667	Pulse	98.6	
Ge	74	NoGas	510,022	0.4	511960.473333333	Pulse	99.6	
Rh	103	He	276,200	0.4	279070.866666667	Pulse	99.0	
Rh	103	NoGas	614,573	0.3	619166.366666667	Pulse	99.3	
Tb	159	He	562,150	0.2	563985.973333333	Pulse	99.7	
Tb	159	NoGas	1,476,765	0.4	1490879.07333333	Pulse	99.1	
Bi	209	He	363,611	0.2	365534.536666667	Pulse	99.5	
Bi	209	NoGas	929,330	0.2	928203.173333333	Pulse	100.1	

Calibration Standard Report - ICPMS5

Sample Name:	**9J07068-CAL2**	Total Dilution:	**1.0000**
File Name:	005CALS.d	Vial:	1103
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	CalStd
Acq Time:	10/7/2019 18:22:34		
Comment:	**A19J031 - ESS 10/07**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.951	ppb	10.2	1,129	9.9	
Na	23	45	He	45.508	ppb	0.9	26,905	0.7	
Mg	24	45	He	45.405	ppb	2.5	13,802	2.5	
Al	27	45	He	45.137	ppb	3.2	7,681	2.7	
K	39	45	He	45.068	ppb	2.6	35,906	0.5	
Ca	44	45	H2	44.079	ppb	2.5	5,391	2.4	
[Ca]	44	45	He	45.33	ppb	3.4	867	3.1	
Ti	47	45	NoGas	0.828	ppb	16.1	545	15.3	
V	51	74	He	1.001	ppb	1.5	2,312	1.0	
Cr	52	74	He	1.75	ppb	4.8	4,864	3.5	
Mn	55	74	He	0.89	ppb	11.2	1,529	10.6	
Fe	56	74	H2	47.908	ppb	1.0	277,935	0.7	
Co	59	74	He	0.902	ppb	1.9	2,567	1.8	
Ni	60	74	He	0.989	ppb	4.2	714	3.9	
Cu	65	74	He	1.047	ppb	6.9	1,018	6.0	
Zn	66	74	He	0.983	ppb	16.1	424	12.7	
As	75	74	He	0.979	ppb	6.8	248	6.4	
Se	78	74	H2	0.913	ppb	5.1	146	5.6	
Mo	95	103	He	1.008	ppb	7.0	1,215	6.1	
Ag	107	103	He	0.927	ppb	0.5	2,994	0.8	
Cd	111	103	He	0.916	ppb	8.9	556	8.8	
[Cd]	111	103	NoGas	0.904	ppb	8.1	1,563	8.0	
Sb	121	103	He	0.884	ppb	6.9	1,491	7.0	
Ba	138	159	He	0.91	ppb	2.5	4,218	2.6	
W	182	159	NoGas	0.002	ppb	149.5	46	47.0	
Hg	201	159	NoGas	26.863	ppt	19.5	42	13.4	
Tl	205	159	He	0.917	ppb	2.7	7,016	2.9	
Pb	208	159	NoGas	0.923	ppb	1.8	23,674	1.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	394,146	0.7	390560.36	Pulse	100.9	
Sc	45	H2	997,567	0.2	995916.946666667	Pulse	100.2	
Sc	45	He	171,482	0.5	171648.27	Pulse	99.9	
Sc	45	NoGas	1,695,936	0.3	1663179.33	Analog	102.0	
Ge	74	H2	344,491	0.6	344345.643333333	Pulse	100.0	
Ge	74	He	113,802	0.1	114794.926666667	Pulse	99.1	
Ge	74	NoGas	516,907	0.6	511960.473333333	Pulse	101.0	
Rh	103	He	277,534	0.4	279070.866666667	Pulse	99.4	
Rh	103	NoGas	621,712	0.3	619166.366666667	Pulse	100.4	
Tb	159	He	566,271	0.3	563985.973333333	Pulse	100.4	
Tb	159	NoGas	1,493,619	1.6	1490879.07333333	Mix	100.2	
Bi	209	He	366,575	0.5	365534.536666667	Pulse	100.3	
Bi	209	NoGas	938,939	1.0	928203.173333333	Pulse	101.2	

Calibration Standard Report - ICPMS5

Sample Name:	**9J07068-CAL3**	Total Dilution:	**1.0000**
File Name:	006CALS.d	Vial:	1104
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b		
Acq Time:	10/7/2019 18:27:32	Sample Type:	CalStd
Comment:	**A19J032 - ESS 10/07**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	1.809	ppb	0.7	2,120	0.8	
Na	23	45	He	90.143	ppb	0.2	50,049	0.6	
Mg	24	45	He	89.249	ppb	1.7	26,474	1.6	
Al	27	45	He	90.539	ppb	2.7	15,103	2.2	
K	39	45	He	88.006	ppb	2.7	48,809	1.0	
Ca	44	45	H2	87.816	ppb	1.5	10,179	1.1	
[Ca]	44	45	He	95.177	ppb	3.6	1,570	3.3	
Ti	47	45	NoGas	1.772	ppb	6.5	1,098	5.7	
V	51	74	He	1.804	ppb	3.7	3,695	3.2	
Cr	52	74	He	2.635	ppb	7.6	6,648	6.4	
Mn	55	74	He	1.829	ppb	2.9	3,035	3.2	
Fe	56	74	H2	91.718	ppb	0.5	507,663	0.3	
Co	59	74	He	1.829	ppb	1.6	5,156	1.9	
Ni	60	74	He	1.855	ppb	5.1	1,306	4.5	
Cu	65	74	He	1.855	ppb	12.0	1,703	10.9	
Zn	66	74	He	1.666	ppb	9.7	654	8.4	
As	75	74	He	1.826	ppb	6.2	448	6.3	
Se	78	74	H2	1.855	ppb	2.7	292	2.4	
Mo	95	103	He	1.803	ppb	10.4	2,050	9.4	
Ag	107	103	He	1.844	ppb	1.4	5,917	1.7	
Cd	111	103	He	1.83	ppb	4.9	1,100	5.2	
[Cd]	111	103	NoGas	1.83	ppb	1.2	3,118	1.3	
Sb	121	103	He	1.724	ppb	1.2	2,870	1.4	
Ba	138	159	He	1.795	ppb	3.9	8,168	4.4	
W	182	159	NoGas	0.002	ppb	152.4	49	56.8	
Hg	201	159	NoGas	61.714	ppt	12.8	74	10.2	
Tl	205	159	He	1.824	ppb	1.4	13,801	1.3	
Pb	208	159	NoGas	1.874	ppb	0.7	46,932	0.6	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	390,613	0.3	390560.36	Pulse	100.0	
Sc	45	H2	983,817	0.5	995916.946666667	Pulse	98.8	
Sc	45	He	169,307	0.5	171648.27	Pulse	98.6	
Sc	45	NoGas	1,652,441	0.6	1663179.33	Analog	99.4	
Ge	74	H2	341,310	0.4	344345.643333333	Pulse	99.1	
Ge	74	He	113,414	0.4	114794.926666667	Pulse	98.8	
Ge	74	NoGas	509,242	0.0	511960.473333333	Pulse	99.5	
Rh	103	He	275,955	0.3	279070.866666667	Pulse	98.9	
Rh	103	NoGas	617,521	0.1	619166.366666667	Pulse	99.7	
Tb	159	He	562,030	0.5	563985.973333333	Pulse	99.7	
Tb	159	NoGas	1,480,746	0.2	1490879.07333333	Pulse	99.3	
Bi	209	He	365,914	0.3	365534.536666667	Pulse	100.1	
Bi	209	NoGas	936,693	0.6	928203.173333333	Pulse	100.9	

Calibration Standard Report - ICPMS5

Sample Name:	**9J07068-CAL4**	Total Dilution:	**1.0000**
File Name:	007CALS.d	Vial:	1105
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	CalStd
Acq Time:	10/7/2019 18:32:29		
Comment:	**A19J033 - ESS 10/07**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	3.613	ppb	3.2	4,245	2.9	
Na	23	45	He	178.234	ppb	1.4	97,299	0.6	
Mg	24	45	He	175.801	ppb	1.8	52,319	0.9	
Al	27	45	He	177.227	ppb	1.1	29,740	1.0	
K	39	45	He	175.218	ppb	0.6	76,659	0.5	
Ca	44	45	H2	176.627	ppb	2.0	19,985	2.1	
[Ca]	44	45	He	171.582	ppb	0.7	2,690	1.5	
Ti	47	45	NoGas	3.435	ppb	4.6	2,117	6.3	
V	51	74	He	3.588	ppb	0.9	6,772	0.9	
Cr	52	74	He	4.287	ppb	3.9	9,995	3.4	
Mn	55	74	He	3.685	ppb	2.8	6,013	2.8	
Fe	56	74	H2	180.99	ppb	0.1	977,427	0.0	
Co	59	74	He	3.634	ppb	0.9	10,202	1.0	
Ni	60	74	He	3.7	ppb	3.4	2,567	3.4	
Cu	65	74	He	3.966	ppb	6.0	3,499	5.7	
Zn	66	74	He	3.612	ppb	6.0	1,312	5.5	
As	75	74	He	3.654	ppb	4.9	881	4.9	
Se	78	74	H2	3.588	ppb	3.1	562	3.1	
Mo	95	103	He	3.667	ppb	0.9	4,052	0.2	
Ag	107	103	He	3.648	ppb	0.6	11,770	0.8	
Cd	111	103	He	3.716	ppb	2.9	2,245	2.9	
[Cd]	111	103	NoGas	3.586	ppb	4.2	6,097	4.4	
Sb	121	103	He	3.463	ppb	4.2	5,781	3.5	
Ba	138	159	He	3.575	ppb	2.0	16,183	1.6	
W	182	159	NoGas	0.001	ppb	168.8	40	38.2	
Hg	201	159	NoGas	133.846	ppt	13.6	143	11.6	
Tl	205	159	He	3.615	ppb	0.9	27,353	0.7	
Pb	208	159	NoGas	3.683	ppb	1.6	92,852	0.4	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	392,505	0.4	390560.36	Pulse	100.5	
Sc	45	H2	980,484	0.2	995916.946666667	Pulse	98.5	
Sc	45	He	170,902	0.9	171648.27	Pulse	99.6	
Sc	45	NoGas	1,667,166	1.9	1663179.33	Analog	100.2	
Ge	74	H2	340,065	0.1	344345.643333333	Pulse	98.8	
Ge	74	He	113,264	0.1	114794.926666667	Pulse	98.7	
Ge	74	NoGas	510,778	1.1	511960.473333333	Pulse	99.8	
Rh	103	He	277,787	0.8	279070.866666667	Pulse	99.5	
Rh	103	NoGas	618,329	0.6	619166.366666667	Pulse	99.9	
Tb	159	He	562,814	0.4	563985.973333333	Pulse	99.8	
Tb	159	NoGas	1,501,923	1.2	1490879.07333333	Mix	100.7	
Bi	209	He	367,291	0.4	365534.536666667	Pulse	100.5	
Bi	209	NoGas	943,290	0.3	928203.173333333	Pulse	101.6	

Calibration Standard Report - ICPMS5

Sample Name:	**9J07068-CAL5**	Total Dilution:	**1.0000**
File Name:	008CALS.d	Vial:	1106
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	CalStd
Acq Time:	10/7/2019 18:37:27		
Comment:	**A19J035 - ESS 10/07**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	10.093	ppb	2.1	11,969	2.2	
Na	23	45	He	403.342	ppb	0.5	215,982	0.4	
Mg	24	45	He	406.742	ppb	0.4	120,142	0.6	
Al	27	45	He	400.405	ppb	0.9	66,783	0.7	
K	39	45	He	393.326	ppb	0.6	144,569	0.7	
Ca	44	45	H2	395.258	ppb	1.8	44,332	1.5	
[Ca]	44	45	He	404.152	ppb	2.7	6,030	2.6	
Ti	47	45	NoGas	20.05	ppb	3.3	12,190	3.3	
V	51	74	He	20.269	ppb	0.6	35,800	0.6	
Cr	52	74	He	20.057	ppb	0.7	42,263	0.6	
Mn	55	74	He	19.819	ppb	1.2	32,110	1.2	
Fe	56	74	H2	406.306	ppb	1.2	2,171,421	1.1	
Co	59	74	He	20.289	ppb	1.2	57,125	1.1	
Ni	60	74	He	20.84	ppb	1.4	14,379	1.4	
Cu	65	74	He	21.038	ppb	1.9	18,135	1.7	
Zn	66	74	He	21.322	ppb	3.7	7,345	3.7	
As	75	74	He	20.211	ppb	1.9	4,835	1.9	
Se	78	74	H2	10.262	ppb	5.9	1,609	5.6	
Mo	95	103	He	9.845	ppb	2.0	10,562	2.3	
Ag	107	103	He	10.216	ppb	0.4	32,699	0.2	
Cd	111	103	He	20.453	ppb	1.1	12,245	0.8	
[Cd]	111	103	NoGas	20.354	ppb	2.3	34,583	1.8	
Sb	121	103	He	9.972	ppb	2.3	16,479	2.1	
Ba	138	159	He	20.243	ppb	0.4	91,844	0.4	
W	182	159	NoGas	0.003	ppb	26.1	51	10.0	
Hg	201	159	NoGas	423.156	ppt	5.6	414	4.9	
Tl	205	159	He	10.192	ppb	1.5	77,615	1.1	
Pb	208	159	NoGas	20.976	ppb	0.4	523,287	0.7	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	396,769	0.2	390560.36	Pulse	101.6	
Sc	45	H2	983,266	0.7	995916.946666667	Pulse	98.7	
Sc	45	He	170,205	0.2	171648.27	Pulse	99.2	
Sc	45	NoGas	1,666,909	0.6	1663179.33	Analog	100.2	
Ge	74	H2	340,645	0.6	344345.643333333	Pulse	98.9	
Ge	74	He	113,875	0.1	114794.926666667	Pulse	99.2	
Ge	74	NoGas	515,113	0.5	511960.473333333	Pulse	100.6	
Rh	103	He	275,694	0.4	279070.866666667	Pulse	98.8	
Rh	103	NoGas	619,992	0.6	619166.366666667	Pulse	100.1	
Tb	159	He	566,926	0.6	563985.973333333	Pulse	100.5	
Tb	159	NoGas	1,495,540	0.7	1490879.07333333	Pulse	100.3	
Bi	209	He	368,968	0.4	365534.536666667	Pulse	100.9	
Bi	209	NoGas	945,838	0.6	928203.173333333	Pulse	101.9	

Calibration Standard Report - ICPMS5

Sample Name:	**9J07068-CAL6**	Total Dilution:	**1.0000**
File Name:	009CALS.d	Vial:	1107
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	CalStd
Acq Time:	10/7/2019 18:42:23		
Comment:	**A19J034**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	50.509	ppb	0.9	61,448	1.0	
Na	23	45	He	2545.727	ppb	1.5	1,377,960	0.9	
Mg	24	45	He	2468.878	ppb	0.8	743,131	0.4	
Al	27	45	He	2450.213	ppb	0.9	416,828	0.3	
K	39	45	He	2454.587	ppb	0.9	806,131	0.3	
Ca	44	45	H2	2397.958	ppb	0.5	272,218	0.5	
[Ca]	44	45	He	2487.597	ppb	1.1	36,817	0.7	
Ti	47	45	NoGas	49.119	ppb	0.4	31,144	0.4	
V	51	74	He	49.911	ppb	0.5	89,010	0.4	
Cr	52	74	He	48.913	ppb	0.9	103,170	0.7	
Mn	55	74	He	48.974	ppb	1.1	80,746	0.8	
Fe	56	74	H2	2466.543	ppb	0.6	13,213,841	0.2	
Co	59	74	He	49.772	ppb	0.7	142,808	0.4	
Ni	60	74	He	51.509	ppb	1.4	36,179	1.2	
Cu	65	74	He	51.557	ppb	1.4	45,125	1.5	
Zn	66	74	He	52.649	ppb	1.5	18,352	1.3	
As	75	74	He	49.305	ppb	1.0	12,004	0.6	
Se	78	74	H2	50.67	ppb	0.9	8,023	1.1	
Mo	95	103	He	50.025	ppb	0.5	53,409	0.7	
Ag	107	103	He	50.475	ppb	0.7	162,472	0.6	
Cd	111	103	He	50.277	ppb	0.4	30,271	0.3	
[Cd]	111	103	NoGas	49.753	ppb	0.2	85,711	0.2	
Sb	121	103	He	50.009	ppb	0.5	83,036	0.4	
Ba	138	159	He	50.005	ppb	0.7	229,100	0.4	
W	182	159	NoGas	0.012	ppb	18.8	131	14.0	
Hg	201	159	NoGas	2038.821	ppt	1.0	1,992	2.0	
Tl	205	159	He	50.415	ppb	0.2	387,778	0.2	
Pb	208	159	NoGas	50.161	ppb	1.4	1,289,789	0.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	407,334	0.1	390560.36	Pulse	104.3	
Sc	45	H2	1,003,010	0.1	995916.946666667	Pulse	100.7	
Sc	45	He	173,843	0.6	171648.27	Pulse	101.3	
Sc	45	NoGas	1,741,200	0.1	1663179.33	Analog	104.7	
Ge	74	H2	344,294	0.4	344345.643333333	Pulse	100.0	
Ge	74	He	116,086	0.4	114794.926666667	Pulse	101.1	
Ge	74	NoGas	531,929	1.4	511960.473333333	Pulse	103.9	
Rh	103	He	277,308	0.2	279070.866666667	Pulse	99.4	
Rh	103	NoGas	628,841	0.4	619166.366666667	Pulse	101.6	
Tb	159	He	572,858	0.4	563985.973333333	Pulse	101.6	
Tb	159	NoGas	1,542,835	1.3	1490879.07333333	Mix	103.5	
Bi	209	He	368,824	0.4	365534.536666667	Pulse	100.9	
Bi	209	NoGas	953,610	0.7	928203.173333333	Pulse	102.7	

Calibration Standard Report - ICPMS5

Sample Name:	**9J07068-CAL7**	Total Dilution:	**1.0000**
File Name:	010CALS.d	Vial:	1108
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	CalStd
Acq Time:	10/7/2019 18:47:27		
Comment:	**A19J036**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	99.735	ppb	0.4	121,200	0.7	
Na	23	45	He	4116.073	ppb	1.2	2,229,551	0.4	
Mg	24	45	He	4017.896	ppb	1.4	1,210,915	0.9	
Al	27	45	He	3938.995	ppb	0.8	671,006	0.1	
K	39	45	He	4042.198	ppb	1.1	1,315,339	1.9	
Ca	44	45	H2	3876.846	ppb	0.0	442,611	0.6	
[Ca]	44	45	He	4005.826	ppb	0.7	59,246	0.9	
Ti	47	45	NoGas	194.395	ppb	1.5	123,184	0.2	
V	51	74	He	199.595	ppb	0.4	355,160	0.4	
Cr	52	74	He	194.546	ppb	0.1	407,541	0.2	
Mn	55	74	He	194.964	ppb	0.2	322,047	0.3	
Fe	56	74	H2	3980.685	ppb	0.7	21,407,114	0.3	
Co	59	74	He	198.062	ppb	0.2	569,751	0.3	
Ni	60	74	He	203.203	ppb	1.0	143,013	1.0	
Cu	65	74	He	203.182	ppb	0.2	177,949	0.1	
Zn	66	74	He	209.161	ppb	0.5	72,833	0.4	
As	75	74	He	197.195	ppb	0.3	48,096	0.3	
Se	78	74	H2	99.638	ppb	1.5	15,845	0.7	
Mo	95	103	He	99.999	ppb	0.8	106,445	0.3	
Ag	107	103	He	99.738	ppb	1.0	320,496	0.4	
Cd	111	103	He	199.38	ppb	0.5	119,834	0.2	
[Cd]	111	103	NoGas	199.968	ppb	0.3	341,168	0.4	
Sb	121	103	He	100.005	ppb	0.5	165,756	0.8	
Ba	138	159	He	199.456	ppb	0.6	914,669	0.2	
W	182	159	NoGas	0.018	ppb	38.0	179	28.5	
Hg	201	159	NoGas	3978.907	ppt	4.9	3,881	2.2	
Tl	205	159	He	99.772	ppb	0.5	768,349	0.4	
Pb	208	159	NoGas	198.851	ppb	3.0	5,127,022	0.2	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	406,914	0.4	390560.36	Pulse	104.2	
Sc	45	H2	1,009,325	0.6	995916.946666667	Pulse	101.3	
Sc	45	He	174,097	0.8	171648.27	Pulse	101.4	
Sc	45	NoGas	1,741,885	1.6	1663179.33	Analog	104.7	
Ge	74	H2	345,837	0.9	344345.643333333	Pulse	100.4	
Ge	74	He	116,401	0.1	114794.926666667	Pulse	101.4	
Ge	74	NoGas	526,553	0.9	511960.473333333	Pulse	102.9	
Rh	103	He	276,854	0.6	279070.866666667	Pulse	99.2	
Rh	103	NoGas	622,906	0.3	619166.366666667	Pulse	100.6	
Tb	159	He	573,586	0.5	563985.973333333	Pulse	101.7	
Tb	159	NoGas	1,548,393	2.8	1490879.07333333	Mix	103.9	
Bi	209	He	363,455	0.2	365534.536666667	Pulse	99.4	
Bi	209	NoGas	933,625	0.1	928203.173333333	Pulse	100.6	

Calibration Standard Report - ICPMS5

Sample Name:	**9J07068-CAL8**	Total Dilution:	**1.0000**
File Name:	011CALS.d	Vial:	1109
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	CalStd
Acq Time:	10/7/2019 18:52:18		
Comment:	**A19I054**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.011	ppb	97.7	24	55.1	
Na	23	45	He	10186.264	ppb	0.6	5,532,035	0.5	
Mg	24	45	He	10311.123	ppb	0.9	3,117,362	0.5	
Al	27	45	He	10211.725	ppb	0.4	1,745,159	0.2	
K	39	45	He	10222.529	ppb	1.0	3,303,453	1.3	
Ca	44	45	H2	9734.913	ppb	0.2	1,123,128	0.4	
[Ca]	44	45	He	10052.655	ppb	0.5	148,849	0.6	
Ti	47	45	NoGas	494.516	ppb	2.7	307,106	0.6	
V	51	74	He	500.16	ppb	0.5	886,505	0.4	
Cr	52	74	He	487.636	ppb	0.2	1,016,549	0.4	
Mn	55	74	He	485.825	ppb	0.3	800,015	0.4	
Fe	56	74	H2	9962.513	ppb	0.4	53,574,283	0.1	
Co	59	74	He	500.786	ppb	1.9	1,436,245	1.5	
Ni	60	74	He	498.533	ppb	0.7	349,781	0.2	
Cu	65	74	He	498.527	ppb	0.2	435,165	0.8	
Zn	66	74	He	524.863	ppb	0.6	182,091	0.2	
As	75	74	He	501.183	ppb	0.3	121,863	0.9	
Se	78	74	H2	0.14	ppb	3.0	24	2.4	
Mo	95	103	He	-0.029	ppb	N/A	108	25.9	
Ag	107	103	He	0.021	ppb	26.7	76	24.3	
Cd	111	103	He	504.893	ppb	0.5	298,181	0.7	
[Cd]	111	103	NoGas	511.348	ppb	0.3	851,113	0.4	
Sb	121	103	He	0.11	ppb	14.5	202	12.5	
Ba	138	159	He	511.69	ppb	1.1	2,320,326	0.3	
W	182	159	NoGas	100	ppb	3.2	782,348	0.4	
Hg	201	159	NoGas	78.544	ppt	13.8	91	9.8	
Tl	205	159	He	0.047	ppb	12.8	396	11.4	
Pb	208	159	NoGas	500.404	ppb	2.6	12,611,983	0.3	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	415,850	0.2	390560.36	Pulse	106.5	
Sc	45	H2	1,020,565	0.7	995916.946666667	Pulse	102.5	
Sc	45	He	174,669	0.5	171648.27	Pulse	101.8	
Sc	45	NoGas	1,707,950	2.7	1663179.33	Analog	102.7	
Ge	74	H2	346,025	0.4	344345.643333333	Pulse	100.5	
Ge	74	He	116,063	0.6	114794.926666667	Pulse	101.1	
Ge	74	NoGas	516,128	0.7	511960.473333333	Pulse	100.8	
Rh	103	He	272,042	0.8	279070.866666667	Pulse	97.5	
Rh	103	NoGas	607,719	0.2	619166.366666667	Pulse	98.2	
Tb	159	He	567,244	0.8	563985.973333333	Pulse	100.6	
Tb	159	NoGas	1,513,619	2.8	1490879.07333333	Analog	101.5	
Bi	209	He	355,429	1.0	365534.536666667	Pulse	97.2	
Bi	209	NoGas	899,132	0.4	928203.173333333	Pulse	96.9	

Calibration Standard Report - ICPMS5

Sample Name:	**9J07068-CAL9**	Total Dilution:	**1.0000**
File Name:	012CALS.d	Vial:	1110
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	CalStd
Acq Time:	10/7/2019 18:57:02		
Comment:	**A19I053**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	CPS RSD	QC Flag
Be	9	6	NoGas	0.004	ppb	222.0	18	75.8	
Na	23	45	He	49951.154	ppb	1.1	28,579,126	0.2	
Mg	24	45	He	49937.862	ppb	0.6	15,911,091	0.6	
Al	27	45	He	49965.03	ppb	0.2	8,999,455	1.1	
K	39	45	He	49954.463	ppb	0.5	16,922,976	0.8	
Ca	44	45	H2	50068.027	ppb	0.6	5,802,362	0.5	
[Ca]	44	45	He	49989.611	ppb	0.8	779,217	0.5	
Ti	47	45	NoGas	2501.563	ppb	0.7	1,762,603	1.1	
V	51	74	He	0.027	ppb	19.5	641	1.7	
Cr	52	74	He	1007.321	ppb	0.3	2,124,843	0.8	
Mn	55	74	He	2503.26	ppb	0.5	4,173,432	0.6	
Fe	56	74	H2	50010.656	ppb	0.5	260,690,147	0.7	
Co	59	74	He	0.232	ppb	3.1	703	3.3	
Ni	60	74	He	956.855	ppb	0.3	679,742	0.4	
Cu	65	74	He	951.062	ppb	0.7	840,445	0.3	
Zn	66	74	He	2494.231	ppb	0.5	875,827	0.3	
As	75	74	He	0.142	ppb	13.4	50	9.9	
Se	78	74	H2	0.251	ppb	22.7	40	22.2	
Mo	95	103	He	-0.009	ppb	N/A	124	40.1	
Ag	107	103	He	0.031	ppb	17.7	102	16.1	
Cd	111	103	He	997.654	ppb	0.8	571,332	0.2	
[Cd]	111	103	NoGas	994.337	ppb	1.3	1,696,450	0.6	
Sb	121	103	He	0.046	ppb	61.4	96	47.5	
Ba	138	159	He	2497.704	ppb	0.5	11,200,947	0.3	
W	182	159	NoGas	0.288	ppb	1.7	2,398	1.9	
Hg	201	159	NoGas	35.835	ppt	20.2	53	13.7	
Tl	205	159	He	0.009	ppb	26.8	112	16.9	
Pb	208	159	NoGas	0.119	ppb	5.4	3,899	3.7	

ISTD Table:

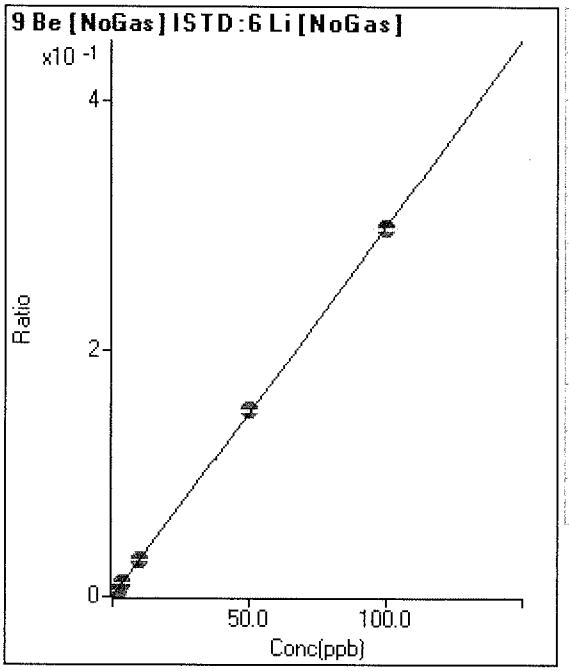
Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	457,351	0.7	390560.36	Pulse	117.1	
Sc	45	H2	1,025,465	0.2	995916.946666667	Pulse	103.0	
Sc	45	He	184,099	1.2	171648.27	Pulse	107.3	
Sc	45	NoGas	1,937,013	0.4	1663179.33	Analog	116.5	
Ge	74	H2	335,520	0.5	344345.643333333	Pulse	97.4	
Ge	74	He	117,517	0.6	114794.926666667	Pulse	102.4	
Ge	74	NoGas	553,926	1.2	511960.473333333	Pulse	108.2	
Rh	103	He	263,801	0.6	279070.866666667	Pulse	94.5	
Rh	103	NoGas	622,983	0.8	619166.366666667	Pulse	100.6	
Tb	159	He	560,962	0.2	563985.973333333	Pulse	99.5	
Tb	159	NoGas	1,587,122	0.6	1490879.07333333	Analog	106.5	
Bi	209	He	330,247	0.6	365534.536666667	Pulse	90.3	
Bi	209	NoGas	867,925	0.9	928203.173333333	Pulse	93.5	

Calibration for 013_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\9J07068.b\
Analysis File: 9J07068.batch.bin
DA Date-Time: 10/8/2019 13:06:41
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	9J07068-CAL0	10/7/2019 18:12:56
2	004CALS.d	9J07068-CAL1	10/7/2019 18:17:35
3	005CALS.d	9J07068-CAL2	10/7/2019 18:22:34
4	006CALS.d	9J07068-CAL3	10/7/2019 18:27:32
5	007CALS.d	9J07068-CAL4	10/7/2019 18:32:29
6	008CALS.d	9J07068-CAL5	10/7/2019 18:37:27
7	009CALS.d	9J07068-CAL6	10/7/2019 18:42:23
8	010CALS.d	9J07068-CAL7	10/7/2019 18:47:27
9	011CALS.d	9J07068-CAL8	10/7/2019 18:52:18
10	012CALS.d	9J07068-CAL9	10/7/2019 18:57:02

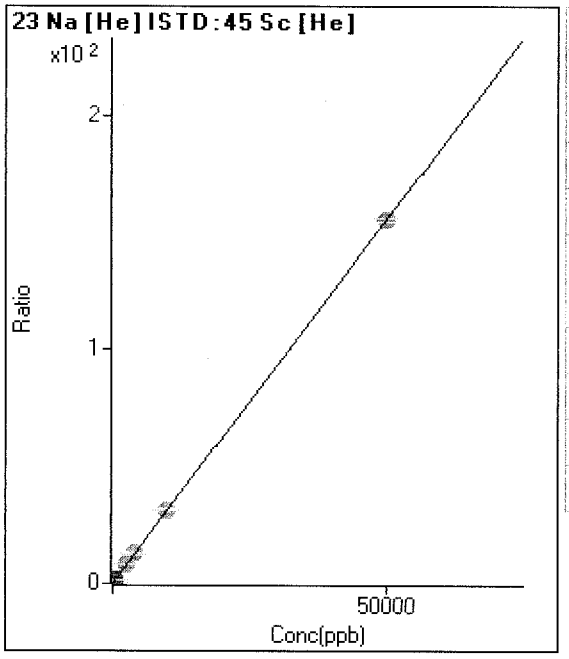
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	10	0.000	P	57.7
2		0.180	0.163	200	0.001	P	17.1
3		0.900	0.951	1,129	0.003	P	10.1
4		1.800	1.809	2,120	0.005	P	0.7
5		3.600	3.613	4,245	0.011	P	3.2
6		10.000	10.093	11,969	0.030	P	2.1
7		50.000	50.509	61,448	0.151	P	0.9
8		100.000	99.735	121,200	0.298	P	0.4
9				24	0.000	P	55.2
10				18	0.000	P	75.4

y = 0.0030 * x + 2.5611E-005
R = 1.0000
DL = 0.01484
BEC = 0.008577

Weight: <None>
Min Conc: <None>

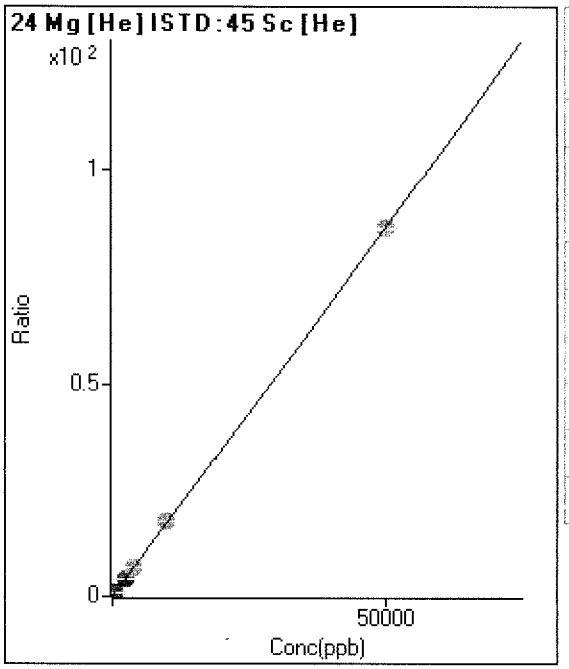


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	2,656	0.015	P	5.5
2				7,492	0.044	P	2.4
3		45.000	45.508	26,905	0.157	P	0.8
4		90.000	90.143	50,049	0.296	P	0.2
5		180.000	178.234	97,299	0.569	P	1.4
6		400.000	403.342	215,982	1.269	P	0.5
7		2500.000	2545.727	1,377,960	7.927	A	1.5
8		4000.000	4116.073	2,229,551	12.807	A	1.2
9		10000.000	10186.264	5,532,035	31.672	A	0.6
10		50000.000	49951.154	28,579,126	155.251	A	1.1

y = 0.0031 * x + 0.0155
R = 1.0000
DL = 0.8281
BEC = 4.978

Weight: <None>
Min Conc: <None>

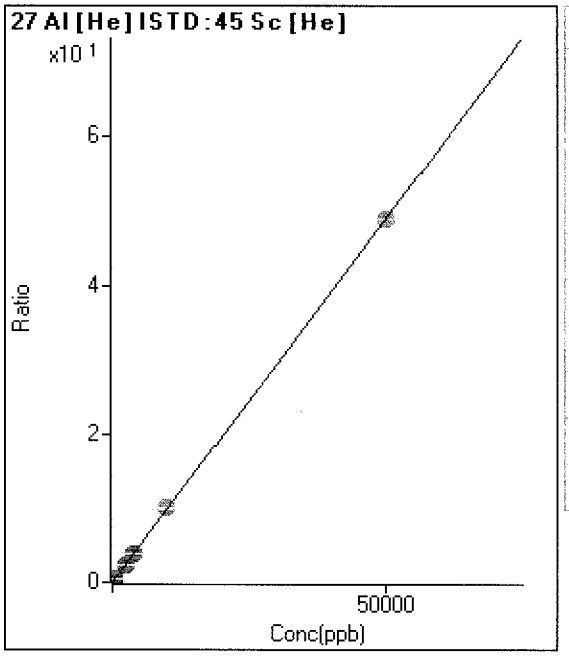
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	327	0.002	P	5.5
2				3,079	0.018	P	4.9
3		45.000	45.405	13,802	0.080	P	2.4
4		90.000	89.249	26,474	0.156	P	1.7
5		180.000	175.801	52,319	0.306	P	1.8
6		400.000	406.742	120,142	0.706	P	0.4
7		2500.000	2468.878	743,131	4.275	P	0.8
8		4000.000	4017.896	1,210,915	6.956	A	1.4
9		10000.000	10311.123	3,117,362	17.848	A	0.9
10		50000.000	49937.862	15,911,091	86.431	A	0.6

y = 0.0017 * x + 0.0019
R = 1.0000
DL = 0.1813
BEC = 1.1

Weight: <None>
Min Conc: <None>

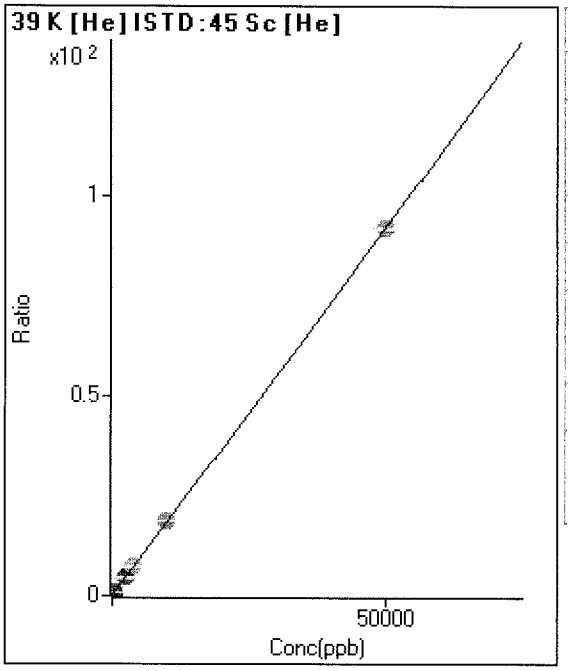


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	109	0.001	P	9.1
2				1,628	0.010	P	6.3
3		45.000	45.137	7,681	0.045	P	3.2
4		90.000	90.539	15,103	0.089	P	2.7
5		180.000	177.227	29,740	0.174	P	1.1
6		400.000	400.405	66,783	0.392	P	0.9
7		2500.000	2450.213	416,828	2.398	P	0.9
8		4000.000	3938.995	671,006	3.854	P	0.8
9		10000.000	10211.725	1,745,159	9.991	A	0.4
10		50000.000	49965.030	8,999,455	48.884	A	0.2

y = 9.7836E-004 * x + 6.3452E-004
R = 1.0000
DL = 0.1773
BEC = 0.6486

Weight: <None>
Min Conc: <None>

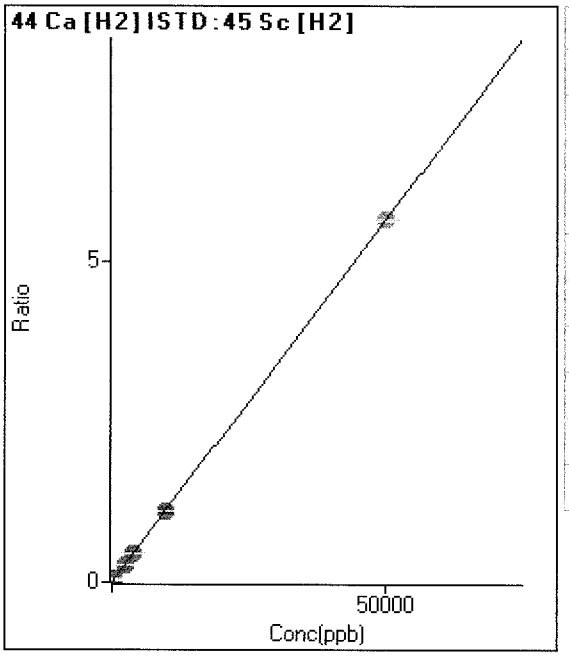
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	21,730	0.127	P	3.0
2				24,044	0.142	P	1.7
3		45.000	45.068	35,906	0.209	P	1.0
4		90.000	88.006	48,809	0.288	P	1.5
5		180.000	175.218	76,659	0.449	P	0.4
6		400.000	393.326	144,569	0.849	P	0.5
7		2500.000	2454.587	806,131	4.637	P	0.9
8		4000.000	4042.198	1,315,339	7.555	A	1.1
9		10000.000	10222.529	3,303,453	18.912	A	1.0
10		50000.000	49954.463	16,922,976	91.926	A	0.5

y = 0.0018 * x + 0.1266
R = 1.0000
DL = 6.226
BEC = 68.88

Weight: <None>
Min Conc: <None>

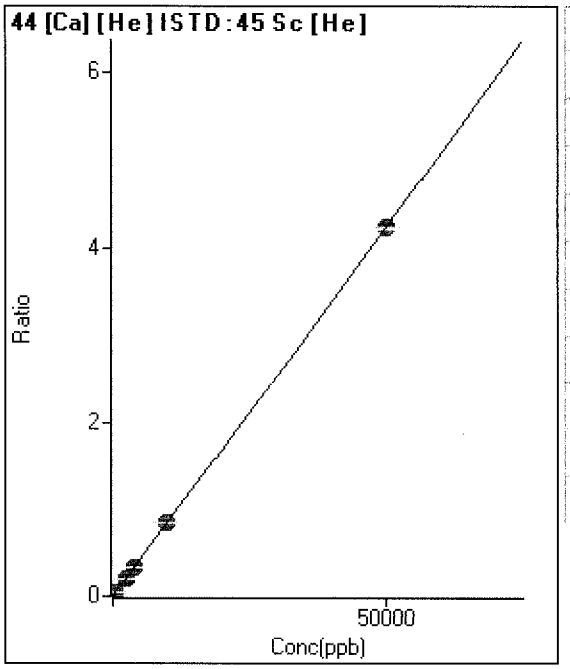


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	421	0.000	P	7.2
2				1,356	0.001	P	7.3
3		45.000	44.079	5,391	0.005	P	2.3
4		90.000	87.816	10,179	0.010	P	1.4
5		180.000	176.627	19,985	0.020	P	2.0
6		400.000	395.258	44,332	0.045	P	1.8
7		2500.000	2397.958	272,218	0.271	P	0.5
8		4000.000	3876.846	442,611	0.439	P	0.0
9		10000.000	9734.913	1,123,128	1.101	P	0.2
10		50000.000	50068.027	5,802,362	5.658	A	0.6

y = 1.1300E-004 * x + 4.2287E-004
R = 1.0000
DL = 0.8092
BEC = 3.742

Weight: <None>
Min Conc: <None>

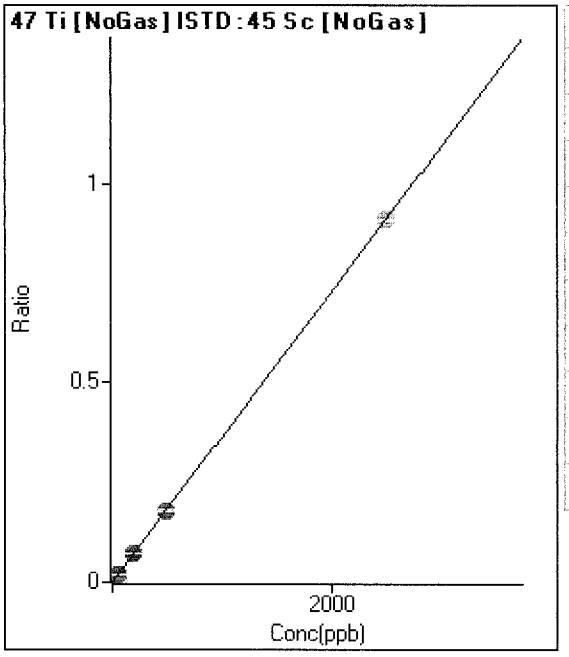
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	209	0.001	P	10.8
2				321	0.002	P	21.2
3		45.000	45.330	867	0.005	P	2.6
4		90.000	95.177	1,570	0.009	P	3.1
5		180.000	171.582	2,690	0.016	P	0.7
6		400.000	404.152	6,030	0.035	P	2.6
7		2500.000	2487.597	36,817	0.212	P	1.1
8		4000.000	4005.826	59,246	0.340	P	0.7
9		10000.000	10052.655	148,849	0.852	P	0.5
10		50000.000	49989.611	779,217	4.233	P	0.8

y = 8.4650E-005 * x + 0.0012
R = 1.0000
DL = 4.667
BEC = 14.37

Weight: <None>
Min Conc: <None>

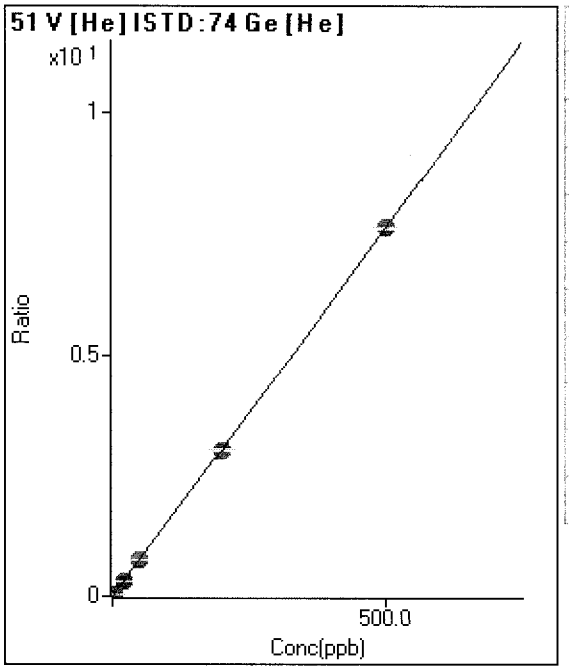


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	33	0.000	P	86.1
2		0.180	0.221	168	0.000	P	25.1
3		0.900	0.828	545	0.000	P	15.1
4		1.800	1.772	1,098	0.001	P	6.3
5		3.600	3.435	2,117	0.001	P	4.5
6		20.000	20.050	12,190	0.007	P	3.3
7		50.000	49.119	31,144	0.018	P	0.4
8		200.000	194.395	123,184	0.071	P	1.5
9		500.000	494.516	307,106	0.180	P	2.7
10		2500.000	2501.563	1,762,603	0.910	A	0.7

y = 3.6374E-004 * x + 2.0126E-005
R = 1.0000
DL = 0.1429
BEC = 0.05533

Weight: <None>
Min Conc: <None>

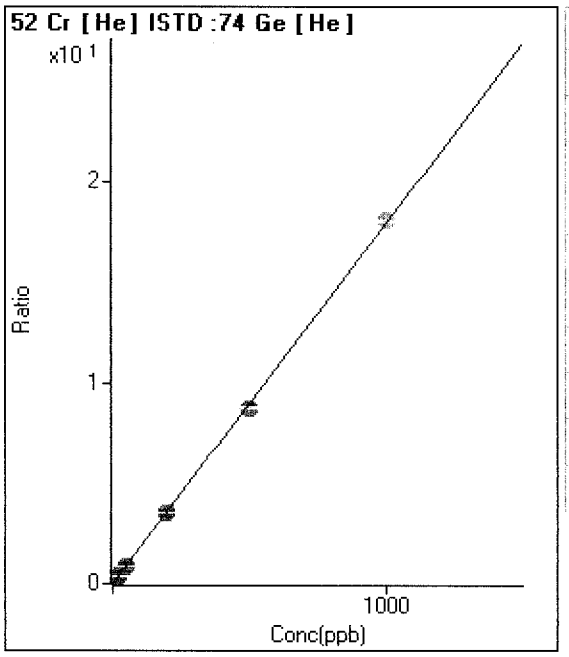
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	579	0.005	P	6.8
2	☐	0.180	0.224	958	0.008	P	0.2
3	☐	0.900	1.001	2,312	0.020	P	1.1
4	☐	1.800	1.804	3,695	0.033	P	3.1
5	☐	3.600	3.588	6,772	0.060	P	0.8
6	☐	20.000	20.269	35,800	0.314	P	0.6
7	☐	50.000	49.911	89,010	0.767	P	0.5
8	☐	200.000	199.595	355,160	3.051	P	0.4
9	☐	500.000	500.160	886,505	7.638	P	0.5
10	☐			641	0.005	P	1.5

y = 0.0153 * x + 0.0050
R = 1.0000
DL = 0.06697
BEC = 0.3303

Weight: <None>
Min Conc: <None>

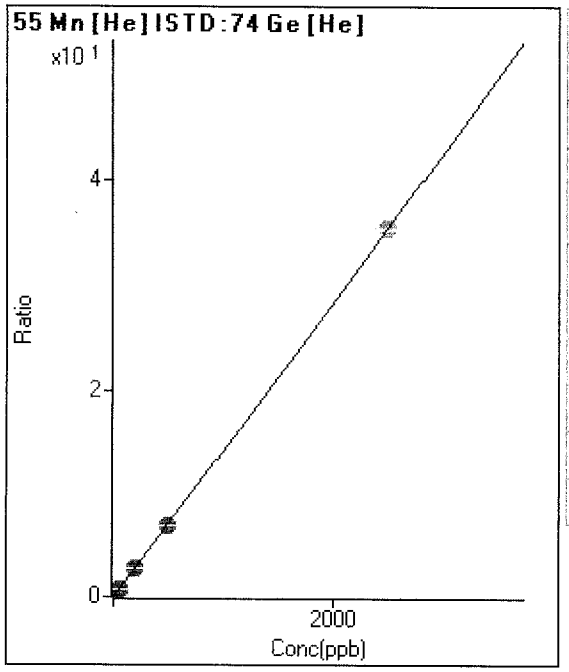


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1,302	0.011	P	10.2
2	☑	0.180		3,443	0.030	P	1.0
3	☑	0.900		4,864	0.043	P	3.5
4	☑	1.800		6,648	0.059	P	6.1
5	☐	3.600	4.287	9,995	0.088	P	3.4
6	☐	20.000	20.057	42,263	0.371	P	0.7
7	☐	50.000	48.913	103,170	0.889	P	0.9
8	☐	200.000	194.546	407,541	3.501	P	0.1
9	☐	500.000	487.637	1,016,549	8.759	P	0.2
10	☐	1000.000	1007.323	2,124,843	18.081	A	0.3

y = 0.0179 * x + 0.0113
R = 0.9999
DL = 0.1932
BEC = 0.6324

Weight: <None>
Min Conc: <None>

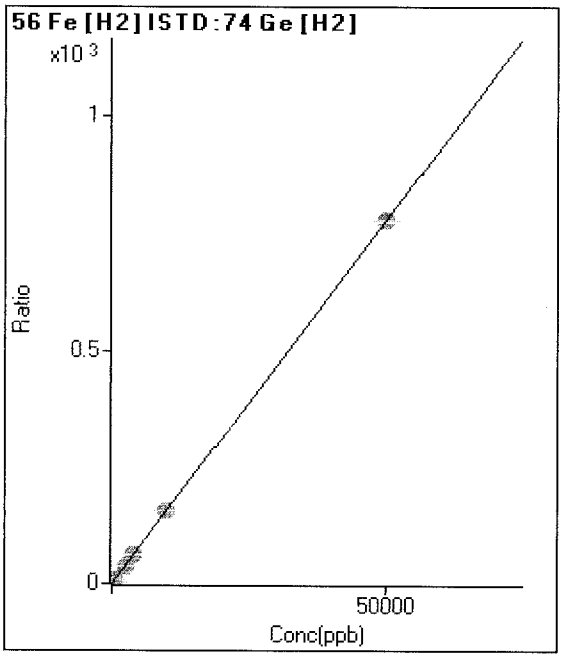
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	93	0.001	P	17.5
2		0.180	0.175	373	0.003	P	3.0
3		0.900	0.890	1,529	0.013	P	10.5
4		1.800	1.829	3,035	0.027	P	2.8
5		3.600	3.685	6,013	0.053	P	2.7
6		20.000	19.819	32,110	0.282	P	1.2
7		50.000	48.974	80,746	0.696	P	1.1
8		200.000	194.964	322,047	2.767	P	0.2
9		500.000	485.825	800,015	6.893	P	0.3
10		2500.000	2503.260	4,173,432	35.514	A	0.5

y = 0.0142 * x + 8.1277E-004
R = 1.0000
DL = 0.03016
BEC = 0.05729

Weight: <None>
Min Conc: <None>

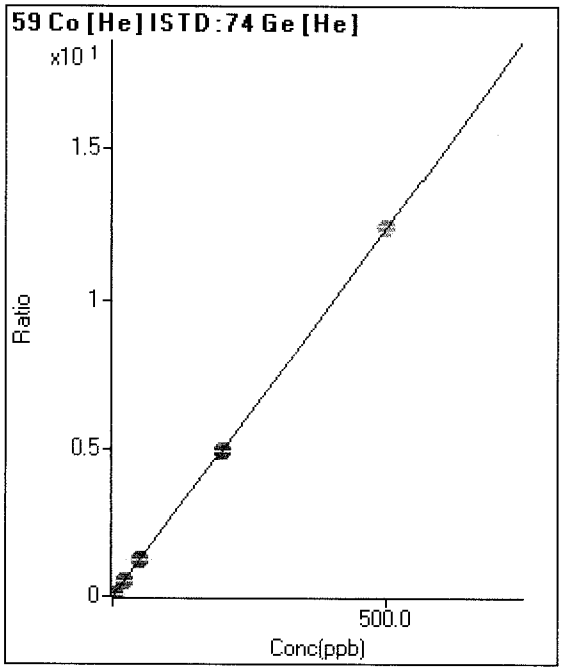


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	21,548	0.063	P	2.2
2				85,730	0.251	P	1.2
3		45.000	47.908	277,935	0.807	P	0.9
4		90.000	91.718	507,663	1.487	P	0.5
5		180.000	180.990	977,427	2.874	P	0.1
6		400.000	406.306	2,171,421	6.375	A	1.2
7		2500.000	2466.543	13,213,841	38.380	A	0.6
8		4000.000	3980.685	21,407,114	61.902	A	0.7
9		10000.000	9962.513	53,574,283	154.829	A	0.4
10		50000.000	50010.656	260,690,147	776.974	A	0.5

y = 0.0155 * x + 0.0626
R = 1.0000
DL = 0.2652
BEC = 4.028

Weight: <None>
Min Conc: <None>

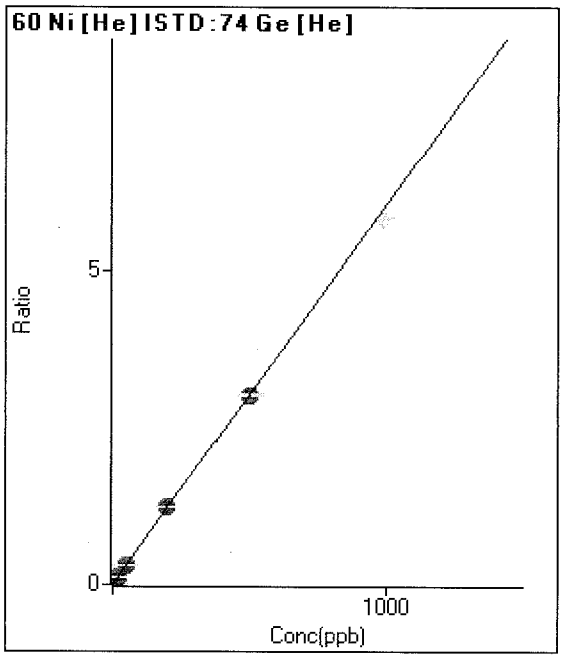
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30	0.000	P	101.7
2	☐	0.180	0.184	544	0.005	P	5.6
3	☐	0.900	0.902	2,567	0.023	P	1.9
4	☐	1.800	1.829	5,156	0.045	P	1.6
5	☐	3.600	3.634	10,202	0.090	P	0.9
6	☐	20.000	20.289	57,125	0.502	P	1.2
7	☐	50.000	49.772	142,808	1.230	P	0.7
8	☐	200.000	198.062	569,751	4.895	P	0.2
9	☐	500.000	500.786	1,436,245	12.376	A	1.9
10	☐			703	0.006	P	3.0

y = 0.0247 * x + 2.6145E-004
R = 1.0000
DL = 0.03229
BEC = 0.01058

Weight: <None>
Min Conc: <None>



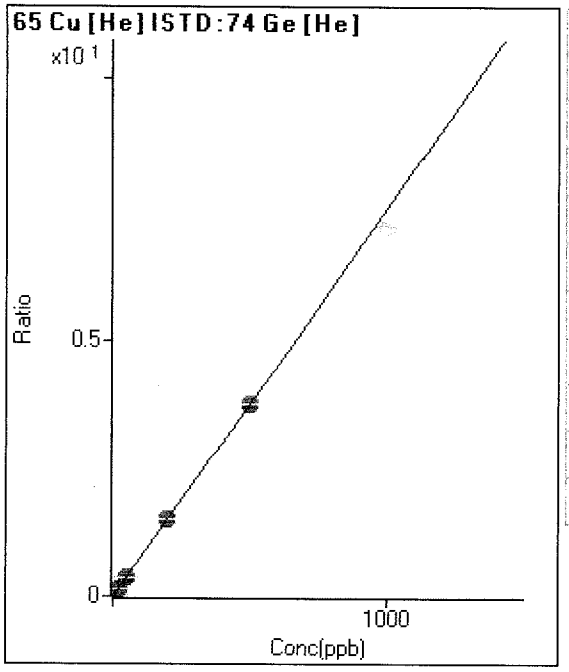
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	34	0.000	P	30.8
2	☐	0.180	0.180	157	0.001	P	19.0
3	☐	0.900	0.989	714	0.006	P	4.0
4	☐	1.800	1.855	1,306	0.012	P	4.9
5	☐	3.600	3.700	2,567	0.023	P	3.4
6	☐	20.000	20.840	14,379	0.126	P	1.4
7	☐	50.000	51.509	36,179	0.312	P	1.4
8	☐	200.000	203.203	143,013	1.229	P	1.0
9	☐	500.000	498.533	349,781	3.014	P	0.7
10	☑	1000.000		679,742	5.784	P	0.3

y = 0.0060 * x + 2.9990E-004
R = 1.0000
DL = 0.04586
BEC = 0.04961

Weight: <None>
Min Conc: <None>

Ni LDR=500 ppb
ESS 10/6/19

Calibration for 013_ICV.d

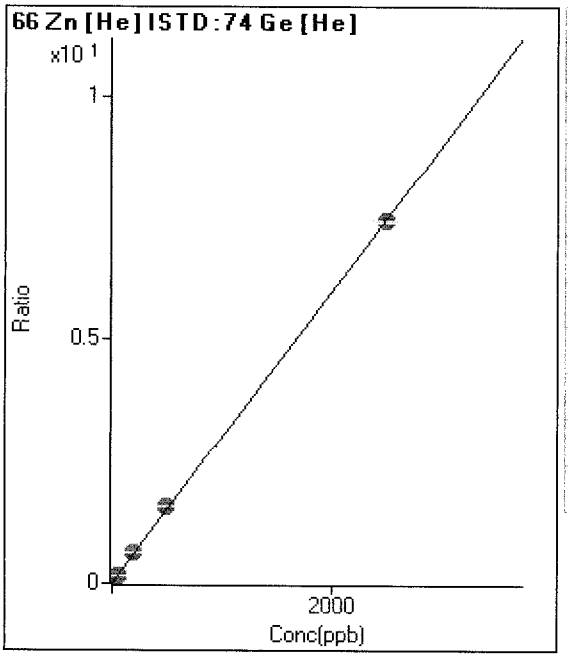


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123	0.001	P	7.4
2	☐	0.180	0.152	251	0.002	P	4.3
3	☐	0.900	1.047	1,018	0.009	P	6.1
4	☐	1.800	1.855	1,703	0.015	P	11.2
5	☐	3.600	3.966	3,499	0.031	P	5.7
6	☐	20.000	21.038	18,135	0.159	P	1.9
7	☐	50.000	51.557	45,125	0.389	P	1.4
8	☐	200.000	203.182	177,949	1.529	P	0.2
9	☐	500.000	498.527	435,165	3.749	P	0.2
10	☑	1000.000		840,445	7.152	P	0.7

y = 0.0075 * x + 0.0011
R = 1.0000
DL = 0.03153
BEC = 0.1429

Cu LDR = 500 ppb
ESS 10/8/19

Weight: <None>
Min Conc: <None>

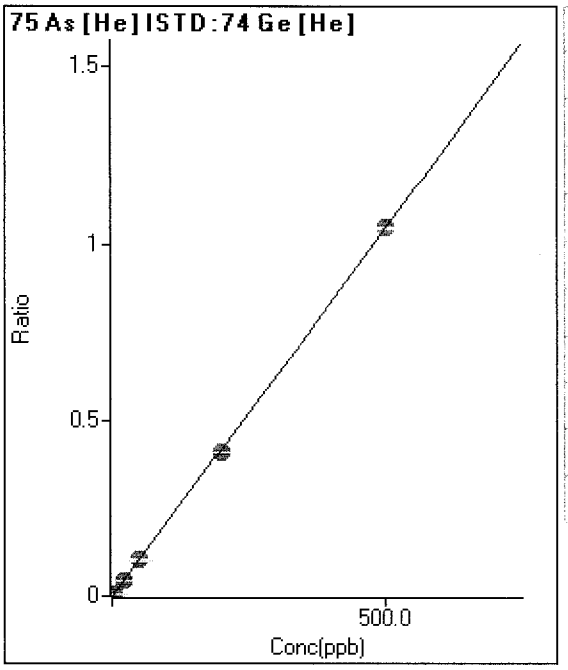


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91	0.001	P	25.2
2	☐	0.180	0.119	130	0.001	P	7.3
3	☐	0.900	0.983	424	0.004	P	12.7
4	☐	1.800	1.666	654	0.006	P	8.4
5	☐	3.600	3.612	1,312	0.012	P	5.6
6	☐	20.000	21.322	7,345	0.064	P	3.7
7	☐	50.000	52.649	18,352	0.158	P	1.5
8	☐	200.000	209.161	72,833	0.626	P	0.5
9	☐	500.000	524.863	182,091	1.569	P	0.6
10	☐	2500.000	2494.231	875,827	7.453	P	0.5

y = 0.0030 * x + 7.9413E-004
R = 0.9999
DL = 0.2013
BEC = 0.2658

Weight: <None>
Min Conc: <None>

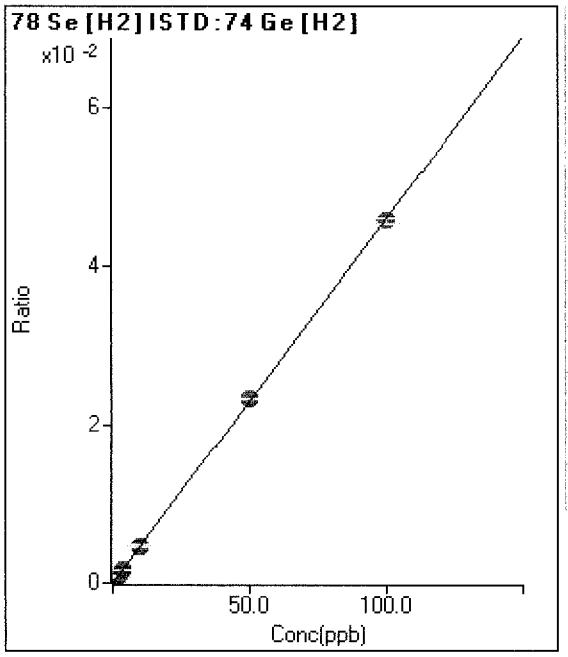
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	14	0.000	P	8.1
2		0.180	0.178	56	0.000	P	42.1
3		0.900	0.979	248	0.002	P	6.4
4		1.800	1.826	448	0.004	P	6.0
5		3.600	3.654	881	0.008	P	4.8
6		20.000	20.211	4,835	0.042	P	1.9
7		50.000	49.305	12,004	0.103	P	1.0
8		200.000	197.195	48,096	0.413	P	0.3
9		500.000	501.183	121,863	1.050	P	0.3
10				50	0.000	P	9.5

y = 0.0021 * x + 1.2486E-004
R = 1.0000
DL = 0.01449
BEC = 0.05961

Weight: <None>
Min Conc: <None>

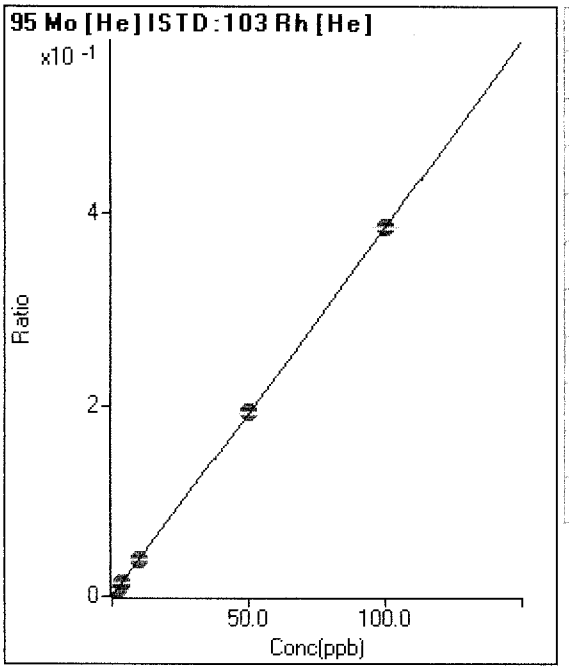


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	1	0.000	P	43.0
2		0.180	0.193	32	0.000	P	19.1
3		0.900	0.913	146	0.000	P	5.1
4		1.800	1.855	292	0.001	P	2.7
5		3.600	3.588	562	0.002	P	3.1
6		10.000	10.262	1,609	0.005	P	5.9
7		50.000	50.670	8,023	0.023	P	0.9
8		100.000	99.638	15,845	0.046	P	1.5
9				24	0.000	P	2.8
10				40	0.000	P	22.0

y = 4.5983E-004 * x + 3.8687E-006
R = 1.0000
DL = 0.01084
BEC = 0.008413

Weight: <None>
Min Conc: <None>

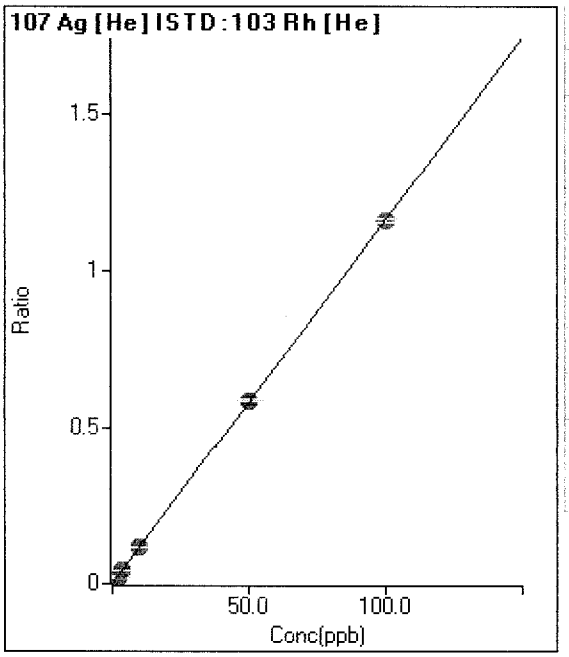
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	141	0.001	P	8.1
2		0.180	0.295	452	0.002	P	19.5
3		0.900	1.008	1,215	0.004	P	6.2
4		1.800	1.803	2,050	0.007	P	9.7
5		3.600	3.667	4,052	0.015	P	0.9
6		10.000	9.845	10,562	0.038	P	2.0
7		50.000	50.025	53,409	0.193	P	0.5
8		100.000	99.999	106,445	0.384	P	0.8
9				108	0.000	P	25.4
10				124	0.000	P	39.8

y = 0.0038 * x + 5.0580E-004
R = 1.0000
DL = 0.03206
BEC = 0.1317

Weight: <None>
Min Conc: <None>

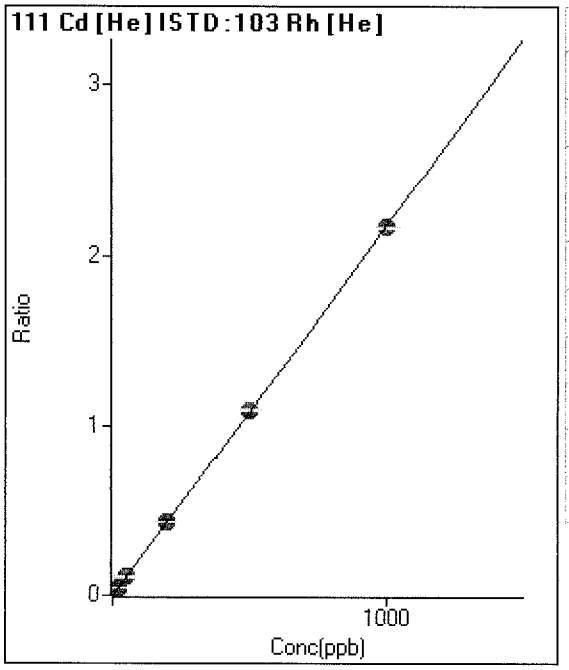


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	9	0.000	P	43.1
2		0.180	0.182	593	0.002	P	8.3
3		0.900	0.927	2,994	0.011	P	0.5
4		1.800	1.844	5,917	0.021	P	1.4
5		3.600	3.648	11,770	0.042	P	0.6
6		10.000	10.216	32,699	0.119	P	0.4
7		50.000	50.475	162,472	0.586	P	0.7
8		100.000	99.738	320,496	1.158	P	1.0
9				76	0.000	P	23.7
10				102	0.000	P	16.2

y = 0.0116 * x + 3.1846E-005
R = 1.0000
DL = 0.00355
BEC = 0.002744

Weight: <None>
Min Conc: <None>

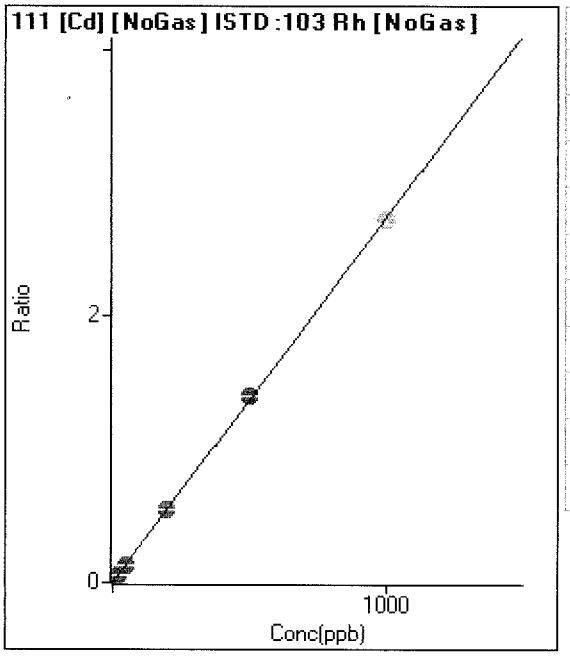
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	4	0.000	P	66.7
2		0.180	0.199	123	0.000	P	4.7
3		0.900	0.916	556	0.002	P	8.8
4		1.800	1.830	1,100	0.004	P	4.9
5		3.600	3.716	2,245	0.008	P	2.9
6		20.000	20.453	12,245	0.044	P	1.1
7		50.000	50.277	30,271	0.109	P	0.4
8		200.000	199.380	119,834	0.433	P	0.5
9		500.000	504.893	298,181	1.096	P	0.5
10		1000.000	997.654	571,332	2.166	P	0.8

y = 0.0022 * x + 1.4362E-005
R = 1.0000
DL = 0.01323
BEC = 0.006616

Weight: <None>
Min Conc: <None>

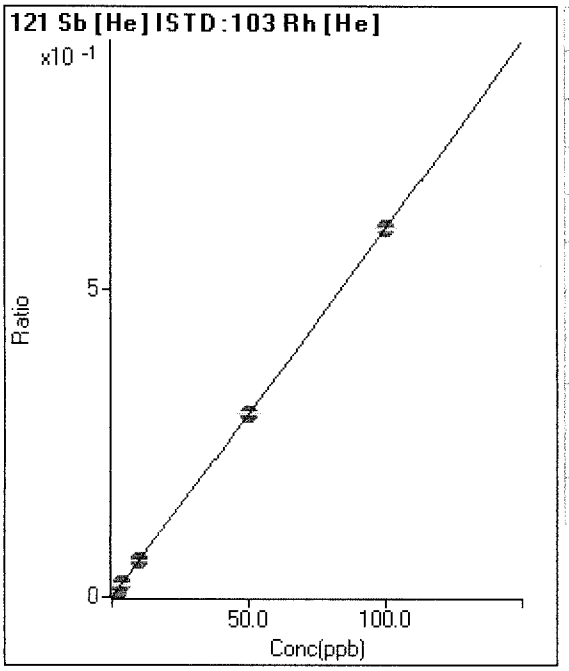


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	24	0.000	P	15.4
2		0.180	0.196	353	0.001	P	14.1
3		0.900	0.904	1,563	0.003	P	8.0
4		1.800	1.830	3,118	0.005	P	1.2
5		3.600	3.586	6,097	0.010	P	4.1
6		20.000	20.354	34,583	0.056	P	2.3
7		50.000	49.753	85,711	0.136	P	0.2
8		200.000	199.968	341,168	0.548	P	0.3
9		500.000	511.348	851,113	1.401	P	0.3
10		1000.000	994.337	1,696,450	2.723	A	1.3

y = 0.0027 * x + 3.8663E-005
R = 0.9999
DL = 0.006505
BEC = 0.01412

Weight: <None>
Min Conc: <None>

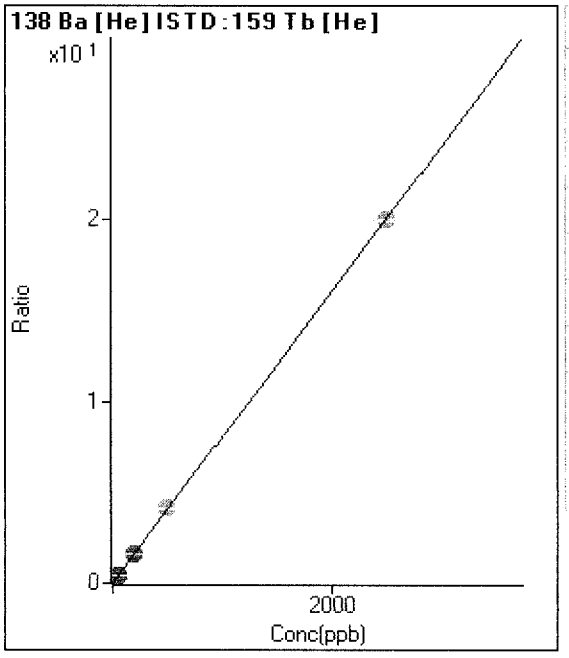
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	23	0.000	P	13.8
2		0.180	0.175	312	0.001	P	14.9
3		0.900	0.884	1,491	0.005	P	6.8
4		1.800	1.724	2,870	0.010	P	1.1
5		3.600	3.463	5,781	0.021	P	4.2
6		10.000	9.972	16,479	0.060	P	2.3
7		50.000	50.009	83,036	0.299	P	0.5
8		100.000	100.005	165,756	0.599	P	0.5
9				202	0.001	P	12.9
10				96	0.000	P	47.2

y = 0.0060 * x + 8.3573E-005
R = 1.0000
DL = 0.005785
BEC = 0.01396

Weight: <None>
Min Conc: <None>

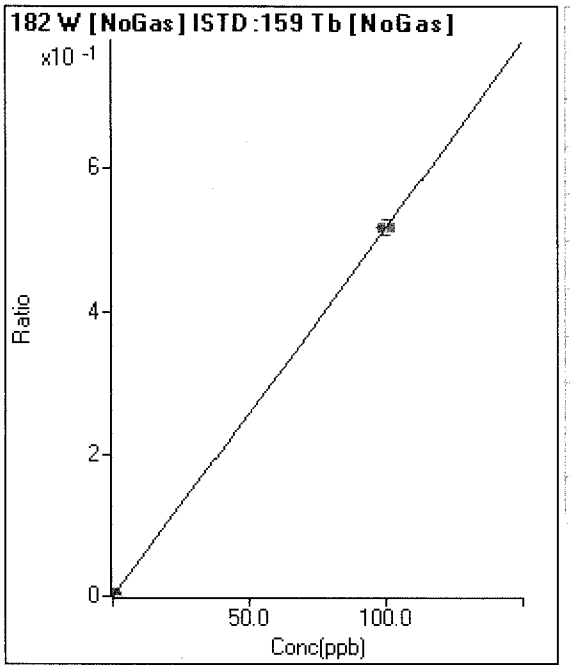


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	100	0.000	P	17.9
2		0.180	0.175	888	0.002	P	3.1
3		0.900	0.910	4,218	0.007	P	2.4
4		1.800	1.795	8,168	0.015	P	3.9
5		3.600	3.575	16,183	0.029	P	2.0
6		20.000	20.243	91,844	0.162	P	0.4
7		50.000	50.005	229,100	0.400	P	0.7
8		200.000	199.456	914,669	1.595	P	0.6
9		500.000	511.690	2,320,326	4.091	A	1.1
10		2500.000	2497.704	11,200,947	19.967	A	0.5

y = 0.0080 * x + 1.7737E-004
R = 1.0000
DL = 0.01192
BEC = 0.02219

Weight: <None>
Min Conc: <None>

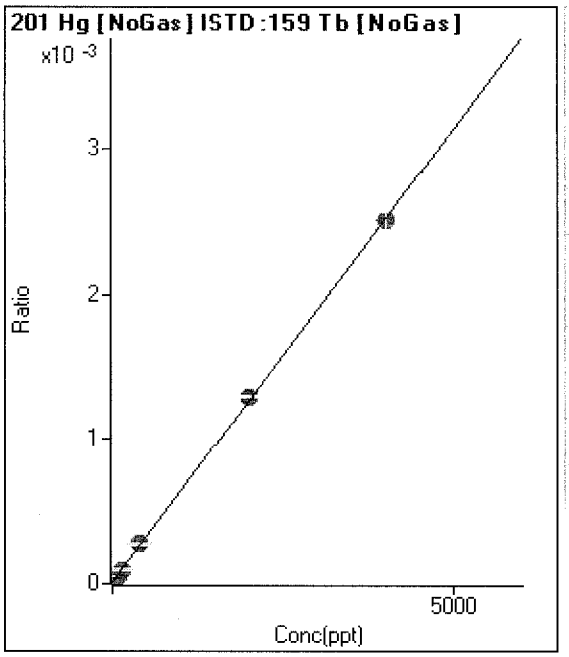
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	31	0.000	P	63.9
2				49	0.000	P	37.3
3				46	0.000	P	48.3
4				49	0.000	P	56.7
5				40	0.000	P	37.1
6				51	0.000	P	10.3
7				131	0.000	P	14.2
8				179	0.000	P	31.3
9		100.000	100.000	782,348	0.517	P	3.2
10				2,398	0.002	P	1.7

y = 0.0052 * x + 2.0733E-005
R = 1.0000
DL = 0.00769
BEC = 0.004009

Weight: <None>
Min Conc: <None>

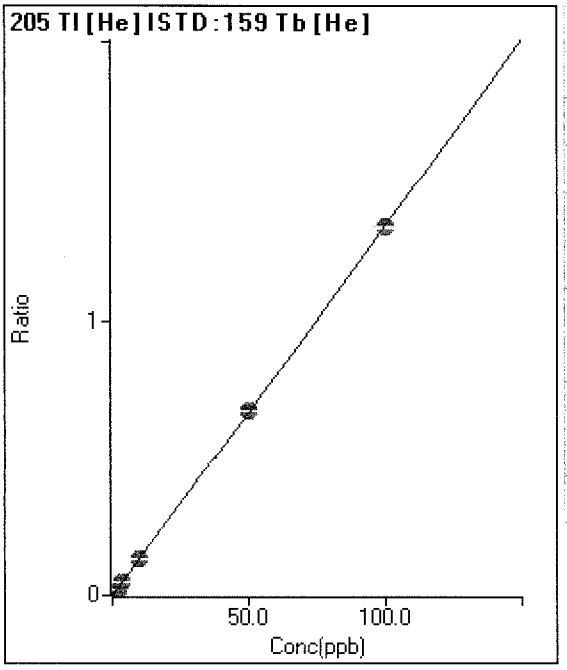


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	-11.307	6	0.000	P	34.7
2				13	0.000	P	17.4
3		36.000	26.863	42	0.000	P	11.8
4		72.000	61.714	74	0.000	P	10.0
5		144.000	133.846	143	0.000	P	12.1
6		400.000	423.156	414	0.000	P	5.3
7		2000.000	2038.821	1,992	0.001	P	1.0
8		4000.000	3978.907	3,881	0.003	P	4.9
9				91	0.000	P	11.3
10				53	0.000	P	13.6

y = 6.277518E-007 * x + 1.100078E-005
R = 0.9999
DL = 6.473
BEC = 17.52

Weight: <None>
Min Conc: <None>

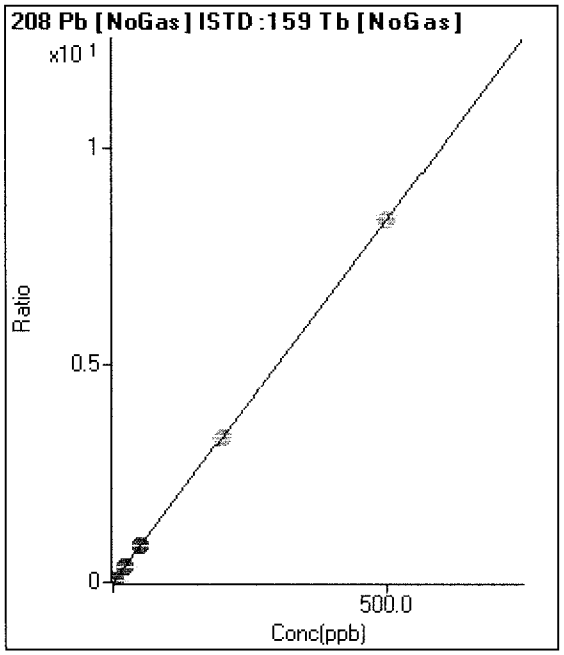
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	41	0.000	P	21.3
2		0.180	0.183	1,426	0.003	P	0.9
3		0.900	0.917	7,016	0.012	P	2.6
4		1.800	1.824	13,801	0.025	P	1.4
5		3.600	3.615	27,353	0.049	P	0.9
6		10.000	10.192	77,615	0.137	P	1.5
7		50.000	50.415	387,778	0.677	P	0.2
8		100.000	99.772	768,349	1.340	P	0.5
9				396	0.001	P	11.5
10				112	0.000	P	17.0

y = 0.0134 * x + 7.2989E-005
R = 1.0000
DL = 0.003481
BEC = 0.005437

Weight: <None>
Min Conc: <None>

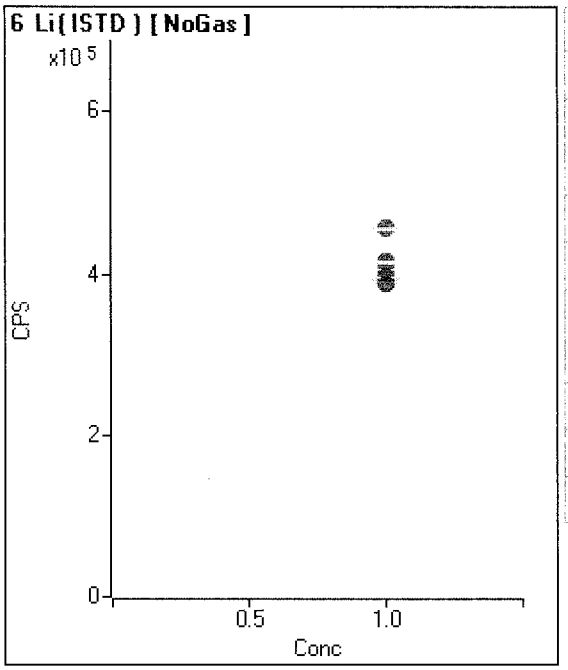


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	720	0.000	P	12.9
2		0.180	0.186	5,288	0.004	P	1.7
3		0.900	0.923	23,674	0.016	P	1.8
4		1.800	1.874	46,932	0.032	P	0.7
5		3.600	3.683	92,852	0.062	P	1.6
6		20.000	20.976	523,287	0.350	P	0.4
7		50.000	50.161	1,289,789	0.836	P	1.4
8		200.000	198.851	5,127,022	3.313	A	3.0
9		500.000	500.404	12,611,983	8.336	A	2.6
10				3,899	0.002	P	4.3

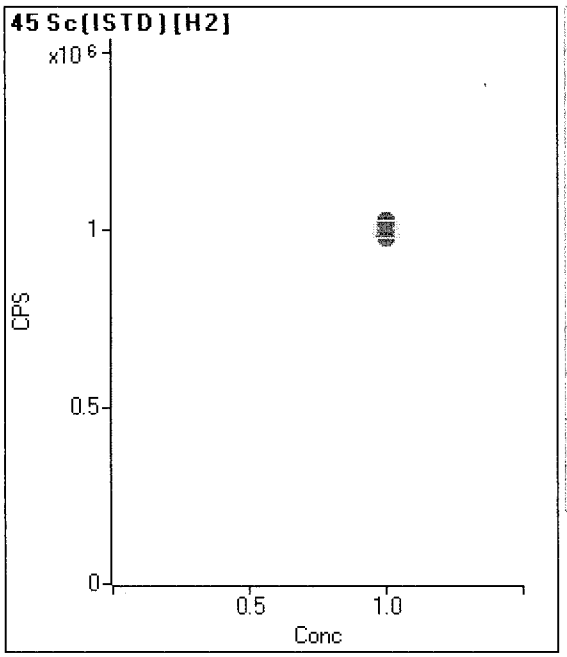
y = 0.0167 * x + 4.8257E-004
R = 1.0000
DL = 0.0112
BEC = 0.02897

Weight: <None>
Min Conc: <None>

Calibration for 013_ICV.d

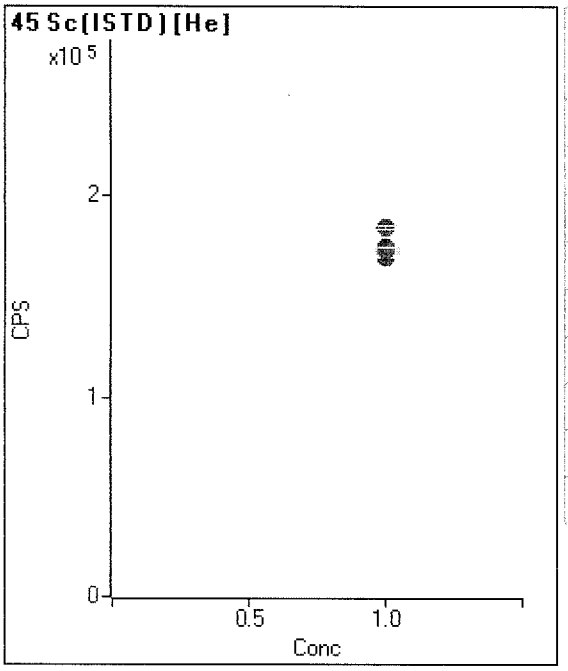


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		390,560		P	0.4
2		1.000		389,665		P	0.6
3		1.000		394,146		P	0.7
4		1.000		390,613		P	0.3
5		1.000		392,505		P	0.4
6		1.000		396,769		P	0.2
7		1.000		407,334		P	0.1
8		1.000		406,914		P	0.4
9		1.000		415,850		P	0.2
10		1.000		457,351		P	0.7

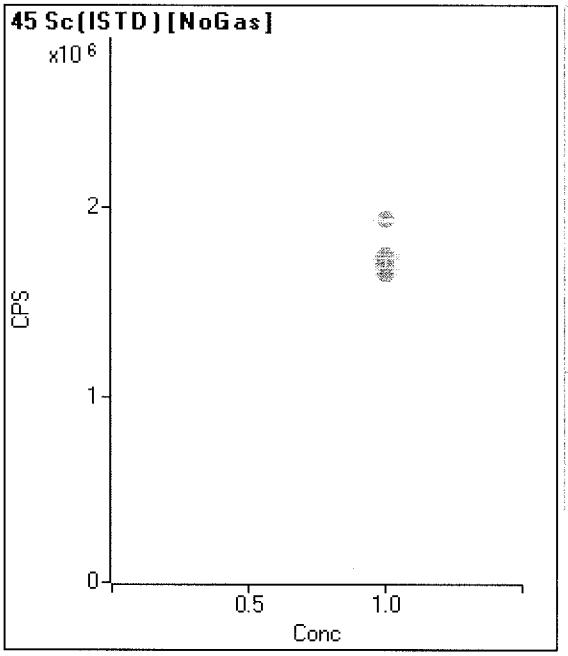


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		995,917		P	0.1
2		1.000		986,077		P	0.2
3		1.000		997,567		P	0.2
4		1.000		983,817		P	0.5
5		1.000		980,484		P	0.2
6		1.000		983,266		P	0.7
7		1.000		1,003,010		P	0.1
8		1.000		1,009,325		P	0.6
9		1.000		1,020,565		P	0.7
10		1.000		1,025,465		P	0.2

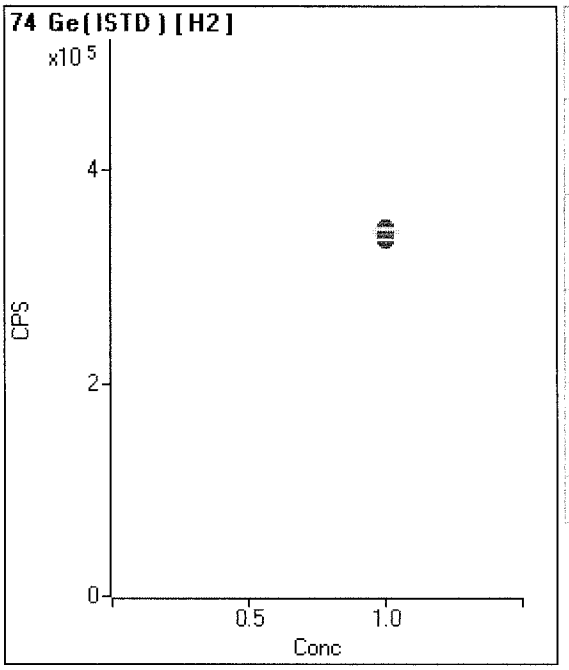
Calibration for 013_ICV.d



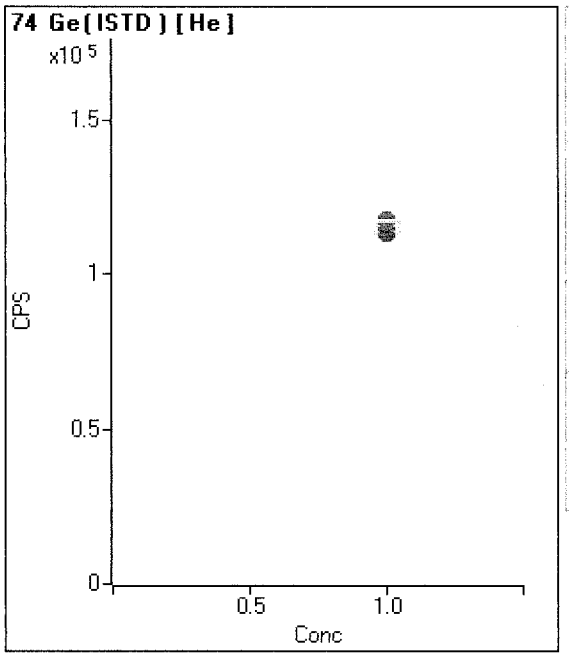
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		171,648		P	0.8
2		1.000		169,397		P	0.7
3		1.000		171,482		P	0.5
4		1.000		169,307		P	0.5
5		1.000		170,902		P	0.9
6		1.000		170,205		P	0.2
7		1.000		173,843		P	0.6
8		1.000		174,097		P	0.8
9		1.000		174,669		P	0.5
10		1.000		184,099		P	1.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		1,663,179		A	0.9
2		1.000		1,671,867		A	0.5
3		1.000		1,695,936		A	0.3
4		1.000		1,652,441		A	0.6
5		1.000		1,667,166		A	1.9
6		1.000		1,666,909		A	0.6
7		1.000		1,741,200		A	0.1
8		1.000		1,741,885		A	1.6
9		1.000		1,707,950		A	2.7
10		1.000		1,937,013		A	0.4

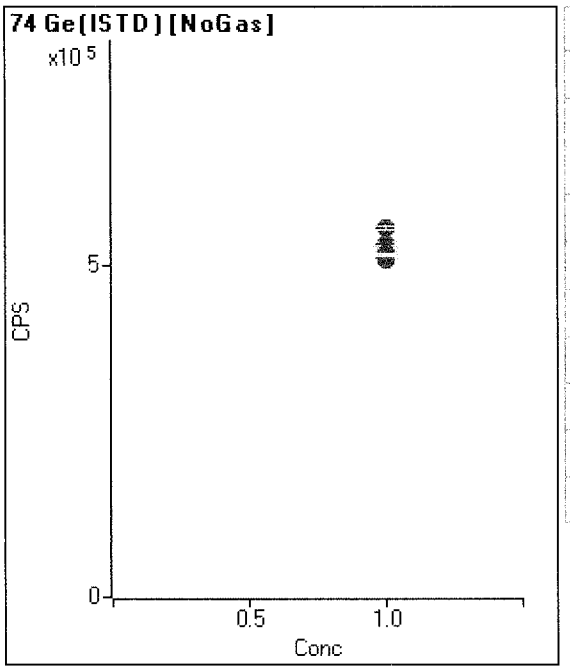


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		344,346		P	0.4
2		1.000		341,093		P	0.3
3		1.000		344,491		P	0.6
4		1.000		341,310		P	0.4
5		1.000		340,065		P	0.1
6		1.000		340,645		P	0.6
7		1.000		344,294		P	0.4
8		1.000		345,837		P	0.9
9		1.000		346,025		P	0.4
10		1.000		335,520		P	0.5

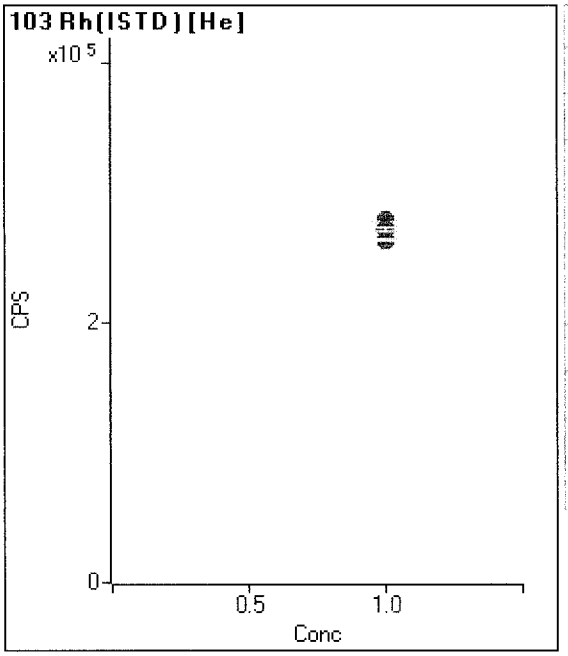


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		114,795		P	0.3
2		1.000		113,182		P	0.6
3		1.000		113,802		P	0.1
4		1.000		113,414		P	0.4
5		1.000		113,264		P	0.1
6		1.000		113,875		P	0.1
7		1.000		116,086		P	0.4
8		1.000		116,401		P	0.1
9		1.000		116,063		P	0.6
10		1.000		117,517		P	0.6

Calibration for 013_ICV.d

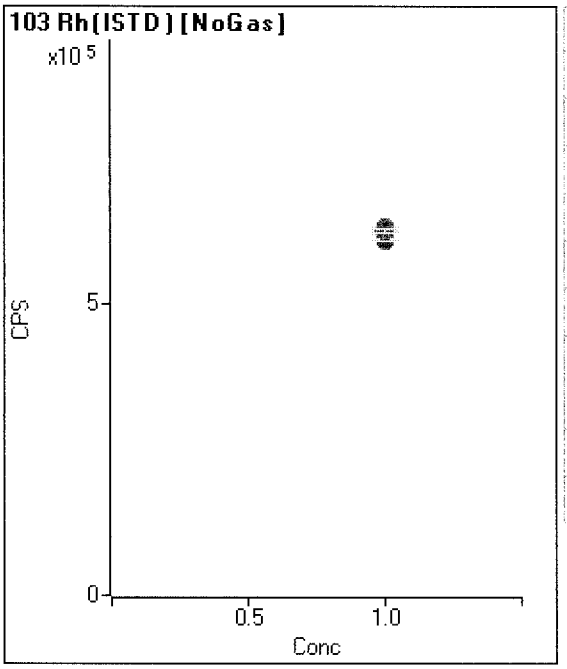


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		511,960		P	1.2
2		1.000		510,022		P	0.4
3		1.000		516,907		P	0.6
4		1.000		509,242		P	0.0
5		1.000		510,778		P	1.1
6		1.000		515,113		P	0.5
7		1.000		531,929		P	1.4
8		1.000		526,553		P	0.9
9		1.000		516,128		P	0.7
10		1.000		553,926		P	1.2

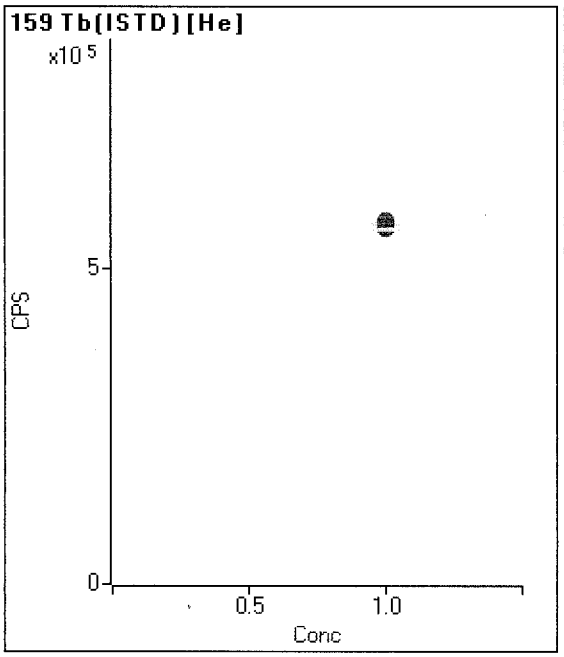


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		279,071		P	0.5
2		1.000		276,200		P	0.4
3		1.000		277,534		P	0.4
4		1.000		275,955		P	0.3
5		1.000		277,787		P	0.8
6		1.000		275,694		P	0.4
7		1.000		277,308		P	0.2
8		1.000		276,854		P	0.6
9		1.000		272,042		P	0.8
10		1.000		263,801		P	0.6

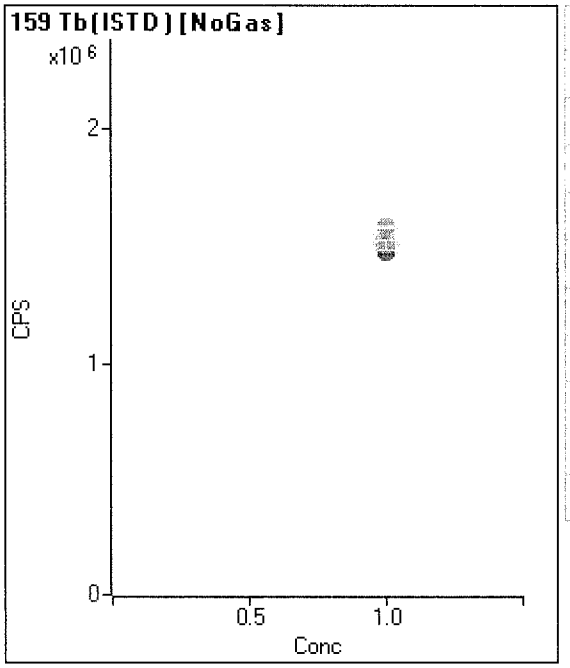
Calibration for 013_ICV.d



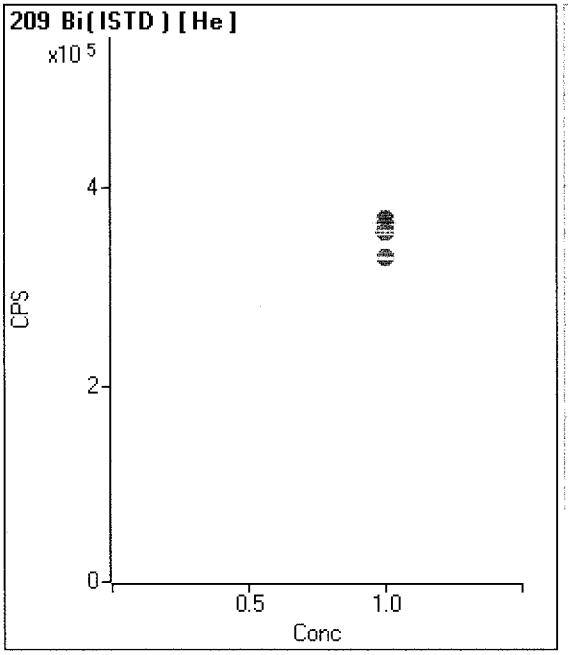
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		619,166		P	0.9
2		1.000		614,573		P	0.3
3		1.000		621,712		P	0.3
4		1.000		617,521		P	0.1
5		1.000		618,329		P	0.6
6		1.000		619,992		P	0.6
7		1.000		628,841		P	0.4
8		1.000		622,906		P	0.3
9		1.000		607,719		P	0.2
10		1.000		622,983		P	0.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		563,986		P	0.9
2		1.000		562,150		P	0.2
3		1.000		566,271		P	0.3
4		1.000		562,030		P	0.5
5		1.000		562,814		P	0.4
6		1.000		566,926		P	0.6
7		1.000		572,858		P	0.4
8		1.000		573,586		P	0.5
9		1.000		567,244		P	0.8
10		1.000		560,962		P	0.2

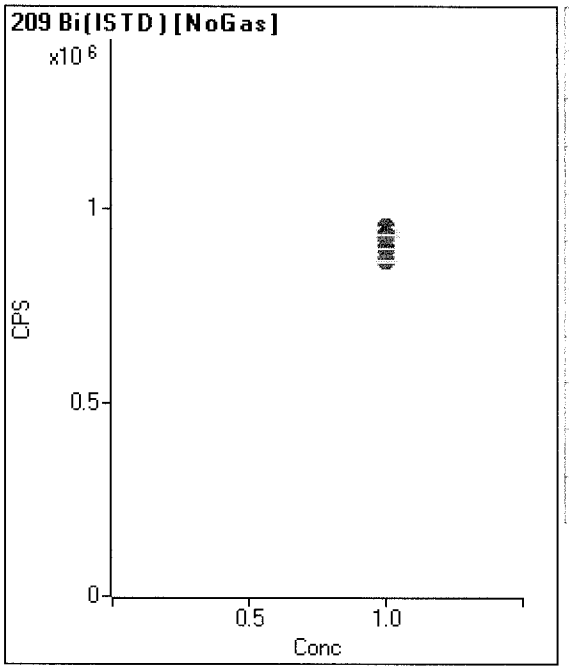


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		1,490,879		M	1.6
2		1.000		1,476,765		P	0.4
3		1.000		1,493,619		M	1.6
4		1.000		1,480,746		P	0.2
5		1.000		1,501,923		M	1.2
6		1.000		1,495,540		P	0.7
7		1.000		1,542,835		M	1.3
8		1.000		1,548,393		M	2.8
9		1.000		1,513,619		A	2.8
10		1.000		1,587,122		A	0.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		365,535		P	0.6
2		1.000		363,611		P	0.2
3		1.000		366,575		P	0.5
4		1.000		365,914		P	0.3
5		1.000		367,291		P	0.4
6		1.000		368,968		P	0.4
7		1.000		368,824		P	0.4
8		1.000		363,455		P	0.2
9		1.000		355,429		P	1.0
10		1.000		330,247		P	0.6

Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		928,203		P	0.7
2	☐	1.000		929,330		P	0.2
3	☐	1.000		938,939		P	1.0
4	☐	1.000		936,693		P	0.6
5	☐	1.000		943,290		P	0.3
6	☐	1.000		945,838		P	0.6
7	☐	1.000		953,610		P	0.7
8	☐	1.000		933,625		P	0.1
9	☐	1.000		899,132		P	0.4
10	☐	1.000		867,925		P	0.9

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9J07068-ICV1**	Total Dilution:	1.0000
File Name:	013_ICV.d	Sample Type:	ICV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 19:01:46
Comment:	A19J037 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.994	ppb	2.0	51,868	40	99.98	
Na	23	45	He	4085.441	ppb	1.0	2,345,131	4000	102.14	
Mg	24	45	He	4309.018	ppb	1.3	1,376,171	4000	107.73	
Al	27	45	He	3966.535	ppb	0.4	716,042	4000	99.16	
K	39	45	He	4112.518	ppb	0.4	1,417,584	4000	102.81	
Ca	44	45	H2	4001.963	ppb	0.5	490,708	4000	100.05	
[Ca]	44	45	He	4120.642	ppb	0.5	64,573	4000	103.02	
Ti	47	45	NoGas	97.300	ppb	1.7	66,069	100	97.3	
V	51	74	He	100.937	ppb	0.8	187,764	100	100.94	
Cr	52	74	He	100.107	ppb	0.6	219,536	100	100.11	
Mn	55	74	He	101.827	ppb	0.4	175,594	100	101.83	
Fe	56	74	H2	4165.368	ppb	0.0	23,798,591	4000	104.13	
Co	59	74	He	103.517	ppb	0.2	310,810	100	103.52	
Ni	60	74	He	105.290	ppb	0.2	77,358	100	105.29	
Cu	65	74	He	104.273	ppb	0.4	95,375	100	104.27	
Zn	66	74	He	103.763	ppb	2.8	37,758	100	103.76	
As	75	74	He	97.990	ppb	0.2	24,952	100	97.99	
Se	78	74	H2	40.347	ppb	1.9	6,818	40	100.87	
Mo	95	103	He	40.160	ppb	3.0	44,574	40	100.4	
Ag	107	103	He	36.026	ppb	1.2	120,495	40	90.07	
Cd	111	103	He	97.647	ppb	1.0	61,083	100	97.65	
[Cd]	111	103	NoGas	97.706	ppb	0.5	174,522	100	97.71	
Sb	121	103	He	38.664	ppb	1.0	66,709	40	96.66	
Ba	138	159	He	101.659	ppb	0.6	470,767	100	101.66	
Hg	201	159	NoGas	809.938	ppt	0.2	817	800	101.24	
Tl	205	159	He	39.854	ppb	1.0	309,918	40	99.64	
Pb	208	159	NoGas	98.903	ppb	1.5	2,590,478	100	98.9	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.4	434,192	390560.36	111.2	
Sc	45	H2	Pulse	0.1	1,084,055	995916.946666667	108.8	
Sc	45	He	Pulse	0.6	184,483	171648.27	107.5	
Sc	45	NoGas	Analog	0.9	1,865,915	1663179.33	112.2	
Ge	74	H2	Pulse	0.3	367,425	344345.643333333	106.7	
Ge	74	He	Pulse	0.5	121,487	114794.926666667	105.8	
Ge	74	NoGas	Pulse	0.7	557,587	511960.473333333	108.9	
Rh	103	He	Pulse	0.7	288,140	279070.866666667	103.2	
Rh	103	NoGas	Pulse	0.4	652,089	619166.366666667	105.3	
Tb	159	He	Pulse	0.5	579,152	563985.973333333	102.7	
Tb	159	NoGas	Analog	1.7	1,572,128	1490879.07333333	105.4	
Bi	209	He	Pulse	0.6	365,788	365534.536666667	100.1	
Bi	209	NoGas	Pulse	0.7	943,936	928203.173333333	101.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9J07068-ICB1**	Total Dilution:	1.0000
File Name:	014_ICB.d	Sample Type:	ICB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 19:06:23
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.005	ppb	76.6	18	
Na	23	45	He	2.650	ppb	22.7	4,169	
Mg	24	45	He	1.326	ppb	44.7	732	
Al	27	45	He	1.234	ppb	28.6	322	
K	39	45	He	7.064	ppb	97.4	24,527	
Ca	44	45	H2	2.234	ppb	20.5	727	
[Ca]	44	45	He	1.041	ppb	123.1	231	
Ti	47	45	NoGas	0.120	ppb	51.7	117	
V	51	74	He	-0.014	ppb	N/A	560	
Cr	52	74	He	0.123	ppb	106.1	1,566	
Mn	55	74	He	0.079	ppb	69.0	220	
Fe	56	74	H2	2.178	ppb	6.0	35,399	
Co	59	74	He	0.021	ppb	5.2	90	
Ni	60	74	He	0.039	ppb	24.0	62	
Cu	65	74	He	0.046	ppb	52.4	167	
Zn	66	74	He	0.080	ppb	91.6	120	
As	75	74	He	0.048	ppb	157.1	25	
Se	78	74	H2	0.029	ppb	11.9	6	
Mo	95	103	He	-0.019	ppb	N/A	120	
Ag	107	103	He	0.009	ppb	45.1	37	
Cd	111	103	He	0.077	ppb	21.3	51	
[Cd]	111	103	NoGas	0.051	ppb	28.2	118	
Sb	121	103	He	0.240	ppb	11.3	426	
Ba	138	159	He	0.045	ppb	24.6	296	
Hg	201	159	NoGas	-3.708	ppt	N/A	14	
Tl	205	159	He	0.014	ppb	30.0	142	
Pb	208	159	NoGas	0.021	ppb	4.2	1,326	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.3	432,812	390560.36	110.8	
Sc	45	H2	Pulse	0.4	1,075,996	995916.946666667	108.0	
Sc	45	He	Pulse	7.3	176,519	171648.27	102.8	
Sc	45	NoGas	Analog	1.5	1,828,168	1663179.33	109.9	
Ge	74	H2	Pulse	0.5	367,183	344345.643333333	106.6	
Ge	74	He	Pulse	7.5	116,470	114794.926666667	101.5	
Ge	74	NoGas	Pulse	1.0	553,471	511960.473333333	108.1	
Rh	103	He	Pulse	7.9	281,361	279070.866666667	100.8	
Rh	103	NoGas	Pulse	0.3	664,085	619166.366666667	107.3	
Tb	159	He	Pulse	7.6	556,669	563985.973333333	98.7	
Tb	159	NoGas	Analog	0.9	1,594,680	1490879.07333333	107.0	
Bi	209	He	Pulse	7.8	359,033	365534.536666667	98.2	
Bi	209	NoGas	Pulse	1.1	962,811	928203.173333333	103.7	

CRL Verification Report - ICPMS5

Sample Name:	**9J07068-CRL1**	Total Dilution:	1.0000
File Name:	015CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 19:11:02
Comment:	A19J030 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.160	ppb	12.2	220	88.89		
Na	23	45	He	10.562	ppb	2.0	9,048	117.36		
Mg	24	45	He	9.336	ppb	11.7	3,384	103.73		
Al	27	45	He	8.838	ppb	4.5	1,739	98.2		
K	39	45	He	11.862	ppb	13.1	27,798	131.8	R-11	< MRL
Ca	44	45	H2	8.874	ppb	10.2	1,563	98.6		
[Ca]	44	45	He	9.652	ppb	18.9	381	107.24		
Ti	47	45	NoGas	0.235	ppb	23.4	198	130.56	R-11	< MRL
V	51	74	He	0.168	ppb	21.2	938	93.33		
Cr	52	74	He	1.021	ppb	7.4	3,659	567.22	R-11	< MRL
Mn	55	74	He	0.205	ppb	13.0	459	113.89		
Fe	56	74	H2	12.809	ppb	0.5	98,071	142.32	R-11	< MRL
Co	59	74	He	0.177	ppb	8.3	573	98.33		
Ni	60	74	He	0.143	ppb	38.5	143	79.44		
Cu	65	74	He	0.240	ppb	25.9	356	133.33	R-11	< MRL
Zn	66	74	He	0.268	ppb	38.5	197	148.89	R-11	
As	75	74	He	0.161	ppb	19.7	57	89.44		
Se	78	74	H2	0.204	ppb	22.6	37	113.33		
Mo	95	103	He	0.262	ppb	8.7	449	145.56	R-11	< MRL
Ag	107	103	He	0.194	ppb	6.3	677	107.78		
Cd	111	103	He	0.203	ppb	13.7	135	112.78		
[Cd]	111	103	NoGas	0.207	ppb	27.8	406	115		
Sb	121	103	He	0.223	ppb	16.7	422	123.89		
Ba	138	159	He	0.201	ppb	2.4	1,051	111.67		
Hg	201	159	NoGas	4.360	ppt	31.2	22	60.56	R-11	< MRL
Tl	205	159	He	0.182	ppb	7.5	1,478	101.11		
Pb	208	159	NoGas	0.192	ppb	4.0	5,903	106.67		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.1	436,526	390560.36	111.8	
Sc	45	H2	Pulse	0.6	1,096,418	995916.946666667	110.1	
Sc	45	He	Pulse	0.6	187,360	171648.27	109.2	
Sc	45	NoGas	Analog	1.9	1,873,054	1663179.33	112.6	
Ge	74	H2	Pulse	0.5	374,955	344345.643333333	108.9	
Ge	74	He	Pulse	0.2	123,379	114794.926666667	107.5	
Ge	74	NoGas	Pulse	0.7	565,119	511960.473333333	110.4	
Rh	103	He	Pulse	0.6	296,952	279070.866666667	106.4	
Rh	103	NoGas	Pulse	0.5	671,087	619166.366666667	108.4	
Tb	159	He	Pulse	0.3	588,768	563985.973333333	104.4	
Tb	159	NoGas	Analog	1.3	1,601,042	1490879.07333333	107.4	
Bi	209	He	Pulse	0.3	377,016	365534.536666667	103.1	
Bi	209	NoGas	Pulse	0.4	974,104	928203.173333333	104.9	

CRL Verification Report - ICPMS5

Sample Name:	**9J07068-CRL2**	Total Dilution:	1.0000
File Name:	016_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 19:15:41
Comment:	A19J031 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.908	ppb	6.2	1,190	100.89	
Na	23	45	He	46.665	ppb	1.9	29,764	103.7	
Mg	24	45	He	46.776	ppb	0.9	15,367	103.95	
Al	27	45	He	45.534	ppb	2.3	8,380	101.19	
K	39	45	He	45.394	ppb	0.8	38,945	100.88	
Ca	44	45	H2	45.165	ppb	3.6	5,964	100.37	
[Ca]	44	45	He	43.462	ppb	8.7	908	96.58	
Ti	47	45	NoGas	0.971	ppb	4.8	691	107.89	
V	51	74	He	0.882	ppb	1.6	2,258	98	
Cr	52	74	He	1.802	ppb	1.6	5,328	200.22	R-11
Mn	55	74	He	0.940	ppb	6.1	1,727	104.44	
Fe	56	74	H2	48.848	ppb	0.3	303,310	108.55	
Co	59	74	He	0.886	ppb	2.3	2,704	98.44	
Ni	60	74	He	0.904	ppb	19.0	703	100.44	
Cu	65	74	He	0.997	ppb	11.1	1,046	110.78	
Zn	66	74	He	1.140	ppb	22.1	512	126.67	
As	75	74	He	0.912	ppb	7.7	248	101.33	
Se	78	74	H2	0.838	ppb	11.6	144	93.11	
Mo	95	103	He	1.093	ppb	10.5	1,387	121.44	
Ag	107	103	He	0.901	ppb	2.0	3,093	100.11	
Cd	111	103	He	0.947	ppb	0.8	610	105.22	
[Cd]	111	103	NoGas	0.938	ppb	5.9	1,741	104.22	
Sb	121	103	He	0.931	ppb	4.0	1,667	103.44	
Ba	138	159	He	0.892	ppb	2.6	4,293	99.11	
Hg	201	159	NoGas	37.008	ppt	11.7	55	102.8	
Tl	205	159	He	0.928	ppb	5.1	7,357	103.11	
Pb	208	159	NoGas	0.925	ppb	1.7	25,520	102.78	

Cr MRL ↑ 4 ppb
ESS 10/8/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.5	434,703	390560.36	111.3	
Sc	45	H2	Pulse	0.6	1,079,362	995916.946666667	108.4	
Sc	45	He	Pulse	0.3	185,456	171648.27	108.0	
Sc	45	NoGas	Analog	1.3	1,853,315	1663179.33	111.4	
Ge	74	H2	Pulse	0.3	369,245	344345.643333333	107.2	
Ge	74	He	Pulse	0.0	122,003	114794.926666667	106.3	
Ge	74	NoGas	Pulse	0.5	560,919	511960.473333333	109.6	
Rh	103	He	Pulse	0.3	294,822	279070.866666667	105.6	
Rh	103	NoGas	Pulse	0.6	667,968	619166.366666667	107.9	
Tb	159	He	Pulse	0.7	587,159	563985.973333333	104.1	
Tb	159	NoGas	Analog	1.0	1,606,360	1490879.07333333	107.7	
Bi	209	He	Pulse	0.5	375,660	365534.536666667	102.8	
Bi	209	NoGas	Pulse	1.0	979,967	928203.173333333	105.6	

CRL Verification Report - ICPMS5

Sample Name:	**9J07068-CRL3**	Total Dilution:	1.0000
File Name:	017CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 19:20:20
Comment:	A19J032 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.840	ppb	2.6	2,417	102.22	
Na	23	45	He	92.480	ppb	1.0	56,646	102.76	
Mg	24	45	He	91.414	ppb	1.3	29,946	101.57	
Al	27	45	He	89.099	ppb	2.1	16,422	99	
K	39	45	He	89.453	ppb	0.5	54,418	99.39	
Ca	44	45	H2	89.444	ppb	2.2	11,512	99.38	
[Ca]	44	45	He	91.118	ppb	0.9	1,670	101.24	
Ti	47	45	NoGas	1.891	ppb	2.0	1,324	105.06	
V	51	74	He	1.821	ppb	2.2	4,015	101.17	
Cr	52	74	He	2.606	ppb	3.5	7,102	144.78	R-11
Mn	55	74	He	1.814	ppb	2.5	3,246	100.78	
Fe	56	74	H2	93.713	ppb	0.4	565,503	104.13	
Co	59	74	He	1.848	ppb	3.5	5,613	102.67	
Ni	60	74	He	1.818	ppb	4.1	1,380	101	
Cu	65	74	He	1.998	ppb	7.2	1,968	111	
Zn	66	74	He	1.930	ppb	9.7	802	107.22	
As	75	74	He	1.713	ppb	2.9	454	95.17	
Se	78	74	H2	1.839	ppb	4.4	316	102.17	
Mo	95	103	He	1.798	ppb	7.6	2,205	99.89	
Ag	107	103	He	1.863	ppb	1.3	6,444	103.5	
Cd	111	103	He	1.829	ppb	4.4	1,186	101.61	
[Cd]	111	103	NoGas	1.827	ppb	5.7	3,390	101.5	
Sb	121	103	He	1.756	ppb	3.2	3,151	97.56	
Ba	138	159	He	1.816	ppb	2.0	8,681	100.89	
Hg	201	159	NoGas	67.891	ppt	4.7	87	94.29	
Tl	205	159	He	1.832	ppb	0.8	14,573	101.78	
Pb	208	159	NoGas	1.817	ppb	1.8	49,717	100.94	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.4	437,832	390560.36	112.1	
Sc	45	H2	Pulse	0.8	1,093,220	995916.946666667	109.8	
Sc	45	He	Pulse	0.1	187,029	171648.27	109.0	
Sc	45	NoGas	Analog	0.9	1,870,715	1663179.33	112.5	
Ge	74	H2	Pulse	0.9	372,434	344345.643333333	108.2	
Ge	74	He	Pulse	0.2	122,254	114794.926666667	106.5	
Ge	74	NoGas	Pulse	0.9	562,401	511960.473333333	109.9	
Rh	103	He	Pulse	0.3	297,521	279070.866666667	106.6	
Rh	103	NoGas	Pulse	0.4	672,167	619166.366666667	108.6	
Tb	159	He	Pulse	0.3	590,867	563985.973333333	104.8	
Tb	159	NoGas	Analog	1.7	1,617,035	1490879.07333333	108.5	
Bi	209	He	Pulse	0.1	379,557	365534.536666667	103.8	
Bi	209	NoGas	Pulse	0.5	989,145	928203.173333333	106.6	

CRL Verification Report - ICPMS5

Sample Name:	**9J07068-CRL4**	Total Dilution:	1.0000
File Name:	018CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 19:24:59
Comment:	A19J033 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.587	ppb	5.0	4,735	99.64	
Na	23	45	He	181.835	ppb	0.3	109,436	101.02	
Mg	24	45	He	182.166	ppb	0.6	59,788	101.2	
Al	27	45	He	176.660	ppb	1.0	32,699	98.14	
K	39	45	He	177.172	ppb	0.4	85,232	98.43	
Ca	44	45	H2	176.767	ppb	0.2	22,412	98.2	
[Ca]	44	45	He	191.811	ppb	2.6	3,290	106.56	
Ti	47	45	NoGas	3.657	ppb	4.4	2,547	101.58	
V	51	74	He	3.607	ppb	3.2	7,451	100.19	
Cr	52	74	He	4.345	ppb	3.0	11,073	120.69	
Mn	55	74	He	3.576	ppb	3.7	6,391	99.33	
Fe	56	74	H2	182.932	ppb	0.7	1,093,091	101.63	
Co	59	74	He	3.643	ppb	2.2	11,195	101.19	
Ni	60	74	He	3.775	ppb	2.5	2,867	104.86	
Cu	65	74	He	3.839	ppb	1.6	3,713	106.64	
Zn	66	74	He	3.902	ppb	8.8	1,545	108.39	
As	75	74	He	3.701	ppb	3.4	977	102.81	
Se	78	74	H2	3.656	ppb	8.0	634	101.56	
Mo	95	103	He	3.629	ppb	2.6	4,330	100.81	
Ag	107	103	He	3.612	ppb	2.4	12,580	100.33	
Cd	111	103	He	3.640	ppb	0.1	2,373	101.11	
[Cd]	111	103	NoGas	3.516	ppb	1.6	6,552	97.67	
Sb	121	103	He	3.538	ppb	1.3	6,375	98.28	
Ba	138	159	He	3.689	ppb	0.1	17,643	102.47	
Hg	201	159	NoGas	133.439	ppt	10.8	156	92.67	
Tl	205	159	He	3.640	ppb	1.2	29,103	101.11	
Pb	208	159	NoGas	3.576	ppb	2.2	98,618	99.33	

Cr passes @ 4 ppb
ESS 10/8/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.4	440,978	390560.36	112.9	
Sc	45	H2	Pulse	0.8	1,098,743	995916.946666667	110.3	
Sc	45	He	Pulse	0.7	188,501	171648.27	109.8	
Sc	45	NoGas	Analog	1.8	1,887,579	1663179.33	113.5	
Ge	74	H2	Pulse	0.7	376,367	344345.643333333	109.3	
Ge	74	He	Pulse	0.5	124,013	114794.926666667	108.0	
Ge	74	NoGas	Pulse	1.4	570,620	511960.473333333	111.5	
Rh	103	He	Pulse	0.1	299,841	279070.866666667	107.4	
Rh	103	NoGas	Pulse	0.4	677,630	619166.366666667	109.4	
Tb	159	He	Pulse	0.2	594,659	563985.973333333	105.4	
Tb	159	NoGas	Analog	2.1	1,642,830	1490879.07333333	110.2	
Bi	209	He	Pulse	0.6	381,933	365534.536666667	104.5	
Bi	209	NoGas	Pulse	1.3	989,111	928203.173333333	106.6	

Quantitation Report ICPMS5

File Name	019ICSA.d		
File Path	C:\Agilent\ICPMH\1\DATA\9J07068.b		
Acq Time	10/7/2019 19:29:38	Sample Type	
Sample Name	**9J07068-IFA1**	ICSA	
Comment	**A19I356**	Last Calib	10/08/2019 09:49:07
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	0.002	0.002	ppb	157.3		
Na	23	45	He	246467.796	246467.796	ppb	0.5		
Mg	24	45	He	98378.917	98378.917	ppb	0.5	100000	
Al	27	45	He	99026.388	99026.388	ppb	0.3	100000	
K	39	45	He	97629.436	97629.436	ppb	0.5	100000	
Ca	44	45	H2	294599.315	294599.315	ppb	0.2		
[Ca]	44	45	He	303647.48	303647.480	ppb	0.9		
Ti	47	45	NoGas	2103.71	2103.710	ppb	1.7		
V	51	74	He	0.291	0.291	ppb	1.8	2	
Cr	52	74	He	1.249	1.249	ppb	5.3	2	
Mn	55	74	He	2.07	2.070	ppb	0.3	2	> CRI
Fe	56	74	H2	249367.029	249367.029	ppb	0.4		
Co	59	74	He	0.795	0.795	ppb	6.9		
Ni	60	74	He	0.832	0.832	ppb	2.1	2	
Cu	65	74	He	0.606	0.606	ppb	2.0	2	
Zn	66	74	He	2.518	2.518	ppb	6.6	2	> CRI
As	75	74	He	0.25	0.250	ppb	6.4	0.9	
Se	78	74	H2	0.216	0.216	ppb	18.3	0.9	
Mo	95	103	He	2339.864	2339.864	ppb	0.5	2000	
Ag	107	103	He	0.314	0.314	ppb	6.8		
Cd	111	103	He	5.971	5.971	ppb	3.7		
[Cd]	111	103	NoGas	0.4	0.400	ppb	20.3		
Sb	121	103	He	0.144	0.144	ppb	15.3	0.9	
Ba	138	159	He	1.557	1.557	ppb	3.0	2	> CRI
W	182	159	NoGas	66.721	66.721	ppb	0.4		
Hg	201	159	NoGas	56.666	56.666	ppt	5.8		
Tl	205	159	He	0.008	0.008	ppb	67.9	0.9	
Pb	208	159	NoGas	0.743	0.743	ppb	2.5		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	481,115	0.6	390560.36	Pulse	123.2	IS Q-06
Sc	45	H2	1,058,774	0.8	995916.946666667	Pulse	106.3	
Sc	45	He	188,006	0.9	171648.27	Pulse	109.5	
Sc	45	NoGas	1,950,809	2.0	1663179.33	Analog	117.3	
Ge	74	H2	329,547	1.0	344345.643333333	Pulse	95.7	
Ge	74	He	115,062	0.6	114794.926666667	Pulse	100.2	
Ge	74	NoGas	545,932	0.9	511960.473333333	Pulse	106.6	
Rh	103	He	242,979	1.0	279070.866666667	Pulse	87.1	
Rh	103	NoGas	585,633	0.6	619166.366666667	Pulse	94.6	
Tb	159	He	537,605	0.9	563985.973333333	Pulse	95.3	
Tb	159	NoGas	1,488,548	0.4	1490879.07333333	Mix	99.8	
Bi	209	He	294,914	0.4	365534.536666667	Pulse	80.7	
Bi	209	NoGas	797,461	1.1	928203.173333333	Pulse	85.9	

Quantitation Report ICPMS5

File Name	020ICSB.d		
File Path	C:\Agilent\ICPMH\1\DATA\9J07068.b		
Acq Time	10/7/2019 19:34:09	Sample Type	
Sample Name	**9J07068-IFB1**	ICSB	
Comment	**A19I357**	Last Calib	10/08/2019 09:49:07
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	-0.001	-0.001	ppb	N/A		
Na	23	45	He	249417.577	249417.577	ppb	1.0		
Mg	24	45	He	99467.754	99467.754	ppb	0.8	100000	
Al	27	45	He	100380.621	100380.621	ppb	0.9	100000	
K	39	45	He	97108.791	97108.791	ppb	1.0	100000	
Ca	44	45	H2	293986.709	293986.709	ppb	0.3		
[Ca]	44	45	He	305051.37	305051.370	ppb	1.0		
Ti	47	45	NoGas	2092.104	2092.104	ppb	0.4		
V	51	74	He	212.32	212.320	ppb	0.9	200	
Cr	52	74	He	198.06	198.060	ppb	0.5	200	
Mn	55	74	He	202.828	202.828	ppb	0.9	200	
Fe	56	74	H2	252518.876	252518.876	ppb	0.2		
Co	59	74	He	191.723	191.723	ppb	0.8		
Ni	60	74	He	183.786	183.786	ppb	0.5	200	
Cu	65	74	He	180.79	180.790	ppb	1.1	200	
Zn	66	74	He	94.656	94.656	ppb	1.4	100	
As	75	74	He	97.942	97.942	ppb	0.9	100	
Se	78	74	H2	99.108	99.108	ppb	0.1	100	
Mo	95	103	He	2341.056	2341.056	ppb	1.0	2000	
Ag	107	103	He	50.138	50.138	ppb	1.1	50	
Cd	111	103	He	102.854	102.854	ppb	0.8		
[Cd]	111	103	NoGas	96.694	96.694	ppb	0.2		
Sb	121	103	He	0.132	0.132	ppb	30.7	0.9	
Ba	138	159	He	2.485	2.485	ppb	0.8	2	> +/- 10%
W	182	159	NoGas	66.796	66.796	ppb	0.5		
Hg	201	159	NoGas	2071.205	2071.205	ppt	2.8		
Tl	205	159	He	0.005	0.005	ppb	45.8	0.9	
Pb	208	159	NoGas	0.744	0.744	ppb	1.4		

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD Recovery %	QC Flag
Li	6	NoGas	476,563	0.5	390560.36	Pulse	122.0	IS Q-06
Sc	45	H2	1,055,081	0.5	995916.946666667	Pulse	105.9	
Sc	45	He	186,352	0.6	171648.27	Pulse	108.6	
Sc	45	NoGas	1,935,439	1.5	1663179.33	Analog	116.4	
Ge	74	H2	327,605	0.6	344345.643333333	Pulse	95.1	
Ge	74	He	113,409	1.0	114794.926666667	Pulse	98.8	
Ge	74	NoGas	540,323	0.8	511960.473333333	Pulse	105.5	
Rh	103	He	239,206	0.8	279070.866666667	Pulse	85.7	
Rh	103	NoGas	578,120	0.9	619166.366666667	Pulse	93.4	
Tb	159	He	528,464	0.2	563985.973333333	Pulse	93.7	
Tb	159	NoGas	1,463,620	0.7	1490879.07333333	Pulse	98.2	
Bi	209	He	287,657	0.5	365534.536666667	Pulse	78.7	
Bi	209	NoGas	775,426	0.4	928203.173333333	Pulse	83.5	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9J07068-CCV2**	Total Dilution:	1.0000
File Name:	032_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 20:29:24
Comment:	A19J037 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	41.832	ppb	1.3	57,048	40	104.58	
Na	23	45	He	4224.866	ppb	1.0	2,670,184	4000	105.62	
Mg	24	45	He	4409.606	ppb	1.5	1,550,678	4000	110.24	> +/- 10%
Al	27	45	He	3961.935	ppb	0.3	787,518	4000	99.05	
K	39	45	He	4165.338	ppb	0.2	1,580,620	4000	104.13	
Ca	44	45	H2	3971.834	ppb	0.4	556,062	4000	99.3	
[Ca]	44	45	He	4118.422	ppb	0.8	71,067	4000	102.96	
Ti	47	45	NoGas	98.397	ppb	1.6	73,346	100	98.4	
V	51	74	He	103.106	ppb	0.2	207,475	100	103.11	
Cr	52	74	He	102.787	ppb	0.2	243,826	100	102.79	
Mn	55	74	He	102.056	ppb	0.3	190,394	100	102.06	
Fe	56	74	H2	4243.699	ppb	0.4	27,185,818	4000	106.09	
Co	59	74	He	106.212	ppb	0.3	344,992	100	106.21	
Ni	60	74	He	109.053	ppb	0.9	86,676	100	109.05	
Cu	65	74	He	107.180	ppb	0.1	106,056	100	107.18	
Zn	66	74	He	104.992	ppb	0.9	41,331	100	104.99	
As	75	74	He	98.807	ppb	0.3	27,219	100	98.81	
Se	78	74	H2	40.345	ppb	1.4	7,644	40	100.86	
Mo	95	103	He	39.931	ppb	2.1	47,978	40	99.83	
Ag	107	103	He	35.986	ppb	0.9	130,278	40	89.96	> +/- 10%
Cd	111	103	He	95.908	ppb	0.2	64,939	100	95.91	
[Cd]	111	103	NoGas	98.939	ppb	0.4	187,367	100	98.94	
Sb	121	103	He	38.139	ppb	0.9	71,228	40	95.35	
Ba	138	159	He	101.564	ppb	0.6	488,702	100	101.56	
Hg	201	159	NoGas	803.251	ppt	3.5	854	800	100.41	
Tl	205	159	He	39.721	ppb	0.2	320,959	40	99.3	
Pb	208	159	NoGas	97.545	ppb	0.5	2,694,794	100	97.54	

Mg passes here

Ag rounds to 90%.

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.2	456,585	390560.36	116.9	
Sc	45	H2	Pulse	0.4	1,237,743	995916.946666667	124.3	IS Q-06
Sc	45	He	Pulse	0.7	203,138	171648.27	118.3	
Sc	45	NoGas	Analog	1.2	2,048,321	1663179.33	123.2	IS Q-06
Ge	74	H2	Pulse	0.2	411,981	344345.643333333	119.6	
Ge	74	He	Pulse	0.5	131,430	114794.926666667	114.5	
Ge	74	NoGas	Pulse	0.9	595,808	511960.473333333	116.4	
Rh	103	He	Pulse	0.4	311,875	279070.866666667	111.8	
Rh	103	NoGas	Pulse	0.4	691,362	619166.366666667	111.7	
Tb	159	He	Pulse	0.5	601,782	563985.973333333	106.7	
Tb	159	NoGas	Analog	1.3	1,657,962	1490879.07333333	111.2	
Bi	209	He	Pulse	0.5	373,538	365534.536666667	102.2	
Bi	209	NoGas	Pulse	0.9	968,925	928203.173333333	104.4	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9J07068-CCB1**	Total Dilution:	1.0000
File Name:	033_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 20:34:00
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.009	ppb	54.5	24	
Na	23	45	He	4.158	ppb	4.4	5,782	
Mg	24	45	He	1.694	ppb	8.5	984	
Al	27	45	He	1.789	ppb	19.9	486	
K	39	45	He	2.642	ppb	48.0	26,765	
Ca	44	45	H2	4.358	ppb	14.6	1,109	
[Ca]	44	45	He	3.167	ppb	78.9	302	
Ti	47	45	NoGas	0.129	ppb	23.9	138	
V	51	74	He	-0.032	ppb	N/A	598	
Cr	52	74	He	0.047	ppb	86.9	1,603	
Mn	55	74	He	0.030	ppb	21.4	163	
Fe	56	74	H2	3.541	ppb	3.0	47,685	
Co	59	74	He	0.029	ppb	36.5	128	
Ni	60	74	He	0.009	ppb	201.1	47	
Cu	65	74	He	0.019	ppb	108.8	160	
Zn	66	74	He	0.009	ppb	1712.2	108	
As	75	74	He	0.008	ppb	257.1	19	
Se	78	74	H2	0.043	ppb	14.2	10	
Mo	95	103	He	0.009	ppb	194.1	172	
Ag	107	103	He	0.005	ppb	59.6	28	
Cd	111	103	He	0.029	ppb	11.3	24	
[Cd]	111	103	NoGas	0.008	ppb	131.1	42	
Sb	121	103	He	0.227	ppb	6.5	459	
Ba	138	159	He	0.025	ppb	59.3	230	
Hg	201	159	NoGas	-4.730	ppt	N/A	13	
Tl	205	159	He	0.009	ppb	11.1	119	
Pb	208	159	NoGas	0.015	ppb	28.2	1,228	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.4	462,347	390560.36	118.4	
Sc	45	H2	Pulse	0.6	1,211,895	995916.946666667	121.7	IS Q-06
Sc	45	He	Pulse	0.6	203,651	171648.27	118.6	
Sc	45	NoGas	Analog	1.0	2,058,539	1663179.33	123.8	IS Q-06
Ge	74	H2	Pulse	0.1	405,530	344345.643333333	117.8	
Ge	74	He	Pulse	0.1	131,503	114794.926666667	114.6	
Ge	74	NoGas	Pulse	1.0	606,904	511960.473333333	118.5	
Rh	103	He	Pulse	0.7	318,196	279070.866666667	114.0	
Rh	103	NoGas	Pulse	0.8	717,477	619166.366666667	115.9	
Tb	159	He	Pulse	0.2	604,319	563985.973333333	107.2	
Tb	159	NoGas	Analog	0.8	1,661,670	1490879.07333333	111.5	
Bi	209	He	Pulse	0.1	380,212	365534.536666667	104.0	
Bi	209	NoGas	Pulse	0.9	990,971	928203.173333333	106.8	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9J07068-CCB2**	Total Dilution:	1.0000
File Name:	034_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 20:38:43
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.003	ppb	198.3	16	
Na	23	45	He	3.194	ppb	7.0	5,251	
Mg	24	45	He	0.937	ppb	19.0	720	
Al	27	45	He	1.543	ppb	18.9	443	
K	39	45	He	2.519	ppb	77.9	27,126	
Ca	44	45	H2	4.137	ppb	32.9	1,023	
[Ca]	44	45	He	-0.019	ppb	N/A	251	
Ti	47	45	NoGas	0.041	ppb	63.9	73	
V	51	74	He	-0.016	ppb	N/A	646	
Cr	52	74	He	0.034	ppb	59.5	1,608	
Mn	55	74	He	0.013	ppb	92.6	133	
Fe	56	74	H2	2.741	ppb	30.0	41,050	
Co	59	74	He	0.012	ppb	83.5	74	
Ni	60	74	He	0.001	ppb	3092.8	41	
Cu	65	74	He	0.018	ppb	191.1	162	
Zn	66	74	He	0.052	ppb	50.4	128	
As	75	74	He	0.016	ppb	26.7	21	
Se	78	74	H2	0.010	ppb	130.7	3	
Mo	95	103	He	-0.007	ppb	N/A	154	
Ag	107	103	He	0.002	ppb	59.5	19	
Cd	111	103	He	0.015	ppb	27.3	15	
[Cd]	111	103	NoGas	0.006	ppb	46.8	40	
Sb	121	103	He	0.057	ppb	31.8	137	
Ba	138	159	He	0.009	ppb	53.3	154	
Hg	201	159	NoGas	-9.923	ppt	N/A	8	
Tl	205	159	He	0.001	ppb	224.6	50	
Pb	208	159	NoGas	0.006	ppb	67.8	992	

Be, Na, Mg, Al, K, Ca, Ti
Q-06 for 6020, ok for 200.8
ESS 10/8/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.5	469,727	390560.36	120.3	IS Q-06
Sc	45	H2	Mix	11.7	1,165,016	995916.946666667	117.0	
Sc	45	He	Pulse	0.4	206,761	171648.27	120.5	IS Q-06
Sc	45	NoGas	Analog	2.3	2,096,473	1663179.33	126.1	IS Q-06
Ge	74	H2	Pulse	8.7	393,121	344345.643333333	114.2	
Ge	74	He	Pulse	0.3	134,535	114794.926666667	117.2	
Ge	74	NoGas	Pulse	0.6	617,874	511960.473333333	120.7	IS Q-06
Rh	103	He	Pulse	0.3	322,233	279070.866666667	115.5	
Rh	103	NoGas	Pulse	0.7	730,443	619166.366666667	118.0	
Tb	159	He	Pulse	0.4	612,546	563985.973333333	108.6	
Tb	159	NoGas	Analog	1.1	1,711,608	1490879.07333333	114.8	
Bi	209	He	Pulse	0.2	381,936	365534.536666667	104.5	
Bi	209	NoGas	Pulse	1.5	1,002,986	928203.173333333	108.1	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9J07068-CCV3**	Total Dilution:	1.0000
File Name:	045_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 21:29:10
Comment:	A19J037 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	41.665	ppb	0.9	57,307	40	104.16	
Na	23	45	He	4192.664	ppb	1.6	2,690,500	4000	104.82	
Mg	24	45	He	4375.425	ppb	1.1	1,562,242	4000	109.39	
Al	27	45	He	3924.855	ppb	0.4	792,131	4000	98.12	
K	39	45	He	4136.275	ppb	1.3	1,593,967	4000	103.41	
Ca	44	45	H2	3837.134	ppb	1.1	560,470	4000	95.93	
[Ca]	44	45	He	4110.802	ppb	0.6	72,023	4000	102.77	
Ti	47	45	NoGas	97.787	ppb	1.8	73,964	100	97.79	
V	51	74	He	103.511	ppb	1.2	211,741	100	103.51	
Cr	52	74	He	101.959	ppb	1.2	245,882	100	101.96	
Mn	55	74	He	101.851	ppb	0.7	193,167	100	101.85	
Fe	56	74	H2	4286.336	ppb	0.2	27,793,813	4000	107.16	
Co	59	74	He	106.379	ppb	1.3	351,266	100	106.38	
Ni	60	74	He	108.018	ppb	1.9	87,277	100	108.02	
Cu	65	74	He	107.068	ppb	1.0	107,702	100	107.07	
Zn	66	74	He	104.604	ppb	0.9	41,865	100	104.6	
As	75	74	He	98.707	ppb	0.8	27,643	100	98.71	
Se	78	74	H2	40.836	ppb	1.9	7,832	40	102.09	
Mo	95	103	He	40.448	ppb	1.5	49,215	40	101.12	
Ag	107	103	He	36.062	ppb	0.9	132,215	40	90.16	
Cd	111	103	He	96.032	ppb	0.8	65,852	100	96.03	
[Cd]	111	103	NoGas	96.392	ppb	1.1	185,478	100	96.39	
Sb	121	103	He	38.110	ppb	0.5	72,084	40	95.28	
Ba	138	159	He	102.399	ppb	0.3	497,808	100	102.4	
Hg	201	159	NoGas	767.718	ppt	4.1	830	800	95.96	
Tl	205	159	He	39.384	ppb	0.7	321,515	40	98.46	
Pb	208	159	NoGas	94.568	ppb	0.8	2,652,926	100	94.57	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.2	460,518	390560.36	117.9	
Sc	45	H2	Analog	0.7	1,291,359	995916.946666667	129.7	IS Q-06
Sc	45	He	Pulse	0.6	206,258	171648.27	120.2	IS Q-06
Sc	45	NoGas	Analog	1.3	2,078,587	1663179.33	125.0	IS Q-06
Ge	74	H2	Pulse	0.3	417,010	344345.643333333	121.1	IS Q-06
Ge	74	He	Pulse	0.7	133,616	114794.926666667	116.4	
Ge	74	NoGas	Pulse	1.0	606,937	511960.473333333	118.6	
Rh	103	He	Pulse	0.8	315,863	279070.866666667	113.2	
Rh	103	NoGas	Pulse	0.2	702,488	619166.366666667	113.5	
Tb	159	He	Pulse	0.2	607,990	563985.973333333	107.8	
Tb	159	NoGas	Analog	1.2	1,683,610	1490879.07333333	112.9	
Bi	209	He	Pulse	0.1	374,872	365534.536666667	102.6	
Bi	209	NoGas	Pulse	0.4	966,543	928203.173333333	104.1	

only reporting As from this bracket
ESS 10/8/19

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9J07068-CCB3**	Total Dilution:	1.0000
File Name:	046_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 21:33:47
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	-0.001	ppb	N/A	11	
Na	23	45	He	0.748	ppb	33.5	3,683	
Mg	24	45	He	0.854	ppb	19.0	700	
Al	27	45	He	1.652	ppb	8.6	466	
K	39	45	He	2.997	ppb	56.9	27,329	
Ca	44	45	H2	2.443	ppb	31.0	859	
[Ca]	44	45	He	0.656	ppb	319.7	263	
Ti	47	45	NoGas	0.151	ppb	42.2	160	
V	51	74	He	-0.013	ppb	N/A	650	
Cr	52	74	He	0.014	ppb	229.5	1,558	
Mn	55	74	He	0.023	ppb	60.4	153	
Fe	56	74	H2	3.800	ppb	4.8	56,496	
Co	59	74	He	0.016	ppb	34.7	87	
Ni	60	74	He	0.015	ppb	90.7	52	
Cu	65	74	He	0.028	ppb	68.2	172	
Zn	66	74	He	0.102	ppb	64.3	148	
As	75	74	He	0.009	ppb	83.3	19	
Se	78	74	H2	0.035	ppb	22.8	8	
Mo	95	103	He	-0.023	ppb	N/A	136	
Ag	107	103	He	0.003	ppb	18.1	21	
Cd	111	103	He	0.015	ppb	5.6	15	
[Cd]	111	103	NoGas	0.000	ppb	5154.1	29	
Sb	121	103	He	0.136	ppb	15.9	291	
Ba	138	159	He	0.023	ppb	24.2	221	
Hg	201	159	NoGas	-9.623	ppt	N/A	9	
Tl	205	159	He	0.005	ppb	53.9	82	
Pb	208	159	NoGas	0.010	ppb	18.8	1,107	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.4	477,573	390560.36	122.3	IS Q-06
Sc	45	H2	Pulse	0.3	1,228,634	995916.946666667	123.4	IS Q-06
Sc	45	He	Pulse	0.5	206,920	171648.27	120.5	IS Q-06
Sc	45	NoGas	Analog	1.1	2,131,142	1663179.33	128.1	IS Q-06
Ge	74	H2	Pulse	0.4	415,278	344345.643333333	120.6	IS Q-06
Ge	74	He	Pulse	0.4	134,262	114794.926666667	117.0	
Ge	74	NoGas	Pulse	1.0	624,025	511960.473333333	121.9	IS Q-06
Rh	103	He	Pulse	0.2	324,159	279070.866666667	116.2	
Rh	103	NoGas	Pulse	0.8	741,935	619166.366666667	119.8	
Tb	159	He	Pulse	0.3	610,546	563985.973333333	108.3	
Tb	159	NoGas	Analog	1.2	1,712,792	1490879.07333333	114.9	
Bi	209	He	Pulse	0.3	379,494	365534.536666667	103.8	
Bi	209	NoGas	Pulse	0.8	996,997	928203.173333333	107.4	

Quantitation Report - ICPMS5

Sample Name:	**9100666-BLK1**	Total Dilution:	**5.0000**
File Name:	056SMPL.d	Vial:	3510
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/7/2019 22:19:38		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	-0.003	ppb	N/A	8	100	
Na	23	45	He	0.162	ppb	104.3	3,074	50000	
Mg	24	45	He	0.978	ppb	16.4	692	50000	
Al	27	45	He	13.246	ppb	7.4	2,617	50000	
K	39	45	He	1.054	ppb	99.3	24,737	50000	
Ca	44	45	H2	19.047	ppb	5.3	2,881	50000	
[Ca]	44	45	He	16.041	ppb	13.0	496	50000	
Ti	47	45	NoGas	0.285	ppb	6.7	243	2500	
V	51	74	He	0.204	ppb	9.3	1,009	500	
Cr	52	74	He	0.572	ppb	10.9	2,671	1000	
Mn	55	74	He	0.013	ppb	59.9	123	2500	
Fe	56	74	H2	12.007	ppb	14.5	93,700	50000	
Co	59	74	He	0.008	ppb	75.0	56	500	
Ni	60	74	He	-0.027	ppb	N/A	17	1000	
Cu	65	74	He	0.059	ppb	63.1	188	1000	
Zn	66	74	He	0.023	ppb	144.9	107	2500	
As	75	74	He	0.027	ppb	93.4	22	500	
Se	78	74	H2	-0.003	ppb	N/A	1	100	
Mo	95	103	He	0.057	ppb	23.6	220	100	
Ag	107	103	He	0	ppb	2138.2	10	100	
Cd	111	103	He	-0.003	ppb	N/A	3	1000	
[Cd]	111	103	NoGas	-0.008	ppb	N/A	12	1000	
Sb	121	103	He	0.006	ppb	50.0	36	100	
Ba	138	159	He	0.03	ppb	25.4	241	2500	
W	182	159	NoGas	0.006	ppb	30.0	82	40	
Hg	201	159	NoGas	-9.308	ppt	N/A	9	4000	
Tl	205	159	He	-0.003	ppb	N/A	20	100	
Pb	208	159	NoGas	0.001	ppb	24.6	818	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	438,686	0.6	390560.36	Pulse	112.3	
Sc	45	H2	1,118,760	0.4	995916.946666667	Pulse	112.3	
Sc	45	He	192,483	0.4	171648.27	Pulse	112.1	
Sc	45	NoGas	1,961,182	1.1	1663179.33	Analog	117.9	
Ge	74	H2	376,224	0.3	344345.643333333	Pulse	109.3	
Ge	74	He	123,727	0.8	114794.926666667	Pulse	107.8	
Ge	74	NoGas	573,264	0.9	511960.473333333	Pulse	112.0	
Rh	103	He	303,603	0.5	279070.866666667	Pulse	108.8	
Rh	103	NoGas	688,855	0.7	619166.366666667	Pulse	111.3	
Tb	159	He	574,712	0.3	563985.973333333	Pulse	101.9	
Tb	159	NoGas	1,646,408	1.4	1490879.07333333	Analog	110.4	
Bi	209	He	353,639	0.7	365534.536666667	Pulse	96.7	
Bi	209	NoGas	924,578	0.8	928203.173333333	Pulse	99.6	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9J07068-CCV4**	Total Dilution:	1.0000
File Name:	057_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 22:24:22
Comment:	A19J037 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.543	ppb	1.4	54,250	40	101.36	
Na	23	45	He	4200.247	ppb	0.9	2,563,586	4000	105.01	
Mg	24	45	He	4393.963	ppb	0.3	1,492,144	4000	109.85	
Al	27	45	He	3931.445	ppb	0.9	754,628	4000	98.29	
K	39	45	He	4221.369	ppb	0.7	1,546,567	4000	105.53	
Ca	44	45	H2	3966.826	ppb	0.6	533,308	4000	99.17	
[Ca]	44	45	He	4093.957	ppb	1.0	68,219	4000	102.35	
Ti	47	45	NoGas	97.470	ppb	0.8	70,755	100	97.47	
V	51	74	He	103.582	ppb	0.1	201,905	100	103.58	
Cr	52	74	He	102.375	ppb	0.1	235,250	100	102.38	
Mn	55	74	He	101.767	ppb	0.7	183,910	100	101.77	
Fe	56	74	H2	4289.128	ppb	0.1	26,581,613	4000	107.23	
Co	59	74	He	105.809	ppb	0.4	332,931	100	105.81	
Ni	60	74	He	107.827	ppb	0.2	83,021	100	107.83	
Cu	65	74	He	106.477	ppb	0.8	102,064	100	106.48	
Zn	66	74	He	104.663	ppb	0.5	39,914	100	104.66	
As	75	74	He	99.043	ppb	0.4	26,430	100	99.04	
Se	78	74	H2	40.359	ppb	1.9	7,399	40	100.9	
Mo	95	103	He	40.639	ppb	1.2	46,872	40	101.6	
Ag	107	103	He	36.199	ppb	0.9	125,809	40	90.5	
Cd	111	103	He	96.111	ppb	0.8	62,474	100	96.11	
[Cd]	111	103	NoGas	96.608	ppb	0.6	177,629	100	96.61	
Sb	121	103	He	38.252	ppb	1.4	68,582	40	95.63	
Ba	138	159	He	103.641	ppb	0.5	479,941	100	103.64	
Hg	201	159	NoGas	777.539	ppt	1.7	812	800	97.19	
Tl	205	159	He	39.494	ppb	1.0	307,115	40	98.74	
Pb	208	159	NoGas	92.814	ppb	1.4	2,515,322	100	92.81	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.6	448,023	390560.36	114.7	
Sc	45	H2	Pulse	0.6	1,188,620	995916.946666667	119.3	
Sc	45	He	Pulse	0.3	196,164	171648.27	114.3	
Sc	45	NoGas	Analog	1.4	1,994,618	1663179.33	119.9	
Ge	74	H2	Pulse	0.5	398,562	344345.643333333	115.7	
Ge	74	He	Pulse	0.3	127,315	114794.926666667	110.9	
Ge	74	NoGas	Pulse	0.6	577,457	511960.473333333	112.8	
Rh	103	He	Pulse	0.6	299,408	279070.866666667	107.3	
Rh	103	NoGas	Pulse	0.3	671,241	619166.366666667	108.4	
Tb	159	He	Pulse	0.2	579,144	563985.973333333	102.7	
Tb	159	NoGas	Analog	1.3	1,626,525	1490879.07333333	109.1	
Bi	209	He	Pulse	0.3	358,305	365534.536666667	98.0	
Bi	209	NoGas	Pulse	0.7	918,034	928203.173333333	98.9	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9J07068-CCB4**	Total Dilution:	1.0000
File Name:	058_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 22:28:58
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.002	ppb	183.9	14	
Na	23	45	He	-0.578	ppb	N/A	2,666	
Mg	24	45	He	0.086	ppb	165.0	400	
Al	27	45	He	0.698	ppb	30.3	257	
K	39	45	He	2.306	ppb	63.5	25,508	
Ca	44	45	H2	0.242	ppb	459.1	516	
[Ca]	44	45	He	1.231	ppb	231.0	258	
Ti	47	45	NoGas	0.036	ppb	106.9	67	
V	51	74	He	-0.004	ppb	N/A	632	
Cr	52	74	He	-0.004	ppb	N/A	1,431	
Mn	55	74	He	-0.016	ppb	N/A	74	
Fe	56	74	H2	1.347	ppb	2.4	32,396	
Co	59	74	He	0.005	ppb	141.4	49	
Ni	60	74	He	-0.002	ppb	N/A	37	
Cu	65	74	He	0.052	ppb	115.3	187	
Zn	66	74	He	-0.023	ppb	N/A	92	
As	75	74	He	0.017	ppb	69.0	20	
Se	78	74	H2	0.023	ppb	36.8	6	
Mo	95	103	He	0.000	ppb	N/A	153	
Ag	107	103	He	0.003	ppb	65.0	20	
Cd	111	103	He	0.008	ppb	80.8	9	
[Cd]	111	103	NoGas	0.001	ppb	976.8	29	
Sb	121	103	He	0.162	ppb	18.3	319	
Ba	138	159	He	0.013	ppb	10.0	161	
Hg	201	159	NoGas	-6.530	ppt	N/A	11	
Tl	205	159	He	0.004	ppb	53.7	71	
Pb	208	159	NoGas	0.008	ppb	40.5	1,012	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.4	456,464	390560.36	116.9	
Sc	45	H2	Pulse	0.6	1,143,885	995916.946666667	114.9	
Sc	45	He	Pulse	0.7	195,009	171648.27	113.6	
Sc	45	NoGas	Analog	1.7	1,998,506	1663179.33	120.2	IS Q-06
Ge	74	H2	Pulse	0.6	387,993	344345.643333333	112.7	
Ge	74	He	Pulse	0.5	127,075	114794.926666667	110.7	
Ge	74	NoGas	Pulse	0.9	588,636	511960.473333333	115.0	
Rh	103	He	Pulse	0.4	303,472	279070.866666667	108.7	
Rh	103	NoGas	Pulse	0.9	702,372	619166.366666667	113.4	
Tb	159	He	Pulse	0.7	577,222	563985.973333333	102.3	
Tb	159	NoGas	Analog	0.4	1,642,947	1490879.07333333	110.2	
Bi	209	He	Pulse	0.4	359,457	365534.536666667	98.3	
Bi	209	NoGas	Pulse	1.0	937,359	928203.173333333	101.0	

Quantitation Report - ICPMS5

Sample Name:	**9100666-BS1**	Total Dilution:	**5.0000**
File Name:	059SMPL.d	Vial:	3511
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/7/2019 22:33:38		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	23.785	ppb	1.1	31,329	100	
Na	23	45	He	2517.275	ppb	1.0	1,482,872	50000	
Mg	24	45	He	2380.413	ppb	0.7	779,729	50000	
Al	27	45	He	2387.525	ppb	0.8	442,002	50000	
K	39	45	He	2372.581	ppb	0.4	848,753	50000	
Ca	44	45	H2	2296.254	ppb	0.6	291,963	50000	
[Ca]	44	45	He	2398.393	ppb	0.9	38,638	50000	
Ti	47	45	NoGas	46.585	ppb	1.9	33,140	2500	
V	51	74	He	51.028	ppb	1.0	95,421	500	
Cr	52	74	He	51.101	ppb	0.1	112,980	1000	
Mn	55	74	He	49.049	ppb	0.9	84,815	2500	
Fe	56	74	H2	2510.406	ppb	0.7	14,557,565	50000	
Co	59	74	He	50.938	ppb	1.5	153,272	500	
Ni	60	74	He	51.893	ppb	0.8	38,225	1000	
Cu	65	74	He	51.871	ppb	0.4	47,611	1000	
Zn	66	74	He	47.925	ppb	2.6	17,529	2500	
As	75	74	He	46.534	ppb	1.4	11,882	500	
Se	78	74	H2	22.362	ppb	0.8	3,834	100	
Mo	95	103	He	24.288	ppb	1.4	27,309	100	
Ag	107	103	He	25.838	ppb	1.9	87,349	100	
Cd	111	103	He	46.836	ppb	1.0	29,616	1000	
[Cd]	111	103	NoGas	46.773	ppb	0.7	85,293	1000	
Sb	121	103	He	22.657	ppb	1.6	39,522	100	
Ba	138	159	He	49.225	ppb	0.6	223,793	2500	
W	182	159	NoGas	0.018	ppb	24.7	184	40	
Hg	201	159	NoGas	928.282	ppt	3.1	959	4000	
Tl	205	159	He	24.035	ppb	0.3	183,472	100	
Pb	208	159	NoGas	45.774	ppb	2.0	1,233,239	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	440,933	0.2	390560.36	Pulse	112.9	
Sc	45	H2	1,123,336	0.4	995916.946666667	Pulse	112.8	
Sc	45	He	189,176	0.3	171648.27	Pulse	110.2	
Sc	45	NoGas	1,953,677	1.3	1663179.33	Analog	117.5	
Ge	74	H2	372,691	0.5	344345.643333333	Pulse	108.2	
Ge	74	He	121,743	0.5	114794.926666667	Pulse	106.1	
Ge	74	NoGas	560,668	0.5	511960.473333333	Pulse	109.5	
Rh	103	He	291,243	0.4	279070.866666667	Pulse	104.4	
Rh	103	NoGas	665,640	0.4	619166.366666667	Pulse	107.5	
Tb	159	He	568,450	0.4	563985.973333333	Pulse	100.8	
Tb	159	NoGas	1,616,833	2.5	1490879.07333333	Analog	108.4	
Bi	209	He	349,177	0.6	365534.536666667	Pulse	95.5	
Bi	209	NoGas	909,525	1.0	928203.173333333	Pulse	98.0	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9J07068-CCV5**	Total Dilution:	1.0000
File Name:	069_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 23:19:34
Comment:	A19J037 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	38.920	ppb	0.9	44,306	40	97.3	
Na	23	45	He	4102.081	ppb	0.7	2,100,038	4000	102.55	
Mg	24	45	He	4209.964	ppb	2.9	1,199,316	4000	105.25	
Al	27	45	He	3940.044	ppb	1.2	634,305	4000	98.5	
K	39	45	He	3962.095	ppb	0.9	1,218,757	4000	99.05	
Ca	44	45	H2	3993.419	ppb	0.4	434,252	4000	99.84	
[Ca]	44	45	He	4150.150	ppb	1.1	58,000	4000	103.75	
Ti	47	45	NoGas	98.875	ppb	1.3	58,513	100	98.88	
V	51	74	He	101.329	ppb	0.4	169,880	100	101.33	
Cr	52	74	He	99.624	ppb	0.5	196,914	100	99.62	
Mn	55	74	He	100.635	ppb	0.7	156,410	100	100.64	
Fe	56	74	H2	4229.037	ppb	0.1	21,836,400	4000	105.73	
Co	59	74	He	103.887	ppb	0.6	281,118	100	103.89	
Ni	60	74	He	104.857	ppb	1.1	69,430	100	104.86	
Cu	65	74	He	104.021	ppb	0.7	85,752	100	104.02	
Zn	66	74	He	102.781	ppb	1.1	33,712	100	102.78	
As	75	74	He	99.707	ppb	0.8	22,883	100	99.71	
Se	78	74	H2	39.769	ppb	2.3	6,074	40	99.42	
Mo	95	103	He	40.768	ppb	1.1	40,836	40	101.92	
Ag	107	103	He	36.004	ppb	1.2	108,667	40	90.01	
Cd	111	103	He	98.203	ppb	0.7	55,436	100	98.2	
[Cd]	111	103	NoGas	96.644	ppb	1.4	154,645	100	96.64	
Sb	121	103	He	39.521	ppb	1.9	61,532	40	98.8	
Ba	138	159	He	103.472	ppb	0.4	435,248	100	103.47	
Hg	201	159	NoGas	813.687	ppt	1.6	714	800	101.71	
Tl	205	159	He	39.875	ppb	0.6	281,670	40	99.69	
Pb	208	159	NoGas	99.619	ppb	0.2	2,272,453	100	99.62	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.8	381,153	390560.36	97.6	
Sc	45	H2	Pulse	0.2	961,389	995916.946666667	96.5	
Sc	45	He	Pulse	0.9	164,536	171648.27	95.9	
Sc	45	NoGas	Analog	0.9	1,626,155	1663179.33	97.8	
Ge	74	H2	Pulse	0.1	332,061	344345.643333333	96.4	
Ge	74	He	Pulse	0.7	109,493	114794.926666667	95.4	
Ge	74	NoGas	Pulse	0.4	491,139	511960.473333333	95.9	
Rh	103	He	Pulse	0.3	260,013	279070.866666667	93.2	
Rh	103	NoGas	Pulse	0.3	584,192	619166.366666667	94.4	
Tb	159	He	Pulse	0.8	526,081	563985.973333333	93.3	
Tb	159	NoGas	Pulse	0.1	1,368,971	1490879.07333333	91.8	
Bi	209	He	Pulse	0.7	330,699	365534.536666667	90.5	
Bi	209	NoGas	Pulse	0.1	825,011	928203.173333333	88.9	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9J07068-CCB5**	Total Dilution:	1.0000
File Name:	070_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/7/2019 23:24:13
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	-0.004	ppb	N/A	6	
Na	23	45	He	-1.085	ppb	N/A	1,885	
Mg	24	45	He	0.203	ppb	45.5	351	
Al	27	45	He	1.525	ppb	5.7	331	
K	39	45	He	3.637	ppb	27.2	20,752	
Ca	44	45	H2	0.861	ppb	16.4	466	
[Ca]	44	45	He	-1.812	ppb	N/A	166	
Ti	47	45	NoGas	0.133	ppb	7.8	110	
V	51	74	He	-0.026	ppb	N/A	491	
Cr	52	74	He	0.031	ppb	164.2	1,257	
Mn	55	74	He	0.015	ppb	24.6	108	
Fe	56	74	H2	2.500	ppb	3.1	31,655	
Co	59	74	He	0.017	ppb	49.7	71	
Ni	60	74	He	0.004	ppb	484.6	34	
Cu	65	74	He	0.014	ppb	65.5	124	
Zn	66	74	He	-0.069	ppb	N/A	62	
As	75	74	He	0.004	ppb	533.1	14	
Se	78	74	H2	0.047	ppb	25.9	8	
Mo	95	103	He	0.015	ppb	68.8	144	
Ag	107	103	He	0.003	ppb	39.1	17	
Cd	111	103	He	0.010	ppb	83.9	9	
[Cd]	111	103	NoGas	-0.003	ppb	N/A	18	
Sb	121	103	He	0.229	ppb	5.2	373	
Ba	138	159	He	0.014	ppb	30.6	148	
Hg	201	159	NoGas	-4.526	ppt	N/A	11	
Tl	205	159	He	0.005	ppb	21.5	74	
Pb	208	159	NoGas	0.010	ppb	38.2	876	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.4	368,875	390560.36	94.4	
Sc	45	H2	Pulse	0.3	894,985	995916.946666667	89.9	
Sc	45	He	Pulse	0.4	155,735	171648.27	90.7	
Sc	45	NoGas	Analog	1.0	1,608,278	1663179.33	96.7	
Ge	74	H2	Pulse	0.4	312,183	344345.643333333	90.7	
Ge	74	He	Pulse	0.4	105,567	114794.926666667	92.0	
Ge	74	NoGas	Pulse	0.6	483,763	511960.473333333	94.5	
Rh	103	He	Pulse	0.2	256,921	279070.866666667	92.1	
Rh	103	NoGas	Pulse	0.4	583,622	619166.366666667	94.3	
Tb	159	He	Pulse	0.6	509,578	563985.973333333	90.4	
Tb	159	NoGas	Pulse	0.6	1,348,284	1490879.07333333	90.4	
Bi	209	He	Pulse	0.3	324,426	365534.536666667	88.8	
Bi	209	NoGas	Pulse	0.4	823,853	928203.173333333	88.8	

Quantitation Report - ICPMS5

Sample Name:	**A9J0058-04**	Total Dilution:	**5.0000**
File Name:	074SMPL.d	Vial:	3609
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/7/2019 23:42:44		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.656	ppb	6.2	684	100	
Na	23	45	He	849.474	ppb	0.7	411,639	50000	
Mg	24	45	He	7590.378	ppb	1.0	2,036,761	50000	
Al	27	45	He	27627.504	ppb	0.6	4,190,359	50000	
K	39	45	He	1334.492	ppb	0.5	399,785	50000	
Ca	44	45	H2	7429.296	ppb	0.5	730,028	50000	
[Ca]	44	45	He	7964.383	ppb	1.1	104,699	50000	
Ti	47	45	NoGas	2300.911	ppb	1.2	1,327,801	2500	>LDR RR-2
V	51	74	He	124.796	ppb	0.7	184,606	500	
Cr	52	74	He	32.46	ppb	1.2	57,385	1000	
Mn	55	74	He	430.679	ppb	0.5	590,735	2500	
Fe	56	74	H2	48464.186	ppb	0.4	210,665,997	50000	>LDR RR-2
Co	59	74	He	23.727	ppb	0.9	56,706	500	
Ni	60	74	He	38.049	ppb	1.0	22,263	1000	
Cu	65	74	He	31.083	ppb	1.5	22,697	1000	
Zn	66	74	He	79.859	ppb	2.2	23,141	2500	
As	75	74	He	3.493	ppb	2.2	719	500	
Se	78	74	H2	0.176	ppb	31.3	24	100	
Mo	95	103	He	0.426	ppb	7.4	498	100	
Ag	107	103	He	0.071	ppb	18.2	200	100	
Cd	111	103	He	0.097	ppb	19.3	52	1000	
[Cd]	111	103	NoGas	0.549	ppb	9.6	812	1000	
Sb	121	103	He	0.174	ppb	1.7	262	100	
Ba	138	159	He	196.554	ppb	0.8	775,122	2500	
W	182	159	NoGas	0.066	ppb	13.6	477	40	
Hg	201	159	NoGas	12.287	ppt	50.8	25	4000	
Tl	205	159	He	0.088	ppb	15.6	618	100	
Pb	208	159	NoGas	5.17	ppb	0.6	113,331	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	344,799	0.4	390560.36	Pulse	88.3	
Sc	45	H2	869,122	0.5	995916.946666667	Pulse	87.3	
Sc	45	He	155,022	0.6	171648.27	Pulse	90.3	
Sc	45	NoGas	1,586,508	0.4	1663179.33	Analog	95.4	
Ge	74	H2	279,785	0.4	344345.643333333	Pulse	81.3	
Ge	74	He	96,673	0.5	114794.926666667	Pulse	84.2	
Ge	74	NoGas	439,719	0.3	511960.473333333	Pulse	85.9	
Rh	103	He	232,644	0.1	279070.866666667	Pulse	83.4	
Rh	103	NoGas	527,159	0.4	619166.366666667	Pulse	85.1	
Tb	159	He	493,258	0.6	563985.973333333	Pulse	87.5	
Tb	159	NoGas	1,308,445	0.4	1490879.07333333	Pulse	87.8	
Bi	209	He	299,819	0.2	365534.536666667	Pulse	82.0	
Bi	209	NoGas	763,826	0.3	928203.173333333	Pulse	82.3	

Quantitation Report - ICPMS5

Sample Name:	**A9J0058-05**	Total Dilution:	**5.0000**
File Name:	075SMPL.d	Vial:	3610
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/7/2019 23:47:19		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.531	ppb	8.0	567	100	
Na	23	45	He	608.654	ppb	0.7	297,595	50000	
Mg	24	45	He	6360.084	ppb	1.0	1,718,046	50000	
Al	27	45	He	17688.02	ppb	0.5	2,700,735	50000	
K	39	45	He	1057.851	ppb	1.2	323,115	50000	
Ca	44	45	H2	6244.263	ppb	0.4	620,322	50000	
[Ca]	44	45	He	6629.81	ppb	0.7	87,769	50000	
Ti	47	45	NoGas	2195.886	ppb	1.9	1,285,608	2500	
V	51	74	He	117.622	ppb	0.4	178,139	500	
Cr	52	74	He	26.959	ppb	0.9	48,980	1000	
Mn	55	74	He	414.205	ppb	0.2	581,578	2500	
Fe	56	74	H2	43571.741	ppb	0.6	194,361,924	50000	
Co	59	74	He	24.343	ppb	0.4	59,557	500	
Ni	60	74	He	32.646	ppb	1.4	19,558	1000	
Cu	65	74	He	26.626	ppb	0.4	19,917	1000	
Zn	66	74	He	77.471	ppb	0.9	22,983	2500	
As	75	74	He	3.058	ppb	6.7	646	500	
Se	78	74	H2	0.141	ppb	20.2	20	100	
Mo	95	103	He	0.485	ppb	5.8	561	100	
Ag	107	103	He	0.049	ppb	17.4	141	100	
Cd	111	103	He	0.078	ppb	19.0	43	1000	
[Cd]	111	103	NoGas	0.444	ppb	17.7	686	1000	
Sb	121	103	He	0.134	ppb	28.7	210	100	
Ba	138	159	He	154.422	ppb	0.4	616,729	2500	
W	182	159	NoGas	0.075	ppb	10.4	544	40	
Hg	201	159	NoGas	3.985	ppt	218.8	18	4000	
Tl	205	159	He	0.086	ppb	6.6	613	100	
Pb	208	159	NoGas	4.546	ppb	0.9	101,839	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	352,012	0.1	390560.36	Pulse	90.1	
Sc	45	H2	878,600	0.9	995916.946666667	Pulse	88.2	
Sc	45	He	156,057	0.5	171648.27	Pulse	90.9	
Sc	45	NoGas	1,609,599	0.5	1663179.33	Analog	96.8	
Ge	74	H2	287,122	0.7	344345.643333333	Pulse	83.4	
Ge	74	He	98,959	0.5	114794.926666667	Pulse	86.2	
Ge	74	NoGas	454,269	1.1	511960.473333333	Pulse	88.7	
Rh	103	He	236,965	0.2	279070.866666667	Pulse	84.9	
Rh	103	NoGas	547,192	0.8	619166.366666667	Pulse	88.4	
Tb	159	He	499,512	0.2	563985.973333333	Pulse	88.6	
Tb	159	NoGas	1,336,225	1.2	1490879.07333333	Pulse	89.6	
Bi	209	He	305,783	0.9	365534.536666667	Pulse	83.7	
Bi	209	NoGas	781,781	0.9	928203.173333333	Pulse	84.2	

Quantitation Report - ICPMS5

Sample Name:	**A9J0058-06**	Total Dilution:	**5.0000**
File Name:	076SMPL.d	Vial:	3611
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/7/2019 23:51:54		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.518	ppb	11.4	567	100	
Na	23	45	He	700.154	ppb	0.3	355,881	50000	
Mg	24	45	He	6435.367	ppb	2.0	1,809,062	50000	
Al	27	45	He	19017.31	ppb	0.5	3,021,764	50000	
K	39	45	He	1078.571	ppb	1.0	342,438	50000	
Ca	44	45	H2	6333.15	ppb	0.5	665,704	50000	
[Ca]	44	45	He	6641.818	ppb	1.1	91,504	50000	
Ti	47	45	NoGas	1918.7	ppb	1.5	1,144,886	2500	
V	51	74	He	118.119	ppb	0.4	183,645	500	
Cr	52	74	He	26.976	ppb	1.4	50,311	1000	
Mn	55	74	He	405.691	ppb	0.1	584,773	2500	
Fe	56	74	H2	44572.648	ppb	0.4	207,593,192	50000	
Co	59	74	He	25.057	ppb	0.5	62,932	500	
Ni	60	74	He	31.92	ppb	0.6	19,632	1000	
Cu	65	74	He	27.375	ppb	1.1	21,018	1000	
Zn	66	74	He	78.857	ppb	0.4	24,016	2500	
As	75	74	He	2.932	ppb	4.4	637	500	
Se	78	74	H2	0.153	ppb	19.1	22	100	
Mo	95	103	He	0.466	ppb	11.1	554	100	
Ag	107	103	He	0.054	ppb	32.4	160	100	
Cd	111	103	He	0.075	ppb	14.0	43	1000	
[Cd]	111	103	NoGas	0.499	ppb	11.8	778	1000	
Sb	121	103	He	0.137	ppb	4.3	218	100	
Ba	138	159	He	119.289	ppb	0.8	483,994	2500	
W	182	159	NoGas	0.065	ppb	14.7	484	40	
Hg	201	159	NoGas	7.054	ppt	69.6	21	4000	
Tl	205	159	He	0.08	ppb	9.8	584	100	
Pb	208	159	NoGas	4.121	ppb	0.6	93,321	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	360,136	0.1	390560.36	Pulse	92.2	
Sc	45	H2	929,627	0.3	995916.946666667	Pulse	93.3	
Sc	45	He	162,403	0.4	171648.27	Pulse	94.6	
Sc	45	NoGas	1,640,599	1.2	1663179.33	Analog	98.6	
Ge	74	H2	299,777	0.6	344345.643333333	Pulse	87.1	
Ge	74	He	101,590	0.5	114794.926666667	Pulse	88.5	
Ge	74	NoGas	461,780	0.8	511960.473333333	Pulse	90.2	
Rh	103	He	241,665	0.2	279070.866666667	Pulse	86.6	
Rh	103	NoGas	553,650	0.7	619166.366666667	Pulse	89.4	
Tb	159	He	507,456	0.8	563985.973333333	Pulse	90.0	
Tb	159	NoGas	1,349,936	0.2	1490879.07333333	Pulse	90.5	
Bi	209	He	308,169	0.2	365534.536666667	Pulse	84.3	
Bi	209	NoGas	789,032	0.2	928203.173333333	Pulse	85.0	

Quantitation Report - ICPMS5

Sample Name:	**A9J0058-07**	Total Dilution:	**5.0000**
File Name:	077SMPL.d	Vial:	3612
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/7/2019 23:56:29		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.714	ppb	5.5	754	100	
Na	23	45	He	761.566	ppb	0.5	376,520	50000	
Mg	24	45	He	7619.097	ppb	1.0	2,084,434	50000	
Al	27	45	He	27547.969	ppb	1.1	4,259,775	50000	
K	39	45	He	1373.043	ppb	0.3	418,810	50000	
Ca	44	45	H2	7235.69	ppb	0.3	745,582	50000	
[Ca]	44	45	He	7666.821	ppb	0.6	102,769	50000	
Ti	47	45	NoGas	2013.281	ppb	2.1	1,182,549	2500	
V	51	74	He	128.028	ppb	0.4	191,720	500	
Cr	52	74	He	33.305	ppb	0.5	59,580	1000	
Mn	55	74	He	432.973	ppb	0.7	601,223	2500	
Fe	56	74	H2	49207.317	ppb	0.6	221,602,103	50000	>LDR RR-2
Co	59	74	He	25.6	ppb	1.4	61,939	500	
Ni	60	74	He	36.774	ppb	1.1	21,784	1000	
Cu	65	74	He	30.708	ppb	1.1	22,703	1000	
Zn	66	74	He	79.391	ppb	3.5	23,290	2500	
As	75	74	He	3.407	ppb	2.6	711	500	
Se	78	74	H2	0.204	ppb	13.8	28	100	
Mo	95	103	He	0.401	ppb	4.9	481	100	
Ag	107	103	He	0.056	ppb	12.5	159	100	
Cd	111	103	He	0.08	ppb	25.5	44	1000	
[Cd]	111	103	NoGas	0.565	ppb	9.4	845	1000	
Sb	121	103	He	0.129	ppb	12.5	201	100	
Ba	138	159	He	197.148	ppb	0.4	782,930	2500	
W	182	159	NoGas	0.065	ppb	15.8	469	40	
Hg	201	159	NoGas	19.75	ppt	23.1	31	4000	
Tl	205	159	He	0.104	ppb	14.5	732	100	
Pb	208	159	NoGas	4.924	ppb	1.4	108,702	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	349,654	0.5	390560.36	Pulse	89.5	
Sc	45	H2	911,376	0.3	995916.946666667	Pulse	91.5	
Sc	45	He	158,058	0.8	171648.27	Pulse	92.1	
Sc	45	NoGas	1,615,254	2.2	1663179.33	Analog	97.1	
Ge	74	H2	289,864	0.3	344345.643333333	Pulse	84.2	
Ge	74	He	97,869	0.5	114794.926666667	Pulse	85.3	
Ge	74	NoGas	445,075	0.9	511960.473333333	Pulse	86.9	
Rh	103	He	235,064	0.4	279070.866666667	Pulse	84.2	
Rh	103	NoGas	533,127	0.4	619166.366666667	Pulse	86.1	
Tb	159	He	496,714	0.3	563985.973333333	Pulse	88.1	
Tb	159	NoGas	1,317,558	0.5	1490879.07333333	Pulse	88.4	
Bi	209	He	302,431	0.5	365534.536666667	Pulse	82.7	
Bi	209	NoGas	768,499	0.4	928203.173333333	Pulse	82.8	

Quantitation Report - ICPMS5

Sample Name:	**A9J0058-08**	Total Dilution:	**5.0000**
File Name:	078SMPL.d	Vial:	3613
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/8/2019 00:01:06		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.869	ppb	8.3	911	100	
Na	23	45	He	905.394	ppb	0.2	446,681	50000	
Mg	24	45	He	8510.189	ppb	0.8	2,325,739	50000	
Al	27	45	He	34160.339	ppb	0.5	5,276,714	50000	
K	39	45	He	1674.555	ppb	0.3	505,832	50000	
Ca	44	45	H2	8261.102	ppb	0.4	841,386	50000	
[Ca]	44	45	He	8846.611	ppb	0.3	118,426	50000	
Ti	47	45	NoGas	2396.828	ppb	2.8	1,421,025	2500	>LDR RR-2
V	51	74	He	140.322	ppb	0.3	207,874	500	
Cr	52	74	He	36.972	ppb	1.2	65,325	1000	
Mn	55	74	He	488.874	ppb	0.4	671,705	2500	
Fe	56	74	H2	55842.087	ppb	0.9	245,684,356	50000	>LDR RR-2
Co	59	74	He	28.707	ppb	0.4	68,724	500	
Ni	60	74	He	39.821	ppb	0.9	23,339	1000	
Cu	65	74	He	36.019	ppb	1.0	26,330	1000	
Zn	66	74	He	88.75	ppb	0.5	25,755	2500	
As	75	74	He	3.684	ppb	7.1	759	500	
Se	78	74	H2	0.222	ppb	21.3	30	100	
Mo	95	103	He	0.421	ppb	8.0	493	100	
Ag	107	103	He	0.092	ppb	18.2	256	100	
Cd	111	103	He	0.11	ppb	17.9	59	1000	
[Cd]	111	103	NoGas	0.638	ppb	4.9	942	1000	
Sb	121	103	He	0.156	ppb	5.9	237	100	
Ba	138	159	He	300.727	ppb	0.6	1,187,009	2500	
W	182	159	NoGas	0.086	ppb	6.0	612	40	
Hg	201	159	NoGas	21.941	ppt	7.3	33	4000	
Tl	205	159	He	0.113	ppb	13.4	782	100	
Pb	208	159	NoGas	5.931	ppb	1.0	130,249	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	347,815	0.2	390560.36	Pulse	89.1	
Sc	45	H2	900,887	0.4	995916.946666667	Pulse	90.5	
Sc	45	He	157,883	0.1	171648.27	Pulse	92.0	
Sc	45	NoGas	1,630,650	2.5	1663179.33	Analog	98.0	
Ge	74	H2	283,193	0.4	344345.643333333	Pulse	82.2	
Ge	74	He	96,840	0.2	114794.926666667	Pulse	84.4	
Ge	74	NoGas	440,534	0.6	511960.473333333	Pulse	86.0	
Rh	103	He	232,505	0.3	279070.866666667	Pulse	83.3	
Rh	103	NoGas	527,697	0.7	619166.366666667	Pulse	85.2	
Tb	159	He	493,713	0.2	563985.973333333	Pulse	87.5	
Tb	159	NoGas	1,311,845	0.1	1490879.07333333	Pulse	88.0	
Bi	209	He	299,376	0.3	365534.536666667	Pulse	81.9	
Bi	209	NoGas	762,250	0.4	928203.173333333	Pulse	82.1	

Quantitation Report - ICPMS5

Sample Name:	**A9J0058-11**	Total Dilution:	**5.0000**
File Name:	079SMPL.d	Vial:	3614
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/8/2019 00:05:41		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.613	ppb	9.5	657	100	
Na	23	45	He	905.781	ppb	0.5	446,175	50000	
Mg	24	45	He	6461.51	ppb	0.5	1,763,169	50000	
Al	27	45	He	20560.133	ppb	0.9	3,170,929	50000	
K	39	45	He	1321.13	ppb	0.9	402,657	50000	
Ca	44	45	H2	6594.847	ppb	0.5	663,741	50000	
[Ca]	44	45	He	6997.227	ppb	0.1	93,564	50000	
Ti	47	45	NoGas	2012.595	ppb	2.7	1,168,718	2500	
V	51	74	He	115.006	ppb	0.3	173,513	500	
Cr	52	74	He	26.591	ppb	1.4	48,138	1000	
Mn	55	74	He	412.596	ppb	0.4	577,072	2500	
Fe	56	74	H2	44983.771	ppb	0.7	200,976,779	50000	
Co	59	74	He	24.393	ppb	2.1	59,448	500	
Ni	60	74	He	30.748	ppb	2.4	18,351	1000	
Cu	65	74	He	28.288	ppb	0.9	21,072	1000	
Zn	66	74	He	79.418	ppb	0.2	23,468	2500	
As	75	74	He	3.26	ppb	2.2	685	500	
Se	78	74	H2	0.203	ppb	18.7	28	100	
Mo	95	103	He	0.479	ppb	6.5	558	100	
Ag	107	103	He	0.047	ppb	31.0	138	100	
Cd	111	103	He	0.063	ppb	32.4	36	1000	
[Cd]	111	103	NoGas	0.494	ppb	10.9	756	1000	
Sb	121	103	He	0.145	ppb	30.3	226	100	
Ba	138	159	He	152.828	ppb	0.1	610,966	2500	
W	182	159	NoGas	0.068	ppb	17.8	497	40	
Hg	201	159	NoGas	5.781	ppt	70.0	20	4000	
Tl	205	159	He	0.088	ppb	13.3	629	100	
Pb	208	159	NoGas	4.624	ppb	1.2	103,386	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	353,844	0.2	390560.36	Pulse	90.6	
Sc	45	H2	890,151	0.7	995916.946666667	Pulse	89.4	
Sc	45	He	157,638	0.5	171648.27	Pulse	91.8	
Sc	45	NoGas	1,597,214	2.8	1663179.33	Analog	96.0	
Ge	74	H2	287,580	0.8	344345.643333333	Pulse	83.5	
Ge	74	He	98,575	0.2	114794.926666667	Pulse	85.9	
Ge	74	NoGas	451,157	1.0	511960.473333333	Pulse	88.1	
Rh	103	He	237,765	0.2	279070.866666667	Pulse	85.2	
Rh	103	NoGas	542,967	0.6	619166.366666667	Pulse	87.7	
Tb	159	He	500,004	0.5	563985.973333333	Pulse	88.7	
Tb	159	NoGas	1,333,803	0.7	1490879.07333333	Pulse	89.5	
Bi	209	He	305,238	0.4	365534.536666667	Pulse	83.5	
Bi	209	NoGas	776,666	0.6	928203.173333333	Pulse	83.7	

Quantitation Report - ICPMS5

Sample Name:	**A9J0058-12**	Total Dilution:	**5.0000**
File Name:	080SMPL.d	Vial:	3615
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/8/2019 00:10:16		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.741	ppb	8.5	777	100	
Na	23	45	He	863.318	ppb	0.2	423,731	50000	
Mg	24	45	He	7367.831	ppb	0.4	2,002,689	50000	
Al	27	45	He	27630.104	ppb	0.0	4,244,914	50000	
K	39	45	He	1676.87	ppb	0.5	503,763	50000	
Ca	44	45	H2	7739.8	ppb	1.0	789,909	50000	
[Ca]	44	45	He	8227.881	ppb	0.8	109,559	50000	
Ti	47	45	NoGas	2450.022	ppb	0.7	1,405,976	2500	>LDR RR-2
V	51	74	He	135.677	ppb	0.4	201,463	500	
Cr	52	74	He	32.511	ppb	0.4	57,705	1000	
Mn	55	74	He	420.154	ppb	0.1	578,605	2500	
Fe	56	74	H2	52640.29	ppb	0.8	234,841,914	50000	>LDR RR-2
Co	59	74	He	27.288	ppb	1.1	65,475	500	
Ni	60	74	He	36.484	ppb	1.0	21,434	1000	
Cu	65	74	He	32.67	ppb	0.5	23,946	1000	
Zn	66	74	He	89.227	ppb	1.8	25,952	2500	
As	75	74	He	3.413	ppb	3.1	706	500	
Se	78	74	H2	0.236	ppb	10.1	32	100	
Mo	95	103	He	0.644	ppb	13.5	698	100	
Ag	107	103	He	0.059	ppb	21.9	169	100	
Cd	111	103	He	0.068	ppb	7.7	38	1000	
[Cd]	111	103	NoGas	0.503	ppb	13.7	752	1000	
Sb	121	103	He	0.161	ppb	14.4	246	100	
Ba	138	159	He	211.366	ppb	0.5	839,870	2500	
W	182	159	NoGas	0.077	ppb	6.7	552	40	
Hg	201	159	NoGas	59.564	ppt	6.4	64	4000	
Tl	205	159	He	0.104	ppb	4.9	729	100	
Pb	208	159	NoGas	5.036	ppb	0.8	111,283	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	346,858	0.6	390560.36	Pulse	88.8	
Sc	45	H2	902,742	0.7	995916.946666667	Pulse	90.6	
Sc	45	He	157,029	0.4	171648.27	Pulse	91.5	
Sc	45	NoGas	1,577,713	1.6	1663179.33	Analog	94.9	
Ge	74	H2	287,160	0.5	344345.643333333	Pulse	83.4	
Ge	74	He	97,059	0.2	114794.926666667	Pulse	84.5	
Ge	74	NoGas	442,056	0.6	511960.473333333	Pulse	86.3	
Rh	103	He	234,321	0.4	279070.866666667	Pulse	84.0	
Rh	103	NoGas	531,418	0.4	619166.366666667	Pulse	85.8	
Tb	159	He	497,000	0.2	563985.973333333	Pulse	88.1	
Tb	159	NoGas	1,319,048	0.5	1490879.07333333	Pulse	88.5	
Bi	209	He	300,033	0.2	365534.536666667	Pulse	82.1	
Bi	209	NoGas	763,659	0.8	928203.173333333	Pulse	82.3	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9J07068-CCV6**	Total Dilution:	1.0000
File Name:	081_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 00:14:53
Comment:	A19J037 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	39.311	ppb	1.6	42,390	40	98.28	
Na	23	45	He	4069.088	ppb	2.2	1,953,356	4000	101.73	
Mg	24	45	He	4087.640	ppb	0.7	1,091,832	4000	102.19	
Al	27	45	He	3978.119	ppb	0.5	600,598	4000	99.45	
K	39	45	He	3991.022	ppb	0.6	1,151,118	4000	99.78	
Ca	44	45	H2	4005.772	ppb	0.5	408,946	4000	100.14	
[Ca]	44	45	He	4152.089	ppb	0.7	54,419	4000	103.8	
Ti	47	45	NoGas	97.339	ppb	0.9	54,633	100	97.34	
V	51	74	He	100.633	ppb	0.3	159,713	100	100.63	
Cr	52	74	He	98.862	ppb	0.7	184,988	100	98.86	
Mn	55	74	He	99.581	ppb	0.3	146,512	100	99.58	
Fe	56	74	H2	4242.521	ppb	0.3	20,613,462	4000	106.06	
Co	59	74	He	102.849	ppb	0.2	263,466	100	102.85	
Ni	60	74	He	104.581	ppb	1.1	65,553	100	104.58	
Cu	65	74	He	104.143	ppb	0.2	81,272	100	104.14	
Zn	66	74	He	103.325	ppb	0.9	32,081	100	103.32	
As	75	74	He	99.513	ppb	1.0	21,619	100	99.51	
Se	78	74	H2	39.387	ppb	0.9	5,661	40	98.47	
Mo	95	103	He	40.990	ppb	1.8	38,779	40	102.48	
Ag	107	103	He	36.486	ppb	0.8	104,015	40	91.21	
Cd	111	103	He	99.188	ppb	0.3	52,888	100	99.19	
[Cd]	111	103	NoGas	96.883	ppb	1.0	147,271	100	96.88	
Sb	121	103	He	40.264	ppb	0.7	59,217	40	100.66	
Ba	138	159	He	103.570	ppb	0.4	418,978	100	103.57	
Hg	201	159	NoGas	812.211	ppt	3.6	687	800	101.53	
Tl	205	159	He	40.187	ppb	0.2	273,001	40	100.47	
Pb	208	159	NoGas	100.537	ppb	0.3	2,209,409	100	100.54	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.4	361,047	390560.36	92.4	
Sc	45	H2	Pulse	0.2	902,563	995916.946666667	90.6	
Sc	45	He	Pulse	0.6	154,293	171648.27	89.9	
Sc	45	NoGas	Analog	0.7	1,542,098	1663179.33	92.7	
Ge	74	H2	Pulse	0.3	312,467	344345.643333333	90.7	
Ge	74	He	Pulse	0.7	103,651	114794.926666667	90.3	
Ge	74	NoGas	Pulse	0.3	464,169	511960.473333333	90.7	
Rh	103	He	Pulse	0.5	245,601	279070.866666667	88.0	
Rh	103	NoGas	Pulse	0.2	554,955	619166.366666667	89.6	
Tb	159	He	Pulse	0.1	505,923	563985.973333333	89.7	
Tb	159	NoGas	Pulse	0.2	1,318,849	1490879.07333333	88.5	
Bi	209	He	Pulse	0.5	321,550	365534.536666667	88.0	
Bi	209	NoGas	Pulse	0.4	799,656	928203.173333333	86.2	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9J07068-CCB6**	Total Dilution:	1.0000
File Name:	082_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 00:19:32
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.005	ppb	35.7	14	
Na	23	45	He	-1.212	ppb	N/A	1,775	
Mg	24	45	He	0.419	ppb	62.7	399	
Al	27	45	He	1.494	ppb	12.1	318	
K	39	45	He	3.473	ppb	29.6	20,157	
Ca	44	45	H2	1.232	ppb	50.1	482	
[Ca]	44	45	He	-0.613	ppb	N/A	177	
Ti	47	45	NoGas	0.203	ppb	24.5	143	
V	51	74	He	-0.001	ppb	N/A	515	
Cr	52	74	He	-0.033	ppb	N/A	1,102	
Mn	55	74	He	0.018	ppb	102.6	110	
Fe	56	74	H2	3.006	ppb	9.6	32,761	
Co	59	74	He	0.012	ppb	49.8	58	
Ni	60	74	He	0.010	ppb	97.0	37	
Cu	65	74	He	0.021	ppb	92.6	127	
Zn	66	74	He	0.021	ppb	212.6	88	
As	75	74	He	0.007	ppb	393.9	14	
Se	78	74	H2	0.045	ppb	97.3	7	
Mo	95	103	He	-0.019	ppb	N/A	108	
Ag	107	103	He	0.001	ppb	271.9	12	
Cd	111	103	He	0.008	ppb	39.8	8	
[Cd]	111	103	NoGas	-0.001	ppb	N/A	21	
Sb	121	103	He	0.224	ppb	17.2	354	
Ba	138	159	He	0.017	ppb	62.1	157	
Hg	201	159	NoGas	-5.334	ppt	N/A	10	
Tl	205	159	He	0.007	ppb	72.6	83	
Pb	208	159	NoGas	0.011	ppb	13.1	896	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.5	360,385	390560.36	92.3	
Sc	45	H2	Pulse	0.4	857,637	995916.946666667	86.1	
Sc	45	He	Pulse	0.8	151,617	171648.27	88.3	
Sc	45	NoGas	Analog	2.2	1,526,269	1663179.33	91.8	
Ge	74	H2	Pulse	0.6	299,840	344345.643333333	87.1	
Ge	74	He	Pulse	0.1	102,545	114794.926666667	89.3	
Ge	74	NoGas	Pulse	0.9	471,850	511960.473333333	92.2	
Rh	103	He	Pulse	0.4	249,151	279070.866666667	89.3	
Rh	103	NoGas	Pulse	0.8	573,706	619166.366666667	92.7	
Tb	159	He	Pulse	0.3	500,857	563985.973333333	88.8	
Tb	159	NoGas	Pulse	0.4	1,329,687	1490879.07333333	89.2	
Bi	209	He	Pulse	0.2	321,200	365534.536666667	87.9	
Bi	209	NoGas	Pulse	0.6	812,691	928203.173333333	87.6	

Quantitation Report - ICPMS5

Sample Name:	**9100666-MS2**	Total Dilution:	**5.0000**
File Name:	083SMPL.d	Vial:	3101
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/8/2019 00:24:11		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	24.966	ppb	1.0	26,016	100	
Na	23	45	He	3329.478	ppb	0.7	1,603,913	50000	
Mg	24	45	He	9274.804	ppb	0.7	2,484,808	50000	
Al	27	45	He	26392.325	ppb	1.1	3,996,667	50000	
K	39	45	He	3841.26	ppb	0.4	1,112,168	50000	
Ca	44	45	H2	9342.759	ppb	0.2	912,430	50000	
[Ca]	44	45	He	9853.343	ppb	0.6	129,287	50000	
Ti	47	45	NoGas	2195.419	ppb	0.9	1,283,377	2500	
V	51	74	He	175.266	ppb	0.1	256,765	500	
Cr	52	74	He	80.533	ppb	1.3	139,498	1000	
Mn	55	74	He	444.798	ppb	0.1	604,669	2500	
Fe	56	74	H2	51407.619	ppb	0.5	220,480,172	50000	>LDR RR-2
Co	59	74	He	76.763	ppb	1.1	181,775	500	
Ni	60	74	He	86.293	ppb	0.6	50,007	1000	
Cu	65	74	He	80.263	ppb	0.6	57,922	1000	
Zn	66	74	He	133.741	ppb	0.7	38,360	2500	
As	75	74	He	50.751	ppb	1.4	10,197	500	
Se	78	74	H2	23.202	ppb	0.9	2,947	100	
Mo	95	103	He	25.778	ppb	1.7	22,808	100	
Ag	107	103	He	26.527	ppb	1.0	70,593	100	
Cd	111	103	He	50.195	ppb	0.7	24,984	1000	
[Cd]	111	103	NoGas	50.506	ppb	0.4	72,594	1000	
Sb	121	103	He	23.728	ppb	1.6	32,581	100	
Ba	138	159	He	225.807	ppb	0.5	883,974	2500	
W	182	159	NoGas	0.076	ppb	1.5	542	40	
Hg	201	159	NoGas	1024.525	ppt	2.7	854	4000	
Tl	205	159	He	24.502	ppb	0.2	161,108	100	
Pb	208	159	NoGas	54.092	ppb	0.0	1,176,615	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	348,857	0.1	390560.36	Pulse	89.3	
Sc	45	H2	863,896	0.8	995916.946666667	Pulse	86.7	
Sc	45	He	154,780	0.4	171648.27	Pulse	90.2	
Sc	45	NoGas	1,607,127	0.8	1663179.33	Analog	96.6	
Ge	74	H2	276,064	0.7	344345.643333333	Pulse	80.2	
Ge	74	He	95,812	0.3	114794.926666667	Pulse	83.5	
Ge	74	NoGas	439,821	0.9	511960.473333333	Pulse	85.9	
Rh	103	He	229,249	0.2	279070.866666667	Pulse	82.1	
Rh	103	NoGas	524,651	0.9	619166.366666667	Pulse	84.7	
Tb	159	He	489,647	0.2	563985.973333333	Pulse	86.8	
Tb	159	NoGas	1,305,073	0.7	1490879.07333333	Pulse	87.5	
Bi	209	He	297,347	0.4	365534.536666667	Pulse	81.3	
Bi	209	NoGas	754,336	1.0	928203.173333333	Pulse	81.3	

Quantitation Report - ICPMS5

Sample Name:	**9100666-MSD2**	Total Dilution:	**5.0000**
File Name:	084SMPL.d	Vial:	3102
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/8/2019 00:28:46		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	24.989	ppb	1.6	26,142	100	
Na	23	45	He	3250.425	ppb	0.3	1,574,603	50000	
Mg	24	45	He	9422.764	ppb	0.9	2,538,462	50000	
Al	27	45	He	26016.252	ppb	0.7	3,961,516	50000	
K	39	45	He	3898.108	ppb	0.3	1,134,613	50000	
Ca	44	45	H2	9392.303	ppb	1.1	945,016	50000	
[Ca]	44	45	He	10001.132	ppb	0.7	131,950	50000	
Ti	47	45	NoGas	2192.126	ppb	0.2	1,282,644	2500	
V	51	74	He	180.37	ppb	0.3	266,289	500	
Cr	52	74	He	80.199	ppb	0.4	140,008	1000	
Mn	55	74	He	451.677	ppb	0.7	618,803	2500	
Fe	56	74	H2	51956.14	ppb	0.7	229,394,610	50000	>LDR RR-2
Co	59	74	He	77.633	ppb	0.2	185,268	500	
Ni	60	74	He	85.996	ppb	0.7	50,223	1000	
Cu	65	74	He	81.596	ppb	1.2	59,344	1000	
Zn	66	74	He	136.005	ppb	1.4	39,313	2500	
As	75	74	He	51.393	ppb	1.2	10,407	500	
Se	78	74	H2	23.244	ppb	4.1	3,038	100	
Mo	95	103	He	25.853	ppb	3.3	23,085	100	
Ag	107	103	He	26.942	ppb	1.6	72,358	100	
Cd	111	103	He	50.252	ppb	0.9	25,245	1000	
[Cd]	111	103	NoGas	51.166	ppb	0.2	74,164	1000	
Sb	121	103	He	23.619	ppb	1.0	32,731	100	
Ba	138	159	He	234.788	ppb	0.5	928,335	2500	
W	182	159	NoGas	0.08	ppb	5.5	574	40	
Hg	201	159	NoGas	1032.135	ppt	1.7	867	4000	
Tl	205	159	He	24.899	ppb	0.7	165,352	100	
Pb	208	159	NoGas	54.686	ppb	0.4	1,199,266	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	350,248	0.8	390560.36	Pulse	89.7	
Sc	45	H2	890,069	0.8	995916.946666667	Pulse	89.4	
Sc	45	He	155,639	0.5	171648.27	Pulse	90.7	
Sc	45	NoGas	1,608,569	0.6	1663179.33	Analog	96.7	
Ge	74	H2	284,190	0.6	344345.643333333	Pulse	82.5	
Ge	74	He	96,559	0.2	114794.926666667	Pulse	84.1	
Ge	74	NoGas	442,535	0.1	511960.473333333	Pulse	86.4	
Rh	103	He	231,379	0.7	279070.866666667	Pulse	82.9	
Rh	103	NoGas	529,099	0.3	619166.366666667	Pulse	85.5	
Tb	159	He	494,558	0.5	563985.973333333	Pulse	87.7	
Tb	159	NoGas	1,315,755	0.1	1490879.07333333	Pulse	88.3	
Bi	209	He	298,560	0.6	365534.536666667	Pulse	81.7	
Bi	209	NoGas	756,010	0.1	928203.173333333	Pulse	81.4	

Quantitation Report - ICPMS5

Sample Name:	**A9J0058-13**	Total Dilution:	**5.0000**
File Name:	085SMPL.d	Vial:	3103
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/8/2019 00:33:20		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.592	ppb	3.4	620	100	
Na	23	45	He	857.338	ppb	1.1	414,811	50000	
Mg	24	45	He	8496.244	ppb	0.3	2,276,596	50000	
Al	27	45	He	26984.385	ppb	0.5	4,086,770	50000	
K	39	45	He	1550.865	ppb	1.1	460,740	50000	
Ca	44	45	H2	8082.801	ppb	0.6	806,620	50000	
[Ca]	44	45	He	8681.86	ppb	1.4	113,942	50000	
Ti	47	45	NoGas	2843.983	ppb	1.8	1,628,439	2500	>LDR RR-2
V	51	74	He	153.132	ppb	0.4	224,707	500	
Cr	52	74	He	41.186	ppb	0.9	71,971	1000	
Mn	55	74	He	449.784	ppb	0.1	612,285	2500	
Fe	56	74	H2	52302.062	ppb	0.5	229,443,494	50000	>LDR RR-2
Co	59	74	He	27.024	ppb	0.4	64,097	500	
Ni	60	74	He	47.094	ppb	0.9	27,342	1000	
Cu	65	74	He	31.441	ppb	0.4	22,784	1000	
Zn	66	74	He	91.262	ppb	0.1	26,237	2500	
As	75	74	He	3.343	ppb	6.5	684	500	
Se	78	74	H2	0.158	ppb	18.0	22	100	
Mo	95	103	He	0.544	ppb	5.0	598	100	
Ag	107	103	He	0.067	ppb	11.7	187	100	
Cd	111	103	He	0.091	ppb	14.2	49	1000	
[Cd]	111	103	NoGas	0.581	ppb	12.7	860	1000	
Sb	121	103	He	0.215	ppb	25.8	316	100	
Ba	138	159	He	221.414	ppb	0.3	872,360	2500	
W	182	159	NoGas	0.069	ppb	4.1	494	40	
Hg	201	159	NoGas	23.094	ppt	22.0	33	4000	
Tl	205	159	He	0.099	ppb	4.0	688	100	
Pb	208	159	NoGas	5.014	ppb	1.0	109,855	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	345,625	0.5	390560.36	Pulse	88.5	
Sc	45	H2	882,724	0.8	995916.946666667	Pulse	88.6	
Sc	45	He	154,803	1.3	171648.27	Pulse	90.2	
Sc	45	NoGas	1,574,289	1.2	1663179.33	Analog	94.7	
Ge	74	H2	282,370	0.7	344345.643333333	Pulse	82.0	
Ge	74	He	95,943	0.2	114794.926666667	Pulse	83.6	
Ge	74	NoGas	438,784	0.9	511960.473333333	Pulse	85.7	
Rh	103	He	230,294	0.3	279070.866666667	Pulse	82.5	
Rh	103	NoGas	527,297	0.7	619166.366666667	Pulse	85.2	
Tb	159	He	492,799	0.3	563985.973333333	Pulse	87.4	
Tb	159	NoGas	1,307,753	0.6	1490879.07333333	Pulse	87.7	
Bi	209	He	297,844	0.6	365534.536666667	Pulse	81.5	
Bi	209	NoGas	758,451	0.5	928203.173333333	Pulse	81.7	

Quantitation Report - ICPMS5

Sample Name:	**A9J0058-14**	Total Dilution:	**5.0000**
File Name:	086SMPL.d	Vial:	3104
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/8/2019 00:37:54		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.684	ppb	3.6	699	100	
Na	23	45	He	1077.444	ppb	9.1	492,972	50000	
Mg	24	45	He	7068.932	ppb	9.0	1,793,304	50000	
Al	27	45	He	29354.732	ppb	9.5	4,207,870	50000	
K	39	45	He	1805.721	ppb	9.5	504,818	50000	
Ca	44	45	H2	7180.377	ppb	0.9	711,477	50000	
[Ca]	44	45	He	8053.677	ppb	10.7	99,994	50000	
Ti	47	45	NoGas	2365.002	ppb	1.3	1,339,434	2500	>LDR RR-2
V	51	74	He	135.23	ppb	9.5	187,134	500	
Cr	52	74	He	33.734	ppb	9.4	55,769	1000	
Mn	55	74	He	471.696	ppb	9.7	605,295	2500	
Fe	56	74	H2	49620.399	ppb	0.4	216,042,886	50000	>LDR RR-2
Co	59	74	He	27.139	ppb	9.1	60,698	500	
Ni	60	74	He	36.664	ppb	8.9	20,081	1000	
Cu	65	74	He	33.095	ppb	11.4	22,584	1000	
Zn	66	74	He	91.251	ppb	6.5	24,777	2500	
As	75	74	He	3.888	ppb	9.0	748	500	
Se	78	74	H2	0.193	ppb	38.2	26	100	
Mo	95	103	He	0.546	ppb	12.6	562	100	
Ag	107	103	He	0.056	ppb	13.6	148	100	
Cd	111	103	He	0.094	ppb	29.2	47	1000	
[Cd]	111	103	NoGas	0.644	ppb	4.0	931	1000	
Sb	121	103	He	0.174	ppb	21.5	241	100	
Ba	138	159	He	196.978	ppb	9.2	732,441	2500	
W	182	159	NoGas	0.078	ppb	12.9	543	40	
Hg	201	159	NoGas	10.972	ppt	27.3	23	4000	
Tl	205	159	He	0.103	ppb	14.3	674	100	
Pb	208	159	NoGas	4.903	ppb	0.6	105,676	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	337,937	0.5	390560.36	Pulse	86.5	
Sc	45	H2	876,396	0.3	995916.946666667	Pulse	88.0	
Sc	45	He	147,302	8.5	171648.27	Pulse	85.8	
Sc	45	NoGas	1,556,946	0.4	1663179.33	Analog	93.6	
Ge	74	H2	280,245	0.2	344345.643333333	Pulse	81.4	
Ge	74	He	90,948	8.6	114794.926666667	Pulse	79.2	
Ge	74	NoGas	431,048	0.1	511960.473333333	Pulse	84.2	
Rh	103	He	217,170	8.5	279070.866666667	Pulse	77.8	
Rh	103	NoGas	516,482	0.2	619166.366666667	Pulse	83.4	
Tb	159	He	467,486	8.4	563985.973333333	Pulse	82.9	
Tb	159	NoGas	1,286,219	0.6	1490879.07333333	Pulse	86.3	
Bi	209	He	284,391	8.7	365534.536666667	Pulse	77.8	
Bi	209	NoGas	749,648	0.5	928203.173333333	Pulse	80.8	

Quantitation Report - ICPMS5

Sample Name:	**A9J0058-17**	Total Dilution:	**5.0000**
File Name:	087SMPL.d	Vial:	3105
File Path:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Sample Type:	Sample
Acq Time:	10/8/2019 00:42:29		
Comment:	**9100666 Sediment As**	Last Calib:	10/08/2019 09:49:07

FullQuant Table:

Element	Mass	ISTD	Tune Mode	Raw Conc	Units	RSD(%)	CPS	LDR	QC Flag
Be	9	6	NoGas	0.55	ppb	8.3	554	100	
Na	23	45	He	1081.015	ppb	0.2	502,348	50000	
Mg	24	45	He	6811.511	ppb	1.6	1,754,920	50000	
Al	27	45	He	28547.202	ppb	0.4	4,157,210	50000	
K	39	45	He	1647.98	ppb	0.3	469,604	50000	
Ca	44	45	H2	7975.364	ppb	0.5	764,512	50000	
[Ca]	44	45	He	8448.349	ppb	0.7	106,626	50000	
Ti	47	45	NoGas	2659.484	ppb	0.8	1,468,373	2500	>LDR RR-2
V	51	74	He	126.72	ppb	0.1	179,884	500	
Cr	52	74	He	31.278	ppb	1.3	53,108	1000	
Mn	55	74	He	440.047	ppb	0.7	579,221	2500	
Fe	56	74	H2	49974.836	ppb	0.4	211,556,070	50000	>LDR RR-2
Co	59	74	He	24.747	ppb	0.8	56,757	500	
Ni	60	74	He	35.129	ppb	1.9	19,727	1000	
Cu	65	74	He	29.765	ppb	0.5	20,862	1000	
Zn	66	74	He	80.922	ppb	0.4	22,504	2500	
As	75	74	He	4.696	ppb	5.0	924	500	
Se	78	74	H2	0.141	ppb	14.5	19	100	
Mo	95	103	He	0.483	ppb	6.8	528	100	
Ag	107	103	He	0.067	ppb	19.0	180	100	
Cd	111	103	He	0.07	ppb	13.7	37	1000	
[Cd]	111	103	NoGas	0.54	ppb	4.4	770	1000	
Sb	121	103	He	0.175	ppb	26.8	253	100	
Ba	138	159	He	182.111	ppb	0.4	699,072	2500	
W	182	159	NoGas	0.055	ppb	12.9	384	40	
Hg	201	159	NoGas	31.89	ppt	21.2	39	4000	
Tl	205	159	He	0.091	ppb	8.2	622	100	
Pb	208	159	NoGas	4.574	ppb	0.7	97,260	500	

ISTD Table:

Element	Mass	Tune Mode	CPS	RSD(%)	ISTD Ref CPS	Det.	ISTD %	QC Flag
Li	6	NoGas	332,129	0.4	390560.36	Pulse	85.0	
Sc	45	H2	847,890	0.6	995916.946666667	Pulse	85.1	
Sc	45	He	148,845	0.5	171648.27	Pulse	86.7	
Sc	45	NoGas	1,517,946	1.1	1663179.33	Analog	91.3	
Ge	74	H2	272,478	0.5	344345.643333333	Pulse	79.1	
Ge	74	He	92,772	0.5	114794.926666667	Pulse	80.8	
Ge	74	NoGas	422,529	0.5	511960.473333333	Pulse	82.5	
Rh	103	He	223,621	0.3	279070.866666667	Pulse	80.1	
Rh	103	NoGas	507,319	0.2	619166.366666667	Pulse	81.9	
Tb	159	He	480,129	0.3	563985.973333333	Pulse	85.1	
Tb	159	NoGas	1,268,343	0.3	1490879.07333333	Pulse	85.1	
Bi	209	He	294,929	0.3	365534.536666667	Pulse	80.7	
Bi	209	NoGas	743,175	0.7	928203.173333333	Pulse	80.1	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9J07068-CCV7**	Total Dilution:	1.0000
File Name:	088_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 00:47:09
Comment:	A19J037 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.074	ppb	0.5	41,902	40	100.18	
Na	23	45	He	4107.737	ppb	0.8	1,918,332	4000	102.69	
Mg	24	45	He	4101.965	ppb	0.9	1,065,824	4000	102.55	
Al	27	45	He	3993.371	ppb	0.8	586,485	4000	99.83	
K	39	45	He	4009.989	ppb	0.7	1,125,021	4000	100.25	
Ca	44	45	H2	4033.146	ppb	0.3	398,271	4000	100.83	
[Ca]	44	45	He	4172.859	ppb	1.8	53,195	4000	104.32	
Ti	47	45	NoGas	96.610	ppb	0.2	54,253	100	96.61	
V	51	74	He	100.465	ppb	0.7	156,212	100	100.46	
Cr	52	74	He	98.995	ppb	0.1	181,481	100	99	
Mn	55	74	He	101.027	ppb	0.5	145,625	100	101.03	
Fe	56	74	H2	4236.601	ppb	0.3	19,999,190	4000	105.92	
Co	59	74	He	103.025	ppb	0.3	258,561	100	103.02	
Ni	60	74	He	104.299	ppb	0.3	64,053	100	104.3	
Cu	65	74	He	103.120	ppb	0.8	78,842	100	103.12	
Zn	66	74	He	104.471	ppb	0.3	31,777	100	104.47	
As	75	74	He	99.759	ppb	0.6	21,233	100	99.76	
Se	78	74	H2	38.634	ppb	2.1	5,394	40	96.58	
Mo	95	103	He	40.881	ppb	0.8	37,985	40	102.2	
Ag	107	103	He	36.569	ppb	1.8	102,381	40	91.42	
Cd	111	103	He	99.088	ppb	0.5	51,886	100	99.09	
[Cd]	111	103	NoGas	98.971	ppb	0.4	147,679	100	98.97	
Sb	121	103	He	40.720	ppb	0.8	58,812	40	101.8	
Ba	138	159	He	103.619	ppb	0.8	414,750	100	103.62	
Hg	201	159	NoGas	831.505	ppt	2.2	692	800	103.94	
Tl	205	159	He	40.235	ppb	0.4	270,449	40	100.59	
Pb	208	159	NoGas	101.513	ppb	0.3	2,196,987	100	101.51	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.4	350,085	390560.36	89.6	
Sc	45	H2	Pulse	0.4	873,053	995916.946666667	87.7	
Sc	45	He	Pulse	1.2	150,099	171648.27	87.4	
Sc	45	NoGas	Analog	0.5	1,542,977	1663179.33	92.8	
Ge	74	H2	Pulse	0.1	303,581	344345.643333333	88.2	
Ge	74	He	Pulse	0.2	101,548	114794.926666667	88.5	
Ge	74	NoGas	Pulse	0.7	456,263	511960.473333333	89.1	
Rh	103	He	Pulse	0.4	241,192	279070.866666667	86.4	
Rh	103	NoGas	Pulse	0.4	544,752	619166.366666667	88.0	
Tb	159	He	Pulse	0.6	500,596	563985.973333333	88.8	
Tb	159	NoGas	Pulse	0.6	1,298,837	1490879.07333333	87.1	
Bi	209	He	Pulse	0.6	316,235	365534.536666667	86.5	
Bi	209	NoGas	Pulse	0.5	785,814	928203.173333333	84.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9J07068-CCB7**	Total Dilution:	1.0000
File Name:	089_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 00:51:48
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	-0.005	ppb	N/A	3	
Na	23	45	He	-1.347	ppb	N/A	1,673	
Mg	24	45	He	0.113	ppb	128.1	311	
Al	27	45	He	1.596	ppb	13.7	326	
K	39	45	He	2.117	ppb	62.6	19,347	
Ca	44	45	H2	0.439	ppb	62.9	393	
[Ca]	44	45	He	0.232	ppb	403.3	183	
Ti	47	45	NoGas	0.187	ppb	22.2	135	
V	51	74	He	-0.026	ppb	N/A	466	
Cr	52	74	He	-0.017	ppb	N/A	1,108	
Mn	55	74	He	0.018	ppb	27.7	108	
Fe	56	74	H2	3.353	ppb	4.5	33,466	
Co	59	74	He	0.009	ppb	94.0	49	
Ni	60	74	He	-0.013	ppb	N/A	22	
Cu	65	74	He	0.056	ppb	34.7	150	
Zn	66	74	He	0.031	ppb	89.1	89	
As	75	74	He	-0.010	ppb	N/A	10	
Se	78	74	H2	0.044	ppb	29.6	7	
Mo	95	103	He	-0.026	ppb	N/A	99	
Ag	107	103	He	0.003	ppb	64.7	16	
Cd	111	103	He	0.011	ppb	54.8	9	
[Cd]	111	103	NoGas	-0.005	ppb	N/A	14	
Sb	121	103	He	0.236	ppb	10.8	363	
Ba	138	159	He	0.012	ppb	19.2	133	
Hg	201	159	NoGas	-4.297	ppt	N/A	11	
Tl	205	159	He	0.005	ppb	40.8	69	
Pb	208	159	NoGas	0.016	ppb	24.2	976	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.4	350,627	390560.36	89.8	
Sc	45	H2	Pulse	0.1	832,436	995916.946666667	83.6	
Sc	45	He	Pulse	0.5	148,296	171648.27	86.4	
Sc	45	NoGas	Analog	0.7	1,528,880	1663179.33	91.9	
Ge	74	H2	Pulse	0.1	291,866	344345.643333333	84.8	
Ge	74	He	Pulse	0.4	100,352	114794.926666667	87.4	
Ge	74	NoGas	Pulse	1.3	461,363	511960.473333333	90.1	
Rh	103	He	Pulse	0.5	243,120	279070.866666667	87.1	
Rh	103	NoGas	Pulse	0.8	562,001	619166.366666667	90.8	
Tb	159	He	Pulse	0.0	491,855	563985.973333333	87.2	
Tb	159	NoGas	Pulse	0.8	1,304,122	1490879.07333333	87.5	
Bi	209	He	Pulse	0.3	312,872	365534.536666667	85.6	
Bi	209	NoGas	Pulse	0.7	796,188	928203.173333333	85.8	

CRL Verification Report - ICPMS5

Sample Name:	**9J07068-CRL5**	Total Dilution:	1.0000
File Name:	090CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 00:56:29
Comment:	A19J030 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.195	ppb	36.6	198	108.33		
Na	23	45	He	7.440	ppb	4.4	5,798	82.67		
Mg	24	45	He	8.764	ppb	4.3	2,565	97.38		
Al	27	45	He	10.209	ppb	5.4	1,596	113.43		
K	39	45	He	11.513	ppb	22.7	22,196	127.92		
Ca	44	45	H2	8.517	ppb	9.6	1,176	94.63		
[Ca]	44	45	He	5.714	ppb	48.8	256	63.49	R-11	< MRL
Ti	47	45	NoGas	0.378	ppb	34.4	227	210	R-11	
V	51	74	He	0.155	ppb	18.5	754	86.11		
Cr	52	74	He	0.835	ppb	10.6	2,681	463.89	R-11	< MRL
Mn	55	74	He	0.180	ppb	1.8	342	100		
Fe	56	74	H2	13.466	ppb	1.5	80,759	149.62	R-11	< MRL
Co	59	74	He	0.182	ppb	2.2	486	101.11		
Ni	60	74	He	0.189	ppb	28.6	147	105		
Cu	65	74	He	0.211	ppb	27.0	271	117.22		
Zn	66	74	He	0.194	ppb	34.7	140	107.78		
As	75	74	He	0.192	ppb	8.2	54	106.67		
Se	78	74	H2	0.177	ppb	41.6	25	98.33		
Mo	95	103	He	0.325	ppb	14.4	431	180.56	R-11	< MRL
Ag	107	103	He	0.204	ppb	5.8	589	113.33		
Cd	111	103	He	0.200	ppb	15.1	110	111.11		
[Cd]	111	103	NoGas	0.189	ppb	8.3	297	105		
Sb	121	103	He	0.212	ppb	20.6	332	117.78		
Ba	138	159	He	0.194	ppb	3.9	857	107.78		
Hg	201	159	NoGas	-0.083	ppt	N/A	13	-1.15	R-11	< MRL
Tl	205	159	He	0.173	ppb	2.5	1,190	96.11		
Pb	208	159	NoGas	0.201	ppb	12.1	4,688	111.67		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	10.0	332,283	390560.36	85.1	
Sc	45	H2	Pulse	0.2	848,561	995916.946666667	85.2	
Sc	45	He	Pulse	0.5	150,240	171648.27	87.5	
Sc	45	NoGas	Analog	8.9	1,458,945	1663179.33	87.7	
Ge	74	H2	Pulse	0.3	297,175	344345.643333333	86.3	
Ge	74	He	Pulse	0.6	101,867	114794.926666667	88.7	
Ge	74	NoGas	Pulse	9.6	438,626	511960.473333333	85.7	
Rh	103	He	Pulse	0.6	246,031	279070.866666667	88.2	
Rh	103	NoGas	Pulse	10.0	536,709	619166.366666667	86.7	
Tb	159	He	Pulse	0.2	496,608	563985.973333333	88.1	
Tb	159	NoGas	Pulse	10.2	1,232,902	1490879.07333333	82.7	
Bi	209	He	Pulse	0.6	315,628	365534.536666667	86.3	
Bi	209	NoGas	Pulse	10.0	755,378	928203.173333333	81.4	

CRL Verification Report - ICPMS5

Sample Name:	**9J07068-CRL6**	Total Dilution:	1.0000
File Name:	091_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 01:01:09
Comment:	A19J031 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.857	ppb	1.4	930	95.22	
Na	23	45	He	42.803	ppb	2.4	22,669	95.12	
Mg	24	45	He	43.746	ppb	1.8	11,849	97.21	
Al	27	45	He	46.022	ppb	1.9	6,970	102.27	
K	39	45	He	50.050	ppb	1.3	33,366	111.22	
Ca	44	45	H2	43.487	ppb	4.2	4,600	96.64	
[Ca]	44	45	He	46.578	ppb	10.2	788	103.51	
Ti	47	45	NoGas	1.000	ppb	30.3	605	111.11	
V	51	74	He	0.940	ppb	3.7	1,988	104.44	
Cr	52	74	He	1.655	ppb	3.1	4,207	183.89	R-11
Mn	55	74	He	0.926	ppb	9.1	1,430	102.89	
Fe	56	74	H2	48.749	ppb	0.4	248,041	108.33	
Co	59	74	He	0.971	ppb	5.5	2,487	107.89	
Ni	60	74	He	0.933	ppb	5.6	609	103.67	
Cu	65	74	He	1.010	ppb	7.6	889	112.22	
Zn	66	74	He	0.797	ppb	11.9	326	88.56	
As	75	74	He	0.904	ppb	9.5	207	100.44	
Se	78	74	H2	0.895	ppb	11.9	126	99.44	
Mo	95	103	He	1.016	ppb	5.8	1,105	112.89	
Ag	107	103	He	0.946	ppb	3.2	2,760	105.11	
Cd	111	103	He	0.923	ppb	5.4	506	102.56	
[Cd]	111	103	NoGas	0.908	ppb	3.4	1,453	100.89	
Sb	121	103	He	0.929	ppb	8.5	1,415	103.22	
Ba	138	159	He	0.952	ppb	4.9	3,907	105.78	
Hg	201	159	NoGas	28.364	ppt	18.8	38	78.79	
Tl	205	159	He	0.907	ppb	4.5	6,146	100.78	
Pb	208	159	NoGas	0.908	ppb	0.3	20,764	100.89	

Cr MRL ↑ 4 ppb
ESS 10/8/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.4	359,738	390560.36	92.1	
Sc	45	H2	Pulse	0.3	861,763	995916.946666667	86.5	
Sc	45	He	Pulse	0.5	152,667	171648.27	88.9	
Sc	45	NoGas	Analog	0.8	1,576,170	1663179.33	94.8	
Ge	74	H2	Pulse	0.3	302,534	344345.643333333	87.9	
Ge	74	He	Pulse	0.5	102,544	114794.926666667	89.3	
Ge	74	NoGas	Pulse	1.0	474,742	511960.473333333	92.7	
Rh	103	He	Pulse	0.4	250,665	279070.866666667	89.8	
Rh	103	NoGas	Pulse	0.2	575,163	619166.366666667	92.9	
Tb	159	He	Pulse	0.2	501,762	563985.973333333	89.0	
Tb	159	NoGas	Pulse	0.7	1,330,560	1490879.07333333	89.2	
Bi	209	He	Pulse	0.1	320,196	365534.536666667	87.6	
Bi	209	NoGas	Pulse	0.9	809,691	928203.173333333	87.2	

CRL Verification Report - ICPMS5

Sample Name:	**9J07068-CRL7**	Total Dilution:	1.0000
File Name:	092CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 01:05:50
Comment:	A19J032 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	1.755	ppb	1.7	1,925	97.5	
Na	23	45	He	87.506	ppb	0.9	44,233	97.23	
Mg	24	45	He	87.630	ppb	1.1	23,636	97.37	
Al	27	45	He	87.971	ppb	2.3	13,344	97.75	
K	39	45	He	94.138	ppb	2.8	46,104	104.6	
Ca	44	45	H2	89.114	ppb	2.5	9,244	99.02	
[Ca]	44	45	He	84.941	ppb	9.2	1,293	94.38	
Ti	47	45	NoGas	1.909	ppb	15.2	1,141	106.06	
V	51	74	He	1.873	ppb	1.6	3,507	104.06	
Cr	52	74	He	2.435	ppb	1.2	5,740	135.28	R-11
Mn	55	74	He	1.716	ppb	4.5	2,624	95.33	
Fe	56	74	H2	92.312	ppb	0.3	459,559	102.57	
Co	59	74	He	1.849	ppb	2.3	4,792	102.72	
Ni	60	74	He	1.836	ppb	7.9	1,189	102	
Cu	65	74	He	1.885	ppb	4.0	1,590	104.72	
Zn	66	74	He	1.809	ppb	9.1	647	100.5	
As	75	74	He	1.785	ppb	3.1	403	99.17	
Se	78	74	H2	1.770	ppb	4.0	251	98.33	
Mo	95	103	He	1.805	ppb	3.6	1,883	100.28	
Ag	107	103	He	1.791	ppb	3.0	5,273	99.5	
Cd	111	103	He	1.833	ppb	5.7	1,011	101.83	
[Cd]	111	103	NoGas	1.784	ppb	4.7	2,869	99.11	
Sb	121	103	He	1.797	ppb	4.4	2,745	99.83	
Ba	138	159	He	1.876	ppb	3.6	7,652	104.22	
Hg	201	159	NoGas	67.779	ppt	10.2	72	94.14	
Tl	205	159	He	1.814	ppb	0.2	12,318	100.78	
Pb	208	159	NoGas	1.811	ppb	1.1	41,007	100.61	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.2	365,391	390560.36	93.6	
Sc	45	H2	Pulse	0.2	880,906	995916.946666667	88.5	
Sc	45	He	Pulse	0.7	153,905	171648.27	89.7	
Sc	45	NoGas	Analog	1.1	1,595,708	1663179.33	95.9	
Ge	74	H2	Pulse	0.5	307,064	344345.643333333	89.2	
Ge	74	He	Pulse	0.3	104,303	114794.926666667	90.9	
Ge	74	NoGas	Pulse	1.2	481,756	511960.473333333	94.1	
Rh	103	He	Pulse	0.5	253,285	279070.866666667	90.8	
Rh	103	NoGas	Pulse	0.8	582,463	619166.366666667	94.1	
Tb	159	He	Pulse	0.3	504,365	563985.973333333	89.4	
Tb	159	NoGas	Pulse	0.8	1,337,795	1490879.07333333	89.7	
Bi	209	He	Pulse	0.2	322,299	365534.536666667	88.2	
Bi	209	NoGas	Pulse	0.6	817,693	928203.173333333	88.1	

CRL Verification Report - ICPMS5

Sample Name:	**9J07068-CRL8**	Total Dilution:	1.0000
File Name:	093CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 01:10:30
Comment:	A19J033 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.568	ppb	5.1	3,947	99.11	
Na	23	45	He	173.930	ppb	0.7	87,190	96.63	
Mg	24	45	He	177.960	ppb	0.8	48,597	98.87	
Al	27	45	He	180.055	ppb	1.9	27,724	100.03	
K	39	45	He	181.739	ppb	1.1	72,222	100.97	
Ca	44	45	H2	172.048	ppb	2.0	17,761	95.58	
[Ca]	44	45	He	175.580	ppb	7.0	2,521	97.54	
Ti	47	45	NoGas	3.808	ppb	1.3	2,271	105.78	
V	51	74	He	3.683	ppb	1.1	6,471	102.31	
Cr	52	74	He	4.263	ppb	1.5	9,276	118.42	
Mn	55	74	He	3.595	ppb	0.8	5,473	99.86	
Fe	56	74	H2	181.542	ppb	0.3	899,028	100.86	
Co	59	74	He	3.626	ppb	2.2	9,494	100.72	
Ni	60	74	He	3.648	ppb	7.3	2,361	101.33	
Cu	65	74	He	3.927	ppb	2.6	3,233	109.08	
Zn	66	74	He	3.624	ppb	11.5	1,228	100.67	
As	75	74	He	3.612	ppb	2.7	812	100.33	
Se	78	74	H2	3.486	ppb	6.0	501	96.83	
Mo	95	103	He	3.637	ppb	2.6	3,703	101.03	
Ag	107	103	He	3.617	ppb	3.0	10,751	100.47	
Cd	111	103	He	3.524	ppb	3.3	1,961	97.89	
[Cd]	111	103	NoGas	3.570	ppb	1.8	5,756	99.17	
Sb	121	103	He	3.664	ppb	1.6	5,633	101.78	
Ba	138	159	He	3.762	ppb	1.9	15,392	104.5	
Hg	201	159	NoGas	121.650	ppt	5.4	118	84.48	
Tl	205	159	He	3.603	ppb	0.7	24,652	100.08	
Pb	208	159	NoGas	3.610	ppb	0.4	81,763	100.28	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.3	369,603	390560.36	94.6	
Sc	45	H2	Pulse	0.7	894,139	995916.946666667	89.8	
Sc	45	He	Pulse	0.2	156,816	171648.27	91.4	
Sc	45	NoGas	Analog	1.2	1,616,225	1663179.33	97.2	
Ge	74	H2	Pulse	0.2	311,857	344345.643333333	90.6	
Ge	74	He	Pulse	0.2	105,638	114794.926666667	92.0	
Ge	74	NoGas	Pulse	0.9	486,924	511960.473333333	95.1	
Rh	103	He	Pulse	0.2	255,884	279070.866666667	91.7	
Rh	103	NoGas	Pulse	0.6	586,293	619166.366666667	94.7	
Tb	159	He	Pulse	0.3	508,827	563985.973333333	90.2	
Tb	159	NoGas	Pulse	0.6	1,348,902	1490879.07333333	90.5	
Bi	209	He	Pulse	0.3	324,110	365534.536666667	88.7	
Bi	209	NoGas	Pulse	0.7	825,958	928203.173333333	89.0	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9J07068-CCV8**	Total Dilution:	1.0000
File Name:	102_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 01:52:24
Comment:	A19J037 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.412	ppb	1.2	35,937	40	101.03	
Na	23	45	He	4397.263	ppb	0.2	1,723,980	4000	109.93	
Mg	24	45	He	4339.914	ppb	1.1	946,695	4000	108.5	
Al	27	45	He	4063.691	ppb	0.8	501,057	4000	101.59	
K	39	45	He	4019.305	ppb	0.9	946,657	4000	100.48	
Ca	44	45	H2	4015.289	ppb	0.2	339,570	4000	100.38	
[Ca]	44	45	He	4156.407	ppb	2.3	44,485	4000	103.91	
Ti	47	45	NoGas	99.048	ppb	2.6	44,192	100	99.05	
V	51	74	He	101.541	ppb	0.3	128,756	100	101.54	
Cr	52	74	He	102.539	ppb	0.5	153,270	100	102.54	
Mn	55	74	He	101.721	ppb	0.5	119,578	100	101.72	
Fe	56	74	H2	4295.432	ppb	0.2	16,949,298	4000	107.39	
Co	59	74	He	105.290	ppb	0.4	215,500	100	105.29	
Ni	60	74	He	108.004	ppb	1.9	54,094	100	108	
Cu	65	74	He	105.872	ppb	0.3	66,013	100	105.87	
Zn	66	74	He	106.626	ppb	0.6	26,449	100	106.63	
As	75	74	He	97.692	ppb	1.5	16,958	100	97.69	
Se	78	74	H2	41.495	ppb	2.0	4,843	40	103.74	
Mo	95	103	He	40.620	ppb	1.5	31,273	40	101.55	
Ag	107	103	He	36.883	ppb	0.5	85,567	40	92.21	
Cd	111	103	He	100.819	ppb	0.6	43,746	100	100.82	
[Cd]	111	103	NoGas	102.708	ppb	1.1	121,703	100	102.71	
Sb	121	103	He	40.737	ppb	1.4	48,751	40	101.84	
Ba	138	159	He	97.385	ppb	0.7	340,559	100	97.38	
Hg	201	159	NoGas	848.359	ppt	2.9	621	800	106.04	
Tl	205	159	He	42.403	ppb	1.0	249,004	40	106.01	
Pb	208	159	NoGas	105.996	ppb	0.6	2,019,305	100	106	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.5	297,722	390560.36	76.2	
Sc	45	H2	Pulse	0.8	747,685	995916.946666667	75.1	
Sc	45	He	Pulse	0.8	126,013	171648.27	73.4	
Sc	45	NoGas	Mix	2.7	1,226,385	1663179.33	73.7	
Ge	74	H2	Pulse	0.5	253,764	344345.643333333	73.7	
Ge	74	He	Pulse	0.4	82,817	114794.926666667	72.1	
Ge	74	NoGas	Pulse	1.1	368,497	511960.473333333	72.0	
Rh	103	He	Pulse	0.6	199,864	279070.866666667	71.6	
Rh	103	NoGas	Pulse	0.6	432,612	619166.366666667	69.9	IS Q-06
Tb	159	He	Pulse	0.8	437,362	563985.973333333	77.5	
Tb	159	NoGas	Pulse	0.7	1,143,330	1490879.07333333	76.7	
Bi	209	He	Pulse	0.6	287,838	365534.536666667	78.7	
Bi	209	NoGas	Pulse	0.6	728,345	928203.173333333	78.5	

Continuing Calibration Verification (CCV) Report - ICPMS5

Sample Name:	**9J07068-CCV9**	Total Dilution:	1.0000
File Name:	103_CCV.d	Sample Type:	CCV
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 01:57:03
Comment:	A19J037 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Flag
Be	9	6	NoGas	40.747	ppb	0.5	39,403	40	101.87	
Na	23	45	He	4393.214	ppb	1.7	1,889,249	4000	109.83	
Mg	24	45	He	4321.571	ppb	0.6	1,034,100	4000	108.04	
Al	27	45	He	4060.762	ppb	0.1	549,237	4000	101.52	
K	39	45	He	4063.941	ppb	0.3	1,049,779	4000	101.6	
Ca	44	45	H2	4021.350	ppb	0.2	371,247	4000	100.53	
[Ca]	44	45	He	4174.765	ppb	0.2	49,016	4000	104.37	
Ti	47	45	NoGas	94.992	ppb	2.0	48,830	100	94.99	
V	51	74	He	101.916	ppb	0.1	142,733	100	101.92	
Cr	52	74	He	102.065	ppb	0.7	168,505	100	102.07	
Mn	55	74	He	102.078	ppb	0.2	132,534	100	102.08	
Fe	56	74	H2	4294.311	ppb	0.3	18,438,209	4000	107.36	
Co	59	74	He	105.278	ppb	0.4	237,989	100	105.28	
Ni	60	74	He	107.089	ppb	0.6	59,237	100	107.09	
Cu	65	74	He	106.862	ppb	0.3	73,591	100	106.86	
Zn	66	74	He	106.610	ppb	1.0	29,208	100	106.61	
As	75	74	He	97.963	ppb	0.6	18,781	100	97.96	
Se	78	74	H2	40.792	ppb	1.1	5,181	40	101.98	
Mo	95	103	He	40.597	ppb	1.6	34,337	40	101.49	
Ag	107	103	He	36.657	ppb	1.0	93,423	40	91.64	
Cd	111	103	He	100.176	ppb	0.4	47,751	100	100.18	
[Cd]	111	103	NoGas	101.152	ppb	0.5	133,739	100	101.15	
Sb	121	103	He	40.178	ppb	0.8	52,823	40	100.44	
Ba	138	159	He	98.987	ppb	0.5	369,971	100	98.99	
Hg	201	159	NoGas	824.841	ppt	4.8	648	800	103.11	
Tl	205	159	He	41.325	ppb	0.4	259,370	40	103.31	
Pb	208	159	NoGas	103.761	ppb	0.6	2,118,711	100	103.76	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	1.1	323,777	390560.36	82.9	
Sc	45	H2	Pulse	0.5	816,199	995916.946666667	82.0	
Sc	45	He	Pulse	0.4	138,225	171648.27	80.5	
Sc	45	NoGas	Analog	1.7	1,412,694	1663179.33	84.9	
Ge	74	H2	Pulse	0.3	276,127	344345.643333333	80.2	
Ge	74	He	Pulse	0.3	91,469	114794.926666667	79.7	
Ge	74	NoGas	Pulse	0.7	408,855	511960.473333333	79.9	
Rh	103	He	Pulse	0.2	219,559	279070.866666667	78.7	
Rh	103	NoGas	Pulse	0.7	482,696	619166.366666667	78.0	
Tb	159	He	Pulse	0.5	467,434	563985.973333333	82.9	
Tb	159	NoGas	Pulse	0.7	1,225,435	1490879.07333333	82.2	
Bi	209	He	Pulse	0.3	302,814	365534.536666667	82.8	
Bi	209	NoGas	Pulse	0.9	767,807	928203.173333333	82.7	

Continuing Calibration Blank (CCB) Report ICPMS5

Sample Name:	**9J07068-CCB8**	Total Dilution:	1.0000
File Name:	104_CCB.d	Sample Type:	CCB
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 02:01:42
Comment:	**CCB**		

Analyte Table:

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	QC Flag
Be	9	6	NoGas	0.003	ppb	125.1	11	
Na	23	45	He	-0.747	ppb	N/A	1,829	
Mg	24	45	He	0.054	ppb	252.6	278	
Al	27	45	He	0.838	ppb	38.2	202	
K	39	45	He	2.642	ppb	49.8	18,277	
Ca	44	45	H2	0.560	ppb	84.3	401	
[Ca]	44	45	He	-2.184	ppb	N/A	143	
Ti	47	45	NoGas	0.247	ppb	123.0	150	
V	51	74	He	-0.092	ppb	N/A	336	
Cr	52	74	He	0.163	ppb	36.6	1,315	
Mn	55	74	He	0.023	ppb	24.2	106	
Fe	56	74	H2	2.873	ppb	8.3	30,274	
Co	59	74	He	0.012	ppb	84.3	52	
Ni	60	74	He	-0.008	ppb	N/A	23	
Cu	65	74	He	0.014	ppb	293.1	109	
Zn	66	74	He	-0.035	ppb	N/A	63	
As	75	74	He	0.008	ppb	109.4	13	
Se	78	74	H2	0.079	ppb	5.9	11	
Mo	95	103	He	0.004	ppb	917.4	118	
Ag	107	103	He	0.004	ppb	44.4	19	
Cd	111	103	He	0.006	ppb	71.3	6	
[Cd]	111	103	NoGas	0.003	ppb	449.9	22	
Sb	121	103	He	0.273	ppb	8.9	389	
Ba	138	159	He	0.009	ppb	42.1	116	
Hg	201	159	NoGas	-5.352	ppt	N/A	9	
Tl	205	159	He	0.009	ppb	18.9	88	
Pb	208	159	NoGas	0.015	ppb	22.5	870	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC flag
Li	6	NoGas	Pulse	0.4	313,430	390560.36	80.3	
Sc	45	H2	Pulse	0.3	825,035	995916.946666667	82.8	
Sc	45	He	Pulse	0.9	139,065	171648.27	81.0	
Sc	45	NoGas	Analog	1.0	1,356,261	1663179.33	81.5	
Ge	74	H2	Pulse	0.3	282,399	344345.643333333	82.0	
Ge	74	He	Pulse	0.8	92,138	114794.926666667	80.3	
Ge	74	NoGas	Pulse	0.3	401,875	511960.473333333	78.5	
Rh	103	He	Pulse	0.9	226,064	279070.866666667	81.0	
Rh	103	NoGas	Pulse	0.3	482,572	619166.366666667	77.9	
Tb	159	He	Pulse	0.3	467,039	563985.973333333	82.8	
Tb	159	NoGas	Pulse	0.5	1,199,835	1490879.07333333	80.5	
Bi	209	He	Pulse	0.7	303,598	365534.536666667	83.1	
Bi	209	NoGas	Pulse	0.7	759,083	928203.173333333	81.8	

CRL Verification Report - ICPMS5

Sample Name:	**9J07068-CRL9**	Total Dilution:	1.0000
File Name:	105CRL.d	Sample Type:	CRL1
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 02:06:23
Comment:	A19J030 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag	
Be	9	6	NoGas	0.191	ppb	14.7	180	106.11		
Na	23	45	He	8.803	ppb	7.1	5,683	97.81		
Mg	24	45	He	9.137	ppb	8.0	2,351	101.52		
Al	27	45	He	9.995	ppb	2.1	1,382	111.06		
K	39	45	He	12.074	ppb	11.5	19,743	134.16	R-11	< MRL
Ca	44	45	H2	8.040	ppb	9.2	1,059	89.33		
[Ca]	44	45	He	6.876	ppb	97.6	239	76.4		
Ti	47	45	NoGas	0.269	ppb	18.0	153	149.44	R-11	< MRL
V	51	74	He	0.107	ppb	8.9	591	59.44	R-11	
Cr	52	74	He	1.085	ppb	8.1	2,728	602.78	R-11	
Mn	55	74	He	0.205	ppb	11.3	330	113.89		
Fe	56	74	H2	13.019	ppb	1.2	72,543	144.66	R-11	< MRL
Co	59	74	He	0.189	ppb	10.1	438	105		
Ni	60	74	He	0.228	ppb	13.4	149	126.67		
Cu	65	74	He	0.233	ppb	11.5	250	129.44		
Zn	66	74	He	0.180	ppb	52.0	118	100		
As	75	74	He	0.177	ppb	20.4	44	98.33		
Se	78	74	H2	0.161	ppb	39.3	21	89.44		
Mo	95	103	He	0.308	ppb	9.5	367	171.11	R-11	< MRL
Ag	107	103	He	0.187	ppb	9.5	477	103.89		
Cd	111	103	He	0.170	ppb	9.3	83	94.44		
[Cd]	111	103	NoGas	0.155	ppb	15.4	214	86.11		
Sb	121	103	He	0.240	ppb	5.4	330	133.33	R-11	< MRL
Ba	138	159	He	0.183	ppb	17.6	748	101.67		
Hg	201	159	NoGas	-0.869	ppt	N/A	12	-12.07	R-11	< MRL
Tl	205	159	He	0.191	ppb	7.4	1,206	106.11		
Pb	208	159	NoGas	0.193	ppb	1.6	4,316	107.22		

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.2	301,551	390560.36	77.2	
Sc	45	H2	Pulse	0.5	795,494	995916.946666667	79.9	
Sc	45	He	Pulse	0.9	132,730	171648.27	77.3	
Sc	45	NoGas	Analog	1.7	1,298,499	1663179.33	78.1	
Ge	74	H2	Pulse	0.5	273,930	344345.643333333	79.6	
Ge	74	He	Pulse	0.7	88,537	114794.926666667	77.1	
Ge	74	NoGas	Pulse	0.4	382,428	511960.473333333	74.7	
Rh	103	He	Pulse	1.1	216,990	279070.866666667	77.8	
Rh	103	NoGas	Pulse	0.4	462,130	619166.366666667	74.6	
Tb	159	He	Pulse	0.2	456,025	563985.973333333	80.9	
Tb	159	NoGas	Pulse	0.4	1,164,618	1490879.07333333	78.1	
Bi	209	He	Pulse	1.1	298,462	365534.536666667	81.7	
Bi	209	NoGas	Pulse	0.6	741,743	928203.173333333	79.9	

CRL Verification Report - ICPMS5

Sample Name:	**9J07068-CRLA**	Total Dilution:	1.0000
File Name:	106_CRL.d	Sample Type:	CRL2
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 02:11:03
Comment:	A19J031 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	0.845	ppb	5.3	758	93.89	
Na	23	45	He	47.310	ppb	2.9	21,287	105.13	
Mg	24	45	He	47.833	ppb	1.0	11,096	106.3	
Al	27	45	He	46.057	ppb	0.7	5,987	102.35	
K	39	45	He	46.779	ppb	1.7	27,848	103.95	
Ca	44	45	H2	43.286	ppb	7.1	4,134	96.19	
[Ca]	44	45	He	40.836	ppb	4.4	612	90.75	
Ti	47	45	NoGas	1.052	ppb	15.6	491	116.89	
V	51	74	He	0.826	ppb	4.2	1,524	91.78	
Cr	52	74	He	1.742	ppb	10.3	3,678	193.56	R-11
Mn	55	74	He	0.866	ppb	3.2	1,131	96.22	
Fe	56	74	H2	49.448	ppb	0.7	221,633	109.88	
Co	59	74	He	0.895	ppb	3.3	1,932	99.44	
Ni	60	74	He	0.955	ppb	2.1	524	106.11	
Cu	65	74	He	1.016	ppb	10.2	752	112.89	
Zn	66	74	He	0.905	ppb	17.1	302	100.56	
As	75	74	He	0.881	ppb	10.9	170	97.89	
Se	78	74	H2	0.943	ppb	15.5	117	104.78	
Mo	95	103	He	0.924	ppb	8.9	866	102.67	
Ag	107	103	He	0.964	ppb	3.0	2,396	107.11	
Cd	111	103	He	0.932	ppb	9.1	435	103.56	
[Cd]	111	103	NoGas	0.942	ppb	2.2	1,183	104.67	
Sb	121	103	He	0.941	ppb	5.8	1,221	104.56	
Ba	138	159	He	0.884	ppb	1.5	3,248	98.22	
Hg	201	159	NoGas	27.479	ppt	9.8	33	76.33	
Tl	205	159	He	0.952	ppb	7.5	5,762	105.78	
Pb	208	159	NoGas	0.953	ppb	2.3	18,826	105.89	

Cr MRL ↑ 4 ppb
~~MRL~~ ESS 10/6/19

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.3	297,426	390560.36	76.2	
Sc	45	H2	Pulse	0.4	777,749	995916.946666667	78.1	
Sc	45	He	Pulse	0.9	131,017	171648.27	76.3	
Sc	45	NoGas	Mix	1.3	1,219,506	1663179.33	73.3	
Ge	74	H2	Pulse	0.2	266,788	344345.643333333	77.5	
Ge	74	He	Pulse	0.7	86,353	114794.926666667	75.2	
Ge	74	NoGas	Pulse	1.2	373,836	511960.473333333	73.0	
Rh	103	He	Pulse	0.8	213,504	279070.866666667	76.5	
Rh	103	NoGas	Pulse	0.2	451,505	619166.366666667	72.9	
Tb	159	He	Pulse	0.4	448,365	563985.973333333	79.5	
Tb	159	NoGas	Pulse	0.6	1,150,684	1490879.07333333	77.2	
Bi	209	He	Pulse	0.2	296,118	365534.536666667	81.0	
Bi	209	NoGas	Pulse	0.7	738,917	928203.173333333	79.6	

CRL Verification Report - ICPMS5

Sample Name:	**9J07068-CRLB**	Total Dilution:	1.0000
File Name:	107CRL_.d	Sample Type:	CRL3
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 02:15:44
Comment:	A19J032 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	2.012	ppb	11.4	1,685	111.78	
Na	23	45	He	92.652	ppb	1.2	39,565	102.95	
Mg	24	45	He	93.496	ppb	1.8	21,351	103.88	
Al	27	45	He	90.984	ppb	2.6	11,690	101.09	
K	39	45	He	91.625	ppb	1.4	38,463	101.81	
Ca	44	45	H2	85.502	ppb	2.6	7,814	95	
[Ca]	44	45	He	89.823	ppb	4.7	1,150	99.8	
Ti	47	45	NoGas	2.084	ppb	7.9	896	115.78	
V	51	74	He	1.781	ppb	3.2	2,764	98.94	
Cr	52	74	He	2.680	ppb	3.5	5,095	148.89	R-11
Mn	55	74	He	1.821	ppb	7.2	2,285	101.17	
Fe	56	74	H2	93.170	ppb	0.6	401,968	103.52	
Co	59	74	He	1.934	ppb	4.2	4,122	107.44	
Ni	60	74	He	1.852	ppb	2.1	986	102.89	
Cu	65	74	He	1.946	ppb	1.8	1,347	108.11	
Zn	66	74	He	1.890	ppb	4.5	552	105	
As	75	74	He	1.813	ppb	7.4	336	100.72	
Se	78	74	H2	1.688	ppb	6.6	208	93.78	
Mo	95	103	He	1.812	ppb	5.7	1,579	100.67	
Ag	107	103	He	1.830	ppb	3.2	4,500	101.67	
Cd	111	103	He	1.798	ppb	1.4	829	99.89	
[Cd]	111	103	NoGas	1.877	ppb	13.1	2,192	104.28	
Sb	121	103	He	1.812	ppb	3.6	2,312	100.67	
Ba	138	159	He	1.758	ppb	2.7	6,380	97.67	
Hg	201	159	NoGas	67.795	ppt	4.1	58	94.16	
Tl	205	159	He	1.880	ppb	2.5	11,349	104.44	
Pb	208	159	NoGas	2.062	ppb	7.9	37,562	114.56	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	7.7	280,835	390560.36	71.9	
Sc	45	H2	Pulse	0.7	774,741	995916.946666667	77.8	
Sc	45	He	Pulse	0.8	130,408	171648.27	76.0	
Sc	45	NoGas	Mix	6.8	1,148,763	1663179.33	69.1	IS Q-06
Ge	74	H2	Pulse	0.4	266,210	344345.643333333	77.3	
Ge	74	He	Pulse	0.6	85,745	114794.926666667	74.7	
Ge	74	NoGas	Pulse	7.1	352,841	511960.473333333	68.9	IS Q-06
Rh	103	He	Pulse	0.2	211,533	279070.866666667	75.8	
Rh	103	NoGas	Pulse	6.8	425,630	619166.366666667	68.7	IS Q-06
Tb	159	He	Pulse	0.5	448,263	563985.973333333	79.5	
Tb	159	NoGas	Pulse	6.6	1,081,891	1490879.07333333	72.6	
Bi	209	He	Pulse	0.5	297,897	365534.536666667	81.5	
Bi	209	NoGas	Pulse	7.2	697,103	928203.173333333	75.1	

CRL Verification Report - ICPMS5

Sample Name:	**9J07068-CRLC**	Total Dilution:	1.0000
File Name:	108CRL4.d	Sample Type:	CRL4
Data Path Name:	C:\Agilent\ICPMH\1\DATA\9J07068.b	Acq Time:	10/8/2019 02:20:24
Comment:	A19J033 - ESS 10/07		

Analyte Table:

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	Flag
Be	9	6	NoGas	3.702	ppb	2.1	3,304	102.83	
Na	23	45	He	188.273	ppb	0.4	78,029	104.6	
Mg	24	45	He	188.990	ppb	0.9	42,744	104.99	
Al	27	45	He	179.189	ppb	2.7	22,860	99.55	
K	39	45	He	183.990	ppb	0.6	60,374	102.22	
Ca	44	45	H2	176.598	ppb	0.7	15,709	98.11	
[Ca]	44	45	He	172.855	ppb	2.3	2,059	96.03	
Ti	47	45	NoGas	3.761	ppb	4.5	1,683	104.47	
V	51	74	He	3.492	ppb	1.7	5,036	97	
Cr	52	74	He	4.446	ppb	1.6	7,865	123.5	
Mn	55	74	He	3.667	ppb	4.5	4,561	101.86	
Fe	56	74	H2	181.994	ppb	0.6	765,449	101.11	
Co	59	74	He	3.680	ppb	0.6	7,873	102.22	
Ni	60	74	He	3.692	ppb	1.2	1,952	102.56	
Cu	65	74	He	3.846	ppb	1.8	2,589	106.83	
Zn	66	74	He	3.805	ppb	1.5	1,050	105.69	
As	75	74	He	3.531	ppb	3.1	649	98.08	
Se	78	74	H2	3.640	ppb	4.9	444	101.11	
Mo	95	103	He	3.548	ppb	2.4	3,004	98.56	
Ag	107	103	He	3.715	ppb	3.6	9,175	103.19	
Cd	111	103	He	3.687	ppb	2.7	1,705	102.42	
[Cd]	111	103	NoGas	3.710	ppb	4.1	4,548	103.06	
Sb	121	103	He	3.583	ppb	6.6	4,577	99.53	
Ba	138	159	He	3.547	ppb	3.1	12,720	98.53	
Hg	201	159	NoGas	150.332	ppt	7.6	120	104.4	
Tl	205	159	He	3.803	ppb	1.5	22,796	105.64	
Pb	208	159	NoGas	3.864	ppb	1.3	74,151	107.33	

ISTD Table:

Name	Mass	Tune Mode	Det.	CPS RSD	CPS	ISTD Ref CPS	ISTD Recovery %	QC Flag
Li	6	NoGas	Pulse	0.4	298,133	390560.36	76.3	
Sc	45	H2	Pulse	0.3	770,846	995916.946666667	77.4	
Sc	45	He	Pulse	0.4	129,924	171648.27	75.7	
Sc	45	NoGas	Mix	1.1	1,212,071	1663179.33	72.9	
Ge	74	H2	Pulse	0.3	264,879	344345.643333333	76.9	
Ge	74	He	Pulse	0.3	86,331	114794.926666667	75.2	
Ge	74	NoGas	Pulse	0.9	373,739	511960.473333333	73.0	
Rh	103	He	Pulse	0.2	212,598	279070.866666667	76.2	
Rh	103	NoGas	Pulse	0.6	445,804	619166.366666667	72.0	
Tb	159	He	Pulse	0.6	445,806	563985.973333333	79.0	
Tb	159	NoGas	Pulse	0.4	1,143,444	1490879.07333333	76.7	
Bi	209	He	Pulse	0.6	297,484	365534.536666667	81.4	
Bi	209	NoGas	Pulse	0.8	740,953	928203.173333333	79.8	

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 9100841
Sequence 9J10037

APEX LABORATORIES

As (Arsenic) - 6020 - Total

PREPARATION BENCH SHEET

9100841

OCT 14 2019

Apex Laboratories
BATCH #: 9100841 (Sediment)
Prep Method: EPA 3051A

Lab Number	Due	Prepared	Initial (g)	Final (mL)	Client	ClientID / Sample	Extraction Comments
9100841-BLK1	---	10/09/19 07:37	0.520	50	*QC Sample*		
9100841-BS1	---	10/09/19 07:37	0.5	50	*QC Sample*		
Spike 1: 2500 uL of A19I253 Spike 2: 250 uL of A19I359							
A9J0058-18	*10/15/19*	10/09/19 07:37	0.5 471	50	Anchor QEA, LLC	PDI-042SC-B-3.9-5.9-19093	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0058-19	*10/15/19*	10/09/19 07:37	0.5 483	50	Anchor QEA, LLC	PDI-042SC-B-5.9-7.9-19093	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0058-20	*10/15/19*	10/09/19 07:37	0.519	50	Anchor QEA, LLC	PDI-042SC-B-7.9-9.9-19093	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0058-21	*10/15/19*	10/09/19 07:37	0.5 482	50	Anchor QEA, LLC	PDI-042SC-B-9.9-11.9-1909	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
9100841-DUP1	---	10/09/19 07:37	0.514	50	*QC Sample*		
Source: A9J0058-21							
9100841-MS1	---	10/09/19 07:37	0.50	50	*QC Sample*		
Source: A9J0058-21 Spike 1: 2500 uL of A19I253 Spike 2: 250 uL of A19I359							
A9J0058-24	*10/15/19*	10/09/19 07:37	0.508	50	Anchor QEA, LLC	PDI-044SC-B-11.1-12.8-190	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0058-25	*10/15/19*	10/09/19 07:37	0.509	50	Anchor QEA, LLC	PDI-044SC-B-7.1-9.1-19093	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0058-26	*10/15/19*	10/09/19 07:37	0.5 491	50	Anchor QEA, LLC	PDI-044SC-B-9.1-11.1-1909	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0063-04	*10/15/19*	10/09/19 07:37	0.5 491	50	Anchor QEA, LLC	PDI-046SC-B-11.8-13.5-191	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0063-05	*10/15/19*	10/09/19 07:37	0.5 491	50	Anchor QEA, LLC	PDI-046SC-B-7.8-9.8-19100	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0063-06	*10/15/19*	10/09/19 07:37	0.5 492	50	Anchor QEA, LLC	PDI-046SC-B-9.8-11.8-1910	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0063-13	*10/15/19*	10/09/19 07:37	0.5 494	50	Anchor QEA, LLC	PDI-047SC-B-11.5-13.2-191	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0063-14	*10/15/19*	10/09/19 07:37	0.5 491	50	Anchor QEA, LLC	PDI-047SC-B-9.5-11.5-1910	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							

Prepared By: 10/9/19 Date

Reviewed By: 10/11/19 Date

APEX LABORATORIES

Apex Laboratories
BATCH #: 9100841 (Sediment)
Prep Method: EPA 3051A

Lab Number	Due	Prepared	Initial (g)	Final (mL)	Client	ClientID / Sample	Extraction Comments
A9J0063-17	*10/15/19*	**10/09/19 07:37**	0.5 .491	**50**	**Anchor QEA, LLC**	**PDI-071SC-B-00-02-191001**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0063-18	*10/15/19*	**10/09/19 07:37**	0.503	**50**	**Anchor QEA, LLC**	**PDI-071SC-B-02-04-191001**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0063-19	*10/15/19*	**10/09/19 07:37**	0.5 .495	**50**	**Anchor QEA, LLC**	**PDI-071SC-B-04-06-191001**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0063-20	*10/15/19*	**10/09/19 07:37**	0.5 20	**50**	**Anchor QEA, LLC**	**PDI-071SC-B-06-08-191001**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0063-21	*10/15/19*	**10/09/19 07:37**	0.5 .492	**50**	**Anchor QEA, LLC**	**PDI-071SC-B-08-10-191001**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0063-22	*10/15/19*	**10/09/19 07:37**	0.5 .490	**50**	**Anchor QEA, LLC**	**PDI-071SC-B-10-11.5-1910**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							
A9J0063-23	*10/15/19*	**10/09/19 07:37**	0.5 19	**50**	**Anchor QEA, LLC**	**PDI-1071SC-B-02-04-19100**	CAP TESTING/Waters
☐ As (Arsenic) - 6020 - Total							

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L213	11/30/23	Metals Prep Balance 2
A15E001	05/01/20	Mars-1 Microwave
A19F065	10/31/19	30% hydrogen peroxide
A19F120	06/12/20	Conc. HCl - Omnitrace
A19I313	03/22/20	Conc. HNO3 - Omnitrace

Analyte Spike(s)

Std ID	Exp. Date	Description
A19I253	12/11/19	**Combo Spike** A+B+C
A19I359	03/08/20	Hg Spiking Standard IGT 10/9/19

IGT 10/9/19
A.) A19I210, 1250uL
B.) A19I123, 625uL
C) A19I124, 625uL

Digestion time and temperature achieved? 425
Initials: IGT 10/9/19

Prepared By: 10/9/19 Date

Reviewed By: Date

Batch #: 9100841

If observed weight loss < 0.2g Digestion is within control limits

If observed weight loss > 0.2g Enter data in to electronic VWW. Acceptance limit 1.0% sample loss.

Date: 10/09/19 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	9100841-BLK1	186.09	186.08	n/a
2	S62	9100841-BS1	183.95	183.93	n/a
3	S61	A9J0058-18	186.26	186.25	n/a
4	S73	A9J0058-19	186.02	186.02	n/a
5	S51	A9J0058-20	186.29	186.22	n/a
6	S72	A9J0058-21	185.47	185.46	n/a
7	S18	9100841-DUP1	185.66	185.65	n/a
8	S12	9100841-MS1	186.63	186.62	n/a
9	S61	A9J0058-24	185.31	185.32	n/a
10	S28	A9J0058-25	185.69	185.69	n/a
11	S40	A9J0058-26	186.20	186.18	n/a
12	S66	A9J0063-04	188.64	188.64	n/a
13	S22	A9J0063-05	185.90	185.81	n/a
14	S70	A9J0063-06	185.37	185.37	n/a
15	S77	A9J0063-13	186.45	186.44	n/a
16	S17	A9J0063-14	187.99	188.00	n/a
17	S1	A9J0063-17	187.41	187.41	n/a
18	S44	A9J0063-18	185.26	185.20	n/a
19	S76	A9J0063-19	185.97	185.98	n/a
20	S107	A9J0063-20	183.90	183.93	n/a
21	S41	A9J0063-21	186.83	186.83	n/a
22	S52	A9J0063-22	186.41	186.39	n/a
23	S68	A9J0063-23	186.79	186.80	n/a
24					n/a
25					n/a

*Example Calculation: (Pre(g) – Post(g))/(Post(g) – 159.32g) This represents the mean weight of the empty digestion vessels. By factoring in the mean digestion vessel weight, we observe weight loss from only the sample, rather than as a percentage of the sample+vessel weight.

ELEMENT SEQUENCE LOG

Apex Laboratories

Sequence: **9J10037** Instrument: **ICPMS6**

Date: **10/10/19 12:25** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J10037-CAL1	Water	QC	QC			A19J130	A19J030
2	9J10037-CAL2	Water	QC	QC			A19J130	A19J031
3	9J10037-CAL3	Water	QC	QC			A19J130	A19J032
4	9J10037-CAL4	Water	QC	QC			A19J130	A19J033
5	9J10037-CAL5	Water	QC	QC			A19J130	A19J035
6	9J10037-CAL6	Water	QC	QC			A19J130	A19J034
7	9J10037-CAL7	Water	QC	QC			A19J130	A19J036
8	9J10037-CAL8	Water	QC	QC			A19J130	A19I054
9	9J10037-CAL9	Water	QC	QC			A19J130	A19I053
10	9J10037-ICV1	Water	QC	QC			A19J130	A19J138
11	9J10037-ICB1	Water	QC	QC			A19J130	
12	9J10037-CRL1	Water	QC	QC			A19J130	A19J030
13	9J10037-CRL2	Water	QC	QC			A19J130	A19J031
14	9J10037-CRL3	Water	QC	QC			A19J130	A19J032
15	9J10037-IFA1	Water	QC	QC			A19J130	A19J158
16	9J10037-IFB1	Water	QC	QC			A19J130	A19J159
17	9100841-BLK1	Sediment	QC	QC		9100841	A19J130	
18	9100841-BS1	Sediment	QC	QC		9100841	A19J130	
19	A9J0058-18	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
20	A9J0058-19	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
21	A9J0058-20	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
22	A9J0058-21	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
23	9100841-DUP1	Sediment	QC	QC		9100841	A19J130	
24	9100841-MS1	Sediment	QC	QC		9100841	A19J130	
25	A9J0058-24	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
26	A9J0058-25	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
27	9J10037-CCV1	Water	QC	QC			A19J130	A19J138
28	9J10037-CCB1	Water	QC	QC			A19J130	
29	A9J0058-26	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
30	A9J0063-04	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
31	A9J0063-05	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
32	A9J0063-06	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
33	A9J0063-13	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
34	A9J0063-14	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
35	A9J0063-17	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
36	A9J0063-18	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
37	A9J0063-19	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
38	A9J0063-20	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
39	9J10037-CCV2	Water	QC	QC			A19J130	A19J138
40	9J10037-CCB2	Water	QC	QC			A19J130	
41	A9J0063-21	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
42	A9J0063-22	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
43	A9J0063-23	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/15/19	9100841	A19J130	
44	9100867-BLK1	Sediment	QC	QC		9100867	A19J130	
45	9100867-BS1	Sediment	QC	QC		9100867	A19J130	
46	A9J0149-06	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
47	A9J0149-07	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
48	A9J0149-08	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
49	A9J0149-11	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
50	9J10037-CCV3	Water	QC	QC			A19J130	A19J138
51	9J10037-CCB3	Water	QC	QC			A19J130	

Sequence: **9J10037** Instrument: **ICPMS6**

Date: **10/10/19 12:25** Calibration: **UNASSIGNED**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
52	9100867-DUP1	Sediment	QC	QC		9100867	A19J130	
53	9100867-MS1	Sediment	QC	QC		9100867	A19J130	
54	A9J0149-12	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
55	A9J0149-13	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
56	A9J0149-14	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
57	A9J0149-18	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
58	A9J0149-19	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
59	A9J0149-20	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
60	A9J0149-21	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
61	A9J0149-24	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
62	9J10037-CCV4	Water	QC	QC			A19J130	A19J138
63	9J10037-CCB4	Water	QC	QC			A19J130	
64	A9J0149-25	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
65	A9J0149-26	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
66	A9J0149-27	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
67	A9J0149-28	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
68	A9J0149-29	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
69	A9J0149-30	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
70	A9J0149-33	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
71	A9J0149-34	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100867	A19J130	
72	9100918-BLK1	Sediment	QC	QC		9100918	A19J130	
73	9J10037-CCV5	Water	QC	QC			A19J130	A19J138
74	9J10037-CCB5	Water	QC	QC			A19J130	
75	9100918-BS1	Sediment	QC	QC		9100918	A19J130	
76	A9J0149-35	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
77	A9J0149-36	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
78	9100918-MS1	Sediment	QC	QC		9100918	A19J130	
79	9100918-MSD1	Sediment	QC	QC		9100918	A19J130	
80	A9J0149-37	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
81	A9J0149-38	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
82	A9J0149-39	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
83	A9J0149-40	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
84	A9J0149-41	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
85	9J10037-CCV6	Water	QC	QC			A19J130	A19J138
86	9J10037-CCB6	Water	QC	QC			A19J130	
87	A9J0149-44	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
88	A9J0149-45	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
89	A9J0149-46	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
90	A9J0149-47	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
91	A9J0149-48	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
92	A9J0149-49	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
93	A9J0149-50	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
94	A9J0149-51	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
95	A9J0149-52	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
96	A9J0149-53	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
97	9J10037-CCV7	Water	QC	QC			A19J130	A19J138
98	9J10037-CCB7	Water	QC	QC			A19J130	
99	A9J0149-54	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
100	A9J0149-55	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
101	A9J0149-56	Sediment	As (Arsenic) - 6020 - Total	Anchor QEA, LLC	10/17/19	9100918	A19J130	
102	9J10037-CCV8	Water	QC	QC			A19J130	A19J138
103	9J10037-CCB8	Water	QC	QC			A19J130	
104	9J10037-CRL4	Water	QC	QC			A19J130	A19J030
105	9J10037-CRL5	Water	QC	QC			A19J130	A19J031
106	9J10037-CRL6	Water	QC	QC			A19J130	A19J032

Sequence:	9J10037	Instrument:	ICPMS6
Date:	10/10/19 12:25	Calibration:	UNASSIGNED

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
107	9J10037-CRL7	Water	QC	QC			A19J130	A19J033

Data Entered By: JB 10/11/19

Comments:

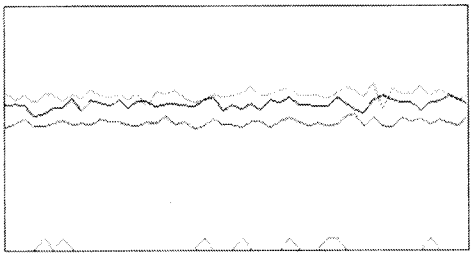
Data Reviewed By: [signature] 10/11/19

Standard Tune Check Report ICPMS6

Operator Name	ICPMS Analyst
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\9J10037.b
Acq. Date-Time	10/10/2019 12:44:03
Report Comment	9J10037 General Multi-Mode Tune Report Std ID A19I052
Instrument Name	ICPMS6 JP17412047

[No Gas]

Sensitivity



Sampling Period [sec] 0.413

Integration Time [sec] 0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
7	5000	2637	26368.75	5000.00	
89	10000	6416	64162.22	10000.00	
205	10000	6032	60318.32	10000.00	
102	20	0			

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
7	0.41	0.20 - 1.00	
89	1.00	1.00 - 1.00	
205	0.94	0.50 - 1.50	
102		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
7	2.688	5.000	
89	3.200	5.000	
205	3.187	5.000	
102	231.455		

Mass	Background	Background (Required)	Background (Flag)
7	0.100	6.900	
89	0.200	4.600	
205	0.500	11.500	
102	0.200		

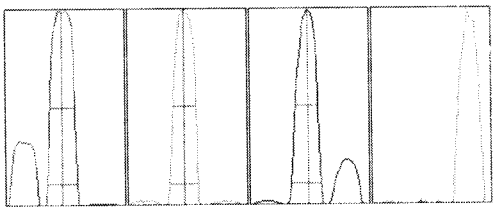
Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.569 %
Doubly Charged	69 / 138 1.932 %

Resolution/Axis

Integration Time [sec] 0.1

Standard Tune Check Report ICPMS6



Acquisition Time [sec]	30.12
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
7	2602.90	6.95	6.90 - 7.10	
89	6514.09	88.95	88.90 - 89.10	
205	6076.36	205.00	204.90 - 205.10	
102	1.00	101.75	-	

Mass	W-50%	W-10%	W-10% (Required)	W-10% (Flag)
7	0.63	0.759	0.900	
89	0.59	0.715	0.900	
205	0.58	0.752	0.900	
102	0.10	0.140		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.95 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.5 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	5.3 V	Deflect	11.4 V
Extract 2	-135.0 V	Cell Entrance	-40 V	Plate Bias	-40 V
Omega Bias	-100 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	130 V		

QP Parameters

Mass Gain	129	Axis Gain	0.9995	QP Bias	-3.0 V
Mass Offset	126	Axis Offset	-0.02		

Hardware Settings

Torch

Torch H	-0.5 mm	Torch V	0.6 mm		

EM

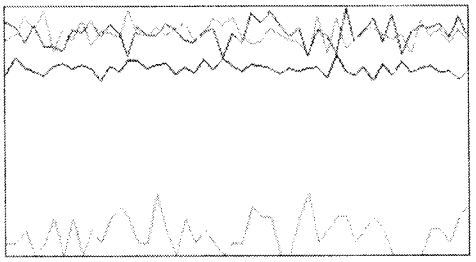
Discriminator	4.9 mV	Analog HV	2252 V	Pulse HV	1655 V

[He]

Sensitivity

Sampling Period [sec]	0.412

Standard Tune Check Report ICPMS6



Integration Time [sec] 0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
59	1000	896	8956.24	1000.00	
89	1000	894	8940.29	2000.00	
205	5000	3757	37571.85	1000.00	
75	20	2			

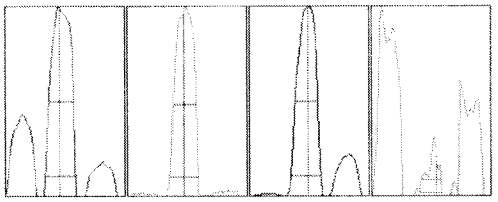
Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
75		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
59	5.372	5.000	Fail
89	4.854	5.000	
205	3.204	5.000	
75	78.873		

← see EPA tune for RSD
YB 10/11/19

Mass	Background	Background (Required)	Background (Flag)
59			
89			
205			
75			

Resolution/Axis



Integration Time [sec] 0.1
Acquisition Time [sec] 29.92
Y Axis Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
59	913.33	58.90	58.90 - 59.10	
89	874.31	88.95	88.90 - 89.10	
205	3760.66	205.00	204.90 - 205.10	
75	2.25	75.15	-	

Mass	W-50%	W-10%	W-10% (Required)	W-10% (Flag)
59	0.63	0.759	0.900	
89	0.58	0.712	0.900	

Standard Tune Check Report ICPMS6

Mass	W-50%	W-10%	W-10% (Required)	W-10% (Flag)
205	0.58	0.751	0.900	
75	0.51	0.584		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.95 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.5 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	5.3 V	Deflect	2.0 V
Extract 2	-135.0 V	Cell Entrance	-40 V	Plate Bias	-50 V
Omega Bias	-100 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	3.7 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	130 V		

QP Parameters

Mass Gain	129	Axis Gain	0.9995	QP Bias	-13.0 V
Mass Offset	126	Axis Offset	-0.02		

Hardware Settings

Torch

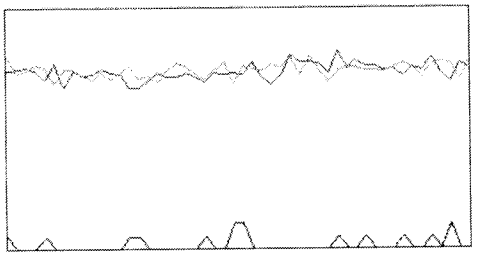
Torch H	-0.5 mm	Torch V	0.6 mm

EM

Discriminator	4.9 mV	Analog HV	2252 V	Pulse HV	1655 V

[HEHe]

Sensitivity



Sampling Period [sec]	0.306
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
59	1000	740	7401.94	1000.00	
89	2000	1492	14919.63	2000.00	
78	20	0			

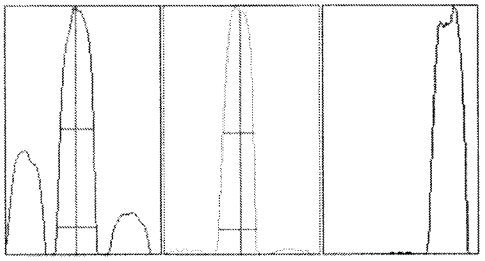
Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
78		-	

Standard Tune Check Report ICPMS6

Mass	RSD%	RSD% (Required)	RSD% (Flag)
59	4.531	5.000	
89	3.847	5.000	
78	193.430		

Mass	Background	Background (Required)	Background (Flag)
59			
89			
78			

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.14
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
59	758.73	58.90	58.90 - 59.10	
89	1425.78	89.00	88.90 - 89.10	
78			-	

Mass	W-50%	W-10%	W-10% (Required)	W-10% (Flag)
59	0.64	0.768	0.900	
89	0.59	0.720	0.900	
78				

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.95 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.5 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	5.3 V	Deflect	-80.0 V
Extract 2	-135.0 V	Cell Entrance	-130 V	Plate Bias	-150 V
Omega Bias	-100 V	Cell Exit	-150 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	4.0 V
He Flow	10.0 mL/min	OctP Bias	-100.0 V		
H2 Flow	---	OctP RF	130 V		

QP Parameters

Mass Gain	129	Axis Gain	0.9995	QP Bias	-96.0 V
Mass Offset	126	Axis Offset	-0.02		

Hardware Settings

Torch

Standard Tune Check Report ICPMS6

Torch H	-0.5 mm	Torch V	0.6 mm		

EM

Discriminator	4.9 mV	Analog HV	2252 V	Pulse HV	1655 V

EPA Tune Check Report ICPMS6

Operator Name	ICPMS Analyst
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\9J10037.b
Acq. Date-Time	10/10/2019 13:00:36
Report Comment	9J10037 EPA Multi-Mode Tune Report Std ID A19I052
Instrument Name	ICPMS6 JP17412047

[No Gas]

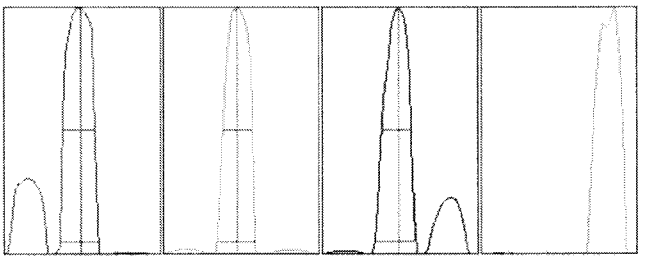
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Req) [cps/ug/l]	RSD%	Resp (Flag)	RSD% (Req)	RSD% (Flag)
7	1.00	1664	16644.54	5000.00	0.626		5.000	
89	1.00	3782	37816.79	10000.00	1.108		5.000	
205	1.00	3377	33773.53	10000.00	0.977		5.000	
102		0	0.70		63.888			

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
7	1659	1659	1663	1659	1683
89	3732	3812	3799	3742	3824
205	3406	3362	3332	3374	3412
102	0	0	0	0	0

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Ht	Axis	Axis (Req)	Axis (Flag)	W-50%	W-5%	W-X% (Req)	W-5% (Flag)
7	2732.36	7.00	6.90 - 7.10		0.63	0.739	0.900	
89	6715.24	88.95	88.90 - 89.10		0.59	0.735	0.900	
205	6208.94	205.00	204.90 - 205.10		0.57	0.786	0.900	
102			-					

Integration Time [sec] 0.1

Acquisition Time [sec] 135.3

Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.95 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min

EPA Tune Check Report ICPMS6

RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.5 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	5.3 V	Deflect	11.4 V
Extract 2	-135.0 V	Cell Entrance	-40 V	Plate Bias	-40 V
Omega Bias	-100 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	130 V		

QP Parameters

Mass Gain	129	Axis Gain	0.9995	QP Bias	-3.0 V
Mass Offset	126	Axis Offset	-0.02		

Hardware Settings

Torch

Torch H	-0.5 mm	Torch V	0.6 mm

EM

Discriminator	4.9 mV	Analog HV	2252 V	Pulse HV	1655 V

[He]

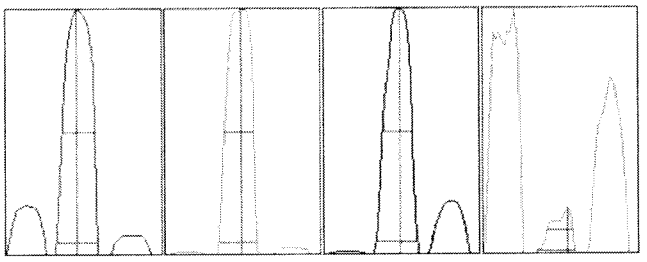
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Req) [cps/ug/l]	RSD%	Resp (Flag)	RSD% (Req)	RSD% (Flag)
59	1.00	549	5485.56	1000.00	1.745		5.000	
89	1.00	508	5078.77	2000.00	0.899		5.000	
205	1.00	2061	20614.75	1000.00	1.472		5.000	
75		1	9.10		31.659			

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	537	557	546	560	543
89	504	515	504	508	509
205	2011	2089	2065	2061	2081
75	1	1	1	1	1

Integration Time [sec] 0.1

Resolution/Axis



EPA Tune Check Report ICPMS6

Mass	Peak Ht	Axis	Axis (Req)	Axis (Flag)	W-50%	W-5%	W-X% (Req)	W-5% (Flag)
59	903.01	58.90	58.90 - 59.10		0.63	0.780	0.900	
89	889.35	89.00	88.90 - 89.10		0.58	0.733	0.900	
205	3735.19	205.00	204.90 - 205.10		0.58	0.788	0.900	
75	2.00	75.15	-		0.51	0.721		

Integration Time [sec]	0.1
Acquisition Time [sec]	134.8
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.95 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.5 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	5.3 V	Deflect	2.0 V
Extract 2	-135.0 V	Cell Entrance	-40 V	Plate Bias	-50 V
Omega Bias	-100 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	3.7 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	130 V		

QP Parameters

Mass Gain	129	Axis Gain	0.9995	QP Bias	-13.0 V
Mass Offset	126	Axis Offset	-0.02		

Hardware Settings

Torch

Torch H	-0.5 mm	Torch V	0.6 mm

EM

Discriminator	4.9 mV	Analog HV	2252 V	Pulse HV	1655 V

[HEHe]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Req) [cps/ug/l]	RSD%	Resp (Flag)	RSD% (Req)	RSD% (Flag)
59	1.00	469	4692.11	1000.00	1.211		5.000	
89	1.00	852	8523.02	2000.00	1.217		5.000	
78		0	2.20		44.304			

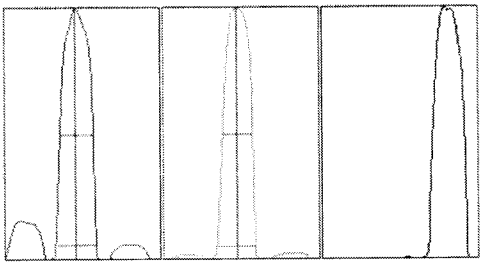
Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	471	464	475	474	462
89	851	867	849	856	839

EPA Tune Check Report ICPMS6

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
78	0	0	0	0	0

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Ht	Axis	Axis (Req)	Axis (Flag)	W-50%	W-5%	W-X% (Req)	W-5% (Flag)
59	771.98	58.90	58.90 - 59.10		0.64	0.784	0.900	
89	1487.73	88.95	88.90 - 89.10		0.59	0.738	0.900	
78			-					

Integration Time [sec] 0.1
Acquisition Time [sec] 100.35
Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.95 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.5 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	5.3 V	Deflect	-80.0 V
Extract 2	-135.0 V	Cell Entrance	-130 V	Plate Bias	-150 V
Omega Bias	-100 V	Cell Exit	-150 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	4.0 V
He Flow	10.0 mL/min	OctP Bias	-100.0 V		
H2 Flow	---	OctP RF	130 V		

QP Parameters

Mass Gain	129	Axis Gain	0.9995	QP Bias	-96.0 V
Mass Offset	126	Axis Offset	-0.02		

Hardware Settings

Torch

Torch H	-0.5 mm	Torch V	0.6 mm		

EM

Discriminator	4.9 mV	Analog HV	2252 V	Pulse HV	1655 V

Sample Report ICPMS6

Sample Name	**rinse**	**Sample Type**	Rinse
File Name	001RINS.d	**Vial #**	1
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 18:24:48	**Sample QC Pass/Fail**	Pass
Comment	rinse - stabilize I.S.	**ISTD Ref FileName**	---

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	1039336	7.0	0		70	120	
Sc	45	He	137202	1.1	0		70	120	
Ge	74	No Gas	915917	4.3	0		70	120	
Ge	74	He	127285	0.0	0		70	120	
Ge	74	HEHe	156967	0.7	0		70	120	
Rh	103	No Gas	986246	5.0	0		70	120	
Rh	103	He	481587	0.2	0		70	120	
Tb	159	No Gas	2355446	6.2	0		70	120	
Tb	159	He	997152	0.7	0		70	120	
Bi	209	No Gas	1379263	7.0	0		70	120	

Sample Report ICPMS6

Sample Name	**rinse**	**Sample Type**	Rinse
File Name	002RINS.d	**Vial #**	1101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 18:29:24	**Sample QC Pass/Fail**	Pass
Comment	rinse - stabilize I.S.	**ISTD Ref FileName**	---

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	1003846	2.9	0		70	120	
Sc	45	He	139745	3.1	0		70	120	
Ge	74	No Gas	896350	0.8	0		70	120	
Ge	74	He	129659	2.9	0		70	120	
Ge	74	HEHe	155573	0.5	0		70	120	
Rh	103	No Gas	964457	0.2	0		70	120	
Rh	103	He	485032	3.7	0		70	120	
Tb	159	No Gas	2340046	2.1	0		70	120	
Tb	159	He	997624	2.6	0		70	120	
Bi	209	No Gas	1359412	0.6	0		70	120	

Calibration Blank Report ICPMS6

Sample Name	**9J10037-CAL0**	**Sample Type**	CalBlk
File Name	003CALB.d	**Vial #**	1101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 18:33:59	**Sample QC Pass/Fail**	Fail
Comment	Cal Blank	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	CPS RSD
Be	9	6	No Gas	36	10.8
Na	23	45	He	4922	1.2
Mg	24	45	He	690	9.5
Al	27	45	He	132	26.7
K	39	45	He	13755	1.8
Ca	44	45	He	73	17.2
V	51	74	He	313	13.3
Cr	52	74	He	546	6.3
Mn	55	74	He	91	7.6
Fe	56	74	He	8014	1.4
Fe	56	74	HEHe	9382	1.3
Co	59	74	He	29	58.1
Ni	60	74	He	218	7.9
Cu	65	74	He	224	5.2
Cu	65	74	No Gas	706	1.8
Zn	66	74	He	72	11.6
As	75	74	He	12	30.1
Se	78	74	HEHe	3	44.6
Mo	95	103	He	67	22.9
[Cd]	106	103	No Gas	20	57.7
[Cd]	108	103	No Gas	16	24.8
Ag	109	103	No Gas	23	37.8
Cd	111	103	He	2	173.2
Cd	111	103	No Gas	20	107.2
Sb	123	103	No Gas	313	14.3
Ba	138	159	He	216	3.9
W	186	159	No Gas	53	28.6
Hg	201	159	No Gas	13	20.0
Tl	205	159	No Gas	214	11.7
Pb	208	159	No Gas	2166	1.2

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li	6	No Gas	1045075	1.2
Ge	74	No Gas	923749	0.4
Rh	103	No Gas	994218	0.4
Tb	159	No Gas	2337218	1.1
Bi	209	No Gas	1347700	1.9
Sc	45	He	138693	4.5
Ge	74	He	127728	2.4
Rh	103	He	482080	3.6
Tb	159	He	987185	2.2
Ge	74	HEHe	159523	1.0

Calibration Standard Report ICPMS6

Sample Name	**9J10037-CAL1**	**Sample Type**	CalStd
File Name	004CALS.d	**Vial #**	2101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 18:38:51	**Sample QC Pass/Fail**	Fail
Comment	A19J030 - JPB 10/10	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Raw Conc.	Units	CPS	CPS RSD	Rep	Int. sec	QC Flag
Be	9	6	No Gas	0.18	ug/l	971	1.4	3	0.3000	
Na	23	45	He		ug/l	13622	1.9	3	0.2001	
Mg	24	45	He		ug/l	5503	6.0	3	0.2001	
Al	27	45	He		ug/l	2068	3.9	3	0.2001	
K	39	45	He		ug/l	17029	1.8	3	0.2001	
Ca	44	45	He		ug/l	255	5.9	3	0.2001	
Ti	47	45	He		ug/l	34	29.6	3	0.3000	RSD Warning
V	51	74	He	0.18	ug/l	1057	4.5	3	0.3000	
Cr	52	74	He	0.18	ug/l	1610	5.8	3	0.3000	
Mn	55	74	He	0.18	ug/l	632	5.8	3	0.3000	
Fe	56	74	He	9	ug/l	50637	2.4	3	0.3000	
Fe	56	74	HEHe	9	ug/l	61149	0.9	3	0.2001	
Co	59	74	He	0.18	ug/l	1460	3.5	3	0.3000	
Ni	60	74	He	0.18	ug/l	481	7.6	3	0.3000	
Cu	65	74	He	0.18	ug/l	684	4.1	3	0.3000	
Cu	65	74	No Gas	0.18	ug/l	1898	1.5	3	0.3000	
Zn	66	74	He		ug/l	239	13.6	3	0.3000	
As	75	74	He	0.18	ug/l	118	4.0	3	2.0001	
Se	78	74	HEHe	0.18	ug/l	25	9.2	3	3.0000	
Mo	95	103	He	0.18	ug/l	692	5.8	3	0.3000	
[Cd]	106	103	No Gas	0.18	ug/l	110	23.7	3	0.3000	RSD Warning
[Cd]	108	103	No Gas	0.18	ug/l	61	15.7	3	0.3000	RSD Warning
Ag	109	103	No Gas	0.18	ug/l	4252	0.6	3	0.3000	
Cd	111	103	He	0.18	ug/l	348	7.1	3	0.3000	
Cd	111	103	No Gas	0.18	ug/l	1045	4.4	3	0.3000	
Sb	123	103	No Gas	0.18	ug/l	3087	2.2	3	0.3000	
Ba	138	159	He	0.18	ug/l	2208	6.3	3	0.3000	
W	186	159	No Gas		ug/l	43	13.3	3	0.0999	
Hg	201	159	No Gas		ng/l	39	3.4	3	2.0001	
Tl	205	159	No Gas	0.18	ug/l	11089	1.1	3	0.3000	
Pb	208	159	No Gas	0.18	ug/l	17125	0.8	3	0.3000	

QC ISTD Table

Name	Mass	Tune	CPS	CPS RSD	Rep	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	1037984	3.0	3	1045075.28	99.32	70	120	
Sc	45	He	138874	2.9	3	138692.66	100.13	70	120	
Ge	74	No Gas	908818	1.0	3	923748.77	98.38	70	120	
Ge	74	He	128003	1.9	3	127728.2	100.21	70	120	
Ge	74	HEHe	166962	6.0	3	159522.83	104.66	70	120	
Rh	103	No Gas	977184	1.7	3	994218.29	98.29	70	120	
Rh	103	He	484060	3.4	3	482080.38	100.41	70	120	
Tb	159	No Gas	2304961	1.1	3	2337217.8	98.62	70	120	
Tb	159	He	993350	1.9	3	987185.44	100.62	70	120	
Bi	209	No Gas	1315858	0.6	3	1347700.19	97.64	70	120	

Calibration Standard Report ICPMS6

Sample Name	**9J10037-CAL2**	**Sample Type**	CalStd
File Name	005CALS.d	**Vial #**	2102
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 18:43:41	**Sample QC Pass/Fail**	Fail
Comment	A19J031 - JPB 10/10	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Raw Conc.	Units	CPS	CPS RSD	Rep	Int. sec	QC Flag
Be	9	6	No Gas	0.899	ug/l	4711	0.8	3	0.3000	
Na	23	45	He	45	ug/l	49201	0.4	3	0.2001	
Mg	24	45	He	45	ug/l	24229	1.7	3	0.2001	
Al	27	45	He	45	ug/l	9622	1.7	3	0.2001	
K	39	45	He	45	ug/l	30684	1.8	3	0.2001	
Ca	44	45	He	45	ug/l	1035	8.8	3	0.2001	
Ti	47	45	He		ug/l	137	4.9	3	0.3000	
V	51	74	He	0.898	ug/l	3914	0.5	3	0.3000	
Cr	52	74	He	0.895	ug/l	5368	4.0	3	0.3000	
Mn	55	74	He	0.9	ug/l	2860	1.2	3	0.3000	
Fe	56	74	He	44.874	ug/l	212420	1.4	3	0.3000	
Fe	56	74	HEHe	44.979	ug/l	250050	1.4	3	0.2001	
Co	59	74	He	0.899	ug/l	7216	0.7	3	0.3000	
Ni	60	74	He	0.908	ug/l	2001	6.5	3	0.3000	
Cu	65	74	He	0.902	ug/l	2767	1.2	3	0.3000	
Cu	65	74	No Gas	0.907	ug/l	8552	6.6	3	0.3000	
Zn	66	74	He	0.9	ug/l	884	5.3	3	0.3000	
As	75	74	He	0.899	ug/l	548	2.6	3	2.0001	
Se	78	74	HEHe	0.902	ug/l	112	0.8	3	3.0000	
Mo	95	103	He	0.9	ug/l	3229	1.1	3	0.3000	
[Cd]	106	103	No Gas	0.903	ug/l	531	3.8	3	0.3000	
[Cd]	108	103	No Gas	0.912	ug/l	377	16.1	3	0.3000	RSD Warning
Ag	109	103	No Gas	0.897	ug/l	20606	0.7	3	0.3000	
Cd	111	103	He	0.897	ug/l	1646	3.3	3	0.3000	
Cd	111	103	No Gas	0.902	ug/l	5624	2.6	3	0.3000	
Sb	123	103	No Gas	0.9	ug/l	15013	2.7	3	0.3000	
Ba	138	159	He	0.899	ug/l	10073	3.0	3	0.3000	
W	186	159	No Gas		ug/l	164	15.4	3	0.0999	RSD Warning
Hg	201	159	No Gas	36	ng/l	152	4.4	3	2.0001	
Tl	205	159	No Gas	0.899	ug/l	56051	3.3	3	0.3000	
Pb	208	159	No Gas	0.903	ug/l	86883	4.9	3	0.3000	

QC ISTD Table

Name	Mass	Tune	CPS	CPS RSD	Rep	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	1084194	6.9	3	1045075.28	103.74	70	120	
Sc	45	He	141471	0.6	3	138692.66	102	70	120	
Ge	74	No Gas	945251	4.6	3	923748.77	102.33	70	120	
Ge	74	He	131666	1.4	3	127728.2	103.08	70	120	
Ge	74	HEHe	158163	0.2	3	159522.83	99.15	70	120	
Rh	103	No Gas	1022136	5.8	3	994218.29	102.81	70	120	
Rh	103	He	493752	0.6	3	482080.38	102.42	70	120	
Tb	159	No Gas	2411711	6.9	3	2337217.8	103.19	70	120	
Tb	159	He	1012335	1.0	3	987185.44	102.55	70	120	
Bi	209	No Gas	1382584	6.9	3	1347700.19	102.59	70	120	

Calibration Standard Report ICPMS6

Sample Name	**9J10037-CAL3**	**Sample Type**	CalStd
File Name	006CALS.d	**Vial #**	2103
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 18:48:31	**Sample QC Pass/Fail**	Pass
Comment	A19J032 - JPB 10/10	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Raw Conc.	Units	CPS	CPS RSD	Rep	Int. sec	QC Flag
Be	9	6	No Gas	1.802	ug/l	8940	1.3	3	0.3000	
Na	23	45	He	90.188	ug/l	93291	1.0	3	0.2001	
Mg	24	45	He	90.015	ug/l	47272	0.9	3	0.2001	
Al	27	45	He	90.002	ug/l	18902	1.3	3	0.2001	
K	39	45	He	90.307	ug/l	47356	1.5	3	0.2001	
Ca	44	45	He	89.656	ug/l	1938	2.1	3	0.2001	
Ti	47	45	He	1.8	ug/l	219	3.8	3	0.3000	
V	51	74	He	1.804	ug/l	7514	4.2	3	0.3000	
Cr	52	74	He	1.793	ug/l	9939	2.0	3	0.3000	
Mn	55	74	He	1.792	ug/l	5446	1.7	3	0.3000	
Fe	56	74	He	89.649	ug/l	405710	0.7	3	0.3000	
Fe	56	74	HEHe	90.105	ug/l	481165	0.6	3	0.2001	
Co	59	74	He	1.8	ug/l	14255	1.9	3	0.3000	
Ni	60	74	He	1.811	ug/l	3811	4.3	3	0.3000	
Cu	65	74	He	1.805	ug/l	5302	2.0	3	0.3000	
Cu	65	74	No Gas	1.729	ug/l	13183	1.8	3	0.3000	
Zn	66	74	He	1.813	ug/l	1737	3.7	3	0.3000	
As	75	74	He	1.795	ug/l	1060	0.7	3	2.0001	
Se	78	74	HEHe	1.786	ug/l	207	1.8	3	3.0000	
Mo	95	103	He	1.78	ug/l	5988	1.6	3	0.3000	
[Cd]	106	103	No Gas	1.759	ug/l	908	3.5	3	0.3000	
[Cd]	108	103	No Gas	1.805	ug/l	714	7.1	3	0.3000	
Ag	109	103	No Gas	1.799	ug/l	40031	0.8	3	0.3000	
Cd	111	103	He	1.803	ug/l	3284	1.4	3	0.3000	
Cd	111	103	No Gas	1.779	ug/l	10294	2.5	3	0.3000	
Sb	123	103	No Gas	1.801	ug/l	28880	0.4	3	0.3000	
Ba	138	159	He	1.799	ug/l	19629	2.0	3	0.3000	
W	186	159	No Gas		ug/l	43	13.3	3	0.0999	
Hg	201	159	No Gas	71.133	ng/l	265	5.5	3	2.0001	
Tl	205	159	No Gas	1.8	ug/l	108367	1.5	3	0.3000	
Pb	208	159	No Gas	1.768	ug/l	152080	0.7	3	0.3000	

QC ISTD Table

Name	Mass	Tune	CPS	CPS RSD	Rep	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	1021217	1.5	3	1045075.28	97.72	70	120	
Sc	45	He	139950	1.4	3	138692.66	100.91	70	120	
Ge	74	No Gas	910118	1.1	3	923748.77	98.52	70	120	
Ge	74	He	130275	2.1	3	127728.2	101.99	70	120	
Ge	74	HEHe	154170	2.0	3	159522.83	96.64	70	120	
Rh	103	No Gas	990421	1.8	3	994218.29	99.62	70	120	
Rh	103	He	487579	2.2	3	482080.38	101.14	70	120	
Tb	159	No Gas	2329466	2.2	3	2337217.8	99.67	70	120	
Tb	159	He	999654	2.8	3	987185.44	101.26	70	120	
Bi	209	No Gas	1306240	2.1	3	1347700.19	96.92	70	120	

Calibration Standard Report ICPMS6

Sample Name	**9J10037-CAL4**	**Sample Type**	CalStd
File Name	007CALS.d	**Vial #**	2104
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 18:53:21	**Sample QC Pass/Fail**	Fail
Comment	A19J033 - JPB 10/10	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Raw Conc.	Units	CPS	CPS RSD	Rep	Int. sec	QC Flag
Be	9	6	No Gas	3.609	ug/l	18595	0.9	3	0.3000	
Na	23	45	He	180.825	ug/l	183532	0.9	3	0.2001	
Mg	24	45	He	180.678	ug/l	94738	1.0	3	0.2001	
Al	27	45	He	180.529	ug/l	37897	0.7	3	0.2001	
K	39	45	He	180.192	ug/l	80384	0.9	3	0.2001	
Ca	44	45	He	179.495	ug/l	3749	1.5	3	0.2001	
Ti	47	45	He	3.612	ug/l	442	4.9	3	0.3000	
V	51	74	He	3.606	ug/l	14519	1.4	3	0.3000	
Cr	52	74	He	3.61	ug/l	19271	1.1	3	0.3000	
Mn	55	74	He	3.617	ug/l	10875	2.9	3	0.3000	
Fe	56	74	He	180.894	ug/l	808998	1.6	3	0.3000	
Fe	56	74	HEHe	180.272	ug/l	981353	0.8	3	0.2001	
Co	59	74	He	3.615	ug/l	28507	2.6	3	0.3000	
Ni	60	74	He	3.633	ug/l	7500	1.6	3	0.3000	
Cu	65	74	He	3.645	ug/l	10706	1.7	3	0.3000	
Cu	65	74	No Gas	3.557	ug/l	25722	0.5	3	0.3000	
Zn	66	74	He	3.635	ug/l	3453	1.6	3	0.3000	
As	75	74	He	3.604	ug/l	2087	2.4	3	2.0001	
Se	78	74	HEHe	3.642	ug/l	445	3.1	3	3.0000	
Mo	95	103	He	3.608	ug/l	12029	1.9	3	0.3000	
[Cd]	106	103	No Gas	3.63	ug/l	1906	3.5	3	0.3000	
[Cd]	108	103	No Gas	3.589	ug/l	1395	5.4	3	0.3000	
Ag	109	103	No Gas	3.607	ug/l	80847	0.9	3	0.3000	
Cd	111	103	He	3.61	ug/l	6564	1.2	3	0.3000	
Cd	111	103	No Gas	3.594	ug/l	20715	1.3	3	0.3000	
Sb	123	103	No Gas	3.602	ug/l	57653	1.2	3	0.3000	
Ba	138	159	He	3.61	ug/l	39460	1.4	3	0.3000	
W	186	159	No Gas		ug/l	87	26.7	3	0.0999	RSD Warning
Hg	201	159	No Gas	143.423	ng/l	511	3.4	3	2.0001	
Tl	205	159	No Gas	3.609	ug/l	217086	0.5	3	0.3000	
Pb	208	159	No Gas	3.592	ug/l	302300	0.7	3	0.3000	

QC ISTD Table

Name	Mass	Tune	CPS	CPS RSD	Rep	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	1054796	0.5	3	1045075.28	100.93	70	120	
Sc	45	He	139254	4.8	3	138692.66	100.4	70	120	
Ge	74	No Gas	919865	0.8	3	923748.77	99.58	70	120	
Ge	74	He	128108	4.4	3	127728.2	100.3	70	120	
Ge	74	HEHe	157863	0.2	3	159522.83	98.96	70	120	
Rh	103	No Gas	992143	1.0	3	994218.29	99.79	70	120	
Rh	103	He	483038	4.3	3	482080.38	100.2	70	120	
Tb	159	No Gas	2310447	0.9	3	2337217.8	98.85	70	120	
Tb	159	He	998276	3.7	3	987185.44	101.12	70	120	
Bi	209	No Gas	1356488	0.6	3	1347700.19	100.65	70	120	

Calibration Standard Report ICPMS6

Sample Name	**9J10037-CAL5**	**Sample Type**	CalStd
File Name	008CALS.d	**Vial #**	2105
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 18:58:10	**Sample QC Pass/Fail**	Fail
Comment	A19J035 - JPB 10/10	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Raw Conc.	Units	CPS	CPS RSD	Rep	Int. sec	QC Flag
Be	9	6	No Gas	9.989	ug/l	50117	1.0	3	0.3000	
Na	23	45	He	400.493	ug/l	402670	0.4	3	0.2001	
Mg	24	45	He	400.493	ug/l	210320	0.8	3	0.2001	
Al	27	45	He	400.273	ug/l	84159	1.0	3	0.2001	
K	39	45	He	399.839	ug/l	161440	0.8	3	0.2001	
Ca	44	45	He	401.17	ug/l	8385	3.5	3	0.2001	
Ti	47	45	He	20.024	ug/l	2529	4.3	3	0.3000	
V	51	74	He	19.993	ug/l	78222	0.8	3	0.3000	
Cr	52	74	He	19.964	ug/l	99693	0.7	3	0.3000	
Mn	55	74	He	20.005	ug/l	59930	0.6	3	0.3000	
Fe	56	74	He	400.261	ug/l	1780313	0.1	3	0.3000	
Fe	56	74	HEHe	398.393	ug/l	2118779	1.2	3	0.2001	
Co	59	74	He	19.996	ug/l	156413	0.5	3	0.3000	
Ni	60	74	He	20.033	ug/l	41898	1.3	3	0.3000	
Cu	65	74	He	20.004	ug/l	57873	1.4	3	0.3000	
Cu	65	74	No Gas	19.988	ug/l	139770	0.6	3	0.3000	
Zn	66	74	He	19.977	ug/l	18124	2.3	3	0.3000	
As	75	74	He	19.997	ug/l	11456	0.4	3	2.0001	
Se	78	74	HEHe	9.967	ug/l	1185	2.4	3	3.0000	
Mo	95	103	He	10.004	ug/l	33328	2.0	3	0.3000	
[Cd]	106	103	No Gas	19.96	ug/l	9892	2.7	3	0.3000	
[Cd]	108	103	No Gas	19.987	ug/l	7551	2.6	3	0.3000	
Ag	109	103	No Gas	9.994	ug/l	222499	0.7	3	0.3000	
Cd	111	103	He	19.981	ug/l	35527	2.0	3	0.3000	
Cd	111	103	No Gas	19.978	ug/l	111757	0.6	3	0.3000	
Sb	123	103	No Gas	9.991	ug/l	157964	1.4	3	0.3000	
Ba	138	159	He	20.001	ug/l	217059	1.1	3	0.3000	
W	186	159	No Gas		ug/l	170	23.5	3	0.0999	RSD Warning
Hg	201	159	No Gas	398.716	ng/l	1393	1.3	3	2.0001	
Tl	205	159	No Gas	9.969	ug/l	596549	1.2	3	0.3000	
Pb	208	159	No Gas	19.976	ug/l	1647411	1.1	3	0.3000	

QC ISTD Table

Name	Mass	Tune	CPS	CPS RSD	Rep	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	1034798	1.8	3	1045075.28	99.02	70	120	
Sc	45	He	139258	2.8	3	138692.66	100.41	70	120	
Ge	74	No Gas	922422	0.4	3	923748.77	99.86	70	120	
Ge	74	He	127697	1.1	3	127728.2	99.98	70	120	
Ge	74	HEHe	157356	1.0	3	159522.83	98.64	70	120	
Rh	103	No Gas	988806	1.6	3	994218.29	99.46	70	120	
Rh	103	He	482882	1.7	3	482080.38	100.17	70	120	
Tb	159	No Gas	2342073	0.9	3	2337217.8	100.21	70	120	
Tb	159	He	993960	1.5	3	987185.44	100.69	70	120	
Bi	209	No Gas	1348248	0.7	3	1347700.19	100.04	70	120	

Calibration Standard Report ICPMS6

Sample Name	**9J10037-CAL6**	**Sample Type**	CalStd
File Name	009CALS.d	**Vial #**	2106
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 19:02:59	**Sample QC Pass/Fail**	Fail
Comment	A19J034	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Raw Conc.	Units	CPS	CPS RSD	Rep	Int. sec	QC Flag
Be	9	6	No Gas	50.066	ug/l	259736	0.3	3	0.3000	
Na	23	45	He	2499.69	ug/l	2443614	0.7	3	0.2001	
Mg	24	45	He	2499.732	ug/l	1286618	1.1	3	0.2001	
Al	27	45	He	2498.627	ug/l	508853	1.5	3	0.2001	
K	39	45	He	2499.083	ug/l	913343	1.3	3	0.2001	
Ca	44	45	He	2497.666	ug/l	49670	0.4	3	0.2001	
Ti	47	45	He	49.789	ug/l	6047	3.9	3	0.3000	
V	51	74	He	50.07	ug/l	193799	1.1	3	0.3000	
Cr	52	74	He	50.084	ug/l	247637	1.1	3	0.3000	
Mn	55	74	He	50.01	ug/l	147368	0.8	3	0.3000	
Fe	56	74	He	2498.735	ug/l	10721240	1.0	3	0.3000	
Fe	56	74	HEHe	2498.177	ug/l	12643140	0.6	3	0.2001	
Co	59	74	He	50.037	ug/l	386578	0.8	3	0.3000	
Ni	60	74	He	50.007	ug/l	102613	0.9	3	0.3000	
Cu	65	74	He	49.951	ug/l	140971	1.6	3	0.3000	
Cu	65	74	No Gas	49.945	ug/l	344485	0.6	3	0.3000	
Zn	66	74	He	50.236	ug/l	46022	1.6	3	0.3000	
As	75	74	He	50.096	ug/l	28533	0.6	3	2.0001	
Se	78	74	HEHe	50.053	ug/l	5932	0.7	3	3.0000	
Mo	95	103	He	50.036	ug/l	165462	0.1	3	0.3000	
[Cd]	106	103	No Gas	50.176	ug/l	25076	1.0	3	0.3000	
[Cd]	108	103	No Gas	50.309	ug/l	19484	0.7	3	0.3000	
Ag	109	103	No Gas	49.991	ug/l	1096028	0.5	3	0.3000	
Cd	111	103	He	50.102	ug/l	88317	0.6	3	0.3000	
Cd	111	103	No Gas	50.09	ug/l	279979	1.6	3	0.3000	
Sb	123	103	No Gas	50.028	ug/l	789979	0.3	3	0.3000	
Ba	138	159	He	49.814	ug/l	528238	1.2	3	0.3000	
W	186	159	No Gas		ug/l	397	24.5	3	0.0999	RSD Warning
Hg	201	159	No Gas	2001.869	ng/l	7017	0.6	3	2.0001	
Tl	205	159	No Gas	50.077	ug/l	3068866	1.0	3	0.3000	
Pb	208	159	No Gas	50.205	ug/l	4201751	0.5	3	0.3000	

QC ISTD Table

Name	Mass	Tune	CPS	CPS RSD	Rep	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	1040399	1.3	3	1045075.28	99.55	70	120	
Sc	45	He	137264	0.4	3	138692.66	98.97	70	120	
Ge	74	No Gas	918569	0.7	3	923748.77	99.44	70	120	
Ge	74	He	125569	1.0	3	127728.2	98.31	70	120	
Ge	74	HEHe	153675	0.6	3	159522.83	96.33	70	120	
Rh	103	No Gas	977297	0.4	3	994218.29	98.3	70	120	
Rh	103	He	472697	0.6	3	482080.38	98.05	70	120	
Tb	159	No Gas	2320948	2.1	3	2337217.8	99.3	70	120	
Tb	159	He	993191	0.7	3	987185.44	100.61	70	120	
Bi	209	No Gas	1357856	0.9	3	1347700.19	100.75	70	120	

Calibration Standard Report ICPMS6

Sample Name	**9J10037-CAL7**	**Sample Type**	CalStd
File Name	010CALS.d	**Vial #**	2107
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 19:07:43	**Sample QC Pass/Fail**	Pass
Comment	A19J036	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Raw Conc.	Units	CPS	CPS RSD	Rep	Int. sec	QC Flag
Be	9	6	No Gas	99.118	ug/l	493155	0.6	3	0.3000	
Na	23	45	He	4013.916	ug/l	3773813	0.7	3	0.2001	
Mg	24	45	He	4008.444	ug/l	1978423	0.6	3	0.2001	
Al	27	45	He	4018.615	ug/l	789949	0.7	3	0.2001	
K	39	45	He	4003.872	ug/l	1391640	0.6	3	0.2001	
Ca	44	45	He	4001.691	ug/l	75978	1.2	3	0.2001	
Ti	47	45	He	200.109	ug/l	23366	1.1	3	0.3000	
V	51	74	He	199.871	ug/l	743513	1.2	3	0.3000	
Cr	52	74	He	199.864	ug/l	948934	1.2	3	0.3000	
Mn	55	74	He	199.854	ug/l	565750	0.7	3	0.3000	
Fe	56	74	He	3971.555	ug/l	16251418	1.9	3	0.3000	
Fe	56	74	HEHe	4003.515	ug/l	19578376	0.7	3	0.2001	
Co	59	74	He	199.661	ug/l	1463356	0.4	3	0.3000	
Ni	60	74	He	199.44	ug/l	381983	0.5	3	0.3000	
Cu	65	74	He	199.711	ug/l	535856	1.6	3	0.3000	
Cu	65	74	No Gas	200.078	ug/l	1314539	1.8	3	0.3000	
Zn	66	74	He	199.698	ug/l	173784	0.8	3	0.3000	
As	75	74	He	199.753	ug/l	108575	1.1	3	2.0001	
Se	78	74	HEHe	99.939	ug/l	11397	0.9	3	3.0000	
Mo	95	103	He	99.837	ug/l	317799	0.6	3	0.3000	
[Cd]	106	103	No Gas	200.214	ug/l	95755	0.5	3	0.3000	
[Cd]	108	103	No Gas	199.914	ug/l	72578	1.7	3	0.3000	
Ag	109	103	No Gas	100.128	ug/l	2081315	0.2	3	0.3000	
Cd	111	103	He	200.064	ug/l	343166	1.6	3	0.3000	
Cd	111	103	No Gas	200.115	ug/l	1063698	0.5	3	0.3000	
Sb	123	103	No Gas	100.413	ug/l	1519693	2.0	3	0.3000	
Ba	138	159	He	200.382	ug/l	2109011	1.3	3	0.3000	
W	186	159	No Gas		ug/l	898	11.8	3	0.0999	
Hg	201	159	No Gas	3999.437	ng/l	13528	0.6	3	2.0001	
Tl	205	159	No Gas	99.546	ug/l	5796111	1.6	3	0.3000	
Pb	208	159	No Gas	199.796	ug/l	15935774	1.5	3	0.3000	

QC ISTD Table

Name	Mass	Tune	CPS	CPS RSD	Rep	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	1031516	1.6	3	1045075.28	98.7	70	120	
Sc	45	He	130992	1.7	3	138692.66	94.45	70	120	
Ge	74	No Gas	871608	0.5	3	923748.77	94.36	70	120	
Ge	74	He	121892	0.5	3	127728.2	95.43	70	120	
Ge	74	HEHe	148317	3.0	3	159522.83	92.98	70	120	
Rh	103	No Gas	922081	0.1	3	994218.29	92.74	70	120	
Rh	103	He	457979	1.7	3	482080.38	95	70	120	
Tb	159	No Gas	2242785	1.2	3	2337217.8	95.96	70	120	
Tb	159	He	960220	1.0	3	987185.44	97.27	70	120	
Bi	209	No Gas	1318819	1.9	3	1347700.19	97.86	70	120	

Calibration Standard Report ICPMS6

Sample Name	**9J10037-CAL8**	**Sample Type**	CalStd
File Name	011CALS.d	**Vial #**	2108
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 19:12:19	**Sample QC Pass/Fail**	Fail
Comment	A19I054	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Raw Conc.	Units	CPS	CPS RSD	Rep	Int. sec	QC Flag
Be	9	6	No Gas	0.024	ug/l	150	23.2	3	0.3000	RSD Warning
Na	23	45	He	9980.536	ug/l	9201385	1.3	3	0.2001	
Mg	24	45	He	9985.421	ug/l	4846048	2.4	3	0.2001	
Al	27	45	He	9995.703	ug/l	1941191	0.4	3	0.2001	
K	39	45	He	9986.926	ug/l	3397439	1.4	3	0.2001	
Ca	44	45	He	9998.076	ug/l	187635	0.6	3	0.2001	
Ti	47	45	He	499.379	ug/l	57304	1.0	3	0.3000	
V	51	74	He	501.581	ug/l	1846187	1.3	3	0.3000	
Cr	52	74	He	501.655	ug/l	2358929	0.9	3	0.3000	
Mn	55	74	He	501.564	ug/l	1404960	0.6	3	0.3000	
Fe	56	74	He	10039.232	ug/l	40610414	1.0	3	0.3000	
Fe	56	74	HEHe	10020 672	ug/l	48711700	0.4	3	0.2001	
Co	59	74	He	500.552	ug/l	3587700	1.4	3	0.3000	
Ni	60	74	He	500.639	ug/l	938256	0.6	3	0.3000	
Cu	65	74	He	499.769	ug/l	1298950	0.6	3	0.3000	
Cu	65	74	No Gas	499.981	ug/l	3143078	2.8	3	0.3000	
Zn	66	74	He	500.804	ug/l	427313	0.6	3	0.3000	
As	75	74	He	501.557	ug/l	269744	0.2	3	2.0001	
Se	78	74	HEHe	0.043	ug/l	8	21.7	3	3.0000	RSD Warning
Mo	95	103	He	0.076	ug/l	298	9.5	3	0.3000	
[Cd]	106	103	No Gas	501.886	ug/l	236986	1.4	3	0.3000	
[Cd]	108	103	No Gas	500.231	ug/l	175840	1.0	3	0.3000	
Ag	109	103	No Gas	0.017	ug/l	366	11.8	3	0.3000	
Cd	111	103	He	500.234	ug/l	839216	1.0	3	0.3000	
Cd	111	103	No Gas	502.972	ug/l	2674341	1.9	3	0.3000	
Sb	123	103	No Gas	0.045	ug/l	942	9.0	3	0.3000	
Ba	138	159	He	498.981	ug/l	5118895	0.3	3	0.3000	
W	186	159	No Gas	100	ug/l	2487692	1.3	3	0.0999	
Hg	201	159	No Gas	126.822	ng/l	432	5.1	3	2.0001	
Tl	205	159	No Gas	0.074	ug/l	4402	7.7	3	0.3000	
Pb	208	159	No Gas	500.679	ug/l	39441752	1.3	3	0.3000	

QC ISTD Table

Name	Mass	Tune	CPS	CPS RSD	Rep	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	988852	3.5	3	1045075.28	94.62	70	120	
Sc	45	He	129651	0.6	3	138692.66	93.48	70	120	
Ge	74	No Gas	834791	1.6	3	923748.77	90.37	70	120	
Ge	74	He	118439	1.2	3	127728.2	92.73	70	120	
Ge	74	HEHe	146009	0.7	3	159522.83	91.53	70	120	
Rh	103	No Gas	890750	1.6	3	994218.29	89.59	70	120	
Rh	103	He	446727	1.4	3	482080.38	92.67	70	120	
Tb	159	No Gas	2197879	0.9	3	2337217.8	94.04	70	120	
Tb	159	He	947149	0.7	3	987185.44	95.94	70	120	
Bi	209	No Gas	1288592	0.6	3	1347700.19	95.61	70	120	

Calibration Standard Report ICPMS6

Sample Name	**9J10037-CAL9**	**Sample Type**	CalStd
File Name	012CALS.d	**Vial #**	2109
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 19:16:50	**Sample QC Pass/Fail**	Fail
Comment	A19I053	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Raw Conc.	Units	CPS	CPS RSD	Rep	Int. sec	QC Flag
Be	9	6	No Gas	0.012	ug/l	89	25.5	3	0.3000	RSD Warning
Na	23	45	He	49999.374	ug/l	44887110	1.7	3	0.2001	
Mg	24	45	He	49945.986	ug/l	23108564	0.6	3	0.2001	
Al	27	45	He	49967.643	ug/l	9331365	1.8	3	0.2001	
K	39	45	He	49987.085	ug/l	16431710	1.7	3	0.2001	
Ca	44	45	He	49975.062	ug/l	904352	0.5	3	0.2001	
Ti	47	45	He	2500.724	ug/l	281340	0.8	3	0.3000	
V	51	74	He	0.106	ug/l	649	1.5	3	0.3000	
Cr	52	74	He	998.53	ug/l	4448020	0.9	3	0.3000	
Mn	55	74	He	2500.331	ug/l	6687820	1.0	3	0.3000	
Fe	56	74	He	50027.181	ug/l	194823544	0.9	3	0.3000	
Fe	56	74	HEHe	50082.916	ug/l	234518886	1.2	3	0.2001	
Co	59	74	He	0.189	ug/l	1313	2.0	3	0.3000	
Ni	60	74	He	994.652	ug/l	1743049	0.9	3	0.3000	
Cu	65	74	He	992.418	ug/l	2394092	0.5	3	0.3000	
Cu	65	74	No Gas	991.107	ug/l	5867806	0.8	3	0.3000	
Zn	66	74	He	2498.291	ug/l	2000434	0.2	3	0.3000	
As	75	74	He	0.099	ug/l	61	5.5	3	2.0001	
Se	78	74	HEHe	0.086	ug/l	12	20.6	3	3.0000	RSD Warning
Mo	95	103	He	0.279	ug/l	868	9.9	3	0.3000	
[Cd]	106	103	No Gas	996.236	ug/l	440465	0.1	3	0.3000	
[Cd]	108	103	No Gas	996.153	ug/l	327763	0.4	3	0.3000	
Ag	109	103	No Gas	0.027	ug/l	538	10.0	3	0.3000	
Cd	111	103	He	1001.294	ug/l	1577206	0.6	3	0.3000	
Cd	111	103	No Gas	992.243	ug/l	4874728	0.3	3	0.3000	
Sb	123	103	No Gas	0.034	ug/l	738	2.9	3	0.3000	
Ba	138	159	He	2495.482	ug/l	23879509	0.9	3	0.3000	
W	186	159	No Gas	0.273	ug/l	6822	6.2	3	0.0999	
Hg	201	159	No Gas	38.507	ng/l	139	9.8	3	2.0001	
Tl	205	159	No Gas	0.02	ug/l	1321	5.0	3	0.3000	
Pb	208	159	No Gas	0.123	ug/l	11660	1.6	3	0.3000	

QC ISTD Table

Name	Mass	Tune	CPS	CPS RSD	Rep	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	959574	1.3	3	1045075.28	91.82	70	120	
Sc	45	He	126329	0.5	3	138692.66	91.09	70	120	
Ge	74	No Gas	809785	0.7	3	923748.77	87.66	70	120	
Ge	74	He	112771	0.8	3	127728.2	88.29	70	120	
Ge	74	HEHe	135952	1.8	3	159522.83	85.22	70	120	
Rh	103	No Gas	844560	0.8	3	994218.29	84.95	70	120	
Rh	103	He	417585	1.1	3	482080.38	86.62	70	120	
Tb	159	No Gas	2190437	1.8	3	2337217.8	93.72	70	120	
Tb	159	He	917540	0.5	3	987185.44	92.95	70	120	
Bi	209	No Gas	1223079	1.7	3	1347700.19	90.75	70	120	

P/A Factor Tuning Report

========== Current Sample ==========
Sample Name: 9J10037-ICV1
Data File: 013_ICV.d
Acquired: 10/10/2019 19:28:20

========= Detector Parameters and P/A Factors =========
Discriminator: 4.9 mV
AnalogHV: 2252 V
PulseHV: 1655 V

Acquired: 10/10/2019 14:40:58

Mass[u]	Element	P/A Factor
6	Li	0.085237
23	Na	0.097911
24	Mg	0.100440
27	Al	0.104002
39	K	0.107186
44	Ca	0.107405
45	Sc	0.106472
47	Ti	0.105448
51	V	0.107119
52	Cr	0.109493
55	Mn	0.110568
56	Fe	0.114672
59	Co	0.115171
60	Ni	0.112643
65	Cu	0.113122
66	Zn	0.119894
75	As	0.117971
95	Mo	0.113614
103	Rh	0.119025
109	Ag	0.119022
111	Cd	0.120941
123	Sb	0.121047
137	Ba	0.118946
138	Ba	0.122543
159	Tb	0.119590
186	W	0.120393
205	Tl	0.125538
206	[Pb]	0.127941
207	[Pb]	0.128860
208	Pb	0.129415
209	Bi	0.123612
7	[Li]	Signal too low
9	Be	Signal too low
74	Ge	Signal too low
78	Se	Signal too low

106	[Cd]	Signal too low
108	[Cd]	Signal too low
201	Hg	Signal too low

=== Independent Detector Parameters and P/A Factors ===

Tune Mode Name: No Gas
Discriminator: 4.9 mV
AnalogHV: 2252 V
PulseHV: 1655 V

Acquired: 10/10/2019 19:12:21

Mass[u]	Element	P/A Factor
6	Li	0.090196
9	Be	0.097304
65	Cu	0.119482
74	Ge	0.119698
103	Rh	0.121426
109	Ag	0.123438
111	Cd	0.122662
123	Sb	0.121928
159	Tb	0.124363
186	W	0.124209
205	Tl	0.127957
206	[Pb]	0.125965
207	[Pb]	0.127420
208	Pb	0.129065
209	Bi	0.127652
7	[Li]	Signal too low
106	[Cd]	Signal too low
108	[Cd]	Signal too low
201	Hg	Signal too low

Tune Mode Name: He
Discriminator: 4.9 mV
AnalogHV: 2252 V
PulseHV: 1655 V

Acquired: 10/10/2019 19:17:46

Mass[u]	Element	P/A Factor
23	Na	0.099771
24	Mg	0.103252
27	Al	0.105155
39	K	0.109056
44	Ca	0.109683
51	V	0.111229
52	Cr	0.113376
55	Mn	0.113781

56	Fe	0.115332
59	Co	0.115887
60	Ni	0.116581
65	Cu	0.117584
66	Zn	0.117547
103	Rh	0.118950
111	Cd	0.120074
138	Ba	0.122036
159	Tb	0.121687
45	Sc	Signal too low
47	Ti	Signal too low
74	Ge	Signal too low
75	As	Signal too low
95	Mo	Signal too low

Tune Mode Name: HEHe
Discriminator: 4.9 mV
AnalogHV: 2252 V
PulseHV: 1655 V

Acquired: 10/10/2019 18:50:26

Mass[u]	Element	P/A Factor
56	Fe	0.113628
74	Ge	Signal too low
78	Se	Signal too low

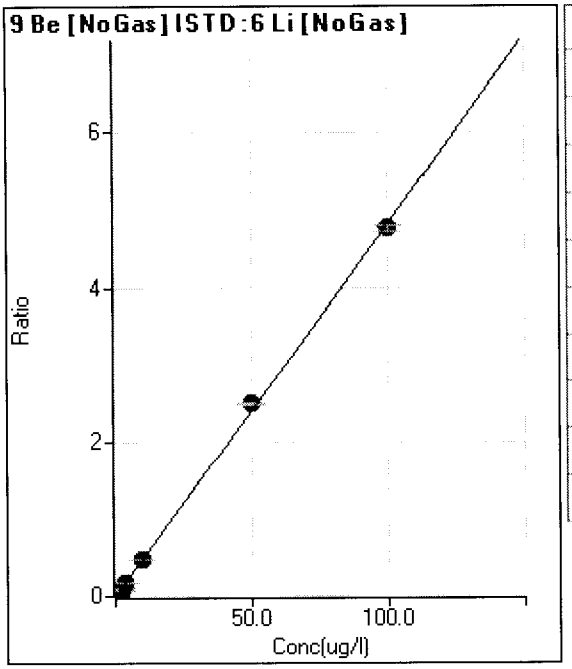
Created: 10/11/2019 14:14:20

Calibration for 013_ICV.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\9J10037A.b\
Analysis File: 9J10037A.batch.bin
DA Date-Time: 10/10/2019 19:30:12
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	9J10037-CAL0	10/10/2019 18:33:59
2	004CALS.d	9J10037-CAL1	10/10/2019 18:38:51
3	005CALS.d	9J10037-CAL2	10/10/2019 18:43:41
4	006CALS.d	9J10037-CAL3	10/10/2019 18:48:31
5	007CALS.d	9J10037-CAL4	10/10/2019 18:53:21
6	008CALS.d	9J10037-CAL5	10/10/2019 18:58:10
7	009CALS.d	9J10037-CAL6	10/10/2019 19:02:59
8	010CALS.d	9J10037-CAL7	10/10/2019 19:07:43
9	011CALS.d	9J10037-CAL8	10/10/2019 19:12:19
10	012CALS.d	9J10037-CAL9	10/10/2019 19:16:50

Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36	0.000	P	9.6
2	☐	0.180	0.187	971	0.009	P	2.6
3	☐	0.900	0.897	4711	0.044	P	7.2
4	☐	1.800	1.808	8940	0.088	P	2.8
5	☐	3.600	3.648	18595	0.176	P	0.4
6	☐	10.000	10.035	50117	0.484	P	1.4
7	☐	50.000	51.753	259736	2.497	P	1.3
8	☐	100.000	99.118	493155	4.782	P	1.4
9	☐			150	0.002	P	20.1
10	☐			89	0.001	P	26.5

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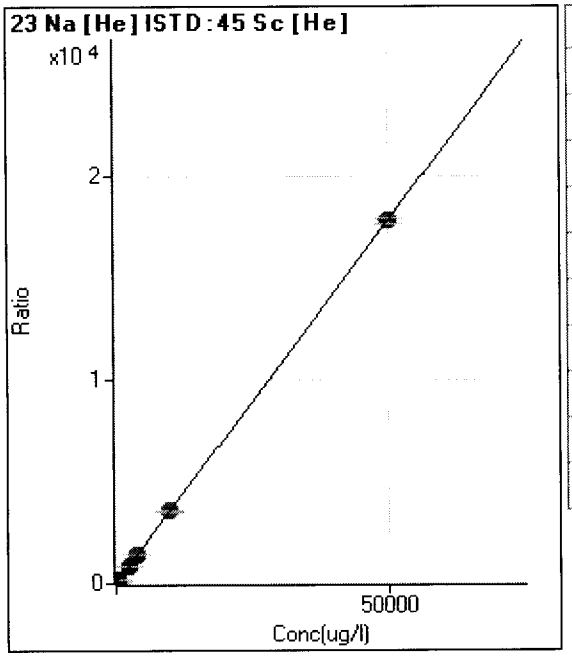
R = 0.9998
DL = 0.002035
BEC = 0.007047

Weight: <None>
Min Conc: <None>

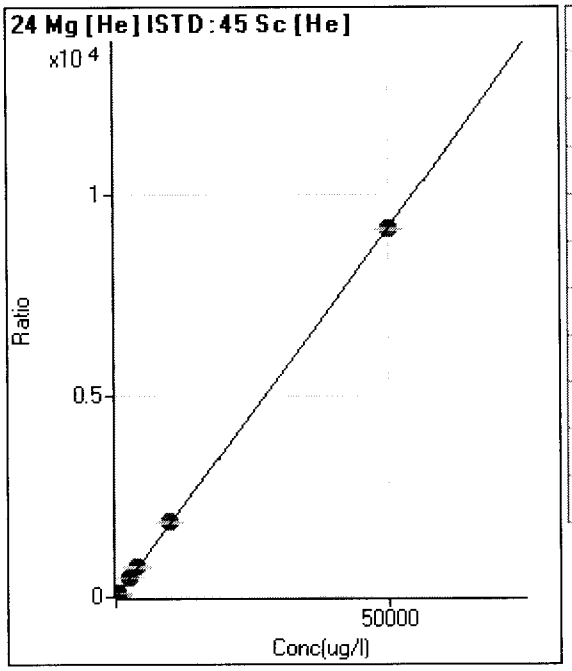


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4922	1.777	P	5.1
2	☐			13622	4.906	P	2.4
3	☐	45.000	43.942	49201	17.390	P	0.8
4	☐	90.000	88.812	93291	33.332	P	0.6
5	☐	180.000	180.716	183532	65.985	P	4.1
6	☐	400.000	402.117	402670	144.649	P	2.7
7	☐	2500.000	2500.247	2443614	890.113	A	0.4
8	☐	4000.000	4049.747	3773813	1,440.650	A	1.1
9	☐	10000.000	9983.086	9201385	3,548.761	A	1.9
10	☐	50000.000	49999.374	44887110	17,766.523	A	1.9

y = 0.3553 * x + 1.7770
R = 1.0000
DL = 0.7615
BEC = 5.001

Weight: <None>
Min Conc: <None>

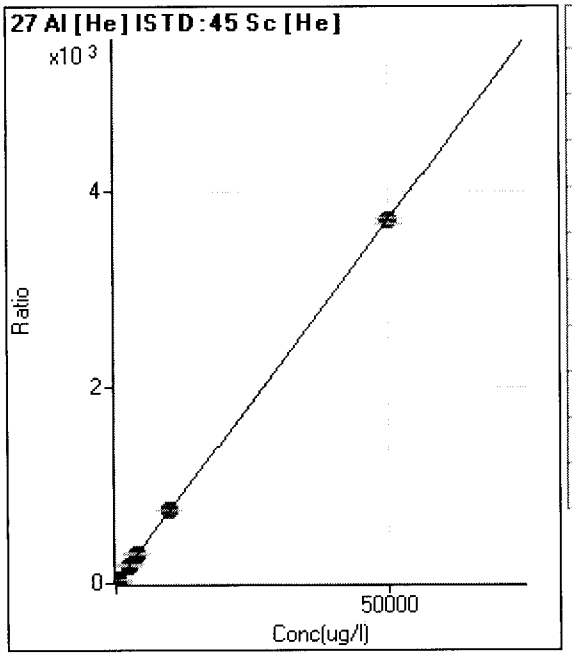
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	690	0.249	P	9.8
2	☐			5503	1.984	P	7.7
3	☐	45.000	45.402	24229	8.563	P	1.2
4	☐	90.000	90.880	47272	16.891	P	1.4
5	☐	180.000	184.641	94738	34.060	P	4.0
6	☐	400.000	411.182	210320	75.544	P	2.1
7	☐	2500.000	2557.993	1286618	468.665	A	1.0
8	☐	4000.000	4123.453	1978423	755.329	A	1.9
9	☐	10000.000	10205.650	4846048	1,869.091	A	3.0
10	☐	50000.000	49945.986	23108564	9,146.279	A	0.6

y = 0.1831 * x + 0.2489
R = 1.0000
DL = 0.4002
BEC = 1.359

Weight: <None>
Min Conc: <None>

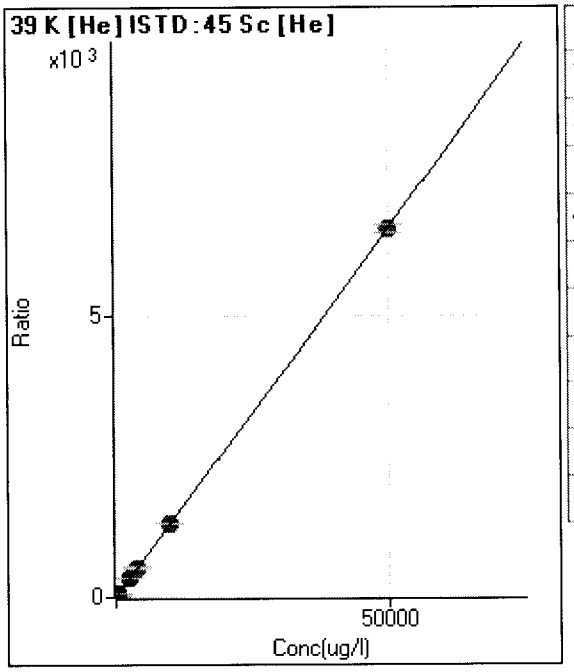


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	132	0.048	P	26.7
2	☐			2068	0.745	P	4.5
3	☐	45.000	45.368	9622	3.401	P	1.9
4	☐	90.000	90.744	18902	6.755	P	2.7
5	☐	180.000	183.747	37897	13.629	P	5.0
6	☐	400.000	408.458	84159	30.238	P	3.8
7	☐	2500.000	2507.213	508853	185.366	P	1.9
8	☐	4000.000	4079.502	789949	301.581	P	1.7
9	☐	10000.000	10127.768	1941191	748.633	A	0.6
10	☐	50000.000	49967.643	9331365	3,693.365	A	1.9

y = 0.0739 * x + 0.0475
R = 1.0000
DL = 0.5153
BEC = 0.6432

Weight: <None>
Min Conc: <None>

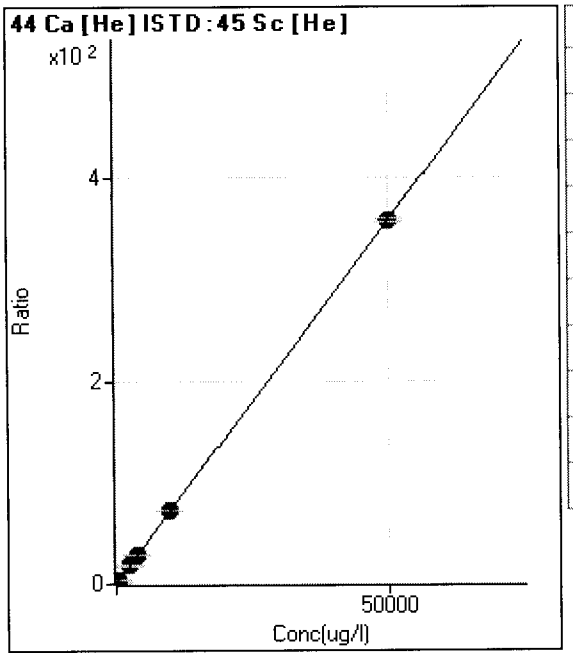
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13755	4.968	P	6.5
2	☐			17029	6.136	P	4.7
3	☐	45.000	45.192	30684	10.844	P	1.3
4	☐	90.000	91.948	47356	16.923	P	2.7
5	☐	180.000	184.096	80384	28.904	P	4.5
6	☐	400.000	407.885	161440	57.999	P	3.3
7	☐	2500.000	2520.825	913343	332.713	P	1.7
8	☐	4000.000	4048.425	1391640	531.323	A	2.2
9	☐	10000.000	10039.592	3397439	1,310.263	A	1.6
10	☐	50000.000	49987.085	16431710	6,504.024	A	2.2

y = 0.1300 * x + 4.9685
R = 1.0000
DL = 7.401
BEC = 38.21

Weight: <None>
Min Conc: <None>

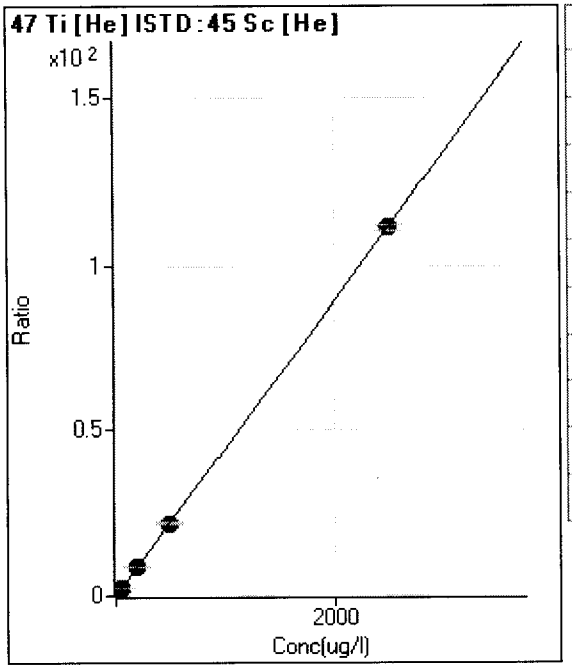


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73	0.026	P	17.9
2	☐			255	0.092	P	6.5
3	☐	45.000	47.373	1035	0.366	P	9.3
4	☐	90.000	92.962	1938	0.692	P	2.0
5	☐	180.000	184.458	3749	1.348	P	3.7
6	☐	400.000	416.850	8385	3.012	P	4.0
7	☐	2500.000	2522.614	49670	18.093	P	0.8
8	☐	4000.000	4045.903	75978	29.003	P	0.9
9	☐	10000.000	10099.883	187635	72.362	P	0.0
10	☐	50000.000	49975.062	904352	357.947	P	1.0

y = 0.0072 * x + 0.0265
R = 1.0000
DL = 1.987
BEC = 3.697

Weight: <None>
Min Conc: <None>

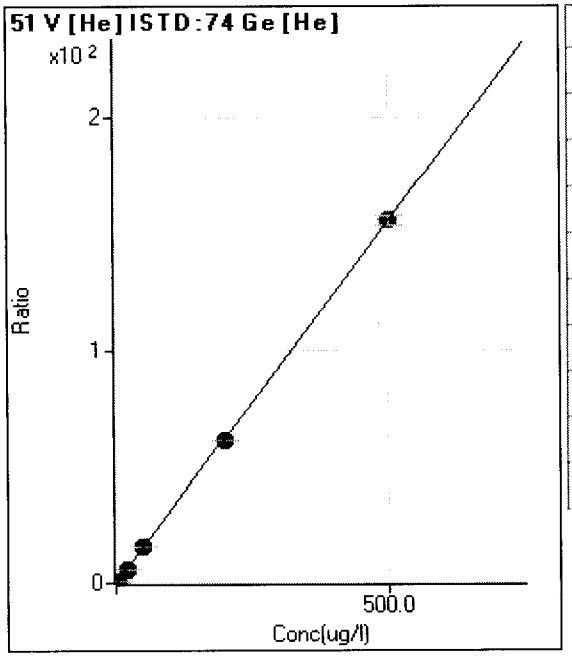
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0	0.000	P	
2	☐			34	0.012	P	31.8
3	☐			137	0.048	P	5.4
4	☐	1.800	1.756	219	0.078	P	3.0
5	☐	3.600	3.572	442	0.159	P	7.2
6	☐	20.000	20.399	2529	0.908	P	4.4
7	☐	50.000	49.468	6047	2.203	P	4.1
8	☐	200.000	200.311	23366	8.920	P	1.1
9	☐	500.000	496.291	57304	22.100	P	1.1
10	☐	2500.000	2500.724	281340	111.357	P	1.3

y = 0.0445 * x + 0.0000E+000
R = 1.0000
DL = 0
BEC = 0

Weight: <None>
Min Conc: <None>

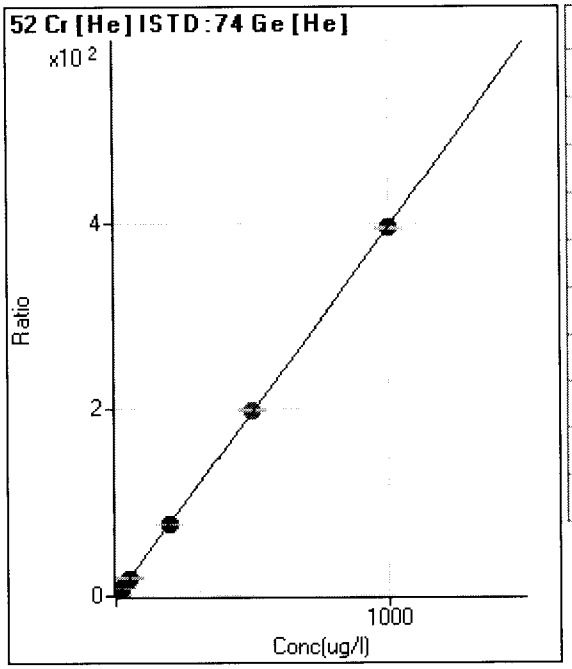


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	313	0.025	P	14.0
2	☐	0.180	0.187	1057	0.083	P	5.1
3	☐	0.900	0.878	3914	0.297	P	1.8
4	☐	1.800	1.778	7514	0.577	P	4.8
5	☐	3.600	3.572	14519	1.135	P	3.8
6	☐	20.000	19.632	78222	6.126	P	1.0
7	☐	50.000	49.582	193799	15.434	P	0.7
8	☐	200.000	196.191	743513	60.997	P	0.8
9	☐	500.000	501.581	1846187	155.905	A	2.4
10	☐			649	0.058	P	2.3

y = 0.3108 * x + 0.0246
R = 1.0000
DL = 0.03318
BEC = 0.07901

Weight: <None>
Min Conc: <None>

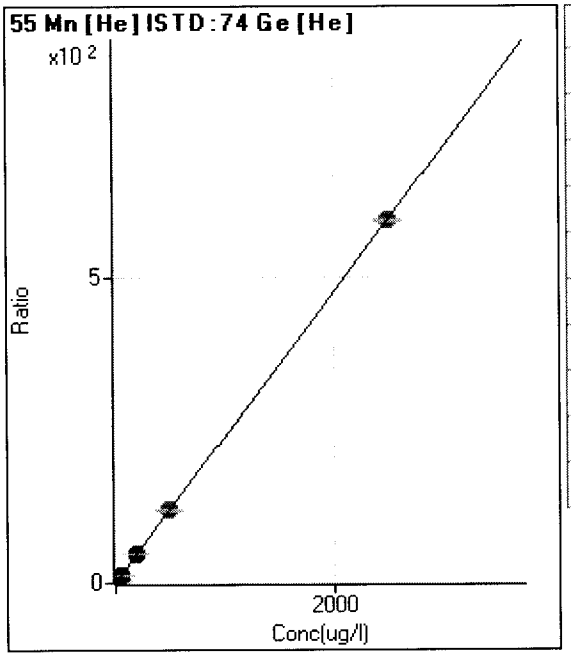
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	546	0.043	P	8.7
2	☐	0.180	0.210	1610	0.126	P	5.1
3	☐	0.900	0.924	5368	0.408	P	4.8
4	☐	1.800	1.823	9939	0.763	P	1.1
5	☐	3.600	3.705	19271	1.506	P	4.5
6	☐	20.000	19.660	99693	7.808	P	1.8
7	☐	50.000	49.826	247637	19.722	P	1.5
8	☐	200.000	196.994	948934	77.849	P	0.9
9	☐	500.000	504.173	2358929	199.176	A	0.8
10	☐	1000.000	998.530	4448020	394.432	A	0.5

y = 0.3950 * x + 0.0428
R = 1.0000
DL = 0.02828
BEC = 0.1083

Weight: <None>
Min Conc: <None>

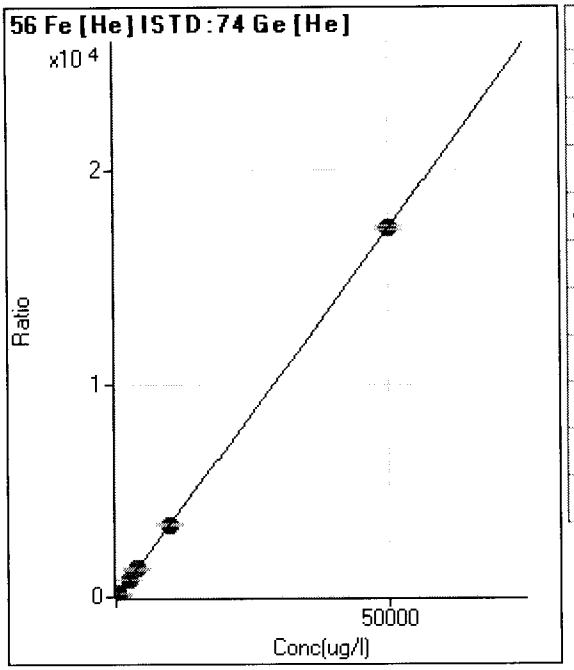


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91	0.007	P	8.6
2	☐	0.180	0.178	632	0.049	P	6.0
3	☐	0.900	0.886	2860	0.217	P	2.3
4	☐	1.800	1.733	5446	0.418	P	3.8
5	☐	3.600	3.551	10875	0.849	P	2.1
6	☐	20.000	19.759	59930	4.694	P	1.5
7	☐	50.000	49.452	147368	11.736	P	0.6
8	☐	200.000	195.658	565750	46.414	P	0.7
9	☐	500.000	500.148	1404960	118.635	A	1.4
10	☐	2500.000	2500.331	6687820	593.049	A	0.7

y = 0.2372 * x + 0.0071
R = 1.0000
DL = 0.007735
BEC = 0.0301

Weight: <None>
Min Conc: <None>

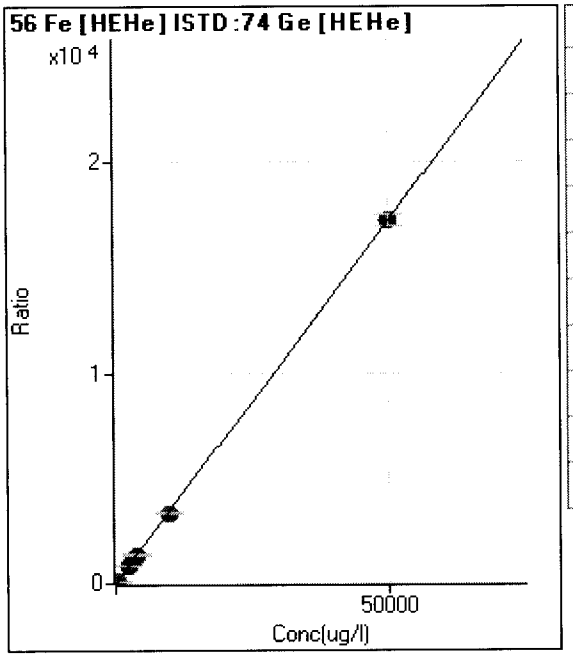
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8014	0.628	P	3.0
2	☐	9.000	9.638	50637	3.956	P	1.2
3	☐	45.000	44.906	212420	16.135	P	1.9
4	☐	90.000	88.388	405710	31.151	P	1.9
5	☐	180.000	181.206	808998	63.203	P	2.9
6	☐	400.000	401.936	1780313	139.429	A	1.1
7	☐	2500.000	2470.637	10721240	853.814	A	0.3
8	☐	4000.000	3858.850	16251418	1,333.207	A	1.4
9	☐	10000.000	9927.811	40610414	3,429.004	A	1.1
10	☐	50000.000	50027.181	194823544	17,276.542	A	1.0

y = 0.3453 * x + 0.6277
R = 1.0000
DL = 0.1614
BEC = 1.818

Weight: <None>
Min Conc: <None>

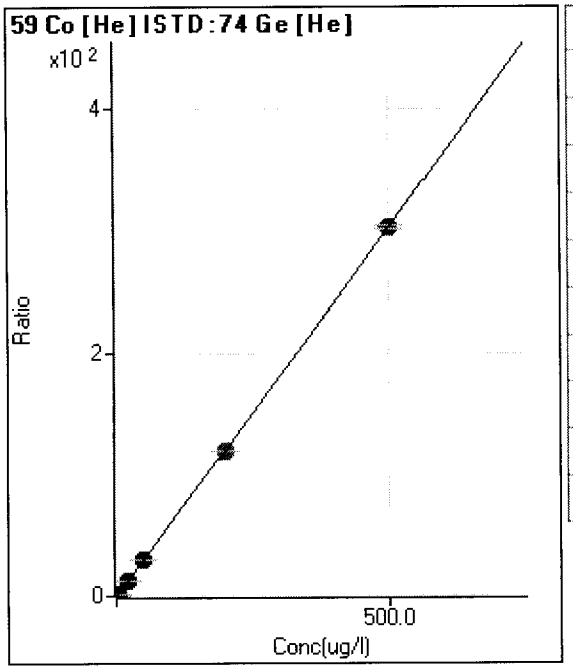


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9382	0.588	P	1.9
2	☐	9.000	8.944	61149	3.670	P	5.1
3	☐	45.000	44.178	250050	15.809	P	1.2
4	☐	90.000	88.900	481165	31.218	P	2.1
5	☐	180.000	178.718	981353	62.164	P	0.6
6	☐	400.000	389.090	2118779	134.647	A	0.3
7	☐	2500.000	2386.165	12643140	822.729	A	0.6
8	☐	4000.000	3832.360	19578376	1,321.007	A	3.7
9	☐	10000.000	9681.409	48711700	3,336.266	A	0.4
10	☐	50000.000	50082.916	234518886	17,256.392	A	3.0

y = 0.3445 * x + 0.5882
R = 1.0000
DL = 0.09652
BEC = 1.707

Weight: <None>
Min Conc: <None>

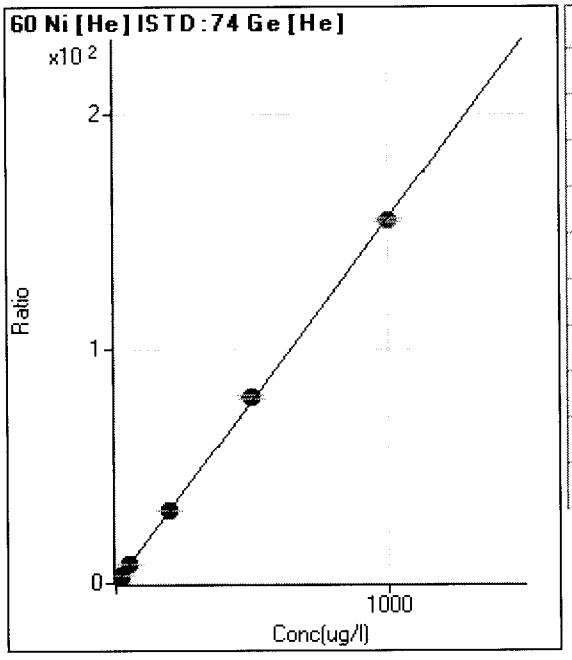
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	29	0.002	P	56.8
2	☐	0.180	0.185	1460	0.114	P	3.6
3	☐	0.900	0.902	7216	0.548	P	1.9
4	☐	1.800	1.805	14255	1.094	P	2.1
5	☐	3.600	3.675	28507	2.226	P	1.9
6	☐	20.000	20.239	156413	12.250	P	1.6
7	☐	50.000	50.872	386578	30.789	P	1.5
8	☐	200.000	198.376	1463356	120.054	A	0.2
9	☐	500.000	500.552	3587700	302.923	A	1.2
10	☐			1313	0.116	P	2.4

y = 0.6052 * x + 0.0022
R = 1.0000
DL = 0.006324
BEC = 0.003711

Weight: <None>
Min Conc: <None>

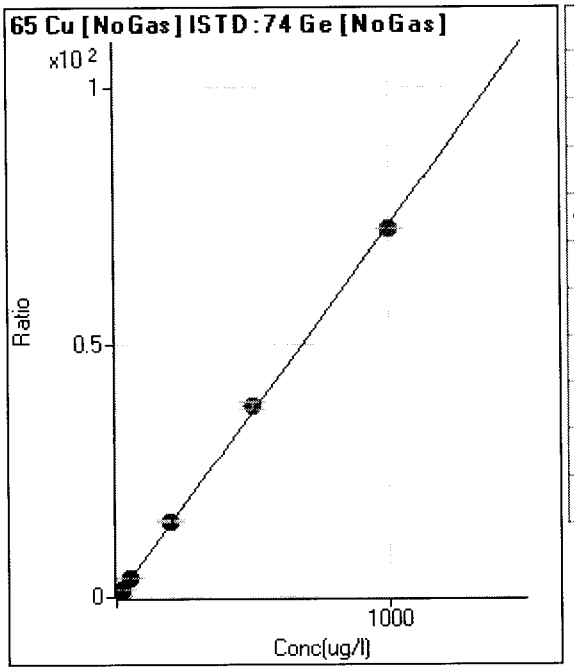


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	218	0.017	P	6.3
2	☐	0.180	0.132	481	0.038	P	6.1
3	☐	0.900	0.869	2001	0.152	P	7.6
4	☐	1.800	1.772	3811	0.292	P	2.4
5	☐	3.600	3.664	7500	0.586	P	5.4
6	☐	20.000	21.006	41898	3.281	P	1.0
7	☐	50.000	52.481	102613	8.172	P	0.2
8	☐	200.000	201.569	381983	31.338	P	0.4
9	☐	500.000	509.781	938256	79.230	P	1.8
10	☐	1000.000	994.652	1743049	154.572	A	1.2

y = 0.1554 * x + 0.0170
R = 0.9999
DL = 0.0207
BEC = 0.1097

Weight: <None>
Min Conc: <None>

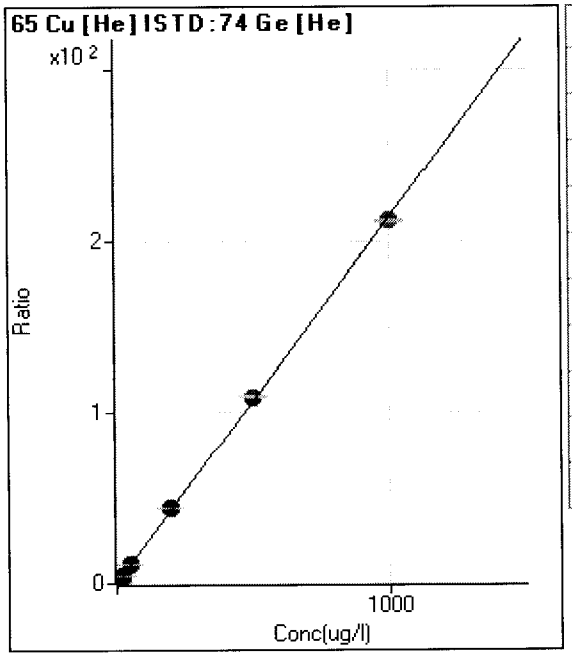
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	706	0.008	P	1.4
2	☐	0.180	0.181	1898	0.021	P	2.4
3	☐	0.900	1.133	8552	0.090	P	5.0
4	☐	1.800	1.877	13183	0.145	P	2.7
5	☐	3.600	3.721	25722	0.280	P	0.8
6	☐	20.000	20.623	139770	1.515	P	0.6
7	☐	50.000	51.197	344485	3.750	P	0.7
8	☐	200.000	206.199	1314539	15.081	A	1.5
9	☐	500.000	515.160	3143078	37.668	A	4.3
10	☐	1000.000	991.107	5867806	72.461	A	0.2

y = 0.0731 * x + 0.0076
R = 0.9998
DL = 0.004524
BEC = 0.1045

Weight: <None>
Min Conc: <None>

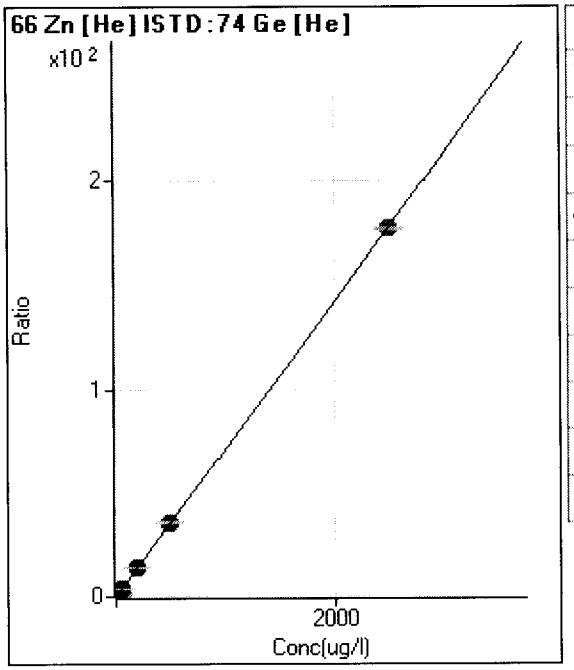


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	224	0.018	P	5.5
2	☐	0.180	0.168	684	0.054	P	6.0
3	☐	0.900	0.900	2767	0.210	P	0.9
4	☐	1.800	1.821	5302	0.407	P	2.9
5	☐	3.600	3.829	10706	0.837	P	3.9
6	☐	20.000	21.108	57873	4.533	P	2.3
7	☐	50.000	52.399	140971	11.226	P	0.6
8	☐	200.000	205.431	535856	43.960	P	1.2
9	☐	500.000	512.705	1298950	109.688	A	1.7
10	☐	1000.000	992.418	2394092	212.301	A	0.3

y = 0.2139 * x + 0.0176
R = 0.9999
DL = 0.01353
BEC = 0.08218

Weight: <None>
Min Conc: <None>

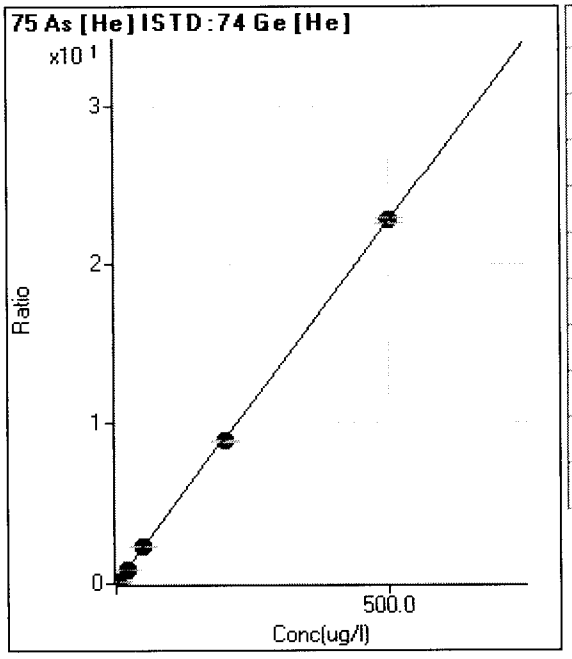
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72	0.006	P	9.6
2	☐			239	0.019	P	11.9
3	☐	0.900	0.867	884	0.067	P	6.6
4	☐	1.800	1.798	1737	0.133	P	2.9
5	☐	3.600	3.720	3453	0.270	P	3.3
6	☐	20.000	19.913	18124	1.420	P	3.1
7	☐	50.000	51.536	46022	3.665	P	0.6
8	☐	200.000	200.713	173784	14.257	P	0.3
9	☐	500.000	508.107	427313	36.083	P	1.7
10	☐	2500.000	2498.291	2000434	177.395	A	0.6

y = 0.0710 * x + 0.0056
R = 1.0000
DL = 0.02279
BEC = 0.07953

Weight: <None>
Min Conc: <None>

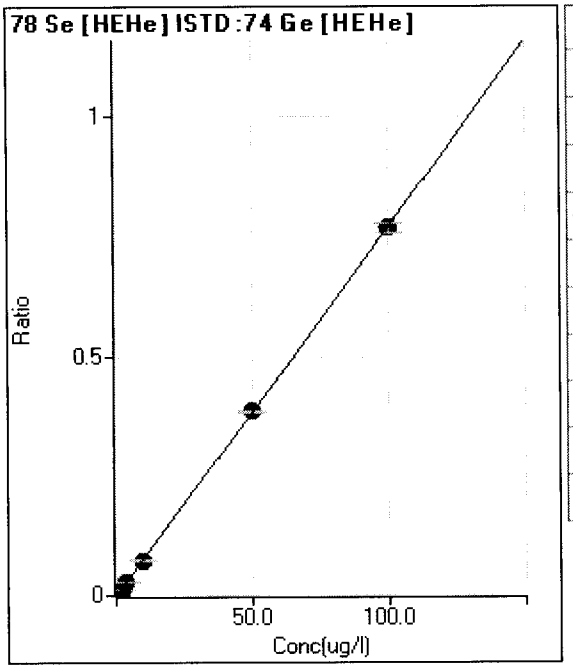


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12	0.001	P	28.8
2	☐	0.180	0.183	118	0.009	P	4.5
3	☐	0.900	0.897	548	0.042	P	3.5
4	☐	1.800	1.773	1060	0.081	P	2.4
5	☐	3.600	3.569	2087	0.163	P	2.6
6	☐	20.000	19.737	11456	0.897	P	1.0
7	☐	50.000	50.020	28533	2.272	P	0.7
8	☐	200.000	196.130	108575	8.907	P	1.1
9	☐	500.000	501.557	269744	22.777	P	1.4
10	☐			61	0.005	P	4.7

y = 0.0454 * x + 8.9852E-004
R = 1.0000
DL = 0.01711
BEC = 0.01979

Weight: <None>
Min Conc: <None>

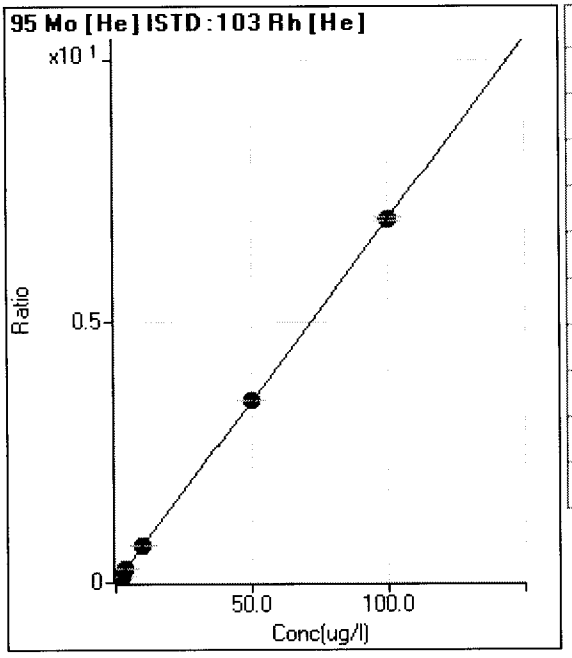
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3	0.000	P	44.5
2	☐	0.180	0.168	25	0.001	P	12.8
3	☐	0.900	0.894	112	0.007	P	0.7
4	☐	1.800	1.718	207	0.013	P	2.7
5	☐	3.600	3.637	445	0.028	P	3.2
6	☐	10.000	9.766	1185	0.075	P	1.5
7	☐	50.000	50.170	5932	0.386	P	0.5
8	☐	100.000	99.939	11397	0.769	P	2.6
9	☐			8	0.001	P	21.9
10	☐			12	0.001	P	19.4

y = 0.0077 * x + 1.9501E-004
R = 1.0000
DL = 0.03383
BEC = 0.02536

Weight: <None>
Min Conc: <None>

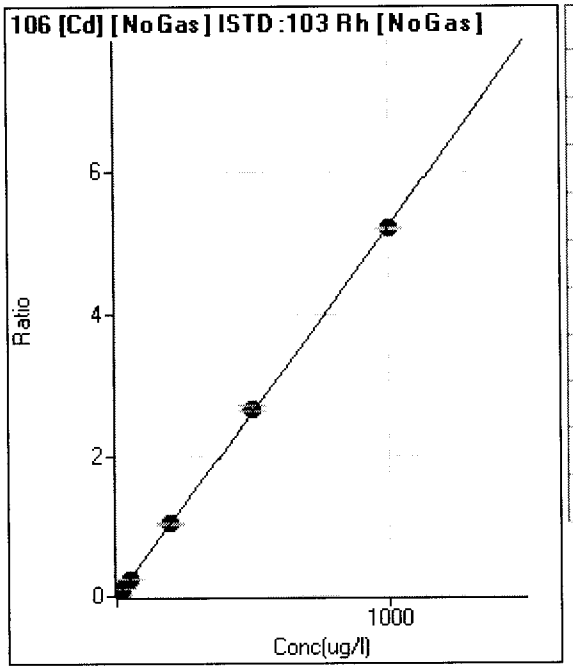


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	67	0.001	P	26.8
2	☐	0.180	0.186	692	0.014	P	4.1
3	☐	0.900	0.921	3229	0.065	P	1.6
4	☐	1.800	1.747	5988	0.123	P	0.8
5	☐	3.600	3.566	12029	0.249	P	2.4
6	☐	10.000	9.912	33328	0.690	P	2.3
7	☐	50.000	50.347	165462	3.500	P	0.7
8	☐	100.000	99.837	317799	6.940	P	1.1
9	☐			298	0.007	P	10.4
10	☐			868	0.021	P	8.8

y = 0.0695 * x + 0.0014
R = 1.0000
DL = 0.01609
BEC = 0.02003

Weight: <None>
Min Conc: <None>

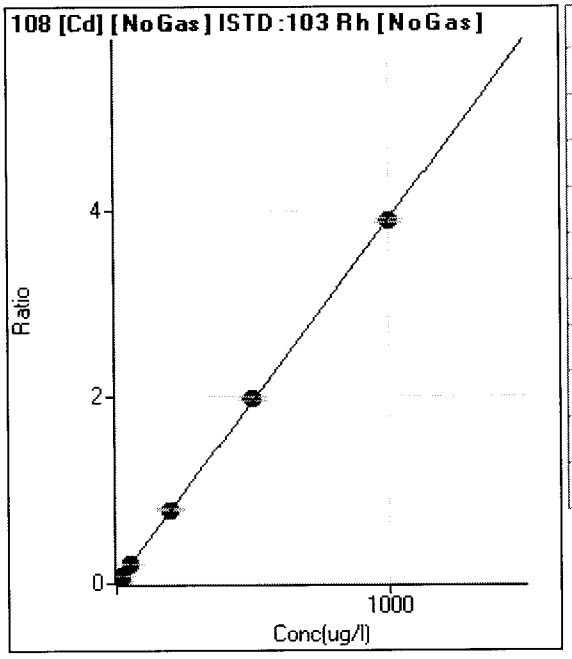
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20	0.000	P	57.4
2	☐	0.180	0.176	110	0.001	P	21.9
3	☐	0.900	0.956	531	0.005	P	6.8
4	☐	1.800	1.713	908	0.009	P	4.6
5	☐	3.600	3.632	1906	0.019	P	4.5
6	☐	20.000	19.071	9892	0.100	P	2.3
7	☐	50.000	48.976	25076	0.257	P	1.4
8	☐	200.000	198.330	95755	1.038	P	0.6
9	☐	500.000	508.335	236986	2.661	P	3.0
10	☐	1000.000	996.236	440465	5.216	P	0.8

y = 0.0052 * x + 2.0090E-004
R = 1.0000
DL = 0.06609
BEC = 0.03838

Weight: <None>
Min Conc: <None>

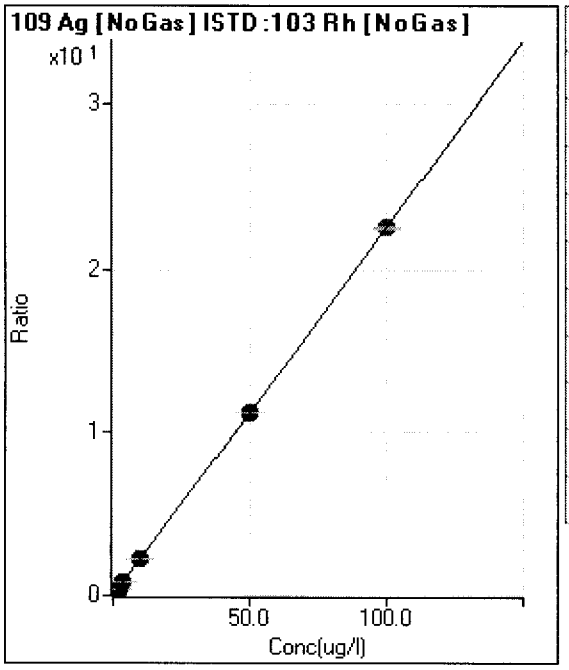


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16	0.000	P	24.4
2	☐	0.180	0.120	61	0.001	P	15.0
3	☐	0.900	0.905	377	0.004	P	14.9
4	☐	1.800	1.812	714	0.007	P	7.9
5	☐	3.600	3.567	1395	0.014	P	4.5
6	☐	20.000	19.562	7551	0.076	P	2.3
7	☐	50.000	51.134	19484	0.199	P	0.5
8	☐	200.000	201.995	72578	0.787	P	1.7
9	☐	500.000	506.801	175840	1.975	P	2.6
10	☐	1000.000	996.153	327763	3.881	P	1.2

y = 0.0039 * x + 1.5636E-004
R = 1.0000
DL = 0.02941
BEC = 0.04013

Weight: <None>
Min Conc: <None>

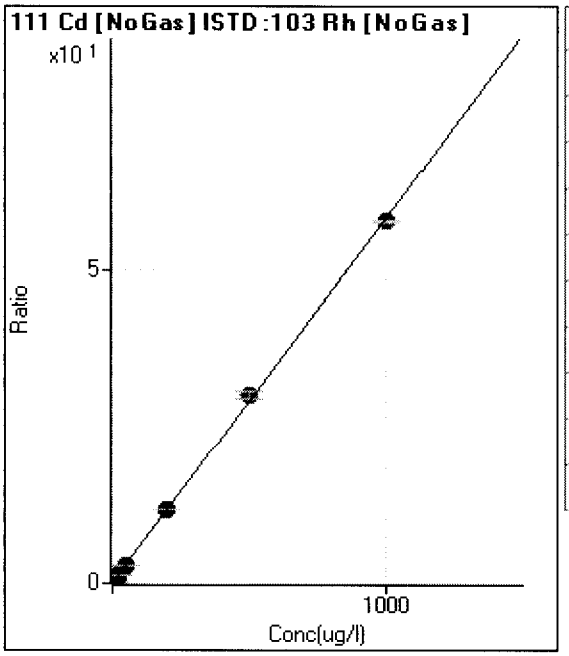
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23	0.000	P	37.6
2	☐	0.180	0.192	4252	0.044	P	1.1
3	☐	0.900	0.895	20606	0.202	P	5.0
4	☐	1.800	1.792	40031	0.404	P	1.7
5	☐	3.600	3.614	80847	0.815	P	1.9
6	☐	10.000	9.982	222499	2.251	P	1.6
7	☐	50.000	49.748	1096028	11.215	P	0.2
8	☐	100.000	100.128	2081315	22.572	A	0.3
9	☐			366	0.004	P	13.3
10	☐			538	0.006	P	10.5

y = 0.2254 * x + 2.3457E-004
R = 1.0000
DL = 0.001174
BEC = 0.001041

Weight: <None>
Min Conc: <None>

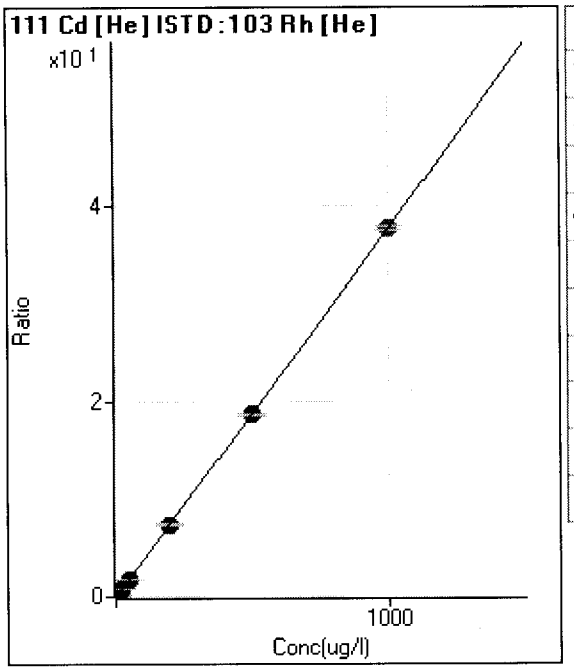


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20	0.000	P	106.9
2	☐	0.180	0.180	1045	0.011	P	4.0
3	☐	0.900	0.944	5624	0.055	P	3.2
4	☐	1.800	1.784	10294	0.104	P	3.0
5	☐	3.600	3.586	20715	0.209	P	1.4
6	☐	20.000	19.428	111757	1.130	P	1.1
7	☐	50.000	49.244	279979	2.865	P	1.5
8	☐	200.000	198.303	1063698	11.536	P	0.6
9	☐	500.000	516.292	2674341	30.034	A	3.4
10	☐	1000.000	992.243	4874728	57.721	A	0.7

y = 0.0582 * x + 1.9775E-004
R = 0.9998
DL = 0.0109
BEC = 0.003399

Weight: <None>
Min Conc: <None>

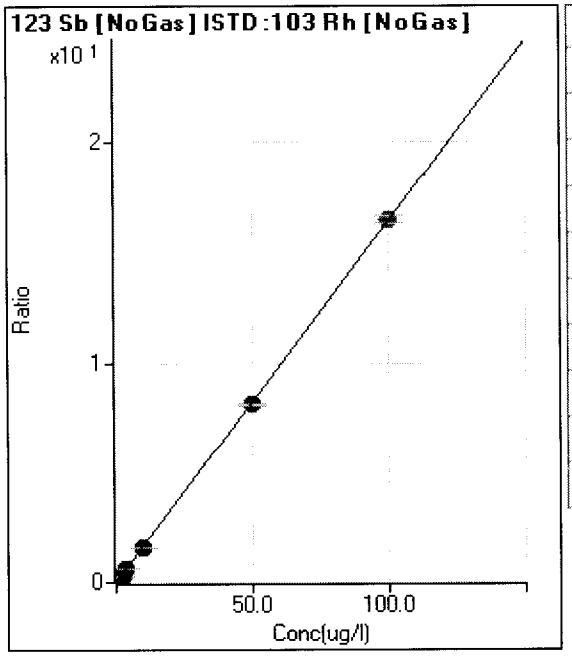
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2	0.000	P	173.2
2	☐	0.180	0.190	348	0.007	P	10.0
3	☐	0.900	0.882	1646	0.033	P	2.8
4	☐	1.800	1.785	3284	0.067	P	2.2
5	☐	3.600	3.606	6564	0.136	P	4.6
6	☐	20.000	19.510	35527	0.736	P	3.7
7	☐	50.000	49.528	88317	1.868	P	0.5
8	☐	200.000	198.637	343166	7.493	P	0.7
9	☐	500.000	498.023	839216	18.787	P	0.8
10	☐	1000.000	1001.294	1577206	37.772	A	0.9

y = 0.0377 * x + 4.8132E-005
R = 1.0000
DL = 0.00663
BEC = 0.001276

Weight: <None>
Min Conc: <None>

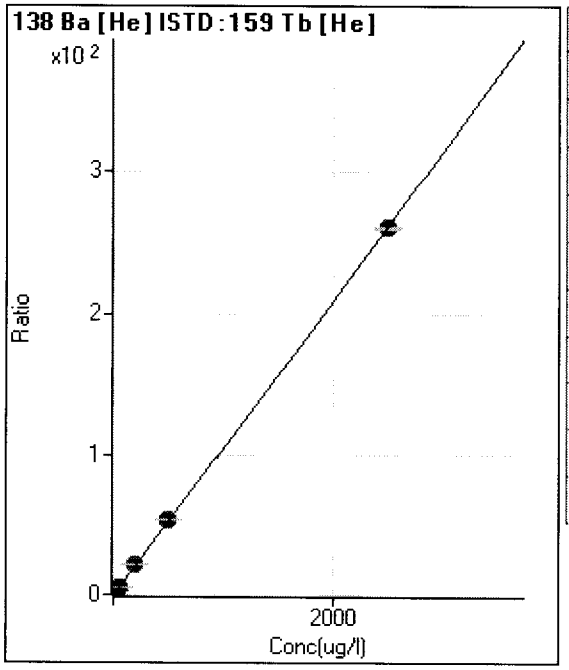


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	313	0.003	P	14.1
2	☐	0.180	0.173	3087	0.032	P	2.0
3	☐	0.900	0.878	15013	0.147	P	7.1
4	☐	1.800	1.758	28880	0.292	P	1.9
5	☐	3.600	3.522	57653	0.581	P	1.9
6	☐	10.000	9.716	157964	1.598	P	0.7
7	☐	50.000	49.238	789979	8.083	P	0.3
8	☐	100.000	100.413	1519693	16.481	A	2.1
9	☐			942	0.011	P	10.4
10	☐			738	0.009	P	2.8

y = 0.1641 * x + 0.0032
R = 1.0000
DL = 0.008109
BEC = 0.0192

Weight: <None>
Min Conc: <None>

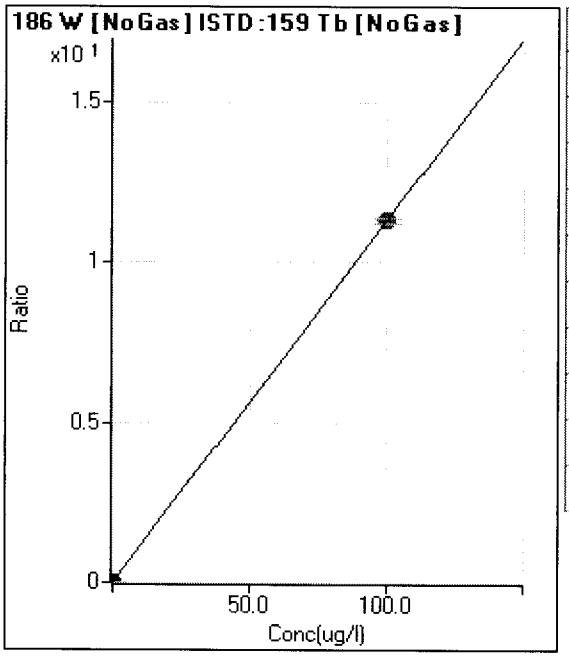
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216	0.002	P	3.9
2	☐	0.180	0.192	2208	0.022	P	5.7
3	☐	0.900	0.933	10073	0.100	P	3.7
4	☐	1.800	1.863	19629	0.196	P	4.0
5	☐	3.600	3.772	39460	0.396	P	2.6
6	☐	20.000	20.924	217059	2.184	P	2.6
7	☐	50.000	50.976	528238	5.318	P	0.5
8	☐	200.000	210.580	2109011	21.963	A	0.4
9	☐	500.000	518.224	5118895	54.047	A	0.8
10	☐	2500.000	2495.482	23879509	260.253	A	0.4

y = 0.1043 * x + 0.0022
R = 1.0000
DL = 0.00247
BEC = 0.02094

Weight: <None>
Min Conc: <None>

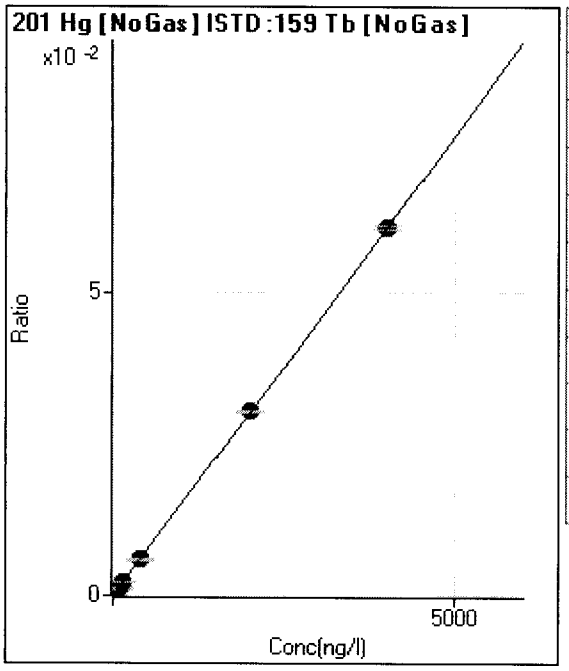


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53	0.000	P	28.7
2	☐			43	0.000	P	12.2
3	☐			164	0.001	P	16.5
4	☐			43	0.000	P	12.3
5	☐			87	0.000	P	26.3
6	☐			170	0.001	P	23.1
7	☐			397	0.002	P	22.6
8	☐			898	0.004	P	10.7
9	☐	100.000	100.000	2487692	11.319	A	1.4
10	☐			6822	0.031	P	4.5

y = 0.1132 * x + 2.2852E-004
R = 1.0000
DL = 0.001738
BEC = 0.002019

Weight: <None>
Min Conc: <None>

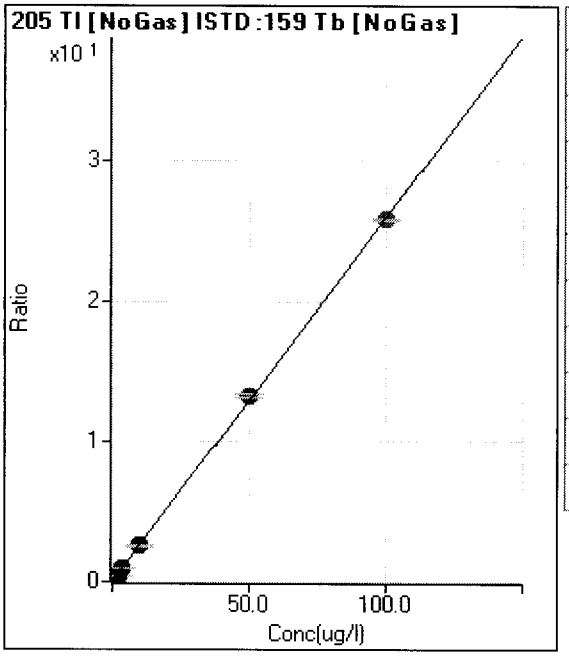
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13	0.000	P	19.8
2	☐			39	0.000	P	4.4
3	☐	36.000	38.183	152	0.001	P	3.0
4	☐	72.000	71.977	265	0.001	P	7.8
5	☐	144.000	143.290	511	0.002	P	4.0
6	☐	400.000	390.966	1393	0.006	P	1.3
7	☐	2000.000	2002.946	7017	0.030	P	1.5
8	☐	4000.000	3999.437	13528	0.060	P	0.9
9	☐			432	0.002	P	4.7
10	☐			139	0.001	P	9.4

y = 1.5069E-005 * x + 5.4902E-005
R = 1.0000
DL = 2.163
BEC = 3.643

Weight: <None>
Min Conc: <None>

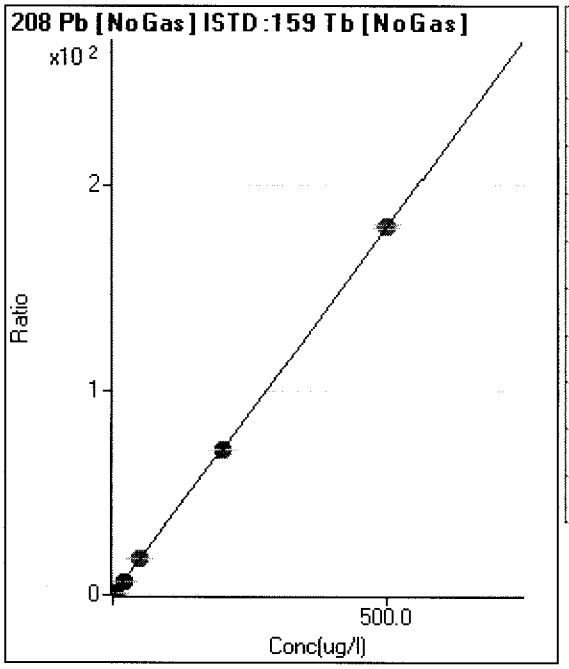


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	214	0.001	P	11.5
2	☐	0.180	0.182	11089	0.048	P	2.1
3	☐	0.900	0.894	56051	0.233	P	5.7
4	☐	1.800	1.789	108367	0.465	P	2.4
5	☐	3.600	3.616	217086	0.940	P	1.0
6	☐	10.000	9.809	596549	2.547	P	1.5
7	☐	50.000	50.945	3068866	13.226	A	2.2
8	☐	100.000	99.546	5796111	25.843	A	0.5
9	☐			4402	0.020	P	6.9
10	☐			1321	0.006	P	6.2

y = 0.2596 * x + 9.1751E-004
R = 0.9999
DL = 0.001221
BEC = 0.003534

Weight: <None>
Min Conc: <None>

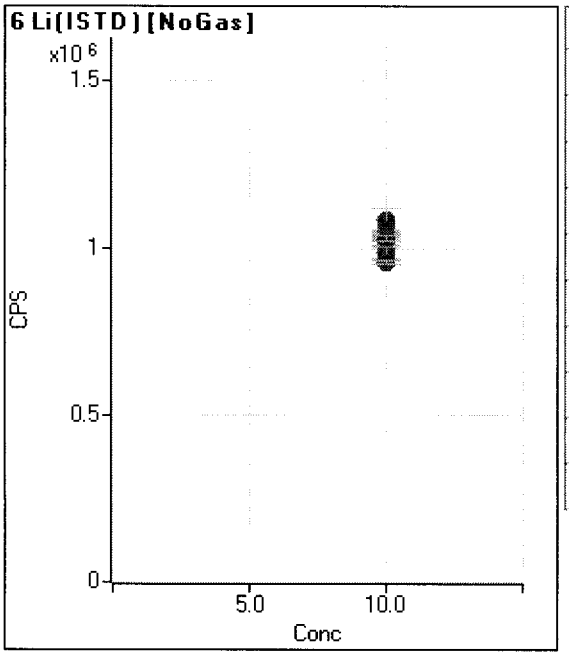
Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2166	0.009	P	0.9
2	☐	0.180	0.181	17125	0.074	P	0.8
3	☐	0.900	0.981	86883	0.361	P	4.2
4	☐	1.800	1.796	152080	0.653	P	2.7
5	☐	3.600	3.625	302300	1.308	P	1.0
6	☐	20.000	19.601	1647411	7.034	P	1.4
7	☐	50.000	50.503	4201751	18.110	A	2.6
8	☐	200.000	198.216	15935774	71.052	A	0.4
9	☐	500.000	500.679	39441752	179.457	A	1.2
10	☐			11660	0.053	P	1.4

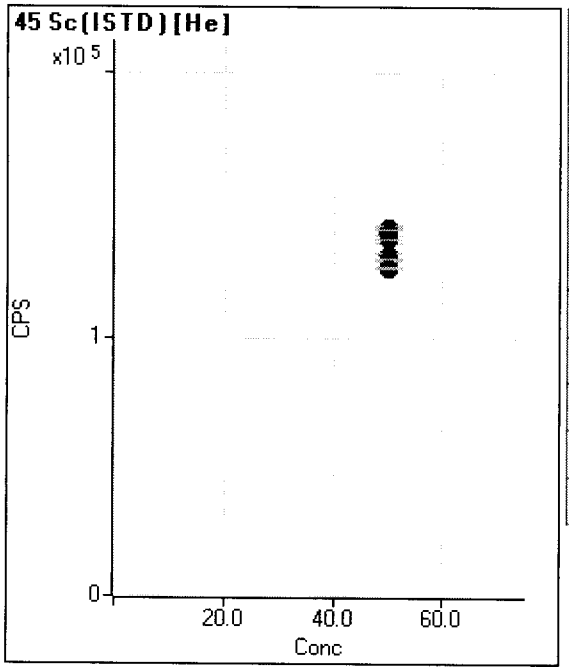
y = 0.3584 * x + 0.0093
R = 1.0000
DL = 0.0007289
BEC = 0.02585

Weight: <None>
Min Conc: <None>

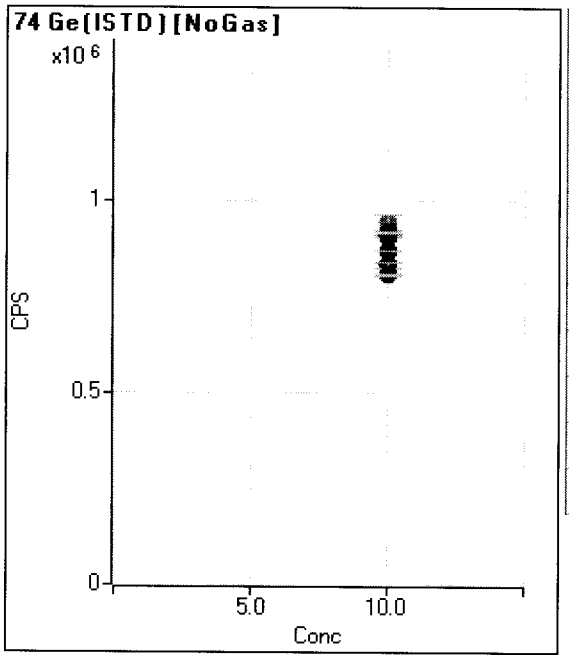


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	10.000		1045075		A	1.2
2	☐	10.000		1037984		A	3.0
3	☐	10.000		1084194		A	6.9
4	☐	10.000		1021217		A	1.5
5	☐	10.000		1054796		A	0.5
6	☐	10.000		1034798		A	1.8
7	☐	10.000		1040399		A	1.3
8	☐	10.000		1031516		A	1.6
9	☐	10.000		988852		A	3.5
10	☐	10.000		959574		A	1.3

Calibration for 013_ICV.d

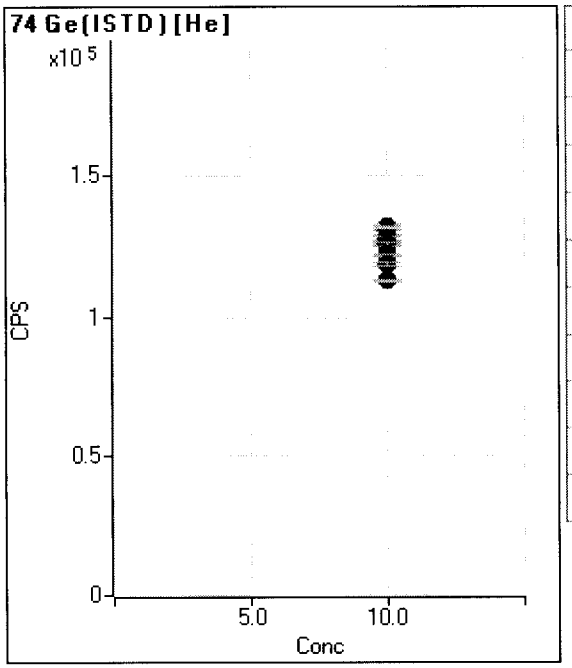


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	50.000		138693		P	4.5
2	☐	50.000		138874		P	2.9
3	☐	50.000		141471		P	0.6
4	☐	50.000		139950		P	1.4
5	☐	50.000		139254		P	4.8
6	☐	50.000		139258		P	2.8
7	☐	50.000		137264		P	0.4
8	☐	50.000		130992		P	1.7
9	☐	50.000		129651		P	0.6
10	☐	50.000		126329		P	0.5

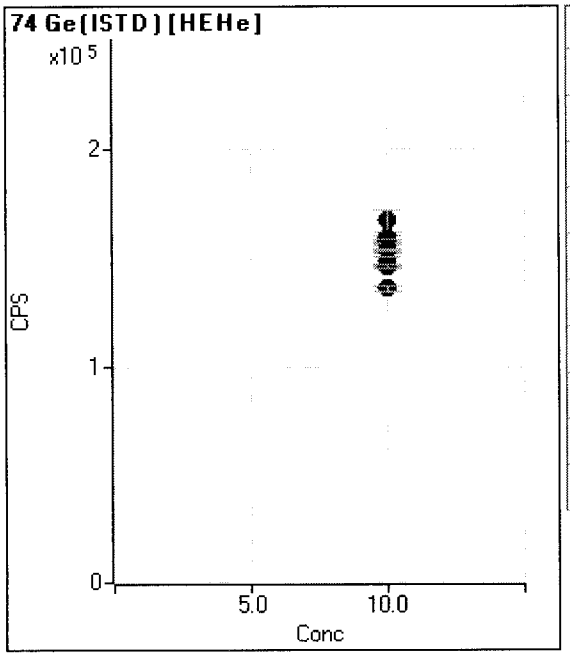


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	10.000		923749		P	0.4
2	☐	10.000		908818		P	1.0
3	☐	10.000		945251		M	4.6
4	☐	10.000		910118		P	1.1
5	☐	10.000		919865		P	0.8
6	☐	10.000		922422		P	0.4
7	☐	10.000		918569		P	0.7
8	☐	10.000		871608		P	0.5
9	☐	10.000		834791		P	1.6
10	☐	10.000		809785		P	0.7

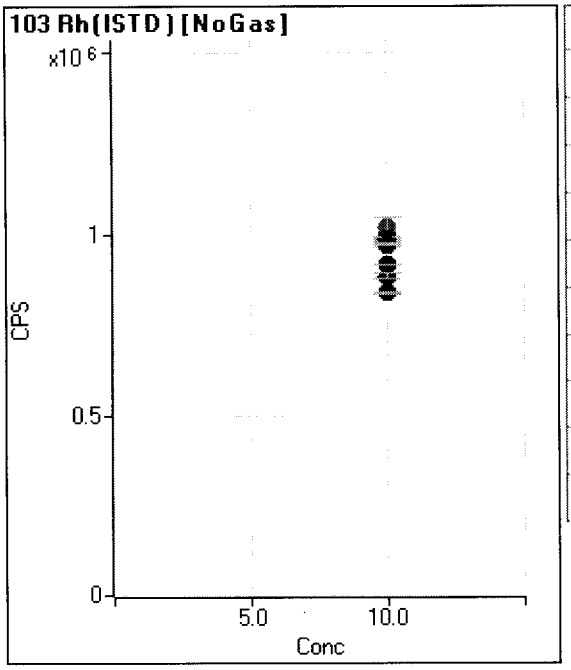
Calibration for 013_ICV.d



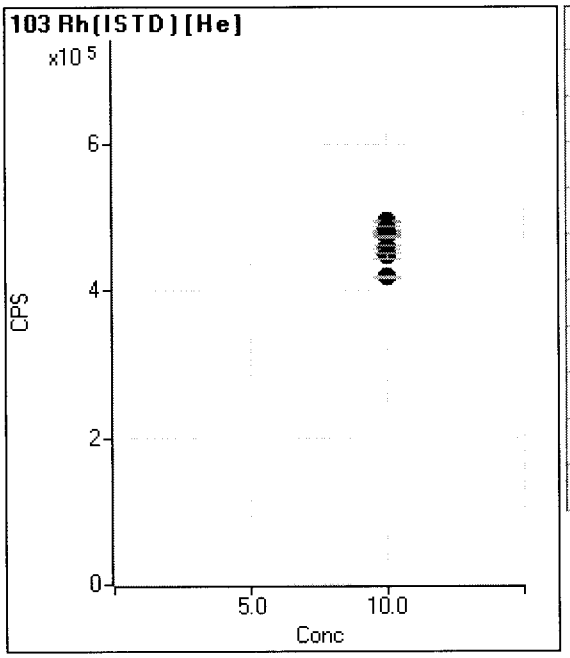
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	10.000		127728		P	2.4
2	☐	10.000		128003		P	1.9
3	☐	10.000		131666		P	1.4
4	☐	10.000		130275		P	2.1
5	☐	10.000		128108		P	4.4
6	☐	10.000		127697		P	1.1
7	☐	10.000		125569		P	1.0
8	☐	10.000		121892		P	0.5
9	☐	10.000		118439		P	1.2
10	☐	10.000		112771		P	0.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	10.000		159523		P	1.0
2	☐	10.000		166962		P	6.0
3	☐	10.000		158163		P	0.2
4	☐	10.000		154170		P	2.0
5	☐	10.000		157863		P	0.2
6	☐	10.000		157356		P	1.0
7	☐	10.000		153675		P	0.6
8	☐	10.000		148317		P	3.0
9	☐	10.000		146009		P	0.7
10	☐	10.000		135952		P	1.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	10.000		994218		P	0.4
2	☐	10.000		977184		P	1.7
3	☐	10.000		1022136		M	5.8
4	☐	10.000		990421		M	1.8
5	☐	10.000		992143		P	1.0
6	☐	10.000		988806		P	1.6
7	☐	10.000		977297		P	0.4
8	☐	10.000		922081		P	0.1
9	☐	10.000		890750		P	1.6
10	☐	10.000		844560		P	0.8



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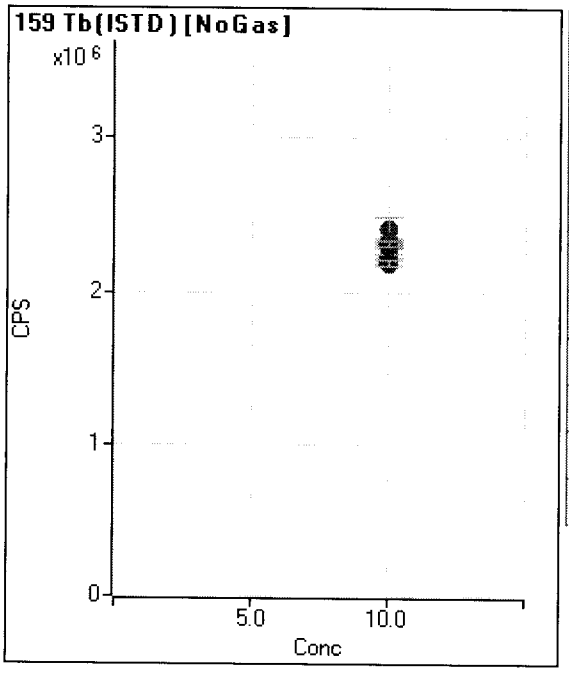
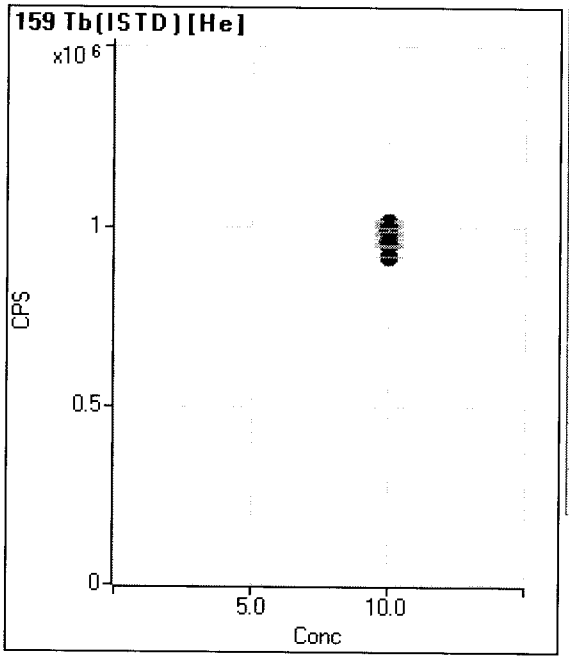
1	☐	10.000		482080		P	3.6
2	☐	10.000		484060		P	3.4
3	☐	10.000		493752		P	0.6
4	☐	10.000		487579		P	2.2
5	☐	10.000		483038		P	4.3
6	☐	10.000		482882		P	1.7
7	☐	10.000		472697		P	0.6
8	☐	10.000		457979		P	1.7
9	☐	10.000		446727		P	1.4
10	☐	10.000		417585		P	1.1

Calibration for 013_ICV.d

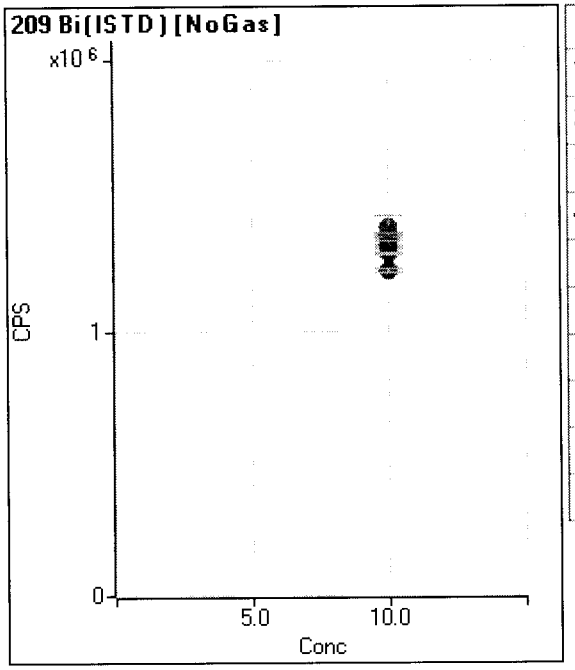


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	10.000		2337218		A	1.1
2	☐	10.000		2304961		A	1.1
3	☐	10.000		2411711		A	6.9
4	☐	10.000		2329466		A	2.2
5	☐	10.000		2310447		A	0.9
6	☐	10.000		2342073		A	0.9
7	☐	10.000		2320948		A	2.1
8	☐	10.000		2242785		A	1.2
9	☐	10.000		2197879		A	0.9
10	☐	10.000		2190437		A	1.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	10.000		987185		P	2.2
2	☐	10.000		993350		P	1.9
3	☐	10.000		1012335		P	1.0
4	☐	10.000		999654		P	2.8
5	☐	10.000		998276		P	3.7
6	☐	10.000		993960		P	1.5
7	☐	10.000		993191		P	0.7
8	☐	10.000		960220		P	1.0
9	☐	10.000		947149		P	0.7
10	☐	10.000		917540		P	0.5

Calibration for 013_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	10.000		1347700		A	1.9
2	☐	10.000		1315858		A	0.6
3	☐	10.000		1382584		A	6.9
4	☐	10.000		1306240		A	2.1
5	☐	10.000		1356488		A	0.6
6	☐	10.000		1348248		A	0.7
7	☐	10.000		1357856		A	0.9
8	☐	10.000		1318819		A	1.9
9	☐	10.000		1288592		A	0.6
10	☐	10.000		1223079		A	1.7

Initial Calibration Verification (ICV) Report ICPMS6

Sample Name	**9J10037-ICV1**	**Sample Type**	ICV
File Name	013_ICV.d	**Vial #**	1102
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 19:28:20	**Sample QC Pass/Fail**	Pass
Comment	A19J138 - JPB 10/10	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	No Gas	39.779	ug/l	2.0	193697	40	99.45	90	110	
Na	23	45	He	3977.691	ug/l	1.6	3758193	4000	99.44	90	110	
Mg	24	45	He	4259.078	ug/l	1.2	2072159	4000	106.48	90	110	
Al	27	45	He	4046.398	ug/l	0.7	794487	4000	101.16	90	110	
K	39	45	He	4122.860	ug/l	1.6	1436830	4000	103.07	90	110	
Ca	44	45	He	4045.898	ug/l	1.5	77029	4000	101.15	90	110	
Ti	47	45	He	97.328	ug/l	1.7	11512	100	97.33	90	110	
V	51	74	He	95.815	ug/l	0.3	364851	100	95.82	90	110	
Cr	52	74	He	98.065	ug/l	1.5	474714	100	98.06	90	110	
Mn	55	74	He	98.811	ug/l	1.1	287017	100	98.81	90	110	
Fe	56	74	He	4024.515	ug/l	1.9	17023180	4000	100.61	90	110	
Fe	56	74	HEHe	3939.942	ug/l	1.0	20480328	4000	98.5	90	110	
Co	59	74	He	102.895	ug/l	0.9	762381	100	102.9	90	110	
Ni	60	74	He	104.820	ug/l	0.6	199614	100	104.82	90	110	
Cu	65	74	He	102.210	ug/l	0.6	267882	100	102.21	90	110	
Cu	65	74	No Gas	101.350	ug/l	1.3	646565	100	101.35	90	110	
Zn	66	74	He	98.161	ug/l	1.1	85396	100	98.16	90	110	
As	75	74	He	94.875	ug/l	0.1	52756	100	94.88	90	110	
Se	78	74	HEHe	39.168	ug/l	1.7	4545	40	97.92	90	110	
Mo	95	103	He	39.918	ug/l	0.3	126914	40	99.8	90	110	
Ag	109	103	No Gas	40.960	ug/l	2.0	855070	40	102.4	90	110	
Cd	111	103	He	96.596	ug/l	0.2	166612	100	96.6	90	110	
Cd	111	103	No Gas	97.117	ug/l	1.8	523189	100	97.12	90	110	
Sb	123	103	No Gas	39.742	ug/l	1.4	604263	40	99.35	90	110	
Ba	138	159	He	101.940	ug/l	1.5	1027458	100	101.94	90	110	
Hg	201	159	No Gas	806.979	ng/l	1.8	2757	800	100.87	90	110	
Tl	205	159	No Gas	41.070	ug/l	2.3	2406246	40	102.68	90	110	
Pb	208	159	No Gas	99.993	ug/l	3.3	8088709	100	99.99	90	110	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	1009467	1.6	1045075.28	96.59	70	120	
Ge	74	No Gas	871834	0.9	923748.77	94.38	70	120	
Rh	103	No Gas	926202	1.4	994218.29	93.16	70	120	
Tb	159	No Gas	2257460	2.1	2337217.8	96.59	70	120	
Bi	209	No Gas	1309252	0.1	1347700.19	97.15	70	120	
Sc	45	He	132801	0.5	138692.66	95.75	70	120	
Ge	74	He	122424	0.6	127728.2	95.85	70	120	
Rh	103	He	457234	0.7	482080.38	94.85	70	120	
Tb	159	He	966309	0.7	987185.44	97.89	70	120	
Ge	74	HEHe	150813	1.0	159522.83	94.54	70	120	

Initial Calibration Blank (ICB) Report ICPMS6

Sample Name	**9J10037-ICB1**	**Sample Type**	ICB
File Name	014_ICB.d	**Vial #**	1101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 19:32:49	**Sample QC Pass/Fail**	Pass
Comment	ICB	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Be	9	6	No Gas	0.012	ug/l	29.9	87	0.09	
Na	23	45	He	0.739	ug/l	10.7	5188	45	
Mg	24	45	He	0.261	ug/l	7.7	755	45	
Al	27	45	He	0.110	ug/l	59.2	142	22.5	
K	39	45	He	1.379	ug/l	9.8	13095	45	
Ca	44	45	He	0.786	ug/l	147.4	82	45	
Ti	47	45	He	0.049	ug/l	69.4	6	1.8	
V	51	74	He	-0.009	ug/l	N/A	263	0.45	
Cr	52	74	He	0.018	ug/l	19.5	598	0.45	
Mn	55	74	He	0.010	ug/l	92.0	113	0.45	
Fe	56	74	He	0.062	ug/l	49.7	7802	22.5	
Fe	56	74	HEHe	0.079	ug/l	32.3	9122	22.5	
Co	59	74	He	0.003	ug/l	20.3	51	0.09	
Ni	60	74	He	0.009	ug/l	165.3	222	0.45	
Cu	65	74	He	0.118	ug/l	6.8	514	0.45	
Cu	65	74	No Gas	0.178	ug/l	5.4	1745	0.45	
Zn	66	74	He	0.072	ug/l	36.1	129	1.8	
As	75	74	He	0.006	ug/l	166.6	14	0.45	
Se	78	74	HEHe	0.007	ug/l	145.8	4	0.45	
Mo	95	103	He	0.008	ug/l	69.3	90	0.45	
Ag	109	103	No Gas	0.003	ug/l	41.0	92	0.09	
Cd	111	103	He	0.008	ug/l	14.0	16	0.09	
Cd	111	103	No Gas	0.010	ug/l	15.6	72	0.09	
Sb	123	103	No Gas	0.077	ug/l	11.4	1428	0.45	
Ba	138	159	He	0.009	ug/l	13.5	300	0.45	
Hg	201	159	No Gas	6.215	ng/l	13.4	33	36	
Tl	205	159	No Gas	0.014	ug/l	16.5	1011	0.09	
Pb	208	159	No Gas	0.011	ug/l	16.1	2918	0.09	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	969355	1.0	1045075.28	92.75	70	120	
Ge	74	No Gas	843966	0.9	923748.77	91.36	70	120	
Rh	103	No Gas	902667	1.5	994218.29	90.79	70	120	
Tb	159	No Gas	2188640	0.9	2337217.8	93.64	70	120	
Bi	209	No Gas	1272605	1.4	1347700.19	94.43	70	120	
Sc	45	He	127188	0.4	138692.66	91.7	70	120	
Ge	74	He	120186	0.5	127728.2	94.09	70	120	
Rh	103	He	454876	0.8	482080.38	94.36	70	120	
Tb	159	He	949418	0.3	987185.44	96.17	70	120	
Ge	74	HEHe	148247	1.5	159522.83	92.93	70	120	

CRL Verification ICPMS6

Sample Name	**9J10037-CRL1**	**Sample Type**	CRL1
File Name	015CRL.d	**Vial #**	2101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 19:37:33	**Sample QC Pass/Fail**	Fail
Comment	A19J030 - JPB 10/10	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	%QC Low	%QC High	Flag
Be	9	6	No Gas	0.190	ug/l	3.7	907	105.56	70	130	
Na	23	45	He	9.616	ug/l	1.7	13228	106.84	70	130	
Mg	24	45	He	9.289	ug/l	4.6	4967	103.21	70	130	
Al	27	45	He	9.817	ug/l	5.2	1969	109.08	70	130	
K	39	45	He	12.470	ug/l	7.5	16784	138.56	70	130	CRL1 Failed
Ca	44	45	He	9.732	ug/l	11.0	245	108.13	70	130	
Ti	47	45	He	0.127	ug/l	35.1	14	70.56	70	130	
V	51	74	He	0.180	ug/l	11.6	964	100	70	130	
Cr	52	74	He	0.224	ug/l	8.4	1577	124.44	70	130	
Mn	55	74	He	0.181	ug/l	12.1	602	100.56	70	130	
Fe	56	74	He	8.702	ug/l	0.7	43618	96.69	70	130	
Fe	56	74	HEHe	9.017	ug/l	2.5	53600	100.19	70	130	
Co	59	74	He	0.181	ug/l	8.5	1346	100.56	70	130	
Ni	60	74	He	0.099	ug/l	13.8	389	55	70	130	CRL1 Failed
Cu	65	74	He	0.247	ug/l	8.4	847	137.22	70	130	CRL1 Failed
Cu	65	74	No Gas	0.297	ug/l	9.6	2456	165	70	130	CRL1 Failed
Zn	66	74	He	0.214	ug/l	8.9	250	118.89	70	130	
As	75	74	He	0.188	ug/l	12.6	113	104.44	70	130	
Se	78	74	HEHe	0.189	ug/l	15.7	24	105	70	130	
Mo	95	103	He	0.188	ug/l	1.1	658	104.44	70	130	
Ag	109	103	No Gas	0.181	ug/l	1.5	3743	100.56	70	130	
Cd	111	103	He	0.181	ug/l	8.4	312	100.56	70	130	
Cd	111	103	No Gas	0.187	ug/l	3.4	1011	103.89	70	130	
Sb	123	103	No Gas	0.184	ug/l	1.2	3034	102.22	70	130	
Ba	138	159	He	0.190	ug/l	3.0	2098	105.56	70	130	
Hg	201	159	No Gas	13.066	ng/l	17.8	55	181.47	70	130	CRL1 Failed
Tl	205	159	No Gas	0.186	ug/l	0.3	10805	103.33	70	130	
Pb	208	159	No Gas	0.188	ug/l	0.7	16844	104.44	70	130	

All CRL failures < MRL JB 10/11/19

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	952925	1.7	1045075.28	91.18	70	120	
Ge	74	No Gas	836986	0.5	923748.77	90.61	70	120	
Rh	103	No Gas	911925	1.2	994218.29	91.72	70	120	
Tb	159	No Gas	2196171	0.7	2337217.8	93.97	70	120	
Bi	209	No Gas	1281467	2.8	1347700.19	95.09	70	120	
Sc	45	He	127351	0.6	138692.66	91.82	70	120	
Ge	74	He	120070	0.6	127728.2	94	70	120	
Rh	103	He	454755	1.0	482080.38	94.33	70	120	
Tb	159	He	954324	0.5	987185.44	96.67	70	120	
Ge	74	HEHe	145110	2.1	159522.83	90.96	70	120	

CRL Verification ICPMS6

Sample Name	**9J10037-CRL2**	**Sample Type**	CRL2
File Name	016_CRL.d	**Vial #**	2102
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 19:42:09	**Sample QC Pass/Fail**	Pass
Comment	A19J031 - JPB 10/10	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	%QC Low	%QC High	Flag
Be	9	6	No Gas	0.893	ug/l	2.3	4262	99.22	70	130	
Na	23	45	He	45.212	ug/l	1.9	46047	100.47	70	130	
Mg	24	45	He	46.898	ug/l	1.4	22807	104.22	70	130	
Al	27	45	He	46.170	ug/l	1.9	8930	102.6	70	130	
K	39	45	He	48.619	ug/l	0.8	29136	108.04	70	130	
Ca	44	45	He	48.659	ug/l	5.4	968	108.13	70	130	
Ti	47	45	He	0.889	ug/l	24.1	102	98.78	70	130	
V	51	74	He	0.863	ug/l	1.4	3499	95.89	70	130	
Cr	52	74	He	0.935	ug/l	1.1	4923	103.89	70	130	
Mn	55	74	He	0.905	ug/l	3.6	2650	100.56	70	130	
Fe	56	74	He	44.786	ug/l	1.5	192261	99.52	70	130	
Fe	56	74	HEHe	44.935	ug/l	0.7	239601	99.86	70	130	
Co	59	74	He	0.887	ug/l	2.7	6437	98.56	70	130	
Ni	60	74	He	0.872	ug/l	0.7	1822	96.89	70	130	
Cu	65	74	He	0.990	ug/l	2.2	2741	110	70	130	
Cu	65	74	No Gas	0.982	ug/l	2.7	6740	109.11	70	130	
Zn	66	74	He	1.041	ug/l	3.7	950	115.67	70	130	
As	75	74	He	0.859	ug/l	4.9	477	95.44	70	130	
Se	78	74	HEHe	0.890	ug/l	6.1	105	98.89	70	130	
Mo	95	103	He	0.915	ug/l	3.9	2947	101.67	70	130	
Ag	109	103	No Gas	0.901	ug/l	0.9	18755	100.11	70	130	
Cd	111	103	He	0.927	ug/l	2.1	1588	103	70	130	
Cd	111	103	No Gas	0.891	ug/l	3.1	4796	99	70	130	
Sb	123	103	No Gas	0.902	ug/l	2.1	13932	100.22	70	130	
Ba	138	159	He	0.933	ug/l	1.4	9467	103.67	70	130	
Hg	201	159	No Gas	36.564	ng/l	8.6	133	101.57	70	130	
Tl	205	159	No Gas	0.918	ug/l	2.3	52450	102	70	130	
Pb	208	159	No Gas	0.922	ug/l	1.0	74486	102.44	70	130	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	981605	0.9	1045075.28	93.93	70	120	
Ge	74	No Gas	848217	0.3	923748.77	91.82	70	120	
Rh	103	No Gas	922032	0.5	994218.29	92.74	70	120	
Tb	159	No Gas	2192736	1.0	2337217.8	93.82	70	120	
Bi	209	No Gas	1293302	1.0	1347700.19	95.96	70	120	
Sc	45	He	129041	0.6	138692.66	93.04	70	120	
Ge	74	He	119484	1.9	127728.2	93.55	70	120	
Rh	103	He	453250	0.2	482080.38	94.02	70	120	
Tb	159	He	951234	1.0	987185.44	96.36	70	120	
Ge	74	HEHe	149100	0.8	159522.83	93.47	70	120	

CRL Verification ICPMS6

Sample Name	**9J10037-CRL3**	**Sample Type**	CRL3
File Name	017CRL_.d	**Vial #**	2103
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 19:46:44	**Sample QC Pass/Fail**	Pass
Comment	A19J032 - JPB 10/10	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	%QC Low	%QC High	Flag
Be	9	6	No Gas	1.803	ug/l	1.9	8505	100.17	70	130	
Na	23	45	He	94.385	ug/l	4.4	88590	104.87	70	130	
Mg	24	45	He	95.303	ug/l	3.3	44414	105.89	70	130	
Al	27	45	He	96.292	ug/l	5.9	17968	106.99	70	130	
K	39	45	He	98.714	ug/l	5.8	44662	109.68	70	130	
Ca	44	45	He	90.830	ug/l	12.0	1696	100.92	70	130	
Ti	47	45	He	1.888	ug/l	9.4	211	104.89	70	130	
V	51	74	He	1.835	ug/l	6.1	6952	101.94	70	130	
Cr	52	74	He	1.849	ug/l	3.2	9042	102.72	70	130	
Mn	55	74	He	1.858	ug/l	4.4	5234	103.22	70	130	
Fe	56	74	He	91.789	ug/l	3.4	377959	101.99	70	130	
Fe	56	74	HEHe	89.079	ug/l	1.6	464331	98.98	70	130	
Co	59	74	He	1.867	ug/l	2.3	13238	103.72	70	130	
Ni	60	74	He	1.889	ug/l	2.5	3633	104.94	70	130	
Cu	65	74	He	1.972	ug/l	0.9	5139	109.56	70	130	
Cu	65	74	No Gas	1.917	ug/l	1.1	12565	106.5	70	130	
Zn	66	74	He	1.891	ug/l	6.0	1636	105.06	70	130	
As	75	74	He	1.789	ug/l	1.9	960	99.39	70	130	
Se	78	74	HEHe	1.830	ug/l	1.0	212	101.67	70	130	
Mo	95	103	He	1.838	ug/l	4.0	5715	102.11	70	130	
Ag	109	103	No Gas	1.800	ug/l	0.4	37202	100	70	130	
Cd	111	103	He	1.873	ug/l	8.3	3126	104.06	70	130	
Cd	111	103	No Gas	1.780	ug/l	1.3	9503	98.89	70	130	
Sb	123	103	No Gas	1.798	ug/l	1.5	27319	99.89	70	130	
Ba	138	159	He	1.882	ug/l	4.4	18578	104.56	70	130	
Hg	201	159	No Gas	74.414	ng/l	4.9	261	103.35	70	130	
Tl	205	159	No Gas	1.790	ug/l	1.8	103121	99.44	70	130	
Pb	208	159	No Gas	1.821	ug/l	1.9	146624	101.17	70	130	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	973965	0.2	1045075.28	93.2	70	120	
Ge	74	No Gas	850321	0.8	923748.77	92.05	70	120	
Rh	103	No Gas	916178	0.6	994218.29	92.15	70	120	
Tb	159	No Gas	2216100	2.5	2337217.8	94.82	70	120	
Bi	209	No Gas	1297304	0.3	1347700.19	96.26	70	120	
Sc	45	He	125553	3.4	138692.66	90.53	70	120	
Ge	74	He	116985	2.4	127728.2	91.59	70	120	
Rh	103	He	443033	3.4	482080.38	91.9	70	120	
Tb	159	He	936590	2.2	987185.44	94.87	70	120	
Ge	74	HEHe	148472	2.0	159522.83	93.07	70	120	

Interference Check Solution A (ICS-A) Report ICPMS6

Sample Name	**9J10037-IFA1**	**Sample Type**	ICSA
File Name	018ICSA.d	**Vial #**	2110
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 19:56:14	**Sample QC Pass/Fail**	Fail
Comment	A19J158	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	QC Flag
Be	9	6	No Gas	0.004	ug/l	93.5	44	0.18	
Na	23	45	He	251874.985	ug/l	1.5	194473330	250000	
Mg	24	45	He	99748.388	ug/l	1.8	39694397	100000	
Al	27	45	He	99512.648	ug/l	1.0	15984674	100000	
K	39	45	He	98627.162	ug/l	0.9	27876388	100000	
Ca	44	45	He	299011.454	ug/l	0.7	4653826	300000	
Ti	47	45	He	1996.290	ug/l	1.0	193175	2000	
V	51	74	He	0.194	ug/l	26.0	826	0.9	
Cr	52	74	He	1.736	ug/l	2.3	7085	0.9	
Mn	55	74	He	1.098	ug/l	4.7	2601	0.9	
Fe	56	74	He	245366.810	ug/l	0.4	824082557	250000	
Fe	56	74	HEHe	236679.749	ug/l	1.0	992514880	250000	
Co	59	74	He	0.846	ug/l	6.3	4999	0.18	ICSA Warning
Ni	60	74	He	0.639	ug/l	1.2	1131	0.9	
Cu	65	74	He	0.819	ug/l	4.3	1875	0.9	
Cu	65	74	No Gas	5.696	ug/l	0.3	30094	0.9	ICSA Warning
Zn	66	74	He	2.869	ug/l	4.7	2036	3.6	
As	75	74	He	0.194	ug/l	9.9	95	0.9	
Se	78	74	HEHe	0.247	ug/l	12.7	26	0.9	
Mo	95	103	He	2183.388	ug/l	0.9	5346773	2000	
Cd	111	103	He	1.535	ug/l	0.6	2042	0.18	ICSA Warning
Cd	111	103	No Gas	0.563	ug/l	18.8	2394	0.18	ICSA Warning
Sb	123	103	No Gas	0.142	ug/l	3.1	1919	0.9	
Ba	138	159	He	1.761	ug/l	3.7	15051	0.9	
W	186	159	No Gas	52.677	ug/l	0.6	1160340	100	ICSA Warning
Hg	201	159	No Gas	75.908	ng/l	8.5	233	72	
Tl	205	159	No Gas	0.005	ug/l	20.4	443	0.18	
Pb	208	159	No Gas	0.793	ug/l	0.1	57089	0.18	ICSA Warning

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QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	821658	0.2	1045075.28	78.62	70	120	
Ge	74	No Gas	709696	0.4	923748.77	76.83	70	120	
Rh	103	No Gas	727069	0.2	994218.29	73.13	70	120	
Tb	159	No Gas	1946056	1.1	2337217.8	83.26	70	120	
Bi	209	No Gas	1165130	1.2	1347700.19	86.45	70	120	
Sc	45	He	108659	0.7	138692.66	78.34	70	120	
Ge	74	He	97256	0.7	127728.2	76.14	70	120	
Rh	103	He	352379	1.3	482080.38	73.1	70	120	
Tb	159	He	810135	0.7	987185.44	82.07	70	120	
Ge	74	HEHe	121720	1.3	159522.83	76.3	70	120	

Interference Check Solution AB (ICS-AB) Report ICPMS6

Sample Name	**9J10037-IFB1**	**Sample Type**	ICSB
File Name	019ICSB.d	**Vial #**	2111
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 20:00:52	**Sample QC Pass/Fail**	Fail
Comment	A19J159	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	Flag
Be	9	6	No Gas	0.006	ug/l	28.0	48	0.18	
Na	23	45	He	250325.699	ug/l	1.0	182723376	250000	
Mg	24	45	He	99581.169	ug/l	1.1	37459985	100000	
Al	27	45	He	97898.539	ug/l	1.2	14866405	100000	
K	39	45	He	99131.896	ug/l	1.1	26487452	100000	
Ca	44	45	He	296384.638	ug/l	1.5	4360600	300000	
Ti	47	45	He	2028.625	ug/l	1.1	185584	2000	
V	51	74	He	199.343	ug/l	0.6	589934	200	
Cr	52	74	He	194.766	ug/l	0.8	732643	200	
Mn	55	74	He	199.210	ug/l	1.9	449786	200	
Fe	56	74	He	238215.556	ug/l	1.6	782991988	250000	
Fe	56	74	HEHe	237652.454	ug/l	0.9	993000077	250000	
Co	59	74	He	195.786	ug/l	1.9	1127769	200	
Ni	60	74	He	192.174	ug/l	1.6	284382	200	
Cu	65	74	He	190.140	ug/l	0.9	387321	200	
Cu	65	74	No Gas	199.324	ug/l	10.1	946770	200	
Zn	66	74	He	93.502	ug/l	1.2	63258	100	
As	75	74	He	98.186	ug/l	0.3	42453	100	
Se	78	74	HEHe	103.899	ug/l	1.3	9693	100	
Mo	95	103	He	2161.337	ug/l	2.1	5116937	2000	
Ag	109	103	No Gas	52.892	ug/l	10.4	800728	50	
Cd	111	103	He	99.107	ug/l	1.4	127359	100	
Cd	111	103	No Gas	101.117	ug/l	10.5	394976	100	
Sb	123	103	No Gas	0.140	ug/l	13.4	1757	0.9	
Ba	138	159	He	1.692	ug/l	2.0	14134	100	ICSB Warning
W	186	159	No Gas	56.029	ug/l	11.0	1132091	100	
Hg	201	159	No Gas	2210.272	ng/l	8.0	5963	2000	
Tl	205	159	No Gas	0.005	ug/l	6.2	403	0.18	
Pb	208	159	No Gas	0.853	ug/l	7.8	56293	0.18	ICSB Warning

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	751648	8.6	1045075.28	71.92	70	120	
Ge	74	No Gas	653150	8.5	923748.77	70.71	70	120	
Rh	103	No Gas	675723	9.0	994218.29	67.97	70	120	Recovery Failed
Tb	159	No Gas	1794242	7.3	2337217.8	76.77	70	120	
Bi	209	No Gas	1107695	8.2	1347700.19	82.19	70	120	
Sc	45	He	102723	1.4	138692.66	74.07	70	120	
Ge	74	He	95192	1.2	127728.2	74.53	70	120	
Rh	103	He	340664	0.4	482080.38	70.67	70	120	
Tb	159	He	791072	1.2	987185.44	80.13	70	120	
Ge	74	HEHe	121278	0.9	159522.83	76.03	70	120	

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Sample Report ICPMS6

Sample Name	**9100841-BLK1**	**Sample Type**	Sample
File Name	020SMPL.d	**Vial #**	4101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	5.0000
Acq Time	10/10/2019 20:08:27	**Sample QC Pass/Fail**	Pass
Comment	9100841 Sediment As	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag
Be	9	6	No Gas	ug/l	0.001	161.8	33	26.5	100	
Na	23	45	He	ug/l	30.084	18.9	26935	17.8	50000	
Mg	24	45	He	ug/l	7.877	27.7	3657	25.2	50000	
Al	27	45	He	ug/l	48.162	6.2	7787	7.6	50000	
K	39	45	He	ug/l	10.225	12.6	13590	4.2	50000	
Ca	44	45	He	ug/l	75.306	4.3	1221	5.6	50000	
Ti	47	45	He	ug/l	0.763	10.6	73	12.0	2500	
V	51	74	He	ug/l	0.068	6.4	458	2.9	500	
Cr	52	74	He	ug/l	0.064	12.4	682	4.6	1000	
Mn	55	74	He	ug/l	0.092	15.0	290	11.3	2500	
Fe	56	74	He	ug/l	20.26	28.9	76313	26.6	50000	
Fe	56	74	HEHe	ug/l	22.665	6.6	113266	5.9	50000	
Co	59	74	He	ug/l	0.017	31.0	124	25.5	500	
Ni	60	74	He	ug/l	-0.05	N/A	92	13.7	500	
Cu	65	74	He	ug/l	0.147	9.3	490	5.9	1000	
Cu	65	74	No Gas	ug/l	0.358	5.3	2396	4.7	1000	
Zn	66	74	He	ug/l	0.006	83.8	61	6.3	2500	
As	75	74	He	ug/l	0.027 ✓	14.4	21	8.3	500	
Se	78	74	HEHe	ug/l	0	2102.1	3	37.5	100	
Mo	95	103	He	ug/l	0.311	15.8	911	15.8	100	
Ag	109	103	No Gas	ug/l	0.003	11.6	74	11.3	100	
Cd	111	103	He	ug/l	0.004	32.1	8	24.7	1000	
Cd	111	103	No Gas	ug/l	0	2622.0	16	77.4	1000	
Sb	123	103	No Gas	ug/l	-0.002	N/A	226	7.6	100	
Ba	138	159	He	ug/l	0.032	12.6	487	7.9	2500	
W	186	159	No Gas	ug/l	0.016	9.8	420	8.6	40	
Hg	201	159	No Gas	ng/l	5.81	22.8	29	12.9	4000	
Tl	205	159	No Gas	ug/l	0.001	79.8	227	15.5	100	
Pb	208	159	No Gas	ug/l	0.022	11.7	3536	2.1	500	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	819980	2.7	1045075.28	78.46	70	120	
Sc	45	He	107865	1.6	138692.66	77.77	70	120	
Ge	74	No Gas	708721	0.5	923748.77	76.72	70	120	
Ge	74	He	100092	0.0	127728.2	78.36	70	120	
Ge	74	HEHe	134914	1.6	159522.83	84.57	70	120	
Rh	103	No Gas	779474	2.6	994218.29	78.4	70	120	
Rh	103	He	396193	1.3	482080.38	82.18	70	120	
Tb	159	No Gas	2062133	3.3	2337217.8	88.23	70	120	
Tb	159	He	874844	2.2	987185.44	88.62	70	120	
Bi	209	No Gas	1238606	3.2	1347700.19	91.91	70	120	

Sample Report ICPMS6

Sample Name	**9100841-BS1**	**Sample Type**	Sample
File Name	021SMPL.d	**Vial #**	4102
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	5.0000
Acq Time	10/10/2019 20:15:56	**Sample QC Pass/Fail**	Pass
Comment	9100841 Sediment As	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag
Be	9	6	No Gas	ug/l	23.945	5.0	99996	0.9	100	
Na	23	45	He	ug/l	2480.882	1.8	2015839	1.8	50000	
Mg	24	45	He	ug/l	2495.056	1.7	1043327	1.5	50000	
Al	27	45	He	ug/l	2474.641	1.0	417572	0.8	50000	
K	39	45	He	ug/l	2457.076	0.8	740441	0.6	50000	
Ca	44	45	He	ug/l	2438.739	0.9	39924	0.7	50000	
Ti	47	45	He	ug/l	49.548	4.2	5035	4.1	2500	
V	51	74	He	ug/l	47.424	1.4	156820	0.4	500	
Cr	52	74	He	ug/l	48.375	1.8	203406	0.8	1000	
Mn	55	74	He	ug/l	48.114	2.2	121287	0.4	2500	
Fe	56	74	He	ug/l	2434.431	2.0	8936054	0.2	50000	
Fe	56	74	HEHe	ug/l	2406.406	3.0	11260099	1.6	50000	
Co	59	74	He	ug/l	48.987	2.2	314905	0.4	500	
Ni	60	74	He	ug/l	50.141	1.6	82947	1.5	500	
Cu	65	74	He	ug/l	50	1.1	113802	1.0	1000	
Cu	65	74	No Gas	ug/l	48.943	4.9	271619	1.0	1000	
Zn	66	74	He	ug/l	46.793	2.5	35349	0.7	2500	
As	75	74	He	ug/l	45.186	1.6	21806	0.5	500	
Se	78	74	HEHe	ug/l	22.701	1.8	2372	0.6	100	
Mo	95	103	He	ug/l	23.927	0.4	68993	0.0	100	
Ag	109	103	No Gas	ug/l	25.366	4.1	475949	0.4	100	
Cd	111	103	He	ug/l	47.193	0.6	73801	0.3	1000	
Cd	111	103	No Gas	ug/l	48.593	3.6	235325	1.3	1000	
Sb	123	103	No Gas	ug/l	24.195	4.5	330713	1.6	100	
Ba	138	159	He	ug/l	47.565	0.3	452571	1.6	2500	
W	186	159	No Gas	ug/l	0.016	6.9	427	4.9	40	
Hg	201	159	No Gas	ng/l	959.806	4.6	3114	1.4	4000	
Tl	205	159	No Gas	ug/l	25.105	4.8	1397734	1.1	100	
Pb	208	159	No Gas	ug/l	50.356	3.4	3873584	1.1	500	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	867056	5.5	1045075.28	82.97	70	120	
Sc	45	He	114117	0.2	138692.66	82.28	70	120	
Ge	74	No Gas	758539	4.1	923748.77	82.12	70	120	
Ge	74	He	106242	1.8	127728.2	83.18	70	120	
Ge	74	HEHe	135753	1.7	159522.83	85.1	70	120	
Rh	103	No Gas	833254	4.3	994218.29	83.81	70	120	
Rh	103	He	414550	0.4	482080.38	85.99	70	120	
Tb	159	No Gas	2147203	4.2	2337217.8	91.87	70	120	
Tb	159	He	911965	1.7	987185.44	92.38	70	120	
Bi	209	No Gas	1295580	5.4	1347700.19	96.13	70	120	

Sample Report ICPMS6

Sample Name	**A9J0058-18**	**Sample Type**	Sample
File Name	022SMPL.d	**Vial #**	4103
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	5.0000
Acq Time	10/10/2019 20:20:29	**Sample QC Pass/Fail**	Pass
Comment	9100841 Sediment As	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag
Be	9	6	No Gas	ug/l	0.542	7.3	2384	5.5	100	
Na	23	45	He	ug/l	338.992	1.7	314882	0.3	50000	
Mg	24	45	He	ug/l	4543.987	2.6	2144268	1.5	50000	
Al	27	45	He	ug/l	11783.155	2.6	2243901	1.9	50000	
K	39	45	He	ug/l	847.114	1.1	296584	1.3	50000	
Ca	44	45	He	ug/l	4685.467	1.0	86529	0.6	50000	
Ti	47	45	He	ug/l	777.162	0.3	89176	1.7	2500	
V	51	74	He	ug/l	70.564	1.4	243791	1.4	500	
Cr	52	74	He	ug/l	16.999	1.2	75034	1.6	1000	
Mn	55	74	He	ug/l	371.733	1.8	979050	0.4	2500	
Fe	56	74	He	ug/l	32419.188	2.2	124305403	0.4	50000	
Fe	56	74	HEHe	ug/l	31334.926	1.3	158511831	0.4	50000	
Co	59	74	He	ug/l	21.335	1.7	143386	0.5	500	
Ni	60	74	He	ug/l	26.058	2.3	45146	1.2	500	
Cu	65	74	He	ug/l	21.845	1.1	52084	1.0	1000	
Cu	65	74	No Gas	ug/l	22.191	4.4	126168	1.2	1000	
Zn	66	74	He	ug/l	56.479	2.4	44587	0.8	2500	
As	75	74	He	ug/l	3.193	4.5	1620	3.1	500	
Se	78	74	HEHe	ug/l	0.744	6.9	87	5.9	100	
Mo	95	103	He	ug/l	0.264	6.2	851	5.1	100	
Ag	109	103	No Gas	ug/l	0.02	5.0	406	3.8	100	
Cd	111	103	He	ug/l	0.043	21.2	72	21.8	1000	
Cd	111	103	No Gas	ug/l	0.446	10.4	2181	8.6	1000	
Sb	123	103	No Gas	ug/l	0.041	6.7	824	2.2	100	
Ba	138	159	He	ug/l	140.298	0.8	1387689	0.7	2500	
W	186	159	No Gas	ug/l	0.028	9.4	768	8.9	40	
Hg	201	159	No Gas	ng/l	18.928	9.1	76	4.4	4000	
Tl	205	159	No Gas	ug/l	0.106	5.8	6364	2.3	100	
Pb	208	159	No Gas	ug/l	3.223	4.4	260923	1.1	500	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	900737	2.3	1045075.28	86.19	70	120	
Sc	45	He	128838	1.4	138692.66	92.89	70	120	
Ge	74	No Gas	774839	3.2	923748.77	83.88	70	120	
Ge	74	He	111060	2.0	127728.2	86.95	70	120	
Ge	74	HEHe	146824	0.9	159522.83	92.04	70	120	
Rh	103	No Gas	836420	3.4	994218.29	84.13	70	120	
Rh	103	He	431818	1.3	482080.38	89.57	70	120	
Tb	159	No Gas	2243153	3.5	2337217.8	95.98	70	120	
Tb	159	He	948285	0.1	987185.44	96.06	70	120	
Bi	209	No Gas	1278286	3.6	1347700.19	94.85	70	120	

Sample Report ICPMS6

Sample Name	**A9J0058-19**	**Sample Type**	Sample
File Name	023SMPL.d	**Vial #**	4104
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	5.0000
Acq Time	10/10/2019 20:25:05	**Sample QC Pass/Fail**	Pass
Comment	9100841 Sediment As	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag
Be	9	6	No Gas	ug/l	0.53	9.1	2399	6.8	100	
Na	23	45	He	ug/l	607.474	0.9	583653	0.9	50000	
Mg	24	45	He	ug/l	5418.367	0.2	2661875	0.8	50000	
Al	27	45	He	ug/l	13904.858	0.4	2756667	0.4	50000	
K	39	45	He	ug/l	886.015	0.8	322289	0.9	50000	
Ca	44	45	He	ug/l	5774.519	0.7	110996	1.1	50000	
Ti	47	45	He	ug/l	1317.427	0.3	157347	0.8	2500	
V	51	74	He	ug/l	95.288	1.0	343409	0.8	500	
Cr	52	74	He	ug/l	20.73	0.7	95365	0.3	1000	
Mn	55	74	He	ug/l	348.233	0.9	957101	0.8	2500	
Fe	56	74	He	ug/l	38120.674	0.2	152547538	1.2	50000	
Fe	56	74	HEHe	ug/l	36009.43	2.0	185477447	1.2	50000	
Co	59	74	He	ug/l	22.545	1.6	158099	0.6	500	
Ni	60	74	He	ug/l	27.73	1.7	50119	0.8	500	
Cu	65	74	He	ug/l	24.863	1.7	61823	1.0	1000	
Cu	65	74	No Gas	ug/l	26.512	0.4	156909	0.4	1000	
Zn	66	74	He	ug/l	68.678	0.8	56567	0.5	2500	
As	75	74	He	ug/l	3.584	0.6	1897	1.0	500	
Se	78	74	HEHe	ug/l	0.733	7.9	87	6.5	100	
Mo	95	103	He	ug/l	0.346	4.8	1121	4.3	100	
Ag	109	103	No Gas	ug/l	0.034	8.1	686	7.4	100	
Cd	111	103	He	ug/l	0.077	15.9	130	15.6	1000	
Cd	111	103	No Gas	ug/l	0.616	2.4	3133	3.2	1000	
Sb	123	103	No Gas	ug/l	0.077	6.7	1377	4.7	100	
Ba	138	159	He	ug/l	143.851	1.0	1458475	1.1	2500	
W	186	159	No Gas	ug/l	0.045	7.5	1198	6.5	40	
Hg	201	159	No Gas	ng/l	16.117	11.2	68	10.4	4000	
Tl	205	159	No Gas	ug/l	0.08	2.1	4939	1.9	100	
Pb	208	159	No Gas	ug/l	3.774	1.3	308423	0.5	500	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	928236	2.6	1045075.28	88.82	70	120	
Sc	45	He	134106	0.7	138692.66	96.69	70	120	
Ge	74	No Gas	806454	0.8	923748.77	87.3	70	120	
Ge	74	He	115873	1.0	127728.2	90.72	70	120	
Ge	74	HEHe	149510	1.3	159522.83	93.72	70	120	
Rh	103	No Gas	869274	1.5	994218.29	87.43	70	120	
Rh	103	He	440720	0.2	482080.38	91.42	70	120	
Tb	159	No Gas	2265032	1.3	2337217.8	96.91	70	120	
Tb	159	He	972099	1.3	987185.44	98.47	70	120	
Bi	209	No Gas	1301043	1.5	1347700.19	96.54	70	120	

Sample Report ICPMS6

Sample Name	**A9J0058-20**	**Sample Type**	Sample
File Name	024SMPL.d	**Vial #**	4105
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	5.0000
Acq Time	10/10/2019 20:29:42	**Sample QC Pass/Fail**	Pass
Comment	9100841 Sediment As	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag
Be	9	6	No Gas	ug/l	0.635	6.1	2990	4.1	100	
Na	23	45	He	ug/l	520.016	0.7	519798	0.9	50000	
Mg	24	45	He	ug/l	6269.057	1.6	3199677	1.9	50000	
Al	27	45	He	ug/l	15684.089	0.2	3230689	1.4	50000	
K	39	45	He	ug/l	902.224	0.6	340710	0.6	50000	
Ca	44	45	He	ug/l	6523.523	0.5	130265	0.7	50000	
Ti	47	45	He	ug/l	1024.668	0.2	127148	1.0	2500	
V	51	74	He	ug/l	99.399	0.1	367475	1.2	500	
Cr	52	74	He	ug/l	23.87	0.7	112567	0.5	1000	
Mn	55	74	He	ug/l	303.44	1.0	855513	0.7	2500	
Fe	56	74	He	ug/l	35027.845	1.1	143779952	1.0	50000	
Fe	56	74	HEHe	ug/l	35546.365	0.6	181560096	1.1	50000	
Co	59	74	He	ug/l	21.705	0.4	156161	1.3	500	
Ni	60	74	He	ug/l	32.551	1.1	60319	0.0	500	
Cu	65	74	He	ug/l	27.114	1.1	69144	0.5	1000	
Cu	65	74	No Gas	ug/l	27.923	4.5	171740	0.6	1000	
Zn	66	74	He	ug/l	65.181	1.0	55075	0.4	2500	
As	75	74	He	ug/l	3.834	1.1	2080	0.3	500	
Se	78	74	HEHe	ug/l	0.82	3.3	96	3.6	100	
Mo	95	103	He	ug/l	0.34	6.8	1123	5.4	100	
Ag	109	103	No Gas	ug/l	0.039	4.8	806	7.4	100	
Cd	111	103	He	ug/l	0.102	8.2	176	7.2	1000	
Cd	111	103	No Gas	ug/l	0.764	5.7	3992	2.7	1000	
Sb	123	103	No Gas	ug/l	0.113	9.6	1932	4.0	100	
Ba	138	159	He	ug/l	176.6	1.6	1811527	1.5	2500	
W	186	159	No Gas	ug/l	0.118	5.0	3134	5.9	40	
Hg	201	159	No Gas	ng/l	30.433	11.1	118	5.1	4000	
Tl	205	159	No Gas	ug/l	0.08	6.1	5012	2.0	100	
Pb	208	159	No Gas	ug/l	4.198	5.0	348874	1.0	500	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	966398	5.2	1045075.28	92.47	70	120	
Sc	45	He	139333	1.2	138692.66	100.46	70	120	
Ge	74	No Gas	839285	4.3	923748.77	90.86	70	120	
Ge	74	He	118864	1.1	127728.2	93.06	70	120	
Ge	74	HEHe	148235	0.6	159522.83	92.92	70	120	
Rh	103	No Gas	895911	4.7	994218.29	90.11	70	120	
Rh	103	He	448755	1.3	482080.38	93.09	70	120	
Tb	159	No Gas	2308440	4.9	2337217.8	98.77	70	120	
Tb	159	He	983494	0.3	987185.44	99.63	70	120	
Bi	209	No Gas	1332647	4.1	1347700.19	98.88	70	120	

Sample Report ICPMS6

Sample Name	**A9J0058-21**	**Sample Type**	Sample
File Name	025SMPL.d	**Vial #**	4106
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	5.0000
Acq Time	10/10/2019 20:34:18	**Sample QC Pass/Fail**	Pass
Comment	9100841 Sediment As	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag
Be	9	6	No Gas	ug/l	0.49	6.5	2225	3.5	100	
Na	23	45	He	ug/l	374.228	1.3	367377	0.8	50000	
Mg	24	45	He	ug/l	5018.451	0.5	2506417	0.9	50000	
Al	27	45	He	ug/l	12016.709	1.1	2421844	0.2	50000	
K	39	45	He	ug/l	774.276	1.7	288011	0.8	50000	
Ca	44	45	He	ug/l	5077.036	1.3	99223	1.8	50000	
Ti	47	45	He	ug/l	826.479	1.0	100347	0.8	2500	
V	51	74	He	ug/l	74.452	1.4	271341	0.9	500	
Cr	52	74	He	ug/l	17.209	1.1	80129	0.9	1000	
Mn	55	74	He	ug/l	288.191	0.5	800881	0.9	2500	
Fe	56	74	He	ug/l	31266.936	2.5	126483144	1.4	50000	
Fe	56	74	HEHe	ug/l	30462.949	0.6	156890679	0.9	50000	
Co	59	74	He	ug/l	21.36	0.9	151456	0.4	500	
Ni	60	74	He	ug/l	26.098	1.7	47704	0.4	500	
Cu	65	74	He	ug/l	21.897	0.7	55078	0.8	1000	
Cu	65	74	No Gas	ug/l	23.555	6.5	138215	0.8	1000	
Zn	66	74	He	ug/l	58.097	1.1	48392	1.0	2500	
As	75	74	He	ug/l	3.1	1.9	1660	2.7	500	
Se	78	74	HEHe	ug/l	0.663	4.4	79	4.9	100	
Mo	95	103	He	ug/l	0.215	4.9	732	4.1	100	
Ag	109	103	No Gas	ug/l	0.025	14.4	498	9.4	100	
Cd	111	103	He	ug/l	0.042	14.8	73	13.6	1000	
Cd	111	103	No Gas	ug/l	0.497	5.4	2514	4.5	1000	
Sb	123	103	No Gas	ug/l	0.035	14.9	762	6.7	100	
Ba	138	159	He	ug/l	130.919	2.0	1343449	1.8	2500	
W	186	159	No Gas	ug/l	0.024	17.8	654	13.7	40	
Hg	201	159	No Gas	ng/l	27.246	3.3	104	7.5	4000	
Tl	205	159	No Gas	ug/l	0.07	5.7	4244	0.3	100	
Pb	208	159	No Gas	ug/l	3.923	6.0	314859	0.7	500	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	929242	6.6	1045075.28	88.92	70	120	
Sc	45	He	136336	0.9	138692.66	98.3	70	120	
Ge	74	No Gas	801042	5.5	923748.77	86.72	70	120	
Ge	74	He	117158	1.3	127728.2	91.72	70	120	
Ge	74	HEHe	149477	1.3	159522.83	93.7	70	120	
Rh	103	No Gas	864662	5.2	994218.29	86.97	70	120	
Rh	103	He	448602	1.3	482080.38	93.06	70	120	
Tb	159	No Gas	2229351	5.4	2337217.8	95.38	70	120	
Tb	159	He	983856	0.9	987185.44	99.66	70	120	
Bi	209	No Gas	1278305	4.7	1347700.19	94.85	70	120	

Sample Report ICPMS6

Sample Name	**9100841-DUP1**	**Sample Type**	Sample
File Name	026SMPL.d	**Vial #**	4107
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	5.0000
Acq Time	10/10/2019 20:38:55	**Sample QC Pass/Fail**	Pass
Comment	9100841 Sediment As	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag
Be	9	6	No Gas	ug/l	0.539	1.7	2535	2.0	100	
Na	23	45	He	ug/l	446.661	0.7	443954	0.7	50000	
Mg	24	45	He	ug/l	5750.217	1.9	2913916	2.4	50000	
Al	27	45	He	ug/l	13987.575	2.0	2860294	1.8	50000	
K	39	45	He	ug/l	870.878	0.3	326991	0.7	50000	
Ca	44	45	He	ug/l	5912.101	0.8	117217	1.3	50000	
Ti	47	45	He	ug/l	1260.137	0.5	155239	0.6	2500	
V	51	74	He	ug/l	91.722	1.6	338165	1.0	500	
Cr	52	74	He	ug/l	20.354	1.3	95795	0.5	1000	
Mn	55	74	He	ug/l	373.648	1.1	1050634	1.4	2500	
Fe	56	74	He	ug/l	37903.869	0.6	155163938	0.4	50000	
Fe	56	74	HEHe	ug/l	36857.956	2.7	191414221	1.9	50000	
Co	59	74	He	ug/l	23.576	0.6	169151	0.4	500	
Ni	60	74	He	ug/l	29.259	1.6	54092	1.1	500	
Cu	65	74	He	ug/l	24.731	1.2	62915	0.9	1000	
Cu	65	74	No Gas	ug/l	25.681	0.8	157400	0.6	1000	
Zn	66	74	He	ug/l	68.919	0.6	58075	1.0	2500	
As	75	74	He	ug/l	3.962	0.6	2144	1.3	500	
Se	78	74	HEHe	ug/l	0.909	5.0	108	4.3	100	
Mo	95	103	He	ug/l	0.344	4.0	1132	3.5	100	
Ag	109	103	No Gas	ug/l	0.027	8.1	577	7.2	100	
Cd	111	103	He	ug/l	0.062	9.4	107	8.3	1000	
Cd	111	103	No Gas	ug/l	0.654	8.8	3445	8.2	1000	
Sb	123	103	No Gas	ug/l	0.082	4.1	1490	4.2	100	
Ba	138	159	He	ug/l	137.635	1.2	1424553	2.3	2500	
W	186	159	No Gas	ug/l	0.038	11.0	1055	10.5	40	
Hg	201	159	No Gas	ng/l	21.739	9.3	90	7.8	4000	
Tl	205	159	No Gas	ug/l	0.07	1.1	4491	0.9	100	
Pb	208	159	No Gas	ug/l	3.751	0.7	316811	0.6	500	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	962677	1.8	1045075.28	92.12	70	120	
Sc	45	He	138326	0.5	138692.66	99.74	70	120	
Ge	74	No Gas	835034	0.5	923748.77	90.4	70	120	
Ge	74	He	118540	0.9	127728.2	92.81	70	120	
Ge	74	HEHe	150746	1.1	159522.83	94.5	70	120	
Rh	103	No Gas	901078	0.9	994218.29	90.63	70	120	
Rh	103	He	447731	1.2	482080.38	92.87	70	120	
Tb	159	No Gas	2340109	0.2	2337217.8	100.12	70	120	
Tb	159	He	992266	1.5	987185.44	100.51	70	120	
Bi	209	No Gas	1307231	0.3	1347700.19	97	70	120	

Sample Report ICPMS6

Sample Name	**9100841-MS1**	**Sample Type**	Sample
File Name	027SMPL.d	**Vial #**	4108
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	5.0000
Acq Time	10/10/2019 20:43:32	**Sample QC Pass/Fail**	Pass
Comment	9100841 Sediment As	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag
Be	9	6	No Gas	ug/l	24.694	2.8	114799	0.4	100	
Na	23	45	He	ug/l	2707.097	1.2	2654504	0.4	50000	
Mg	24	45	He	ug/l	7769.99	1.1	3920615	1.7	50000	
Al	27	45	He	ug/l	15796.981	1.6	3216639	1.1	50000	
K	39	45	He	ug/l	3100.71	1.4	1124302	1.6	50000	
Ca	44	45	He	ug/l	7886.218	1.3	155663	0.3	50000	
Ti	47	45	He	ug/l	1215.337	1.0	149089	0.8	2500	
V	51	74	He	ug/l	136.775	0.7	499811	0.5	500	
Cr	52	74	He	ug/l	69.604	0.5	323574	0.5	1000	
Mn	55	74	He	ug/l	429.378	2.1	1196848	1.8	2500	
Fe	56	74	He	ug/l	38023.281	0.8	154313479	0.7	50000	
Fe	56	74	HEHe	ug/l	37245.344	1.9	187820741	0.9	50000	
Co	59	74	He	ug/l	72.368	0.3	514696	0.3	500	
Ni	60	74	He	ug/l	78.791	1.3	144075	1.2	500	
Cu	65	74	He	ug/l	74.322	1.3	187026	0.9	1000	
Cu	65	74	No Gas	ug/l	74.104	1.3	451559	0.5	1000	
Zn	66	74	He	ug/l	113.05	0.4	94399	0.8	2500	
As	75	74	He	ug/l	48.137	0.7	25700	0.9	500	
Se	78	74	HEHe	ug/l	21.962	1.0	2475	0.5	100	
Mo	95	103	He	ug/l	24.002	1.2	74742	1.0	100	
Ag	109	103	No Gas	ug/l	25.636	0.5	512873	0.2	100	
Cd	111	103	He	ug/l	47.384	1.6	80020	0.8	1000	
Cd	111	103	No Gas	ug/l	49.335	0.3	254705	0.1	1000	
Sb	123	103	No Gas	ug/l	22.01	0.5	320816	0.8	100	
Ba	138	159	He	ug/l	175.274	0.6	1801299	0.2	2500	
W	186	159	No Gas	ug/l	0.037	14.7	1021	16.1	40	
Hg	201	159	No Gas	ng/l	934.706	1.9	3286	1.3	4000	
Tl	205	159	No Gas	ug/l	24.115	2.9	1454582	1.3	100	
Pb	208	159	No Gas	ug/l	51.487	1.9	4289769	0.4	500	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	964059	3.2	1045075.28	92.25	70	120	
Sc	45	He	137748	1.0	138692.66	99.32	70	120	
Ge	74	No Gas	832446	0.9	923748.77	90.12	70	120	
Ge	74	He	117517	0.4	127728.2	92.01	70	120	
Ge	74	HEHe	146379	1.5	159522.83	91.76	70	120	
Rh	103	No Gas	887446	0.3	994218.29	89.26	70	120	
Rh	103	He	447751	2.0	482080.38	92.88	70	120	
Tb	159	No Gas	2324088	2.2	2337217.8	99.44	70	120	
Tb	159	He	985350	0.7	987185.44	99.81	70	120	
Bi	209	No Gas	1307466	0.2	1347700.19	97.01	70	120	

Sample Report ICPMS6

Sample Name	**A9J0058-24**	**Sample Type**	Sample
File Name	028SMPL.d	**Vial #**	4109
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	5.0000
Acq Time	10/10/2019 20:48:05	**Sample QC Pass/Fail**	Pass
Comment	9100841 Sediment As	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag
Be	9	6	No Gas	ug/l	0.474	4.7	2188	4.0	100	
Na	23	45	He	ug/l	412.48	1.5	401090	0.8	50000	
Mg	24	45	He	ug/l	5904.132	1.2	2924162	0.6	50000	
Al	27	45	He	ug/l	12347.36	1.7	2467917	1.1	50000	
K	39	45	He	ug/l	758.427	1.4	280070	0.6	50000	
Ca	44	45	He	ug/l	5468.131	2.2	105964	1.5	50000	
Ti	47	45	He	ug/l	1176.559	1.3	141670	0.6	2500	
V	51	74	He	ug/l	87.483	0.7	320391	1.0	500	
Cr	52	74	He	ug/l	20.968	1.3	98004	0.9	1000	
Mn	55	74	He	ug/l	302.81	0.6	845681	0.5	2500	
Fe	56	74	He	ug/l	32657.279	1.1	132786859	1.4	50000	
Fe	56	74	HEHe	ug/l	31565.553	2.0	163512407	1.2	50000	
Co	59	74	He	ug/l	20.862	0.4	148670	0.6	500	
Ni	60	74	He	ug/l	32.05	1.4	58831	0.7	500	
Cu	65	74	He	ug/l	23.045	0.9	58242	0.4	1000	
Cu	65	74	No Gas	ug/l	23.882	1.5	146657	0.8	1000	
Zn	66	74	He	ug/l	61.478	0.6	51460	0.3	2500	
As	75	74	He	ug/l	2.866	2.1	1543	1.6	500	
Se	78	74	HEHe	ug/l	0.571	5.6	69	6.3	100	
Mo	95	103	He	ug/l	0.262	6.4	877	5.9	100	
Ag	109	103	No Gas	ug/l	0.025	11.9	538	11.5	100	
Cd	111	103	He	ug/l	0.064	32.3	111	31.8	1000	
Cd	111	103	No Gas	ug/l	0.602	7.5	3178	7.1	1000	
Sb	123	103	No Gas	ug/l	0.072	5.1	1353	4.6	100	
Ba	138	159	He	ug/l	125.881	0.8	1278303	0.3	2500	
W	186	159	No Gas	ug/l	0.033	18.1	908	16.5	40	
Hg	201	159	No Gas	ng/l	27.452	4.9	108	4.0	4000	
Tl	205	159	No Gas	ug/l	0.095	4.2	5840	3.5	100	
Pb	208	159	No Gas	ug/l	3.721	0.2	308105	0.4	500	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	943513	1.1	1045075.28	90.28	70	120	
Sc	45	He	135210	0.8	138692.66	97.49	70	120	
Ge	74	No Gas	836451	0.9	923748.77	90.55	70	120	
Ge	74	He	117738	0.9	127728.2	92.18	70	120	
Ge	74	HEHe	150356	1.0	159522.83	94.25	70	120	
Rh	103	No Gas	902674	0.5	994218.29	90.79	70	120	
Rh	103	He	447989	0.2	482080.38	92.93	70	120	
Tb	159	No Gas	2294407	0.6	2337217.8	98.17	70	120	
Tb	159	He	973600	0.8	987185.44	98.62	70	120	
Bi	209	No Gas	1320719	0.3	1347700.19	98	70	120	

Sample Report ICPMS6

Sample Name	**A9J0058-25**	**Sample Type**	Sample
File Name	029SMPL.d	**Vial #**	4110
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	5.0000
Acq Time	10/10/2019 20:52:40	**Sample QC Pass/Fail**	Pass
Comment	9100841 Sediment As	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag
Be	9	6	No Gas	ug/l	0.505	2.4	2347	1.2	100	
Na	23	45	He	ug/l	443.264	1.6	441856	0.9	50000	
Mg	24	45	He	ug/l	5267.607	0.9	2676840	0.3	50000	
Al	27	45	He	ug/l	12526.74	2.1	2568870	1.6	50000	
K	39	45	He	ug/l	917.839	0.5	344875	0.9	50000	
Ca	44	45	He	ug/l	5149.89	0.4	102409	1.2	50000	
Ti	47	45	He	ug/l	1126.489	0.5	139173	0.5	2500	
V	51	74	He	ug/l	84.36	1.6	306820	0.7	500	
Cr	52	74	He	ug/l	18.903	0.3	87799	0.8	1000	
Mn	55	74	He	ug/l	311.632	2.1	864267	1.1	2500	
Fe	56	74	He	ug/l	33899.993	2.7	136875165	1.9	50000	
Fe	56	74	HEHe	ug/l	33436.095	1.1	171007110	1.3	50000	
Co	59	74	He	ug/l	22.783	0.2	161245	0.7	500	
Ni	60	74	He	ug/l	26.643	1.2	48605	0.6	500	
Cu	65	74	He	ug/l	23.254	1.5	58367	1.4	1000	
Cu	65	74	No Gas	ug/l	23.967	0.5	146424	0.3	1000	
Zn	66	74	He	ug/l	64.953	1.3	53991	1.0	2500	
As	75	74	He	ug/l	2.595	1.1	1388	1.0	500	
Se	78	74	HEHe	ug/l	0.692	7.3	82	7.1	100	
Mo	95	103	He	ug/l	0.275	7.6	917	6.9	100	
Ag	109	103	No Gas	ug/l	0.035	8.0	716	7.2	100	
Cd	111	103	He	ug/l	0.048	14.3	83	13.9	1000	
Cd	111	103	No Gas	ug/l	0.554	2.3	2888	2.0	1000	
Sb	123	103	No Gas	ug/l	0.065	6.4	1237	4.3	100	
Ba	138	159	He	ug/l	138.514	1.9	1433027	1.1	2500	
W	186	159	No Gas	ug/l	0.042	5.9	1131	8.0	40	
Hg	201	159	No Gas	ng/l	15.011	16.4	64	12.4	4000	
Tl	205	159	No Gas	ug/l	0.075	3.5	4658	1.2	100	
Pb	208	159	No Gas	ug/l	4.015	1.9	330825	0.6	500	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	951108	1.1	1045075.28	91.01	70	120	
Sc	45	He	138726	0.9	138692.66	100.02	70	120	
Ge	74	No Gas	832131	0.8	923748.77	90.08	70	120	
Ge	74	He	116931	0.9	127728.2	91.55	70	120	
Ge	74	HEHe	148432	0.4	159522.83	93.05	70	120	
Rh	103	No Gas	890288	0.6	994218.29	89.55	70	120	
Rh	103	He	447779	0.3	482080.38	92.88	70	120	
Tb	159	No Gas	2284770	2.4	2337217.8	97.76	70	120	
Tb	159	He	991968	0.8	987185.44	100.48	70	120	
Bi	209	No Gas	1310637	0.7	1347700.19	97.25	70	120	

Continuing Calibration Verification (CCV) Report ICPMS6

Sample Name	**9J10037-CCV1**	**Sample Type**	CCV
File Name	030_CCV.d	**Vial #**	1102
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 20:57:17	**Sample QC Pass/Fail**	Pass
Comment	A19J138 - JPB 10/10	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Low	High	Flag
Be	9	6	No Gas	40.337	ug/l	0.7	183916	40	100.84	90	110	
Na	23	45	He	4026.495	ug/l	3.2	3615098	4000	100.66	90	110	
Mg	24	45	He	4294.684	ug/l	0.3	1986144	4000	107.37	90	110	
Al	27	45	He	4064.919	ug/l	1.1	758617	4000	101.62	90	110	
K	39	45	He	4081.041	ug/l	2.0	1351900	4000	102.03	90	110	
Ca	44	45	He	4080.588	ug/l	1.0	73851	4000	102.01	90	110	
Ti	47	45	He	98.290	ug/l	1.9	11048	100	98.29	90	110	
V	51	74	He	97.716	ug/l	1.4	356242	100	97.72	90	110	
Cr	52	74	He	98.736	ug/l	1.5	457599	100	98.74	90	110	
Mn	55	74	He	100.011	ug/l	0.5	278145	100	100.01	90	110	
Fe	56	74	He	4058.735	ug/l	1.1	16436242	4000	101.47	90	110	
Fe	56	74	HEHe	3964.949	ug/l	1.2	20109233	4000	99.12	90	110	
Co	59	74	He	102.006	ug/l	0.4	723643	100	102.01	90	110	
Ni	60	74	He	104.535	ug/l	1.1	190595	100	104.54	90	110	
Cu	65	74	He	103.338	ug/l	1.2	259309	100	103.34	90	110	
Cu	65	74	No Gas	100.164	ug/l	1.2	616969	100	100.16	90	110	
Zn	66	74	He	99.714	ug/l	0.6	83061	100	99.71	90	110	
As	75	74	He	97.416	ug/l	0.4	51868	100	97.42	90	110	
Se	78	74	HEHe	38.929	ug/l	1.2	4408	40	97.32	90	110	
Mo	95	103	He	40.124	ug/l	0.5	124121	40	100.31	90	110	
Ag	109	103	No Gas	40.790	ug/l	0.9	828498	40	101.98	90	110	
Cd	111	103	He	97.637	ug/l	0.7	163854	100	97.64	90	110	
Cd	111	103	No Gas	97.911	ug/l	1.0	513180	100	97.91	90	110	
Sb	123	103	No Gas	41.527	ug/l	0.8	614268	40	103.82	90	110	
Ba	138	159	He	101.757	ug/l	0.9	1014599	100	101.76	90	110	
Hg	201	159	No Gas	797.700	ng/l	0.6	2719	800	99.71	90	110	
Tl	205	159	No Gas	41.156	ug/l	1.5	2405947	40	102.89	90	110	
Pb	208	159	No Gas	101.049	ug/l	1.4	8157181	100	101.05	90	110	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	945032	0.5	1045075.28	90.43	70	120	
Ge	74	No Gas	841705	0.2	923748.77	91.12	70	120	
Rh	103	No Gas	900961	0.6	994218.29	90.62	70	120	
Tb	159	No Gas	2251789	0.3	2337217.8	96.34	70	120	
Bi	209	No Gas	1333725	0.9	1347700.19	98.96	70	120	
Sc	45	He	126233	1.6	138692.66	91.02	70	120	
Ge	74	He	117224	1.0	127728.2	91.78	70	120	
Rh	103	He	444886	0.9	482080.38	92.28	70	120	
Tb	159	He	955931	0.9	987185.44	96.83	70	120	
Ge	74	HEHe	147128	1.2	159522.83	92.23	70	120	

Continuing Calibration Blank (CCB) Report ICPMS6

Sample Name	**9J10037-CCB1**	**Sample Type**	CCB
File Name	031_CCB.d	**Vial #**	1101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 21:01:47	**Sample QC Pass/Fail**	Pass
Comment	CCB	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Be	9	6	No Gas	0.009	ug/l	8.5	71	0.09	
Na	23	45	He	1.820	ug/l	15.9	5755	45	
Mg	24	45	He	0.552	ug/l	15.7	831	45	
Al	27	45	He	0.517	ug/l	23.6	203	22.5	
K	39	45	He	1.885	ug/l	116.6	12375	45	
Ca	44	45	He	1.972	ug/l	55.4	97	45	
Ti	47	45	He	0.076	ug/l	91.0	8	1.8	
V	51	74	He	0.000	ug/l	N/A	271	0.45	
Cr	52	74	He	0.005	ug/l	332.5	492	0.45	
Mn	55	74	He	0.029	ug/l	42.1	156	0.45	
Fe	56	74	He	1.441	ug/l	11.8	12461	22.5	
Fe	56	74	HEHe	1.256	ug/l	0.9	14851	22.5	
Co	59	74	He	0.007	ug/l	6.1	74	0.09	
Ni	60	74	He	0.002	ug/l	683.0	192	0.45	
Cu	65	74	He	0.031	ug/l	35.1	267	0.45	
Cu	65	74	No Gas	0.080	ug/l	16.2	1108	0.45	
Zn	66	74	He	0.064	ug/l	38.8	112	1.8	
As	75	74	He	0.012	ug/l	30.7	16	0.45	
Se	78	74	HEHe	0.002	ug/l	144.0	3	0.45	
Mo	95	103	He	0.020	ug/l	47.8	119	0.45	
Ag	109	103	No Gas	0.003	ug/l	6.1	81	0.09	
Cd	111	103	He	0.004	ug/l	32.9	9	0.09	
Cd	111	103	No Gas	0.004	ug/l	44.7	41	0.09	
Sb	123	103	No Gas	0.026	ug/l	23.4	657	0.45	
Ba	138	159	He	0.011	ug/l	22.5	302	0.45	
Hg	201	159	No Gas	4.883	ng/l	18.4	28	36	
Tl	205	159	No Gas	0.019	ug/l	4.7	1256	0.09	
Pb	208	159	No Gas	0.008	ug/l	22.0	2693	0.09	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	946384	2.3	1045075.28	90.56	70	120	
Ge	74	No Gas	822150	1.0	923748.77	89	70	120	
Rh	103	No Gas	890443	0.4	994218.29	89.56	70	120	
Tb	159	No Gas	2191620	0.9	2337217.8	93.77	70	120	
Bi	209	No Gas	1311406	0.8	1347700.19	97.31	70	120	
Sc	45	He	118913	5.8	138692.66	85.74	70	120	
Ge	74	He	110972	5.9	127728.2	86.88	70	120	
Rh	103	He	423346	6.7	482080.38	87.82	70	120	
Tb	159	He	897431	6.0	987185.44	90.91	70	120	
Ge	74	HEHe	145449	0.9	159522.83	91.18	70	120	

Sample Report ICPMS6

Sample Name	**A9J0058-26**	**Sample Type**	Sample
File Name	032SMPL.d	**Vial #**	4111
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	5.0000
Acq Time	10/10/2019 21:06:23	**Sample QC Pass/Fail**	Pass
Comment	9100841 Sediment As	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag
Be	9	6	No Gas	ug/l	0.649	4.0	3025	4.6	100	
Na	23	45	He	ug/l	493.484	0.2	486047	0.5	50000	
Mg	24	45	He	ug/l	5154.268	1.4	2590920	1.7	50000	
Al	27	45	He	ug/l	13910.171	1.3	2821604	0.9	50000	
K	39	45	He	ug/l	1033.98	0.6	382553	0.4	50000	
Ca	44	45	He	ug/l	5876.924	0.6	115583	1.0	50000	
Ti	47	45	He	ug/l	948.504	0.4	115912	0.8	2500	
V	51	74	He	ug/l	82.667	1.8	297349	1.9	500	
Cr	52	74	He	ug/l	19.255	0.8	88429	0.9	1000	
Mn	55	74	He	ug/l	286.765	0.4	786539	0.5	2500	
Fe	56	74	He	ug/l	35075.679	0.8	140062639	0.9	50000	
Fe	56	74	HEHe	ug/l	34262.05	0.4	173194836	0.9	50000	
Co	59	74	He	ug/l	23.379	1.3	163622	1.5	500	
Ni	60	74	He	ug/l	26.044	0.4	46989	0.3	500	
Cu	65	74	He	ug/l	24.475	0.3	60737	0.4	1000	
Cu	65	74	No Gas	ug/l	25.052	0.5	151702	0.7	1000	
Zn	66	74	He	ug/l	62.454	0.3	51340	0.2	2500	
As	75	74	He	ug/l	2.83	1.1	1496	1.1	500	
Se	78	74	HEHe	ug/l	0.785	6.0	91	6.4	100	
Mo	95	103	He	ug/l	0.231	2.9	768	2.0	100	
Ag	109	103	No Gas	ug/l	0.022	7.6	470	6.8	100	
Cd	111	103	He	ug/l	0.072	13.6	122	12.3	1000	
Cd	111	103	No Gas	ug/l	0.625	2.0	3250	2.8	1000	
Sb	123	103	No Gas	ug/l	0.065	7.2	1225	6.3	100	
Ba	138	159	He	ug/l	202.644	1.3	2053333	1.2	2500	
W	186	159	No Gas	ug/l	0.03	13.7	828	12.9	40	
Hg	201	159	No Gas	ng/l	19.327	19.9	78	16.6	4000	
Tl	205	159	No Gas	ug/l	0.081	2.8	4979	2.9	100	
Pb	208	159	No Gas	ug/l	4.245	0.5	346447	0.3	500	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	955933	1.4	1045075.28	91.47	70	120	
Sc	45	He	137216	0.7	138692.66	98.94	70	120	
Ge	74	No Gas	824903	0.1	923748.77	89.3	70	120	
Ge	74	He	115627	0.2	127728.2	90.53	70	120	
Ge	74	HEHe	146711	1.1	159522.83	91.97	70	120	
Rh	103	No Gas	889355	0.8	994218.29	89.45	70	120	
Rh	103	He	440633	1.1	482080.38	91.4	70	120	
Tb	159	No Gas	2263333	0.2	2337217.8	96.84	70	120	
Tb	159	He	971512	0.4	987185.44	98.41	70	120	
Bi	209	No Gas	1311472	1.6	1347700.19	97.31	70	120	

Continuing Calibration Verification (CCV) Report ICPMS6

Sample Name	9J10037-CCV2 JPB 10/11/19	**Sample Type**	CCV
File Name	042_CCV.d	**Vial #**	1102
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 21:52:22	**Sample QC Pass/Fail**	Pass
Comment	A19J138 - JPB 10/10	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Low	High	Flag
Be	9	6	No Gas	40.681	ug/l	2.7	189480	40	101.7	90	110	
Na	23	45	He	4011.746	ug/l	2.6	3725285	4000	100.29	90	110	
Mg	24	45	He	4262.627	ug/l	2.0	2038353	4000	106.57	90	110	
Al	27	45	He	4099.605	ug/l	1.8	791182	4000	102.49	90	110	
K	39	45	He	4117.367	ug/l	1.3	1410546	4000	102.93	90	110	
Ca	44	45	He	4107.241	ug/l	2.4	76852	4000	102.68	90	110	
Ti	47	45	He	99.815	ug/l	3.8	11602	100	99.82	90	110	
V	51	74	He	96.836	ug/l	2.1	371422	100	96.84	90	110	
Cr	52	74	He	97.855	ug/l	2.6	477095	100	97.86	90	110	
Mn	55	74	He	99.563	ug/l	1.8	291304	100	99.56	90	110	
Fe	56	74	He	4044.950	ug/l	0.8	17236071	4000	101.12	90	110	
Fe	56	74	HEHe	4051.839	ug/l	1.6	21057697	4000	101.3	90	110	
Co	59	74	He	102.355	ug/l	1.3	763957	100	102.35	90	110	
Ni	60	74	He	105.140	ug/l	2.0	201677	100	105.14	90	110	
Cu	65	74	He	101.927	ug/l	1.8	269086	100	101.93	90	110	
Cu	65	74	No Gas	103.338	ug/l	2.5	643963	100	103.34	90	110	
Zn	66	74	He	97.625	ug/l	2.7	85540	100	97.62	90	110	
As	75	74	He	94.695	ug/l	1.7	53043	100	94.7	90	110	
Se	78	74	HEHe	39.179	ug/l	0.5	4546	40	97.95	90	110	
Mo	95	103	He	40.483	ug/l	1.7	130485	40	101.21	90	110	
Ag	109	103	No Gas	41.474	ug/l	4.0	848971	40	103.68	90	110	
Cd	111	103	He	95.469	ug/l	1.6	166939	100	95.47	90	110	
Cd	111	103	No Gas	98.508	ug/l	2.6	520518	100	98.51	90	110	
Sb	123	103	No Gas	40.793	ug/l	2.0	608416	40	101.98	90	110	
Ba	138	159	He	101.977	ug/l	1.1	1032309	100	101.98	90	110	
Hg	201	159	No Gas	805.559	ng/l	4.3	2750	800	100.69	90	110	
Tl	205	159	No Gas	41.762	ug/l	4.3	2444928	40	104.4	90	110	
Pb	208	159	No Gas	102.342	ug/l	4.6	8272401	100	102.34	90	110	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	965881	2.6	1045075.28	92.42	70	120	
Ge	74	No Gas	852013	3.1	923748.77	92.23	70	120	
Rh	103	No Gas	908834	3.3	994218.29	91.41	70	120	
Tb	159	No Gas	2257347	3.8	2337217.8	96.58	70	120	
Bi	209	No Gas	1315132	3.0	1347700.19	97.58	70	120	
Sc	45	He	130563	2.5	138692.66	94.14	70	120	
Ge	74	He	123351	2.2	127728.2	96.57	70	120	
Rh	103	He	463669	2.6	482080.38	96.18	70	120	
Tb	159	He	970588	2.1	987185.44	98.32	70	120	
Ge	74	HEHe	150776	0.1	159522.83	94.52	70	120	

Continuing Calibration Blank (CCB) Report ICPMS6

Sample Name	9J10037-CCB1	**Sample Type**	CCB
File Name	043_CCB.d	**Vial #**	1101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 21:56:52	**Sample QC Pass/Fail**	Pass
Comment	CCB	**ISTD Ref File**	003CALB.d

2 JB 10/11/19

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Be	9	6	No Gas	0.010	ug/l	24.6	82	0.09	
Na	23	45	He	0.372	ug/l	47.9	4989	45	
Mg	24	45	He	0.176	ug/l	19.8	735	45	
Al	27	45	He	0.185	ug/l	36.1	160	22.5	
K	39	45	He	-0.414	ug/l	N/A	12846	45	
Ca	44	45	He	1.201	ug/l	105.8	92	45	
Ti	47	45	He	0.029	ug/l	101.0	3	1.8	
V	51	74	He	0.004	ug/l	162.8	313	0.45	
Cr	52	74	He	0.007	ug/l	137.9	552	0.45	
Mn	55	74	He	0.013	ug/l	49.2	124	0.45	
Fe	56	74	He	0.641	ug/l	21.4	10271	22.5	
Fe	56	74	HEHe	0.958	ug/l	3.9	13810	22.5	
Co	59	74	He	0.005	ug/l	4.9	66	0.09	
Ni	60	74	He	-0.005	ug/l	N/A	197	0.45	
Cu	65	74	He	0.029	ug/l	25.2	287	0.45	
Cu	65	74	No Gas	0.056	ug/l	16.9	997	0.45	
Zn	66	74	He	0.046	ug/l	27.9	108	1.8	
As	75	74	He	0.010	ug/l	27.8	17	0.45	
Se	78	74	HEHe	0.008	ug/l	21.1	4	0.45	
Mo	95	103	He	0.011	ug/l	44.3	101	0.45	
Ag	109	103	No Gas	0.003	ug/l	51.3	91	0.09	
Cd	111	103	He	0.009	ug/l	24.8	18	0.09	
Cd	111	103	No Gas	0.006	ug/l	46.8	50	0.09	
Sb	123	103	No Gas	0.074	ug/l	14.1	1409	0.45	
Ba	138	159	He	0.006	ug/l	39.0	272	0.45	
Hg	201	159	No Gas	2.474	ng/l	43.3	21	36	
Tl	205	159	No Gas	0.012	ug/l	8.3	906	0.09	
Pb	208	159	No Gas	0.008	ug/l	43.9	2746	0.09	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	964902	10.2	1045075.28	92.33	70	120	
Ge	74	No Gas	851941	11.0	923748.77	92.23	70	120	
Rh	103	No Gas	925363	10.2	994218.29	93.07	70	120	
Tb	159	No Gas	2268083	11.0	2337217.8	97.04	70	120	
Bi	209	No Gas	1318261	8.8	1347700.19	97.82	70	120	
Sc	45	He	130679	1.8	138692.66	94.22	70	120	
Ge	74	He	120975	0.4	127728.2	94.71	70	120	
Rh	103	He	461594	0.2	482080.38	95.75	70	120	
Tb	159	He	962672	0.7	987185.44	97.52	70	120	
Ge	74	HEHe	150402	0.3	159522.83	94.28	70	120	

Continuing Calibration Verification (CCV) Report ICPMS6

Sample Name	9J10037-CCV3 JB 10/11/19	**Sample Type**	CCV
File Name	054_CCV.d	**Vial #**	1102
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 22:47:18	**Sample QC Pass/Fail**	Pass
Comment	A19J138 - JPB 10/10	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Low	High	Flag
Be	9	6	No Gas	40.541	ug/l	1.9	191886	40	101.35	90	110	
Na	23	45	He	3995.809	ug/l	2.7	3703365	4000	99.9	90	110	
Mg	24	45	He	4371.842	ug/l	1.7	2086474	4000	109.3	90	110	
Al	27	45	He	4100.404	ug/l	1.4	789814	4000	102.51	90	110	
K	39	45	He	4093.620	ug/l	2.2	1399566	4000	102.34	90	110	
Ca	44	45	He	4082.263	ug/l	0.5	76261	4000	102.06	90	110	
Ti	47	45	He	99.764	ug/l	1.3	11579	100	99.76	90	110	
V	51	74	He	97.859	ug/l	0.9	364730	100	97.86	90	110	
Cr	52	74	He	98.566	ug/l	1.0	467010	100	98.57	90	110	
Mn	55	74	He	101.129	ug/l	0.9	287505	100	101.13	90	110	
Fe	56	74	He	4080.413	ug/l	0.4	16892550	4000	102.01	90	110	
Fe	56	74	HEHe	4028.249	ug/l	0.7	20577305	4000	100.71	90	110	
Co	59	74	He	103.569	ug/l	0.8	751076	100	103.57	90	110	
Ni	60	74	He	105.619	ug/l	1.0	196860	100	105.62	90	110	
Cu	65	74	He	103.803	ug/l	0.3	266275	100	103.8	90	110	
Cu	65	74	No Gas	102.166	ug/l	1.0	631335	100	102.17	90	110	
Zn	66	74	He	99.351	ug/l	1.2	84598	100	99.35	90	110	
As	75	74	He	97.875	ug/l	1.0	53270	100	97.88	90	110	
Se	78	74	HEHe	39.032	ug/l	1.1	4451	40	97.58	90	110	
Mo	95	103	He	40.381	ug/l	0.4	127337	40	100.95	90	110	
Ag	109	103	No Gas	41.407	ug/l	3.1	835415	40	103.52	90	110	
Cd	111	103	He	96.317	ug/l	1.3	164755	100	96.32	90	110	
Cd	111	103	No Gas	98.266	ug/l	2.3	511700	100	98.27	90	110	
Sb	123	103	No Gas	41.802	ug/l	2.5	614298	40	104.51	90	110	
Ba	138	159	He	102.280	ug/l	0.6	1020776	100	102.28	90	110	
Hg	201	159	No Gas	813.374	ng/l	3.3	2727	800	101.67	90	110	
Tl	205	159	No Gas	42.060	ug/l	1.8	2419681	40	105.15	90	110	
Pb	208	159	No Gas	102.704	ug/l	2.7	8157329	100	102.7	90	110	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	981373	2.6	1045075.28	93.9	70	120	
Ge	74	No Gas	844575	2.2	923748.77	91.43	70	120	
Rh	103	No Gas	895608	3.5	994218.29	90.08	70	120	
Tb	159	No Gas	2216821	3.3	2337217.8	94.85	70	120	
Bi	209	No Gas	1321343	4.3	1347700.19	98.04	70	120	
Sc	45	He	130302	2.0	138692.66	93.95	70	120	
Ge	74	He	119829	0.4	127728.2	93.82	70	120	
Rh	103	He	453493	1.2	482080.38	94.07	70	120	
Tb	159	He	956821	1.2	987185.44	96.92	70	120	
Ge	74	HEHe	148207	1.4	159522.83	92.91	70	120	

Continuing Calibration Blank (CCB) Report ICPMS6

Sample Name	9J10037-CCB1 3 10/11/19	**Sample Type**	CCB
File Name	055_CCB.d	**Vial #**	1101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 22:51:49	**Sample QC Pass/Fail**	Pass
Comment	CCB	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Be	9	6	No Gas	0.006	ug/l	42.8	64	0.09	
Na	23	45	He	-0.160	ug/l	N/A	4409	45	
Mg	24	45	He	0.166	ug/l	53.5	716	45	
Al	27	45	He	0.226	ug/l	31.1	165	22.5	
K	39	45	He	0.639	ug/l	125.7	12953	45	
Ca	44	45	He	0.767	ug/l	163.8	82	45	
Ti	47	45	He	0.029	ug/l	101.8	3	1.8	
V	51	74	He	0.008	ug/l	186.7	320	0.45	
Cr	52	74	He	0.016	ug/l	64.0	579	0.45	
Mn	55	74	He	0.016	ug/l	34.8	129	0.45	
Fe	56	74	He	0.490	ug/l	6.1	9398	22.5	
Fe	56	74	HEHe	0.414	ug/l	5.5	10886	22.5	
Co	59	74	He	0.005	ug/l	15.9	59	0.09	
Ni	60	74	He	-0.011	ug/l	N/A	181	0.45	
Cu	65	74	He	0.031	ug/l	8.9	284	0.45	
Cu	65	74	No Gas	0.037	ug/l	16.3	882	0.45	
Zn	66	74	He	0.044	ug/l	46.3	103	1.8	
As	75	74	He	0.008	ug/l	28.6	15	0.45	
Se	78	74	HEHe	0.011	ug/l	131.3	4	0.45	
Mo	95	103	He	0.013	ug/l	24.1	104	0.45	
Ag	109	103	No Gas	0.002	ug/l	55.8	71	0.09	
Cd	111	103	He	0.003	ug/l	69.9	8	0.09	
Cd	111	103	No Gas	0.002	ug/l	211.2	31	0.09	
Sb	123	103	No Gas	0.033	ug/l	12.6	786	0.45	
Ba	138	159	He	0.010	ug/l	18.2	303	0.45	
Hg	201	159	No Gas	2.469	ng/l	55.0	21	36	
Tl	205	159	No Gas	0.018	ug/l	15.0	1245	0.09	
Pb	208	159	No Gas	0.004	ug/l	17.1	2466	0.09	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	994187	1.3	1045075.28	95.13	70	120	
Ge	74	No Gas	854435	0.2	923748.77	92.5	70	120	
Rh	103	No Gas	925532	0.4	994218.29	93.09	70	120	
Tb	159	No Gas	2278251	1.3	2337217.8	97.48	70	120	
Bi	209	No Gas	1342468	0.7	1347700.19	99.61	70	120	
Sc	45	He	128257	2.6	138692.66	92.48	70	120	
Ge	74	He	117944	2.6	127728.2	92.34	70	120	
Rh	103	He	448129	2.6	482080.38	92.96	70	120	
Tb	159	He	941277	2.3	987185.44	95.35	70	120	
Ge	74	HEHe	148987	0.4	159522.83	93.4	70	120	

Continuing Calibration Verification (CCV) Report ICPMS6

Sample Name	9J10037-CCV1	**Sample Type**	CCV
File Name	066_CCV.d	**Vial #**	1102
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 23:42:19	**Sample QC Pass/Fail**	Pass
Comment	A19J138 - JPB 10/10	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Low	High	Flag
Be	9	6	No Gas	39.787	ug/l	4.0	186714	40	99.47	90	110	
Na	23	45	He	4133.520	ug/l	2.4	3757228	4000	103.34	90	110	
Mg	24	45	He	4365.918	ug/l	2.2	2042979	4000	109.15	90	110	
Al	27	45	He	4118.533	ug/l	1.2	777841	4000	102.96	90	110	
K	39	45	He	4117.899	ug/l	1.4	1380453	4000	102.95	90	110	
Ca	44	45	He	4146.060	ug/l	0.6	75932	4000	103.65	90	110	
Ti	47	45	He	100.927	ug/l	1.4	11482	100	100.93	90	110	
V	51	74	He	97.787	ug/l	2.0	362341	100	97.79	90	110	
Cr	52	74	He	98.965	ug/l	1.7	466189	100	98.96	90	110	
Mn	55	74	He	101.050	ug/l	1.9	285616	100	101.05	90	110	
Fe	56	74	He	4129.221	ug/l	1.5	16996357	4000	103.23	90	110	
Fe	56	74	HEHe	4024.865	ug/l	1.6	20340106	4000	100.62	90	110	
Co	59	74	He	103.373	ug/l	1.6	745320	100	103.37	90	110	
Ni	60	74	He	105.611	ug/l	0.8	195722	100	105.61	90	110	
Cu	65	74	He	103.695	ug/l	1.3	264465	100	103.7	90	110	
Cu	65	74	No Gas	101.092	ug/l	4.3	625940	100	101.09	90	110	
Zn	66	74	He	98.290	ug/l	2.5	83213	100	98.29	90	110	
As	75	74	He	98.392	ug/l	1.6	53243	100	98.39	90	110	
Se	78	74	HEHe	39.136	ug/l	1.1	4416	40	97.84	90	110	
Mo	95	103	He	41.271	ug/l	2.5	127380	40	103.18	90	110	
Ag	109	103	No Gas	40.332	ug/l	3.2	833125	40	100.83	90	110	
Cd	111	103	He	97.734	ug/l	1.9	163653	100	97.73	90	110	
Cd	111	103	No Gas	95.402	ug/l	4.0	508461	100	95.4	90	110	
Sb	123	103	No Gas	40.762	ug/l	5.3	612966	40	101.9	90	110	
Ba	138	159	He	104.297	ug/l	2.3	1013873	100	104.3	90	110	
Hg	201	159	No Gas	768.678	ng/l	1.4	2644	800	96.08	90	110	
Tl	205	159	No Gas	40.344	ug/l	2.6	2379500	40	100.86	90	110	
Pb	208	159	No Gas	99.680	ug/l	2.8	8118298	100	99.68	90	110	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	973314	2.4	1045075.28	93.13	70	120	
Ge	74	No Gas	846635	2.2	923748.77	91.65	70	120	
Rh	103	No Gas	916867	2.9	994218.29	92.22	70	120	
Tb	159	No Gas	2272096	0.8	2337217.8	97.21	70	120	
Bi	209	No Gas	1315470	2.7	1347700.19	97.61	70	120	
Sc	45	He	127749	1.2	138692.66	92.11	70	120	
Ge	74	He	119145	1.0	127728.2	93.28	70	120	
Rh	103	He	443957	1.4	482080.38	92.09	70	120	
Tb	159	He	932186	1.8	987185.44	94.43	70	120	
Ge	74	HEHe	146613	0.3	159522.83	91.91	70	120	

Continuing Calibration Blank (CCB) Report ICPMS6

Sample Name	9J10037-CCB4	**Sample Type**	CCB
File Name	067_CCB.d	**Vial #**	1101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/10/2019 23:46:49	**Sample QC Pass/Fail**	Pass
Comment	CCB	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Be	9	6	No Gas	0.006	ug/l	36.5	60	0.09	
Na	23	45	He	-0.453	ug/l	N/A	4212	45	
Mg	24	45	He	0.268	ug/l	55.4	776	45	
Al	27	45	He	0.266	ug/l	48.0	175	22.5	
K	39	45	He	0.254	ug/l	347.6	13036	45	
Ca	44	45	He	1.570	ug/l	60.2	98	45	
Ti	47	45	He	0.048	ug/l	70.3	6	1.8	
V	51	74	He	-0.004	ug/l	N/A	277	0.45	
Cr	52	74	He	0.017	ug/l	50.6	589	0.45	
Mn	55	74	He	0.018	ug/l	14.7	134	0.45	
Fe	56	74	He	0.814	ug/l	13.8	10803	22.5	
Fe	56	74	HEHe	0.635	ug/l	11.6	11948	22.5	
Co	59	74	He	0.003	ug/l	45.6	49	0.09	
Ni	60	74	He	0.006	ug/l	212.8	214	0.45	
Cu	65	74	He	0.043	ug/l	38.3	318	0.45	
Cu	65	74	No Gas	0.042	ug/l	23.0	911	0.45	
Zn	66	74	He	0.023	ug/l	13.3	87	1.8	
As	75	74	He	0.006	ug/l	106.6	14	0.45	
Se	78	74	HEHe	0.008	ug/l	106.8	4	0.45	
Mo	95	103	He	0.009	ug/l	114.2	93	0.45	
Ag	109	103	No Gas	0.003	ug/l	28.4	87	0.09	
Cd	111	103	He	0.004	ug/l	125.9	9	0.09	
Cd	111	103	No Gas	0.007	ug/l	45.8	56	0.09	
Sb	123	103	No Gas	0.034	ug/l	12.6	806	0.45	
Ba	138	159	He	0.007	ug/l	13.0	277	0.45	
Hg	201	159	No Gas	2.551	ng/l	16.2	21	36	
Tl	205	159	No Gas	0.018	ug/l	12.5	1283	0.09	
Pb	208	159	No Gas	0.008	ug/l	8.1	2738	0.09	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	986802	2.2	1045075.28	94.42	70	120	
Ge	74	No Gas	852044	1.5	923748.77	92.24	70	120	
Rh	103	No Gas	920063	1.7	994218.29	92.54	70	120	
Tb	159	No Gas	2266909	1.7	2337217.8	96.99	70	120	
Bi	209	No Gas	1308755	2.3	1347700.19	97.11	70	120	
Sc	45	He	130308	0.9	138692.66	93.95	70	120	
Ge	74	He	118893	0.9	127728.2	93.08	70	120	
Rh	103	He	459447	0.7	482080.38	95.31	70	120	
Tb	159	He	948659	0.4	987185.44	96.1	70	120	
Ge	74	HEHe	148046	0.6	159522.83	92.81	70	120	

Sample Report ICPMS6

Sample Name	**A9J0149-25**	**Sample Type**	Sample
File Name	068SMPL.d	**Vial #**	4311
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	5.0000
Acq Time	10/10/2019 23:51:26	**Sample QC Pass/Fail**	Pass
Comment	9100867 Sediment As	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag
Be	9	6	No Gas	ug/l	0.703	2.1	3380	0.3	100	
Na	23	45	He	ug/l	357.772	2.0	373913	0.3	50000	
Mg	24	45	He	ug/l	5395.785	2.1	2867072	0.8	50000	
Al	27	45	He	ug/l	18051.271	0.5	3871576	1.8	50000	
K	39	45	He	ug/l	724.2	0.8	287596	1.0	50000	
Ca	44	45	He	ug/l	5830.676	2.0	121217	0.4	50000	
Ti	47	45	He	ug/l	1299.289	1.3	167853	0.5	2500	
V	51	74	He	ug/l	105.662	1.1	384332	0.3	500	
Cr	52	74	He	ug/l	30.751	1.3	142546	0.4	1000	
Mn	55	74	He	ug/l	785.272	1.0	2178427	0.5	2500	
Fe	56	74	He	ug/l	38686.213	0.9	156252764	0.1	50000	
Fe	56	74	HEHe	ug/l	36455.172	1.1	187465837	0.2	50000	
Co	59	74	He	ug/l	19.229	1.3	136120	0.4	500	
Ni	60	74	He	ug/l	26.657	0.9	48644	0.4	500	
Cu	65	74	He	ug/l	48.585	1.3	121751	0.8	1000	
Cu	65	74	No Gas	ug/l	49.267	0.9	305959	1.4	1000	
Zn	66	74	He	ug/l	209.656	1.9	174159	1.0	2500	
As	75	74	He	ug/l	4.931	2.4	2629	1.8	500	
Se	78	74	HEHe	ug/l	0.917	1.9	108	2.9	100	
Mo	95	103	He	ug/l	0.437	3.9	1411	3.1	100	
Ag	109	103	No Gas	ug/l	0.424	2.5	8651	2.2	100	
Cd	111	103	He	ug/l	0.448	3.9	752	4.1	1000	
Cd	111	103	No Gas	ug/l	1.178	2.1	6210	2.5	1000	
Sb	123	103	No Gas	ug/l	0.345	1.7	5403	1.9	100	
Ba	138	159	He	ug/l	188.384	1.6	1872362	0.9	2500	
W	186	159	No Gas	ug/l	0.12	7.8	3204	7.3	40	
Hg	201	159	No Gas	ng/l	179.873	2.8	641	3.6	4000	
Tl	205	159	No Gas	ug/l	0.123	1.7	7598	2.4	100	
Pb	208	159	No Gas	ug/l	41.293	1.1	3432821	1.3	500	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	987895	2.2	1045075.28	94.53	70	120	
Sc	45	He	145078	1.7	138692.66	104.6	70	120	
Ge	74	No Gas	847688	0.7	923748.77	91.77	70	120	
Ge	74	He	116960	0.9	127728.2	91.57	70	120	
Ge	74	HEHe	149256	1.1	159522.83	93.56	70	120	
Rh	103	No Gas	903696	0.5	994218.29	90.9	70	120	
Rh	103	He	443929	0.8	482080.38	92.09	70	120	
Tb	159	No Gas	2318077	0.9	2337217.8	99.18	70	120	
Tb	159	He	952995	0.7	987185.44	96.54	70	120	
Bi	209	No Gas	1354325	0.7	1347700.19	100.49	70	120	

Sample Report ICPMS6

Sample Name	**A9J0149-26**	**Sample Type**	Sample
File Name	069SMPL.d	**Vial #**	4312
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	5.0000
Acq Time	10/10/2019 23:56:00	**Sample QC Pass/Fail**	Pass
Comment	9100867 Sediment As	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Units	Raw Conc.	Conc RSD	CPS	CPS RSD	LDR	QC Flag
Be	9	6	No Gas	ug/l	0.757	1.6	3617	0.9	100	
Na	23	45	He	ug/l	423.035	0.8	450684	1.1	50000	
Mg	24	45	He	ug/l	6264.383	1.6	3400052	1.4	50000	
Al	27	45	He	ug/l	21958.101	0.5	4809895	1.0	50000	
K	39	45	He	ug/l	848.835	1.2	341770	1.3	50000	
Ca	44	45	He	ug/l	6478.26	0.5	137572	0.6	50000	
Ti	47	45	He	ug/l	893.168	1.1	117860	0.8	2500	
V	51	74	He	ug/l	109.917	1.0	402892	0.8	500	
Cr	52	74	He	ug/l	33.757	0.8	157645	0.7	1000	
Mn	55	74	He	ug/l	723.977	1.3	2023905	1.2	2500	
Fe	56	74	He	ug/l	38539.263	1.2	156862274	1.1	50000	
Fe	56	74	HEHe	ug/l	37012.022	1.4	190191311	1.9	50000	
Co	59	74	He	ug/l	19.463	1.7	138845	1.6	500	
Ni	60	74	He	ug/l	35.705	0.8	65590	0.8	500	
Cu	65	74	He	ug/l	54.005	0.8	136358	0.8	1000	
Cu	65	74	No Gas	ug/l	54.775	0.7	334508	1.7	1000	
Zn	66	74	He	ug/l	132.375	0.5	110845	0.7	2500	
As	75	74	He	ug/l	5.386	2.1	2893	1.9	500	
Se	78	74	HEHe	ug/l	1.027	5.3	121	5.8	100	
Mo	95	103	He	ug/l	0.362	6.3	1181	5.3	100	
Ag	109	103	No Gas	ug/l	0.705	1.5	14185	0.7	100	
Cd	111	103	He	ug/l	0.5	2.4	842	1.6	1000	
Cd	111	103	No Gas	ug/l	1.208	2.8	6284	2.4	1000	
Sb	123	103	No Gas	ug/l	0.201	2.5	3222	2.5	100	
Ba	138	159	He	ug/l	208.254	0.9	2086212	0.8	2500	
W	186	159	No Gas	ug/l	0.081	12.8	2176	12.5	40	
Hg	201	159	No Gas	ng/l	453.955	0.8	1601	1.4	4000	
Tl	205	159	No Gas	ug/l	0.11	2.4	6860	2.9	100	
Pb	208	159	No Gas	ug/l	31.254	0.5	2602228	0.2	500	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	981698	0.8	1045075.28	93.94	70	120	
Sc	45	He	148176	1.1	138692.66	106.84	70	120	
Ge	74	No Gas	833786	1.5	923748.77	90.26	70	120	
Ge	74	He	117859	0.2	127728.2	92.27	70	120	
Ge	74	HEHe	149135	1.2	159522.83	93.49	70	120	
Rh	103	No Gas	891629	0.9	994218.29	89.68	70	120	
Rh	103	He	445146	0.9	482080.38	92.34	70	120	
Tb	159	No Gas	2321230	0.7	2337217.8	99.32	70	120	
Tb	159	He	960492	0.7	987185.44	97.3	70	120	
Bi	209	No Gas	1336784	0.8	1347700.19	99.19	70	120	

Continuing Calibration Verification (CCV) Report ICPMS6

Sample Name	9J10037-CCV5 JB 10/11/19	**Sample Type**	CCV
File Name	078_CCV.d	**Vial #**	1102
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/11/2019 00:37:21	**Sample QC Pass/Fail**	Pass
Comment	A19J138 - JPB 10/10	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Low	High	Flag
Be	9	6	No Gas	40.754	ug/l	2.1	191139	40	101.88	90	110	
Na	23	45	He	3975.605	ug/l	1.3	3817662	4000	99.39	90	110	
Mg	24	45	He	4248.513	ug/l	0.9	2100417	4000	106.21	90	110	
Al	27	45	He	4044.808	ug/l	1.6	807049	4000	101.12	90	110	
K	39	45	He	4143.517	ug/l	1.8	1467321	4000	103.59	90	110	
Ca	44	45	He	4059.274	ug/l	1.8	78540	4000	101.48	90	110	
Ti	47	45	He	98.648	ug/l	0.6	11856	100	98.65	90	110	
V	51	74	He	97.217	ug/l	0.8	377249	100	97.22	90	110	
Cr	52	74	He	98.510	ug/l	0.7	485962	100	98.51	90	110	
Mn	55	74	He	99.162	ug/l	0.5	293540	100	99.16	90	110	
Fe	56	74	He	4064.733	ug/l	0.8	17521119	4000	101.62	90	110	
Fe	56	74	HEHe	4097.573	ug/l	1.8	21296518	4000	102.44	90	110	
Co	59	74	He	101.344	ug/l	0.6	765208	100	101.34	90	110	
Ni	60	74	He	105.405	ug/l	0.6	204554	100	105.4	90	110	
Cu	65	74	He	102.786	ug/l	0.6	274527	100	102.79	90	110	
Cu	65	74	No Gas	103.554	ug/l	1.9	649175	100	103.55	90	110	
Zn	66	74	He	97.473	ug/l	0.6	86422	100	97.47	90	110	
As	75	74	He	96.638	ug/l	0.5	54763	100	96.64	90	110	
Se	78	74	HEHe	39.144	ug/l	1.9	4542	40	97.86	90	110	
Mo	95	103	He	40.383	ug/l	2.0	130344	40	100.96	90	110	
Ag	109	103	No Gas	41.526	ug/l	1.1	852046	40	103.82	90	110	
Cd	111	103	He	95.281	ug/l	0.7	166854	100	95.28	90	110	
Cd	111	103	No Gas	98.462	ug/l	1.5	521338	100	98.46	90	110	
Sb	123	103	No Gas	41.809	ug/l	1.6	624748	40	104.52	90	110	
Ba	138	159	He	102.754	ug/l	1.0	1040256	100	102.75	90	110	
Hg	201	159	No Gas	791.238	ng/l	1.4	2740	800	98.9	90	110	
Tl	205	159	No Gas	41.668	ug/l	1.0	2474873	40	104.17	90	110	
Pb	208	159	No Gas	102.051	ug/l	1.2	8369503	100	102.05	90	110	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	972259	1.1	1045075.28	93.03	70	120	
Ge	74	No Gas	856834	1.9	923748.77	92.76	70	120	
Rh	103	No Gas	910270	1.4	994218.29	91.56	70	120	
Tb	159	No Gas	2287807	0.9	2337217.8	97.89	70	120	
Bi	209	No Gas	1331626	1.3	1347700.19	98.81	70	120	
Sc	45	He	134956	0.9	138692.66	97.31	70	120	
Ge	74	He	124766	0.7	127728.2	97.68	70	120	
Rh	103	He	464226	0.6	482080.38	96.3	70	120	
Tb	159	He	970562	0.4	987185.44	98.32	70	120	
Ge	74	HEHe	150825	2.8	159522.83	94.55	70	120	

Continuing Calibration Blank (CCB) Report ICPMS6

Sample Name	9J10037-CCB 5	**Sample Type**	CCB
File Name	079_CCB.d	**Vial #**	1101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/11/2019 00:41:51	**Sample QC Pass/Fail**	Pass
Comment	CCB	**ISTD Ref File**	003CALB.d

10/11/19

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Be	9	6	No Gas	0.009	ug/l	36.3	74	0.09	
Na	23	45	He	-0.320	ug/l	N/A	4345	45	
Mg	24	45	He	1.367	ug/l	14.9	1303	45	
Al	27	45	He	3.213	ug/l	21.7	743	22.5	
K	39	45	He	-0.062	ug/l	N/A	12955	45	
Ca	44	45	He	1.540	ug/l	108.8	98	45	
Ti	47	45	He	0.191	ug/l	30.4	22	1.8	
V	51	74	He	0.018	ug/l	72.6	359	0.45	
Cr	52	74	He	0.022	ug/l	45.9	610	0.45	
Mn	55	74	He	0.109	ug/l	13.4	393	0.45	
Fe	56	74	He	5.685	ug/l	18.3	30798	22.5	
Fe	56	74	HEHe	3.550	ug/l	15.9	24929	22.5	
Co	59	74	He	0.011	ug/l	37.5	104	0.09	
Ni	60	74	He	0.016	ug/l	98.2	233	0.45	
Cu	65	74	He	0.025	ug/l	20.1	272	0.45	
Cu	65	74	No Gas	0.054	ug/l	13.8	1000	0.45	
Zn	66	74	He	0.067	ug/l	47.0	123	1.8	
As	75	74	He	0.014	ug/l	57.0	18	0.45	
Se	78	74	HEHe	0.006	ug/l	125.6	3	0.45	
Mo	95	103	He	0.013	ug/l	18.8	103	0.45	
Ag	109	103	No Gas	0.005	ug/l	30.5	123	0.09	
Cd	111	103	He	0.011	ug/l	51.6	21	0.09	
Cd	111	103	No Gas	0.009	ug/l	33.6	68	0.09	
Sb	123	103	No Gas	0.036	ug/l	8.5	842	0.45	
Ba	138	159	He	0.038	ug/l	13.3	577	0.45	
Hg	201	159	No Gas	3.568	ng/l	6.9	25	36	
Tl	205	159	No Gas	0.022	ug/l	6.8	1549	0.09	
Pb	208	159	No Gas	0.014	ug/l	28.6	3319	0.09	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	991718	1.8	1045075.28	94.89	70	120	
Ge	74	No Gas	864498	0.5	923748.77	93.59	70	120	
Rh	103	No Gas	932079	0.4	994218.29	93.75	70	120	
Tb	159	No Gas	2300738	1.5	2337217.8	98.44	70	120	
Bi	209	No Gas	1328191	0.4	1347700.19	98.55	70	120	
Sc	45	He	130621	2.1	138692.66	94.18	70	120	
Ge	74	He	118965	1.5	127728.2	93.14	70	120	
Rh	103	He	454206	1.7	482080.38	94.22	70	120	
Tb	159	He	937701	1.8	987185.44	94.99	70	120	
Ge	74	HEHe	138700	11.2	159522.83	86.95	70	120	

Continuing Calibration Verification (CCV) Report ICPMS6

Sample Name	9J10037-CCV1	**Sample Type**	CCV
File Name	090_CCV.d	**Vial #**	1102
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/11/2019 01:32:06	**Sample QC Pass/Fail**	Fail
Comment	A19J138 - JPB 10/10	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Low	High	Flag
Be	9	6	No Gas	39.773	ug/l	2.9	185718	40	99.43	90	110	
Na	23	45	He	4376.801	ug/l	11.9	3801749	4000	109.42	90	110	
Mg	24	45	He	4716.832	ug/l	11.7	2109918	4000	117.92	90	110	> +/- 10%
Al	27	45	He	4423.477	ug/l	12.0	798403	4000	110.59	90	110	> +/- 10%
K	39	45	He	4544.554	ug/l	11.4	1455529	4000	113.61	90	110	> +/- 10%
Ca	44	45	He	4382.650	ug/l	11.7	76723	4000	109.57	90	110	
Ti	47	45	He	107.278	ug/l	11.2	11671	100	107.28	90	110	
V	51	74	He	107.471	ug/l	12.5	371858	100	107.47	90	110	
Cr	52	74	He	108.694	ug/l	12.0	478293	100	108.69	90	110	
Mn	55	74	He	110.715	ug/l	12.9	292130	100	110.72	90	110	> +/- 10%
Fe	56	74	He	4601.217	ug/l	12.0	17691598	4000	115.03	90	110	> +/- 10%
Fe	56	74	HEHe	4095.500	ug/l	3.3	21216920	4000	102.39	90	110	
Co	59	74	He	112.582	ug/l	12.4	758077	100	112.58	90	110	> +/- 10%
Ni	60	74	He	114.890	ug/l	11.9	198904	100	114.89	90	110	> +/- 10%
Cu	65	74	He	113.069	ug/l	12.0	269381	100	113.07	90	110	> +/- 10%
Cu	65	74	No Gas	103.901	ug/l	2.1	634234	100	103.9	90	110	
Zn	66	74	He	107.635	ug/l	12.0	85124	100	107.64	90	110	
As	75	74	He	105.412	ug/l	13.2	53238	100	105.41	90	110	
Se	78	74	HEHe	39.190	ug/l	0.9	4533	40	97.98	90	110	
Mo	95	103	He	43.654	ug/l	11.7	126856	40	109.14	90	110	
Ag	109	103	No Gas	41.786	ug/l	1.4	838205	40	104.46	90	110	
Cd	111	103	He	104.020	ug/l	13.3	163789	100	104.02	90	110	
Cd	111	103	No Gas	98.610	ug/l	1.9	510424	100	98.61	90	110	
Sb	123	103	No Gas	40.730	ug/l	1.7	595005	40	101.82	90	110	
Ba	138	159	He	110.412	ug/l	13.2	1017815	100	110.41	90	110	> +/- 10%
Hg	201	159	No Gas	785.920	ng/l	1.0	2644	800	98.24	90	110	
Tl	205	159	No Gas	41.953	ug/l	3.1	2420298	40	104.88	90	110	
Pb	208	159	No Gas	103.103	ug/l	2.3	8213893	100	103.1	90	110	

Q-41

Q-41

Q-41

Q-41

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	968178	2.0	1045075.28	92.64	70	120	
Ge	74	No Gas	834292	1.1	923748.77	90.32	70	120	
Rh	103	No Gas	889899	1.1	994218.29	89.51	70	120	
Tb	159	No Gas	2222865	1.8	2337217.8	95.11	70	120	
Bi	209	No Gas	1306754	0.8	1347700.19	96.96	70	120	
Sc	45	He	123233	11.8	138692.66	88.85	70	120	
Ge	74	He	112377	12.0	127728.2	87.98	70	120	
Rh	103	He	421762	11.7	482080.38	87.49	70	120	
Tb	159	He	893240	12.1	987185.44	90.48	70	120	
Ge	74	HEHe	150318	0.8	159522.83	94.23	70	120	

RSD within acceptance criteria - passing the analyte reportable.

Continuing Calibration Blank (CCB) Report ICPMS6

Sample Name	9J10037-CCB	**Sample Type**	CCB
File Name	091_CCB.d	**Vial #**	1101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/11/2019 01:36:37	**Sample QC Pass/Fail**	Pass
Comment	CCB	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Be	9	6	No Gas	0.005	ug/l	68.3	57	0.09	
Na	23	45	He	-0.700	ug/l	N/A	3975	45	
Mg	24	45	He	0.137	ug/l	139.6	711	45	
Al	27	45	He	0.343	ug/l	15.5	190	22.5	
K	39	45	He	1.414	ug/l	150.2	13394	45	
Ca	44	45	He	0.943	ug/l	193.6	87	45	
Ti	47	45	He	0.058	ug/l	50.3	7	1.8	
V	51	74	He	0.001	ug/l	862.5	297	0.45	
Cr	52	74	He	0.014	ug/l	48.4	579	0.45	
Mn	55	74	He	0.024	ug/l	54.6	154	0.45	
Fe	56	74	He	0.578	ug/l	17.4	9878	22.5	
Fe	56	74	HEHe	0.527	ug/l	15.3	11351	22.5	
Co	59	74	He	0.002	ug/l	68.3	40	0.09	
Ni	60	74	He	0.000	ug/l	4966.0	204	0.45	
Cu	65	74	He	0.025	ug/l	42.1	274	0.45	
Cu	65	74	No Gas	0.041	ug/l	33.4	904	0.45	
Zn	66	74	He	0.052	ug/l	38.9	111	1.8	
As	75	74	He	0.007	ug/l	86.7	14	0.45	
Se	78	74	HEHe	0.009	ug/l	18.4	4	0.45	
Mo	95	103	He	0.014	ug/l	28.9	107	0.45	
Ag	109	103	No Gas	0.002	ug/l	73.7	57	0.09	
Cd	111	103	He	0.002	ug/l	56.0	6	0.09	
Cd	111	103	No Gas	0.000	ug/l	N/A	17	0.09	
Sb	123	103	No Gas	0.076	ug/l	8.6	1428	0.45	
Ba	138	159	He	0.008	ug/l	27.8	281	0.45	
Hg	201	159	No Gas	3.175	ng/l	28.8	23	36	
Tl	205	159	No Gas	0.013	ug/l	13.8	961	0.09	
Pb	208	159	No Gas	0.003	ug/l	17.6	2346	0.09	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	994333	0.7	1045075.28	95.14	70	120	
Ge	74	No Gas	848013	1.3	923748.77	91.8	70	120	
Rh	103	No Gas	912967	0.9	994218.29	91.83	70	120	
Tb	159	No Gas	2276565	3.1	2337217.8	97.4	70	120	
Bi	209	No Gas	1332871	0.8	1347700.19	98.9	70	120	
Sc	45	He	130086	2.5	138692.66	93.79	70	120	
Ge	74	He	119423	1.8	127728.2	93.5	70	120	
Rh	103	He	454183	1.2	482080.38	94.21	70	120	
Tb	159	He	943509	2.2	987185.44	95.58	70	120	
Ge	74	HEHe	147490	1.3	159522.83	92.46	70	120	

Continuing Calibration Verification (CCV) Report ICPMS6

Sample Name	9J10037-CCV7 JB 10/11/19	**Sample Type**	CCV
File Name	102_CCV.d	**Vial #**	1102
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/11/2019 02:27:07	**Sample QC Pass/Fail**	Pass
Comment	A19J138 - JPB 10/10	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Low	High	Flag
Be	9	6	No Gas	40.685	ug/l	5.4	185557	40	101.71	90	110	
Na	23	45	He	4068.353	ug/l	4.6	3802013	4000	101.71	90	110	
Mg	24	45	He	4319.522	ug/l	4.4	2078793	4000	107.99	90	110	
Al	27	45	He	4034.282	ug/l	6.1	783051	4000	100.86	90	110	
K	39	45	He	4130.623	ug/l	4.6	1423899	4000	103.27	90	110	
Ca	44	45	He	4098.958	ug/l	4.6	77190	4000	102.47	90	110	
Ti	47	45	He	98.543	ug/l	3.9	11532	100	98.54	90	110	
V	51	74	He	97.902	ug/l	4.0	365513	100	97.9	90	110	
Cr	52	74	He	98.597	ug/l	4.9	467816	100	98.6	90	110	
Mn	55	74	He	101.189	ug/l	4.5	288126	100	101.19	90	110	
Fe	56	74	He	4202.434	ug/l	6.1	17415065	4000	105.06	90	110	
Fe	56	74	HEHe	4094.726	ug/l	2.0	20736281	4000	102.37	90	110	
Co	59	74	He	103.169	ug/l	4.8	749270	100	103.17	90	110	
Ni	60	74	He	105.180	ug/l	5.3	196298	100	105.18	90	110	
Cu	65	74	He	102.810	ug/l	4.8	264114	100	102.81	90	110	
Cu	65	74	No Gas	104.764	ug/l	8.4	625390	100	104.76	90	110	
Zn	66	74	He	98.228	ug/l	5.2	83754	100	98.23	90	110	
As	75	74	He	95.511	ug/l	4.6	52062	100	95.51	90	110	
Se	78	74	HEHe	39.110	ug/l	1.0	4422	40	97.78	90	110	
Mo	95	103	He	40.181	ug/l	4.6	125845	40	100.45	90	110	
Ag	109	103	No Gas	42.298	ug/l	6.8	825639	40	105.74	90	110	
Cd	111	103	He	94.610	ug/l	4.6	160754	100	94.61	90	110	
Cd	111	103	No Gas	100.445	ug/l	6.9	505924	100	100.44	90	110	
Sb	123	103	No Gas	40.947	ug/l	7.4	581950	40	102.37	90	110	
Ba	138	159	He	101.483	ug/l	5.4	1005114	100	101.48	90	110	
Hg	201	159	No Gas	788.235	ng/l	6.5	2597	800	98.53	90	110	
Tl	205	159	No Gas	42.829	ug/l	9.1	2417449	40	107.07	90	110	
Pb	208	159	No Gas	104.844	ug/l	6.9	8178931	100	104.84	90	110	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	946871	4.5	1045075.28	90.6	70	120	
Ge	74	No Gas	818750	6.5	923748.77	88.63	70	120	
Rh	103	No Gas	868206	6.0	994218.29	87.33	70	120	
Tb	159	No Gas	2182046	6.0	2337217.8	93.36	70	120	
Bi	209	No Gas	1281672	5.6	1347700.19	95.1	70	120	
Sc	45	He	131584	5.8	138692.66	94.87	70	120	
Ge	74	He	120187	4.8	127728.2	94.1	70	120	
Rh	103	He	451178	5.5	482080.38	93.59	70	120	
Tb	159	He	951171	5.0	987185.44	96.35	70	120	
Ge	74	HEHe	146951	1.6	159522.83	92.12	70	120	

Continuing Calibration Blank (CCB) Report ICPMS6

Sample Name	9J10037-CCB7 JB 10/11/19	**Sample Type**	CCB
File Name	103_CCB.d	**Vial #**	1101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/11/2019 02:31:36	**Sample QC Pass/Fail**	Pass
Comment	CCB	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Be	9	6	No Gas	0.005	ug/l	73.3	56	0.09	
Na	23	45	He	-1.070	ug/l	N/A	3680	45	
Mg	24	45	He	0.257	ug/l	72.3	780	45	
Al	27	45	He	1.372	ug/l	54.4	393	22.5	
K	39	45	He	0.723	ug/l	175.4	13340	45	
Ca	44	45	He	3.020	ug/l	58.6	127	45	
Ti	47	45	He	0.085	ug/l	0.8	10	1.8	
V	51	74	He	0.017	ug/l	90.3	359	0.45	
Cr	52	74	He	0.017	ug/l	92.5	596	0.45	
Mn	55	74	He	0.055	ug/l	14.7	242	0.45	
Fe	56	74	He	1.359	ug/l	5.4	13208	22.5	
Fe	56	74	HEHe	1.347	ug/l	7.2	15331	22.5	
Co	59	74	He	0.004	ug/l	57.8	53	0.09	
Ni	60	74	He	-0.016	ug/l	N/A	176	0.45	
Cu	65	74	He	0.025	ug/l	41.1	276	0.45	
Cu	65	74	No Gas	0.036	ug/l	37.9	871	0.45	
Zn	66	74	He	0.044	ug/l	76.8	106	1.8	
As	75	74	He	0.008	ug/l	28.8	15	0.45	
Se	78	74	HEHe	0.004	ug/l	236.2	3	0.45	
Mo	95	103	He	0.018	ug/l	16.9	121	0.45	
Ag	109	103	No Gas	0.002	ug/l	4.1	68	0.09	
Cd	111	103	He	0.003	ug/l	91.4	8	0.09	
Cd	111	103	No Gas	0.002	ug/l	151.3	29	0.09	
Sb	123	103	No Gas	0.103	ug/l	3.4	1837	0.45	
Ba	138	159	He	0.011	ug/l	20.0	312	0.45	
Hg	201	159	No Gas	3.236	ng/l	0.7	24	36	
Tl	205	159	No Gas	0.010	ug/l	12.3	776	0.09	
Pb	208	159	No Gas	0.004	ug/l	2.3	2416	0.09	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	994136	1.1	1045075.28	95.13	70	120	
Ge	74	No Gas	850011	0.6	923748.77	92.02	70	120	
Rh	103	No Gas	915489	1.1	994218.29	92.08	70	120	
Tb	159	No Gas	2282990	1.5	2337217.8	97.68	70	120	
Bi	209	No Gas	1319641	0.7	1347700.19	97.92	70	120	
Sc	45	He	131772	0.9	138692.66	95.01	70	120	
Ge	74	He	120386	0.5	127728.2	94.25	70	120	
Rh	103	He	455383	0.6	482080.38	94.46	70	120	
Tb	159	He	944559	0.8	987185.44	95.68	70	120	
Ge	74	HEHe	145705	1.1	159522.83	91.34	70	120	

Continuing Calibration Verification (CCV) Report ICPMS6

Sample Name	**9J10037-CCV**	**Sample Type**	CCV
File Name	109_CCV.d	**Vial #**	1102
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/11/2019 02:59:06	**Sample QC Pass/Fail**	Pass
Comment	A19J138 - JPB 10/10	**ISTD Ref FileName**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	Low	High	Flag
Be	9	6	No Gas	39.674	ug/l	0.5	184911	40	99.18	90	110	
Na	23	45	He	4137.250	ug/l	2.2	3773666	4000	103.43	90	110	
Mg	24	45	He	4393.290	ug/l	3.2	2063159	4000	109.83	90	110	
Al	27	45	He	4111.432	ug/l	2.0	779254	4000	102.79	90	110	
K	39	45	He	4239.234	ug/l	3.2	1425680	4000	105.98	90	110	
Ca	44	45	He	4121.226	ug/l	0.7	75755	4000	103.03	90	110	
Ti	47	45	He	100.744	ug/l	2.8	11502	100	100.74	90	110	
V	51	74	He	99.958	ug/l	2.6	362228	100	99.96	90	110	
Cr	52	74	He	101.110	ug/l	2.6	465776	100	101.11	90	110	
Mn	55	74	He	103.321	ug/l	2.5	285605	100	103.32	90	110	
Fe	56	74	He	4262.647	ug/l	2.5	17157266	4000	106.57	90	110	
Fe	56	74	HEHe	4093.567	ug/l	1.7	20436260	4000	102.34	90	110	
Co	59	74	He	105.001	ug/l	1.7	740504	100	105	90	110	
Ni	60	74	He	107.311	ug/l	2.7	194475	100	107.31	90	110	
Cu	65	74	He	104.901	ug/l	2.3	261656	100	104.9	90	110	
Cu	65	74	No Gas	101.309	ug/l	0.5	618040	100	101.31	90	110	
Zn	66	74	He	99.136	ug/l	2.5	82078	100	99.14	90	110	
As	75	74	He	96.747	ug/l	1.1	51210	100	96.75	90	110	
Se	78	74	HEHe	39.075	ug/l	1.4	4355	40	97.69	90	110	
Mo	95	103	He	41.054	ug/l	1.6	125193	40	102.64	90	110	
Ag	109	103	No Gas	40.886	ug/l	1.1	818860	40	102.22	90	110	
Cd	111	103	He	96.708	ug/l	1.5	160017	100	96.71	90	110	
Cd	111	103	No Gas	96.711	ug/l	1.0	499845	100	96.71	90	110	
Sb	123	103	No Gas	39.631	ug/l	1.2	578078	40	99.08	90	110	
Ba	138	159	He	103.628	ug/l	1.3	1004536	100	103.63	90	110	
Hg	201	159	No Gas	760.596	ng/l	3.1	2605	800	95.07	90	110	
Tl	205	159	No Gas	41.099	ug/l	1.2	2414267	40	102.75	90	110	
Pb	208	159	No Gas	100.434	ug/l	0.7	8147167	100	100.43	90	110	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	966065	1.4	1045075.28	92.44	70	120	
Ge	74	No Gas	833666	0.7	923748.77	90.25	70	120	
Rh	103	No Gas	888472	0.9	994218.29	89.36	70	120	
Tb	159	No Gas	2262838	1.0	2337217.8	96.82	70	120	
Bi	209	No Gas	1295586	1.1	1347700.19	96.13	70	120	
Sc	45	He	128216	1.5	138692.66	92.45	70	120	
Ge	74	He	116554	2.5	127728.2	91.25	70	120	
Rh	103	He	438626	1.5	482080.38	90.99	70	120	
Tb	159	He	929471	2.3	987185.44	94.15	70	120	
Ge	74	HEHe	144844	1.3	159522.83	90.8	70	120	

Continuing Calibration Blank (CCB) Report ICPMS6

Sample Name	**9J10037-CCB** 8 JA 10/11/19	**Sample Type**	CCB
File Name	110_CCB.d	**Vial #**	1101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/11/2019 03:03:35	**Sample QC Pass/Fail**	Pass
Comment	CCB	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Be	9	6	No Gas	0.007	ug/l	74.1	68	0.09	
Na	23	45	He	-0.823	ug/l	N/A	3640	45	
Mg	24	45	He	0.350	ug/l	67.8	765	45	
Al	27	45	He	0.318	ug/l	60.4	173	22.5	
K	39	45	He	1.957	ug/l	118.7	12806	45	
Ca	44	45	He	-0.025	ug/l	N/A	63	45	
Ti	47	45	He	0.061	ug/l	48.6	7	1.8	
V	51	74	He	0.010	ug/l	48.6	311	0.45	
Cr	52	74	He	0.020	ug/l	22.4	572	0.45	
Mn	55	74	He	0.040	ug/l	39.8	188	0.45	
Fe	56	74	He	0.653	ug/l	22.4	9581	22.5	
Fe	56	74	HEHe	0.393	ug/l	15.4	10441	22.5	
Co	59	74	He	0.005	ug/l	28.4	61	0.09	
Ni	60	74	He	0.016	ug/l	37.3	221	0.45	
Cu	65	74	He	0.036	ug/l	30.6	284	0.45	
Cu	65	74	No Gas	0.041	ug/l	17.5	887	0.45	
Zn	66	74	He	0.053	ug/l	74.6	104	1.8	
As	75	74	He	0.012	ug/l	59.1	16	0.45	
Se	78	74	HEHe	0.001	ug/l	1231.1	3	0.45	
Mo	95	103	He	0.013	ug/l	74.1	99	0.45	
Ag	109	103	No Gas	0.003	ug/l	33.9	90	0.09	
Cd	111	103	He	0.004	ug/l	48.7	9	0.09	
Cd	111	103	No Gas	0.007	ug/l	41.9	56	0.09	
Sb	123	103	No Gas	0.118	ug/l	7.4	2028	0.45	
Ba	138	159	He	0.008	ug/l	30.3	274	0.45	
Hg	201	159	No Gas	2.647	ng/l	3.6	21	36	
Tl	205	159	No Gas	0.013	ug/l	1.1	981	0.09	
Pb	208	159	No Gas	0.005	ug/l	17.6	2451	0.09	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	996245	1.0	1045075.28	95.33	70	120	
Ge	74	No Gas	832056	0.7	923748.77	90.07	70	120	
Rh	103	No Gas	903832	1.1	994218.29	90.91	70	120	
Tb	159	No Gas	2232734	2.0	2337217.8	95.53	70	120	
Bi	209	No Gas	1316529	0.7	1347700.19	97.69	70	120	
Sc	45	He	122953	7.9	138692.66	88.65	70	120	
Ge	74	He	112677	8.0	127728.2	88.22	70	120	
Rh	103	He	427267	8.3	482080.38	88.63	70	120	
Tb	159	He	895256	8.0	987185.44	90.69	70	120	
Ge	74	HEHe	144334	2.1	159522.83	90.48	70	120	

CRL Verification ICPMS6

Sample Name	**9J10037-CRL4**	**Sample Type**	CRL1
File Name	111CRL.d	**Vial #**	2101
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/11/2019 03:08:10	**Sample QC Pass/Fail**	Fail
Comment	A19J030 - JPB 10/10	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	%QC Low	%QC High	Flag
Be	9	6	No Gas	0.189	ug/l	1.9	926	105	70	130	
Na	23	45	He	7.631	ug/l	4.7	11417	84.79	70	130	
Mg	24	45	He	9.181	ug/l	2.9	4910	102.01	70	130	
Al	27	45	He	10.189	ug/l	11.6	2039	113.21	70	130	
K	39	45	He	10.695	ug/l	21.1	16172	118.83	70	130	
Ca	44	45	He	10.184	ug/l	15.2	253	113.16	70	130	
Ti	47	45	He	0.179	ug/l	78.6	20	99.44	70	130	
V	51	74	He	0.192	ug/l	5.9	977	106.67	70	130	
Cr	52	74	He	0.219	ug/l	8.4	1497	121.67	70	130	
Mn	55	74	He	0.218	ug/l	3.9	683	121.11	70	130	
Fe	56	74	He	9.379	ug/l	4.8	44833	104.21	70	130	
Fe	56	74	HEHe	10.274	ug/l	4.3	58982	114.16	70	130	
Co	59	74	He	0.178	ug/l	9.4	1272	98.89	70	130	
Ni	60	74	He	0.112	ug/l	16.4	400	62.22	70	130	CRL1 Failed
Cu	65	74	He	0.175	ug/l	17.9	638	97.22	70	130	
Cu	65	74	No Gas	0.168	ug/l	10.7	1671	93.33	70	130	
Zn	66	74	He	0.180	ug/l	23.8	214	100	70	130	
As	75	74	He	0.190	ug/l	3.5	110	105.56	70	130	
Se	78	74	HEHe	0.168	ug/l	15.1	21	93.33	70	130	
Mo	95	103	He	0.186	ug/l	8.3	632	103.33	70	130	
Ag	109	103	No Gas	0.175	ug/l	2.8	3619	97.22	70	130	
Cd	111	103	He	0.179	ug/l	6.1	299	99.44	70	130	
Cd	111	103	No Gas	0.176	ug/l	3.0	951	97.78	70	130	
Sb	123	103	No Gas	0.199	ug/l	3.2	3255	110.56	70	130	
Ba	138	159	He	0.199	ug/l	3.5	2098	110.56	70	130	
Hg	201	159	No Gas	8.751	ng/l	20.8	42	121.54	70	130	
Tl	205	159	No Gas	0.176	ug/l	3.5	10533	97.78	70	130	
Pb	208	159	No Gas	0.173	ug/l	4.1	16140	96.11	70	130	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	978001	2.9	1045075.28	93.58	70	120	
Ge	74	No Gas	839589	1.5	923748.77	90.89	70	120	
Rh	103	No Gas	910805	1.6	994218.29	91.61	70	120	
Tb	159	No Gas	2263233	3.4	2337217.8	96.83	70	120	
Bi	209	No Gas	1305595	1.1	1347700.19	96.88	70	120	
Sc	45	He	127246	2.4	138692.66	91.75	70	120	
Ge	74	He	116029	2.6	127728.2	90.84	70	120	
Rh	103	He	441004	2.5	482080.38	91.48	70	120	
Tb	159	He	914292	2.6	987185.44	92.62	70	120	
Ge	74	HEHe	142928	1.4	159522.83	89.6	70	120	

CRL Verification ICPMS6

Sample Name	**9J10037-CRL5**	**Sample Type**	CRL2
File Name	112_CRL.d	**Vial #**	2102
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/11/2019 03:12:47	**Sample QC Pass/Fail**	Pass
Comment	A19J031 - JPB 10/10	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	%QC Low	%QC High	Flag
Be	9	6	No Gas	0.876	ug/l	6.0	4210	97.33	70	130	
Na	23	45	He	43.773	ug/l	2.4	45378	97.27	70	130	
Mg	24	45	He	46.912	ug/l	0.9	23149	104.25	70	130	
Al	27	45	He	44.924	ug/l	1.2	8820	99.83	70	130	
K	39	45	He	46.416	ug/l	4.3	28814	103.15	70	130	
Ca	44	45	He	45.502	ug/l	9.0	923	101.12	70	130	
Ti	47	45	He	0.771	ug/l	10.3	90	85.67	70	130	
V	51	74	He	0.882	ug/l	3.5	3599	98	70	130	
Cr	52	74	He	0.915	ug/l	1.6	4873	101.67	70	130	
Mn	55	74	He	0.874	ug/l	5.1	2585	97.11	70	130	
Fe	56	74	He	44.661	ug/l	0.6	193492	99.25	70	130	
Fe	56	74	HEHe	45.405	ug/l	4.1	235741	100.9	70	130	
Co	59	74	He	0.896	ug/l	1.1	6564	99.56	70	130	
Ni	60	74	He	0.844	ug/l	6.2	1786	93.78	70	130	
Cu	65	74	He	0.908	ug/l	4.4	2551	100.89	70	130	
Cu	65	74	No Gas	0.890	ug/l	3.8	6160	98.89	70	130	
Zn	66	74	He	0.974	ug/l	8.9	901	108.22	70	130	
As	75	74	He	0.884	ug/l	3.5	495	98.22	70	130	
Se	78	74	HEHe	0.918	ug/l	2.2	105	102	70	130	
Mo	95	103	He	0.914	ug/l	3.8	2935	101.56	70	130	
Ag	109	103	No Gas	0.891	ug/l	1.3	18434	99	70	130	
Cd	111	103	He	0.869	ug/l	1.4	1483	96.56	70	130	
Cd	111	103	No Gas	0.877	ug/l	2.9	4693	97.44	70	130	
Sb	123	103	No Gas	0.894	ug/l	0.4	13732	99.33	70	130	
Ba	138	159	He	0.926	ug/l	1.7	9291	102.89	70	130	
Hg	201	159	No Gas	35.209	ng/l	1.4	137	97.8	70	130	
Tl	205	159	No Gas	0.823	ug/l	0.9	50215	91.44	70	130	
Pb	208	159	No Gas	0.828	ug/l	0.7	71572	92	70	130	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	987995	1.2	1045075.28	94.54	70	120	
Ge	74	No Gas	847558	0.8	923748.77	91.75	70	120	
Rh	103	No Gas	916235	0.6	994218.29	92.16	70	120	
Tb	159	No Gas	2339738	0.5	2337217.8	100.11	70	120	
Bi	209	No Gas	1309289	1.1	1347700.19	97.15	70	120	
Sc	45	He	130953	1.3	138692.66	94.42	70	120	
Ge	74	He	120551	1.1	127728.2	94.38	70	120	
Rh	103	He	451837	0.4	482080.38	93.73	70	120	
Tb	159	He	940788	2.2	987185.44	95.3	70	120	
Ge	74	HEHe	145335	2.8	159522.83	91.11	70	120	

CRL Verification ICPMS6

Sample Name	**9J10037-CRL6**	**Sample Type**	CRL3
File Name	113CRL_.d	**Vial #**	2103
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/11/2019 03:17:22	**Sample QC Pass/Fail**	Pass
Comment	A19J032 - JPB 10/10	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	%QC Low	%QC High	Flag
Be	9	6	No Gas	1.708	ug/l	2.9	8458	94.89	70	130	
Na	23	45	He	87.609	ug/l	1.1	86552	97.34	70	130	
Mg	24	45	He	92.326	ug/l	0.8	45126	102.58	70	130	
Al	27	45	He	91.428	ug/l	1.4	17901	101.59	70	130	
K	39	45	He	90.227	ug/l	2.2	43927	100.25	70	130	
Ca	44	45	He	90.396	ug/l	3.0	1773	100.44	70	130	
Ti	47	45	He	1.897	ug/l	6.0	222	105.39	70	130	
V	51	74	He	1.795	ug/l	0.3	6946	99.72	70	130	
Cr	52	74	He	1.803	ug/l	4.4	9001	100.17	70	130	
Mn	55	74	He	1.717	ug/l	1.0	4943	95.39	70	130	
Fe	56	74	He	89.686	ug/l	1.6	376872	99.65	70	130	
Fe	56	74	HEHe	88.857	ug/l	1.4	455206	98.73	70	130	
Co	59	74	He	1.810	ug/l	0.5	13090	100.56	70	130	
Ni	60	74	He	1.800	ug/l	3.5	3538	100	70	130	
Cu	65	74	He	1.769	ug/l	1.5	4723	98.28	70	130	
Cu	65	74	No Gas	1.798	ug/l	3.0	11835	99.89	70	130	
Zn	66	74	He	1.960	ug/l	6.6	1727	108.89	70	130	
As	75	74	He	1.781	ug/l	1.0	975	98.94	70	130	
Se	78	74	HEHe	1.720	ug/l	3.3	196	95.56	70	130	
Mo	95	103	He	1.804	ug/l	2.2	5762	100.22	70	130	
Ag	109	103	No Gas	1.765	ug/l	0.9	36425	98.06	70	130	
Cd	111	103	He	1.722	ug/l	3.3	2956	95.67	70	130	
Cd	111	103	No Gas	1.732	ug/l	0.7	9236	96.22	70	130	
Sb	123	103	No Gas	1.739	ug/l	1.7	26398	96.61	70	130	
Ba	138	159	He	1.874	ug/l	1.8	18562	104.11	70	130	
Hg	201	159	No Gas	69.180	ng/l	7.5	250	96.08	70	130	
Tl	205	159	No Gas	1.695	ug/l	2.7	100343	94.17	70	130	
Pb	208	159	No Gas	1.718	ug/l	2.2	142280	95.44	70	130	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	1022493	1.4	1045075.28	97.84	70	120	
Ge	74	No Gas	850820	0.2	923748.77	92.11	70	120	
Rh	103	No Gas	915135	0.7	994218.29	92.05	70	120	
Tb	159	No Gas	2276739	1.6	2337217.8	97.41	70	120	
Bi	209	No Gas	1337718	0.9	1347700.19	99.26	70	120	
Sc	45	He	131521	0.1	138692.66	94.83	70	120	
Ge	74	He	119281	1.2	127728.2	93.39	70	120	
Rh	103	He	454538	0.9	482080.38	94.29	70	120	
Tb	159	He	939200	0.3	987185.44	95.14	70	120	
Ge	74	HEHe	145893	1.1	159522.83	91.46	70	120	

CRL Verification ICPMS6

Sample Name	**9J10037-CRL7**	**Sample Type**	CRL4
File Name	114CRL4.d	**Vial #**	2104
Data Path Name	D:\Agilent\ICPMH\1\DATA\9J10037A.b	**Total Dilution**	1.0000
Acq Time	10/11/2019 03:21:57	**Sample QC Pass/Fail**	Pass
Comment	A19J033 - JPB 10/10	**ISTD Ref File**	003CALB.d

QC Analyte Table

Name	Mass	ISTD	Tune	Conc.	Units	RSD	CPS	% Rec	%QC Low	%QC High	Flag
Be	9	6	No Gas	3.545	ug/l	2.2	17096	98.47	70	130	
Na	23	45	He	182.199	ug/l	1.8	172793	101.22	70	130	
Mg	24	45	He	188.832	ug/l	1.8	90478	104.91	70	130	
Al	27	45	He	186.788	ug/l	3.5	35985	103.77	70	130	
K	39	45	He	187.115	ug/l	3.6	76099	103.95	70	130	
Ca	44	45	He	181.411	ug/l	2.7	3445	100.78	70	130	
Ti	47	45	He	3.853	ug/l	5.6	446	107.03	70	130	
V	51	74	He	3.507	ug/l	2.1	13418	97.42	70	130	
Cr	52	74	He	3.565	ug/l	1.4	17472	99.03	70	130	
Mn	55	74	He	3.535	ug/l	4.0	10179	98.19	70	130	
Fe	56	74	He	178.174	ug/l	0.8	748508	98.99	70	130	
Fe	56	74	HEHe	181.056	ug/l	1.2	907194	100.59	70	130	
Co	59	74	He	3.585	ug/l	3.1	26149	99.58	70	130	
Ni	60	74	He	3.652	ug/l	0.8	7039	101.44	70	130	
Cu	65	74	He	3.709	ug/l	2.7	9762	103.03	70	130	
Cu	65	74	No Gas	3.665	ug/l	1.9	23449	101.81	70	130	
Zn	66	74	He	3.585	ug/l	3.3	3133	99.58	70	130	
As	75	74	He	3.522	ug/l	2.7	1937	97.83	70	130	
Se	78	74	HEHe	3.552	ug/l	2.2	396	98.67	70	130	
Mo	95	103	He	3.654	ug/l	5.1	11472	101.5	70	130	
Ag	109	103	No Gas	3.586	ug/l	2.5	74120	99.61	70	130	
Cd	111	103	He	3.612	ug/l	2.9	6124	100.33	70	130	
Cd	111	103	No Gas	3.514	ug/l	0.8	18762	97.61	70	130	
Sb	123	103	No Gas	3.499	ug/l	1.2	52937	97.19	70	130	
Ba	138	159	He	3.742	ug/l	1.2	36552	103.94	70	130	
Hg	201	159	No Gas	134.036	ng/l	2.8	485	93.08	70	130	
Tl	205	159	No Gas	3.309	ug/l	1.7	200896	91.92	70	130	
Pb	208	159	No Gas	3.330	ug/l	1.0	280955	92.5	70	130	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li	6	No Gas	997747	0.5	1045075.28	95.47	70	120	
Ge	74	No Gas	850983	1.0	923748.77	92.12	70	120	
Rh	103	No Gas	916864	0.9	994218.29	92.22	70	120	
Tb	159	No Gas	2336397	1.3	2337217.8	99.96	70	120	
Bi	209	No Gas	1337329	1.3	1347700.19	99.23	70	120	
Sc	45	He	129915	1.4	138692.66	93.67	70	120	
Ge	74	He	120432	1.7	127728.2	94.29	70	120	
Rh	103	He	449385	0.7	482080.38	93.22	70	120	
Tb	159	He	931481	1.1	987185.44	94.36	70	120	
Ge	74	HEHe	144084	1.6	159522.83	90.32	70	120	

APEX LABORATORIES, LLC
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Metals IFA/IFB Metals Internal Standards Recovery Summary

A19I356 IFA
A19I357 IFB
A19J158 IFA
A19J159 IFB
A9J0058 (I.S Tables)

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Analytical Standard Record

Apex Laboratories

A19I356

Description:	ICSA working std	Expires:	12/03/19
Standard Type:	Calibration Standa	Prepared:	09/26/19
Solvent:	3.5% HNO3 + 0.4% HCl	Prepared By:	Emily S. Stefansson
Final Volume (mls):	50	Department:	Metals
Vials:	1	Last Edit:	10/08/19 13:18 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
A19H277	1 W 10 ppm	08/16/19	Marshall Pattee	02/16/20	08/28/19 17:45 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
A19H400	Conc. HNO3 - Omnitrace	08/23/19	Kevin Taucher	08/23/21	08/29/19 11:39 by jsj	1.75

Reviewed By Date

Analytical Standard Record

Apex Laboratories

A19I357

Description:	ICSA+B working std	Expires:	10/12/19
Standard Type:	Calibration Standa	Prepared:	09/26/19
Solvent:	3.5% HNO3 + 0.4% HCl	Prepared By:	Emily S. Stefansson
Final Volume (mls):	50	Department:	Metals
Vials:	1	Last Edit:	10/08/19 13:18 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

A19I357

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
A19D217	Hg Stock 1.00ppm Std Primary	04/15/19	Emily S. Stefansson	10/12/19	08/14/19 13:25 by jsj	0.1
A19H277	1 W 10 ppm	08/16/19	Marshall Pattee	02/16/20	08/28/19 17:45 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
A19H400	Conc. HNO3 - Omnitrace	08/23/19	Kevin Taucher	08/23/21	08/29/19 11:39 by jsj	1.75

Reviewed By Date

Analytical Standard Record

Apex Laboratories

A19J158

Description:	ICSA working std	Expires:	12/03/19
Standard Type:	Calibration Standa	Prepared:	10/09/19
Solvent:	3.5% HNO3 + 0.4% HCl	Prepared By:	John P. Beck
Final Volume (mls):	50	Department:	Metals
Vials:	1	Last Edit:	10/28/19 12:22 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
A19H277	1 W 10 ppm	08/16/19	Marshall Pattee	02/16/20	08/28/19 17:45 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
A19H400	Conc. HNO3 - Omnitrace	08/23/19	Kevin Taucher	08/23/21	08/29/19 11:39 by jsj	1.75

Reviewed By Date

APEX LABORATORIES

Analytical Standard Record

Apex Laboratories

A19J159

Description:	ICSA+B working std	Expires:	12/03/19
Standard Type:	Calibration Standa	Prepared:	10/09/19
Solvent:	3.5% HNO3 + 0.4% HCl	Prepared By:	John P. Beck
Final Volume (mls):	50	Department:	Metals
Vials:	1	Last Edit:	10/28/19 12:23 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

A19J159

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
A19H277	1 W 10 ppm	08/16/19	Marshall Pattee	02/16/20	08/28/19 17:45 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
A19H400	Conc. HNO3 - Omnitrace	08/23/19	Kevin Taucher	08/23/21	08/29/19 11:39 by jsj	1.75
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

Reviewed By Date

		6 Li (ISTD) [NoGas]	45 Sc (ISTD) [H2]	45 Sc (ISTD) [He]	45 Sc (ISTD) [NoGas]	74 Ge (ISTD) [H2]	74 Ge (ISTD) [He]	74 Ge (ISTD) [NoGas]	103 Rh (ISTD) [He]	103 Rh (ISTD) [NoGas]	159 Tb (ISTD) [He]	159 Tb (ISTD) [NoGas]	209 Bi (ISTD) [He]	209 Bi (ISTD) [NoGas]
Acq. Date-Time	Sample Name	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value	QC Measured Value
10/7/2019 6:03 PM	Rinse													
10/7/2019 6:08 PM	Rinse													
10/7/2019 6:12 PM	9J07068-CAL0	100	100	100	100	100	100	100	100	100	100	100	100	100
10/7/2019 6:17 PM	9J07068-CAL1	99.77063042	99.01193869	98.68844197	100.5223275	99.05533484	98.59493791	99.62141478	98.97144405	99.26812562	99.67449309	99.05331446	99.47382446	100.1214486
10/7/2019 6:22 PM	9J07068-CAL2	100.9179588	100.1656912	99.9030634	101.9694946	100.0422376	99.13486014	100.966169	99.44927847	100.4110979	100.4052441	100.1837878	100.2846507	101.1566663
10/7/2019 6:27 PM	9J07068-CAL3	100.0133621	98.78502017	98.63613539	99.35434062	99.11837227	98.79671512	99.46894012	98.88342295	99.73429651	99.65320355	99.38309431	100.1037175	100.9163474
10/7/2019 6:32 PM	9J07068-CAL4	100.4978027	98.45036308	99.56521554	100.2397078	98.75698248	98.66639867	99.76904597	99.54004037	99.86468203	99.79216977	100.7407601	100.4805775	101.6253345
10/7/2019 6:37 PM	9J07068-CAL5	101.5897329	98.72972205	99.15943613	100.2242643	98.92543435	99.19880315	100.6158171	98.78982591	100.1333094	100.5213557	100.3126372	100.9391789	101.8998635
10/7/2019 6:42 PM	9J07068-CAL6	104.2948095	100.7121839	101.2783486	104.6910486	99.9849047	100.1246403	103.9003161	99.36820946	101.5624481	101.5730131	103.4848952	100.8998958	102.737257
10/7/2019 6:47 PM	9J07068-CAL7	104.187351	101.3463097	101.42645	104.7322562	100.4330165	101.399333	102.8504121	99.20557216	100.6039438	101.7021322	103.8577003	99.4309913	100.5841437
10/7/2019 6:52 PM	9J07068-CAL8	106.4753004	102.4749507	101.7600449	102.6918645	100.4876408	101.1043084	100.8139535	97.48141392	98.15116465	100.5777159	101.5252538	97.23540943	96.86796517
10/7/2019 6:57 PM	9J07068-CAL9	117.1012491	102.9669268	107.2537909	116.4644422	97.43699192	102.3711791	108.1969863	94.52815211	100.6163368	99.46383714	106.4554766	90.34618261	93.50596956
10/7/2019 7:01 PM	9J07068-ICV1	111.1716637	108.8499585	107.4773372	112.1896366	106.7024719	105.8298482	108.9121359	103.2497014	105.3172656	102.6890509	105.4497503	100.0694627	101.6949741
10/7/2019 7:06 PM	9J07068-ICB1	110.8182177	108.040716	102.8373798	109.9200624	106.6319962	101.4595593	108.1080914	100.8205108	107.2546372	98.70256939	106.9624042	98.22148953	103.7285256
10/7/2019 7:11 PM	9J07068-CRL1	111.7691181	110.0912638	109.1534897	112.6189028	108.889204	107.4776359	110.383284	106.4073689	108.3855588	104.3940407	107.389105	103.1409563	104.9451091
10/7/2019 7:15 PM	9J07068-CRL2	111.3023452	108.3787385	108.0439669	111.4320763	107.2309428	106.279026	109.5630384	105.6442426	107.8819091	104.1088274	107.7458194	102.7701486	105.5767719
10/7/2019 7:20 PM	9J07068-CRL3	112.1035256	109.7701628	108.9607836	112.4782471	108.1570201	106.4973893	109.8523537	106.611396	108.5599977	104.7662338	108.4618153	103.8361045	106.5655568
10/7/2019 7:24 PM	9J07068-CRL4	112.9091544	110.3247622	109.8180308	113.492232	109.2992097	108.0295999	111.4578559	107.44272	109.4423421	105.4386234	110.1920106	104.486126	106.5618985
10/7/2019 7:29 PM	9J07068-IFA1	123.1857102	106.3115183	109.529664	117.2939717	95.70237533	100.2327077	106.6356392	87.06726464	94.58404637	95.3224322	99.84361397	80.68012379	85.91448506
10/7/2019 7:34 PM	9J07068-IFB1	122.0203948	105.940643	108.5664073	116.3698194	95.13845454	98.79282122	105.5400214	85.71500954	93.37065358	93.7015709	98.17162211	78.69487681	83.54058561
10/7/2019 7:38 PM	9100588-MS5	107.2736568	105.1860777	105.0075735	112.2470548	100.0938224	102.2879757	106.4377509	100.0395945	103.5487936	100.5700053	103.070156	96.68048786	98.38233297
10/7/2019 7:43 PM	A9J0027-02RE1	104.5597647	104.5223406	103.6574366	106.3808012	102.3097587	101.2509728	102.7343537	101.4566169	102.6337348	100.9952263	102.1570024	99.11046071	100.0327486
10/7/2019 7:47 PM	A9J0027-07RE1	103.9673082	102.4682597	102.7546311	105.6254721	100.7608044	100.8874841	101.7450507	99.8124431	100.1686515	100.3651333	99.13638044	97.81614525	98.12975501
10/7/2019 7:52 PM	A9J0056-01RE1	141.5723082	129.818852	134.8295927	142.1412346	115.174836	123.3437	130.0035194	112.5859071	120.3803237	112.793119	120.440705	97.43167451	101.9436696
10/7/2019 7:57 PM	A9J0091-01RE1	123.871774	121.2976809	118.0998018	120.5019369	117.3796333	112.4164111	115.0713022	112.3492862	112.9883072	108.3423345	111.2860242	105.3727408	106.1774622
10/7/2019 8:01 PM	9100531-BLK1	120.2020784	113.1339955	113.3384605	117.8285974	109.0703369	108.2014426	111.1689729	109.2391526	110.3421208	106.066061	108.9195942	102.2397036	104.774882
10/7/2019 8:06 PM	9100531-BS1	112.098613	107.9484704	106.2372878	110.6241606	103.3406153	101.4160788	103.7129976	101.2847681	101.8797043	101.9100877	104.6670277	98.84418035	99.88225171
10/7/2019 8:11 PM	A9I0885-01	119.4582719	119.8988196	121.4682036	129.7607018	108.389944	110.3111816	115.8474624	109.0794154	112.7155722	108.6803359	114.8482378	100.5411791	104.2431432
10/7/2019 8:15 PM	A9I0885-02	123.0168639	131.6962408	128.1827793	136.6809603	116.2365754	115.9949374	121.739606	113.8845008	118.344207	113.0933646	119.8842648	102.1587217	107.3256343
10/7/2019 8:20 PM	A9I0885-04	123.2502705	137.504856	130.1263722	136.9243436	119.1057448	117.744887	122.9531711	115.9491221	119.1239587	112.723888	118.7932745	102.685107	107.0434105
10/7/2019 8:24 PM	9J07068-CCV1	119.2280463	132.8883131	121.351193	125.4161771	123.925469	116.771862	119.2127912	114.5386918	113.9017047	109.4195924	113.1845055	104.1622816	105.6520108
10/7/2019 8:29 PM	9J07068-CCV2	116.9051744	124.2817815	118.3456301	123.1569428	119.641806	114.4910759	116.3777598	111.7546176	111.6600988	106.7015461	111.2069785	102.1895469	104.3872123
10/7/2019 8:34 PM	9J07068-CCB1	118.3804581	121.68631	118.6442388	123.7713123	117.7682844	114.5548476	118.5450144	114.0199514	115.8779248	107.1514604	111.455733	104.0152266	106.7622846
10/7/2019 8:38 PM	9J07068-CCB2	120.2701174	116.9752679	120.4561553	126.0521141	114.1647105	117.1956176	120.6878321	115.4664072	117.9719743	108.6102212	114.8053159	104.4869577	108.056703
10/7/2019 8:43 PM	A9I0885-05	123.0344233	137.7423674	131.6504695	139.1892188	117.4777179	117.1348804	121.5468444	114.4432669	117.5776015	111.0937529	117.9562301	103.1791861	107.0628168
10/7/2019 8:47 PM	A9I0885-06	125.093575	140.9905432	131.4063773	138.3017555	122.5189462	119.8985275	124.5817467	117.7540293	120.936478	112.924426	119.2816609	103.3713504	107.7005946
10/7/2019 8:52 PM	A9I0885-07	123.217736	141.519986	130.1145651	137.3061895	122.3044069	117.8493022	121.9313031	115.6105713	118.4199653	111.4604907	120.0328617	101.4871381	105.3577128
10/7/2019 8:57 PM	A9I0922-01	122.9277911	138.5608376	128.8976677	136.8146078	120.2067549	117.1866132	120.9080568	115.0423393	117.8333782	111.2531498	118.8532458	101.318853	104.9515589
10/7/2019 9:01 PM	A9I0922-02	122.0878458	134.1133215	128.4553349	136.3422785	121.1736719	117.8833658	122.6807718	116.4285774	119.8632882	110.9823511	116.5792168	103.0716104	106.934081
10/7/2019 9:06 PM	A9I0922-03	120.9551937	139.0898921	129.1219461	136.8760088	121.6671218	118.1910972	121.5082666	115.6458467	118.0531355	111.5802738	118.9926604	101.7513776	105.1641262
10/7/2019 9:10 PM	A9I0922-04	123.0664483	136.3673384	129.36491	136.9570191	121.8277288	119.8163229	124.0627333	117.3246891	120.660403	112.1498589	118.8013547	103.6878321	107.0907719
10/7/2019 9:15 PM	A9I0922-05	121.340313	139.1884489	130.0540169	136.0025749	122.095244	118.419429	122.0396657	116.2133716	118.605567	111.1384921	118.2583145	101.8625928	106.3864128
10/7/2019 9:19 PM	A9I0922-07	116.4090018	135.9480565	125.6476689	129.6299808	118.3091005	113.7477069	115.9189601	111.8143301	113.798517	109.0892485	116.413248	99.48823349	102.8439223
10/7/2019 9:24 PM	A9I0922-08	112.9475889	127.0592574	120.1905327	126.4726576	113.8516713	110.4119729	113.3421244	108.8006045	110.5165122	106.3912482	112.1602029	98.11488127	100.3807162
10/7/2019 9:29 PM	9J07068-CCV3	117.9120678	129.6653348	120.1634579	124.976738	121.1021381	116.3952948	118.5515539	113.1838723	113.4570407	107.8023034	112.9273527	102.5544627	104.130559
10/7/2019 9:33 PM	9J07068-CCB3	122.279042	123.367142	120.5489361	128.1366329	120.5991948	116.9580404	121.8893207	116.1564339	119.8279725	108.2554583	114.884714	103.8188266	107.411534
10/7/2019 9:38 PM	A9I0922-09	116.2124338	124.1378608	119.9554511	128.2381131	112.7478986	110.5650256	114.6212974	108.728894	112.0671499	106.3710597	112.6417154	97.64865994	101.7797368
10/7/2019 9:43 PM	9100531-MS1	113.1420036	130.8860347	117.8287067	123.1577064	114.3442074	108.6335203	110.0356647	106.5244443	106.8748572	105.0277976	110.7675836	96.45319424	98.31369032
10/7/2019 9:47 PM	9100531-MSD1	111.8523865	119.7622935	115.7342163	121.0045848	108.8099938	106.5740913	108.4984569	104.2168477	105.4182815	103.6600219	108.6949156	94.92884945	97.37963045
10/7/2019 9:52 PM	A9I0922-10	112.4677843	119.3545473	116.7258546	122.6114304	108.5316766	106.408181	109.6553912	105.0707491	107.4661856	103.8222221	110.6538793	95.39500239	97.92558348
10/7/2019 9:56 PM	A9I0922-11	111.9228357	118.8527013	116.5603883	122.6095611	109.291147	107.1644252	110.3898744	105.3108267	107.8605406	103.0933701	110.1026443	95.61495425	98.20036491
10/7/2019 10:01 PM	A9I0922-12	112.5573642	119.9387299	116.3057416	122.3811907	109.6304563	107.2101328	110.0628276	105.3989058	107.8355629	103.2278315	110.5153532	94.61122146	98.09779505
10/7/2019 10:05 PM	A9I0922-13	110.2061996	117.986625	114.1752647	121.6146153	107.5142444	104.9569874	108.1542936	103.5258416	106.2458108	101.7806294	107.8728659	93.5649537	96.28233979
10/7/2019 10:10 PM	A9I0922-14	111.8304445	116.5606035	114.3352508	122.5358372	107.3936505	105.9587418	109.3670604	103.9446289	107.5467536	102.3272606	110.758852	93.91494526	97.10823189
10/7/2019 10:15 PM	A9I0922-15	108.9341052	116.4648954	113.8461304	120.2234235	106.4866936	104.4169228	106.6556981	102.1912941	104.5002111	101.1666915	108.4764577	93.54886858	95.02355289
10/7/2019 10:19 PM	9100666-BLK1	112.3221875	112.3346694	112.1380445	117.9176383	109.2575945	107.7807271	111.9742128	108.7908018	111.2552259	101.9017376	110.4320012	96.74568553	99.60948097
10/7/2019 10:24 PM	9100666-CCV4	114.7128867	119.3403574	114.2826024	119.1280106	115.744834	110.996626	112.7933484	107.2387407	108.4104139	102.687523	109.0984176	98.02211667	98.90444496
10/7/2019 10:28 PM	9J07068-CCB4	116.8742359	114.8574414	113.6095342	120.161795	112.6754133	110.6972556	114.976804	108.7437599	113.4383758	102.3468556	110.1998767	98.33728525	100.986445
10/7/2019 10:33 PM	9100666-BS1	112.8975463	112.7941469	110.2115079	117.4663905	108.231726	106.0529127	109.5138432	104.3618108	107.5057738	100.7914913	108.4482689	95.52497826	97.98766256
10/7/2019 10:38 PM	A9I0922-16	108.3547598	114.7818752	113.0976386	119.718861	103.6810146	102.3374	104.9794788	99.88399004	102.2660269	98.76970463	105.520621	91.57301425	93.13462413
10/7/2019 10:42 PM	A9I0922-17	103.1041783	111.9495051	108.2953647	113.8131527	99.38136771	97.72372345	99.40112434	95.4765086	97.36055484	96.46816453	98.43489766	88.73508906	90.19352882
10/7/2019 10:47 PM	A9I0922-18	103.4206083	108.1569292	107.1157859	113.0417249	98.23533124	97.78394678	100.4975339	96.24514729	98.79745352	96.8370951	100.7582276	89.31743349	90.93134107
10/7/2019 10:51 PM	A9I0922-19	100.6384169	107.301986	105.9194577	110.9585868	96.03103541	94.60244149	97.13215751	93.2785615	95.12803156	94.72194025	95.39225205	87.06017391	88.08800848
10/7/2019 10:56 PM	A9I0922-20	98.72366634	102.6374736	102.1415557	107.2852378	93.36805026	93.23100167	95.35584134	91.89480784	93.78455419	93.79636286	94.13297665	87.23116095	87.97637774
10/7/2019 11:01 PM	A9I0922-21	97.26107637	101.0226291	100.9781689	105.9875864	91.34705378	91.68863096	92.80375109	89.87470566	91.85246658	92.54222765	92.90994497	86.16385277	86.93899854
10/7/2019 11:05 PM	A9I0936-20	95.8583124	98.8347355	100.3118761	104.3435589	89.34164435	90.37033905	91.75037484	88.73802425	90.81850914	92.3445252	92.29233553	86.18575859	86.80853537
10/7/2019 11:10 PM	A9I0936-21	94.93244527	98.57002366	100.4876969	104.9029026	87.80881338	89.74896626	91.63307217	88.37927666	90.41936548	92.13568917	91.95865141	86.37925877	86.54861526
10/7/2019 11:14 PM	A9I0936-22	92.80523929	95.53741402	98.31121902	102.9855331	86.11140456	88.61768223	89.93797581	86.77938555	88.92360002	90.59979695	91.00340302	85.17587317	85.54142916
10/7/2019 11:19 PM	9J07068-CCV5	97.59136249	96.53303587	95.85673851	97.77391213	96.43233664	95.38150321	95.93298095	93.1711097	94.36133993	93.27906926	91.82306764	90.46989276	88.88257482
10/7/2019 11:24 PM	9J07068-CCB5	94.44773914	89.86545879	90.72905696	96.69898755	90.65977632	91.96178182	94.49232285	92.06296346	94.25929789	90.3530284	90.43550083	88.75382054	88.75784386
10/7/2019 11:28 PM	9100666-MS1	92.29247262	91.77600365	94.99742506	99.82194203	83.09375445	86.40919904	88.45181616	84.57017489	86.89913174	89.08451458	89.29083812	83.63603508	83.64830484
10/7/2019 11:33 PM	9100666-MSD1	91.37873934	92.16704396	94.08220271	99.02933057	83.6432924	85.84049795	87.65422659	84.23125022	86.56321771	89.15870674	88.9237138	83.73151717	83.209425
10/7/2019 11:38 PM	A9I0936-23	87.60051754	88.80392215	90.62874136	95.58570332	80.4725742	83.08136904	85.17011424	82.00151073	84.21733233	86.64511645	87.37252649	81.91914488	82.13505174
10/7/2019 11:42 PM	A9J0056-04	88.28323506	87.26984554	90.31389985	95.39006167	81.25132661	84.21998007	85.88918473	83.3672745	85.14000615	87.45922598	87.76333507	82.02201067	82.23907986
10/7/2019 11:47 PM	A9J0058-05	90.1299695	88.22025032	90.91676252	96.77841876	83.38195712	86.20512207	88.73116845	84.91199368	88.37565897	88.56812408	89.626638	83.63534369	84.22516885
10/7/2019 11:51 PM	A9J0058-06	92.21007563	93.34382348	94.6136519	98.64236709	87.05697288	88.49712813	90.1984536	86.59621224	89.41865921	89.97674658	90.54629474	84.30628365	85.00634696
10/7/2019 11:56 PM	A9J0058-07	89.52615502	91.51119743	92.08220974	97.11845725	84.17834975	85.25589894	86.93541784	84.2308477	86.1039825	88.0720225	88.37454807	82.73664994	82.7942544
10/8/2019 12:01 AM	A9J0058-08	89.05547745	90.45799984	91.98031533	98.044163	82.24101533	84.35882097	86.0484913	83.31412714	85.22708356	87.99138442	87.99087665	82.12104008	82.12104008
10/8/2019 12:05 AM	A9J0058-11	90.59894524	89.38007963	91.83807096	96.03376484	83.51485459	85.87061542	88.12338911	85.198621	87.69329202	88.65537625	89.46418954	83.50451445	83.67418567
10/8/2019 12:10 AM	A9J0058-12	88.81039113	90.64427677	91.48290862	94.86122605	83.39249835	84.54984277	86.34572909	83.964582	85.82800123	88.1228965	88.4745061	82.0806955	82.27280355
10/8/2019 12:14 AM	9J07068-CCV6	92.44344289	90.62634052	89.88902714	92.71990612	90.74229224	90.29228295	90.6650391	88.00669268	89.62932849	89.70495555	88.46113725	87.9671753	86.15097567
10/8/2019 12:19 AM	9J07068-CCB6	92.27377129	86.11533149	88.32979985	91.76813563	87.07524328	89.32860506	92.16538996	89.27885103	92.65785485	88.80666607	89.18812311	87.87124274	87.5552494
10/8/2019 12:24 AM	9100666-MS2	89.3220534	86.74382433	90.17282066	96.62980921	80.17047948	83.46362171	85.90911465	82.14731957	84.73508116	86.81903271	87.53713318	81.34592499	81.26843831
10/8/2019 12:28 AM	9100666-MSD2	89.67821005	89.37179916	90.67319855	96.71651523	82.53050256	84.11443154	86.43937303	82.91030259	85.45342983	87.68972103	88.25365139	81.67772127	81.44880471
10/8/2019 12:33 AM	A9J0058-13	88.49455178	88.63434074	90.1864493	94.65536989	82.00180026	83.57805185	85.7065619	82.52169879	85.16248487	87.37780843	87.7168501	81.48188478	81.71170719
10/8/2019 12:37 AM	A9J0058-14	86.52622521	87.9988734	85.81614601	93.61261382	81.38469261	79.22653841	84.19561192	77.81896379	83.41579204	82.88958274	86.27251016	77.80142362	80.76339689
10/8/2019 12:42 AM	A9J0058-17	85.03901505	85.13666421	86.71507147	91.26772016	79.12934439	80.81552559	82.53155247	80.13051524	81.93576837	85.13132998	85.0735001	80.68429211	80.06594763
10/8/2019 12:47 AM	9J07068-CCV7	89.6365878	87.66323466	87.44562548	92.7727537	88.16156263	88.46025367	89.12073954	86.4269028	87.98151181	88.76035936	87.11886004	86.51315036	84.65964413
10/8/2019 12:51 AM	9J07068-CCB7	89.77548908	83.58486346	86.39554402	91.92515077	84.75963681	87.41836384	90.11692061	87.11757324	90.76738772	87.21048925	87.4732832	85.59305126	85.77735775
10/8/2019 12:56 AM	9J07068-CRL5	85.07857957	85.20400851	87.52765952	87.72024161	86.30151199	88.73798372	85.67565783	88.16076586	86.6825669	88.0533075	82.69631803	86.34692348	81.38065405
10/8/2019 1:01 AM	9J07068-CRL6	92.10819893	86.52962407	88.94169066	94.7685028	87.8577458	89.32785299	92.73013798	89.82143126	92.89314541	88.9670417	89.24667604	87.5965701	87.23209026
10/8/2019 1:05 AM	9J07068-CRL7	93.55560986	88.45170838	89.66309613	95.94322299	89.17317699	90.86050493	94.10022683	90.76004112	94.0721764	89.42863721	89.73194365	88.17186549	88.09421653
10/8/2019 1:10 AM	9J07068-CRL8	94.63394851	89.78046509	91.35899049	97.17684803	90.56521532	92.02317536	95.10967129	91.6914485	94.69063431	90.21986847	90.4769531	88.66751496	88.98460241
10/8/2019 1:15 AM	9100715-BLK1	93.66652144	88.14676929	90.00589986	96.122065	88.25886021	89.74928276	92.97099512	89.91398481	93.19216951	88.9250053	89.7807312	86.22290693	87.22956244
10/8/2019 1:19 AM	9100715-BS1	95.0117066	91.45110474	91.65909644	96.58051486	90.95970364	91.43156675	92.82004401	89.56974967	91.9304541	90.14594346	89.48336905	87.29508742	86.72422265
10/8/2019 1:24 AM	A9J0169-01	78.09070963	83.77330655	76.44286867	72.25895699	84.00488935	76.74680919	73.87305004	77.61811277	73.78060856	80.63666025	77.14573953	82.57462421	79.52207353
10/8/2019 1:29 AM	9100715-DUP1	74.80853834	73.79309782	72.5704275	69.67757329	73.96645539	72.82034067	71.19892042	73.48137498	71.21386815	77.99069495	74.96603425	80.42052223	78.2176831
10/8/2019 1:33 AM	9100715-MS1	74.70859903	72.72388082	71.47474309	69.51014877	73.12123391	72.35991962	70.84397505	73.03674837	70.90497002	77.52335531	75.01080537	80.37986579	78.38684003
10/8/2019 1:38 AM	A9J0169-01RE1	68.3545688	69.3939244	64.81737334	64.84252583	69.1161951	64.15172587	65.24746617	64.51712265	64.4476393	69.77424651	70.88686817	71.53968333	73.84317533
10/8/2019 1:43 AM	9100715-DUP2	67.72347301	68.40685986	67.12281652	64.1900724	67.86401431	66.53832669	64.41678095	66.8667429	63.46436561	72.44081815	70.53636065	74.25409169	73.59964711
10/8/2019 1:47 AM	9100715-MS2	68.52980762	69.78686784	68.45649925	65.19868065	69.13011619	67.88474798	65.2304896	68.50015994	64.12969245	74.13353755	71.33661849	75.81610642	74.67465456
10/8/2019 1:52 AM	9J07068-CCV8	76.2294634	75.07508223	73.41339162	73.73739106	73.69461419	72.14313013	71.97754629	71.61748641	69.87006992	77.54842745	76.68833557	78.74440428	78.46832291
10/8/2019 1:57 AM	9J07068-CCV9	82.9006755	81.95452704	80.5282803	84.93938053	80.18877021	79.68032734	79.8606119	78.67483839	77.95907319	82.88049563	82.19543614	82.84141979	82.71968416
10/8/2019 2:01 AM	9J07068-CCB8	80.25131805	82.84175196	81.01746476	81.54626497	82.01040402	80.26295471	78.49736733	81.00578157	77.93905257	82.81040169	80.47835299	83.05595948	81.77988596
10/8/2019 2:06 AM	9J07068-CRL9	77.20988121	79.87553072	77.32653719	78.07329472	79.55075236	77.12660821	74.69867433	77.75441746	74.63737829	80.85752215	78.11621239	81.65096775	79.91168866
10/8/2019 2:11 AM	9J07068-CRLA	76.15364242	78.09377304	76.3289565	73.32378343	77.47694557	75.22365245	73.02048227	76.50528432	72.9215029	79.49932998	77.18154995	81.00953908	79.60727399
10/8/2019 2:15 AM	9J07068-CRLB	71.9056392	77.79169899	75.97414371	69.07030565	77.30888285	74.6943114	68.91961034	75.79902882	68.74242523	79.48127102	72.56730695	81.49638592	75.10236552
10/8/2019 2:20 AM	9J07068-CRLC	76.3346217	77.40065467	75.69223001	72.87673743	76.92229651	75.20413068	73.00152768	76.1805974	72.00066315	79.04560239	76.69599101	81.38315904	79.82637116
10/8/2019 2:25 AM	Final rinse	70.79022647	71.96781074	71.34450583	67.74133871	70.75949937	71.0207141	69.08187873	73.03801926	68.5008838	76.79244883	74.21022781	77.79109263	76.61439691
10/8/2019 2:29 AM	Final rinse	76.26200382	79.70618025	76.63724196	72.71926173	78.45161644	75.45239369	72.49127215	77.10710039	72.21473593	80.57599801	77.37193494	82.20508503	80.2118144

		6 Li (ISTD) [No Gas]	45 Sc (ISTD) [He]	74 Ge (ISTD) [No Gas]	74 Ge (ISTD) [He]	74 Ge (ISTD) [HEHe]	103 Rh (ISTD) [No Gas]	103 Rh (ISTD) [He]	159 Tb (ISTD) [No Gas]	159 Tb (ISTD) [He]	209 Bi (ISTD) [No Gas]
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
10/10/2019 13:47	rinse										
10/10/2019 13:52	rinse										
10/10/2019 13:57	9J10037-CAL0	100	100	100	100	100	100	100	100	100	100
10/10/2019 14:01	9J10037-CAL1	102.5403925	102.9967458	98.46580674	101.7773709	98.75938397	100.4540825	101.5424286	98.05026889	101.5286915	99.21501013
10/10/2019 14:06	9J10037-CAL2	104.4098922	103.3039061	100.9128584	102.3083134	102.8485578	101.6069786	102.373991	100.2760654	101.3302933	101.1943083
10/10/2019 14:11	9J10037-CAL3	109.0940711	108.080373	104.8863777	106.4674767	105.8681274	105.8311323	107.9314049	102.1934806	105.9249446	103.3512139
10/10/2019 14:16	9J10037-CAL4	106.2605402	108.3781014	104.6416253	107.198212	94.60539465	105.3799321	107.9073198	100.4569293	105.498153	100.9162799
10/10/2019 14:21	9J10037-CAL5	111.9428989	109.5397734	106.7890802	108.138425	107.5712219	107.4076948	107.4696883	103.5971935	105.5172156	104.1811375
10/10/2019 14:26	9J10037-CAL6	109.2090895	107.088389	104.4453728	104.5765089	103.7864605	103.6627346	105.0612136	100.9438299	103.6301365	103.0583072
10/10/2019 14:30	9J10037-CAL7	105.3324417	105.8307848	100.034916	103.0193145	101.9363039	99.43886979	103.398735	97.44925543	102.5411964	99.65959171
10/10/2019 14:35	9J10037-CAL8	108.9817382	105.7794149	102.8464165	104.5108382	103.1112005	101.988777	102.1685012	101.6925283	103.3685594	103.3990899
10/10/2019 14:40	9J10037-CAL9	107.3740114	106.5811114	102.3131283	101.7035341	101.0748969	99.83304304	97.45650746	101.7456163	100.3558726	98.17592997
10/10/2019 15:21	9J10037-ICV1	115.976741	116.1711265	108.3002906	112.4518148	110.1733149	107.0991015	110.1984123	103.1308498	107.7493091	102.8701498
10/10/2019 15:25	9J10037-ICB1	112.1871214	113.3149111	106.9302462	111.3158733	109.4030657	106.427523	110.4149626	102.5533859	106.5604679	100.7370123
10/10/2019 15:30	9J10037-CRL1	115.5501312	118.241116	109.0714705	115.2976833	96.80678577	108.9518858	113.8476002	103.4319421	111.7306266	103.8470519
10/10/2019 15:35	9J10037-CRL2	112.3089309	113.6781663	107.1543196	112.1286365	108.3280796	105.8662221	110.6173038	100.2555074	106.5258615	100.2136176
10/10/2019 15:39	9J10037-CRL3	116.1077834	112.8013046	111.3535844	110.1087249	112.3425311	111.0488336	107.9616104	103.6795566	104.9158324	104.8292963
10/10/2019 15:52	9J10037-IFA1	100.0294508	97.75244063	93.06377655	93.8748269	92.36462881	87.43122985	86.71246935	90.65931842	91.80328971	89.77980982
10/10/2019 15:57	9J10037-IFB1	96.84249452	97.05707185	92.22736057	93.9536851	93.80571714	87.13620899	88.90369779	91.01454137	93.37978464	91.34910709
10/10/2019 16:33	9100841-BLK1	106.4760512	107.6436343	103.5718459	104.8116743	108.4336915	105.1464758	106.5692954	102.6923527	104.5472923	103.4048042
10/10/2019 16:37	9100841-BS1	107.7355851	108.8982971	104.4208551	105.4861509	110.7896689	105.0853902	105.4898842	101.8296718	105.4006748	101.763177
10/10/2019 16:42	A9J0058-18	109.9009751	125.8912856	106.9194331	114.1523423	116.6168192	105.9170759	113.5821029	105.4321144	112.2209803	101.3779687
10/10/2019 16:47	A9J0058-19	117.8068927	127.2721633	113.9593692	114.3244388	116.3577281	112.5676554	112.9839577	110.2576627	111.7153848	106.2022589
10/10/2019 16:51	A9J0058-20	118.8103614	132.4778431	115.4356354	117.482608	117.1025762	113.9238344	115.774289	111.597484	113.4526482	107.1466681
10/10/2019 16:56	A9J0058-21	120.2758432	129.5156471	116.9942657	118.324825	119.3268001	115.9573835	116.7569505	112.5573644	114.9412005	107.4860295
10/10/2019 17:00	9100841-DUP1	114.9220859	127.1594829	113.0000912	114.8869033	117.1379907	110.5116464	111.1824129	108.1566501	110.3010977	102.7546859
10/10/2019 17:05	9100841-MS1	120.1685842	130.1120075	118.1406984	117.9744588	116.8198276	115.7103589	115.5715859	114.2040046	114.3030403	107.7567221
10/10/2019 17:10	A9J0058-24	113.9069906	127.3061656	109.0558718	116.4307595	116.0638665	107.5766126	113.6649965	105.1181388	112.5674526	102.3151084
10/10/2019 17:14	A9J0058-25	117.5792432	129.1069978	115.4836832	116.0018333	116.3105864	114.5464807	115.3450943	112.6287998	112.7994877	105.7297166
10/10/2019 17:19	9J10037-CCV1	120.6336616	121.6736848	117.5276801	119.4100251	117.5033475	115.2793983	116.1926157	109.4908764	112.3521219	107.8518643
10/10/2019 17:23	9J10037-CCB1	115.3390395	120.7931545	117.8465195	117.7452186	117.0820468	116.681831	115.5562146	108.7826472	109.4989597	107.7690613
10/10/2019 17:28	A9J0058-26	120.6065052	133.9755218	117.0175679	117.6722198	112.6019863	114.2858725	117.0134389	112.6731684	115.6789272	107.1374699
10/10/2019 17:33	A9J0063-04	112.9673256	130.7511857	109.0374866	117.1938107	118.8760588	107.3161919	116.4728078	105.5566364	113.5327072	101.286578
10/10/2019 17:37	A9J0063-05	123.8930803	133.0760049	119.351961	120.782786	116.9619189	117.0693704	117.2381047	113.0852004	114.6533757	106.4940151
10/10/2019 17:42	A9J0063-06	123.7330688	135.2793401	120.5252634	119.8097015	117.1490913	118.6791274	118.4815287	113.7295897	115.9443548	108.174659
10/10/2019 17:46	A9J0063-13	116.8615246	134.15182	113.3541278	120.1226205	118.3811974	111.2982655	116.8660052	108.1864473	114.1541409	103.2770307
10/10/2019 17:51	A9J0063-14	122.6993445	132.7590895	120.5763953	118.4634066	117.4180322	119.3040421	115.6957731	114.7451643	113.7413072	109.7651962
10/10/2019 17:56	A9J0063-17	120.4098809	136.9256226	118.3707034	119.3463096	120.1667985	115.3015387	116.1659786	110.9817686	112.2137977	107.0965951
10/10/2019 18:00	A9J0063-18	120.614398	137.8573583	115.5425103	119.9731988	118.6455985	113.0790434	117.1595538	109.6250294	113.7464277	106.2536531
10/10/2019 18:05	A9J0063-19	122.2705466	140.6835184	118.7247422	120.7504418	121.2120913	116.0198655	119.5245489	113.0179807	115.6327421	108.9214088
10/10/2019 18:09	A9J0063-20	123.0308137	139.7928799	120.3249835	121.4216607	120.78208	118.0570489	118.5093803	113.2844627	115.5883395	109.9400665
10/10/2019 18:14	9J10037-CCV1	120.4163935	127.1977761	120.7252487	125.0371742	124.1590735	117.5226556	123.017529	109.069426	115.0074724	108.8302878
10/10/2019 18:18	9J10037-CCB1	119.0477764	124.41242	117.2320714	121.5491356	117.3823775	114.3175318	119.5806318	105.9648155	112.2410626	103.403483

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

Conventional Chemistry Parameters
Total Organic Carbon- Soil (5310 B)
Benchsheet & Analysis Sequence Data

Batch 9100674
Batch 9100676
Batch 9100677
Sequence 9J14031 (A9J0058-10,11,13,14,15,16,17,18,19,20)

Apex Laboratories

PREPARATION BENCH SHEET

NOV 0 1 2019

BATCH #: 9100674 (Sediment)

Prep Method: PSEP-5310B TOC

#	Lab Number		Analysis	Prepared	Initial (N/A)	Final (N/A)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9100674-BLK1		QC	10/03/19 15:25	5	5									
	9100674-BLK2		QC	10/03/19 15:25	5	5						Added 10/15/2019 by DAS			
	9100674-BS1		QC	10/03/19 15:25	5	5	A191352	A196019	1						
	9100674-BS2		QC	10/03/19 15:25	5	5	A191352		1			Added 10/15/2019 by DAS			
	A9J0058-01	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5		10/31/19			PDI-039SC-A-12-13-190930				
	A9J0058-01RE1	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-039SC-A-12-13-190930	Added 10/15/2019 by DAS			
	A9J0058-02	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-039SC-A-13-13.7-190930				
	A9J0058-02RE1	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-039SC-A-13-13.7-190930	Added 10/15/2019 by DAS			
	A9J0058-03	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-1039SC-A-12-13-190930				
	A9J0058-03RE1	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-1039SC-A-12-13-190930	Added 10/15/2019 by DAS			
	A9J0058-04	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-039SC-B-11.8-13.7-190930				
	A9J0058-04RE1	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-039SC-B-11.8-13.7-190930	Added 10/15/2019 by DAS			
	A9J0058-05	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-039SC-B-3.8-5.8-190930				
	A9J0058-05RE1	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-039SC-B-3.8-5.8-190930	Added 10/15/2019 by DAS			
	A9J0058-06	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-039SC-B-5.8-7.8-190930				
	A9J0058-06RE1	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-039SC-B-5.8-7.8-190930	Added 10/15/2019 by DAS			
	A9J0058-07	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-039SC-B-7.8-9.8-190930				
	A9J0058-07RE1	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-039SC-B-7.8-9.8-190930	Added 10/15/2019 by DAS			
	A9J0058-08	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-039SC-B-9.8-11.8-190930				
	A9J0058-08RE1	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-039SC-B-9.8-11.8-190930	Added 10/15/2019 by DAS			

Prepared By: 10/30/19 Date

Reviewed By: 10/31/19 Date

Printed: 10/30/2019 5:49:25PM

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100674 (Sediment)

Prep Method: PSEP-5310B TOC

#	Lab Number		Analysis	Prepared	Initial (N/A)	Final (N/A)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	A9J0058-09	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-040SC-A-09 -10-190930				
	A9J0058-09RE1	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-040SC-A-09 -10-190930	Added 10/15/2019 by DAS			
	A9J0058-12	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-040SC-B-7. 3-9.3-190930	MS/MSD			
	9100674-DUP1		QC	10/03/19 15:25	5	5		A9J0058-12							
	9100674-DUP2		QC	10/03/19 15:25	5	5		A9J0058-12				triplicate			
	A9J0058-12RE1	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-040SC-B-7. 3-9.3-190930	Added 10/15/2019 by DAS			
	9100674-DUP3		QC	10/03/19 15:25	5	5		A9J0058-12RE1							
	9100674-DUP4		QC	10/03/19 15:25	5	5		A9J0058-12RE1				triplicate			

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L221	11/30/23	Wet Chem Balance 3
A19F088	12/08/19	10% Phosphoric Acid
A19J023	11/30/23	Wet Chem Balance 4
A19J145	05/30/22	TOC Soil Blank Matrix

Analyte Spike(s)

Std ID	Exp. Date	Description
A19I352	03/24/20	TOC 10k ppm secondary

Surrogate(s)

Std ID	Exp. Date	Description

Prepared By: Date

JCS 10/31/19

Reviewed By: Date

Printed: 10/30/2019 5:49:25PM

Batch 9100674 TOC PSEP preweigh Analyst JKP

JKP 10-4-19

Date/Time:	10-3-19@1200	10-4-19@1005	10-8-19@1156		Effervesces?	Comments
T(°C) IN / OUT:	71.7 / 69.8	72.0 / 69.0	68.0 / 69.8	/		
Sample ID	Wt 1(g)	Wt 2(g)	Wt 3(g)	Wt 4(g)	(yes/no)	
A9JD058-01	6.5880	6.5929	6.5929		no	
A9JD058-02	5.2298	5.2261	5.2258		no	
A9JD058-03	4.6156	8.6227 JKP 10-4-19	4.6180		no	
A9JD058-04	4.9490	4.9520	4.9540		no	
A9JD058-05	5.6143	5.6163	4.6202		no	
A9JD058-06	5.6450	5.6453	4.6488		no	
A9JD058-07	4.7428	4.7430	4.7399		no	
A9JD058-08	4.3422	4.3463	4.3458		no	
A9JD058-09	3.7885	3.7863	3.7853		no	
A9JD058-10 JKP 10-4-19	~~5.2352~~ 5.3085	5.3035	5.3061		no	
A9JD058-12D JKP 10-4-19	4.7107	4.7082	4.7065		no	

In oven @ 1525 on 10-3-19 JKP

Apex Laboratories

PREPARATION BENCH SHEET

NOV 0 1 2019

BATCH #: 9100676 (Sediment)

Prep Method: PSEP-5310B TOC

#	Lab Number		Analysis	Prepared	Initial (N/A)	Final (N/A)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9100676-BLK1		QC	10/03/19 15:25	5	5									
	9100676-BS1		QC	10/03/19 15:25	5	5	A19I352		1						
	A9J0058-10	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5	A19I352 10/9/19	CM 10/31/19			PDI-040SC-A-10 -11.3-190930				
	A9J0058-11	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-040SC-B-5. 3-7.3-190930				
	A9J0058-13	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-040SC-B-9. 3-11.3-190930				
	A9J0058-14	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-1040SC-B-5 .3-7.3-190930				
	A9J0058-15	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-042SC-A-12 -13-190930	MS/MSD			
	9100676-DUP1		QC	10/03/19 15:25	5	5		A9J0058-15							
	9100676-DUP2		QC	10/03/19 15:25	5	5		A9J0058-15				triplicate			
	A9J0058-16	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-042SC-A-13 -13.8-190930				
	A9J0058-17	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-042SC-B-11. 9-13.8-190930				
	A9J0058-18	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-042SC-B-3. 9-5.9-190930				
	A9J0058-19	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-042SC-B-5. 9-7.9-190930				
	A9J0058-20	A	Total Organic Carbon - Soil (5310 B)	10/03/19 15:25	5	5					PDI-042SC-B-7. 9-9.9-190930				

Standards/Reagents

Reagent(s)

Std ID	Exp. Date	Description
A13L221	11/30/23	Wet Chem Balance 3
A19F088	12/08/19	10% Phosphoric Acid
A19J023	11/30/23	Wet Chem Balance 4
A19J145	05/30/22	TOC Soil Blank Matrix

Analyte Spike(s)

Std ID	Exp. Date	Description
A19I352	03/24/20	TOC 10k ppm secondary

Surrogate(s)

Std ID	Exp. Date	Description

CMM 10/30/19
Prepared By: Date

JCS 10/31/19
Reviewed By: Date

Printed: 10/30/2019 5:49:37PM

Batch 9100676 TOC PSEP preweigh Analyst JFP

Date/Time:	10-4-19@1200	10-4-19@1805	10-8-19@1156		Effervesces?	Comments
T(°C) IN / OUT:	71.7/69.8	72.0/69.0	68.0/69.8	/		
Sample ID	Wt 1(g)	Wt 2(g)	Wt 3(g)	Wt 4(g)	(yes/no)	
A9JD058-10	5.2352	5.2374	5.2326		no	
A9JD058-11	5.2853	5.2875	5.2829		no	
A9JD058-12B	4.6293	5.6307 JFP 10-11-19	5.6258		no	
A9JD058-14	5.4381	5.4407	5.4393		no	
A9JD058-15	6.1865	6.1867	6.1917		no	
A9JD058-15D	4.2928	4.2952	4.2958		no	
A9JD058-16	4.2588	4.2600	4.2589		no	
A9JD058-17	4.4705	4.4707	4.4707		no	
A9JD058-18	5.4040	5.4000	5.4043		no	
A9JD058-19	5.1620	5.1618	5.1640		no	
A9JD058-20	5.6001	5.6005	5.6023		no	

Pre-drying sample aliquot > 10g. Constant wt = change of < 0.005g

Apex Laboratories

PREPARATION BENCH SHEET

NOV 0 1 2019

BATCH #: 9100677 (Sediment)

Prep Method: PSEP-5310B TOC

#	Lab Number		Analysis	Prepared	Initial (N/A)	Final (N/A)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH <2	pH Other	pH >11
	9100677-BLK1		QC	10/04/19 12:01	5	5									
	9100677-BS1		QC	10/04/19 12:01	5	5	A191352	A196013	1						
	A9J0058-21	A	Total Organic Carbon - Soil (5310 B)	10/04/19 12:01	5	5					PDI-042SC-B-9.9-11.9-190930				
	9100677-DUP1		QC	10/04/19 12:01	5	5		A9J0058-21							
	9100677-DUP2		QC	10/04/19 12:01	5	5		A9J0058-21				triplicate			
	A9J0058-21RE1	A	Total Organic Carbon - Soil (5310 B)	10/04/19 12:01	5	5					PDI-042SC-B-9.9-11.9-190930	Added 10/15/2019 by DAS			
	9100677-DUP3		QC	10/04/19 12:01	5	5		A9J0058-21RE1							
	9100677-DUP4		QC	10/04/19 12:01	5	5		A9J0058-21RE1				triplicate			
	A9J0058-22	A	Total Organic Carbon - Soil (5310 B)	10/04/19 12:01	5	5					PDI-044SC-A-11-12-190930				
	A9J0058-22RE1	A	Total Organic Carbon - Soil (5310 B)	10/04/19 12:01	5	5					PDI-044SC-A-11-12-190930	Added 10/15/2019 by DAS			
	A9J0058-23	A	Total Organic Carbon - Soil (5310 B)	10/04/19 12:01	5	5					PDI-044SC-A-12-12.8-190930				
	A9J0058-23RE1	A	Total Organic Carbon - Soil (5310 B)	10/04/19 12:01	5	5					PDI-044SC-A-12-12.8-190930	Added 10/15/2019 by DAS			
	A9J0058-24	A	Total Organic Carbon - Soil (5310 B)	10/04/19 12:01	5	5					PDI-044SC-B-11.1-12.8-190930				
	A9J0058-24RE1	A	Total Organic Carbon - Soil (5310 B)	10/04/19 12:01	5	5					PDI-044SC-B-11.1-12.8-190930	Added 10/15/2019 by DAS			
	A9J0058-25	A	Total Organic Carbon - Soil (5310 B)	10/04/19 12:01	5	5					PDI-044SC-B-7.1-9.1-190930				
	A9J0058-25RE1	A	Total Organic Carbon - Soil (5310 B)	10/04/19 12:01	5	5					PDI-044SC-B-7.1-9.1-190930	Added 10/15/2019 by DAS			
	A9J0058-26	A	Total Organic Carbon - Soil (5310 B)	10/04/19 12:01	5	5					PDI-044SC-B-9.1-11.1-190930				
	A9J0058-26RE1	A	Total Organic Carbon - Soil (5310 B)	10/04/19 12:01	5	5					PDI-044SC-B-9.1-11.1-190930	Added 10/15/2019 by DAS			

Standards/Reagents

Prepared By: 10/30/19 Date

Reviewed By: JCS 10/31/19 Date

Printed: 10/30/2019 5:49:43PM

Apex Laboratories

PREPARATION BENCH SHEET

BATCH #: 9100677 (Sediment)

Prep Method: PSEP-5310B TOC

#	Lab Number		Analysis	Prepared	Initial (N/A)	Final (N/A)	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
A13L221	11/30/23	Wet Chem Balance 3
A19F088	12/08/19	10% Phosphoric Acid
A19J023	11/30/23	Wet Chem Balance 4
A19J145	05/30/22	TOC Soil Blank Matrix

Analyte Spike(s)

Std ID	Exp. Date	Description
A19I352	03/24/20	TOC 10k ppm secondary

Surrogate(s)

Std ID	Exp. Date	Description

Prepared By: Date

SCS 10/31/19

Reviewed By: Date

Printed: 10/30/2019 5:49:43PM

Batch 9100677 TOC PSEP preweigh Analyst JLP

Date/Time:	10-4-19 @1200	10-4-19 @1205	10-8-19 @1156		Effervesces?	Comments
T(°C) IN / OUT:	71.7/69.8	72.0/69.0	68.0/69.8	1		
Sample ID	Wt 1(g)	Wt 2(g)	Wt 3(g)	Wt 4(g)	(yes/no)	
ASJ0058-21	6.5071	6.5087	6.5043		no	
ASJ0058-20	4.9135	4.9140	4.9125		no	
ASJ0058-22	4.5883	4.5883	4.5875		no	
ASJ0058-23	5.1520	5.1515	5.1553		no	
ASJ0058-24	4.5020	4.5024	4.5045		no	
ASJ0058-25	4.7529	4.7530	4.7555		no	
ASJ0058-26	5.7085	5.7076	5.7111		no	

Pre-drying sample aliquot > 10g. Constant wt = change of < 0.005g

APEX LABORATORIES

ELEMENT SEQUENCE LOG

Apex Laboratories

NOV 0 1 2019

Sequence: **9J14031** Instrument: **TOC6**

Date: **10/14/19 09:58** Calibration: **A9J0704**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J14031-CCV1	Sediment	QC	QC				A19I352
2	9J14031-CCB1	Sediment	QC	QC				
3	A9I0936-22RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/11/19	9100609		
4	9100674-BLK1	Sediment	QC	QC		9100674		
5	9100674-BS1	Sediment	QC	QC		9100674		
6	A9J0058-01	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
7	A9J0058-02	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
8	A9J0058-03	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
9	A9J0058-04	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
10	A9J0058-05	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
11	A9J0058-06	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
12	A9J0058-07	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
13	9J14031-CCV2	Sediment	QC	QC				A19I352
14	9J14031-CCB2	Sediment	QC	QC				
15	A9J0058-08	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
16	A9J0058-09	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
17	A9J0058-12	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
18	9100674-DUP1	Sediment	QC	QC		9100674		
19	9100674-DUP2	Sediment	QC	QC		9100674		
20	9100676-BLK1	Sediment	QC	QC		9100676		
21	9100676-BS1	Sediment	QC	QC		9100676		
22	A9J0058-10	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100676		
23	A9J0058-11	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100676		
24	A9J0058-13	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100676		
25	9J14031-CCV3	Sediment	QC	QC				A19I352
26	9J14031-CCB3	Sediment	QC	QC				
27	A9J0058-14	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100676		
28	A9J0058-15	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100676		
29	9100676-DUP1	Sediment	QC	QC		9100676		
30	9100676-DUP2	Sediment	QC	QC		9100676		
31	A9J0058-16	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100676		
32	A9J0058-17	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100676		
33	A9J0058-18	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100676		
34	A9J0058-19	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100676		
35	A9J0058-20	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100676		
36	9J14031-CCV4	Sediment	QC	QC				A19I352
37	9J14031-CCB4	Sediment	QC	QC				
38	9100677-BLK1	Sediment	QC	QC		9100677		
39	9100677-BS1	Sediment	QC	QC		9100677		
40	A9J0058-21	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100677		
41	9100677-DUP1	Sediment	QC	QC		9100677		
42	9100677-DUP2	Sediment	QC	QC		9100677		
43	A9J0058-22	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100677		
44	A9J0058-23	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100677		
45	A9J0058-24	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100677		
46	A9J0058-25	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100677		
47	A9J0058-26	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100677		
48	9J14031-CCV5	Sediment	QC	QC				A19I352
49	9J14031-CCB5	Sediment	QC	QC				

Sequence:	9J14031	Instrument:	TOC6
Date:	10/14/19 09:58	Calibration:	A9J0704

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID

Data Entered By: 10/30/19 Comments:

Data Reviewed By: JCS 10/31/19

Method:	TCDirect	Run Start Time:	10/14/2019 11:34:22 AM
Method Type:	TC_DIRECT	Run End Time:	10/14/2019 10:48:56 PM
Table:	9J14031	Device ID:	TOC6
Analyst:	Administrator	Run Name:	SN10020191014A1

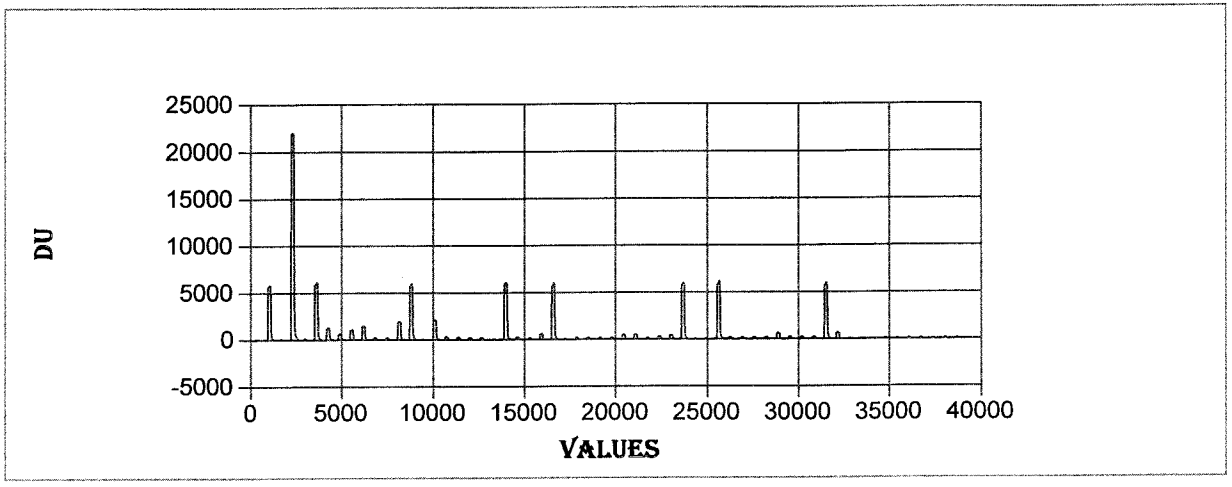
Cup Position	Sample ID	Weight (mg)	Result mg C abs	Final Result (mg/kg)	Peak Area	Analysed Date and time
A99	prime inst	1	0.002	1656.559	7464.81	10/14/2019 11:42:58 AM
A1	9J14031-CCV1	200	1.913	9563.21	1043265.39	10/14/2019 11:53:59 AM
A2	9J14031-CCB1	200	0.016	78.069	15029.98	10/14/2019 12:04:54 PM
A3	A9I0936-22RE1	140.9	7.177	50933.455	3896417.325	10/14/2019 12:15:41 PM
A4	9100674-BLK1	215.4	0.029 B-02	134.277	22244.035	10/14/2019 12:26:27 PM
A5	9100674-BS1	200	2.003 10/15/19	10017.222	1092482.55	10/14/2019 12:37:14 PM
A6	A9J0058-01	202.8	0.43	2118.278	239413.39	10/14/2019 12:48:01 PM
A7	A9J0058-02	200.4	0.198	987.318	113811.02	10/14/2019 12:58:48 PM
A8	A9J0058-03	197.8	0.361	1827.328	202479.12	10/14/2019 1:09:35 PM
A9	A9J0058-04	201.9	0.49	2426.04	272059.92	10/14/2019 1:20:22 PM
A10	A9J0058-05	198.4	0.061	307.428	39626.95	10/14/2019 1:31:09 PM
A11	A9J0058-06	204.4	0.057	278.402	37411.02	10/14/2019 1:41:56 PM
A12	A9J0058-07	204.7	0.643	3142.122	355192.83	10/14/2019 1:52:44 PM
A13	9J14031-CCV2	200	1.941	9703.668	1058491.745	10/14/2019 2:03:32 PM
A14	9J14031-CCB2	200	0.004	20.186	8755.215	10/14/2019 2:14:19 PM
A15	A9J0058-08	202.6	0.691 B-02	3408.651	380884.94	10/14/2019 2:25:06 PM
A16	A9J0058-09	204.2	0.101 10/15/19	492.636	61092.51	10/14/2019 2:35:53 PM
A17	A9J0058-12	200.8	0.074	370.309	46870.74	10/14/2019 2:46:41 PM
A18	9100674-DUP1	203.1	0.065	322.262	42043.18	10/14/2019 2:57:28 PM
A19	9100674-DUP2	203.3	0.059	289.287	38444.435	10/14/2019 3:08:15 PM
A20	9100676-BLK1	218.9	0.009	40.671	11392.495	10/14/2019 3:19:02 PM
A21	9100676-BS1	200	1.996	9977.977	1088228.205	10/14/2019 3:29:49 PM
A22	A9J0058-10	203.2	0.077	381.369	48570.61	10/14/2019 3:40:36 PM
A23	A9J0058-11	200	0.044	220.676	30489.3	10/14/2019 3:51:24 PM
A24	A9J0058-13	203.5	0.192	945.369	110843.01	10/14/2019 4:02:11 PM
A25	9J14031-CCV3	200	1.93	9652.125	1052904.165	10/14/2019 4:12:58 PM

A26	9J14031-CCB3	200	0.002	10.714	7728.355	10/14/2019 4:23:45 PM
A27	A9J0058-14	202.4	0.047	230.237	31825.2	10/14/2019 4:34:32 PM
A28	A9J0058-15	198.7	0.044	219.11	30165.16	10/14/2019 4:45:19 PM
A29	9100676-DUP1	195.7	0.052	265.073	34684.35	10/14/2019 4:56:06 PM
A30	9100676-DUP2	199.6	0.049	245.754	33154.58	10/14/2019 5:06:53 PM
A31	A9J0058-16	204.1	0.153	748.919	89417.74	10/14/2019 5:17:41 PM
A32	A9J0058-17	204.1	0.163	799.478	95010.93	10/14/2019 5:28:28 PM
A33	A9J0058-18	203.4	0.034	166.891	24966.27	10/14/2019 5:39:15 PM
A34	A9J0058-19	201.9	0.086	428.416	53450.5	10/14/2019 5:50:02 PM
A35	A9J0058-20	106	0.133	1253.203	78569.15	10/14/2019 6:00:49 PM
A36	9J14031-CCV4	200	1.954	9767.746	1065438.085	10/14/2019 6:11:37 PM
A37	9J14031-CCB4	200	-0.001	-7.184	5788.09	10/14/2019 6:22:24 PM
A38	9100677-BLK1	217.3	0.012	55.96	13158.025	10/14/2019 6:33:11 PM
A39	9100677-BS1	200	1.98	9900.802	1079861.995	10/14/2019 6:43:58 PM
A40	A9J0058-21	203.2	0.054	263.349	35572	10/14/2019 6:54:46 PM
A41	9100677-DUP1	200.4	0.051	255.317	34299.84	10/14/2019 7:05:33 PM
A42	9100677-DUP2	202.2	0.054	268.618	36006.73	10/14/2019 7:16:34 PM
A43	A9J0058-22	197.9	0.062	313.059	40147.74	10/14/2019 7:27:29 PM
A44	A9J0058-23	196.8	0.195	989.269	112092.63	10/14/2019 7:38:23 PM
A45	A9J0058-24	200.8	0.074	367.068	46517.99	10/14/2019 7:49:18 PM
A46	A9J0058-25	202	0.06	295.622	38934.29	10/14/2019 8:00:12 PM
A47	A9J0058-26	199.8	0.066	328.139	42103.23	10/14/2019 8:11:06 PM
A48	9J14031-CCV5	200	1.932	9660.861	1053851.27	10/14/2019 8:22:00 PM
A49	9J14031-CCB5	200	0.211	1054.869	120919.875	10/14/2019 8:32:55 PM
A50	clean ceramic cup	200	0.005	23.593	9124.54	10/14/2019 8:43:49 PM
A51	clean ceramic cup	200	0.008	39.12	10807.69	10/14/2019 8:54:43 PM
A52	clean ceramic cup	200	0.004	20.623	8802.6	10/14/2019 9:05:37 PM
A53	clean ceramic cup	200	0.021	107.035	18170.04	10/14/2019 9:16:31 PM
A54	clean ceramic cup	200	0.015	74.774	14672.775	10/14/2019 9:27:25 PM
A55	clean ceramic cup	200	0.021	102.956	17727.795	10/14/2019 9:38:20 PM
A56	clean ceramic cup	200	0.024	120.754	19657.235	10/14/2019 9:49:14 PM
A57	clean ceramic cup	200	0.019	93.312	16682.35	10/14/2019 10:00:08 PM

10/15/19

10/15/19

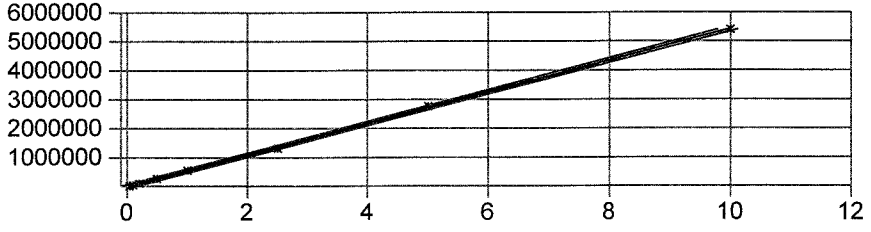
A58	clean ceramic cup 200	0.02	100.143	17422.91	10/14/2019 10:11:03 PM
A59	clean ceramic cup 200	0.012	57.958	12849.84	10/14/2019 10:21:57 PM
A60	clean ceramic cup 200	0.004	21.665	8915.48	10/14/2019 10:32:51 PM



SNACCESS

RUN NAME : SN10020191007A0 METHOD NAME : TCDIRECT CALIBRATION TYPE : ISO FIRST ORDER GROUP : 1

A = 6566.91463860404000 B = 542024.32072860200000 R = 0.99990839338722 R-SQUARED = 0.99981679516622



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

Conventional Chemistry Parameters
Total Organic Carbon- Soil (5310 B)
Benchsheet & Analysis Sequence Data

Sequence 9J15035 (A9J0058-01RE1,02RE1,03RE1,04RE1,05RE1,06RE1
07RE1,08RE1,09RE1,12RE1,21RE1,22RE1,23RE1,24RE1,25RE1,26RE1)

APEX LABORATORIES

ELEMENT SEQUENCE LOG

Apex Laboratories

NOV 0 1 2019

Sequence: **9J15035** Instrument: **TOC6**

Date: **10/15/19 10:10** Calibration: **A9J0704**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J15035-CCV1	Sediment	QC	QC				A19I352
2	9J15035-CCB1	Sediment	QC	QC				
3	9100601-BLK2	Sediment	QC	QC		9100601		
4	9100601-BS2	Sediment	QC	QC		9100601		
5	A9I0922-09RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/11/19	9100601		
6	9100601-DUP3	Sediment	QC	QC		9100601		
7	9100601-DUP4	Sediment	QC	QC		9100601		
8	A9I0922-13RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/11/19	9100601		
9	A9I0922-14RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/11/19	9100601		
10	A9I0922-15RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/11/19	9100601		
11	A9I0922-16RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/11/19	9100601		
12	A9I0922-17RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/11/19	9100601		
13	9J15035-CCV2	Sediment	QC	QC				A19I352
14	9J15035-CCB2	Sediment	QC	QC				
15	A9I0922-18RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/11/19	9100601		
16	A9I0922-19RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/11/19	9100601		
17	A9I0922-20RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/11/19	9100601		
18	A9I0922-21RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/11/19	9100601		
19	9100674-BLK2	Sediment	QC	QC		9100674		
20	9100674-BS2	Sediment	QC	QC		9100674		
21	A9J0058-01RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
22	A9J0058-02RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
23	A9J0058-03RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
24	A9J0058-04RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
25	9J15035-CCV3	Sediment	QC	QC				A19I352
26	9J15035-CCB3	Sediment	QC	QC				
27	A9J0058-05RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
28	A9J0058-06RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
29	A9J0058-07RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
30	A9J0058-08RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
31	A9J0058-09RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
32	A9J0058-12RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100674		
33	9100674-DUP3	Sediment	QC	QC		9100674		
34	9100674-DUP4	Sediment	QC	QC		9100674		
35	A9J0058-21RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100677		
36	9100677-DUP3	Sediment	QC	QC		9100677		
37	9J15035-CCV4	Sediment	QC	QC				A19I352
38	9J15035-CCB4	Sediment	QC	QC				
39	9100677-DUP4	Sediment	QC	QC		9100677		
40	A9J0058-22RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100677		
41	A9J0058-23RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100677		
42	A9J0058-24RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100677		
43	A9J0058-25RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100677		
44	A9J0058-26RE1	Sediment	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/15/19	9100677		
45	9J15035-CCV5	Sediment	QC	QC				A19I352
46	9J15035-CCB5	Sediment	QC	QC				

Sequence:	9J15035	Instrument:	TOC6
Date:	10/15/19 10:10	Calibration:	A9J0704

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID

Data Entered By: dmz 10/30/19 Comments:

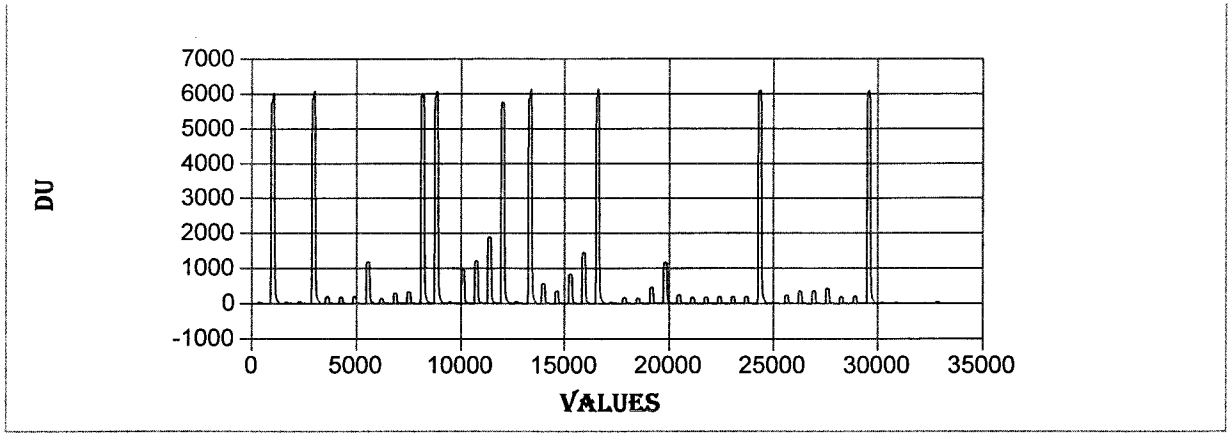
Data Reviewed By: JCS 10/31/19

Method:	TCDirect	Run Start Time:	10/15/2019 5:12:18 PM
Method Type:	TC_DIRECT	Run End Time:	10/16/2019 2:32:05 AM
Table:	9J15035	Device ID:	TOC6
Analyst:	Administrator	Run Name:	SN10020191015A1

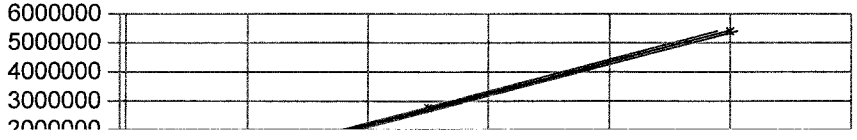
Cup Position	Sample ID	Weight (mg)	Result mg C abs	Final Result (mg/kg)	Peak Area	Analysed Date and time
A99	initial run	200	-0.003	-15.274	4911.18	10/15/2019 5:14:13 PM
A1	9J15035-CCV1	200	1.973	9863.422	1075809.825	10/15/2019 5:25:14 PM
A2	9J15035-CCB1	200	0.002	9.637	7611.61	10/15/2019 5:36:09 PM
A3	9100601-BLK2	220.1	0.005	21.025	9075.21	10/15/2019 5:46:57 PM
A4	9100601-BS2	200	1.988	9939.208	1084025.38	10/15/2019 5:57:43 PM
A5	A9I0922-09RE1	206.6	0.055	266.266	36383.94	10/15/2019 6:08:31 PM
A6	9100601-DUP3	202.9	0.049	240.487	33014.89	10/15/2019 6:19:18 PM
A7	9100601-DUP4	202.9	0.054	266.079	35829.38	10/15/2019 6:30:06 PM
A8	A9I0922-13RE1	204.7	0.383	1871.203	214181.32	10/15/2019 6:40:53 PM
A9	A9I0922-14RE1	197.7	0.034	174.214	25235.37	10/15/2019 6:51:40 PM
A10	A9I0922-15RE1	200.6	0.087	432.85	53630.76	10/15/2019 7:02:28 PM
A11	A9I0922-16RE1	203.1	0.097	477.46	59128.18	10/15/2019 7:13:15 PM
A12	A9I0922-17RE1	197.8	1.979	10006.835	1079423.84	10/15/2019 7:24:10 PM
A13	9J15035-CCV2	200	1.975	9875.745	1077145.73	10/15/2019 7:34:59 PM
A14	9J15035-CCB2	200	0	2.282	6814.26	10/15/2019 7:45:46 PM
A15	A9I0922-18RE1	201	0.308	1534.183	173711.37	10/15/2019 7:56:34 PM
A16	A9I0922-19RE1	203.2	0.392	1926.835	218787.295	10/15/2019 8:07:21 PM
A17	A9I0922-20RE1	196.6	0.617	3140.433	341217.68	10/15/2019 8:18:08 PM
A18	A9I0922-21RE1	203.8	1.896	9302.259	1034136.87	10/15/2019 8:28:55 PM
A19	9100674-BLK2	220.5	0.006	26.726	9761.06	10/15/2019 8:39:42 PM
A20	9100674-BS2	200	2	10001.982	1090830.405	10/15/2019 8:50:30 PM
A21	A9J0058-01RE1	206.1	0.177	857.385	102346.425	10/15/2019 9:01:17 PM
A22	A9J0058-02RE1	200.3	0.105	524.125	63469.83	10/15/2019 9:12:05 PM
A23	A9J0058-03RE1	200.9	0.264	1314.218	149675.665	10/15/2019 9:22:54 PM
A24	A9J0058-04RE1	204.6	0.468	2285.809	260058.975	10/15/2019 9:33:41 PM
A25	9J15035-CCV3	200	1.982	9911.887	1081063.64	10/15/2019 9:44:29 PM

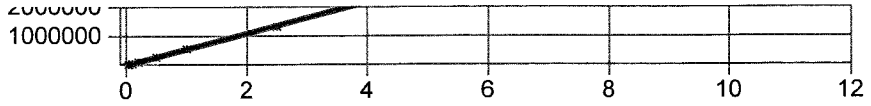
A26	9J15035-CCB3	200	-0.002	-7.728	5729.14	10/15/2019 9:55:16 PM
A27	A9J0058-05RE1	203.8	0.042	204.795	29189.49	10/15/2019 10:06:04 PM
A28	A9J0058-06RE1	198.8	0.036	180.99	26069.35	10/15/2019 10:16:52 PM
A29	A9J0058-07RE1	198	0.138	698.157	81493.69	10/15/2019 10:27:39 PM
A30	A9J0058-08RE1	200.5	0.376	1877.322	210586.555	10/15/2019 10:38:27 PM
A31	A9J0058-09RE1	207	0.066	318.318	42281.94	10/15/2019 10:49:15 PM
A32	A9J0058-12RE1	203.7	0.044	213.854	30178.575	10/15/2019 11:00:02 PM
A33	9100674-DUP3	201.3	0.047	233.387	32031.635	10/15/2019 11:10:49 PM
A34	9100674-DUP4	200.7	0.052	256.809	34503.72	10/15/2019 11:21:37 PM
A35	A9J0058-21RE1	200.7	0.052	258.409	34677.8	10/15/2019 11:32:24 PM
A36	9100674-DUP3	202.2	0.051	253.839	34387.01	10/15/2019 11:43:12 PM
A37	9J15035-CCV4	200	2.017	10083.723	1099691.59	10/15/2019 11:53:59 PM
A38	9J15035-CCB4	200	-0.003	-15.616	4874.06	10/16/2019 12:04:47 AM
A39	9100674-DUP4	204.9	0.063	308.104	40785.24	10/16/2019 12:15:34 AM
A40	A9J0058-22RE1	201.6	0.102	508.086	62086.52	10/16/2019 12:26:22 AM
A41	A9J0058-23RE1	199.1	0.106	531.679	63944.175	10/16/2019 12:37:09 AM
A42	A9J0058-24RE1	205.1	0.128	624.062	75943.33	10/16/2019 12:48:11 AM
A43	A9J0058-25RE1	204.2	0.048	234.811	32556.1	10/16/2019 12:59:05 AM
A44	A9J0058-26RE1	204.4	0.055	268.061	36265.375	10/16/2019 1:10:00 AM
A45	9J15035-CCV5	200	1.996	9981.046	1088560.84	10/16/2019 1:20:54 AM
A46	9J15035-CCB5	200	-0.004	-18.372	4575.335	10/16/2019 1:31:49 AM
A97	clean ceramic cup	200	-0.012	-60.578	0	10/16/2019 1:42:44 AM
A98	clean ceramic cup	200	-0.012	-60.578	0	10/16/2019 1:53:46 AM
A99	clean ceramic cup	200	-0.012	-60.578	0	10/16/2019 2:04:47 AM
A100	clean ceramic cup	200	0.001	7.047	7330.87	10/16/2019 2:15:49 AM

10/16/19



SNACCESS
RUN NAME : SN10020191007A0 METHOD NAME : TCDIRECT CALIBRATION TYPE : ISO FIRST ORDER GROUP : 1
A = 6566.91463860404000 B = 542024.32072860200000 R = 0.99990839338722 R-SQUARED = 0.99981679516622




2000000
1000000
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2
4
6
8
10
12

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

Conventional Chemistry Parameters
Total Organic Carbon by EPA 5310 B
Calibration Data

Sequence 9J07031 (Cal ID A9J0704) TOC6

APEX LABORATORIES

ELEMENT SEQUENCE LOG

Apex Laboratories

OCT 18 2019

Sequence: **9J07031** Instrument: **TOC6**

Date: **10/07/19 09:41** Calibration: **A9J0704**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	9J07031-CAL1	Water	QC	QC				
2	9J07031-CAL2	Water	QC	QC				A19J102
3	9J07031-CAL3	Water	QC	QC				A19J103
4	9J07031-CAL4	Water	QC	QC				A19J104
5	9J07031-CAL5	Water	QC	QC				A19J105
6	9J07031-CAL6	Water	QC	QC				A19J106
7	9J07031-CAL7	Water	QC	QC			A195259 10/16/19	~~A19J107~~
8	9J07031-CAL8	Water	QC	QC				A19J108
9	9J07031-CAL9	Water	QC	QC				A19J109
10	9J07031-ICV1	Water	QC	QC				A19J074
11	9J07031-ICB1	Water	QC	QC				

Data Entered By: CMC 10/8/19

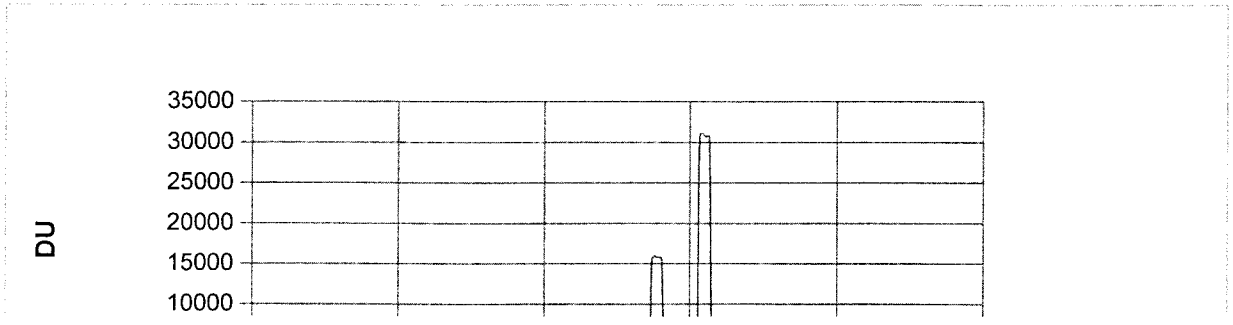
Data Reviewed By: AMF 10/16/19

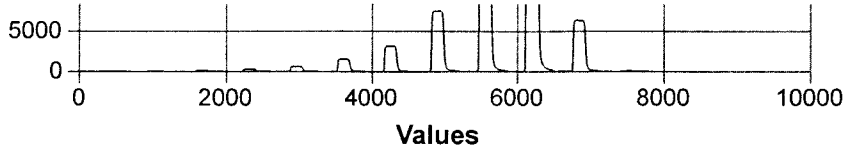
Comments: Data Entered manually. CMC 10/11/19

Method:	TCDirect	Run Start Time:	10/7/2019 9:58:11 AM
Method Type:	TC_DIRECT	Run End Time:	10/7/2019 12:13:21 PM
Table:	9J07031	Device ID:	0
Analyst:	Administrator	Run Name:	SN10020191007A0

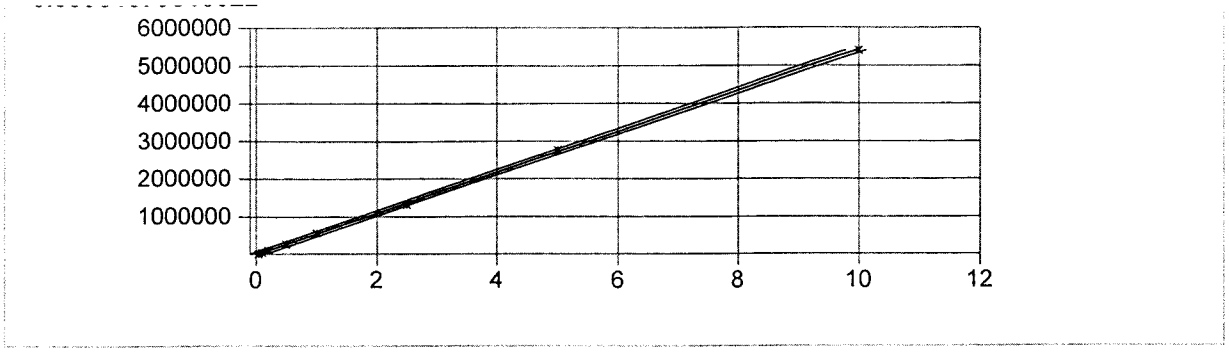
Cup Position	Sample ID	Weight (mg)	Result mg C abs	Final Result (%)	Peak Area	Analysed Date and time
A99	Unknown	1	0	-0.019	6463.49	10/7/2019 9:58:22 AM
A1	Unknown	200	-0.006	-0.003	3447.32	10/7/2019 10:09:23 AM
A2	A19J101	40	0.033	0.082	24264.29	10/7/2019 10:20:17 AM
A3	A19J101	100	0.094	0.094	57479.13	10/7/2019 10:31:04 AM
A4	A19J101	200	0.194	0.097	111785.88	10/7/2019 10:41:51 AM
A5	A19I352	50	0.498	0.996	276548.41	10/7/2019 10:52:38 AM
A6	A19I352	100	1.025	1.025	562090.89	10/7/2019 11:03:25 AM
A7	A19I352	250	2.433	0.973	1325528.47	10/7/2019 11:14:12 AM
A8	A19I352	500	5.097	1.019	2769190.59	10/7/2019 11:24:59 AM
A9	A19I352	1000	9.966	0.997	5408398.02	10/7/2019 11:35:47 AM
A10	9J07031-ICV1	200	2.044	1.022	1114655.58	10/7/2019 11:46:34 AM
A11	9J07031-ICB1	200	0.021	0.01	17895.03	10/7/2019 11:57:21 AM

Element
165
470
970
2490
5125
12165
25485
49830
102200
105





SNAccess
Method Name : TCDirect Calibration Type : ISO First order Group : 1
a = 6566.91463860404000 b = 542024.32072860200000 r = 0.99990839338722 R-Squared = 0.99981679516622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6
8
10
12

Description	Values
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	542024.32072860200000
	0.99990839338722 ✓
	0.99981679516622 ✓
	27745.19807823610000
	0.05118810543582
	2.11739836342598
	0.26366268700280
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	ISO First order
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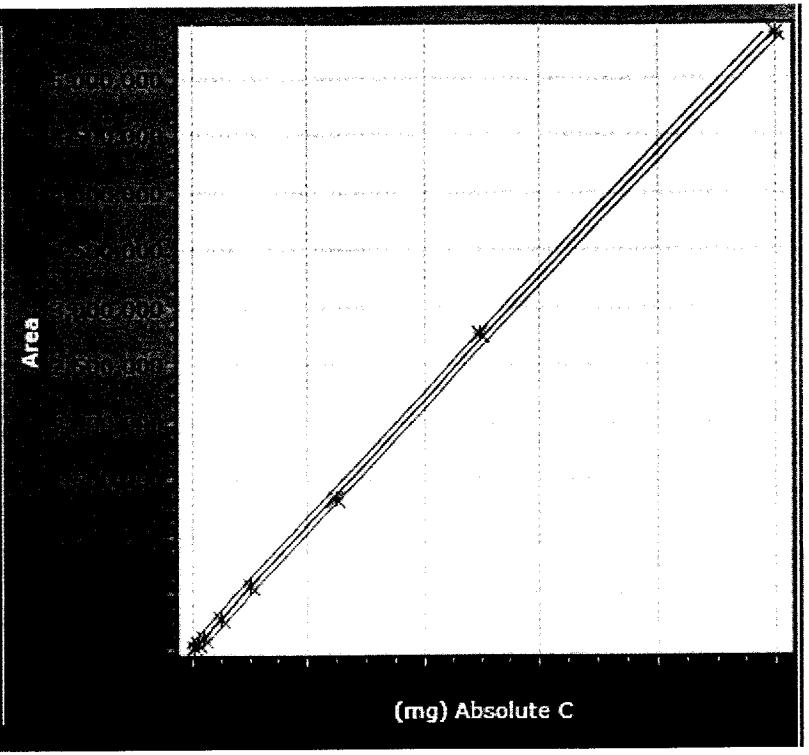
	9J07031
	4
	8



Calibration is ID'd in sKalar software by Element Seq. ID. 9J07031.

CMF 10/11/19

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

Percent Dry Weight (EPA 8000C)
Benchsheet Data

Batch 9100574 (A9J0058-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19,20)
Batch 9100575 (A9J0058-21,22,23,24,25,26)

APEX LABORATORIES

Apex Laboratories

PREPARATION BENCH SHEET

Percent Solids + Dry Weight Worksheet

BATCH #: 9100574 (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
A9J0058-01	Dry Weight		10/02/19 17:09		1.264	26.754	20.144	74.1	Use Results from TS. Make NR once completed.
A9J0058-01	Solids, Total (SM 254		10/02/19 17:09		1.264	26.754	20.144	74.1	Use Result for Dry Weight.
A9J0058-02	Dry Weight		10/02/19 17:09		1.254	27.104	20.18	73.2	Use Results from TS. Make NR once completed.
A9J0058-02	Solids, Total (SM 254		10/02/19 17:09		1.254	27.104	20.18	73.2	Use Result for Dry Weight.
A9J0058-03	Dry Weight		10/02/19 17:09		1.264	27.837	20.976	74.2	Use Results from TS. Make NR once completed.
A9J0058-03	Solids, Total (SM 254		10/02/19 17:09		1.264	27.837	20.976	74.2	Use Result for Dry Weight.
A9J0058-04	Dry Weight		10/02/19 17:09		1.253	26.381	20.086	74.9	Use Results from TS. Make NR once completed.
A9J0058-04	Solids, Total (SM 254		10/02/19 17:09		1.253	26.381	20.086	74.9	Use Result for Dry Weight.
A9J0058-05	Dry Weight		10/02/19 17:09		1.261	26.312	22.179	83.5	Use Results from TS. Make NR once completed.
A9J0058-05	Solids, Total (SM 254		10/02/19 17:09		1.261	26.312	22.179	83.5	Use Result for Dry Weight.
A9J0058-06	Dry Weight		10/02/19 17:09		1.259	27.233	23.784	86.7	Use Results from TS. Make NR once completed.
A9J0058-06	Solids, Total (SM 254		10/02/19 17:09		1.259	27.233	23.784	86.7	Use Result for Dry Weight.
A9J0058-07	Dry Weight		10/02/19 17:09		1.259	27.287	20.152	72.6	Use Results from TS. Make NR once completed.
A9J0058-07	Solids, Total (SM 254		10/02/19 17:09		1.259	27.287	20.152	72.6	Use Result for Dry Weight.
A9J0058-08	Dry Weight		10/02/19 17:09		1.275	28.031	22.014	77.5	Use Results from TS. Make NR once completed.
A9J0058-08	Solids, Total (SM 254		10/02/19 17:09		1.275	28.031	22.014	77.5	Use Result for Dry Weight.
A9J0058-09	Dry Weight		10/02/19 17:09		1.275	27.773	23.512	83.9	Use Results from TS. Make NR once completed.
A9J0058-09	Solids, Total (SM 254		10/02/19 17:09		1.275	27.773	23.512	83.9	Use Result for Dry Weight.
A9J0058-10	Dry Weight		10/02/19 17:09		1.261	27.051	20.938	76.3	Use Results from TS. Make NR once completed.
A9J0058-10	Solids, Total (SM 254		10/02/19 17:09		1.261	27.051	20.938	76.3	Use Result for Dry Weight.
A9J0058-11	Dry Weight		10/02/19 17:09		1.277	27.008	23.649	86.9	Use Results from TS. Make NR once completed.
A9J0058-11	Solids, Total (SM 254		10/02/19 17:09		1.277	27.008	23.649	86.9	Use Result for Dry Weight.

NRP — 10/3/19
Prepared By: Date

James L. Johnson — 10/07/19
Reviewed By: Date

APEX LABORATORIES

Apex Laboratories

PREPARATION BENCH SHEET

Percent Solids + Dry Weight Worksheet

BATCH #: 9100574 (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
A9J0058-12	Dry Weight		10/02/19 17:09		1.267	28.121	24.621	87.0	Use Results from TS. Make NR once completed.
A9J0058-12	Solids, Total (SM 254		10/02/19 17:09		1.267	28.121	24.621	87.0	Use Result for Dry Weight.
9100574-DUP1	QC	A9J0058-12	10/02/19 17:09		1.264	26.31	22.941	86.5	
A9J0058-13	Dry Weight		10/02/19 17:09		1.273	28.509	22.872	79.3	Use Results from TS. Make NR once completed.
A9J0058-13	Solids, Total (SM 254		10/02/19 17:09		1.273	28.509	22.872	79.3	Use Result for Dry Weight.
A9J0058-14	Dry Weight		10/02/19 17:09		1.28	26.396	23.139	87.0	Use Results from TS. Make NR once completed.
A9J0058-14	Solids, Total (SM 254		10/02/19 17:09		1.28	26.396	23.139	87.0	Use Result for Dry Weight.
A9J0058-15	Dry Weight		10/02/19 17:09		1.263	27.981	23.231	82.2	Use Results from TS. Make NR once completed.
A9J0058-15	Solids, Total (SM 254		10/02/19 17:09		1.263	27.981	23.231	82.2	Use Result for Dry Weight.
9100574-DUP2	QC	A9J0058-15	10/02/19 17:09		1.26	26.429	21.833	81.7	
A9J0058-16	Dry Weight		10/02/19 17:09		1.264	27.199	20.746	75.1	Use Results from TS. Make NR once completed.
A9J0058-16	Solids, Total (SM 254		10/02/19 17:09		1.264	27.199	20.746	75.1	Use Result for Dry Weight.
A9J0058-17	Dry Weight		10/02/19 17:09		1.242	27.502	22.19	79.8	Use Results from TS. Make NR once completed.
A9J0058-17	Solids, Total (SM 254		10/02/19 17:09		1.242	27.502	22.19	79.8	Use Result for Dry Weight.
A9J0058-18	Dry Weight		10/02/19 17:09		1.27	26.869	24.817	92.0	Use Results from TS. Make NR once completed.
A9J0058-18	Solids, Total (SM 254		10/02/19 17:09		1.27	26.869	24.817	92.0	Use Result for Dry Weight.
A9J0058-19	Dry Weight		10/02/19 17:09		1.246	26.652	23.011	85.7	Use Results from TS. Make NR once completed.
A9J0058-19	Solids, Total (SM 254		10/02/19 17:09		1.246	26.652	23.011	85.7	Use Result for Dry Weight.
A9J0058-20	Dry Weight		10/02/19 17:09		1.256	27.109	22.648	82.7	Use Results from TS. Make NR once completed.
A9J0058-20	Solids, Total (SM 254		10/02/19 17:09		1.256	27.109	22.648	82.7	Use Result for Dry Weight.

NRP — Prepared By: 10/3/19 — Date

Reviewed By: — Date

Batch #: 9100574

Analyst: nrp

Total Solids Worksheet

Method: SM 2540 G

Date: 10/2/2019

Sample ID	Tare Wt. (g)	Vessel ID	Initial (wet) Wt. (g)	Final Weight (g)			Comments
				1st weighing	2nd Weighing	3rd Weighing	
A9J0058-01	1.264	058-01	26.754	20.165	20.144		
A9J0058-02	1.254	058-02	27.104	20.190	20.180		
A9J0058-03	1.264	058-03	27.837	20.985	20.976		
A9J0058-04	1.253	058-04	26.381	20.095	20.086		
A9J0058-05	1.261	058-05	26.312	22.194	22.179		
A9J0058-06	1.259	058-06	27.233	23.801	23.784		
A9J0058-07	1.259	058-07	27.287	20.166	20.152		
A9J0058-08	1.275	058-08	28.031	22.058	22.014		
A9J0058-09	1.275	058-09	27.773	23.531	23.512		
A9J0058-10	1.261	058-10	27.051	20.953	20.938		
A9J0058-11	1.277	058-11	27.008	23.659	23.649		
A9J0058-12	1.267	058-12	28.121	24.634	24.621		
9100574-DUP1	1.264	058-12 DUP	26.310	22.958	22.941		source: A9J0058-12
A9J0058-13	1.273	058-13	28.509	22.887	22.872		
A9J0058-14	1.280	058-14	26.396	23.155	23.139		
A9J0058-15	1.263	058-15	27.981	23.242	23.231		
9100574-DUP2	1.260	058-15 DUP	26.429	21.842	21.833		source: A9J0058-15
A9J0058-16	1.264	058-16	27.199	20.756	20.746		
A9J0058-17	1.242	058-17	27.502	22.204	22.190		
A9J0058-18	1.270	058-18	26.869	24.827	24.817		
A9J0058-19	1.246	058-19	26.652	23.026	23.011		
A9J0058-20	1.256	058-20	27.109	22.672	22.648		
Date/time first in oven: 10/2/19@21:00		**Oven temp. (°C; in/out):**		**104/104.5**	**104.2/104.2**	**/**	
		Time of weighing:		10/3@10:10	10/3@16:15		

APEX LABORATORIES

Apex Laboratories

PREPARATION BENCH SHEET

Percent Solids + Dry Weight Worksheet

BATCH #: 9100575 (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
A9J0058-21	Dry Weight		10/02/19 17:15		1.257	27.567	24.296	87.6	Use Results from TS. Make NR once completed.
A9J0058-21	Solids, Total (SM 254		10/02/19 17:15		1.257	27.567	24.296	87.6	Use Result for Dry Weight.
9100575-DUP1	QC	A9J0058-21	10/02/19 17:15		1.258	27.435	23.914	86.5	
A9J0058-22	Dry Weight		10/02/19 17:15		1.246	27.328	21.585	78.0	Use Results from TS. Make NR once completed.
A9J0058-22	Solids, Total (SM 254		10/02/19 17:15		1.246	27.328	21.585	78.0	Use Result for Dry Weight.
A9J0058-23	Dry Weight		10/02/19 17:15		1.259	27.885	21.574	76.3	Use Results from TS. Make NR once completed.
A9J0058-23	Solids, Total (SM 254		10/02/19 17:15		1.259	27.885	21.574	76.3	Use Result for Dry Weight.
A9J0058-24	Dry Weight		10/02/19 17:15		1.263	27.201	21.196	76.8	Use Results from TS. Make NR once completed.
A9J0058-24	Solids, Total (SM 254		10/02/19 17:15		1.263	27.201	21.196	76.8	Use Result for Dry Weight.
A9J0058-25	Dry Weight		10/02/19 17:15		1.241	27.135	22.866	83.5	Use Results from TS. Make NR once completed.
A9J0058-25	Solids, Total (SM 254		10/02/19 17:15		1.241	27.135	22.866	83.5	Use Result for Dry Weight.
A9J0058-26	Dry Weight		10/02/19 17:15		1.26	27.02	24.086	88.6	Use Results from TS. Make NR once completed.
A9J0058-26	Solids, Total (SM 254		10/02/19 17:15		1.26	27.02	24.086	88.6	Use Result for Dry Weight.

NRP 10/3/19
Prepared By: Date

James L. Johnson 10/07/19
Reviewed By: Date

Batch #: 9100575

Analyst: nrp

Total Solids Worksheet

Method: SM 2540 G

Date: 10/2/2019

Sample ID	Tare Wt. (g)	Vessel ID	Initial (wet) Wt. (g)	Final Weight (g)			Comments
				1st weighing	2nd Weighing	3rd Weighing	
A9J0058-21	1.257	058-21	27.567	24.321	24.296		
9100575-DUP1	1.258	058-21 DUP	27.435	23.933	23.914		source: A9J0058-21
A9J0058-22	1.246	058-22	27.328	21.602	21.585		
A9J0058-23	1.259	058-23	27.885	21.594	21.574		
A9J0058-24	1.263	058-24	27.201	21.218	21.196		
A9J0058-25	1.241	058-25	27.135	22.889	22.866		
A9J0058-26	1.260	058-26	27.020	24.105	24.086		
Date/time first in oven: 10/2/19@21:00		**Oven temp. (°C; in/out):**		**104/104.5**	**104.2/104.2**	**/**	
		Time of weighing:		10/3@10:10	10/3@16:15		

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

Balance Checksheets

Extractions October 2019
Dry Weight October 2019
Wet Chem October 2019
Metals October 2019
Sample Receiving. 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.

Alternate Weight/ID used:

Date Range:

Month: October
Year: 2019

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 0635	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

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~~0718~~ 0725	MEB		0.498		99.997
8 0705	JAG		.485		99.998
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 KT 10/22/19
~~19 805~~	~~KT~~		~~600.005~~		~~9.998~~		~~0.100~~
20							
21 805	KT		600.005		9.998		0.100
22 825	MJG		600.005		10.000		0.100
23 800	KT		600.005		9.999		0.097
24 807	MJG		600.000		10.001		0.102
25 819	MJG		600.005		10.006		0.105
26							
27							
28 820	KT		599.990		10.001		0.100
29 800	KT		599.990		9.999		0.100
30 750	KT		599.985		9.998		0.097
31 740	KT		599.985		9.998		0.098

Balance Challenge Log

BalanceName
Lady Justice
S/N 593312

Weight ID	weight (g) =/<1g >1g	acceptance range (g) ± 0.02g ± 2%	
10660	0.10g	0.08	0.12
10581	50.00g	49.00	51.00
15477	500.00g	490.00	510.00

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: October
Year: 2019

Alternate Weight/ID used:

Date Range:

Day/Time	Initials	Weight 1	Observed	Weight 2	Observed	Weight 3	Observed	
1 9:10	[illegible]	0.10g	0.10	50.00g	49.98	ONLY NEEDED WHEN WEIGHING OVER 50 g	499.80	TAEJ 10-1-19 14:26
2 7:40	[illegible]		0.09		49.98			
3 9:00	[illegible]		0.09		49.98			
4 7:53	[illegible]		0.10		49.98			
5 9:10	[illegible]		0.09		49.98			
6								
7 7:00	[illegible]		0.10		49.98		499.76	TAEJ 10-7-19
8 8:07	[illegible]		0.09		49.97			
9 8:10	[illegible]		0.09		49.97			
10 8:20	[illegible]		0.09		49.98			
11 7:37	TAEJ		0.10		49.98	KEPT IN METALS DEPT.		
12 11:05	[illegible]		0.10		49.98			
13								
14 8:20	[illegible]		0.10		49.97	500.00g		
15 9:00	[illegible]		0.10		49.98			
16 7:45	[illegible]		0.10		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 8:26	[illegible]		0.10		49.97			
24 8:27	[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			